

Upcoming Changes to Create a More “Grassroots” Approach to ASCE’s Innovation in Sustainable Engineering Award

by Peter A. Richardson, PE, LEED AP, CFM, ENV SP, Vice President, Green International Affiliates, Inc. and Melissa Carter, PE, PMP, Director of Project Management, MWH (now part of Stantec), BSCES Committee on Sustainability

In 1981, ASCE established the Innovation in Civil Engineering Award through an endowment by Arsham Amirikian, Hon. M.ASCE, and a member of the National Academy of Engineering. In 2010, ASCE renamed the award as the Innovation in Sustainable Engineering Award. Per ASCE’s website, the award “may be made annually to a civil engineering project in recognition of creativity in the form of innovative sustainability. Projects may be any that demonstrate innovation in sustainability. Innovation means new approaches, new technique and results.” To be eligible, projects must demonstrate sustainability based on the triple bottom line criteria, namely economic, social and environmental factors. Projects cannot be a candidate for the Outstanding Civil Engineering Achievement (OCEA) Award and are evaluated by the following criteria:

1. the extent to which innovative design or construction methods improve economic, social and environmental sustainability;

2. the promise shown by the innovation to extend future developments in sustainability which may be evidenced in part by Envision rating and/or institute, section or branch sustainability awards;

3. the degree to which the project extends public understanding of sustainability in construction as demonstrated by working with the public at the planning, design, construction, and operations stages in the development of the project;

4. collaboration was an important aspect of the project as demonstrated by significant participation by other disciplines on the team.

The nomination form for the ASCE Award can be found [here](#).

This year, BSCES’s Committee on Sustainability (COS) is working with a subcommittee of ASCE’s COS to develop award criteria at the Section and Branch level (i.e. ASCE Award criteria 2.) with the intention of creating a “grassroots” award program, where awards

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President’s Report

by Brian A. Morgan, Esq., Legal Counsel, CDM Smith Inc.



BSCES’ committees, technical groups and institute chapters have been busy over the last few months planning a variety of events designed to offer networking opportunities and address the professional

development needs of our members. The BSCES Younger Group hosted a *Civil Engineering Trivia Night* at The Pour House on Boylston Street in Boston back on August 23. This was one of many social events planned for the current fiscal year, which will see social gatherings hosted by the Coasts, Oceans, Ports and Rivers Institute, (COPRI) Boston Chapter,

the Construction Institute (CI) Boston Chapter, the Transportation & Development Institute (T&DI) Boston Chapter and others. These events represent an opportunity for attendees to meet other BSCES members with similar professional interests and learn about the exciting undertakings of these volunteer groups.

The BSCES Program Committee recently offered the annual fall *BSCES Professional Engineer Refresher Course* at Tufts University. Taught by leading authorities in their fields, this course, which is also offered in the spring, features twelve sessions covering all aspects of the Civil Professional Engineer Exams. The

UPCOMING EVENTS

Younger Member Group Information Session
October 26, 2016

ASCE and BSCES Sponsored Seminar
November 3 – 4, 2016

SEI Boston Chapter Dinner Meeting
November 9, 2016

168th BSCES Annual Awards Dinner
November 14, 2016

T&DI Boston Chapter Workshop
November 16, 2016

SEMAG Workshopping
November 18, 2016

Program Committee Sponsored NHI Training
November 29 – December 2, 2016

ASCE and BSCES Sponsored Seminar
December 5 – 6, 2016

Program Committee Sponsored NHI Training
February 14 – 16, 2017

[Further Details Inside](#)



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program committee scheduled the National Highway Institute’s *Fracture Critical Inspection Techniques for Steel Bridges* course for November 29th through December 2nd at the Hilton Garden Inn Worcester. Unlike some other NHI training, this course is only offered every few years so be sure to take advantage of the fact that it is available now.

BSCES groups continue to host the informative evening meetings. On September 27th, the COPRI and Environmental & Water Resources Institute (EWRI) Boston Chapters jointly hosted an event at CDM Smith featuring a

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ASCE's Innovation in Sustainable Engineering Award

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would first be given at the Section/Branch level before being nominated for the national award. There is also the possibility that the Section/Branch Awards would compete at a regional level before being submitted for the national award. Right now ASCE receives a large number of applications of varying complexity, which makes the judging difficult and somewhat overwhelming for those volunteering their time as judges.

As BSCES has done so many times before, we are leading the way by already having established Section Award criteria for our Sustainability in Civil Engineering Award (now in its third year) that can be used as a model for the national award program. The 2016 BSCES award winner, Massachusetts Port Authority, will be recognized at the annual awards dinner next month for their project, the Logan International Airport Consolidated Rental Car Facility (ConRAC).

About the BSCES Sustainability in Civil Engineering Award

BSCES through its Committee on Sustainability will soon be seeking nominations for the 2017 BSCES Sustainability in Civil Engineering Award. This award will be presented at the annual BSCES Awards Dinner in the fall of 2017. The award will

recognize a Massachusetts civil engineering project constructed within the last three years that exemplifies the principles of sustainability espoused by the Institute of Sustainable Infrastructure (ISI). Project nominations will be accepted beginning in January 2017 and will then be evaluated by an independent judging panel. Submission guidelines and evaluation criteria will be published in future newsletters and online on the BSCES website.

About the BSCES Committee on Sustainability

Formed by vote of the Executive Committee in April of 2012, the Committee on Sustainability was established to provide a sustainability resource to BSCES members, increase public awareness of sustainable engineering initiatives, and to take on a leadership role in developing BSCES policies related to sustainable development and engineering in Massachusetts. All BSCES members are invited to join the Sustainability Committee. The Committee on Sustainability is currently holding meetings the third Monday of every month from 5:00 to 5:30 PM. We typically meet by conference call. If you'd like more information, please contact Melissa Carter at melissa.carter@mwhglobal.com.

2016 International Conference on Sustainable Infrastructure

by Melissa Carter, PE, Director of Project Management, MWH (now part of Stantec) and BSCES Committee on Sustainability Chair

On October 17th and 18th, civil engineers and other professionals from around the world assembled in Shenzhen, China for the International Conference on Sustainable Infrastructure (ICSI). This will be the second ICSI, in succession to the first inaugural conference held in 2014 which was sponsored by the American Society of Civil Engineers (ASCE). This year the conference is co-sponsored by the National Academy of Engineering and the Chinese Academy of Engineering. ASCE is one of the many organizers of this conference.

The focus of this year's ICSI is "A Sustainable Future for China, the Asian Region and the World." Many topics on the conference agenda focus on models for urban systems, energy reform and air quality management. It is significant that civil engineers in China are at the forefront for driving change in China's approach to sustainable development. Civil

engineers in the United States or Western Europe should understand that China's sustainability challenges are intrinsically linked to the industrial processes that are supporting China's economic development model. With millions remaining in poverty, economic growth is still taking priority over the issues of climate change, ecological conservation, sustainable waste, energy, and water, and resource management. The largest pressure on the People's Republic of China to solve sustainability issues comes from within. External pressures or global concerns are secondary. This conference is important not just because it brings together international advocates of sustainable infrastructure to share ideas and examples, but also because it signifies a strong national desire by Chinese engineers to drive change for sustainable infrastructure.

[Click here](#) to learn more about the conference.

Project Organizational Structure in Energy Infrastructure Development

by Michael Tupper, PE, PMP, Manager, National Grid

The demand for new and innovative solutions to provide reliable and sustainable energy continues to grow and brings with it large and complex renewable energy projects. Recent Massachusetts legislation has placed an increased focus on the utilization of renewable energy resources such as offshore and land-based wind, hydropower and solar. Bill H.4568 requires that “distribution companies enter into cost-effective long-term contracts for offshore wind energy generation equal to approximately 1,600 megawatts.” The Bill also requires that electric “distribution companies enter into cost-effective long-term contracts for clean energy generation equal to approximately 9,450,000 megawatt-hours.” A key element in the successful implementation of these clean energy projects is the identification of the appropriate project team, project organizational structure and flow of communication through the project structure. The project team typically consists of members from a wide variety of functional groups in order to address technical, operational, regulatory, commercial and public outreach requirements. Project engineers play a critical role in the overall project team success as their engineering design often serves as the backbone for the work of many other functional team members. This article will utilize a recent renewable energy transmission project to illustrate the importance of the project

organizational structure along with effective communication within that structure.

A recent transmission line project was proposed to connect renewable energy generation in a relatively remote region of upstate New York to a load center where the power was required. The project consisted of over 80 miles of transmission line installation through two states and ten towns utilizing four different construction methods for installation and two complicated transmission inter-connections. One of the first steps in the development of this project was to clearly identify the team members and develop an overall project organizational structure. The project organizational structure is shown in Figure 1 and can generally be described as a matrix environment. This structure resulted in a dedicated project team consisting of subject matter experts in a wide variety of functional groups with overall leadership and guidance provided by the project manager and project director. Early in the development, the project team recognized that in order to be successful they would need to have open lines of communication throughout the project team members. The project engineer played an important role in this communication among the team as the engineering design for this transmission project generally served as the basis for the work of all the other functional areas. In order to provide effective communication, the

project engineer often attempted to “tailor” his communication to the target audience. For example, it was important that the project engineer understood that public relations concerns focused on potential impacts of the project to the local community while construction contractors were interested in the means and methods of performing the work. The versatility of the engineer to adapt his communication of the design to the specific audience played an important role in the efficient and effective progress of the project.

In addition to acting as functional area experts, many of the project team members, including the project engineer in this situation, worked within a second form of organizational structure shown in Figure 2 (page 4). This figure generally represents a projectized structure where the project engineer is managing and directing the work of internal resources and contractors to ensure the overall design is prepared in accordance with safety standards, environmental requirements and overall best engineering practices. In this instance, the project engineer was required to understand key technical engineering disciplines which were necessary to provide a complete engineering design. In this role, the engineer needed to be able to accurately gather and disseminate the relevant information from the project team in both Figure 1 and

continued on page 4

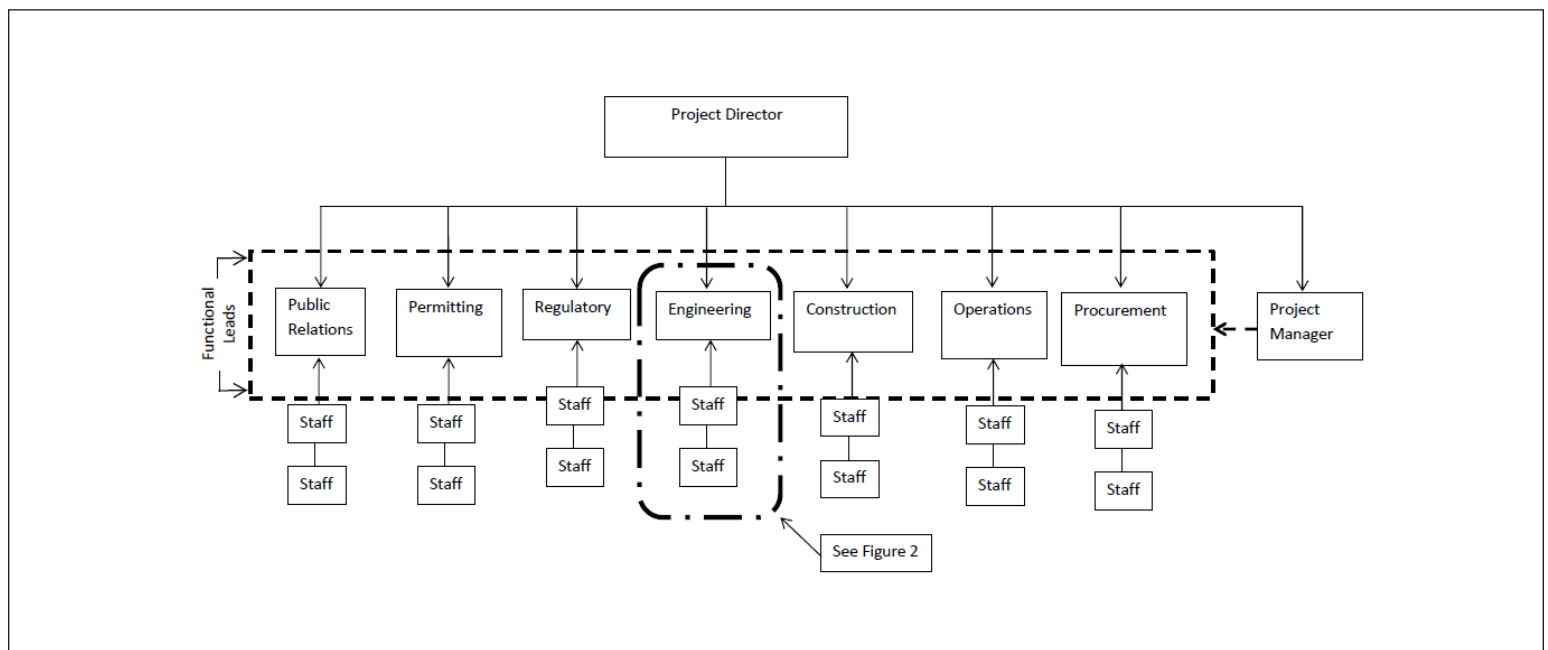


Figure 1: Project Organizational Structure

Project Organizational Structure in Energy Infrastructure Development

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Figure 2. While these two inter-related figures begin to show how the project team organizational structure can quickly increase in size as each functional leader's individual structures are added to the overall project, it is an essential approach to bring the communication rigor and discipline needed for such complex projects.

The importance of a clear organizational structure and effective communication was shown on this project during the design of a critical Horizontal Directional Drilling (HDD) installation as part of a major highway crossing. Based on site specific criteria, the project team determined that HDD was the preferred method of installation in this situation; however the staging location on the north side of the HDD installation presented a number of logistical challenges. The primary challenge included resolving concerns associated with the pipe stringing and pullback operation. In order to successfully execute the HDD, the team recognized that an existing access road would need to be temporarily blocked in order to string the pipe and perform the pullback. Ordinarily, this type of operation would be handled with a typical road closure and detour plan in order to divert traffic during the operation. However, during a project design review meeting the functional lead for the project's public relations indicated the local water district maintained a critical operational facility and their only access to it would be blocked by the HDD operation. Recognizing the situation, the project engineer was able to enlist support from his staff in the area of traffic engineering to develop a resolution. In order to provide uninterrupted access to the local water facility, a two part solution was developed. This solution included; restricting the closure of the access road to only critical HDD operations (i.e., pullback) and negotiating temporary access rights with adjacent

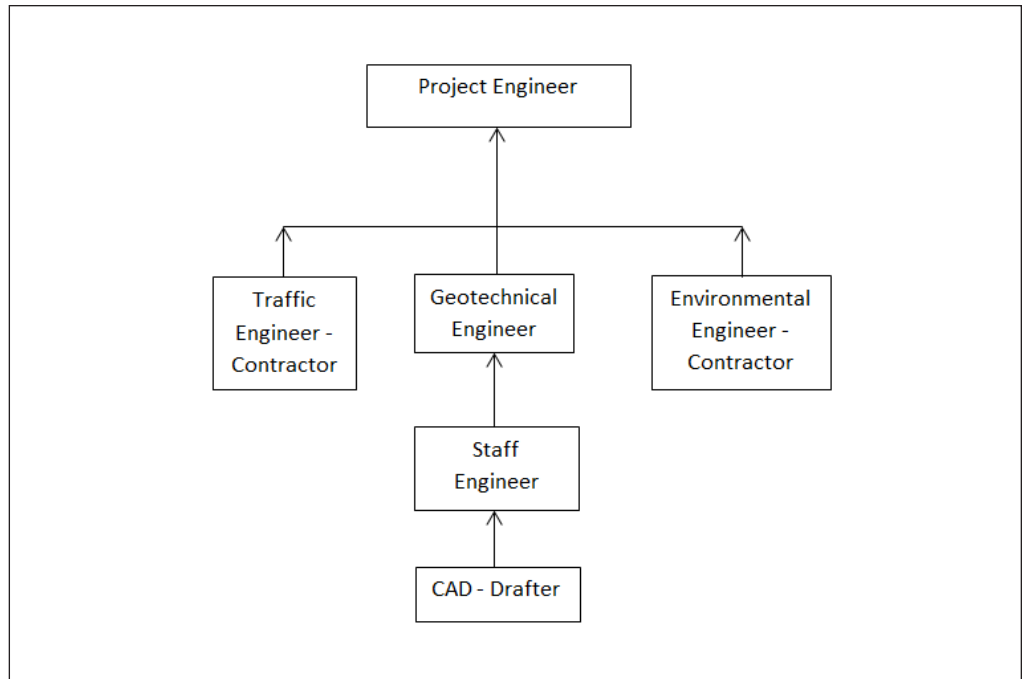


Figure 2: Functional Lead Organizational Structure

property owners, with the support of the public relations lead, to allow for temporary access through an alternate route. In this situation, active communication early in the project development among the various functional leaders not only identified a potential project challenge, but that same active communication within the organizational structure was also able to develop an effective solution.

The growing demand for sustainable energy solutions, reinforced by recent Massachusetts legislation and either ongoing or emerging federal mandates, has resulted in an increased development of energy infrastructure projects. In order to meet this demand, multi-disciplinary project teams need to be developed with clear

organizational structure and open lines of communication. As shown in this recent transmission line project, during the design of a critical HDD crossing, effective and clear communication regarding the HDD staging and construction process not only identified a potential challenge, but was utilized to develop the solution. This situation, which was only one of many on this project, highlights the complex and unique issues which commonly arise during the development of these large scale energy infrastructure projects. Understanding the organizational structure and maintaining effective communication within that structure will be critical elements in the successful implementation of this growing portfolio of large scale renewable energy infrastructure projects.

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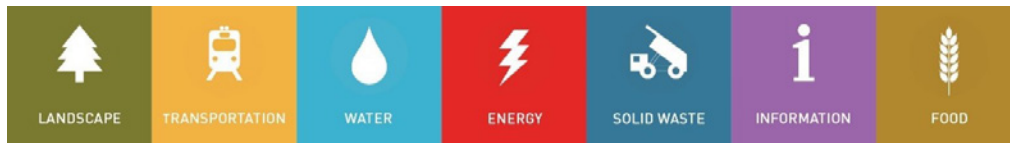
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Planning Sustainable Cities

by Melissa Carter, PE, Director of Project Management, MWH (now part of Stantec) and BSCES Committee on Sustainability Chair

Some call it a textbook; some call it a guide; and some might call it a framework for sustainable infrastructure synergies. In fact, the word “synergy” appears frequently throughout the book titled *Planning Sustainable Cities: An infrastructure-based approach*. It was recently published by the Harvard-based Zofnass Program in June of this year. Spiro Pollalis, the book director and editor, was kind enough to send me a copy. In his own words, “this publication fills a gap between the professions of planners and engineers . . . with the objective of creating sustainable urban environments.”

The first thing I noticed when I reviewed the book is that it is structured differently than the Envision® rating system, while also maintaining a strong alignment of objectives and guidelines incorporated into Envision.® The book can be



used as a stand-alone reference or a complementary resource for ENVSP professionals who use Envision® to plan, design and construct projects.

The main difference is the Envision® rating system is project-based, and consists of five categories: Quality of Life, Leadership, Resource Allocation, Natural World, and Climate.

Planning Sustainable Cities presents seven city-scale urban infrastructure “systems:” Landscape, Transportation, Water, Energy, Solid Waste,

Information and Food as illustrated above.

From an Envision® based project perspective, any single infrastructure project could reside within one of these systems, or cross over multiple systems. From a city-scale perspective, the portfolio of projects should be planned with synergies of the systems in mind with consideration for existing and future sustainability goals. The book challenges us as sustainability professionals to go beyond projects, and bridge the gap between city-scale planning and project-level design.

A Sustainable Rating System for Every Project

by Teresa C. Vangeli, PE, LEED AP, BC+C, ENV SP, Project Manager & Lead Structural Engineer, WSP/Parsons Brinckerhoff

As I look around my desk today, there are five projects using five different sustainable rating systems or guidelines. An interesting point is that the projects are all transportation projects with common goals of energy efficiency and water savings. In addition to the major rating systems such as USGBC and Envision,® several clients have their own rating system or sustainable guidelines. These guidelines are usually based on a known rating system such as LEED, although it is not the latest LEED version.

The sustainable rating systems are expanding to include more project types. The USGBC’s LEED v4 has 21 official project types. Deciding on the right LEED rating system for your project now involves comparing the results of two or more checklists. On one renovation project, both checklists for New Building and Commercial Interiors were compared before Commercial Interiors v2009 was selected.

LEED has partnered with other rating systems creating a wider sustainability umbrella. For example, Parksmart Certification Standard (renamed from the Green Parking Council’s Green Garage Certification) provides a sustainable system for design, construction and management of parking facilities. The verification for Parksmart is administered by Green Building Certification Inc. (GBCI) as is LEED, EDGE, PEER, WELL, SITES, and GRESB. Each of these has a particular focus. For example, the WELL Building Standard, developed by Delos, puts the health of the building occupants on the highest priority.

Clients are now considering the option of having a project certified under multiple rating systems at the same time. When a project has several elements, the building can be certified with LEED, the infrastructure of the roads, bridges, utilities can be rated under Envision,® and the parking structure construction and management can have a Parksmart rating. Even using more

than one rating system on the same project element is possible. On one of our current projects, the building is a busy public space and the client is considering registering with WELL in addition to the LEED v4 registration.

The available sustainable rating systems on the market today are wide and varied. There is a rating system for any and every project type. If your project is a hospital, you can chose LEED and/or WELL rating systems. If your project is a new outfall tunnel or other infrastructure, you can use Envision.® If your project is university housing, you can use LEED for Neighborhoods. Every project in design and construction today can have a sustainable design and achieve a sustainability rating.

Take a moment to look at the projects on your desk. Pick a checklist and benchmark the sustainability value of your projects. You may be surprised how many are certifiable.



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President's Report

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presentation entitled, *Climate Resilience in Boston and Beyond: Practice, Policy, and Corporate Partnership*, and on October 20th the Engineering Management Group hosted the presentation entitled, *The Flint Water Crisis: Keeping the Citizens of Flint Safe*, at Northeastern University.

BSCES volunteer groups are also exploring other learning opportunities like the T&DI Boston Chapter's October 19th webinar on *Transportation Infrastructure Needed for Self Driving Cars* and the Structural Engineering Institute (SEI) Boston Chapter's fully booked *121 Seaport Presentation and Site Tour: Skanska's Top-Down Construction Project*. Be sure to review the event flyers that are included as inserts to this newsletter to learn about other upcoming BSCES events.

At the end of September, I attended the ASCE 2016 Convention in Portland, Oregon. During the conference, dozens of national ASCE awards were presented to their recipients, including the William H. Wisely American Civil Engineer Award for members of ASCE who have shown a consistent commitment to promoting the history, heritage, and development of technical and professional activities of the Society. This award was presented to former BSCES president

Anni Autio, PE, of Thompson & Lichtner Co., Inc. Congratulations Anni!

The conference also served as the official "changing of guards" for ASCE leadership. Currently, Mark Woodson serves as past-president, Norma Jean Mattie serves as president, and Kristina Swallow as president-elect.

On October 24th, BSCES will be hosting the annual *ASCE Student Chapter Officers' Caucus Fall Kickoff Meeting* at Louis Berger's Office in Needham, MA. All of the officers from the Commonwealth's ten student chapters are invited to discuss their programs, discover how ASCE and BSCES can serve them better, network, and learn more about entering the workforce. The ten student chapters are: University of Massachusetts Amherst, University of Massachusetts Dartmouth, University of Massachusetts Lowell, Massachusetts Institute of Technology, Merrimack College, Northeastern University, Tufts University, Wentworth Institute of Technology, Western New England University, and Worcester Polytechnic Institute. We are all looking forward to this event.

I would like to invite you to attend the *168th BSCES Annual Awards Dinner* on November 14th at the UMASS Club in Boston. The keynote speaker is former Massachusetts

Governor Michael Dukakis. The evening will include recognition of the newest BSCES Honorary Members and award recipients. Please see our [website events page](#) for more information about this and other events.

In closing, I would like to thank all of our Society and Program Sponsors, whose financial support helps enable BSCES and its committees, institute chapter and technical groups to host the numerous networking and professional development events that are planned for this year.

The theme of this month's newsletter is Energy/Sustainability and I urge you learn more about this issue's featured group, the BSCES Committee on Sustainability, which is chaired by Melissa Carter, PE, of MWH Global. This issue of *BSCESNews* contains a number of articles written by Melissa and members of her committee, including the page 1 article that she coauthored with former BSCES president, Peter Richardson, PE, of Green International Affiliates, Inc. about *Upcoming Changes to Create a More "Grassroots" Approach to ASCE's Innovation in Sustainable Engineering Award*.

Lastly, I want to wish all engineers who will be taking the Professional Engineering Exam on Friday, October 28th the best of luck!

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Branch & Committee Reports

SEMAC Schedules 5th Event

by John C. Cavanaro, PE, Managing Principal, Cavanaro Consulting

Following four successful Technical Events since inception, the Southeastern Massachusetts Committee (SEMAC) is planning their 5th event on November 18, 2016. Please save the date and see the insert at the end of this newsletter for more details including how to register for this event!

Gary R. McNaughton, PE, PTOE and his associates will discuss the never-ending challenge that faces engineers and planners of keeping us all out of "Traffic Jams!" If you're in the business of land development, public transportation improvement, municipal management, or anything related to the movement of people and goods, then Gary has some thoughts for you to assist with your planning, design and permitting. Gary will walk us through the typical scenarios that we face while identifying the various challenges that exist when balancing land development with safe and efficient traffic management.

Some of the topics that Gary will address include the following: Traffic/Transportation Impact Studies; Traffic Operational Analyses; Environmental Impact Studies; Parking Demand Studies; Access Management; Site Planning & Due Diligence Studies; Safety Analysis; Peer Reviews; Expert Testimony; Community Involvement and Public Participation.

The speaker's biography is provided below:

Gary R. McNaughton, PE, PTOE is the Vice President and New England Regional Manager of McMahon Associates, Transportation Engineers and Planners. Mr. McNaughton draws on over 25 years of experience in the planning and design of transportation and engineering projects. Gary is very well versed with MEPA and MassDOT requirements to assist clients and project engineers with

navigating through the various Studies, Assessments and Analyses that are critical to successful project permitting.

SEMAC has been holding monthly lunch meetings on the 3rd Friday of the month on the South Shore, and extends an open invitation to all interested parties.

Please contact any of the folks below for additional information on becoming active in the SEMAC.

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SE, PE, PLS, Committee Chair

Charles Gross: chgpellc@me.com
PE, Committee Vice Chair

John Cavanaro:
jcavanaro@cavanaroconsulting.com
PE, Committee Clerk/Secretary

BSCES Legislative Fellow Update from Beacon Hill— An Act Financing Municipal Roads and Bridges

by Michael Sullivan, PE, Project Manager, Collins Engineers, Inc., 2015–2016 BSCES Legislative Fellow



A couple of bills affecting our industry were passed right at the eleventh hour of the legislative session deadline in July. The first bill, An Act Modernizing Municipal Finance and Government, included changes to the bidding dollar thresholds for three public bidding laws used by municipalities on construction projects. These laws are M.G.L. c. 30B, M.G.L. c. 30, and M.G.L. c. 149. The new bidding procedures are to use sound business practices for projects valued at less than \$10,000. For projects valued at between

\$10,000 and \$50,000, the municipality must request 3 written quotes. Finally, for projects valued at over \$50,000, a municipality must use an Invitation for Bids or a Request for Proposals. Invitations for bids will need to be advertised on COMMBUYS. Additionally, an official can no longer receive oral quotes. All quotes must be in writing. These changes will go into effect on November 7th and are summarized at the Inspector General's webpage found [here](#).

The second bill, An Act Relative to Job Creation and Workforce Development, authorized \$500,000,000 for the MassWorks Infrastructure

Program, run by the Executive Office of Housing and Economic Development. This bill also included funding for various statewide projects including \$350,000 for the Riverwalk along the Sudbury River in Ashland, \$500,000 for infrastructure improvements to the Holbrook town center, \$150,000 for transportation improvements in downtown Framingham, \$500,000 for the restoration of the Lowell Memorial Auditorium, and \$250,000 for improved pedestrian access in the City of Melrose, to name a few. A complete listing of authorized projects can be found in section 7002-8018 of the bill.



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Volunteer Opportunities

Outreach Volunteers Needed!

by Olivia A. Richards, Assistant Structural Engineer, Gill Engineering and BSCES Public Awareness & Outreach Committee Chair

Future City Mentors

Future City teams are signing up to compete in this year's Future City Competition (Saturday, January 21, 2017). We are looking for engineers to mentor the teams! Mentoring consists of advising the students on how to design a successful city. This year's theme is Public Spaces. Ideally, you will be able to work with the middle school students and provide engineering advice throughout the project. This may happen in person, via email, or even Skype. Typically,

most engineers devote approximately 12-14 hours from September to January. Additionally, if you cannot mentor this year, we will need judges for the January 21st competition day as well. To determine if a team in a community near you needs a volunteer mentor contact me at oliviaannerichards@gmail.com.

Model Bridge Mentors

Model Bridge teams began registering for the BSCES Model Bridge Competition last month. We need engineers to mentor these teams!

Mentoring consists of advising the students while they design a small scale bridge (40 inches in length) with the specified materials. The competition begins at the end of October. Ideally, the mentor will be able to work with the kids and provide advice throughout the project. This may happen in person, via email, or even Skype. Typically, most engineers visit the school weekly or every other week from November to January. Please contact me at oliviaannerichards@gmail.com if you are interested! The competition will be held on February 4, 2017.

Younger Member Group Holiday Meal Drive

by Anthony Richardson, PE, Structural Engineer, Jacobs Engineering, and Treasurer, BSCES Younger Member Group

For the past two years, the Younger Member Group (YMG) has assisted the Greater Boston Food Bank (GBFB) with their annual Holiday Meal Drive. The GBFB Holiday Meal Drive is a fundraising effort with the goal of providing nutritious holiday meals to persons and families in need each holiday season. This year, GBFB has an overall goal of providing over 500,000 holiday meals to the Boston community.


GBFB estimates that in eastern Massachusetts, one in nine people are affected by hunger. Among children, that number is as many as one in three, and among senior citizens the number is one in five faced by working- and middle-class neighbors. A recent study shows that 47% of those at risk for hunger in Eastern Massachusetts earn too much to qualify for government-provided emergency food assistance. Many never dreamed they would need a food pantry or community meal program to feed themselves and their families. It is difficult for many of us to imagine a Thanksgiving without turkey, mashed potatoes, cranberry sauce and pie on our table, but the data shows that many of our neighbors face that reality every year.

Hunger is a growing problem and as engineers, we can lend a hand in helping solve the crisis. YMG is asking that members of BSCES and their coworkers, friends, and family donate to their team page on the GBFB website starting this November. The minimum donation is \$10,

and more is always welcome! As the GBFB website states, each donation will be used to purchase nutritious Thanksgiving meals for local Boston residents who do not have the means to provide their own meal. The YMG team goal is \$2,500 this year, which will provide over 600 meals to the Boston community. Past year's goals of \$1,000 (2014) and \$2,000 (2015)

were exceeded and over 750 meals have been donated by the YMG over the past two years.

Please donate what you can to this cause and encourage your coworkers, friends and family members to donate as well! If you have any questions, please contact me at anthony.richardson@jacobs.com.



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Sustainable Network Systems; Energy and Green Engineering

For more information, contact: Northeastern University,
Department of Civil and Environmental Engineering
617-373-2444, civilinfo@coe.neu.edu; www.civ.neu.edu

Recent News and Updates

BSCES Seeks 2017–2018 Legislative Fellow

The Legislative Fellow is a professional engineer and BSCES member who serves as a technical resource at the Massachusetts State House. The Legislative Fellow generally works with the staff of the Joint Committee on Transportation on current issues that can benefit from the input of an engineering professional. Most efforts focus on transportation or environmental initiatives but can vary. BSCES is currently seeking applicant for its 2017–2018 Legislative Fellowship. The application deadline is October 31, 2016 for the Fellowship year beginning in early February 2017 and ending on July 31, 2018, the probable end of the legislature's formal session in 2018. For more information, visit the [BSCES Legislative Fellow page](#) on the BSCES website and see the application process. You may also contact Rich Keenan with further questions at 617/305-4110 or rkeen@engineers.org.

BSCES Welcomes its New Members

The BSCES Board of Government is pleased to welcome the following new members who joined BSCES during the month of September, 2016:

Affiliate Members

Fares Y. Ibrahim, Natick, MA
Daniel N. Shapiro, VHB

Associate Members

Christopher R. Baker, Quincy, MA
Matthew Eckelman, Northeastern University
Brendan O'Brien, EIT, Boston Water & Sewer Commission
Hayley O'Grady, EIT, Geosyntec Consultants
Michelle C. Perez-Canals, EIT, GEI Consultants

Student Members

Akinola I. Akinfenwa, University of Massachusetts Dartmouth
Susana Amaral, Northeastern University
Zachary Arcaro, University of Massachusetts Dartmouth
Benjamin D. Ashley, University of Hartford
Matthew P. Baker, Merrimack College
Nathanial J. Cataldo, Merrimack College
Milani Chatterji-Len, Massachusetts Institute of Technology
Jack Conlin, University of Massachusetts Amherst
Francisco Decastro, University of Massachusetts Dartmouth
Lorie S. Dorce, Merrimack College
Rachelle Edouarzin, University of Massachusetts Dartmouth
Benjmain Fernandes, The Dennis Group, LLC
David Ferranti, University of Massachusetts Dartmouth

Rachael Flynn, University of Massachusetts Amherst
Sara K. Francis, Merrimack College
Elizabeth Griffin, Duke University
Filip P. Gubala, University of Massachusetts Amherst
Brandon M. Ip, Pembroke, MA
Michael A. Kamlarz, University of Massachusetts Amherst
Lydia R. Kelley, Andover, MA
Amanda Kohn, Tufts University
Shaoning Li, Northeastern University
Hyun Chae Loh, Massachusetts Institute of Technology
Benjamin M. Longchamp, Atkinson, NH
Leanne J. Lozowski, Merrimack College
Ellesse Lunde, Scituate, MA
Kate A. Lundy, University of Pittsburgh
Lauren M. Lynch, The Nature Conservancy
Zachary Medeiros, University of Massachusetts Amherst
Natalie L. Midura, Chelmsford, MA
Jessica K. Norriss, Tufts University
Kimberly Perrone, Northeastern University
Joseph S. Privitera, Merrimack College
Andrea T. Ranger, Tufts University
Emily Raskett, Worcester Polytechnic Institute
Olin M. Richter, University of Massachusetts Amherst
Anthony J. Russo, Merrimack College
Xiaoyin Shi, Northeastern University
Jennica Srey, Somerset, MA
Asako Takeuchi, University of Massachusetts Amherst
Anthony J. Visconti, Merrimack College
Mark M. White, University of Massachusetts Lowell
Alec Wilson, University of Massachusetts Dartmouth
Jillian Wright, Merrimack College

ASCE Welcomes 2017 President

Earlier this month during the ASCE 2016 Convention in Portland, OR, Norma Jean Mattei, PhD, PE, F.ASCE, was installed as 2017 ASCE president, taking the gavel from Mark Woodson, PE, LS, DWRE, Pres.16.ASCE, who will serve in the next year as past president. To learn more about the accomplished career of ASCE's new president, [watch this short video](#).

ASCE Grand Challenge

The ASCE Grand Challenge asks all civil engineers to join in the solution to significantly enhance the performance and value of infrastructure projects over their life cycles by 2025 and foster the optimization of infrastructure investments for society. The [ASCE Innovation Contest](#) encourages professionals, educators, and students to share their

most creative ideas for reshaping our nation's infrastructure and has recently expanded to welcome submissions focused on next generation transportation and removing lead from drinking water. Additionally, please join us in ASCE's newest initiative: take the "[I'm in](#)" pledge demonstrating a professional commitment to the Grand Challenge principles to reduce the life cycle cost of infrastructure by 50 percent in the next 8 years.

Are You Certifiable?

Certification is the recognition of attaining advanced knowledge and skills in a specialty area of civil engineering. ASCE created Civil Engineering Certification, Inc. in 2004 to provide a mechanism for professional post-licensure certification of the various specialties within civil engineering. Each Academy offers the highest advanced post-licensure certification in areas of coastal, geotechnical, navigation, ocean, ports, and water resources engineering. All certifications adhere to ASCE's policy to broaden and deepen the body of knowledge for practicing engineers and to elevate the standards in civil engineering. More information on the program is located [here](#).

Planning Sustainable Cities Conference

The [Zofnass Program for Sustainable Infrastructure](#) at the Harvard University Graduate School of Design would like to invite BSCES members, students, and educators to their Planning Sustainable Cities Conference, which is being held on Thursday and Friday, November 3 & 4, 2016, at Harvard University Graduate School of Design. This conference will convene city planners, leaders in infrastructure development, designers, engineers, experts, academics, and public officials to share perspectives on sustainable city planning as well as to discuss the proposed infrastructure-based planning approach for sustainable cities. You can register for this free event [here](#).

Boston University Engineers Without Borders Seeking Mentors

The Boston University chapter of Engineers Without Borders is looking for professional mentors to help guide the development of their water accessibility projects in Naluja, Zambia. They are currently engaged in two active programs: one focused on rainwater collection, and another on improved sanitation systems. For more information, [see their website](#) or get in contact with their program chair, Scott Nickelsburg, at projectchair.ewbbu@gmail.com.

SEND US YOUR NEWS! Looking to strengthen the community that is BSCES, the BSCES Executive Committee and Newsletter Editorial Board has decided to expand the content of this *BSCESNews* Recent News and Updates column by including more member news. Have you recently been recognized for a professional accomplishment, passed the Professional Engineer Exam, received a promotion, or changed employers? If so, send your news items to BSCES Newsletter Editorial Board Chair Michael R. Cunningham, PE, Kleinfelder, at mcunningham@kleinfelder.com.

Upcoming Events

For more information and to register for events, please visit www.bsces.org

To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your BSCES member login information, call 617/227-5551.

Younger Member Group Information Session

Wednesday, October 26, 2016

Nitsch Engineering
2 Center Plaza, Suite 430, Boston, MA 02108

5:30 PM Registration; 6:00 PM Presentation

NCEES Information Session with Paul Tyrell

Paul Tyrell, PE, Chief Civil Engineer & Senior Associate, STV, Inc., Vice Chair, Massachusetts State Licensing Board

Have you been wondering about the engineering and surveying exams? Do you have questions about engineering licensure? Join the BSCES Younger Member Group for an informative dinner session with Paul Tyrell, PE, NCEES Speaker and vice chair of the Massachusetts State Licensing Board.

Please see the Insert at the end of this month's newsletter for further details.

ASCE and BSCES Sponsored Seminar

Thursday – Friday, November 3 – 4, 2016

Hyatt Place Boston Braintree
50 Forbes Road, Braintree, MA 02184-2602

8:30 AM – 4:30 PM

Law School for Civil Engineers

Nadine Nasser Donovan, Esq., Teacher & Consultant, SEAK, Inc., Partner, Mulvey, Ennis, Keefe, and Donovan, LLC.

The law affects every aspect of your professional and personal life. In order to succeed, you must have an advanced knowledge of the law and the American legal system. This seminar is designed for any civil engineer who would like a better understanding of the law or the legal system. It is ideal for any civil engineer who needs to work closely with statutes or regulations, is or may become involved in litigation, serves as an expert witness, and/or is considering pursuing a legal degree.

[Click here](#) to register for this event online.

Structural Engineering Institute Boston Chapter Dinner Meeting

Wednesday, November 9, 2016

Wyndham Boston Beacon Hill
5 Blossom Street, Boston, MA 02114

6:00 PM Registration, Social & Pizza

7:15 PM Presentation

Boston's Secret Bridge and More— Massport's Thomas J. Butler Freight Corridor Project

Sam Sleiman, PE, CCM, Director, Capital Programs & Environmental Affairs, Massachusetts Port Authority

The Massachusetts Port Authority is undertaking a major expansion and modernization of its Paul W. Conley Terminal in South Boston, New England's premier container port facility. The first stage of the project – the Thomas Butler Dedicated Freight Corridor and Buffer Open Space, is now well into construction. Please join us to learn more about the bridge, the roadway, the park, and other elements of this exciting – yet somewhat “under the radar” project.

Please see the Insert at the end of this month's newsletter for further details.

168th BSCES Annual Awards Dinner

Monday, November 14, 2016

The University of Massachusetts Club
One Beacon Street, Floor 32
Boston, MA 02108

5:30 PM Cocktail Reception; 6:30 PM Dinner

168th BSCES Annual Awards Dinner

Former Massachusetts Governor Michael S. Dukakis, Distinguished Professor of Political Science, Northeastern University

Please join us for the 168th Annual Awards Dinner at the University of Massachusetts Club for an evening celebrating BSCES and the engineering profession. BSCES will

[continued on page 11](#)

Coming Soon!

Friday, December 2, 2016

Construction Institute Boston Chapter Boston Day-Summit

Featuring: Dr. Kord Wissman
President of the Geopier Foundation Company & the ASCE Geo-Institute

Courtyard Marriot Boston Downtown
275 Tremont Street, Boston, MA

This full-day seminar will begin with an opening breakfast presentation, followed by a series of technical sessions separated by networking breaks. Each technical session will include thematically grouped presentations, including a mix of project case studies, round table discussions, and interactive training programs. The event should be attended by anyone with an interest in all things construction and construction engineering (history through innovative techniques).

See future BSCES emails for more information on this CI Boston Chapter-sponsored event.

ASCE Webinars

ASCE WEBINARS

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Are you planning to take an ASCE webinar? Sign up with the code WEBBOSSEC and 20% of your registration fee will be donated to the Boston Society of Civil Engineers Section/ASCE.

For a full listing of ASCE Webinars, [click here](#).

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Upcoming Events *(continued from page 10)*

recognize new leaders, present annual awards, and honor our newest Honorary Members, Former Governor Michael S. Dukakis and Founding Principal of Nitsch Engineering, Judith Nitsch, PE.

Please see the Insert at the end of this month's newsletter for further details.

Transportation & Development Institute Boston Chapter Workshop

Wednesday, November 16, 2016

Curry Student Center, Room 344
Northeastern University
346 Huntington Avenue, Boston, MA 02115

8:30 AM – 9:00 AM Social & Registration

9:00 AM – 12:00 PM Session 1

12:00 PM – 12:30 PM Lunch

12:30 PM – 3:15 PM Session 2

3:15 PM – 3:30 PM Closing & Discussion

Bicycle Facility Design Training

Conor Semler, AICP, Senior Planner, Kittelson & Associates, Inc.

Hermanus Steyn, PE, Principal Engineer, Kittelson & Associates, Inc.

This training will revolve around two key principles: user type—which ranges from experienced cyclists to people who are interested in bicycling but concerned for their safety – and the bicycle network. The training also emphasizes understanding a facility's role in the bicycle network. Intersections present the greatest safety threat to bicyclists. Safe intersection design focuses on reducing conflicts between bicyclists, pedestrians, and vehicles by heightening visibility, separating conflicts in time and/or space, and encouraging eye contact and awareness between users. Topics for this training include: bike lanes, separated bike lanes, shared use paths and trails, markings and signing, and intersection design treatments.

Please see the Insert at the end of this month's newsletter for further details.

Southeastern Massachusetts Committee Workshop

Friday, November 18, 2016

Abington Ale House
1235 Bedford Street, Abington, MA 02351
7:00 AM – 12:00 PM

Traffic Impact Assessment Workshop

Gary McNaughton, PE, PTOE, Vice President & New England Regional Manager, McMahan & Associates

This workshop features an overview of important traffic impact considerations for residential, commercial, institutional, and industrial projects, including basic elements such as documenting and characterizing existing and background traffic volumes, including daily volumes, directional volumes and peak hour volumes; trip generation using ITE Trip Generation Manual and project volume estimation; future growth evaluation and projection; traffic distribution and assignment; level of service consideration; report presentation; signalized intersections; queuing theory; and public outreach and presentation

Please see the Insert at the end of this month's newsletter for further details.

Program Committee Sponsored NHI Training

Tuesday – Friday, Nov. 29 – Dec. 2, 2016

Hilton Garden Inn Worcester
35 Major Taylor Boulevard, Worcester, MA
8:00 AM – 4:30 PM

Fracture Critical Inspection Techniques for Steel Bridges

The course curriculum for this training reflects current practices, while addressing new and emerging technologies available to bridge inspectors. In addition, the course features exemplary training; hands-on workshops for popular types of nondestructive evaluation (NDE) equipment; and a case study of an inspection plan for a fracture critical bridge.

Please see the Insert at the end of this month's newsletter for further details.

ASCE and BSCES Sponsored Seminar

Monday – Tuesday, December 5 – 6, 2016

Hyatt Place Boston Braintree
50 Forbes Road, Braintree, MA 02184-2602
8:30 AM – 4:30 PM

Investigation, Analysis, and Remediation of Building Failures

Alexander Newman, PE, Forensic and Structural Consultant, Needham, MA

Building structures can fail in a variety of ways. While catastrophic collapses are featured on the news, less dramatic building failures might be of interest mostly to the building owners and their insurance companies. Whether the failure is spectacular or mundane, when it occurs, it is generally necessary to determine what caused it and whether it is possible to remedy the damage. The seminar discusses the practical engineering issues involved in the investigation, analysis, and remediation of various building failures.

[Click here](#) to register for this event online.

continued on page 12

Save the Date!

Thursday, February 2, 2017

**16th Arthur Casagrande Memorial Lecture
Hazard, Risk and Reliability in Geotechnical Practice**

Featuring: Dr. Suzanne Lacasse
Norwegian Geotechnical Institute

Hyatt Regency Cambridge
575 Memorial Drive
Cambridge, MA

5:30 PM – 6:30 PM Social/Registration

6:30 – 7:30 PM Dinner

7:30 PM – 7:45 PM Welcome & Introduction

7:45 PM – 8:45 PM Lecture

8:45 PM – 9:15 PM Discussion

See future BSCES emails for more information on this Geo-Institute Boston Chapter-sponsored event.

Plan To Attend!

Thursday, December 8, 2016

YMG Holiday Party

See future BSCES emails for more information on this event sponsored by the Younger Member Group.

Upcoming Events *(continued from page 11)*

Program Committee Sponsored NHI Training

Tuesday – Thursday, Feb. 14 – 16, 2017
Hilton Garden Inn Worcester
35 Major Taylor Boulevard, Worcester, MA
8:00 AM – 4:30 PM

Bridge Inspection Refresher Training

The major goals of this course are to refresh the skills of practicing bridge inspectors in fundamental visual inspection techniques; review the background knowledge necessary to

understand how bridges function; communicate issues of national significance relative to the nations' bridge infrastructures; re-establish proper condition and appraisal rating practices; and review the professional obligations of bridge inspectors. This course is based on the "Bridge Inspector's Reference Manual," 2002 (updated 2006), with reference to the AASHTO Manual as defined by the National Bridge Inspection Standards regulation.

Please see the Insert at the end of this month's newsletter for further details.

Mark Your Calendar!

Thursday, December 8, 2016

Saving Venice Dinner Meeting & Lecture

Featuring:

Juan M. Pestana, ScD, PE

Senior Principal

Geosyntec Consultants

Wyndham Boston Beacon Hill
5 Blossom Street, Boston, MA

See future BSCES emails for more information on this event sponsored by the Geo-Institute Boston Chapter.

Classifieds



Our Transportation Practice is currently seeking a **Highway Designer/Engineer**

to work in the Greater Boston area. This is an exciting time to join our team! Successful candidates will be a motivated self-starter individual that aspires to work in a team environment and to ultimately grow and mature into a future leadership role in project management. For more details and/or to apply, please [click here](#).



Oldcastle Stormwater Solutions is looking for an energetic, organized

self-starter who is interested in presenting solutions for stormwater treatment in the New England area. This person will establish and maintain relationships within the territory. Please [click here](#) for more details.

Become a BSCESNews Contributor

Would you like to contribute to the newsletter of the oldest civil engineering society in the country? The BSCES Newsletter Editorial Board is seeking members who are willing to write articles for publication in *BSCESNews* or to join the Editorial Board.

Typically 300 to 700 words, *BSCESNews* featured articles are about technical topics or professional matters of interest to civil engineers. The December 2016 issue of the newsletter for example, will highlight the ASCE Geo-Institute Boston Chapter and feature one or more articles on the theme of Dams.

Editorial Board members meet monthly via conference call to plan upcoming issues of the newsletter. They also solicit, write and/or review newsletter articles.

For more information on how you can become a *BSCESNews* contributor, contact BSCES Newsletter Editorial Board Chair Mike Cunningham at mcunningham@kleinfelder.com or BSCES Association Manager Rich Keenan at rkeen@engineers.org.



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YOUNGER MEMBER GROUP

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NCEES Information Session

Paul Tyrell, PE, PLS

*Chief Civil Engineer & Senior Associate, STV, Inc.
Vice Chair, Massachusetts State Licensing Board*

Wednesday, October 26, 2016

**Nitsch Engineering, 2 Center Plaza, Suite 430, Boston, MA
5:30 PM Registration; 6:00 PM Presentation**

Have you been wondering about the engineering and surveying exams? Do you have questions about engineering licensure? Join the BSCES Younger Member Group for an informative dinner session with Paul Tyrell, PE, PLS, NCEES Speaker and Vice Chair of the Massachusetts State Licensing Board.

For more information, contact BSCESYMG@gmail.com.

Registration Deadline: Tuesday, October 25, 2016

\$5 Students

\$10 Members

\$15 Non-Members

Information/Registration:

Register to attend this meeting and pay by credit card online at <http://bit.ly/2016NCEES>. To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your BSCES member login information call 617/227-5551. You can also register for this event by mail or email. To do so, download and complete a [BSCES Event Registration Form](#) and follow the submission instructions. Cancellations received after October 21, 2016 and no-shows will be billed.



Boston Society of Civil Engineers Section
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 - Weston & Sampson Engineers, Inc.

Boston’s Secret Bridge and More – Massport’s Thomas J. Butler Freight Corridor Project

Sam Sleiman, PE, CCM

*Director, Capital Programs & Environmental Affairs,
Massachusetts Port Authority*

Wednesday, November 9, 2016

Wyndham Boston Beacon Hill, 5 Blossom Street, Boston, MA 02114
6:00 PM Registration, Social & Dinner; 7:15 PM Presentation

The Massachusetts Port Authority (Massport) is undertaking a major expansion and modernization of its Paul W. Conley Terminal in South Boston, New England’s premier container port facility. The first stage of the project – the *Thomas Butler Dedicated Freight Corridor and Buffer Open Space*, is now well into construction. It consists of improvements which will mitigate impacts of current and future operations on the abutting neighborhoods, provide tangible benefits to the larger community, and demonstrate Massport’s commitment to being a good neighbor.

The major project elements include a new 2/3 mile roadway that will remove nearly 1,000 container truck trips per day from East First Street and a nearly 4-acre public open space which will buffer residences from the new roadway and expanded terminal. The buffer space will be heavily landscaped and includes a multi-use path, providing a new linear open space connection to existing parks along the Harbor. The project also includes a relative rarity within Boston city limits: a significant new over-water roadway crossing, on a new alignment.

Please join us to learn more about the bridge, the roadway, the park, and other elements of this exciting – yet somewhat “under the radar” project.

Registration Deadline: Monday, October 31, 2016

\$95 Members, \$80 Public Sector Members, \$35 Student and Senior (65+) Members
\$95 Public Sector Non-Members, \$120 Non-Members

Information/Registration:

Register to attend this meeting and pay by credit card online at <http://bit.ly/SEI-110916>. To register online for an event at the BSCES member rate, you must login using your BSCES assigned username and password. If you do not know your BSCES member login information, call 617/227-5551. You can also register for this event by mail or email. To do so, download and complete a [BSCES Event Registration Form](#) and follow the submission instructions. Cancellations received after October 31, 2016 and no-shows will be billed.



This presentation provides 1.0 Professional Development Hours (PDH)

Supported by the staff of The Engineering Center Education Trust



Keynote Speaker:
Former Massachusetts Governor Michael S. Dukakis
Distinguished Professor of Political Science
Northeastern University

November 14, 2016

The University of Massachusetts Club

One Beacon Street, Floor 32, Boston, MA 02108

5:30 PM Registration & Reception; 6:30 PM Opening Remarks; 7:00 PM Dinner;
7:45 PM Keynote Address & Remaining Program

When Michael S. Dukakis was elected Governor in 1974, he inherited a record deficit and record high unemployment and is generally credited with digging Massachusetts out of one of its worst financial and economic crises in history. After losing the 1978 gubernatorial election, Dukakis defeated Edward King, was elected Governor in 1982, and reelected to an unprecedented third four-year term in 1986 by one of the largest margins in history. In 1986, his colleagues in the National Governors' Association voted him the most effective governor in the nation. In 1988, he was the democratic nominee for the President of the United States.

Since June 1991, Dukakis has been a Distinguished Professor of Political Science at Northeastern University and Visiting Professor at the School of Public Policy at UCLA. His research has focused on national health care policy reform and the lessons that national policy makers can learn from state reform efforts. In 1998, Dukakis was nominated by President Clinton and served a five-year term as a member of the Board of Directors of Amtrak.

During his keynote address, Dukakis will discuss a North South Rail Link connecting Boston's North and South Stations and the importance of investing in public transportation.

Honor Award Winners and Newest Honorary Members:

Please join us for an evening celebrating BSCES and the engineering profession. BSCES will recognize new leaders, present annual awards, and honor our **newest Honorary Members, Former Governor Michael S. Dukakis and Founding Principal of Nitsch Engineering, Judith Nitsch, PE**. Space is limited for this event, register today!

168th BSCES Annual Awards Dinner:

You can use this form to register one or more attendees. Please fill in the number of people you wish to register for the appropriate price point and add up the total attendees and total amount. If registering multiple attendees, please forward their names and contact information to bscesreg@engineers.org.

Registration Fees:

Type	Fee	Number of Attendees	Amount
<input type="checkbox"/> BSCES Member:	\$160.00	_____	_____
<input type="checkbox"/> Non-Member:	\$210.00	_____	_____
<input type="checkbox"/> Table of 10:	\$1,600.00	_____	_____
Totals:		_____	_____

Register Online: Register and pay by credit card online at: <http://bit.ly/168thBSCESAnnualAwards>. To receive the member price you must login using your BSCES assigned username and password. If you do not know your login information call 617/227-5551.

Register by Mail or Email: You may also register by mail or email. To do so, complete the registration form below and email to bscesreg@engineers.org or mail to: BSCES, The Engineering Center, One Walnut Street, Boston, MA 02108-3616.

Registrant Information:

Name (s): _____
 Organization: _____
 Address: _____
 Telephone: _____ Email: _____

Credit Card: Please bill my (Check one): Visa MasterCard American Express

Name On Credit Card: _____

Credit Card Number: _____ Expiration Date: _____

Billing Address: _____

Signature: _____

Check: When paying by check, please make checks payable to "BSCES" and mail with your completed Registration Form to the above address.

Registration Deadline: Friday, November 4, 2016

No-shows and cancellations received after Friday, November 4 will be billed. For questions please call 617/227-5551. No phone registrations.



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Tufts University

Weston & Sampson
Engineers, Inc.

Bicycle Facility Design Training

Conor Semler, AICP

Senior Planner

Kittelson & Associates, Inc.

Hermanus Steyn, PE

Principal Engineer

Kittelson & Associates, Inc.

Wednesday, November 16, 2016

Northeastern University, Curry Student Center Room 344

346 Huntington Avenue, Boston, MA

8:30 AM – 9:00 AM Social/Registration; 9:00 AM – 12:00 PM Session 1;

12:00 PM – 12:30 PM Lunch; 12:30 PM – 3:15 PM Session 2;

3:15 PM – 3:30 PM Closing & Discussion

This training will revolve around two key principles: user type – which ranges from experienced cyclists to people who are interested in bicycling but concerned for their safety – and the bicycle network. The training also emphasizes understanding a facility's role in the bicycle network. Intersections present the greatest safety threat to bicyclists. Safe intersection design focuses on reducing conflicts between bicyclists, pedestrians, and vehicles by heightening visibility, separating conflicts in time and/or space, and encouraging eye contact and awareness between users. Topics for this training include: bike lanes, separated bike lanes, shared use paths and trails, markings and signing, and intersection design treatments.

Conor Semler is a national leader in the planning and design of innovative bicycle facilities and is highly regarded for his ability to leverage transportation design to create livable and healthy communities. He was involved in the development of both the NACTO Urban Bikeway Design Guide and the FHWA Separated Bike Lane Planning and Design Guide.

Hermanus Steyn is a roadway designer specializing in pedestrian and bicycle design. He has led many design training sessions on geometric design, traffic signal design, roundabout design, and applied safety design.

Registration Deadline: Monday, November 14, 2016

\$200 Members, \$250 Non-Members

Class size limited to 25 attendees.

Information/Registration:

Register to attend this meeting and pay by credit card online at <http://bit.ly/TDI-111616>. To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your BSCES member login information, call 617/227-5551. You can also register for this event by mail or email. To do so, download and complete a [BSCES Event Registration Form](#) and follow the submission instructions. Cancellations received after November 14, 2016 and no-shows will be billed.



This presentation provides 6.0 Professional Development Hours (PDH)

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Traffic Impact Assessment Workshop

Gary R. McNaughton, PE, PTOE

*Vice President & New England Regional Manager
McMahon Associates*

Friday, November 18, 2016

**Abington Ale House
1235 Bedford Street, Abington, MA
7:30 AM – 11:30 AM**

This workshop will provide an overview of important traffic impact considerations for residential, commercial, institutional and industrial projects. Basic elements will be covered, such as documenting and characterizing existing background traffic volumes, including daily volumes, directional volumes, and peak hour volumes. Additional topics to be discussed include trip generation using the ITE Trip Generation Manual and project volume estimation, future growth evaluation and projection, traffic distribution and assignment, level of service consideration, report presentation, signalized intersections, queuing theory, and public outreach and presentation.

Gary R. McNaughton has over 25 years of experience in the planning and design of transportation and engineering projects. He has managed both public and private sector projects that have involved traffic impact assessments and land development reviews, including assessing the environmental impact of a project. He has successfully permitted a range of projects from small residential developments to large, high profile, retail and mixed-use developments utilizing the traffic assessment process, through design and construction. This event should be attended by engineers, planners, policy makers, contractors and developers interested in the traffic impact assessment process.

Registration Deadline: Monday, November 14, 2016

\$55 Members, \$70 Non-Members

Information/Registration:

Register to attend this meeting and pay by credit card online at <http://bit.ly/SEMAC-TIA>. To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your BSCES member login information, call 617/227-5551. You can also register for this event by mail or email. To do so, download and complete a [BSCES Event Registration Form](#) and follow the submission instructions. Cancellations received after November 14, 2016 and no-shows will be billed.

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FHWA-NHI-130078

Fracture Critical Inspection Techniques for Steel Bridges

Tuesday, November 29, 2016 – Friday, December 2, 2016

Hilton Garden Inn Worcester, 35 Major Taylor Boulevard, Worcester, MA

Tuesday through Thursday, 8:00AM – 4:30PM

Friday, 8:00 AM – 2:00 PM

This training examines current practices, while addressing new and emerging technologies available to bridge inspectors. In addition, the course features classroom training; hands-on workshops for popular types of nondestructive evaluation (NDE) equipment; and a case study.

The first day of the training focuses on the concept of fracture critical members (FCMs), FCM identification, failure mechanics, fatigue in metal, and an overview of NDE methods. Day two includes demonstration sessions and hands-on applications of NDE techniques for dye penetrant, magnetic particle testing, Eddy current testing, and ultrasonic testing. Days three and four emphasize inspection procedures and reporting for common FCMs, including problematic details, I-girders, floor beams, trusses, box girders, pin and hanger assemblies, arch ties, eyebars, and cross girders/pier caps. The course will conclude with a case study detailing the preparation of an inspection plan of a fracture critical bridge.

Please note: Prior to taking this course, participants should have completed NHI course 130055, Safety Inspection of In-Service Bridges, or possess equivalent field experience relative to bridges. Participants also should have a thorough understanding of bridge mechanics and bridge safety inspection procedures as required by the National Bridge Inspection Standards. Please visit the NHI website at www.nhi.fhwa.dot.gov or contact them at 703/235-0500 for additional information on the prerequisite course requirements.

Registration Deadline: Friday, October 28, 2016

Registration Fees: \$1,500 Members, \$1,800 Non-Members

Registration fee includes course materials, continental breakfast, breaks, and lunch.

Information/Registration:

Attendance for this program is limited to 30 participants. Individuals who attempt to register after the course is closed will be added to a waiting list.

Reservations will be accepted on a first-come first-serve paid reservation basis. Payment must be received with registration to secure a slot. Register to attend this course and pay by credit card online at <http://bit.ly/NHI-112916>. To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your login information call 617/227-5551. You can also register for this event by mail or email. To do so, download and complete a [BSCES Event Registration Form](#) and follow the submission instructions. Cancellations or no shows after October 28, 2016 will be billed.



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FHWA-NHI-130053

Bridge Inspection Refresher Training **Tuesday, February 14, 2017 – Thursday, February 16, 2017** **Hilton Garden Inn Worcester, 35 Major Taylor Boulevard, Worcester, MA** **Tuesday through Thursday, 8:00AM – 4:30PM**

The major goals of this course are to refresh the skills of practicing bridge inspectors in fundamental visual inspection techniques; review the background knowledge necessary to understand how bridges function; communicate issues of national significance relative to the nations' bridge infrastructures; re-establish proper condition and appraisal rating practices; and review the professional obligations of bridge inspectors. This course is based on the "Bridge Inspector's Reference Manual," 2002 (updated 2006), with reference to the AASHTO Manual as defined by the National Bridge Inspection Standards regulation.

Core course topics include inspector qualifications and duties, bridge mechanics, record keeping and documentation, fatigue and fracture in steel bridges, traffic safety features, safety, National Bridge Inventory (NBI) component ratings, superstructure type identification, inspection techniques and case studies for decks, superstructures, bearings, substructures, channels and culverts, and a mock bridge inspection classroom exercise. Optional topics include inspection of truss gusset plates, adjacent box beams, and post-tensioning tendons.

Registration Deadline: Monday, December 19, 2016

Registration Fees: \$1,400 Members, \$1,700 Non-Members

Registration fee includes course materials, continental breakfast, breaks, and lunch.

Information/Registration:

Attendance for this program is limited to 30 participants. Individuals who attempt to register after the course is closed will be added to a waiting list.

Reservations will be accepted on a first-come first-serve paid reservation basis. Payment must be received with registration to secure a slot. Register to attend this course and pay by credit card online at <http://bit.ly/NHIBridgeRefresher2017>. To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your login information call 617/227-5551. You can also register for this event by mail or email. To do so, download and complete a [BSCES Event Registration Form](#) and follow the submission instructions. Cancellations or no shows after December 19, 2016 will be billed.



This presentation provides 1.8 Continuing Education Units (CEU)
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