

AGENDA

DC-20: Building Design Committee

Wednesday, October 6, 2021

1:00 p.m. - 4:00 p.m. Eastern

Hyatt Regency Coconut Point – Bonita Springs, FL

Voting Members Present (X of 14)

Carol Hayek - Chair CCL	Bryan Allred Seneca Structural Engineering Inc.	Don Kline Kline Engineering and Consulting, LLC
Tim Christle Post-Tensioning Institute Representative	Asit Baxi Baxi Engineering Inc.	Frank Malits Cagley and Associates Inc.
Hamid Ahmady Suncoast Post-Tension Ltd	Martin A Cuadra Uzun and Case, LLC	Martin Maingot - Secretary SCA Consulting Engineers
Rashid Ahmed Walker Consultants	Jonathan Hirsch Bentley Systems, Inc.	Eric Ober SGH
Kyle Boyd Prescient	Thomas Kang Seoul National University	Zuming Xia Structural Technologies, Inc

Associate Members Present

Ryan Bonniwell Ericksen Roed and Associates	Pawan Gupta Pcubed Associates, Inc.	Srinivasan Neelamegam CCL USA
Anantha Chittur BASE	Mary Shinnors The Haskell Company	Otto Schwarz Ryan Biggs Clark Davis Engineering and Surveying
Michael Hopper LERA	Carine Magalhaes Leys Odeh Engineers	Roberto Suarez Martin/Martin
Chad Andrew Konger Strand Systems Engineering	Marcos Martinez Stanley D. Lindsey & Associates	Will McDevitt Buro Happold
Alfred Larsen Axiom		Mark Yerges CVM Engineers, Inc.

Visitors

ACTION ITEMS FROM LAST / THIS MEETING

Item #	Subject	Action	Responsible	Deadline / Completed
1	Design Webinar Modules	EDC-130 is revising Module 5. Module 5 plus the other 9 will need to be edited and balloted in DC-20.	EDC-130, Tim, Carine, Otto, Anantha	Ongoing
2	PTI DC20.2-XX: Restraint Cracks and their Mitigation	In publishing phase.	PTI Staff	December, 2021
3	Update DC20.7-01: Design, Construction and Maintenance of CIP PT Concrete Parking Structures	On hold until other priorities are completed.	All	On hold
4	ACI 318 Reference	On hold until after new 320 and next 318 are published. Then create roadmap document for PT design using 318 and 320.	All	On hold
5	PT Manual 7 th Edition	Summary of chapters being authored by and reviewed by DC-20 members	All	Ongoing
6	Dual-Banded PT Layout	Publish 1 st Tech Note after review against VT final report. Publish analytical paper in PTI Journal. Get code change proposal into 318.	VT, TAB, PTI Staff, TAB TG	Ongoing
7	Temperature Tendons	TN will be handed over to Tech Notes Task Groups to get completed. See 13.2.	TN TG	Ongoing
8	Structural Detailing for PT Buildings	On hold until other priorities are completed. Then create TG to work on this publication.	All	On hold
9	Update from DC-20A BIM Subcommittee	First work with ACI 131.2R complete. Next steps under consideration.	Malits	Ongoing

10	FAQ: Two-way PT slabs restraint effects exclusion, 125 psi min.	This item has been transitioned to the TAB TG on Code Change Proposals for ACI 318-T and ACI/PTI 320. Close from DC-20.	Closed	Closed
11	FAQ: Restrained vs. Unrestrained	Integrate this with new TAB TG research proposal for fire analytical modeling	Cuadra, TAB TG	Ongoing
12	Determine next DC-20 publication update priority	On hold until other priorities are completed.	All	On hold
13.1	Update existing DC-20 Tech Notes and FAQs	Form TGs and begin work by meeting monthly.	All	Top Priority
13.2	Create new Tech Notes and FAQs	On hold until higher priority 13.1 is completed.	All	Ongoing
14	Mission statement update	Establish updated mission statement for the committee.	All	October, 2021

Agenda Item	Expected Outcome / Actions Taken
A. General A.1 Call to Order A.2 Introductions A.3 Committee Roster / Changes A.4 PTI Antitrust Policy	A.1 Call to order XX:XX pm ET A.2 A.3 We congratulate Kyle Boyd on his elevation to DC-20 Voting Member status. We welcome new Associate Member Alfred Larsen to DC-20. We thank departing members Joseph Ales and Siva Munuswamy for their service and contributions to DC-20. A.4 Policy reminder included with agenda.
B. Agenda & Minutes B.1 Approval of Agenda B.2 Approval of Minutes from 4/20/21 (Meeting ballot required)	B.1 B.2 Vote on approval of Minutes from 4/20/21 Virtual Convention Meeting Motion / Second: Name/Name Result: X-X-X (Y-N-A)
C. Actions Taken Between Meetings C.1 Letter Ballots C.2 Web Meetings	C.1 None C.2 None

Agenda Item	Expected Outcome / Actions Taken
<p><u>1. Action Item 1: (Design Webinar Modules)</u> 1.1. Module production</p>	<p>1.1</p> <ul style="list-style-type: none"> • Modules need revision in coordinated effort between DC-20 and EDC-130. EDC-130 currently working on Module 5. • Carine involved in helping, Otto and Anantha also volunteered to help Tim.
<p><u>2. Action Item 2: (PTI DC20.2-88, Restraint Cracks and their Mitigation)</u> 2.1. Review progress 2.2 Need to publish updated document as DC20.2-XX</p>	<p>2.1</p> <ul style="list-style-type: none"> • Document is in publishing stage. Text in good shape. • Need some DC-20 volunteers to provide CAD assistance to fix a few graphical figures and some improved images to replace a few photos
<p><u>3. Action Item 3: (DC20.7-01, Design, Construction and Maintenance of CIP PT Concrete Parking Structures)</u> 3.1 On Temporary Hold 3.2 Form a Joint Committee Task Group</p>	<p>3.1 On hold until other priorities are completed. 3.2 On hold until other priorities are completed.</p>
<p><u>4. Action Item 4: (ACI 318 Reference – New PTI publication)</u> 4.1 Update on status</p>	<p>4.1 On hold until after new 320 and next 318 are published. Then create roadmap document for PT design using 318 and 320.</p>
<p><u>5. Action Item 5: (PT Manual 7th Edition)</u> 5.1 Review progress 5.2 Plan for review process</p>	<p>5.1 Tim to provide update on TAB review ballot progress to date; PTI major priority with on-going balloting cycle. 5.2 PT Manual 7th Edition goal to publish ASAP. The list below includes remaining “DC-20 reviewers” responsibility.</p> <p>Publishing in progress: <u>Chapter 9</u>: PT Concrete Floors <u>Chapter 23</u>: BIM <u>Chapter 5</u>: Analysis and Design Fundamentals <u>Chapter 17</u>: Prestressed Concrete Under Dynamic Loads and Fatigue <u>Chapter 14</u>: Storage Structures <u>Chapter 15</u>: Rock and Soil Anchors</p> <p>TAB balloting in progress: <u>Chapter 11</u>: PT Slabs-on-Ground <u>Chapter 10</u>: PT Parking Structures <u>Chapter 19</u>: Durability <u>Chapter 25</u>: Sustainability</p>

Agenda Item	Expected Outcome / Actions Taken
	<p>TAB review complete, revisions in progress: <u>Chapter 12</u>: Bridges <u>Chapter 13</u>: Stay Cables <u>Chapter 22</u>: Repair, Rehabilitation and Strengthening of Structures <u>Chapter 18</u>: Fire resistance <u>Chapter 8</u>: Seismic Design of PT Concrete Structures <u>Chapter 7</u>: Design examples <u>Chapter 6</u>: Detailing and Construction Procedures for Buildings</p> <p>TAB review in progress:</p> <p>Still due from authors: <u>Chapter 1</u>: Introduction (PTI Staff) <u>Chapter 2</u>: Applications (PTI Staff) <u>Chapter 3</u>: Post-Tensioning Systems (PTI Staff) <u>Chapter 4</u>: Specifying Post-Tensioning (PTI Staff) <u>Chapter 20</u>: Inspection (PTI Staff) <u>Chapter 21</u>: PTI Certification Programs (PTI Staff) <u>Chapter 24</u>: Anchorage Zone Design (TG is Asit, Zuming, Edgar. Carin and Gregor assisting) Marcos and Otto volunteered to help review <u>Chapter 16</u>: Design of Prestressed Barrier Cable Systems (Asit) Zuming, Hamid, Marcos and Rashid volunteered to help review</p>
<p><u>6. Action Item 6: (Dual-Banded PT Layout)</u> 6.1 Review progress of testing 6.2 Review progress of Tech Note</p>	6.1 <ul style="list-style-type: none"> • Get code change proposal into 318. Testing is complete. Awaiting final report from VT. 6.2 <ul style="list-style-type: none"> • Publish 1st Tech Note after review against VT final report. Publish analytical paper in PTI Journal.
<p><u>7. Action Item 7: (Temperature Tendons)</u> 7.1 Review progress of Tech Note</p>	7.1 TN will be handed over to Tech Notes Task Groups to get completed. See 13.2.
<p><u>8. Action Item 8: (Structural Detailing for PT Buildings)</u> 8.1 Review progress of proposed new publication</p>	8.1 On hold until other priorities are completed. Then create TG to work on this publication.
<p><u>9. Action Item 9: (Update from DC-20A BIM Subcommittee)</u> 9.1 Update on current work of the BIM subcommittee</p>	9.1 Subcommittee Chair Malits to provide a brief update on current work of DC-20A. <ul style="list-style-type: none"> • First work with ACI 131.2R complete. Next steps under consideration.

Agenda Item	Expected Outcome / Actions Taken
<p>11. Action Item 11: (Restrained vs. Unrestrained FAQ) 11.1 Document update</p>	<p>11.1 Integrate this with new TAB TG research proposal for fire analytical modeling.</p>
<p>12. Action Item 12: (Determine next DC-20 Publication Update Priority) 12.1 Set next priority.</p>	<p>12.1 On hold until other priorities are completed.</p>
<p>13. Action Item 13: (Update DC-20 Tech Notes and FAQs) 13.1 Form Task Groups 13.2 List of other new TNs or FAQs proposed</p>	<p>13.1</p> <ul style="list-style-type: none"> • This is the current <u>Top Priority</u> for DC-20. • Two (2) TGs will be formed. TG Leaders are Hamid Ahmady and Eric Ober. • TG volunteers are Bryan Allred, Mary Shinnors, Anantha Chittur, Chad Konger, Marcos Martinez, Asit Baxi, William McDevitt, Michael Hopper, Srinu Neel, Mark Yerges, Martin Maingot, Otto Schwarz, Rob Suarez. • TGs will need to regularly meet once a month to maintain consistent progress towards the update goals. • <u>DC-20 Building Design Committee</u> <ul style="list-style-type: none"> ○ FAQ 5 - Shrinkage and Temperature Reinforcement (2007) ○ FAQ 9 - Shrinkage and Temperature Reinforcement in Two-Way Post-Tensioned Slabs (2010) ○ FAQ 10 - The Use of Drop Caps to Reduce Flexural Reinforcement in Two-Way Post-Tensioned Slabs (2010) ○ FAQ 14 - Key Sustainability Benefits of Post-Tensioned Concrete (2014) ○ Tech Note 1 - Effective Width and Post-Tensioning (1993) ○ Tech Note 3 - One-Way and Two-Way Post-Tensioned Floor Systems (1993) ○ Tech Note 4 - Strength Evaluation of Existing Post-Tensioned Beams and Slabs, Analytical Approach (1994) ○ Tech Note 5 - Unbonded and Bonded Post-Tensioning Systems in Building Construction, A Design and Performance Review (1994) ○ Tech Note 7 - Hyperstatic (Secondary) Actions in Prestressing and Their Computation (1998)

Agenda Item	Expected Outcome / Actions Taken
	<ul style="list-style-type: none"> ○ Tech Note 8 - Layout of Post-Tensioning and Passive Reinforcement in Floor Slabs (2000) ○ Tech Note 10 - Prestress Losses in Post-Tensioned Structures (2000) ○ Tech Note 11 - Design of Concrete Floors, With Particular Reference to Post-Tensioning (2001) ○ Tech Note 17 - Specifying Post-Tensioning Requirements for Buildings: Force or Number of Tendons? (2013) <p>13.2 Other new TNs or FAQs proposed:</p> <ul style="list-style-type: none"> ● On hold until higher priority 13.1 is completed. ● FAQ <i>“Myth Busters – PT Construction”</i> as proposed by Anantha. Shortening in slabs, drilling into PT slabs, strand breakage, PT slabs will crack, PT is not waterproof, PT tolerances, etc.
<p>14. <u>Action Item 14: (Mission Statement)</u> 14.1 Establish updated mission statement for the committee.</p>	<p>14.1 Establish updated mission statement for the committee.</p> <ul style="list-style-type: none"> ● Existing mission statement is: Develop and report information on the design of post-tensioned buildings. ● Proposed <u>new</u> mission statement is: Develop, research, promote and report information on the design, detailing and use of post-tensioning in buildings.
<p>D. <u>New Business</u> D.1</p>	<p>D.1</p>
<p>E. <u>Next Meeting</u> 2022 PTI Convention, Hilton La Jolla Torrey Pines, La Jolla, CA April 24-27, 2022 Web Meetings:</p>	<p>E.1</p> <ul style="list-style-type: none"> ● TGs from 13.1 should begin web meetings in November to get things rolling.
<p>F. <u>Adjourn</u></p>	<p>Meeting adjourned at XX:XX pm ET</p>

AGENDA / MEETING EXHIBITS

Exhibit #	Subject
Roster / A.4	Sign In Sheet / PTI Anti-Trust Policy
B.2	210420 DC-20 Minutes 04-20-21 Unapproved.pdf

At a meeting on October 8, 1980, the Board of Directors first discussed the Institute's status and policies regarding compliance with antitrust laws. After review of both the internal and external compliance procedures, the following resolution was approved:

"The staff, officers, directors and members of the Post-Tensioning Institute are reminded that they are required to comply with the spirit and specific requirements of the antitrust laws on all activities within the scope of, and related to, the official functions of PTI. Further, this restated position, along with appropriate explanatory material, should be placed in all meeting folders/books periodically, beginning with the 8th of October meeting of PTI."

On July 24, 2012 and again on October 7, 2015, the Executive Committee authorized Legal Counsel to review and update this Policy Statement in the perspective of the Department of Justice Business Review Letter of July 30, 1997 and current case law. As a continuing guide for your participation in PTI's meetings, please review and continue to adhere to the following "Legal Limitation on Discussions at PTI Meetings."

LEGAL LIMITATION ON DISCUSSIONS AT PTI MEETINGS AND EVENTS

A free exchange of ideas on matters of mutual interest to the members is necessary for the success of all meetings. Indeed, such an exchange of views is essential to the successful operation of every trade association and the law specifically allows legitimate exchange of views pertaining to, e.g., quality control, safety, building design and construction integrity, etc.

It is not the purpose of this memorandum to discourage the exploration in depth of any matters of legitimate concern to meeting participants. Nevertheless, to ignore certain antitrust ground rules, either through ignorance or otherwise, is to create a civil and criminal hazard businessmen simply cannot afford.

It is for these reasons that PTI provides you with a reminder that certain areas of formal and informal communication between competitors or between manufacturers and their suppliers and customers must be avoided, as posing potential antitrust problems.

The Sherman Antitrust Act, the Clayton Act, the Federal Trade Commission Act, and the Robinson-Patman Act comprise the basic federal antitrust laws, which set forth the broad areas of conduct considered illegal as restraints of trade. In general, agreements or understandings between competitors that operate as an impediment to free and open competition are forbidden. Federal antitrust prohibitions forbid any "agreement or understanding...to substantially lessen competition or tend to create a monopoly in any line of commerce." An important point to keep in mind is that communications and discussions between competitors or between sellers and customers, about matters which may be considered anti-competitive, often comprise the evidence from which courts infer antitrust violations. ***It is the policy of the Post-Tensioning Institute that such agreements, understandings or communications shall not be tolerated at any formal or informal meetings or social events of the Institute.***

The general prohibitions contained in the federal antitrust laws, have been particularized in the form of a series of consent decrees, originally entered against a number of member companies of various trade associations and the associations themselves. It is important to note that these laws not only apply to PTI members, but also to PTI itself. Often trade associations have been and are presently co-defendants in cases brought by the Justice Department and the Federal Trade Commission ("FTC"). Recently, the FTC has stated: *"Because trade associations are by their nature collaborations among competitors, the Commission and courts have long been concerned with anti-competitive restraints imposed by such organizations under the guise of codes of conduct. Competing for customers, cutting prices, and recruiting employees are hallmarks of vigorous competition. Agreements among competitors not to engage in these activities injure consumers by increasing prices and reducing quality and choice."* Similar "codes" or policies and requirements that encourage directly or indirectly members' unlawful activity are strictly forbidden by PTI in the course of its business with its members.

SPECIFIC EXAMPLES OF ACTIVITIES AND PRACTICES PROHIBITED

AT ALL PTI MEETINGS AND EVENTS:

Included in activities and practices which are forbidden, and are contrary to the policy of the Institute, both under the general antitrust laws and the consent decrees, subject to the said Business Review Letter, are the following:

- Agreeing to allocate markets, customers or suppliers among competitors, classify certain customers or suppliers being entitled to preferential treatment by manufacturers, and establish geographic trading areas.
- Participating in any plan designed to induce any manufacturer or distributor to sell or refrain from selling, or discriminate in favor of, or against any particular customer or class of customers.
- Agreeing in any manner to fix or otherwise establish bids, prices (including price increases, decreases, standardization or stabilization), profits, costs, contract terms affecting price (such as discounts and credit terms), etc. because, e.g. prices were too low, with the exception of certain resale pricing agreements between manufacturers and retailers or distributors.
- Agreeing in any manner to limit or restrict the quality of products to be produced (e.g., restrictions on selling coated strand to certain customers).
- Participating in any plan which has the effect of discriminating against, or excluding competitors, suppliers or customers.

These examples are provided to guide you in your discussions during formal and informal PTI meetings and social events. If the occasion arises, more specific advice will be provided by legal counsel, who is required by Article IV, Section 7 of the PTI By-Laws to be present at all meetings of the Board of Directors and the Executive Committee.

MINUTES**DC-20: Building Design Committee**

Tuesday, April 20, 2021

10:00 a.m. - 1:00 p.m. Eastern

Virtual Convention Meeting via Zoom

Voting Members Present (13 of 13)

Carol Hayek - Chair
CCL

Bryan Allred
Seneca Structural Engineering
Inc.

Don Kline
Kline Engineering and Consulting,
LLC

Tim Christle
Post-Tensioning Institute
Representative

Asit Baxi
Baxi Engineering Inc.

Frank Malits
Cagley and Associates Inc.

Hamid Ahmady
Suncoast Post-Tension Ltd

Martin A Cuadra
Uzun and Case, LLC

Martin Maingot - Secretary
SCA Consulting Engineers

Rashid Ahmed
Walker Consultants

Jonathan Hirsch
Bentley Systems, Inc.

Eric Ober
SGH

Thomas Kang
Seoul National University

Zuming Xia
Structural Technologies, Inc

Associate Members Present

Joseph Ales
Walter P Moore and Assoc Inc

Pawan Gupta
Pcubed Associates, Inc.

Srinivasan Neelamegam
CCL USA

Ryan Bonniwell
Ericksen Roed and Associates

Mary Shinnors
PES Structural Engineers

Otto Schwarz
Ryan Biggs Clark Davis
Engineering and Surveying

Kyle Boyd
Prescient

Carine Magalhaes Leys
Odeh Engineers

Roberto Suarez
MartinMartin

Anantha Chittur
BASE

Marcos Martinez
Stanley D. Lindsey & Associates

Will McDevitt
Buro Happold

Michael Hopper
LERA

Siva Munuswamy
DDA Claims Management

Mark Yerges
CVM Engineers, Inc.

Chad Andrew Konger
Strand Systems Engineering

Visitors

Gaelyn Krauser

Katherine Farley

Shih-Ho Chao

Rattan Khosa

Gillian Love

Brittany Bell

Mehrdad Sasani

Calvin Cheng

Imran Khan

Lance Osborne

Anthony Ramos

Neel Khosa

Dana Alfalayleh

Larry Krauser

Evan Langston

ACTION ITEMS FROM LAST / THIS MEETING

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2	PTI DC20.2-XX: Restraint Cracks and their Mitigation	In publishing phase.	PTI Staff	December, 2021
3	Update DC20.7-01: Design, Construction and Maintenance of CIP PT Concrete Parking Structures	On hold until other priorities are completed.	All	On hold
4	ACI 318 Reference	On hold until after new 320 and next 318 are published. Then create roadmap document for PT design using 318 and 320.	All	On hold
5	PT Manual 7 th Edition	Summary of chapters being authored by and reviewed by DC-20 members	All	Ongoing
6	Dual-Banded PT Layout	Publish 1 st Tech Note after review against VT final report. Publish analytical paper in PTI Journal. Get code change proposal into 318.	VT, TAB, PTI Staff, TAB TG	Ongoing
7	Temperature Tendons	TN will be handed over to Tech Notes Task Groups to get completed. See 13.2.	TN TG	Ongoing
8	Structural Detailing for PT Buildings	On hold until other priorities are completed. Then create TG to work on this publication.	All	On hold
9	Update from DC-20A BIM Subcommittee	First work with ACI 131.2R complete. Next steps under consideration.	Malits	Ongoing

10	FAQ: Two-way PT slabs restraint effects exclusion, 125 psi min.	This item has been transitioned to the TAB TG on Code Change Proposals for ACI 318-T and ACI/PTI 320. Close from DC-20.	Closed	Closed
11	FAQ: Restrained vs. Unrestrained	Integrate this with new TAB TG research proposal for fire analytical modeling	Cuadra, TAB TG	Ongoing
12	Determine next DC-20 publication update priority	On hold until other priorities are completed.	All	On hold
13.1	Update existing DC-20 Tech Notes and FAQs	Form TGs and begin work by meeting monthly.	All	Top Priority
13.2	Create new Tech Notes and FAQs	On hold until higher priority 13.1 is completed.	All	Ongoing
14	Mission statement update	Establish updated mission statement for the committee.	All	October, 2021

Agenda Item	Expected Outcome / Actions Taken
A. General A.1 Call to Order A.2 Introductions A.3 Committee Roster / Changes A.4 PTI Antitrust Policy	A.1 Call to order 10:05 am ET A.2 A.3 We welcome new Associate Members Will McDevitt, Pawan Gupta and Mary Shinnors to DC-20. We thank departing members Ralf Leistikow, Todd Whisenhunt, Spencer Lee and Rafael Machado for their service and contributions to DC-20. A.4 Policy reminder included with agenda.
B. Agenda & Minutes B.1 Approval of Agenda B.2 Approval of Minutes from 10/20/20 (Meeting ballot required)	B.1 No changes to agenda. B.2 Vote on approval of Minutes from 10/20/20 Virtual Convention Meeting Motion / Second: Martin M. / Rashid Result: 12-0-0 (Y-N-A)
C. Actions Taken Between Meetings C.1 Letter Ballots	C.1 Ballot DC-20-2001-Dual Banded PT Tech Note Revisions

Agenda Item	Expected Outcome / Actions Taken
C.2 Web Meetings	C.2 Web meetings were held by DC-20 on 1/20/21 and 3/5/21 and by the Dual Banded TG on 11/9/20, 2/4/21 and 4/8/21.
1. Action Item 1: (Design Webinar Modules) 1.1. Module production	1.1 EDC-130 review of 10 modules complete. Modules need revision in coordinated effort between DC-20 and EDC-130. EDC-130 currently working on Module 5. <ul style="list-style-type: none"> • EDC talking about Module 5 this week at convention. Draft examples have been developed. • DC-20 will be involved in revising certain modules. • Incorporate edits derived by review from EDC and DC-20 • Carine involved in helping, Otto and Anantha also volunteered to help Tim.
2. Action Item 2: (PTI DC20.2-88, Restraint Cracks and their Mitigation) 2.1. Review progress 2.2 Need to publish updated document as DC20.2-XX	2.1 Document has entered publishing stage after finally passing DC-20 and TAB. Publish in 2021.
3. Action Item 3: (DC20.7-01, Design, Construction and Maintenance of CIP PT Concrete Parking Structures) 3.1 On Temporary Hold 3.2 Form a Joint Committee Task Group	3.1 This is on-hold until other DC-20 publication priorities have been cleared. This document will likely require a Joint Committee effort (DC-20 and DC-25) to update it. 3.2 Most likely a Joint Task Group consisting of members from each committee will be formed. Update of this document remains a PTI Board priority. It will be based on ACI 318-19 and latest ACI 362. <ul style="list-style-type: none"> • Split document into two? Design/construction and maintenance. Still deciding. First priority is to form the joint TG (maybe 8 ppl. Max) • Add barrier cable this time? Asit updated everyone on BC testing upcoming as well as TN14 and PTM Chapter 16. • DC-25 working on TNs for durability and also optimized design at this time. Also updating CRSI/PTI document marketing effort. • TG potentials: Martin M., Asit, Zuming, Kyle, • Rattan discussed PT garage economics from past conversations on this. Making PT garages more competitive. • Any code changes needed to help PT garages be more competitive from a design standpoint? • Otto asked if there is a document already that discusses first cost versus life cycle cost. Economics discussion. • Asit mentioned getting engaged in ACI durability committee 365 and working towards PT getting more credit for its durability value.

Agenda Item	Expected Outcome / Actions Taken
<p><u>4. Action Item 4: (ACI 318 Reference – New PTI publication)</u> 4.1 Update on status</p>	<p>4.1 Asit article on changes from 318-14 to 318-19 was published in the PTI Journal in 2020.</p> <ul style="list-style-type: none"> • New ACI/PTI 320 code is strictly PT provisions. • 318-25 will still have PT but 320-23 will begin a new document. • TAB TG on Code Changes focuses on 318-T + 320 proposals. Don Kline chair of TG. • Maybe <u>sometime in the future</u> we might create a roadmap guide PTI publication that helps designer navigate 318 and 320 code provisions. • Mesh this document with other PT building design guide.
<p><u>5. Action Item 5: (PT Manual 7th Edition)</u> 5.1 Review progress 5.2 Plan for review process</p>	<p>5.1 Tim to provide update on TAB review ballot progress to date; PTI major priority with on-going balloting cycle.</p> <p>5.2 PT Manual 7th Edition goal to publish ASAP. The list below represents a summary of the “DC-20 reviewers” responsibility matrix in item 5.1 with remaining Chapters to be released for review.</p> <p>TAB ballot complete and publishing in progress: <u>Chapter 9:</u> PT Concrete Floors; Hamid, Carine <u>Chapter 23:</u> BIM; Carine, Srini, Rob <u>Chapter 5:</u> Analysis and Design Fundamentals; Martin C, Jonathan Hamid and Siva <u>Chapter 17:</u> Prestressed Concrete Under Dynamic Loads and Fatigue; Hayek, Schokker, Hirsch</p> <p>TAB ballot in progress: <u>Chapter 10:</u> PT Parking Structures; Otto, Martin C, Bryan, and Eric <u>Chapter 19:</u> Durability (buildings & bridges); Martin M, Kyle B, Ralph L <u>Chapter 25:</u> Sustainability; Martin M, Srini</p> <p>TAB review complete: <u>Chapter 18:</u> Fire resistance – Martin C; CRSI to potentially assist with review <u>Chapter 8:</u> Seismic Design of PT Concrete Structures; Martin M, Bryan Allred, Kyle B <u>Chapter 7:</u> Design examples; Siva and Eric. Anantha and Chad also volunteered. <u>Chapter 6:</u> Detailing and Construction Procedures for Buildings; Zuming, Mark, Rashid; (Brian Allred volunteered to review)</p> <p>TAB review in progress:</p> <p>Still due from authors: <u>Chapter 24:</u> Anchorage Zone Design; Zuming, Siva; Marcos, Otto (setup a group maybe to help push it forward and then work with Carin. Carol will reach out to Carin.)</p>

Agenda Item	Expected Outcome / Actions Taken
	Chapter 16: Design of Prestressed Barrier Cable Systems; Zuming, Hamid, Marcos, Rashid
<p><u>6. Action Item 6: (Dual-Banded PT Layout)</u> 6.1 Review progress of testing 6.2 Review progress of Tech Note</p>	<p>6.1 Testing is complete. Awaiting final report from VT.</p> <ul style="list-style-type: none"> • Carin working on paper related to T1 and T3 research testing. ACI Structural Journal. • Second paper will be related to modeling and analysis as well. This will publish in PTI Journal. Jonathan co-author. Comparing test slabs to analytical model of slabs. • Code change provision will be handled in TAB TG. • Ultimately publish summary paper at PTI too related to code change, perspective. <p>6.2 Ballot TAB-2103 Dual Banded PT Tech Note Revisions will be resolved in a TAB web meeting after the convention.</p> <ul style="list-style-type: none"> • Second tech note eventually dealing with other framing and loading conditions.
<p><u>7. Action Item 7: (Temperature Tendons)</u> 7.1 Review progress of Tech Note</p>	<p>7.1 No further progress due to other priorities. This will be added to the Tech Note Update action item and should be handed over to a DC-20 Task Group.</p>
<p><u>8. Action Item 8: (Structural Detailing for PT Buildings)</u> 8.1 Review progress of proposed new publication</p>	<p>8.1 No further progress due to other priorities. This publication would benefit from being handed over to a DC-20 Task Group.</p>
<p><u>9. Action Item 9: (Update from DC-20A BIM Subcommittee)</u> 9.1 Update on current work of the BIM subcommittee</p>	<p>9.1 Subcommittee Chair Malits to provide a brief update on current work of DC-20A.</p> <ul style="list-style-type: none"> • Final stage of ACI 131 document incorporating PT provisions. • Will consider EM-6 as possible next step.
<p><u>10. Action Item 10: (FAQ or Tech Note, two-way PT slabs, exclusion of restraint effects in the min 125 psi calculation)</u> 10.1 Document update</p>	<p>10.1 This item has been transitioned to the TAB TG on Code Change Proposals for ACI 318-T and ACI/PTI 320. Close from DC-20.</p>
<p><u>11. Action Item 11: (Restrained vs. Unrestrained FAQ)</u> 11.1 Document update</p>	<p>11.1 Continue to create an FAQ from DC-20? If so, move to Action Item 13 below. Or transition to TAB TG on Code Changes?</p>

Agenda Item	Expected Outcome / Actions Taken
<p><u>12. Action Item 12: (Determine next DC-20 Publication Update Priority)</u> 12.1 Set next priority.</p>	12.1
<p><u>13. Action Item 13: (Update DC-20 Tech Notes and FAQs)</u> 13.1 Form Task Groups 13.2 List of other new TNs or FAQs proposed</p>	<p>13.1 Form a Tech Note Task Group and a FAQ Task Group and begin the process of reviewing and updating all DC-20 related TNs and FAQs for rapid gains.</p> <ul style="list-style-type: none"> • Form TGs for each of these categories so they can have a clear focus. • Carol will reach out to previous volunteers and other Associate Members for help on this. <ul style="list-style-type: none"> • <u>DC-20 Building Design Committee</u> <ul style="list-style-type: none"> ○ FAQ 5 - Shrinkage and Temperature Reinforcement (2007) ○ FAQ 9 - Shrinkage and Temperature Reinforcement in Two-Way Post-Tensioned Slabs (2010) ○ FAQ 10 - The Use of Drop Caps to Reduce Flexural Reinforcement in Two-Way Post-Tensioned Slabs (2010) ○ FAQ 14 - Key Sustainability Benefits of Post-Tensioned Concrete (2014) ○ Tech Note 1 - Effective Width and Post-Tensioning (1993) ○ Tech Note 3 - One-Way and Two-Way Post-Tensioned Floor Systems (1993) ○ Tech Note 4 - Strength Evaluation of Existing Post-Tensioned Beams and Slabs, Analytical Approach (1994) ○ Tech Note 5 - Unbonded and Bonded Post-Tensioning Systems in Building Construction, A Design and Performance Review (1994) ○ Tech Note 7 - Hyperstatic (Secondary) Actions in Prestressing and Their Computation (1998) ○ Tech Note 8 - Layout of Post-Tensioning and Passive Reinforcement in Floor Slabs (2000) ○ Tech Note 10 - Prestress Losses in Post-Tensioned Structures (2000) ○ Tech Note 11 - Design of Concrete Floors, With Particular Reference to Post-Tensioning (2001)

Agenda Item	Expected Outcome / Actions Taken
	<ul style="list-style-type: none"> ○ Tech Note 17 - Specifying Post-Tensioning Requirements for Buildings: Force or Number of Tendons? (2013) <p>13.2 Other new TNs or FAQs proposed:</p> <ul style="list-style-type: none"> • FAQ for practical vs. ACI 318 provisions for column punching shear integrity reinforcement in PT slabs. Or push to TAB TG on Code Changes? • FAQ for ACI 318 8.6.2 provision for minimum P/A and bonded reinforcement. This has been pushed to TAB TG on Code Changes. • Vertical PT in columns and walls. This has been pushed to TAB TG on Code Changes. • Dual banded system will need revised integrity tendon language. Push this to TAB TG on Code Changes. • Tech Note to address 2018 IBC SEAOC Structural/Seismic Design Manual Example 4. Bryan Allred and Dirk Bondy.
<p>14. Action Item 14: (Mission Statement) 14.1 Establish updated mission statement for the committee.</p>	<p>14.1</p> <ul style="list-style-type: none"> • Existing mission statement is: Develop and report information on the design of post-tensioned buildings. • Proposed <u>new</u> mission statement is: Develop, research, promote and report information on the design, detailing and use of post-tensioning in buildings.
<p>D. New Business D.1</p>	<p>D.1</p>
<p>E. Next Meeting 2021 PTI Committee Days, Hyatt Regency Coconut Point Resort & Spa, Bonita Springs, FL October 5-8, 2021</p> <p>Web Meetings:</p>	<p>E.1</p>
<p>F. Adjourn</p>	<p>Meeting adjourned at 12:58 pm ET</p>

AGENDA / MEETING EXHIBITS

Exhibit #	Subject
Roster / A.4	Zoom Attendance Report / PTI Anti-Trust Policy

Meeting ID	Topic	Start Time	End Time
84311410023	DC-20 Building Design	4/20/2021 9:55	4/20/2021 12:59
Name (Original Name)	User Email	Total Duration (Minutes)	
Tim Christle	tim.christle@post-tensioning.org	184	
Carol Hayek		184	
Martin Maingot - SCA		183	
Anantha Chittur (BASE)		183	
Rashid Ahmed		183	
Marcos Martinez		180	
Mary Shinnors (PES)	marykshinnors@gmail.com	180	
Martin Cuadra (Uzun + Case)		180	
Kyle Boyd		180	
Gaelyn Krauser# DCI		179	
OSchwarz		179	
Thomas Kang (강현구)		179	
Bryan Allred		179	
Will McDevitt	william.mcdevitt@burohappold.com	179	
Hamid Ahmady		178	
Jonathan Hirsch		178	
Katherine Farley		175	
Rob Suarez - Martin/Martin		174	
Zuming Xia		172	
Asit Baxi		167	
Michael Hopper		167	
Shih-Ho Chao	shchao@uta.edu	152	
Rkhosa		151	
Gillian Love	gclove@sgh.com	145	
Chad Konger		139	
Don Kline		127	
Brittany Bell		121	
GTI\askalska		115	
Mehrdad Sasani		114	
Calvin Cheng		109	
Imran Khan		108	
Eric Ober	erober@sgh.com	100	
Carine Magalhaes Leys		95	
Lance Osborne		92	
Ryan Bonniwell		79	
Frank Malits		67	
Anthony Ramos		66	
Neel		66	
Carine Leys - Odeh (Carine)		61	
calvin cheng		58	
Pawan Gupta		11	
dana alalayleh	dana@sf-mgc.com.my	7	
Larry Krauser		2	
Evan: PTM		1	

At a meeting on October 8, 1980, the Board of Directors first discussed the Institute's status and policies regarding compliance with antitrust laws. After review of both the internal and external compliance procedures, the following resolution was approved:

"The staff, officers, directors and members of the Post-Tensioning Institute are reminded that they are required to comply with the spirit and specific requirements of the antitrust laws on all activities within the scope of, and related to, the official functions of PTI. Further, this restated position, along with appropriate explanatory material, should be placed in all meeting folders/books periodically, beginning with the 8th of October meeting of PTI."

On July 24, 2012 and again on October 7, 2015, the Executive Committee authorized Legal Counsel to review and update this Policy Statement in the perspective of the Department of Justice Business Review Letter of July 30, 1997 and current case law. As a continuing guide for your participation in PTI's meetings, please review and continue to adhere to the following "Legal Limitation on Discussions at PTI Meetings."

LEGAL LIMITATION ON DISCUSSIONS AT PTI MEETINGS AND EVENTS

A free exchange of ideas on matters of mutual interest to the members is necessary for the success of all meetings. Indeed, such an exchange of views is essential to the successful operation of every trade association and the law specifically allows legitimate exchange of views pertaining to, e.g., quality control, safety, building design and construction integrity, etc.

It is not the purpose of this memorandum to discourage the exploration in depth of any matters of legitimate concern to meeting participants. Nevertheless, to ignore certain antitrust ground rules, either through ignorance or otherwise, is to create a civil and criminal hazard businessmen simply cannot afford.

It is for these reasons that PTI provides you with a reminder that certain areas of formal and informal communication between competitors or between manufacturers and their suppliers and customers must be avoided, as posing potential antitrust problems.

The Sherman Antitrust Act, the Clayton Act, the Federal Trade Commission Act, and the Robinson-Patman Act comprise the basic federal antitrust laws, which set forth the broad areas of conduct considered illegal as restraints of trade. In general, agreements or understandings between competitors that operate as an impediment to free and open competition are forbidden. Federal antitrust prohibitions forbid any "agreement or understanding...to substantially lessen competition or tend to create a monopoly in any line of commerce." An important point to keep in mind is that communications and discussions between competitors or between sellers and customers, about matters which may be considered anti-competitive, often comprise the evidence from which courts infer antitrust violations. ***It is the policy of the Post-Tensioning Institute that such agreements, understandings or communications shall not be tolerated at any formal or informal meetings or social events of the Institute.***

The general prohibitions contained in the federal antitrust laws, have been particularized in the form of a series of consent decrees, originally entered against a number of member companies of various trade associations and the associations themselves. It is important to note that these laws not only apply to PTI members, but also to PTI itself. Often trade associations have been and are presently co-defendants in cases brought by the Justice Department and the Federal Trade Commission ("FTC"). Recently, the FTC has stated: *"Because trade associations are by their nature collaborations among competitors, the Commission and courts have long been concerned with anti-competitive restraints imposed by such organizations under the guise of codes of conduct. Competing for customers, cutting prices, and recruiting employees are hallmarks of vigorous competition. Agreements among competitors not to engage in these activities injure consumers by increasing prices and reducing quality and choice."* Similar "codes" or policies and requirements that encourage directly or indirectly members' unlawful activity are strictly forbidden by PTI in the course of its business with its members.

SPECIFIC EXAMPLES OF ACTIVITIES AND PRACTICES PROHIBITED

AT ALL PTI MEETINGS AND EVENTS:

Included in activities and practices which are forbidden, and are contrary to the policy of the Institute, both under the general antitrust laws and the consent decrees, subject to the said Business Review Letter, are the following:

- Agreeing to allocate markets, customers or suppliers among competitors, classify certain customers or suppliers being entitled to preferential treatment by manufacturers, and establish geographic trading areas.
- Participating in any plan designed to induce any manufacturer or distributor to sell or refrain from selling, or discriminate in favor of, or against any particular customer or class of customers.
- Agreeing in any manner to fix or otherwise establish bids, prices (including price increases, decreases, standardization or stabilization), profits, costs, contract terms affecting price (such as discounts and credit terms), etc. because, e.g. prices were too low, with the exception of certain resale pricing agreements between manufacturers and retailers or distributors.
- Agreeing in any manner to limit or restrict the quality of products to be produced (e.g., restrictions on selling coated strand to certain customers).
- Participating in any plan which has the effect of discriminating against, or excluding competitors, suppliers or customers.

These examples are provided to guide you in your discussions during formal and informal PTI meetings and social events. If the occasion arises, more specific advice will be provided by legal counsel, who is required by Article IV, Section 7 of the PTI By-Laws to be present at all meetings of the Board of Directors and the Executive Committee.