Welcome back! I hope that you all have had a great first half of your summer. If you haven’t already surmised, I will be serving as President for another year. All of the Board of Director positions have remained unchanged from last year.

We had an awesome BOD meeting this summer and discussed many new and exciting goals for the upcoming year. Before I discuss those goals, I wanted to take us all back to our August newsletter from 2015. I featured four initiatives for the upcoming year:

- We will be releasing a survey to find out how we can better serve the membership. Accomplished!
- We have been researching the option to pay for dues and meetings online. Accomplished for next meeting (this meeting is through ASCE), I paid for the last meeting online, it works!
- Our Young Members Group is growing and has some exciting events planned. Accomplished!
- We have many interesting speakers lined up this year, including the Lead Design Engineer for the Freedom Tower (One World Trade Center), December 17th. Accomplished!

Thank you to every member that helped make these initiatives, as well as other great achievements, possible.

Now on to some of our goals moving forward for 2016-2017:

- Creation of an Ad-Hoc Committee to look into Structural Engineering Licensure in NH
- Incorporating Committee updates in the newsletter for each publication
- Implementing a Strategic Plan for the future
- Incorporating an Awards Committee to acknowledge key accomplishments of our membership
- Performing a “membership drive” to increase membership
- Continue to offer excellent training opportunities
- Establish a student chapter of the Young Members Group at UNH

There is more information throughout this newsletter that will go into more detail for some of the above, along with more details to come. Many of these initiatives have come through the National Chapter of NCSEA, our parent organization. Thanks to Bob Durfee and Alex Azodi, our NCSEA delegates, for keeping us informed with national trends.

As always, we are looking for volunteers. Many of these initiatives are just beginning, and it is a great time to get involved as much or as little as you are able.
Thank you to all that currently support and volunteer for SENH! If you are interested in becoming more involved or have any questions or concerns, feel free to contact me at president@senh.org or (603) 647-2012.

SENH COMMITTEE UPDATES

Legislative Liaison

- No updates at this time.

Professional Development Committee Submitted by Josif Bicja, P.E.

- The November meeting will be held on Wednesday, November 9th and will include a tour of the Canam Steel Plant in Claremont, NH. Attendees are responsible for wearing proper footwear, safety vests, hard hats, and safety glasses.
- The Bridge Inspection Refresher Training is scheduled from December 6-8, 2016 at NHDOT.
- The Fracture Critical Inspection Techniques for Steel Training is scheduled from March 21-24, 2017 at NHDOT.

Code Advisory Committee

- No updates at this time.

Public Relation Committee

- No updates at this time.

Board of Director Nominating Committee

- No updates at this time.

Younger Members Group Submitted by Gregory Clauson, E.I.T.

- The YMG participated in NCSEA’s second annual nationwide trivia event on Thursday June 17th. We are very pleased to report that we are now the East Coast champions! We had a great turnout with many new faces. We are looking forward to defending our title next year!
- Details for the 2nd annual summer kickball game against the ASCE YMG have just been finalized. The event will be held Thursday September 21st from 5:30 PM to 9:30 PM at Derryfield Park in Manchester, NH across the street from Trinity High School. There will be a group social outing in Downtown Manchester immediately following the game. The YMG is looking forward to another decisive victory over ASCE, retaining bragging rights for the second year in a row! A formal announcement will be sent out in the coming weeks.
- We are also in the process of planning a Fall event for UNH students to continue growing our YMG. We’ve had a lot of interest from Civil Engineering students at past events and we aim to build on that interest in the coming academic year.

Anyone with any questions/comments/suggestions please email senhymg@gmail.com. We would love to hear from you!
SENH COMMITTEE UPDATES  Continued From Page 2

NH Quality Base Selection Coalition Submitted by Christopher Fournier, P.E.

On July 20th the NH QBS Coalition presented a webinar through the NH Municipal Associations (NHMA) program for municipal officials. The presentation titled “Qualifications Based Selection (QBS) for Design Professionals – What is QBS and why Owners should use it”, was well received. It has been uploaded to YouTube and may serve as an educational tool for your clients. https://youtu.be/9lJM0CLIL6g

I encourage anyone who has interest in preserving and protecting the QBS process in NH to volunteer to serve as SENH’s representative on the QBS Coalition’s Board. I am serving currently in an interim role, so SENH continues to have a voice at the table, but I know that the Board would appreciate a representative who can more actively serve.

Joint Committee of NH Engineering Societies

- No updates at this time.

NCSEA Communications Committee Submitted by Robert Durfee, P.E.,SECB

NCSEA Delegates

Appointed: Delegate; Bob Durfee, Alternate Delegate; Alex Azodi

Bob and Alex will be attending the NCSEA Structural Summit, to be held on September 14th to 17th in Orlando, Florida at the Disney Contemporary Resort & Conference Center. SENH Delegates will inform NCSEA of the activities SENH has conducted over the past year, and planned activities in the coming year.

Bob and Alex will also meet with Delegates from the other 43 SEA’s in attendance at the Summit, and learn what other SEA’s are successfully doing for their members. SENH Delegates issue a formal report to the Board and the Members of their attendance at the Summit upon return.

NCSEA Communications Committee

Appointed: SENH Representative; Bob Durfee

This NCSEA Committee is the means by which NCSEA communicates and shares information with its State Member Organizations (MO’s). Recent information/data shared by this Committee include:

- NCSEA Benefits to Members
- NCSEA Member Portal Instructions

The above listed information has been published elsewhere in this newsletter.

NECSEA

Appointed: SENH Representatives; Bob Durfee, Alex Azodi, and Peter Griem

The Northeast Coalition of SEA’s includes all six New England State MO’s plus the New York MO. The coalition recently organized and held a half day seminar in Saco, ME on 5/23/16 titled: "2015 and Beyond – International Building Code Changes". The seminar was well attended (24-26 attendees). This seminar will be held again in October in Connecticut and New York City at dates and times to announce in late September by the Coalition.
The annual meeting of collation will occur at the Structural Summit in Orlando (meeting on September 15th at 4:30 pm). Members Bob Durfee, Alex Azodi, Peter Griem and Fred Emanuel are attending the Summit and will attend the NECSEA annual meeting.

Nomination Committee
Chair: Bob Durfee
Co-Chair: Sean James
Board Liaison: Adam Stockin

The Nomination Committee is currently considering SENH nominations for the Engineer of the Year and Young Engineer of the Year Awards. If you know of a member the Committee should consider, contact Bob or Sean. Reminder: Rules for Nominations are that the candidate must newer know they are being considered and must be nominated without the candidate’s knowledge. Please use discretion and privacy when communicating with the Nomination Committee.

Ad-Hoc Awards Committee
Chair: Bob Durfee
Co-Chair: Bob Champaign

The Board of Directors has established and authorized this ad-hoc committee to develop an Excellence in Engineering Awards Program. This program will identify and recognize outstanding structural engineering projects specifically designed by our Members and/or constructed in our State. An annual Awards Program and Ceremony will be established. The Committee will research Awards programs by other SEA’s and develop a program specifically for SENH. The Committee is seeking additional members before starting its work. If you are interested in joining this Committee, contact Bob Durfee or Bob Champagne.

NHTI
- No updates at this time.

SEI Delegate

SE Licensure in New Hampshire Submitted by Christopher Fournier, P.E.

First a bit on context regarding the organizations involved with Structural Engineering (SE) licensure. Structural engineers love bulleted lists and alphabet soup, so here it is:

- SENH is a member organization (MO) of the National Council of Structural Engineers Associations (NCSEA)
- The Structural Engineers Institute (SEI) is part of the American Society of Civil Engineers (ASCE). SENH is considered a “technical group”, not a local chapter of SEI.
- The Council of American Structural Engineers (CASE) provides representation and resources regarding the business of structural engineering and is a part of the American Council of Engineering Companies (ACEC). The members of these organizations are structural engineering firms, not individuals.
- The Structural Engineering Certification Board (SECB) promotes structural engineering licensure and provides a certification “SECB” for individuals who meet their requirements, but who practice in states where an “SE” title is unavailable.
- The Structural Engineering Licensure Coalition (SELC) is a unified voice for the above organizations (SEI, NCSEA, CASE, and SECB) for the promotion of structural engineering licensure. In the past these organizations had differing opinions regarding structural licensure, but within the past few years have come together and SELC represents this.
The National Council of Examiners for Engineering and Surveying (NCEES) advances professional licensure and administers the PE, SE, and PS examinations. The NH Board of Professional Engineers and the NH Board of Land Surveyors are members of this organization.

- The New Hampshire Society of Professional Engineers (NHSPE) is part of the National Society of Professional Engineers (NSPE) which “strenuously opposes” SE licensure and describes that it “poses a grave threat to stature and credibility of the PE license.”

A series of events over the past year have led the SENH Board to create a **new Structural Engineering Licensure Ad-Hoc Committee**:

- In July 2015 the Advisory Committee of Council Activities (ACCA) for NCEES announced they would be making a Motion at the Annual Meeting in August to change the Model Rules and Model Law to include Structural Engineering (SE) licensure.
- The SENH Board through contact with the leaders of the SELC submitted a letter to encourage the NH PE Board to vote to approve these changes. It appears our letter was received too late and the NHSPE had already asked the PE Board to vote against the Motion.
- In August, both the NH PE Board and the NH Surveyors Board voted against the Motion, which failed by one vote. It is important to note, if the surveying Boards in attendance (including NH) would’ve abstained from voting the Motion would have passed by two votes.
- In December 2015 the SENH Board send out a Member Survey which had two questions regarding SE licensure. The first question, admittedly, was poorly worded and may have tainted the answers to the second question. In summary, SENH membership support for SE licensure is currently lukewarm at best.
- The SENH Board asked NCSEA to provide a speaker for the SE licensure topic and Tom Grogan, PE, SE, Vice President of NCSEA gave a presentation at the March SENH meeting. He and SENH’s two NCSEA delegates spoke with the SENH Board afterward to discuss how it all connects with NH.

With all of this the SENH Board would like to express their agreement with the Position Statement of the SELC and has decided to create a new Structural Engineering Licensure Ad-Hoc Committee. **At this point, if you’ve made it this far, I would recommend you consider volunteering your time to serve on this committee.** Please contact me to express your interest as this committee begins to form. Also, I’m available to discuss any of the statements/opinions above if you disagree or would like more information.

### UNH

**Senior Capstone Program: Civil Engineering** Submitted by Linda McNair-Perry, P.E., SECB

The time to act is now, if you are interested in sponsoring a project for consideration in the UNH Senior Capstone Program for this coming academic year. All you have to do is follow this link and provide as much information on the proposed project as possible. This will get the project entered into their database for this year. John Gianforte, Senior Capstone Project Coordinator, is currently hard at work setting up the database, so please do not delay. Contact John (email: John.Gianforte@unh.edu or phone: 603-862-3114), if you have questions. Note that in the past, sponsors were invited to campus to pitch their projects to the students. This year UNH is looking for sponsors to provide a short video of 2 minutes or less that would help explain your project to the students. The video is optional, as the registration form indicates.

It is my understanding that in addition to the bridge projects that have been routinely submitted, they are looking to see some building (vertical construction) projects brought in to mix things up. In particular they are looking for multi-disciplinary projects, something maybe 3 to 5 Civil Engineering students can break apart into components such as geotech, civil, structural and maybe an architectural engineering component. Further, there may be an opportunity to utilize other consultants if you choose to include Mechanical and Environmental Engineering as Technical Disciplines on the Registration Page. Similarly, you choose the Components (one or more) that fit your vision for your project within this Capstone Program, including analysis, design, computer modeling and presentations.
SENH COMMITTEE UPDATES  Continued From Page 5

I have not personally participated in the program, so I looked for some pointers from prior Capstone sponsors and student participants. Top on the list of advice was to have a discussion with the group’s advisor before the project gets started to determine goals for the students and help you to understand what to expect. It is anticipated that the students should be doing some design work; however, you’ll need to be cognizant that if they haven’t had that particular class they can’t realistically do the design work intended. That’s where the advisor can help determine what is realistic.

The best description I have been given for your role is as a sponsor is that you are seen as the ‘client’ for the project. You are not expected to teach theory or design aspects associated with the structure’s design. You are not expected to regularly travel to Durham. Much of the communication can be handled through e-mails (or maybe Skype). By asking the students to be prepared to answers to specific questions and explain their thought process related to their design/solution you can help keep them on track. If you want them to make a formal presentation off campus, which is shown as an optional component on the registration form, it seems only fair that you help facilitate a venue/audience for that presentation. And lastly, a bit of advice offered by UNH is that you as the sponsor (acting as client) needs to be crystal clear on what you expect from the students as a deliverable.

NCSEA 2016 Annual Summit

The ANNUAL NCSEA Structural Engineering Summit will be held this September 14th to 17th in Orlando, Florida at Disney’s Contemporary Resort/Conference Center.

Numerous educational sessions will be provided on current building structures and codes of interest to the practicing Structural Engineer. Attendance at the Summit will qualify for Professional Development Hours (PDH’s). The PDH’s issued by NCSEA are accepted by New York State PE Board.

IT IS STILL NOT TOO LATE TO REGISTER FOR THE SUMMIT. For more information on the Summit, including agenda and registration use the following link: http://www.ncsea.com/meetings/annualconference/

NCSEA Recorded Webinars

SENH, as a member organization of National Council of Structural Engineers Associations (NCSEA), is eligible to select a free NCSEA recorded webinar. A list of all recorded webinars is available at http://www.ncsea.com/education/recordedwebinars/. Anyone interested in these webinars please contact the PDC chair, Josif Bicja at jbicja@hoyletanner.com with your suggestions. If there is enough interest, the webinar will be shown at one of the upcoming meetings and/or made available to any SENH member.
Presented by Michael J. Martello and Robert J. Palermo

The New NY Bridge (Tappan Zee Bridge Replacement) is a $3.14B Design-Build project that consists of the design and construction of two new 3-mile long multiple span structures that carry I-87/287 across the Hudson. The twin bridges each include approximately 2 miles of approach spans over water and a ¾-mile main span cable stayed bridge.

The New NY Bridge is currently under construction and the first span of the new twin-span bridge is scheduled to open in 2017. The second bridge is scheduled to be complete in 2018. The bridge is being designed and constructed to last 100 years without major structural maintenance.

The presentation will address the high capacity deep foundations used to support the new bridge superstructure. A summary of the challenges associated with the design and construction of the high capacity piles, the requirements of the extensive pile load test program and related construction constraints will also be discussed.

In addition, the presentation will provide an overview of the structural design of the 44 span bridge that includes 350-foot nominal steel girder approach spans and twin-tower cable stayed structures with 1200-foot main spans. The structural portion will also focus on the superstructure and substructure design with respect to service, strength, and extreme limit states, describing how base isolation was used as the seismic design strategy to design an efficient and reliable structure designed to withstand the 2500-year earthquake.

Speakers:
Michael J. Martello is a registered professional engineer with HDR and has 9+ years of experience in bridge design. He served as the Global Analysis task leader for the approach spans of the Tappan Zee Hudson River Crossing project. Mr. Martello was in charge of furnishing a full analytical model of the 3-mile twin structure from abutment to abutment to perform a seismic analysis of the Crossing.

Robert J. Palermo is a Senior Principal at GZA, having been with the firm for over 36 years, and is a registered professional engineer in 19 states. Mr. Palermo is GZA’s technical leader for all of GZA’s infrastructure work and is currently leading the GZA team providing geotechnical engineering and foundation design support for all aspects of the design for the new Tappan Zee Bridge.

Place: The Puritan Backroom, 245 Hooksett Road, Manchester, NH 03104

Agenda:
5:30 pm – 6:15 pm Registration/Social Hour/Cash Bar
6:15 pm – 7:00 pm Dinner
7:00 pm – 8:30 pm Presentation

Dinner: Buffet with choice of Chicken Kabobs, Teriyaki Steak Tips or Fried Chicken Tenders.

Cost:
ASCE/SENH Member/Non-Member: $50.00  Gov’t Employee: $20.00  Full Time Student: $15.00 - ‘no-shows’ will be billed at full amount.

RSVP:
by Sunday, September 18, 2016. There will be a $10.00 late fee for anyone wishing to RSVP past this date. Please signup/pay online at: http://events.constantcontact.com/register/event?llr=nfvkd8kab&oeidk=a07ed41zmdbd0d30e

Note:
2.0 PDHs have been assigned for attendance. Attendees are responsible for ensuring their check-in on the attendance list upon arrival at the meeting.
### Business Portion of the Meeting

- SENH President Adam Stockin opened the SENH business portion of the meeting.

- Treasure Bob Champagne gave a brief budget update. He reminded that those that haven’t paid their dues yet to please send them in. Bob also reported that payment of fees by PayPal is being set up and will be available soon.

- Bob Champagne gave an update on New Hampshire Architects and Engineers Emergency Response Task Force (NHAEEERTF). The Sam Legislation was finally passed. Now that it has passed more volunteers are needed. All volunteers need to be trained, speak to Bob if interested.

- Adam took a vote for Adam and Bob C. re-election to Board of Directors. Vote Passed.

- Adam updated the following items:
  - The board is considering coordinating an SE prep course.
  - NHI Bridge inspection program is coming up.
  - The board will be preparing a strategic plan for SENH.

- Bob Durfee passed out flyers for a 2015 IBC Code Update Seminar in Saco, ME to be held on May 23, 2016. The presentation is part of a Structural Engineering association coalition of New England States of which SENH is a member.

- Josif Bicja introduced the technical presentation.
Open Web Steel Joist Composite Floor System by Ric Anderson, PE

Ric presented Ecospan by Nucor Vulcraft which is a composite floor system with open web joists and concrete slabs. Composite construction allows for an efficient design, with the concrete slab primarily in compression and the joists in tension. The shear transfer between the dissimilar materials is provided by Vulcraft’s standoff screw system. The standoff screw is self-tapping and does not require any welding. The screw also acts as the attachment of the deck to the joist. The design is based on a load/span rating with tables provided by the manufacturer. As with conventional composite steel design, floors are able to be designed with longer spans and lighter weights. Additionally the floors can be designed with increased joist spacing, up to 72”o.c. The increased spacing and joist web openings is ideal for mechanical coordination and can result in clear height requirements.

SITE TOUR OF THE NEW SARAH MILDRED LONG BRIDGE
Hosted by: SENH Young Members Group

DATE: Thursday, October 6, 2016

PRESENTATION: Site Tour of the New Sarah Mildred Long Bridge in Portsmouth, NH: The SML replacement project is a joint venture between the Maine and New Hampshire Departments of Transportation, with MaineDOT serving as the lead. This project is part of a “Three Bridge Agreement” between Maine and New Hampshire to address their jointly owned bridges spanning the Piscataqua River. The other two bridges are the “high level” bridge that carries I-95, and the Memorial Bridge that links the communities of Portsmouth and Kittery, and offers vehicle, bike and pedestrian travel.

The Sarah Mildred Long Bridge, built in 1940, provides a regional link between Maine and New Hampshire, and is the critical back-up route in case of disruption on the Interstate 95 bridge. SML carries crucial commercial traffic along the US Route 1 Bypass, including movement of people and goods to the Navy Shipyard in Kittery that employs 4,200 workers.

Maine and New Hampshire have agreed to replace Sarah Mildred Long Bridge instead of implementing the rehabilitation project outlined in the March 2011 Memorandum of Agreement between Maine and New Hampshire regarding the three Piscataqua River bridges. The DOTs will equally share the costs of replacing the SML Bridge which is now estimated to be $170 million.

SPEAKER: Ron Taylor P.E., is the Resident Engineer for the Maine Department of Transportation.

PLACE: Sarah Mildred Long Bridge
19 Bridge Street #10
Kittery, ME 03904

AGENDA: 2:00 pm-2:30 pm Safety & Project Activities Briefing  
2:30 pm-3:30 pm Tour of the Site  
3:30 pm-5:00 pm Social Hour Downtown Portsmouth

COST: There is no cost for this event.

RSVP: To: Gregory Clauson at senhymg@gmail.com or (603) 560-7352  
By: Thursday, September 29, 2016.

NOTE: Attendees are responsible for wearing proper footwear. Proper footwear for the tour includes steel toes (if possible), hiking boots, and non-steel toe boots. Safety vests, hard hats, and safety glasses can be provided on-site if needed. However, attendees are welcome to bring their own if possible. This event is open to all SENH members.
Our Sponsors

Employment Opportunities

Structural Systems Inc, founded in 1959 and located in North Andover MA, is a Design/Build Steel Subcontractor for low rise commercial buildings.

We are currently looking for an engineer with the following qualifications who is willing and able to accept the responsibilities we have outlined below. This is an opportunity for an exciting career using your design skills and building steel structures. Visit our website at [www.structural-systems.com](http://www.structural-systems.com) to learn more about us.

**Qualifications**

2 to 3 years of experience as a structural engineer performing structural design and framing for steel buildings. E.I.T. certified, Potential P.E. Candidate, Minimum BS Civil Engineering or Structural Engineering. CAD or 3D drafting experience. MS Word and Excel experience. Ability to work in a team environment in a professional manner. Ability to solve complex steel detailing issues. Strong willed and well spoken.

**Responsibilities**

Project Management of steel framing for commercial buildings from concept to completion. Design of steel framing, foundations, CMU, and other structural components per applicable codes. Design of temporary shoring systems. Completion of material takeoffs, compiling and summarizing of material and installation estimates, and completion of bid proposals. All of the above in collaboration with the Structural Systems detailers and management team, fabricators, erectors, architects, engineers, building owners, and the construction team in a professional manner.

Interested candidates should email their resumes to: structuralsystemsma@gmail.com.
Member of

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