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ASCE Illinois Section

News

Vol. 56, No. 1
Spring 2015

Chicago Riverwalk: The City's Second Shoreline

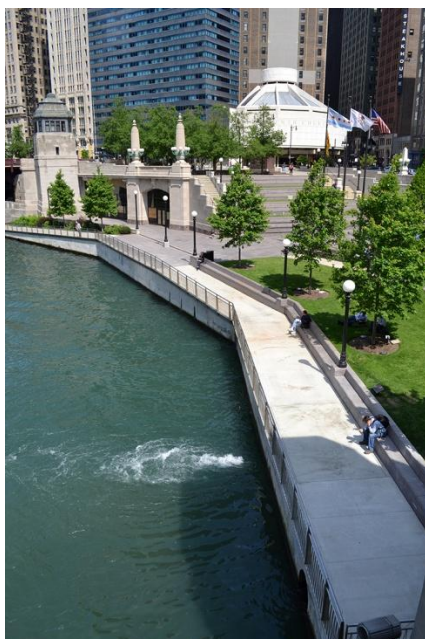
By Kurt J. Naus, P.E., S.E. and Daniel M. Gross, P.E.

For over 20 years, the Chicago Department of Transportation (CDOT) has planned to enhance the main branch of the Chicago River by creating a riverwalk that provides a continuous path connecting the Lakefront to Chicago's West Loop. A renewed vision by the City of Chicago aims to develop the

A renewed vision by the City of Chicago aims to develop the riverwalk as Chicago's "second shoreline" - a premier public space that provides a continuous walkway lined with public facilities, commercial opportunities and physical access to the Chicago River.

riverwalk as Chicago's "second shoreline" - a premier public space that provides a continuous walkway lined with public facilities, commercial opportunities and physical access to the Chicago River. The eastern segment of the riverwalk was completed in 2009 as Phase I of the project and is located along the south bank of the Chicago River from Michigan Avenue to State Street. The six new plazas or "rooms" that make up Phase 2 and 3 of the project are located between State Street and Lake Street.

Phase 2 from State Street to LaSalle Street is currently under construction and is scheduled to be complete in spring 2015. Completion of Phase 3 construction, between LaSalle Street (continued on page 4)



A segment of the completed Phase 1 of the Riverwalk between Wabash Avenue and State Street

President's Notes

Mike MacKinnon, P.E.



In addition to the other services and programs we strive to provide our members, the Illinois Section has been busy preparing for our 100th Anniversary. The Centennial Anniversary festivities will kick-off this October at our annual dinner, and will be a yearlong celebration of our Section's and its members' achievements. There are several ways that you and your employees can help.

We have sent out surveys to gauge our members' interest in various activities during the Centennial Anniversary, and to discover new ideas you may have. If you have not already responded to the survey sent via email, please access the survey on our website at [isasce.org](http://www.isasce.org). The survey can be found at:

<http://www.surveymethods.com/EndUser.aspx?BF9BF7EFBEFEE3EDB4>.

We are also having a Centennial Logo contest, in which our members have the opportunity to design the official logo and tagline for the Illinois Section's Centennial Anniversary. All logos are due by March 31st. Please see the section website or contact Sarah Harbaugh for the contest guidelines.

Should you wish to help out our Centennial Anniversary in any way, please contact me and we

can discuss how you can contribute to the Illinois Section's 100th.

Our annual President-Elect & Student Scholarship Dinner will be held on Wednesday, April 22nd at Maggiano's. Each year, the Illinois Section provides nearly \$15,000 in scholarships to engineering students. This is a great networking event and an excellent way to support the engineering community. Please visit our website for registration information.

Finally, the Illinois Section will be hosting its annual legislative day in Springfield on Wednesday, April 29th. The event is being coordinated with Transportation for Illinois Coalition and the American Council of Engineering Companies. This is one of the most important events that we hold each year. We will meet with our state elected officials and ensure that our members' voices are being held on important legislative issues. We have faced several legislative issues in the past 18 months, and we will continue to advocate for the interest of our members. The finishing details for the legislative day are being finalized. Please contact me at president@isasce.org should you wish to attend.

ASCE Illinois Section

News

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What does it mean to be a Geotechnical Engineer?

By Patrick J. Lydon, P.E.

The internet provides vast and nearly instantaneous access to information, which can be both good and bad depending on your point of view. Although opinion is offered in strictly “buyer beware” and “sold as-is, no warranty” condition, occasionally an observation can be found that warrants a closer look.

An interesting Forbes article - Forbes online magazine is one of those venues that can provide a relatively reliable glimpse into what the rest of the business world is up to outside of the field of construction, and it makes for a healthy change from the trade publications we all subscribe to. An article came my way recently via a colleague titled ***“Geotechnical Engineering: The in-demand, high pay, easy-entry job you’ve never likely heard of.”*** Initially, my reaction was disbelief. That was quickly followed by, “Who wrote this, and where did this information come from?” Which lead ultimately to, “What did I miss here?”

Around the same time, I came across Alan Macnab’s insightful article ***“Are we getting better? Sometimes, but not always.”*** in the current addition of GeoStrata. The contrasting feelings the two articles provoked led me to look into the matter a little further to see if I could discern what the actual trend is, and what part we (as a group) might play in this as geotechnical engineers.

Starting with the claim of **“high pay,”** a review of the Bureau of Labor Statistics shows that Petroleum Engineering leads the industry in annual mean wage by a factor of 1.75

compared to Civil Engineering. Score one for internet skeptics.

Moving on to the **“easy-entry job you’ve likely never heard of.”** As you are no-doubt aware, numerous initiatives and advertising campaigns are currently being waged to boost the number of students enrolling in engineering programs as a whole. The key principle in all the efforts is increased participation (pre-college) in STEM classes to help prepare for future careers in a field which projects a twenty percent increase in job outlook over the next ten years. However, the projected shortage of job-seekers should not be conflated with potential demand to equate to an “easy entry” into our profession. We will not do the profession justice if

We should seek out the best talent for our profession and ensure that the career path presented is a fulfilling one.

that proves to be the case. We should seek out the best talent for our profession and ensure that the career path provided is a fulfilling one.

In his GeoStrata article, Macnab touches on how the profession of engineering and construction has evolved, both good and bad from his perspective, over the last forty years of his career. Of particular note to me, he observes that the design of earth retention has changed from a geotechnical to a structural issue, and, as such, we must acknowledge that, “Either the soils are getting poorer or the forests are getting weaker,

because today we see a lot of 6- and 8-in lagging.” His point being, of course, that the fundamental discipline difference in design of timber lagging is whether one accounts for soil arching as in common practice in geotechnical engineering, or treats lagging as a simply supported structural element. The differing viewpoints can produce readily observable changes in design.

Unlike the majority of disciplines in engineering; which design to a series of Codes and Rules (e.g., AASHTO, IBC, ASCE, ACI, AISC, CRSI, DOT specifications, and the list goes on depending on discipline), geotechnical engineering has at its core the requirement of observation as a principle of the fundamentals of practice. The longer one observes projects and gains experience in their career, the more one comes to appreciate the opportunity for application of common sense with soil mechanics.

We are becoming a profession (geotechnical engineers) that allows the “expertise” of other disciplines to stamp our work. Perhaps this is not a conscious choice, but an acquiescence to rules being imposed upon us. As an example, the State of Illinois mandates that temporary earth retention systems be reviewed and stamped by an Illinois Licensed Structural Engineer. This requirement has led to many interesting (and sometimes heated) conversations amongst peers on the validity of geotechnical assumptions made by structural engineers, and questions whether third-party design (continued on page 4)

What does it mean to be a Geotechnical Engineer?

(Continued from 3)

Perhaps there is a misunderstanding of the role of geotechnical engineers, simply because we don't do a good job of advertising our own value and contributions.

for the purposes of permitting truly produces an economic and efficient system that protects all the participants. The subjects of debate during the design process almost always focus on the geotechnical aspects of the problem (the proper application of active, passive and at-rest pressures, the function of time, and impact of construction sequence on the use of drained and un-drained strengths), and the answers are rarely available in a code. To paraphrase Terzaghi, the solution to these problems are best found in "... the observational method".

It cannot be denied that the misunderstanding of the role of geotechnical engineers is at least partially self-inflicted. We don't do a good job of advertising our own value and contributions. I fear that a number of "one size fits all" technologies (related to construction), and efforts to codify geotechnical practice, are driven primarily from the lack of understanding of soil mechanics by the disciplines which are being made responsible for our work. Building foundations and earth retention systems from Chicago to Dubai have been designed and implemented by a wealth of talented geotechnical engineers, yet the last review is given to the structural engineer and perhaps all the credit.

As geotechnical engineers, we should seek to claim some of the spot light. We actually have the opportunity to do so, as more often than not, we are the first ones to see a project at inception - when we perform those first soil borings. The beauty of what

we do is understanding that the soil commands the end product. We as geotechnical engineers have a unique ability and opportunity to convey and continue this craft.

The beauty of what we do is understanding that the soil commands the end product. We as geotechnical engineers have a unique ability and opportunity to convey and continue this craft.

Patrick J. Lydon PE is a Civil Engineering graduate (BS/MS) of UIC; he spent the first fifteen years of his career with Case Foundations and Hayward Baker Inc. and is currently with Michels Foundations, a division of Michels Corporation.

Chicago Riverwalk: The City's Second Shoreline

(Continued from page 1)

and Lake Street, is tentatively scheduled for late 2016. The City identified the Transportation Infrastructure Finance and Innovation Act (TIFIA) program as a new and innovative funding source for the project. The TIFIA program is administered by the U.S. Department of Transportation and provides federal credit assistance to finance surface transportation projects of national and regional significance. "The Federal Highway Administration (FHWA) has been very helpful throughout the TIFIA process, since this is the first time the City has administered a project using this type of funding," according to

Oswaldo Chaves, CDOT Project Manager.

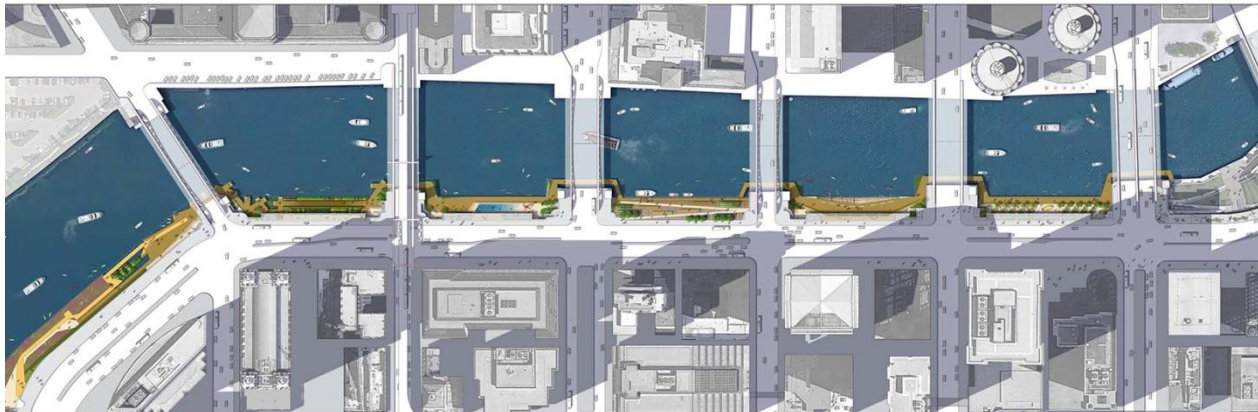
One of the biggest hurdles in the initial stages of the project was permitting. The Chicago River is designated as "Waters of the United States" and is protected by federal law. Therefore, the City was required to obtain permission from Congress to construct the riverwalk into the river. On September 24, 2003, the U.S. House of Representatives passed Water Resources Development Act H.R. 2557 allowing the City to build out 20 feet into the river beneath each bascule bridge (six total) and 25 feet between the bascule bridges. A 50-foot build-out was allowed on the

block between Franklin and Lake Streets where the river widens at the confluence of the three branches of the Chicago River.

In addition to complications brought on by the river itself, the project also had to consider the existing infrastructure and utilities and how they would tie into the new riverwalk. The existing dock wall system has been in use for nearly a century and had to be considered in the extension along with the limited build-out width and highly compressible riverbed soils. A tied-back sheet pile
(continued on page 5)

Chicago Riverwalk: The City's Second Shoreline

(Continued from page 4)



Riverwalk plan for Phase 2 and 3 (courtesy of Sasaki Associates, Inc.)

wall system was selected in order to meet the challenges posed by the site and constraints. To introduce redundancy in the system, in case any of the existing tie-backs failed in the future, the existing wall, deadman, sheet piling and load bearing H-piles were integrated with a structural concrete slab to form a framed system. This structural slab also supports the paved walkway and architectural features along each of

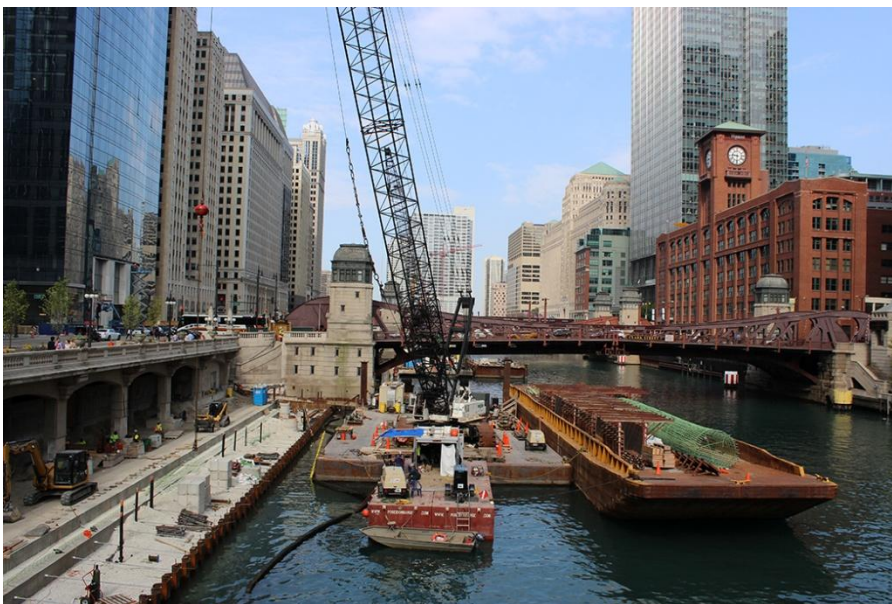
the rooms.

Balancing aesthetics and function was a large part of the project planning and design. CDOT wanted to make sure the riverwalk flowed seamlessly into the existing Phase 1 portion of the project and gave the user a feeling of being a part of the river environment. This was a challenge under Chicago's iconic bascule bridges. There are six "underbridge" structures that connect each of the

rooms under the existing bascule bridges to create a continuous walkway that appears suspended over the water independent of the existing bridge abutments. The structural design of the "underbridge" structures had to resist substantial vessel collision loading as directed by the U.S. Coast Guard. This resistance was achieved by using six-foot and eight-foot diameter drilled shafts that extended to the hardpan layer about 60 feet below the water surface. Avoiding tunnels, utilities and several submarine cables provided additional challenges that had to be addressed in both design and construction.

Notice to Proceed (NTP) for Phase 2 of the riverwalk project (from State Street to LaSalle Street) was given to Walsh Construction Company in December of 2013, and construction proceeded throughout 2014. Material deliveries were typically made using barges and the majority of the work was done off of multiple barges adjacent to the dock wall in each bay or "room." The contractor was allowed a work zone of approximately half the width of the river, as a channel opening of 95 feet needed to be maintained for boat traffic. The contractor had to be careful not to impede this zone while

(continued on page 6)



Looking west at the Riverwalk construction between Dearborn and Clark Streets

Chicago Riverwalk: The City's Second Shoreline

(Continued from 5)

maneuvering the barges.

Most concrete pours were done at night off of Wacker Drive to avoid traffic. The work directly under the bascule bridges (which included drilling and pouring shafts) was done around-the-clock during a seven-day time frame for each bridge while it was raised and traffic was closed. "Site constraints were about as challenging as we've ever encountered given the need to maintain traffic both on Wacker Drive and along the river," Chaves added. "Any time you are working in and around a body of water, additional coordination is required. The communication between the contractor, construction manager and all of the regulating agencies must be maintained throughout the project's duration."

From the onset of the project and throughout, existing facilities and utilities were a concern. Divers were used to locate existing submarine cables and to determine the exact location and limits of the CTA subway tunnels that run under State Street and north under the river.

Vibration monitors were placed in the subway and closely watched anytime there was work directly adjacent to

There were also a few surprises encountered throughout the project, such as abandoned concrete foundations, a sunken barge and an early 20th century abandoned car buried beneath the river bed.

the tunnels. There were also a few surprises encountered throughout the project, such as abandoned concrete foundations, a sunken barge and an early 20th century abandoned car buried beneath the river bed.

This long-anticipated project was planned by CDOT to enhance the cultural, environmental, economic and recreational aspects that the Chicago River has to offer. With Phase 2 nearing completion, "There's a sense of excitement about all the opportunities Chicagoans will have to

experience the river," says Chaves. "It's not every day that you're provided the opportunity to fill a section of a river and build urban spaces that will enhance and improve the river." Overcoming the project challenges and balancing the needs of a growing city with a diverse community, the new Chicago Riverwalk sets a precedent for the development of other public spaces along Chicago's vibrant riverfront.

Kurt J. Naus, P.E., S.E. is a Project Manager for Alfred Benesch & Company who was involved in the planning and design of structural elements for Phase 2 and 3 of the Chicago Riverwalk project.

Daniel M. Gross, P.E. is a Senior Vice President and Construction Management Services Director for Alfred Benesch & Company who is currently overseeing the construction of the Phase 2 segment of the Chicago Riverwalk project. This article was provided by the SEI Illinois Chapter.

CENTENNIAL ANNIVERSARY LOGO CONTEST

ILLINOIS SECTION

Did you know that the Illinois Section will be celebrating its Centennial Anniversary starting this coming October 2015 through October 2016?

Help us bring in the Illinois Section Anniversary Year by using your creativity!

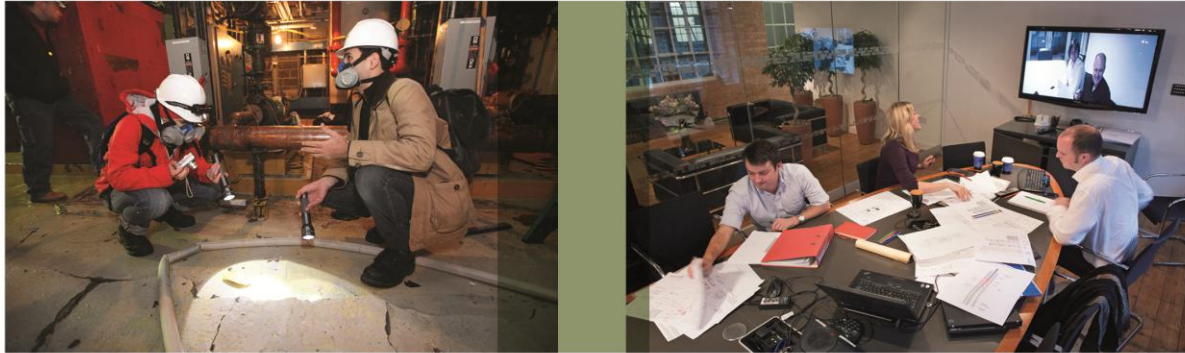
The Illinois Section is now soliciting entrees for a Centennial Anniversary Logo Contest. Logo requirements include:

- Inclusion of the "ASCE Illinois Section" within the logo.
- A memorable tagline that relates to the Centennial Anniversary
- A creative logo that represents the Illinois Section and Civil Engineering

Contest is open to all members residing within the Illinois Section boundaries. Winning logo recipient will receive one free ticket to the 2015 Annual Dinner and recognition during the Annual Dinner Award proceedings. Logo entries must be received by email to isasce@sbcglobal.net by April 1, 2015. Logo Selection will be made by the Illinois Section Executive Board and announced in May 2015. Please email isasce@sbcglobal.net with any questions or to obtain a copy of the official "Illinois Section" logo.

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Village of Glenview East of Harms Road Regional Storm Water Relief Project

By, Christopher Buckley, P.E., B.C.E.E.

The Village of Glenview was looking for a way to solve residential flooding in the neighborhoods east of the North Branch of the Chicago River. The “East of Harms” area consists of approximately 1,150 homes located

The Regional Storm Water Relief Project is protecting 1,150 homes from flooding.

south of Lake Avenue and east of Harms Road in the Village of Glenview, IL. The ground elevation in this area is generally low in comparison to the adjacent river and has historically seen severe flooding issues as evidenced by the latest two record rainfall events in April and June 2012. Flooding is caused by the river backing up into the storm sewer

system and inadequate storm water conveyance capacity.

The new infrastructure prevents the Main Stem of the North Branch of the Chicago River from backing up into local Glenview storm sewers and allows storm water to be pumped from the local storm sewer system into the river.

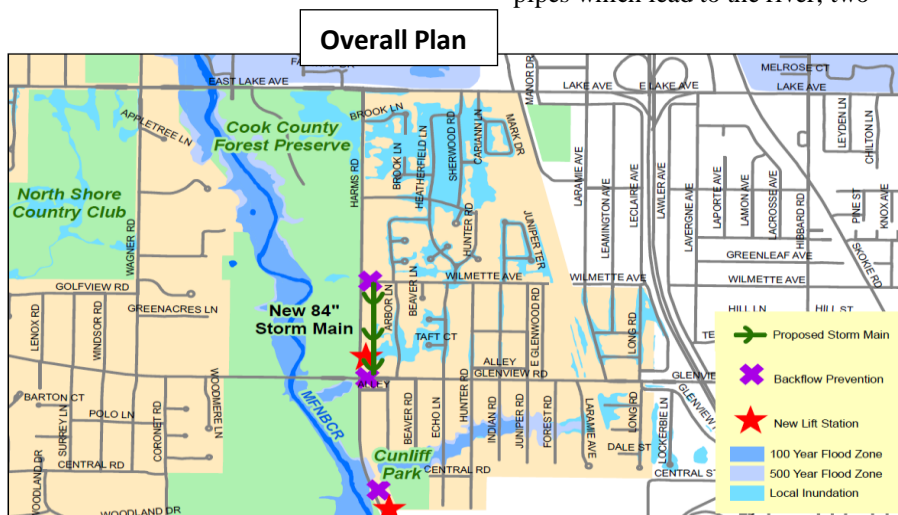
A project team was put together to manage this flooding issue. Referencing the Overall Plan, the project includes installing three backflow preventers on storm sewer pipes which lead to the river, two

pumping stations with backup generators, and new storm sewer relief piping. The new infrastructure prevents the Main Stem of the North Branch of the Chicago River from backing up into local Glenview storm sewers and allows storm water to be pumped from the local storm sewer system into the river.

Project Team: The complex project is a collaborative effort on several fronts:

- Stakeholders: The Village of Glenview, the Glenview Park District and the Metropolitan Water Reclamation District of Greater Chicago (MWRD), which contributed \$6M of its Watershed Management Storm Water Funds to this project.
- Consultants: MWH Global One performed the storm water hydraulic modeling and Baxter & Woodman, Inc. performed the detailed design, permitting construction oversight under a tight funding deadline.
- Permitting: Extensive permitting efforts were required from the Cook County Department of Highways, the Cook County Forest Preserve District and the Village’s Plan Commission, which approved the pump station designs with significant residential involvement.

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Village of Glenview East of Harms Road Regional Storm Water Relief Project

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System Design: Two pump stations were needed for the project to support the local storm sewer systems. The overall system is designed to convey low flows (and first flush debris) to the river. During severe or prolonged

**The project includes
1,500 L.F. of 54" and 84"
relief sewers with two
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mgd) of firm pumping
capacity.**

storm events, high flows are diverted to the pump stations. The existing storm water outfalls were converted to force mains to allow the pump stations to push water out to the river above the 100-Year Flood Elevation. The project includes 1,500 L.F. of 54" and 84" relief sewers with two storm water pump stations with 120 cfs (78 mgd) of firm pumping capacity.

One pump station is located on a former residential property at Harms Road and Glenview Road. The station is largely underground, equipped with low head, high flow mixed-flow axial pumps. The station is provided with a stand-by generator



housed within a new building to avoid being a nuisance to either the adjacent residential or commercial properties.

The second pump station is located in Cunliff Park, which is owned by the Glenview Park District. Similar in pumping design to the Harms Road Station, the Cunliff Park Station is enclosed within a new building, which is attached to the existing Park District Fieldhouse. The Village is providing new park facilities as part of the building, including new storage areas and bathrooms. The Park District is using this opportunity to fully renovate the park and updating their Fieldhouse, in order to blend the entire structure together into a cohesive element and installing new playground equipment.

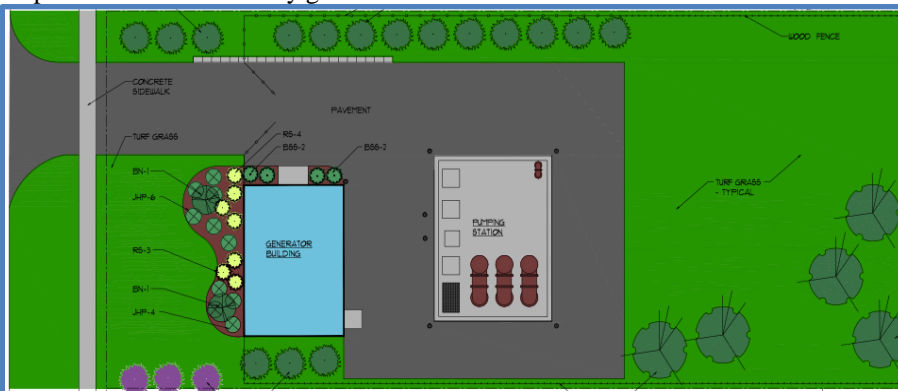
The total project cost of \$11M was partially funded by a large Metropolitan Water Reclamation District of Greater Chicago grant as part of the District's Watershed Management Program. This project is an example of how regional storm water funding can benefit many constituents and an engineering project can achieve results which are

**Regional storm water
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beneficial to multiple
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mutually beneficial to multiple stakeholders.

Christopher Buckley, P.E., B.C.E.E. is civil engineer with Baxter & Woodman, Inc. with 18 years of water, storm water and wastewater experience design and construction experience.

As part of this project, B&W would like to thank MWH Global, the MWRDGC and the Village of Glenview, Capital Projects Division, Joe Kenny, P.E. and Shane Schneider, P.E.





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Picking up STEAM -Science, Technology, Engineering, Art, and Math

By Michelle Lipinski, P.E., Stephanie Nurre, P.E., Thera Baldauf, P.E.

From STEM to STEAM
We've all heard the acronym "STEM" which refers to occupations, as well as fields of study, in science, technology, engineering, and math. It is a common buzzword that has developed from various research studies showing that the United States is falling behind in STEM-related fields as compared to other countries. The STEM movement has spurred many education and outreach programs in the United States put on by the government, not-for-profit organizations, and private corporations to try to close the gap.

Even though STEM jobs experience lower unemployment rates and higher incomes, an internet search on STEM will produce many negative statistics on the subject. For example, the United States ranking for science and math is declining. There is an increasing need for STEM-related job opportunities over the next decade requiring an Associate's degree or higher. Women and minorities comprise only 20% of the STEM workforce, yet are projected to make up 70% of the total workforce in the coming years.

When looking to the future, the STEM movement is critical to excite and grow the next generation of capable scientists, innovators, engineers, critical thinkers, and problem solvers. In addition to STEM, many critics argue for the addition of Art to broaden the scope of education for students. Promoting "STEAM" will start incorporating more students whose interests aren't solely science and math. The addition of art may also make engineering and technology more appealing to girls. Developing effective communication skills through speaking and writing is also crucial to advancing students in the United States to the next level.

STEAM At Home

The STEAM conversation should start at home, and it should start as early as possible. Children are naturally curious, observant, and constantly ask questions starting in the toddler years.

Take advantage of the natural love for arts and crafts that children have by getting out the markers and drawing 5 objects that start with different letters of the alphabet.
(continued on page 13)

"Five hundred years ago, you couldn't really tell the difference between artists and engineers," said James Michael Leake, director of engineering graphics at the University of Illinois, Urbana-Champaign.

Start them young! Simplified STEAM Anytime Discussion (3 to 5 years old)

Q: What are the components of Concrete?

A: Water, Cement, rocks, and sand, mixed together. After a day it gets hard, and becomes stronger every day.

Q: Listening to music in the car, ask them to identify the instruments.

A: Trumpet, piano, violin are easy to identify, but try to find others as well.

Q: How do they make glass?

A: They take sand and put it in an oven and make it really really hot, then the pour it in a container that has the shape they want. It gets hard when it cools off.

Q: Where do we have bones in the human body?

A: Elbow, skull, cheekbones, kneecap, shin, etc. Start introducing the concept that the bones help us walk. Use the correct anatomical names for more advanced learning.

Q: How do you say "hello" in different languages?

A: Bonjour (French), Hola (Spanish), Ciao (Italian), Aloha (Hawaiian), etc.

Q: How many glasses do we have if there is one on the table, and then we add another one? What if we add 2 more?

A: You do the math!

The point is to promote more questions from your kids. Repetition promotes retention. And don't be afraid to Google it!

Picking up STEAM -Science, Technology, Engineering, Art, and Math

(continued from page 12)

Get the blocks out, build something, then knock them down. Experiment with different ways to make the structure more stable. Give kids the chance to figure it out by themselves first to promote critical problem-solving skills. Each day talk about all kinds of subjects (see previous page for some suggestions).

STEAM Toys – Encouraging Engineering Play

Another great way for children to learn is through hands on imaginative play. Legos have historically been an excellent way to foster creative play while using engineering skills to build. There are many other toys that are fun and educational, such as:

1. [Magna-Tiles](#) (2 – 12 years)
2. [Snap Circuits](#) (5 – 15 years)
3. [Qwirkle](#) (5+ years)
4. [Learning Resources Primary Science Mix and Measure Set](#) (2 – 6 years)
5. [Bedtime Math: A Fun Excuse to Stay Up Late](#) (3 – 7 years)
6. [Hexbug Playsets](#) (3 – 14 years)
7. [Robot Turtles Game](#) (4 – 8 years)
8. [The Everything Kids' Science Experiments Book: Boil Ice, Float Water, Measure Gravity-Challenge the World Around You!](#) (8+ years)

See the full list with descriptions at: <http://www.modernparentsmessykids.com/2013/11/gift-guide-2013-top-learning-toys-for-building-stem-skills.html>

STEAM at School

Event Spotlight: Chicago Regional Future City Competition

Things were heating up at this year's Chicago Regional Future City



Students from the Immaculate Conception School Team interact with judges.

Photo courtesy of Bob Johnson.

Competition around the theme "Feeding Future Cities". Up from 18 teams in 2014, 2015's Illinois Regional competition included 34 teams of 6th, 7th, and 8th graders, and their educators tasked with designing, imagining, and building a city of the future. Over 100 volunteers help judge computer models, essays and narratives, tabletop scale models, and presentations. Additionally, over 50 volunteers who helped grant \$8,500 in special awards to participating teams from local engineering and planning organizations in addition to 15 corporate sponsors who help support the event. This fantastic event is a culmination of years of work of the Chicago Future City team, in coordination with the engineering community and the growing desire for meaningful STEM related opportunities in schools. Congratulations to this

year's winners: St. Paul of the Cross, all participating teams, educators, engineering mentors, and volunteers who made this year a rousing success!

STEAM Around You

As civil engineers and as members of ASCE, we have the opportunity and the responsibility to give back to the field that has rewarded us and challenged us in many ways. The Illinois Section's Student Outreach Committee, Co-Chaired by

Over 100 volunteers help judge...presentations for the 34 teams that participated in this event - up from 18 teams in 2014.

(continued on page 14)

Picking up STEAM -Science, Technology, Engineering, Art, and Math

(continued from page 13)

challenged us in many ways. The Illinois Section's Student Outreach Committee, Co-Chaired by Stephanie Nurre and Thera Baldauf, (continued on page)is working with the Institutes/Technical Groups to coordinate volunteer opportunities for members to share their engineering experiences and talents with children from kindergarten (continued on page)through high school. **Please consider volunteering for an event by joining other ASCE colleagues at one of our outreach events in 2015.** You will be glad you did! Watch for Volunteer Opportunity e-blast or visit the Student Outreach

Please consider volunteering for an event by joining other ASCE colleagues at one of our outreach events in 2015.

Committee's web page at <http://www.isasce.org/index.php/committees/student-outreach-committee>. You can also find the Committee's contact information should you have volunteer ideas for them to consider. We are looking forward to a great year and, with your help, we hope to make that happen!

References:

<http://www.stemadvantage.org/stem-stats/>

Stephanie Nurre is a Senior Mitigation Planner with Stantec as is Co-Chair of the Student Outreach Committee. Thera, who serves as the IL Section President Elect, is also a Co-Chair of the Student Outreach Committee. She is an Area Project Manager with MWH. Michelle Lipinski is President and Principal Geotechnical Engineer at Rubino Engineering, Inc, and is past Chair for the ASCE Urban Planning and Development Committee.

"5 Free PDH's Anyone??"

By, Matt Huffman, P.E.

The state of membership within the Illinois Section of ASCE is in good health to start off the 2015 year, with nearly 3,400 engineers, students and retirees. Every year around this time, ASCE National contacts members who have not renewed their National membership for 2015, which currently totals nearly 570 engineers within the Section, so please urge any colleagues you may know to renew. Additionally, it is critical to make sure all National dues paying members pay their section dues (\$30), which constitutes a majority of our Section funding. To date in 2015, we have 17 percent of National dues paying members that do not pay their section dues. Any member that has not renewed will be dropped on March 31, 2015.

Recently, ASCE National and the [Illinois Section](#) launched new revamped websites to help facilitate better communication and services to our membership. Take a few minutes to browse around! As the economy has

Update your contact information via ASCE's online membership account

recovered many have sought new employment opportunities, so please make sure to update your contact information through your ASCE online membership account.

ASCE's Free On-Demand Webinars (up to 5 PDHs)

With Illinois PE licensure renewing in fall 2015, make sure to take advantage of [ASCE's Free On-Demand Webinars](#). New this year, any ASCE Member can choose upto five 1-hour webinars (1 PDH each) from seven specialization areas.

For students graduating this spring and those engineers who have recently received your PE, make sure to advance your membership grade:

Graduating Students and new PEs, upgrade your membership grade

- **Associate Member** -- an individual which has a bachelor's degree from an ABET/EAC accredited school in civil engineering or a current member in another engineering society which ASCE has a reciprocal membership agreement.
- **Member** -- an individual which has a bachelor's degree from an ABET/EAC accredited civil engineering program with a PE or five years experience; master's or doctorate in civil engineering with (continued on page 17).

March 2015

In an effort to inform Illinois Section members of the discussions at the monthly Board meetings, the Section Secretary contributes this quarterly article to the newsletter. Any questions or comments on the Board activities are welcome by contacting John Lazzara, at John.Lazzara@hdrinc.com.

■ **Treasurer's Report**

▲ A treasurer's report was presented at the December, January, and February meetings. All reports were approved with no changes.

■ **Group Reports**

Groups presented a written report outlining previous and current month's activities.

▲ **Illinois Report Card Public Relations** – Several Report Card outreach presentations have been given. Looking into opportunities to present to Northwestern University, ACEC, and APWA.

▲ **Annual Dinner/Awards Update** – Planning for the 2015 Annual Awards Dinner has begun and venue options were discussed. Several exciting downtown Chicago locations are being considered.

▲ **Chicago Infrastructure Trust (CIT)** – CIT made a presentation to the ASCE IL Section Board requesting collaboration on the consideration of creating a Chicago Report Card on infrastructure. After further discussion the Board has agreed to support CIT and continue coordination to identify ways to

assist them in evaluating Chicago area infrastructure.

▲ **2016 Multi Region Leadership Conference (MRLC)**– The MRLC will be held in Chicago on January 15/16, 2016. The Younger Member Group is responsible for planning several of the social events. Various options are currently being investigated.

▲ **Region 3, 6 & 7 Multi-Region Leadership Conference** – The multi-region conference was held in Houston, Texas on January 30-31, 2015. Directors Frangos, McDonald, and Raj represented the IL Section. An idea was discussed about starting a "Civil Engineering Club" to enhance the Illinois Section connection with a local school.

▲ **Future Cities** – The competition was held in January and the event went well with several awards sponsored by the Illinois Section.

▲ **Virtual Office** – The Virtual Office has been phased out and Sarah Harbaugh, Executive Secretary, will now be directly handling telephone calls and mail for the IL Section.

▲ **SPAG Funding** – ASCE IL Section received a total of \$2,800 in funding. \$2,300 was allocated for QBS Lobbying Efforts and \$500 was assigned to the Annual Legislative Reception.

▲ **Annual Legislative Day** – Past President Lach is organizing the Annual Legislative Day which includes a drive-down to Springfield

on April 29, 2015. The event is a great way to engage your elected officials and interested members should contact Past President Lach.

▲ **President-Elect Dinner** – The President-Elect Dinner and scholarship awards will be held on April 22, 2015.

▲ **100th Anniversary Committee** – The committee sent out a membership questionnaire seeking interest on possible events. Volunteers are always welcome to join the committee.

The Illinois Section Board Meetings are held every first Monday of every month with the exception of holidays. The next board meeting is scheduled for March 2, 2015 at 5:30pm at MWH Americas, Inc., 175 West Jackson Blvd, 19th Floor. Meetings for the second quarter of 2015 will be held on April 6, May 4, and June 1.

*By John Lazzara
John.Lazzara@hdrinc.com*

Illinois Section

Activities

21st Biennial SEI Lecture Series

Lecture Series Nights and Speakers:

Session 1

Date: Wednesday, March 4
Time: 5:30 pm – 8:00 pm
Hurricane Deck Bridge over the Lake of the Ozarks - Pamela Yuen, P.E. (*Parsons*)

Milton Madison Bridge Slide - Aaron Stover, P.E., S.E. (*Michael Baker Jr., Inc.*)

Session 2

Date: Wednesday, March 16
Time: 5:30 pm – 8:00 pm
Move Illinois: The Illinois Tollway Driving the Future - Paul Kovacs, P.E. (*Illinois Tollway*)

Ohio River Bridges Project: Downtown Louisville Cable Stayed Bridge - John Finke, P.E. (*Jacobs*)/William Amerhein, P.E., S.E. (*Stantec*)

Session 3

Date: Wednesday, April 1
Time: 5:30 pm – 8:00 pm
Chicago Transit Authority - Modernizing for Chicago's Future - Chris Bushell (*CTA*)

Design and Construction of Cowboys Stadium - Larry Griffis, P.E. (*Walter P. Moore & Associates, Inc.*)

Session 4

Date: Wednesday, April 15
Time: 5:30 pm – 8:00 pm
Hankin Center Tower: China's Tallest Steel Braced Frame Structure - Erick Fenske, S.E. (*Halvorson and Partners*)

The New NY Bridge - Design Build Replacement of the Tappan Zee Bridge - Kenneth J. Wright, P.E. (*HDR*)

Student Outreach

Volunteer Event - Girl Scouts STEMapalooza

Date: Saturday, March 7
Time: 10:0am - 2:30pm
Place: Girls Scout Friendship Center, 5100 Sunset Lane Country Club Hills, IL

Girl Scouts participating in this event will spend the day walking around to 30+ booths of organizations and museums from around the Chicagoland Area. The goal of the event is to spark passion in girls for the fields of Science, Technology, Engineering and Math. ASCE Younger Members Group will be sponsoring a booth and are looking for volunteers to help.

Volunteer for some or the entire event.

RSVP: Monica Crinion at mcrinion@wbkengineering.com

Student Outreach

Volunteer Event - Skokie Public Library 2015 Science Expo

Date: Sunday, March 8
Time: 1:00pm - 4:00pm
Place: 5215 Oakton Street Skokie, IL

Drop-in program geared toward children in K - 8th grade. The event will provide children and adults the opportunity to experience and explore the many fields of science through interactive displays and hands-on activities. Volunteers would assist children with hands-on activity and set up or clean up.

To volunteer, contact: Thera Baldauf thera.a.baldauf@mwhglobal.com

Student Outreach

Volunteer Event - Niles Township High Schools District 219, 15th Annual Ask the Expert Day

Date: Tuesday, March 10
Place: Niles North High School 9800 N. Lawler St. Skokie, IL 60077

Date: Thursday, March 12
Place: Niles West High School 5701 Oakton St. Skokie, IL 60077

Presenters needed who are willing to share their business and professional expertise and experiences with high school students. Presenters would address a class (for about 40 minutes) regarding engineering or math related industry or academic applications. Presentations may include information on their business/organization, an explanation of one's career path, personal stories of interest, educational decisions, academic applications, the joys and frustrations of the field, advice for students, perhaps a related demonstration.

To volunteer, contact: Stephanie Nurre Stephanie.Nurre@Stantec.com

Student Outreach

Volunteer Event - Meadow Glens STEM Discovery Night

Date: Tuesday, April 7
Time: 6:00pm - 8:00pm
Place: Meadow Glens Elementary School Naperville, IL

Volunteers would be responsible for set up, clean up and providing assistance with the hands-on activity. Volunteers will be provided the opportunity to give input on the ASCE activity selected.

To volunteer, contact: Thera Baldauf thera.a.baldauf@mwhglobal.com

President Elect and Student Scholarship Spring Dinner

Date: Wednesday, April 22
Time: 6:00pm - Cocktails 7:00pm Dinner and Presentations

Place: Maggiano's 111 W. Grand Ave. Chicago, IL

RSVP/Questions: Sarah Harbaugh ISASCE Executive Secretary illinoissection@isasce.org

IL Section Technical Group Scholarships are now being accepted

[Click here for more information](#)

MAC Scholarship Applications are now being accepted

University of Notre Dame's

Introduction to Engineering Program

Those Eligible: High School Junior Students of Minority Background

Due: March 16, 2015

For applications or more information, contact: Tim Scully-Granzeier, (312) 575-3717, Tim.Scully-Granzeier@arcadis-us.com

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The Minority Affairs Committee (MAC) is seeking applications from minority students interested in participating in a two-week summer Introduction to Engineering Program at the University of Notre Dame (<http://www3nd.edu/~iep/>). The program is designed to provide high school students with a broad exposure to the profession of engineering and to motivate those who possess an interest in pursuing a career in this challenging

field. Applicants must be legal residents completing their junior year in high school. The application will be available on the IL-ASCE website.

T&DI

T&DI, ITE, ISPE, WTS and ITS Joint Luncheon Event

Date: Thursday March, 19

Time: 11:30 Reception

12:00 Lunch

12:15 Presentation

1:30 Wrap-up

Place: Chandler's Chophouse, Grille & Banquets
401 N. Roselle Road
Schaumburg, IL 60194

Cost: \$40 Members

\$50 Non-members

\$30 Students/Public Sector Employees

Reservation Deadline: Friday, March 13, 2015 prior to 5pm

For

Reservations:<http://events.constantcontact.com/register/event?llr=ysolytrab&oeidk=a07eajldtvd4f8caf1e>

Please let us know if you would like to carpool to this event or have special dietary needs.

Join us on March 19, 2015 to meet our special guest speaker Mr. Randall S. Blankenhorn, Acting Illinois Transportation Secretary. Mr. Blankenhorn will discuss the new Administration, plans for the Department, and Transportation Projects in Illinois.

To Join Remote Meeting Access:

<https://global.gotomeeting.com/join/984535197>

Use your microphone and speakers (VoIP) – a headset is recommended. Or, call in using your telephone.

United States (Tollfree): 1 (872)240-3412

Access Code: 984535197

Audio PIN: Shown after joining the meeting

Meeting ID: 984535197

For all Section, Group and Committee events, check out the Section website at:
www.isasce.org/web/section/calendar.html

"5 Free PDH's Anyone??"

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a PE of four years experience; degree from a non-ABET/EAC accredited school with a PE and five years of experience.

To stay on top of the civil engineering industry, make sure to

sign up for [ASCE SmartBrief](#), a free daily email providing a snapshot of the civil engineering industry.

Please contact Matt Huffman with any ASCE membership related questions at mhuffman@cbbel.com.

Matt Huffman is a Project Manager at Christopher B. Burke Engineering, Ltd. within the Phase I Engineering Department.