Chapter 15.26
GREEN BUILDING STANDARDS CODE

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15.26.260 GSBC Section 5.106.5.3.4 amended - Accessible EVCS
15.26.270 GSBC Section 5.106.13 added – All-Electric Buildings.
15.26.290  GSBC Section 5.106.13.2. added - Requirements for combustion equipment.

15.26.010  Title for citation.

This chapter shall be known as the "Green Building Standards Code," may be cited as such and will be referred to in this chapter as "this code."


The Green Building Standards Code adopted herein by reference is hereby amended by the following additional deletions and amendments thereto as set forth in this chapter.


Section 202 is amended to add, amend, or delete the following definitions:

Section 202 is amended to add the following definitions:

**AFFORDABLE HOUSING.** Residential buildings that entirely consist of units below market rate and whose rents or sales prices are governed by local agencies to be affordable based on area median income.

**ALL-ELECTRIC BUILDING.** A building that contains no combustion equipment or plumbing for combustion equipment serving space heating (including fireplaces), water heating (including pools and spas), cooking appliances (including barbeques), and clothes drying, within the building or building property lines, and instead uses electric heating appliances for service.

**COMBUSTION EQUIPMENT.** Any equipment or appliance used for space heating, water heating, cooking, clothes drying and/or lighting that uses fuel gas.

**COMMERCIAL FOOD HEAT-PROCESSING EQUIPMENT.** An equipment used in a food establishment for heat-processing food or utensils and that produces grease vapors, steam, fumes, smoke, or odors that are required to be removed through a local exhaust ventilation system, as defined in the California Mechanical Code.
**ELECTRIC HEATING APPLIANCE.** A device that produces heat energy to create a warm environment by the application of electric power to resistance elements, refrigerant compressors, or dissimilar material junctions, as defined in the California Mechanical Code.

**FUEL GAS.** A gas that is natural, manufactured, liquefied petroleum, or a mixture of these.

**DIRECT CURRENT FAST CHARGING (DCFC).** A parking space provided with electrical infrastructure that meets the following conditions:

i. A minimum of 48 kVa (480 volt, 100-ampere) capacity wiring.

ii. Electric vehicle supply equipment (EVSE) located within three (3) feet of the parking space providing a minimum capacity of 80-ampere.

**LEVEL 2 EV CAPABLE.** A parking space provided with electrical infrastructure that meets the following requirements:

i. Conduit that links a listed electrical panel with sufficient capacity to a junction box or receptacle located within three (3) feet of the parking space.

ii. The conduit shall be designed to accommodate at least 8.3 kVa (208/240 volt, 40-ampere) per parking space. Conduit shall have a minimum nominal trade size of 1 inch inside diameter and may be sized for multiple circuits as allowed by the California Electrical Code. Conduit shall be installed at a minimum in spaces that will be inaccessible after construction, either trenched underground or where penetrations to walls, floors, or other partitions would otherwise be required for future installation of branch circuits, and such additional elements deemed necessary by the Building Official. Construction documents shall indicate future completion of conduit from the panel to the parking space, via the installed inaccessible conduit.

iii. The electrical panel shall reserve a space for a 40-ampere overcurrent protective device space(s) for EV charging, labeled in the panel directory as “EV CAPABLE.”

iv. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

v. The parking space shall contain signage with at least a 12” font adjacent to the parking space indicating the space is EV Capable.

**LEVEL 1 EV READY.** A parking space that is served by a complete electric circuit with the following requirements:

i. A minimum of 2.2 kVa (110/120 volt, 20-ampere) capacity wiring.

ii. A receptacle labeled “Electric Vehicle Outlet” or electric vehicle supply equipment located within three (3) feet of the parking space. If EVSE is provided the minimum capacity of the EVSE shall be 16-ampere.

iii. Conduit oversized to accommodate future Level 2 EV Ready (208/240 volt, 40-ampere) at each parking space.
LEVEL 2 EV READY. A parking space that is served by a complete electric circuit with the following requirements:

i. A minimum of 8.3 kVa (208/240 volt, 40-ampere) capacity wiring.

ii. A receptacle labeled “Electric Vehicle Outlet” or electric vehicle supply equipment located within three (3) feet of the parking space. If EVSE is provided the minimum capacity of the EVSE shall be 30-ampere.

LOW POWER LEVEL 2 EV READY. A parking space that is served by a complete electric circuit with the following requirements:

i. A minimum of 4.1 kVA (208/240 Volt, 20-ampere) capacity wiring.

ii. A receptacle labeled “Electric Vehicle Outlet” or electric vehicle supply equipment located within three (3) feet of the parking space. If EVSE is provided the minimum capacity of the EVSE shall be 16-ampere.

iii. Conduit oversized to accommodate future Level 2 EV Ready (208/240 volt, 40-ampere) at each parking space.

Section 202 is amended to amend the following definitions:

AUTOMATIC LOAD MANAGEMENT SYSTEM (ALMS). A control system designed to manage load across one or more electric vehicle supply equipment (EVSE), circuits, panels and to share electrical capacity and/or automatically manage power at each connection point. ALMS systems shall be designed to deliver no less than 3.3 kVa (208/240 volt, 16-ampere) to each EV Capable, EV Ready or EVCS space served by the ALMS, and meet the requirements of California Electrical Code Article 625. The connected amperage to the building site for the EV charging infrastructure shall not be lower than the required connected amperage per California Green Building Standards Code, Title 24 Part 11.

ELECTRIC VEHICLE CHARGING STATION (EVCS). A parking space that includes installation of electric vehicle supply equipment (EVSE) at an EV Ready space. An EVCS space may be used to satisfy EV Ready space requirements. EVSE shall be installed in accordance with the California Electrical Code, Article 625.

Section 202 is amended to delete the following definitions:

ELECTRIC VEHICLE (EV) READY SPACE. [HCD]
ELECTRIC VEHICLE (EV) CAPABLE SPACE.
LEVEL 2 ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). [HCD]
LOW POWER LEVEL 2 ELECTRIC VEHICLE (EV) CHARGING RECEPTACLE. [HCD]
15.26.050 GBSC Section 304.1.2 added – Alternate methods.

Section 304.1.2 is added to read:

Alternate Methods. As an alternative to achieving compliance with the Green Building Standards Code requirements, a project may instead achieve compliance through; (i) the United States Green Building Council’s Leadership in Energy and Environmental Design (LEED), (ii) Build It Green’s Green Point Rating System; or (iii) another recognized and approved third party green building standards and rating system. Equivalency to the Green Building Standards Code shall be evaluated, detailed and certified by the design professional.


Section 4.106.1 is amended to read:

General: Preservation and use of the available natural resources shall be accomplished through evaluation and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes, management of storm water drainage and erosion controls shall comply with this section, and the provisions of the Stormwater Management and Control Program (Municipal Code chapter 13.45).

15.26.070 GBSC Section 4.106.4 amended – Electric vehicle (EV) charging for new construction.

Section 4.106.4 is amended to read:

4.106.4 Electric Vehicle (EV) Charging for New Construction

New construction shall comply with Section 4.106.4.1 or 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the California Electrical Code, Article 625. Signage for EVCS and EV Ready spaces shall be identified by signage or pavement markings, in compliance with Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

Exceptions:

1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
1.1. Where there is no local utility power supply, or the local utility is unable to supply adequate power.

1.2. Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 4.106.4, may increase construction cost by an average of $4,500 per parking space for market rate housing or $400 per parking space for affordable housing. EV infrastructure shall be provided up to the level that would not exceed this cost for utility service.

2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.

3. Multifamily residential R-2 building projects that have approved entitlements before the code effective date.

15.26.080  GBSC section 4.106.4.1 amended- New One- And Two-Family Dwellings and Townhouses with Attached Private Garages

Section 4.106.4.1 is amended to read:

One parking space provided per unit shall be a Level 2 EV Ready space. If a second parking space is provided, it shall be provided with a Level 2 EV Ready space.

Exception: Accessory Dwelling Units with new parking facilities shall provide one Level 2 EV Capable space.

Delete Exception and sub-section 4.106.4.1.1 Identification

15.26.090  GBSC section 4.106.4.2 amended-New Multifamily Dwellings, Hotels and Motels and New Residential Parking Facilities

Section 4.106.4.2 is amended to read:

4.106.4.2 New Multifamily Dwellings, Hotels and New Residential Parking Facilities

Fifteen percent (15%) of dwelling units with parking spaces shall be EVCS with Level 2 EV Ready. ALMS shall be permitted to reduce load when multiple vehicles are charging. Eighty-five percent (85%) of dwelling units with parking spaces shall be provided with a Low Power Level 2 EV Ready space. One DCFC may be substituted for up to five (5) EVCS to meet the requirements of 4.106.4.2.
EV Ready spaces and EVCS in multifamily developments shall comply with California Building Code, Chapter 11A, Section 1109A. EVCS shall comply with the accessibility provisions for EV chargers in the California Building Code, Chapter 11B.

15.26.100 GBSC section 4.106.4.2.1 deleted - Multifamily Development Projects with Less Than 20 Dwelling Units: And Hotels and Motels With Less Than 20 Sleeping Units or Guest Rooms

Section 4.106.4.2.1 is deleted

15.26.110 GBSC section 4.106.4.2.2 deleted - Multifamily Development Projects With 20 or More Dwelling Units, Hotels and Motels With 20 or More Sleeping Units or Guest Rooms

Section 4.106.4.2.2 is deleted

15.26.120 GBSC section 4.106.4.2.2.1 amended - Electric Vehicle Charging Stations (EVCS)

Section 4.106.2.2.1 is amended to read:

Electric vehicle charging stations required by Section 4.106.4.2 shall comply with Section 4.106.4.2.2.1.

Exception: Electric vehicle charging stations serving public accommodations, public housing, motels and hotels shall not be required to comply with this section. See California Building Code, Chapter 11B, for applicable requirements.

15.26.130 GBSC section 4.106.4.2.2.1.1 amended – Location

Section 4.106.4.2.2.1.1 is amended to read:

EVCS shall comply with at least one of the following options:

1. The charging space shall be located adjacent to an accessible parking space meeting the requirements of the California Building Code, Chapter 11A, to allow use of the EV charger from the accessible parking space.

2. The charging space shall be located on an accessible route, as defined in the California Building Code, Chapter 2, to the building.
**Exception:** Electric vehicle charging stations designed and constructed in compliance with the California Building Code, Chapter 11B, are not required to comply with Section 4.106.4.2.1.1 and Section 4.106.4.2.1.2.

15.26.140 GBSC section 4.106.4.2.1.2 amended – Electric Vehicle Charging Stations (EVCS) Dimensions

Section 4.106.4.2.1.2 is amended to read:

**4.106.4.2.1.2 Dimensions**

The charging spaces shall be designed to comply with the following:

1. The minimum length of each EV space shall be 18 feet (5486 mm).
2. The minimum width of each EV space shall be 9 feet (2743 mm).
3. One in every 25 charging spaces, but not less than one, shall also have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet (3658 mm).
   a. Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction.

**Exception:** Where the City’s Municipal or Zoning Code permits parking space dimensions that are less than the minimum requirements stated in this section 4.106.4.3.2, and the compliance with which would be infeasible due to particular circumstances of a project, an exception may be granted while remaining in compliance with California Building Code Section Table 11B-228.3.2.1 and 11B-812, as applicable.

15.26.150 GBSC section 4.106.4.2.1.3 deleted - Accessible EV Spaces

Section 4.106.4.2.1.3 is deleted

15.26.160 GBSC section 4.106.4.2.3 deleted - EV Space Requirements

Section 4.106.4.2.3 is deleted

15.26.170 GBSC section 4.106.4.2.4 deleted - Identification
Section 4.106.4.2.4 is deleted

15.26.180 GBSC section 4.106.4.2.5 deleted - Electric Vehicle Ready Space Signage
Section 4.106.4.2.5 is deleted

15.26.190 GBSC Section 4.106.5 added – All-electric Buildings.
Section 4.106.5 is added to read:

New construction buildings shall comply with Section 4.106.5.1 or 4.106.5.2 so that they do not use combustion equipment or are ready to accommodate installation of electric heating appliances.

15.26.200 GBSC Section 4.106.5.1 added - New Construction.
Section 4.106.5.1 is added to read:

**New Construction**: All newly constructed buildings shall be *all-electric buildings*.

Building additions, alterations, repairs, and tenant improvements shall not be considered new construction. The final determination whether a project meets the definition of new construction shall be made by the local enforcing agency.

**Exceptions:**

1. Multifamily residential building projects that have approved entitlements before the effective date of this ordinance may install fuel gas for water heating systems serving multiple dwelling units. The applicant shall comply with Section 4.106.5.2.

2. Accessory Dwelling Units (ADUs) that are constructed on a lot with an existing residence that utilizes fuel gas.

3. If the applicant establishes that there is not an all-electric prescriptive compliance pathway for the building under the California Building Energy Efficiency Standards, and that the building is not able to achieve the performance compliance standard applicable to the building under the Energy Efficiency Standards using commercially available technology and an approved calculation method, then the local enforcing agency may grant a modification. The applicant shall comply with Section 4.106.5.2.
Inactive *Fuel Gas Infrastructure* may be extended to spaces that are anticipated to qualify for the exceptions contained in this chapter. The inactive *Fuel Gas Infrastructure* shall not be activated, have a meter installed, or otherwise used unless the exemptions specified in this chapter have been confirmed as part of the issuance of a building permit. If the *Fuel Gas Infrastructure* is no longer serving one of the exceptions contained in this chapter, it shall either be capped, otherwise terminated, or removed by the entity previously entitled to the exemption, in a manner pursuant to all applicable Codes.

The local enforcing agency shall have the authority to approve alternative materials, design and methods of construction or equipment per California Building Code Section 104.

**15.26.210 GBSC Section 4.106.5.2 added - Requirements for combustion equipment.**

Section 4.106.5.2 is added to read:

Where *combustion equipment* is allowed per Exceptions under 4.106.5.1, the construction drawings shall indicate electrical infrastructure and physical space accommodating the future installation of an *electrical heating appliance* in the following ways, as certified by a registered design professional or licensed electrical contractor:

1. Branch circuit wiring, electrically isolated and designed to serve all electrical heating appliances in accordance with manufacturer requirements and the California Electrical Code, including the appropriate voltage, phase, minimum amperage, and an electrical receptacle or junction box within five feet of the appliance that is accessible with no obstructions. Appropriately sized conduit may be installed in lieu of conductors; and

2. Labeling of both ends of the unused conductors or conduit shall be with “For Future Electrical Appliance”; and

3. Reserved circuit breakers in the electrical panel for each branch circuit, appropriately labeled (i.e. "Reserved for Future Electric Range"), and positioned on the opposite end of the panel supply conductor connection; and

4. Connected subpanels, panelboards, switchboards, busbars, and transformers shall be sized to serve the future electrical heating appliances. The electrical capacity requirements shall be adjusted for demand factors in accordance with the California Electric Code; and
5. Physical space for future electrical heating appliances, including equipment footprint, and if needed a pathway reserved for routing of ductwork to heat pump evaporator(s), shall be depicted on the construction drawings. The footprint necessary for future electrical heating appliances may overlap with non-structural partitions and with the location of currently designed combustion equipment.

**15.26.220 GSBC Section 5.106.5.3 amended – Electric vehicle (EV) charging.**

Section 5.106.5.3 is amended to read:

**5.106.5.3 Electric vehicle (EV) charging.** Construction to provide electric vehicle infrastructure and facilitate electric vehicle charging shall comply with Section 5.106.5.3 and shall be provided in accordance with regulations in the *California Building Code* and the *California Electrical Code*. Accessible EVCS shall be provided in accordance with the *California Building Code Chapter 11B Section 11B-228.3*. For EVCS signs, refer to Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

**Exceptions:**

1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:
   
   a. Where there is no local utility power supply.

   b. Where the local utility is unable to supply adequate power.

   c. Where there is evidence suitable to the local enforcement agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may increase construction cost by an average of $400 per parking space for non-profit organizations serving low-income, vulnerable, and/or underserved communities or $4,500 per parking space for all others. EV infrastructure shall be provided up to the level that would not exceed this cost for utility service.

2. Parking spaces accessible only by automated mechanical car parking systems are not required to comply with this code section.

**15.26.230 GSBC Section 5.106.5.3.1 amended – EV capable spaces.**

Section 5.106.5.3.1 is amended to read:
5.106.5.3.1 Nonresidential Occupancy Class B Offices, including mixed-class buildings that include Occupancy Class B Office space – Shared Parking Space.

Twenty percent (20%) of parking spaces shall be EVCS with Level 2 EV Ready. ALMS shall be permitted to reduce load when multiple vehicles are charging. Thirty percent (30%) of parking spaces provided shall be Level 2 EV Capable.

Delete table 5.106.5.3.1

15.26.240 GSBC Section 5.106.5.3.2 amended – Electric vehicle charging stations (EVCS)

Section 5.106.5.3.2 is amended to read:

5.106.5.3.2 Hotel and Motel Occupancies – Shared Parking Facilities.

New Construction. Five percent (5%) of parking spaces provided shall be EVCS with Level 2 EV Ready. ALMS shall be permitted to reduce load when multiple vehicles are charging. Twenty-five percent (25%) of parking spaces provided shall be Low Power Level 2 EV Ready space. Ten percent (10%) of parking spaces provided shall be Level 2 EV Capable.

15.26.250 GSBC Section 5.106.5.3.3 amended - Use of automatic load management systems (ALMS).

Section 5.106.5.3.3 is amended to read:

5.106.5.3.3 All Other Nonresidential Occupancies – Shared Parking Facilities.

New Construction. Ten percent (10%) of parking spaces provided shall be EVCS with Level 2 EV Ready. ALMS shall be permitted to reduce load when multiple vehicles are charging. Ten percent (10%) of parking spaces provided shall be Level 2 EV Capable.

15.26.260 GSBC Section 5.106.5.3.4 amended - Accessible EVCS.

Section 5.106.5.3.4 is amended to read:

5.106.5.3.4 Direct current fast charging stations. One DCFC may be substituted for up to five (5) EVCS to meet the requirements of 5.106.5.3.1, 5.106.5.3.2, and
5.106.5.3.3. Where ALMS serve DCFC stations, the power demand from the DCFC shall be prioritized above Level 1 and Level 2 spaces.

15.26.270 GSBC Section 5.106.13 added – All-Electric Buildings.

Section 5.106.13 is added to read:

5.106.13 All-electric buildings. New construction buildings shall comply with Section 5.106.13.1 or 5.106.13.2 so that they do not use combustion equipment or are ready to facilitate future electrification.


Section 5.106.13.1 is added to read:

New construction: All newly constructed buildings shall be all-electric buildings.

Building additions, alterations, repairs, and tenant improvements shall not be considered new construction. The final determination whether a project meets the definition of new construction shall be made by the local enforcing agency.

Exceptions:

1. Nonresidential buildings containing kitchens located in a place of public accommodation, as defined in the California Building Code Chapter 2, may apply to the local enforcing agency for a modification to install commercial food processing equipment served by fuel gas. The local enforcing agency may grant the modification if they find:
   a. A business-related need to cook with combustion equipment; and
   b. The need cannot be achieved equivalently with an electric heating appliance; and
   c. The applicant has installed energy efficient equipment based on Energy Star or California Energy Wise qualifications, as available.
   d. The applicant shall comply with Section 5.106.13.2.

2. Laboratories, as defined in the California Building Code Chapter 2, may apply to the local enforcing agency for a modification to install combustion equipment served by fuel gas. The local enforcing agency may grant the modification if they find:
   e. A business, research, or educational-related need to use combustion equipment; and
   f. The need cannot be achieved equivalently with an electric heating appliance; and
   g. The applicant has installed energy efficient equipment based on Energy Star or California Energy Wise qualifications, as available.
   h. The applicant shall comply with Section 5.106.13.2.
3. Hotels and motels with eighty or more guestrooms may utilize *fuel gas* in on-site commercial clothes drying equipment. The applicant shall comply with Section 5.106.13.2.

4. If the applicant establishes that there is not an all-electric prescriptive compliance pathway for the building under the California Building Energy Efficiency Standards, and that the building is not able to achieve the performance compliance standard applicable to the building under the Energy Efficiency Standards using commercially available technology and an approved calculation method, then the local enforcing agency may grant a modification. The applicant shall comply with Section 5.106.13.2.

Inactive *Fuel Gas Infrastructure* may be extended to spaces that are anticipated to qualify for the exceptions contained in this chapter. The inactive *Fuel Gas Infrastructure* shall not be activated, have a meter installed, or otherwise used unless the exemptions specified in this chapter have been confirmed as part of the issuance of a building permit. If the *Fuel Gas Infrastructure* is no longer serving one of the exceptions contained in this chapter, it shall either be capped, otherwise terminated, or removed by the entity previously entitled to the exemption, in a manner pursuant to all applicable Codes.

The local enforcing agency shall have the authority to approve alternative materials, design and methods of construction or equipment per California Building Code Section 104.

15.26.290 GSBC Section 5.106.13.2. added - Requirements for combustion equipment.

Section 5.106.13.2 is added to read:

Where *combustion equipment* is allowed per exceptions under Section 5.106.13.1, the construction drawings shall indicate electrical infrastructure and physical space accommodating the future installation of an *electrical heating appliance* in the following ways, as certified by a registered design professional or licensed electrical contractor:

1. Branch circuit wiring, electrically isolated and designed to serve all electrical heating appliances in accordance with manufacturer requirements and the California Electrical Code, including the appropriate voltage, phase, minimum amperage, and an electrical receptacle or junction box within five feet of the appliance that is accessible with no obstructions. Appropriately sized conduit may be installed in lieu of conductors; and

2. Labeling of both ends of the unused conductors or conduit shall be with “For Future Electrical Appliance”; and
3. Reserved circuit breakers in the electrical panel for each branch circuit, appropriately labeled (i.e "Reserved for Future Electric Range"), and positioned on the opposite end of the panel supply conductor connection; and

4. Connected subpanels, panelboards, switchboards, busbars, and transformers shall be sized to serve the future electrical heating appliances. The electrical capacity requirements shall be adjusted for demand factors in accordance with the California Electric Code; and

5. Physical space for future electrical heating appliances, including equipment footprint, and if needed a pathway reserved for routing of ductwork to heat pump evaporator(s), shall be depicted on the construction drawings. The footprint necessary for future electrical heating appliances may overlap with non-structural partitions and with the location of currently designed combustion equipment.