



2020 West El Camino Avenue, Suite 800
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hcai.ca.gov



**Hospital Building Safety Board
Offsite Fabrication/Preassembled Components
Webinar Development Subcommittee**

**Tuesday June 11, 2024
10:00 a.m. – 2:00 p.m.**

Locations: 2020 West El Camino Ave, Conference Room 930, Sacramento, CA 95833
355 South Grand Avenue, Conference Room 1901, Los Angeles, CA 90071

Committee Members Present

Cody Bartley, Chair
Scott Mackey, Vice Chair
Teresa Endres

HBSB Staff Present

Veronica Yuke, Acting Executive
Director
Marcus Palmer
Evet Torres

HCAI Staff Present

Arash Altoontash
Alireza Asgari
Hussain Bhatia
Joe LaBrie
Mia Marvelli
Richard Tannahill
Nanci Timmins

- 1 **1. Call to Order and Welcome**
- 2 **Facilitator:** Cody Bartley, DPR Construction; Subcommittee Chair
- 3 Cody Bartley called the meeting to order and welcomed attendees to the Hospital
- 4 Building Safety Board's webinar development subcommittee session.
- 5
- 6 **2. Roll Call and Meeting Advisories/Expectations**
- 7 **Facilitator:** Veronica Yuke, Supervisor, HCAI; Acting Executive Director
- 8 Veronica Yuke conducted the roll call, confirmed a quorum, and outlined meeting
- 9 expectations.

1 **3. Review and approve the draft May 8, 2024, meeting report/minutes**

2 **Facilitators:** Cody Bartley, DPR Construction; Committee Chair

3 Cody Bartley reviewed the draft May 8, 2024, meeting report, highlighting discussions
4 on prefabrication and pre-assembly, updates to the PowerPoint slides, and setting the
5 webinar date. The report was then opened for questions or comments from the board
6 members.

7

8 **Subcommittee Comments**

- 9 • **Scott Mackey** thanked the staff for an excellent summation of the meeting and
10 acknowledged their hard work in putting the notes together. Cody Bartley concurred,
11 stating the meeting report/minutes was perfect, and called for a roll call vote for
12 approval.

13 **MOTION: Approve draft May 8, 2024, meeting report/minutes [Mackey/Endres]**

14 The committee unanimously voted to approve the March 26, 2024, meeting
15 report/minutes.

16

17 **4. Practice-run for the webinar**

18 **Facilitators:** Cody Bartley, DPR Construction; Committee Chair; Teresa Andres, AIA,
19 ACHA, EDAC, AAH, Senior Associate, Medical Planning Director; Scott Mackey, AIA,
20 NCARB, APEC, Design Manager; Hussain Bhatia, Supervisor, HCAI; Alireza Asgari,
21 Senior Structural Engineer, HCAI

22 **Cody Bartley**

23 **Introduction and Objectives**

- 24 • Importance of smooth practice run to improve flow and refine content.
25 • Quick transition through the first 30 slides to maintain audience interest.
26 • Focus on submitting for PCSs and the inspection process.
27 • Suggested removing animations from slides for better presentation quality.

28 **Contractor's Perspective**

- 29 • Advantages of prefabrication:
30 • Reduces onsite workforce and improves quality.
31 ○ Shifts work to controlled environments, enhancing safety and predictability.
32 • Importance of collaboration with OSHPD for regulatory compliance.
33 • Examples of prefabricated products and systems:
34 ○ Modular chiller plants.
35 ○ Integrated surgical ceilings.
36 ○ Stairwells and elevator shafts.
37 ○ Multi-trade racks.

- Medical headwalls and footwalls.

PCS Program Goals

- Reduce design costs by simplifying drawing and review time.
- Save time and money in construction through productivity, safety, and quality focus.
- Prefabrication ensures quality control with reduced hourly effort in safer environments.
- Pre-approvals reduce acceptance uncertainty and offsite construction reduces field variables.
- Benefits include schedule reduction, waste minimization, improved quality control, consistency, safety, and collaboration.

12

Hussain Bhatia

- Overview of the webinar on pre-approved prefabricated components and systems.
 - Definitions:
 - **Prefabricated components:** Architectural and mechanical parts of systems, potentially assembled offsite.
 - **Offsite prefabrication:** Assembly of components offsite and installation onsite.
 - **Preassembled components:** Treated as equal to prefabricated components.

OSHPD Pre-Approval Programs

- Five distinct pre-approval programs:
 - **PCS Program:** Focus on prefabricated components and systems.
 - **OPM Program:** Approval of anchorage systems.
 - **OSP Program:** Special seismic certification of components.
 - **OPA Program:** Pre-approval of inspection agencies.
 - **Discontinued OPA Program.**
- Examples of PCS approved items:
 - Simpson Strong-Tie Yield-Link moment connection.
 - Short pods (prefabricated bathroom pods).
 - Euro face frames (structural system).

Distinctions in Prefabrication

- Differences between adjacent-to-site and out-of-state prefabrication.
- Project-specific vs. PCS approval.
- Importance of pre-approval to streamline construction and reduce review time.

Code and Material Considerations:

- Prefabrication must comply with specific site construction types and material codes.
- Protection of fire-resistant assemblies and proper integration of prefabricated components into the building structure is crucial.

- 1 • Inspection protocols need to consider both offsite and onsite requirements,
2 ensuring compliance and safety.
- 3 • Detailed tracking and inspection plans are necessary for the seamless integration
4 of prefabricated components.

5 **Scott Mackey**

6 **Architectural Perspective**

- 7 • Benefits of prefabricated components:
 - 8 ○ Greater quality control in a controlled environment.
 - 9 ○ Efficiency and safety in assembly techniques.
- 10 • Better product quality in the end result.

11 **Design for Manufacture and Assembly**

- 12 • Ensures efficiency and high-quality standards through controlled manufacturing
13 environments.
- 14 • Simplified assembly process with standardized components enhances speed and
15 efficiency.
- 16 • Prefabrication reduces field complexity, minimizes parts, and optimizes the
17 construction process.
- 18 • Early design engagement with prefabrication improves connectivity,
19 standardization, and reusability.
- 20 • Prefabrication goals include setting early design targets, optimizing speed,
21 efficiency, and cost value.

22 **Alireza Asgari**

23 **Benefits of PCS Program**

- 24 • Reduces uncertainty and mitigates risk for manufacturers.
- 25 • Enhances reliability and compliance, fostering trust.
- 26 • Two main categories:
 - 27 ○ **Multidisciplinary prefabricated components:** Streamlines review process
28 for healthcare projects.
 - 29 ○ **Main structural lateral systems:** Structural-only pre-approval, such as
30 Simpson Yield-Link and Euro fields.

31 **PCS Submission and Approval Process:**

- 32 • Complete application submission to HCAI with supporting documents and a \$250
33 fee.
- 34 • Review process involves multiple disciplines (structural, architectural,
35 mechanical, electrical, fire life safety).
- 36 • Coordination between design professionals and manufacturers is essential for
37 resolving comments and achieving approval.
- 38 • Documents must adhere to California Building Standard Code with HCAI
39 modifications, including clear calculations and testing data.

40

1 **Teresa Endres:**

2 **Scale of Prefabrication:**

- 3 • Early identification of prefabrication needs is crucial, especially in medical
4 planning.
- 5 • Example project: 1.6 million square feet with extensive prefabrication (336 acuity
6 adjustable rooms, 450 toilet rooms, 42 operating rooms, 10,000 doors, 16,000
7 pieces of equipment).
- 8 • Room templates range from components to fully volumetric rooms, impacting
9 design efficiency and cost savings.
- 10 • Combining universal grid and modular planning principles enhances planning
11 flexibility and quality.
- 12 • Customization is possible within prefabrication for higher aesthetics or
13 functionality while maintaining efficiency and quality benefits.

14 **Inspection and Transportation Considerations:**

- 15 • Inspections must mirror onsite protocols, ensuring components are not buried or
16 altered without proper review.
- 17 • Offsite inspections require coordination with transportation and site installation
18 processes.
- 19 • Weatherization and change management are critical for maintaining component
20 integrity and quality.
- 21 • Examples provided include multi-trade racks, bathroom pods, and prefabricated
22 walls, demonstrating prefabrication's practical application and benefits in real
23 projects.

24
25 **5. Create webinar schedule**

26 **Facilitators:** Cody Bartley, DPR Construction; Committee Chair

27 **Discussion:**

- 28 • The webinar schedule was reviewed and confirmed, noting the necessity for a
29 smooth run-through.
- 30 • Emphasis was placed on clarifying the roles and responsibilities, especially with the
31 transition of presenter duties.
- 32 • Discussion highlighted the importance of cost-related questions during offsite
33 inspections, focusing on who will pay and manage logistics.
- 34 • Concerns were raised about inspector qualifications and whether local inspectors
35 could be used if properly certified.
- 36 • The committee agreed on using GoToWebinar software and addressed technical
37 issues such as microphone functionality and early call-ins for troubleshooting.
- 38 • Slide adjustments were recommended, including removing specific names, updating
39 content for consistency, and addressing formatting issues.

- 1 • Concerns about copyright issues with certain slide images were noted, with solutions
2 proposed to avoid potential legal problems.
3 • It was decided that presenters should be prepared to handle specific discipline-
4 related questions, despite the lack of technical leads in the initial presentation.
5

6 **6. Comments from the Public/Committee Members on Issues not on Agenda**

7 **Facilitators:** Cody Bartley, DPR Construction; Committee Chair

8 None.

9

10 **7. Adjournment**

11 **Facilitators:** Cody Bartley, DPR Construction; Committee Chair

12 Cody Bartley adjourned the meeting, thanking everyone for their participation.