



CITY OF CORONADO

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HANDOUT 305 AUG 2012	<h1>INTRO TO CALGreen</h1>
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PURPOSE: Provide a basic introduction to the California Green Building Standards Code

NOTES: 1. Minimum Green Code specification requirements are presented in greater detail in Handout #306.

WHAT is CALGreen?

1. A mandatory statewide code for all new residential and non-residential construction projects.
2. Part of the California Building Standards Law and therefore required similar to the State Building and Fire Codes.
3. It is a minimum building standard, not a rating system. It does not grant any plaque, certificate, or exemption from any other building code requirements.
4. CALGreen consists of five categories, each with their own mandatory measures. The table below lists the major categories and outlines the required green building measure for residential and non-residential projects. A glossary is provided after the table to clarify the underlined terms.

WHEN did CALGreen become effective?

1. All new construction projects submitted as of January 1, 2011 must comply with CALGreen requirements.

WHERE is CALGreen applicable?

1. CALGreen applies to planning, design, operations, construction, use and occupancy of every newly constructed building in the State of California.

WHY CALGreen?

1. Improves the public health, safety, and general welfare of communities
2. Promotes occupant safety for all building users
3. Reduces the carbon footprint of the built environment
4. Provides uniform and consistent environmentally sensitive building program elements
5. Creates a mainstream design guideline for “green” buildings
6. Contributes to green building and energy efficiency incentives
7. Generates cost savings through energy efficiency and water conservation strategies
8. Delineates mandatory and optional measures, resulting in consistency while simultaneously providing guidance for more ambitious “green” building projects.

Category	Mandatory Requirements	
	Residential	Non-residential
Planning and Design	<ol style="list-style-type: none"> 1. Storm water drainage and retention during construction 2. Surface drainage 	<ol style="list-style-type: none"> 1. Storm Water Pollution Prevention Plan (SWPPP) 2. Bicycle parking and changing rooms 3. Designated parking for low-emitting, fuel-efficient, and carpool vehicles 4. Light pollution reduction 5. Grading and paving to prevent water from entering buildings
Energy Efficiency	<ol style="list-style-type: none"> 1. As mandated by the California Energy Commission 	<ol style="list-style-type: none"> 1. As mandated by the California Energy Commission
Water Efficiency and Conservation	<ol style="list-style-type: none"> 1. 20% indoor water savings 2. Plumbing fixtures and fittings compliant with standards 3. Irrigation controllers for landscaping 	<ol style="list-style-type: none"> 1. Indoor water meters 2. Submeters for buildings over 50,000 square feet 3. 20% indoor water savings 4. Wastewater reduction 5. Plumbing fixtures and fittings compliant with standards 6. Water budget for outdoor water use 7. Irrigation controllers for landscaping
Material Conservation and Resource Efficiency	<ol style="list-style-type: none"> 1. Joints and openings compliant with California Energy Code 2. 50% construction waste reduction 3. <u>Construction Waste Management Plan</u> 4. <u>Operations and Maintenance (O & M) Manual</u> 	<ol style="list-style-type: none"> 1. Weather-resistant exterior walls and foundation envelopes 2. Construction waste diversion 3. Construction Waste Management Plan 4. 50% waste reduction

Material Conservation and Resource Efficiency		5. Reuse/recycling of excavated soil and land-clearing debris 6. Occupant recycling 7. <u>Commissioning</u> Plan, report, and documentation
Environmental Quality	1. Fireplaces and wood stoves 2. Covering of ducts and protection of mechanical equipment during construction 3. Finishes compliant with <u>VOC</u> limits 4. Carpets compliant with chosen standard 5. Resilient flooring compliant with <u>VOC</u> limits 6. Composite wood compliant with formaldehyde limits 7. Interior moisture control 8. <u>Energy Star</u> compliant bathroom exhaust fans 9. Environmental comfort (openings and HVAC system design)	1. Fireplaces and wood stoves 2. Covering of ducts and protection of mechanical equipment during construction 3. Finishes compliant with <u>VOC</u> limits 4. Carpets compliant with chosen standard 5. Resilient flooring compliant with <u>VOC</u> limits 6. Composite wood compliant with formaldehyde limits 7. Minimum of <u>MERV</u> 8 filters 8. Environmental tobacco smoke control 9. Interior moisture control 10. Outside air delivery 11. CO2 monitoring 12. Acoustical control 13. Reduction in ozone depletion and greenhouse gases

GLOSSARY:

Storm Water Pollution Prevention Plan (SWPPP): A plan that has been designed specific to the site that conforms to the State Storm water NPDES Construction Permit or local ordinance, whichever is stricter; this plan should cover prevention of soil loss by storm water run-off and/or wind erosion, of sedimentation, and/or of dust/particulate matter air pollution.

Construction Waste Management Plan: A plan for demolition and construction that:

- a. Identifies materials to be diverted from disposal for efficient usage, recycling, reuse on the project or salvage for future use or sale;
- b. Determines if materials will be sorted on-site or mixed;
- c. Identifies diversion facilities where material collected will be taken; and
- d. Specifies that the amount of materials diverted shall be calculated by weight or volume, but not by both.

Operations and Maintenance (O & M) Manual: A manual that remains in the building throughout its life that provides:

- a. O & M instruction for equipment and appliances, drainage, space conditioning systems, landscape irrigation and water reuse systems;
- b. Information from local utility, water, and waste recovery providers on methods to further reduce resource consumption;
- c. Public transportation and/or carpool options available in the area;
- d. Educational material on the positive impacts of an interior relative humidity between 30- 60% and what methods an occupant may use to maintain the relative humidity level in that range;
- e. Information about water conserving landscape and irrigation design and controllers which conserve water;
- f. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5' away from the foundation;
- g. Information on required routine maintenance measures such as caulking, painting, and grading around the building;
- h. Information about state solar energy and incentive programs;
- i. A copy of all special inspection verifications required by the enforcing agency or this code.

Commissioning: A systematic quality assurance process that spans the entire design and construction process, including verifying and documenting that building systems and components are planned, designed, installed, tested, operated and maintained to meet the OPR (owner's project requirements).

Volatile Organic Compounds (VOC): Organic chemical compounds which have significant vapor pressures and which can affect the environment and human health; for this reason, there are limits set on allowable VOC content in building materials such as finishes and flooring.

Energy Star: An international standard for energy efficient consumer products; devices carrying the Energy Star logo (such as computer products and peripherals, kitchen appliances, building and other products) generally use 20 – 30% less energy than required by federal standards.

Minimum Efficiency Reporting Value (MERV): A number from 1 to 16 that is relative to an air filter's efficiency; the higher the MERV, the more efficient the air filter is at removing particles.

LINKS: The following links can be accessed by entering the underlined subject in your computer search engine.

- 1. Reference: [California Building Standards Commission \(CBSC\)](#) – links to CALGreen and other State Building Codes
- 2. Incentives: [Database of State Incentives for Renewables and Efficiency Savings By Design](#)
[Energy Design Resources](#)
[EPA Guide to Funding Opportunities for Green Buildings](#)
- 3. Building Materials: [Green Product Directory: Build It Green](#)