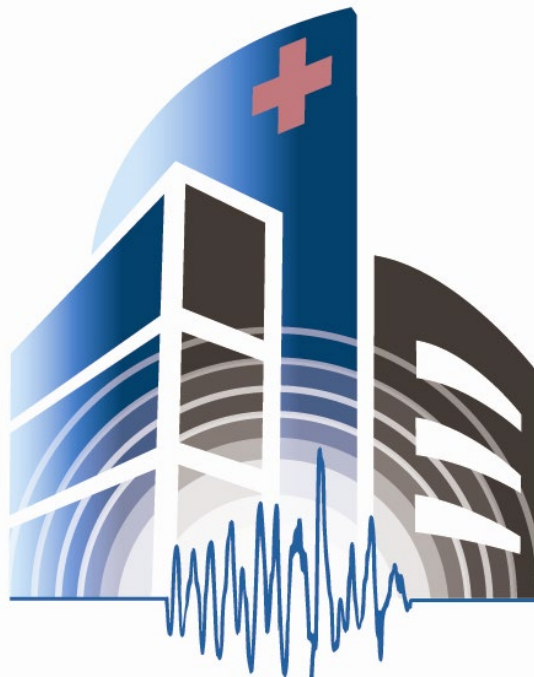


Hospital Building Safety Board

Full Board Meeting
April 28, 2022



***** SPECIAL NOTICE *****

This meeting will be held in-person at the Department of Health Care Access and Information (HCAI) offices in Los Angeles and Sacramento, as well as by teleconference. Members of the public may fully participate from their own locations.

Microsoft Teams:

For best results, please use Google Chrome or Microsoft Edge browsers to join meeting.

Join on your computer or mobile app

- [Click here to join the meeting](#)
- Or copy and paste the following link into your browser:
https://teams.microsoft.com/join/19%3ameeting_OTM0NTM5NmMtMGZkYy00YmRmLWExMzEtMjY5ZmY5Mjk4ODU0%40thread.v2/0?context=%7b%22Tid%22%3a%2228891a93-888f-489f-9930-e78b8f733ca6%22%2c%22Oid%22%3a%224afdc7d5-a51c-4637-9e27-755fa3a30732%22%7d

Or call in (audio only)

- +1 (916) 535-0978 United States, Sacramento
- Enter Conference ID: 797 666 93#

Or join with a video conferencing device

- 576732194@t.plcm.vc
- Video Conference ID: 111 934 561 0
- [Alternate VTC instructions](#)

Locations:

HCAI Los Angeles
355 South Grand Avenue, Suite 2000
Los Angeles, CA 90071

HCAI Sacramento
2020 West El Camino Avenue, Suite 900
Sacramento, CA 95833



2020 West El Camino Avenue, Suite 800
 Sacramento, CA 95833
hcai.ca.gov



AMENDED

***** SPECIAL NOTICE *****

This meeting will be held in-person at the locations noted below, as well as by teleconference. Members of the public may fully participate from their own locations.

NOTICE OF PUBLIC MEETING
HOSPITAL BUILDING SAFETY BOARD
Full Board Meeting

Appointed Members

Louise Belair, Chair
 David Bliss, Vice Chair
 Bruce Clark
 Deepak Dandekar
 Michael Foulkes
 Mike Hooper
 Scott L. Jackson
 David Khorram
 Pete Kreuser
 Michele Lampshire
 Marshall Lew
 Roy L. Lopez*
 Scott Mackey
 Jim O. Malley
 Farzad Naeim*
 Bruce Rainey

Director-Appointed

Ex-Officio Members

Bert Hurlbut
 Michael O'Connor

Date:

Thursday, April 28, 2022
 10:00 a.m. – 4:00 p.m.

(Please note late start time)

Locations:

Department of Health Care Access
 and Information

[2020 West El Camino Avenue, Suite 900](#)
[Sacramento, CA 95833](#)

Department of Health Care Access
 and Information

[355 South Grand Avenue, Suite 2000](#)
[Los Angeles, CA 90071](#)

Teleconference Meeting Access:

[HBSB Teams Full Board Meeting](#)

Ex-Officio Members

Elizabeth Landsberg
 HCAI Director

Mike Richwine
 State Fire Marshal

Steve Bohlen (Acting)
 State Geologist

Tim McCrink (Delegate)
 Jennifer Thornburg (Delegate)

Mia Marvelli
 Building Standards Commission
 Executive Director

Tomás J. Aragón, M.D., Dr. P.H.
 Dept. of Public Health Director
 Nathaniel Gilmore (Delegate)

Chris Tokas
 Facilities Development Division,
 HCAI
 Deputy Director

Executive Director
 Ken Yu

For more detailed instructions on joining or attending the meeting, see pages 4 – 5.

AGENDA

Item	Subject	Facilitator
1	Call to Order and Welcome	Louise Belair, Board Chair (or designee)

*Attending virtually

Item	Subject	Facilitator
2	Roll Call and Meeting Advisories/Expectations <ul style="list-style-type: none"> • Determination of quorum • Conduct of Meeting 	Ken Yu, HBSB Executive Director (or designee)
3	Department of Health Care Access and Information (HCAI) Update <ul style="list-style-type: none"> • Update on HCAI programs and initiatives • Discussion and public input 	Elizabeth Landsberg, HCAI Director (or designee)
4	Letter of Acknowledgment from Paul Coleman to the Board <ul style="list-style-type: none"> • Discussion and public input 	Ken Yu, HBSB Executive Director (or designee)
5	Overview and approval of the December 8 – 9, 2021 Full Board draft Meeting Report/Minutes <ul style="list-style-type: none"> • Discussion and public input 	Louise Belair, Board Chair (or designee)
6	Technology and Research Committee <ul style="list-style-type: none"> • Overview and approval of the November 10, 2021 draft Meeting Report/Minutes • Discussion and public input 	Bruce Rainey, Committee Chair (or designee)
7	Structural and Nonstructural Regulations Committee <ul style="list-style-type: none"> • Overview and approval of the January 13, 2022 draft Meeting Report/Minutes • Discussion and public input 	Jim Malley, Committee Chair (or designee)
8	Ad Hoc Board Procedures Committee <ul style="list-style-type: none"> • Overview and approval of the January 26, 2022 draft Meeting Report/Minutes • Discussion and public input 	Michael Foulkes, Committee Chair (or designee)
9	Instrumentation Committee <ul style="list-style-type: none"> • Overview and approval of the January 27, 2022 draft Meeting Report/Minutes • Update on the draft white paper, “The Benefits of Strong-Motion Instrumentation in Hospital Facilities” • Discussion and public input 	Marshall Lew, Committee Chair (or designee)
10	Codes and Processes Committee <ul style="list-style-type: none"> • Overview and approval of the February 10, 2022 draft Meeting Report/Minutes • Discussion and public input 	Michael O’Connor, Committee Chair (or designee)

Item	Subject	Facilitator
11	Education and Outreach Committee <ul style="list-style-type: none"> • Overview and approval of the February 23, 2022 draft Meeting Report/Minutes • Discussion and public input 	Mike Hooper, Committee Chair (or designee)
12	Energy Conservation and Management Committee <ul style="list-style-type: none"> • Overview and approval of the March 15, 2022 draft Meeting Report/Minutes • Discussion and public input 	Roy Lopez, Committee Chair (or designee)
13	Appoint a Nominating Committee for Chair and Vice-Chair elections at the August 2022 Full Board meeting <ul style="list-style-type: none"> • Discussion and public input 	Louise Belair, Board Chair (or designee)
14	Inspection Services Unit Update <ul style="list-style-type: none"> • Inspection Services Unit to provide an update on accomplishments year-to-date • Update to the Testing, Inspection and Observation (TIO) Program • Discussion and public input 	Joe LaBrie, FDD Inspection Services Unit Supervisor (or designee) Chris Davis, FDD District Structural Engineer (or designee)
15	Building Standards Unit Update <ul style="list-style-type: none"> • Building Standards Unit to provide an update on accomplishments year-to-date • Discussion and public input 	Richard Tannahill, FDD Acting Deputy Division Chief (or designee)
16	Structural Services Section Update <ul style="list-style-type: none"> • Structural Services Section to provide an update on accomplishments year-to-date • Discussion and public input 	Roy Lobo, FDD Principal Structural Engineer (or designee)
17	Fire Prevention Unit Update <ul style="list-style-type: none"> • Fire Prevention Unit to provide an update on accomplishments year-to-date • Discussion and public input 	Nanci Timmins, FDD Chief Fire Life Safety Officer (or designee)
18	Facilities Development Division (FDD) Update <ul style="list-style-type: none"> • Workload and performance • Personnel changes • Discussion and public input 	Chris Tokas, FDD Deputy Director (or designee)

Item	Subject	Facilitator
19	<p>Comments from the Public/Board Members on issues not on this agenda</p> <p>The Board will receive comments from the Public/Board Members. Matters raised at this time may be taken under consideration for placement on a subsequent agenda.</p>	<p>Louise Belair, Board Chair (or designee)</p>

The Board may take action under any agenda item. Every effort will be made to address each agenda item as listed. However, the agenda order is tentative and subject to change without prior notice. A 30 to 60-minute lunch (if needed) may be taken some time during the day. For further information about this meeting, please contact Evett Torres at (916) 440-8453, evett.torres@hcai.ca.gov, or sending a letter to 2020 West El Camino Avenue, Suite 800, Sacramento, CA 95833. This agenda and other notices about meetings are posted on the Internet at <https://hcai.ca.gov/construction-finance/hbsb/>.

Individuals with disabilities may request an accommodation or modification to observe or participate in the meeting by contacting Evett Torres as stated above. Providing your request at least five (5) business days before the meeting will help ensure availability of the requested accommodation.

Future Full Board meetings are scheduled for:

- August 11, 2022
- December 7 – 8, 2022

In-person meeting participation is required for board and committee members, however, members of the public, including HCAI staff, are encouraged to join the meeting and provide public comment virtually through Microsoft Teams.

Masks or face coverings are strongly recommended to everyone attending the meeting in person, regardless of vaccination status.

Microsoft Teams:

For best results, please use Google Chrome or Microsoft Edge browsers to join meeting.

You are NOT required to identify yourself or provide other information to attend or participate in this meeting. If Microsoft Teams requires a name, you may enter “Anonymous.” You may also input fictitious information for other requested information if required to attend the meeting (e.g., anonymous@anonymous.com).

Join on your computer or mobile app

- [Click here to join the meeting](#)

- Or copy and paste the following link into your browser:
https://teams.microsoft.com/l/meetup-join/19%3ameeting_OTM0NTM5NmMtMGZkYy00YmRmLWExMzEtMjY5ZmY5Mjk4ODU0%40thread.v2/0?context=%7b%22Tid%22%3a%2228891a93-888f-489f-9930-e78b8f733ca6%22%2c%22Oid%22%3a%224afdc7d5-a51c-4637-9e27-755fa3a30732%22%7d

Or call in (audio only)

- +1 (916) 535-0978 United States, Sacramento
- Enter Conference ID: 797 666 93#

Or join with a video conferencing device

- 576732194@t.plcm.vc
- Video Conference ID: 111 934 561 0
- [Alternate VTC instructions](#)

Sacramento Office:

Free parking is available around the building. Please do not park in reserved spaces.

Los Angeles Office:

You may take public transportation via:

- The Red or Purple Lines to Pershing Square
- The B Dash bus to Financial District (on Alameda St)
- The Commuter bus at Patsaouras Plaza (Stop# 3)

Public parking locations in the area:

- 330 S. Hope Street - Wells Fargo Center
 - On Site; \$4.40 for each 10 minutes/\$44 for 10 hours
- 465 S. Flower Street - Westin Bonaventure Garage
 - .12 Miles; \$20
- 530 S. Grand Avenue - Pac Mutual Building Garage
 - .15 Miles; \$25
- 601 W. 5th Street - Cal Edison Building
 - .18 Miles; \$18
- 625-631 S. Olive Street - Crown Plaza Garage
 - .23 Miles; \$10
- 523 S. Olive Street - Pac Mutual Building Garage
 - .24 Miles; \$16

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Paul A. Coleman, Architect

P.O. Box 595
Pine Grove, CA 95665

January 25, 2022

Honorable Members of the Hospital Building Safety Board
2020 West El Camino Avenue, Suite 800
Sacramento, CA 95833

Dear Hospital Building Safety Board Members,

I am appreciative and humbled by your letter of commendation to me dated December 9, 2021. Working with the Hospital Building Safety Board (HBSB) for more than twenty-five years was one of the major highlights of my career with the Facilities Development Division (FDD), first as the Los Angeles Office Deputy Division Chief, and then as the Deputy Director. The FDD and I will be forever indebted for the many contributions of the HBSB.

When I became the Deputy Director I had five primary goals pertaining to the HBSB: 1) seek out the best professionals or representatives for each position, 2) obtain representation from across California's healthcare industry such that large and small design firms, builders, health care providers and other stakeholders have representation, 3) bring more diversity and inclusiveness to the HBSB, 4) ensure that all areas of California are represented, and 5) be transparent with the HBSB and involve it in all of FDD's policies, procedures, code adoptions, etc. to ensure actions taken by FDD are reasonable, usable, doable, and sustainable. The current Board makeup is a testament that these goals were accomplished, not by me alone, but through the assistance of the HBSB leadership and its members. I am very proud of the HBSB and the great mission it has and the commitment that each Board member has made to that mission. I would not have been as effective as your letter portrays me to be without the guidance, input, advise, and inspiration from each one of you.

Now for a little bit about me and what I have been doing since August 1, 2021. I purchased a house that had deferred maintenance, and in some cases, downright neglect, but has good bones. This was done on purpose so that I would have projects to keep me busy during retirement. My first priority was to make the needed repairs required before winter weather. To this end I have accomplished replacing the thirty squares of roofing on the house, repairing over nine hundred square feet of decking, and I am currently working on repairing and refinishing more than one hundred fifty feet of deck railing. There is much left to be done on the exterior and I still have the interior work, the garage/shop building repairs and maintenance, lot clearing for better fire

January 25, 2022
Page Two

safety, restoration of a fifty-year-old pickup, travel, and many other ventures to look forward to.

In 2021 I began to realize that there comes a time when you know to move on. I do not know what role, if any, the pandemic played in this epiphany, however, several factors lined up in my life to let me know my time was at hand. The most telling factor was when the name of the Department was changed from OSHPD – **Office of Statewide Health; Paul's Division** to HCAI – **How about Chris and Arash Instead**.

Keep doing what you are doing and being what you are being, which is the most valuable Advisory Board in the state of California.


In Fondest Memories of our Partnership,

Paul A. Coleman

Full Board

Draft Meeting Report/Minutes

December 8 - 9, 2021

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2020 West El Camino Avenue, Suite 800
Sacramento, CA 95833
hcai.ca.gov



HOSPITAL BUILDING SAFETY BOARD
Full Board Meeting

Wednesday, December 8, 2021
9:00 a.m. - 3:00 p.m.

Thursday, December 9, 2021
9:00 a.m. – 1:00 p.m.

Teleconference Meeting Access:
Day One:

Day 1 HBSB GoToMeeting FB Meeting
Access Code: 490-358-493

Day Two:

Day 2 HBSB GoToMeeting FB Meeting
Access Code: 878-753-989

Appointed Members

Louise Belair, Chair
David Bliss, Vice-Chair
Bruce Clark
Deepak Dandekar
Michael Foulkes
Mike Hooper
Scott L. Jackson
David Khorram
Pete Kreuser
Michele Lampshire
Marshall Lew
Roy L. Lopez
Scott Mackey
James Malley
Farzad Naeim
Bruce Rainey

HCAI Staff Present:

Elizabeth Landsberg, HCAI Director
Scott Christman, HCAI Chief Deputy Director
Chris Tokas, FDD Deputy Director
Arash Altoontash
Richard Tannahill
Hussain Bhatia
Monica Colosi
Joe LaBrie
Roy Lobo
Eric Morikawa
David Neou
Will Owen
Cesar Ponce
Carl Scheuerman
Jamie Schnick
Ali Sumer
Nanci Timmins
Hoa Tran
James Yi

**Director-Appointed
Ex-Officio Members**

Bert Hurlbut
Michael O'Connor

Ex-Officio Members

Nathaniel Gilmore
Jennifer Thornburg

HBSB Staff:

Ken Yu, Executive Director
Joanne Jolls
Evet Torres
Veronica Yuke

1 **1. Welcome and Introductions**

2 Louise Belair, Committee Chair, called the meeting to order on December 8, 2021, at
3 9:00 a.m., and HCAI Executive Director, Ken Yu, called roll.
4

5 **2. Roll Call and Meeting Advisories/Expectations**

6 Nine members of the Board present constitute a quorum. There being fifteen present at
7 the time of roll, a quorum was established.
8

9 Mr. Yu read the advisory OSHPD officially became Department of Healthcare Access
10 and Information, or HCAI and Government Code section 11133 continues to provide
11 temporary modifications to the Bagley Keene.
12

13 **3. HCAI Update**

14 **Presenter:** Elizabeth Landsberg, HCAI Director (or designee)

15 **Discussion and public input**

16 Ms. Landsberg acknowledged the official onboarding of Chris Tokas, FDD Deputy
17 Director, and gave an update on HCAI programs and initiatives.
18

19 **Program Updates:**

- 20 • Transition the California Healthcare Workforce Policy Commission to a Graduate
21 Medical Education and Training Council
- 22 • Integrating the State Office of Rural Health into the primary care office
- 23 • Maintaining Health Professions Education Foundation programs
- 24 • 2020 seismic standard under the AV 2190 extension program
- 25 • Building and standard regulations are almost complete.
- 26 • Budget Updates:
 - 27 ○ Initiative to re-merge the behavioral health system for all Californians from
28 birth to age 25, and HCAI has a great responsibility helping to develop the
29 workforce

- 1 ○ Governor signed two pieces of legislation, giving specific hospitals additional
2 time to meet the 2021 seismic standard under the AV2190 extension
3 program.
4

5 Ms. Belair thanked Ms. Landsberg for the presentation and congratulated Mr. Tokas on
6 his new role.

7 **Information item and Action Item**

- 8 • None
9

10 **4. Overview and approval of the August 18, 2021 Full Board draft Meeting**
11 **Report/Minutes**

12 **Presenter:** Louise Belair, Board Chair

13 **Discussion and public input**

14

15 **MOTION:** [Mackey/Lopez]

16 The Board voted to accept the August 18, 2021 Full Board draft Meeting Report/Minutes
17 as presented with corrections noted. Mr. Yu took a roll call vote:

18 David Bliss - yes

19 Bruce Clark - yes

20 Deepak Dandekar - yes

21 Michael Foulkes - yes

22 Mike Hooper - yes

23 Scott L. Jackson - yes

24 David Khorram - yes

25 Pete Kreuser - yes

26 Michele Lampshire - yes

27 Marshall Lew - yes

28 Roy L. Lopez - yes

29 Scott Mackey - abstain

30 James Malley - yes

31 Farzad Naeim - yes

32 Bruce Rainey - yes

33 **Information item and Action Item**

- 34 • None.
35

36 **5. Structural and Nonstructural Regulations Committee**

- 1 **Presenter:** Jim Malley, Acting Committee Chair
2 • Overview and approval of June 30, 2021 draft Meeting Report/Minutes

3 **Discussion and public Input**

4 Ms. Belair asked about the availability of a pre-approved process of the components.
5 Mr. Tokas stated that the availability of the pre-approved process of the components is
6 coming soon. He added that while HCAI is putting together the different policies and
7 guidelines, they are moving forward with the review and approval of SAS components.
8 Mr. Tokas assured the Board would receive reports on the different types of
9 components in process that have not been approved to date. Mr. Malley congratulated
10 HCAI staff for work done to finish the California Building Code changes and getting the
11 changes approved.

12

13 **MOTION:** [Belair/Dandekar]

14 The Board voted to accept the June 30, 2021, draft Meeting Report/Minutes as
15 presented with corrections noted. Mr. Yu took a roll call vote:

16 David Bliss - yes
17 Bruce Clark - yes
18 Deepak Dandekar - yes
19 Michael Foulkes - yes
20 Mike Hooper - yes
21 Scott L. Jackson - yes
22 David Khorram - yes
23 Pete Kreuser - yes
24 Michele Lampshire - yes
25 Marshall Lew - yes
26 Roy L. Lopez - yes
27 Scott Mackey - abstain
28 James Malley - yes
29 Farzad Naeim - yes
30 Bruce Rainey – yes

31 **Information item and Action Item**

32 None.

33 **6. Education and Outreach Committee**

- 34 **Presenter:** Mike Hooper, Committee Chair
35 • Overview and approval of July 14, 2021 and October 12, 2021 draft Meeting
36 Reports/Minutes.

1 **Discussion and public Input**

2 Ms. Belair indicated during October 13, 2021, meeting that she was acting chair of the
3 Committee. The report listed her as vice-chair and suggested correcting her title from
4 vice-chair to acting chair.

5

6 **MOTION:** [Hooper/Lew]

7 The Board voted unanimously to accept the July 14 and October 13, 2021 draft Meeting
8 Reports/Minutes as presented with corrections noted.

9 **Information item and Action Item**

10 None.

11

12 **7. Codes and Processes Committee**

13 **Presenter:** Michael O'Connor, Committee Chair

- 14 • Overview and approval of September 23, 2021 Codes and Processes Committee
15 Meeting Report

16 **Discussion and public Input**

17

18 **MOTION:** [O'Connor/Khorram]

19 The Board voted unanimously to accept the September 23, 2021 draft Meeting
20 Report/Minutes as presented.

21 **Information item and Action item**

22 None.

23

24 **8. Energy Conservation and Management Committee**

25 **Presenter:** Roy Lopez, Committee Chair

- 26 • Overview and approval of October 7, 2021 draft Meeting Report/Minutes

27 **Discussion and public Input**

28

29 **MOTION:** [Lopez/Hurlbut]

30 The Board voted unanimously to accept the October 7, 2021 draft Meeting
31 Report/Minutes as presented.

32 **Information item and Action item**

33 None.

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9. Instrumentation Committee

Presenter: Marshall Lew, Committee Chair

- Overview and approval of October 28, 2021 draft Meeting Report/Minutes

Discussion and public Input

MOTION: [Lew/Rainey]

The Board voted unanimously to accept the October 28, 2021, draft Meeting Report/Minutes as presented.

Information item and Action item

None.

10. Letter of Commendation to Paul Coleman on behalf of the Board

Presenter: Marshall Lew, Committee Chair

Discussion and public Input

Mr. Lew presented the recommendation letter, which included a list of Mr. Coleman's accolades, 30 years of outstanding service, 12 years of transformative service as Deputy Director of FDD, innovation, and technology adoption.

Mr. Dandekar suggested Mr. Coleman's commendation for improving the relationship with the community that the agency serves. Mr. Bliss expressed his appreciation of Mr. Coleman's fierce advocacy, dedication, honesty and required all those around him, including appointees, to adhere to those principles.

Mr. Donelan suggested changing the department name to "HCAI/OSHPD".

MOTION: [Mackey/Malley]

The Board voted unanimously to approve the Letter of Commendation to Paul Coleman as presented with edits as so noted.

Information item and Action Item

None.

11. Proposed ASCE-7-22 Multi Period response spectra – Case study; Impact on Los Angeles metropolitan area

1 **Presenter:** Marshall Lew, Committee Chair

2 **Discussion and public input**

3 Mr. Lew detailed the ASCE-7-22 multi-period response spectra, which are documents
4 published by the American Society of Civil Engineers and the Structural Engineering
5 Institute, a provision for seismic design. He continued and spoke in-depth about the
6 relevance of ASCE-7-22 to HCAI.

7
8 Mr. Lew explained the design spectra changes, particularly what necessitated those
9 changes. The changes were the functions of the building period, i.e., short buildings will
10 be designed for a high value of spectral response acceleration.

11
12 Mr. Lew provided updates about site classes which are groups A to E depending on the
13 soil underneath the building. The site classes are based on the average shear wave
14 velocity. He also added that to improve the resolution of the site classes, ACSE-7-22
15 has nine site classes, while ACSE-7-16 has six. The changes will give the maximum
16 considered earthquake (MCR) response spectra based on longitude, latitude, and site
17 shear wave velocity.

18
19 Mr. Lew made comparisons between ASCE-7-22 and ASCE -7-16 depending on site-
20 specifics. These comparisons were done at Pacoima Dam, Griffith Park Observatory,
21 Stone Canyon Reservoir, Century City, Downtown LA- Bunker Hill, Rosemead, and
22 Dolphin Park.

23
24 Mr. Lew concluded that -

- 25 • Based on the comparison with the PSHA results, the MPRS appears to give a
26 more realistic estimate of the design spectrum.
- 27 • The MPRS avoids the problem of being unconservative when soft soils underlie a
28 site, thus providing a better assurance for a safe design.
- 29 • The use of the USGS web tool to obtain the design spectrum based on the site
30 properties will reduce the problems of human errors and provide a more
31 consistent design.

32
33 Mr. Mark asked for clarity on the results of the studies based on ASCE-7-16 values. Mr.
34 Lew said that he would have to confirm the figures. Ms. Belair asked if there was a
35 desire to change the code reference. Mr. Lopez answered that the code changes would
36 come in the next ASCE-7-22.

37 Ms. Belair inquired about the implications of the site specifics in terms of being
38 cumbersome or expensive. Mr. Lew answered that it depends on the site and who is
39 hired for the job. Mr. Lew added that more buildings are using site-specific studies. An
40 interested party made the point that USGS makes assumptions about these depending

1 on on-site specifications because there is insufficient data. The ASCE -7-22 is more
2 conservative than the site-specific studies. Mr. Lew added that those site-specific
3 studies in the bay area had a particular code. In site-specific, there is probabilistic
4 hazard seismic analysis and deterministic seismic analysis. Mr. Tokas contributed to
5 that point by saying that in 1999, HBSB put together a white paper on hospital new sites
6 from geohazard. Hence, the only way to determine the appropriate level of seismic
7 hazard from all perspectives is by site-specific analysis.

8
9 Mr. Hooper asked whether a site-specific study takes any physical analysis or physical
10 testing at a specific site. Mr. Lew claimed that they must understand the material
11 underneath the buildings because of sheer weight velocity. He explained how
12 earthquakes travel from rocks to the surface, so there must be an accurate reading on
13 that.

14 **Information item and Action Item**

15 None.

16

17 **12. Presentation: Bagley-Keene Open Meeting Act and Its Restrictions**

18 **Presenter: James Yi, HCAI Attorney**

19 **Discussion and public input**

20 Mr. Yi stated that the Bagley-Keene open meeting act is the statutory scheme that puts
21 requirements for boards and committees in times of meetings and decision making. He
22 explained the Act's purpose, which is to allow the public to fully participate in the state
23 body's decision-making.

24

25 Mr. Yi spoke about the applicability of the Act to HBSB.

- 26 • The Act required physical attendance, but due to COVID-19, the
27 attendance requirements are waived, hence the virtual meetings.
- 28 • Serial communications are prohibited to prevent board members from
29 taking actions or decisions outside the public meeting.

30

31 Mr. Yi cited the Act's meeting exemptions, which is: the public is allowed to contact
32 specific board members and discuss what other board members have told them, social
33 gatherings, and conferences. However, board members are not allowed to discuss
34 meetings amongst themselves without the public.

35

36 Mr. Yi explained key provisions of the Act:

- 1 • Notice should be issued ten days before the meeting.
- 2 • There must be a specific agenda and purpose of the meeting to inform
- 3 the public about what is going to be discussed in a meeting.
- 4 • Notice must have the time and place for the meeting.
- 5 • In an emergency or special meeting, the Board does not have to issue a
- 6 10-day prior notice.
- 7 • The meeting must be open to the public.
- 8 • The public must be given a chance to participate, i.e., comment.
- 9 • Any member of the public can record or broadcast these meetings.
- 10 • In closed sessions, the public cannot participate.
- 11 • Meeting documents must be prepared before the meetings and made
- 12 available to the public during the meeting.
- 13 • Voting must be publicly recorded in the meeting minutes.
- 14 • Penalties for non-compliance include civil and criminal.

15 Mr. Clark had a concern about a case of putting together a white paper with a sub-
16 committee regarding document preparation without public input. Mr. Yi clarified that in
17 such cases, any decisions must be discussed in public meetings.

18 Mr. Yu talked about a previous sub-committee meeting where they designated people
19 who were not part of the Board to contribute to a white paper, and so he wanted it
20 discussed in the next meeting. Mr. Bliss commented on that and said that they asked
21 non-board appointees to convene a working group of experts to provide advisory
22 information from the white paper in that meeting.

23

24 Mr. Naeim asked if the Act quorum requirements apply to communication between sub-
25 committee members. Mr. Yi said that the quorum requirements only apply to sub-
26 committees if they are assigned more than two members.

27 **Information item and Action Item**

28 None.

29

30 **13. Review and approve 2022 Committee Assignments, Goals and Meeting** 31 **Calendar**

1 **Presenter:** Louise Belair, Board Chair

2 **Discussion and public Input**

3 **MOTION:** [Lopez/Mackey]

4 Ms. Belair summarized :

- 5 • The Board Procedures Committee (AD HOC) has one meeting
6 scheduled for 2022 on January 26.
7
- 8 • The Education and Outreach Committee meetings scheduled for
9 February 23, May 25, August 17, and October 19, 2022.
- 10 • The Energy Conservation and Management Committee meetings are
11 scheduled on March 15, June 14, and September 13, 2022.
- 12 • The Instrumentation Committee meetings are scheduled on January 20,
13 April 7, and October 27, 2022.
- 14 • The Structural and Nonstructural Regulations Committee meetings are
15 scheduled on January 13, June 9, and September 22, 2022.
- 16 • The Technology and Research Committee meetings are scheduled on
17 March 23, July 27, and November 1, 2022.
- 18 • Full Board meeting dates are April 28, August 11, December 7 and 8,
19 2022.

20

21 The Board voted unanimously to accept the 2022 Committee Assignments, Goals, and
22 Meeting Calendar as presented with corrections noted.

23 **Information item and Action Item**

24 None.

25

26 **14. Inspection Services Unit Update**

27 **Presenter:** Joe LaBrie FDD Inspection Services Unit Supervisor

- 28 • Inspection Services Unit to provide an update on accomplishments year-to-date.

29 **Discussion and public Input**

30 Ms. Lachica talked about IOR certification and recertification and stated that in 2020
31 they had 753 certified inspectors, and in 2021 they added 102 inspectors. The pass rate
32 for the exam is 63%.

33

1 Ms. Colosi presented the webinars held, which included Hospital Inspector
2 Recertification webinar, IOR webinar, and IOR plan reading webinar.

3

4 Mr. Ponce updated the field operation manual guide that gives field staff a general
5 understanding of HCAI field processes such as testing, inspection and observation
6 programs, field review projects, and completion and occupancy. It's updated every 15th
7 of the month by ISU staff.

8

9 Mr. LaBrie communicated that eTIO creates automation that allows a fluid dynamic
10 online cloud based TIO. He further explained ISU preconstruction and construction
11 advisory seminars offer a developed presentation to healthcare facilities and project
12 teams to identify quality assurance practices that yield the best chances for a successful
13 project.

14

15 Mr. Ponce indicated that the objective of the IOR/CHA academy was to create a one-
16 year program for focused learning and development of people who aspire to become a
17 Certified Hospital Inspector to give the IOR a good sense of the overall construction
18 process.

19

20 Mr. Hoa reported on the development of a Field Staff Onboarding Curriculum, to
21 develop new HCAI field staff personnel with the expressed objective to increase
22 consistency statewide. He added that monthly compliance officer training is an ongoing
23 administrative and technical training for HCAI compliance officers to improve
24 consistency in code understanding statewide.

25

26 Ms. Belair asked what the process is for a design team to get an ISU construction and
27 preconstruction advisory in place. Mr. LaBrie said that the process starts with a phone
28 call or email request. Ms. Belair followed up by asking when, in the phase of a project, is
29 the right time for the advisory Mr. LaBrie explained that the process is offered pre-
30 construction, but can be provided mid-construction, too.

31 Mr. O'Connor asked if the field operation was downloadable from the HCAI website. Mr.
32 LaBrie stated that it is not downloadable.

33

34 Mr. Naeim suggested that the ISU team provide a short seminar to engineering students
35 at UCI, UCLA, and other places. Mr. LaBrie agreed to that and added that if they get a
36 green light from Mr. Tokas, they would be willing to. Mr. Tokas affirmed that he gave a

1 green light for the seminars. Mr. Altoontash thanked Mr. Naeim for suggesting the
2 seminars and added that the program is useful for cultivating future healthcare
3 engineers. Mr. LaBrie concluded that newer structural engineers aren't getting exposure
4 to this important material, so they welcome the idea.

5

6 Ms. Belair brought up the Codes and Processes Committee goal of revisiting MEP
7 system inspection requirements and wanted to know if Mr. LaBrie's team was looking
8 into that specific goal. Mr. LaBrie communicated that it wasn't their focal point, but if
9 approved, the team can look at that. Mr. Tokas stipulated that the team would provide
10 any assistance because in the end, it pays dividends.

11 **Information item and Action Item**

12 None.

13

14 **15. Structural Services Section Update**

15 **Presenter:** Roy Lobo, FDD Principal Structural Engineer

- 16 • Structural Services Section to provide an update on accomplishments year-to-date.

17 **Discussion and public input**

18 Mr. Lobo started by saying that they have two units: the Seismic Compliance Unit and
19 the Structural Support Unit. He gave a status of the AB 2190 program, indicating that
20 the program started in April 2019 with 43 faculties which were 93 buildings; 25 of those
21 buildings have resolved their compliance, 68 buildings are still active. In addition to that,
22 AB 2190 facilities progress to date are 11 facilities completed the work while eight
23 facilities are not on track to meet the July 1, 2021, deadline and 24 facilities are on
24 track. In conclusion, Mr. Lobo stated that the estimation is that by 2025, 673 buildings
25 will be SPC-2.

26 Mr. Lobo gave a structural support unit update:

- 27 • OSHPD pre-approved programs have been upgraded from manual to
28 online eService's portal
- 29 • A total of 77, 57 approved, 7 remarked, and 13 reviewed
- 30 • Structural/ nonstructural California amendments – completed 45- and
31 15-day public comment periods for code amendments
- 32 • OPAA renewals are valid for up to 6 years but not exceeding the
33 approval expiration date by the DSA- LEA program or accreditation
34 bodies, as applicable

1 Mr. Lobo also talked about the HCAI white paper on instrumentation, the current status
2 of HCAI instrumentation, the utility of hospital instrumentation, the role that alternative
3 instrumentation and data analytics can play in the future and improving community
4 awareness of the value of strong motion instrumentation.

5

6 Ms. Belair asked if there were 52 buildings or 52 facilities that are NPC-5 compliant. Mr.
7 Lobo clarified that 52 buildings are compliant. Mr. Tokas summarized that a hospital
8 building must meet NPC-5 requirements as a whole; therefore, the building must meet
9 this requirement as designed and constructed.

10

11 Mr. Dandekar commended the presentation, especially the graphics and asked whether
12 the SPC-2 buildings provided essential services or support services. Mr. Lobo stated
13 that those buildings could provide all types of services. Mr. Dandekar then asked if the
14 instrumentation program is voluntary. Mr. Lobo answered that it depends on the owner's
15 required instrumentation; Appendix L of the California Code identifies which buildings
16 fall under that category.

17

18 Mr. Rainey had a question on the role of HCAI when an owner is not compliant with the
19 deadline. Mr. Lobo gave answered that the latest deadline is 2030, and in the case
20 when a building owner does not comply by the deadline, CPH would deactivate the
21 owner's license.

22

23 Mr. Khorram if projects that come off HCAI's jurisdiction are taken over by local
24 agencies. Mr. Lobo explained that for a building to be under HCAI jurisdiction, it must
25 provide either acute care services or support services to the acute care services.

26 **Information item and Action Item**

27 None.

28

29 **16. Building Standards Unit Update**

30 **Presenter:** Richard Tannahill, FDD Building Standards Unit Supervisor

- 31 • Building Standards Unit to provide an update on accomplishments year-to-date.

32 **Discussion and public input**

33 Mr. Tannahill reported that the Emergency Design Guide is about 70%-75% complete.
34 He highlighted that they are trying to provide means to make some of the COVID patient
35 provisions, permanent.

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Mr. Tannahill pointed out that the 2019 intervening code adoption cycle is complete, and the triennial code adoption cycle is in process. There were changes in the Administrative Code, like fees for small projects and changes to resubmittal time for the projects. Regarding the Building Code, Mr. Tannahill communicated that they are adding procedure rooms and Class 2 imaging rooms to allow facilities to continue using those rooms with minor modifications versus changing the environment therein.

The 2022 BSU goals as presented by Mr. Tannahill were to complete the 2022 code revision, look toward 2025 code changes, work with HBSB on 2022/2023 webinars series, update Plan Review Manual and FREER manual, and permanent COVID allowances in code.

Ms. Belair asked if there is a timeline available for the 2025 code cycle. Mr. Tannahill specified that the timeline is unavailable, but the unit will be mirroring the 18-month timeline used six years ago.

Mr. O'Connor asked if facilities that made adjustments (due to COVID) to patient rooms, favoring negative pressure, would be able to extend that. Mr. Tannahill said that it is a work in progress and highlighted that HCAI is working with a few facilities that have requested permanent methods to have negative rooms, and two have already been approved.

Information item and Action Item

None.

17. Fire Prevention Unit Update

Presenter: Nanci Timmins, FDD Chief Fire Life Safety Officer

- Fire Prevention Unit to provide an update on accomplishments year-to-date

Discussion and public Input

Ms. Timmins addressed the ban of toxic chemicals, PFAS, from firefighting foam that will impact new and existing healthcare facilities She encouraged visiting the State Fire Marshall website for more information, including deadlines and extensions.

1 Mr. Jackson thanked the Fire Prevention Unit for the UC outreach and training their
2 deputies to be part of the HCAI team. Ms. Timmins acknowledged and appreciated the
3 teamwork.

4

5 **Information item and Action Item**

6 None.

7

8 **18. Electronic Services Update**

9 **Presenter:** Chris Tokas, FDD Deputy Director

- 10 • Electronic Services Unit to provide an update on accomplishments year-to-date.

11

12 **Discussion and public Input**

13 Mr. Tokas gave updates on Electronic Services and Advisory Committees' role, which
14 comprises 11 members. He spoke on strategic needs assessment and the work plan
15 development process. The metric used to create a rating were: user quality, frequency,
16 time saved, and eTIOs used to evaluate needs. Mr. Tokas deliberated on the 2022
17 Electronic Service goals, which involved eTIO evaluations, integrated review
18 enhancements in Accela, and Accella platform upgrade.

19

20 Mr. O'Connor commented on the presentation and particularly how Mr. Tokas gave the
21 updates and activities in-depth. Mr. Tokas appreciated Mr. O'Connor for pointing that
22 out and said that the kudos belongs to HCAI staff. Ms. Belair celebrated that Mr. Tokas
23 mentioned that HCAI electronic services are ten years ahead of other agencies and
24 commended the team. Mr. Tokas thanked Ms. Belair on behalf of the team.

25 **Information item and Action Item**

26 None.

27

1 **19. FDD Update**

2 **Presenter:** Chris Tokas, FDD Deputy Director

- 3 • Workload and performance
4 • Personnel changes

5 **Discussion and public Input**

6 Mr. Tokas touched on staffing changes and talked about Paul Coleman's achievements
7 and retirement and the appointment of Richard Tannahill as acting deputy division chief.

8 Mr. Tokas gave a detailed report on FDD's achievements in 2021, and highlighted the
9 OSHPD Emergency Operation Center webpage, which is constantly updated with the
10 latest information related to emergency events and COVID resources and provided a
11 link to that page. Mr. Tokas also reported on the FDD Manager and Supervisor meeting,
12 the topics discussed and FDD's top goals for 2022.

13

14 Mr. Hussain, HCAI incident commander, explained Emergency operation center
15 activities in 2021. He gave a clear detail of year-to-date wildfire and earthquake
16 activities and how the evacuations occurred.

17

18 Mr. Naeim commented on the presentation and congratulated Mr. Tokas for having the
19 force and motivation evident in his presentation and his work. Mr. Dandekar reminded
20 the Board that the 50th anniversary of the initiation of the Alquist Act is coming up. Mr.
21 Tokas confirmed the anniversary and highlighted the importance of the Act. He detailed
22 that it's a unique program that has paid huge dividends and has become a beacon for
23 the rest of the world.

24 **Information item and Action Item**

25 None.

26

27 **20. Comments from the Public/Board Members on issues not on this agenda**

28 **Presenter:** Louise Belair, Board Chair

29 **Discussion and public Input**

30 Ms. Belair thanked everyone for participating in the meetings throughout the year. She
31 acknowledged HCAI's work in this time of change and echoed Mr. Tokas that HCAI is
32 making a better place for the health and safety of Californians. Mr. Tokas appreciated
33 the effort and the energy of the HBSB staff for the entire year to make the meetings
34 possible and successful regardless of the technical difficulties.

1 **Information item and Action Item**

2 None.

3 **21. Adjournment**

4 Ms. Belair adjourned the meeting on 12/9/2021 at approximately 12:27 p.m.

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Technology Committee

Draft Meeting Report/Minutes

SNovember 10, 2021

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**HOSPITAL BUILDING SAFETY BOARD
Technology and Research Committee**

**Wednesday, November 10, 2021
9:00 a.m. - 3:00 p.m.**

**Teleconference Meeting Access:
HBSB GoToMeeting Technology Committee
Access Code: 490-358-493**

Committee Members Present:

Bruce Rainey, Chair
Michael Foulkes, Vice Chair
David Bliss
Deepak Dandekar
Bert Hurlbut
Roy Lopez
Scott Mackey

Presenters:

Theodora Alexakis, Terragon Environmental
Eric Cote, Powered for Patients
John Huston, Division 25 LLC
Andrew Nix, Schneider Electric
Tad Radecki, Powered for Patients
Troy Savage, Mazetti

Consulting Members:

Benjamin Broder
Gary Dunger
Eric Johnson

HCAI Staff Present:

Elizabeth Landsberg, HCAI Director
Chris Tokas, Acting FDD Deputy Director
Arash Altoontash
Richard Tannahill
Hussain Bhatia
Bill Gow
Joe Labrie
Diana Scaturro
Carl Sherman
Jamie Schnick
Nanci Timmins
James Yi

HBSB Staff:

Ken Yu, Executive Director
Joanne Jolls
Evelt Torres

- 1 **1. Welcome and Introductions**
- 2 Mr. Rainey, Committee Chair, called the meeting to order on November 10, 2021, at 9:00 a.m.,
- 3 and HCAI Executive Director Ken Yu called roll.

1 **2. Roll Call and Meeting Advisories/Expectations**

2 Six members of the Committee present constitute a quorum. There being ten present at the time of
3 roll, a quorum was established.

4
5 Mr. Yu read the advisory OSHPD officially become Department of Healthcare Access and
6 Information, or HCAI and Government Code section 11133 continues to provide temporary
7 modifications to the Bagley Keene.

8
9 **3. Power P.I.O.N.E.E.R (Power Information Needed to Expedite Emergency Response)**

10 **Presenter:** Eric Cote, Powered for Patients (or designee)

- 11 • Review of Los Angeles County Emergency Medical Services Agency program to deploy
12 technology to single-generator hospitals which provides 24/7 monitoring and triggers
13 automated, real-time alerts to designated individuals
- 14 • Overview of the technology with a briefing on its recent deployment to three LA County
15 hospitals
- 16 • Discussion on an expedited review process to facilitate faster deployment of technology

17 Mr. Cote gave recommendations on better protocols to handle emergency threats to power. These
18 include developing a comprehensive census of emergency power systems to identify single
19 generator facilities and generators that are 30 years and above. Also, developing early warning
20 notification and status update protocol when an emergency power faces a threat during a power
21 outage.

22
23 Mr. Cote talked about recommendations on single generator hospitals in which the PIONEER tool
24 would be used. PIONEER can enable:

- 25 • Faster coordination between private sector service providers and government
26 officials to address any impediments to service team response
- 27 • Expedited preparations for the deployment of government generators if they are
28 needed
- 29 • Accelerated restoration of secondary circuits feeding facility when available
- 30 • Valuable head start for initial evacuation planning

31
32 Mr. Cote explained that PIONEER relies on Fault Detection & Diagnostic technology that acts as a
33 heart monitor for emergency power systems, HVAC systems, and other industrial equipment.

34 **Discussion and public Input**

35
36 Mr. Rainey wanted confirmation on the requirement for a permit and installation of a gateway.
37 Mr. Radecki confirmed that the gateway weighs less than 20 pounds, is connected wirelessly or
38 through a cellular antenna, and has no need for a power source other than the generator battery.
39 Concluding, Mr. Radecki confirmed that there is a required permit for that.

40

1 Mr. Tannahill asked if the trigger requirement would involve either building regulation or be based
2 on weight. Mr. Cote answered that the system monitors the emergency power system and not the
3 building management system. So, the system gives notification anytime emergency power turns on
4 or when there are mechanical problems with the emergency systems.

5
6 Mr. Tannahill also wanted to know what would happen in case the system fails. Mr. Radecki said
7 that in case of a system failure nothing will happen affecting the facility since the system is just for
8 monitoring.

9
10 Mr. Cote asked if the deployment of the PIONEER gateway to an ATS device, would be done
11 magnetically or through some other nonmagnetic approach. Mr. Radecki confirmed that it would be
12 done magnetically.

13
14 Mr. Rainey commented that since the PIONEER system can shut down the generator as well as
15 start it up, what was the risk point for hospitals in case of a malware attack of the system. Mr. Cote
16 answered that facilities designate permissions levels for their staff so only a few people on senior-
17 level have the remote start capabilities to control the system. That way the system is safe from
18 malware.

19
20 Mr. Radecki added to that point and said that the system only monitors emergency situations
21 hence, it would not shut down in case of an emergency.

22
23 Mr. Rainey asked whether the system could start or auto start the generator, and Mr. Radecki
24 affirmed that it auto starts the generator in the event of a power outage.

25
26 Mr. Cote asked for clarification about whether the system can shut down in the event of a power
27 outage. Mr. Radecki expressed that it can shut down, and can apply and remove an auto stop
28 signal.

29
30 Mr. Schnick wanted to know more about the ATS equipment and how it can communicate to the
31 generator to auto start in case of an emergency power outage. Mr. Radecki explained that the ATS
32 communicates to the generator through a set of contacts. The transfer switch does monitor
33 reliability of the normal power source, and when the power goes off, it sends a signal to start the
34 generator. And when the power sources are reliable and normal from the utility, then it sends a
35 signal to it switch back over and starts cooling down the generator.

36
37 Mr. Schnick and Mr. Cote wanted to know how it turns off when the power comes back on. Mr.
38 Radecki explained that the generator must be on auto for that signal to work.

39
40 Mr. Cote wanted to know the connection between PIONEER gateway and ATS. Mr. Radecki said
41 that the gateway is just a monitoring function to show whether the power utility at the ATS is
42 acceptable and if it's set on emergency or normal.

43

1 **Information item and Action Item**

- 2 • None

3 **4. Waste-To-Energy**

4 **Presenter:** Troy Savage, Mazzetti, and Theodora Alexakis, Terragon Environmental
5 Technologies

- 6 • Review of state and federal carbonization goals
- 7 • Definition of Scope 3 emissions (indirect emissions from healthcare supply chain, waste,
8 commuting, etc.)
- 9 • Discussion on how emissions may be reduced by using the waste as a source of beneficial
10 thermal energy for hospitals
- 11 • Previous waste-to-energy systems versus new technology solutions which convert waste to
12 energy with reduced negative environmental impact
- 13 • How waste-to-energy systems can process a hospital's complex medical and hazardous waste
14 streams, removing the need for autoclaving, and eliminating the need to truck this waste long
15 distances

16 Mr. Savage defined the scope of three emissions which are indirect emissions from healthcare
17 supply chain, waste, commuting, etc. He expounded on how the emissions would be reduced by
18 using waste as a source of beneficial thermal energy for hospitals. Mr. Savage showed the hospital
19 waste to energy system process in which hospital's complex and hazardous waste streams are
20 done to remove the need for evacuation and eliminate the need to truck this waste long distances.
21

22 Ms. Alexakis presented on previous waste emission system versus new technology solution which
23 converts waste to energy with reduced negative environmental impact. These new technologies
24 included MAGS (Micro Auto Gasification System) to turn waste to produce hot water to be used in
25 hospitals and on-board ships, and WETT (Wastewater Treatment Technology).
26

27 Ms. Alexakis discussed the safety and security of MAG stating that:

- 28 • No manipulation of waste is needed in that there is no shredding or sorting of the
29 waste products
- 30 • Waste volume is reduced by 95% to produce safe inert biochar.
- 31 • The operation is under vacuum
- 32 • The machine surfaces are cold to touch so no accidents and minimal to exhaust.
- 33 • The process is certified by various certification bodies
34

35 She also talked about the importance of waste to energy conversion in hospitals in that:

- 36 • The process is efficient and safe for the destruction of hazardous waste
- 37 • Elimination of residual risk through immediate and on-site conversion to energy
38 reduces contamination risk in handling or transporting waste over long distances
- 39 • Waste converted is 500kg/day which produces 120kilowatts of thermal energy

- 1 • Reduced emission of atmospheric pollutants and GHGs from transportation,
2 elimination incineration/landfill, and heating
- 3 • Elimination of third-party waste hauling and costly waste products. Avoiding
4 reliance on third-party companies may disrupt services in hospitals, increase the
5 price, and may not manage the waste properly.

6 **Discussion and public Input**

7 Mr. Mackey asked about the debris and sediments that remain after waste goes through MAG, and
8 how is Terragon dealing with that since the debris contains sharp objects. Ms. Alexakis said that
9 the debris is non-hazardous waste that can be used for landscaping like in hotels, but the rest of
10 the sharp objects need to be taken into landfills.

11
12 Mr. Bliss asked about the energy consumption and peak load of the system. Ms. Alexakis detailed
13 that MAG comes in one size. And it can treat 25kg per hour of hospital waste, uses 22kilowatts of
14 energy and electricity, and in turn produces 120kilowatts of thermal energy.

15
16 Mr. Rainey asked if the machine is electric or gas-powered. Ms. Alexakis responded that the
17 machine runs on gas, electricity is only used in the pump.

18 **Information item and Action Item**

- 19 • None

20 **5. Deploying a Digital Building Strategy**

21 **Presenter:** John Huston, Division 25 LLC

- 22 • Building Management System standards
- 23 • Concepts and system architecture options
- 24 • Integration approach –High performance or sole source lock-in?
- 25 • Deployment methods
- 26 • Business approach, support, and guidance
- 27 • Value-add based on facility management expertise, resources, requirements, and goals

28 Mr. Huston talked about building management system standards, concept and system architecture
29 options, deployment methods, business approach, support and guidance, and value-add based on
30 facility management expertise, resources, requirements, and goals.

31
32 He also talked about opportunities for advanced application in Digital Building strategy, such as:

- 33 • Sole sourced, which includes BMS Market norm, competitive bid, no upfront
34 design, controls contract design system, and expensive maintenance
- 35 • Open-sourced, which includes commitment to key stakeholders, design 100%
36 upfront, the production site is multiple sourced, communication is identical across
37 all devices, integration device level.

1 **Discussion and public Input**

2 Mr. Rainey asked for clarification on multiple versus one service vendor for installation due to the
3 availability of resources. Mr. Huston answered that digital building strategy can be easily controlled
4 now due to IP advancement, allowing for multiple service vendors.

5
6 Mr. Healy wanted to know if there is a common mission for creating a health care environment to
7 improve patient outcomes and life in general. Mr. Huston explained that there is no standard as of
8 now but with IP advancement, manufactures are moving towards that goal.

9 **Information item and Action Item**

- 10 • None

11 **6. Securing Healthcare Infrastructure: How to be effective about protecting yourself from**
12 **ransomware**

13 **Presenter:** Andrew Nix, Schneider Electric (or designee)

- 14 • Basics of ransomware; how it gets onto your network, and the damage it does
15 • General framework for how organizations can defend themselves with IEC 62443 Security
16 Levels, fundamentals, and standards
17 • What to do if it happens to your organization

18 Mr. Nix talked about how basic ransomware in computers gets companies' information, then the
19 company is held at ransom to pay some amount to get the information back. Mr. Nix pointed out
20 that it gets into your network through credential scraping, phishing messages, infected websites,
21 the sale of classified information, and the damage it does.

22
23 Mr. Nix talked about types of ransomware including malware- a bug that employs encryption to
24 hold victim information at ransom. With malware, the user can't access files, databases, or
25 applications both in IT and OT (Operational Technology). The bug spreads automatically to an
26 entire network, database, and file servers and lastly, the victim must pay to receive a decrypter
27 which is not guaranteed to work.

28
29 The other type of ransomware that Mr. Nix spoke about was Ransomware as a Service (RaaS).
30 Here, malware service allows ransomware developers to sell their automated creations for users to
31 deploy on victims. Non-technical criminals buy their wares and launch the infections while paying
32 the developers a percentage of their take.

33
34 He also pointed out that the reason why ransomware is effective is that malware is recognized as a
35 risk factor. Operational systems are now widely recognized as an attack target in respect to safety
36 and production, in that, the more the risk, the more the pain thus more money for the attackers.
37 Also, ransomware and cryptocurrency are nearly impossible to trace and there are multiple levels
38 of separation between the developers and the users of the tools. Another point is that ransomware
39 tools are becoming more advanced, easier for a non-technical user to deploy. A scarcity of
40 qualified resources with cybersecurity expertise in operation hence enabling ransomware to be
41 effective.

1 Mr. Nix talked about the general framework for how organizations can defend themselves with IEC
2 62443 Security levels, fundamentals, and standards. These include conducting cyber security
3 assessments, backing up data, storing critical configurations, and keeping up to date the
4 cybersecurity pillar. There are security levels involved in IEC 62443 which include:

- 5 • Security level 1- protection against casual or coincidental violation
- 6 • Security level 2- protection against intentional violation using simple means with
7 low resources generic skills and low motivation
- 8 • Security level 3- protection against intentional violation using sophisticated means
9 with moderate resources, system-specific skills, and moderate motivation
- 10 • Protection against intentional violation using sophisticated means with extended
11 resources, system-specific skills, and high motivation

12
13 Mr. Nix explained the need to isolate the affected device to stop the spread in case of a malware
14 attack. Then assess the damage and report the incident to the authorities. After that check on the
15 backup and evaluate the decryption option, then learn from the experience and move on.

16 **Discussion and public Input**

17 Mr. Rainey asked about cyber security in hospitals in that most hospitals are not keen on IT, he
18 wanted to know what measures or solutions can be used in such cases. Mr. Nix responded that
19 there are AIs that have been invented that can detect malware and warn in case of a potential risk
20 of cyber security.

22 **Information item and Action Item**

- 23 • None

24 **7. OSHPD 2022 California Electrical Code (CEC) Amendment for Power over Ethernet** 25 **(PoE) Wiring**

26 **Presenter:** Bill Gow, HCAI (or designee)

- 27 • Update on the OSHPD PoE amendment for the 2022 CEC
- 28 • All the status codes of the proposal have been approved

29 Mr. Gow talked about the approved amendment to article 517.80 which is equivalent insulation and
30 isolation required for the electrical distribution systems in patient care areas to be provided for
31 communications, signaling system, data system circuits, fire alarm systems, and systems less than
32 201 volts, nominal.

33
34 Mr. Gow brought up that at the national level, there are changes happening that mirror an
35 allowance that if you are using PoE, you don't have to meet the mechanical protection
36 requirements for conduit when using class two circuits that transmit power data, or PoE. PoE can
37 be used as a signaling system and communication system.

1 **Discussion and public Input**

2 Mr. Rainey asked about the dates of approval of the code of proposals and wanted to know when
3 a project owner can implement them. Mr. Gow answered that they can be implemented on the
4 project starting January 2023.

5 **Information item and Action Item**

- 6 • None

7

8 **8. Committee goals for 2022**

9 **Presenter:** Mr. Rainey, Chair (or designee)

- 10 • Discuss goals for Committee in the coming year

11 Mr. Rainey discussed:

- 12 • Explore subjects of telemedicine and robotics

- 13 • Continuing evolution of interventional imaging, have vendors present current equipment
14 capabilities and look at impacts to future shielding requirements.

- 15 • Monitor CDPH electronic health records redundancy issues in the event of a power failure and
16 watches for potential effects to code.

- 17 • Emerging tools and technologies that help reduce the carbon footprint for healthcare facilities

18 **Discussion and public Input**

19 Mr. Rainey asked if there were topics from HCAI staff that should be considered.

20

21 Mr. Tannahill suggested that the committee expound more on cyber security, to know their
22 vulnerability, and what technologies can be applied.

23

24 Mr. Mackey also wanted the committee to discuss the added authority involved with off-site
25 electronic records storage

26 **Information item and Action Item**

- 27 • None

28

29 **9. Comments from the Public/Committee Members on issues not on this agenda**

30 **Presenter:** Mr. Rainey, Chair (or designee)

31

32 None.

33 **Information item and Action Item**

- 34 • None

35

1 **10. Adjournment**


2 Mr. Rainey adjourned the meeting at approximately 12:28 p.m.

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Structural and Nonstructural Regulations Committee

Draft Meeting Report/Minutes

January 13, 2022



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**HOSPITAL BUILDING SAFETY BOARD
Structural and Non-Structural Regulations Committee**

**Thursday, Jan 13, 2022
9:00 a.m. - 3:00 p.m.**

**Teleconference Meeting Access:
HBSB GoToMeeting SNSR Committee
Access Code: 833-722-805**

Committee Members:

Jim Malley, Chair
Fazard Naeim, Vice-Chair
Bruce Clark
Mike Hooper
Marshall Lew
Michael O'Connor
Jennifer Thornburg

Consulting Member:

Mark Hershberg

HCAI Staff:

Ken Yu, Executive Director
Joanne Jolls
Evelt Torres

HCAI Staff:

Chris Tokas, FDD Deputy Director
Arash Altoontash
Richard Tannahill
Jeff Kikumoto
Joe LaBrie
Roy Lobo
Jeremy Marion
Tim Piland
Jamie Schnick
Carl Scheueman
Ali Sumer
James Yi

1. Call to Order and Welcome

2 Jim Malley, Committee Chair, called the meeting to order on Jan 13, 2021, at 9:00 a.m.,
3 and HCAI Executive Director, Ken Yu called roll.

4

1 **2. Roll Call and Meeting Advisories/Expectations**

2 Six members of the Committee present constitute a quorum. There being seven present
3 at the time of roll, a quorum was established.

4 Mr. Yu read the public announcement regarding COVID-19, meeting rules and
5 procedures.
6

7 **3. Review the June 30, 2021, final meeting report/minutes approved at the**
8 **December 8-9, 2021, Full Board Meeting**

9 **Presenter:** Jim Malley, Committee Chair
10

11 Mr. Malley reported on the June 30, 2021 Structural and Non-structural Regulation
12 Committee meeting, which the Full Board approved at the December 8-9, 2021
13 meeting.
14

15 **Discussion and Input**

16 None.
17

18 **Informational and Action item**

19 None.
20

21 **4. Discuss implementation of Senate Bill (SB) 395 and define the potential**
22 **program**

23 **Presenter:** Ali Sumer, HCAI

- 24 • SB 395 established the Small and Rural Hospital Relief Program under the
25 administration of HCAI for the purpose of funding seismic safety compliance with
26 respect to small hospitals, rural hospitals, and critical access hospitals in the
27 state. HCAI Policy Intent Notice (PIN) will include an application process outline
28 and program details to provide funding to qualifying facilities to use in the
29 advancement of their seismic compliance plans.
30

31 Mr. Sumer introduced SB 395, stating that it went into effect January 1, 2022 and
32 established the Small and Rural Hospital Relief Program (SRHRP). SRHRP is a grant
33 program for small, rural, and critical access hospitals to apply and receive funding for
34 seismic safety compliance projects. SRHRP gets funding from the California Electronic
35 Cigarette Excise Tax; the funds are channeled through HCAI. Mr. Sumer added that the
36 SRHRP program directly benefits communities at risk of losing access to healthcare at
37 small and remote facilities. It requires assistance in organizing cost, and time-effective
38 compliance programs that can be a sequential funding package. The Case
39 Management Services will oversee compliance program progress for facilities under
40 SRHRP. Mr. Sumer pointed out that facilities under SRHRP must be small, rural, or

1 critical hospitals that are financially burdened. This financial burden may result in the
2 facility's closure, which would impact access to healthcare in the surrounding
3 community.

4
5 Jeremy Marion, Deputy Director of the Cal-Mortgage Division, discussed the Cal-
6 Mortgage Loan Insurance program, which provides access to low-cost financing to
7 expand and improve healthcare availability at no cost to taxpayers. Mr. Marion
8 explained that the program helps borrowers obtain a loan by issuing a tax-exempt
9 municipal bond or bank loan, and the lender receives a guarantee from the Cal-
10 Mortgage Loan Insurance program. In case of default, the loan is paid by the State of
11 California. Mr. Marion amplified the role of Cal-Mortgage loan and FDD in SB 395. He
12 stated that Cal-Mortgage would administer application intake of the grant program and
13 re-evaluate the financial viability of the proposal. FDD compliance unit will review
14 applicants' seismic needs and submit their plans for which they seek an award. HCAI's
15 Information Services Division will design an online application portal for applications.

16
17 Mr. Sumer stated that the money for the fund would start being collected on July 1,
18 2022, to the fund account. The fund is to be used in the advancement of their seismic
19 compliance plans.

20 21 **Discussion and Input**

22
23 Mr. O'Connor asked about the program's eligibility in determining the community's need
24 for these facilities and asked if being designated a critical access facility automatically
25 meets the qualification. Mr. Sumer replied that a critical access facility is not the only
26 qualification. There's a need for some selection and ranking among the qualified
27 applicants.

28
29 Mr. Malley inquired if the \$2-3 million goes directly to the hospitals and how that effects
30 the loans that that Cal-Mortgage will be backing. Mr. Marion reported that the program
31 is to get a 10% fund from the Electronic Cigarette Excise Tax, so the \$2-3 million figure
32 is just an estimate of how much will come in, in the first 12 months. That amount will
33 vary depending on the sale of electronic cigarettes. Mr. Marion explained that if a
34 hospital is seeking a grant and needs additional financing, it can apply for a loan
35 through the program.

36 37 **Informational and Action item**

38 None.

39 40 **5. Updates to the OSHPD Special Seismic Certification Approval (OSP) PIN 55**

41 **Presenter: Roy Lobo, Tim Piland, HCAI**

- 1 • Review of updates

2

3 Mr. Lobo explained that HCAI changed the Special Seismic Certification Preapproval
4 program (OSP) in the 2019 California Building Code. This Policy Intent Notice (PIN)
5 summarizes the processes and procedures for the OSP Program and generic issues
6 related to special seismic certification. Mr. Lobo highlighted the major updates on PIN
7 55.

8

- 9 • Update of the code reference to current code changed the name from OSHPD to
10 HCAI
- 11 • Permit alternate shake table testing to AC 156 approved by the building official
- 12 • Require flexible connections to distribution systems for seismically certified
13 components
- 14 • Clarified that components with an OSP meet the certificate of compliance
15 requirement code
- 16 • Update requirements from imaging equipment to a minimum of one X-ray or
17 Fluoroscopy machine
- 18 • Added requirements for acceptance of vibration isolators for equipment support

19

20 Mr. Lobo cited that the building code section 1704.5 and ASCE 7 section 13.2.2 require
21 equipment to have a certificate of compliance. He disclosed the development of an
22 FAQs section on their website to deal with backlogs and expired OSP questions. On the
23 applications and submittal requirements, Mr. Lobo gave details on the two groups of
24 applications; Group 1 and Group 2 documents posted directly on the website and sent
25 via email can now be sent via the eServices portal located on the HCAI website.

26

27 **Discussion and Input**

28

29 An interested party asked for clarification regarding the required flexible connection to
30 the distribution system for a certified seismic component. Further inquiring if Mr. Lobo
31 was referencing a terminal unit or VAV box with connections on the piping or the
32 ductwork side of the connection. Mr. Lobo answered that whatever is in that seismic-
33 certified component must be flexible. The interested party asked if in a scenario where
34 the VAV box is 75 pounds and originally connected to the ductwork, does it qualify for
35 seismic certification. Mr. Lobo said that in that case, it would not qualify. The interested
36 party followed up by asking if a chiller that is seismically certified can be substituted with
37 an isolator if it is equivalent. Mr. Lobo replied that it could be substituted if the chiller met
38 the installation requirements.

39

40 Mr. Naeim inquired if the requirements of the springs in vibration isolators is for size or
41 stiffness? Mr. Lobo confirmed that the requirements are larger in capacity, stiffness, and
42 strength. On that point, Mr. Naeim further asked if the change in the stiffness changes

1 the vibration characteristic of the spring. Mr. Lobo affirmed that it does, but that there is
2 a limit of the flex connection, so once it reaches that limit, it no longer matters.

3
4 Mr. Lobo suggested the board give the go-ahead with the changes discussed, and so
5 the changes be published on their internal website.

6
7 **MOTION:** [Naeim/Lew]

8 The committee unanimously approved the changes on PIN 55 as presented with
9 corrections noted.

10
11 **Informational and Action item**

12 None.

13
14 **6. Updates to the OSHPD Preapproved Agency for Structural Tests and Special**
15 **Inspection PIN 58**

16 **Presenter:** Roy Lobo and Jeff Kikumoto, HCAI

- 17
- 18 • Review of updates

19 Mr. Lobo explained that PIN 58 summarizes the processes and procedures for the
20 OPAA program for structural tests, special inspections, and generic issues related to
21 approved agencies. Mr. Lobo cited major updates to PIN 58:

- 22
- 23 • Testing agencies must comply with ISO/IEC 17025, and inspection agencies
24 must comply with ISO/IEC 17020
 - 25 • All approved agencies are required to have a full-time engineering manager who
26 supervises the work, and reviews, stamps, and signs all testing reports for
27 conformance with approved plans and specifications
 - 28 • Reduced the validity of the approval from 6 years to 4 years, but not greater than
29 the validity of the DSA-LEA program
 - 30 • Updating personal or certification data will be charged as T&M.
 - 31 • Update codes and references standards to current versions of the code

32 On language changes in PIN 58, Mr. Lobo indicated that the purpose of the PIN is to
33 have approved agencies be competent and independent from the contractor
34 responsible for the work being inspected. There was clarification on requirements ISO
35 17025, a standard used by testing agencies and calibration laboratories. The language
36 states, "The testing agencies, who have demonstrated compliance to this standard with
37 proper certification, are accepted by the department as approved testing agencies with
38 the scope of accreditation." Mr. Lobo specified the requirement for the full-time
39 engineering manager:

- 40
- 41 • The manager should be registered as a civil engineer.

- 1 • Should have a minimum of 5 years' experience.
- 2 • Needs to supervise all testing, and sign and stamp the test reports.
- 3 • Ensure all the test technicians are qualified and certified.
- 4 • Should not be employed by any other laboratory agency that provides special
- 5 inspection services.

6
7 Mr. Lobo added another language addition regarding charges for the renewal
8 application, which is \$500 for both testing and inspection, or \$250 for one or the other.
9 Also, the application renewal process for testing and inspection is limited to within six
10 months of the OPAA expiration date. The other language addition was updating
11 personnel or certification data for test technicians or special inspectors would be
12 invoiced on a time and material basis beyond the initial approval.

13 14 **Discussion and Input**

15
16 Mr. Malley asked if engineering managers approve inspection reports. Mr. LaBrie stated
17 they are trying to get engineering managers to approve inspection reports since special
18 inspectors are currently the only ones that can approve them. Mr. Kikumoto added that
19 the engineering manager for the agency is responsible for anything that goes out of that
20 agency, so if there's been a change on special inspectors, the engineering manager
21 verifies the document before it goes out as an official document from the agency.

22
23 Mr. Malley asked Mr. LaBrie if the last sentence of paragraph 10 should be stricken.
24 Mr. LaBrie agreed to have internal coordination, then get back to the committee. Mr.
25 Hooper also suggested that Mr. LaBrie and the team also talk about the number of
26 special reports and test reports to be individually stamped and signed, and for those
27 reports to be dealt with collectively instead of individually. Mr. LaBrie affirmed that the
28 team would also look at that.

29 30 **MOTION:** [Naeim/Hooper]

31 The committee voted to approve PIN 58, subject to change in item number 10, to be
32 revised as presented. Mr. Yu took a roll call vote:

33 Farzad Naeim - yes

34 Bruce Clark – yes

35 Mark Hershberg - abstain

36 Mike Hooper - yes

37 Marshall Lew - yes

38 Michael O'Connor - yes

39 Jennifer Thornburg – yes

40 41 **Informational and Action item**

42 None.

1 **7. Proposed amendments to the 2022 California Administrative Code, Title 24,**
2 **Part 1**

3 **Presenter:** Roy Lobo, Chris Tokas, HCAI

- 4 • Amendments to Chapter 7, Article 7-115 (d) preapprovals

5 Mr. Lobo discussed the changes made to Part 1, section 7-115d, which listed how
6 OPMs will be incorporated in construction projects. The changes showed how those
7 preapprovals could be brought to the construction document. In item 2, there was an
8 exception stating that single OPM preapprovals, where all details are identified on the
9 preapproval, may be incorporated by reference.

10 **Discussion and Input**

11
12 Mr. Malley asked whether HCAI will determine if OPMs meet preapproval standards or if
13 it is up to the engineer to decide if the details qualify. Mr. Lobo expressed that if it's a
14 single OPM, it can be incorporated by reference, but if the OPM has multiple details,
15 there are different ways substrates can attach it. Mr. Kikumoto added that for multiple
16 OPMs, it's up to the engineer to show which details he plans to use on the project.

17
18 Mr. Malley asked what happens when the engineer incorporates OPMs by reference,
19 then HCAI in reviewing says that that OPM can't be incorporated. Mr. Lobo responded
20 that they need to develop a system of ensuring ways of characterizing the OPMs using
21 examples. He said that the changes should be effective for the 2022 mid-cycle code,
22 giving HCAI time to come up with examples to demonstrate that system.

23
24 **MOTION:** [Naeim/Lew]

25 The committee unanimously approved the proposed amendment as presented with
26 changes noted.

27
28 **Informational and Action item**

29 None.

30
31 **8. Proposed amendments to the 2022 California Existing Building Code, Title 24,**
32 **Part 10**

33 **Presenter:** Roy Lobo, Ali Sumer, HCAI

- 34 • Amendments to Chapter 3A, Ground motion hazard level for evaluation and
35 retrofit of non-conforming hospital buildings to SPC-4D

36 Mr. Summer discussed SPC 4D and document ASCE 41-13. These documents were
37 introduced in 2016 with the intent to use ASCE 41-13 so that there are no big changes
38 as the code development continues. In 2016 CBC, there was a modification in chapter
39 34, ASCE 41 section 2.4, which states that instead of using ASCE 41-13, use ASCE 7,
40 where there are rules to construct response spectra and acceleration time histories. In

1 2019, questions arose on the construction of response spectra and rules regarding
2 acceleration time histories, so there were differences between ASCE 7 and ASCE 41-
3 13. There is a need to connect back to ASCE 7 to have a precise language with ASCE
4 41-13. Mr. Sumer specified that the wordings for the language would be proposed in the
5 next meeting.

6

7 **Discussion and Input**

8

9 Ms. Thornburg inquired if HCAI allows designers to choose between modern ground
10 motion or the old ASCE 7-10 as applied in 2016. Mr. Sumer responded that the baseline
11 is to use the older version, which started the SPC 4D, but if the designers see an
12 advantage to using a newer version, HCAI will look at it case by case.

13

14 **MOTION:** [Naeim/Lew]

15 The committee voted unanimously to approve the proposal to develop the language for
16 review as presented.

17

18 **Informational and Action item**

19 None.

20

21 **9. Comments from the Public/Committee Members on issues not on this agenda**

22 **Presenter:** Jim Malley, Committee Chair

23

24 **Discussion and Input**

25 None.

26

27 **Informational and Action item**

28 Mr. Malley thanked the HCAI staff for their presentation and looked forward to continued
29 progress in the next meeting.

30


31 **10. Adjournment**

32 Mr. Malley adjourned the meeting on Jan 13, 2022, at approximately 10:49 a.m.

Ad hoc Board Procedures Committee

Draft Meeting Report/Minutes

January 26, 2022



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2020 West El Camino Avenue, Suite 800
Sacramento, CA 95833
hcai.ca.gov



**HOSPITAL BUILDING SAFETY BOARD
Ad Hoc Board Procedures Committee**

Wednesday, January 26, 2022
9:00 a.m. – 3:00 p.m.

Teleconference Meeting Access:
HBSB GoToMeeting Board and Procedures Committee
Access Code: 834-687-925

Committee Members Present

Michael Foulkes, Chair
Pete Kreuser, Vice-Chair
Louise Belair
Bruce Rainey

HCAI Staff

Richard Tannahill
Joe LaBrie
Carl Scheuerman
James Yi

HBSB Staff

Ken Yu, Executive Director
Joanne Jolls
Evelt Torres

1 **1. Call to Order and Welcome**

2 Michael Foulkes, Committee Chair, called the meeting to order on Jan 26, 2022, at 9:00
3 a.m., and HCAI Executive Director, Ken Yu called roll.

4

5 **2. Roll Call and Meeting Advisories/Expectations**

6 Three members of the Committee present constitute a quorum. There being four
7 present at the time of roll, a quorum was established.

8

1 Mr. Yu read the public announcement regarding COVID-19, meeting rules and
2 procedures.

3

4 **3. Board Chair nominations process and committee appointments**

- 5 • Discuss this year's Nominations Committee appointments and recommendation
6 process

7

8 **Presenter: Michael Foulkes, Committee Chair**

9 Being an election year, Mr. Foulkes explained the nomination process, whereby the
10 chair designates a two-person committee. Those two members make a
11 recommendation, and then the names go through a board vote. Mr. Foulkes expressed
12 that in choosing a chair and vice-chair, the Board tends to pick people who have been
13 on the Board for a while who are interested in serving in those positions.

14

15 Mr. Foulkes stated that in the first meeting of the year, Ms. Belair announce her
16 committee formally. In the second meeting of the year, the nominations committee
17 makes their report, and the floor is opened for nominations and the board votes. The
18 chair and vice-chair are appointed for the coming year. The third meeting of the year,
19 which is in December, there is a leadership transition, and the chosen leaders start their
20 terms in January. Mr. Yu agreed with the conclusions made by Mr. Foulkes. He added
21 that the April Full Board meeting would have the nomination committee,
22 recommendation. Voting is to be done at the August Full Board meeting. The leadership
23 transition will happen at the December Full Board meeting.

24

25 **Discussion and Input**

26 Mr. Foulkes wanted clarification on whether the two-year requirement was for the
27 nominating committee or chair and vice-chair. Mr. Yu stated that to serve as chair and
28 vice-chair, you have to have two years serving term, but for the nomination committee,
29 anyone can serve.

30

31 Mr. Foulkes mentioned that he noticed in the Policies and Procedures, the election
32 process, Section A, states, "The nominating committee shall be two voting members
33 appointed by the existing chair at least 30 days prior to the elections." He suggested
34 language change to just two members instead of two voting members. Mr. Yu and Ms.
35 Belair agreed to that change.

36

1 Mr. Foulkes asked Ms. Belair whether she had any questions, thoughts, or feedback on
2 the nomination committee. Ms. Belair shared her thoughts on the nomination committee
3 and stated that it would be good for the nominated members to be someone who has
4 gone through the process already. She also wanted suggestions or recommendations
5 on the best candidates eligible for the committee.

6

7 Mr. Tannahill wanted clarification from Ms. Belair whether she was talking about who
8 would be on the nomination committee or chair and vice-chair. Ms. Belair said she was
9 referring to the nomination committee.

10

11 Mr. Scheuerman asked for consideration that since the director-appointed ex-officio
12 members don't have a vote on the board, they be the ones that form the nomination
13 committee because they don't have a formal interest in the outcome. Mr. Foulkes
14 agreed that it was a good suggestion since the ex-officios have been on the Board for a
15 long time. Ms. Belair also supported the suggestion.

16

17 Mr. Kreuser asked if Mr. Foulkes suggested that two non-voting members make
18 recommendations for the nomination committee and not have any board member in that
19 process. To answer that, Mr. Foulkes restated that by having the non-voting members
20 do the process, there is the elimination of any potential conflict of interest.

21

22 Mr. Rainey needed clarification on whether the two-year term is based upon the start of
23 the term. Mr. Foulkes said, yes, it is. Ms. Belair needed to know if the two-year term had
24 a specific time, whether it was at the time of the nomination or at the time of selection of
25 nominating committee members. Mr. Foulkes stated that the two-year term is two years
26 before serving as chair in a chair position.

27

28 Mr. Scheuerman raised concerns on the 2021 committees approved in December,
29 which intended this Board Procedures Committee meeting to establish the nomination
30 committee. So he wanted to know if the goal of the meeting was to establish the
31 committee or not. Ms. Belair informed him that intend of this meeting was to discuss and
32 welcome any suggestions so that the chair could make the selection.

33

34 Given all the feedback, the chair, Mr. Foulkes, suggested to Ms. Belair that Mr. Kreuser
35 and Mr. Hooper could be the ideal candidates for the nomination committee since
36 they've both been on the committee twice. Mr. Kreuser thanked Mr. Foulkes for the
37 recommendation.

1 **Informational and Action item**

- 2 • Change Section A’s language in the election process to state that the nominating
3 committee shall be two members appointed by the existing chair at least 30days
4 prior to the elections.
- 5 • Consideration of director-appointed ex-officios to form the nominations
6 committee since they don’t have a formal interest in the outcome of the
7 committee.

8

9 **4. Review of Board Policies and Procedures**

- 10 • Discuss any proposed changes to Board Policies and Procedures related to the
11 chair and vice-chair nominations.
- 12

13 **Presenter: Michael Foulkes, Committee Chair**

14 Regarding changes in the Policies and Procedures document, Mr. Foulkes talked about
15 removing “voting member” in paragraph IV, item A, 1a. In paragraph IV, item A, 1b,6,
16 which reads, “Nominating committee recommends candidate(s) or may give no
17 recommendation at the last Board meeting of the calendar year.” Last Board meeting to
18 be changed to read “at the second Board meeting.”

19

20 **Discussion and Input**

21 Mr. Yu recommended that paragraph IV, Section A,1b,6, read, “second regular Board
22 meeting of the calendar year.” Mr. Foulkes acknowledged that change. Ms. Belair
23 commended the change stating that her appointment was through that cycle. She
24 added that the process is even more valid if it’s a new chair and vice-chair. The process
25 gives the new chair the ability to present goals for the next year.

26

27 **MOTION: [Belair/Rainey]**

28 The committee voted to approve changes as discussed.

29

30 **Informational and Action item**

- 31 • Language change in paragraph IV, item A, 1a, removing “voting member” to read
32 “member.”
- 33 • Correction in paragraph IV, item A, 1b,6, “last Board meeting” to read, “second
34 regular Board meeting.”
- 35

1 **5. Discussion on future items for the committee to consider**

- 2 • Committee members may propose issues to be placed on a future agenda

3

4 **Presenter: Michael Foulkes, Committee Chair**

5 **Discussion and Input**

6 Since there was no comment, Mr. Foulkes thanked the Committee for a good job.

7

8 **Informational and Action item**

- 9 • None.

10

11 **6. Comments from the public/committee members on issues not on this agenda**

12 **Presenter: Michael Foulkes, Committee Chair**

13 **Discussion and Input**

14 Mr. Yu announced the retirement of Ms. Jolls. Mr. Foulkes thanked Ms. Jolls for her

15 work and dedication to the HCAI. Mr. Yu also thanked Ms. Jolls for her work and

16 support to HCAI. Ms. Belair echoed the sentiment and wished her a happy retirement.

17 Ms. Jolls thanked the Committee for their support and kind comments. She appreciated

18 working with the Board.

19

20 **Informational and Action item**

- 21 • None.

22

23 **7. Adjournment**


24 Mr. Foulkes adjourned the meeting on Jan 26, 2022, at approximately 9:54 a.m.

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Instrumentation Committee

Draft Meeting Report/Minutes

January 27, 2022



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2020 West El Camino Avenue, Suite 800
Sacramento, CA 95833
hcai.ca.gov



**HOSPITAL BUILDING SAFETY BOARD
Instrumentation Committee**

Thursday, January 27, 2022
9:00 a.m. – 3:00 p.m.

Teleconference Meeting Access:
HBSB GoToMeeting Instrumentation Committee
Access Code: 191-634-925

Committee Members

Marshall Lew, Chair
Bruce Clark, Vice-Chair
Farzad Naeim
Tim McCrink

Consulting Member

Hamid Haddadi
Moh Huang
Tony Shakal

HCAI Staff

Richard Tannahill
Hussain Bhatia
Erol Kalkan
Roy Lobo
Carl Scheuerman
Ali Sumer
Jean-Paul Buchanan

HBSB Staff

Ken Yu, Executive Director
Joanne Jolls
Evet Torres

- 1 **1. Call to Order and Welcome**
- 2 Marshall Lew, Committee Chair, called the meeting to order on Jan 27, 2022, at 9:00
- 3 a.m., and HCAI Executive Director, Ken Yu called roll.

1 **2. Roll Call and Meeting Advisories/Expectations**

2 Five members of the Committee present constitute a quorum. There being seven
3 present at the time of roll, a quorum was established.

4

5 Mr. Yu read the public announcement regarding COVID-19, meeting rules and
6 procedures.

7 **3. Discussion on the draft White Paper outline, “The benefits of strong motion
8 instrumentation in hospital facilities.”**

9 **Presenter: Bruce Clark, Committee Chair**

10 Mr. Clark informed the committee that the purpose of preparing the white paper is to
11 identify issues associated with the strong motion instrument program and data related to
12 HCAI’s responsibility to make hospitals safer.

13

14 Mr. Clark identified points to be included in the white paper draft:

- 15 • Current status of HCAI instrumentation - Mr. Clark stated that the idea was to
16 know how the instrumentation program is doing since upgrading and updating
17 communication systems to provide data to HCAI.
- 18 • Utility of hospital instrumentation- He discussed the utility of hospital
19 instrumentation from the standpoint of hospital safety and suggested that the
20 draft section should be done by experts working on structural and non-structural
21 hazards.
- 22 • Improving the usefulness of the current strong-motion data and network –
23 Mr. Clark commented that in this section, the draft should focus on specific things
24 that should be done to make instrumentation more valuable. With the current
25 strong motion data, there’s a need to discuss whether there are issues like
26 geographical areas where data is not very concentrated or accessible when the
27 power goes down.
- 28 • The role that alternative instrumentation and data analytics can play in the future
29 – Mr. Clark gave an in-depth discussion about alternative instrumentation. He
30 talked about using MEMs and Community Seismic Networks in predicting ground
31 and building responses. He also talked about advancements in SHAKEALERT
32 for emergency response in hospitals and upgrading SHAKEMAPS to define the
33 risk of hospital buildings. Mr. Clark explained the use of laser interferometry and
34 LIDAR imagery to supplement accelerometer data to see millimeter level
35 displacement during an earthquake. This is to improve on damage evaluation.
- 36 • Improving community awareness of the value of strong motion instrumentation -
37 Mr. Clark noted that there is a marketing issue of how strong motion is handled to
38 make sure that everybody understands it. He suggested that the white paper

1 should provide information not only to the technical team but to everybody in the
2 community as to why strong-motion instrumentation is important.

3 4 **Discussion and Input**

5 Mr. Tannahill indicated that although HCAI can provide assistance writing the draft, he
6 suggested the sub-committee put the white paper draft together. Mr. Naeim expressed
7 that he liked the idea of a sub-committee, but that needing to have a meeting each time
8 committee members want to discuss the draft would make the process long. He
9 proposed that the committee select two or three members who will draft the white
10 paper, then present the draft for public and committee review. Mr. Clark and Mr. Yu
11 agreed to that proposal.

12
13 Concerning the topics Mr. Clark was discussing, Mr. Haddadi requested a bullet point
14 be included stating, "What is the output that HCAI would like to get from seismic
15 instrumentation." Mr. Clark accepted the idea. Mr. Naeim reminded the committee
16 before they discuss what HCAI needs from instrumentation, the committee has to lay
17 out what type of information is needed by the instrumentation.

18
19 In connection with the second bullet point, the utility of hospital instrumentation, Mr. Lew
20 added that the committee needs to emphasize the benefits to hospital owners/
21 operators. Hospital owners/operators will use strong-motion instrumentation to benefit
22 them in their operations.

23
24 Mr. Yu read a comment from an interested party, stating that one benefit of the topic
25 would be in full modular hospital construction where special moment frame construction
26 is ideal. Instrumentation could also monitor the unit through transportation to show that
27 they are not damaged to completion. Mr. Clark agreed with that point and added that
28 since hospital construction methods are changing, the instrumentation is important in
29 creating modular hospitals quickly and cheaply.

30
31 After the discussion, Mr. Lew concluded that the committee has a good outline to start
32 the draft white paper. He asked HCAI staff to provide reports on what buildings are
33 instrumented and where the buildings are located, types of instrumentation, and building
34 types of construction. These reports will enable modification of instruments to use to
35 focus on structural damage and understand those effects better.

1 Mr. Lew asked Mr. Reis to give a brief overview of the type of instrumentation that he's
2 been working with. In response, Mr. Reis talked about Safehub, who has developed
3 small accelerometer sensors used for post-earthquake response and recovery. The
4 sensors are installed in buildings and then hooked up to a web-based platform to
5 provide the building owners/users an immediate estimate of damage to the building.
6 The sensors can be installed in offices, schools, hospitals, manufacturing, retail,
7 biotech, and hi-tech companies. Mr. Reis expressed that Safehub company will be more
8 than happy to contribute to the white paper.

9 Mr. Shakal asked if the data from the sensors would be private. Mr. Reis said the
10 information is not meant to contribute to a public database but instead for clients to have
11 rapid information after an earthquake to decide whether the building is safe to occupy or
12 where it needs to be inspected.

13

14 Mr. Lew asked whether the white paper is limited to just HCAI instrumentation or open
15 to discuss the general usefulness of the data. Mr. Reis gave an example of office
16 buildings in Los Angeles where owners are required by city ordinance to pay to have
17 their building instrumented with SMIP sensors but are not allowed access to the data
18 collected. Owners then add additional instrument to their buildings so they can use the
19 data specifically for their own post-earthquake response. Mr. Lew also questioned if
20 there were hospitals that are instrumented. Mr. Reis replied that there are clinic-type
21 buildings that are instrumented but no HCAI hospitals. Mr. Haddadi asked if HCAI would
22 like to be able to access data after an earthquake to know which hospitals HCAI needs
23 to concentrate its effort on and which ones they can delay the response to. Mr.
24 Tannahill confirmed that that HCAI would be interested in accessing that kind of
25 information.

26

27 Mr. Lew concluded that the committee now has an outline of the draft white paper with
28 six sections. Mr. Yu recommended that since there are eight committee members, there
29 should be four sub-committees. Mr. Naeim suggested that he and Mr. Huang be on the
30 sub-committee on Section 3, Utility of Hospital Instrumentation. Mr. Lew and Mr. Shakal
31 are to work on Section 4, Improving the Usefulness of our Current Strong Motion Data
32 and Network. Mr. Malley and Mr. Haddadi were appointed to be on the Section 5 sub-
33 committee. The Role that Alternative Instrumentation and/or Data Analytics Can Play in
34 the Future. Mr. Clark and Mr. McCrink will work on Section 6, Improving Community
35 Awareness of the Value of Strong-Motion Instrumentation. Mr. Lobo was appointed as
36 the link between the sub-committees and HCAI staff.

37

38 Mr. McCrink updated members on the upcoming meeting scheduled on April 2, 2022,
39 and October 22, 2022. Mr. Naeim advised that all sub-committees complete their part of

1 the draft before March 26, 2022, to be presented at the April 28, 2022 Full Board
2 meeting.

3

4 Mr. Lew asked if any members of the public were interested in being part of the
5 discussions with the sub-committees. Mr. Reis volunteered to help on the types of
6 instrumentation and community value. Mr. Marshall advised all the sub-committee
7 members to contact Dr. Carlos Ventura of the University of British Columbia because
8 the university has done a lot of instrumentation of public facilities, so his expertise could
9 be helpful.

10

11 **MOTION: [Naeim/McCrink]**

12 The committee voted to accept the draft outline and accept the committee's
13 assignments as made. Section 2, to be worked on by HCAI Staff with the help of Mr. Naeim;
14 Section 3, Mr. Naeim and Mr. Huang; Section 4, Mr. Lew and Mr. Shakal; Section 5, Mr. Malley
15 and Mr. Haddadi; and Section 6, Mr. Clark and Mr. McCrink.

16

17 **Informational and Action item**

- 18 • Add "What is the output that HCAI would like to get from seismic instrumentation," to
19 the white paper draft.

20

21 **4. Comments from the public/committee members on issues not on this agenda**

22 **Presenter:** Marshall Lew, Committee Chair

23

24 **Discussion and Input**

25

26 Mr. Yu announced Joanne Jolls' retirement. Her last physical date will be on April 1,
27 2022. Mr. Yu commended her for her support and being a great asset to the Board. Mr.
28 Lew also appreciated Ms. Jolls for her work. Ms. Jolls thanked everybody for their
29 support. She expressed that it was a privilege working for the Board.

30

31 Having concluded the meeting, Mr. Lew expressed that it was productive and thanked
32 everyone for their participation.

33

34 **Informational and Action item**

- 35 • None.

1


2 **5. Adjournment**

3 Mr. Lew adjourned the meeting on January 27, 2022, at approximately 10:46 a.m.

Codes and Processes Committee

Draft Meeting Report/Minutes

February 10, 2022



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2020 West El Camino Avenue, Suite 800
Sacramento, CA 95833
hcai.ca.gov



HOSPITAL BUILDING SAFETY BOARD Codes and Processes Committees

Thursday, February 10, 2022
9:00 a.m. – 3:00 p.m.

Teleconference Meeting Access:

HBSB Teams CAP Committee
Access Code: 118-580-777-7

Committee Members

Roy Lopez, Vice-Chair
Mike Hooper
Scott Jackson
Pete Kreuser
Scott Mackey
Jim Malley
Farzad Naeim

Consulting Members

John Donelan
Gary Dunger

Ex-Officio Members

Mia Marvelli

HCAI Staff

Chris Tokas, FDD Deputy Director
Richard Tannahill
Brett Beekman
Larry Enright
Bill Gow
Roy Lobo
Diana Navarro
Ryan Nelson
Diana Scaturro
Carl Scheuerman
Nanci Timmins
James Yi

HBSB Staff

Ken Yu, Executive Director
Joanne Jolls
Evet Torres

- 1 **1. Call to Order and Welcome**
- 2 Roy Lopez, Vice-Chair, called the meeting to order on February 10, 2022, at 9:00 a.m.,
- 3 and HCAI Executive Director, Ken Yu called roll.

1

2 **2. Roll Call and Meeting Advisories/Expectations**

3 Seven members of the Committee present constitute a quorum. There being nine
4 present, a quorum was established.

5

6 Mr. Yu read the public announcement regarding COVID-19, meeting rules and
7 procedures.

8

9 **3. California Building and Standard code revision cycle for 2022 and intervening**
10 **code cycle**

11 **Presenter:** Richard Tannahill, HCAI

12

13 Mr. Tannahill, Bill Gow, and Larry Enright gave a detailed presentation on parts of the
14 2022 intervening code adoption cycle. Mr. Tannahill appreciated the California Building
15 Standard Commission for working with HCAI. He also informed the committee that the
16 OSHPD name will remain in the code until the next cycle, in 2025.

17

18 **Part 1 California Administrative code**

19

- 20 • Emergency submittal time limitation
- 21 • Clarify licensure for civil engineers and fire protection engineers-
- 22 • Require all submittals to be electronic
- 23 • Keep annual building permits
- 24 • Non-refundable fee added for geotechnical submissions
- 25 • Clarify the scope of architects with secondary structural design

26

27 **Part 2 California Building Code**

28

- 29 • Further coordination with new FGI Guidelines
- 30 • Continuous observation of pediatric patient rooms and play area by staff
- 31 • Clarify resuscitation requirements for LDR/LDRPs
- 32 • Outside exposure for psychiatric hospitals
- 33 • Handwashing station clarifications
- 34 • Remove all references to licensing
- 35 • Definition of Interim Equipment
- 36 • Relook at Fast Track requirements
- 37 • Glazing requirements in psychiatric facilities
- 38 • Work with CBC on on Title 22 requirement that emergency departments have a
39 medical room
- 40 • Definition and requirements of Behavioral Health Observation Units

- 1 • NICU gowning requirements back into code
- 2 • OSHPD 2A and 2B to just OSHPD 2
- 3 • Relook at pharmacy space requirements
- 4 • Revise language for Procedure Rooms and Class 2 Imaging for procedures
- 5 allowed
- 6 • Adding med gas outlet requirements for Procedure Rooms and Class 2
- 7 • Look at the location of the common patient toilet in a nursing unit (multipurpose
- 8 room and/or central bathing)
- 9 • Add sterile core to Table 1224.4.11
- 10 • Medical service for psychiatric hospitals
- 11 • Define Tamper Resistant

12

13 **Part 3 California Electrical Code**

14

- 15 • HCAI does not require SNF to have normal and equipment receptacles at patient
- 16 bed locations based on a model code exception in CEC 517.18. However, the
- 17 model code exception is confusing based on other HCAI amendments in Article
- 18 517. New HCAI exception will be added to 517.18 to clarify that SNF patient
- 19 beds are not required to meet the 517.18 receptacle requirements.
- 20 • Existing HCAI amendment CEC 517.44(A)(7) requires SNF to have an
- 21 equipment branch receptacle located in a corridor so a 50 feet extension cord
- 22 can reach patient beds. HCAI will modify this requirement to not require this
- 23 corridor receptacle if the patient rooms have receptacles powered by the
- 24 equipment branch.
- 25 • Add exception to 517.44(A) for acute psychiatric hospitals to not require an
- 26 equipment branch receptacle in patient rooms. The new exception will be
- 27 modeled after Exception 4 in 517.18(B).
- 28 • Add "paralleling switchgear, EPSS distribution equipment, and transfer switches"
- 29 to OSHPD Amendment in 700.3(A) requiring generators to be tested per NFPA
- 30 110. This aligns with the requirements in CBC 2702.1.3.
- 31 • Add electrical coordination requirements to Type 2 essential electrical systems to
- 32 align with NFPA 99.

33

34 **Part 4 California Mechanical Code**

35

- 36 • Revise CMC 3201.1 and 408.1.5 to coordinate with adiabatic humidification in
- 37 2013 ASHRAE 170, (addendum m) section 6.6.3.
- 38 • Coordination of CMC Table 4A temperature requirements for OSHPD rooms not
- 39 in ASHRAE 170 Table 7.1. Previous requirement in 2016 CMC 320.1.

- 1 • Revise pressurization and air change rate for HD ante room in CMC Table 4A to
2 coordinate with USP 800 requirements.
- 3 • Generator exhaust distances to openings and forced air intakes.

4

5 **Part 5 California Plumbing Code**

- 6
- 7 • Enhance language for emergency water.
- 8 • Enhance language for emergency waste.
- 9 • Bolster/clarify patient shower ADA and drain recurring issue.
- 10 • Consider removing sensor faucets in SNFs and P.E. environments.
11 “Management of Legionella in Water Systems”, Consensus Study Report, P. 189
- 12 • Dead legs – maximum length allowed if any?

13

14 **Part 10**

- 15
- 16 • Mr. Tannahill pointed out a need for coordination with ICC to see if the deleted
17 Section 301.5, Sections 502.6, and 503.145 were still needed.

18

19 **Discussion and Input**

20

21 Mia Marvelli asked if there will be more modification on masonry and grounding in Part
22 2. Mr. Lobo stated that there would not be any changes on that part.

23

24 An interested party asked which version NFPA 99 is cited from. Mr. Gow confirmed that
25 it was cited from the 2018 NFPA 99.

26

27

28 **Informational and Action item**

- 29 • None
- 30

31 **4. Emergency design task force**

32 **Presenter:** Chris Tokas and Richard Tannahill, HCAI

33

34 Mr. Tannahill gave a quick update on the emergency design task force. He stated a
35 formatting process on chapters that require more narrative. The overview was

- 36
- 37 • Chapter 1: Patient room emergency ventilation conversion
- 38 ○ Air Handling Unit (AHU) Recommendations
- 39 ○ HEPA Filtration Recommendations
- 40 ○ Return Air and Exhaust Air Recommendations
- 41 ○ 3.1 Negative Pressure Environment Recommendations

- 1 ○ Operating Rooms
- 2 ○ Recommended Facilities Ventilation Design
- 3 • Chapter 2: Emergency operations planning to accommodate surge capacity
- 4 ○ Air Handling Unit (AHU) Recommendations
- 5 ○ HEPA Filtration Recommendations
- 6 ○ Return Air and Exhaust Air Recommendations
- 7 ○ 3.1 Negative Pressure Environment Recommendations
- 8 ○ Operating Rooms
- 9 ○ Recommended Facilities Ventilation Design
- 10 • Chapter 3: Spaces that can be split into multiple zones
- 11 ○ Air Handling Unit (AHU) Recommendations
- 12 ○ HEPA Filtration Recommendations
- 13 ○ Return Air and Exhaust Air Recommendations
- 14 ○ 3.1 Negative Pressure Environment Recommendations
- 15 ○ Operating Rooms
- 16 ○ Recommended Facilities Ventilation Design
- 17 • Chapter 4: HVAC system considerations for wildfire events
- 18 ○ Air Handling Unit (AHU) Recommendations
- 19 ○ HEPA Filtration Recommendations
- 20 ○ Return Air and Exhaust Air Recommendations
- 21 ○ 3.1 Negative Pressure Environment Recommendations
- 22 ○ Operating Rooms
- 23 ○ Recommended Facilities Ventilation Design
- 24 ○ Chapter 5: Getting authorization for an emergency projectCode
- 25 Requirements
- 26 ○ Steps to Follow for Emergency Projects
- 27 • Chapter 6: Coordination with other jurisdictions for temporary surge facilities and
- 28 alternate care sites
- 29 ○ Code Requirements
- 30 ○ Steps to Follow for Emergency Projects

31

In conclusion, Mr. Tannahill identified facilities used as case studies, Sharp Chula Vista and UC Davis Medical Center. He also encouraged the committee to suggest other facilities' names as case studies.

35

Discussion and Input

37

- None.

38

Informational and Action item

40

- None.

41

1 **5. HCAI Preapproved details (OPD)**

2 **Presenter:** Roy Lopez, Vice Chair

3
4 Mr. Lopez established a spreadsheet to help track OPD that had been submitted. The
5 spreadsheet contains status and review processes. He acknowledged that Mr.
6 O'Connor had highlighted wall assembly intersection as a priority. Mr. Lopez noted that
7 on the presentation, Mr. O'Connor highlighted that partition detail updates had been
8 transferred to HBSB Structural and Nonstructural Committee and that the spreadsheet
9 was to be used as a guide for tracking the proposed details.

10
11 **Discussion and input**

12
13 Mr. Dunger observed that the fire life safety details have been removed from the
14 website and are no longer available for clients to access even though they are still valid.
15 Mr. Tokas acknowledged that fact and added that there is a mandate that everything on
16 the website has to be accessible. He concluded that they are working on making them
17 available to the public. Mr. Dunger noted that he did not know about that and thanked
18 Mr. Tokas for the information.

19
20 **Information and Action item**

- 21 • None.

22
23 **6. Comments from the public/committee members on issues not on this agenda**

24 **Presenter:** Roy Lopez, Vice Chair

25
26 **Discussion and input**

27
28 Ms. Marvelli announced that Mike Nearman has retired from the California Building
29 Standard Commission. She acknowledged the hard work done by Mr. Nearman for the
30 commission. She declared that she would be the one attending all the meetings. Ms.
31 Marvelli appreciated how organized the meetings were. She also thanked the
32 committee for the collaboration and cooperation. Mr. Lopez thanked Ms. Marvelli for the
33 output. Mr. Tokkas appreciated and acknowledged Mr. Nearman for his dedication and
34 hard work.

35
36 Mr. Yu shared two comments with the committee. First, congratulated Mr. Lopez on
37 becoming a grandfather. The second announcement was on the retirement of Joanne
38 Jolls. Mr. Yu disclosed that her last date would be April 1, 2022. Mr. Lopez thanked Mr.
39 Yu for the announcements and wished Ms. Jolls all the best in her retirement. On that
40 note, Mr. Jackson also congratulated Ms. Jolls for her hard work. Ms. Jolls thanked the
41 committee and stated that she enjoyed working with them.

1 Mr. Lopez expressed that the proposed dates for future Codes and Processes
2 Committee meetings are to be held on May 12, 2022, July 14, 2022, and October 13,
3 2022.

4

5 **7. Adjournment**

6 Mr. Lopez adjourned the meeting on February 10, 2022, at approximately 9:58 a.m.

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Education and Outreach Committee

Draft Meeting Report/Minutes

February 23, 2022

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2020 West El Camino Avenue, Suite 800
Sacramento, CA 95833
hcai.ca.gov



**HOSPITAL BUILDING SAFETY BOARD
Education and Outreach Committee**

**Wednesday, February 23, 2022
9:00 a.m. – 3:00 p.m.**

**Teleconference Meeting Access:
HBSB Teams EO Committee
Access Code: 509-393-906**

Committee Members

Mike Hooper, Committee Chair
Pete Kreuser, Vice-Chair
Louise Belair
Deepak Dandekar
Bert Hurlbut
Scott Mackey
Bruce Rainey

Consulting Members

John Donelan
Gary Dunger
Bill Zellmer

HCAI Staff

Chris Tokas, FDD Deputy Director
Richard Tannahill
Monica Colosi
Jonathan Cook
Chris Davis
Mickey Fong
Bill Gow
Joe LaBrie
Cesar Ponce
Nanci Timmins
James Yi

HBSB Staff

Ken Yu, Executive Director
Joanne Jolls
Evet Torres

1 **1. Welcome and introductions**

2 Mike Hooper, Committee Chair, called the meeting to order on February 23, 2022, at
3 9:00 a.m., and HCAI Executive Director, Ken Yu called roll.

4

1 **2. Roll Call and Meeting Advisories/Expectations**

2 Six members of the Committee present constitutes a quorum. There being ten present
3 at the time of roll, a quorum was established.

4
5 Mr. Yu read the public announcement regarding COVID-19, meeting rules and
6 procedures.

7
8 **3. Future educational opportunities**

9 **Presenter:** Mike Hooper, Committee Chair

10 Mr. Hooper declared that the committee's objective is to decide which topics should be
11 presented this year and develop a calendar for each educational webinar or seminar.

12
13 **Discussion and Input**

14 The webinar topics discussed in previous meetings are;

15
16 • **Off-site fabrication/ pre-assembled components**

17 Mr. Kreuser, discussed how flourishing pre-fabrication has become in the
18 industry. He proposed that the topic be discussed this year. Mr. LaBrie agreed
19 with Mr. Kreuser's suggestion. Mr. Hooper asked Mr. LaBrie if he would prefer
20 this topic be discussed as a webinar or one-on-one meeting. Mr. LaBrie opted for
21 one-on-one meetings.

22
23 Mr. Mackey suggested that HCAI present the pre-fabrication process and the
24 current status of pre-approvals.

25
26 Mr. Hurlbut asked if there had been any pilot programs or large components
27 done with HCAI, and if not, should that be a consideration. Mr. Tokas answered
28 that the pre-fabrication pilot program started in 2009/2010. He also added that
29 once the PIN is approved, the webinars/seminars will be available to the public.

30
31 Mr. Mackey asked whether there was something that could be done in the interim
32 to present a way forward. Mr. Tokas responded that the program would be
33 presented to the community once the PIN was signed. Mr. Tannahill suggested
34 to connect with applicants or people interested in out-of-state pre-production
35 projects.

36
37 Ms. Belair asked Mr. Tokas if the PIN would be ready for the next Codes and
38 Processes Committee meeting and should it be advertised for public
39 participation. Mr. Tokas replied that it is a bit early to advertise the PIN, but it will
40 be available on the agenda as soon as it is ready. Ms. Belair asked if there was a
41 process to solicit applicants. Mr. Tokas communicated that there are

1 presentations available for applicants in the full board meetings, committee
2 meetings, and the various industries. Mr. Hooper explained that this topic is
3 dependent upon the development of the PIN, which should be ready near the last
4 quarter of the year.

5
6 • **California Administration Code (Possible dates: March/April 2022)**

7 Mr. Tannahill suggested that the dates for the California Administration Code
8 webinar be pushed back to summer. Mr. Hooper asked if the California
9 Administration Code webinar should still be kept in the docket for 2022. Mr. Kreuser
10 remarked that it should because the webinar is important, and the committee has
11 already proposed it for 2022.

12
13 • **Policy Intent Notice, PIN 50 (Possible dates: April/ May 2022)**

14 Mr. Tannahill announced that the PIN was already on the schedule.

15
16 • **Emergency Process Design Guide (Possible dates: June/July 2022)**

17 Mr. Tannahill suggested that the dates remain the same.

18
19 • **Pre-approvals related to Medicine Dispensing Units and Emergency
20 Projects**

21 Mr. Gow commented that it would be clearer if there was an in-depth explanation
22 of “emergency project.” Mr. Hooper asked Mr. Tokas if there is a guide for what
23 an emergency project is. Mr. Tokas confirmed that there is a guide for
24 emergency code. Mr. Tannahill also added that there is a chapter in the
25 Emergency Design Guide, addressing this issue.

26
27 Mr. Hooper asked if the Emergency Design Guide was fully developed or under
28 development and what is the process for publishing. Mr. Tannahill replied that the
29 guide is in draft form and will be posted on the HCAI website. Mr. Tannahill
30 stated the time frame for that webinar is June/July 2022.

31
32 • **OSHPD 3 and HCAI special seismic certification presentation.**

33 Mr. Tokas wanted to know if the special seismic certification is specific to
34 OSHPD 3 or is it in general. Mr. Hooper explained that it was special seismic
35 certification in general. Mr. Tannahill added that the OSHPD special seismic
36 presentation was already done in August last year. Mr. Tokas suggested that this
37 webinar be done in early summer.

38
39 • **Testing, inspection, and observation program (inspection services unit
40 topic)**

41 Mr. LaBrie announced that there is a draft version of the latest TIO used in Excel.
42 This version integrates project sequencing and construction phasing. He

1 suggested that this topic might be a nice presentation offered to the industry
2 through meetings and public presentations. Mr. Hooper asked if the project could
3 be rolled out by the end of the year. Mr. LaBrie stated that the project needs to
4 be on the agenda and will be rolled out this year.

5
6 Mr. Hooper asked if Mr. LaBrie would have something to present about this topic
7 in the next meeting, which is May 25, 2022. Mr. LaBrie assured him that there
8 would be a presentation at the next meeting. The project's motivation is that the
9 industry is served by a TIO that considers quality assurance direction. Mr.
10 Hooper questioned if this topic requires a special committee to review the
11 development of this topic.

12
13 Mr. Yu indicated that there could be an assigned sub-committee to review the
14 topic. Mr. Hooper stated that he would like to assign the sub-committee sooner
15 than May 2022. Concerning the sub-committee meetings, Mr. Mackey suggested
16 that the sub-committee members come up with dates for their meetings. Mr.
17 Hooper affirmed that he would work with HBSB staff and develop dates for those
18 who want to participate.

19
20 Mr. Rainey talked about the presentation on NPC 5 requirements, and this
21 presentation can be used for training purposes.

22
23 • **PINs and CANs (Fire prevention unit topic)**

24 Ms. Timmins discussed the presentations that she has done, with different
25 groups, on these topics. She wanted to bring some of those presentations to the
26 Education and Outreach committee or create a priority list.

27
28 Mr. Tannahill announced that there is an ongoing process on petitioning the fire-
29 rated assembly topic in April/May 2022 time period. Ms. Timmins added that
30 there was a presentation on OSHPD 3 with information on FLS topics. Mr.
31 Mackey asked Ms. Timmins if last year's OSHPD 3 topic covered enough on fire
32 prevention issues. Ms. Timmins said that the fire prevention issues topic was
33 minimal and should be combined with FLS. Mr. Tannahill declared that the topic
34 did not talk about fire prevention, and hence it needs to be discussed.

35
36 **MOTION: [Mackey/Rainey]**

37 The committee voted unanimously to accept the webinar topics, with amended
38 language, and to move forward with presentations. Mr. Yu took a roll call vote.

39
40 **Informational and Action item**

- 41 • Mr. Hooper assigned a sub-committee to review the webinar topic on TIO. Members
42 included Mr. Hooper and Mr. Dunger.

1 **4. Planning for a 2023 seminar**

2 **Presenter: Mike Hooper, Chair**

3 Mr. Hooper stated that there has been consideration on developing one grandiose topic
4 into a seminar.

5
6 **Discussion and Input**

7 Ms. Timmins suggested that an updated presentation would be a great opportunity to
8 refresh what was done in the 1990s, to get clients to understand the need to submit an
9 HCAI project successfully.

10
11 Mr. Hooper asked the committee if the seminar could be taken up at the beginning of
12 2023. Ms. Belair mentioned that the idea was to start this in 2022 so that there could be
13 a seminar in 2023. Mr. Tokas noted that seminars and webinars need a lot of time to
14 prepare hence the need for early preparation. Mr. Gow also agreed with Ms. Timmins's
15 suggestion on "Tips from the Experts". Ms. Belair talked about developing a regular
16 calendar and curriculum so that the topics can be prepared before the meeting. Mr.
17 Mackey proposed two events for Tips from the Experts seminar.

18
19 Mr. LaBrie requested the chair to consider code changes that will reprioritize some
20 suggestions that will be needed in 2023. Mr. Tannahill disclosed that there will be a
21 webinar to discuss the code changes before the end of the year. The code changes are
22 being published in July and will be in effect January 2023.

23
24 **Informational and Action item**

- 25 • None.

26
27 **5. Define/develop public and industry outreach process**

28 **Presenter: Mike Hooper, Committee Chair**

- 29 • Licensing boards
30 • Subscription services
31 • Promote HCAI data sharing
32 • Survey the public and industry members again on topics of interest.

33
34 **Discussion and input**

35
36 Mr. Tokas stated that the Hospital Building Safety Board has a channel of
37 communication for members and the public interested in the topics. There are various
38 channels to receive information then compile it in one place. Ms. Belair highlighted that
39 the intent of this topic was geared to hospital administrators who may not be aware of
40 what HCAI is doing and provide outreach to the community as well.

1 Ms. Belair asked who was in charge of disseminating information at HCAI. Mr. Tokas
2 answered that there is a public affairs officer and a listserver responsible for
3 disseminating communication. He advised that the information be put on a website for
4 parties who are not subscribed to the listserver. Ms. Belair suggested that information
5 be shared on social media portals like LinkedIn. Mr. Tokas added that the public affairs
6 office also sends information via Twitter.

7
8 **Information and Action item**

- 9 • None.

10
11 **6. Comments from the public/committee members on issues not on this agenda**

12 **Presenter:** Mike Hooper, Committee Chair

13 **Discussion and input**

14 Mr. Yu announced Joanne Jolls's retirement. Her retirement is dated April 1, 2022. Mr.
15 Yu, Mr. Tokas, and Ms. Belair thanked Ms. Jolls for her work with HBSB. Ms. Jolls
16 thanked the committee and stated that it was a privilege working with them.

17
18 Tentative schedules for future Education and Outreach Committee meetings are

- 19 • May 25, 2022
20 • August 17, 2022
21 • October 19, 2022


22
23 **7. Adjournment**

24 Mr. Hooper adjourned the meeting on February 23, 2022, at approximately 10:57 a.m.

Energy Conservation and Management Committee

Draft Meeting Report/Minutes

March 15, 2022



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2020 West El Camino Avenue, Suite 800
Sacramento, CA 95833
hcai.ca.gov



**HOSPITAL BUILDING SAFETY BOARD
Energy Conservation and Management Committee**

**Tuesday, March 15, 2022
9:00 a.m. – 3:00 p.m.**

**Teleconference Meeting Access:
HBSB Teams CAP Committee
Access Code: 871-188-559**

Committee Members

Roy Lopez, Chair
Scott Jackson, Vice-Chair
Louise Belair
David Bliss
Deepak Dandekar
Michael Foulkes
Bruce Rainey

Consulting Member

John Griffiths
David Lockhart
Eric Johnson

HCAI Staff

Chris Tokas, FDD Deputy Director
Richard Tannahill
Chris Dickey
Bill Gow
Carl Scheuerman
Jamie Schnick
Nanci Timmins
James Yi

HBSB Staff

Ken Yu, Executive Director
Joanne Jolls
Evet Torres

1 **1. Welcome and Introductions**

2 Roy Lopez, Committee Chair, called the meeting to order on March 15, 2022, at 9:00
3 a.m., and HCAI Executive Director, Ken Yu called roll.

4

1 **2. Roll Call and Meeting Advisories/Expectations**

2 Seven members of the Committee present constitute a quorum. There being ten
3 present, a quorum was established.

4
5 Mr. Yu read the public announcement regarding COVID-19, meeting rules and
6 procedures.

7
8 **3. Update: Microgrid Task Force**

9 **Presenter:** Jamie Schnick, HCAI

10
11 Mr. Schnick gave a brief on the agenda topics, a draft guide for microgrids for SNFs,
12 lessons learned from a hospital microgrid project, and upcoming code changes. The
13 members of the microgrid task force are:

- 14
15 • Richard Tannahill – Acting Deputy Division Chief
16 • Nanci Timmins – Fire life safety
17 • Jamie Schnick – Electrical Engineer
18 • Ali Sumer – Structural Engineer
19 • Diana Navarro – Architect

20
21 Mr. Schnick explained the mission of the microgrid:

- 22
23 • To get the word out that microgrids can now be implemented.
24 • To help with delivering microgrids as Emergency Power Sources for California
25 Healthcare Facilities that are code compliant.
26 • To help speed up and simplify the process of microgrid projects.

27
28 Mr. Schnick highlighted that healthcare microgrids save on operational costs. They are
29 resilient with 100% backup and sustainable with natural gas engines.

30
31 On the first topic, a Draft Guide for Microgrid SNFs, Mr. Schnick talked about the five
32 SNFs in design/construction:

- 33 • Broadway Villa Post-acute – Sonoma
34 • Cloverdale Healthcare Center – Cloverdale
35 • Park View Post Care Acute – Santa Rosa
36 • Northbrook Healthcare Center – Willits

- Ukiah Post Acute Rehabilitation – Ukiah

Broadway Villa Post Acute started construction in February and the others have been designed and approved with structural pending. Mr. Schnick stated that each has a microgrid that backs up the normal source. So in case of a power shut-off, the microgrid takes over and the facility continues to function as if there was no power outage. He talked about the 30 applicable code matrices listed on the White Paper. Mr. Schnick stated that the codes worked successfully for the project. Mr. Schnick disclosed that he plans to develop a document that has all codes listed, a microgrid implementation flow chart, and individual solutions.

On the second topic, Lessons Learned from the Hospital Microgrid Project, Mr. Schnick pointed out three lessons: 1) construction sequences to show two sources for emergency power, 2) code reference for showing the sizing of the main distribution board, and 3) use of both power purchase agreement and owner purchase point. Mr. Schnick reported a bridge project at Kaiser Ontario, which uses a microgrid as an emergency power source. The microgrid will act as alternate normal power and an essential power source in this project.

On the third topic, Code Update, Mr. Schnick stated that the 2023 NEC should have all the microgrid language. There will be a distinction between normal sources and essential sources. Mr. Schnick highlighted microgrids as Essential Power Sources (EPSs). Manufacturers will need to get special seismic certification for Distributed Energy Sources (DES). There is a challenge for on-site fuel storage requirements. Mr. Schnick said that memorandums should be developed and forwarded to the Centers for Medicare & Medicaid Services (CMS) to allow for other EPS sources as the code evolves.

Discussion and Input

Mr. Yu read questions from the chat box; the first was how energy shifting is accomplished with microgenerators. Mr. Schnick answered that the potential for utility bills is accomplished with a microgrid controller that utilizes another source to offset the utility usage, which allows the customer to avoid peak energy costs. An interested party weighed in, stating that a hospital or healthcare entity can be supplied by any number of generators and storage assets. Different sources have different operating characteristics, so microgrids allow load shifting. Mr. Schnick added that SNFs back up the entire facility by using microturbines parallel with normal systems to solve resiliency and cost savings. He assured that these are not replacing, but paralleling, emergency generator systems, so in case of a power outage, facilities continue operating normally. This is sustainable and saves money.

1 Mr. Griffiths thanked Mr. Schnick for the presentation and pointed out that he had
2 dropped a link to the White Paper in the chat box. He asked if code updates regarding
3 CMS accepting microgrid systems, have a timeline. Mr. Schnick answered that the
4 estimation for new code is in 2023, which will be implemented in 2025. From there,
5 HCAI can approach CMS with the new national code so that it can be incorporated in
6 the form of a memorandum. An interested party added that CMS would be able to
7 recognize the latest NFPA standards in the next year. Mr. Griffiths asked where that
8 information could be found. The interested party stated that the information could be
9 found on the National Academy of Medicine website.

10
11 Ms. Belair commended the presentation and asked Mr. Schnick for details on the
12 Ontario project regarding AMC requirements. Mr. Schnick explained that as per the
13 current code, anything that provides power to the emergency system is considered an
14 EPS, which must meet the special code requirements like special seismic certification
15 and listed transfer switch. So those two requirements were waived with the
16 understanding that it is supplemental and that the site had full generators that would
17 provide emergency power. Mr. Tannahill added that AMCs would no longer be required
18 with future CMS and code changes.

19
20 Mr. Bliss clarified that a microgrid could be defined as several on-site resources to
21 service the located load. So, a microgrid incorporates where the loads are, not the
22 resources. The value of a microgrid is to provide coverage when other sources are not
23 producing, store excess productivity on-site, and be a discretionary resource that can be
24 spooled up and backed down again in service of trying to shave off the highest levels of
25 demand from the utility.

26
27 Mr. Yu read a comment from Mr. Griffiths on the SNF projects, which use nonrenewable
28 energy resources, and how HCAI plans to meet the net-zero state goals in an
29 organization using greenhouse gas. Mr. Griffiths also linked some of the definitions of
30 acronyms related to microgrids.

31
32 Mr. Schnick stated that HCAI is helping with the permits for the microgrids to be built
33 hence helping with the process, but HCAI is not involved in the financial process. Ms.
34 Belair pointed out that the net-zero cost and greenhouse report can be a topic for future
35 presentations for the committee. She suggested that the committee further explore that
36 topic.

37
38 **Informational and Action item**

- 39 • None

1 **4. Presentation: “Microgrids on the move” virtual tour of the Kaiser**
2 **Permanente Richmond Medical Center Microgrid**

3 **Presenter:** John Griffiths, CONTECH-CA, and Ryan Bliss, Charge Bliss
4

5 Mr. Griffiths gave a summary on a renewable microgrid, stating that there is input into
6 the building that can come from the utility of DERs, and then they are inputs into the
7 microgrid's controller.
8

9 Mr. Bliss talked about the benefits of using microgrids in a facility, including financial
10 incentives, resiliency, and sustainability. He talked about the federal and state
11 incentives, energy and demand cost savings and diminishing exposure to volatile fossil
12 fuel prices in the financial incentives. Mr. Bliss stated that microgrids back up power
13 during outages. The microgrid controller can separate the system from the grid hence
14 having the islanding capability and redundancy beyond diesel backup. He also touched
15 on sustainability, where he talked about renewable microgrids helping in California's
16 decarbonization goals and corporate or non-profit goals.
17

18 Mr. Bliss stated that the Richmond Microgrid Project was CEC funded. The goals of the
19 project were:
20

- 21 • Identifying/overcoming existing barriers to renewable microgrid implementation at
22 healthcare facilities.
- 23 • Demonstrate the opportunity to reduce hospital energy consumption, peak load,
24 fossil fuel, and cost.
- 25 • Demonstrate the capability to support continuous facility operation by islanding
26 the microgrid during a utility power outage.

27
28 Mr. Griffiths gave an overview of the project, stating that the project had SunPower solar
29 panels 250kW, Samsung batteries 250 kW, Princeton power inverter, and Charge Bliss
30 microgrid controller on the project specification. The project took a year to design, one
31 year to construct, and six months for commissioning and testing. The project has run
32 24/7 since it was commissioned.
33

34 Mr. Griffiths gave an overview of the virtual tour of the Richmond facility. The microgrid
35 battery is located on the lowest level of the parking structure and the solar PV is on the
36 roof. The batteries are Samsung lithium-ion batteries and produce 250kW/1000kW. The
37 batteries are heavy; hence, there was a need for a room underground in the parking lot
38 to keep the batteries.
39

1 Mr. Bliss communicated that the inverter is located adjacent to the room where the
2 batteries are. The inverter provides simple inverter controls, preprogrammed demand
3 management, and charging and discharging for the battery using the solar panel. The
4 main switches and disconnects are also in the inverter room. Mr. Bliss disclosed that the
5 inverter is a Princeton Power system BiGi-250, which went out of business shortly after
6 installation. This has affected the maintenance and operations of the inverter. The
7 inverter is a dual DC port, so no additional inverters are required to connect to the solar
8 panel and connects directly.

9

10 Mr. Bliss talked about the microgrid supervisory controller. He revealed that the
11 supervisory controller provides all the oversight of the microgrid system:

12

- 13 • Optimizes savings/system performance by reducing overall site energy
14 consumption, site peak loads, charging the batteries overnight, and using that
15 energy during expensive times.
- 16 • Islanding capabilities mean continuing operating system throughout utility
17 outages.
- 18 • High fidelity data collection/analysis by utilizing phasor measurement units and
19 giving GPS timestamped data, allowing for high visibility into various electrical
20 issues or any issues with the system.

21

22 Mr. Griffiths gave a brief overview of the solar and inverter power performance of the
23 system. He indicated that the inverter uses low-cost off-peak energy to charge the
24 batteries, which can be used with solar energy during expensive times.

25

26 Mr. Griffiths talked about the lessons learned from the project: The first lesson was on
27 best practices for design and building. He advised using HCAI for developing and
28 designing team. He said that early engagement with stakeholders like utility and
29 facilities, made the project very successful. On the technical aspect, the point of
30 interconnection and operational intent enabled the project to demonstrate islanding
31 since it was both manual and automated.

32

33 The second lesson was on new construction versus retrofit. Mr. Bliss indicated that for
34 new construction there is flexibility but are limited on locations for equipment for
35 retrofits. Like for this project, batteries require a new room, and there are site limitations
36 and project costs.

37

38 The third lesson was on planning. Mr. Bliss stated that in general, planning hospital
39 shutdowns turned out to be extensive. The utility interconnection process should begin
40 as early as possible to avert issues, and future planning involves sizing electrical
41 equipment for future upgrades.

1 **Discussion and Input**

2
3 Dr. Bliss commented that the project was an innovative use of space. Dr. Bliss
4 explained the PCC power chart, stating the difference between the red and purple color
5 is the action of the controller to derive battery power export through the inverter and
6 decrease the load. The anticipated savings in this case, is 163 kW. This information can
7 be used in future hospital designs concerning energy systems, estimate carbon dioxide
8 aversion, and energy usage efficiency.

9
10 Mr. Rainey asked what the limiting factor is in sizing the array. Mr. Griffiths answered
11 that the limiting factor was the configuration of the electrical carriage, which has to pass
12 through the top of the main electrical board. Dr. Bliss added that there is a limitation of
13 existing infrastructure injected power and what utility will allow concerning power
14 outputs for interconnection purposes.

15
16 Mr. Jackson asking if that was the most cost-effective way to install cables through an
17 exterior wall. Dr. Bliss also stated that the most cost-effective method for installing the
18 cables would be a direct penetration through the wall with a specified seal around it.

19
20 Mr. Schnick asked Mr. Griffiths to elaborate on the commissioning aspect and how it
21 was included in the contract documents. Mr. Bliss said that the commissioning was
22 charged on behalf of Charge Bliss in the hospital's service.

23
24 Ms. Belair asked if there has ever been an experience like the inverter supplier going
25 out of business and how they are handling the situation. Mr. Bliss answered that the
26 inverter is stable, and there is a lot of technology related to the batteries. Ms. Belair
27 asked about the vetting process in a case where the owner's company shuts down. Mr.
28 Bliss stated that in that case, they look for a company with a track record that has a
29 similar installation. Dr. Bliss pointed out a resource called the Smart Inverter Working
30 Group, which has developed standards for inverter performance, so current invertors
31 have to meet their standards. This helps in the standardization of inverter technology.
32 An interested party recommended that when selecting invertors, to look into companies
33 that adhere to the recommended communication standards if there is a change in the
34 microgrid.

35
36 Mr. Griffiths provided links to the reports and the projects concerning microgrids.

37
38 **Informational and Action item**

- 39 • None.

1 **5. Comments from the public/committee members on issues not on this**
2 **agenda**

3 **Presenter:** Roy Lopez, Committee Chair

4
5 **Discussion and input**

6
7 Mr. Jackson referred to follow-up on indoor air quality and HCAI applications in the next
8 ECMC meeting scheduled in June 2022.

9
10 Mr. Griffiths thanked the committee for hosting the meeting, stating that they had
11 learned a lot.

12
13 **6. Adjournment**

14 Mr. Lopez adjourned the meeting on March 15, 2022, at approximately 11:33 a.m.

Board Rosters

2022

- MEETING DATES
- BOARD MEMBERSHIP
- CONSULTING MEMBERS
- COMMITTEE LIST

•

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2020 West El Camino Avenue, Suite 800
 Sacramento, CA 95833
 hcai.ca.gov



April 14, 2022

To: Members, Hospital Building Safety Board
 From: Ken Yu, Executive Director
 Subject: Upcoming Meeting Dates

Please make note of the following meeting dates. Agendas will be sent out separately.

DATE	MEETING	LOCATION
January 13, 2022 9 am – 3 pm	Structural and Nonstructural Regulations Committee	GoToMeeting: https://www.gotomeet.me/FDDWebinar/hbsb-snsr-committee-meeting-january-2022 Or call: +1 (872) 240-3212 Access Code: 833-722-805
January 26, 2022 9 am – 3 pm	Board Procedures Committee (Ad hoc)	GoToMeeting: https://www.gotomeet.me/FDDWebinar/hbsb-bp-committee-meeting-january-2022 Or call: +1 (408) 650-3123 Access Code: 834-687-925
January 27, 2022 9 am – 3 pm	Instrumentation Committee	GoToMeeting: https://www.gotomeet.me/FDDWebinar/hbsb-instrumentation-committee-mtg-january-2022 Or call: +1 (408) 650-3123 Access Code: 191-634-925

DATE	MEETING	LOCATION
February 10, 2022 9 am – 3 pm	Codes and Processes Committee	Microsoft Teams: Click here to join meeting Or call: +1 (916) 535-0978 Access Code: 158 186 172#
February 23, 2022 9 am – 3 pm	Education and Outreach Committee	Microsoft Teams: Click here to join meeting Or call: +1 (916) 535-0978 Access Code: 509 393 906#
March 15, 2022 9 am – 3 pm	Energy Conservation and Management Committee	Microsoft Teams: Click here to join meeting Or call: +1 (916) 535-0978 Phone Conf ID: 509 393 906#
March 23, 2022	Technology and Research Committee	CANCELLED
April 15, 2022 10 am – 4 pm	Instrumentation Committee	Microsoft Teams: Click here to join the meeting Or call: +1 916-535-0978 Phone Conf ID: 483 058 017# <u>In Person:</u> HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071 HCAI Sacramento 2020 West El Camino Ave, Ste. 930 Sacramento, CA 95833

DATE	MEETING	LOCATION
<p>April 28, 2022 10 am – 4 pm</p>	<p>Full Board</p>	<p>Microsoft Teams: Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 797 666 93#</p> <hr/> <p><u>In Person:</u> HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071</p> <p>HCAI Sacramento 2020 West El Camino Ave, Ste. 930 Sacramento, CA 95833</p>
<p>May 12, 2022 10 am – 4 pm</p>	<p>Codes and Processes Committee</p>	<p>Microsoft Teams: Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 664 167 70#</p> <hr/> <p><u>In Person:</u> HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071</p> <p>HCAI Sacramento 2020 West El Camino Ave, Ste. 930 Sacramento, CA 95833</p>

DATE	MEETING	LOCATION
<p>May 25, 2022 10 am – 4 pm</p>	<p>Education and Outreach Committee</p>	<p><u>Microsoft Teams:</u> Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 127 072 398#</p> <hr/> <p><u>In Person:</u> HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071</p> <p>HCAI Sacramento 2020 West El Camino Ave, Ste. 930 Sacramento, CA 95833</p>
<p>May 27, 2022 10 am – 4 pm</p>	<p>Instrumentation Committee</p>	<p><u>Microsoft Teams:</u> Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 695 549 385#</p> <hr/> <p><u>In Person:</u> HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071</p> <p>HCAI Sacramento 2020 West El Camino Ave, Ste. 930 Sacramento, CA 95833</p>

DATE	MEETING	LOCATION
<p>June 14, 2022 10 am – 4 pm</p>	<p>Energy Conservation and Management Committee</p>	<p><u>Microsoft Teams:</u> Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 840 158 903#</p> <hr/> <p><u>In Person:</u> HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071</p> <p>HCAI Sacramento 2020 West El Camino Ave, Ste. 930 Sacramento, CA 95833</p>
<p>June 22, 2022 10 am – 4 pm</p>	<p>Structural and Nonstructural Regulations Committee</p>	<p><u>Microsoft Teams:</u> Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 202 080 82#</p> <hr/> <p><u>In Person:</u> HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071</p> <p>HCAI Sacramento 2020 West El Camino Ave, Ste. 930 Sacramento, CA 95833</p>

DATE	MEETING	LOCATION
<p>July 14, 2022 10 am – 4 pm</p>	<p>Codes and Processes Committee</p>	<p><u>Microsoft Teams:</u> Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 466 558 107#</p> <hr/> <p><u>In Person:</u> HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071</p> <p>HCAI Sacramento 2020 West El Camino Ave, Ste. 930 Sacramento, CA 95833</p>
<p>July 27, 2022 10 am – 4 pm</p>	<p>Technology and Research Committee</p>	<p><u>Microsoft Teams:</u> Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 677 110 790#</p> <hr/> <p><u>In Person:</u> HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071</p> <p>HCAI Sacramento 2020 West El Camino Ave, Ste. 930 Sacramento, CA 95833</p>

DATE	MEETING	LOCATION
<p>August 11, 2022 10 am – 4 pm</p>	<p>Full Board</p>	<p><u>Microsoft Teams:</u> Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 397 546 304#</p> <hr/> <p><u>In Person:</u> HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071</p> <p>HCAI Sacramento 2020 West El Camino Ave, Ste. 900 Sacramento, CA 95833</p>
<p>August 17, 2022 10 am – 4 pm</p>	<p>Education and Outreach Committee</p>	<p><u>Microsoft Teams:</u> Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 589 645 35#</p> <hr/> <p><u>In Person:</u> HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071</p> <p>HCAI Sacramento 2020 West El Camino Ave, Ste. 930 Sacramento, CA 95833</p>

DATE	MEETING	LOCATION
<p>September 13, 2022 10 am – 4 pm</p>	<p>Energy Conservation and Management Committee</p>	<p><u>Microsoft Teams:</u> Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 411 125 179#</p> <hr/> <p><u>In Person:</u> HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071</p> <p>HCAI Sacramento 2020 West El Camino Ave, Ste. 930 Sacramento, CA 95833</p>
<p>September 22, 2022 10 am – 4 pm</p>	<p>Structural and Nonstructural Regulations Committee</p>	<p><u>Microsoft Teams:</u> Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 813 956 637#</p> <hr/> <p><u>In Person:</u> HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071</p> <p>HCAI Sacramento 2020 West El Camino Ave, Ste. 930 Sacramento, CA 95833</p>

DATE	MEETING	LOCATION
<p>October 13, 2022 10 am – 4 pm</p>	<p>Codes and Processes Committee</p>	<p><u>Microsoft Teams:</u> Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 755 694 74#</p> <hr/> <p><u>In Person:</u> HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071</p> <p>HCAI Sacramento 2020 West El Camino Ave, Ste. 930 Sacramento, CA 95833</p>
<p>October 19, 2022 10 am – 4 pm</p>	<p>Education and Outreach Committee</p>	<p><u>Microsoft Teams:</u> Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 375 972 865#</p> <hr/> <p><u>In Person:</u> HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071</p> <p>HCAI Sacramento 2020 West El Camino Ave, Ste. 930 Sacramento, CA 95833</p>

DATE	MEETING	LOCATION
<p>October 27, 2022 10 am – 4 pm</p>	<p>Instrumentation Committee</p>	<p>Microsoft Teams: Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 165 349 325#</p> <hr/> <p>In Person: HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071</p> <p>HCAI Sacramento 2020 West El Camino Ave, Ste. 930 Sacramento, CA 95833</p>
<p>November 1, 2022 10 am – 4 pm</p>	<p>Technology and Research Committee</p>	<p>Microsoft Teams: Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 253 486 424#</p> <hr/> <p>In Person: HCAI Los Angeles 355 S. Grand Ave, Ste. 2000 Los Angeles, California 90071</p> <p>HCAI Sacramento 2020 West El Camino Ave, Ste. 930 Sacramento, CA 95833</p>
<p>December 7, 2022 10 am – 4 pm</p>	<p>Two-day Full Board (Day 1)</p>	<p>Microsoft Teams: Click here to join the meeting</p> <p>Or call: +1 916-535-0978</p> <p>Phone Conf ID: 865 112 831#</p> <hr/> <p>Sacramento: HCAI 2020 W. El Camino Ave. Conference Center 900 A/B Sacramento, CA 95833</p>

DATE	MEETING	LOCATION
December 8, 2022 9 am – 12 pm	Two-day Full Board (Day 2)	Microsoft Teams: Click here to join the meeting Or call: +1 916-535-0978 Phone Conf ID: 865 112 831# <hr/> Sacramento: HCAI 2020 W. El Camino Ave. Conference Center 900 A/B Sacramento, CA 95833

NOTE: Individuals with disabilities may request an accommodation or modification to observe or participate in the meetings by contacting Evett Torres at (916) 440-8453, evett.torres@hcai.ca.gov or by sending a letter to 2020 West El Camino Avenue, Suite 800, Sacramento, CA 95833. Providing your request at least five (5) business days before the meeting will help ensure availability of the requested accommodation

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HOSPITAL BUILDING SAFETY BOARD MEMBERSHIP

Appointed Members (Appointed by HCAI Director)

MEMBERSHIP CATEGORIES	NAMES	APPNTMNT DATE	TERM EXP DATE	TERM OF SERVICE
2 structural engineers	James O. Malley Farzad Naeim	8/2020 8/2021	8/2024 8/2025	1 st term 1 st term
2 architects	Deepak Dandekar Scott Mackey	5/2015 8/2021	5/2023 8/2025	2 nd term 1 st term
1 engineering geologist	Bruce Clark	12/2019	12/2023	1 st term
1 geotechnical engineer	Marshall Lew	5/2015	5/2023	2 nd term
1 mechanical engineer	Louise Belair	6/2017	6/2021	1 st term
1 electrical engineer	Roy L. Lopez	6/2018	6/2022	1 st term
1 hospital facilities manager	Bruce A. Rainey	12/2018	12/2022	1st term
1 local building official	David Khorram	6/2019	6/2023	1 st term
1 general contractor	Pete Kreuser	7/2016	7/2024	2 nd term
1 fire/life safety representative	Scott L. Jackson	6/2018	6/2022	1 st term
1 hospital inspector of record	Mike Hooper	5/2015	5/2023	2 nd term
3 public members	Michele Lampshire David Bliss D. Michael Foulkes	12/2019 5/2016 6/2017	12/2023 5/2024 6/2021	1 st term 2 nd term 1 st term
TOTAL	16			

Ex-Officio Members

HCAI, Director	Elizabeth Landsberg	No Term of Office Stipulated
State Fire Marshal	Mike Richwine	
State Geologist	Steve Bohlen (Acting) Tim McCrink/Jennifer Thornburg (Delegates)	
Building Standards Commission, Executive Director	Mia Marvelli	
Department of Public Health, Director	Tomás J. Aragón, M.D., Dr. P.H. Nathaniel Gilmore (Delegate)	
Facilities Development (HCAI), Deputy Director	Chris Tokas	
TOTAL	6	

Director Appointed Ex-Officio Members (Serve at pleasure of Director)

2 members	Bert Hurlbut Michael O'Connor	No Term of Office Stipulated
TOTAL	2	

TOTAL HBSB Members	24	
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2022 CONSULTING COMMITTEE MEMBERS

<p>Benjamin Broder, MD, PhD, CPPS KAISER PERMANENTE/SO. CALIFORNIA 393 E. Walnut St. 3rd Floor NW Pasadena, CA 91188-8034 (626) 405-2501 Benjamin.I.Broder@kp.org</p> <ul style="list-style-type: none"> • Technology and Research Committee 	<p>Gary Dunger Executive Director, Facilities Design and Construction Cedars-Sinai Health System 6500 Wilshire Blvd, 20th Floor Los Angeles, CA 90048 (323) 866-6537 Gary.Dunger@cshs.org</p> <ul style="list-style-type: none"> • Codes and Processes Committee • Education and Outreach Committee • Technology and Research Committee
<p>John Griffiths PE LEED AP CONTECH-CA 366 Forrest Ave. Fairfax, CA 94930 (415) 652-4833 JGriffiths@contech-ca.com</p> <ul style="list-style-type: none"> • Energy Conservation and Management Committee 	<p>Hamid Haddadi California Geological Survey 801 K Street, MS 13-35 Sacramento, CA 95814 (916) 322-9304 FAX: (916) 323-7778 Hamid.Haddadi@consrvation.ca.gov</p> <ul style="list-style-type: none"> • Instrumentation Committee
<p>Mark Hershberg, SE KPF Consulting Engineers 6080 Center Drive, Suite 300 Los Angeles, California 90045 (310) 665-1536 MHershberg@kpff-la.com</p> <ul style="list-style-type: none"> • Codes and Processes Committee 	<p>Moh Huang California Geological Survey Moh.Huang@gmail.com</p> <ul style="list-style-type: none"> • Instrumentation Committee
<p>Eric C. Johnson, PE President ECOM Engineering, Inc. 1796 Tribute Road, Suite 100 Sacramento, CA 95815 (916) 641-5600 ECJ@ecomeng.com</p> <ul style="list-style-type: none"> • Energy Conservation and Management Committee • Technology and Research Committee 	<p>David Lockhart CHFM, CEM National Facilities Services Kaiser Permanente 1600 Eureka Road Roseville, CA 95661 (916) 784-5280; tie-line (8-514) Dave.Lockhart@kp.org</p> <ul style="list-style-type: none"> • Energy Conservation and Management Committee
<p>Michelle Malone, MPA Chief Executive Officer/Owner TruNrth, Inc. (831)809-9596 (cell) Michellejm284@gmail.com</p> <ul style="list-style-type: none"> • Structural and Nonstructural Regulations Committee 	<p>Tony Shakal California Geological Survey Tshakal@pacbell.net</p> <ul style="list-style-type: none"> • Instrumentation Committee

2022 CONSULTING COMMITTEE MEMBERS

<p>Bill Zellmer, AIA, CASp Program Manager—Physical Access Compliance and Regulatory Affairs Sutter Health (916) 216-3491 (cell) Zellmeb@sutterhealth.org</p> <ul style="list-style-type: none">• Education and Outreach Committee	
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**HOSPITAL BUILDING SAFETY BOARD
2022 COMMITTEES**

BOARD PROCEDURES COMMITTEE (AD HOC)

<p><u>Committee Members:</u> Michael Foulkes, Chair Pete Kreuser, Vice-Chair Louise Belair Bruce Rainey</p>	<p><u>HCAI Representatives:</u> Joe LaBrie Carl Scheuerman <u>Meeting Dates:</u> January 26</p>
<p><u>Focus/Goals:</u></p> <ul style="list-style-type: none"> • Meet as needed for: <ul style="list-style-type: none"> ○ Policies and Procedures updates ○ Nominating committee, training/onboarding members 	

CODES AND PROCESSES COMMITTEE

<p><u>Committee Members:</u> Michael O'Connor, Chair Roy Lopez, Vice-Chair Louise Belair Mike Hooper Scott Jackson Pete Kreuser Michele Lampshire Scott Mackey Jim Malley Farzad Naeim</p>	<p><u>HCAI Representatives:</u> Brett Beekman Mickey Fong Bill Gow Roy Lobo Diana Navarro Ryan Nelson Diana Scaturro Carl Scheuerman Nanci Timmins</p>
<p><u>Consulting Members:</u> John Donelan Gary Dunger Mark Hershberg</p>	<p><u>Meeting Dates:</u> February 10 May 12 July 14 October 13</p>
<p><u>Focus/Goals:</u></p> <ul style="list-style-type: none"> • Update CANs and PINs to code (ongoing) • Mental health jurisdiction flowchart and guide • TIO Program: virtual/offsite inspections • Develop standards for a behavioral health observation unit • Evaluate and articulate detailed building standards for SNFs • Emergency Design Guide • Title 24, Part 3, 4, and 5 <ul style="list-style-type: none"> ○ NPC-5 Water, Sewer storage requirements ○ Identify code modifications to support Part 6 implementation of energy savings measures ○ Revisit MEP systems Inspections requirements ○ Revisit Fire Protection drawing stamping requirements per MEOR ○ Ventilation Table Standard Format 	

EDUCATION AND OUTREACH COMMITTEE

Committee Members:

Mike Hooper, Chair
Pete Kreuser, Vice-Chair
Louise Belair
Deepak Dandekar
Bert Hurlbut
David Khorram
Scott Mackey
Bruce Rainey

HCAI Representatives:

Hussain Bhatia
Monica Colosi
Mickey Fong
Bill Gow
Joe LaBrie
Cesar Ponce
Diana Scaturro
Nanci Timmins

Consulting Members:

John Donelan
Gary Dunger
Bill Zellmer

Meeting Dates:

February 23
May 25
August 17
October 19

Focus/Goals:

- Webinars:
 - Offsite Fabrication/Pre-assembled components
 - PINs and CANs related to Fire Life Safety, Pre-approvals, medicine dispensing units and emergency projects
 - Emergency Design Guide
 - Develop a regular curriculum and predictable calendar for webinars
- Engage volunteers based on webinar list presented at last committee meetings:
 - California Administrative Code – 1Q2022
 - PIN 50 – 2Q2022
 - Emergency Design Guide – 3Q2022
- Prepare for 2023 Seminar
- Define outreach process
 - Contact licensing boards to get the word out about Ed Opp/listserv subscription and promote HCAI data sharing

ENERGY CONSERVATION AND MANAGEMENT COMMITTEE

<u>Committee Members:</u> Scott Jackson, Chair VACANT, Vice-Chair Louise Belair David Bliss Deepak Dandekar Michael Foulkes David Khorram Michele Lampshire Roy Lopez Bruce Rainey	<u>HCAI Representatives:</u> Bill Gow Ryan Nelson Diana Scaturro Jamie Schnick Carl Scheuerman Nanci Timmins
<u>Consulting Members:</u> John Griffiths Eric Johnson David Lockhart	<u>Meeting Dates:</u> March 15 June 14 September 13
<u>Focus/Goals:</u> <ul style="list-style-type: none">• Work with CEC to develop mutually agreeable standards for hospital building energy efficiency in 2025 code cycle• Identify HCAI research projects for energy conservation, reduction of carbon footprint, and cost savings while maintaining health and safety• Conclusion: Develop recommendations for the next code cycle modification for HCAI to address microgrids, distributed energy resources, and interconnection to normal power versus emergency power. Identify how to overcome CMS for implementation. Microgrid demonstration project	

INSTRUMENTATION COMMITTEE

<u>Committee Members:</u> Marshall Lew, Chair Bruce Clark, Vice-Chair Jim Malley Farzad Naeim Jennifer Thornburg	<u>HCAI Representatives:</u> Hussain Bhatia Erol Kalkan Roy Lobo Ali Sumer
<u>Consulting Members:</u> Hamid Haddadi Moh Huang Tony Shakal	<u>Meeting Dates:</u> January 27 April 15 May 27 October 27
<u>Focus/Goals:</u> <ul style="list-style-type: none">• Continue working with HCAI staff on scheduled instrumentation installations• Develop white paper for monitoring earthquake recovery• Consider other systems and monitoring devices	

STRUCTURAL AND NON-STRUCTURAL REGULATIONS COMMITTEE

<u>Committee Members:</u> Jim Malley, Chair Farzad Naeim, Vice-Chair Bruce Clark Mike Hooper David Khorram Marshall Lew Michael O'Connor Jennifer Thornburg	<u>HCAI Representatives:</u> Joe LaBrie Roy Lobo David Neou Carl Scheuerman Jamie Schnick Ali Sumer
<u>Consulting Member:</u> Mark Hershberg Michelle Malone	<u>Meeting Dates:</u> January 13 June 22 September 22
Focus/Goals: <ul style="list-style-type: none">• Support HCAI with review of code changes (ongoing)• Support HCAI with review of new/revised PINs, CANs, and OPDs (ongoing)• Implementation of SPC-4D and NPC-4D• Issues regarding repurposing hospital buildings (ongoing)• Develop pre-approved details• Revisit NPC-5 requirements (in progress)	

TECHNOLOGY AND RESEARCH COMMITTEE

<u>Committee Members:</u> Bruce Rainey, Chair Michael Foulkes, Vice-Chair David Bliss Deepak Dandekar Bert Hurlbut Roy Lopez Scott Mackey Michael O'Connor	<u>HCAI Representatives:</u> Hussain Bhatia Joe LaBrie Diana Scaturro Carl Scheuerman Jamie Schnick Nanci Timmins
<u>Consulting Member:</u> Benjamin Broder Gary Dunger Eric Johnson	<u>Meeting Dates:</u> March 23- CANCELLED July 27 November 1
Focus/Goals: <ul style="list-style-type: none">• Explore subjects of telemedicine and robotics• Discuss the effect of technologies on healthcare equity• Monitor CDPH electronic health records redundancy issues in the event of power failure and watch for potential effects to code• Emerging tools<ul style="list-style-type: none">○ Technologies that help reduce the carbon footprint for healthcare facilities and implementation relative to code implementation of emerging tools relative to the code.	

FULL BOARD MEETING DATES

April 28 – Sacramento and Los Angeles
August 11 – Sacramento and Los Angeles
December 7 and 8 – Sacramento

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