

GREEN BUILDING CODE MANDATORY NONRESIDENTIAL REQUIREMENTS

All new nonresidential buildings that are submitted after December 31, 2010 for building plan check must comply with the mandatory requirements of the 2010 California Green Building Standards Code. The following notes and tables will be required to be on plans for these types of buildings.

1. **Bicycle parking.** Projects must comply with the following:
 - A. Short term parking for visitor parking: provide anchored bike racks within 100 feet of visitor entrance with a capacity of 5 percent of vehicle parking capacity with a minimum of a two-bike capacity rack.
 - B. For buildings with over 10 tenant occupants, provide secure bike parking for 5 percent of vehicle parking capacity, with a minimum of one space. Acceptable parking facilities shall be convenient from the street and may include:
 - (1.) Covered, lockable enclosures with permanently anchored bike racks.
 - (2.) Lockable bicycle rooms with permanently anchored racks.
 - (3.) Lockable bike lockers.

2. **Designated parking for low-emitting, fuel efficient and carpool/van pool vehicles.** Provide designated parking for any combination of low-emitting, fuel efficient and carpool/van vehicles per Table 5.106.5.2 (attached). Paint, in the paint used for stall striping, the following characters such that the lower edge of the last word aligns with the end of the stall striping and is visible beneath a parked vehicle:

CLEAN AIR
VEHICLE

3. **Light pollution reduction.** Comply with lighting power requirements in the California Energy Code, CCR, Part 6, and design interior and exterior lighting such that zero direct-beam illumination leaves the building site. Meet or exceed exterior light levels and uniformity ratios for lighting zones 1-4 as defined in Chapter 10 of the California Administrative Code, CCR, Part 1, using the following strategies:
 - A. Shield all exterior luminaires or provide cutoff luminaires per Section 132 (b) of the California Energy Code.
 - B. Contain interior lighting within each source.
 - C. Allow no more than .01 horizontal lumen footcandles to escape 15 feet beyond the site boundary.
 - D. Automatically control exterior lighting dusk to dawn to turn off or lower light levels during inactive periods.

Exceptions:

 1. Part 2, Chapter 12, Section 1205.6 for campus lighting requirements for parking facilities and walkways.
 2. Emergency lighting and lighting required for nighttime security.

4. **Indoor water use.**

- A. Meters. Separate meters or metering devices shall be installed for the uses described in (1.) , (2.), and (3.) below:
- (1.)For each individual leased, rented other tenant space within the building projected to consume more than 100gal/day.
 - (2.)For spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop projected to consume more than 100 gal/day.
 - (3.)For any building within a project or space within a building that is projected to consume more than 1000 gal/day.
- B. Twenty percent savings. A schedule of plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the building by 20 percent 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 20 percent reduction in potable water use shall be demonstrated by one of the following methods:
- (1.)Each plumbing fixture and fitting shall meet the 20 percent reduced flow rate specified in Table 5.303.2.3(attached), or
 - (2.)A calculation demonstrating a 20 percent reduction in the building “water use baseline” as established in Table 5.303.2.2 shall be provided.
- C. Multiple showerheads serving one shower. When single shower fixtures are served by more than one showerhead, the combined flow rate of all the showerheads shall not exceed the maximum flow rates specified in the 20 percent reduction column contained in Table 5.303.2.3 or the shower shall be designed to allow only one showerhead to be in operation at a time.
- Exception:** The maximum flow rate for shower heads when using the calculation method specified in the twenty percent saving item above (item 2) is 2.5 gpm @ 80 psi.
- D. Wastewater reduction. Each building shall reduce by 20 percent wastewater by one of the following methods:
- (1.)The installation of water conserving fixtures (water closets, urinals).
 - (2.)Utilizing nonpotable water systems (captured rainwater, graywater) complying with the California Plumbing Code.
- E. Plumbing fixtures and fittings. Plumbing fixtures (water closets, urinals) and fittings (faucets, showerheads) shall meet the standards referenced in Table 5.503.6 (attached).

5. Outdoor water use.

- A. Water budget. A water budget shall be developed for landscape irrigation use that conforms to the local water efficient landscape ordinance (Chapter 19.01 of the Laguna Beach Municipal Code).
- B. Outdoor potable water use. For new water service for landscaped areas between 1000 square feet and 5000 square feet, separate meters or submeters shall be installed for indoor and outdoor potable water use.
- C. Irrigation design. In new nonresidential construction with between 1000 and 2500 square feet of landscaped area, install irrigation controllers and sensors which include the following criteria, and meet manufacturer’s recommendations:

- (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.
 - (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 controller(s). Soil moisture-based controllers are not required to have rain sensor input.
- 6. Water resistance and moisture management.**
- A. Design and maintain landscape irrigation systems to prevent spray on structures.
 - B. Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings.
- 7. Recycling by occupants.** 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.
- 8. Commissioning for new buildings over 10,000 square feet in area.** New buildings over 10,000 square feet in area must comply with Sections 5.410.2 through 5.410.2.6 of the California Green Building Standards Code. The final commissioning report required by Section 5.410.2.6 must be provided to the building owner and to the City's Building Division prior to Certificate of Occupancy.
- 9. Testing and adjusting for new buildings under 10,000 square feet in area.** Testing and adjusting of systems is required for buildings under 10,000 square feet in area.
- A. Systems. Develop a written plan of procedures for testing and adjusting systems. Systems to be included are:
 - (1.) HVAC systems and controls
 - (2.) Indoor and outdoor lighting and controls
 - (3.) Water heating systems
 - (4.) Renewable energy systems
 - (5.) Landscape irrigation systems
 - (6.) Water reuse systems
 - B. Procedures. Perform testing and adjusting procedures in accordance with industry practices and applicable standards on each system.
 - C. HVAC balancing. In addition to testing and adjusting a new space-conditioning system, the system must be balanced in accordance with procedures defined by approved national standards. After completion of testing, adjusting and balancing, a final report of testing signed by the testing agency must be completed.
 - D. Operation and maintenance manual. An operation and maintenance manual with operating and maintenance instructions and copies of warranties for each system in the building must be provided to the building owner.
 - E. All inspection reports and certification that the operation and maintenance manual has been provided for the building owner must be submitted to the Building Division prior to Certificate of Occupancy.

- 10. Fireplaces and woodstoves.** Only direct-vent sealed-combustion gas or sealed wood-burning fireplaces or sealed woodstoves or pellet stoves are allowed. Wood stoves and pellet stoves shall comply with U.S. EPA Phase II emission limits.
- 11. Covering of duct openings and protection of mechanical equipment during construction.** During construction and until final startup, all duct and other related air distribution openings shall be covered to reduce the amount of dust that may collect in the system.
- 12. Adhesives, sealants and caulks.** Adhesives, sealants and caulks used on the project shall meet the requirements of the following standards:
- A. Adhesives, adhesive bonding primers, adhesive primers, 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 (attached). Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products as listed in B. below.
 - B. 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.
- 13. Paints and coatings.** Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3 (attached), unless more stringent local limits apply. 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 Table 5.504.4.3 (attached) shall apply.
- 14. Aerosol paints and coatings.** 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.
- 15. Carpet systems.** All carpet installed in the building shall meet the testing and product requirements of one of the following:
- A. Carpet and Rug Institute's Green Label Program
 - B. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350)

- C. NSF/ANSI 140 at the Gold level
- D. Scientific Certifications Systems Sustainable Choice

All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program.

All carpet adhesive shall meet the requirements of Table 5.504.4.1 (attached).

- 16. Composite wood products.** 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 for Composite Wood (17 CCR 93 et seq.), by or before the dates specified in those sections, as shown in Table 5.504.4.5 (attached).
- 17. Resilient flooring systems.** For 50 percent of floor area receiving resilient flooring, install resilient flooring complying with the VOC-emission limits defined in the 2009 Collaborative for High Performance Schools (CHPS) criteria and listed on its Low-emitting Materials List (or Product Registry) or certified under the Resilient Floor Covering Institute (RFCI) Floor Score program.
- 18. Filters.** Air filtration media for outside and return air must provide at least a Minimum Efficiency Reporting Value (MERV) of 8.
- 19. Environmental tobacco smoke (ETS) control.** Where outdoor areas are provided for smoking, prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows and in buildings. Post signage to inform building occupants of the prohibitions.
- 20. Acoustical control.** Building assemblies and components have Sound Transmission Coefficients (STC) values as determined in accordance with ASTM E90 and ASTM E413 where required by A. and B. below.
- (A.) Exterior noise transmission. Wall and roof-ceiling assemblies making up the building envelope have an STC of at least 50, and exterior windows have a minimum STC of 30 where sound levels at the property line regularly exceed 65 decibels.
Exception: Buildings with few or no occupants and where occupants are not likely to be affected by exterior noise, such as factories, storage, parking, and utility buildings.
 - B. Interior sound. Wall and floor-ceiling assemblies tenant spaces and tenant spaces and public places shall have an STC of at least 40.
- 21. Ozone depletion and greenhouse gas reductions.** Installations of HVAC, refrigeration and fire suppression equipment comply with A. and B. below.
- (A.) Chlorofluorocarbons (CFCs). CFCs have not been used for HVAC equipment.
 - (B.) Halons. Halons have not been installed in HVAC, refrigeration, or fire suppression systems.