



City of Sonoma

Effective 1/1//2014
Revised 2/13/2014

2013 CALGreen+Tier 1 Checklist for NEW NONRESIDENTIAL BUILDINGS

Scope: *The provisions of this checklist apply only to newly constructed nonresidential buildings without sleeping accommodations. Repairs to existing structures and historic structures are not subject to the requirements of CALGreen.*

Nonresidential addition and alteration projects should use the CALGreen checklist for Nonresidential Addition and Alterations.

APPENDIX A5

(Revised per City of Sonoma Requirements - Based on CALGreen + Tier 1)

Project Address: _____

Project Name: _____

Project Description: _____

Instructions:

1. The Owner or the Owner's agent shall employ a qualified CALGreen Special Inspector, listed by the City of Sonoma Building Department, to perform CALGreen Special Inspector services and to verify and assure the Owner and the Building Department that all required work described herein is properly planned and implemented in the project. City listed CALGreen inspectors can be found on the City's web site at <http://www.sonomacity.org/default.aspx?PagelD=518>.
2. The CALGreen Special 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.
3. The CALGreen Special Inspector, in collaboration with the owner and the design professional shall review and incorporate all applicable provisions of **Columns 1 and 2** of this checklist into the project, sign and date the **Design Verification** section at the end of this checklist and have the checklist printed on the approved plans for the project. The CALGreen Special Inspector must indicate in **Column 2** of the checklist all applicable measures which must be met and incorporated into the project.
4. Prior to final inspection by the Building Department, CALGreen Special Inspector shall complete **Column 3** and sign and date **the Implementation Verification** section at the end of this checklist.

NOTE: The City of Sonoma has adopted the Tier 1 provisions of CALGreen as mandatory requirements which must be implemented in the project except that the Tier 1 Energy Efficiency measures provided in Section A5.2 need not be met.

5.

Column 1 Feature or Measure	Column 2 Project Requirements <i>When checked, these items become a part of the approved plans and must be installed or incorporated into the project.</i>		Column 3 Verification <i>Complete after implementation and prior to final inspection approval</i>
See Chapter 5 and Appendix A5 of the 2013 California Green Building Code and Sonoma Municipal Code Chapters 14.10 and 14.32 for complete descriptions of features or measures listed here.	Mandatory & Tier 1 Prerequisites	Tier 1 electives <i>Applicant selects required elective measures</i>	Verified by the third-party CALGreen Special Inspector listed by the City of Sonoma
A5.1 PLANNING AND DESIGN	<i>All checked items are required for the project</i>	<i>Select at least one (1) elective measure from A5.1</i>	<i>Select all measures verified in the completed project</i>
SITE SELECTION		A5.1	
A5.103.1 Community connectivity. Locate project on a previously developed site within a 1/2 mile radius of at least ten basic services, listed in Section A5.103.1.		<input type="checkbox"/>	<input type="checkbox"/>
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 on a greyfield or infill site as defined in Section A5.102. A5.103.3.1 Brownfield redevelopment. Develop a site documented as contaminated and fully remediated or on a site defined as a brownfield.		<input type="checkbox"/>	<input type="checkbox"/>
SITE PRESERVATION		A5.1	
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 percent. 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 percent of the total project site area.		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

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<p align="center">Column 1 Feature or Measure</p>	<p align="center">Column 2 Project Requirements <i>When checked, these items become a part of the approved plans and must be installed or incorporated into the project.</i></p>	<p align="center">Column 3 Verification <i>Complete after implementation and prior to final inspection approval</i></p>
<p>See Chapter 5 and Appendix A5 of the 2013 California Green Building Code and Sonoma Municipal Code Chapters 14.10 and 14.32 for complete descriptions of features or measures listed here.</p>	<p align="center">Mandatory & Tier 1 Prerequisites</p>	<p align="center">Tier 1 electives <i>Applicant selects required elective measures</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>		<p align="center"><input type="checkbox"/></p>
<p>A5.106.5.1 Designated parking for fuel-efficient vehicles. Provide designated parking for any combination of low-emitting, fuel-efficient, and carpool/van pool vehicles as shown in Table A5.106.5.1.1 for 10 percent of total spaces. (Tier 1) Note: Supersedes 5.106.5.2</p> <p>5.106.5.1.3 Parking stall marking. Paint 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: <div align="center"> CLEAN AIR / VANPOOL / EV </div> </p>	<p align="center"><input checked="" type="checkbox"/></p> <p align="center"><input checked="" type="checkbox"/></p>	<p align="center"><input type="checkbox"/></p> <p align="center"><input type="checkbox"/></p>
<p>A5.106.5.3.1 Single charging space requirements. When only a single charging space is <i>provided or</i> required, install a listed raceway capable of accommodating a dedicated branch circuit. The raceway shall not be less than trade size 1. The raceway shall be securely fastened at the main service or subpanel and shall terminate in close proximity to the proposed location of the charging system into a listed cabinet, box or enclosure.</p> <p>Exception: Other pre-installation methods approved by the local enforcing agency that provide sufficient conductor sizing and service capacity to install Level 2 EVSE.</p> <p>A5.106.5.3.2 Multiple charging spaces required. When multiple charging spaces are <i>provided or</i> required, plans shall include the location(s) and type of the EVSE, raceway methods), wiring schematics and electrical calculations to verify that the electrical system has sufficient capacity to charge simultaneously all the electrical vehicles at all designated EV charging spaces at their full rated amperage. Plan design shall be based upon Level 2 EVSE at its maximum operating ampacity. Provide raceways from the electrical service panel to the designated parking areas which are required to be installed at the time of construction.</p> <p>Note: Utilities and local enforcing agencies may have additional requirements for metering and EVSE installation, and should be consulted during the project design and installation.</p> <p>A5.106.5.3.3 Tier 1. At least 3 percent of the total parking spaces, but not less than one, shall be capable of supporting installation of future electric vehicle supply equipment (EVSE).</p> <p>A5.106.5.3.5 Labeling requirement. A label stating “EV CHARGE CAPABLE” shall be posted in a conspicuous place at the service panel or subpanel and the EV charging station space.</p>		<p align="center"><input type="checkbox"/></p> <p align="center"><input type="checkbox"/></p> <p align="center"><input type="checkbox"/></p> <p align="center"><input type="checkbox"/></p>

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5.303.4 Wastewater reduction. Each building shall reduce the generation of wastewater by <u>one</u> of the following methods: <input type="checkbox"/> The installation of water-conserving fixtures; or <input type="checkbox"/> Utilizing non-potable water systems	<input checked="" type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>
A5.303.5 Dual plumbing. New buildings and facilities shall be dual plumbed for potable and recycled water systems.		<input type="checkbox"/>	<input type="checkbox"/>
5.303.6 Standards for plumbing fixtures and fittings. Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1401.1 of the California Plumbing Code and in Chapter 6 of this code.	<input checked="" type="checkbox"/>		<input type="checkbox"/>
OUTDOOR WATER USE		A5.3	
5.304.1 Water budget. A water budget shall be developed for landscape irrigation use in accordance with Chapter 14.32 of the Sonoma Municipal Code (Water Efficient Landscaping) .	<input checked="" type="checkbox"/>		<input type="checkbox"/>
5.304.2 Outdoor potable water use. For new water service, separate meters or submeters shall be installed for indoor and outdoor potable water use for landscaped areas. ²	<input checked="" type="checkbox"/>		<input type="checkbox"/>
A5.304.2.1 Outdoor potable water use. For new water service not subject to the provisions of Water Code Section 535 (i.e. single-family residential connections), separate meters or submeters are installed for indoor and outdoor potable water use for landscaped areas between 500 square feet and 1,000 square feet. [NOTE: most projects should take this credit given the requirements Section 14.32.050 of the Sonoma Municipal Code.]		<input type="checkbox"/>	<input type="checkbox"/>

² Modified per Section 14.32.050 of the Sonoma Municipal Code

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WATER REUSE		A5.3
A5.305.1 Nonpotable water systems. Nonpotable water systems for indoor and outdoor use shall comply with the current edition of the California Plumbing Code. A5.305.2 Irrigation systems. Irrigation systems regulated by a local water efficient landscape ordinance or by the California Department of Water Resources Model Water Efficient Landscape Ordinance (MWEL0) shall use recycled water.		<input type="checkbox"/> <input type="checkbox"/>
A5.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY	<i>All checked items are required for the project</i>	<i>Select at least one (1) elective measure from A5.4</i> <i>Select all measures verified in the completed project</i>
EFFICIENT FRAMING SYSTEMS		A5.4
A5.404.1 Wood framing. Employ advanced wood framing techniques, or OVE, as permitted by the enforcing agency.		<input type="checkbox"/>
MATERIAL SOURCES		A5.4
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 criteria listed in A5.405.1.		<input type="checkbox"/>
A5.405.2 Bio-based materials. Select bio-based building materials per Section A5.405.2.1 or A5.405.2.2. A5.405.2.1 Use certified wood products. Certified wood is an important component of green building strategies and the California Building Standards Commission will continue to develop a standard through the next code cycle. A5.405.2.2 Rapidly renewable materials. Use materials made from plants harvested within a ten-year cycle for at least 2.5 percent of total materials value, based on estimated cost.		<input type="checkbox"/> <input type="checkbox"/>
A5.405.3 Reused materials. Use salvaged, refurbished, refinished, or reused materials for at least 5 percent of the total value, based on estimated cost of materials on the project. <i>[See CalRecycle for recycled content levels for some materials http://www.calrecycle.ca.gov/greenbuilding/materials/matrix.htm]</i>		<input type="checkbox"/>

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A5.405.4 Recycled content. Use materials, equivalent in performance to virgin materials, with postconsumer or pre-consumer recycled content value (RCV) for a minimum of 10% of the total value, based on estimated cost of materials on the project. Provide documentation as the respective values.	<input checked="" type="checkbox"/>		<input type="checkbox"/>
A5.405.5 Cement and concrete. Use cement and concrete made with recycled products and complying with the following sections: A5.405.5.1 Cement. Cement shall comply with one of the following standards: 1. Portland Cement shall meet ASTM C 150. 2. Blended Cement shall meet ASTM C595. 3. Other Hydraulic Cements shall meet ASTM C1157. A5.405.5.2 Concrete. Unless otherwise directed by the engineer, 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. A5.405.5.2.1 Supplementary cementitious materials (SCMs). Use concrete made with one or more of the SCMs listed in Section A5.405.5.2.1 A5.405.5.2.1.1 Mix design equation. Use any combination of one or more SCMs, satisfying Equation A5.4-14. Exception: Minimums for concrete products requiring high early strength may be lower as directed by the engineer.		<input type="checkbox"/> <	

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CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING		A5.4
5.408.1.1 Construction waste management plan. Establish a construction waste management plan that complies with Items 1 through 4 of section 5.408.1.1. 5.408.1.2 Waste management company. Utilize a waste management company that can provide verifiable documentation that the percentage of construction waste material diverted from the landfill complies with this section. (Support documentation required prior to permit issuance) Exceptions to Sections 5.408.1.1 and 5.408.1.2: <ul style="list-style-type: none"> 1. Excavated soil and land-clearing debris 2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist. 3. Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities and markets. 5.408.1.4 Documentation. Provide documentation of the waste management plan that meets the requirements listed in Sections 5.408.1.1 through 5.408.1.3, and the plan is accessible to the enforcement authority.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5.408.3 Excavated soil and land clearing debris. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. Exception: Reuse, either on-or off-site of vegetation or soil contaminated by disease or pest infestation.	<input type="checkbox"/>	<input type="checkbox"/>
A5.408.3.1 Enhanced Construction waste. Recycle and/or salvage for reuse a minimum of 65 percent of non-hazardous construction and demolition debris or meet local ordinance, whichever is more stringent. (Tier 1) A5.408.3.1.2 Verification of compliance. A copy of the completed waste management report shall be provided to the Building Department. Exceptions: <ul style="list-style-type: none"> 1. Excavated soil and land-clearing debris. 2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist. 3. Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities and markets. 	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>

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LIFE CYCLE ASSESSMENT		A5.4	
A5.409.1 General. Life cycle assessment shall be ISO 14044 compliant. The service life of the building and materials assemblies shall not be less than 60 years.		<input type="checkbox"/>	<input type="checkbox"/>
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.		<input type="checkbox"/>	<input type="checkbox"/>
A5.409.3 Materials and system assemblies. If whole building analysis of the project is not elected, select a minimum of 50% of materials or assemblies based on life cycle assessment of at least three for the impacts listed in Section A5.409.2.2, one of which shall be climate change.		<input type="checkbox"/>	<input type="checkbox"/>
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 or Tier 2 in Division A5.6.		<input type="checkbox"/>	<input type="checkbox"/>
A5.409.5 Verification of compliance. Documentation of compliance shall be provided as follows: 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.		<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
See notes in A5.409.2.1 and A5.409.2.2 for available calculation tools.			
BUILDING MAINTENANCE AND OPERATION		A5.4	
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 non-hazardous materials for recycling.	<input checked="" type="checkbox"/>		<input type="checkbox"/>

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5.410.2 Commissioning. For new buildings 10,000 square feet and over, building commissioning for all building systems covered by T24, Part 6, process systems, and renewable energy systems shall be included in the design and construction processes of the building project. Commissioning requirements shall include items listed in 5.410.2. Exceptions: 1. Dry storage warehouses of any size 2. Areas under 10,000 square feet used for offices or other conditioned accessory spaces within dry storage warehouses 3. Tenant improvements under 10,000 square feet as described in Section 303.1.1. 4. {Effective 7/1/2014} Commissioning requirements for energy systems covered by the 2013 California Energy Code. 5.410.2.1 Owner's Project Requirements (OPR). Documented before the design phase of the project begins the OPR shall include items listed in 5.410.2.1 ³ . (Support documentation required at application submittal) 5.410.2.2 Basis of Design (BOD). A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project to cover the systems listed in 5.410.2.2 ⁴ . (Support documentation required at application submittal) 5.410.2.3 Commissioning plan. A commissioning plan describing how the project will be commissioned shall include items listed in 5.410.2.3. (Support documentation required at application submittal) 5.410.2.4 Functional performance testing shall demonstrate the correct installation and operation of each component, system, and system-to-system interface per approved plans and specifications. 5.410.2.5 Documentation and training. A Systems Manual and Systems Operations Training are required. 5.410.2.5.1 Systems manual. The Systems Manual shall be delivered to the building owner or representative and the facilities operator and shall include the items listed in 5.410.2.5.1. 5.410.2.5.2 Systems operations training. A program for training of the appropriate maintenance staff for each equipment type and/or system shall be developed and shall include items listed in 5.410.2.5.2. 5.410.2.6 Commissioning report. A report of commissioning process activities undertaken through the design and construction phases of the building project shall be completed and provided to the owner or owner's representative.	<div><input checked="" type="checkbox"/></div> <div><input checked="" type="checkbox"/></div> <div><input checked="" type="checkbox"/></div> <div><input checked="" type="checkbox"/></div> <div><input checked="" type="checkbox"/></div> <div><input checked="" type="checkbox"/></div> <div><input checked="" type="checkbox"/></div> <div><input checked="" type="checkbox"/></div>		<div><input type="checkbox"/></div> <div><input type="checkbox"/></div> <div><input type="checkbox"/></div> <div><input type="checkbox"/></div> <div><input type="checkbox"/></div> <div><input type="checkbox"/></div> <div><input type="checkbox"/></div> <div><input type="checkbox"/></div>

³ Where the 2013 California Energy Code is referenced, the effective date of the provision is 7/1/2014.

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POLLUTANT CONTROL		A5.5	
<p>A5.504.1 Indoor air quality (IAQ) during construction. Maintain IAQ as provided in Sections A5.504.1.1 and A5.504.1.2.</p> <p>A5.504.1.1 Temporary ventilation. Provide temporary ventilation during construction in accordance with Section 121 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 section A5.504.1.2.</p> <p>A5.504.1.2 Additional IAQ measures. Employ additional measures as listed in Items 1 through 5 in A5.504.1.3:</p> <p>5.504.1.3 Temporary ventilation. If the HV AC 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.</p>	<div><input checked="" type="checkbox"/></div>	<div><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></div>	<div><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></div>
<p>5.504.2 IAQ post-construction. Flush out the building per Section 5.504.2 prior to occupancy or if the building is occupied.</p> <p>A5.504.2.1 IAQ Testing. 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 Section A5.504.2.1.2. Retest as required in Section A5.504.2.1.3.</p> <p>A5.504.2.1.1 Maximum levels of contaminants. Allowable levels of contaminant concentrations measured by testing shall not exceed the following:</p> <div><div>1.</div><div>Carbon Monoxide (CO): 9 parts per million, not to exceed outdoor levels by 2 parts per million;</div></div> <div><div>2.</div><div>Formaldehyde: 27 parts per billion;</div></div> <div><div>3.</div><div>Particulates (PM10): 50 micrograms per cubic meter;</div></div> <div><div>4.</div><div>4-Phenylcyclohexene (\$-PCH): 6.5 micrograms per cubic meter; and</div></div> <div><div>5.</div><div>Total Volatile Organic Compounds (TVOC): 300 micrograms per cubic meter.</div></div> <p>A5.504.2.1.2 Test protocols. Testing of indoor air quality should include the elements listed in Items 1 through 4 of section A5.504.2.1.2.</p> <p>A5.504.2.1.3 Noncomplying building areas. For each sampling area of the building exceeding the maximum concentrations specified in Section A5.504.2.1.1, flush out with outside air and retest samples taken from the same area. Repeat the procedures until testing demonstrates compliance</p>		<div><input type="checkbox"/> <input type="checkbox"/> As applicable <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></div>	<div><input type="checkbox"/> <input type="checkbox"/> As applicable <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></div>

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5.504.3 Covering of duct openings and protection of mechanical equipment during construction. At the time of rough installation and during storage on the construction site and until final startup of the heating, cooling and ventilating 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. system.	<input checked="" type="checkbox"/>		<input type="checkbox"/>
5.504.4 Finish material pollutant control. Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.4. 5.504.4.1 Adhesives, sealants, caulks. Adhesives and sealants used on the project shall meet the requirements of the following standards. 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 checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with Table 5.504.4.3. 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 94520 et seq). 5.504.4.3.2 Verification. Verification of compliance with this section shall be provided as requested by the enforcing agency.	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5.504.4.4 Carpet systems. All carpet installed in the building interior shall meet the testing and product requirements of one of the standards listed in 5.504.4.4. 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. 5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 5.504.4.1.	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

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See Chapter 5 and Appendix A5 of the 2013 California Green Building Code and Sonoma Municipal Code Chapters 14.10 and 14.32 for complete descriptions of features or measures listed here.	Mandatory & Tier 1 Prerequisites	Tier 1 electives Applicant selects required elective measures
		Verified by the third-party CALGreen Special Inspector listed by the City of Sonoma
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. A5.507.3.1 Interior office spaces. Entire areas of interior office spaces may be included in the calculation if at least 75percent of each area has direct line of sight to perimeter vision glazing. A5.507.3.2 Multi-occupant spaces. Include in the calculation the square footage with direct line of sight to perimeter vision glazing.		
5.507.4 Acoustical control. Employ building assemblies and components with STC values determined in accordance with ASTM E 90 and ASTM E 413 or OITC determined in accordance with ASTM E 1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2. (Support documentation required prior to permit issuance) 5.507.4.1 Exterior noise transmission, Prescriptive Method. Wall and floor-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 and 2 in section 5.507.4.1. 5.507.4.1.1 Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB Leq-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). or 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 (Leq-1Hr) of 50 dBA in occupied areas during any hour of operation. 5.507.4.2.1 Site features. Exterior features such as sound walls or earth berms may be utilized as appropriate to the project to mitigate sound migration to the interior. 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. 5.507.4.2 Interior sound. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.	<input checked="" type="checkbox"/> Choose either Prescriptive or Performance method <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> or <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> Verify either Prescriptive or Performance method <input type="checkbox"/> <input type="checkbox"/> or <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Column 1 Feature or Measure	Column 2 Project Requirements <i>When checked, these items become a part of the approved plans and must be installed or incorporated into the project.</i>		Column 3 Verification <i>Complete after implementation and prior to final inspection approval</i>
<i>See Chapter 5 and Appendix A5 of the 2013 California Green Building Code and Sonoma Municipal Code Chapters 14.10 and 14.32 for complete descriptions of features or measures listed here.</i>	Mandatory & Tier 1 Prerequisites	Tier 1 electives <i>Applicant selects required elective measures</i>	Verified by the third-party CALGreen Special Inspector listed by the City of Sonoma
OUTDOOR AIR QUALITY		A5.5	
<p>5.508.1 Ozone depletion and global warming 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 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.¹</p> <p>A5.508.1.3 Hydrochlorofluorocarbons (HCFCs). Install HVAC and refrigeration equipment that does not contain HCFCs.</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. 	As applicable <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<p>5.508.2 Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the provisions of section 5.508.2 when installed in retail food stores 8,000 square feet or more of conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or 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> <p>[NOTE: See all requirements for refrigerant piping, valves, refrigerated service cases, refrigerant receivers, pressure testing and system evacuation contained under section 5.508.2.]</p>	<input checked="" type="checkbox"/> As applicable		<input type="checkbox"/>
ADDITIONAL ELECTIVE MEASURE			
<p>A5.601.2.4.5 Additional elective measure. Pursuant to Tier 1 requirements, select <u>one</u> additional Tier 1 elective measure from any division above. The total number of boxes checked under the Tier 1 electives in Column 2 must be five (5) or more.</p>	<input checked="" type="checkbox"/>	<hr/> <i>Total elective measures checked above</i>	<input type="checkbox"/>

INSTALLER AND SPECIAL INSPECTOR QUALIFICATIONS	<i>All checked items are required for the project</i>		<i>Select all measures verified in the completed project</i>
Qualifications		A5.7	
702.1 HVAC system installers are trained and certified in the proper installation of HVAC systems.	<input checked="" type="checkbox"/>		<input type="checkbox"/>
702.2 The CALGreen Special Inspector for this project is listed by the City of Sonoma as an approved CALGreen Special Inspector and is qualified and able to demonstrate competence in the discipline they inspect and verify.	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Verifications		A5.7	
703.1 Verification of compliance with CALGreen+Tier 1 may include construction documents, plans, specifications builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial conformance. Implementation verification shall be submitted to the Building Department after implementation of all required measures and prior to final inspection approval.	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Green Building Acknowledgments

Project Address: _____

Project Description: _____

Section 1 - Design Verification

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 Building Department.

The owner, design professional and CALGreen special 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 2013 California Green Building Standards Code as amended by Chapter 14.10 of the Sonoma Municipal Code.

Owner's Signature

Date

Owner Name *(Please Print)*

Design Professional's Signature

Date

Design Professional's Name *(Please Print)*

Signature of Listed Green Building Special Inspector

Date

Listed CALGreen Special Inspector's Name *(Please Print)*

Phone

CALGreen Special Inspector's E-mail Address

CALGreen Certification No.

Section 2 - Implementation Verification

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

I have inspected the work have received sufficient documentation to verify and certify that the project identified above was constructed in accordance with this Green Building Checklist and in accordance with the requirements set forth in the 2013 California Green Building Standards Code as amended by Chapter 14.10 of the Sonoma Municipal Code.

Listed CALGreen Special Inspector Signature

Date

CALGreen Special Inspector's Name *(Please Print)*

Phone *(if different than above)*

CALGreen Special Inspector's E-mail Address *(if different than above)*

CALGreen Certification No.