



MEETING MINUTES

13 March 2013

Location: Town & Country Hotel  
San Diego, California

Committee Chairman: Kyle Rollins, Brigham Young University  
Recorded by: Antonio (Tony) Marinucci, ADSC (committee secretary)

This meeting was called to order by K. Rollins, committee chairman, 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 (Tony) Marinucci, ADSC
  - 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 Geo-Institute (and Technical Committee Council, TCC) - Vern Schaefer
  - Tri-Annual Report
    - Report was submitted and on time
    - Committee received a GOOD rating from the TCC. The TCC reported that the committee has good energy, and would like to see it continue
    - The committee is good for another 3 years
  - Changes in G-I Annual Meetings
    - There is a new process in place, and will be implemented commencing in 2017
    - There will be a standing committee (with rotating membership) for upcoming conferences. A member of the committee will serve for 3 years (for Conference Chairs – 1 year prior to “their” conference, conference year, 1 year post-conference)
    - There may be a change in the conference scheduling and agenda format; possibly occur from Saturday to Wednesday
    - For 2013 conference (at time of this meeting) – 1,014 registrants; 300 students
3. Update on Upcoming Geo-Institute Conferences – Kyle Rollins
  - 2014 Sustainability/Site Characterization – Feb. 23-26 Atlanta
  - 2015 IFCEE - Joint ADSC/G-I/PDCA/DFI EXPO-type conference in March 17-21 in San Antonio
  - 2015 Intl. Deep Mixing Conf. May/June – San Francisco
  - 2016 Joint GI/SEI Congress Feb-March
  - 2016 Sustainability and the Geoenvironmental Specialty Conference

4. Liaison with International Building Code (IBC) – Mary Ellen Bruce
  - The Code Committee is comprised of members from DFI (each chapter), PDCA (deep foundations), G-I (shallow foundations), and ADSC (deep foundations and earth retention)
  - The review and proposed changes go to vote in 2015, and accepted changes are incorporated in the 2018 edition
  - The committee holds teleconferences every 3 or so weeks
  - Tom Gurtowski and Dale Biggers are leading the effort
  - The committee is proposing to add sections into the code covering soil improvement, foundation testing, expansive soils, and collapsible soils
    - Fred Masse is the lead for the soil improvement section
    - Kyle Rollins expressed interest in the collapsible soils section
    - It was mentioned that Art Pengelly (Craig Olden, Inc.) may have interest in the expansive soils section
5. Update/Correlation with DFI Ground Improvement Efforts – Roberto Lopez
  - Roberto Lopez stated that the DFI committee is interested in working with this committee on activities and events not to duplicate efforts
  - Some of the activities from the DFI committee
    - Ground Improvement White Paper – in final review
    - Specifications – in initial stages (Ray Franz and Dominic Parmantier are leads)
    - Liquefaction Seminar, St. Louis – completed, 80 attendees, good seminar and feedback
    - Wick Drain Specifications – in final review
    - Liquefaction Practice Survey – DFI Project Fund Award – Tim Siegel will develop report (150 respondents), which will be published in DFI Journal
  - 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? Short courses or stand-alone seminars? Possibly sponsor multiple tracks/sessions at IFCEE 2015?
    - Other ideas - Research needs study, training tools, webinar topics
    - Seminar/track ideas – Design/Build aspects, QA/QC, an industry report
  - M.E. Bruce provided an update on DFI activities and passed out a handout to attendees (attached to minutes)
6. Report on Sessions from 2013 GeoCongress - George Filz
  - There were 300 students at this conference (12% from Virginia Tech)
  - ±25 abstracts were submitted.
    - Session organizers (Filz, Rollins) were not given charge of selecting the abstracts for their own sessions. Organizers should be given chance to review and accept/reject abstracts
    - Why was this?
    - 15 papers were eventually submitted and we accepted 13 papers
    - 2 additional sessions moved in (by G-I Conference folks), but not too bad
  - Ground Improvement I, II, III – Wednesday 10-11:30, 1:30-3, and 3:30-5 pm
  - Reviewers: G. Filz, K. Rollins, A. Stuedlein, R. Lopez, T. Siegel
  - Moderators: R. Lopez, T. Siegel, K. Rollins
7. Ground Improvement Session Proposals for GeoCongress 2014 - Ali Maher (Co-Sponsored with Geoenvironmental Engineering)
  - Ali Maher is the lead on the session proposals (attached to minutes)
    - Abstracts are due 15 March 2013

- Session 25 - Sustainable Stabilization/Solidification of Contaminated Soil and Waste
    - Session co-chairs:
    - 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)
    - Papers which define what we are talking about would be very good. Reviewed a paper on sustainability from England.
    - Mary Ellen Bruce will circulate the session proposal through DFI Sustainability committee and through DFI Europe
    - Session Co-Chairs:
8. Update on the SHRP2 Ground Improvement Platform-Vern Schaefer
- Attempting to rebrand the product --> [www.GeotechTools.org](http://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)
  - Looking for a final host for the website. Updating of the system (and information) will be dependent upon funding and/or revenue generation.
  - The intent of the Tool is that it would be a living system, to be updated as the need arises.
  - FHWA & SHRP2 are looking into how the product will continue to look moving forward, how to sustain, and how to maintain, etc.
  - Short courses are being developed to change the culture about using this tool...from information-usage to incorporating into the design process
9. Update on Web Site Development - Armin Stuedlein
- Send any information, links, requests for upload/inclusion to Armin
10. Session Proposals Ideas for upcoming conferences - Kyle Rollins
- 2015 IFCEE Joint Expo-type conference with ADSC/G-I/PDCA/DFI March 17-21, 2015
    - International Foundations Congress and Equipment Expo
    - Technical Program Committee - Brian Anderson, Mary Ellen, Mike Justason, and Tony Marinucci
    - Call for Short Courses and Technical Sessions was sent out to each organization at end of February...deadline for proposals is in June 2013
    - The technical program will include - panel sessions, typical technical Sessions, poster sessions, and short courses
    - Other conference features - Exhibition/field demos and Joint committee meetings (possibly)
    - Possible soil improvement sessions (from this committee)
      - Ground improvement for structural foundation and embankment treatment - Juan Baez will take the lead
      - Ground improvement for expansive soils – Anand Pupala (need to inform him)
      - Panel discussion on deep foundations/ground improvement – Roberto Lopez and Kord Wissman will take the lead
  - 2015 Intl. Deep Mixing Conf. May/June, 2015 3 days San Francisco - George Filz, Chair (DFI will be the managing party)
    - DFI Deep Mixing Committee and GI Soil Improvement Committee will be involved and strongly support this conference

- Prior conferences: Sweden 2005 – 200 attendees, Okinawa 2009 - about 100 attendees
  - San Francisco 2015:
    - Trying to achieve 200-250 attendees (more open enrollment).
    - Not jet grouting or stone columns...mechanical mixing can be jet assisted mechanical mixing. Seismic focus alright but not exclusive.
    - Single track program, 3 days long
    - Expect a large international participation
    - Role of this committee – assist throughout the entire process, from organization to review of papers to moderating, as needed, etc...
    - Needs local committee to assist
    - Will be looking for sponsorships
  - Flood protection levees. Levees, shoring, etc.
  - 2016 Joint GI/SEI Congress Feb-March
11. Cooperation with DFI – Mary Ellen Bruce
- Carbon calculator is almost ready for release – in final review
  - There will be regional training in India
  - There is a Panel Reinforcement Advisory Board in place
  - Additional information is found on handout M.E. Bruce provided containing update on DFI activities and initiatives (attached to minutes)
12. Regional Ground Improvement Seminars – Kord Wissman, Ali Maher
- In 2011, seminar was held at Oregon State; approx. 95 attendees
  - In 2012, seminar was held at BYU; approx. 120 attendees
  - Upcoming seminar –
    - 1 day seminar, October 2013
    - Need to get information to local level
      - Local ASCE interested in participating...DFI interested?
    - Main focus - Bridge rehabilitation work
    - Topics - MSE for bridge abutments, DMM for stabilization and foundations, etc
    - Ali meeting with local ASCE and Port Authority of NY/NJ
13. International Collaborations - Budima Induratna
- No report
14. Awards for Ground Improvement - Jie Huang
- Jim Collin received the Wallace Hayward Baker Award
  - No nominations were made for technical papers for GeoCongress 2013
  - K. Wissman, A. Stuedlein, J. Clemente, and D. Dailer volunteered to assist J. Huang with effort
15. Sustainability in Soil Improvement – Ahmed Elgamel
- No report
  - Need to provide Ahmed's email information to M.E. Bruce
16. Ground Improvement Webinar Commitments
- Need to develop webinars to promote general or a series of topics
  - Funds from the TCC can be used to develop webinars
    - Peer-Reviewed in advance for approval
    - \$1000/hr of presentation time
17. Geostrata articles on Soil Improvement - Jim Withiam

- No report, but need to provide articles a year in advance
18. Mid-Year Meeting
- Hold in conjunction (or at) the DFI Annual Meeting in Phoenix in September 25-28 - ??
19. Other new business or topics to discuss?
- No other new business was brought up.

Meeting was adjourned at 10.15pm (local time).

Meeting Attendees

| Name              | Affiliation             | Email                           |
|-------------------|-------------------------|---------------------------------|
| Jie Huang         | Univ Texas San Antonio  | jie.huang@utsa.edu              |
| Jose Clemente     | Bechtel                 | jlcllemente@bechtel.com         |
| Robin Cheng       | Layne                   | robin.cheng@layne.com           |
| Juan Baez         | AGI                     | jbaez@advgeosolutions.com       |
| Roberto Lopez     | Malcolm Drilling        | rlopez@malcolmdrilling.com      |
| Dennis Boehm      | Hayward Baker           | dwboehm@haywardbaker.com        |
| Trish Gallagher   | Drexel Univ             | Pmg24@drexel.edu                |
| Kyle Rollins      | Brigham Young Univ.     | rollins@byu.edu                 |
| Antonio Marinucci | ADSC                    | antmarinucci@gmail.com          |
| Silas Nichols     | FHWA                    | Silas.nichols@dot.gov           |
| Kord Wissman      | Geopier Foundation Co.  | kwissman@geopier.com            |
| Adriana Paucean   | HC Matcon               | adrianap@hcgroupp.ca            |
| Mary Ellen Bruce  | DFI                     | mebruce@dfi.org                 |
| Vern Schaefer     | Iowa State University   | vern@iastate.edu                |
| Ali Maher         | Rutgers University      | mmaher@rci.rutgers.edu          |
| David S Yang      | JAFEC USA, Inc.         | davidyang@jafecusa.com          |
| Emre Biringen     | Bechtel                 | ebiringe@bechtel.com            |
| George Filz       | Virginia Tech           | filz@vt.edu                     |
| John Miller       | ADSC                    | jmiller@adsc-iafd.com           |
| Jie Han           | University of Kansas    | jiehan@ku.edu                   |
| Armin Stuedlein   | Oregon State University | armin.stuedlein@oregonstate.edu |

Session #25

## **Sustainable Stabilization/Solidification of Contaminated Soil and Waste**

I am writing to invite you to contribute to a session on “ Sustainable Stabilization/Solidification of Contaminated Soil and Waste” at Geo-Congress 2014 (session No. 25), to be held in Atlanta, Georgia on February 23-26, 2014. This session is being co-sponsored by the GeoInstitute’s Geo-environmental and Soil Improvement Committees.

The session seeks to attract papers on a range of topics related to the application of ground improvement techniques to solidification and stabilization (S/S) of contaminated soils and sediments. The topics for the session may include:

1. Application of in-situ techniques such as deep mixing, grouting and in-situ encapsulation for solidification and stabilization of contaminated soils in upland applications.
2. Application of in-situ techniques for solidification and stabilization of contaminated sediments in riverine, waterfront and near-shore applications.
3. Development of laboratory and field QA/QC protocols for in-situ stabilization techniques – laboratory and field specifications.
4. Case histories on the use of in-situ techniques for S/S of contaminated soils.

Abstracts (200-300 words) may be submitted online via the GeoCongress 2014 website open to authors now at <http://submissions.miracd.com/ASCE/GeoCongress2014/Login.asp> . Additional details can be found on the Call for Abstracts document, available for download from the same URL address.

Deadlines for abstract and paper submittal are as follows:

**Abstracts Due: March 15, 2013**

Draft Papers Due: May 15, 2013

Reviewer Comments Provided: July 10, 2013

Final Papers Due: September 4, 2013

**Session Title: Sustainable Stabilization/Solidification of Contaminated Soil and Waste**

Sponsoring Committees: Geoenvironmental and Soil Improvement Committee

**Session Leaders (Soil Improvement Side):**

Ali Maher (Rutgers University)      mmaher@rci.rutgers.edu

David Yang (Jafec USA, Inc.)      dsyang15@gmail.com

Session #42

## Elements of Sustainability in Geotechnical Engineering

**(Reuse/Rehab offoundations and Geosystems, Recycled Re-engineered material Use, CarbonFootprint Analyses and Pollution Control, Balanced Design and Managementof Risk)**

I am writing to invite you to contribute to a session on “Session 42 Sustainability in Geotechnical Engineering (Resue/Rehab offoundations and Geosystmes, Recycled Reengineerd material Use, CarbonFootprint Analyses and Pollution Control, Balanced Deisgn and Managementof Risk)” at Geo-Congress 2014 (session No. 42), to be held in Atlanta, Georgia on February 23-26, 2014. This session is co-sponsored by the GeoInstitute’s Geoenvironmental and Soil Improvement Committees.

The session seeks to attract papers on a range of topics related to sustainability of geosystems. Potential topics for the session may include:

1. Definition of sustainability in geosystems – how geosystems fit into broader infrastructure sustainability planning and design – case histories.
2. Incorporation of sustainability in design with focus on management of risk and liabilities.
3. Beneficial use of recycled geosystems – foundations and retaining systems.
4. Recent advances in innovative soil/sediment treatment and remediation techniques – with focus on beneficial use.
5. Advances in the reduction of Carbon footprint of geosystems – design, material selection and construction techniques.

Abstracts (200-300 words) may be submitted online via the GeoCongress 2014 website open to authors now at <http://submissions.miracd.com/ASCE/GeoCongress2014/Login.asp> . Additional details can be found on the Call for Abstracts document, available for download from the same URL address.

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**Session Leaders (Soil Improvement Side):**

Ali Maher (Rutgers University)

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Kyle Rollins (Brigham Young University)

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### Projects and Initiatives

- Internationalization: ongoing initiative to advance the state-of-practice and understanding of the global deep foundations industry.
- 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). New sections planned on foundation testing, expansive/collapsible soils, and ground improvement.
- USACE-DFI Seepage Control Working Group: DFI-U.S. Army Corps of Engineers working group to improve technical, contractual and quality aspects of seepage cutoff projects. DFI members contributed to review and development of new USACE engineering manual on seepage control cutoffs for dams and levees. Final draft to be ready Summer 2013. Next workshop to be held in Miami, FL February 2014 to discuss levee and coastal restoration projects and programs. Presentations expanded to Bureau of Reclamation, TVA, NCRS, FERC, FEMA and levees boards. International Conference on dam, levee and coastal construction and rehabilitation being planned for June 2015 in New York City.
- EFFC-DFI Carbon Calculator: First phase of project based, standardized carbon calculator completed, and to be available soon through DFI and EFFC. Phase 1 technologies include bored piles (drilled shafts), micropiles, diaphragm walls, slurry walls, sheet pile walls, anchors, grouting and soil mixing. Phase 2 to be completed in 2013, and technologies will include displacement piles, bored pile walls, soldier pile walls, soil nails, dynamic compaction, vibro compaction, jet grouting, stone columns, and vertical drains.
- Regional Training, Conferences and Workshops in India: Working with active regional committee on education of Indian engineering community and training of Indian labor force on deep foundations techniques. Topics to include drilled shafts, slurry walls, ground improvement and driving piling.
- International Conference Sweden May 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.
- Energy Piles Research: Ongoing collaboration on energy piles with Virginia Tech, including field test programs and workshops. A VT/DFI workshop in June 2010 brought together industry participants to provide practical input to the research program. Through the collaboration with DFI, VT had access to contractors and proposals for additional field test sites, and through participation of industry, funding was expanded through an NSF industry-academia liaison funding vehicle. Four more field test sites are ongoing by DFI members (Gary, IN; Baltimore, MD; College Station, TX; and Houston, TX). Test program in Blacksburg expanded to investigate bridge deck deicing on a bridge deck constructed over existing energy piles. Session on bridge deck deicing included in 2013 TRB conference. DFI working with VT on international workshop in Switzerland March 2013 to discuss market and technical issues and barriers.
- Panel Reinforcement Advisory Board: Multi-disciplinary DFI member advisory board working with professors at VT to support research efforts into the use of panel reinforcement (deep mixing and jet grouting) for reducing earthquake induced ground shaking for revising site classing.
- Pile Cap Research: Joint funding with Concrete Reinforcing Steel Institute of white paper on state of practice of pile cap design, including strategic plan for research and development. Report received, in review now.
- NHI Courses: Partnership with National Highway Institute and FHWA to deliver geotechnically-related courses.
- Council on Tall Buildings and Urban Habitats (CTBUH): collaboration between seismic design committees.
- Journal Network: pursuing more papers for DFI journal.
- Sustainability: challenging all technical committees to outline sustainable aspects of subject technologies. Education program on sustainable aspects of foundation technologies to be launched.



### **Research Funding - DFI Committee Project Fund**

Funds DFI Committee Projects up to \$30k each. Initiated in 2012, and four projects were executed (Slurry Walls, Sustainability, Ground Improvement, Landslides Committees) for total of \$75,000. Reports to be published in DFI magazine and journal. Six proposals are being awarded funding for 2013 (Augered Cast-in-Place Pile, Seismic and Lateral Loads/Drilled Shafts, Helical Foundations, Micropiles, Tiebacks and Soil Nails, and Sustainability Committees) for total of about \$122,000. RFP for 2014 funding to be issued May 1, 2013 deadline December 1, 2013. Proposals must be submitted through Committees.

### **Publications Completed**

Seismic and Lateral Loads Guidelines and Interpretation of NDT Results for ACIP Piles: May 2012, available on DFI website.

### **Publications Nearing Completion**

Wick Drain Specifications, separate Standard Specifications for Helical Anchors, Compression Piles and Soil Nails, Helical University PowerPoint presentations, many other publications underway.

### **2013 DFI Events** – tentative dates; more detail provided on DFI Calendar at [www.dfi.org](http://www.dfi.org)

|                 |                    |   |
|-----------------|--------------------|---|
| March 21-22     | Salt Lake City, UT | ADSC-DFI Micropiles/Anchored Earth Retention Seminar            |
| April 12        | West Haven, CT     | DFI-CSCE Geotechnical Workshop                                  |
| June 27         | Washington DC      | Slurry Wall Seminar   |
| May 15-16       | Minneapolis, MN    | SuperPile 2013  |
| June            | Vancouver, BC      | Helical Seminar   |
| July            | Columbus, OH       | DFI-ADSC Drilled Shaft Seminar –                                |
| July            | Pittsburgh         | Ed Trust Golf   |
| August          |                    | Marine Foundations Seminar                                      |
| September       | Berlin, CT         | DFI-CSCE Seminar  |
| September       | New Jersey         | Educational Trust/ACE Golf Outing                               |
| September 25-28 | Phoenix, AZ        | 38 <sup>th</sup> Annual DFI Conference                          |
| October         | Pleasanton, CA     | Ed. Trust Golf Outing   |
| November        | New York City      | ACIP Pile Seminar   |
| October         | Mumbai, India      | India conference w/ workshop                                    |
| October         | CA                 | Soil Mixing Seminar   |
| November        | NY/NJ              | Educational Trust Dinner  |
| November        | NY                 | Augered Cast-in-Place Pile Seminar                              |
| November        | Mexico City, MX    | Joint Conference with Mexican Society of Geotechnical Engineers |

**DFI Trust** – scholarships at six universities annually, smaller at-large scholarships at other universities to be awarded in 2013, fundraising events held nationally.

**DFI Student Chapters** – being developed at seven universities, including American University in Dubai.

### **DFI Statistics**

- Almost 2800 members
- Over 55 countries
- 15 technical committees
- Three active regional committees – India, Europe and Middle East
- Magazine – published six times per year
- Journal – inviting papers, please consider
- [www.onemine.org](http://www.onemine.org) – as part of membership, DFI members may download DFI documents, and also mining and tunneling documents free of charge, DFI sent passcodes to members