

Minutes

ACI Sub-Committee 440F
FRP Strengthening/Repair

ACI Fall 2009 Convention - New Orleans, LA
November 9, 2009
3:00 p.m. to 6:00 p.m.
La Galerie 6 Marriot Hotel

Attendees (38):

Lee, Michael (co-chair)	Fallis, Garth	Porter, Max
Bakis, Charles	Fam, Amir	Rizkalla, Sami
Bank, Larry	Godk, William	Sen, Rajan
Barros, Joaquim	Harik, Issam	Seracino, Rudi
Blaszek, Gregg	Kachlakev, Damiam	Shield, Carol
Bouadi, Hakim	Kock, Ryan	Silva, Pedro
Brown, Gordon	Myers, John	Thomas, Jay
Brown, Vicki	Naguib, Wassim	Toutanji, Howwam
Busel, John	Nanni, Tony	Tumialan, Gustavo
El-Domiatty, Khaled	Okiel, Ayman	Wesevich, Jim
El-Hacha, Raafat	Orton, Sarah	Witt, Sarah
Ekenel, Mahmut	Oswald, Chuck	Zatar, Wael
Fallis, Garth	Pantelides, Chris	

Visitors (18):

Bae, Sang-Wok	Gibson, Robert	Ohnstad, Tom
Bischoff, Peter	Jimenez, Toman	Smith, Scott
Dawood, Mina	Johnson, Carol	Smith, Zach
Douglas, Elliot	Kanatkar, Ravi	Stratman, Brian
Ericson, Alvin	McClarskey, Charlie	Suma, Alexander
Garloni, Christian	McDonough, Thomas	Tan, Kiang

1. Co-chair Michael Lee called the meeting to order at 3:10 p.m. Attendees made self-introductions.
2. Minutes: Sami Rizkalla moved to approve Minutes from the Spring 2009 Meeting in San Antonio. Sarah Witt seconded the motion. The motion passed by voice vote.
3. Announcements: Carol Shield announced that the FRPRCS-10 symposium, hosted by ACI 440, will be held in conjunction with the Spring 2011 ACI Convention in Tampa, FL. Volunteers will be needed to assist with reviewing manuscripts. John Busel announced that information on upcoming ACMA Convention is available. Michael Lee announced that SP-264(Serviceability of Concrete Members Reinforced with FRP) has been made available on CD from ACI. The leadership of Tarek Alkhrdaji, Carlos Ospina, and Peter Bischoff was recognized in getting this document published.

Old Business

4. Task Group Reports (other than Seismic):

- a) Glass Transition Temperature: Consensus was reached that this subject is important to the work of this committee and efforts should be made to address open items remaining from past ballots. Volunteers included Sarah Witt, Chuck Bakis, Tarek Alkhrdaji, Jay Thomas, and Elliot Douglas.
 - b) Repair Committee 562: No report. Update will be provided at 440 Main meeting.
 - c) Deflection: No report. Co-chair will follow up with Rasheed Hayder.
 - d) Blast Upgrade: A presentation was given by Khaled El-Domiaty showing the framework progress on a document. Discussion followed regarding methods of obtaining input from 440F members that are not on the Blast TG.
5. Seismic Task Group Report:
- a) Pedro Silva presented a summary of comments and responses received the subcommittee level Seismic Design Guidelines ballot that closed 10/31/2009. A total of 84 negative comments were received. A table summarizing all negative comments was distributed.
 - b) Pedro Silva and Wassim Naguib reviewed primary concerns expressed by the negative comments, including: quality of research references, inappropriateness of guidelines for seismic damage repair, inconsistencies regarding hoop strain limit, behavior of jacketing on column lap splice performance, effect of load reversal on FRP bond critical applications, and lack of details regarding shear wall anchorage to boundary elements.
 - c) Significant additional work will be performed to address items raised by ballot response and input from ACI Committee 369 (Seismic) will be obtained prior to reballoting the Guidelines document.

New Business

- 6. Mechanically Anchored FRP: A presentation was made by Larry Bank regarding mechanically fastened FRP. Applications and case histories were discussed. A task group was formed to initiate work on possible addition to the 440.2R document.
- 7. Anchoring FRP using FRP Anchors. A presentation was made by Scott Smith regarding use of FRP anchors (in lieu of epoxy resin) to achieve bond between external FRP and the concrete substrate. It was determined that information regarding this subject could be useful and that further efforts should be undertaken to provide design guidelines.

Adjournment

- 8. A motion to adjourn was made by Garth Fallis. The motion was seconded by Larry Bank. The motion passed and the meeting was adjourned at 6:10 p.m.

End of Minutes