

**MEETING MINUTES
ACI COMMITTEE 302**

GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION

Monday, March 27th, 2006
Charlotte Convention Center – Charlotte, NC

ATTENDANCE:

Voting Members (attending): – Pat Harrison - Chairman, Dennis Ahal – Secretary, Robert Anderson, Charles Ault, Ken Beaudoin, Peter Craig, Al Engelman, Allen Face, Rick Felder, Edward Finkel, Barry Foreman, Terry Fricks, Robert Gulyas, Jerry Holland, John Lewis, Kevin MacDonald, Arthur McKinney, Steve Metzger, John Munday, Joe Neuber, Russell Neudeck, Scott Niemitalo, Mark Patton, William Phelan, John Rohrer, Philip Smith, Bruce Suprenant, Scott Tarr, Eldon Tipping

Voting Members (not attending): Doug Deno, Robert Epifano, Jerry Ford, Dennis Phillips, Gregory Taylor

TAC Contact Member (attending): Chuck Zalesiak

Consulting Members (attending): Carl Bimel

Consulting Members (not attending): Michael Clark, William Panarese, Brian Pashina, Boyd Ringo

Associate Members (attending): Richard Albright, Joseph Balik, Greg Belew, Joe Bergmaier, Walter Flood, Brad Fricks, Greg Fricks, Andre Garner, John Gibbons, James Hoolehan, Dave Hoyt, John Hukey, Bruce Ireland, Christopher Jones, Michael Linn, Milan Lipensky, Ross Martin, Steve McDonald, Ed McGuire, Warren McPherson, Harry Moss, Joseph Nasvik, Nigel Parkes, Dennis Pinelle, Paul Rouis, Bruce Schmiedl, Greg Scurto, Paul Spiegel, Pete Tatnall, Richard Van Horn, Donald Ytterberg

Associate Members (not attending): Ricardo Alatorre, Peter Amore, Charles Ayers, Jewan Bae, Paul Bambauer, John Bennett, Bryan Birdwell, Stephen Boyd, Thomas Breen, James Buckingham, Joe Buongiorno, Joel Burgess, Dianne Carey, Greg Dobson, Loren Flick, Edwin Gebauer, Steven Gebler, Abraham Gutman, Mike Hauser, Vidal Fernando Hernandez, Eugene Hill, Scott Humphreys, Mark Kelly, Mark Kemp, Gary Knight, Philip Kopf, Lisbeth Kovach, Robert Lauderbach, Mark Marvin, Sean McGarity, Donald McPhee, Todd Nelson, Robert Nussmeier, Dennis Olheiser, Todd Rambo, Royce Rhoads, Robert Richardson, Michael Roach, Tim Robinson, Paul Rose, Andrew Schuler, John Schwab, Moorman Scott, Nandu Shah, Bryce Simons, Rick Smith, Donald Spitzer, James Stamper, Daniel Stanley, Raymond Thompson, Hendrik Thooft, Sam Vitale, P. “Doc” Watson,

Visitors: Tim Cost, Jiri “George” Grygar, John Lawson, Nick Mitchell, Mike McPhee, Roy Denny, Ken Turner, Dal Hills, Tim France, Don Hill, Dipak Parekh, Luc Lemoyne, Al Hunsberger, T. Ruttura, Wayne Walker, Joe Vitale, Scott Metzger, Jaime Mora, Dick Reaves, Tom Masten, John Ries, Jim Kretz, R.W. Melnechuk, Robert Bastian, Karl Bakke, Warren Burns, Carl Laese, Julie Buffenbarger, Stacy Kincha, Dan Biddle, Carroll Bryan, Bret Houck, Phil Brandt

1.0 Welcome and Introductions.

1.1 Meeting was called to order at 8:40 am.

1.2 Self introduction of all parties present

1.3 Since no items were voted on at this meeting, it was not necessary to determine if a quorum was present.

1.4 Overview of today's activities. Trying to review document changes so they can be consolidated into proposed changes so they can be balloted in the near future.

2.0 Approval of Minutes

2.1 Motion made and seconded to approve minutes of previous meeting in Kansas City, MO.

3.0 Announcements:

3.1 A moment of silence was held in honor of Joseph A. Dobrowolski, a committee member who recently passed away.

3.2 Please log onto ACI website (www.concrete.org) to verify that your e-mail and other contact information is correct. The committee link on this website is used when issuing meeting agendas and meeting minutes. If you are not receiving the meeting minutes and/or agendas but your information on the ACI website is correct, or if you do not have an e-mail address, please contact Peggie at 314-739-1142 (penloe@ahal.com).

3.3 Consider making use of e-mail when sending your suggested changes to chapter chairs.

3.4 2006 ACI Awards:

- Ken Beaudoin received the Roger H. Corbetta Concrete Constructor Award
- Carl Bimel received an Honorary Member Award
- Eldon Tipping received the Delmar L. Bloem Distinguished Service Award
- Patrick Harrison received a Construction Award for his paper titled "*For the Ideal Slab-on-Ground Mixture*" – Concrete International v.27

4.0 Liaison Reports:

117 – Eldon Tipping: • Document is going to be reviewed by TAC within 3 months

223 – Terry Fricks: • Nothing new

301 – Al Engelmann: • Committee is up and running and they have set an '08 deadline for new document.
 • Scott Tarr is sub-committee chair for industrial floors and would like input from 302 committee members. Chairman Harrison is concerned about the development of this mandatory specification and potential discrepancies with the 302 and 360 documents. If a mandatory specification is developed, it would take precedence over the 302 or 360 guides. To date, there has not been a discussion with either the 302 or 360 Committees concerning input in the development of industrial floor specifications for this document. Scott Tarr may send e-mail of the current draft to entire committee for review.

330 – Joe Bergmaier: • Working on new document for industrial paving. Need to do a chapter on repairs – looking for input from 302 committee members.

- 360 – Wayne Walker: • Document has gone to staff. TAC suggested a few changes. Hope to have document out soon.
- 504 – Steve Metzger: • Nothing new, Committee not meeting at this convention.
- 544 – Pete Tatnall: • No report
- Other: • Kevin MacDonald will be the new TAC contact person, replacing Chuck Zalesiak who is finishing his term on TAC

5.0 New Business

5.1 302 Moisture Document Update:

Bruce Suprenant and Pat Harrison met with TAC yesterday. There were 440 comments from TAC, which is not an unusual amount. There were three classes of comments; primary, secondary, and editorial. The comments will be reviewed by an editorial committee and sent out to 302 committee for ballot.

5.2 Focus Task Groups:

5.2.1 *Finishing Lightweight Concrete* – Dennis Ahal

- The test slab that was done in New York on Tommy Ruttura’s project was re-tested and more delamination was verified, including the area that was panned which had previously shown little or no delamination. Cores were taken of all delaminated and adjacent areas, and the delamination will be mapped out. When petrographic analysis of the cores is completed, a summary sheet will be sent to all committee members. This was only a quick test done by ASCC and no conclusions should be drawn from this test.
- A delamination test slab will be placed in late April in Monroe, Ohio at Baker Concrete’s yard. Please submit any suggested mixes or finishing processes that you feel should be tested to Dennis Ahal at dahal@ahal.com.
- See attached report by Dennis Ahal for details of this test.
- A suggestion was made to consider using an impact echo test for the delamination survey, or other method than chaining, to verify delamination.

5.2.2 *ACI Vapor Barrier Test* – Bill Phelan

- This is a comparative curling test using a slab on grade over two adjacent bays, one with poly and one without poly. Measurement should be taken the same day and over a period of time, at 4 months, 8 months, 12 months, etc., to see the effect of the vapor barrier vs. the non vapor barrier slabs, and the amount of curling and cracking that occurs.
- If you are interested in conducting a test, contact Bill Phelan.

5.2.3 *Liquid Surface Treatment Standards* – Joe Bergmaier

- Joe Bergmaier was appointed the task group chair at this meeting.

5.3 Ward Malisch – Discussion of Section 11.10 and contradiction of ACI 301.2 R-04

- No discussion was held.

5.4 Carl Bimel – Discussion of PCA Slab Book:

- PCA adapted, not adopted, 302s slump table and lowered the slump limits. On class 5 & 6 floors, slump was changed from 5” to 3” (too restrictive).
- Scott Tarr has submitted a revised document.
- Contact Steve Kosmatka concerning problem placing concrete using PCA guidelines.
Ask when new guidelines will be ready: Steve Kosmatka @ PCA
5420 Old Orchard Road
Skokie, IL 60077-1083
Phone: 847-965-7500

5.5 Chapter Committees – suggested changes to document for next revision:

Ch. 1 – Introduction: Pat Harrison

Ch. 2 – Classes of Floors: Barry Foreman

- Overview of proposed changes
- Discussion of classes of finishes, jointing, etc.
- Draft copy available in a couple of weeks.

Ch. 3 – Design Consideration: John Lewis

- John received comments from discussion at meeting in KC.
- Dominant joints need to be addressed since they are unpredictable.
- John would appreciate possible solutions being sent to him.
- This is a serious problem that needs to be addressed.

Ch. 4 – Site Preparation & Placing Environment: Joe Neuber

- Looking for comments on draft that is available for review

Ch. 5 – Materials AND Ch. 6 – Concrete Properties & Consistency WILL BE COMBINED:
Joe Neuber / Ed Finkel

- Information was sent out with last meeting minutes – Looking for feedback from committee.

Ch. 7 – Batching, Mixing, & Transporting: Kevin MacDonald

- No discussion

Ch. 8 – Placing, Consolidating & Finishing: Terry Fricks

- Focus on Durability – Terry wants more focus on durability of the slab surface.
- Update for New Technology
- NOTES:
 - More emphasis on block placement, less emphasis on strip pours
 - More information on use of laser screed
 - The document needs to add more specific information on the use of pan machines.
 - Update Table 8.1
 - Looking for feedback on proposed changes.

Ch. 9 – Curing, Protection & Joint Filling: Peter Craig

- Separated out areas at or below freezing.

- Comment on silicate based surface treatments not doing a proper job as a curing compound.
- Discussion of wet sand or backer rods being placed in saw cut joints and whether this should be eliminated.
- New products available for wet cure should be incorporated into document.

Ch. 10 – Quality Control Checklist: Alan Face

- Alan wants to entirely redo this chapter.
- The concept is to tell contractors what they need to do to stay out of trouble.
- Discuss what the issues are.
- List of items to be ready by the Denver meeting.
- Alan is a new chapter chair and there is a new committee (see attached committee roster) so they will be given more time to prepare the draft of their chapter.

Ch. 11 – Causes of Floor & Slab Surface Imperfections: Scott Tarr

- Review document sent out with last minutes
- Send comments to Scott Tarr – he is looking for input.
- Reference repair document – should we address the cause of the imperfection?

Ch. 12 – References: Pat Harrison

6.0 **Presentations**

- 6.1 John Glum – TAC / ACI Website: Discussion of how to ballot on line, through ACI website (www.concrete.org).

7.0 **Final Discussions**

7.1 Chairman Harrison asked for revised draft of each chapter, DUE TO PAT BY APRIL 24TH.

- 7.2 The new document will be electronically voted.

7.3 SUGGESTED REVISIONS SHOULD BE SENT TO EACH CHAPTER CHAIR ASAP (by 4/17/06), SO THE CHAIR CAN REVISE THEIR DRAFT BEFORE THE 24TH.

8.0 **Adjournment**

- 8.1** The meeting concluded at 12.07 pm.

Respectfully Submitted,

Dennis Ahal
Secretary, ACI 302

ACI 302 COMMITTEE - ACTION ITEMS

- Please log onto ACI website (www.concrete.org) to verify that your e-mail and other contact information is correct.
- Consider making use of e-mail when sending your suggested changes to chapter chairs.
- All Chapters are looking for comments or input from all 302 committee members and visitors
- Scott Tarr is sub-committee chair for industrial floors and would like input from 302 committee members. There was a discussion of whether 301 trumps 302 & 360. Scott Tarr may send e-mail to entire committee for review.
- 330 Liaison Committee is working on new document for industrial paving. Need to do a chapter on repairs – Joe Bergmaier is looking for input from 302 committee members.
- “Finishing Lightweight Concrete” Task Group will be placing a delamination test slab in late April. Please submit any suggested mixes or finishing processes that you feel should be tested to Dennis Ahal at dahal@ahal.com.
- Regarding ACI Vapor Barrier Test: If you are interested in conducting a test, contact Bill Phelan.
- Contact Steve Kosmatka concerning problem placing concrete using PCA guidelines. Ask when new guidelines will be ready:
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Phone: 847-965-7500
- Regarding Chapter 3 – Design Consideration: John Lewis is requesting possible solutions about addressing dominant joints.
- Regarding Chapter 4 – Site Preparation & Placing Environment: Joe Neuber is looking for comments on draft that is available for review.
- Regarding Chapter 5 – Materials & Chapter 6 – Concrete Properties & Consistency: Joe Neuber / Ed Finkel are looking for feedback from committee.
- Regarding Chapter 8 – Terry Fricks is looking for feedback.
- Regarding Chapter 11, Causes of Floor & Slab Surface Imperfections: Scott Tarr is looking for input.
- Suggested revisions should be sent to each chapter chair ASAP (by 4/17/06), so the chair can revise their draft before the 24th.

ACI 302 SUBCOMMITTEE CHAIRMEN

Chapter 1 – Introduction	Pat Harrison John Munday
Chapter 2 – Classes of floors.....	Barry Foreman
Chapter 3 – Design Considerations.....	John Lewis Chuck Ault, Jewan Bae, Joe Bergmaier, Allen Face, Rick Felder, Barry Foreman, Terry Fricks, Jerry Holland, Bruce Ireland, Sean McGarity, Art McKinney, Nigel Parkes, Nandu Shah, Scott Tarr, Eldon Tipping
Chapter 4 – Site Preparation and Placing Environment.....	Joe Nueber Dennis Ahal, Joe Bergmaier, Ed Finkel, Barry Foreman, Terry Fricks, Jerry Holland, Joe Neuber, Russell Neudeck, Paul Rouis, Gregory Scurto, Scott Tarr, Richard Van Horn
Chapter 5 – Materials.....	Kevin MacDonald
Chapter 6 – Concrete Properties and Consistency.....	Ed Finkel & Joe Nueber Jewan Bae, Ed Finkel, Brad Fricks, Jerry Holland, Joe Neuber, Russell Neudeck, William S. Phelan, John Rohrer, Scott Tarr,
Chapter 7 – Batching, Mixing, and Transporting.....	Kevin MacDonald
Chapter 8 – Placing, Consolidating, and Finishing.....	Terry Fricks Dennis Ahal
Chapter 9 – Curing, Protection, and Joint Filling.....	Peter Craig Joe Bergmaier, Jeremy Craig, Jerry Ford, Robert Gulyas, Ken Hover, Scott Metzger, John Munday, Nigel Parkes, William Phelan, Dennis Pinelle, John Rohrer, Scott Tarr, Doc Watson
Chapter 10 – Quality Control Checklist.....	Alan Face Art McKinney, Scott Nimatello, Joe Nueber, Bill Phelan
Chapter 11 – Causes of Floor & Slab Surface Imperfections.....	Scott Tarr
Chapter 12 – References.....	Pat Harrison

FOCUS TASK GROUPS

1. Finishing Lightweight Concrete.....Dennis Ahal & Bruce Suprenant (co-chairmen)
Ken Beaudoin, Terry Fricks, Bob Gulyas, Ross Martin, Warren McPherson, John Ries, Bob Simonelli
2. ACI Vapor Barrier TestBill Phelan (chairman)
3. Liquid Surface Treatment Standards.....Joe Bergmaier (chairman)
Bob Gulyas, Dave Hoyt, Bill Phelan, Phil Smith, Scott Tarr