

## Driven Pile Committee

The Driven Pile Committee is going international. Building on the momentum from the last two DFI/PDCA Driven Pile Seminars, Mike Justason of Birmingham contacted the Calgary Geotechnical Society, and thanks to their enthusiastic response and gracious offer of assistance, we are off to Calgary in February 2012.

Super Pile 2012 is resetting back to the West Coast in Portland, Ore. Bob Bittner of Bittner-Shen Consulting Engineers will be the local organizer. It's time to start getting those presentations ready and, as always, consider taking the next step to publish in the *DFI Journal*.

Undaunted by our lack of publishing success, we continue on. The *Driven Foundation Piling Manual* is out of Sam Kosa's hands and going to the cloud. The manual will be a collection of links on the committee webpage. The links will be updated by our vendor members and audited by the committee. David Borger of

Skyline Steel is going to kick-off the effort with H-piles. Other pile types will follow shortly. If anybody would like to tackle other pile types, please let us know. Any assistance is welcome.

The *Driven Pile Installation Guide* is continuing to be revised by Ameir Altaee of Urkadda Technology. The current timetable is for the draft and committee review to be completed by the end of 2011 and ready for submission to DFI's Technical Advisory Committee.

The committee decided to abandon the Driven Pile Cost Survey. Thanks to all who responded. We appreciate the response, but it became apparent that a very large sample size was needed for any specific conclusions.

Fret not for the demise of the survey. The committee has decided to take on an even more ambitious tack — a book of case studies highlighting the cost-effectiveness



of driven piles. Van Komurka of Wagner Komurka Geotechnical Group has volunteered to be the editor. The goal is to break the

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case studies down by methods used to achieve cost-effective driven pile projects, i.e., increased allowable stress, reduced safety factor through testing, pile type. Previously published papers are welcome. Contribute early and often.

Pile cap research has hit a bit of a speed bump while the RFP is being revised. We are looking for suppliers interested in partaking in the research. If you are interested, contact Mike Wysockey (mwysockey@thatcherfoundations.com). This is an opportunity to markedly impact driven piles for years to come and should not be missed.

## Tiebacks and Soil Nailing Committee

On February 24, 2011, the Tiebacks and Soil Nailing Committee participated in a joint seminar with the Geotechnical Society of Edmonton and the DFI Committee on Deep Foundations for Landslides/Slope Stabilization on "Current Topics in Soil Nailing/Tiebacks and Landslide Stabilization Practices." Thanks to Mary Ellen Bruce, P.E. and Katie Criqui of DFI, and fellow DFI members who presented an excellent, cooperative program with our colleagues in Edmonton.

The committee is actively discussing new initiatives to continue advancing its segment of the earth retention and ground anchor industry. Topic areas currently being considered are the state of practice for removable tieback and soil nail anchors and an analytical study on the limitations of the two-dimensional force equilibrium method for soil nail wall analysis. We are also looking for input from DFI members and the

industry in general. Send us your suggestions, and you might plant the seed for a new research direction or industry contribution by the committee.

After our hugely successful Phoenix seminar in May 2010, the committee is enthusiastic about continuing to offer high levels of technology transfer and education to the industry. We are in the planning stages for a joint seminar with the ADSC Anchored Earth Retention Committee to be held in 2012. By harnessing the technical resources of both committees, we hope to offer a state-of-the-art and state-of-the-practice educational experience that covers every aspect of the temporary and permanent earth retention industry. Stay tuned for future announcements as we develop an exciting multi-day program.



The committee would like to remind all DFI members, and others in the construction and engineering industry, that the

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First Edition of the *Soil Nailing Guide Specification* (2010) is available for purchase through DFI's website. This document represents the state of the practice in specifying soil nail walls for private-sector projects, and was authored and reviewed by experts in the construction and design fields.

Finally, for those of you who would like to join the committee, please contact DFI headquarters. We hope to see you at our next formal committee meeting at the 36th Annual Conference in Boston in October.

# Ground Improvement Committee



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The DFI Ground Improvement Committee's main goals remain to provide educational resources and technical guidance for ground improvement topics. This is accomplished by hosting seminars and educational programs, and preparing guidance documents and technical papers.

One of our ongoing initiatives is preparing a prefabricated vertical (wick) drain specification. Many of the specifications that are currently being used are outdated, or include requirements that are not relevant or practical. The DFI Technical Advisory Committee (TAC) reviewed the draft specification, and we are currently working on addressing the comments.

Another initiative we are working on is the preparation of ground improvement educational webinars. We are still very early on in the process.

We are also working on a committee report/*DFI Journal* article that addresses liquefaction mitigation. The document will

provide a summary of the state of the practice and will include discussions of assessment of the risk of liquefaction, design of liquefaction mitigation measures, and post-ground improvement field accept criteria. One of the main challenges is that there are a lot of moving targets and vastly differing views in terms of assessment, verification and especially characterizing the risk of liquefaction at sites. We agreed that further discussions are necessary before the document can be finalized.

To further the understanding of the issues surrounding liquefaction, we propose to conduct a one-day seminar/forum. As of now, we have tentatively planned to conduct the forum in spring 2012 in St. Louis, Mo. Please note that this locale is preliminary and has not been finalized. Once the program date and venue has been officially selected, DFI will send out notifications.

We know that there is widespread interest in the recent earthquakes in New Zealand and Japan, and learning what knowledge about liquefaction mitigation can be gained. We will also discuss liquefaction risk assessment, applicable ground improvement techniques, and verification of the effectiveness thereof. We do not expect that the forum will be without controversy as we hope to have some of the foremost experts in the field involved... and there are some widely varying opinions regarding certain aspects of liquefaction. This event should prove to be extremely interesting and informative.

If you would like to get involved with the ground improvement committee, contact DFI headquarters.

# Sustainability Committee

As we continue to battle our way through the economic recovery, I ask myself has sustainability yet returned to the construction agenda? Balfour Beatty, for whom I work for in the U.K., has recently introduced a sustainability Key Performance Indicator (KPI) to measure how much work they are winning on their sustainability credentials. Last year 20% of Balfour Beatty's U.K. work was on sustainable projects. I'm sure most other major contractors in the U.K. would claim much the same. However, in the deep foundations market, I personally haven't been asked about sustainability for two to three years now. Price and programme still dominate decision making, although often the most sustainable solution is the cheapest and/or quickest anyway. Despite this background, the Sustainability Committee is organising a seminar in collaboration with the BRE (Building Research Establishment) to be held 24 November, 2011 at BRE's offices north of London in the U.K.

BRE has a longstanding reputation for working in sustainability, and the group developed BREEAM, a sustainability assessment tool for buildings. The seminar is designed to bring together all parts of industry that work with deep foundations, from house builders to major civil engineering contractors, from small consultancy firms to major international organisations. Morning speakers include those working with the U.K. government on what should be expected from sustainability, and how this will be relevant to the deep foundations industry. Afternoon speakers will present more specific examples of sustainability in practice. The discussion period at the end of the day is aimed at producing a plan to get foundations included in sustainability assessments in the future. I hope DFI can then play a leading role influencing organisations such as LEED over the coming years.



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Elsewhere, DFI's Energy Piles Working Group is coordinating information transfer and practically-oriented input into university research on the design, construction and use of foundation elements for geothermal heat transfer. Contact Mary Ellen Bruce (mebruce@dfi.org) for more information. Principal Investigator Prof. Guney Olgun, from Virginia Tech, provided an update of ongoing NSF-sponsored research at the Super Pile conference. Field test programs and a workshop in Lausanne, Switzerland are planned for 2011 and 2012. Representatives from the Working Group also presented a seminar at the International Bridge Conference to obtain feedback from the transportation community on their interest in using these elements for bridge de-icing and other applications.

# Deep Foundations for Landslides/Slope Stabilization Committee

The Committee on Deep Foundations for Landslides/Slope Stabilization has been busy organizing and contributing to two technical seminars devoted to topics involving use of deep foundations for stabilization of landslides and slopes. The committee co-organized a technical seminar entitled "Current Topics in Soil Nailing/Tiebacks and Landslide Stabilization Practices," in cooperation with the Geotechnical Society of Edmonton and the DFI Tiebacks and Soil Nailing Committee. The seminar was held in February 2011 in Edmonton, Alberta and was very well attended despite the bitterly cold weather. The seminar program was exceptional, resulting in a stimulating day of technical presentations that included "fundamental" presentations on technical issues associated with use of soil nails, tiebacks and other deep foundation elements for slope stabilization, as well as several case histories and other product

presentations. Special thanks are due to several committee members that contributed to the program including Horst Aschenbroich of Con-Tech Systems, Colby Barrett of Soil Nail Launcher, and Daniel Pradel of Group Delta Consultants and other presenters for helping make the seminar a success. Thanks are also due to Mary Ellen Bruce, Katie Criqui and the rest of the DFI staff for helping to organize the day-long seminar.

The committee is also organizing a one day short course—"Deep Foundations for Landslides and Slope Stabilization"—that is to be held just prior to the DFI Annual Conference in Boston. The course will be held on October 18, 2011 at The Seaport Hotel and World Trade Center in Boston. The short course will include presentations summarizing current technologies, presentations covering key design concepts and

issues, as well as several case histories that illustrate effective application of deep foundations for stabilization of landslides/slopes. The course will close with a panel discussion that will provide attendees the opportunity to pose questions to the panel of presenters for the course.



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The committee is blessed with a core group of members committed to furthering the committee's objectives and has added several new members in recent months. The committee continues to seek new members so we can expand our scope of activities. Anyone with interest in serving on the committee and/or contributing to committee activities is encouraged to contact DFI headquarters.

# Micropile Committee

The last DFI/ADSC Joint Micropile Committee meeting was held in Irving, Texas at the ADSC Spring Board of Directors meeting in April. The next meeting will be in July 2012 at the ADSC Summer Meeting in Charleston, S.C.

As usual, there is a lot going on in the micropile industry, and

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as a result, there are a number of ongoing projects the Micropile Committee is working on. The following are summaries of some of the major efforts recently completed or currently underway.

A successful and well attended day and a half Micropile Seminar was held in early May in Little Rock, Ark., and included some of the best sessions from our past

seminars plus a number of new sessions including LRFD coverage. Sean Campbell of Foundation Specialties was the local coordinator for the event. Planning is currently underway for our next seminar to be held in the Washington, D.C. area. Make plans to join us in 2012!

One of the development tasks related to the annual seminar program was the development of a presentation on the application of LRFD for Micropiles. This task has been completed and has been incorporated into the seminar program. A lot of interest was expressed on the topic of LRFD, and it is hoped that this material will assist micropile designers in properly applying LRFD principles and understanding how it compares to other design methodologies.

Work continues on updating the committee publication *Guide to Drafting a Specification for Micropiles* and the

development of a position white paper on the use of mill secondary casing material for micropiles. Task forces have been formed and have met to discuss these efforts.

Don't forget that DFI and the Micropile Committee have created groups on LinkedIn so that news and activities can be shared. I will be posting committee news on my personal micropile blog as well at [www.micropile.org](http://www.micropile.org). These online resources make it easier for committee members and interested parties to keep up to date and provide immediate input on discussion items. Be sure to check these out. If you are a committee member, please sign up at [www.linkedin.com](http://www.linkedin.com) and connect with me at [www.linkedin.com/in/jonathankbennett](http://www.linkedin.com/in/jonathankbennett) so I can get you plugged in to the Committee Group. There is no cost to create and maintain a LinkedIn account.

# Marine Foundations Committee

The Marine Foundations Committee activities have involved Super Pile 2011, a Specialty Seminar in San Francisco in June, the Annual Conference in Boston, as well as the initiation of DFI's involvement in next year's Offshore Technology Conference (OTC) in Houston.

After Super Pile 2011, this committee focused on our Specialty Seminar held June 9-10 in San Francisco to provide the value of experience to our members who are anticipating involvement in offshore wind power developments, particularly offshore the Eastern states. We are fortunate to have the very strong experience of engineers from Europe who have worked in design, construction, maintenance and operational support of wind farms in the Netherlands, Germany, the U.K. and other countries. Their presentations were especially interesting, as were the suction-installed foundations and wharf deepening project

presentations. For more information on the presentations, contact DFI headquarters.

The selection of San Francisco for this event was intended to coincide with the final phase of the erection of the new San Francisco-Oakland Bay Bridge East Spans. This project was the subject of a summary presentation on its foundations during the seminar, and Professor Frieder Seible, the Dean of Engineering at UCSD gave his perspective on this foundations project. He has been an active member of the Seismic Safety Peer Review Panel, as was the late Prof. Ben C. Gerwick Jr. Prof. Seible presented the committee's Ben C. Gerwick Innovation Award to this year's winner, George G. Goble. George's name is almost synonymous with impact pile driving analysis, monitoring and inspection. A boat tour followed the seminar, with speakers



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describing the marine foundations of the Golden Gate, Bay, and Richmond Bridges.

Several other issues will concern the committee this year including the selection of an inaugural submission of papers for an OTC 2012 session from the DFI. Theresa Rappaport and Bob Stevens of Fugro have arranged this exciting prospect for the members, who will benefit from the OTC's strong technical history. The committee will also support the 36th Annual Conference on Deep Foundations in October. This committee is still considering the best way to initiate the involvement of those who want to participate in our organization as either the DFI Australasian Committee, or a full DFI Australasia. This should be resolved some time this year.