

ACI 369A Committee Meeting

Seismic Repair and Rehabilitation-General Provisions and Materials

ACI Fall Convention 2020

Virtual Meeting

10/25/2019 10:00 AM-12:00 PM (EASTERN TIME)

Join Link: global.gotomeeting.com/join/984913357

Conference Call Info. US. +1 (872) 240-3212 Access Code. 984-913-357

Meeting Agenda

1. Welcome and Introductions [10:00 AM, EST] – All
2. Approval of Meeting Minutes: N/A: The meeting canceled in the 2020 spring convention
3. Approval of Meeting Agenda
4. ASCE 41 committee Ballot Results / TAC comments
 - Updates/Resolutions: **Kim**
5. Updates and Discussions
 - Coordination with 562 (562E)
 - Tables for default material properties- **Paulson (CA03)**
 - + Editorial issues of the table footnotes (**TAC comment # 68**)
 - New business items from the previous ballots
 - CA01: Anchor testing
 - TAC comment # 66 /98/ 102**
 - CA02/04: Nonlinear analysis and Hystereiss shapes (New business item attached)
 - Reorganization
 - Hysteresis assignment /quantification
 - Bi-directional interaction
 - Fiber modeling (regularization)
 - Clarification of Lower bound and Expected strengths- **Paulson/ Mander/Matamoros**
 - **TAC comment # 72**
 - Effective Stiffness: (Table 5) – **Matamoros / Kim**
 - **TAC comment # 89**
 - Shear friction (3.4)
 - **TAC comment #92. Separate section**
 - Development and Splice length: (3.5)
6. Other New Business
7. Adjournment

CA 02/04 New Business items

No.	Last Name	Item No.	Page No.	Line No.	N, A/C	Comment	Response
1.	Matamoros			40	A/C	<p>Sections 3.1.2.2.4 and 3.1.2.2.5 correctly make reference to the expected yield strength and the expected strength including strain hardening. Neither section makes reference to rate effects, and no guidance is provided in regards to how to calculate expected strength including strain hardening.</p> <p>This should be addressed at a minimum in the commentary.</p>	New business
2.	Hayne		6	70	A/C	<p>The level of pinching is qualitative rather than quantitative. A plan reviewer may not agree with structural engineer's opinion on hysteresis shape. If pinching is in the disputable range, the severer pinching type should be assumed.</p>	<p>It has been agreed in the committee that only qualitative requirements would be provided in the this cycle. Quantitative requirements will be considered as a new business.</p>
3.	Sattar	A02		90	A/C	<p>The way that section 3.1.2.2.10 is written may imply that being in agreement with experimental results has priority over being in agreement with the generalized load deformation response. Is that what you want to say? I do not think that we should penalized people for using fiber-type section by requiring them validating their results with respect to experimental results. We should give them the option to validate their results with either experimental or genialized response.</p>	<p>Agreed with comments. However, both options of validation, via test or general shape, are clearly provided. New business.</p>
4.	Lowes			204	A/C	<p>Suggest adding text at the end of this paragraph to further clarify the need for regularization of material response:</p> <p>The softening portion of the stress-strain response history must be defined accounting for the energy dissipated during softening and the integration length associated with the fiber-section. This results in material stress-strain response histories that are defined the by the length associated with the fiber-section, which may be the hinge-length. If the softening portion of the material stress-strain response history is not</p>	<p>Revise per Matamoros's comment. New technical information. New business.</p>

					defined by the energy dissipated during softening and the integration length associated with the fiber section, component response will exhibit mesh-sensitivity, with smaller element sizes and smaller integration lengths resulting in onset of strength loss occurring at smaller deformation demands.	
5.	Comment from Kehoe during final review		55		<p>Line 55 – change “structural collapse” to be “component loss of strength” :</p> <p>12/2/2019: Line 55 – the current wording refers to structural collapse, but the figure is for a component. Structural collapse is a global issue and not a component property. That is why I suggested removing structural collapse and changing it to refer to component behavior, which would be component loss of strength. I agree that there are two cases, but I would think the two cases are loss of gravity load carrying capacity of the component and loss of lateral strength of the component. While these conditions may affect global behavior, I don’t think we should be mixing global structural behavior with component behavior.</p>	<p><u>The intent was to have two cases for selection of Point E : 1) structural collapse case 2)The other cases(just lateral strength loss).</u></p> <p><u>12/3/2019: Technical change. New business.</u></p>
6.	Comment from Kehoe during final review		122		<p>Line 22 – change “reduction in lateral strength” to be “linear response with negative stiffness”</p> <p>12/2/2019: Line 122 – my comment was not intended to refer to the definition of point E, but rather the clarifying that the stiffness going from point C to point D has a negative stiffness. This is intended to be consistent with the description of the response from B to C which is described as a “linear response at reduced stiffness.” The point to be made is that there is a slope to the curve from C to D, which represents a negative stiffness.</p>	<p><u>The language is from the current standard (moved from the provision to commentary). I agree with your comment but think it would be better to describe the Point E-D in terms of strength, rather than stiffness, since the negative stiffness is not the parameter that we have been provided clearly throughout the components.</u></p> <p><u>12/3/2019: Technical change. New business.</u></p>