ASCE Illinois Section

News

Vol. 58, No.3
Fall 2017

INSIDE:

McCook Reservoir Stage 1 Nears Completion

By Jerome F. McGovern, P.E.

In November 2017, the Metropolitan Water Reclamation District of Greater Chicago (MWRD) will commission the operation of the McCook Reservoir, Stage 1 in southwest suburban Bedford Park, Illinois. The Stage 1 Reservoir, with a capacity of 3.5 billion gallons of water, is the next to

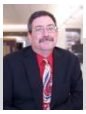
In November 2017, the Metropolitan Water Reclamation District of Greater Chicago (MWRD) will commission the operation of the McCook Reservoir, Stage 1 in southwest suburban Bedford Park. Illinois.

(continued on page 8)

McCook Reservoir Stage 1, looking west. The Sanitary and Ship Canal is on the left, the Des Plaines River is on the right. MWRD Photo.

President's Notes

John Lazzara, P.E.



What happened to Summer?! It seems like the year has gone by so quickly and Fall is fast approaching.

As I think back about this past year and all of the activities that the ASCE Illinois Section, Groups, and Institutes have organized I am amazed. Our members have donated hundreds of hours to plan and facilitate so many educational, charitable, and social events. We have also partnered with numerous other professional organizations and educational institutions to make events informative and exciting. All of these ASCE efforts reinforce two important thoughts for me: LEADERSHIP and NETWORKING.

I believe we see leadership from two perspectives in ASCE. First, we have many learning opportunities throughout the year to gain valuable insights on leadership strategies and characteristics. The Illinois Section recently co-hosted an event with IEEE on Effective Communications for Enhancing Customer Experience and Client Satisfaction that reminded the participants of the importance of clear communication. Earlier in the year we hosted the first annual Executive Roundtable with industry leaders from the public and private sectors coming together to discuss how ASCE members can take a leadership role in the conversation on infrastructure funding. The first annual Past Presidents Roundtable was also organized at the same time to identify leadership training that the Illinois Section can provide to our members. Second, ASCE continually offers our members chances to gain valuable experience practicing our own leadership styles. Sometimes the best way to learn is to try and that couldn't be any truer than with leadership opportunities. Examples range from Younger Member Group volunteers stepping up to work on STEM activities with middle school, high school, and college students to the Structural Engineering Institute members organizing the successful SEI-IL 22nd Biennial Lecture Series. Working closely with other ASCE members on committees and activities allows us to observe leadership in action and hone our own skills.

The Merriam-Webster dictionary defines Networking as "the cultivation of productive relationships for employment or business". Illinois Section events have provided an excellent opportunity for our members to network with their peers in the infrastructure industry. Whether it is taking tours of waste water treatment facilities, listening to presentations on technical topics such as Infrastructure Improvements In Conjunction With the Chicago Manufacturing Campus, or attending trivia nights, the commonality is sharing these experiences with other members and engaging in conversations. I strongly believe that networking is an important skill that engineers learn and continue to improve on throughout their careers. Networking becomes easier the more you do it and every ASCE

(continued on page 16)

ASCE Illinois Section
News

ILLINOIS SECTION NEWSLETTER
E-Mailed to all ASCE-IS dues-paying members
American Society of Civil Engineers Illinois Section - Region 3

Communications Chair/ Newsletter Editor - Katie Bell
Chicago Transit Authority
567 W. Lake Street, 9th Floor
Chicago, IL 60661
630-863-5123
Katiebell529@gmail.com

Director of Advertising - Brian Pawula
847-922-6125
brianp@thomas-engineering.com

Pres. John Lazzara ....(773) 380-7938
Pres.-Elect Dhooli Raj ..... (312) 236-5119
Sec. Megan McDonald ..... (312) 669-5824
Treas. John Green ..... (312) 894-5369

Please update your information at www.asce.org/myprofile or call 1-800-548-2723
Web Site: http://www.isasce.org

ASCE National Information
Phone: 1-800-548-ASCE
Web Site: www.asce.org

IL 115 over Gar Creek Bridge Replacement

By Stephen Long, P.E.

IL 115 over Gar Creek Bridge, an Illinois Department of Transportation (IDOT) bridge located in District 3, is located approximately 2 miles southwest of Kankakee, IL. The existing structure is a 72'-0" single span PPC deck beam bridge with a deck clear width of 35'-6". The bridge is on a Minor Arterial with an ADT of 3000 that is a key route for local school buses, farming activities, and through traffic to reach Kankakee, IL. The need for a proposed improvement was established in response to a six month routine special feature inspection. The bridge is posted for Legal Loads Only, and the deck and superstructure are rated in critical condition.

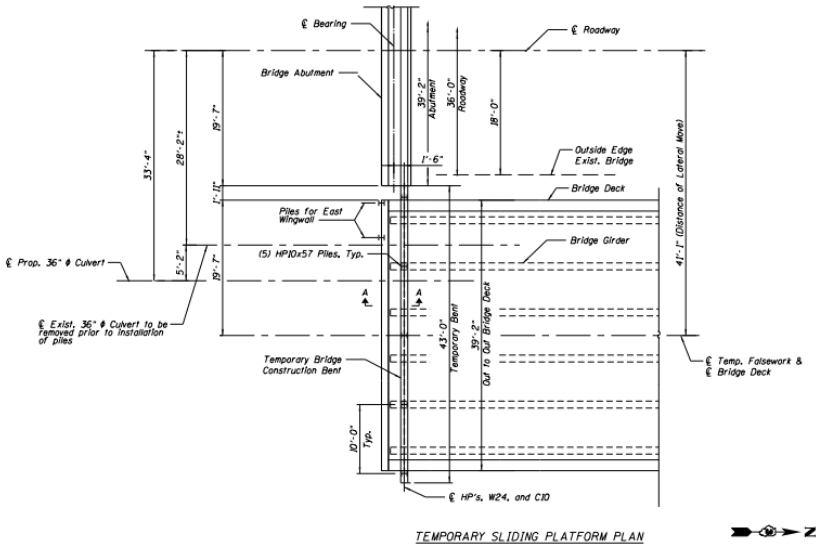
The estimated cost of providing typical maintenance of traffic (MOT) with staged construction was approximately 30% of the original estimated cost of the bridge replacement. This fact, together with the criticality of the bridge to the local economy, made the Gar Creek Bridge replacement a prime candidate to implement Accelerated Bridge Construction (ABC) practices. ABC techniques can reduce traffic impacts (closures, detours, etc.), improve site safety, and decrease project delivery time while minimizing the overall budget. It was these issues that led IDOT with the help of the Milhouse Project Team to develop an ABC design that would provide minimal bridge closure time and reduce MOT costs.

The IL 115 over Gar Creek Bridge, an IDOT bridge located in District 3, is to be demolished and replaced within 72 hours.

The bridge is to be demolished and replaced within 72 hours. The new structure is to be an 82'-0" single span steel girder with composite concrete deck superstructure, 36'-0" clear deck width, supported by H piles with semi integral concrete abutment caps. To limit the need for bridge closure, the new bridge superstructure will be constructed next to the existing bridge, which will still be open to traffic, and then rolled into place during a short 72 hour roadway closure. In order to accomplish this, the new superstructure will be constructed on temporary bents. The temporary bents include a roller guide system that will allow the superstructure to be rolled into final position. Additionally, to decrease bridge closure time, precast abutment caps, wing walls, and approach slabs will be used.

Once all of the precast items are cast, and the superstructure is complete and accepted, the bridge closure will begin. After the bridge is closed, the existing structure is to be demolished and the new H piles will be driven for the abutments and wing walls.

(continued on page 11)



The Underground Profession in the 21st Century

By Michael G. Vitale, P.E.

Tunneling is in the news these days with wild promises being made of traveling from London to New York in a few hours by tunnel (I may be exaggerating a little, but either way, don't buy your tickets just yet). There has indeed been tremendous growth and advancement in the Tunnel Industry, but where exactly are we today?

Tunneling in North America is bigger and better than ever before.

Thirty-five years ago, when I was starting out in the business, major tunnel projects were few and far between. Since that time, the tunnel industry has grown at an incredible rate. There are many reasons for this. The USEPA clean water mandates have required hundreds of miles of large diameter combined sewer tunnels in this country and their success is being replicated elsewhere around the world. Additionally, as our urban surface space becomes more costly and precious, more and more agencies are looking to move facilities underground and limit surface disruption. Seattle and Boston freed up their respective waterfronts with bold, ambitious, and ultimately successful transportation tunnels to replace a

labyrinth of surface roads and bridges with green space. Even sprawling sewage treatment plants are reportedly now being taken underground in places like Scandinavia.

There have been many new technical advances made over the past 20 to 30 years, and a tunnel which might have been impossible or incredibly difficult in 1975 due to extremely poor ground conditions is now almost routine. Average daily mining rates of 60 to 120 feet a day can be achieved even in these poor conditions with the use of modern Tunnel Boring Machines (TBM's) in conjunction with gasketed, factory-built segmental concrete linings.

However, there is still a perception that the industry is dangerous and risky. While it may have been at one time, the entire industry has come together over the last 30 years to identify and mitigate technical and contractual risks to the point where tunneling is no more dangerous today than any other heavy construction industry. The ASCE was at the forefront of these early efforts, with publications in the 80's on alternate contracting practices (Baseline Reports, Escrow Bid Documents, and Dispute Review Boards). More recently the insurance industry and the World Bank have pushed for more attention to risk-management; to the point where robust Risk Management planning is now commonplace on all tunnel projects undertaken by competent underground professionals.

Over a hundred of these same professionals, via the Underground Construction Association (UCA of SME), recently volunteered to write a book explaining the state of the tunnel practice, and its evolution over the years. This "History of Tunneling in the United States" was meant to show the general public (and clients/owners) that (continued on page 11)

The Rise of Sustainable Status Living: from Golf Estates to Agrihoods

By Monica Rockstroh

Nationally, the notion of retiring on a golf estate as a sign of wealth and comfort is gaining competition from *agrihoods*, communities of luxury homes built within a functioning agricultural farm and generally accompanied by well-structured sustainability plans. From The Cannery in Davis, California (previously a 100-acre site of a tomato cannery[1]) to the Serenbe development on the outskirts of Atlanta (home to a 25-acre organic farm with a thriving CSA program[2]), agrihoods are making their way to urban fringe areas coast to coast. Illinois is no stranger to agrihoods, having developed the first pastoral planned community in the country, The Village of Riverside, in the mid-1800s. Famous Central Park designers Fredrick Law Olmstead and Calvert Vaux were tasked with creating a rural feeling within the Chicago suburb[3]. In the early 1990s, Illinois saw the formation of the conservation focused Prairie Crossing development in the Village of Grayslake[4].

Agrihoods are communities centered around sustainable agricultural practices

ISASCE Sustainability Committee member Stan Walczynski recently learned of the newest agrihood in the region when he volunteered as a guide and greeter for the US Green Building Council's 2017 GreenBuilt Home Tour, which featured Serosun Farms development 50 miles north west of Chicago, in Hampshire, Illinois. The annual tour is an opportunity to visit nearly a dozen homes, throughout Chicago and its surrounding suburbs, which utilize a variety of sustainable practices and technology. Walczynski was impressed with the technologies and land use practices of Serosun Farms, particularly its use of geothermal energy and preservation of 30% open space; including a majority (continued on page 13)

Serosun Farm's Model Home. Photo Credit: Serosun Farms

[1]Community at The Cannery. (2016). Retrieved July 31, 2017, from http://livecannerydavis.com/#community

[2]About Serenbe. (2017). Retrieved July 31, 2017, from http://serenbe.com/about#about-serenbe

[3]Roth, A. (2014, November 06). Before 'Agrihoods': America's Odd History of Planned Communities. Retrieved July 28, 2017, from http://modernfarmer.com/2014/11/agrihoods/

[4]History. (2017). Retrieved July 28, 2017, from http://prairiecrossing.com/about/history/

Bringing Potable Water to Torewa, Bolivia

By Mouna Soumahoro

Torewa Indigena is an indigenous community located in the pristine Amazon environment within the Bolivian Madidi National Park, known to be one of the highest biodiverse locations in the world. Even though the environment is full of natural resources, the community is remote and suffers from the lack of potable water and other basic infrastructure. The aspiration of the community is to construct an upgraded water system while being conscience of their impacts to the natural ecology surrounding them.

The aspiration of the Torewa Indigena community is to construct an upgraded water system while being conscience of their impacts to the natural ecology surrounding them.

To effectively address their needs, EWB-Chicagoland Professional Chapter has partnered with Fundación Ingenieros en Acción (translates to Engineers In Action), a local Bolivian NGO whose mission is to improve the quality of life for underserved Bolivian communities through the implementation of sustainable engineering projects that also build the community's capacity.

Together, EWB-USA and Engineers in Action (EIA) aim to address the challenge of potable water access to the community, once the project comes to fruition the hope is that the community sees improvements with overall health, school attendance, and possible eco-tourism.

Together, EWB-USA and Engineers In Action (EIA) aim to address the challenge of potable water access to the community, once the project comes to fruition the hope is that the community sees improvements with overall health, school attendance, and possible eco-tourism. Aside from dealing with the obstacles of a remote community, an additional challenge has presented itself through a government planned dam upstream of the community with a height of 60 - 90 meters. The dam will take at least 5 years before it is built; and while there is a lot of opposition to it from communities, national park users, and environmentalists, the community leaders are contemplating possibly moving the community to a higher ground elevation, conceivably closer to a water source. Part of EWB's task will be to assist EIA with a design of a water treatment system, one that might need to be transportable.

The Chicagoland Professional Chapter recently completed an assessment trip in June, which is the first step in the project process. The team gathered information on the existing water supply and quality conditions, researched available resources, and established a baseline health assessment. The team will be (continued on page 10)

ILLINOIS SECTION
AMERICAN SOCIETY OF CIVIL ENGINEERS

35W749 Bluff Drive, St. Charles, IL 60175
Phone * (630) 443-8145
EMAIL: illinoissection@isasce.org * WEBSITE: http://isasce.org

ASCE
ILLINOIS SECTION

2017 Annual Awards Dinner

Thursday, October 5, 2017
The Palmer House Hilton, Chicago
Cocktails ... Dinner ... Awards ... Networking

Join The Celebration

This event is open to all members and their guest

Please join other premier companies as an Elite Sponsor.

As a sponsor, you will receive recognition in the written program, acknowledgment during the evening presentations, as well as access to early registration to insure your seat at this premier awards dinner.

Sponsorship Form

*All Sponsors will have company logo displayed in the program and on the presentation slides.

Company Name _____
Contact _____
Address _____
City, State, Zip _____
Phone Number _____
Email _____

Sponsorship Level*

Platinum ($2,500.00)	☐	Includes private table of 10 with logo table identifier.
Gold ($1,500.00)	☐	Includes 4 tickets.
Silver ($1,000.00)	☐	Includes 2 tickets.
Bronze ($500.00)	☐	Sponsorship only.
Event Sponsor $_____	☐	To be determined.

Register online now or return this form to Sarah Harbaugh, ASCE (isasce@sbcglobal.net)

Communication Workshop – Special Event

Thank you to the enthusiastic group of men and women who braved the rain on August 16 to make the complimentary workshop on effective communication a success. We had a dynamic and informative speaker, Dr. Carmen Kimble, who highlighted ways to mitigate conflict through the use of collaboration and accommodation both in the workplace and with clients.

ASCE teamed up with IEEE Professional Activities Committee for Engineers (PACE) and IEEE Women in Engineering (WIE) to enhance our members' knowledge of effective communication through small group participation. The presentation and group work illustrated the importance of focusing on the connection with clients and stakeholders utilizing the skills provided for effective communication.

McCook Reservoir Stage 1 Nears Completion

(continued from page 1)

final element of the Des Plaines-Mainstream portion of the Tunnel and Reservoir Plan (TARP) which serves the combined sewered areas of the north and west suburbs of Cook County and the City of Chicago north of 87th Street. This area is comprised of 37 communities with a population of 3.1 million people. When the Stage 2 Reservoir is completed in 2029, the ultimate capacity of the reservoir will be 10 billion gallons of water.

Conceived in the 1960's by Clint Keifer of the City of Chicago and Frank Dalton of the MWRD, TARP was the answer in how to deal with overflows from combined sewers into local waterways during periods of heavy rainfall. Chicago and the inner ring of suburbs were developed on a combined sewer system that consists of one pipe under the street that collects sewage from homes and businesses and precipitation runoff from pavements. On a dry day the sewage is conveyed to a wastewater treatment plant, passes through the treatment plant and the cleaned effluent is released to a waterway. On a rainy day the (continued on page 9).

McCook Reservoir Stage 1 Nears Completion

(continued from page 8)

capacity of the combined sewer may be exceeded and the collection system was designed to overflow into an adjacent waterway. The water quality of the Chicago River, the Des Plaines River, the Little Calumet River and other waterways were severely degraded by the routine discharge of the storm water and raw sewage. During heavy storms residential basements could be flooded with combined sewage.

Occasionally, a very severe storm would require the opening of sluice gates to allow the polluted water in the North Shore Channel, the Chicago River or the Little Calumet River to flow into Lake Michigan to reduce flooding. TARP would provide a deep rock tunnel 200 to 300 feet below grade where sewage from combined sewer overflows would be diverted and stored during a precipitation event. Later, after the precipitation had ended, the tunnels would be dewatered, routed through a wastewater treatment plant and discharged as treated effluent to a waterway. To provide additional capacity during back-to-back precipitation events or extremely large precipitation events the tunnels would be connected to a reservoir.

In 1972 the MWRD committed itself to the planning, design and construction of TARP. Now after more than forty years of work, the completion of the entire TARP system as planned is within sight. TARP is not one large tunnel but three discrete systems: Upper Des Plaines, Mainstream/Des Plaines and Calumet. Upper Des Plaines serves the northwest suburbs of Arlington Heights, Des Plaines and Mount Prospect. A smaller reservoir (350 million gallons) is connected to this tunnel system near the intersection of Elmhurst Road and Interstate 90. Mainstream/Des Plaines serves the City of Chicago and north and west suburban areas. The tunnel system is complete and terminates at the Mainstream Pumping Station in Hodgkins, Illinois. The tunnel is dewatered by pumping it back to the Stickney Water Reclamation Plant. When the Stage 1 Reservoir is operational, it will be dewatered by the existing Mainstream Pumping Station. The Calumet tunnel system terminates at the Calumet Water Reclamation Plant in Chicago, where a dedicated pump station dewaters the tunnel and directs the flow into the Calumet plant headworks. With the commissioning of the Thornton Composite Reservoir in 2015, the Calumet portion of the TARP system is now complete and will improve water quality and reduce flooding in the 14 communities that are served by it.

Mining of limestone in the Stage 1 reservoir. USACOE photo.

McCook Reservoir is unique in that in 1999 the MWRD and US Army Corps of Engineers (USACE) entered into a Project Cooperation Agreement (PCA). The MWRD would provide the land for the reservoir by decommissioning low solids lagoons at its solids management area between the Sanitary and Ship Canal and the Des Plaines River. The USACE would pay 75% of the cost for the design and construction of the reservoir features, such as the perimeter grout curtain, distribution tunnels between the reservoir and the existing Mainstream Pumping Station, and a tunnel to connect the reservoir to the existing Mainstream TARP tunnel. The MWRD contracted with Vulcan Materials Company (Vulcan) to mine the limestone and create the void for the reservoir. MWRD paid for a primary crusher, mining

(continued on page 10)

McCook Reservoir Stage 1 Nears Completion

(continued from page 9)

trucks and loaders for Vulcan and a conveyance tunnel was constructed under the Des Plaines

TARP has been a "mega" project similar to the Interstate Highway System or the City of Chicago's water treatment and distribution system.

River to transport the mined limestone into Vulcan's existing quarry north of the Des Plaines River where it was processed, graded and then sold. Vulcan reimbursed MWRD a royalty on the limestone sold. Mining out to the limits of the Stage 1 Reservoir began in 2008 and was completed in 2016. Mining out of the Stage 2 reservoir is approximately 15% complete.

To address concerns about groundwater contamination when raw sewage is stored in the reservoir, a groundwater cutoff wall and a grout curtain were constructed around the perimeter of the reservoir. A link to a paper regarding the instrumentation and monitoring of groundwater for the McCook Reservoir is shown below. The total project cost for the Stage 1 and Stage 2 reservoir improvements is projected at $1.018 billion.

A long-term commitment by the political structure to the funding and construction of such a mega project allows the civil engineering community to make improvements to our quality of life possible.

TARP has been a "mega" project similar to the Interstate Highway System or the City of Chicago's water treatment and distribution system. A long-term commitment by the political structure to the funding and construction of such a mega project allows the civil engineering community to make improvements to our quality of life possible.

A link to a paper by the US Army Corps Engineers regarding the groundwater monitoring program for McCook Reservoir can be found here: http://ascelibrary.org/doi/pdf/10.1061/9780784480120.056
You must have your ASCE password to login and access the paper.

Jerome F. McGovern, P.E., retired from the MWRD in 2014 as a Principal Civil Engineer. Thanks to Mr. Kevin Fitzpatrick P.E., Supervising Civil Engineer at MWRD for his review and suggestions for this article.

Bringing Potable Water to Torewa, Bolivia

(continued from page 6)

reviewing this information to determine a feasible project scope, as well as assist in developing a plan of action to address the Torewa's challenges in the most effective, efficient, and sustainable manner. Even in the face of adversity, the community has sustained an optimistic outlook and vigor to protect their future, together EWB and EIA are committed to work with the community to solve their infrastructure needs.

Even in the face of adversity, the community has sustained an optimistic outlook and vigor to protect their future, together EWB and EIA are committed to work with the community to solve their infrastructure needs.

Mouna Soumahoro is a Quality Manager for Belden Universal and the 2017-2018 Project Chair for the EWB-USA Chicagoland Professional Chapter.

IL 115 over Gar Creek Bridge Replacement

(continued from page 3)

The precast abutment caps are to be set on the driven piles and grouted into place using cast holes in the abutment cap and high strength quick setting grout. The roller guide system is to be

The new superstructure will be slid into place along the roller guide system using hydraulically driven rollers placed beneath each girder.

installed on top of the abutment caps in order to allow the rolling of the bridge off of the temporary bents and onto the abutments. The new superstructure will be slid into place along the roller guide system using hydraulically driven rollers placed beneath each girder. Vertical hydraulic jacks are integrated into the roller system allowing the superstructure to be simply lowered on the bearing seats.

Once the superstructure is in place, the precast wing walls are set on the driven H piles, grouted and the structure will then be backfilled. The precast approach sleeper slabs, full depth precast approach slabs, and approach connector pavement will then be installed. Lastly, hot mix asphalt is placed to match into the approach slab, along with pavement markings and the guardrail is installed. After all of the above has been completed within the 72 hour bridge closure, the new bridge will be reopened to traffic. After the bridge is reopened, the temporary bents will be removed. The construction engineering for the project is led by WHKS working for the prime contractor, Tobey Construction.

Utilizing an ABC design allowed the project team and contractor to reduce the cost of detours and

ABC techniques can reduce traffic impacts (closures, detours, etc.), improve site safety, and decrease project delivery time while minimizing the overall budget.

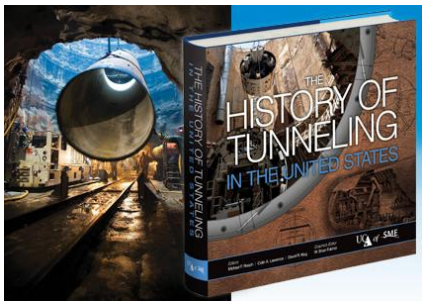
staged construction, reduced the need of a detour from 60-90 days to 3 days, and provided a safer working environment for construction workers and drivers as the majority of construction is performed away from traffic.

Stephen Long, P.E. is a Structural Engineer at Milhouse Engineering & Construction, Inc. with over 5 years of structural engineering experience within bridges, heavy industrial, and building retrofitting. He is an active member of the ASCE Illinois Section SEI.

The Underground Profession in the 21st Century

(continued from page 4)

the vast majority of tunnels have been successful, beneficial and cost-effective solutions to some of society's greatest needs. (The book has 552 pages in 9 chapters, including an attempt at an exhaustive list of all major tunnels to date, and an impressive timeline of tunneling history alongside US History. Available for purchase on the UCA of SME Website)



Building off this past, the future is incredibly bright but not without its challenges. One of the biggest challenges to the tunnel business is training and keeping qualified staff at all levels. Ironically as the industry booms, the Boomers are retiring leaving big knowledge/experience gaps in academia and the private sector. Many university programs that catered to tunneling and civil engineering have died on the vine as old iconic professors have

(continued on page 12)

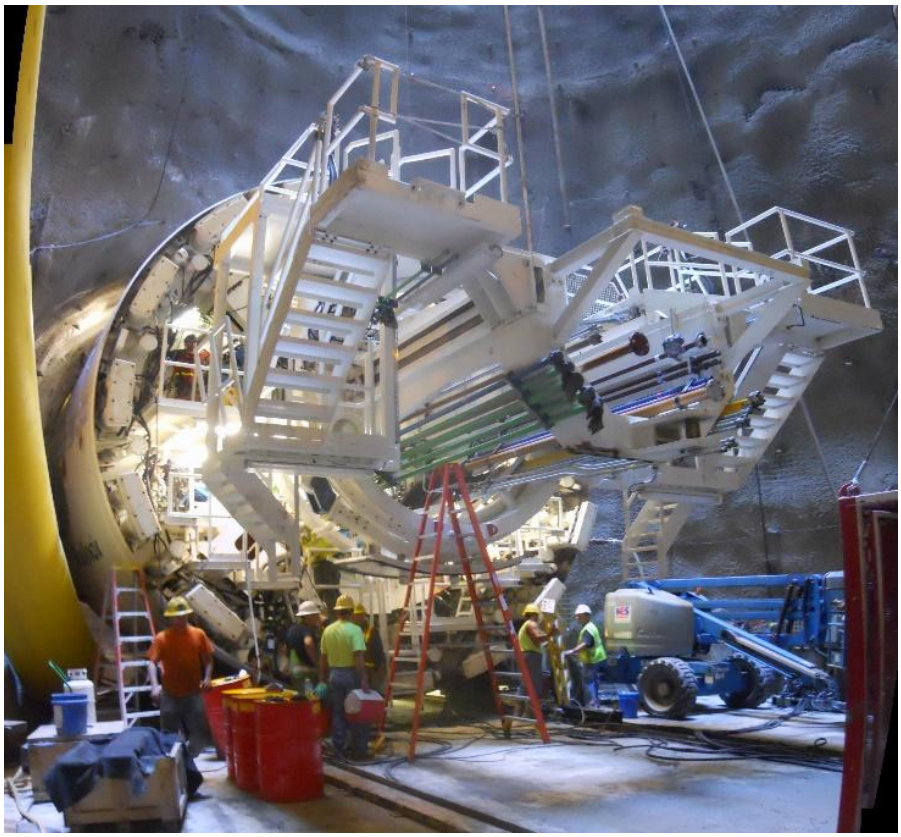
The Underground Profession in the 21st Century

(continued from page 11)

retired, and/or universities changed focus to more "modern" pursuits. In response, the industry, through the UCA and ASCE, is actively taking steps to support and bolster University Tunnel Education programs and is reaching out to students who might otherwise not be aware of the profession.

Despite the staffing challenges, the tunneling industry continues to grow. It also continues to improve via the free market and stiff competition.

Despite the staffing challenges, the industry continues to grow. It also continues to improve via the free market and stiff competition. Machine suppliers, for example, are constantly innovating, making better TBM's to handle a wide variety of ground conditions and water pressures. Recent entrepreneurial research (and investment) by Elon Musk and his competitors for Hyperloop will certainly lead to innovation, particularly in the type of vehicle/mode of transport. However, claims of significantly speeding up the actual tunnel construction process and dramatically reducing the cost are largely hyperbole at present. The limiting factors imposed by Mother Nature will keep daily mining rates similar to what we achieve today, and the cost of the new technologies will likely exceed current costs for major



transportation tunnel projects for the foreseeable future. And, of course, with the new technology comes new risks and new codes and new unforeseen problems.

That said, this new research will benefit all of us in ways we can only imagine; perhaps in spin-offs unrelated to the tunnel industry. (NASA after all gave us Tang Instant Breakfast drink and pens that can write upside down...) At the very least, we can all look forward to cleaner waterways, safer and more efficient transport, and more useable above ground space for our growing population thanks to the continued efforts of our underground professionals.

We can all look forward to cleaner waterways, safer and more efficient transport, and more useable above ground space for our growing population thanks to the continued efforts of our underground professionals.

Michael G Vitale, PE (ASCE); Senior Vice President and North American Tunnel Practice Leader for Mott MacDonald, currently based in Cleveland OH. Mr. Vitale has over 35 years of experience in the geotechnical/tunnel field throughout North America and SE Asia.

The Rise of Sustainable Status Living: from Golf Estates to Agrihoods

(continued from page 5)

Aerial view of Serosun Farms. Photo Credit: Serosun Farms

portion of each lot which is planted with native prairie vegetation[5].

Serosun Farms centers 1+ acre lots around an existing 160 acre working farm

Aimed to be a living laboratory of sorts, this development provides opportunities to learn and experiment with sustainable farming and living practices, while demonstrating how to integrate these into modern day life through ever-evolving technology[6].

This residential development – one part neighborhood and equal part farm – has a vision to celebrate agriculture and food through the harvest of artesian crops featured at an on-site farm stand; and by educating residents on culinary traditions of the past through nourishing ingredients and local farming[7]. With the aim of reconnecting residents to the rural and natural life that was once the norm in northern Illinois, Serosun Farms plans to provide a walking trail to its marsh, with a flourishing native bird habitat, and a farmer's market, just a short bike ride across the farm.

Permeable concrete driveways and natural open swales at Serosun Farms reduce runoff and increase groundwater recharge

While luxury golf estates are still desirable retirement properties, such developments are no doubt seeing competition from the water wise, energy efficient, sustainable agrihood communities.

[5]Walczynski, S., P.E. (2017, August 4). Discussion of Serosun Farms [E-mail interview].
[6]About Serosun Farms. (n.d.). Retrieved July 28, 2017, from http://www.serosunfarms.com/home/about/
[7]Society at Serosun Farms. (n.d.). Retrieved July 28, 2017, from http://www.serosunfarms.com/sustainability/society/

Monica Rockstoh is an ISASCE Sustainability Committee Member and Water Resources Scientist at Christopher B. Burke Engineering Ltd., with a focus on green infrastructure projects. Contributions by Stan Walczynski, P.E., a contract Project Manager for USG Corp., manages capital development and execution projects.

Fall 2017

In an effort to inform Illinois Section members of the discussions at the monthly Board meetings, the Section Secretary contributes this article to the newsletter. Any questions or comments on the Board activities are welcome by contacting Megan McDonald, at megan.mcdonald@clarkdietz.com

■ *Treasurer's Report*

▲ A treasurer's report was presented at the June and August meetings, there was no board meeting in July. All reports were approved.

■ *Highlights from Illinois Section Activities and Group Reports.*

▲ ***Annual Awards Dinner*** – The IL Section Annual Awards Dinner is scheduled for October 5, 2017 at the Palmer House Hilton. Register here. Sponsorships are available now!

▲ ***IL Section2017-2018 Officer Nominations*** – The new officer nominations for the IL Section Board have been sent out.

▲ ***Geo-Institute Event*** –Giuseppe Buscarnera will be discussing Model-Driven Forecasting of Flowside Triggering at the Regional Scale, September 12, 2017.

▲ ***Structural Engineering Institute Event*** – A panel on Bridge Aesthetics in Design Build Projects with Frederick Gottemoeller, David Steele, Vincent Gastoni, and moderator Chris Bushell on September 20, 2017.

▲ ***Environmental & Water Resources Institute Water Resources Permitting Seminar*** – The seminar will be held at Chandler's Chop House on September 19, 2017, 8:30am-4:00pm.

▲ ***Congratulations to our Younger Member Group*** – The IL Section YMG was honored with the 2017 Younger Member Group Award for large groups by the Committee on Younger Members.

▲ ***Young Member Group PE Review Course*** – The revamped PE Review Course is starting back up again, August 30 – October 11. Email PE.Review.YMG@gmail.com to register.

▲ ***Younger Member Group Open Board Positions*** – Positions are open on the YMG Board. Consider getting involved at the YMG level.

▲ ***Engineers Without Borders Golf Outing***– A golf outing to help fund EWB projects is being held September 15, 2017 at St. Andrews Golf Club in West Chicago.

▲ ***Engineers Without Borders Mentors Needed*** – The Northwestern University Student Chapter is looking for a professional mentor for their new bridge project in Guatemala.

▲ ***Envision Certification Training*** – Training will be held September 13, 2017 at the Northwestern University Kellogg School of Management, Chicago Campus.

▲ ***Sustainability Workshop*** – A charrette style workshop using Envision to rate projects in preparation for the Envision Certification Training will be held in October 2017. More details will be announced.

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 September 11, 2017 at 5:30pm at the Clark Dietz office located at 118 S. Clinton Street, Suite 700, Chicago, IL. Please note the meeting location. Future meetings will be held on October 2, November 6, and December 4.

By Megan McDonald
ASCE Secretary 2016-2017
megan.mcdonald@clarkdietz.com

Illinois Section Activities

ASCE IL Section Geo-Institute September Dinner Meeting

Date: Tuesday, September 12
Time: Cocktails: 5:15pm
Dinner: 6:15pm
Presentation follow dinner
Place: Pazzo's at 311
311 S. Wacker Drive
Chicago, IL 60606
(312) 913-1600
Topic: Model-Driven Forecasting of Flowslide Triggering at the Regional Scale
Speaker: Giuseppe Buscarnera, Assistant Professor/ Northwestern University
RSVP: Monday, September 11
Contact: asceilgeotech@gmail.com
Ati Fathi (312)985-0364
Mike Bronson (847)777-0344
September Dinner Meeting Flyer

ASCE IL Section EWRI Chapter Board Meeting

Date: Tuesday, September 12
Time: 5:30pm
Place: Baxter & Woodman
8430 W. Bryn Mawr Ave.
Suite 400
Chicago, IL 60631
RSVP: Matt Moffitt at mmoffitt@baxterwoodman.com

ASCE IL Section YMG Annual Planning Meeting & Open Director Positions

Date: Tuesday, September 12
Time: 5:30pm - 7:30pm
Place: Jacobs
525 W Monroe,
Suite 1600
Chicago, IL
RSVP: Monica Crinion at mcrinion@wbkengineering.com
Open Director Positions

ASCE IL Section T&DI Chapter Board Meeting

Date: Wednesday, September 13
Time: 5:30pm - 6:30pm
Place: Bowman, Barrett & Associates Inc.
130 E. Randolph St.,
Suite 2650
Chicago, IL 60601
RSVP: Thomas Borges at tborges@bloomcos.com

ASCE IL Section Committee on Sustainability ENVISION SP Accreditation Training

Date: Wednesday, Sept. 13
Time: 8:00 am Check-in
8:30 am - 4:30 pm
(Continental breakfast and boxed lunch provided)
Place: Northwestern Kellogg School of Management Chicago Campus, Wieboldt Hall, 340 E. Superior St., Chicago, IL 60611
Cost: $300 - Government Employees/Faculty
$400 - Private Attendees
PDHs: 6.0 PDHs
RSVP: https://www.123signup.com/event?id=hqkyz by 9/6/17

ASCE IL Section EWRI Chicagoland Permitting Seminar

Date: Tuesday, September 19
Time: 8:30am - 4:00pm
Place: Chandler's Chop House
401 N. Roselle Road
Schaumburg, IL 60194
Cost: $200 Government
$265 ASCE/EWRI Members
$320 Non-members
Register Here

ASCE IL Section SEI Chicago Regional Design Forum

Date: Wednesday, September 20
Place: Lloyd's Chicago
1 S. Wacker Drive
Event Flyer

ASCE IL Section T&DI September Luncheon Event

Anthony Quigley – Region One Engineer, IDOT
Date: Thusday, September 28
Time: 11:30am - 1:15pm
Place: Hofbrauhaus
5500 Park Place
Rosemont, IL 60018
Cost: $50-ASCE Members
$60-General
$35-Government
$25-student
$100 Bronze Level
(Includes 1 seat)
$200 Silver Level
(Includes 2 seats)
$350 Gold Level
(Includes 4 seats-half table)
$550 Gold Level
(Includes 8 seats-full table)
RSVP: Register Here! by Monday September, 25, 2017.

(continued on page 16)

For all Section, Group and Committee events, check out the Section website at:

www.isasce.org/web/section/calendar.html

Illinois Section Activities

(continued from page 15)

ASCE IL Section 2017 Annual Awards Dinner

Date: Thursday, October 5
Time: 6:00pm, Cocktail Reception
7:00, Dinner & Awards
Place: Palmer House Hilton
17 E. Monroe Street
Chicago, IL 60603
Cost: General $125 ($150 Sept. 22)
Educator/Government $95
Student $75 (Limited seating please contact illinoissection@isasce.org to check availability)
RSVP:https://www.123signup.com/event?id=hfprj
Please consider sponsoring this event. Sponsorship Flyer

ASCE IL Section EWRI Jardine Water Purification Plant Tour – SAVE THE DATE!

Date: Tuesday, October 17
Time: 1:00pm
Place: Jardine Water Purification Plant
1000 E. Ohio St.
Chicago, IL 60611

ASCE IL Section Committee on Sustainability 7th Annual Sustainability Workshop

Date: Wednesday, October 18
Time: 8:00am Check-in
8:30 am – 4:30pm
(Continental breakfast provided)
Place: Northwestern Kellogg School of Management Chicago Campus, Wieboldt Hall, 340 E. Superior St., Chicago, IL 60611
Cost: $30 - Government Employees/Faculty and ASCE/APWA/ACEC Members
$35 – Non-ASCE/APWA/ACEC Members
PDHs: 4.0 PDHs
RSVP:https://www.123signup.com/event?id=hxjdr by 10/11/17

President's Notes

(continued from page 2)

opportunity gives you the chance to get to know more people to expand your circle of connections.

As we approach the ASCE Annual Dinner and Awards Event on October 5th, please consider attending and sponsoring the Illinois Section's celebration. It is a chance to recognize leadership in action and continue your career networking. Plus it will be a fun time! Reach out and invite another ASCE member or a potential member to join you and experience the benefits ASCE has to offer.