



City of Millbrae

2022 CALIFORNIA GREEN BUILDING CODE RESIDENTIAL CHECKLIST

New residential buildings must be designed to include the Green Building mandatory measures specified in this checklist. These Green Building mandatory measures also apply to additions or alterations of existing residential buildings where the addition or alteration increases the conditioned area, volume, or size of the building. These requirements apply only to the specific area of addition or alteration. Please copy into your plan set.

In the column labeled “Plan Reference” specify where each Measure can be found on the plans.

Green Building Measure	Plan Reference
SITE DEVELOPMENT (2022 CGC §4.106)	
Storm drainage, grading and paving. A plan has been developed, and will be implemented, to manage storm water drainage during construction. 2022 CGC §4.106.2 & §4.106.3	
Electric vehicle (EV) charging for new construction. New construction shall comply with sections 4.106.4 or 4.106.2 to facilitate future installation and use of EV chargers. CGC §4.106.4	
ENERGY EFFICIENCY (2022 CGC and the 2022California Building Energy Efficiency Standards)	
2022 Energy Code performance compliance documentation must be provided in 8-1/2" X 11" format and must be replicated on the plans.	
Walls with 2 X 6 and larger framing shall have an overall assembly U-factor not exceeding U-0.071. §150.0 (c) 2	
Hot water piping insulation §150.0 (j) 2 A ii	
Lighting – new mandatory requirements for indoor rooms. §150.0 (k)	
Duct insulation (R-6) required §150.0 (m) 1	
Duct leakage testing –At the rough-in stage 6% with air handler and 4% without air handler §150.0 (m) 11	
Return duct design/fan power, airflow testing, and grill sizing requirements §150.0(m)13	
Water heating – 120 volt receptacle < 3 ft., Cat III or IV vent, and gas supply line capacity of at least 200,000 Btu / hour §150.0 (n)	
New third-party HERS verification for ventilation and indoor air quality §150.0 (o)	
New mandatory U-factor (0.58) for fenestration and skylights §150.0 (q)	
Classification of High & Low efficacy light sources. Table 150.A 2022 CEC	
Refrigerant charge verification for ducted package units, mini-splits, and other units §150.1(c)7	
Radiant barrier now required in Climate Zone 3 §150.1 (c) 2	
Maximum U-factor (0.30) for high performance windows §150.1 (c) 3 A and Table 150.1-A	



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WATER EFFICIENCY AND CONSERVATION(2022 CGC §4.3)	
Indoor water use. The fittings for bath faucets and showerheads will have all required standards listed on the plans; Water closet 1.28 GPM; 1.8 GPM for single showerhead; 1.2 GPM lavatory faucets; 1.8 GPM kitchen faucets. 2022 CGC § 4.303.1.1; §4.303.1.3.1; §4.303.1.4.1; § 4.303.1.4.4	
Outdoor water use. An automatic irrigation system controller for landscaping will be provided by the builder and installed at the time of final inspection. 2022 CGC §4.304.1	
In accordance with Civil Code Section 1101.9 Existing plumbing fixtures in other areas of the dwelling shall comply with the 2022 CA. Plumbing Code (1.28 gal/flush water closet, 1.8 GPM max single Shower Head, and 1.2 GPM for all faucets). If the existing faucets do not meet this requirement, they shall be upgraded to the 2022 CA. Plumbing Code as noted in the above sections.	
ENHANCED DURABILITY AND REDUCED MAINTENANCE (2022 CGC §4.406)	
Rodent proofing. Annular spaces around pipes, electric cables, conduits, or other openings in sole/bottom plates at exterior walls will be rodent proofed by closing such openings with cement mortar, concrete masonry, or similar method acceptable to the enforcing agency. 2022 CGC §4.406.1	
CONSTRUCTION WASTE REDUCTION, DISPOSAL, AND RECYCLING (2022 CGC §4.408)	
Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with either 2022 CGC §4.408.1, §4.408.2; §4.408.3 or § 4.408.4, or meet a more stringent local construction and demolition waste management ordinance	
Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 4.408.2, Items 1 through 5, Section 4.408.3 or Section 4.408.4. 2022 CGC § 4-408.5	
BUILDING MAINTENANCE AND OPERATION (2022 CGC §4.410)	
Operation and maintenance manual. At the time of final inspection, an operation and maintenance instruction manual, compact disc, web-based reference or other media of equipment, appliances and devices shall be provided to the owner or occupant. 2022 CGC §4.410.1	
FIREPLACES (2022 CGC §4.503)	
Any installed gas fireplace shall be a direct-vent sealed-combustion type. 2022 CGC§4.503.1	
Any wood stove or pellet stove will comply with US EPA Phase II emission limits. 2022 CGC §4.503.1	



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POLLUTANT CONTROL (CGC §4.504)	
Covering of duct openings and protection of mechanical equipment during construction. At the time of rough installation, 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, Sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of water, dust and debris, which may enter the system. 2022 CGC §4.504.1	
Adhesives, sealants, and caulks. 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, per Table 4.504.1 or 4.504.2. 2022 CGC §4.504.2.1	
Paints and coatings Architectural paints and coatings shall comply with VOC in Table 4.504.3, unless more stringent local limits apply. CGC §4.504.2.2	
Aerosol paints and coatings. Aerosol paints and coatings will meet the Product-weighted MIR limits for ROC and other requirements. 2022 CGC §4.504.2.3	
Verification of compliance with this section shall be provided at the request of the enforcing agency to verify compliance of VOC limitations have been used. 2022 CGC §4.504.2.4	
Carpet system. All carpet installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017. 2022 CGC §4.504.3	
Where resilient flooring is installed, at least 80 percent of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017. 2022 CGC §4.504.4	
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 ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.) as shown in Table 4.504.5.- Formaldehyde Limits. 2022 CGC §4.504.5	
INTERIOR MOISTURE CONTROL (2022 CGC §4.505)	
Concrete slab foundations. Concrete slab foundations required to have a vapor retarder by the California Building Code, Chapter 19 or concrete slab-on-ground floors required to have a vapor retarder by the California Residential Code, Chapter 5. 2022 CGC § 4.505.2	
A capillary break will be installed if a slab on grade foundation system is used. The use of a 4" thick base of ½" or larger clean aggregate under a 6-mil vapor retarder with joint lapped not less than 6" will be provided unless an engineered design has been submitted and approved by the Building Division. 2022 CGC §4.505.2 and California Residential Code (CRC) § R506.2.3	



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<p>Moisture content of building materials.</p> <p>Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content.</p> <p>Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure. 2022 CGC §4.505.3</p>	
INDOOR AIR QUALITY AND EXHAUST (2022 CGC §4.506)	
<p>Bathroom exhaust fan. Each bathroom which contains a bathtub, shower or tub/shower combination shall be mechanically ventilated with an ENERGY STAR compliant fan with humidity control and shall be ducted to terminate outside the building. 2022 CGC §4.506.1</p> <p>Unless functioning as a component of a whole-house ventilation system, fans must be controlled by a humidistat. 2022 CGC §4.506.1</p>	
ENVIRONMENTAL COMFORT (2022 CGC §4.507)	
<p>The heating and air-conditioning system will be sized, designed and have their equipment selected using the following methods: 2022 CGC §4.507.2</p> <ol style="list-style-type: none"> 1. Heat Loss/Heat Gain values in accordance with ANSI/ACCA 2 Manual J-2016 or equal; 2. Duct systems are sized according to ANSI/ACCA 1, Manual D-2016 or equivalent; 3. Select heating and cooling equipment in accordance with ANSI/ACCA 3, Manual S-2014 or equivalent. 	
INSTALLER SPECIAL INSPECTOR QUALIFICATION (2022 CGC §702)	
<p>Installer training. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program.</p> <p>Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. 2022 CGC § 702.1</p>	
Green Building Measure	Plan Reference
<p>Special inspection. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. 2022 CGC § 702.2</p>	
VERIFICATION (2022 CGC §703)	
<p>Documentation. Upon request, verification of compliance with this code may include construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the Building Division that will show substantial conformance with the 2022 Code requirements. 2022 CGC §703.1</p>	



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Responsible Designer's Declaration	Contractor's Declaration Statement
I hereby certify that this project has been designed to meet the requirements of the 2022 Green Building Code.	I hereby certify, as the builder or installer, under permit listed herein, that this project will be constructed to meet the requirements of the 2022 Green Building Code.
Name:	Name:
Address:	Address:
City/State/Zip:	City/State/Zip:
Signature:	Signature:
Date:	Date: