



Development Services Department  
 Building Inspection Division  
 311 Vernon Street  
 Roseville, California 95678-2649  
 (916)774-5332 \* Fax(916)774-5394

## 2017 Residential Occupancies Application Checklist for Green Building Code Requirements

Based on the 2016 California Green Building Standards Code

The purpose of this code is to improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. These measures shall be provided as a sheet within the master plans or on a compact disc or other available media at the time of plan review.

Feature or Measure	Levels		Verification Method					
	Applicant to select elective measures		Enforcing agency to specify verification method					
	Mandatory	Prerequisites and electives <sup>1</sup>	Enforcing Agency	Installer or Designer	Third party			
		Tier 1	Tier 2	<input type="checkbox"/>	<input type="checkbox"/>	All	All	All
<b>PLANNING AND DESIGN</b>								
<b>Site Selection</b>								
<b>A4.103.1</b> A site which complies with at least one of the following characteristics is selected: 1. An infill site is selected. 2. A greyfield site is selected. 3. An EPA-recognized Brownfield site is selected.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.103.2</b> Facilitate community connectivity by one of the following methods: 1. Locate project within a 1/4-mile true walking distance of at least 4 basic services; 2. Locate project within 1/2-mile true walking distance of at least 7 basic services; 3. Other methods increasing access to additional resources.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Site Preservation</b>								
<b>A4.104.1</b> An individual with oversight responsibility for the project has participated in an educational program promoting environmentally friendly design or development and has provided training or instruction to appropriate entities.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Deconstruction and Reuse of Existing Materials</b>								
<b>A4.105.2</b> Existing buildings are disassembled for reuse or recycling of building materials. The proposed structure utilizes at least one of the following materials which can be easily reused: 1. Light fixtures 2. Plumbing fixtures 3. Doors and trim 4. Masonry 5. Electrical devices 6. Appliances 7. Foundations or portions of foundations		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Site Development</b>								
<b>4.106.2</b> A plan is developed to manage storm water drainage during construction.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.106.3</b> Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings.	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.106.4</b> Provide capability for electric vehicle charging in one and two-family dwellings and in townhouses with attached private garages; and 3 percent of total parking spaces, as specified, for multifamily dwellings.	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Feature or Measure	Levels			Verification Method		
	Mandatory	Applicant to select elective measures		Enforcing agency to specify verification method		
		Prerequisites and electives <sup>1</sup>		Enforcing Agency	Installer or Designer	Third party
	Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All	
<b>A4.106.2.1</b> Soil analysis is performed by a licensed design professional and the findings utilized in the structural design of the building.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.106.2.2</b> Soil disturbance and erosion are minimized by at least one of the following: 1. Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. 2. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. 3. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.106.2.3</b> Topsoil shall be protected or saved for reuse as specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area.	<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/> <sup>1</sup> <input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.106.3</b> Post construction landscape designs accomplish one or more of the following: 1. Areas disrupted during construction are restored to be consistent with native vegetation species and patterns. 2. Utilize at least 75 percent California or drought tolerant plant and tree species appropriate for the climate zone region.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.106.4</b> Permeable paving is utilized for the parking, walking or patio surfaces in compliance with the following: Tier 1. Not less than 20 percent of the total parking, walking or patio surfaces shall be permeable. Tier 2. Not less than 30 percent of the total parking, walking or patio surfaces shall be permeable.	<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.106.5</b> Roofing materials shall have a minimum 3-year aged solar reflectance and thermal emittance or a minimum Solar Reflectance Index (SRI) equal to or greater than the values specified in Tables A4.106.5.1(1) and A4.106.5.1(2) for low-rise residential buildings and Tables A4.106.5.1(3) and A4.106.5.1(4) for high rise residential buildings.  <b>Low-rise Residential</b> Tier 1 roof covering shall meet or exceed the values contained in Table A4.106.5.1(1). Tier 2 roof covering shall meet or exceed the values contained in Table A4.106.5.1(2).  <b>High-rise Residential, Hotels and Motels</b> Tier 1 roof covering shall meet or exceed the values contained in Table A4.106.5.1(3). Tier 2 roof covering shall meet or exceed the values contained in Table A4.106.5.1(4).	<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/> <sup>1</sup> <input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.106.6</b> Install a vegetated roof for at least 50 percent of the roof area. Vegetated roofs shall comply with requirements for roof gardens and landscaped roofs in the California Building Code, Chapters 15 and 16.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<sup>1</sup> Required prerequisite for this Tier.  
2017 Residential Green Code Checklist  
Revised 04/20/2017

Feature or Measure	Levels		Verification Method			
	Mandatory	Applicant to select elective measures		Enforcing agency to specify verification method		
		Prerequisites and electives <sup>1</sup>		Enforcing Agency	Installer or Designer	Third party
	Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All	
<p><b>A4.106.7</b> Reduce non-roof heat islands for 50 percent of sidewalks, patios, driveways or other paved areas by using one or more of the methods listed;</p> <ol style="list-style-type: none"> <li>1. Trees or other plantings to provide shade and that mature within 15 years of planting. Trees should be native or adaptive to the region and climate zones and noninvasive; hardy and resistant to drought, insects and disease; easy to maintain (no frequent shedding of twigs, branches, unwanted fruit or seed pods); and suitable in mature size and environmental requirements for the site. Tree selection and placement should consider location and size of areas to be shaded, location of utilities, views from the structure, distance to sidewalks and foundations, overhangs onto adjacent properties and streets; other infrastructure and adjacent to landscaping. In addition, shading shall not cast a shadow, as specified, on any neighboring solar collectors pursuant to <i>Public Resources Code</i> Section 25981, et seq. (Solar Shade Control Act).</li> <li>2. Use high albedo materials with an initial solar reflectance value of at least 0.30 as determined in accordance with American Society for Testing and Materials (ASTM) Standards E1918 or C1549.</li> <li>3. Use open grid pavement system or pervious or permeable pavement system.</li> <li>4. Locate 50 percent of parking underground or use multilevel parking.</li> <li>5. Other methods of reducing heat island effects acceptable to the enforcing agency.</li> </ol>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>A4.106.8.1 (New one and two family dwellings and townhouses with attached private garages)</b> Tier 1 and Tier 2 for one- and two-family dwellings and townhouses with attached private garages install a dedicated 208/240-volt branch circuit, including an overcurrent protective device rated at 40 amperes minimum per dwelling unit.</p>	<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>A4.106.8.2 (New Multifamily Dwellings)</b> Tier 1 and Tier 2. Where 17 or more multifamily dwelling units are constructed on a building site, 5 percent of the total number of parking spaces provided for all types of parking facilities, but in no case less than one, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number. See Section 4.106.4.2 for additional requirements related to EVCS for multifamily dwellings.</p>	<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>A4.106.9</b> Provide bicycle parking facilities as noted below;. Number of bicycle parking spaces may be reduced, as approved by the enforcing agency, due to building site characteristics, including but not limited to, isolation from other development.</p> <ol style="list-style-type: none"> <li>1. Provide short-term bicycle parking, per Section A4.106.9.1.</li> <li>2. Provide long-term bicycle parking for multifamily buildings, per Section A4.106.9.2</li> <li>3. Provide long-term bicycle parking for hotel and motel buildings, per Section A4.106.9.3.</li> </ol>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>A4.106.10 [HR]</b> Outdoor lighting systems shall be designed and installed to comply with:</p> <ol style="list-style-type: none"> <li>1. The minimum requirements in the <i>California Energy Code</i> for Lighting Zones 1-4; and</li> <li>2. Backlight, Uplight and Glare (BUG) ratings as defined in IES TM-15-11; and</li> <li>3. Allowable BUG ratings not exceeding those shown in Table A4.106.10.</li> </ol>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Feature or Measure	Levels		Verification Method			
	Applicant to select elective measures		Enforcing agency to specify verification method			
	Mandatory	Prerequisites and electives <sup>1</sup>	Enforcing Agency	Installer or Designer	Third party	
	Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All	
<b>Energy Efficiency</b>						
<b>General</b>						
<b>Performance Approach for Newly Constructed Buildings</b>						
<b>A4.203.1.1.1</b> An Energy Design Rating for the Proposed Design Building is included in the Certificate of Compliance documentation.		<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/> <sup>1</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.203.1.1.2</b> QII procedures specified in the Building Energy Efficiency Standards Reference Residential Appendix RA3.5 are completed.		<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/> <sup>1</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.203.1.2.1 Tier 1:</b> Buildings complying with the first level of advanced energy efficiency shall have either an Energy Budget that is no greater than 85 percent of the Title 24, Part 6 Energy Budget for the Standard Design Building, or an Energy Design Rating showing a 15% or greater reduction in its Energy Budget component compared to the Standard Design Building, as calculated by Title 24, Part 6 Compliance Software approved by the Energy Commission.		<input type="checkbox"/> <sup>1</sup>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.203.1.2.2 Tier 2:</b> Buildings complying with the second level of advanced energy efficiency shall have either an Energy Budget that is no greater than 70 percent of the Title 24, Part 6 Energy Budget for the Standard Design Building, or an Energy Design Rating showing a 30% or greater reduction in its Energy Budget component compared to the Standard Design Building, as calculated by Title 24, Part 6 Compliance Software approved by the Energy Commission.			<input type="checkbox"/> <sup>1</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.203.1.2.3 Zero Net Energy Design (elective):</b> Shall comply with all of the following: 1. Section A4.203.1.1 (Prerequisite) and 2. Section A4.203.1.2.2 1. for single-family buildings in Climate Zones 1-5 and 8-16, and low-rise multifamily buildings in Climate Zones 1, 2, 4, and 8-16 2. Energy Design Rating of zero (0) or less		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3. Performance Approach for Additions</b>						
<b>A4.204.1.1 Tier 1.</b> If only one mechanical system is added or modified, the Energy Budget is no greater than 95 percent of the Title 24, Part 6, Energy Budget for the Standard Design Building. If two or more mechanical systems are added or modified, the Energy Budget is no greater than 90 percent of the Title 24, Part 6, Energy Budget for the Standard Design Building.		<input type="checkbox"/> <sup>1</sup>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.204.1.2 Tier 2.</b> If only one mechanical system is added or modified, the Energy Budget is no greater than 90 percent of the Title 24, Part 6, Energy Budget for the Standard Design Building. If two or more mechanical systems are added or modified, the Energy Budget is no greater than 85 percent of the Title 24, Part 6, Energy Budget for the Standard Design Building.			<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Water Efficiency and Conservation</b>						
<b>Indoor Water Use</b>						
<b>4.303.1.1</b> Water closets. 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 U.S. EPA Water Sense Specification for Tank-type Toilets.	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.303.1.2</b> Urinals. The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Feature or Measure	Levels			Verification Method		
	Mandatory	Applicant to select elective measures		Enforcing agency to specify verification method		
		Prerequisites and electives <sup>1</sup>		Enforcing Agency	Installer or Designer	Third party
	Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All	
<b>4.303.1.3.1</b> Single showerhead. 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 U.S. EPA Water Sense Specification for Showerheads.	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.303.1.3.2</b> Multiple showerheads serving one shower. 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.	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.303.1.4</b> Residential lavatory faucets. The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall not be less than 0.8 gallons per minute at 20 psi.	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.303.2</b> Plumbing fixtures and fittings required in Section 4.303.1 Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1701.1 of the <i>California Plumbing Code</i> .	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.303.1 Kitchen faucets.</b> The maximum flow rate of kitchen faucets shall not exceed 1.5 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.5 gallons per minute at 60 psi. <b>Note:</b> Where complying faucets are available, aerators or other means may be used to achieve reduction.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.303.2</b> Alternate water source for non-potable applications. Alternate non-potable water sources are used for indoor potable water reduction. Alternate non-potable water sources shall be installed in accordance with the <i>California Plumbing Code</i> .		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.303.3</b> Install at least one qualified ENERGY STAR dishwasher or clothes washer.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.303.4</b> Non-water supplied urinals or waterless toilets are installed.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.303.5 Hot water recirculation systems.</b> One- and two-family dwellings shall be equipped with a demand hot water recirculation system, as defined in Chapter 2. The demand hot water recirculation system shall be installed in accordance with the <i>California Plumbing Code</i> , <i>California Energy Code</i> , and the manufacturer's installation instructions.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Outdoor Water Use</b>						
<b>4.304.1</b> New residential developments shall comply with California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), with City of Roseville amendments per the City adopted ordinance.	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.304.1 Rainwater catchment systems.</b> An approved rainwater catchment system is designed and installed to use rainwater generated by at least 65 percent of the available roof area. Rainwater catchment systems shall be designed and installed in accordance with the <i>California Plumbing Code</i> .		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.304.2 Potable water elimination.</b> When landscaping is provided and as allowed by local ordinance, a water efficient landscape irrigation design that eliminates the use of potable water beyond the initial requirements for plant installation and establishment should be provided. Methods used to accomplish the requirements of this section must be designed to the requirements of the <i>California Building Standards Code</i> and shall include, but not be limited to, the following: 1. Use of captured rainwater. 2. Use of recycled water. 3. Water treated for irrigation purposes and conveyed by a water district or public entity. 4. Use of graywater (If approved by Roseville E.U.).		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Feature or Measure	Levels			Verification Method		
	Mandatory	Applicant to select elective measures		Enforcing agency to specify verification method		
		Prerequisites and electives <sup>1</sup>		Enforcing Agency	Installer or Designer	Third party
	Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All	
<b>A4.304.3</b> For new water service connections, landscaped irrigated areas less than 5,000 square feet shall be provided with separate submeters or metering devices for outdoor potable water use.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>WATER REUSE SYSTEMS</b>						
<b>A4.305.1</b> Piping is installed to permit future use of a graywater irrigation system served by the clothes washer or other fixtures.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.305.2</b> Recycled water piping is installed.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.305.3</b> Recycled water is used for landscape irrigation.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>MATERIAL CONSERVATION AND RESOURCE EFFICIENCY</b>						
<b>Foundation Systems</b>						
<b>A4.403.1</b> A Frost-protected Shallow Foundation (FPSF) is designed and constructed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.403.2</b> Cement use in foundation mix design is reduced. Tier 1. Not less than a 20 percent reduction in cement use. Tier 2. Not less than a 25 percent reduction in cement use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Efficient Framing Techniques</b>						
<b>A4.404.1</b> Beams and headers and trimmers are the minimum size to adequately support the load.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.404.2</b> Building dimensions and layouts are designed to minimize waste.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.404.3</b> Use premanufactured building systems to eliminate solid sawn lumber whenever possible.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.404.4</b> Material lists are included in the plans which specify material quantity and provide direction for on-site cuts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Material Sources</b>						
<b>A4.405.1</b> One or more of the following building materials, that do not require additional resources for finishing are used: 1. Exterior trim not requiring paint or stain 2. Windows not requiring paint or stain 3. Siding or exterior wall coverings which do not require paint or stain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.405.2</b> Floors that do not require additional coverings are used including but not limited to stained, natural or stamped concrete floors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.405.3</b> Postconsumer or pre-consumer recycled content value (RCV) materials are used on the project. Tier 1. Not less than a 10-percent recycled content value. Tier 2. Not less than a 15-percent recycled content value.	<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.405.4</b> Renewable source building products are used.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Enhanced Durability and Reduced Maintenance</b>						
<b>4.406.1</b> Annular spaces around pipes, electric cables, conduits, or other openings in plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>Water Resistance and Moisture Management</b>						
<b>A4.407.1</b> Install foundation and landscape drains.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.407.2</b> Install gutter and downspout systems to route water at least 5 feet away from the foundation or connect to landscape drains which discharge to a dry well, sump, bioswale, rainwater capture system or other approved on-site location.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.407.3</b> Provide flashing details on the building plans and comply with accepted industry standards or manufacturer's instructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Feature or Measure	Levels		Verification Method			
	Applicant to select elective measures		Enforcing agency to specify verification method			
	Mandatory	Prerequisites and electives <sup>1</sup>		Enforcing Agency <input type="checkbox"/> All	Installer or Designer <input type="checkbox"/> All	Third party <input type="checkbox"/> All
Tier 1		Tier 2				
<b>A4.407.4</b> Protect building materials delivered to the construction site from rain and other sources of moisture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.407.6</b> Exterior doors to the dwelling are protected to prevent water intrusion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.407.7</b> A permanent overhang or awning at least 2 feet in depth is provided.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Construction Waste Reduction, Disposal and Recycling</b>						
<p><b>4.408.1</b> A construction waste management plan shall be submitted for approval that:</p> <ol style="list-style-type: none"> <li>Identifies the materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale.</li> <li>Specifies if materials will be sorted on-site or mixed for transportation to a diversion facility.</li> <li>Identifies the diversion facility where the material collected will be taken.</li> <li>Identifies construction methods employed to reduce the amount of waster generated.</li> <li>Specifies that the amount of materials diverted shall be calculated by weight or volume, but not both.</li> </ol> <p>This may be done by completing the 'Construction &amp; Demolition Waste Management Plan Resource Guide for Contractors' form that is required for this project by local ordinance (RMC Sec. 9.17). This is available online</p> <p>This documents shall be provided to both the Building Division and the Solid Waste Division. This can be submitted to the Solid Waste Division for submittal via email or in person.</p> <p>Receipts shall be provided to inspector prior to final for compliance with Documentation requirement of Sec. 4.408.5</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>A4.408.1</b> Construction waste generated at the site is diverted to recycle or salvage in compliance with one of the following:</p> <ol style="list-style-type: none"> <li>Tier 1 at least a 65 percent reduction. Any mixed recyclables that are sent to mixed-waste recycling facilities shall include a qualified third party verified facility average diversion rate. Verification of diversion rates shall meet minimum certification eligibility guidelines, acceptable to the local enforcing agency.</li> <li>Tier 2 at least a 75 percent reduction with a third-party verification.</li> </ol> <p><b>Exception:</b> Equivalent waste reduction methods are developed by working with local agencies.</p>		<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Building Maintenance and Operation</b>						
<p><b>4.410.1</b> At the time of final inspection, a manual, compact disk, web-based reference or other media acceptable to the enforcing agency which includes all of the following shall be placed in the building.</p> <ol style="list-style-type: none"> <li>Directions that the manual stays with the house for the life cycle of the structure.</li> <li>Operation and Maintenance instructions for equipment, appliances, including water-saving devices and systems, HVAC systems, water-heating systems and other major appliances and equipment. Roof and yard drainage, including gutters and downspouts. Space conditioning systems, including condensers and air filters. Landscape irrigation systems. Water reuse systems.</li> <li>Information from local utility, water and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.</li> <li>Public transportation and/or carpool options available in the area.</li> <li>Educational material on the positive impacts of an interior relative humidity between 30-60% and what methods on occupant may use to maintain the relative humidity level in that range.</li> </ol>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Feature or Measure	Levels		Verification Method			
	Applicant to select elective measures		Enforcing agency to specify verification method			
	Mandatory	Prerequisites and electives <sup>1</sup>		Enforcing Agency <input type="checkbox"/> All	Installer or Designer <input type="checkbox"/> All	Third party <input type="checkbox"/> All
Tier 1		Tier 2				
<p>6. Information about water conserving landscape and irrigation design and controllers which conserve water.</p> <p>7. Instruction for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.</p> <p>8. Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.</p> <p>9. Information about state solar energy and incentive programs available. A copy of all special inspection verifications required by the enforcing agency or this code.</p>						
<p><b>4.410.2</b> Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible areas that serve all buildings on the site and is identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive. See exception for rural jurisdictions.</p>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>ENVIRONMENTAL QUALITY</b>						
<b>Fireplaces</b>						
<p><b>4.503.1</b> Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.</p>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Pollutant Control</b>						
<p><b>4.504.1</b> At the time of rough installation or during storage on the construction site and until final startup of the heating and cooling equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of dust or debris which may collect in the system.</p>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>4.504.2.1</b> Adhesives, sealants and caulks shall meet VOC limits of Table 4.504.1 or Table 4.504.2 and other toxic compounds.</p>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>4.504.2.2</b> Paints, stains and other coatings shall be compliant with VOC limits of Table 4.504.3.</p>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>4.504.2.3</b> Aerosol paints and coatings shall be compliant with product-weighted MIR limits for ROC and other toxic compounds.</p>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>4.504.2.4</b> Documentation shall be provided to verify that compliant VOC limit finish materials have been used;</p> <p><input type="checkbox"/> Manufacturer's product specification.</p> <p><input type="checkbox"/> Field verification of on-site product containers.</p>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>4.504.3 Carpet systems.</b> All carpet installed in the building interior shall meet the testing and product requirements of one of the following:</p> <p><input type="checkbox"/> Carpet and Rug Institute's Green Label Plus Program</p> <p><input type="checkbox"/> California Department of Public Health Standard Practice for the testing of VOCs</p> <p><input type="checkbox"/> NSF/ANSI 140 at the Gold level</p> <p><input type="checkbox"/> Scientific Certifications Systems Indoor Advantage Gold</p>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>4.504.3.1 Carpet cushion.</b> All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program.</p>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>4.504.3.2 Carpet adhesive.</b> All carpet adhesive shall meet the requirements of Table 4.504.1</p>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Feature or Measure	Levels		Verification Method			
	Applicant to select elective measures		Enforcing agency to specify verification method			
	Mandatory	Prerequisites and electives <sup>1</sup>		Enforcing Agency <input type="checkbox"/> All	Installer or Designer <input type="checkbox"/> All	Third party <input type="checkbox"/> All
Tier 1		Tier 2				
<p><b>4.504.4 Resilient flooring systems.</b> Where resilient flooring is installed, at least 80 percent of floor area receiving resilient flooring shall comply with one or more of the following:</p> <ol style="list-style-type: none"> <li>Products compliant with 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 Specification 01350), certified as a CHPS Low-Emitting Material in the Collaborative for High Performance Schools (CHPS) High Performance Products Database.</li> <li>Products certified under UL GREENGUARD Gold (formerly the Greenguard Children &amp; Schools program).</li> <li>Certification under the Resilient Floor Covering Institute (RFCI) Floor Score program.</li> </ol> <p>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," Version 1.1, February 2010 (also known as Specification 01350).</p>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>4.504.5 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 for Composite Wood (17 CCR 93120 et seq.), by or before the dates specified in those sections, as shown in Table 4.504.5.</p>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>4.504.5.1 Documentation.</b> 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"> <li>Product certifications and specifications.</li> <li>Chain of custody certifications.</li> <li>Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).</li> <li>Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269, European 636 3S, and Canadian CSA O121, CSA O151, CSA O153 and CSA O325 standards.</li> <li>Other methods acceptable to the enforcing agency.</li> </ol>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>A4.504.1</b> Use composite wood products made with either California Air Resources Board approved no-added formaldehyde (NAF) resins or ultra-low emitting formaldehyde (ULEF) resins.</p>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>A4.504.2</b> Install VOC compliant resilient flooring systems.</p> <p>Tier 1. At least 90 percent of the resilient flooring installed shall comply.</p> <p>Tier 2. At least 100 percent of the resilient flooring installed shall comply.</p>		<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>A4.504.3</b> Thermal insulation installed in the building shall meet the following requirements:</p> <p>Tier 1. Install thermal insulation in compliance with VOC limits.</p> <p>Tier 2. Install insulation which contains No-Added Formaldehyde (NAF) and is in compliance with Tier 1.</p>		<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/> <sup>1</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Interior Moisture Control</b>						
<p><b>4.505.2.1 Capillary break.</b> A capillary break shall be installed in compliance with at least one of the following:</p> <ol style="list-style-type: none"> <li>A 4-inch-thick (101.6 mm) base of 1/2 inch (12.7 mm) or larger clean aggregate shall be provided with a vapor retarder in direct contact with concrete and a concrete mix design, which will address bleeding, shrinkage, and curling, shall be used. For additional information, see American Concrete Institute, ACI 302.2R-06.</li> </ol>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Feature or Measure	Levels		Verification Method		
	Applicant to select elective measures		Enforcing agency to specify verification method		
	Mandatory	Prerequisites and electives <sup>1</sup>	Enforcing Agency	Installer or Designer	Third party
	Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All
2. Other equivalent methods approved by the enforcing agency. 3. A slab design specified by a licensed design professional.					
<b>4.505.3 Moisture content of building materials.</b> Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19-percent moisture content. Moisture content shall be verified in compliance with the following:  1. Moisture content shall be determined with either a probe-type or contact-type moisture meter. Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements found in Section 101.8 of this code.  2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end of each piece to be verified.  3. At least three random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing.  Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Indoor Air Quality and Exhaust</b>					
<b>4.506.1 Bathroom exhaust fans.</b> Each bathroom shall be mechanically ventilated and shall comply with the following:  1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.  2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control. a. Humidity controls shall be capable of adjustment between a relative humidity range of ≤ 50 percent to a maximum of 80 percent. a. humidity control may utilize manual or automatic means of adjustment.  A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in).	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.506.1</b> Return air filters with a value greater than MERV 6 shall be installed on HVAC systems. Pressure drop across the filter shall not exceed 0.1 inches water column.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.506.2 [HR]</b> Provide filters on return air openings rated MERV 6 or higher during construction when it is necessary to use HVAC equipment.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.506.3</b> Direct-vent appliances shall be used when equipment is located in conditioned space; or the equipment must be installed in an isolated mechanical room.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Environmental Comfort</b>					
<b>4.507.2 Heating and air-conditioning system design.</b> Heating and air-conditioning systems shall be sized, designed and have their equipment selected using the following methods:  1. The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J—2011 ( <i>Residential Load Calculation</i> ), ASHRAE handbooks or other equivalent design software or methods.  2. Duct systems are sized according to ANSI/ACCA 1 Manual D—2014 ( <i>Residential Duct Systems</i> ), ASHRAE handbooks or other equivalent design software or methods.  Select heating and cooling equipment according to ANSI/ACCA 3 Manual S—2014 ( <i>Residential Equipment Selection</i> ) or other equivalent design software or methods.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>

Feature or Measure	Levels		Verification Method			
	Applicant to select elective measures		Enforcing agency to specify verification method			
	Mandatory	Prerequisites and electives <sup>1</sup>		Enforcing Agency <input type="checkbox"/> All	Installer or Designer <input type="checkbox"/> All	Third party <input type="checkbox"/> All
Tier 1		Tier 2				
<b>INSTALLER AND SPECIAL INSPECTOR QUALIFICATIONS</b>						
<b>702.1</b> HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>703.1</b> Verification of compliance with this code may include certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial conformance.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>