City of Sonoma

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?PageId=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** *When checked, these items become a part of the approved plans and must be installed or incorporated into the project.*		**Column 3** **Verification** *Complete after implementation and prior to final inspection approval*
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
A5.1 **PLANNING AND DESIGN**	***All checked items are required for the project***	***Select at least one (1) elective measure from A5.1***	***Select all measures verified in the completed project***
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.		☐	☐
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.		☐	☐
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.		☐	☐

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DECONSTRUCTION AND REUSE OF EXISTING STRUCTURES		A5.1	
A5.105.1.1 Existing building structure. Maintain at least 75 percent of existing building structure (including structural floor and roof decking) and envelope (exterior skin and framing) based on surface area. **(Support documentation required at application submittal)** **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.		☐	☐
A5.105.1.2 Existing non-structural elements. Reuse existing interior non-structural elements (interior walls, doors, floor coverings and ceiling systems) in at least 50 percent of the area of the completed building (including additions). **Exception:** A project with an addition of more than 2 times the square footage of the existing building.		☐	☐
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.		☐	☐
SITE DEVELOPMENT		A5.1	
5.106.1 Storm water pollution prevention.[1] Newly constructed projects which disturb land shall prevent the pollution of stormwater runoff from construction activities in accordance with Sonoma Municipal Code Chapter 13.32 (Stormwater Management and Discharge Control).	☒		☐

[1] Modified to conform with Chapter 13.32 of the Sonoma Municipal Code

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A5.106.2 Storm water design. Design storm water runoff rate and quantity in conformance with Section A5.106.3.1 and storm water runoff quality by Section A5.106.3.2, or by local requirements, whichever are stricter.		☐	☐
A5.106.2.1 Storm water runoff rate and quantity. Implement a storm water management plan resulting in no net increase in rate and quantity of storm water runoff from existing to developed conditions. **Exception:** If the site is already greater than 50 percent impervious, implement a storm water management plan resulting in a 25 percent decrease in rate and quantity.		☐	☐
A5.106.2.2 Storm water runoff quality. Use post construction treatment control best management practices (BMPs) to mitigate (infiltrate, filter, or treat) storm water runoff from the 85th percentile 24-hour runoff event (for volume-based BMPs) or the runoff produced by a rain event equal to two times the 85th percentile hourly intensity (for flow-based BMPs).		☐	☐
A5.106.3 Low impact development (LID). Reduce peak runoff in compliance with Section 5.106.3.1. 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. LID strategies include, but are not limited to those listed in A5.106.4.		☐	☐
1. Bioretention (rain gardens);		☐	☐
2. Cisterns and rain barrels;		☐	☐
3. Green roofs;		☐	☐
4. Roof leader disconnection;		☐	☐
5. Permeable and porous paving;		☐	☐
6. Vegetative swales and filter strips & tree preservation;		☐	☐
7. Volume retention suitable for previously developed sites.		☐	☐
5.106.4 Bicycle parking. Comply with Sections 5.106.4.1 or meet local ordinance, whichever is stricter.			
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 percent of new visitor motorized vehicle parking being added, with a minimum of one space.	☒		☐
5.106.4.1.2 Long-term bicycle parking. For buildings with over 10 tenant-occupants, provide secure bicycle parking for 5 percent of tenant occupied motorized vehicle parking spaces being added, with a minimum of one space.	☒		☐

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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.		☐	☐
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]*	☒		☐
5.106.5.2.1 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: CLEAN AIR / VANPOOL / EV	☒		☐
A5.106.5.3 Electric Vehicle (EV) Charging [N] Infrastructure for EV charging shall be provided in accordance with Table A5.106.5.3.1. to facilitate the future installation of electric vehicle supply equipment (EVSE).	☒	☐	☐
5.106.5.3.1 When Single charging space is required.[N] When only a single charging space is *provided or* required pursuant to Table A5.106.5.3.1, the requirements of 5.106.5.3.1 are met.		☐	☐
5.106.5.3.2 When Multiple charging spaces are required.[N] When multiple charging spaces are *provided or* required, pursuant to Table A5.106.5.3.1, the requirements of 5.106.5.3.1 are met.		☐	☐
A5.106.5.3.3 Identification. The service panel or subpanel circuit directory shall identify the reserved overcurrent protective device space(s) for future EV charging as "EV CAPABLE". The raceway termination shall be permanently and visibly marked as "EV CAPABLE".		☐	☐
A5.106.6 Parking capacity. Design parking capacity to meet but not exceed minimum local zoning requirements. **(Support documentation required at application submittal)**			
A5.106.6.1 Reduce parking capacity. With the approval of the enforcement authority, employ strategies to reduce on-site parking area by			
1. Use of on street parking or compact spaces, illustrated on the site plan, or		☐	☐
2. Implementation and documentation of programs that encourage occupants to carpool, ride share, or use alternate transportation.		☐	☐

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A5.106.7 Exterior walls. Meet requirements in the current edition of the California Energy Code and with either A5.106.7.1 or A5.106.7.2 select one of the following for wall surfaces:			
A5.106.7.1 Fenestration. Provide vegetative or man-made shading devices for all fenestration on east-, south- and west-facing walls.			
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.		☐	☐
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.		☐	☐
A5.106.7.2 Opaque wall areas. Use wall surfacing with SRI 25 (aged), for 75% of opaque wall areas.		☐	☐
5.106.8 Light pollution reduction. Outdoor lighting systems shall be designed and installed to comply with the following:			
1. The minimum requirements of the California Energy Code for Lighting Zones 1-4 *(as applicable)* as defined in Chapter 10 of the California Administrative Code; and	☒		☐
2. Backlight, Uplight and Glare (BUG) ratings as defined in IESNA TM-15-11; and	☒		☐
3. Allowable BUG ratings not exceeding those shown in Table 5.106.8	☒		☐
Exceptions: 1. Luminaires that qualify as exceptions in Section 140.7 of the California Energy Code. 2. Emergency lighting.			
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 those shown in Items 1-5.	☒		☐

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A5.106.11 Heat island effect. Reduce non-roof heat islands, and roof heat islands as follows:			
A5.106.11.1 Hardscape alternatives. Use one or a combination of strategies 1 through 2 for 50 percent of site hardscape or put 50 percent of parking underground.		☐	☐
1. Use light colored materials with an initial solar reflectance value of at least .30 as determined in accordance with ASTM Standards E1918 or C1549.		☐	☐
2. Use open-grid pavement system or pervious or permeable pavement system.		☐	☐
A5.106.11.2 Cool Roof for reduction of heat island effect. 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)[3] equal to or greater than the values shown in Table A5.106.11.2.2 - Tier 1. **(Support documentation required at application submittal)**	☒		☐
Exceptions:			
1. Roof constructions that have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 lb/sf.			
2. Roof area covered by building integrated solar photovoltaic and building integrated solar thermal panels.			
A5.2 ENERGY EFFICIENCY	***All checked items are required for the project***	***No elective measures required from A5.2***	***Select all measures verified in the completed project***
PERFORMANCE REQUIREMENTS		A5.2	
5.201.1 Scope. Building meets or exceeds the requirements of the California Building Energy Efficiency Standards. *[NOTE: The City of Sonoma did not adopt Tier 1 of the Energy Efficiency requirements.]*	☒		☐

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A5.3 WATER EFFICIENCY AND CONSERVATION	***All checked items are required for the project***	***Select at least one (1) elective measure from A5.3***	***Select all measures verified in the completed project***
INDOOR WATER USE		A5.3	
5.303.1 Meters. Separate meters shall be installed for the uses described in Sections 5.303.1.1 and 5.303.1.2 below. **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 500 gpm. b. Makeup water for evaporative coolers greater than 6 gpm. c. Steam and hot-water boilers with energy input more than 500,000 Btu/h (147 kW)	☒		☐
5.303.1.2 Excess consumption. Any tenant that is projected to consume more than 1,000 gal/day.	☒		☐
A5.303.2.3.1 12% water 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. Use of Table A5.303.2.3.1 or submittal of a water use calculation is required to show compliance (Tier 1). **(Support documentation required at application submittal)**	☒		☐
A5.303.2.3.2 20% water savings. A calculation, schedule of plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the building by 20 percent shall be provided. **(Support documentation required at application submittal)**		☐	☐
A5.303.2.3.3 25% water savings. A calculation, schedule of plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the building by 25 percent shall be provided. **(Support documentation required at application submittal)**		☐	☐
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-, 20- or 25-percent reduction. The nonpotable water systems shall comply with the current edition of the California Plumbing Code.		☐	☐

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5.303.3 Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:	☒		☐
5.303.3.1 Water closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-Type Toilets. **Note:** The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.	☒		☐
5.303.3.2 Urinals. The effective flush volume of urinals shall not exceed 0.5 gallons per flush.	☒		☐
5.303.3.3 Showerheads. **5.303.3.3.1 Single showerhead.** Showerheads shall have a maximum flow rate of not more than 2.0 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads. **5.303.3.3.2 Multiple showerheads serving one shower.** When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 2.0 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time. **Note:** A hand-held shower shall be considered a showerhead.	☒		☐
A5.303.3 Appliances and fixtures for commercial applications.			
1. Clothes washers shall have a maximum Water Factor (WF) that will reduce the use of water by 10-percent below the CA Energy Commissions' WF standards for commercial clothes washers located in Title 20 of the CA code of Regulations..		☐	☐
2. Dishwashers shall meet the criteria in A5.303.3(2)(a) and (b).		☐	☐
3. Ice makers shall be air cooled.		☐	☐
4. Food steamers shall be connection-less or boiler-less.		☐	☐
5. The use and installation of water softeners shall be limited or prohibited by local agencies.		☐	☐
6. Combination ovens shall not consume more than 10 gph in the full operational mode.		☐	☐
7. Commercial pre-rinse spray valves manufactured on or after January 1, 2006 shall function at equal to or less than 1.6 gpm at 60 psi and a. Be capable of cleaning 60 plates in an average time of not more than 30 seconds per plate b. Be equipped with an integral automatic shutoff c. Operate at static pressure of at least 30 psi when designed for a flow rate of 1.3 gpm or less.		☐	☐

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5.303.3.4 Faucets and Fountains			
5.303.3.4.1 Nonresidential Lavatory faucets. Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.	☒		☐
5.303.3.4.2 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.	☒		☐
5.303.3.4.3 Wash fountains. Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute/20 [rim space (inches) at 60 psi].	☒		☐
5.303.3.4.4 Metering faucets. Metering faucets shall not deliver more than 0.20 gallons per cycle.	☒		☐
5.303.3.4.5 Metering faucets for wash fountains. Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per minute/20 [rim space (inches) at 60 psi]. **Note:** Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.	☒		☐
A5.303.5 Dual plumbing. New buildings and facilities shall be dual plumbed for potable and recycled water systems.		☐	☐
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.	☒		☐
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) and Title 23, Division 2, Chapter 2.7 (Model Water Efficient Landscape Ordinance) of the CA Code of Regulations. *[The more restrictive provisions of each apply]*..	☒		☐
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]	☒		☐

[2] Modified per Section 14.32.050 of the Sonoma Municipal Code

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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.]***		☐	☐
5.304.3 Irrigation design. In new nonresidential projects with between 1000 and 2500 square feet of landscaped area, install irrigation controllers and sensors which include the following criteria, and meet manufacturer's recommendations.	☒		☐
5.304.3.1 Irrigation controllers. Automatic irrigation system controllers installed at the time of final inspection shall comply with the following: 1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change. 2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.	☒		☐
A5.304.4.1 Potable water reduction. *Provide water efficient landscape irrigation design that reduces the use of potable water in accordance with Chapter 14.32 of the Sonoma Municipal Code. (SMC 14.32)*	☒		☐
A5.304.4.3 Verification of compliance. A calculation demonstrating the applicable potable water use reduction required by this section shall be provided.	☒		☐
A5.304.5 Potable water elimination. Provide a water efficient landscape irrigation design that eliminates the use of potable water beyond the initial requirements for plant installation and establishment. Methods used to accomplish the requirements of this section shall include, but not be limited to, the items listed in A5.304.4.		☐	☐
A5.304.6 Restoration of areas disturbed by construction. Restore all areas disturbed during construction by planting with local native and/or non-invasive vegetation.		☐	☐
A5.304.7 Previously developed sites. On previously developed or graded sites, restore or protect at least 50percent of the site area with native and/or non-invasive vegetation.		☐	☐
A5.304.8 Graywater irrigation system. Install graywater collection system for onsite subsurface irrigation using graywater collected from bathtubs, showers, bathroom wash basins and laundry water. *See California Plumbing 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 (MWELO) shall use recycled water.		☐	☐
A5.4 **MATERIAL CONSERVATION AND RESOURCE EFFICIENCY**	***All checked items are required for the project***	***Select at least one (1) elective measure from A5.4***	***Select all measures verified in the completed project***
EFFICIENT FRAMING SYSTEMS		A5.4	
A5.404.1 Wood framing. Employ advanced wood framing techniques, or OVE, as permitted by the enforcing agency.		☐	☐
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.		☐	☐
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.		☐	☐
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. *[See CalRecycle for recycled content levels for some materials http://www.calrecycle.ca.gov/greenbuilding/materials/matrix.htm]*		☐	☐

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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. (Tier 1)	☒		☐
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 C 595. 3. Other Hydraulic Cements shall meet ASTM C 1157.		☐	☐
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.		☐	☐

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A5.405.5.3 Additional means of compliance. Any of the following measures may be employed for the production of cement or concrete, depending on their availability and suitability, in conjunction with A5.405.5.2.			
A5.405.5.3.1 Cement. The following measures may be used in the manufacture of cement.			
A5.405.5.3.1.1 Alternative fuels. Where permitted by state or local air quality standards.		☐	☐
A5.405.5.3.1.2 Alternative power. Alternate electric power generated at the cement plant and/or green power purchased from the utility meeting the requirements of A5.211.		☐	☐
A5.405.5.3.2 Concrete. The following measures may be used in the manufacture of concrete,		☐	☐
A5.405.5.3.2.1 Alternative energy. Renewable or alternative energy meeting the requirements of Section A5.211.		☐	☐
A5.405.5.3.2.2 Recycled aggregates. Concrete made with one or more of the materials listed in Section A5.405.5.3.2.2.		☐	☐
A5.405.5.3.2.3 Mixing water. Water recycled by the local water purveyor or water reclaimed from manufacturing processes and conforming to ASTM C 1602		☐	☐
A5.405.5.3.2.4 High strength Concrete. Concrete elements designed to reduce their total size compared to standard 3,000 psi concrete, as approved by the Engineer of Record.		☐	☐
ENHANCED DURABILITY AND REDUCED MAINTENANCE		A5.4	
A5.406.1.1 Service life. Select materials for longevity and minimal deterioration under conditions of use.		☐	☐
A5.406.1.2 Reduced maintenance. Select materials that require little, if any, finishing.		☐	☐
A5.406.1.3 Recyclability. Select materials that can be re-used or recycled at the end of their service life.		☐	☐
WEATHER RESISTANCE AND MOISTURE MANAGEMENT		A5.4	
5.407.1 Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1403.2 and California Energy Code Section 150, manufacturer's installation instructions, or local ordinance, whichever is more stringent.	☒		☐

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5.407.2 Moisture control. Employ moisture control measures by the following methods;			
5.407.2.1 Sprinklers. Prevent irrigation spray on structures.	☒		☐
5.407.2.2 Entries and openings. Design exterior entries and openings to prevent water intrusion into buildings.	☒		☐
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: 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.			
5.407.2.2.2 Flashing. Install flashings integrated with a drainage plane.	☒		☐
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:** 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.	☒		☐
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 vest infestation.	☒		☐

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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:** 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.	☒		☐
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.		☐	☐
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.		☐	☐
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.		☐	☐
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.		☐	☐
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.			☐
See notes in A5.409.2.1 and A5.409.2.2 for available calculation tools.			

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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.	☒		☐
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. Unconditioned 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 less than 10,000 square feet as described in Section 303.1.1. 4. Commissioning requirements for energy systems covered by the 2013 California Energy Code. 5. Open parking garages of any size, or open parking garage areas of any size, within a structure.	☒		☐
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.	☒		☐

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

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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.	☒		☐
5.410.4 Testing, adjusting and balancing. Testing, adjusting and balancing of systems shall be required for new buildings less than 10,000 square feet.	☒		☐
5.410.4.2 Systems. Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include, as applicable to the project, the following:. **(Support documentation required at application submittal)**	☒		☐
☐ HVAC systems and controls. ☐ Indoor and outdoor lighting and controls. ☐ Water heating systems. ☐ Renewable energy systems. ☐ Landscape irrigation systems. ☐ Water reuse systems.			☐
5.410.4.3 Procedures. Perform testing and adjusting procedures in accordance with applicable standards on each system as determined by the enforcing agency.	☒		☐
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.	☒		☐
5.410.4.4 Reporting. After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.	☒		☐
5.410.4.5 Operation and maintenance manual. Provide the building owner with detailed operating and maintenance instructions and copies of guaranties/warranties for each system prior to final inspection.	☒		
5.410.4.5.1 Inspections and reports. Include a copy of all inspection verification and reports to the enforcing agency.	☒		
A5.5 ENVIRONMENTAL QUALITY	***All checked items are required for the project***	***Select at least one (1) elective measure from A5.5***	***Select all measures verified in the completed project***
FIREPLACES		A5.5	
5.503.1. Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove meeting the requirements of Sonoma Municipal Code Chapter 14.28 (Wood-Burning Appliances)[4].	☒		☐

[4] Modified to conform with Chapter 14.28 of the Sonoma Municipal Code

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POLLUTANT CONTROL		A5.5	
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 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.		☐	☐
A5.504.1.2 Additional IAQ measures. Employ additional measures as listed in Items 1 through 5 in A5.504.1.3:		☐	☐
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.	☒		☐
A5.504.2 IAQ post-construction. Flush out the building per Section A5.504.2 prior to occupancy or if the building is occupied.		☐	☐
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.		☐	☐
A5.504.2.1.1 Maximum levels of contaminants. Allowable levels of contaminant concentrations measured by testing shall not exceed the following: 1. Carbon Monoxide (CO): 9 parts per million, not to exceed outdoor levels by 2 parts per million; 2. Formaldehyde: 27 parts per billion; 3. Particulates (PM10): 50 micrograms per cubic meter; 4. 4-Phenylcyclohexene ($-PCH): 6.5 micrograms per cubic meter; and 5. Total Volatile Organic Compounds (TVOC): 300 micrograms per cubic meter.		As applicable ☐	As applicable ☐
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.		☐	☐
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		☐	☐

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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.	☒		☐
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.	☒		☐
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.	☒		☐
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.	☒		☐

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5.504.4.5 Composite wood products. Newly installed 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 in Division 5.5.	☒		☐
A5.504.4.5.1 No added formaldehyde (Tier 1). Use composite wood products approved by the CA Air Resources Board (ARB) as no-added formaldehyde(NAF) based resins or ultra-low emitting formaldehyde (ULEF) resins.		☐	☐
A5.504.4.5.3 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following as applicable. 1. Product certifications and specifications. 2. Chain of custody certifications. 3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.) 4. Exterior grade products marked as meeting the PS-I 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.	☒		☐
A5.504.4.7 Resilient flooring systems. For 90 percent of floor area receiving resilient flooring, installed resilient flooring shall meet at least one of the following: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program; 2. Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health's 2010 Standard Method for the Testing and Evaluation Chambers, Version 1.1, February 2010; 3. Compliant with the Collaborative for High Performance Schools California (CA-CHPS) Criteria Interpretation for EQ 7.0 and 7.1 (formerly EQ. 2.2) dated July 2012 and listed in the CHPS High Performance Product Database; or 4. Products certified under UL GREENGUARD Gold (formerly the Greenguard Children's & Schools Program).	☒		☐
A5.504.4.7.2 Verification of compliance. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.	☒		☐

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A5.504.4.8 Thermal Insulation. Comply with all of the following: (Tier 1)	☒		☐
1. Chapter 12-13 in Title 24, Part 12			☐
2. The VOC-emission limits defined in 2009 CHPS criteria and listed on its High performance Products Database.			☐
3. California Department of public Health 2010 Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1 February 2010.			☐
A5.504.4.8.2 Verification of compliance. Documentation shall be provided verifying that thermal insulation materials meet the pollutant emission limits.	☒		☐
A5.504.4.9 Acoustical ceilings and wall panels. Comply with Chapter 8 in Title 24, Part 2 and with the VOC-emission limits defined in the 2009 CHPS criteria and listed on its High performance Products Database. (Tier 1) **[**Products compliant with CHPS criteria certified under the Greenguard Children & Schools program may also be used.**]**		☐	☐
A5.504.4.9.1 Verification of compliance. Documentation shall be provided verifying that acoustical finish materials meet the pollutant emission limits.		☐	☐
A5.504.5 Hazardous particulates and chemical pollutants. Minimize and control pollutant entry into buildings and cross-contamination of regularly occupied areas.			
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 listed in Items 1 through 3 in A5.504.5.1.		☐	☐
A5.504.5.2 Isolation of pollutant sources. In rooms where activities produce hazardous fumes or chemicals, exhaust them and isolate them from their adjacent rooms as listed in Items 1 through 3 in A5.504.5.2.		☐	☐
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 that provides at least a MERV of 8. MERV 8 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.	☒		☐
Exceptions: 1. An ASHRAE 10-percent to 15-percent efficiency filter shall be permitted for an HVAC unit meeting the 2013 California Energy Code having 60,000 Btu/h or less capacity per fan coil, if the energy use of the air delivery system is 0.4 W/cfm or less at design air flow. 2. Existing mechanical equipment.			
5.504.5.3.1 Labeling. Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.	☒		☐

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A5.504.5.3.1 Filters. In mechanically ventilated buildings, provide regularly occupied areas of the building with air infiltration media for outside and return air prior to occupancy that provides at least a MERV of 11. (Tier 1.)		☐	☐
5.504.7 Environmental tobacco smoke (ETS) control.[5] Where outdoor areas are provided for smoking, prohibit smoking ***(by posting no smoking signage)*** within 25 feet of building entries, outdoor air intakes and operable windows and within the building as already prohibited by other laws or regulations; or as enforced by ordinances, regulations, or policies of any city or county, whichever are more stringent. See Sonoma Municipal Code Chapter 7.24 (Smoking Regulations).	☒		☐
INDOOR MOISTURE AND RADON CONTROL		A5.5	
5.505.1 Indoor moisture control. Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1203 and Chapter 14.	☒		☐
AIR QUALITY AND EXHAUST		A5.5	
5.506.1 Outside air delivery. For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 of the California Energy Code and Chapter 4 of CCR, Title 8, or the applicable local code, whichever is more stringent.	☒		☐
5.506.2 Carbon dioxide (CO_2) monitoring. For buildings equipped with demand control ventilation, CO_2 sensors and ventilation controls shall be specified and installed in accordance with the requirements of the latest edition of the California Energy Code, Section 120(c)(4).	☒		☐

[5] Modified to conform with Chapter 7.24 of the Sonoma Municipal Code

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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
ENVIRONMENTAL COMFORT		A5.5	
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 2007 California Energy Code by 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 percent of the building occupants.		☐	☐
A5.507.1.1.2 Thermal comfort. Provide individual thermal comfort controls for at least 50 percent of the building occupants by Items 1 and 2 in A5.507.1.1.2.		☐	☐
A5.507.1.2 Multi-occupant spaces. Provide lighting and thermal comfort system controls for all shared multi-occupant spaces.		☐	☐
A5.507.2 Daylight. Provide daylit spaces as required for toplighting and sidelighting in the California Energy Code. In constructing a design, consider Items 1 through 4 in A5.507.3.		☐	☐
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.		☐	☐

Column 1 **Feature or Measure**	**Column 2** **Project Requirements** *When checked, these items become a part of the approved plans and must be installed or incorporated into the project.*		**Column 3** **Verification** *Complete after implementation and prior to final inspection approval*
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
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)**	☒ *Choose either Prescriptive or Performance method*		☐ *Verify either Prescriptive or Performance method*
5.507.4.1 Exterior noise transmission, Prescriptive Method. Wall and floor-ceiling assemblies exposed to the noise source making up the building or addition envelope or alteration 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.	☒		☐
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 the building, addition or alteration 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	or		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 or addition envelope or alteration 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.	☒		☐
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 the building, addition or alteration 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.	☒		☐

Column 1 **Feature or Measure**	**Column 2** **Project Requirements** *When checked, these items become a part of the approved plans and must be installed or incorporated into the project.*		**Column 3** **Verification** *Complete after implementation and prior to final inspection approval*
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
OUTDOOR AIR QUALITY		A5.5	
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.	As applicable		
5.508.1.1 CFCs. Install HVAC and refrigeration equipment that does not contain CFCs.	☒		☐
5.508.1.2 Halons. Install fire suppression equipment that does not contain Halons.[1]	☒		☐
A5.508.1.3 Hydrochlorofluorocarbons (HCFCs). Install HVAC and refrigeration equipment that does not contain HCFCs.		☐	☐
A5.508.1.4 Hydrofluorocarbons (HFCs). Install HVAC complying with either of the following:			
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.		☐	☐
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. **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 (CO_2) , and potentially other refrigerants. ***[NOTE: See all requirements for refrigerant piping, valves, refrigerated service cases, refrigerant receivers, pressure testing and system evacuation contained under section 5.508.2.]***	☒ As applicable		☐
ADDITIONAL ELECTIVE MEASURE			
A5.601.2.4.5 Additional elective measure. Pursuant to Tier 1 requirements, select one 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**.**	☒	_____ *Total elective measures checked above*	☐

INSTALLER AND SPECIAL INSPECTOR QUALIFICATIONS	*All checked items are required for the project*		*Select all measures verified in the completed project*
Qualifications		A5.7	
702.1 HVAC system installers are trained and certified in the proper installation of HVAC systems.	☒		☐
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.	☒		☐
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.	☒		☐

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 **(all must review and sign)** 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.

All signatures must be provided.

Owner's Signature	Date
Owner Name *(Please Print)*	
Design Professional's Signature	Date
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.