

ACI COMMITTEE 239 C
STRUCTURAL DESIGN OF UHPC
Monday, March 26, 2018 10:30 AM – 12:30 PM (MDT)

Salt Lake City, UT

Meeting Minutes

1. Welcome, Introductions, Membership, and Attendance

Chair Vic Perry called the meeting to order at 10:30 AM (CDT). Vic introduced himself and acknowledged the volunteering efforts supporting the ETR scope draft. The committee has 21 members and 2 officers (Vic, chair, and Rafic, Secretary). Attendees introduced themselves afterwards.

The following committee members were in attendance (11): Vic Perry (chair), Rafic El-Helou (secretary), Benjamin Graybeal (ACI239 chair), Philipp Hadl, Barzin Mobasher, Mohamed Moustafa, Mohammed Alnaggar, Greg Nault, Bradley Foust, Andrew Foden, Liberato Ferrara.

The following visitors were also in attendance (7):

Miles Zeman (mzeman@durastress.com),
Maher Tadros (mtadros@econstruct.com),
Philip Loh (Philip@facca.com),
Paul Laskey (paul.laskey@propexglobal.com),
Akram Jawdhar (akram.hassan@uky.edu),
Megan Voss (mvooss1@ufl.edu),
Sri Sritharan (sri@iastate.edu).

2. Approval of Agenda

- Motion – Mohammed Alnaggar; Second – Barzin; All in favor; Approved.

3. Approval of Minutes of October 16, 2017 meeting (Anaheim, CA) and conference call on February 26, 2018.

- Motion – Rafic; Second – Barzin; All in favor; Approved without modifications.

4. Actions arising from Previous Meetings/ Conference Calls

None.

5. Update on FHWA Initiatives – Ben Graybeal

- FHWA effort to develop a proposal draft of an AASHTO LRFD bridge and construction guide specification is still ongoing. The work on the document started about a year ago and Rafic is heavily involved in the effort. Another NRC Associate is joining the team soon and will work with Rafic on the guide. The target date is having a draft ready for the appropriate AASHTO committee in about a year. The guide would cover the major aspects of UHPC including definition, behavior, design recommendations, and construction

specifications. The compression, tension, and flexural models are developed, and work is currently being focused on the shear design methodology. AASHTO T10 has been receptive and showed interest in FHWA developing the guide. Rafic presentation on Wednesday will give an update on FHWA efforts pertaining to the UHPC guide development.

- FHWA published a report on the properties of UHPC-Class materials covering the material characterization and behavior of 5 commercially available UHPCs.

6. Schedule of Completion of ETR on UHPC

- Vic proposed the following schedule for the preparation and publishing of the ETR:

March 26, 2018-	ACI Spring Meeting (F2F): Working meeting to review ETR.
April 19, 2018-	Re-issue ETR for review & comments from Sub-Committee
May 15, 2018-	Sub-Committee comments to be submitted.
June 15, 2018-	Response to sub-committee comments by chapter authors.
July 6, 2018-	Ballot ETR at Sub-Committee Level
August 6, 2018-	Ballot closed.
August 13, 2018-	Negatives from Ballot circulated to sub-committee for review.
September 7, 2018-	Sub-Committee conference call to resolve negatives from ballot.
September 15, 2018-	Second Ballot to Sub-committee.
October 15, 2018-	ACI Fall Meeting (F2F) - Review & Resolve Comments from Sub-Committee Ballot.
November 15, 2018-	Re-Ballot ETR at Sub-Committee Level
January 15, 2019-	Ballot at Main Committee
March 25, 2019-	ACI Spring Meetings - Review and resolve Main Committee Ballot Comments
April 15, 2019-	Final Ballot of Main Committee
June 1, 2019-	Submit ETR to TAC
October 21, 2019-	ACI Fall Meetings - Review and resolve TAC's comments.
November 30, 2019-	ETR Ready to Publish.

7. ETR Review

- The committee proceeded to review the entire ETR, section by section. Refer to attached ETR document version entitled “ETR-ACI239C-Structura_Design_of_UHPC-March_26_2018-Minutes”. Committee notes and edits are added in Red.
- The discussion focused on the Section 3.0 on Material Properties. It was decided to reorganize this section to cover material behavior in the form of stress-strain behavior in compression and tension, and load-deflection curve for flexure. After the behavior is explained, the information on the current tests to determine the properties will be listed.
- Committee ran out of time, so discussion on remaining sections of the ETR will be continued through conference calls.

8. Next steps & deliverables

- Vic announced the intent to meet in 2 weeks to continue the ETR review.

- Committee members should send Vic their comments and reviews.
- Vic will collect all the comments and distribute

9. Next steps & deliverables

- Conference call on Section 4 will be scheduled in 2 weeks. Another call on section 5 will be scheduled afterwards.
- ACI Fall Meetings: October 15, 2018 – 10:30 am to 12:30 pm, Rio All Suites Hotel & Casino, Las Vegas, NV.