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2011-2012

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The Southeast Branch News is published monthly by the Southeast Branch of the Wisconsin Section of ASCE. Change of street and/or e-mail address should be sent to ASCE, 1801 Alexander Bell Drive, Reston VA 20191 (800/548-ASCE). You may update your own information at the Members Only page of [WWW.ASCE.ORG](http://WWW.ASCE.ORG)

The deadline for articles for the next newsletter is the first of the month.

## PRESIDENT'S MESSAGE

2012 has sure proven to be a busy one so far. Not only for myself and many of you, but the branch as well.

Last month we hosted our annual Scholarship Awards dinner at the UWM Union. I would like to congratulate our three grateful and deserving students who won our award this year: Josh Mitchell, UWM; Patrick Barnhouse, Marquette, and Matt Schultz, MSOE. On behalf of the branch, congratulations to all of you.

Mark Gottlieb, Secretary of the Wisconsin Department of Transportation (WisDOT), was our speaker. His presentation was fascinating as he delved into the workings and happenings at WisDOT. On behalf of the branch, I would like to thank Mark for taking time out of his very busy schedule to speak with us.

The 2012 Future Cities competition was held on January 23 at the MSOE Kern Center. This year's winner is Hyperion by St. Mary Parish School. They will be competing in the National Future Cities Competition in Washington, DC during Engineers Week.

Annually, ASCE sponsors four Exemplary Model awards. This year's winners:

Terra Futurum – St. Mary Parish School

Hyperion – St. Mary Parish School

Futurama – Holy Apostles

Egala – Waukesha Catholic

I would like to congratulate all of our winners.

Coming up March 2<sup>nd</sup> is the Annual Rube Goldberg Machine Contest, hosted by STEMForward. Annually, ASCE sponsors the "Most Rubelike Machine" and we'll need volunteers to help judge. If you are interested, please send me an email. I judged last year and had a great time. It is amazing what students will come up with to solve a simple problem.

Finally, coming up March 15<sup>th</sup> is the Annual ASCE Spring Technical Conference at UW-Madison Union South. Keep watching your mailboxes for information and how to register.

As always, please contact me at [jtsouflias@wi.rr.com](mailto:jtsouflias@wi.rr.com) if you have any questions or suggestions. We are always looking for ways to improve our branch.

John Tsouflias, P.E.

## Younger Member Group

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### Future Cities

YMG members acted as judges for the Future City regional competition held at MSOE's Kern Center on Saturday, January 21st, 2012. It was a very exciting day for the 42 teams that completed from 17 schools around Wisconsin. The teams arrived at the Kern Center bright and early to present their city's model design to a panel of judges, which included YMG members as well as other volunteers. The teams also showed off their models throughout the morning to various "Special Award" sponsors. The YMG is the proud sponsor of the "Best Use of Recreation Space" Award which this year was awarded to a team from Lake Mills Middle School for their city "Riverside".



Special thanks to YMG members Bridget Schuh, Michael Henk, Allan Pacada, Andrea Bonell, and Ryan Bonell for coming out and volunteering to this inspiring event! Brian Tierny, Jared Wendt, and Jeremy Hinds who are also Younger Members, volunteered their time to judge at the competition on behalf of the SE Branch board.

## Classroom Outreach Visits during E-Week

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There are several opportunities to participate in educating and inspiring students to consider careers in engineering during Engineer's Week. These sessions are being set up in conjunction with the Younger Members group.

Please contact Sarah Sanfilippo at [sarahsanfilippo@gmail.com](mailto:sarahsanfilippo@gmail.com) or Jeremy Hinds [jhinds@bloomcos.com](mailto:jhinds@bloomcos.com) for more info.

### Tuesday, Feb 21st

10am - 11am

Hartford Elementary (2227 E Hartford Ave, MKE WI, 53211 (UWM Campus))

5th grade students

Straw bridge activity

### Thursday, Feb 23rd

12:30pm - 2pm

Cooper Elementary (5143 S 21st St, MKE WI, 53221)

3rd grade students

Gumdrop dome activity

### Friday, Feb 24th

12:30 - 2pm

Hartford Elementary (2227 E Hartford Ave, MKE WI, 53211 (UWM Campus))

5th grade students

Straw bridge activity

We hope to expand our outreach efforts in the future, so keep an eye out for more opportunities to participate!

**2012 Annual Meeting – Committee Positions Available**

The Southeast Branch is organizing the ASCE-Wisconsin Section-2012 Annual Meeting and is looking for members to serve on the planning committee. Exact date to be determined, but the event will take place on a Friday in September 2012. The planning committee is looking for five to seven members to serve as leaders in the planning and organization of the 2012 Annual Meeting.

If you would like to volunteer for one of these positions or would like to learn more about helping with this event, please contact Brian Tierney at [bltierney@ati-ae.com](mailto:bltierney@ati-ae.com).

**Future Cities Recap**

Below is a note of thanks to our Branch from the organizers of the Future Cities competition, along with photos of the winning teams sponsored by the branch.

I wanted to thank you again for your support in STEM Forward’s Future City competition last week as a Special Award judge and sponsor. Your support helped make this year’s competition another success! Future City is a program developed for seventh and eighth grade students to help them discover and foster interests in Science, Technology, Engineering and Mathematics (STEM). For many of these students, this is the first time for them to hear about the engineering societies and companies that you represent.

This was the 20th annual Future City competition with approximately **200 seventh and eighth grade students** participating. **42 teams** competed from **17 schools** around Wisconsin. The first place Wisconsin team (Hyperion, from St. Mary Parish School) will compete in the National Future City Competition in Washington D.C. during National Engineers Week (Feb. 13<sup>th</sup> - 17<sup>th</sup>). They will compete against approximately 40 other regions across the U.S.



Team Eagla



Team Futurama



Team Hyperion



Team Terra Futurum

## Engineers Week 2012

Engineers Week is a great opportunity to reach out to kids and showcase how civil engineers are making a difference in the world around them every day! Whether you are working one on one with students, or are part of a larger pre-college outreach effort, ASCE is standing by to provide the tips, tools and resources necessary to share your love of all things Civil during 2012 Engineers Week!

Visit <http://www.asce.org/Outreach/Engineers-Week-2012> or contact Jeremy Hinds at [jhinds@bloomcos.com](mailto:jhinds@bloomcos.com)

**Discover-e** : Be a part of the largest K-12 engineering outreach campaign to encourage youth to explore careers in engineering and see what a difference engineers make.

**Thank a volunteer:** Know an outstanding volunteer in your section or branch that is deserving of a little recognition? Send us their name and tell us a bit about their involvement and we will recognize their efforts at the winter Multi-regional Leadership Conferences.

**Introduce a Girl to Engineering Day:** Traditionally held the Thursday of Engineers Week, Introduce a Girl to Engineering is a national movement that shows girls how creative and collaborative engineering is and how engineers are changing our world.

**Global Marathon:** The Global Marathon provides global and regional opportunities for women and provides a place to put forward ideas, solve common problems and come together.



## Continuing Education Opportunities

### Design of Anchor Bolts

Design of anchor bolts for shear and tension used to be rather straightforward. The building codes contained simple design formulas, and the procedures were easy to follow. To a limited degree, the 2009 *International Building Code* (IBC-09) continues the tradition by including a table of the allowable service load capacities for embedded bolts and a simple interaction formula for combined shear and tension. However, those capacities are very limited, and they are based on relatively large edge distances and spacing of the anchors. For strength design, IBC-09 references Appendix D of ACI 318-08, which contains rather complex design methodology, and IBC further modifies some of the provisions. Since the introduction of Appendix D in ACI 318-02, its design approach changed drastically in every subsequent edition, attesting to the rapidly evolving state of our knowledge of the matter. Many challenges have been reported in trying to use Appendix D to design anchor bolts in metal building systems. In these ubiquitous structures the frame columns often exert significant lateral reactions on the foundations, yet the typical anchor bolt spacing is very small. This webinar provides an overview of the design methodology of ACI 318-08 Appendix D and explains how its provisions influence the design of anchors and embedments used in metal building systems and other structures. In some cases, the anchor bolts of reasonable diameters simply do not work, and other types of embedments must be used instead. This could lead to a major change in common practices in this area of construction.

Register at: <https://secure.asce.org/ASCEWebsite/Webinar/ListWebinarDetail.aspx?ProdId=120853932>

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## Continuing Education Opportunities (cont'd.)

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### Snow Loading for Non-Standard Roof Shapes

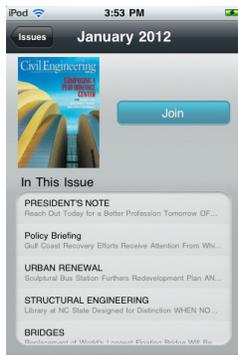
As Architects move further away from “boring” box-like structures, Structural Engineers frequently encounter roof geometrics or snow loading situations not specifically covered in ASCE 7. Another common problem is a new high level addition adjacent to an existing lower level roof. The desire to avoid the cost and difficult in reinforcing the “now” lower level roof often leads Structural Engineers to ask “what if” questions. In both such cases it is useful to have an understanding of snow drifting on roofs with “unusual” shapes. This webinar provides practicing structural engineers with such an understanding. This will be accomplished through case studies of three unusual shaped roofs, as well as various mitigation approaches for new higher roof adjacent to an existing “lower roof” geometry.

Register at: <https://secure.asce.org/ASCEWebsite/Webinar/ListWebinarDetail.aspx?ProdId=120853874>

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## New Civil Engineering app

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Enjoy a great new member benefit from ASCE's *Civil Engineering* – take the magazine's enlightening news and features on the go, anywhere with the **new Civil Engineering app**. It's available for ASCE members who use Apple's iPhone, iPod touch and iPad, as well as users of Android phones and tablets. More great features are available via *Civil Engineering's* other recent online additions: new Web-exclusive articles posted weekly to [asce.org/cemagazine](http://asce.org/cemagazine), and exclusive enhanced online content accompanying the magazine's monthly print version at [civilengineering-digital.com](http://civilengineering-digital.com).

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**'Get to Know Your Board' – Allan Pacada**

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We continue this series by getting to know Allan Pacada, YMG President.

***Where did you go to school?***

I graduated with a B.S. degree in Civil Engineering from the University of California, Davis in 2002. (And yes, this is the same school where student protesters were pepper-sprayed back in November 2011.)

***Do you have any hobbies?***

Some of my favorite hobbies include travelling with my wife, volunteering in my spare time, going to sporting events and playing peek-a-boo with my son.

***What is your favorite television show(s)?***

My favorite television shows include Parks & Recreation, 30 Rock, New Girl, Portlandia, Alcatraz, It's Always Sunny in Philadelphia, and Antiques Roadshow.

***What is the highlight of the past year?***

Celebrating my son's first birthday.

***What did you want to be when you grew up?***

I wanted to be one of three things: an architect, an advertising executive or a cartoonist.

***What is the best place that you have visited?***

I would have to say that the best place I have ever visited was the Dolomite Mountains, near the Austria-Italy border, back in the fall of 2007. It was some of the most breath-taking scenery I had ever seen in my life.

***A place you would like to visit before you die:***

I would love to take up rock climbing and travel to Patagonia in South America.

***How did you get involved in ASCE?***

Oddly enough, I was never involved with ASCE in college, nor did I join while working in a construction company back in California. I officially became a member in 2008, when I started my design career with my current employer - EMCS, Inc.

***What do you like best about ASCE?***

To be a part of a society where you can network with other professionals from all aspects of civil engineering and learn about progressive ideas in their respective fields of engineering.

***What advice do you have for ASCE members?***

We should always strive to influence the lives of today's youth by sharing our love for engineering.

**Newsletter Publication**

We welcome your articles, letters & news items for publication in the ASCE SE Branch Newsletter.

Advertisements and job postings are also accepted by contacting:

**Brian Genduso, P.E. – 414.278.3443 – [bgenduso@hga.com](mailto:bgenduso@hga.com)**

Deadline for next issue is the first of the month.