



MEETING MINUTES

22 February 2014

Location: Westin Peachtree Plaza Hotel
Atlanta, Georgia

Committee Chairman: Kyle Rollins, Brigham Young University

Committee Secretary: Antonio Marinucci, American Equipment & Fabricating Corp. / Soilmec N. America

This meeting was called to order by K. Rollins at 8.05pm (local time)

Minutes of the Meeting

1. Meeting was started with a welcome by K. Rollins, followed by a self-introduction of meeting attendees
 - The officers of this committee are as follows:
 - Committee Chairman: Kyle Rollins, Brigham Young University
 - Vice Chairman: Kord Wissman, GeoPier Foundation Co.
 - Secretary: Antonio Marinucci, American Equipment & Fabricating Corp. / Soilmec NA
 - b. Other non-officer positions for this committee are as follows:
 - Web master: Armin Stuedlein, Oregon State University
 - Awards Subcommittee Chairman: Jie Huang, University of Texas-San Antonio
2. Update from GeoInstitute (GI) – Vern Schaefer and Kord Wissman
 - Attendance at 2013 Conference (approximate; numbers available at meeting time)
 - 460 academics
 - 400 students
 - 190 practitioners
 - 150 vendors
 - GI Strategic Plan
 - Billy Camp was introduced as the GI President during the GI business meeting
 - The last GI Strategic Plan was developed (at least) 5 years ago (led by Craig Benson)
 - Current plan has 4 focus areas
 - Become more member-centric(by Board)
 - Doing a good job with academic members
 - Doing an ok job with students
 - Not doing a good/ok job with practitioners
 - Need to much better job (and cheaper) delivering value and technical content to practitioners at the local level
 - Need to develop State of the Art and State of the Practice papers that are curated, which can be utilized at the local level
 - Need to become more pro-active than reactive (or complacent)
 - Become the source of knowledge
 - Become the “big tent” of the geo-industry
 - Do a better job with finances and business issues

- Project funds
 - The \$5,000 cap on projects has been removed by the Technical Committee Council (TCC).
 - For future projects, each committee is required to submit ideas and proposals to the TCC for review.
 - The committee was implored to develop and submit proposals as soon as possible (funds are first come, first reviewed)
 - Proposal submitted by Unsaturated Soils Committee to develop 4 to 5 webinars
 - Proposal submitted by Site Characterization Committee to develop videos for YouTube and classroom
 - Question – what can the Soil Improvement Committee develop / propose that would bring value to the membership? Ideas from the committee were requested.
 - Update from Geo-Institute (and Technical Committee Council, TCC) - Vern Schaefer
 - V. Schaefer conveyed a message of thanks from the TCC for the committee's work related to the conference (reviewing papers) and for continued good work in committee
 - GI wants to develop and execute 4 technical seminars each year (the idea is tentative, and is being debated/vetted by GI)
 - GI wants to develop a Local Involvement Committee to engage the various technical committees to gauge the local interests and needs of the GI members
 - DFI has developed a similar program, which has been successful
 - DFI is interested in collaborating, sharing information, developing a common program, etc.
 - The intent would be to provide pertinent and local content where/when needed
 - Action Item: The GI Soil Improvement Committee and DFI Ground Improvement Committee need to draft and propose a slate of speakers
 - A representative from group (GI and DFI) will review the list and finalize
 - Donna Dickert, GI, presented information on a corporate pricing package for obtaining access to ASCE publications
 - Can be customized for each user / company
 - GI is a good group to outreach because of GSPs
 - Other access items – manuals of practice, technical reports, committee reports
 - K. Rollins asked to have access to publications at rates lower than present
3. Update on Upcoming Geo-Institute Conferences and Events – V. Schaefer
- 2015 IFCEE - Joint ADSC/G-I/PDCA/DFI EXPO-type conference
 - Will be held from March 17-21 in J.W. Marriott Resort in San Antonio, TX
 - Final technical papers due in May 2014
 - Panel session on Deep Foundations / Ground Improvement
 - K. Wissman and R. Lopez involved with panel development
 - Panelists are set
 - Technical sessions from Soil Improvement Committee
 - More than 50 abstracts received
 - 1 track (multiple sessions) on soil improvement
 - The track chairs – K. Rollins, A. Marinucci, J. Clemente

- 2015 International Deep Mixing Conference – San Francisco (May 2015)
 - George Filz provided a comprehensive handout (see attachments to these minutes)
 - 2016 Joint GI/SEI Congress
 - The conference will be held in February in Phoenix, AZ
 - There will be no conference proceedings for this conference (abstracts only)
 - This does not preclude anyone/group from developing a GSP later (no in conjunction with the conference), and would be a collection of individual papers and a separate GSP.
 - Anyone/group interested in creating a GSP would need to send a proposal to the TCC for review and decision
 - Need to submit a session proposal from the Committee
 - Ideas for sessions – soil-structure interaction, liquefaction, sustainability, and effective response due to ground improvement
 - Call for Proposals
 - Chair by J. Clemente, A. Stuedlein, and Prabir Kolay
 - The committee will send in 2 proposals
 - Proposals open – October 2014
 - Proposals close – April 2015
 - 2016 Sustainability and the Geoenvironmental Specialty Conference
 - Information about this conference was provided as a flyer in the conference packet
 - CECAR 2017
 - The conference location will be in Southeast Pacific area
 - Track and session ideas are being sought for this civil engineering conference
 - Grouting Conference 2017
 - This conference will be held in Hong Kong
 - GI will partner with a local partner in Hong Kong
 - Shamsher Prakash Conference (Case Histories)
 - This conference will be turned over and managed by GI beginning in 2017
 - Ground Improvement Session Proposals for GeoCongress 2014
 - Session 25 - Sustainable Stabilization/Solidification of Contaminated Soil and Waste
 - Emphasis on case histories, QA/QC
 - Session 42 - Elements of Sustainability in Geotechnical Engineering
 - Reuse/Rehab of foundations and Geosystems, Recycled Re-engineered material Use, Carbon Footprint Analyses and Pollution Control, Balanced Design and Management of Risk
4. Liaison member needed for 2016 Joint GI/SEI Congress
- A. Marinucci and J. Clemente have agreed to serve on the planning committee
5. Cooperation with DFI and DFI Ground Improvement Committee Efforts – Mary Ellen Bruce; Marty Taube
- DFI committee is interested in working with this Soil Improvement Committee
 - Need to have better collaboration to avoid duplication of efforts
 - At what level of collaboration is the GI interested? DFI?
 - Discussion of hosting a joint seminar/track between DFI and G-I committees

- Discussion topics – how could this be done? What topics would be beneficial to both groups and members?
 - Possibly hold a short course (1/2 or full day) at GI/SEI Conference in 2016
 - M. Taube will write up a proposal and send to K. Rollins for review
 - Other ideas - Research needs study, training tools, webinar topics
 - Seminar/track ideas – Design/Build aspects, QA/QC, an industry report
6. M.E. Bruce provided an update on DFI activities and initiatives, and passed out a handout to attendees (attached to minutes)
- ME Bruce said she will provide K. Rollins with an FTP address for access to Levee/Dam seminar information and presentations. K. Rollins to share with members of Committee
 - The Wick Drain Specification has been finalized and is available
 - Papers on liquefaction will be available in the DFI Journal (M. Taube said he will make available the liquefaction papers available if cannot obtain via Journal)
 - Current initiatives:
 - Working on platform specifications
 - Performance specifications for Ground Improvement
6. Update on the SHRP2 Ground Improvement Platform-Vern Schaefer
- Website --> www.GeotechTools.org
 - Users will need to register to access the system (FAQ available. Feedback from users is requested, and areas for feedback are available within the program)
 - As of November 2013, registered users
 - More than 1,000 consultants
 - More than 500 users in public agencies (all State DOTs)
 - Users in more than 50 countries
 - The intent of the Tool is that it would be a living system, to be updated as the need arises.
 - The website is in the implementation phase
7. Update on Web Site - Armin Stuedlein
- ASCE is redoing their website
 - GI will have its own page on the ASCE website
 - Committees may have their own pages on ASCE website, if interested
 - On the Committee website - send any information, links, requests for upload/inclusion to Armin
8. Regional Ground Improvement Seminars – Kord Wissman, Ali Maher
- No report
9. Awards for Ground Improvement - Jie Huang
- No report
 - K. Rollins relayed that G. Filz was nominated for Wallace Hayward Baker award but was not selected
10. Ground Improvement Experimentation in Christchurch, New Zealand – K. Rollins
- Delivered a presentation to the committee on the research work performed.
 - A copy of the presentation is attached to the minutes
11. Sustainability in Soil Improvement
- No report

12. Ground Improvement for Increasing Lateral Pile Resistance – Oklahoma

- No report

13. Other new business or topics?

- No other new business was brought up

Meeting was adjourned at 10.00pm (local time).

Meeting Attendees

Name	Affiliation	Email
Jose Clemente	Bechtel	jlclemente@bechtel.com
Marty Taube	Menard	mtaube@menardusa.com
Donna Dickert	ASCE Publications	ddickert@asce.org
Prabir Kolay	SIUC	pkolay@siu.edu
Tanner Blackburn	Hayward Baker Inc.	jtblackburn@haywardbaker.com
Chris Meehan	University of Delaware	cmeehan@udel.edu
Kyle Rollins	Brigham Young Univ.	rollins@byu.edu
Antonio Marinucci	American Equipment & Fabricating / Soilmec North America	antmarinucci@gmail.com
Silas Nichols	FHWA	Silas.nichols@dot.gov
Kord Wissman	Geopier Foundation Co.	kwissman@geopier.com
Mary Ellen Bruce	DFI	mebruce@dfi.org
Vern Schaefer	Iowa State University	vern@iastate.edu
George Filz	Virginia Tech	filz@vt.edu
Muhannad Suleiman	Lehigh University	mts210@lehigh.edu
Armin Stuedlein	Oregon State University	armin.stuedlein@oregonstate.edu



FINDING COMMON GROUND

DEEP FOUNDATIONS INSTITUTE TECHNICAL ACTIVITIES UPDATE – FEBRUARY 2014

DFI President: Bob Bittner, P.E., Bittner-Shen Consulting Engineers rbb@bittner-shen.com

DFI Executive Director: Theresa Rappaport trappaport@dfi.org

DFI Technical Activities Manager: Mary Ellen Bruce, P.E., D.GE, mebruce@dfi.org

DFI STRATEGIC AND INTERNATIONAL INITIATIVES

- DFI Strategic Initiatives (2014-2019): globalization of DFI, revitalizing technical committee projects and activities, fostering role of young engineers, engaging and maintaining technical service providers (manufacturer and supplier members) in DFI activities.
- Globalization: ongoing initiative to advance the state-of-practice and understanding of the global deep foundations industry.
- Regional Training, Conferences and Workshops in India: Working with active regional chapter on education of Indian engineering community and training of Indian labor force on deep foundations techniques. Current technical topics include drilled shafts, slurry walls, ground improvement and driving piling. 2014 workshops to be presented on liquefaction and rock socketed drilled piles.
- DFI-EFFC Conference Stockholm, Sweden May 21-23, 2014: Theme is codes and standards, including European execution and manufacturing standards and new U.S. guidance for bored piles, driven piles, dry and wet deep mixing, and slurry walls and sheet piling.

TECHNICAL COMMITTEE ACTIVITIES

- 16 DFI Technical Committees, over 250 active committee members.
- New DFI Technical Committee on Subsurface Characterization for Deep Foundations: Focus on effective use and generation of site investigation data for deep foundations design and construction. Inaugural meeting to be held at DFI Annual Conference in Atlanta, October 21-24, 2014. Welcoming committee members.
- Committee Liaisons: encouraging collaboration with committees from associated organizations through dedicated liaison program.
- Sustainability: challenging all technical committees to outline sustainable aspects of subject technologies.
- EFFC-DFI Carbon Calculator: Project based, standardized, spreadsheet-based carbon calculator and manual completed and available at www.geotechnicalcarboncalculator.com. Technologies include bored piles (drilled shafts), micropiles, diaphragm walls, slurry walls, sheet pile walls, anchors, grouting, soil mixing, displacement piles, bored pile walls, soldier pile walls, soil nails, dynamic compaction, vibro compaction, jet grouting, stone columns, and vertical drains. Training is available.
- International Building Code Change Proposals: DFI working with/leading multi-society team to develop proposed code changes to Chapter 18 Foundations to be presented to ICC in 2015 (for 2018 code). Justifications for proposed text changes being prepared now.

DFI PUBLICATIONS

- Completed: Helical Piles and Tiebacks Committee University PowerPoint presentation. Available on dfi.org
- Completed: Ground Improvement Committee Wick Drain Specifications available on DFI website.
- Many other publications underway.
- Magazine – published six times per year.
- Journal – inviting papers, please consider. Submit at www.edmgr.com/dfi
- www.onemine.org – included with DFI membership, DFI members may download DFI documents and also mining and tunneling documents free of charge, after login at dfi.org. Non-members can download documents at a cost of \$25 each.

WORKING GROUPS AND PARTNERSHIPS

- DFI Seepage Control Working Group (SCWG): DFI and federal agency working group to improve technical, contractual and quality aspects of seepage cutoff projects nationwide. First workshop held in December 2011. DFI members contributed to review and development of first draft of new USACE engineering manual on seepage control cutoffs for dams and levees. Next draft to be received by DFI for review Spring 2014.

Second SCWG workshop held in Miami, FL February 12-13, 2014 to discuss levee and coastal rehabilitation projects and programs. Presentations from USACE, Bureau of Reclamation, NCRS, FERC, FEMA and levees boards. International conference on seepage barriers being discussed. Presentations available from DFI.

- **Electric Power System Foundations Working Group:** Industry-wide discussion group to address issues related to deep foundation design and construction in the electric power system industry. First meeting held at 2013 DFI Annual Conference (Phoenix), and second meeting at GeoCongress (February 24, 2014 Atlanta).
- **Energy Foundations Working Group:** Ongoing collaboration with Virginia Tech researchers on energy foundations, including field test programs and workshops. Virginia Tech/DFI workshop in June 2010 brought together industry participants to provide practical input to the research program. Field test sites are ongoing by DFI members. Bridge deck deicing being investigated. International workshop in Switzerland March 2013 discussed design tools, sustainability issues, market and technical considerations and barriers, and research needs. Results to be published in DFI Journal.
- **Pile Cap Research:** Joint project with Concrete Reinforcing Steel Institute (CRSI) of updated design guide for pile cap design, including higher steel and concrete strengths. Work being completed by Prof. Tim Mays of Citadel.
- **NHI Courses:** Partnership with National Highway Institute and FHWA to deliver geotechnical courses.

RESEARCH FUNDING - DFI COMMITTEE PROJECT FUND

Initiated in 2012, DFI has funded almost \$250,000 in committee research projects in 2012 and 2013 (brief overview of topics below). \$100,000 in research work being funded in 2014.

who?

- **Consensus guidelines for design and detailing of reinforced concrete diaphragm walls used as permanent basement walls in regions of high seismicity.**
- State-of-practice overview and transcripts of interviews from survey and synthesis of liquefaction mitigation practices (including selection and implementation of ground improvement techniques.) Published in DFI Journal August 2013.
- Update to an existing Strain Wedge Model technique used for analyzing slopes stabilized with one row of piles.
- Literature review and practitioner survey on state-of-practice for design and construction and research needs for reticulated micropile network information.
- International technical workshop to define a common understanding of design and construction techniques for drilled shafts used globally and define best practices on codes/standards, design methods, construction factors, contracting practices, and advancements.
- Literature review and development of online database of large scale lateral pile load tests.
- Analysis of anchor load test data to determine potential limitations of 80% anchor unbonded length criterion.
- Literature review and practitioner survey on design and construction practices for helical piles and tiebacks.
- Independent review and analysis of available pile design information, load testing results, and associated pile construction costs to quantify the level of over-conservatism that results from inappropriate acceptance criteria commonly included in building codes. To be published in DFI Journal in 2014.

2014 DFI EVENTS – tentative dates; more detail provided on DFI Calendar at www.dfi.org

March 19-20	Seattle, WA	DFI-ADSC Anchored Earth Retention/Micropile Design and Construction Seminar
April 2-3	Dubai, UAE	DFIMEC 2014: DFI Middle East Conference
April 3	St Charles, MO	Helical Pile History and Current Practice Seminar
April 22	Seattle, WA	Practical Deep Foundation Design/Construction for Seismic & Lateral Loads
April TBD	West Haven, CT	Spring CSCE Workshop: Cone Penetrometer Testing in Geotechnical Practice
April 29-30	Greensboro, NC	DFI-ADSC Drilled Shaft Seminar
May 21-23	Stockholm, Sweden	DFI-EFFC International Conference on Piling and Deep Foundations
June 11-14	Krakow, Poland	ISM-DFI-ADSC 12th International Workshop on Micropiles
June 18-20	Cambridge, MA	SuperPile 2014
June TBD	Los Angeles, CA	Cutoff and Reinforced Slurry Walls in Infrastructure Projects Seminar
Aug TBD	Tarrytown, NY	Marine Foundations Seminar: Design & Construction of the New Tappan Zee Bridge
Aug/Sept	Pittsburgh	Landslides, Slope Stabilization and Deep Excavation Support Seminar
October 21-24	Atlanta, GA	39th Annual Conference on Deep Foundations

DFI STUDENT CHAPTERS – at University of California at Berkeley, University of Missouri, University of Illinois at Urbana Champaign, City College of New York, American University Dubai.

DFI EDUCATIONAL TRUST – scholarships at six universities annually, five smaller at-large scholarships open to any students to be awarded in 2014, fundraising events held nationally.

DFI INFO: New DFI Website at www.dfi.org, over 3000 members, over 55 countries.

DFI Presents

Deep Mixing 2015

San Francisco
June 3 to 5

Abstract: A series of international symposia and conferences focused on deep mixing alternated between Japan (1996, 2002, 2009) and Sweden (1999, 2005). Deep Mixing 2015 marks the first event in the series to be held in the U.S. Important advances in materials, equipment, system design, and project delivery mechanisms have occurred since 2009. Deep Mixing 2015 will provide a forum for international exchange of this new information. Applications include support and stabilization of embankments, floodwalls, retaining walls, storage tanks, and other structures; liquefaction mitigation; seepage barriers; and environmental stabilization. Internationally recognized experts will present the state of the art, descriptions of landmark projects, and cutting edge innovations. The symposium will be structured around plenary sessions and concurrent breakout sessions to optimize benefits to all participants. In keeping with the focus of this series, the symposium scope consists of deep mixing and mass mixing by mechanical means that may be assisted by fluid energy.

Topics:

- Material properties
- Mixing equipment and technologies
- Analysis and design
- Project delivery mechanisms
- Specifications
- Quality control and quality assurance
- Performance monitoring
- Case histories and system performance
- Support and stabilization of embankments, revetments, levees, floodwalls, land reclamation, retaining walls, storage tanks, and other structures
- Liquefaction mitigation
- Seepage barriers
- Environmental stabilization

(DFI event)
→ MOU b/t DFI & GI.

Organizational Structure:

Conference Chairs: George Filz and Masaki Kitazume (will be involved in all committee activities)

Organizing Committee: DFI Soil Mixing Committee (responsible for exhibits, sponsors, and other support as necessary, including soliciting and reviewing papers)

Technical Committee: Name three individuals in charge of abstracts, papers, reviews, proceedings, and sessions (international representation)

International Advisory Committee: (advice on conference content and structure, help with promotion, help recruit and serve as paper reviewers, and engage cooperating organizations)

Australia:
Belgium:
Canada:
China:
Finland:
Germany:
Italy:
Japan:
Norway:
Singapore:
Sweden:
US:
UK:
Vietnam:
Other countries:

Cooperating Organizations:

ASCE Geo-Institute Soil Improvement Committee
ADSC Soil Mixing Committee
Canadian Geotechnical Society
Japanese Geotechnical Society
Japanese deep mixing organizations
Swedish Geotechnical Society
Others?

Conference Logistics: DFI will provide for all conference logistics

Conference Technical Structure:

Keynote lectures:
Material properties
Analysis and design for structural support
Project delivery, specifications, and QC/QA
Seepage barriers
Environmental applications

Parallel breakout sessions

Possible poster sessions if number of papers exceeds capacity of plenary and break-out sessions; either on-line posters or paper posters in exhibit hall

No "reporters" for groups of related papers

Conference Format:

Tuesday, June 2: Welcome reception in exhibit hall 6 to 8 p.m. (drinks and heavy hors d'oeuvres)

Wednesday, June 3:

- 8:00 to 10:00 a.m.: Conference welcome and two keynote presentations
- 10:00 to 10:30 a.m.: Break in exhibit hall
- 10:30 to noon: Two parallel breakout sessions, 6 papers each
- Noon to 1 p.m.: Lunch in exhibit hall
- 1:00 to 3 p.m.: Two parallel breakout sessions, 8 papers each
- 3:00 to 3:30 p.m.: Break in exhibit hall
- 3:30 to 5:30 p.m.: Two parallel breakout sessions, 8 papers each
- 6:00 to 7:00 p.m.: Drinks and light hors d'oeuvres in exhibit hall, followed by dinner on your own in San Francisco
- 7:00 to 9:00 p.m.: Dinner for key conference committee members, including planning for next conference in the series

Thursday, June 4:

- 8:00 to 10:00 a.m.: Three keynote presentations
- 10:00 to 10:30 a.m.: Break in exhibit hall
- 10:30 to noon: Two parallel breakout sessions, 6 papers each
- Noon to 1 p.m.: Lunch in exhibit hall
- 1 p.m. to 3 p.m.: Two parallel breakout sessions, 8 papers each
- 3:00 to 3:30 p.m.: Break in exhibit hall
- 3:30 p.m. to 5:30 p.m.: Panel discussion with audience interaction on engineering of deep mixing, including material properties, analysis, design, and system performance
- 6:30 to 9 p.m.: Drinks followed by plated dinner, no program

Friday, June 5:

- 8:00 to 10:00 a.m.: Two parallel breakout sessions, 8 papers each
- 10:00 to 10:30 a.m.: Break in exhibit hall
- 10:30 to noon: Panel discussion with audience interaction on construction of deep mixing, including project delivery, specifications, and QC/QA
- Noon: Announcement of next conference, conference adjournment

Companion Program:

Companions invited to June 2 reception, June 3 reception, and June 4 dinner at cost
Wednesday, June 3: Get-together brunch, guided tour of San Francisco

Post-Conference Technical Tour:

This is a possibility, but only if a suitable project is underway in the area at the time

Abstract and Paper Submittal Schedule:

Call for abstracts: April 15, 2014
Abstracts due: July 1, 2014
Abstract decisions: Aug 1, 2014
Draft papers due: Nov 7, 2014
Paper review and decisions: Feb 1, 2015
Mandatory paper revisions for re-review: March 1, 2015
Final papers due: April 1, 2015
Final papers to DFI after checking revisions and any final changes: May 1, 2015

*Will need help from
Comt. for paper reviews.*

Conference Facility Quality and Cost Structure:

"DFI quality" hotel and conference center in downtown San Francisco or near the
Waterfront
Estimate approximately \$800 per person registration fee
Estimate approximately 250 attendance
Estimate approximately 20 exhibitors
Free registration and \$500 honorarium for about five keynote speakers and about five
key conference organizers (chairs and proceedings editors)