

**AGENDA – FALL 2015 MEETING**  
**Joint ASCE/ACI Committee 445 – SHEAR AND TORSION**  
**DENVER, CO; November 7-11, 2015**

**Meetings**

**445 Shear & Torsion (Mon 2:00p-6:00p, PLAZA BALLROOM F)**

445-0A Shear & Torsion-*Strut & Tie* (Sun 9:30a-12:30p, TOWER COURT D)

445-0B Shear & Torsion-*Seismic Shear* (Sun 9:30a-11:30a, PLAZA COURT 7)

445-0C Shear & Torsion-*Punching Shear* (Sun 1:00p-3:00p, DIRECTOR'S ROW)

445-0D Shear & Torsion-*Shear Databases* (Sun 2:00p-5:00p, DENVER)

445-0E Shear & Torsion-*Torsion* (Sun 12:30p-2:00p, DENVER)

318-0E Section and Member Strength (Tue 8:00a-12:30a, MAJESTIC BALLROOM)

318 Structural Concrete Building Code (Wed 8:00a-6:00p, PLAZA BALLROOM E)

1. **Call to order – welcome** (Belarbi)
2. **Attendees self-introduction: name and affiliation** (Group)
3. **Approval of the agenda** (Belarbi)
4. **Approval of meeting minutes of Spring 2015, Kansas City KS** (Belarbi)
5. **445 membership overview** (Belarbi)
6. **Update on one-way shear design proposals**
  - ✓ Chair's report (Belarbi)
  - ✓ Design database and design examples (Kuchma)
  - ✓ Actions items and next steps (Belarbi, Sanders: *318E Chair*)
7. **Subcommittee reports and on-going 445 activities** (Sub-Committee Chairs)
  - ✓ 445-A Strut and Tie (Sanders)
  - ✓ 445-B Seismic Shear (Pujol)
  - ✓ 445-C Slab Shear (Ospina)
  - ✓ 445-D Beam Database (Reineck)
  - ✓ 445-E Torsion (Greene)
  - ✓ Ad hoc committee on prestressed concrete shear issues (Matamoros)
8. **Future technical sessions** (Group and Sub-committee Chairs)
  - ✓ Spring 2016 (Milwaukee, WI)
  - ✓ Fall 2016 (Philadelphia, PA)
  - ✓ Spring 2017 (Detroit, MI)
  - ✓ Fall 2017 (Anaheim, CA)
  - ✓ Spring 2018 (Salt Lake City, UT)
  - ✓ Fall 2018 (Las Vegas, NV)
9. **Technical presentations** (*7 mns for presentations and 2 mns for Q/A*)
  1. "*Challenges and uncertainty treatment in predicting shear strength by numerical analysis*" **Cervenka, J.**
  2. "*Shear design of partially prestressed concrete beams considering the variation of the neutral axis depth*" **Cladera B. A.,** Marí, A.R., Bairán, J., Ribas, C., Oller, E.
  3. "*Shear friction of lightweight aggregate concrete*" **Sneed, L.H.**
  4. "*Direct evidence of size effect by filtering statistical sampling bias from databases on beam*" **Bazant, Z.P.,** Yu, Q., Hübner, M., Le, J.L., Wendner, R., Donmez A., and Cusatis, G.
  5. "*Results of shear strength Prediction Contest of 4000 mm deep slab strip*" Collins, M.P., Quach, P.T., and Bentz, E.C.
10. **New business** (Open)
  - a. Liaison reports- ACI committees
11. **Next meeting and wrap-up** (Belarbi)
12. **Adjourn** (Belarbi)

Sessions of interest to ASCE/ACI 445 committee members

***Recent Developments in Two-Way Slabs: Design, Analysis, Construction, and Evaluation***

Sunday, November 8, 2015 1:00 PM - 3:00 PM, GOVERNOR'S SQUARE 11

1. *Application of a Novel Shear Reinforcing Assembly for Slab-Column Connections*,  
**Trevor Hrynyk** (University of Texas at Austin)
2. *Punching Shear Design Method of KCI 2012 Code*,  
**Honggun Park** (Seoul National University)
3. *The Critical Shear Crack Theory for Punching Shear Design*,  
**Aurelio Muttoni** (EPFL)
4. *Shear and Punching Strength of Reinforced Concrete Slabs with Truncated Pyramid Voids*,  
**Dario Coronelli** (Politecnico Di Milano)
5. *Boundary Condition Effects on Static Response of Ultra-High-Performance Concrete (UHPC) Slabs*,  
**Bradley Foust**
6. *Application of Modified Bond Model to Capacity of Ruytenschildt Bridge*,  
**Eva Lantsoght** (Universidad San Francisco de Quito)
7. *Punching Shear Systems for Flat Slabs-Evaluation of Tests and Comparison with Codes*,  
**Dominik Kueres**
8. *Inclined Stud Shear Reinforcement in Two-Way Slabs*,  
**Walter Dilger**

**AGENDA for ACI Subcommittee 445A Strut and Tie Models**  
**Sunday, November 08, 2015, 9:30 AM to 12:30 PM MST, Tower Court D**

**445-Shear and Torsion- Monday, November 9, 2015, 2:00 PM - 6:00 PM MST, Plaza Ballroom F**

1. Introductions
2. Approval of Agenda
3. Review and Approval of Minutes from Spring Meeting in Kansas City
4. STM Document – Plan to send Chapters 1 to 7 out for ballot after Denver
  - a. Chapter 3 – Design Procedure (Brown, Barnes, Ramirez)
  - b. Chapter 4 – Design Strength of Ties, Struts and Nodes (Tuchscherer, Anderson)
  - c. Chapter 5 – Modeling and Design Consideration (Kuchma, Sanders, Brena, Habel)
  - d. Chapter 6 – Serviceability Considerations (Roberts-Wollmann, Huizinga)
  - e. Chapter 7 - Implementation of STM Design and Construction Details (Anderson, Klein, Yanez)
  - f. Chapter 1 – Introduction (Mitchell/Bayrak)
  - g. Chapter 2- Definitions and Notations (Lubell, Novak)
  - h. Chapter 8 – Other STM Design Specifications, Codes and Guide Documents (Reineck, Kuchma, Mitchell)
  - i. Next Step and Schedule
5. 318 Ballots
  - a. CE010 – Curved Bar Node – Klein (318 Main Committee)
  - b. CE040 - Prestressed Ties in Strut and Tie Models – Klein (318E Ballot)
  - c. CE050 - Minimum Angle in STM –Klein (318 Main Committee)
  - d. CE055 - STM - Model to Method – Novak (318 Main Committee)
6. Enhancement to 318
  - a. Development of Tie Force within Nodal Zone (CE030?) - Klein
  - b. Shear Friction (CE060?) - Klein
  - c. Equation for Minimum Strut Reinforcement (CE050?) - Klein
  - d. Evaluation of phi factors for strut-and-tie method (STM) - Sanders
  - e. Efficiency Factors for STM - Kuchma
  - f. Bottle shaped structures, fan shaped struts - Klein
  - g. Stress within the Node - Klein
  - h. Partial-width Bearing Areas - Klein
  - i. Impact of Seismic Loading on STM - Sanders
  - j. Buckling Concerns for Struts, limit on aspect ratio Novak
  - k. Simplification of the STM - Sanders
7. New/Other Business
8. Adjournment

**ACI 445C - Punching Shear  
2015 Fall Meeting – Denver  
Sunday, November 8, 2015  
Sheraton Denver Downtown  
Room: Director's Row F  
1:00 pm to 3:00 pm**

**AGENDA**

*[Please mark attendance sheet]*

1. Welcome, Introductions
2. Announcements
3. Approval of Agenda
4. Approval of Kansas City (Spring 2015) Meeting Minutes
5. Presentations and Discussions:
  - ACI 318E Punching Shear Code Change Proposal (Ballot CE 020) (Ospina and Hawkins)
  - Joint ACI / *fib* Collaborative Punching Shear Databank Development Effort (Ospina)
  - Joint ACI/*fib* Punching Shear International Symposium (Ospina)
6. Other Business
7. Next Meeting (Milwaukee, April 17, 2016)
8. Adjournment

**ACI-DAfStb-Group "Shear databases" / ACI Subcommittee 445-D**  
**Invitation to the meeting at the ACI Fall Convention in Denver**  
**Sunday, 8 November 2015, 14:00 - 17:00 h (2:00 to 5:00 pm)**  
**room: Denver (please check)**

**Agenda**

1. **Welcome**
2. **Approval of agenda**
3. **Approval of minutes of the last meeting**
4. **Report on databases as DAfStb Heft 617**
  - presentation of report (Reineck)
  - foreword
5. **Revision of databases**
  - 5.1 State of vuct-RC-2015
    - report on state (Reineck)
    - tests by Shioya (Bentz)
  - 5.2 State of vsw-RC-2015
6. **Databases for shear tests on lightweight concrete beams** (Reineck; Greene)
7. **Criteria**
  - Limit for ratio  $d_{iaa}/b_w$  (continuation of discussion, see minutes Washington)
8. **Next meeting** Sunday 14 to 17 h (2 to 5 pm)
9. **Membership**
10. **Other topics**