County *of* Napa
Building Division

CALGREEN NON-RESIDENTIAL CHECKLIST-MANDATORY ITEMS

A Tradition of Stewardship
A Commitment to Service

PURPOSE:

The non-residential provisions of the 2019 CalGreen Code outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties; establishes the means of conserving water used indoors, outdoors and in wastewater conveyance; outlines means of achieving material conservation and resource efficiency; and outlines means of reducing the quantity of air contaminants.

Project Name: _____

Project Address: _____

Project Description: _____

Instructions:

1. The Owner or the Owner's agent shall employ a licensed professional experienced with the 2019 California Green Building Standards Codes to verify and assure that all required work described herein is properly planned and implemented in the project.
2. The licensed professional, in collaboration with the owner and the design professional shall initial **Column 2** of this checklist, sign and date **Section 1 - Design Verification** at the end of this checklist and have the checklist printed on the approved plans for the project.
3. Prior to final inspection by the Building Department, the licensed professional shall complete **Column 3** and sign and date **Section 2 - Implementation Verification** at the end of this checklist and submit the completed form to the Building Inspector.

MANDATORY FEATURE OR MEASURE	Column 2 Project Requirements	Column 3 Verification
CHAPTER 5 – NONRESIDENTIAL MANDATORY MEASURES		
General Requirements		
The project meets all the requirements of Divisions 5.101 through 5.508.	☐	☐
Division 5.1 PLANNING AND DESIGN		
Planning and Design - Site Development		
5.106.1 Storm water pollution prevention. For projects of one acre or less, develop a Storm Water Pollution Prevention Plan (SWPPP) that has been designed, specific to its site, conforming to the State Storm water NPDES Construction Permit or local ordinance, whichever is stricter, as is required for projects over one acre. The plan should cover prevention of soil loss by storm water run-off and/or wind erosion, of sedimentation and/or of dust/particulate matter air pollution.	☐	☐

5.106.4 Bicycle parking. Comply with Sections 5.106.4.1 or local ordinance; whichever is stricter.	☐	☐
5.106.4.1.1 Short-Term bicycle parking. If the qualified 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 visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack.	☐	☐
5.106.4.1.2 Long-Term bicycle parking. For qualified buildings with over 10 tenant-occupants or for additions or alterations that add 10 or more tenant vehicular parking spaces, provide secure bicycle parking for 5 percent of tenant vehicle parking spaces being added, with a minimum of one bicycle parking facility.	☐	☐
5.106.5.2 Designated parking for clean air vehicles. Provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2.	☐	☐
5.106.5.3 Electric vehicle (EV) charging. Construction shall comply with Section 5.106.5.3.1 or Section 5.106.5.3.2 to facilitate future installation of electric vehicle supply equipment {EVSE).		
5.106.5.3.1 Single charging space requirements. When only a single charging space is required per Table 5.106.5.3.3, a raceway is required to be installed at the time of construction and shall be installed in accordance with the *California Electrical Code.*	☐	☐
5.106.5.3.2 Multiple charging space requirements. When multiple charging spaces are required per Table 5.106.5.3.3, raceway(s) is/are required to be installed at the time of construction and shall be installed in accordance with the *California Electrical Code.*	☐	☐
5.106.5.3.3 EV charging space calculation. Table 5.106.5.3.3 shall be used to determine if single or multiple charging space requirements apply for the future installation of EVSE.	☐	☐
5.106.5.3.4 Identification. The service panel or subpanel(s) circuit directory shall identify the reserved overcurrent protective device space(s) for future EV charging as "EV CAPABLE".	☐	☐
5.106.5.3.5 Future charging spaces. Future charging spaces qualify as designated parking as described in Section 5.106.5.2 Designated parking for clean air vehicles.	☐	☐
5.106.8 Light pollution reduction. Outdoor lighting systems shall be designed and installed to comply with the following: 1. The minimum requirements in the *California Energy Code* for lighting zones 0 – 4 as defined in Chapter 10 of the *California Administrative Code*; and 2. Backlight, Uplight and Glare (BUG) ratings as defined in IES TM-15-11; and 3. Allowable BUG rating not exceeding those shown in Table 5.106.8, or Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.	☐	☐
5.106.10 Grading and paving. The site shall be planned and developed to keep surface water away from buildings. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows.	☐	☐

Division 5.2 ENERGY EFFICIENCY

Performance Requirements		
5.201.1 Scope. The California Energy Commission will continue to adopt mandatory building standards.	☐	☐

Division 5.3 WATER EFFICIENCY AND CONSERVATION

Indoor Water Use		
5.303.1 Meters. Separate submeters or metering devices shall be installed for the uses described in Sections 5.303.1.1 and 5.303.1.2. **5.303.1.1 New building or additions 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 are unfeasible for water supplied to the following systems: 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 > 500,000 Btu/h.	☐	☐
5.303.1.2 Excess consumption. A separate submeter or metering device shall be provided for any tenant within a new building or within an addition that is projected to consume > 1,000 gal/day.	☐	☐
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.	☐	☐
5.303.3.2 Urinals. **5.303.3.2.1 Wall-mounted urinals.** The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush.	☐	☐
5.303.3.2.2 Floor-mounted urinals. The effective flush volume of floor-mounted or other urinal 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 1.8 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 1.8 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.	☐	☐

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 minutes 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 faucet may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minutes at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minutes 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 minutes/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 cycle/20 [rim space (inches) at 60 psi].	☐	☐
5.303.4.1 Food waste disposers. Disposers shall either modulate the use of water to no more than 1 gpm when the disposer is not in use (not actively grinding food waste/no-load) or shall automatically shut off after no more than 10 minutes of inactivity. Diposers shall use no more than 8 gpm of water.	☐	☐
5.303.5 Areas of additions or alteration. For those occupancies within the authority of the California Building Standards Commission as specified in Section 103, the provisions of Section 5.303.3 and 5.303.4 shall apply to new fixtures in additions or areas of alteration to the building.	☐	☐
5.303.6 Standards for plumbing fixtures and fittings. Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code* (CPC), and shall meet the applicable standards referenced in CPC Table 1701.1 and *CalGreen* Chapter 6.	☐	☐
Outdoor Water Use		
5.304.1 Outdoor potable water use in landscape areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. ☐ The Model Water Efficient Landscape Ordinance (MWELO) is located in the *California Code of Regulations*, Title 23, Chapter 2.7, Division 2. ☐ MWELO and supporting documents, including a water budget calculator, are available at: https://www.water.ca.gov/	☐	☐
~~**5.304.3 Outdoor water use in rehabilitated landscape projects equal to or greater than 2,500 sq.ft.**~~ Section Deleted	☐	☐
~~**5.304.4 Outdoor water use in landscape areas of 2,500 sq.ft. or less.**~~ Section Deleted	☐	☐

~~**5.304.5 Graywater or rainwater use in landscape areas.**~~ Section Deleted	☐	☐
Weather Resistance and Moisture Management		
5.407.1 Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by *California Building Code* Section 1402.2, manufacturer's installation instructions or local ordinance, whichever is more stringent.	☐	☐
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/or openings to prevent water intrusion into buildings as follws: **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		
5.408.1 Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.	☐	☐
5.408.1.1 Construction waste management plan. Submit plan per this section to enforcement authority.	☐	☐
5.408.1.2 Waste management company. Utilize a waste management company that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with CalGreen Section 5.408.	☐	☐
5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that does not exceed two pounds per square foot of building area may be deemed to meet the 65 percent minimum requirement as approved by the enforcing agency.	☐	☐
5.408.1.4 Documentation. Provide documentation of the waste management plan that meets the requirements listed in Section 5.408.1.1 through 5.408.1.3.	☐	☐

5.408.2 Universal waste. Addition and alteration to a building or tenant space that meet the scoping provision in Section 301.3 for nonresidential additions and alterations, shall require verification that Universal Waste items such as fluorescent lamps and ballast and mercury containing thermostats as well as other California prohibited Universal Waste materials are disposed of properly and are diverted from landfills. A list of prohibited Universal Waste material shall be included in the construction documents.	☐	☐
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.	☐	☐
Building Maintenance and Operation		
5.410.1 Recycling by occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of nonhazardous materials for recycling.	☐	☐
5.410.2 Commissioning. For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project. All occupancies projects other than I-occupancies and L-occupancies shall comply with the *California Energy Code* as prescribed in *California Energy Code* Section 120.8. For I-occupancies that are not regulated by OSHPD or for I-occupancies and L-occupancies that are not regulated by the *California Energy* Code Section 100.0 Scope, all requirements in Sections 5.410.2 through 5.410.2.6 shall apply. Commissioning requirements shall include items listed in Section 5.410.2.	☐	☐
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 Section 5.410.4.	☐	☐
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 and updated periodically to cover the systems listed in Section 5.410.2.2.	☐	☐
5.410.2.3 Commissioning plan. A commissioning plan describing how the project will be commissioned shall be started during the design phase of the building project and shall include items listed in Section 5.410.2.3.	☐	☐
5.410.2.4 Functional performance testing. Functional performance testing shall demonstrate the correct installation and operation of each component, system and system-to-system interface in accordance with the 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 facilities operator and shall include the items listed in Section 5.410.2.5.1.	☐	☐
5.410.2.5.2 Systems operations training. The training of the appropriate maintenance staff for each equipment type and/or system shall include items listed in Section 5.410.2.5.2.	☐	☐
5.410.2.6 Commissioning report. A complete report of commissioning process activities undertaken through the design, construction and reporting recommendations for post-construction phases of the building project shall be completed and provided to the owner or representative.	☐	☐

5.410.4 Testing and adjusting. Testing and adjusting of systems shall be required for buildings less than 10,000 square feet or new systems to serve an addition or alteration subject to Section 303.1.		
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 systems listed in Section 5.410.4.2.	☐	☐
5.410.4.3 Procedures. Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system.	☐	☐
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 Section 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 verifications and reports required by the enforcing agency.	☐	☐
Fireplaces		
5.503.1 Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace or a sealed woodstove and refer to residential requirements in the *California Energy Code,* Title 24, Part 6, Subchapter 7, Section 150.	☐	☐
5.503.1.1 Woodstoves. Woodstoves shall comply with US EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits.	☐	☐
Pollutant Control		
5.504.1 Temporary ventilation. The permanent HVAC system shall only be used during construction if necessary to condition the building or areas of addition or alteration within the required temperature range for material and equipment installation. If the HVAC system is used during construction, use return air filters with a Minimum Efficiency Reporting Value (MERV) of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30 percent based on ASHRAE 52.1-1992. Replace all filters immediately prior to occupancy, or, if the building is occupied during alteration, at the conclusion of construction.	☐	☐
5.504.3 Covering of duct openings and protection of mechanical equipment during construction. At the time of rough installation or during storage on the construction site and until final startup of the heating and cooling equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of dust or debris which may collect in the system.	☐	☐

5.504.4 Finish material pollutant control. Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.6.		
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 unless more stringent local limits apply.	☐	☐
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). Comply with B.A.A.Q.M.D. Reg. 8, Rule 49.	☐	☐
5.504.4.3.2 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency.	☐	☐
5.504.4.4 Carpet systems. All carpet installed in the building interior shall meet the testing and product requirements of at least one of the standards listed in Section 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.	☐	☐
5.504.4.5 Composite wood products. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in Table 5.504.4.5.	☐	☐
5.504.4.5.3 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 standards listed in Section 5.504.5.3.	☐	☐
5.504.4.6 Resilient flooring systems. For 80 percent of floor area receiving resilient flooring, installed resilient flooring shall meet at least one of the following standards listed in Section 5.504.4.6.	☐	☐
5.504.5.3 Filters. In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air prior to occupancy that provides at least a MERV of 13.	☐	☐

5.504.7 Environmental tobacco smoke (ETS) control. Prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows where outdoor areas are provided for smoking and in buildings; or as enforced by ordinances, regulations or policies of any city, county, city and county, California Community College, campus of the California State University or campus of the University of California, whichever are more stringent.	☐	☐
Indoor Moisture and Radon Control		
5.505.1 Indoor moisture control. Buildings shall meet or exceed the provisions of *California Building Code*, CCR, Title 24, Part 2, Sections 1202 and Chapter 14.	☐	☐
Air Quality and Exhaust		
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*, or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8.	☐	☐
5.506.2 Carbon dioxide (CO2) monitoring. For buildings equipped with demand control ventilation, CO2 sensors and ventilation controls shall be specified and installed in accordance with the requirements of the *California Energy Code*, Section 120.1(c)(4).	☐	☐
Environmental Comfort		
5.507.4 Acoustical control. Employ building assemblies and components with STC values determined in accordance with ASTM E 90 and ASTM E 413.	☐	☐
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. Also applies to addition envelope or altered envelope.	☐	☐
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 rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30). Also applies to addition or alteration exterior wall.	☐	☐
5.507.4.2 Performance method. For buildings located as defined in Section 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. Also applies to addition envelope or altered envelope.	☐	☐
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. Also applies to addition envelope or altered envelope.	☐	☐
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.	☐	☐

5.507.4.3 Interior sound. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.	☐	☐
Outdoor Air Quality		
5.508.1 Ozone depletion and greenhouse gas reductions. Installations of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.		
5.508.1.1 Chlorofluorocarbons (CFCs). Install HVAC, refrigeration and fire suppression equipment that do not contain CFCs.	☐	☐
5.508.1.2 Halons. Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.	☐	☐
5.508.2 Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the provisions of this section when installed in retail food stores 8,000 square feet or more 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.	☐	☐
5.508.2.1 Refrigerant piping. Piping compliant with the *California Mechanical Code* shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than 1/4 inch, flared tubing connections and short radius elbows shall not be used in refrigerant systems except as noted below.	☐	☐
5.508.2.1.1 Threaded pipe. Threaded connections are permitted at the compressor rack.	☐	☐
5.508.2.1.2 Copper pipe. Copper tubing with an OD less than ¼ inch may be used in systems with a refrigerant charge of 5 pounds or less.	☐	☐
5.508.2.1.2.1 Anchorage. One-fourth-inch OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mils.	☐	☐
5.508.2.1.3 Flared tubing connections. Double-flared tubing connections may be used for pressure controls, valve pilot lines and oil.	☐	☐
5.508.2.1.4 Elbows. Short radius elbows are only permitted where space limitations prohibited use of long radius elbows.	☐	☐
5.508.2.2. Valves. Valves and fittings shall comply with the *California Mechanical Code* and as follows.	☐	☐
5.508.2.2.1 Pressure relief valves. For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.	☐	☐
5.508.2.2.1.1 Pressure detection. A pressure gauge, pressure transducer or other device shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.	☐	☐

5.508.2.2.2 Access valve. Only Schrader access valves with a brass or steel body are permitted for use.	☐	☐
5.508.2.2.2.1 Valves caps. For system with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.	☐	☐
5.508.2.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place.	☐	☐
5.508.2.2.2.2.1 Chain tethers. Chain tethers to fit over the stem are required for valves designed to have seal caps.	☐	☐
5.508.2.3 Refrigerated service cases. Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel; or be coated to prevent corrosion from these substances.	☐	☐
5.508.2.3.1 Coil coating. Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.	☐	☐
5.508.2.4 Refrigerated receivers. Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device that indicates the level of refrigerant in the receiver.	☐	☐
5.508.2.5. Pressure testing. The system shall be pressure tested during installation prior to evacuation and charging.	☐	☐
5.508.2.5.1 Minimum pressure. The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum.	☐	☐
5.508.2.5.2 Leaks. Check the system for leaks, repair any leaks, and retest for pressure using the same gauge.	☐	☐
5.508.2.5.3 Allowable pressure change. The system shall stand, unaltered, for 24 hours with no more than a +/- one pound pressure change from 300 psig, measured with the same gauge.	☐	☐
5.508.2.6 Evacuation. The system shall be evacuated after pressure testing and prior to charging.	☐	☐
5.508.2.6.1 First vacuum. Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and hold for 30 minutes.	☐	☐
5.508.2.6.2 Second vacuum. Pull second system vacuum to a minimum of 500 microns and hold for 30 minutes.	☐	☐
5.508.2.6.3 Third vacuum. Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.	☐	☐

CALGREEN SIGNATURE DECLARATIONS

Project Name: _____

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 and design professional responsible for compliance with CalGreen Standards have revised 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 2019 California Green Building Standards Code as adopted by the County of Napa.

Owner's Signature	Date
Owner's Name (Please Print)	
Design Professional's Signature	Date
Design Professional's Name (Please Print)	
Signature of License Professional responsible for CalGreen compliance	Date
Name of License Professional responsible for CalGreen compliance (Please Print)	Phone
Email Address for License Professional responsible for CalGreen compliance	

SECTION 2 – IMPLEMENTATION VERIFICATION

Complete, sign and submit the competed checklist, including column 3, together with all original signatures on Section 2 to the Building Department prior to Building Department final inspection.

I have inspected the work and 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 of the 2019 California Green Building Standards Code as adopted by the County of Napa.

Signature of License Professional responsible for CalGreen compliance	Date
Name of License Professional responsible for CalGreen compliance (Please Print)	Phone
Email Address for License Professional responsible for CalGreen compliance	