Volume 3 Issue 3

May 2009

STRUCTURAL ENGINEERS OF NEW HAMPSHIRE

Granite Columns

President's Letter

Happy spring! The 2008-2009 term will end after the May membership meeting. There are three outgoing board members including myself. It has been an honor and a privilege for me to serve you as the president of SENH and a board member. Without the participation of many of you and the support of a dedicated board of directors it would have been difficult to achieve the many accomplishments of this year. My many thanks to all of you and especially to the hard working board of directors who helped me throughout this term. I would like to pay a special tribute to the other two outgoing board members- Steve Johnson and Bob Busby- for their years of endless service and dedication. I also extend my sincere appreciation to all of the committee members, delegates, liaisons, and others whose unsung participation makes all the difference.

During this term, we accomplished many of our set goals: we were able to seed and start the New England Coalition of Structural Engineers, we participated in several national events, we were able to nominate one of our members who became the Young Engineer of the Year, we had a successful collaboration with UNH and realized a marked improvement of our student participation, we awarded more scholarships to engineering students; we moved forward toward improving our web site and developing other public awareness programs; and many more-impressive work- we have come far and are considered a success story, but the work is not done and in fact it is just starting. I have every confidence in the capabilities of the future board and the dedication of our volunteers to continue to take us further.

SENH is dedicated to providing the highest level of professional benefits to its membership. Thanks to the innovative efforts of many volunteers, membership has increased to a high level, especially the Student membership. Last month, with the help of the Professional Development Committee we were able to have our first collaborative membership meeting at UNH using a different setting. If the program format and setting was attractive to you, we would like to make this an annual event with UNH. Please communicate any thoughts- positive or negative- to the Professional Development Committee or to the board of directors.

Last month, I attended the 2009 NASCC in Phoenix, Arizona. It was an impressive gathering of engineers, fabricators, erectors, educators and other people interested in steel construction. The exhibition area boasted the latest advances and equipments for designing and fabricating with steel. Several days and many tracks of seminars and courses covered a wide array of topics related to steel design, fabrication, and erection.

A noteworthy item at this NASCC event was the issue of the responsibility for the connection design. It is an active subject and it will most certainly remain active for the foreseeable future. The new language to be adopted in the next AISC code of practice is almost finalized. It will add the option for the engineer of record to ask for the connection design to be provided by the fabricator's engineer. Certain steps, such as review of the shop drawings by the engineer of record, are required under this option. Although the legal issues are still ambiguous and uncertain, the addition of this option is a step in the right direction to provide some clarity for this matter.

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Special Points of Interest/ Reminders:

- *The next SENH Meeting is May 19, 2009 . See inside for details.*

President's Letter

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One thing clear from the lawyers who spoke in regard to this issue is that the engineer of record must not assume that the connection design by the fabricator is a standard practice for the area, but to be explicit on the drawings and specifications if this is expected of the fabricator by the engineer of record. Call me if you are interested in more details or you can check the AISC site for the event proceedings.

Finally, I will end with the same message I started this letter- by extending my appreciation and many thanks to all the past, present, and future members, board members, and volunteers. I wish you all the best-Alex

Candidates for SENH Board of Directors

The following SENH members are the nominees for the upcoming SENH Board of Directors vacancies:

1. Ed Bergeron, P.E., SECB
2. Norm Cote, P.E., SECB
3. Sean James, P.E., SECB

There will be three vacant positions on the board. Steve Johnson, Robert Busby, and Alex Azodi are leaving the board. Voting by members will be at the May membership meeting. Election of the candidates will be by majority vote of the members present. Please be sure to attend the May meeting and vote.

Manufactured Housing Installation Standards Board

The Board of Professional Engineers needs a Civil Engineer to serve on the Manufactured Housing Installation Standards Board for a one year term. Although I realize our organization consists of structural engineers, some structural engineers are also practicing civil engineers. If any one of you is interested in serving, this may be an interesting opportunity. We already have a structural engineer on the board (Fred Emanuel). In order to be considered, interested parties would have to submit their resume and a letter of interest to the NH Joint Board. If you require any further information you may contact Louise Lavertu (Louise Lavertu, Executive Director, NH Joint Board, 603-271-2219 ~ 603-271-6990 (fax), l.lavertu@nhsa.state.nh.us) directly. Let me know if you decided to submit for this position. Thank you-Alex

New Members, Associate Members & Student Members

SENH is proud to welcome the following new Members, Associate Members & Student Members:

Members:

- Thomas Marshall, P.E. SEA Consultants

Associate Members:

- Ryan Clay, Quantum Construction Consultants, LLC

Student Members:

- Alexander Pape, NH Technical Institute

Mead Paper Competition for ASCE Steel Bridge and Concrete Canoe at WIT

Submitted By Meagan Wengrove.

Meagan Wengrove presenting at Mead Paper Competition

In order for an ASCE chapter of a university or college to qualify for the National Steel Bridge or National Concrete Canoe competitions the school is required to be present at the chapter's designated region meeting as well as write and present a technical paper. This year the topic of the paper was concerning the ethics involved within civil engineering and sustainability:

Canon 1 of the ASCE Code of Ethics states: "Engineers shall hold paramount the safety health and welfare of the public and shall strive to comply with the principles of sustainable development in the performance of their professional duties." The code goes on in subparagraph f of Canon 1: "Engineers should be committed to improving the environment by adherence to the principles of sustainable development so as to enhance the quality of life of the general public." The Code of Ethics presents the following definition: "Sustainable Development is the challenge of meeting human needs for natural resources, industrial products, energy, food, transportation, shelter, and effective waste management while conserving and protecting environmental quality and the natural resource base essential for future development." There are other published definitions of terms related to sustainability, and authors should be clear as to what definition they are basing their discussion on. This definition and its inclusion in the ASCE Code of Ethics date from 1996.

For the UNH chapter Meagan Wengrove wrote and presented the technical paper. Her topic was concerning the skills, knowledge base, and/or appreciation for other disciplines that a civil engineer needs to know to fully understand sustainability. Wengrove used the four constraints of society, the environment, the economy, and community institutions which should curve the way an engineer designs to ethically incorporate their project into respective communities.

One of Wengrove's arguments was that "a civil engineer is an engineer for the people." Her statement comes from the idea that the word civil is defined as of pertaining or consisting to citizens. This contention was the basis of many questions asked to Wengrove after her five minute presentation about her paper by the nine judge panelists on April 3rd 2009 in a WIT auditorium. Wengrove handled these questions well.

There were eighteen universities and colleges competing in this competition and the topics of their respective papers varied within sustainability and civil engineering. Wengrove received 4th place for the University of New Hampshire team behind MIT, UMass Lowell, and WIT. This was a good standing for UNH when compared with years past and we are looking to a higher standing for next year.

Steel Bridge Competition 2009 *Submitted by Patrick Moon*

Saturday started off early with 5:45 wake up calls. It seemed only a few hours had passed since the build team ran through the outline of the bridge. As half the team scrambled for coffee and bagels, the other half loaded up as quickly as possible in order to drop off our bridge within our 30 minute time slot. Already running a little late, we manage to drop off the steel at Wentworth Institute of Technology (WIT) before 7:00. With at least half a dozen bridges already assembled for the aesthetics portion, the adrenaline rushes began to set in. While, focusing on our own bridge, our minds and eyes began to wander, sneaking peaks at other bridges. With such eagerness and curiosity to see what every other team had done for the past year was in itself a battle. But eventually, we focused, set up shop, and started to assemble the bridge together. There was no doubt; UNH was the center of attention, once our impact wrenches started doing what they do best. Immediately, heads turn and a crowd gathers. With confidence and pride rushing through our veins the energy level sky rockets. Suddenly fatigue, exhaustion, and thoughts of exams and homework dissipate, and all we see is the bridge.

With the bridge together, the judges asking questions, the aesthetics portion of the competition began. To be quite frank, our bridge looked incredible. There may have been a few last minute add-ons, slightly taking away from the overall look, but there is no doubt the bridge was raw, strong, and extremely good-looking. Apparently, the judges felt otherwise. In any case, throughout the aesthetics judging, everyone had a chance to roam around the gym and observe other bridges. This particular process was overwhelming at times. There were bridges that were easily finished the night before and then there were bridges that were simply unreal. In some schools the steel bridge is a senior project or even a class and in others, well, it was just extra.

The main event began at around 10:00 and we were scheduled to go 8th. The wait was one of the most excruciating parts of the competition. Approximately 4 hours later, it was game time. Members set in place, hard hats on, safety glasses on, shirts tucked, and ready to rock. As the adrenaline started pumping through us, the build team focused in on getting the bridge together as quickly and efficiently as possible. The moment that time started, we started working like a machine. The construction portion was simply amazing. With crowds gathering and the team cheering, the experience was absolutely invigorating. Ultimately, we got the bridge together in 21:30 minutes (one member didn't want to get bolted down). After the completion of the construction portion, the bridge went on to get weighed. Admittedly, we overdesigned, which contributed to our 483 lb bridge. After loading 2600lb, we had deflections of 9/16" in some areas and 1/2" in others, yielding an *aggregate* deflection of about 1.875".

In the end, the day was an extraordinary closer to all of the hard work we put into the bridge. Seeing our design succeed that day and on par with other schools sent a reverberating feeling through the team and faculty present. A feeling, we will never forget.

Hindsight is 20/20 *Submitted by Patrick Moon*

As the exhilaration of the competition passed, we all began to critique our methods and our overall performance, ultimately attempting to identify a correlation between the two. Some of the trivial questions we began to ask were, "what could we have done differently?" or even "what are we going to do next year?" There is no doubt that the '09 competition was a rebuilding year for UNH. Basing off of UNH's performances in the past, the team was extremely happy with this year's results. Faculty and others have mentioned repeatedly just how proud they are. We revitalized the UNH steel bridge team for future competitions.

For the upcoming year, one of the largest prospects is the idea of making the steel bridge a senior project. Currently, we are working on a proposal for the department to discuss the ABET requirements the steel bridge may accomplish. Following this train of thought, we delved into obtaining more resources for the bridge overall. During the competition, we saw bridges so professionally done, that the members came in boxes with a set of directions. These bridges snapped together easier than Legos. Specifically, there was a team with "rapid bridge design" consultants, case in point. Regardless, our main focus for next year is to start as soon as possible and reach out to sponsors early in the game. In retrospect, there are many things we could've done differently, we concluded that this one way of completing the bridge, however, we realized there are many others.

On behalf of the UNH Steel Bridge Team, we would like to graciously thank all of our sponsors including the members of SENH for their time and input into this year's team. It is our wish to work with all of our sponsors and more in upcoming years. We hope next year's competition will be just as rewarding and we hope to come back even stronger than before.

Steel Bridge Competition 2009—Photos

'09 Steel Bridge Team

Ferguson	Mary
Gaylord	David
Hampe	Kayla
Jones	Heather
Kozlowski	Krystian
LoCoco	Mario
Mitchell	Ryan
Montigny	Chris
Moon	Pat
Muldoon	Julie
Picard	Eric
Prescott	Rusty
Rzepka	Steven
Tarbox	Sean
Walker	Kent
Wengrove	Meagan

Build Team:

Patrick Moon (Team Captain)
Krystian Kozlowski (Team Captain)
Sean Tarbox
Eric Picard
Mario LoCoco

SENH MAY MEETING ANNOUNCEMENT

NEXT MEETING: Tuesday, May 19, 2009

PRESENTATION: Scott Hammond, Marketing Manager for Structural Engineering at Autodesk will discuss Building Information Modeling (BIM) and how the technology is leveraged in the structural engineering office for both buildings and bridges. Topics include using building information models for construction documentation, multi-discipline coordination, visualization, and construction.

PLACE: The Puritan Backroom
245 Hooksett Rd
Manchester, NH 03104
(603) 669-6890

DIRECTIONS: I-93 to exit 9S. The Puritan Backroom is one mile on the left. Conference center is a separate building and to the right of the main restaurant.

SPONSOR: Microdesk, Inc. A representative will be available during the social hour to discuss the services they offer engineers and to answer questions.

AGENDA: 5:30 pm-6:30 pm Social Hour
6:30 pm-7:15 pm Dinner
7:15 pm-7:30 pm Business Meeting
7:30 pm-9:00 pm Presentation

DINNER: Buffet with choice of Fried Chicken Tenders, Beef Tenderloin, Seafood Newburg and Lasagna

COST: Member: $35.00 Non-Member: $50.00 Full Time Student: $10.00

RSVP: by Thursday May 14, 2009. There will be a $5.00 late fee for anyone wishing to RSVP past the Thursday May 14, 2009 date.

Please send check payable to "Structural Engineers of New Hampshire" with list of attendees to:

SENH
P.O. Box 226
Manchester, NH 03105-0226
Contact: Deb Coon, Administrative Assistant
dcoon@hoyletanner.com

NOTE: 2.0 PDHs have been assigned for attendance to this program. Attendees are responsible for ensuring their check-in on the attendance list upon arrival at the meeting.

SENH March 24, 2009 Meeting Minutes

Business Portion of the Meeting

I. BUSINESS PORTION OF MEETING:

The meeting was called to order by Alex Azodi, P.E., President, of SENH at 7:45 pm. Alex thanked Dean Henry for the tour of Kingsbury Hall. It is hoped this meeting at UNH could become an annual tradition.

1. Treasurers Report: Kyle Roy reported the checkbook balance for this month was $24,703.58.
2. New Member: Thomas Marshall was accepted as new member. Ryan Clay was accepted as an associated member and Alex Pape was accepted as a student member.
3. Membership and Meetings: Alex reminded the membership that according to the bylaws, the annual dues are owed on the1st of January. Membership for any individual may be terminated if dues are two months in arrears. At the discretion of the board, an extension has been granted for one month to those who have failed to meet their commitment this year. The May meeting will hold the election for three new board members. Ed Bergeron, Norm Cote, and Sean James have volunteered to serve on the board.
4. Professional Development Committee: Sean James, chairman of the PDC announced the May meeting will be held at the Puritan Backroom, in Manchester. Autodesk will be presenting a product demonstration.
5. Public Relation Committee: Jeff Tirey announced that two students, Patrick Moon and Kayla Hampe were presented with the SENH scholarship awards at the Annual Engineer's Award Banquet. He had the students stand and be recognized.
6. UNH Bridge Competition: Patrick Moon provided a quick update of the UNH Bridge Competition program. A local steel company is providing material for the students. Every bridge member must weight less than 20 lbs and fit into a 6' x 6' box. They have mocked up some connections using wood because it is easier and quicker than steel to work out design issues. One issue the students are struggling with is the size of the holes for each steel member. Holes in the web reduce the weight but also affect the overall strength.
7. Legislative Update: HB 197 pressures defendants in a civil suit to settle. Those members who decide to go to trial risk the chance of incurring penalties greater than their original liability. Currently the bill has been laid on the table meaning it has not passed but has not died either. The house will reconsider the bill at a later date.
8. NE Coalition of Structural Engineers: Tony Coviello is the SENH liaison. In talks with Maine, he learned they are investigating a Steel Institute seminar. In April, CRSI is presenting a seminar of the ACI 318 Building Code anchoring section. Also a cold-formed steel seminar is being considered in Massachusetts around the 128 beltway.
9. NCSEA: Bob Durfee announced there are more SEA posters available to be distributed to schools and libraries.
10. ASCE/SEI: The next meeting is scheduled in the fall. Alex Azodi is a delegate. Please contact him if there are any issues you wish to be presented.
11. Other Business: Any member wishing to help with the SENH web development, please contact Jeff Tirey.
12. Sean James introduced tonight's speaker.

Non Destructive and Geophysical Testing Methods for Engineering Projects, *by Paul Fisk, President, NDT Corporation.*

Paul Fisk has worked for 35 years as Geophysicist and he started NDT 15 years ago. In that time his company has worked over 500 engineering projects. The services NDT offers generally cover nondestructive concrete testing and geophysical soil and bedrock testing. These services can be a tool to assist evaluating and analyzing materials supporting existing or future engineered structures. The services can compliment a core drilling program by presenting continuous information of areas between the core samples.

The bulk of testing utilizes sonic/ultrasonic waves which provide information similar to a sonogram of a unborn child; however, in this case the technology is used on structures. A tomography image (sectional view) of a concrete member needing epoxy repairs was displayed.

The first half of the presentation focused on geophysical testing. Two general test methods presented are seismic refraction and cross-hole and vertical seismic profiling. The information obtained gives a profile of the bedrock, soil condition at the site and the moduli values of the soil and bedrock. This information aids in the selection of excavation equipment, and also provides locations of hazards such as sinkholes and shallow rock.

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Seismic refraction uses an impact energy source (usually an eight gage shotgun shell) that generates waves. The time it takes for the waves to reach various far away points is measured. Since the wave speed is proportional to the density of the material it travels in, the denser the material, the faster the waves travel. Direct waves (non deflected waves) reach geophone sensors first. Some of the waves bounce off the boundaries of media layer changes and are detected at geophone sensors later after the direct wave passes. This allows mapping of the soil profile and data on the type of fill (over consolidated, glacial, ablation till and bedrock). It should be noted all the equipment is quite portable consisting of a battery, phone sensors and a firing shotgun shell rod.

Cross-hole and vertical seismic profiling are two test methods involving a drilled shaft. The cross hole test uses two shafts. One shaft contains several energy sources located at various depths for wave generation. The other shaft contains receivers located at various depths. Seismic profiling places the wave generating sources along the ground and measures the waves using receivers placed at various depths in a single shaft. The methods provide a profile of the ground deep below the surface. An example profile of a Puerto Rican building site was shown depicting the wave velocities at various elevations and distances from the bore hole for several compass orientations. Several projects were discussed including a tunnel in Miami and the Brooklyn Bridge in NY. In Miami, the concern was the soil impact on the tunnel boring machines. Soft soil layers will wreak havoc on these machines. Three bore holes at two sides of the proposed tunnel path were used. A color tomography image depicted the soil conditions for the tunnel site. For the Brooklyn Bridge, the concern was its ability to survive an earthquake. The results of the survey can be found in the February issue of the Civil Engineering Magazine.

The second half of the presentation focused on nondestructive testing. The two test methods discussed were sonic/ ultrasonic test and ground penetrating radar. Information that than can be acquired for concrete may indicate its condition (as built thickness if reinforcing was used and severity of flaws (voids, cracks, honey combing)).

Sonic/ultrasonic measurements involving the velocity of two waves (compressional and shear) provide the moduli values, horizontal strength and the cracking of the concrete. Sonic/ultrasonic measurements involving resonant frequency (reflection) provides thickness, delamination and vertical strength of the concrete.

For compressive and shear wave velocity measurements, sensors (piezoceramic) are placed at various distances away from the impact energy source (using a ball bearing). Cracking in the concrete slows the velocity of compression waves and attenuates shear velocity values. Curves using the ratio of the shear velocity to compressional velocity compared to the strength of the concrete are used to determine the condition of the test material.

For refractive measurements, the energy source is a full thickness pipe. Good areas provide full thickness resonance (echo) whereas crack areas provide no resonance (no echo). Coating and voids provide resonance not penetrating the depth of the concrete slab (short distance echo).

Ground Penetrating Radar (GPR) uses a pulsed electromagnetic signal that is transmitted to and reflected back by a target to the point of transmission. Applications for GPR include bridge decks, bridge tendon duct, structures not having as built plans, construction inspection, pile length, PCCP pipe testing and tower foundations. For measuring bridge decks, NDT has automated the whole process using a portable testing rig mounted to a cart. The rig is manually pushed across the deck. As the measurements were made traffic was still permitted on the bridge because the vibration from traffic was considerably different from the test rig waves. The traffic vibration has a much lower frequency than what the tester used thus did not interfere with the measurements.

For testing of piles and foundations pulse echo testing method is used. A piezoceramic sensor is placed on top of the pile along with the wave generator. The wave travels down the length of the column and back to the sensor. Where the wave fails to travel to the bottom indicate location of inclusions. The pulse is measured at 50msec interludes giving a complete profile of the pile.

In summary non destructive testing can determine how objects are built and the condition of the material. It can help minimize engineering assessment risk.

2.0 PDHs for the technical presentation were earned by attendees. Respectfully submitted by Robert S. Busby, P.E., Secretary, SENH

Attendance List

Nondestructive Sonic/Ultrasonic and Radar Measurements
University of New Hampshire
(2.0 PDHs)
March 24, 2009

Name	Organization	Name	Organization
Dana Michael Adams, P.E.	Opechee Construction Corp.	Roger Keilig, P.E.	HTE Northeast, Inc.
Matthew Allen, P.E.	JSN Associates, Inc.	Erin Kelley	University of New Hampshire
Alex Azodi, P.E.	Omega Structural Engineers	Tom Kilrain, P.E.	Hoyle, Tanner & Assoc., Inc.
Paul M. Becht, P.E.	The H. L. Turner Group, Inc.	Dennis R. LaBombard, P.E.	LaBombard Engineering, LLC
Jason Blais, P.E.	Opechee Construction Corp.	Aaron M. LaChance, P.E.	Stantec
Jim Browne	University of New Hampshire	Thomas E. Lamb	TFMoran, Inc.
Tim Bryant	Vanasse Hangen Brustlin, Inc.	Stephen R. Langevin, P.E.	Maguire Group, Inc.
Dan L. Burne, PE	Becker Structural Engineers, Inc.	Jonathan M. Longchamp, P.E.	Daigle Engineers, Inc.
Robert S. Busby, P.E.	Kalwall Corporation	Jeffery L. Loring	University of New Hampshire
Jake Carmody	University of New Hampshire	Josh Lund, P.E.	Stantec
Robert Champagne, P.E.,	Summit Engineering	David A. Macolini, P.E.	Becker Structural Engineers, Inc.
Noah S. Chinburg	University of New Hampshire	Nathan Maher, P.E.	JSN Associates, Inc.
Geoffrey Conway, P.E.	Foley Buhl Roberts & Associates, Inc.	Kenneth G. Marshall, P.E.	Foley Buhl Roberts & Associates, Inc.
Normand G Cote, P.E.	NGC Structural, LLC	Geoff McGuirk	University of New Hampshire
Jonathan Coulp-Yu	University of New Hampshire	Lauren McMullen	University of New Hampshire
Cheryl W. Coviello, P.E.	Appledore Marine Engineering, Inc.	Ryan Mitchell	University of New Hampshire
Tony Coviello, P.E.	Summit Engineering, PLLC	Patrick Moon	University of New Hampshire
Sarah Desiderio, P.E.	JSN Associates, Inc.	Jeffrey S. Nawrocki, P.E.	JSN Associates, Inc.
Robert H. Durfee, P.E.	Dubois & King, Inc.	Lawrence J. Obrien, P.E.	Gelinas Structural Engineering, LLC
Joel Fisher, P.E.	Fisher Engineering, P.C.	Arianna Paquette	University of New Hampshire
Paul Fisk	NDT Corporation	Linda McNair-Perry, P.E.	SFC Engineering Partnership, Inc.
Roger W. Gayer, P.E,	Structures Unlimited, Inc.	Richard A. Rouleau, P.E.	Consultant
Dan L. Gelinas, P.E.	Gelinas Strucutral Engineering, LLC	Kyle Roy, P.E.	TFMoran, Inc.
Gregory Goodrick	Vanasse Hangen Brustlin, Inc.	Hossein Salehkhou, P.E.	JSN Associates, Inc.
Martin Gorham, P.E.	JSN Associates, Inc.	Michael J. Sievert, P.E.	MJS Engineering, P.C.
Sally Gunn	Vanasse Hangen Brustlin, Inc.	Miles P. Stetson, E.I.T.	The H. L. Turner Group, Inc.
Kayla Hampe	University of New Hampshire	Jeffrey L. Tirey, P.E.	Tirey & Associates, P.C.
Robert S. Hartford, P.E.	Kalwall Corporation	Jeffrey S. Trexler, P.E.	Trexler Engineering
William Hickey	The H. L. Turner Group	Christopher M. Vick, P.E.	Concrete Systems, Inc.
Steven M. Hodgdon, P.E.	Vanasse Hangen Brustlin, Inc.	Bryson Welch	Becker Structural Engineers, Inc.
Sean James, P.E.	Hoyle, Tanner & Assoc., Inc.	Meagan Wengrove	University of New Hampshire

Additional Meetings & Conferences

January—June 2009 UNH Engineering Management Workshops for more information and a list of workshop topics please visit http://www.learn.unh.edu/pcw/pd/sched.php?id=95

May 14, 2009, Building Codes- Post Installed Anchors Using Strength Design at the Radisson Hotel, 200 Stuart Street, Boston, MA 02116, to register visit **https://www.regonline.com/63370_708001F.** When you go their website to register it will ask if you are a member of SEMass and if you say yes you will get a discount rate of $75. SENH member (or any member of an SEA MO) may click that SEAMass box to get the discount!

May 21, 2009, The Annual Steel Design Conference will be held at Worcester Polytechnic Institute. Click on the link http://www.ssfne.org/pdf/WPIInvite.2009.2.pdf to download an invitation and registration form. You can also click on http://www.ssfne.org/WPI.Registration.Form.html to register online.

Working with the Joint Engineering Societies Committee, NHSPE has developed a "NH Engineering Calendar" (www.nhecal.org) where all societies can post events. The intent is to have a single site where upcoming events for all societies are listed. If you would like to post an event, please email the details to info@nhspe.org.

P.O. BOX 226
MANCHESTER, NH 03105-0226

WWW.SENH.ORG

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