

HOW PRECAST BUILDS
 Prestressed Concrete Bridge Design Seminar
 April 13, 20 and 27, 2021
 Resources and Update on PCINE
 Technical Committee Activity

PCI Northeast
 A Chapter of Precast/Prestressed Concrete Institute

PCI Mid-Atlantic
 A Chapter of Precast/Prestressed Concrete Institute

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NEW Transportation Publications and Online Resources Catalog

Go to www.pci.org - DESIGN - TRANSPORTATION ENGINEERING
 Download - [Transportation Publications and Online Resources Catalog](#)
 The Catalog provides all available resources on Bridge Design and Construction

2

NEW Transportation Publications and Online Resources Catalog
<https://www.pci.org/TransportationEngineeringResources>

Publications

- The catalog will provide a brief summary of each document.
- The catalog has a hyperlink to the PCI Bookstore for the document.
- There are many documents that are free and can be download as an e-copy. Hardcover documents must be purchased.
- Currently there are 20 publications related to bridge and transportation topics.
- You can also visit the bookstore directly.

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Go to - www.pcine.org or www.pci-ma.org – Publications Tab

From PCI Main Menu, Select **Publications**, then Select **Bookstore**

Periodicals can also be viewed online for the **PCI Journal** and **Aspire Magazine**.

PCI is always looking for concrete bridge projects of any size and type. Contact Reid Castrodale if you have a project!

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Transportation Resources in the Bookstore

From Left Menu, Select **Transportation/Infrastructure Topics will be sorted:**

Example of Publications.

- Bridge Design Manual
- Bridge Geometry
- Pile Design Manual
- Full Depth Deck Panel Manual
- Pile Interaction Curves
- Tolerance Manual
- Curved Precast Bridges
- State of Art Integral Bridges
- State of Art Seismic Design
- Splice Girder Bridges
- Adjacent Box Beam

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Transportation Publications and Online Resources Catalog
 PCI eLearning Center: www.pci.org/PCI/Education

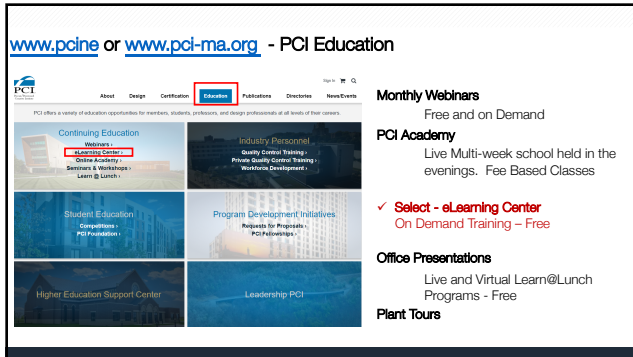
PCI, with assistance provided by the Federal Highway Administration and in collaboration with the AASHTO officials developed these courses.

- These courses were written by a team of experts.
- The courses provide the theory, design steps, and information about various prestressed concrete bridge structures.
- There is a description and a hyperlink to each course in the catalog

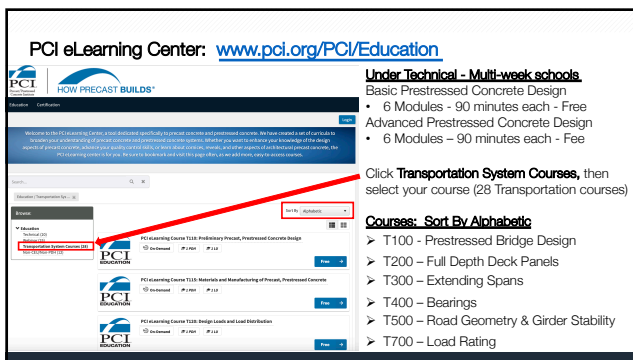
Example Sequence of Classes

- T100 series course - PCI Bridge Manual MNL-133 Chapters 1 - 9
- T200 series courses - Full-Depth Precast Bridge Deck Panels (SCA-01-1911)
- T310 series courses - Bridge Manual MNL-133 Chapter 11.
- T450 series courses - Bridge Manual MNL-133 Chapter 10.
- T710 series course - Bridge Manual MNL-133 Chapter 18.
- T500 & T510 series courses - Bridge Geometry Manual (CB-02-20).
- T520 series courses - Lateral Stability of Precast, Prestressed Concrete Bridge Girders (CB-02-16 and (CB-04-20).
- T350 series courses - Design of Curved, Spliced Precast Concrete U-Beam Bridges (CB-03-20), and MNL-133 Chapter 12

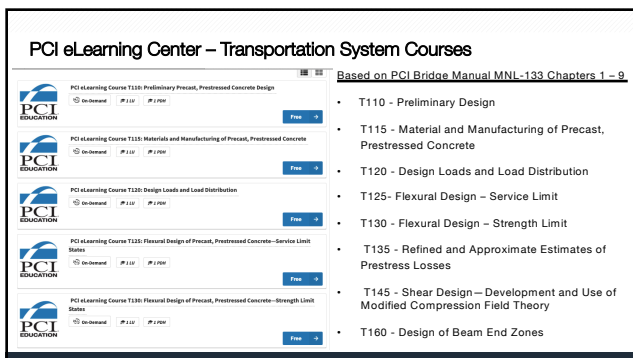
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7



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Course Description

1. Select a course
2. Review course description
3. Login
4. If you have not done so, create an account.
5. Then sign-in.
6. Get started
7. Log in to course

The screenshot shows a course page with a header 'HOW PRECAST BUILDS®'. The main content area includes a description of the course, which is designed for individuals involved in the design and construction of precast concrete bridges. It mentions that the course is self-paced and includes a final test. A sidebar on the right contains a 'Summary' section with fields for 'Availability' (On Demand), 'Cost' (Free), and 'Credit Offered' (1 PDH Credit / 1 CEU Credit). A 'Login' button is visible at the bottom of the sidebar.

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Take a Course!

Approximately 60 minutes

- Self-paced
- Start – Stop feature
- Topics covered on right menu
- Tests along the way
- Final test at completion of the module to receive PDH credit

Download the PowerPoint notes

The screenshot shows a video player interface for a course titled 'Advanced Precast Element Design and Construction State of Practice'. The video content shows a large concrete bridge structure under construction in a wooded area. The AASHTO logo is visible at the bottom of the video frame. A sidebar on the right contains a navigation menu with various topics like 'Introduction', 'Design Process', and 'Construction Methods'.

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PCI
NORTHEAST
A Chapter of
Precast/Prestressed
Concrete Institute

PCI Northeast Bridge Technical Committee Update

PCI Northeast Bridge Technical Committee was established in 1990
Covers the Following States CT, MA, RI, VT, ME, NH and NY

Mission: Update & develop regional bridge design resources.
Membership: State DOTs, Producers, Consultants
Meetings Held: Three/Year

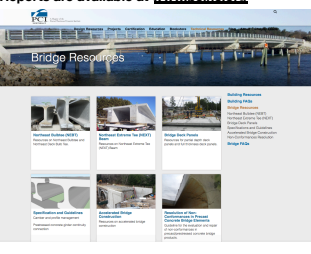
<p>State DOT</p> <p>Bryan Reed – CTDOT Tim Fields – CTDOT Brian Myers – Maine DOT Brian Reaves – Maine DOT Alex Bardow – MassDOT Mike Maris – MassDOT Edmund Newton – MassDOT (retired) Diane Casparis – NYSDOT Ramiz Turan – NYSDOT Jason Tremblay – NH-DOT David Scott – NH-DOT Mike Savella – Rhode Island DOT (retired) Rob Young – Vermont AOT</p>	<p>Consultants</p> <p>Michael Quinn – CHA Associates Eric Calderwood – Calderwood Eng. Ben Cota – GCP Technologies Daren Conboy – Jacobs Eng. Ed Barwicki – Lin Associates John Byatt – QLD/Fuss O'Neil Paul Moyers – Gil Engineering</p> <p>Producers</p> <p>John Carrara – J. P. Carrara & Sons Bruce Miller – Unistress Corp. Chris Fowler – Oldcastle Precast Jared Staler – Dalley Precast Scott Harigan – Fort Miller Bill Augustus – United Precast Troy Jenkins – NPP</p>
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First NEBT Girder 1995

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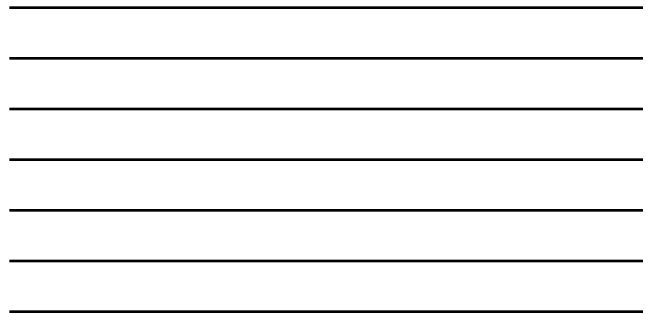
PCI Northeast Bridge Resources
 Reports are available at www.pcine.org



Current Updates

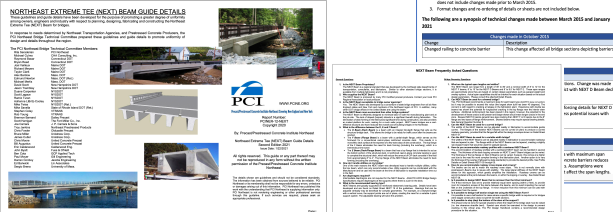
- > **NEXT Beam Guidelines Updated**
January 2021 (2nd Ed)
- > **PCI Northeast Full Depth Deck Panels Guidelines**
May 2020 (3rd Edition)
- > **Precast SIP Deck Panel Guidelines, 2nd Ed.**
February 2017
- > **Northeast Deck Bulb Tee Guidelines (NEDBT)**
March 2018
- > **Camber & Profile Management In Adjacent Beams**
January 2018
- > **Resolution of Non-Conformances In Precast Concrete Bridge Elements**
January 2018
- > **Current Work - Guidelines for Accelerated Bridge Construction using Precast/Prestressed Concrete Components**

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NEXT Beam Guidelines Updated January 2021 (2nd Ed)

- > One Page summary of the updates
- > FAQ updated and expanded
- > Mike Culmo will review the updates in Session 3



History of Significant Changes made to the PCI Northeast NEXT Beam Typical Guide Details since March 2015.

View: January 01, 2021

On January 2021, the PCI Northeast Bridge Technical Committee issued significant changes to the NEXT Beam Typical Guide Details. A revision was made to issue the revised details as a second edition. In this revision, the revised (March 2021) and 2nd Edition were changed to include changes for the next edition. The following table provides a summary of the changes made to the NEXT Beam Typical Guide Details between March 2015 and January 2021 and major changes made with the January 21st edition.

Changes:

- The first NEXT Beam Guide Details were developed in 2008. The first details were in sheet 1-10, separate from the NEXT Beam.
- The NEXT Beam details were consolidated into one document in March 2015. The listing below shows the major changes made since March 2015.
- Former changes and the making of sheets or sections of sheets are shown below.

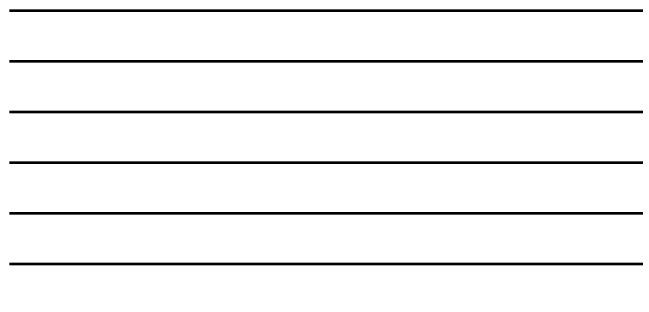
The following are a sample of technical change made between March 2015 and January 2021:

Change	Description
Changed calling to concrete barrier	This change affected all bridge sections depicting barriers.

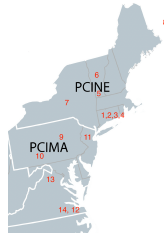
NEXT Beam Producers Contact List

Member	Address	Phone	Website
1 - Blakeslee Prestressed	Branford CT	860-426-1100	www.blakeslee.com
2 - Oldcastle Precast	Avon CT	860-426-1100	www.oldcastle.com
3 - United Concrete	Yalesville, CT	860-426-1100	www.unitedconcrete.com
4 - Coneslab Structures	Thomaston, CT	860-426-1100	www.coneslab.com
5 - Dailey Precast	Shaftsbury VT	860-426-1100	www.dailey.com
6 - J. P. Carrara & Sons	Middlebury VT	860-426-1100	www.jpccarrara.com
7 - L. C. Whitford Co.	Wellsville NY	860-426-1100	www.lcwhitford.com
8 - Strescon Limited	St. John NB Canada	860-426-1100	www.strescon.com
9 - Northeast Prestressed Products	Cressona PA	860-426-1100	www.nepre.com
10 - PennStress	Roaring Spring PA	860-426-1100	www.pennstress.com
11 - Precast Systems, Inc.	Allentown NJ	860-426-1100	www.precast.com
12 - Coastal Precast Systems	Chesapeake VA	860-426-1100	www.coastalprecast.com
13 - Rookingham Precast	Harrisonburg VA	860-426-1100	www.rookingham.com
14 - Atlantic Metrocast	Portsmouth VA	860-426-1100	www.atlanticmetrocast.com

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NEXT Beam PCI Certified Producer Members



PCINE Member

- 1 - Blakeslee Prestressed, Branford CT
- 2 - Oldcastle Precast, Avon CT
- 3 - United Concrete, Yalesville, CT
- 4 - Coneslab Structures, Thomaston, CT
- 5 - Dailey Precast, Shaftsbury VT
- 6 - J. P. Carrara & Sons, Middlebury VT
- 7 - L. C. Whitford Co., Wellsville NY
- 8 - Strescon Limited, St. John NB Canada
- 9 - Northeast Prestressed Products, Cressona PA

PCIMA Members

- 9 - Northeast Prestressed Products, Cressona PA
- 10 - PennStress, Roaring Spring PA
- 11 - Precast Systems, Inc., Allentown NJ
- 12 - Coastal Precast Systems, Chesapeake VA
- 13 - Rookingham Precast, Harrisonburg VA
- 14 - Atlantic Metrocast, Portsmouth VA

14 PCI Certified Producers can fabricate the NEXT Beam in the Northeast. Contact the regional association or a producer in your region for assistance.

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PCI Northeast Full Depth Deck Panels Guidelines - May 2020 (3rd Edition)

Topics Covered:

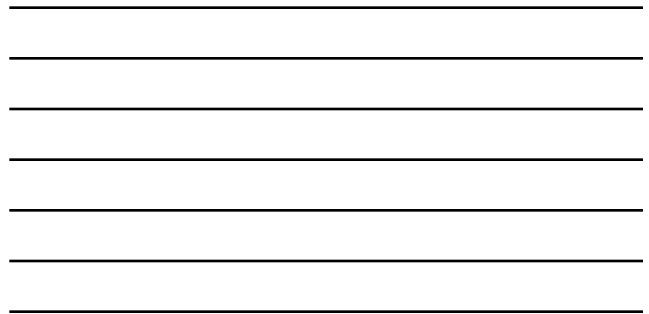
- PT and Non-PT Deck Details
- UHPC Joint
- Normal Strength Concrete Joint
- Longitudinal Panel Layouts
- 11x17 Guideline Format

Advantages of Longitudinal Layouts

- Handles girders with large numbers of studs
- Closure joint located at flanges eliminates formwork
- UHPC can be considered
- Handles Skews well
- No need to PT

Developed by the PCI Northeast Bridge Technical Committee - www.pcine.org
Look under Technical Resources

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Guidelines for Accelerated Bridge Construction using Precast/Prestressed Concrete Components 2014

Guidelines For Accelerated Bridge Construction Using Precast/Prestressed Concrete Elements Including Guideline Details

- The guide has sample details for many substructure types.
- Committee is currently updating the document to include new connection types.
- Expected Completion Winter 2021-22

MassDOT Part III of the bridge design manual is on Prefabricated Bridge Elements Standards based on PCINE ABC Guidelines.

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Contact PCI Certified Plants - www.pci.org

PCI Certified Plants offer

- Design Assistance
- Budget Development
- Schedule Planning
- Value Engineering

Contact the PCI Regional Associations in your area for additional support and resources.

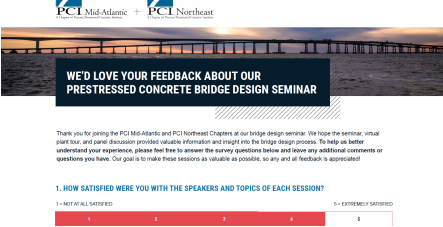
PCI Mid-Atlantic
NJ/PA/DE/MD/Washington DC/VA
www.pci-ma.org

PCI Northeast
ME/NH/VT/MA/RI/CT/NY
www.pcine.org

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How Can We Help You?
Please take a brief survey after this session.



Thank you for joining the PCI Mid-Atlantic and PCI Northeast Chapters at our bridge design seminar. We hope the seminar, virtual plant tour, and panel discussion provided valuable information and insight into the bridge design process. To help us better understand your experience, please feel free to answer the survey questions below and leave any additional comments or questions you have. Our goal is to make these sessions as valuable as possible, so any and all feedback is appreciated!

1. HOW SATISFIED WERE YOU WITH THE SPEAKERS AND TOPICS OF EACH SESSION?

1 = NOT AT ALL SATISFIED 5 = EXTREMELY SATISFIED

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Join Us for Our Next Sessions

Session 2

Tuesday, April 20, 2021
11:00 – 1:30 pm EDT | Credit – 2.5 PDH

- Welcome and Introduction – Dawn Decker
- Beak Prestressed Design; Draping & Debonding – Reid Castrodale
- Girder Sections; Camber – Reid Castrodale
- Accelerated Bridge Construction (ABC) Examples – Greg Gorman
- PCI Resources and Wrap-up – Rita Seraderlan
- Q & A – JP Binard and Reid Castrodale

Session 3


Tuesday, April 27, 2021
11:00 – 1:30 pm EDT | Credit – 2.5 PDH

- Welcome and Introduction – Dawn Decker
- PCI Body of Knowledge and Resources – Rita Seraderlan
- Lateral Stability – Reid Castrodale
- Girder Repairs and Fabrication Issues – JP Binard
- UHPFRC for Bridge Elements – JP Binard
- Updates on NECT Beam Guidelines – Mike Culmo
- Producer Roundtable
- Wrap-up and Adjourn – Rita Seraderlan

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Thank-you for attending the bridge seminar today.

Question and Answer Period starts now.
Please type your questions into chat.



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