



CITY OF LONG BEACH

DEPARTMENT OF DEVELOPMENT SERVICES

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BUILDING AND SAFETY BUREAU

2016 CALIFORNIA GREEN BUILDING STANDARDS CODE ADDITIONS & ALTERATIONS - NONRESIDENTIAL MEASURES

Purpose (101.2): The CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings with reduced negative environmental impact and encouraging sustainable construction practice as follows:

Planning and Design (5.101): To protect, restore, enhance the environmental quality of the site and respect the integrity of adjacent properties.

Energy Efficiency (5.201): To meet California Energy Standard.

Water Efficiency and Conservation (5.301): To establish the means of conserving water used indoors (at least 20% percent reduction), outdoors, and in wastewater conveyance.

Material Conservation and Resource Efficiency (5.401): To achieving material conservation and resource efficiency through protection of building from exterior moisture, construction waste diversion, and employment of approved techniques during construction.

Environmental Quality (5.501): To reduce the quantity of air contaminants.

Scope (301.1): The CALGreen Code shall apply to only to the portions of the building being added 1,000 square feet or more or altered with valuation of \$200,000 or more.

Application (LBMC): The CALGreen Code shall be used for nonresidential building (other than residential or/and low-rise residential building).

Referenced Applicable Codes (101.5): 2016 California Building Code, 2016 California Plumbing Code, 2016 California Mechanical Code, 2016 California Electrical Code, 2016 California Building Energy, and Long Beach Municipal Code (LBMC).

controllers are not required to have rain sensor input.			
<p>20% Savings. A schedule of newly installed plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the addition or area of alteration to the building by 20% shall be provided. The reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code. The reduction shall be demonstrated by one of the following methods.</p> <ol style="list-style-type: none"> 1. Prescriptive method. Each plumbing fixture and fitting shall not exceed the maximum flow rate at ≥20% reduction as specified in Table 5.303.2.3 of Division 5.3, or 2. Performance method. A calculation demonstrating a 20% reduction in the building “water use baseline” as established in Table 5.303.2.2 shall be provided. <p>Multiple showerheads serving one shower. When a shower is served by more than one newly installed 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 only allow one showerhead to be in operation at a time.</p> <p>Note: A hand-held shower shall be considered a showerhead.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MATERIAL CONSERVATION AND RESOURCE EFFICIENCY			
Water Resistance and Moisture Management (5.407)			
<p>Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1403.2 and California Energy Code Section 150, manufacturer's installation instructions, or local ordinance, whichever is more stringent.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Moisture control. Employ moisture control measures by the following methods; Sprinklers. Prevent irrigation spray on structures. Entries and openings. Design exterior entries and openings to prevent water intrusion into buildings.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction Waste Reduction, Disposal and Recycling			
The construction meeting the threshold of \$50,000 or more under Section LBMC18.67.020 shall comply with LBMC Chapter 18.67.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Building Maintenance and Operation (5.410)			
<p>Recycling by occupants. If not provided on the existing site and where site conditions permit, provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Testing and adjusting. Testing and adjusting of systems shall be required for new buildings less than 10, 000 sqft. or new systems to serve an addition or alteration shall subject to Section 303.1.</p> <p>Systems. 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> <ol style="list-style-type: none"> 1. HVAC systems and controls 2. Indoor and outdoor lighting and controls 3. Water heating systems 4. Landscape irrigation systems 5. Water reuse systems. <p>Procedures. Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system.</p> <p>HVAC balancing. Before a new space-conditioning system serving a building or space is operated for normal use, the system should be balanced in accordance with the procedures defined by national standards listed in 5.410.4.3.1.</p> <p>Reporting. After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.</p> <p>Operation and maintenance manual. Provide the building owner with detailed operating and maintenance instructions and copies of guaranties/warranties for each system prior to final inspection.</p> <p>Inspections and reports. Include a copy of all inspection verifications and reports required by the enforcing agency.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ENVIRONMENTAL QUALITY (5.714)			

<p>Covering of duct openings and protection of mechanical equipment during construction. At the time of rough installation, or during storage on the construction site and until final startup if the heating and cooling equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or reduce the amount of dust or debris which may collect in the system.</p>	□	□	□
<p>Finish material pollutant control. Adhesives, sealants, caulks. Adhesives, sealants and caulks used on the project shall meet the requirements of the following standards:</p> <ol style="list-style-type: none"> 1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables 5.504.4.1 and 5.504.4.2 in Division 5.5. 2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than one pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of California Code of Regulations, Title 17, commencing with Section 94507. 	□	□	□
<p>Paints and coatings. Architectural paints and coatings shall comply with Table 5.504.4.3 in Division 5.5, unless more stringent local limits apply. Aerosol Paints and Coatings. Aerosol paints and coatings shall meet the Product-Weighted MIR Limits for ROC in section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances (CCR, Title 17, Section 94520 et seq). Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency.</p>	□	□	□
<p>Carpet systems. All carpet cushion installed in the building interior shall meet the testing and product requirements of one of the standards listed in 5.714.4.4. Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program. Carpet adhesive. All carpet adhesive shall meet the requirements of Table 5.504.4.1 in Division 5.5.</p>	□	□	□
<p>Composite wood products. Hardware 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 Table 5.504.4.5 of Division 5.5. Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:</p> <ol style="list-style-type: none"> 1. Product certifications and specifications. 2. Chain of custody certifications. 3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.) 4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association standards. 5. Other methods acceptable to the enforcing agency. 	□	□	□
<p>Resilient flooring systems. For 80% of the floor area receiving resilient flooring, install resilient flooring complying with at least the Resilient Floor Covering Institute (RFCI) FloorScore Program, the VOC-emission limits in the California Department of Public Health's 2010 Standard Method, the Collaborative for High Performance Schools (CHPS) criteria and listed in the CHPS High Performance Product Database or with CDPH criteria as certified under the Greenguard Children's and School Programs. Verification of compliance. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.</p>	□	□	□
<p>Filters. In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air prior to occupancy that provides at least a MERV of 8. Exception: An ASHRAE 10-percent to 15-percent efficiency filter shall be permitted for an HVAC unit meeting the 2013 California Energy Code having 60,000 Btu/h or less capacity per fan coil, if the energy use of the air delivery system is 0.4 W/cfm or less at design air flow.</p>	□	□	□