

2022 CALGreen CHECKLIST - NONRESIDENTIAL - NEW

(MANDATORY MEASURES + TIER 1)



City of
SANTA ROSA
Planning & Economic
Development - Building Division
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EFFECTIVE: 01 JANUARY 2023

FREE ACCESS TO CALIFORNIA CODES: <https://www.dgs.ca.gov/BSC/Codes#@ViewBag.JumpTo>

Applies to building permit applications received on or after January 1, 2023, for newly constructed nonresidential buildings. New construction requirements also apply to newly constructed nonresidential shell buildings, and all phases containing initial tenant-improvements to phased shell building projects; area limits/qualifications shall be based on the total planned square footage of all phases (See CALGreen Section **303.1**). For subsequent nonresidential additions or alterations, see separate checklist.

PROJECT ADDRESS: _____

PROJECT NAME: _____

PROJECT DESCRIPTION: _____

BUILDING PERMIT NUMBER: _____

INSTRUCTIONS:

The Owner (or the Owner's agent) shall employ a *qualified CALGreen Inspector, listed by the City of Santa Rosa Building Division, to complete this checklist via the following steps:

1. The CALGreen Inspector, in collaboration with the owner and the design professional, shall complete Column 2 of this checklist. Either "required" or "not required" is to be selected for each feature/measure. If "required" is selected, a description and reference to the plan sheet where the item is specified should be provided. If "not required" is selected, a description of why the feature/measure does not apply shall be provided. **Sections not separated by horizontal lines are all related to the relative checkboxes in that non-separated box.** See CALGreen Chapter 4 and Appendix A4 for complete descriptions of features and measures listed below. A specific number of Tier 1 electives is required for each general Tier 1 Elective Section. See CALGreen Section A4.601 for Tier 1 scoping.
2. When Column 2 is complete, the Owner, Design Professional, and CALGreen Inspector are to be identified on, sign, and date the CALGreen Building Acknowledgements Section 1 (Design Verification) at the end of this checklist. The completed checklist is then to be submitted to the City of Santa Rosa Building Division as part of the building permit application.
3. Building Division plan review staff will provide a fourth review of the plans and Column 2 (first three by Owner, Design Professional, and CALGreen Inspector as stated above). When approvable, the approved checklist will be included as part of the approved job set that is to be kept on the construction site throughout construction.
4. The CALGreen Inspector is to inspect all applicable features/measures listed in Column 2, and mark the verification boxes in Column 3 as each feature/measure is completed.
5. Prior to final inspection by the Building Division, the CALGreen Inspector shall verify that all applicable features/measures have been installed, and sign and date the CALGreen Building Acknowledgements Section 2 (Implementation Verification) found at the end of this checklist.

***NOTE:** The CALGreen Inspector shall not be the design professional or contractor for the project, and shall not have a financial interest in the project for which services are being provided (except for the cost of providing said services.) If you are a qualified CALGreen Inspector, but have not been added to the approved City list, please contact the Building Division via email at building@srcity.org

COLUMN 1: FEATURE OR MEASURE	COLUMN 2: PROJECT DESIGN REQUIREMENTS		COLUMN 3: FIELD VERIFICATION
PAGE 2 of 28 EFFECTIVE: 01 JANUARY 2023	MANDATORY MEASURES & TIER 1 PREREQUISITES	TIER 1 ELECTIVES	
CALGreen DIVISIONS 5.1 & A5.1: PLANNING AND DESIGN	ALL ITEMS ARE REQUIRED UNLESS OTHERWISE JUSTIFIED	SELECT AT LEAST ONE ELECTIVE MEASURE FROM A5.1	SELECT ALL MEASURES VERIFIED IN THE COMPLETED PROJECT
Site Selection			
A5.103.1 Community connectivity. Locate the project on a previously developed site within a ½ mile radius of at least ten basic services, listed in Section A5.103.1 . <i>(Support documentation required at application submittal)</i>		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.103.2 Brownfield or greyfield site redevelopment or infill area development. Select for development a brownfield in accordance with Section A5.103.2.1 , or a greyfield or infill site as defined in Section A5.102 . Brownfield sites must be fully remediated in accordance with EPA regulations to the level required of the anticipated land use.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Site Preservation			
A5.104.1 Reduce development footprint and optimize open space. Optimize open space on the project site in accordance with Sections A5.104.1.1 , A5.104.1.2 , OR A5.104.1.3 . A5.104.1.1 Local zoning requirement in place. Exceed the zoning's open space requirement for vegetated open space on the site by 25%. A5.104.1.2 No local zoning requirement in place. Provide vegetated open space area adjacent to the building equal to the building footprint area. A5.104.1.3 No open space required in zoning ordinance. Provide vegetated open space equal to 20% of the total project site area.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Deconstruction and Reuse of Existing Materials			
A5.105.1.1 Maintain at least 75% of existing building structure (including structural floor and roof decking) and envelope (exterior skin and framing) based on surface area. <i>(Support documentation required at application submittal)</i> Exceptions: 1. Window assemblies and non-structural roofing material. 2. Hazardous materials that are remediated as a part of the project. 3. A project with an addition of more than 2 times the square footage of the existing building.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

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<p>A5.105.1.2 Existing non-structural elements. Reuse existing interior nonstructural elements (interior walls, doors, floor coverings and ceiling systems) in at least 50% of the area of the completed building (including additions).</p> <p>Exception: A project with an addition of more than 2 times the square footage of the existing building.</p> <p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>		<input type="checkbox"/>	<input type="checkbox"/>
<p>A5.105.1.3 Salvage. Salvage additional items in good condition such as light fixtures, plumbing fixtures, and doors for reuse on this project in an onsite storage area or for salvage in dedicated collection bins. Document the weight or number of the items salvaged.</p> <p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>		<input type="checkbox"/>	<input type="checkbox"/>
Site Development			
<p>5.106.1 Storm water pollution prevention plan (< 1 acre). Newly constructed projects which disturb less than one acre of land, and are not part of a larger common plan of development or sale, shall prevent the pollution of storm water runoff from the construction activities by complying with lawfully enacted storm water management and/or erosion control ordinances. See Santa Rosa City Code Chapter 17-12 (5.106.1.1). Implement BMPs (5.106.1.2)</p> <p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<p>A5.106.2 Storm Water Pollution Plan (> 1 acre). For projects that disturb one acre or more of land, or disturb less than one acre of land, but are part of a larger common plan of development or sale, comply with Santa Rosa City Code Chapter 17-12, NCRWQCB construction permit and NPDES permit.</p> <p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<p>A5.106.3 Low impact development (LID). Mitigate storm water runoff from the 85th percentile event through the application of LID strategies. Employ at least two of the following methods (or other best management practices) to allow rainwater to soak into the ground, evaporate into the air, or collect in storage receptacles for irrigation or other beneficial uses. In addition, apply Sections A5.106.3.1 and A5.106.3.2, where applicable.</p> <ol style="list-style-type: none"> 1. Bioretention (rain gardens)/filtration planters 2. Cisterns and rain barrels (precipitation capture) 3. Green roofs 4. Roof leader or impervious area disconnection 5. Permeable and porous paving 6. Vegetative swales and filter strips 7. Tree preservation and tree plantings 8. Landscaping soil quality 9. Stream buffer 10. Volume retention suitable for previously developed sites 		<input type="checkbox"/>	<input type="checkbox"/>



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<p>A5.106.3.1 Implementation. Coordinate with the North Coast Regional Water Quality Control Board (NC RWQCB) permit, if applicable.</p> <p>A5.106.3.2 Greyfield or infill site. Manage 40% of the average annual rainfall on the site's impervious surfaces through infiltration, reuse or evapotranspiration.</p>			
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			
<p>5.106.4.1.1 Short-term bicycle parking. If the new project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack. Consult the local zoning code for additional requirements (CALGreen 5.106.4.1).</p>	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			
<p>5.106.4.1.2 Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces, with a minimum of one bicycle parking facility. Consult the local zoning code for additional requirements (CALGreen 5.106.4.1).</p>	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			
<p>5.106.4.1.4 For New Shell Buildings. In phased projects, provide secure bicycle parking for 5% of the anticipated tenant-occupant vehicular parking spaces. Minimum one bicycle parking facility.</p>	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			
<p>5.106.4.1.5 Acceptable parking facilities for Sections 5.106.4.1.2, 5.106.4.1.3, and 5.106.4.1.4 shall be convenient from the street, and shall meet one of the following:</p> <ol style="list-style-type: none"> 1. Covered, lockable enclosures with permanently anchored racks for bicycles 2. Lockable bicycle rooms with permanently anchored racks 3. Lockable, permanently anchored bicycle lockers 	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			
<p>A5.106.4.3 Changing rooms. For buildings with over 10 tenant-occupants, provide changing/shower facilities in accordance with Table A5.106.4.3, or document arrangements with nearby changing/shower facilities.</p>		<input type="checkbox"/>	<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			

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<p>A5.106.5.1 Designated parking for clean air vehicles. Where the project adds 10 or more vehicular parking spaces, provide designated parking for any combination of zero-emitting, fuel-efficient, and carpool/vanpool vehicles as listed in code Sections A5.106.5.1.1, and mark them per A5.106.5.1.3. (<i>Tier 1 Prerequisite</i>)</p> <p>A5.106.5.1.1 Tier 1. Provide 35% of total designated parking spaces for any combination of zero-emitting, fuel-efficient, and carpool/vanpool vehicles. Calculations for spaces shall be rounded up to the nearest whole number.</p> <p>A5.106.5.1.3 Parking stall marking. 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:</p> <p style="text-align: center;">CLEAN AIR/ VANPOOL/EV</p>	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>A5.106.5.3 Electric vehicle (EV) charging. Construction shall comply with Section A5.106.5.3.1 to facilitate future installation of electric vehicle supply equipment (EVSE). When EVSE(s) is/are installed, it shall be in accordance with the California Building Code and California Electrical Code and as follows:</p> <p>A5.106.5.3.1 Tier 1. Table A5.106.5.3.1 shall be used to determine the number of EV capable spaces required. Refer to Section 5.106.5.3 for design space requirements. When EV capable spaces are provided with EVSE to create EVCS per Table A5.106.5.3.1, refer to Section 5.106.5.3.2 for the allowed use of Level 2 or Direct Current Fast Chargers (DCFC), and Section 5.106.5.3.3 for the allowed use of Automatic Load Management Systems (ALMS). When EVSE is installed, accessible EVC shall be provided in accordance with the California Building Code, Chapter 11B, Section 11B-228.3. (CALGreen 5.106.5.3.4)</p>	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
TABLE A5.106.5.3.1			
TOTAL # OF PARKING SPACES		TIER 1 # OF REQUIRED EV CAPABLE SPACES	TIER 1 # OF EVCS (EV CAPABLE SPACES PROVIDED WITH EVSE) ²
0-9		2	0
10-25		5	2
26-50		11	4
51-75		19	5
76-100		26	9
101-150		38	13
151-200		53	18
201 and over		30% of total parking spaces ¹	33% of EV capable spaces ¹
¹ Calculation for spaces shall be rounded up to the nearest whole number			
² The number of required EVCS (EV capable spaces provided with EVSE) in the 3 rd column count toward the total number of required EV capable spaces shown in the 2 nd column			
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

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<p>5.106.5.4.1 Electric vehicle charging readiness requirements for warehouses, grocery stores and retail stores with planned off-street loading spaces. In order to avoid future demolition when adding EV supply and distribution equipment, spare raceways or busways and adequate capacity for transformers, service panels, or subpanels shall be installed at the time of construction in accordance with the California Electrical Code. Construction plans and specifications shall include, but are not limited to, the following:</p> <ol style="list-style-type: none"> 1. The transformer, main service equipment, and subpanels shall meet the minimum power requirement in Table 5.106.5.4.1 to accommodate the dedicated branch circuits for the future installation of EVSE. 2. The construction documents shall indicate one or more locations (convenient to the planned off-street loading spaces) reserved for medium- and heavy-duty ZEV charging cabinets and charging dispensers, and a pathway reserved for routing of conduit from the termination of the raceways or busways to the charging cabinets and dispensers, as shown in Table 5.106.5.4.1. 3. Raceways or busways originating at a main service panel or a subpanel serving the area where potential future medium- and heavy-duty EVSE will be located and shall terminate in close proximity to the potential future location of the charging equipment for medium- and heavy-duty vehicles. 4. The raceways or busways shall be of sufficient size to carry the minimum additional system load to the future location of the charging for medium- and heavy-duty ZEVs as shown in Table 5.106.5.4.1. 	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			
<p>A5.106.6 Parking capacity. Design parking capacity to meet, but not exceed, minimum local zoning requirements. <i>(Support documentation required at application submittal)</i></p> <p>A5.106.6.1 Reduce parking capacity. With the approval of the enforcement authority, employ strategies to reduce onsite parking area by one or more of the following:</p> <ol style="list-style-type: none"> 1. Use of on-street parking or compact spaces, illustrated on the site plan. 2. Implementation and documentation of programs that encourage occupants to carpool, ride share, or use alternate transportation. 		<input type="checkbox"/>	<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			
<p>A5.106.7 Exterior wall shading. Meet requirements in the current edition of the California Energy Code and with either A5.106.7.1 OR A5.106.7.2 for wall surfaces:</p> <p>A5.106.7.1 Fenestration. Provide vegetative or man-made shading devices for all fenestration on east-, south- and west-facing walls.</p> <p>A5.106.7.1.1 East and west walls. Shading devices shall have 30% coverage to a height of 20 feet or to the top of the exterior wall, whichever is less.</p> <p>A5.106.7.1.2 South walls. Shading devices shall have 60% coverage to a height of 20 feet or to the top of the exterior wall, whichever is less.</p> <p>A5.106.7.2 Opaque wall areas. Use wall surfacing with SRI 25 (aged), for 75% of opaque wall areas.</p>	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			

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<p>5.106.8 Light pollution reduction. Outdoor lighting systems shall be designed and installed to comply with the following:</p> <ol style="list-style-type: none"> The minimum requirements of the California Energy Code for Lighting Zone 2 (as defined in Chapter 10 of the California Administrative Code.) Backlight (B) ratings and orientation as defined in IES TM-15-11 (shown in Table A-1 in CALGreen Chapter 8), and per CALGreen Section 5.106.8.1. Uplight and Glare ratings per California Energy Code Tables 130.2-A and 130.2-B, and per CALGreen Section 5.106.8.2. Allowable BUG ratings not exceeding those shown in CALGreen Table 5.106.8 <p>Exceptions:</p> <ol style="list-style-type: none"> Luminaires that qualify as exceptions in the California Energy Code. Emergency lighting. Building facade meeting the requirements in Table 140.7-B of the California Energy Code, Part 6. Luminaires with less than 6,200 initial luminaire lumens. 	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.106.10 Grading and Paving. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include swales, water collection and disposal systems, French drains, water retention gardens, and other measures which keep surface water away from buildings and aid in groundwater recharge.</p>		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>A5.106.11.1 Hardscape alternatives. Use one (or a combination) of strategies 1 and 2 (below) for 50 percent of site hardscape, or put 50 percent of parking underground.</p> <ol style="list-style-type: none"> Use light colored materials with an initial solar reflectance value of at least 30 as determined in accordance with ASTM Standards E1918 or C1549. Use open-grid pavement systems, or pervious/permeable pavement systems. 		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>A5.106.11.2 Cool Roof. Use roofing materials having a minimum 3-year aged solar reflectance and thermal emittance complying with Sections A5.106.11.2.1 and A5.106.11.2.2, OR a minimum aged Solar Reflectance Index (SRI) complying with Section A5.106.11.2.3 and as shown in Table A5.106.11.2.2 - Tier 1. Documentation or inspection is required per A5.106.11.3.</p> <p>Exceptions:</p> <ol style="list-style-type: none"> Roof constructions that have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25psf. Roof area covered by building integrated solar photovoltaic and building integrated solar thermal panels. 	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

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Innovative Concepts (5.1 / A5.1)			
Proposed Innovative Concept 1:	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A	<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
CALGreen <u>DIVISION 5.2 (A5.2 NOT ADOPTED BY CITY OF SANTA ROSA, SEE SRCC 18-42.010): ENERGY EFFICIENCY</u>			
ALL ITEMS ARE REQUIRED UNLESS OTHERWISE JUSTIFIED	A5.2 NOT ADOPTED BY CITY OF SANTA ROSA - SEE SRCC 18-42.010	SELECT ALL MEASURES VERIFIED IN THE COMPLETED PROJECT	
Performance Requirements			
5.201.1 Scope. Building meets or exceeds the requirements of the 2019 California Building Energy Code. (Tier 1 not adopted locally.)	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
CALGreen <u>DIVISIONS 5.3 & A5.3: WATER EFFICIENCY AND CONSERVATION</u>			
ALL ITEMS ARE REQUIRED UNLESS OTHERWISE JUSTIFIED	SELECT AT LEAST ONE ELECTIVE MEASURE FROM A5.3	SELECT ALL MEASURES VERIFIED IN THE COMPLETED PROJECT	
Indoor Water Use			
5.303.1.1 For buildings in excess of 50,000 square feet. Separate submeters shall be installed as follows: 1. For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gal/day. 2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems: a. Makeup water for cooling towers where flow through is greater than 500gpm. b. Makeup water for evaporative coolers greater than 6 gpm. c. Steam and hot-water boilers with energy input more than 500,000 Btu/hr.	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.303.1.2 Excess consumption. A separate submeter or metering device shall be installed for any building within a project or space within a building that is projected to consume more than 1,000 gal/day.	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.303.2.3.1 Tier 1 – 12-percent savings. A schedule of plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the building by 12 percent shall be provided. The reduction shall be based on the maximum allowable water use per plumbing fixture and fitting as required by the California Building Standards Code. The 12-percent reduction in potable water use shall be demonstrated by one of the following methods (Tier 1 Prerequisite - Note: Prescriptive method supercedes 5.303.3, but the maximum flow rates of 5.303 must also be maintained if utilizing the performance method):	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>

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<p>1. Prescriptive method. Each plumbing fixture and fitting shall not exceed the maximum flow rate greater than or equal to 12-percent reduction as specified in Table A5.303.2.3.1</p> <p>2. Performance method. A calculation demonstrating a 12-percent reduction in the building "water use baseline" as established in Table A5.303.2.2 shall be provided. Documentation required at time of permit application.</p>	TABLE A5.303.2.3.1 FIXTURE FLOW RATES (PRESCRIPTIVE METHOD)																																						
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">FIXTURE TYPE</th> <th style="width: 33%;">BASELINE FLOW RATE ²</th> <th style="width: 33%;">MAXIMUM FLOW RATE, <u>></u> 12% REDUCTION</th> </tr> </thead> <tbody> <tr> <td>Showerheads</td> <td>1.8 gpm @ 80 psi</td> <td>1.6 gpm @ 80psi</td> </tr> <tr> <td>Lavatory faucets - nonresidential ³</td> <td>0.5 gpm @ 60 psi</td> <td>0.35 gpm @ 60psi</td> </tr> <tr> <td>Kitchen faucets ³</td> <td>1.8 gpm @ 60 psi</td> <td>1.6 gpm @ 60psi</td> </tr> <tr> <td>Wash fountains</td> <td>1.8 gallons/cycle/20 [rim space (in.) @ 60 psi]</td> <td>1.6 gallons/cycle/20 [rim space (in.) @ 60 psi]</td> </tr> <tr> <td>Metering faucets</td> <td>0.20 gallons/cycle</td> <td>0.18 gallons/cycle</td> </tr> <tr> <td>Metering faucets for wash fountains</td> <td>0.20 gallons/cycle/20 [rim space (in.) @ 60 psi]</td> <td>0.18 gallons/cycle/20 [rim space (in.) @ 60 psi]</td> </tr> <tr> <td>Gravity tank type water closets</td> <td>1.28 gallons/flush</td> <td>1.12 gallons/flush¹</td> </tr> <tr> <td>Flushometer tank water closets</td> <td>1.28 gallons/flush</td> <td>1.12 gallons/flush¹</td> </tr> <tr> <td>Flushometer valve water closets</td> <td>1.28 gallons/flush</td> <td>1.12 gallons/flush¹</td> </tr> <tr> <td>Electromechanical hydraulic water closets</td> <td>1.28 gallons/flush</td> <td>1.12 gallons/flush¹</td> </tr> <tr> <td>Urinals</td> <td>0.5⁴ or 0.125⁵ gallons/flush</td> <td>0.44⁴ or 0.11⁵ gallons/flush</td> </tr> </tbody> </table>	FIXTURE TYPE	BASELINE FLOW RATE ²	MAXIMUM FLOW RATE, <u>></u> 12% REDUCTION	Showerheads	1.8 gpm @ 80 psi	1.6 gpm @ 80psi	Lavatory faucets - nonresidential ³	0.5 gpm @ 60 psi	0.35 gpm @ 60psi	Kitchen faucets ³	1.8 gpm @ 60 psi	1.6 gpm @ 60psi	Wash fountains	1.8 gallons/cycle/20 [rim space (in.) @ 60 psi]	1.6 gallons/cycle/20 [rim space (in.) @ 60 psi]	Metering faucets	0.20 gallons/cycle	0.18 gallons/cycle	Metering faucets for wash fountains	0.20 gallons/cycle/20 [rim space (in.) @ 60 psi]	0.18 gallons/cycle/20 [rim space (in.) @ 60 psi]	Gravity tank type water closets	1.28 gallons/flush	1.12 gallons/flush ¹	Flushometer tank water closets	1.28 gallons/flush	1.12 gallons/flush ¹	Flushometer valve water closets	1.28 gallons/flush	1.12 gallons/flush ¹	Electromechanical hydraulic water closets	1.28 gallons/flush	1.12 gallons/flush ¹	Urinals	0.5 ⁴ or 0.125 ⁵ gallons/flush	0.44 ⁴ or 0.11 ⁵ gallons/flush		
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<p>¹ Includes water closets with an effective flush rate of 1.12 gallons or less when tested per ASME A 112.19.2 and ASME A 112.19.14</p> <p>² See Table A5.503.2.2 for additional notes and references.</p> <p>³ Where complying faucets are unavailable, aerators rated at 0.35 gpm, or other means, may be used to achieve reduction.</p> <p>⁴ Floor-mounted</p> <p>⁵ Wall-mounted</p>																																							
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>																																							
A5.303.2.3.3 25% savings. A schedule of plumbing and fixture fittings that will reduce the overall use of potable water within the building by 25% shall be provided. A calculation demonstrating a 25% reduction in the building "water use baseline" as established in Table A5.303.2.2 shall be provided.																																							
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A5.303.2.3.4 Nonpotable water systems for indoor use. Utilizing nonpotable water systems (such as captured rainwater, treated gray water, and recycled water) intended to supply water closets, urinals, and other allowed uses, may be used in the calculations demonstrating the 12% reduction. The nonpotable water systems shall comply with the current edition of the California Plumbing Code.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.303.3 Appliances and fixtures for commercial application. Appliances and fixtures shall meet the following: <ol style="list-style-type: none"> 1. Clothes washers shall have a maximum Water Factor (WF) that will reduce the use of water by 10% below the California Energy Commissions WF standards for commercial clothes washers located in Title 20 of the California Code of Regulations. 2. Commercial dishwashers shall meet ENERGY STAR requirements. Refer to Table A5.303.3. 3. Ice makers shall be air cooled. 4. Food steamers shall be connectionless or boilerless and shall consume not more than 2 gallons of water per pan per hour, including condensate water, for batch type steamers, and no more than 5 gallons of water per pan per hour, including condensate water, for cook to order steamers. 5. The use and installation of water softeners that discharge to the community sewer system are limited or prohibited. 6. Combination ovens shall not consume more than 1.5 gph per pan, including condensate water. 7. Food waste pulping systems not allowed (See Wastewater discharge permit) 		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.303.4 Food Waste Disposers. Not allowed (See Wastewater discharge permit)			
A5.303.4.1 Non-water Urinals. Nonwater urinals with drain cleansing action are installed in accordance with the California Plumbing Code. Where approved, nonwater urinals with drain cleansing action (formerly urinal, hybrids) as defined in Chapter 2, shall be considered waterless urinals.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.303.5 Dual plumbing. New buildings and facilities shall be dual plumbed for potable and recycled water systems for toilet flushing when recycled water is available.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.303.6 Standards for plumbing fixtures and fitting. 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 California Plumbing Code and in Chapter 6 of this code.	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

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Outdoor Water Use			
5.304.1 Outdoor potable water use in landscape areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWEL0), whichever is more stringent. (See Santa Rosa City Code Chapter 14.30 (Water Efficient Landscape), California Code of Regulations (CCR) Title 23, Division 2, Chapter 2.7, and the requirements below.	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.304.2 Outdoor water use. For new water services, separate meters or submeters shall be installed for indoor and outdoor potable water use for landscaped areas. (CALGreen Tier 1 elective superceded by mandatory measure of Santa Rosa City Code Chapter 14.30, included as part of CALGreen 5.304.1)	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.304.6 Restoration of areas disturbed by construction. Restore all landscape areas disturbed during construction by planting with local native and/or noninvasive vegetation.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.304.7 Previously developed sites. On previously developed or graded sites, restore or protect at least 50 percent of the site area with native and/or noninvasive vegetation. Projects complying with Section A5.106.3, Item 3, may apply vegetated roof surface to this calculation if the roof plants meet the definition of adaptive and noninvasive. Exception: The area of the building footprint is excluded from the calculation.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.304.8 Graywater irrigation system. Install a graywater collection system for onsite subsurface irrigation using graywater collected from bathtubs, showers, bathroom wash basins, and laundry water. See California Plumbing Code.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Water Reuse Systems			
A5.305.1 Non-Potable Water Systems. Nonpotable water system for indoor or outdoor use shall comply with the California Plumbing Code.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.305.2 Irrigation Systems. Irrigation system uses recycled water.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

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Innovative Concepts (5.3 / A5.3)			
Proposed Innovative Concept 1:	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A	<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
CALGreen DIVISIONS 5.4 & A5.4: MATERIAL CONSERVATION AND RESOURCE EFFICIENCY		ALL ITEMS ARE REQUIRED UNLESS OTHERWISE JUSTIFIED	SELECT AT LEAST ONE ELECTIVE MEASURE FROM A5.4
Efficient Framing Techniques			
A5.404.1 Wood framing. Employ advanced wood framing techniques, or OVE, as permitted by the enforcing agency. The OVE selected shall not conflict with structural framing methods or fire-rated assemblies required by the California Building Code (A5.404.1.1). See A5.404.1.2 for advanced framing techniques.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Material Sources			
A5.405.1 Regional materials. Select building materials or products for permanent installation on the project that have been harvested or manufactured in California or within 500 miles of the project site, meeting the following criteria: <ol style="list-style-type: none"> 1. For those materials locally manufactured, select materials manufactured using low embodied energy or those that will result in net energy savings over their useful life. 2. Regional materials shall make up at least 10%, based on cost, of total materials value. 3. If regional materials shall make up only part of a product, their values are calculated as percentages based on weight. 4. Provide documentation of the origin, net projected energy savings, and value of regional materials. 		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.405.2 Bio-based materials. Select bio-based building materials and products made from solid wood, engineered wood, bamboo, wool, cotton, cork, straw, natural fibers, products made from crops (soy-based, corn-based) and other bio-based materials with a least 50% bio-based content.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.405.2.2 Rapidly renewable materials. Use materials made from plants harvested within a ten-year cycle for at least 2.5% of the total materials value, based on estimated cost.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

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A5.405.3 Reused materials. Use salvaged, refurbished, refinished, or reused materials for at least 5% of the total value, based on estimated cost of materials on the project.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.405.4 Recycled content. Use materials, equivalent in performance to virgin materials, with postconsumer or pre-consumer recycled content value (RCV) for not less than 10% of the total value, based on estimated cost of materials on the project. Alternate: Use two products which meet the minimum recycled content levels in Table A5.405.4 for at least 75%, by cost, of all products in that category in the project. For both options, provide documentation for the respective values. <i>(Tier 1 prerequisite)</i> See Sections A5.405.4.1 through A5.405.4.5 .	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.405.5.1 Cement. Cement shall comply with one of the following standards for cement: <ol style="list-style-type: none"> 1. Portland cement shall meet ASTM C 150. 2. Blended cement shall meet ASTM C 595 or ASTM C 1157 3. Other hydraulic cements shall meet ASTM C 1157. 		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.405.5.2 Concrete. Unless otherwise directed by the Engineer of Record, use concrete manufactured with cementitious materials in accordance with Sections A5.405.5.2.1 AND A5.405.5.2.1.1 , as approved by the enforcing agency. <p>A5.405.5.2.1 Supplementary cementitious materials (SCMs). Use concrete made with one or more of the supplementary cementitious materials (SCMs) conforming with the standards listed in Section A5.405.5.2.1.</p> <p>A5.405.5.2.1.1 Mix design equation. Use any combination of one or more SCMs, satisfying Equation A5.4-14.</p> <p>Exception to A5.405.5.2.1.1: Minimums in mix designs approved by the Engineer of Record may be lower where high early strength is needed for concrete products or to meet an accelerated project schedule.</p>		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.405.5.3 Additional means of compliance. Any of the measures in Sections A5.405.5.3.1 and A5.405.3.2 may be employed for the production of cement or concrete, depending on their availability and suitability, in conjunction with A5.405.5.2 .		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

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Enhanced Durability and Reduced Maintenance			
<p>A5.406.1 Choice of materials. Compared to other products in a given product category, choose materials proven to be characterized by one or more of the following:</p> <p>A5.406.1.1 Service life. Select materials for longevity and minimal deterioration under conditions of use.</p> <p>A5.406.1.2 Reduced maintenance. Select materials that require little, if any, finishing.</p> <p>A5.406.1.3 Recyclability. Select materials that can be re-used or recycled at the end of their service life.</p>		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Water Resistance and Moisture Management			
<p>5.407.1 Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 and California Energy Code Section 150, manufacturer's installation instructions, or local ordinance, whichever is more stringent.</p>	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.407.2.1 Sprinklers. Prevent irrigation system spray on structures.</p>	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.407.2.2.1 Exterior door protection. Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings, plus at least one of the following:</p> <ol style="list-style-type: none"> 1. An installed awning at least 4 feet in depth. 2. The door is protected by a roof overhang at least 4 feet in depth. 3. The door is recessed at least 4 feet. 4. Other methods which provide equivalent protection. 	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.407.2.2.2 Flashing. Install flashings (at exterior entries and/or openings subject to foot traffic or wind-driven rain) integrated with a drainage plane.</p>	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Construction Waste Reduction, Disposal and Recycling			
<p>5.408.1 Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance Section 5.408.1.1 (Construction waste management plan), 5.408.1.2 (Waste management company), or 5.408.1.3 (Waste stream reduction alternative); or meet a local construction and demolition waste management ordinance, whichever is more stringent. Documentation is required per CALGreen Section 5.408.1.4.</p>	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>

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Exception to 5.408.1: Excavated soil and land-clearing debris - See 5.408.3 for additional requirements.			
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.408.3 Excavated soil and land clearing debris. 100% of trees, stumps, rocks, associated vegetation, and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed. Exception: Vegetation or soil contaminated by disease or pest infestation.	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.408.3.1 Enhanced Construction waste reduction –Tier 1. Divert to recycle or salvage at least 65 percent of non-hazardous construction and demolition waste generated at the site. <i>(Tier 1 Prerequisite)</i> Documentation is required per A5.408.3.1.2 . A5.408.3.1.2 Verification of compliance. A copy of the completed waste management report or documentation of certification of waste management company utilized shall be provided. Exceptions: <ol style="list-style-type: none"> Excavated soil and land-clearing debris. See 5.408.3 for additional requirements. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist. Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities and markets. 	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Life Cycle Assessment			
A5.409.2 Whole building life cycle assessment. Conduct a whole building life assessment, including operating energy, showing that the building project achieves at least a 10 percent improvement for at least three of the impacts listed in Section A5.409.2.2 , one of which shall be climate change, compared to a reference building of similar size, function, complexity, and operating energy performance, and meeting the 2016 California Energy Code. Per A5.409.1 , the assessment shall be ISO 14044 compliant, with the service life of the building and materials assemblies not less than 60 years, and documentation shall be provided per A5.409.5 . A.5.409.2.1 Building components. The building envelope, structural elements (including footings and foundations, interior ceilings, walls, and floors), and exterior finishes shall be considered in the assessment. Exceptions: <ol style="list-style-type: none"> Plumbing, mechanical, and electrical systems and controls; fire and smoke detection and alarm systems and controls; and conveying systems. Interior finishes are not required to be included. 		<input type="checkbox"/>	<input type="checkbox"/>

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<p>A.5.409.2.2 Impacts to be considered. Select from the following impacts in the assessment:</p> <ol style="list-style-type: none"> 1. Climate change (greenhouse gases). 2. Fossil fuel depletion. 3. Stratospheric ozone depletion. 4. Acidification of land and water sources. 5. Eutrophication. 6. Photochemical oxidants (smog). <p>Notes:</p> <ol style="list-style-type: none"> 1. Software for calculating whole building life cycle assessments includes those found at the Athena Institute website (Impact Estimator software), the PE International website (GaBi software), and the PRe Consultants website (SimaPro software). 2. Interior finishes, if included, may be assessed using the NIST BEES tool. <p>A5.409.3 Materials and system assemblies. If whole building analysis of the project is not elected (A5.409.2), select a minimum of 50% of materials or assemblies based on life cycle assessment of at least three of the impacts listed in Section A5.409.2.2, one of which shall be climate change.</p> <p>A5.409.4 Substitution for prescriptive standards. Performance of a life cycle assessment completed in accordance with Section A5.409.2 may be substituted for other prescriptive provisions of Division A5.4, including those made mandatory through local adoption of Tier 1 in Division A5.6.</p> <p>A5.409.5 Verification of compliance. Documentation of compliance shall be provided as follows:</p> <ol style="list-style-type: none"> 1. The assessment is performed in accordance with ISO 14044. 2. The project meets the requirements of other parts of Title 24. 3. A copy of the analysis shall be made available to the enforcement authority. 4. A copy of the analysis and any maintenance or training recommendations shall be included in the operation and maintenance manual. 			
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Building Maintenance and Operation			
<p>5.410.1 Recycling by occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of nonhazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals.</p>	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.410.2 Commissioning. For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project. Commissioning requirements shall include as a minimum, items listed in 5.410.2. See exceptions for excluded buildings.</p>	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

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<p>5.410.4.2 Systems. For new buildings less than 10,000 square feet, develop a written plan of procedures for testing and adjusting systems. The following systems shall be included for testing and adjusting, as applicable to the project: <i>(Support documentation required at application submittal)</i></p> <ol style="list-style-type: none"> 1. Renewable energy systems. 2. Landscape irrigation systems. 3. Water reuse systems. 	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			
<p>5.410.4.3 Procedures. For new buildings less than 10,000 square feet, perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system.</p> <p>5.410.4.3.1 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>	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			
<p>5.410.4.4 Reporting. For new buildings less than 10,000 square feet, after completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.</p>	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			
<p>5.410.4.5 Operation and maintenance (O&M) manual. For new buildings less than 10,000 square feet, provide the building owner with detailed operating and maintenance instructions and copies of guaranties/warranties for each system prior to final inspection.</p>	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			
<p>Innovative Concepts and Local Environmental Conditions (5.4 & A5.4)</p>			
<p>Proposed Innovative Concept 1:</p>	<input type="checkbox"/> RQD <input type="checkbox"/> N/A	<input type="checkbox"/>	<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			

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CALGreen <u>DIVISIONS 5.5 & A5.5: ENVIRONMENTAL QUALITY</u>	ALL ITEMS ARE REQUIRED UNLESS OTHERWISE JUSTIFIED	SELECT AT LEAST ONE ELECTIVE MEASURE FROM A5.5	SELECT ALL MEASURES VERIFIED IN THE COMPLETED PROJECT
Fireplaces			
5.503.1. Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. Woodstoves shall comply with US EPA New Source Performance Standards emission limits. (5.503.1.1)	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A	<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Pollutant Control			
5.504.1 Temporary ventilation. If the HVAC system is used during construction, use return air filters with a MERV of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1 -1992. Replace all filters immediately prior to occupancy.	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A	<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.504.1 Indoor air quality (IAQ) during construction. Maintain IAQ as provided in Sections A5.504.1.1 AND A5.504.1.2. A5.504.1.1 Temporary ventilation. Provide temporary ventilation during construction in accordance with Section 120.1 of the California Energy Code, CCR, Title 24, Part 6, and Chapter 4 of CCR, Title 8, and as listed in Items 1 and 2 in A5.504.1.1 A5.504.1.2 Additional IAQ measures. Employ additional measures as listed in Items 1 through 5 in A5.504.1.2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.504.2 IAQ post-construction. After all interior finishes have been installed, flush out the building per Section 5.504.2 for at least 14 days (at least 4 days prior to occupancy). A5.504.2.1 IAQ Testing. If the 14-day flush-out per A5.504.2 is not feasible, a testing alternative may be employed after all interior finishes have been installed, using testing protocols recognized by the United States Environmental Protection Agency (U.S. EPA) and in accordance with Sections A5.504.2.1.1 through A5.504.2.1.3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.504.3 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 of the heating, cooling and ventilation 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, water and debris which may enter the system.	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A	<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

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<p>5.504.4.1 Adhesives, sealants, caulks. Adhesives and sealants 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. 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. 	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with Table 5.504.4.3.</p> <p>5.504.4.3.1 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 94522 (c)(2) and (d)(2) et seq) and BAAQUD Regulation 8 Rule 49.</p> <p>5.504.4.3.2 Verification. Verification of compliance with this section shall be provided to the enforcing agency.</p>	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.504.4.4 Carpet systems. All carpet installed in the building interior shall meet the requirements of 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 1.2, January 2017 (Emission testing method for California Specification 01350).</p>	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.504.4.4.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program.</p>	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 504.4.1.</p>	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.504.4.5 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 Table 5.504.4.5. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following (5.504.4.5.3):</p>	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>

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1. Product certifications and specifications. 2. Chain of custody certifications. 3. Product labeled and invoiced as meeting Composite Wood Products regulations. 4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S standards. 5. Other methods acceptable to the enforcing agency.			
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.504.4.5.1 No added Formaldehyde. Use composite wood products approved by the California Air Resources Board (ARB) as no-added formaldehyde (NAF) based resins or ultra-low emitting formaldehyde (ULEF) resins. Documentation required prior to final inspection.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.504.4.7 Thermal Insulation. Comply with the requirements of 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 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPPP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material Documentation required per CALGreen Section 5.504.4.7.1 . See CALGreen A5.504.4.8 for additional requirements.	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
A5.504.4.7 Resilient flooring systems. Where resilient flooring is installed, at least 90 percent of floor area receiving resilient flooring shall meet the requirements of 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 1.2, January 2017 (Emission testing method for California Specification 01350). (<i>Tier 1 Prerequisite</i>) Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits. (A5.504.4.7.2) (<i>Supersedes 5.504.4.6</i>)	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
504.4.8 Acoustical ceilings and wall panels. Comply with the requirements of 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 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPPP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material Documentation required per CALGreen Section 5.504.4.8.1 .	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

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<p>A5.504.4.8 Thermal insulation, no-added formaldehyde. Install thermal insulation which complies with Tier 1 and does not contain any added formaldehyde. (<i>Tier 1 Prerequisite</i>) Documentation shall be provided verifying that thermal insulation materials meet the pollutant emission limits. (A5.504.4.8.1)</p>	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<p>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</p>			
<p>A5.504.5 Hazardous particulates and chemical pollutants. Minimize and control pollutant entry into buildings and cross-contamination of regularly occupied areas per Sections A5.504.5.1 AND A5.504.5.2.</p> <p>A5.504.5.1 Entryway systems. Install permanent entryway systems measuring at least six feet in the primary direction of travel to capture dirt and particulates at entryways directly connected to the outdoors as follows:</p> <ol style="list-style-type: none"> 1. Qualifying entryways are those that serve as regular entry points for building users. 2. Acceptable entryway systems include, but are not limited to, permanently installed grates, grilles or slotted systems that allow cleaning underneath. 3. Roll-out mats are acceptable only when maintained regularly by janitorial contractors as documented in service contract or by in-house staff as documented by written policies and procedures. <p>A5.504.5.2 Isolation of pollutant sources. In rooms where activities produce hazardous fumes or chemicals (such as garages, janitorial, laundry rooms, copy rooms, printing rooms, etc.), exhaust them and isolate them from their adjacent rooms as follows:</p> <ol style="list-style-type: none"> 1. Exhaust each space with no air recirculation in accordance with ASHRAE 62.1, Table 6-4 to create negative pressure (with respect to adjacent spaces) with the doors to the room closed. 2. For each space, provide self-closing doors and deck-to-deck partitions or a hard ceiling. 3. Install low-noise vented range hoods for all cooking appliances in laboratories and other chemical mixing areas. 		<input type="checkbox"/>	<input type="checkbox"/>
<p>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</p>			
<p>5.504.5.3 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 13.</p>	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<p>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</p>			
<p>5.504.7 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. Also prohibit smoking within buildings (as already prohibited by other laws or regulations, or as enforced by ordinances, regulations, or policies of the City or County.) When ordinances, regulations or policies are not in place, post signage to inform building occupants of prohibitions.</p>	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<p>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</p>			

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Interior Moisture Control			
5.505.1 Indoor moisture control. Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1202 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures, see CALGreen Section 5.407.2 .	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Interior Air Quality			
5.506.1 Outside air delivery. For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements for Ventilation) of the latest edition of the California Energy Code, CCR, Title 24, Part 6 and Chapter 4 of CCR, Title 8.	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.506.2 Carbon dioxide (CO2) monitoring. For buildings equipped with demand control ventilation, CO2 sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, CCR, Title 24, Part 6, Section 120(c)(4).	<input type="checkbox"/> RQ'D <input type="checkbox"/> N/A		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Environmental Comfort			
A5.507.1 Lighting and thermal comfort controls. Provide controls in the workplace as described in Sections A5.507.1.1 AND A5.507.1.2 . A5.507.1.1 Single-occupant spaces. Provide individual controls that meet energy use requirements in the California Energy Code in accordance with Sections A5.507.1.1.1 AND A5.507.1.1.2 . A5.507.1.1.1 Lighting. Provide individual task lighting and/or daylighting controls for at least 90% of the building occupants. A5.507.1.1.2 Thermal comfort. Provide individual thermal comfort controls for at least 50% of the building occupants as follows: 1. Occupants shall have control over at least one of the factors of air temperature, radiant temperature, air speed, and humidity as described in ASHRAE 55-2004. 2. Occupants inside 20 feet of the plane, and within 10 feet either side, of operable windows can substitute windows to control thermal comfort. The areas of operable window must meet the requirements of Section 120.1 (Requirement for Ventilation) of the California Energy Code. A5.507.1.2 Multi-occupant spaces. Provide lighting and thermal comfort system controls for all shared multi-occupant spaces such as classrooms and conference rooms.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

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<p>A5.507.2 Daylight. Provide daylight spaces as required for toplighting and sidelighting in the California Energy Code. In constructing a design, consider Items listed 1 through 4 in A5.507.2.</p> <p>Exception: Copy/printing rooms, storage areas, mechanical spaces, restrooms, auditoria, and other intermittently or infrequently occupied spaces or spaces where daylight would interfere with use of the space. (A5.507.3.2)</p> <p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>		☐	☐
<p>A5.507.3 Views. Achieve direct line of sight to the outdoor environment via vision glazing between 2'6" and 7'6" above finish floor for building occupants in 90 percent of all regularly occupied areas as demonstrated by plan view and section cut diagrams.</p> <p>Exception: Copy/printing rooms, storage areas, mechanical spaces, restrooms, auditoria, and other intermittently or infrequently occupied spaces or spaces where daylight would interfere with use of the space.</p> <p>A5.507.3.1 Interior office spaces. Entire areas of interior office spaces may be included in the calculation if at least 75 percent of each area has direct line of sight to perimeter vision glazing.</p> <p>A5.507.3.2 Multi-occupant spaces. Include in the calculation the square footage with direct line of sight to perimeter vision glazing.</p> <p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>		☐	☐
<p>5.507.4 Acoustical control. Employ building assemblies and components with STC values determined in accordance with ASTM E90 and ASTM E413 or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E1332, using either prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2. (<i>Support documentation required prior to permit issuance</i>)</p> <p>Exception: Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.</p> <p>5.507.4.1 Exterior noise transmission, Prescriptive Method. Wall and roof-ceiling assemblies exposed to the noise source (making up the building envelope) shall have exterior wall and roof-ceiling assemblies meeting a composite STC rating of at least 50 or a composite OITC rating of no less than 40 with exterior windows of a minimum STC of 40 or OITC of 30 in the locations described in Items 1 (airports) and 2 (freeway, railroad, industrial source, etc.)</p> <p>5.507.4.1.1 Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB L_{eq-1Hr} during any hour of operation shall have exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC or rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30).</p> <p>5.507.4.2 Exterior noise transmission, Performance Method. For buildings located as defined in Sections 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies making up the building envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (L_{eq-1Hr}) of 50 dBA in occupied areas during any hour of operation.</p> <p>5.507.4.2.1 Site features. Exterior features such as sound walls or earth berms may be utilized, as appropriate, to mitigate sound migration to the interior.</p>	☐ RQ'D ☐ N/A		☐

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<p>5.507.4.2.2 Documentation of compliance. An acoustical analysis documenting complying interior sound levels shall be prepared by personnel approved by the architect or engineer of record.</p>			
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			
<p>5.507.4.3 Interior noise transmission, Performance Method. Wall and floor ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.</p>	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			
<p>Outdoor Air Quality</p>			
<p>5.508.1 Ozone depletion and greenhouse gas reductions. Installations of HVAC, refrigeration, and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.</p> <p>5.508.1.1 Chlorofluorocarbons (CFCs). Install HVAC and refrigeration equipment that does not contain CFCs.</p> <p>5.508.1.2 Halons. Install fire suppression equipment that does not contain Halons.</p>	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			
<p>A5.508.1.3 Hydrochlorofluorocarbons (HCFCs). Install HVAC and refrigeration equipment that does not contain HCFCs.</p>		<input type="checkbox"/>	<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			
<p>A5.508.1.4 Hydrofluorocarbons (HFCs). Install HVAC complying with either of the following:</p> <ol style="list-style-type: none"> 1. Install HVAC, refrigeration and fire suppression equipment that do not contain HFCs or that do not contain HFCs with a global warming potential greater than 150. 2. Install HVAC and refrigeration equipment that limit the use of HFC refrigerant through the use of a secondary heat transfer fluid with a global warming potential no greater than 1. 		<input type="checkbox"/>	<input type="checkbox"/>
<p><i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i></p>			
<p>5.508.2 Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the provisions of Sections 5.508.2.1 through 5.508.2.6.3 when installed in retail food stores with 8,000 square feet (or more) of conditioned area, and that utilize either refrigerated display cases, walk-in coolers, or walk-in freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (High-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities.</p> <p>Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO₂), and potentially other refrigerants.</p>	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>

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<p>5.508.2.1 Refrigerant piping. Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than $\frac{1}{4}$" , flared tubing connections, and short radius elbows shall not be used in refrigerant systems except as noted in Sections 5.508.2.1.1 through 5.508.2.1.4.</p> <p>5.508.2.1.1 Threaded pipe. Threaded connections are permitted at the compressor rack.</p> <p>5.508.2.1.2 Copper pipe. Copper tubing with an OD less than $\frac{1}{4}$" may be used in systems with a refrigerant charge of 5 pounds or less.</p> <p>5.508.2.1.2.1 Anchorage. $\frac{1}{4}$" OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mils.</p> <p>5.508.2.1.3 Flared tubing connections. Double-flared tubing connections may be used for pressure controls, valve pilot lines, and oil.</p> <p>Exception: Single-flared tubing connections may be used with a multi-ring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's recommendations.</p> <p>5.508.2.1.4 Elbows. Short radius elbows are only permitted where space limitations prohibit the use of long radius elbows.</p> <p>5.508.2.2 Valves. Valves and fittings shall comply with the California Mechanical Code and Sections 5.508.2.2.1 through 5.508.2.2.2.1.</p> <p>5.508.2.2.1 Pressure relief valves. For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.</p> <p>5.508.2.2.1.1 Pressure detection. A pressure gauge, pressure transducer, or other devices shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.</p> <p>5.508.2.2.2 Access Valves. Only Schrader access valves with a brass or steel body are permitted for use.</p> <p>5.508.2.2.2.1 Valve caps. For systems with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.</p> <p>5.508.2.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place. Chain tethers to fit over the stem are required for valves designed to have seal caps (5.508.2.2.2.1).</p> <p>Exception to 5.508.2.2.2.1: Valves with seal caps that are not removed from the valve during stem operation.</p> <p>5.508.2.3 Refrigerated service cases. Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel, or be coated to prevent corrosion from these substances.</p> <p>5.508.2.3.1 Coil Coating. Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.</p> <p>5.508.2.4 Refrigerant receivers. Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device that indicates the level of refrigerant in the receiver.</p> <p>5.508.2.5 Pressure testing. The system shall be pressure tested during installation, prior to evacuation and charging.</p> <p>5.508.2.5.1 Minimum pressure. The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum.</p> <p>5.508.2.5.2 Leaks. Check the system for leaks, repair any leaks, and retest for pressure using the same gauge.</p>			

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<p>5.508.2.5.3 Allowable pressure change. The system shall stand, unaltered, for 24 hours with no more than a +/- one pound pressure change from 300 psig, measured with the same gauge.</p> <p>5.508.2.6 Evacuation. The system shall be evacuated after pressure testing and prior to charging.</p> <p>5.508.2.6.1 First vacuum. Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and hold for 30 minutes.</p> <p>5.508.2.6.2 Second vacuum. Pull a second system vacuum to a minimum of 500 microns, and hold for 30 minutes.</p> <p>5.508.2.6.3 Third vacuum. Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.</p>			
Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):			
Innovative Concepts (5.5 & A5.5)			
Proposed Innovative Concept 1:	<input type="checkbox"/> RQD <input type="checkbox"/> N/A	<input type="checkbox"/>	<input type="checkbox"/>
Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):			
Division A5.6- Voluntary Tiers			
A5.601.2.4.5 Additional elective measure. Pursuant to Tier 1 requirements, select one additional Tier 1 elective measure from any division.	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):			
INSTALLER AND CALGreen INSPECTOR QUALIFICATIONS			
Qualifications			
702.1 HVAC system installers are trained and certified in the proper installation of HVAC systems.	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):			
702.2 The CALGreen Inspector is listed by the City of Santa Rosa as an approved CALGreen Inspector and is qualified and able to demonstrate competence in the discipline they inspect and verify.	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):			
Verifications			
703.1 Verification of compliance with this code shall include, but not be limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial conformance.	<input type="checkbox"/> RQD <input type="checkbox"/> N/A		<input type="checkbox"/>
Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):			

COLUMN 1: FEATURE OR MEASURE	COLUMN 2: PROJECT DESIGN REQUIREMENTS		COLUMN 3: FIELD VERIFICATION
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<p>DEFINITIONS:</p> <p>BROWNFIELD SITE: REAL PROPERTY, THE EXPANSION, REDEVELOPMENT OR REUSE OF WHICH MAY BE COMPLICATED BY THE PRESENCE (OR POTENTIAL PRESENCE) OF A HAZARDOUS SUBSTANCE, POLLUTANT, OR CONTAMINANT WITH CERTAIN LEGAL EXCLUSIONS AND ADDITIONS.</p> <p>ELECTRIC VEHICLE (EV): AN AUTOMOTIVE-TYPE VEHICLE FOR ON-ROAD USE, SUCH AS PASSENGER AUTOMOBILES, BUSES, TRUCKS, VANS, NEIGHBORHOOD ELECTRIC VEHICLES, ELECTRIC MOTORCYCLES, AND THE LIKE, PRIMARILY POWERED BY AN ELECTRIC MOTOR THAT DRAWS CURRENT FROM A RECHARGEABLE STORAGE BATTERY, FUEL CELL, PHOTOVOLTAIC ARRAY, OR OTHER SOURCE OF ELECTRIC CURRENT. PLUG-IN HYBRID ELECTRIC VEHICLES (PHEV) ARE CONSIDERED ELECTRIC VEHICLES. FOR PURPOSES OF THE CALIFORNIA ELECTRICAL CODE, OFF-ROAD, SELF-PROPELLED ELECTRIC VEHICLES, SUCH AS INDUSTRIAL TRUCKS, HOISTS, LIFTS, TRANSPORTS, GOLF CARTS, AIRLINE GROUND SUPPORT EQUIPMENT, TRACTORS, BOATS, AND THE LIKE, ARE NOT INCLUDED.</p> <p>ELECTRIC VEHICLE (EV) CAPABLE SPACE: A VEHICLE SPACE WITH ELECTRICAL PANEL SPACE AND LOAD CAPACITY TO SUPPORT A BRANCH CIRCUIT AND NECESSARY RACEWAYS, BOTH UNDERGROUND AND/OR SURFACE MOUNTED, TO SUPPORT EV CHARGING.</p> <p>ELECTRIC VEHICLE (EV) READY SPACE: A VEHICLE SPACE WHICH IS PROVIDED WITH A BRANCH CIRCUIT (ANY NECESSARY RACEWAYS, BOTH UNDERGROUND AND/OR SURFACE MOUNTED) TO ACCOMMODATE EV CHARGING, TERMINATING IN A RECEPTACLE OR A CHARGER.</p> <p>ELECTRIC VEHICLE CHARGING SPACE (EV SPACE) DEFINITION: A SPACE INTENDED FOR FUTURE INSTALLATION OF EV CHARGING EQUIPMENT AND CHARGING OF ELECTRIC VEHICLES.</p> <p>ELECTRIC VEHICLE CHARGING STATION (EVCS): ONE OR MORE ELECTRIC VEHICLE CHARGING SPACES SERVED BY ELECTRIC VEHICLE CHARGER(S), OR OTHER CHARGING EQUIPMENT ALLOWING CHARGING OF ELECTRIC VEHICLES. ELECTRIC VEHICLE CHARGING STATIONS ARE NOT CONSIDERED PARKING SPACES.</p> <p>ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE): THE CONDUCTORS, INCLUDING THE UNGROUNDED, GROUNDED, AND EQUIPMENT GROUNDING CONDUCTORS, THE ELECTRIC VEHICLE CONNECTORS, ATTACHMENT PLUGS, AND ALL OTHER FITTINGS, DEVICES, POWER OUTLETS, OR APPARATUS INSTALLED SPECIFICALLY FOR THE PURPOSE OF TRANSFERRING ENERGY BETWEEN THE PREMISES WIRING AND THE ELECTRIC VEHICLE.</p> <p>GREYFIELD SITE: ANY SITE PREVIOUSLY DEVELOPED WITH AT LEAST 50% OF THE SURFACE AREA COVERED WITH IMPERVIOUS MATERIAL.</p> <p>INFILL SITE: A SITE IN AN URBANIZED AREA THAT MEETS EITHER OF THE FOLLOWING CRITERIA:</p> <ol style="list-style-type: none"> 1. THE SITE IS IMMEDIATELY ADJACENT TO PARCELS THAT ARE DEVELOPED WITH QUALIFIED URBAN USES, OR AT LEAST 75% OF THE PERIMETER OF THE SITE ADJOINS PARCELS THAT ARE DEVELOPED WITH QUALIFIED URBAN USES, AND THE REMAINING 25% OF THE SITE ADJOINS PARCELS THAT HAVE PREVIOUSLY BEEN DEVELOPED FOR QUALIFIED URBAN USES. 2. NO PARCEL WITHIN THE SITE HAS BEEN CREATED WITHIN THE PAST 10 YEARS UNLESS THE PARCEL WAS CREATED AS A RESULT OF THE PLAN OF A REDEVELOPMENT AGENCY <p>ZEV: ANY VEHICLE CERTIFIED TO ZERO-EMISSION STANDARDS.</p>			

CALGreen BUILDING ACKNOWLEDGMENTS

PROJECT ADDRESS: _____

PROJECT DESCRIPTION: _____

SECTION 1 - DESIGN VERIFICATION

INSTRUCTIONS:

Prior to building permit application, complete **all** lines of Section 1- "Design Verification," and submit the completed checklist (Columns 1 and 2) with the plans and building permit application to the City of Santa Rosa Building Division.

The signatures below certify that the owner, design professional, and the CALGreen inspector have reviewed the plans and Columns 1 and 2 of this checklist, and certify that the items checked above are hereby incorporated into the project plans and will be implemented into the project in accordance with the requirements set forth in the 2022 California Green Building Standards Code.

Owner's Signature

Date

Owner's Name *(Please Print)*

Design Professional's Signature

Date

Design Professional's Name *(Please Print)*

CALGreen Inspector's Signature

Date

CALGreen Inspector's Name *(Please Print)*

CALGreen Inspector's Phone Number

CALGreen E-mail Address

ICC Certification Number

SECTION 2 - IMPLEMENTATION VERIFICATION

Complete, sign, and submit the completed checklist, including Column 3, together with all original signatures in this Section 2 – "Implementation Verification" to the Building Department prior to Building Department final inspection.

The owner, design professional, and the CALGreen inspector have reviewed the plans and certify that the items checked above are hereby incorporated into the project plans and will be implemented into the project in accordance with the requirements set forth in the 2022 California Green Building Standards Code.

CALGreen Inspector's Signature

Date

CALGreen Inspector's Name *(Please Print)*

CALGreen Inspector's Phone Number
(If Different Than Above)

CALGreen E-mail Address *(If Different Than Above)*

ICC Certification Number
(If Different Than Above)