

June 2022 Newsletter

Connecticut Society of Civil Engineers June Newsletter

From the President

Dear CSCE Members,

As we kick off the summer of 2022, I would like to reflect on all of the continued successes of CSCE and commend the adaptability of all of you for the ongoing transition between our virtual monthly presentations and in-person events. Fortunately, we were able to reconnect face-to-face for the first time in too long at our March and April meetings, at the Norwalk Inn and the U.S. Coast Guard Academy. We were able to keep the same energy heading into the ACE Awards in May, catching up on three years' worth of awards in one night and giving some long overdue recognition of those winners from 2020 and 2021. The atmosphere was electric and we thank all those that were able to attend and those that provided feedback!

While we have some of our speakers ironed out for the upcoming year, CSCE is still actively looking for speakers for the 2022-2023 monthly meetings. If you are interested in speaking at one of our upcoming meetings, or have any additional suggestions for events or topics, please feel free to reach out to me at <u>snolan@slrconsulting.com</u>. We are hoping to hold most of the meetings in person, but we do plan on having a few in the virtual format again, since this allows for some members to join who would otherwise not be able to make it. Regardless of location of the meetings, we plan on offering NYS PDH's at the majority of them!

I would also like to take a moment to highlight the CSCE Younger Members, specifically Jodi Constant, P.E., and Katie Hedberg-Klose, RSP1, whose efforts and hard work in planning the 2022 Multi Regional Leadership Conference in June, were obvious. The 3-day event was enjoyed by ASCE members from all over the country, as we had perfect weather throughout the conference and folks were able to truly experience what Hartford has to offer. Our socials on Friday and Saturday night at City Steam Brewery and Thomas Hooker Live were phenomenal and further added to the positive vibes of the weekend! I hope to take the lessons learned and feedback from everyone and apply that to future the future events to ensure the best experiencefor all involved.

I am looking forward to being your President for the 2022-2023 session of CSCE and I hope to see you soon!

Sincerely,

Scott Nolan, E.I.T., M. ASCE

Upcoming Events

2022

September 16 - CSCE / CT ITE Annual Golf Tournament Outing

- Timberlin Golf Course Berlin, CT
- Corporate sponsorships will be available

September 23 - First Annual GeoConnecticut (GeoCT) Geotechnical Conference

- Earn up to 6 New York State Professional Development Hours (NYS PDHs)
- Location: Sheraton Hartford South Hotel, 100 Capital Boulevard, Rocky Hill, CT 06067
- Space for vendors and corporate sponsorships will be available

The following information is preliminary. As such, some details may change.

Invited speakers include Dr. Tim Stark, Ph.D., P. E., Professor at University of Illinois. Timothy D. Stark is a Professor of Civil and Environmental Engineering at the University of Illinois at Urbana-Champaign with an expertise in Geotechnical Engineering. Dr. Stark has been conducting interdisciplinary research and teaching on the static and seismic stability of natural and manmade slopes, such as dams, levees, floodwalls, and waste containment facilities, railroad geotechnics, geosynthetics and geomembranes, soil liquefaction during earthquakes, and stabilization and behavior of dredged material containment areas. He has been involved in a number of projects on these topics, which has facilitated the transfer of his research results to practice. He is currently researching three-dimensional slope stability, inverse analyses of landslides, heating events in waste containment facilities, and jet grouting. Registration: Open in July, date to be determined

For further information contact: Landon Barlow (<u>LBarlow@haleyaldrich.com</u>) or Randy States (<u>randall.states@gmail.com</u>)



Project Spotlight

This month's project spotlight is the CSCE's 2022 ACE award winner for Sustainable Historic Preservation. This award was presented to GNCB & Becker + Becker, for their restoration of Hotel Marcel in New Haven, CT.

The Hotel Marcel is located at 500 Sargent Drive, in New Haven CT, and is a 165-room boutique hotel that includes a restaurant, gallery and meeting space. This project was a certified historic rehabilitation and adaptive re-use of mid-century modern design originally designed by Marcel Breuer in 1967. This building originally housed the Armstrong Rubber Company and then Pirelli. It is commonly referred to as the Pirelli Tire building. This project is LEED Platinum certified and is the first Passive House certified hotel in the U.S.

The building is a nine-story steel framed building with a pre-cast concrete façade. Because the entire site consists of deep layers of organic fill over soft silts, the building is supported on 120-ton piles with concrete pile caps, grade beams, and a two-way structural slab at the first floor. The most iconic feature of the building is the "missing" third and fourth floors. Between the second-floor roof and the fifth floor is a two-story open space with no exterior columns along the two longer sides. The upper portion of the building is supported by two rows of interior columns, two cast- in-place concrete stair towers, one at each end, and a central concrete elevator core. Instead of columns at the exterior, the upper floors are hung from a series of full height steel trusses at the ninth floor.

Because of the width of the building, the guest rooms are serviced by two parallel corridors along the length of the building with the rooms to the exterior, leaving a 25- foot-wide central bay without access to natural light. To allow that space to be used for more than just storage closets and mechanical rooms, two glass enclosed light wells were crated from the roof down to the fifth floor

The ninth floor, which was originally used as a mechanical floor, has no windows at all. Here an exist ing two-bay opening in the roof that originally housed recessed HVAC units was converted into a glass enclosed terrace. The original 9" slab on deck was removed and replaced with a 5" slab on deck to accommodate a paver system and allow for drainage away from the occupied space. Surrounding the terrace are glass walled meeting rooms.

Two bays of the roof were reinforced for a roof top patio while the remaining roof was covered with photovoltaic solar panels. Additional pile supported solar canopies we constructed in the parking area.

In addition to its structural engineering work, GNCB also provided a geotechnical engineering assessment for an elevated mechanical equipment pad located adjacent to the south side of the pile supported building. Test borings drilled for the assessment, which confirmed the original 1960 building test borings, revealed conditions that consisted of upper layers of about 15 ft. of a non-engineered manplaced fill underlain by 25 ft. of very soft organic silt that was further underlain by a natural deposit of outwash sand and gravel. GNCB settlement analysis associated with the relatively lightly loaded equipment pad, along with an understanding of the long-term time dependent settlement of the organic soils, justified that the new equipment pad could be safely supported on a shallow foundation bearing within the man-placed fill.

Project Challenges

Mechanical systems and building structure were modeled in 3d to locate over 100 duct and pipe penetrations through existing steel beams and walls, primarily in the space above the first-floor ceiling.

The locations were analyzed and reinforcement designed where needed. In cases where penetrations could not be sufficiently reinforced, systems were reconfigured and the process repeated until a workable solution was achieved. During field layout, it became apparent that the existing beam elevations varied from their theoretical locations by enough that further analysis and adjustment was needed. This could not have been achieved without the significant cooperation between the construction manager, their sub-contractors, and the design team.

With the addition of a bar, and restaurant at the first floor, there was a need to run additional plumbing lines below the two-way structural slab cast on grade. Several options were explored and in the end two solutions were used. In the two bays with extensive piping the entire slab was removed to the centerline

of the grade beams. The slabs were rebuilt in kind with rebar mechanically coupled to the existing were necessary. In other bays with less extensive piping, access holes were cut in the slab so that the soil could be vacuumed out from below the slab to run the pipes. The access holes were then re-cast.

The historic nature of the building presented a final significant challenge. There were a number of situations where the obvious and simple solutions were not permitted because they would alter the historically significant aspects of the building.

Additional Links

https://www.buildings.com/articles/43365/hotel-marcel-historic-net-zero









Brain Teaser Corner



A man has 53 socks in his drawer: 21 identical blue, 15 identical black and 17 identical red. The lights are out and he is completely in the dark. How many socks must he take out to make 100 percent certain he has at least one pair of black socks?

Previous Month's Answer: They all made right hand turns

Solution to be shown in subsequent newsletter. Want to stump your colleagues? If the answer to this question is Yes, please submit your Brain Teaser (and solution) to the Newsletter editor at tparker@hwlochner.com

Employment Opportunities



- Siefert Associates, LLC
- Geotechnical Project Manager
- Job Posted: June 29, 2022

Siefert Associates, LLC is a Structural-Geotechnical Engineering Firm practicing in the niche field of Construction Engineering. We are the professional service firm of choice for contractors across the Northeast. Our specialty is developing working drawings and calculations for heavy highway, building, railroad, & utility projects. Our work includes temporary & permanent design, inspection, & field services.

We seek a Geotechnical Project Manager to handle business development, proposal writing, & delivery of projects. The Geotech PM will manage the project budget, client communications, & junior

engineers. Project types include SOE; cofferdams; slope stability; retaining walls; pavement structures, pile & shallow foundations, geotechnical investigations, etc.

Requirements: MS in Geotechnical Engineering, PE License, Experience (10+ years). Offices in Watertown, CT and White Plains, NY. Apply at <u>www.siefertassociates.com</u> – email cover letter and resume to <u>info@siefertassociates.com</u>



- Siefert Associates, LLC
- Structural Project Manager
- Job Posted: June 29, 2022

Siefert Associates, LLC., is a Structural-Geotechnical Engineering firm practicing in the niche field of Construction Engineering. We are the professional service firm of choice for contractors across the Northeast and are proud to call 10 of the top 15 Domestic Heavy Contractors [per ENR] as our Clients. Our specialty is developing working drawings and calculations for heavy highway, building, railroad, & utility projects. Our work includes temporary & permanent design, inspection, & field services.

We seek a Structural Project Manager for responsibilities that include the management & preparation of calculations for complex projects, business development, proposal writing, & training/mentoring of production staff. BS or MS in Civil Engineering, PE license in NY/CT, & 10 years of design experience in construction engineering preferred. Located in Watertown, CT office with hybrid work options.

Apply at: www.siefertassociates.com – email cover letter & resume to info@siefertassociates.com



- GeoDesign
- Project-Level Geotechnical Engineers
- Job Posted: June 29, 2022

GEODesign has an immediate opening in Connecticut for a project-level geotechnical engineer to provide geotechnical services on design and construction projects in New England and Metro New York areas.

GEODesign is a premier geotechnical specialty engineering consulting firm headquartered in Middlebury, Connecticut, with offices in NJ, VT, NY and OR. We are a regional industry leader providing services in the fields of geotechnical, environmental, forensic, and construction engineering. This position offers an excellent opportunity to work on a wide variety of projects such as highways & bridges, buildings, water front structures, land development, forensic engineering, dam engineering, and environmental remediation. GEODesign offers great growth potential and learning opportunities to those aspiring professionals by working closely with our highly competent, seasoned engineers recognized in the field. For more information/to apply, please visit <u>https://geocompanies.com/</u> or email resume to <u>hr@geocompanies.com</u>.

GEODesign is an Equal Opportunity Employer



- Connecticut Department of Transportation
- Transportation Engineer Trainees
- Job Posted: May 17, 2022

Transportation Engineer Trainees work in many different capacities agency-wide. These positions are available throughout the State with unbeatable benefits as well as a promotional opportunity after one year. These positions are full-time, 40 hours per week. New hires to state service currently start at \$65,796 annually. Current students who will be graduating with a Bachelor's degree in Engineering or Construction Management by the end of December 2022 are strongly encouraged to apply!



- DiBlasi Associates, P.C.
- Structural Engineer & Revit Technician
- Job Posted: April 8, 2022

DiBlasi Associates, P.C., a well-respected structural engineering firm in Monroe, CT, has immediate opening for structural engineers and a Revit technician. Firm specializes in the design and investigation of complex building structures. Project types include educational facilities, office buildings, institutional facilities and residential facilities. Firm maintains a strong commitment to continuing education and is active in many professional organizations.

Senior Structural Engineer: Applicant should have 7-15 years experience in building design using steel, concrete, and timber structural systems, and shall have Revit experience. Must be capable of managing multiple projects and overseeing the production of construction documents. Connecticut PE license or ability to obtain a CT PE required. Good communications skills and ability to work with a variety of clients is a must.

Structural Engineer: Applicant should have minimum two years experience in building design using steel, concrete, and timber structural systems. Revit proficiency required. Experience with RAM Structural System a plus. BSCE and EIT required.

Revit Technician: Applicant shall have a minimum of two years experience using Revit for the design of structural building systems.

Competitive salary and benefits package. Email cover letter and resume to <u>personnel@DiBlasi-Engrs.com</u>. EOE.



Jobit - <u>Civil Engineering Project Manager</u>, Hartford, CT - Unlock your full potential with an award winning full-service civil engineering firm! *Job posted on www.csce.org on March 10, 2022*

Haley & Aldrich - <u>Civil/Geotechnical Engineer</u>, Hartford, CT- *Job posted on www.csce.org on March 10, 2022*



- Nathan L. Jacobson & Associates
- Chief Inspector
- Job Posted: November 23, 2021

Established Civil and Environmental Engineering firm seeking highly motivated technical personnel with excellent communication skills for a Construction Chief Inspector position. Experience in bridge and roadway construction inspection, testing and CTDOT four volumes. Minimum AS degree in CE or CE Technology desired, and; Microsoft Word, Excel and Outlook experience required. NICET 3 certification or PE required. For more information and to apply, visit our website; <u>www.nlja.com</u>.



- Luchs Consulting Engineers, LLC
- Chief Inspector, Office Engineer, Senior Inspector, and Inspector positions
- Job Posted: October 18, 2021

Luchs Consulting Engineers, LLC, a Meriden based Consulting Engineering firm is seeking candidates for a Chief Inspector, Office Engineer, Senior Inspector and Inspector positions. Experience with State of Connecticut and Municipal Construction Inspection procedures is required. Current NICET, NETTCP, ACI, ATSSA and NACE Certifications are a plus.

Competitive Benefit Package

Email: dcrandall@luchs.com

An Affirmative Action Employer (EOE)

http://www.luchs.com/



- Luchs Consulting Engineers, LLC
- Civil Design Engineer
- Job Posted: October 18, 2021

Luchs Consulting Engineers is a multi-disciplined engineering, surveying firm based in Meriden, CT. We have immediate opportunities for professionals who are ready to join our dynamic team.

Civil Design Engineer BS Degree in Civil Engineering; EIT or NICET a plus

- 3-7 years' experience in CTDOT design environment
- Roadway Drainage Design/HEC-RAS Hydraulic experience required
- Knowledge of MicroStation or AutoCAD required

Comprehensive Benefit Package

Please email resumes to: dcrandall@luchs.com

http://www.luchs.com/



Consulting Engineers, P.C.

Structural Engineering Geotechnical Engineering Historic Preservation

- GNCB
- Sr. Geotech Engineer
- Job Posted: July 22, 2021

GNCB seeks Sr. Geotech Engineer to serve as Project Manager. Responsibilities: Manage projects including all aspects of field & lab investigations, project design, & construction administration; prepare budgets, proposals, reports & contracts; build and maintain Client Relationships. Minimum Quals: B.S. or M.S. in Civil Engineering with geotech concentration; P.E. in Connecticut; 8 to 12 years' experience showing proficiency in job responsibilities & knowledge of local subsurface conditions.

http://www.gncbengineers.com/



• Hardesty & Hanover

- Civil Engineers
- Job Posted: June 22, 2021

Hardesty & Hanover is currently seeking engineers to join our expanding civil engineering design group in New England. Our New Haven office seeks experienced Civil Engineers with expertise in roadway, drainage, traffic, and highway safety design. Applicants should be able to perform design tasks, lead small groups, communicate effectively, and collaborate to meet objectives. Our firm offers a close-knit employee-based culture and opportunities for professional growth and leadership. Please visit <u>https://www.hardestyhanover.com/current-openings/</u> for further details.



- Conlon Engineering, LLC
- Structural Engineer
- Job Posted: June 21, 2021

Conlon Engineering, a growing structural design firm in Brookfield, CT is seeking a structural engineer with 0-3 years of experience doing design work and calculations. We are looking for a smart, hardworking engineer who wants to be part of a profitable firm that is set up for sustainable growth. Visit our website at <u>conlonengineering.com</u> and email resumes to <u>office@conlonengineering.com</u>



- Down To Earth Consulting, LLC
- Geotechnical Senior Project Engineer
- Job Posted: June 21, 2021

Down To Earth Consulting is seeking a Senior Project Engineer to join our geotechnical group in Naugatuck, CT. The successful candidate should have a BS degree from an ABET accredited civil engineering program, 5 to 10 years of experience, and be a licensed PE. Down To Earth Consulting is an Affirmative Action/Equal Opportunity Employer. To learn more about this opportunity, please submit your resume to ray@downtoearthconsulting.com.

https://downtoearthconsulting.com/



Civil · Environmental · Land Surveying

1 - <u>https://www.facebook.com/PereiraEng/</u>

- Pereira Engineering
- Civil Engineer, Land Surveyors & Survey Technicians
- Job Posted: June 21, 2021

Pereira Engineering is an established Civil/Environmental/Land Surveying firm located in Shelton, CT. PE is seeking a Civil Engineer as well as Land Surveyors and Survey Technicians (at all levels of experience) to expand our Survey Department. PE offers a very competitive salary and benefits. Please email resume to: joe.pereira@pereiraeng.com

Memberships

ASCE and CSCE Membership

ASCE members come from all disciplines of civil engineering, from all types of environments, and from all over the world. With benefits geared to meet the high standards of professionalism, ASCE strives to cater to each member's needs.

Membership in CSCE is granted to ASCE members upon receipt of Connecticut Section dues. Connecticut Section dues are \$30 per year. Please include your section dues with your national membership renewal. We can accept mid-year memberships. Please contact our <u>Membership Committee Chair Rich Cohen at</u> <u>rcohen@hwlochner.com</u> for more information about CSCE and ASCE. To join the Connecticut section of ASCE, please go to the ASCE website (www.asce.org) and click on Join at the top of the page.

Why join CSCE? Please click <u>here</u> for our PowerPoint Presentation from a Professional Issues Seminar on Tuesday, April 8, 2008 about the Advantages to Joining Professional Associations

Transferring Section Membership

Have you recently moved to Connecticut, or are you about to? If you are a current ASCE and local Section member you can transfer your Section membership to CSCE. Once you move to Connecticut, you may go online to <u>www.asce.org/myprofile</u> and log in change your address information. This will initiate the transfer from your old Section to the Connecticut Section. If you encounter any trouble while online, you can also contact the ASCE Records Department via email at <u>memrec@asce.org</u> or (703) 295-6300 to provide you new address information and the transfer can be handled that way as well.

If you are moving out of Connecticut, you can follow the same procedure to transfer from CSCE to you new local Section. We are sorry to see you go, but hope that you continue to be active in ASCE and your new local Section. For information about the local Section for where you are moving, you can visit the ASCE website @: http://www.asce.org/Regions-Sections-Branches/

Advancing your Membership Grade

Do you need to advance your membership grade? Are you a recent graduate? Did you get your P.E. license? ASCE and CSCE encourage you to advance your membership grade as your professional career progresses. Information and instructions are available on the <u>ASCE website</u>

10 Free PDHs

Did you know ASCE members receive 10 Free PDHs.

Choose up to 10 out of 200 on-demand webinars from the comprehensive continuing education library

All active professional ASCE members have access to the courses. If you have already selected your free courses, go directly to <u>MyLearning</u>. Check out other <u>continuing education</u> opportunities too.

ASCE updates free On-Demand Webinars on January 1. Free webinars must be used (viewed and exam taken) between January 1 and **December 31**. When you join or renew for the next membership year, you can select ten additional free webinars as early as January 1 of the following membership year. Access them at <u>www.asce.org/freepdh</u>. You are required to pass an exam on the webinar's content to receive a free PDH.

Unemployed?

ASCE National has a program to waive dues of unemployed members. For more information,

Write to:

ASCE

Attn: Member Services Dept.

1801 Alexander Bell Drive

Reston, VA 20191-4382

Or Call : Toll free: 1-800-548-ASCE Direct: 703-295-6169 Fax: 703-295-6335





About **CSCE**

The CSCE is the result of a merger of two organizations that occurred 30 years ago. The Connecticut Society of Civil Engineers was founded in 1884, while the Connecticut Section of the American Society of Civil Engineers was founded in 1919. In 1958, the Section had 523 members. In 1955 (the nearest comparable year for reliable numbers), the Society had 1,033 members. The two organizations met separately until they merged in 1981, by mutual vote of membership, to become the Connecticut Society of Civil Engineers Section of American Society of Civil Engineers or CSCE.

Civil Engineers design and build our increasingly complex infrastructure; work with government officials, citizens and businesses to promote better infrastructure maintenance and renewal; and build commerce in Connecticut and throughout the World. We serve diverse industries including government, consulting, construction, academics and manufacturing and we work in a variety of disciplines including governmental, structures, transportation, and water resources.

Contact Us

The 2022-2023 CSCE Executive Board thanks you for taking the time to read this newsletter. Should you have any questions, comments, or concerns - feel free to contact <u>one of our members</u>.