



CITY OF LONG BEACH
 Department of Development Services
 BUILDING AND SAFETY BUREAU
2016 CALGREEN - RESIDENTIAL
PLAN REVIEW CHECKLIST



INFORMATION	PROJECT NO.:	EXPIRATION DATE:	STATUS: 1st Review
	PROJECT ADDRESS:		
	WORK DESCRIPTION:		
	APPLICANT'S NAME:	TEL. NO.:	
	PLAN REVIEWER:	TEL. NO.:	
	ADDRESS: 333 W. OCEAN BLVD., 4 TH FLOOR, LONG BEACH, CA 90802		
	EMAIL: @longbeach.gov		
	<p>Referenced Applicable Codes: 2016 California Green Building Standards Code (CALGreen), 2016 California Building Code (CBC), 2016 California Plumbing Code(CPC), 2016 California Mechanical Code(CMC), 2016 California Electrical Code(CEC), 2016 California Building Energy, and Long Beach Municipal Code (LBMC).</p> <p>Numbers within the parenthesis () refer to 2016 CALGreen and applicable codes. Comments with circled item numbers apply to this review. Provide a written response to each comment and show where and how it has been addressed.</p>		

CHAPTER 1 ADMINISTRATION

1. Construction documents and other data shall be prepared by a licensed design professional due to special conditions occurring in the design. (102.1)
2. Construction documents shall provide sufficient clarity to indicate the location, nature, and scope of the proposed green building feature. (102.2)
3. Plans shall indicate method of verification of compliance with all applicable requirements from CALGreen. (102.3)
4. Similar to S (structural) sheets, all standard notes and details of proposed green building features shall be detailed onto the sheets titled as CG (CALGreen).

CHAPTER 3 GREEN BUILDING

1. In a mixed occupancy building, show how each portion of the building will comply with specific green building measures applicable to each occupancy. (302.1)
2. For shell buildings with future tenant improvement, provide a project summary that each phase of the project shall comply with code measures applicable to the building components and systems. (303.1)
3. *Add notes to plan:* The provisions of 2016 CALGreen shall apply to tenant development (first tenant improvement) in new shell buildings. (303.1.1)

CHAPTER 4 RESIDENTIAL MANDATORY MEASURES

DIVISION 4.1 PLANNING AND DESIGN

A. Site Development

1. Develop a plan and/or schedule to show how storm water drainage is managed during construction. (4.106.2)
2. Provide details to indicate how site grading or drainage system will manage all surface water flows to keep surface water away from buildings. (4.106.3)
3. New construction shall comply with Sections 4.106.4.1 and 4.106.4.2 to facilitate future installation and use of EV chargers. (4.106.4)
 - a. *New one-and two-family dwellings and town-houses with attached private garages.* For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. (4.106.4.1)
 - i. The service panel or sub-panel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as “EV CAPABLE”.
 - ii. The raceway termination shall be permanently and visibly marked as “EV CAPABLE”.
 - b. *New multifamily dwellings.* Provide the following for buildings containing 3 or more units. (4.106.4.2., LBMC 18.47.030)
 - i. At least one electric vehicle charging spaces (EV spaces) capable of supporting future EVSE for each dwelling unit.
 - ii. For guest parking, at least 25 percent of the total number of spaces but not less than one shall be EV space capable of supporting future EVSE.
 - iii. For guest parking, 5 percent of the total number of spaces, but not less than one, shall have EV chargers installed.
 - iv. The service panel or sub-panel circuit directory shall identify the overcurrent protective device spaces(s) reserved for future EV charging purposes as “EV CAPABLE” in accordance with the electrical code.
 - c. *New hotels.* Provide the following for hotels (4.106.4.3., LBMC 18.47.040)
 - i. 30 percent of the total number of parking spaces, but in no case less than one, shall be EV spaces capable of supporting future EVSE.
 - ii. 10 percent of the total number of parking spaces, but in no case less than one, shall have EV chargers installed.
 - iii. The construction of future installation of EVSE shall comply with Section 5.106.5.3.1 or Section 5.106.5.3.2.
 - iv. Installed EVSE shall be in accordance with the California Building Code, the California Electrical Code, Section 5.106.5.3.1 or Section 5.106.5.3.2 and Section 5.106.5.3.4.

DIVISION 4.2 ENERGY EFFICIENCY

1. Low-rise residential buildings (3 stories or less) shall meet or exceed the minimum standard design required by the California Energy Standards: (4.201.1)

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION

A. Indoor Water Use

1. Plumbing fixtures (water closets) and fittings (faucets and showerheads) shall comply with CALgreen water conserving requirements. (4.303.1)
2. Show references and specifications for plumbing fixtures (water closets) and fittings (faucets and showerheads) to verify water conservation.
 - a. Water closets (toilets) (4.303.1.1)
 - b. Urinals (4.303.1.2)
 - c. single showerheads (4.303.1.3.1)
 - d. Multiple showerheads (4.303.1.3.2)
 - e.. Bathroom lavatory (sink) faucets (4.303.1.4.1)
 - f. Metering faucets (4.303.1.4.3)
 - e. Kitchen faucet (4.303.1.4.4)

B. Outdoor Water Use

1. New residential developments with an aggregated and scape area equal to or greater than 500 square feet shall comply with one of the following:
 - a. A local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO) whichever is more stringent (4.304.1.1) or
 - b. Projects with aggregate landscape area of less than 2,500 square feet may comply with the MWELO's Appendix D Prescriptive Compliance Option.

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

A. Enhanced Durability and Reduced Maintenance

1. Provide construction details for annular spaces around pipes, electric cables, conduits or other openings in sole/bottom plates at exterior walls protected against the passage of rodents by closing such openings. (4.406.1)

B. Construction Waste Reduction, Disposal and Recycling

1. Covered projects meeting the threshold of Section 18.67.020 of Title 18 of the Long Beach Municipal Code shall comply with Chapter 18.67 Construction and Demolition Recycling Program. (LBMC18.47.060) See Information Bulletin BU-033 Waste Management Plan Instruction Sheet for information.

C. Building Maintenance and Operation

1. *Add notes to plan:* An operation and maintenance manual to the building shall be available at the time of final inspection and provided to the owner or occupant. (4.410.1)
2. Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible area(s) that serves all buildings on the site and is identified for the depositing, storage and collection of non-hazardous materials for recycling or meet a lawfully enacted local recycling ordinance, if more restrictive. (4.410.2)

DIVISION 4.5 ENVIRONMENTAL QUALITY

A. Fireplaces

1. *Add notes to plan:* Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any woodstove or pellet stove shall comply with US EPA New Source Performance Standards (NSPS) emission limits where applicable. (4.503.1)

B. Pollutant Control

1. *Add notes to plan:* Duct openings and other related air distribution component openings shall be covered during construction. (4.504.1)
2. Show that the VOC contents of construction materials are in compliance with the VOC and other toxic compound limits as follows: (4.504.2.1, 2, 3)
 - a. Adhesives, sealants and caulks.
 - b. Paints, stains and other coatings.
 - d. Aerosol paints and coatings.
 - e. Carpet and carpet systems.
 - f. Other: _____
3. *Add notes to plan:* Where resilient flooring is installed, at least 80% of floor area shall comply with one or more of the following: (4.504.4)
 - a. CHPS Low-emitting Material in the Collaborative for High Performance Schools (CHPS) High Performance Products Database.
 - b. Certified under UL GREENGUARD Gold.



- c. Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program.
 - d. Meet the California Department of Public Health, “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers.
5. *Add notes to plan:* 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 Toxic Control Measure for Composite wood. (4.504.5)

C. Interior Moisture Control

- 1. Provide details for the installation of vapor retarder and capillary break for slab on grade foundations. (4.505.2)
- 2. *Add notes to plan:* Moisture content of building materials used in walls and floor framings shall be checked and verified to be less than 19% before enclosure. (4.505.3)

D. Indoor Air Quality and Exhaust

- 1. *Add notes to plan:* Each bathroom shall be mechanically ventilated and shall comply with the following: (4.506.1)
 - a. Fans shall be ENERGY STAR compliant and shall be ducted to terminate outside the building.
 - b. Fans must be controlled by a humidity control.

E. Environmental Comfort

- 1. *Add notes to plan:* Use the following methods to size duct systems and select equipment: (4.507.2.)
 - a. Establish heat loss and heat gain values according to ANSI/ACCA 2 Manual J-2011 or equivalent.
 - b. Size duct systems according to ANSI/ ACCA 1 Manual D-2014 or equivalent.
 - c. Select heating and cooling equipment according to ANSI/ ACCA 3 Manual S-2014 (Manual S) or equivalent.

CHAPTER 7 INSTALLER AND SPECIAL INSPECTOR QUALIFICATIONS

A. Qualifications

- 1. *Add notes to plan:* HVAC system installers shall be trained and certified in the proper installation of HVAC systems. (702.1)
- 2. *Add notes to plan:* Special inspectors shall be qualified and able to demonstrate competence in the discipline they are inspecting. (702.2)

B. Verifications

- 1. *Add notes to plan:* Construction documents, plans, specifications of builder or installer certification, inspection reports, or other methods acceptable to the Building Bureau are required to be submitted to city inspectors for verification and compliance at the time of final inspection. (703.1)
- 2. *Add notes to plan:* Contractors shall complete the following documents and provide them to the city inspector at the time of final inspection.
 - a. Installation certificates for VOC Content Verification Checklist Form GRN-02 and Formaldehyde Emissions Verification Checklist Form GRN-03.
 - b. Production Information Sheets and Declaration Statements for adhesive, sealants and caulks; paints and coatings; finish flooring materials; and composite wood products.

ADDITIONAL WRITTEN COMMENTS

No.	Comment	Code Sec. No.