



## CALGreen MANDATORY MEASURES CHECKLIST FOR NEW NONRESIDENTIAL BUILDINGS

**2013 California Green Building Standards Code (CGBSC) Mandatory Measures**

This checklist applies to building permit applications received on or after January 1, 2014 for newly constructed nonresidential buildings. 2013 CGBSC Section 101.3.1(8)

|   |                                    |
|---|------------------------------------|
| <b>Project Name:</b> _____              | <b>Permit Appl. #</b> _____        |
| <b>Project Address:</b> _____           | <b>Occupancy Type(s):</b> _____    |
| <b>Brief Project Description:</b> _____ | <b>Construction Type(s):</b> _____ |

**This checklist does not include requirements of other City of Berkeley ordinances or code requirements. This checklist is only for CALGreen compliance.**

**Instructions:**

1. The Owner or Owner’s agent shall read and understand the requirements of the mandatory features or measures listed in the checklist. When given an option, mark which mandatory measure(s) or feature(s) are applicable to the proposed nonresidential building.
2. This checklist shall be incorporated as a sheet(s) into the set of plans.

| Description of Mandatory Feature or Measure   |                           | If box is not shaded in the column below, specify where in the drawings the feature is addressed. |
|---|---------------------------|---|
| <b>DIVISION 5.1 – PLANNING AND DESIGN</b>   | <b>Mark as applicable</b> |   |
| <b>5.106 Site Development</b>   |                           |   |
| <b>5.106.1 Storm water pollution prevention.</b> Newly constructed projects which disturb less than one acre of land shall prevent the pollution of stormwater runoff from the construction activities through one or more of the following measures:                           |                           |   |
| <b>5.106.1.1 Stormwater Management.</b> Comply with the storm water management and erosion control ordinance per Title 17 of the City of Berkeley’s Municipal Code.   | <input type="checkbox"/>  |   |
| <b>5.106.1.2 Best management practices (BMP).</b> Prevent the loss of soil through wind or water erosion by implementing an effective combination of erosion and sediment control and good housekeeping BMP. See the 2013 CALGreen for soil loss BMP that should be considered. | <input type="checkbox"/>  |   |

CALGreen New Nonresidential Checklist

| Description of Mandatory Feature or Measure   | Mark as applicable                  | If box is not shaded in the column below, specify where in the drawings the feature is addressed. |
|---|-------------------------------------|---|
| <b>DIVISION 5.1 – PLANNING AND DESIGN (Cont'd)</b>  |                                     |   |
| <b>5.106.4 Bicycle parking.</b> For newly constructed buildings bicycle parking shall comply with Section 5.106.4.1 or meet the applicable City of Berkeley ordinance, whichever is stricter.   |                                     |   |
| The City of Berkeley bicycle parking requirements are more strict.  | <input type="checkbox"/>            |   |
| <b>5.106.4.1.1 Short-term bicycle parking.</b> If the new project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5-percent of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack.   | <input type="checkbox"/>            |   |
| <b>5.106.4.1.2 Long-term bicycle parking.</b> For new buildings with over 10 tenant-occupants, provide secure bicycle parking for 5-percent of the tenant vehicular parking spaces being added, with a minimum of one space.  | <input type="checkbox"/>            |   |
| <b>5.106.5.2 Designated parking.</b> In new projects that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles per CALGreen table 5.106.5.2. Provide parking stall markings as required per CALGreen Section 5.106.5.2.1.  | <input type="checkbox"/>            |   |
| <b>5.106.8 Light pollution reduction.</b> In new buildings outdoor lighting systems shall be designed and installed to comply with the requirements in CALGreen section 5.106.8 items 1 through 3 or comply with the City of Berkeley's ordinances, whichever is more stringent.  | <input type="checkbox"/>            |   |
| <b>5.106.10 Grading and paving.</b> Indicate how site grading or drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include swales, water collection and disposal systems, French drains, water retention gardens or other measures which keep surface water away from buildings and aid in groundwater recharge. | <input checked="" type="checkbox"/> |   |
| <b>DIVISION 5.2 – ENERGY EFFICIENCY</b>   |                                     |   |
| <b>5.201 General</b>  |                                     |   |
| <b>5.201.1 Scope.</b> Building design meets or exceeds the requirements of the 2013 California Building Energy Efficiency Standards. All energy forms shall be incorporated into the plan sets. 2013 California Administrative Code Section 10-103(a)2.A  | <input checked="" type="checkbox"/> |   |
| <b>DIVISION 5.3 – WATER EFFICIENCY &amp; CONSERVATION</b>   |                                     |   |
| <b>5.303 Indoor Water Use</b>   |                                     |   |
| <b>5.303.1 Meters.</b> Separate sub-meters or metering devices shall be installed for the uses described in CALGreen Sections 5303.1.1 and 5303.1.2.  |                                     |   |

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|---|--------------------------|---|
| <b>DIVISION 5.3 – WATER EFFICIENCY &amp; CONSERVATION (CONT'D)</b>  |                          |   |
| <p><b>5.303.1.1</b> New buildings in excess of 50,000 square feet. Separate sub-meters shall be installed as follows:</p> <p>1. For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gal/day, including, but not limited to, spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop.</p> | <input type="checkbox"/> |   |
| <p>2. Where separate sub-meters for individual building tenants are unfeasible, for water supplied to the following subsystems:</p> <p>a. Makeup water for cooling towers where flow through is greater than 500 gpm.</p> <p>b. Makeup water for evaporative coolers greater than 6 gpm.</p> <p>c. Steam and hot-water boilers with energy input more than 500,000 Btu/h.</p>   | <input type="checkbox"/> |   |
| <p><b>5.303.1.2 Excess consumption.</b> A separate sub-meter or metering device shall be provided for any tenant within a new building that is projected to consume more than 1,000 gal/day.</p>  | <input type="checkbox"/> |   |
| <p><b>5.303.2 Water reduction.</b> Plumbing fixtures shall meet the maximum flow rate values shown in CALgreen Table 5.303.2.3.</p>   | <input type="checkbox"/> |   |
| <p><b>5.303.2 Water Reduction Exception.</b> Buildings that demonstrate 20-percent overall water use reduction. In this case, a calculation demonstrating a 20-percent reduction in the building "water use baseline," as established in CALGreen Table 5.303.2.2, shall be incorporated into the plans.</p>  | <input type="checkbox"/> |   |
| <p><b>5.303.3 Water conserving plumbing fixtures and fittings.</b> Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:</p>  |                          |   |
| <p><b>5.303.3.1 Water closets.</b> The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the US EPA WaterSense Specification for Tank-type Toilets.</p>  | <input type="checkbox"/> |   |
| <p><b>5.303.3.2 Urinals.</b> The effective flush volume of urinals shall not exceed 0.5 gallons per flush.</p>  | <input type="checkbox"/> |   |
| <p><b>5.303.3.3 Showerheads</b></p>   |                          |   |
| <p><b>5.303.3.3.1 Single showerhead.</b> Showerheads shall have a maximum flow rate of not more than 2.0 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the US EPA WaterSense Specification for Showerheads.</p>   | <input type="checkbox"/> |   |

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| <b>DIVISION 5.3 – WATER EFFICIENCY &amp; CONSERVATION (CONT'D)</b>   |                          |   |
| <p><b>5.303.3.3.2 Multiple showerheads serving one shower.</b> When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 2.0 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time. Note: A hand-held shower shall be considered a showerhead.</p> | <input type="checkbox"/> |   |
| <p><b>5.303.4 Wastewater reduction.</b> Each new building shall reduce by 20-percent wastewater by one of the following methods:</p>   |                          |   |
| <p>1. The installation of water-conserving fixtures meeting the criteria established in CALGreen Section 5.303.2 or 5.303.3. or</p>  | <input type="checkbox"/> |   |
| <p>2. Utilizing nonpotable water systems [captured rainwater, gray-water, and municipally treated wastewater (recycled water) complying with the current edition of the <i>California Plumbing Code</i> or other methods described in CALGreen Section A5.304.8].</p>  | <input type="checkbox"/> |   |
| <p><b>5.303.6 Standards for plumbing fixtures and fittings.</b> Plumbing fixtures and fittings shall be installed in accordance with the <i>California Plumbing Code (CPC)</i>, and shall meet the applicable standards referenced in CPC Table 1401.1 and in Chapter 6 of the CALGreen.</p>   | <input type="checkbox"/> |   |
| <p><b>5.304 OUTDOOR WATER USE</b></p>  |                          |   |
| <p><b>5.304.1 Water budget.</b> A water budget shall be developed for landscape irrigation use that installed in conjunction with a new building will conform to the City of Berkeley water efficient landscape ordinance. Visit the City of Berkeley website for more information.</p>  | <input type="checkbox"/> |   |
| <p><b>5.304.2 Outdoor potable water use.</b> For new water service for landscaped areas of at least 1,000 square feet but not more than 5,000 square feet (the level at which <i>Water Code Section 535</i> applies), separate sub-meters or metering devices shall be installed for outdoor potable water use.</p>  | <input type="checkbox"/> |   |
| <p><b>5.304.3 Irrigation design.</b> In new nonresidential construction with at least 1,000 but not more than 2,500 square feet of cumulative landscaped area (the level at which the MWELO applies), install irrigation controllers and sensors which include the following criteria, and meet the manufacturer's recommendations.</p>  | <input type="checkbox"/> |   |
| <p><b>5.304.3.1 Irrigation controllers.</b> Automatic irrigation system controllers installed at the time of final inspection shall comply with the following:</p>   |                          |   |
| <p>1. Controllers shall be weather or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.</p>   | <input type="checkbox"/> |   |
| <p>2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controllers.</p>  | <input type="checkbox"/> |   |

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| <b>DIVISION 5.4 – MATERIAL CONSERVATION AND RESOURCE EFFICIENCY</b>   | <b>Mark as applicable</b>           |  |
| <b>5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT</b>   |                                     |  |
| <b>5.407.1 Weather protection.</b> Provide a weather-resistant exterior wall and foundation envelope as required by <i>California Building Code</i> Section 1403.2 (Weather Protection) and <i>California Energy Code</i> Section 150, (Mandatory Features and Devices), or the manufacturer's installation instructions whichever is more stringent.   | <input type="checkbox"/>            |  |
| <b>5.407.2 Moisture control.</b> Employ moisture control measures by the following methods.   |                                     |  |
| <b>5.407.2.1 Sprinklers.</b> Design and maintain landscape irrigation systems to prevent spray on structures.   | <input type="checkbox"/>            |  |
| <b>5.407.2.2 Entries and openings.</b> Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings as follows:  |                                     |  |
| <p><b>5.407.2.2.1 Exterior door protection.</b> Primary exterior entries shall be covered to prevent water intrusion by using non-absorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings plus at least one of the following:</p> <ol style="list-style-type: none"> <li>1. An installed awning at least 4 feet in depth.</li> <li>2. The door is protected by a roof overhang at least 4 feet in depth.</li> <li>3. The door is recessed at least 4 feet.</li> <li>4. Other methods which provide equivalent protection.</li> </ol>   | <input type="checkbox"/>            |  |
| <b>5.407.2.2.2 Flashing.</b> Install flashings integrated with a drainage plane.  | <input type="checkbox"/>            |  |
| <b>5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING</b>   |                                     |  |
| <b>5.408.1 Construction waste management.</b> All new building projects subject to CALGreen shall comply with the Construction and Demolition (C&D) requirements of Berkeley Municipal Code (BMC) Section 19.24. Pursuant to BMC Section 19.24: 100-percent of asphalt, concrete, excavated soil and land clearing debris, and at least 50-percent of the remaining construction and demolition debris shall be diverted by recycling, salvage, compost, or other approved method. Note: The owner or contractor has the option to retain the services of a waste management company to divert construction waste material. Visit the City of Berkeley's website for further information. | <input checked="" type="checkbox"/> | <b>A complete &amp; signed <u>City of Berkeley's Waste Diversion Form</u> must be provided prior to permit issuance. (BMC Section 19.24)</b> |
| <b>5.408.3 Excavated soil and land clearing debris.</b> 100-percent of trees, stumps, rocks, associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed. See 2013 CALGreen for additional information.   | <input type="checkbox"/>            |  |

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|---|-------------------------------------|---|
| <b>DIVISION 5.4 - MATERIAL CONSERVATION AND RESOURCE EFFICIENCY (CONT'D)</b>  |                                     |   |
| <b>5.410 BUILDING MAINTENANCE AND OPERATION</b>   |                                     |   |
| <p><b>5.410.1 Recycling by occupants.</b> Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics and metals or meet the City of Berkeley's recycling ordinance, if more restrictive.</p>   | <input checked="" type="checkbox"/> |   |
| <p><b>5.410.2 Commissioning.</b> For newly constructed buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with CALGreen Section 5.410.2 by trained personnel with experience on projects of comparable size and complexity. All building operating systems covered by Title 24, Part 6, California Energy Code as well as process equipment and controls, and renewable energy systems shall be included in the scope of the commissioning requirements. See CALGreen for more information.</p>  | <input type="checkbox"/>            |   |
| <p><b>5.410.2.1 Owner's or Owner representative's Project Requirements (OPR).</b> The expectations and requirements of the building appropriate to its phase shall be documented before the design phase of the project begins. This documentation shall include the following:</p> <ol style="list-style-type: none"> <li>1. Environmental and sustainability goals.</li> <li>2. Energy efficiency goals [Refer to 2013 California Energy Code, Section 120.8(b)].</li> <li>3. Indoor environmental quality requirements.</li> <li>4. Project program, including facility functions and hours of operation, and need for after hours operation.</li> <li>5. Equipment and systems expectations.</li> <li>6. Building occupant and operation and maintenance (O&amp;M) personnel expectations.</li> </ol> | <input type="checkbox"/>            | <p><b>OPR to be submitted at time of initial submittal for plan review.</b></p>                   |
| <p><b>5.410.2.2 Basis of Design (BOD).</b> 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. The Basis of Design document shall cover the following systems:</p> <ol style="list-style-type: none"> <li>1. Heating, ventilation, air conditioning [HVAC] systems and controls. (Refer to 2013 <i>California Energy Code</i>, Section 120.8(c)).</li> <li>2. Indoor lighting system and controls [Refer to 2013 <i>California Energy Code</i> Section 120.8(c)].</li> <li>3. Water heating system [Refer to 2013 <i>California Energy Code</i> Section 120.8(c)].</li> <li>4. Renewable energy systems.</li> <li>5. Landscape irrigation systems.</li> <li>6. Water reuse systems.</li> </ol>                  | <input type="checkbox"/>            | <p><b>BOD to be submitted at time of initial submittal for plan review.</b></p>                   |



| Description of Mandatory Feature or Measure   |                                  | If box is not shaded in the column below, specify where in the drawings the feature is addressed. |  |                                  |                           |                         |                          |  |
|---|----------------------------------|---|--|----------------------------------|---------------------------|-------------------------|--------------------------|--|
| <b>DIVISION 5.4 – MATERIAL CONSERVATION AND RESOURCE EFFICIENCY (CONT'D)</b>  | <b>Mark as applicable</b>        |   |  |                                  |                           |                         |                          |  |
| <p><b>5.410.2.3 Commissioning plan.</b> Prior to permit issuance a commissioning plan shall be completed to document how the project will be commissioned. The commissioning plan shall include the following:</p> <ol style="list-style-type: none"> <li>1. General project information.</li> <li>2. Commissioning goals.</li> <li>3. Systems to be commissioned. Plans to test systems and components shall include:               <ol style="list-style-type: none"> <li>a. An explanation of the original design intent.</li> <li>b. Equipment &amp; systems to be tested, including the extent of tests.</li> <li>c. Functions to be tested.</li> <li>d. Conditions under which the test shall be performed.</li> <li>e. Measurable criteria for acceptable performance.</li> </ol> </li> <li>4. Commissioning team information.</li> <li>5. Commissioning process activities, schedules &amp; responsibilities. Plans for the completion of commissioning shall be included.</li> </ol> | <input type="checkbox"/>         | <b>Commissioning plan to be provided prior to issuance of permit issuance</b>                     |  |                                  |                           |                         |                          |  |
| <p><b>5.410.2.4 Functional performance testing.</b> Functional performance tests shall demonstrate the correct installation and operation of each component, system and system-to-system interface in accordance with the approved plans and specifications. Functional performance testing reports shall contain information addressing each of the building components tested, the testing methods utilized, and include any readings and adjustments made.</p>   | <input type="checkbox"/>         |   |  |                                  |                           |                         |                          |  |
| <p><b>5.410.2.5 Documentation and training.</b> A systems manual and systems operations training are required, including Occupational Safety and Health Act (OSHA) requirements in <i>California Code of Regulations</i> (CCR), Title 8, Section 5142, and other related regulations. See CALGreen for further information.</p>   | <input type="checkbox"/>         |   |  |                                  |                           |                         |                          |  |
| <p><b>5.410.2.6 Commissioning report.</b> A report of commissioning process activities undertaken through the design and construction phases of the building project shall be completed and provided to the owner or representative.</p>  | <input type="checkbox"/>         | <b>Report to be provided to inspector prior to final.</b>   |  |                                  |                           |                         |                          |  |
| <p><b>5.410.4 Testing and adjusting.</b> Testing and adjusting of systems shall be required for newly constructed buildings less than 10,000 square feet. See CALGreen for more information.</p>  | <input type="checkbox"/>         |   |  |                                  |                           |                         |                          |  |
| <p><b>5.410.4.2 Systems.</b> Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include, as applicable to the project:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">1. HVAC systems and controls.</td> <td style="width: 50%;">4. Renewable energy systems.</td> </tr> <tr> <td>2. Indoor and outdoor lighting &amp; controls.</td> <td>5. Landscape irrigation systems.</td> </tr> <tr> <td>3. Water heating systems.</td> <td>6. Water reuse systems.</td> </tr> </table>  | 1. HVAC systems and controls.    | 4. Renewable energy systems.  | 2. Indoor and outdoor lighting & controls. | 5. Landscape irrigation systems. | 3. Water heating systems. | 6. Water reuse systems. | <input type="checkbox"/> |  |
| 1. HVAC systems and controls.   | 4. Renewable energy systems.     |   |  |                                  |                           |                         |                          |  |
| 2. Indoor and outdoor lighting & controls.  | 5. Landscape irrigation systems. |   |  |                                  |                           |                         |                          |  |
| 3. Water heating systems.   | 6. Water reuse systems.          |   |  |                                  |                           |                         |                          |  |

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| <b>DIVISION 5.4 – MATERIAL CONSERVATION AND RESOURCE EFFICIENCY (CONT'D)</b>   |                          |   |
| <p><b>5.410.4.3 Procedures.</b> Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system.</p>   | <input type="checkbox"/> |   |
| <p><b>5.410.4.3.1 HVAC balancing.</b> In addition to testing &amp; adjusting, before a new space-conditioning system serving a building or space is operated for normal use, balance the system in accordance with the procedures defined by the Testing Adjusting and Balancing Bureau National Standards; the National Environmental Balancing Bureau Procedural Standards; Associated Air Balance Council National Standards or as approved by the City of Berkeley.</p>  | <input type="checkbox"/> |   |
| <p><b>5.410.4.4 Reporting.</b> After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.</p>   | <input type="checkbox"/> |   |
| <p><b>5.410.4.5 Operation and maintenance (O&amp;M) manual.</b> Provide the building owner or representative with detailed operating and maintenance instructions and copies of guaranties/warranties for each system. O&amp;M instructions shall be consistent with OSHA requirements in CCR, Title 8, Section 5142, and other related regulations.</p>   | <input type="checkbox"/> | <p><b>O&amp;M to be provided to inspector prior to final.</b></p>                                 |
| <b>DIVISION 5.5 – ENVIRONMENTAL QUALITY</b>  |                          |   |
| <b>5.503 Fireplaces</b>  |                          |   |
| <p><b>5.503.1 General.</b> Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove or pellet stove, and refer to residential requirements in the <i>California Energy Code</i>, Title 24, Part 6, Subchapter 7, Section 150. Woodstoves, pellet stoves and fireplaces shall comply w/ applicable City of Berkeley ordinances.</p>   | <input type="checkbox"/> |   |
| <b>5.504 Pollutant Control</b>   |                          |   |
| <p><b>5.504.1.3 Temporary ventilation.</b> The permanent HVAC system shall only be used during construction if necessary to condition the building within the required temperature range for material and equipment installation. If the HVAC system is used during construction, use return air filters with a Minimum Efficiency Reporting Value (MERV) of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30-percent based on ASHRAE 52.1-1992. Replace all filters immediately prior to occupancy.</p> | <input type="checkbox"/> |   |
| <p><b>5.504.3 Covering of duct openings &amp; protection of mechanical equipment during construction.</b> At the time of rough installation and during storage on the construction site until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheetmetal or other methods acceptable to the City of Berkeley to reduce the amount of dust, water and debris which may enter the system.</p>     | <input type="checkbox"/> |   |



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| <b>DIVISION 5.5 – ENVIRONMENTAL QUALITY (CONT'D)</b>   |  |   |
| <b>5.504.4 Finish material pollutant control.</b> Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.4.   |  |   |
| <p><b>5.504.4.1(1) CALGreen VOC Limits.</b> Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with CALGreen Table 5.504.4.1 or 5.504.4.2 for VOC limits.</p> <p><b>5.504.4.1(2) Statewide VOC Limits.</b> Aerosol adhesives, smaller unit sizes of adhesives, sealants and/or caulking compounds shall comply with statewide VOC standards.</p>   | <input type="checkbox"/><br><br><input type="checkbox"/> |   |
| <p><b>5.504.4.3 Paints and Coatings.</b> Architectural paints and coatings shall comply with VOC limits in CALGreen Table 5.504.4.3. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 5.504.4.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat - High Gloss coating, based on its gloss, as defined in Subsections 4.21, 4.36 and 4.37 of the 2007 California Air Resources Board Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in CALGreen Table 5.504.4.3 shall apply.</p> <p><b>5.504.4.3.1 Aerosol paints and coatings.</b> Aerosol paints and coatings shall meet the PWMIR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(c)(2) and (d)(2) of California Code of Regulations, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8 Rule 49.</p> | <input type="checkbox"/><br><br><input type="checkbox"/> |   |
| <p><b>5.504.4.3.2 Verification.</b> Verification of compliance with this section shall be provided at the request of the building inspector. Documentation may include, but is not limited to the following:</p> <ol style="list-style-type: none"> <li>1. Manufacturer's product specification.</li> <li>2. Field verification of on-site product containers.</li> </ol>  | <input type="checkbox"/>                                 |   |
| <p><b>5.504.4.4 Carpet systems.</b> All carpet installed in the building interior shall meet at least one of the following testing &amp; product requirements:</p> <ol style="list-style-type: none"> <li>1. Carpet and Rug Institute's Green Label Plus Program;</li> <li>2. Compliant with the VOC-emission limits and requirements specified in the California Department of Public Health Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1, February 2010 (also known as CDPH Standard Method V1.1 or <i>Specification 01350</i>);</li> <li>3. NSF/ANSI 140 at the Gold level or higher;</li> <li>4. Scientific Certifications Systems Sustainable Choice; or</li> <li>5. Compliant with the California Collaborative for High Performance Schools (CA-CHPS) Criteria Interpretation for EQ 2.2 dated July 2012 and listed in the CHPS High Performance Product Database.</li> </ol>  | <input type="checkbox"/>                                 |   |

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| <b>DIVISION 5.5 – ENVIRONMENTAL QUALITY (CONT'D)</b>  |                          |   |
| <p><b>5.504.4.4.1 Carpet cushion.</b> All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute's Green Label program.</p>  | <input type="checkbox"/> |   |
| <p><b>5.504.4.4.2 Carpet adhesive.</b> All carpet adhesive shall meet the requirements of CALGreen Table 5.504.4.1.</p>   | <input type="checkbox"/> |   |
| <p><b>5.504.4.5 Composite wood products.</b> Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure (ATCM) for Composite Wood (17 CCR 93120 et seq.) Those materials not exempted under the ATCM must meet the specified emission limits, as shown in Table 5.504.4.5.</p>  | <input type="checkbox"/> |   |
| <p><b>5.504.4.5.3 Documentation.</b> Verification of compliance with Section 5.504.4.5 shall be provided as requested by the building inspector. See CALGreen for further information.</p>  | <input type="checkbox"/> |   |
| <p><b>5.504.4.6 Resilient flooring systems.</b> For 80-percent of floor area receiving resilient flooring, installed resilient flooring shall meet at least one of the following:</p> <ol style="list-style-type: none"> <li>1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program;</li> <li>2. Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health's 2010 Standard Method for the Testing and Evaluation Chambers, Version 1.1, February 2010;</li> <li>3. Compliant with the California Collaborative for High Performance Schools (CA-CHPS) Criteria Interpretation for EQ 2.2 dated July 2012 and listed in the CHPS Performance Product Database; or</li> <li>4. Compliant with CDPH criteria as certified under the Greenguard Children's &amp; Schools Program.</li> </ol> | <input type="checkbox"/> |   |
| <p><b>5.504.4.6.1 Verification of compliance.</b> Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.</p>   | <input type="checkbox"/> |   |
| <p><b>5.504.5.3 Filters.</b> In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 8. MERV 8 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual. See CALGreen for exceptions.</p> <p><b>5.504.5.3.1 Labeling.</b> Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.</p>   | <input type="checkbox"/> |   |

| Description of Mandatory Feature or Measure  | Mark if required         | If box is not shaded in the column below, specify where in the drawings the feature is addressed. |
|--|--------------------------|---|
| <b>DIVISION 5.5 – ENVIRONMENTAL QUALITY (CONT'D)</b>   |                          |   |
| <p><b>5.504.7 Environmental tobacco smoke (ETS) control.</b> Where outdoor areas are provided for smoking, prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows and within the building as already prohibited by other laws or regulations; or as enforced by ordinances, regulations or policies of the City of Berkeley whichever are more stringent. When ordinances, regulations or policies are not in place. Post signage to inform building occupants of the prohibitions.</p> | <input type="checkbox"/> |   |
| <b>5.505 INDOOR MOISTURE CONTROL</b>   |                          |   |
| <p><b>5.505.1 Indoor moisture control.</b> Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1203 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures not applicable to low-rise residential occupancies, see Section 5.407.2 of the CALGreen.</p>   | <input type="checkbox"/> |   |
| <b>5.506 INDOOR AIR QUALITY</b>  |                          |   |
| <p><b>5.506.1 Outside air delivery.</b> For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements For Ventilation) of the 2013 <i>California Energy Code</i> and Division 1, Chapter 4 of CCR, Title 8.</p>   | <input type="checkbox"/> |   |
| <p><b>5.506.2 Carbon dioxide (CO2) monitoring.</b> For newly constructed buildings equipped with demand control ventilation, CO<sub>2</sub> sensors and ventilation controls shall be specified and installed in accordance with the requirements of the 2013 <i>California Energy Code</i>, Section 120(c)(4).</p>  | <input type="checkbox"/> |   |
| <b>5.507 ENVIRONMENTAL COMFORT</b>   |                          |   |
| <p><b>5.507.4 Acoustical control.</b> Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 90 and ASTM E 413 or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E 1332, using either the prescriptive or performance method in CALGreen Section 5.507.4.1 or 5.507.4.2.</p>   | <input type="checkbox"/> |   |

| Description of Mandatory Feature or Measure  |                          | If box is not shaded in the column below, specify where in the drawings the feature is addressed. |
|--|--------------------------|---|
| <b>DIVISION 5.5 – ENVIRONMENTAL QUALITY (CONT'D)</b>   |                          |   |
| <b>5.508 OUTDOOR AIR QUALITY</b>   |                          |   |
| <p><b>5.508.1 Ozone depletion and greenhouse gas reductions.</b> Installations of HVAC, refrigeration and fire suppression equipment shall comply with CALGreen Sections 5.508.1.1 and 5.508.1.2.</p> <p><b>5.508.1.1 Chlorofluorocarbons (CFCs).</b> Install HVAC, refrigeration &amp; fire suppression equipment that do not contain CFCs.</p> <p><b>5.508.1.2 Halons.</b> Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.</p>  | <input type="checkbox"/> |   |
| <p><b>5.508.2 Supermarket refrigerant leak reduction.</b> New commercial refrigeration systems shall comply with the provisions of CALGreen Section 5.508.2 when installed in retail food stores with 8,000 square feet or more of conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (high-GWP) refrigerants with a GWP of 150 or greater. See CALGreen for additional information.</p> | <input type="checkbox"/> |   |

**(END)**