



International Code Council

ICC IS-3DACT Committee Meeting Minutes – Meeting #17

April 11, 2025 – 10:00 AM PDT

1. Welcome and opening remarks

ICC Staff Member, Quinton Owens called the meeting to order at 10:00 am PDT and welcomed all committee members, invited parties, and ICC staff. Mr. Owens noted the committee must adhere to the ICC Code of Ethics, which states that those participating in ICC activity must adhere to the highest ethical conduct, with the purpose of the protection of the health, safety and welfare of the public by creating safe buildings and communities. In addition, Section 5.1.10 in Council Policy #7 is in effect and any committee member with a conflict of interest must withdraw from participating in discussion or vote on the matter in which they have an undisclosed interest. Lastly, Council Policy #50 outlines ICC Antitrust guidelines, which indicates the committee meetings are not intended for discussion of pricing and marketing topics.

2. Quorum and Attendance

Chair Mr. Bora Gencturk called the roll of the IS-3DACT with the following members registering attendance. Mr. Gencturk noted there was enough for a quorum.

NAME	2025 IS-3DACT COMMITTEE MEETING					
	#13 10/11/24	#14 2/14/25	#15 3/7/25	#16 3/21/25	#17 4/11/25	#18 TBD
Gabriel Carrera [D]	x	x	x	x	x	
Bora Gencturk [C]	x	x	x	x	x	
Rory Hamaoka [H]	x	x	x	-	-	
Werner Hellmer[H]	x	x	x	x	x	
Maryam Hojati [D]	x	x	x	x	-	
Berok Khoshnevis [D]	-	x	x	-	-	
Doug Mayer [H]	x	x	x	-	x	
Paul Messplay [H]	x	x	-	x	x	
Adil Tamimi [D]	x	x	-	-	x	
Bing Tian [A]	x	x	x	-	x	
David Langefeld [B]	x	x	x	x	x	
Eric Kreiger	x	x	x	x	x	
TOTAL	11/12	12/12	10/12	7/12	9/12	

Interested parties in attendance included Larry Stevig (State Farm), Stephan Mansour (ACI), Greg Black (SEAC NOCO), Abdul Peerzada (Quikrete), Armin Ershad (Parsons), Pete Cooperman (unaffiliated), Muhammad Shakeel Akhtar (Parsons), Jordan Russeff (OPCMIA528), Phillip Lund-Nielsen (COBOD), Babk Zareiyan (Beyond Engineering), Sayed Mohamed (Ab'aad 3D Innovation), Keith Comstock (unaffiliated)

3. Approval of Agenda Motion

Mr. Gencturk asked for a motion of approval for the agenda. Mr. Doug Mayer motioned, and Mr. Werner Hellmer seconded. The agenda was unanimously approved.

4. Approval of Previous Meeting Minutes

Mr. Gencturk asked for a motion of approval for the previous meeting minutes. Mr. Hellmer motioned, and Mr. Bing Tian seconded. The previous meeting minutes were unanimously approved.

5. Continuation of Public Comments Round 1 Discussion

Mr. Gencturk continued the discussion on the remaining public comments. Below are the comments that were addressed during the discussion.

#	Comment Proponent	Section, Comment and Proposed Resolution	Committee Response	Committee Vote
55	Mr. David Langefeld	501.4 Printing Process Reference to early-age protection and curing is good but should be defined. Suggest the committee add a time associated with early age. Suggest early age refer to the first 72 hours after extrusion	Approved – Minor Edits..	Mr. Heller motioned Mr. Doug Mayer seconded Vote – Approved unanimously
56	Mr. Langefeld	501.4.1 The sentence “During construction, there shall be no application of bonding agent or special surface preparation between printing layers.” is confusing. Suggest the committee revise. Replace “During construction” with “During prequalification” Replace “between printing layers” with “between printing layers 8 and 9 and 10 and 11.”	Editorial – Chair approved.	No vote. Chair determined this to be editorial and approved the change.
59	Mr. Langefeld	501.6.2.1 Compressive Strength The 2% dimensional tolerance in C42 can be difficult and expensive to chase when cutting small cubes. Suggest the committee consider increasing the tolerance perhaps with the requirement that actual, not nominal, dimensions be used to report compressive strength. It also may be worth mentioning that large sections can be cut first and fine tuned in the laboratory. Replace mandatory language with guideline to achieve 2% tolerance in ASTM C42 and require actual measurements be used when computing compressive strength.	Approved – Minor Edits.	Mr. Eric Kreiger motioned Mr. Gabriel Carrera seconded Vote – Approved unanimously

#	Comment Proponent	Section, Comment and Proposed Resolution	Committee Response	Committee Vote
61	Mr. Langefeld	<p>501.7.b Submittal Requirements</p> <p>Proprietary mix designs should be excluded from the submittal. Instead, a mixture ID or product ID could be provided. Suggest the committee discuss this.</p> <p>Strike item b or provide provisions for proprietary products.</p>	Approved – Minor Edits	<p>Mr. Hellmer motioned</p> <p>Mr. Adil Tamimi seconded</p> <p>Vote – Approved unanimously</p>
62	Mr. Langefeld	<p>501.7.g Submittal Requirements</p> <p>This seems out of place in Chapter 5. Suggest the committee include this in Chapter 4 and strike it here.</p> <p>Strike item g from Chapter 5.</p>	Approved – Minor Edits	<p>Mr. Langefeld motioned</p> <p>Mr. Hellmer seconded</p> <p>Vote – Approved unanimously</p>
69	Mr. Langefeld	<p>105.1</p> <p>The reference to IBC Section 1705.3 is insufficient and given the differences between 3D-ACT and traditional CIP concrete construction will cause confusion and perhaps unnecessary regulation. Suggest the committee provide more guidance on Special Inspections specific to 3D-ACT.</p> <p>Propose the committee discuss what tasks and deliverables are needed specifically for 3D Printed Walls.</p>	No Action required. Discussion Requested.	No vote. Chair determined this comment was already taken of in previous discussion.
70	Mr. Langefeld	<p>202</p> <p>It's understood that the definitions are in alphabetical order, however, some terms fit well together. Is it possible to have "sub definitions" under a main item so all definitions of like items are together in one place?</p> <p>For example, 3D printing material can be the main definition and the following can be sub-definitions: 3D printing mortar, 3D printing concrete, 2-Component 3D printing material, 1-Component 3D printing material, Field mix 3D printing material, Pre-packaged 3D printing material.</p> <p>Another example is 3D automated construction technology can be the main definition and the various components and technology can be sub-definitions: 3D printer, 3D printer software.</p>	No Action required. Discussion Requested.	No vote. Chair determined this to be editorial.

#	Comment Proponent	Section, Comment and Proposed Resolution	Committee Response	Committee Vote
71	Mr. Langefeld	<p>501.6.2.1</p> <p>Guidance should be provided for the statistical variability. Suggest the committee discuss what is appropriate.</p> <p>Include specification of required average compressive strength from ACI 301, Sections 4.2.3.3. Number of compression tests from pre-qualification elements may need to be increased to reduce the fcr or give manufacturer's the option of printing additional pre-qualification elements with additional testing to reduce their fcr.</p>	No Action required. Discussion Requested.	No vote.
72	Mr. Langefeld	<p>404.3.1.2</p> <p>The language about the specimen geometry in Section 501 and the requirement to be representative of the bead and shell geometry being designed could be confusing. Suggest the committee develop requirements for verifying effective structural contact width.</p> <p>Include an additional pre-qualification element that is specific to the wall system being pre-qualified and perform sawcuts to measure both effective structural contact width and effective side face contact if applicable.</p>	No Action required. Discussion Requested.	No vote. Chair determined this comment was already taken of in previous discussion.

With the comments finished, Mr. Gencturk moved to vote on whether the document should go for another round of public comments. All present committee members voted in approval of having another public hearing.

6. New Business

No new business.

7. Next Meeting

To be determined.

8. Action Items & Summary

The action items from the meeting were summarized as follows:

Meeting on the definitions	Mr. Gencturk
Collect votes from remaining committee members about the next public commenting period.	Ms. Vandenberg
Post for public commenting period.	ICC

With no other questions or comments before the committee Mr. Gencturk moved to adjourn the meeting. Mr. Hellmer motioned for adjourning and Mr. Mayer seconded. The meeting adjourned at 11:18am Pacific Daylight Time.