DFI Technical Committees are tackling technical projects, collaborating with other groups, and organizing events that educate and increase awareness of new technologies. Read the reports below and watch this space for the most current updates on DFI technical activities. Please contact me at **melarge@dfi.org** to get involved. We are always seeking new members, ideas and suggestions.

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COMMITTEE CHAIR DAN STEVENSON

Codes and Standards Committee

I am happy to report that we had a very successful experience at the International Code Council (ICC) Committee Action Hearings in Albuquerque, N.M., in May. All 17 code change proposals submitted by the GeoCoalition Code Committee were approved. Dale Biggers, Lori Simpson, P.E., G.E., Langan, and I represented the GeoCoalition Code Committee and defended the code proposals, which were broadcast live from the code hearings.

The GeoCoalition Code Committee is an industry-wide working group comprising members from DFI, ADSC-IAFD, ASCE GeoInstitute and PDCA. DFI member Dale Biggers, P.E., of Boh Bros. leads this committee. Since 2016, the committee has worked to modify 17 of the proposals that were originally submitted by this group but disapproved at the 2016 hearings. The list of all code proposals and resolutions are posted on the ICC website. A link is posted on the committee web page under the 'Groups' tab at **www.dfi.org.**

Code change proposals approved in Albuquerque included increased allowable stresses for deep foundation elements, modified splice requirements for driven piles, new nondestructive testing methods, and other topics related to foundations.

The code change proposals were open for public comment after hearing until July 24, 2019. The next step in the code development process is the public comment hearings in Clark County, Nev., October 23-30, 2019. Representatives from the GeoCoalition Code Committee will attend these hearings and defend the proposals.

COMMITTEE CHAIR DAVID MILLER, P.E.

Soil Mixing Committee

Members of the Soil Mixing Committee have been active in initiatives and support of other conferences on behalf of DFI. In June, committee members participated in a one-day workshop for the City of Toronto. This was organized by DFI at the city's request as part of the City of Toronto Groundwater Management Strategy Program. The workshop included presentations from the city on issues related to the groundwater regime and management policy in Toronto and presentations from DFI members on "watertight" foundation solutions.

Also, in June, I had the pleasure of being a keynote speaker at SEFE9 in São Paulo, Brazil. SEFE had reached out to DFI and the Soil Mixing Committee to submit abstracts and offered to sponsor speakers. I was able to present on the developments of the soil mixing industry within the U.S. along with a couple of case studies involving excavation support by soil mixing techniques. In August, S3: Slope – Support – Stabilization was held in Minneapolis, Minn., with several papers given regarding slope stabilization.

Our research funds were put to good use in 2018, as George Onorato and Giovanni Bonita, Ph.D., P.E., P.G., of GEI Consultants completed the first phase of their research entitled "The effect of curing stresses on the mechanical properties of soil-cement mixed materials." Onorato delivered a summary of the work so far during his presentation to the committee during the DFI Annual Conference in Anaheim, Calif., in October 2018.

In just seven months, there was substantial progress towards meeting the project goals. GEI secured commitments from ConeTec, Geokon, Keller and Geotechnics, and several other industry practitioners for the project. These commitments ranged from providing equipment for monitoring, testing, laboratory analysis and field data collection. The response from these companies has been impressive.

The project developed an in-situ testing plan. The team has developed and fabricated a prototype field consolidometer apparatus and started field testing. Data is being collected related to the application of stresses to a wet grab sample during curing. This is underway at most of the project sites.

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Join a Committee

As a member of DFI you can participate in one of our many technical committees and collaborate with your peers, influence the profession, build consensus, develop leadership skills and extend your network. If you are interested in joining a committee, please email a letter on your company letterhead to **staff@dfi.org**, indicating which committee you want to join, why you want to join the committee and describe your involvement in that technology/discipline.

During GEI's presentation, a number of good questions were generated by the committee. Reponses to these questions were tentatively addressed with the expectations that changes to these conditions may be made as field data is evaluated. The project team also extended an invitation to the committee members for collaboration and technical input as progress continues in this study.

The committee strongly encourages members to submit proposals for research funds. The proposals are to be circulated to members for comment and approval, then submitted to DFI for consideration. Proposals must be received by DFI early in December. Take the timing into consideration when submitting a proposal. Ideally proposals should be submitted to the committee by the DFI Annual Conference in Chicago in October. Please do not procrastinate, proposals have been rejected for missing the deadline.

During our meeting in October, the committee discussed the preliminary outline for our white paper on recommended QA/QC testing parameters and evaluation. This outline was recently circulated for input and discussion on how the committee should be moving forward with this paper.

We will have our next meeting during DFI's Annual Conference, October 15-18, 2019, in Chicago. Please see the committee meeting schedule on page 34.

DFI is hosting an International Deep Mixing Conference, June 15-18, 2020, in Gdańsk, Poland (see page 45). Hopefully you were able to submit an abstract for this conference and/or will be able to attend. This conference typically shares a tremendous amount of knowledge and research regarding the industry.

COMMITTEE CHAIR MIKE KYNETT, P.E.

Seepage Control Committee

The Seepage Control Committee led the development of a workshop requested by the City of Toronto to address issues related to groundwater management during construction of deep basements. The workshop was held at the beautiful Toronto Botanical Gardens. As Toronto continues its rapid development, city officials recognize they must revise their groundwater management policies to address limited storage capacity in their stormwater system. Under the Seepage Control Committee, DFI organized a workshop group to discuss relevant "watertight" foundation technologies, including anchor sealing, secant piles, sheet and pipe piles, diaphragm walls, deep mixing, trenching and jet grouting. Nadir Ansari of Isherwood Associates, Mark Montgomery of Keller Foundations and Dave Wiley, P.Eng., of GFL Infrastructure led the working group efforts and were supported by DFI President Matthew Janes, M.B.A., P.Eng., of Isherwood Associates.

DFI members worked for many weeks to create consensus presentations that covered the construction methods, quality assurance and control, and case histories for these techniques. Over half of the attendees were developers and city officials, and the city officials noted that the professionalism and content of the presentations exceeded their expectations. We are grateful to the City of Toronto for reaching out to DFI for foundation technology information.

Thank you to the following DFI members who worked diligently to prepare and present on behalf of our industry:

- Nadir Ansari, president, Isherwood Associates, Mississauga, ON, Canada
- Filippo Mira-Catto, grouting and ground freezing manager, Bauer Foundations Canada, Calgary, Canada
- Giovanni Bonita, Ph.D., P.E., P.G., senior vice president, GEI Consultants, Washington, D.C., USA
- Dave Wiley, P.Eng., chief estimator, GFL Infrastructure Group, Vaughan, ON, Canada
- Mark Montgomery, VP of Prairie Region, Keller Foundations, Edmonton, AB, Canada
- Ian Vaz, technical advisor, Giken America Corporation, Orlando, Fla., USA
- Denis Guimond, business development manager, Nucor Skyline, St. Bruno, QC, Canada
- Samir Hebib, managing director, Bauer Foundations Canada, Calgary, AB, Canada
- David Miller, P.E., president, ADM Consulting, Westminster, Colo., USA
- Ken Andromalos, P.E., technical director, Geo-Solutions, Pittsburgh, Pa., USA
- Paolo Gazzarrini, P.Eng., MASCE, D.GE, president, Sea to Sky Geotech, Vancouver, BC, Canada
- GianCarlo Santarelli, retired president of Bencor Global, presented a lunchtime keynote lecture on the Roosevelt Metro Station project of the Northgate Link Extension in Seattle.

Speakers and organizers of the workshop for the City of Toronto