City of Millbrae

2019 CALIFORNIA GREEN BUILDING CODE CHECKLIST FOR NEW NONRESIDENTIAL BUILDINGS

FOR NON-RESIDENTIAL BUILDINGS. 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 (2019 CGC §5.106)	
Storm Water. Newly constructed projects which disturb less than one acre of land shall prevent the pollution of storm water runoff from the construction activities through local ordinance per 2019 CGC §5.106.1	
BMP. Include a plan for Best Management Practices (BMP) on the plans. 2019 CGC §5.106.1.2	
Short-Term Bicycle Parking. If the 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 two-bike capacity rack. 2019 CGC §5.106.4.1.1.	
Long-Term Bicycle Parking. For buildings with more than 10 tenant-occupants, provide secure bicycle parking for 5 percent of tenant-occupied motorized vehicle parking being added, with a minimum of one space. 2019 CGC §5.106.4.1.2.	
Designated Parking. Provide designated parking for any combination of low-emitting, fuel-efficient, and carpool/van pool vehicles as shown in 2019 CGC Table 5.106.5.2. Parking stall marking shall comply with 2019 CGC §5.106.5.2.1	
Light Pollution Reduction: Outdoor lighting systems shall be designed and installed to comply with requirements in the 2019 California Energy Code and in compliance with 2019 CGC §5.106.8.	
ENERGY EFFICIENCY	
(2019 CGC §5.2 and the 2019 California Building Energy Efficiency Standards)	
2019 Energy Code performance compliance documentation must be provided in 8-1/2" X 11" format and must be replicated on the plans.	
The building shall be in compliance with the Mandatory requirements of the 2019 California Energy Code §100.0 through §110.11 that are applicable to the building project.	
The building shall be in compliance with the Mandatory requirements of the 2019 California Energy Code §120.0 through §130.5.	
The building shall be in compliance with the performance compliance approach (energy budgets) in the 2019 California Energy Code §140.1, or the prescriptive compliance approach in §140.2 for the Climate Zone in which the building will be located.	
1	June 2020

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Green Building Measure	
WATER EFFICIENCY AND CONSERVATION (2019 CGC §5.303)	
Meters. Separate sub-meters or metering devices shall be installed for the uses described in 2019CGC §503.1.1 and §503.1.2.	
Buildings in excess of 50,000 square feet: Separate sub-meters shall be installed as follows:	
 For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gal/day, including but not limited to, spaces used for laundry or cleaner, restaurant for food service, medical or dental office, laboratory or beauty salon or barber shop. 	
Where separate sub-meters for individual building tenants are infeasible, for water supplied to the following subsystem:	
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.	
Excess Consumption. A separate sub-meter or metering device shall be provided for any tenant within a building that is projected to consume more than 1,000 gallons/day. 2019 CGC §5.303.1.2	
 Water Conserving Plumbing Fixtures and Fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following prescriptive reduced flow rates: Water Closets: The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. 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. 2019 CGC §5.303.3.1 	
Urinals: The effective flush volume of Wall-mounted urinals shall not exceed 0.125 gallons per flush and Floor mounted urinals shall not exceed 0.5 gallons per flush. 2019 CGC §5.303.3.2.1 & 5.303.2.2	
Single Showerhead: Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. 2019 CGC §5.303.3.3.1	
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 show shall be designed to allow only one shower outlet to be in operation at a time. Note: A handheld shower is considered a showerhead. 2019 CGC §5.303.3.3.2	
Lavatory faucets: shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi. 2019 CGC §5.303.3.4.1	
Kitchen faucets: maximum flow rate 1.8 gallons per minute at 60 psi. 2019 CGC §5.303.3.4.2	
Wash fountains: maximum flow rate 1.8 gallons per minute at 60 psi. 2019 CGC §5.303.3.4.3	
OUTDOOR WATER USE (2019 CGC §5.304)	
2	June 2020

Green Building Measure	
WEATHER RESITANCE AND MOISTURE MANAGEMENT (2019 CGC §5.407)	
Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by 2019 <i>California Building</i> §1402.2 and 2019 California Energy Code §150, the manufacturer's installation instructions, or local ordinance, whichever is more stringent. 2019 CGC §5.407.1	
Moisture Control. Employ moisture control measures by the following methods; Sprinklers. Prevent irrigation spray on structures per 2019 CGC §5.407.2.1. Entries and openings. Design exterior entries and openings to prevent water intrusion into buildings. 2019 CGC §5.407.2.2.	
CONSTRUCTION WASTE REDUCTION, DISPOSAL, AND RECYCLING (2019 CGC §5.408)	
Construction Waste Diversion. A minimum of 65% of the non-hazardous construction and demolition waste generated at the site will be diverted to an offsite recycle, diversion, or salvage facility.	
BUILDING MAINTENANCE AND OPERATION (2019 CGC §5.410)	
Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of nonhazardous materials for recycling including paper, corrugated cardboard, glass, plastics, and metals. 2019 CGC §5.410.1	
Commissioning. For new buildings 10,000 square feet and over, building commissioning for all building systems covered by the 2019 California Energy Code, 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 2019 CGC §5.410.2.	
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 representative. 2019 CGC §5.410.2.6	
Testing and Adjusting. Testing and adjusting of systems shall be required for buildings less than 10,000 square feet. 2019 CGC §5.410.4.	
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. A copy of all inspection verifications and reports required by the enforcing agency must be included in this manual. 2019 California Building Code §5.410.4.5.	
FIREPLACES (2019 CGC §5.503)	
Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace or a sealed woodstove or a pellet stove and refer to residential requirements in the 2019 California Energy Code, Title 24, Part 6, Subchapter 7, § 150.	
Woodstoves. Woodstoves and pellet stoves shall comply with US EPA, (NSPS) emission limits.	
POLLUTANT CONTROL (2019 CGC §5.504)	
Temporary Ventilation. The permanent HVAC system shall only be used during construction if necessary to condition the building within the required temperature range for material and equipment installation. If the HVAC system is used during construction, use return air filters with a MERV of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1-1992. Replace all filters immediately prior to occupancy. 2019 CGC §5.504.1	

Green Building Measure	Plan Reference
Covering of Duct Openings and Protection of Mechanical Equipment During Construction. At the time of rough installation or during storage on the construction site and until final startup of the heating, cooling and 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 or debris which may collect in the system. 2019 CGC §5.504.3.	
Finish Material Pollutant Control. Finish materials shall comply with 2019 CGC §5.504.4.1 through §5.504.4.6.	
Adhesives, sealants and caulks. Adhesives, sealants and caulks used on the project shall meet the requirements of the standards listed in 2019 CGC §5.504.4.1.	
Paints and Coatings. Architectural paints and coatings shall comply with 2019 CGC Table 5.504.4.3 unless more stringent local limits apply.	
Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. 2019 CGC §5.504.4.3.2.	
Carpet Systems. All carpet installed in the building interior shall meet the testing and product requirements of one of the standards listed in 2019 CGC §5.504.4.4.	
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 2019 CGC Table 5.504.4.5	
Resilient Flooring Systems. 80 percent of the floor area receiving resilient flooring shall comply with at least one of the pollutant control measures listed in 2019 CGC §5.504.4.6.	
Verification of Compliance. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits. 2019 CGC §5.504.4.6.1	
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. MERV 13 filters shall be installed after any flushed-out or testing and prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual. 2019 CGC §5.504.5.3	
INDOOR MOISTURE CONTROL (2019 CGC §5.505)	
Buildings shall meet or exceed the provisions of the 2019 California Building Code, Sec, 1202 (Ventilation) and Chapter 14 (Exterior Walls) for indoor moisture control. 2019 CGC §5.505	
INDOOR AIR QUALITY (2019 CGC §5.506)	
Buildings must meet the minimum requirements of the 2019 California Building Code, Chapter 12 (Ventilation) for mechanically or naturally ventilated spaces. 2016 CGC §5.506.1	
For Buildings equipped with demand control ventilation, CO2 sensors and vent. Controls shall be specified and installed in accordance with the 2019 California Energy Code, 2019 CGC 5.506.2	

Green Building Measure	Plan Reference
ENVIRONMENTAL COMFORT (2019 CGC §5.507)	
Acoustical Control. Employ building assemblies and components with STC values determined in accordance with ASTM E90 and ASTM E413 or OITC determined in accordance with ASTM E 1332, using either the prescriptive or performance method in 2019 CGC §5.507.4.1 or §5.507.4.2.	
OUTDOOR AIR QUALITY (2019 CGC §5.508)	
Ozone Depletion and Greenhouse Gas Reductions. Installation of HVAC, refrigeration and fire suppression equipment shall comply with 2019 CGC §5.508.1.1 or §5.508.1.2.	
Supermarket Refrigerant Leak Reduction. New commercial refrigeration systems shall comply with 2019 CGC §5.508.2 when installed in retail food stores with 8,000 square feet or more of condition 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) refrigerant with a GWP of 150 or greater. 2019 CGC §5.508.2	

Responsible Designer's Declaration	Contractor's Declaration Statement
I hereby certify that this project has been designed	I hereby certify, as the builder or installer, under permit
to meet the requirements of the 2019 Green	listed herein, that this project will be constructed to meet
Building Code.	the requirements of the 2019 Green Building Code.
Name:	Name:
Address:	Address:
City/State/Zip:	City/State/Zip:
Signature:	Signature:
Date:	Date: