2. **Presentation: Code Revision Update for 2022**
   Facilitator: Richard Tannahill, OSHPD (or designee)

   - Discussion and public input

LOOKING AHEAD TO 2022

2022

Hospital Building Safety Board
Administrative Processes, Code Changes
And Standard Details Committee Meeting
August 20, 2020

2022 PROPOSED ITEMS

- Part 1 – Administrative Code
  - Modified turnaround times for client back check submittals per project size, scope and cost
  - Fee modifications for small projects
  - IOR notifications
  - Construction Start definition
  - Substantial Compliance definition
  - Clarify what “construction costs” include
  - Rewrite Collaborative Review
  - NPC-5 Update

2022 PROPOSED ITEMS

- ❑ Part 2 – Building Code Volume 1
  - ❑ Patient visibility in imaging rooms (use of cameras?)
  - ❑ Clearances between gurneys in multi-bed service areas
  - ❑ Interventional Imaging clarifications (type of environment)
  - ❑ Proximity requirements for Cath Lab and EP to OR suite
  - ❑ Occupational Therapy requirements to align with T22
  - ❑ Alignment of outpatient services requirements between 1224.39 and 1226
  - ❑ Soft doors in Psych toilets

- ❑ Part 2 – Building Code Volume 2
  - ❑ Nothing at this time

2022 PROPOSED ITEMS

- Part 3 – Electrical Code
  - Nurse call in clinics
  - Electrical receptacles in interventional rooms
  - High-amperage electrical rooms embedded within patient care environments
  - Electronic Health Records impacts to building standards
  - Manual back-up of systems in the event that automated controls fail
  - POE lighting

2022 PROPOSED ITEMS

- ❑ Part 4 – Mechanical Code
  - ❑ Align ASHRE 170 diffuser types
  - ❑ Clarify outdoor air requirements for air handlers serving medical and non-medical spaces
  - ❑ Fuel requirements for SNFs
  - ❑ Generator exhaust locations

- ❑ Part 5 – Plumbing Code
  - ❑ Electrical number of bathtubs/showers in nursing unit with plumbing code
  - ❑ Anti-ligature allowances to handwashing fixtures
  - ❑ Adjust emergency water for more than just bed count
  - ❑ Add special precautions for waste/drain over compounding suite
  - ❑ Consider allowing wells and private sewers to meet water storage requirements

2022 PROPOSED ITEMS

❑ Part 6 – Energy Code - informational

- **Refrigeration System Opportunities:** Design and Control Requirements for Transcritical CO2 Systems – Health facilities will be required to meet these new requirements.
- **Refrigeration System Opportunities:** Automatic Door Closers – These would apply to health facility walk-in coolers and freezers as well. https://title24stakeholders.com/measures/cycle-2022/refrigeration-system-opportunities/
- **Air Distribution:** Fan Power Budget – This proposal would require health facilities to meet fan power budgets, which they are currently exempt from.
- **Air Distribution:** Fan Energy Index – This would be a new requirement which would also apply to health facilities. https://title24stakeholders.com/measures/cycle-2022/air-distribution/
- **CASE Reports:**
  - Computer Room Efficiency
  - Compressed Air
  - Air Distribution
  - HVAC Controls
  - Reduce Infiltration

2022 PROPOSED ITEMS

- Part 10 – Existing Building Code
  - Nothing being proposed at this time

- Part 11 – Green Building Code
  - Items being reviewed as this did not get into the 2019 Intervening Code revisions. Carry over to 2022

2019 CALIFORNIA GREEN BUILDING CODE – BLUE SUPPLEMENT

Anticipated Amendments to the 2019 *CALGreen* Code

- Chapter 1 – OSHPD 1, 1R, 2, 3, 4 & 5 – Add facility types to Administrative Chapter
- Chapter 3
  - 301.5 Mandatory (MWELO) – Clarify Local Enforcement of parts of Chapter 5
  - 305.1 – OSHPD Energy Tier 1 & Tier 2 – Update existing voluntary tiers
- Chapter 5
  - *Division 1* – SWPPs, BMPs, Bicycles, Clean Air/EV parking, BUG ratings – [Locals]
  - *Division 2*- Energy – Comply w/ Part 6 – California Energy Code [OSHPD]
  - *Division 3* – Water Efficiency – MWELO only [Locals], no indoor low-flow fixtures
  - *Division 4* – Material conservation, constr. waste reduction, recycling [Locals]
  - *Division 5* – Pollutant control [OSHPD]
    - Adhesives, caulks & sealants, paints, coatings & carpet VOC Levels
    - Composite wood – limited formaldehyde, resilient flooring VOC levels

PART 11 - CALIFORNIA GREEN BLDG STDS

APPENDIX A6.1 Voluntary Measures for Health Facilities [OSHPD 1, 1R, 2, 3, 4 & 5]

Division 1 – Site Work

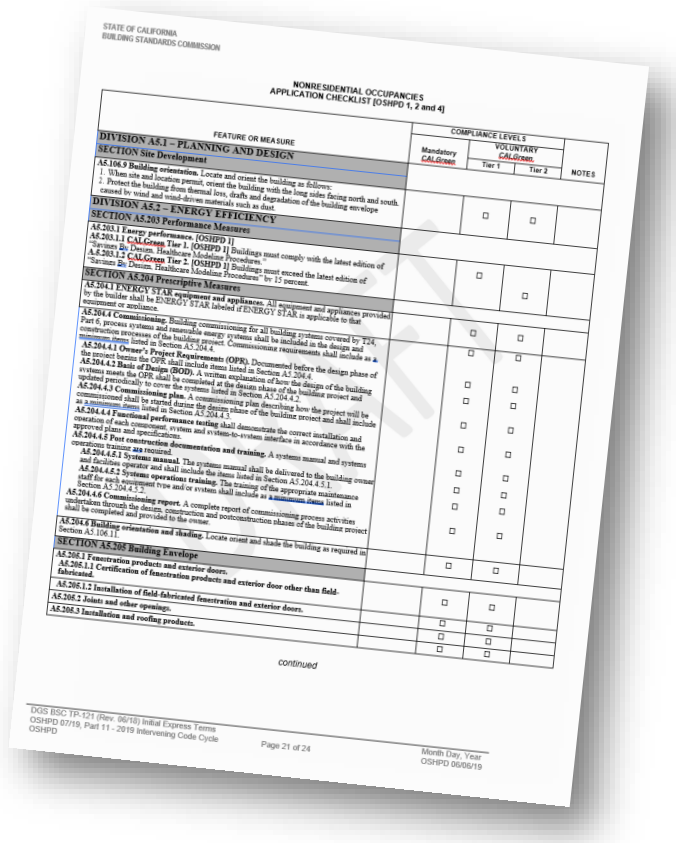
- Mandatory Measures from Chapter 5 – [Locals]
- 10% Fuel efficient parking (Tier 1), 12% (Tier 2) – [Locals]
- 8% EV charging stations (Tier 1), 10% (Tier 2) – [Locals]
- One elective measure (Tier 1), two electives (Tier 2) – [Locals]

Division 2- Energy – Comply w/ Part 6 – California Energy Code [OSHPD]

- Savings by Design, Healthcare Baseline Procedures (Tier 1) [OSHPD]
- Savings by Design + 15% (Tier 2) [OSHPD]

Division 3 – Water Efficiency & Conservation

- Mandatory Measures from Chapter 5 – [Locals]
- One elective measure (Tier 1), two electives (Tier 2) – [Locals]


STATE OF CALIFORNIA
BUILDING STANDARDS COMMISSION

NONRESIDENTIAL OCCUPANCIES
APPLICATION CHECKLIST [OSHPD 1, 2 and 4]

FEATURE OR MEASURE	COMPLIANCE LEVELS: Mandatory CALGreen	VOLUNTARY CALGreen: Tier 1	VOLUNTARY CALGreen: Tier 2	NOTES
DIVISION A5.1 – PLANNING AND DESIGN				
SECTION Site Development				
A5.106.9 Building orientation. Locate and orient the building as follows: 1. When site and location permit, orient the building with the long sides facing north and south 2. Protect the building from thermal loss, drafts and degradation of the building envelope caused by wind and wind-driven materials such as dust.				
DIVISION A5.2 – ENERGY EFFICIENCY				
SECTION A5.203 Performance Measures				
A5.203.1 Energy performance. [OSHPD 1] "Services by Design, Healthcare Modeling Procedures." **A5.203.1.1 CALGreen Tier 1. [OSHPD 1]** Buildings must comply with the latest edition of **A5.203.1.2 CALGreen Tier 2. [OSHPD 1]** Buildings must exceed the latest edition of "Services by Design, Healthcare Modeling Procedures" by 15 percent				
SECTION A5.204 Prescriptive Measures				
A5.204.1 ENERGY STAR equipment and appliances. All equipment and appliances provided by the builder shall be ENERGY STAR labeled if ENERGY STAR is applicable to that equipment or appliance.				
A5.204.4 Commissioning. Building commissioning for all building systems covered by T24, Part 6, process systems and renewable energy systems shall be included in the design and construction processes of the building project. Commissioning requirements shall include as a minimum items listed in Section A5.204.4. **A5.204.4.1 Owner's Project Requirements (OPR).** Documented before the design phase of the project begins the OPR shall include items listed in Section A5.204.4. **A5.204.4.2 Basis of Design (BOD).** A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project and updated periodically to cover the systems listed in Section A5.204.4.3. **A5.204.4.3 Commissioning plan.** A commissioning plan describing how the project will be commissioned shall be started during the design phase of the building project and shall include as a minimum items listed in Section A5.204.4.3. **A5.204.4.4 Functional performance testing** shall demonstrate the correct installation and operation of each component, system and system-to-system interface in accordance with the approved plans and specifications. **A5.204.4.5 Post construction documentation and training.** A systems manual and systems operations training are required. **A5.204.4.5.1 Systems manual.** The systems manual shall be delivered to the building owner and facilities operator and shall include the items listed in Section A5.204.4.5.1. **A5.204.4.5.2 Systems operations training.** The training of the appropriate maintenance staff for each equipment type and/or system shall include as a minimum items listed in Section A5.204.4.5.2. **A5.204.4.6 Commissioning report.** A complete report of commissioning process activities undertaken through the design, construction and postconstruction phases of the building project shall be completed and provided to the owner.				
A5.204.6 Building orientation and shading. Locate orient and shade the building as required in Section A5.106.11.				
SECTION A5.205 Building Envelope				
A5.205.1 Fenestration products and exterior doors. **A5.205.1.1 Certification of fenestration products and exterior door other than field-fabricated.**				
A5.205.1.2 Installation of field-fabricated fenestration and exterior doors.				
A5.205.2 Joints and other openings.				
A5.205.3 Installation and roofing products.				

continued

DGS BSC TP-121 (Rev. 06/18) Initial Express Terms
OSHPD 07/19, Part 11 - 2019 Intervening Code Cycle
OSHPD

Page 21 of 24

Month Day, Year
OSHPD 06/06/19

PART 11 - CALIFORNIA GREEN BLDG STDS

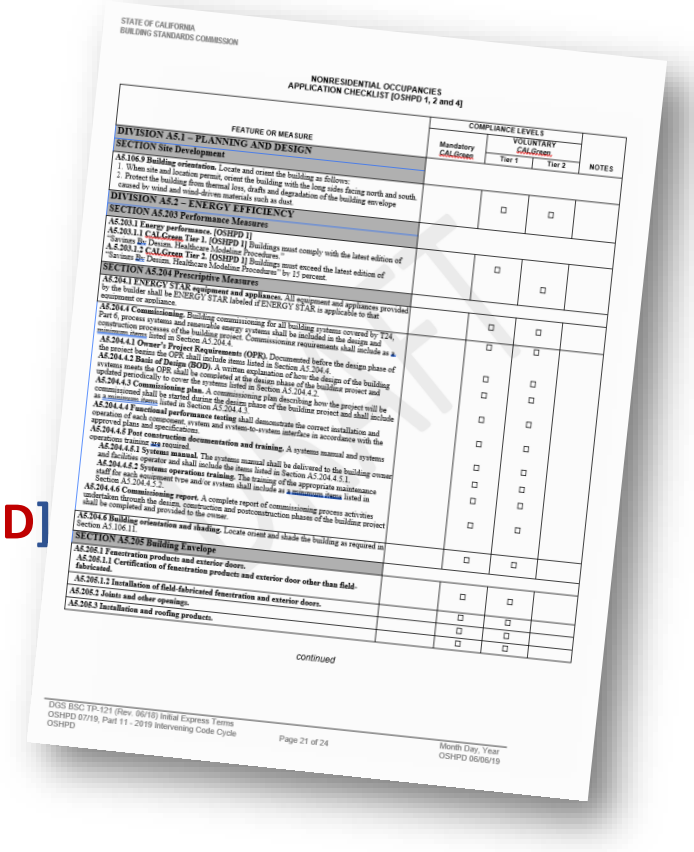
Division 4 – Material Conservation

- Mandatory Measures from Chapter 5 – [Locals]
- Recycled content
- Waste reduction/diversion – 65% (Tier 1), 80% (Tier 2) – [Locals]
- One elective measure (Tier 1), three electives (Tier 2) – [Locals]

Division 5 – Environmental Quality

- Mandatory Measures from Chapter 5 – [OSHPD]
- Composite wood – no formaldehyde (Tiers 1 & 2) – [OSHPD]
- Resilient flooring 90% certified VOC limits (Tier 1), 100% (Tier 2) – [OSHPD]
- Thermal insulation formaldehyde limits (Tier 1), none (Tier 2) – [OSHPD]
- One elective measure (Tier 1), two electives (Tier 2) – [OSHPD]

Commissioning via TIO & Verified Field Reports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NONRESIDENTIAL OCCUPANCIES
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FEATURE OR MEASURE	COMPLIANCE LEVELS: Mandatory CALGreen	VOLUNTARY CALGreen Tier 1	VOLUNTARY CALGreen Tier 2	NOTES
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SECTION Site Development				
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DIVISION A5.2 – ENERGY EFFICIENCY				
SECTION A5.203 Performance Measures				
A5.203.1 Energy performance. [OSHPD 1] A5.203.1.1 CALGreen Tier 1. [OSHPD 1] Buildings must comply with the latest edition of "Seismic Design, Healthcare Modeling Procedures." A5.203.1.2 CALGreen Tier 2. [OSHPD 1] Buildings must exceed the latest edition of "Seismic Design, Healthcare Modeling Procedures" by 15 percent				
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A5.204.2 Commissioning. Building commissioning for all building systems covered by T24, Part 6, process systems and renewable energy systems shall be included in the design and construction processes of the building project. Commissioning requirements shall include as a minimum items listed in Section A5.204.4.				
A5.204.4.1 Owner's Project Requirements (OPR). Documented before the design phase of the project begins the OPR shall include items listed in Section A5.204.4.				
A5.204.4.2 Basis of Design (BOD). A written explanation of how the design of the building systems meets the OPR, shall be completed at the design phase of the building project and updated periodically to cover the systems listed in Section A5.204.4.3.				
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A5.304.6 Building orientation and shading. Locate orient and shade the building as required in Section A5.106.11.				
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A5.205.1.2 Installation of field-fabricated fenestration and exterior doors.				
A5.205.3 Joints and other openings.				
A5.205.3 Installation and roofing products.				

continued

PROPOSED TOPICS RESEARCH STATUS

CLINICS

- ❑ Starting Clinic Advisory Committee meetings to look at future code revisions
- ❑ Reviewing Plan of Modernization requirements
- ❑ Different Levels of Building Requirements based on Services Provided

3. **Presentation: Emergency Design Task Force**
   Proposal of an Emergency Design Task Force to address design and regulatory concerns for emergencies
   Facilitator: Chris Tokas and Richard Tannahill, OSHPD (or designee)

   - Discussion and public input

Emergency Design Task Force

Hospital Building Safety Board
Administrative Processes, Code Changes
And Standard Details Committee Meeting
August 20, 2020

What was Discussed

Emergency Design Task Force

Explore future impacts of COVID-19 on healthcare providers' operations and planning, and to the design, agency review, construction, and inspection processes.

A. **Discussion: Potential Future Impact to Healthcare Facility Design Process**

B. **Discussion: Potential Changes to Design Team and Agency Review Process—** eServices Portal, ePlan Check, and video conferencing

C. **Discussion: Potential Changes to Construction Process—** Digitization

D. **Discussion: Potential Changes to Inspection Process—** Video and photos rather than wait for site visit

E. **Discussion: Technology Use, Video Conferencing, Webinars, and Remote Working Best Practices**

Changes for Hospitals

Hospital Operational Changes

- Restrictions on visitors/non-healthcare workers
- Enhanced cleaning requirements throughout facility
- Limitation on points of entry into facilities
- Deployment of surge tents
- High use of PPE
- Closure of clinics
- Shut down of elective surgeries
- Increased use of Telemedicine/Telehealth
- Staff work-from-home programs

Changes for Hospitals

Facility Modifications

- Conversion of non-isolation/non-patient spaces into isolation use
- Increased deployment of hand gels and improved hand hygiene requirements
- Increased deployment of UVC light emitting devices
- Deployment of staff and patient tracking mechanisms

Changes for Hospitals

Upcoming challenges:

- How can hospitals be designed so normal operations (such as elective procedures) can continue through a pandemic so as not disrupt regular patient treatment and reduce financial challenges?

- Restrictions will likely be implemented on patient/visitor traffic flow to control cross-contamination. How will this transform facility intake and entry design?

- How can architects emphasize on building flexible, adaptable facilities that can be easily modified to allow a quick response to changing medical priorities?

- How can healthcare and non-healthcare facilities be designed to handle patient overflow in a more expedient fashion?

What was Reviewed

Design Elements

- More airborne infection isolation rooms
- Some patient rooms adjustable to:
- Negative pressure units
- All air exhausted through HEPA
- Some ORs with a negative ante-room
- Operating rooms capable of switching from positive to negative?
- Providing built-in options to converting patient rooms to negative pressure (similar to PIN 4)
- Possible further evaluation of circulation in triage/ED units
- ICU Capacity (2 beds per room?)

Design Elements

- UV-C treatment at coils and/or filters
- R.H. from 40% to 60% in some spaces
- Enhanced filtration with MERV 13 or 14 as a starting point. 13 is more applicable to many spaces while 14 may enduce excess pressure drop
- Measures to increase outdoor air rates (dilution)
- In-room HEPA recirculating systems
- Evaluate the application of minimum 6 total ACH where there starts to be a point of diminishing return in the reduction of Quanta within a room
- Adjustment to some negative HEPA/exhaust ICU spaces

Design Elements

- Touchless operational components:
  - Water fountains
  - Water bottle fillers
  - Revolving doors
  - Elevators
  - Doors not requiring hand contact (accessibility bars, etc.)
- Disinfectant mats at entries
- Increased locations for low return/exhaust grilles
- Dedicated exhaust path for each toilet stall (partitions up to the ceiling). Possible increase to 15 ACH
- NPC-5 Standards

Design Elements

- Power for surge tents
- Water for surge tents
- Generator inlets for temp generators
- Freestanding ED's – statutory change required
- Primary Care Clinics (triaging, observation)?
- BMS – change pressure differentials depending on use needed

Emergency Design Task Force

Emergency Design Task Force

Why a Task Force?

- Ongoing work
- Can meet anytime with non-committee members
- Get facility and industry input
- Can address multiple types of emergencies
- How can we ensure the hospitals have increased capacity during a surge to maintain safety and services?
- Will report back to Administrative Processes, Code Changes and Standard Details Committee

Emergency Design Task Force

Team Members

- OSHPD FDD
  - Executive Staff
    - Paul Coleman
    - Chris Tokas
    - Gordon Oakley
  - Building Standards Unit
    - Richard Tannahill
    - David Mason
    - Bill Gow
  - Carl Scheuerman
  - Diana Scaturro
  - Diana Navarro
  - FLSO – Nanci Timmins or designee
- CDPH
- Industry Representative
- Design Professionals
- Contractors/Builders
- IOR
- Field Staff (RCO)
- Others

Emergency Design Task Force

Types of Emergencies

- Pandemic
- Earthquake
- Wildfire
- Others

Emergency Design Task Force

Building design modification ideas

- Operational
  - Patient Monitoring
  - More than 12 ICU beds in unit?
  - Improved patient throughput
- Planning – architectural
  - Hot Zones
  - Waste disposal
  - Flow patterns (clean/dirty)
- Mechanical
  - ICU conversions
  - Negative Pressure Units
  - Air recirculation
- Electrical
- Temporary Facilities

Emergency Design Task Force

Approaches

- Immediate implementation
  - No permission needed
  - Alternatives/optional
- PINs/CANs
- CDPH/CMS Acceptance Required
- Code Revisions
- Change in Statute

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

   Facilitator: Facilitator: Michael O’Connor, Committee Chair (or designee)

   The committee will receive comments from the Public/Committee Members. Matters raised at this time may be taken under consideration for placement on a subsequent agenda.