

Illinois Section

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Stable Transportation Funding on the Horizon for Illinois?

By Matthew Huffman, P.E., M.ASCE

he story of transportation funding for the State of Illinois has been a roller coaster over recent years, and is currently going downhill. This lack of consistent funding puts the DOT, Counties, and local municipalities/townships in a very difficult position to keep their facilities in a "state of good repair", not to mention implementing any capital improvements. When the "Illinois Jobs Now" program expires in 2014, Transportation for Illinois Coalition (TFIC) research shows the funds available for transportation projects are projected to decline by approximately \$2 billion, the number of projects are projected to decline by two-thirds, and the number of construction jobs will



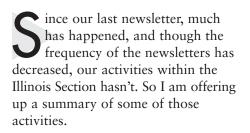
decline by more than half. Without a new funding revenue, Illinois will have 5,000 miles of state roads classified as in bad repair meaning that 1 in every 3 miles of road and 1 in every 10 bridges will be unacceptable, not to mention the needs of transit (CTA/PACE/Metra).

As many of us engineers know, traditional revenue sources remain stagnant or declining while funding needs for construction and maintenance continue to increase. The fact is that all revenues generated in 2009 were dedicated to retiring bonded indebtedness; nothing is left from the current program to *(continued on page 6)*

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President's Notes Lou Arrigoni, P.E.



But before we get into the recap, I would like to acknowledge **Christopher B. Burke, Ph.D., P.E., D.WRE** for his



Congratulations, Chris and a huge "thank you" for all you do for ASCE and the Section.

receiving of **Distinguished Member Status** with ASCE. This is the highest honor that can be attained within ASCE and is awarded to a Society member who has contributed substantially to the status of the engineering profession by establishing a reputation for professional service. Since 1853, only 625 professionals have been elected to Distinguished Membership. Congratulations, Chris and a huge "thank you" for all you do for ASCE and the Section.

And now on to the summary:

ASCE National's annual fly-in was held March 19th through the 21st. Each year Civil Engineers from around the country come to Washington D.C. to explain the importance and need of infrastructure to our representatives and advocate for adequate funding. Over 300 engineers, representing all fifty states for the first time, took the newly released 2013 ASCE Infrastructure Report Card and delivered it to our law makers. Illinois had six representatives who met as a group with staff from both Senator Durbin's and Senator Kirk's offices and then split up to meet with individual representatives.

The bad news is that America's infrastructure received a cumulative GPA of a D+ with an estimated \$3.6 trillion dollars investment needed by the year 2020. Speaking of the report card, the good news is that a couple of the grades improved marginally based on the expenditure of stimulus funding and some private investment over the last couple of years. The bad news is that America's infrastructure received a cumulative GPA of a D+ with an estimated \$3.6 trillion dollars investment needed by the year 2020. You can get the full report at <u>www.infrastructurereportcard.org</u>. For the tech savvy, this year's report card can be downloaded to your tablet or smartphone. There is a link on the website.

On April 16th, the Section, in conjunction with APWA, hosted its 6th Annual Springfield Legislative Visit. Once again we met at the Sangamo Club and had lunch prior to our walk over to the state capital to spread the word about the updated ASCE Report Card and to lobby for additional infrastructure funding. Our lunch speakers included Jim Klein, acting Bureau Chief of Local Roads and John Lowder, Michael Madigan's former Budget Director. Both spoke to funding issues and how they are affecting the State and its ability to do business. After the visit to the capital, it was back to the Sangamo Club for a reception with the legislators where we had an opportunity to talk, on a less formal basis, about the infrastructure issues that face Illinois.

In between our meetings with our Federal legislators and our State legislators, the Illinois Section held our annual President-Elect dinner on April 10th. This event was hosted by the Illinois Section's President-Elect **Pat Lach** and featured a presentation by ASCE National's President-Elect **Randy Over** who spoke about ASCE's three long term initiatives: Infrastructure,

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August 16 Vote at the Region 3 Assembly in Chicago

By John Frauenhoffer, Region 3 Director

- Do you agree with ASCE's "Raise the Bar" Strategic Initiative?
- Are you concerned about the future of Civil Engineering?
- Register for the 2013 Assembly and Vote!

SCE has fostered "Raise the Bar" for one and one-half decades. The membership's support of this national initiative is split. In Region 3, the Governors are engaging in a seven-month examination of the opinions in their Sections and Branches. This effort will culminate a Region Resolution Vote in Chicago on August 16 at the Region 3 Assembly.

ASCE membership almost universally accepts the concept of the benefits of more education. At Frauenhoffer and Associates, PC, a new hire must have either a Masters Degree specializing in Structural or Geotechnical Engineering or must be willing and credentialed to enroll in and complete a Company-paid University of Illinois Civil Engineering Masters program, because of the types of analysis we are performing.

The current ASCE strategy has several shortfalls. First, licensure is for the purpose of protecting the public, not for the purpose of uplifting the profession. Uplifting the profession is ASCE's job. In 2043, will a BS graduate from Illinois, Wisconsin, Purdue, Ohio State,

Over the next decade at the current rate, ASCE will spend \$1.4 million or more of your dues dollars selling "Raise the Bar". Is that how you want your dues spent? Please attend the Region 3 Assembly, present your opinion, and vote. Michigan Tech, Minnesota, or North Dakota State be a danger to the public without thirty more hours of education? Not likely. Second, ASCE does not have the support of the other engineering societies. State legislative success is doubtful without engineering society solidarity. Third, if ASCE's goals regarding adequate education were compelling, won't young civil engineers attain these goals without state bureaucratic regulation?

Over the next decade at the current rate, ASCE will spend \$1.4 million or more of your dues dollars selling "Raise the Bar". Is that how you want your dues spent? Please attend the Region 3 Assembly, present your opinion, and vote. **ASCE**

John Frauenhoffer represents Region 3 on the ASCE Board of Direction. Region 3 is composed of Sections in Ohio, Michigan, Illinois, Wisconsin, Minnesota, and North Dakota. Mr. Frauenhoffer is a Licensed Professional Engineer and a Licensed Structural Engineer in Illinois and is employed by Engineering Resource Associates, Inc., headquartered in Warrenville.

Washington Blvd. Bridge at 100

By Jim Phillips

he current bridge crossing the South Branch of the Chicago River at W. Washington Blvd. was opened one hundred years ago on May 26, 1913.

This bridge has been present for most of the 144 year history of the river crossing at Washington Blvd. During Chicago's first seventy years as a city, engineers experimented with many ways to satisfy the conflicting needs of land traffic and navigation interests at the river. One of these experiments was the tunnel at Washington Blvd., the first built in Chicago specifically for wagon and pedestrian traffic.

This bridge was the first to include the ideals of the 1909 Plan of Chicago. Edward Bennett, co-author of the Plan, began collaborating with Chicago Public Works bridge engineers during the latter design stages of the bridge.

Opening in 1869, this tunnel (and a second built at LaSalle St. that opened in 1870) provided an escape path during the Great Fire in 1871 that the burning bridges couldn't. The steep approaches, damp, and dirty conditions made the tunnel unpopular with pedestrians. Eventually the tunnel was converted for use in the cable car, and later, the street car systems. In 1910, the tunnel was rebuilt and lowered 9 feet



The new Washington Blvd. bridge in action. (from the 1913 Annual Report of the Chicago Public Works Department)

as the larger vessels ran aground on the top of it. The Washington Blvd. tunnel was closed in 1953, ending 84 years of service.

The first bridge was installed here in 1891, when the existing swing bridge at Madison St. was floated in. This swing bridge was in use until 1907 when it was demolished for both the lowering of the existing tunnel and the construction of the current bridge.

Today the Washington Blvd. bridge stands as a monument to the metamorphosis of the Chicago-type bascule bridges from first to second generation.

This bridge was the first to include the ideals of the 1909 Plan of Chicago. Edward Bennett, co-author of the Plan, began collaborating with Chicago Public Works bridge engineers during the latter design stages of the bridge. That collaboration led to aesthetic considerations such as upgraded materials in the abutment walls, railings, lighting, and, most notably, in the bridgehouses.

Earlier bridgehouses resembled midwest farmhouses. The Washington Blvd. bridgehouses incorporated more ornamentation and were clad in molded copper sheeting. While these houses are not as showy as those that followed, they were a step above what came before. These modest aesthetic features were added at a cost of about \$14,000 or about 6% to the total cost of the bridge in 1913.

Technologically, this bridge involved innovations in two areas. First, due to the tunnel directly below the bridge, new foundation design techniques were developed and implemented here and used on bridges that followed. Second, features developed and patented in 1911 by Chicago Public Works engineer Alexander von Babo were incorporated *(continued on page 5)*

Washington Blvd. Bridge at 100

(continued from page 4)



2nd & 1st Generation Chicago-type Bascule bridges. (Washington Blvd.- left/Kinzie St.- right)

into the design. The most significant of these design innovations was changing the location of the rack and pinion which made a striking difference in the appearance of the Chicago's bridges. The photo below contrasts the second generation bridge at Washington Blvd. with the first generation Kinzie St. bridge.

Unlike the other downtown bridges, you won't find a plaque on the Washington Blvd. bridgehouses. The key players in the design and construction of this bridge were: John Ericson, City Engineer; Thomas G. Pihlfeldt, Chief Engineer; Alexander von Babo, Engineer of Bridge Design; Clarence S. Rowe, Construction Engineer; Edward H. Bennett, Chicago Plan Commission Architect; Strobel Steel Company built the superstructure; and Fitzsimons and Connell Dredge and Dock Company built the substructure. The substructure was completed in a year (August 25, 1911-August 22, 1912). Work on the superstructure began June 25, 1912 and both leaves were lowered into position

simultaneously on March 22, 1913; pavement and sidewalks were the last items completed.

Today, it's hard to imagine the number of vessels that used the Chicago River in the first part of the 20th Century. During 1914, the first full year of operation of this bridge, a total of 9,540 vessels entered and cleared the Chicago River. The Washington Blvd. bridge opened 3,773 times in that year alone.

The new Washington Blvd. bridge served as the finish line for the seventh annual Chicago river marathon in 1914. This event, a swim from the Chicago Harbor to various bridges from Wells St. to Van Buren St., was sponsored by the Illinois Athletic Club from 1908 to 1928. In 1908, the manager of the swim was quoted in the Chicago Daily Tribune, "If the swimmers can stand the odor which is said to come from the water they will be able to finish without much great effort." About 55 swimmers competed in the 1914 race. Today, in semi-retirement, the bridge is raised only about 40 times a year, mostly during the Spring and Fall sailboat runs to and from Lake Michigan. About 14,000 vehicles and 9,500 pedestrians cross this bridge daily. Based on the available data, it is estimated that this bridge has been raised about 70,000 times in it's 100 years.

The houses may need some TLC, but the recent paint job on the trusses and new sidewalks make this bridge a good looking centenarian.

For more information, contact Jim Phillips at 312-540-0696 or visit www.chicagoloopbridges.com **ASCE**

Sources used include: Chicago Public Works Annual Reports 1910-1925; Chicago Daily Tribune archive via ProQuest; Two Miles Eighteen Bridges–A walk along the Chicago River; & chicagoloopbridges.com ©2013 James S. Phillips except as noted

Stable Transportation Funding on the Horizon for Illinois?

(continued from page 1)

sustain annual "pay as you go" maintenance and repair programs or to undertake additional projects from state source funding. There is also no on-going transit bonding or stable state revenue stream for maintaining transit related infrastructure. A recent report by the Auditor General on the Illinois Road Fund noted that funds have regularly and significantly been shifted to other purposes over the past decade, for items including employee pensions and health care, and bond service on road projects.

While the picture described above is bleak, there is some hope that a consistent funding source could be implemented. TFIC, a broad coalition formed of organizations interested in supporting transportation infrastructure, which the ASCE Illinois Section and Transportation and Development Institute are actively involved, has been working hard over the last year to gain momentum to implement change. Nineteen community discussions about transportation needs were held by TFIC around the state, which received broad-based media coverage. In the spring of 2013, TFIC staff conducted the Assessment of Illinois Transportation Needs 2013, which was approved by its member organizations. This report identified the conflict between the need to sustain Illinois' current transportation system and the dwindling available resources. This report also provided ideas of how to address the funding problems. Collaboration occurred with major transportation and planning agencies to assure their engagement and input. The resulting solution identifies new funding sources that will provide money to back bonded capital as well as dedicate sustainable sources of pay-as-you-go revenues to assure a consistent maintenance plan. The key



is that the new sources of revenue must be ensured to increase with the economy and inflation, not decline or remain stagnant.

Without a new funding revenue, Illinois will have 5,000 miles of state roads classified as in bad repair meaning that 1 in every 3 miles of road and 1 in every 10 bridges will be unacceptable.

The proposal that TFIC developed was adopted in HB 3637 (sponsored by House Majority Leader Barbara Flynn Currie) and SB 2589 (sponsored by Senate Transportation Committee Chair Martin Sandoval) this past spring. The main objective of both bills is to maintain the state's commitment to transportation infrastructure investment and support continued private sector economic growth.

The following are key provisions of the bills:

- Abolish state motor fuel tax and replace it with a new wholesale fuel tax, increased vehicle registration and title fees, and eliminate the ethanol tax credit.
- Replace slow and no growth revenues sources with one more reflective on inflation and the economy.
- Create a steady and reliable annual revenue stream of \$800 million for pay-as-you-go programming that focused on the maintenance of existing infrastructure.
- Segregate transportation-related user fee revenues into protected funds and allocate 80% of the new revenues to roads and bridges, CREATE, airports, and 20% to transit and rail.

While the bills did not pass through the state legislature by the end of the (continued on page 7)

Stable Transportation Funding on the Horizon for Illinois?

(continued from page 6)

2013 Spring legislative session, progress was made towards the design and promotion of a new capital program that will stabilize the pay-as-you-go aspects of the state's transportation and maintenance program as well as local governments, rail and transit. TFIC and their membership organizations will be reaching out to meet with state legislators over the summer to keep the momentum going and educate about the state's transportation infrastructure needs, explain the currently proposed bills, and solicit feedback on the bills. The hope is that legislative hearings will commence over the summer in order to further refine the

The story of transportation funding for the State of Illinois has been a roller coaster over recent years, and is currently going downhill.

proposed program. ASCE Illinois Section will continue to be an active member in this important coalition to support transportation infrastructure on the state and national level. Visit the TFIC website (www.tficillinois.org) for the *Assessment of Illinois Transportation Needs* 2013 and the latest information regarding the push for new transportation funding legislation. **ASCE**

Matthew Huffman, a Project Engineer–Phase I Engineering Department with Christopher B. Burke Engineering, Ltd., is a Director of the Illinois Section and TD&I Past Chair.

M^c**C**ormick

Northwestern Engineering

Executive Management for Design and Construction

Robert R. McCormick School of Engineering and Applied Science Northwestern University

As the next step to complement its well-established and very successful Master of Project Management Program, Northwestern University has developed a new Certificate/MS Program in Executive Management for Design and Construction (EMDC). This program transcends the tactical skills needed to manage projects and emphasizes the more strategic competency and insights required to lead an organization. It is designed for individuals with 10 or more years of progressive experience who are on a track to advance into senior leadership positions in architectural, engineering, or construction firms.

Students may choose to complete a certificate or a master of science degree. The EMDC certificate program consists of six courses that meet 9 a.m.-noon and 1–4 p.m. every other Friday and Saturday for 15 weekends, from late September through May. Courses are taught by faculty with a minimum of 20 years' experience in the design and construction industries. Students wishing to continue beyond the certificate to obtain an MS degree must take six additional courses that will be chosen with each student's individual needs and goals in mind, resulting in a customized master's degree. As such, the program provides a fast-track, highly customized learning opportunity for individuals eager to enhance their career portfolios and move into senior management roles. No other executive development program offers the same level of customized curriculum and intense focus on the design and construction industries.

For more information about EMDC or to schedule an appointment, contact: Professor Raymond J. Krizek, Program Director 847-491-4040, rjkrizek@northwestern.edu 2145 Sheridan Road, Evanston, Illinois 60208-3109 emdc.northwestern.edu



Illinois Section ASCE 2013 Award Nomination Reminder

Summer is here and that means that the July 19th deadline to submit nominations for the 2013 Illinois Section awards is quickly approaching! The awards encompass public, private, and governmental sectors and include awards for Civil Engineer of the Year, Young Government Civil Engineer of the

Year, Outstanding Civil Engineering Achievement, and Sustainable Engineering Achievement. Winners will be recognized at the Section's Annual Dinner in October to be held at Soldier Field!

Detailed descriptions and nomination forms for all 11 award categories are

located on the Section's website at http://www.isasce.org/web/awards.html Please complete your applications and submit them to **Stephanie Nurre** at <u>snurre@cbbel.com</u> by **July 19th, 2013**. We look forward to receiving your application and hope to see you at the Annual Dinner! **ASCE**

President's Notes

(continued from page 2)

Sustainability and Raise the Bar. The evening culminated in the awarding of the Section's Groups and Institutes scholarships given away to well deserving undergraduate and graduate students.

Finally, an important upcoming event is the Region 3 Assembly to be held in Chicago August 16th and 17th. Representatives of all the sections and branches in Region 3 will be in attendance for a special continuing education presentation by current ASCE National President-Elect **Randy Over** on Construction Dispute Resolution, and other Best Practices presentations. However, the most important part of the Assembly will be the discussion and vote on a Region 3 Resolution regarding Raise the Bar. Pros and cons regarding the ASCE strategic initiative will be presented and a resolution will be voted on that represents the feelings of Region 3 towards Raise the Bar. Summer is here, and that means road construction, so please remember to slow down in work zones. If you have thought of any comments or suggestions since the last newsletter, would like to express your opinion about Raise the Bar, or if you think of anything at any time during the year, please send me an e-mail and let me know at <u>larrigoni@terraengineering.com</u>. **ASCE**

Section Openings

We are in the process of seeking nominations for three Directors for 2014. 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 Bill Cussen, at <u>bcussen5719@wowway.com</u>.



AMERICAN SOCIETY OF CIVIL ENGINEERS -ILLINOIS SECTION 97TH ANNUAL DINNER MEETING

- ASCE Illinois Section awards will be presented and new Life Members will be honored
- Meet speaker and emcee Tom Waddle, former Chicago Bears wide receiver
- Various sponsorship opportunities including company logos on the Ribbon Boards and Video Boards inside the stadium.
- Optional stadium tours will include the Visitor Locker Room, Press Boxes, Skyline Suites and more!



 For sponsorship information, please contact Victor Van Santen at <u>victor.vansanten@hdrinc.com</u>

OCTOBER 16, 2013 AT SOLDIERS FIELD

Cocktail Hour at 5:30 PM Dinner and Awards at 6:30 PM

Access to the stands and colonnades!



Register online at ASCE Illinois today!

www.123signup.com/register?id=byzgn

Section Activities

JULY/AUGUST

Chicago EWRI Chapter

Social Event		
Date:	Tuesday, July 9	
Time:	5:30pm-7:30pm	
Place:	TBD	

T&DI

Board Meeting		
Date:	Tuesday, July 9	
Place:	TBD	
Time:	5:30pm-7:00pm	

T&DI

Luncheon Program Date: Thursday, July 18 Place: Union League Club 65 W Jackson Blvd. Chicago, IL 60604 **Tollway Program** Topic: Speaker: Paul Kovacs, Chief Engineer, Illinois Tollway PDHs: 1.0 Hour Cost: \$50 ASCE \$65 Non-members \$40 Government \$15 Students **RSVP**: By Tuesday, July 16 at https://www.123signup.com/register?id=bdkty

Questions:

Charles Frangos at <u>cfrangos@primerachicago.com</u>

SEI-IL

Bridge Rehabilitation Seminar

Date:	Thursday & Friday, July 18 & 19
Time:	8:30am-4:30pm
Place:	Chicago Marriott Schaumburg 50 N Martingale Rd Schaumburg, IL 60173-2065
Cost:	Member \$1325.00 Non-Member \$1555.00
PDH:	1.4 Hours
Register:	<u>Bridge Rehabilitation Seminar</u> <u>Signup</u>

Chicago EWRI Chapter

3-Day Steady-State HEC-RAS Workshop	
Date:	Monday-Wednesday, August 5-7
Time:	8:00am-5:00pm
Place:	Christopher B. Burke Engineering 9575 W. Higgins Road Rosemont, IL
Register:	https://www.123signup.com/regis- ter?id=bhxrk

Chicago EWRI Chapter

Monthly Meeting	
Date:	Tuesday, August 13
Time:	5:30pm-6:30pm
Place:	Michael Baker Corporation
	311 W. Monroe St., Suite 1350
	Chicago, IL 60606

SEI-IL

Dinner Meeting	
Date:	Wednesday, August 14
Time:	5:30pm-8:00pm
Place:	Elephant and Castle 111 West Adams Street Chicago, IL 60603
Topic:	I-90 over Kishwaukee River
Cost:	 \$45 with reservation \$30 government/education \$20 full time students \$50 at the door or after RSVP date (make checks payable to ASCE Structural Group)
PDH:	1.0 Hour
RSVP:	Nathan Holmer at asce.il.struct@gmail.com

Younger Member Group

CANstruction Build Night Date: Wednesday, August 14

	,) 0
Time:	6:00pm
Place:	Merchandise Mart
Questions:	
	Kendra Bleers at

kendra.bleers@jacobs.com

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

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

Illinois Section News & Secretary Report

JUNE 2013

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 Thera Baldauf, at thera.a.baldauf@mwhglobal.com

■ Treasurer's Report

▲ Treasurer Mike MacKinnon presented the Treasurer's Monthly Report.

Group Reports

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

New Business

▲ Presidents and Governors Forum will be held this coming September 22nd and 23rd at ASCE World Headquarters. Contact President-Elect Patrick Lach if interested in attending.

▲ Robert Murdock presented on the Engineer's Without Borders Armenta Water Project in Honduras. He provided an update on the first phase of construction and fundraising efforts for distribution implementation. They are still looking for volunteers. ▲Director Green provided a report on future opportunity for coordination with Northwestern University. Allison Berger Manager of Employer Relations at McCormick School of Engineer reached out to strengthen relationships with the Section. Ms. Berger would like to work with individual companies or individuals within the Section to help set up hiring, internships, co-ops or job shadowing opportunities. Contact Director Green for more information.

▲Director Huffman provided a report on a TD&I support request on the behalf of the Getting America to Work Coalition. The Coalition supports funding opportunities for all types of infrastructure. TD&I will provide their support. The Section Board will investigate further.

Old Business

▲ The Board had an open discussion on developing a region-wide resolution. ASCE Region 3 Governor Al Staron was in attendance to hear feedback from the Section Board and Technical Groups/ Institutes. The Section is expected to bring consensus or amendments to the resolution to the Region 3 Assembly held in Chicago this coming August 16-17.

▲ Director Huffman provided an update on TFIC. TFIC took their proposal on funding changes for infrastructure/transportation to the General State Auditor. The bonding component of the proposal was removed. Gas tax was removed and sales tax was reduced to 9.5%. Two bills have been presented, one in the house and one in the senate. The TFIC 2012 Annual Report was recently released. TFIC annual meeting will be held at Harper College August 8th. ▲ The 19th Annual ASCE Golf Outing was held on May 23, 2013 at Seven Bridges Golf Club in Woodridge. Current Golf Outing Woody Siddall is stepping down. Contact President Arrigoni if interested in becoming involved.

▲ The APWA 2013 National Congress is being held in Chicago this coming August 2013. The Section is donating \$2,500 per a resolution approved during the May Board Meeting.

The next board meeting is scheduled for Monday, August 5, 2013 at 5:30pm at MWH Americas, Inc., 175 West Jackson Blvd, 19th Floor.

By Thera A. Baldauf thera.a.baldauf@mwhglobal.com