

Illinois Section

INSIDE:

President's Notes

2

Springfield Legislative Visit

3

The State of Membership

5

The Chicago Water Supply System

7

Section Activities

14

News & Secretary Report

16

Advertise in the Illinois Section Newsletter and reach Civil Engineers in the Chicago Area.

For details email Brian Pawula, Director of Advertising, at

brianp@thomas-engineering.com

ASCE Illinois Section CS

Chicago Hosts Annual Structures Congress

By Victor E. Van Santen, P.E., S.E., M.ASCE

hicago can be an unpredictable destination in March. It might be 80 degrees and sunny or 20 degrees and snowing. The erratic weather, however, did not change the determination of the Structural Engineering Institute (SEI) of the American Society of Civil Engineers (ASCE) to host the 43rd Structures Congress in Chicago this past March 29-31, 2012, at the Fairmont Chicago, Millennium Park. In fact, the Local Planning Committee (LPC) accepted the challenge of hosting the Congress with open arms and a resolve to create the best and most attended Congress in history. As it turned out, the weather cooperated beautifully and provided a backdrop for the Congress this year.



Students attend the Student Welcome and Walking Tour at the Structures 2012 Congress.

Photo provided by Lewis University Canal and Regional History Collection

The technical program included 11 concurrent technical tracks that focused on the theme "Forging Connections in the Windy City."

Vol. 53, No. 5 May/June 2012

Led by LPC Co-Chairs John Carrato, P.E., S.E., F.ASCE (President & CEO, Alfred Benesch and Company) and Joseph G. Burns, P.E., S.E., F.ASCE, F.AIA, LEED AP (Managing Principal, Thornton Tomasetti, Inc.) the attendees of the recent Congress were treated to a world-class structural engineering event, Chicago style! The Congress schedule included pre-conference seminars, committee meetings, technical sessions, an opening luncheon and awards program, and an evening welcome reception in the exhibit hall. It also included a Council of American Structural Engineers (CASE) Spring Risk Management Convocation, a grand reception at the Mid-America Club (located on the 80th floor of the Aon Center), a closing luncheon with speaker, and post conference seminars. The technical program included 11 concurrent technical tracks that focused on the theme "Forging Connections in the Windy City." 70 SEI committee meetings ranging from ASCE 7 Steering Committee to

(continued on page 11)

President's Notes

William Cussen, P.E., LEED AP



ast month six of us from the Illinois Section attended the Fly-in, in Washington D.C. We chose to focus on two topics when meeting with the elected officials or their staff; previous years had 5 topics which was ambitious, especially when you are meeting with someone in a hallway.

ASCE Illinois Section EWS

ILLINOIS SECTION NEWSLETTER

Mailed to all ASCE-IS dues-paying members American Society of Civil Engineers Illinois Section – Region 3

Communications Chair/ Newsletter Editor – Bryan Luke

Christopher B. Burke Engineering, Ltd. 9575 W. Higgins Road, Suite 600 Rosemont, IL 60018 847-823-0500 bryanluke@cbbel.com

Director of Advertising – Brian Pawula

847-922-6125

brianp@thomas-engineering.com

 Pres. William Cussen
 (847) 394-6600

 Pres.-Elect Lou Arrigoni
 (312) 345-8681

 Sec. Patrick Lach
 (773) 792-8510

 Treas. Mike MacKinnon
 (312) 878-4854

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: <u>www.asce.org</u> Last month six of us from the Illinois Section attended the Fly-in, in Washington D.C.

The first topic was the Surface Transportation Authorization, which we were briefed on Tuesday night, prior to the Secretary of Transportation Frank LaHood speaking to us. He urged us to make requests to the House Members to pass the bill as the Senate had approved a two year Bill, just a few days earlier. Another speaker, a writer from Politico, talked about how the Senate Bill was closer to an 18 month Bill that would take 10 years to pay for. When we visited with the Senators we did ask about a long term bill and where told by Sen. Durbin's Staff that we did not need a long term Bill and that he did not believe that the lack of a long term Bill was hindering planning in any way. Sen. Kirk's Staff did not say if he would be for or against the Bill as he is still recovering from his stroke. When we visited with our elected officials on the House side, there seem to be some members who supported the Senate Bill and others who would like to see a long term Bill, and some who were waiting to comment pending the feelings of their political party. After we returned home, we found out that the House rejected the Bill and passed the 9th extension for transportation funding which the Senate also approved at the last minute. The House also just recently passed another 90 day extension which will take us up to the end of September if the Senate approves.

Again I am asking for your input. If you know of any projects that are on hold due to the lack of Federal Funding,

please send me an e-mail with information regarding the project. I would like to send a letter to both Senators and provide a draft of the letter for anyone who responds to send to their Representative.

The second item which we discussed with the elected officials were two bills that are intended to provide funding for research for the National Earthquake Hazards Reduction Program (NEHRP) and the National Windstorms Impact Reduction Program (NIWRP). While we were in D.C., there were two different versions of the Bills being worked on; the Senates Bill would reauthorize both programs for 5 years and the House Bill would cut authorized spending but authorize both programs for 3 years. When we talked the various representatives none of them were familiar with either of these programs, but said they would look into them. The funding for NEHRP in Fiscal Year 2011 was \$126,000 and NWIRP was created in 2004, but has never been funded.

On April 17th, the Section in conjunction with APWA hosted its 5th Annual Springfield Legislative Visit. The lobbyist we hired briefed everyone in attendance over lunch on the Illiana Expressway and also the Private Public Partnership legislation for projects. After lunch we went over to the Capitol for some face to face meetings to discuss the pending legislation. It appears that the majority of the elected officials are in favor of both items, however the Department of Agriculture has raised a slight issue with the Illiana Expressway's land acquisition processes.

As we move into summer, please remember to slow down for kids and construction, enjoy this two-month edition of the Newsletter, and come out to our events!

4SCE

ASCE Illinois Multi-Section 5th Annual Springfield Legislative Visit By Shawn J. Murphy

n Tuesday, April 17 a delegation of representatives from ASCE's Illinois Section, Ouad Cities Section, and Central Illinois Section met in our state capital of Springfield for our fifth annual Legislative Visit, where we were joined by representatives from the Chicago Metro Chapter of the American Public Works Association (APWA) and the Transportation for Illinois Coalition (TFIC). We started the day with a luncheon featuring a guest speaker from the Illinois Department of Natural Resources (IDNR), Mr. Marc Miller, Director of the Office of Water Resources. Mr. Miller discussed the IDNR's mounting budget deficit in recent years. He stressed that the State's reallocation of IDNR funds to other agencies (i.e. "sweeps") has contributed to that deficit, and described his agency's planned efforts in developing a sustainable business model.

Our group then re-focused our attention on our advocacy goals for the day by reviewing and discussing a few legislative initiatives that are currently being considered by lawmakers. The discussion was led by Michelle Kelm, the Illinois Section's lobbyist down in Springfield. Yes, in case you didn't know, the Illinois Section does have a lobbyist who works very hard to represent our interests with state lawmakers. This discussion gave everybody the chance to better understand the issues we would be discussing with legislators during our visit, so that each of us could deliver our message effectively, even though many of us were first-time participants in this initiative. Now armed with a consistent message, as well as copies of the 2010 Report Card for Illinois Infrastructure and

invitation flyers to our evening reception, we all walked over to the State Capitol building to seek out our state reps. We split into smaller groups so we could each visit the representatives of our respective hometowns, as well as members of key committees whose decisions directly affect our industry. Over the course of a few hours, our group was able visit the offices of around thirty different legislators, speaking personally with at least fifteen of them (see attached list). We found the legislators to be very receptive to our visits, especially when our group

included their constituents, and they gave us their full attention. Representative Fortner even hosted an impromptu meeting in his office for us on upcoming stormwater legislation that he will be amending. Later that evening, we had a few more representatives stop by our reception since they were in committees when we visited their offices, including State Treasurer Dan Rutherford. The casual atmosphere at the reception also allowed us to probe the reps for insight on issues that might be working against us.

(continued on page 4)

ASCE Spring Legislative Visit - Elected Officials Meeting List

- Illinois State Treasurer Dan Rutherford
- 81st District Senator Ron Sandack (R)
- 23rd District Senator Carole Pankau (R)
- 32nd District Senator Pamelal Althoff (R)
- 13th District Illinois State Representative Gregory Harris (D)
- 23rd District Illinois State Representative Dan Burke (D)
- 38th District Illinois State Representative Al Riley (D)
- 39th District Illinois State Representative Maria Antonia Barrios (D)
- 42nd District Illinois State Representative Sandra Pihos (R)
- 49th District Illinois State Representative Timothy Schmitz (R)
- 53rd District Illinois State Representative Sidney Mathias (R)
- 54th District Illinois State Representative Tom Morrison (R)
- 68th District Illinois State Representative Dave Winters (R)
- 70th District Illinois State Representative Robert Pritchard (R)
- 71st District Illinois State Representative Richard Morthland (R)
- 81st District Illinois State Representative Renee Kosel (R)
- 82nd District Illinois State Representative James Durkin (R)
- 95th District Illinois State Representative Mike Fortner (R)

ASCE Illinois Multi-Section 5th Annual Springfield Legislative Visit

(continued from page 3)

The two main pieces of legislation we promoted are the P3 Trailer Bill (Senate Bill 3216) and the Illiana Expressway (Senate Bill 3318). Both bills amend language to previous legislation regarding Public-Private Partnerships and the Illiana Expressway. ASCE worked with the sponsors of each bill to draft their language and both pieces of legislation easily passed through the State Senate, and are now moving to the House of Representatives. Because of this strong level of support, we did not expect much pushback from the legislators we were visiting to discuss these bills. However, as we quickly discovered

during our conversations with the various elected officials, it is extremely important to them that they hear directly from their constituents. There are dozens of paid lobbyists milling through the state capital every single day, pushing their respective messages, but lawmakers realize these people are paid to push their message, so those lobbyists do not have nearly the level of impact that a voting constituent has when speaking with their elected official. This is why maintaining a consistent, physical presence with our representatives is so vital to the health of our industry. If they do not hear our voice over the crowd, they will not know what is important to us and we will not have an impact on their decisions. Please bookmark the Illinois Section's Government Affairs webpage and join us next time as we continue to grow this initiative. **ASCE**

Shawn J. Murphy, a Civil Engineer with HNTB Corporation and current Chair of the ASCE IL Section Younger Member Group and the ASCE IL Section Engineers Without Borders-USA Committee. Contributions were also made by Darren T. Olson, P.E., a Civil Engineer with Christopher B. Burke Engineering and Past-President/Government Relations Chair of the ASCE IL Section.

The Reinforced Earth Company

The Value of Experience









The Reinforced Earth Company has over forty years of experience designing structures and supplying materials to contractors and owners for retaining walls, sound walls and precast concrete arches for use in all types of civil engineering applications.

We have a reputation for engineering excellence, architectural creativity, and an unyielding focus on quality and customer support, which is why we are recognized as the market leader.

Make your next project a success by selecting Reinforced Earth®

Midwest Regional Office 1444 North Farnsworth Ave. Aurora, IL 60505 Alex Abraham, Regional Manager aabraham@reinforcedearth.com 630.898.3334

The State of Membership of the Illinois Section of ASCE is in Good Health in 2012

By Matthew Huffman, P.E.

Thousands of dollars are donated every year to strengthen civil engineering in our region.

he ASCE Illinois Section is fortunate to have strong leadership and a forward looking vision which has allowed the section to contribute significantly to the professional of civil engineering in northern Illinois. The Illinois Section provides many benefits and value to its members in many different ways.

In the last few years the Illinois Section started a Construction Institute and the Sustainability Committee is in its second year. Engineering without Borders Chicago Chapter (now under the ASCE umbrella), has five ongoing projects around the world to aid areas in need. The seven technical institutes and groups provide monthly opportunities for continuing education seminars, technical training, networking, and are advocates for their various sectors of the profession. The Illinois Section is a large supporter of the profession and civil engineering industry, as seen through the recently released State of Illinois Infrastructure Report Card.

Thousands of dollars are donated every year to support various engineering groups, fund scholarships, aid area University ASCE student chapters, provide outreach to pre-college youth, fund relief aid, train our ASCE leadership, and numerous other activities to strengthen civil engineering in our region. The Illinois Section continues to grow to benefit the profession, its

members, and the community; we continue to focus on serving our members as best we can during these difficult economic times.

- The Illinois Section of ASCE, one of the largest sections in the entire Country, currently has 3,250 members of which, 1,739 have paid their 2012 national dues and 1,479 have paid their 2012 section dues. Students (493) and Life Members (608) are exempt from paying annual dues and are not included in the above statistics. We urge all members to pay their \$30 Section dues when renewing your national membership
- to help fund the day to day operations of the Section, as well as receive the benefits of being a registered Section member such as the monthly newsletter, discounts at section/ institute/group luncheon and seminar events, and supporting the Section advocate for the Civil Engineering industry.
- There are currently 186 Fellows in the Section, a rise from 185 respectively in 2011. More focus this year will be placed on advancing more of our members to the Fellow grade, which is a prestigious honor held by

(continued on page 6)

Being a member of ASCE has several grades: Student, Affiliate, Associate, Member, Fellow, and Life Member. For more information visit: http://www.asce.org/Content.aspx?id=5283

Student Member — an individual which is an enrolled student.

Affiliate Member — an individual which is interested in advancing the purposes and objectives of ASCE.

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

Fellow — this type of member status is attained by professional accomplishments via application and election by the Membership Application Review Committee. This prestigious honor is held by fewer than 5% of ASCE members. More information is provided online at http://www.asce.org/Content.aspx?id=5303.

Life Member — this type of membership is attained by a member who has made a lifetime commitment to ASCE requiring an age of 65, pad dues for at least 30 years, and have had 10 years of continuous membership preceding the attainment of Life Member.

All graduating ASCE student members receive a free upgrade their first year's national membership free after graduation. Subsequent to that, there is a graduated dues scale for the following five years up to the annual national dues rate of \$250. More information can be found on the web. We also encourage all student members coming out of college to join the sections Younger Member Group, which consists of young engineers under the age of 35.

The State of Membership of the Illinois Section of ASCE

(continued from page 5)

fewer than 5% of ASCE members. Fellow status must be attained by professional accomplishments via application and election by the membership Application Review Committee. The membership committee will be sending additional information out this summer.

 There are currently 608 Life Members, a rise from 588 in 2011.
 Focus will also be placed on harnessing the knowledge, experience, and value held within these members by initiating a push to start a Life Membership Group or Committee.

 Focus this year will also be placed on transitioning the ASCE student members to associate members upon graduation, which is also a focus of the incoming ASCE National President Elect.

ASCE national has recently updated its website to better serve its members.

Please take advantage of all the valuable resources and material they have gathered. http://www.asce.org/
Please contact the membership chair, Matthew Huffman mhuffman@cbbel.com, with any questions or comments pertaining to membership. **ASCE**

Matthew Huffman, an engineer at Christopher B. Burke Engineering, Ltd., is the Section's Membership Chair and the T&DI Chair. This article provided by the Membership Committee.





TRB

4th Urban Street Symposium

Chicago, Illinois - June 24-27, 2012

My Street, Your Street, Our Street
Developing Livable Transportation Solutions



You are invited to attend the 2012 ITE Midwestern District Meeting and the TRB 4th Urban Street Symposium. The Conference program consists of a wide variety of podium/poster sessions, training opportunities, field trips, workshops, TRB Subcommittee meetings, and the Annual ITE Midwestern District Business Meeting.

Full Registration - \$400* Two-Day Registration - \$300* Student - \$120* or \$60*/day *Save by registering before April 30th

REGISTER NOW!

One **workshop** or **field trip** is included with each Full and Two-Day registration. Topics include:

- Highway Safety Manual
- Roundabouts in Urban Settings
- Highway Capacity Manual
- Asset Management
- Tour of Oak Park's Urban Streetscape
- ADA requirements in an Urban Streetscape
- Rethinking Street Design for Livability
- Protected Bike Lanes
- Tour a Sustainable Street

Optional events include a Chicago Cubs/New York Mets game, Second City Comedy Club, and a Chicago food tour. Space is limited and pre-registration is required.

For additional information, conference news, and technical program, please visit: <u>www.mwite-uss4-2012.org</u>

Conference Hotel

Holiday Inn Chicago Mart Plaza 350 West Mart Center Drive Chicago, IL 60654

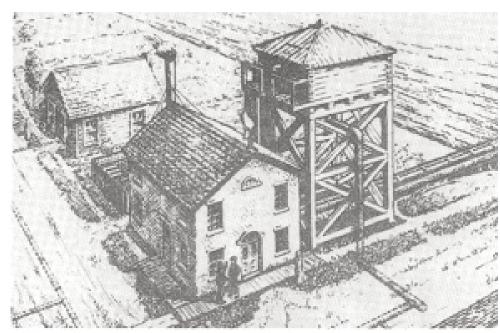
http://www.martplaza.com

Part two in the "150 Years of Engineering Excellence" series

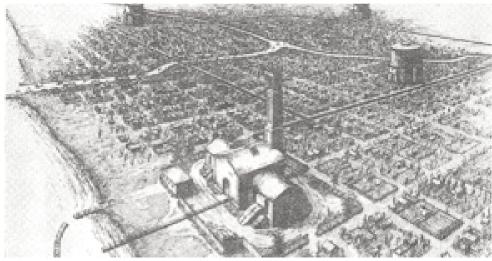
rior to the 1830's, the settlers of Chicago had little concern for the availability of drinking water since Lake Michigan, the Chicago River, and wells provided abundant sources of water. Chicago was incorporated in 1837. At that time, its population was expanding rapidly. With development occurring away from the lake to the west and south, it became impractical to rely on transporting water with buckets and water carts. Eventually, water sources also became unhealthy due to deficiencies in handling the rapidly growing volume of residential and industrial wastes.

The first water supply system, developed by the privately owned Chicago Hydraulic Company, was completed in 1842.

The first water supply system, developed by the privately owned Chicago Hydraulic Company, was completed in 1842. The system consisted of a crib in Lake Michigan that was located 150 ft. from shore; an iron pipe from the crib to a pump well on shore; a steam pump that forced water from the well to a reservoir at Lake Street and Michigan Avenue; and a distribution system comprised of two miles of cedar logs. With rapid growth in water demand, this system quickly became inadequate and the Chicago City Hydraulic Company, a public system, was then incorporated to address the water needs of the city. This organization purchased the rights of the private company, then developed a new supply system.



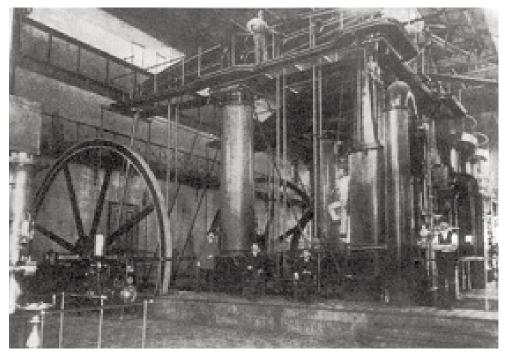
Chicago's first private water works in 1842 located at Lake Street and Michigan Avenue.*



Chicago's first private water works in 1854. The original water system consisted of a small pumping station and three reservoirs.*

The new waterworks were completed in 1854, and consisted of a suction well in Lake Michigan located 600 ft. from shore; a timber intake pipe, three feet by four feet in section laid in a trench in the lake bed; and a pumping station incorporating a steam engine and stand pipe, located at Michigan Avenue and Chicago Avenue. The distribution system consisted of an iron reservoir and nine miles of iron pipe. The pumping station had a capacity of eight million gallons per day. Like the earlier system, capacity was quickly exhausted. Additional storage tanks were constructed (continued on page 8)

(continued from page 7)



The first pumping engine owned and operated by the city of Chicago. This engine was erected in 1853 and had been in continuous use for 50 years at the Chicago Avenue Pumping Station, replaced by modern engines in 1904. Photo part of the ASCE History and Heritage Collection.

by 1856, and a second pumping station, with 12 million gallons per day capacity, was constructed in 1857. Concerns for capacity, however, suddenly became overshadowed by concerns for quality.

By the middle 1850's, Chicago was becoming more industrialized, and both residential and commercial wastes were being dumped into the Chicago River. Spring floods carried the polluted river water out into the lake, contaminating the water supply. Cholera and dysentery epidemics occurred over several successive years. As a result, in early 1855, the Board of Sewerage Commissioners was established to address concerns for sewage handling and the quality of the water supply. Ellis S. Chesbrough was hired as Chief Engineer of this Board and went overseas to study European systems. Based

on this work, he developed recommendations to improve Chicago's water system.

In 1863, Mr. Chesbrough proposed driving a five-foot-wide, brick-lined tunnel beneath Lake Michigan to a distance of two miles from shore. Many people criticized this proposal as being technically impractical. As a result, several field tests were performed to evaluate the feasibility of his plan. Soil borings in the lake bed, beginning 20 ft. from shore and continuing to two and one-quarter miles from shore, indicated sand-covered clay of variable firmness. Water at two and one-quarter miles from shore was clear and approximately 50 degrees F at the bottom. At this distance from shore, the lake was found to be 30 ft deep. These findings convinced the critics that Chesbrough's plan for The Chicago Water Supply System was sound. Chesbrough's

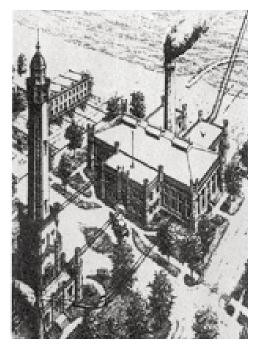
timber intake crib located two miles from shore, 1867. Graphics used with permission by City of Chicago, Department of Transportation and predecessor agencies. Construction of the tunnel started in 1864 from the shore shaft located at the east end of Chicago Avenue. "The tunnel was formed from two semicircular top and bottom arches. The nearly circular form was adopted to ease the problem of striking the centers, and it proved effective enough to be used in all the succeeding tunnels. The lower arch was built to templates customary in sewer work and was kept about 6 feet in advance of the upper arch, which was built on a ribbed center of boiler iron. The inside dimensions allowed just enough room for two men to work side by side, with miners in the front followed only 10 or 20 feet behind by masons, who laid the lining brick. Both teams were relieved regularly so that the work could continue without stop 24 hours a day, 6 days a week. After the tunnel had progressed 750 feet, the first of several side chambers was built, allowing for the construction

(continued on page 8)



Construction of Chesbrough's brick lined tunnel.*

(continued from page 9)

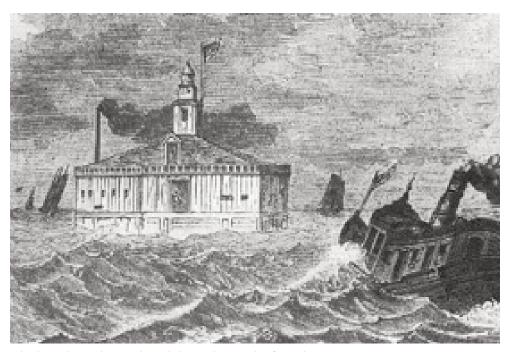


Chicago water tower and pumping Station in 1870. The water tower and pumping station were located on Michigan Avenue and Chicago Avenue.*



Aerial view of the current Jardine Water Filtration Plant.*

of a turntable for the small railroad cars that were used to transport clay out and building materials in. These cars were propelled by workmen at first, but as the distance grew, the use



Chesbrough's timber intake crib located two miles from shore, 1867.*

of animals was considered. After some difficulty, two mules were found who were small enough to go side by side down the shaft and into the tunnel. These animals were "tractable animals," according to contemporary reports, who "after a little experience and training, learned their work, and performed it well." They could pull several cars at a time, and wore small lamps on their collars to announce their presence. A timetable was prepared to avoid tunnel collisions." (Schodek 1987)

As tunneling continued from the shore shaft, a lake shaft was started by construction of a crib. The crib was pentagonal in plan, nearly 100 ft across and 40 ft high. "Its three separate walls were bolted together and braced, each caulked and tarred like a ship. The whole was constructed of timbers, bolted with square iron rods. The bottom was formed of three 12-inch layers of timbers, connected by 36-inch bolts." (Shodek)

Tunneling from the lake shaft started in early 1866. By November, 1866, both tunnels had progressed to a point where the advancing tunnels were only 2 feet apart. Upon removal of the final wall of clay, the two tunnels were found misaligned by a mere 7 inches, a remarkable feat considering the 10,567 foot length of tunnel!

The new water system was dedicated in March, 1867. As a feat of engineering, it was described as the "eighth wonder of the world." By 1869, a new pumping station and water tower were built on the site of the old structures at Michigan Avenue and Chicago Avenue. The tower and pumping station were among the few buildings to survive the Chicago Fire, and stand today both as a memorial to an outstanding feat of engineering and as a Chicago landmark.

The same basic concepts developed by Chesbrough are utilized in today's

(continued on page 10)

(continued from page 9)



Current picture of the landmark Chicago Water Tower.*

Chicago Water Supply System.
Currently, there are three active intake cribs located about two miles off shore.
Lake water is fed to the two largest filtration plants in the world, the Jardine Water Filtration Plant and the South Water Filtration Plant. From these plants, 12 pumping stations pressurize over 4,200 miles of water mains. The present Chicago Water Supply System provides an average of one billion gallons of water per day to approximately five million people within the city and suburbs. **ASCE**

This article is Chapter 2 in the IS ASCE 2003 publication "150 Years of Engineering Excellence". This article provided by the Communications Committee.

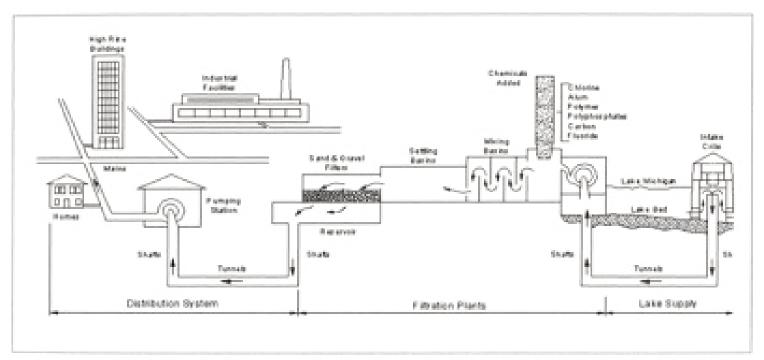
Resources

- 1. Cain, Louis P., "Raising and Watering a City: Ellis Sylvester Chesbrough and Chicago's First Sanitation System." Technology and Culture, Vol. 13, pp.353-372.
- 2. City of Chicago Department of Water Website: www.cityofchicago.org/water
- 3. Ericson, John, The Water Supply System of Chicago, Chicago, 1924.
- 4. O'Connell, James C., Chicago's Quest for Pure Water, Essays in Public Works History, No. 1, June 1976. Washington, DC, Public Works Historical Society.
- 5. Pikarsky, Milton, Chicago Public Works: A History, Department of Public Works, Chicago, 1973.
- 6. Rosen, Howard, "Ellis S. Chesbrough, Engineer, Public Servant,"

Environmental Engineer, April, 1997, pp.14-18.

Bibliography

Schodek, Daniel L., Landmarks in American Civil Engineering, MIT Press, 1987



Depiction of the current Chicago Water Supply System.

^{*}Graphics and photos used with permision by City of Chicago, Department of Transportation and predecessor agencies.

Chicago Hosts Annual Structures Congress

(continued from page 1)

the Aesthetics in Design Committee also took place at the Congress. Overall, the program gave attendees the opportunity to broaden technical knowledge, sharpen business skills, deepen understanding of cutting-edge research, and network with peers and colleagues.

Over 1,300 people registered for the Congress including over 180 students and 30 registered young professionals (YPs). New to the Congress this year was a program specifically tailored for students and YPs. The program included a walking tour of local engineering companies, an invitation-only breakfast with ASCE/SEI and industry leaders, a School to World 101 session on networking/resumes/interviewing/etc., and a social mixer with SEI leaders and other YPs. SEI Illinois Chapter and ASCE Illinois Section sponsored six students from various universities to attend the Congress: Orest Alickolli (UIC), Moshe Cohen (NU), Mojtaba Dirbaz (IIT), Jason Shattuck (IIT), Maya Stuhlbarg (NU), and Raguez Taha (IIT).

The student/YP program was well received. "This was my first Structures Congress and it far exceeded my expectations!" said Jason Shattuck (IIT Student). Maya Stuhlbarg (NU Student)



Andrew Keaschall, P.E., SEI-IL Treasurer (right), leads students on a tour of the Benesch office as part of the Structures 2012 Congress.



Jameelah C. Muhammad, P.E., SEI-IL Chair, welcomes students and YPs to the Meet the Leaders Breakfast at the Structures 2012 Congress.

noted that "it was an extremely eye opening experience to see the diversity and variety of interests within the structural engineering profession." IIT Student, Raguez Taha added, "the only regret I have about the Congress is not being able to be in multiple places at once, so I could see more of the sessions." This sentiment was shared by many Congress attendees, not just students.

In addition to the new student/YP program, there were over 100 technical sessions each with multiple presentations. This is the hallmark of the annual Structures Congress. These sessions demonstrate processes and projects that have redefined structural engineering in the areas of bridge and transportation structures, buildings, and research. Although the LPC is responsible for creating and moderating ten of these sessions, the vast majority of the sessions are determined by the National Technical Program Committee (NTPC) which sorts through hundreds of abstracts submitted from across the globe. Many abstracts that were not accepted into the program were presented as posters that could be viewed by attendees. The posters were displayed



Joe Burns, P.E., S.E., F.ASCE, F.AIA, LEED AP, speaks on the renovations to Soldier Field at the Chicago Sports Stadiums session hosted by SEI Illinois Chapter at the Structures 2012 Congress.

outside the exhibit hall where over 50 exhibitors presented their company information and offered giveaways to attendees.

In between technical sessions, there were numerous networking receptions. The Opening Plenary Luncheon and Awards Program featured a keynote address on Structural Art by David P. Billington, P.E., Professor Emeritus at Princeton University. Awards for distinguished individuals and the SEI Chapter of the Year were presented as well. The evening receptions in the exhibit hall and at the Mid-American Club were well attended and demonstrated Chicago hospitality. The closing Plenary Luncheon and Business Meeting included a keynote address by Glenn Bell, P.E., M.ASCE, CEO of Simpson Gumpertz & Heger on Developing the Next Generation of Structural Engineers. In addition, the inaugural class of SEI Fellows was inducted at the luncheon.

Overall, the Structures 2012 Congress in Chicago was a huge success by any measure. Near record number of attendees (including record numbers

(continued on page 12)

Chicago Hosts Annual Structures Congress

(continued from page 11)

of students and YPs) and exhibitors were treated to unmatched technical content and outstanding networking opportunities. In addition, the exhibitors and 22 sponsors contributed over \$200,000, a record for the Congress. Many people commented that this was the best Congress ever. No doubt, they were correct. Even a blizzard-of-the-century would not

have stopped this from being the best Structures Congress.

Mark your calendars: next year the Congress will be in Pittsburgh May 2-4, 2013. The NTPC and Pittsburgh LPC are already looking for ways to improve upon the program from this year. See you in Pittsburgh! **ASCE**

Victor Van Santen, a Senior Structural Engineer with HDR Engineering, Inc. in Chicago, Illinois, is a Director of the ASCE Illinois Section, Secretary of the SEI Local Activities Division Executive Committee, and Past-Chair of the SEI Illinois Chapter. He also served on the Local Planning Committee for the ASCE/SEI Structures 2012 Congress. This article was provided by the SEI Illinois Chapter.

American Society of Civil Engineers - Illinois Section Committee on Sustainability Presents:

2nd Annual Sustainability Workshop

The society of the future will depend on infrastructure designed and built by Civil Engineers today. How can today's Civil Engineers ensure we can meet the demands of the future in a environmentally, socially and economically responsible manner? Come hear from local agencies and ASCE National representatives about the role of sustainability in Civil Engineering and measuring sustainability through rating systems and metrics.

Representatives from ASCE and ISI will present EnvISIon, an infrastructure rating system released by the Institute for Sustainable Infrastructure (ISI), walk through case studies and the project rating process, and present the 2011 ASCE Sustainability Award Winner. There will also be a panel discussion on sustainable practices from the agency perspective.



Date: June 20th, 2012

Location: Riverway (auditorium) 6133 North River Road, Rosemont Hours: 8:30-12 PM

(Check-in 8:00, breakfast will be provided)

3 PDHs provided

Registration: contact John Lazzara at john.lazzara@hdrinc.com

Check <u>www.isasce.org</u> for further details.







18th Annual ASCE Golf Outing



May 24, 2012

Maple Meadows Golf Course 272 South Addison Road Wood Dale, IL 60191 Tee Time 8:00 AM Sharp



Hole in One Sponsor - \$1000

- Tee Sponsorship of hole with signage on tee
- Signage at registration
- Company recognition at awards lunch
- Opportunity to distribute promotional items at the outing
- Marketing Representative at Hole Sponsored for contest or giveaways
- One Foursome



Eagle Sponsorship - \$500

- Tee Sponsorship of hole with signage on tee
- Signage at registration
- Company recognition at awards lunch
- Opportunity to distribute promotional items at the outing
- One Twosome

Birdie Sponsor - \$175

- Tee Sponsorship of hole with signage on tee
- Signage at registration
- Company recognition at awards lunch

To use a credit card and sign up online please visit

	X 120 X 120
3	X 120 X 120Total
Name of Firm Sponsorship Level: Hole In One Eag	le Birdie
Contact Name	Contact Phone
Contact Email	
Registration Deadline is May 19, 2012	
Sponsors, please send a logo to wsiddall@theplanetforward.com for placement on all event marketing material and emails. Please make checks payable to ASCE IL-Section/send attention to: Tim Scully-Granzeier at ARCADIS, 10 S Riverside Plaza, Ste 1900, Chicago, IL 60606	

https://www.123signup.com/register?id=szgfv

Section Activities

MAY/JUNE

T&DI

Board Meeting

Date: Tuesday, May 8

Time: 5:30 pm

Place: Primera Engineers

100 S. Wacker Dr., Suite 700

Chicago, IL 60606

RSVP: By Monday, May 7 to host

Charlie Frangos at

cfrangos@primerachicago.com

(Any ASCE member is welcome to attend.)

EWRI Chapter

Monthly Meeting

Date: Tuesday, May 8

Time: 5:30 pm

Place: Michael Baker Jr. Inc.

311 W Monroe Street, Suite 1350

Chicago, IL 60606

RSVP: Please RSVP to Gary Paradoski

gary.paradoski@mbakercorp.com

Geotechnical Group

Dinner Meeting

Date: Wednesday, May 9
Time: 5:30 pm to 8:30 pm

Topic: Wacker Drive Congress Parkway

(I-290) Project

Speaker: Brad J. Bacilek from

Alfred Benesch and Company

Place: The Parthenon, Chicago, IL

Cost: \$40 Members

\$30 Education and Government Employees

\$20 for students (with reservations); \$30 for members who bring a younger member or a new member

PDHs: 1 Hour

RSVP: By Monday, May 7th

to Kalyani Devabhaktuni at asceilgeotech@gmail.com

or 630-352-1146

UPDG

Monthly Dinner Meeting - Planning

Upcoming Events

Date: Wednesday, May 9
Time: 5:30 pm Social

6:00 pm Meeting

Place: Dave and Busters

1155 N Swift Road Addison, IL 60101 (I-355 at Lake Street)

Cost: \$20

RSVP: Michelle Lipinski, PE at

michelle.lipinski@rubinoeng.com

Younger Members Group

Chicago River Cleanup Day (with the Society of American Military Engineers)

Date: Saturday, May 12

Time: 9 am to noon

(8:30 am coffee and pastries)

Place: Banks of the Chicago River

at Gompers Park

(corner of Foster and Pulaski)

RSVP: By Monday, April 30th to Kendra

Bleers at kendra.bleers@jacobs.com

Volunteers will work side-by-side to collect garbage and sort for recycling, remove invasive vegetation, spruce up river-edge trails, plant native seedlings and more. Families are welcome, however the minimum age is 8.

YMG and T&DI

Dinner Meeting

Date: Wednesday, May 16

Time: 5:30 pm – Dinner 6:00 to 7:00 pm – Speaker

Topic: Discovering Your Memory Power

and Reading Smart

Speakers: Tom Weber,

Freedom Personal Development

Place: TBD PDHs: 0.5 Hour Cost: \$20 Professionals, \$10 Students

RSVP: By Monday, May 14 at

https://www.123signup.com/regis-

ter?id=sjsgv

Questions: Shawn Murphy at

sjmurphy@hntb.com or (312) 798-0297

T&DI

Luncheon Program

Date: Thursday, May 17

Time: 11:30 to 12:00 Social

12:00 to 12:40 Lunch 12:40 to 1:30 Speakers

Topic: Update to Move Illinois Program

and Tollway Pavement Design

Speakers: Paul Kovacs, Illinois Tollway Chief

Engineer and Steve Gillen, Illinois

Tollway Materials Manager

Place: Maggiano's

1847 Freedom Dr. Naperville, IL 60563

PDHs: 1.5 Hours

Cost: \$45 ASCE

\$50 Non-members \$35 Government \$15 Students

RSVP: By Monday, May 14th at

https://www.123signup.com/event?id

=smgbz

Questions: Brian Pawula at

brianp@thomas-engineering.com

or (847) 922-6125

(continued on page 15)

Section Activities

(continued from page 14)

Engineers Without Borders Chicago Chapter

Sox vs Twins Fundraiser Outing

Thursday, May 24 Date: 7:10 pm Game Time:

Topic: Come cheer Sox vs Twins and

Support EWB's Water Project in

Armenta Honduras

Place: US Cellular Field.

Bleacher Sections 160-164

Cost: \$30 per Ticket (invite your friends!) RSVP: http://www.brownpapertickets.com/

event/238853

Questions: Jenny Jablonski at

jablonskijennifer@stanleygroup.com

18th Annual Illinois Section Golf Outing

Date: Thursday, May 24 Time: 7:30 am to 3:00 pm

Place: Maple Meadows Golf Club

> 272 Addison Road Wood Dale, IL 60191

\$120 per golfer (Sponsorship Cost:

Opportunities Available)

By Friday, May 18th at RSVP:

https://www.123signup.com/regis-

ter?id=szgfv

T&DI

Board Meeting

Date: Tuesday, June 12

Time: 5:30 pm Place: HDR, Inc.

8550 W. Bryn Mawr Ave.

Suite 900 Chicago, IL 60631

By Monday, June 11 RSVP:

to host Mukul Pal at

mukul.pal@hdrinc.com

(Any ASCE member is welcome to attend.)

Upcoming Activities

2012 ASCE Illinois Section Annual Dinner Meeting

SAVE THE DATE!

Date: Wednesday, October 10, 2012 Ioin us for a special night of celebrating outstanding engineers and projects that have

made a difference in Illinois! Union League Club Place:

65 W. Jackson Chicago, IL 60604

ASCE Region 3 Activities

Structural Condition Assessment of **Existing Structures**

May 10-11

Madison, WI

Earth Retaining Structures Selection, Design, Construction and Inspection: Now in an LRFD Design Platform

June 7-8

Milwaukee, WI

Financial Management for the Professional Engineer

lune 14-15

Cincinnati, OH

Structural Design of Industrial Facilities-Newly Updated

June 14-15

Chicago, IL

Wind Loads for Buildings and Other Structures-Newly Updated

June 21-22 Chicago, IL

Other Organizations

The 17th Annual Great Lakes Geotechnical/Geoenvironmen tal Conference (GLGGC)

GeoEngineering in Face of Energy and Sustainability Challenges

Date: May 24, 2012

Place: Case Western Reserve University

Cleveland, OH 44106

Keynote Speakers:

Dr. Vincent P. Drnevich, Emeritus Professor of Civil Engineering, Purdue University and the University of Kentucky, Distinguished Member ASCE. "Next Generation of TDR for Compaction Quality Control"

Gray Mullins, Professor of Civil Engineering, The University of South Florida, Founder, Foundation and Geotechnical Engineering, LLC. "Advances in Drilled Shaft Construction, Design, and Testing: The Value of Research"

Content: 20+ Presentations from 5 different

states, 8 Hours of CEU

Cost: Regular registration \$160 with

breakfast and lunch included, group

registration available

Information about conference registration can be found at conference websites:

http://engineering.case.edu/eciv/node/102 http://filer.case.edu/xxy21/2012GLGGC/Ho me.htm

Contact for registration:

Nancy Longo, nancy.longo@case.edu or 216-368-2950

Conference Chair: Dr. Xiong (Bill) Yu, Associate Professor, Department of Civil Engineering, CWRU, xxy21@case.edu,

216-368-6247

Ready to VOLUNTEER for the Section?

We are in the process of seeking nominations for three Directors for 2013. We will also have an opening for Treasurer. Meetings are held the first Monday of each month, and Directors get a chance to be involved in numerous committees. If you are interested, please send an email to Past-President Darren Olson, at dolson@cbbel.com.

Illinois Section

News & Secretary Report

APRIL 2012

n an effort to inform Illinois Section members of the discussions at the monthly Board meetings, the Section Secretary contributes this monthly article to the newsletter. Any questions or comments on the Board activities are welcome by contacting Patrick Lach, at plach@heyassoc.com

■ Treasurer's Report

▲ Treasurer MacKinnon presented the Treasurer's Monthly Report.

■ Group Reports

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

The National Center for Women & Information Technology Summit, co-hosted by Society of Women Engineers, will be held in Chicago May 22-24.

The **NCWIT Summit** is an annual gathering for learning about leading-edge research, practices, and advocacy efforts to increase the participation of women and girls in technology and computing. Get strategies and ideas for recruiting, retaining, and raising awareness about women in technology. Work with leaders, change agents, and stakeholders from K-12, universities, industry, and government.

The content of this program is outstanding and the awards event is a great way to meet national and local leaders in STEM and diversity. At the <u>Summit website</u> you'll find a detailed agenda, speaker bios, and logistics for travel, hotels, and transportation.

Thanks to the support of partners, the NCWIT Summit is a free event, but there is limited space and the Summit will fill up.

To request an invitation, please go to: http://ncwit.org/summit2012/summit.register.php and enter registration code "SWE" in the "why you want to attend" field.

■ New Business

- ▲ The Board is participating in a white paper discussion about re-reversing the Chicago River
- ▲The Annual Awards Dinner will be held on October 10, 2012 at the Union League Club in Chicago
- ▲The Section will be asking for award submissions for the 2012 Section awards this month.
- ▲The 18th Annual ASCE Golf Outing will be held on May 24, 2012 at Maple Meadows Golf Course in Wood Dale.

■ Old Business

▲ President-Elect Dinner: The Dinner will be held on April 11, 2012 at Maggiano's in Chicago. President Elect DiLoreto will be attending.

- ▲The Springfield Legislative Drive-In is scheduled for April 17, 2012
- ▲ The Section sent several members to the 2012 National Fly-In in Washington D.C. on March 20-22, 2012 and they gave a brief report on some of the activities.
- ▲ Outstanding Section Award Update: The Section is planning on submitting an application to National ASCE
- ▲ An update from the Section's lobbyist in Springfield was provided.
- ▲ Report Card: The Section is presenting to AWWA on April 17, 2012

The next board meeting is scheduled for Monday, May 7, 2012 at 5:30 pm at MWH Americas, Inc., 175 West Jackson Blvd, 19th Floor.

By Patrick Lach plach@heyassoc.com

Land Surveying Education in Chicagoland through Southern Illinois University Carbondale

Would you like to train yourself or your employees to become licensed Professional Land Surveyors? If yes, SIU Carbondale offers its high quality land surveying courses in the Chicagoland area for those who cannot attend SIU Carbondale full-time. Along with the theoretical concepts, this program has a complete laboratory component where students learn the required field techniques and equipment used in today's practice. Generally, one course per semester is offered on weekends in the Fall, Spring, and Summer semesters. New students can now join the 24 credit hour sequence every summer by taking the Basic Surveying course. Those who have already taken an approved Basic Surveying course, or equivalent, can join the sequence in a Fall semester (Spring semester enrollments may be allowed depending on the pre-requisites).

Course offerings are subject to minimum enrollment requirements. If you are interested, please contact Mr. Brandon Edwards (bpedward@siu.edu) or Mr. Kyle Allred (kyallred@siu.edu) in the Department of Civil and Environmental Engineering, or call the Department at (618) 536-2368.