



SIERRA COUNTY

DEPARTMENT OF PLANNING AND BUILDING

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FORM NUMBER

BD-23B

BUILDING PERMIT SUBMITTAL REQUIREMENTS FOR COMMERCIAL ELECTRIC VEHICLE CHARGING STATIONS (EVCS)

THIS CHECKLIST IS PROVIDED TO ASSIST BOTH YOU AND STAFF TO HELP IN THE REVIEW AND PROCESSING OF YOUR PERMIT.

PLEASE READ CAREFULLY! *Construction Plans and supporting documentation shall be of sufficient detail and clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of the California Building Standards Codes and relevant laws, ordinances, rules and regulations, as determined by the Building Official (CRC R106.1.1, CBC 107.2.1).*

EXPEDITED PERMITTING PROCESS

Sierra County Checklist

This document provides all of the needed links to forms and checklists necessary to utilize Sierra County's Expedited Permitting Process for Electric Vehicle Charging Stations (EVCS)—ref., Sierra County Code Section 12.04.200. This process provides an expedited and streamlined permitting process for qualifying EVCS systems. Once all of the documentation is correctly and fully completed and submitted, a permit will be processed and approved for issuance in a timely manner.

INSTRUCTIONS:

Step 1: Complete the Sierra County Electric Vehicle Charging Station (EVCS) checklist below. Submit the completed checklist (this Form BD-23B) along with all supporting forms, plans, and information requested in the checklist.

Step 2: Fully complete and sign forms: [BD-01 Building Application Form](#); and **if applicable:** [BD-02 Agent Authorization Form](#), [BD-03 Owner Builder Notice & Certification](#), and [BD-04 Owner Builder What to Know](#). Electronic signatures are accepted.

Step 3: Complete and sign the [BD-24 Smoke Alarm & Carbon Monoxide Alarm Declaration Form](#), if applicable. Please see Item 28 on the checklist for additional details.

Step 4: Submit all of the required documentation to the Sierra County Building Department using any of the methods below:

- Online portal: <http://sierracounty.ca.gov/795/Electric-Vehicle-Charging-Stations-EVCS>
- E-Mail: building@sierracounty.ca.gov
- Drop off in-person M-F, 8:00pm-5:00pm at: Sierra County Building Department, 101 Courthouse Square, Downieville, CA
- Mail complete set via USPS to: Sierra County Building Department, P.O. Box 530, Downieville, CA 95936
- Mail via FedEx/UPS. to: Sierra County Building Department, 101 Courthouse Square, Downieville, CA 95936

You will be notified if the application submittal package is incomplete (and therefore not accepted for processing) within 5 business days, when the documents have been reviewed and approved and the permit is ready to be issued.

SUBMITTAL REQUIREMENTS

This checklist is provided to guide applicants through a streamlined permitting process for Electric Vehicle Charging Stations (EVCS). For physical copy submittals (mailed or hand-delivered), please provide two (2) identical copies of everything

except the Building Department Forms. For Electronic submittals, one electronic copy of everything is acceptable—but please clearly label every document file and save in Adobe Acrobat .PDF format.

Approval Requirements

1. The Building Department will conduct the plan review and inspection for EVCS installations.
2. Planning Commission & Zoning Administrator discretionary approval is not required for EVCS installations **unless** the proposed EVCS will have a specific, adverse impact upon the public health or safety. If this is determined to be the case for your project, you will be notified in writing listing the specific findings (and such determinations are appealable).

SUBMITTAL PLANS & SUPPORTING INFORMATION

1. One copy of this checklist must be completed and submitted to the Sierra County Building Department along with the Building Permit application (BD-01). Please provide a clear and complete “Scope of Work” explanation on the application form and on the cover sheet of your plans. Please also provide supporting explanation(s) for any checklist item not completed or met.
2. Provide two (2) sets of plans for the proposed EVCS (11”x 17” plan size). Plan submittals shall include, but not be limited to:
 - (a) A Title Page
 - (b) A Site Plan
 - (c) An Electrical Floor Plan [*Not required for exterior EVCS equipment installations*].
 - (d) A Single-Line Electrical Diagram
 - (e) EVCS Manufacturer Installation Details and Specifications.
 - (f) Electrical Service Load Calculations.

GENERAL REQUIREMENTS FOR EVCS TO BE SHOWN AND NOTED ON PLANS

Use the following checklist items for preparation and submittal of your plans. The level of detail and the specific plan requirements will depend upon the extent, nature and complexity of the work to be done. All applicable checklist items must be noted or specified on the plans. Indicate the plan sheet number where the applicable requirement is shown or specified.

1. Type of EVCS (please check one)

Check one	Type of Charging Station(s) Proposed	Power Levels (proposed circuit rating)
<input type="checkbox"/>	Level 2 - 3.3 kilowatt (kW) (low)	208/240 VAC at 20 or 30 Amps
<input type="checkbox"/>	Level 2 - 6.6kW (medium)	208/240 VAC at 40 Amps
<input type="checkbox"/>	Level 2 - 9.6kW (high)	208/240 VAC at 50 Amps
<input type="checkbox"/>	Level 2 - 19.2kW (highest)	208/240 VAC at 100 Amps
<input type="checkbox"/>	DC Fast Charging	440 or 480 VAC
<input type="checkbox"/>	Other (Specify and provide details): _____	

SUBMITTAL REQUIREMENTS CHECKLIST FOR EVCS

PERMIT APPLICATION REQUIREMENTS	
<input type="checkbox"/> Yes <input type="checkbox"/> No	1. The permit application is complete with the following information: <ul style="list-style-type: none"> • Project address and parcel number, • Owner name, address and phone number;

	<ul style="list-style-type: none"> Contractor name, address and phone number and contractor's license number; and Other information requested on the permit application form?
<input type="checkbox"/> Yes <input type="checkbox"/> No	2. An electrical load calculation is included with the permit application? (CEC 220 ¹)
<input type="checkbox"/> Yes <input type="checkbox"/> No If panel upgrade is required, check box below: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3. Based on the required load calculation ² , is an electrical service panel upgrade required? If yes, do plans show and specify the electrical service panel upgrade?
<input type="checkbox"/> Yes <input type="checkbox"/> No	4. The EVCS branch circuit conductor is appropriately sized for a continuous load of 125% of the EVCS equipment plus any other non-continuous loads per CEC 210.19?
PLANS: GENERAL REQUIREMENTS	
<input type="checkbox"/> Yes <input type="checkbox"/> No	5. The drawings are: <ul style="list-style-type: none"> drawn to scale; on a paper size not less than 17" wide by 11" high oriented in landscape orientation; are printed with text with not less than 9 point font size or equal or 1/8" minimum neatly hand printed lettering
<input type="checkbox"/> Yes <input type="checkbox"/> No	6. The plans include a Title Page with property information including, but not limited to: <ul style="list-style-type: none"> address of property; name, address, phone number of the property owner; name, address, phone number and license number of the person responsible for the EVCS system design; codes applicable to the project; occupancy and use of the facilities; and narrative description and scope of the proposed work
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. A Site Plan is included with the permit application and includes the following information <ul style="list-style-type: none"> Location and name of structure(s) on the site; Property lines, streets, lot dimensions, north arrow, the distance from property lines to structures and the proposed EVCS equipment; Dimensioned parking improvements, driveways, etc.; EVCS equipment, main electric service panel, disconnects and overcurrent protection locations; Underground conduit locations and routing; Location of additional meter, if applicable; All site related accessibility requirements prescribed by CA Building Code (CBC) Sections 11B-228 and 11B-812 are shown and fully specified. <i>[Applicable only to commercial facilities, public and common use areas, public accommodations and public housing as defined in the CA Building Code.]</i> <p>Detailed and specific site of all related proposed work. <i>[See additional requirements below.]</i></p>

¹ CEC means the 2022 California Electrical Code (California Code of Regulations, Title 24, Part 3).

² Load Calculation: The size of the existing service MUST be equal to or larger than the minimum required size of main service breaker as determined by the load calculations required by CEC article 220. If the existing service panel is smaller than the minimum required size of existing electrical services, then a new upgraded electrical service panel must be installed in order to handle the added electrical load from the proposed EVCS.

<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<p>7. An Electrical Floor Plan is included with the permit application and includes the following information? [Not required for exterior installations.]</p> <ul style="list-style-type: none"> • Plan view of the location of the proposed EVCS equipment including the use of the space or area where the EVCS will be installed; • All applicable electrical plan related requirements of NEC Article 625 are shown or specified on the plan; • All electrical plan related accessibility requirements prescribed by CA Building Code (CBC) Sections 11B-228 and 11B-812 are shown and fully specified. • proposed work. [See additional requirements below.]
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<p>8. A Single-Line Electrical Diagram is included with the permit application and includes the following information?</p> <ul style="list-style-type: none"> • List and label all EVCS supply equipment; • Conductor and conduit size, type and location; • Size of the over current device (circuit breaker) supplying the EVCS; • The size and location of the main electric panel, distribution panels (sub panels), overcurrent protection, disconnects, additional meters, and EVCS equipment; • The type (level), voltage and ampacity for each charging station; • All equipment labeling requirements per CEC 625.15.
<input type="checkbox"/> Yes <input type="checkbox"/> No	<p>9. Two (2) sets of the EVCS Manufacturer Installation Details and Specifications are included with the permit application?</p>
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<p>10. Two (2) copies of Electrical Service Load Calculations are provided for sizing of the electrical service panel pursuant to CA Electrical Code (CEC) Article 220? <i>[NOTE: Make sure to include 125% of the EV charging station load in the calculation.]</i></p>
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<p>11. If the EVCS equipment is listed for charging electric vehicles that require ventilation for indoor charging, is a Mechanical Plan showing and specifying all of the ventilation requirements prescribed by CEC 625.52 included with the permit application?</p>
<input type="checkbox"/> Yes <input type="checkbox"/> No	<p>12. The project site is located outside of a 100 year flood hazard zone? <i>[NOTE: If the charging equipment is located within a 100 year flood hazard zone, the EVCS equipment shall be elevated above the base flood elevation. The base flood elevation must be determined and an elevation certificate submitted by a registered land surveyor.]</i></p>
PLANS: 2022 CALIFORNIA ELECTRICAL CODE MINIMUM REQUIREMENTS	
<input type="checkbox"/> Yes <input type="checkbox"/> No Sheet # _____	<p>13. The plans indicate that the installation shall meet all requirements of Calif. Electrical Code - Article 625 for Electric Vehicle Charging Systems.</p>
<input type="checkbox"/> Yes <input type="checkbox"/> No Sheet # _____	<p>14. The plans identify the amperage and location of the existing (or new) electrical service panel and the service panel is sized in accordance with the electrical service load calculations? (CEC 220)</p>
<input type="checkbox"/> Yes <input type="checkbox"/> No Sheet # _____	<p>15. The plans indicate the size of the service entrance conductors?</p>
<input type="checkbox"/> Yes <input type="checkbox"/> No Sheet # _____	<p>16. The plans indicate that the charging equipment shall have a Nationally Recognized Testing Laboratory (NRTL) approved listing mark? (UL 2202/UL 2200)</p>
<input type="checkbox"/> Yes <input type="checkbox"/> No Sheet # _____	<p>17. The single-line electrical diagram shows and specifies the required overcurrent protection for the proposed EVCS?</p>
<input type="checkbox"/> Yes <input type="checkbox"/> No Sheet # _____	<p>18. Conduit and conductor size and type are specified and the routes and requirements for their installation (i.e. within framing, mounted to structures, underground, etc.) are shown?</p>
<input type="checkbox"/> Yes <input type="checkbox"/> No Sheet # _____	<p>19. The plans specify that the electric vehicle charging system shall be installed in</p>

	accordance with manufacturer's installation instructions and shall be suitable for the environment (indoor/outdoor) in which they will be installed?
<input type="checkbox"/> Yes <input type="checkbox"/> No Sheet # _____	20. The plans specify where the labeling of the EVCS equipment (i.e. "FOR USE WITH ELECTRIC VEHICLES", "VENTILATION NOT REQUIRED", "VENTILATION REQUIRED", etc.) is required? (CEC 625.15)
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	21. An approval letter from PG&E is provided to the building department <u>if a dedicated electrical meter is to be installed for the electric vehicle charging system?</u> [NOTE: If a single mast will continue to be used to serve two meters, ensure that the service entrance conductors are sized for the sum of the two meters, in accordance with CEC Article 310.]
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Sheet # _____	22. If the EV charging equipment is rated more than 60 amps or more than 150V to ground, the plans specify that the disconnecting means shall be lockable open and shall be provided in a readily accessible location? (CEC 625.42)
<input type="checkbox"/> Yes <input type="checkbox"/> No Sheet # _____	23. The plans specify that the EVCS equipment disconnecting means shall be identified with a durable label stating, "Emergency Power Off – Electric Vehicle Charging Station"? (CEC 110.21)
<input type="checkbox"/> Yes <input type="checkbox"/> No Sheet # _____	24. The plans specify that the main service conductors and the equipment for the protection of electrical service (i.e. disconnecting means, overcurrent protection, etc.) will be installed in accordance with CEC Article 230?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Sheet # _____	25. If trenching is required, a trenching detail is provided on the plans showing compliance with the minimum cover requirements pursuant to CEC 300.5? [NOTE: trenching for electrical feeders from structure to structure must comply with CEC 225.]
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Sheet # _____	26. Physical protection such as a bollard is shown and detailed on the plans when vehicle impact protection for EVCS equipment is required? (CEC 110.27 (B)) [NOTE: Physical protection from damage is often a 4" diameter steel pipe filled with concrete, a minimum of 40" above the finished floor/grade, installed in a footing measuring 12" in diameter and 3' deep]
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Sheet # _____	27. The plans show and specify the mounting height for the charging coupling (the connector nozzle) and the operable controls? [NOTE: If installed indoors, the electric vehicle charging coupling shall be located between 18" and 48" above the finished floor. If installed outdoors, the electric vehicle charging coupling shall be located between 24" and 48" above the finished grade. (CEC 625.50 and CBC 11B-309)
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Sheet # _____	28. If the EVCS is installed within in a building containing an R (residential) occupancy, the plans show and specify the location for all required smoke and carbon monoxide alarms within the dwelling(s)? (CBC 907.2.11, CBC 915, CRC R314 and CRC R315) [NOTE: In lieu of showing and specifying the location for all required smoke and carbon monoxide alarms within the dwelling(s), a BD-24 Affidavit – Self Certification of Smoke/Carbon Monoxide Alarms available on Sierra County's website, may be completed, signed and submitted with the application.]
PLANS: 2016 CALGREEN REQUIREMENTS	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	29. Does the number of proposed electric vehicle charging spaces conform to the Tier 1 requirements of California Green Building Code (CGBC)? (CGBC A4.106.8.2 and A5.106.5.3) [Only applies to <u>newly constructed multi-family residential and newly constructed non-residential projects.</u>]
PLANS: 2016 CALIFORNIA BUILDING CODE ACCESSIBILITY REQUIREMENTS	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	30. [NOTE: Accessibility requirements are required for public and common use areas, public accommodations, commercial facilities and public housing as defined in the CA Building Code.] The plans show and specify all of the applicable accessibility requirements prescribed in CBC Chapter 11B, including but not limited to the requirements of the following sections:

<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Sheet # _____	31. 11B-202.4 (Path of Travel Requirements in Alterations, Additions and Structural Repairs) [See 11B-202.4 Exception 10 for Path of Travel Requirement Exceptions]
Sheet # _____	32. 11B-228.3 (Electric Vehicle Charging Stations)
Sheet # _____	33. 11B-302 (Floor or Ground Surfaces)
Sheet # _____	34. 11B-303 (Changes in Level)
Sheet # _____	35. 11B-305 (Clear Floor or Ground Space)
Sheet # _____	36. 11B-308 (Reach Ranges)
Sheet # _____	37. 11B-309 (Operable Parts)
Sheet # _____	38. 11B-402 (Accessible Route)
Sheet # _____	39. 11B-703.3 (Braille)
Sheet # _____	40. 11B-703.7 (Symbols of Accessibility)
Sheet # _____	41. 11B-703.7.2.1 (International Symbol of Accessibility)
Sheet # _____	42. 11B-707.2 (Clear Floor or Ground Space)
Sheet # _____	43. 11B-707.3 (Operable Parts)
Sheet # _____	44. 11B-707.7.2 (Characters)
Sheet # _____	45. 11B-707.9 (Point-of-Sale Devices)
Sheet # _____	46. 11B-812 (Electric Vehicle Charging Stations)

Electrical plans shall be completed, stamped, and signed by a California Licensed Electrical Engineer or a C-10 electrical contractor.

Project Address

Name of person completing Checklist (Please Print)

Signature

Electrical Engineer or Contractor's License Number and Type

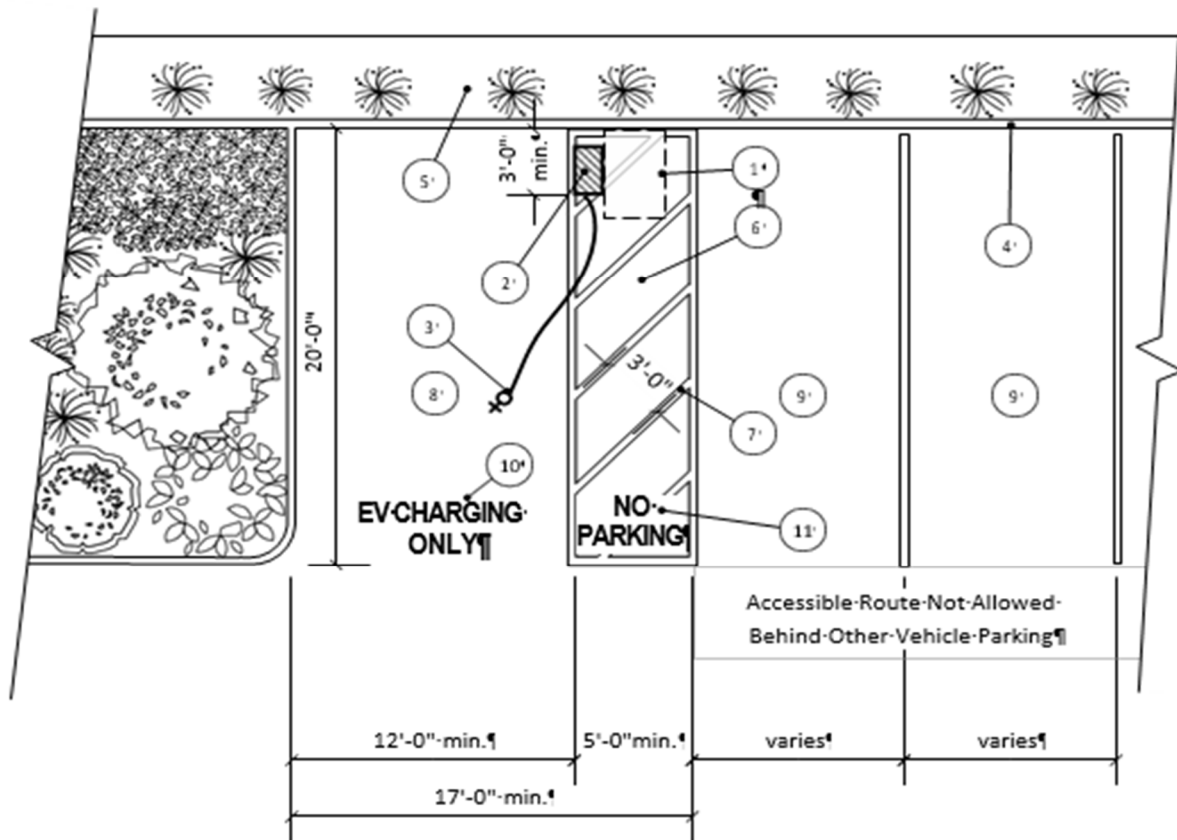
PLAN REVIEW

Permit applications eligible for the expedited permitting process will receive a high priority and be reviewed as early as practical with a processing goal of 1 to 3 business days following receipt of the submittal. The Department will strive to contact you within five (5) business days if your application is incomplete and notify you of any deficiencies or missing documentation.

INSPECTIONS

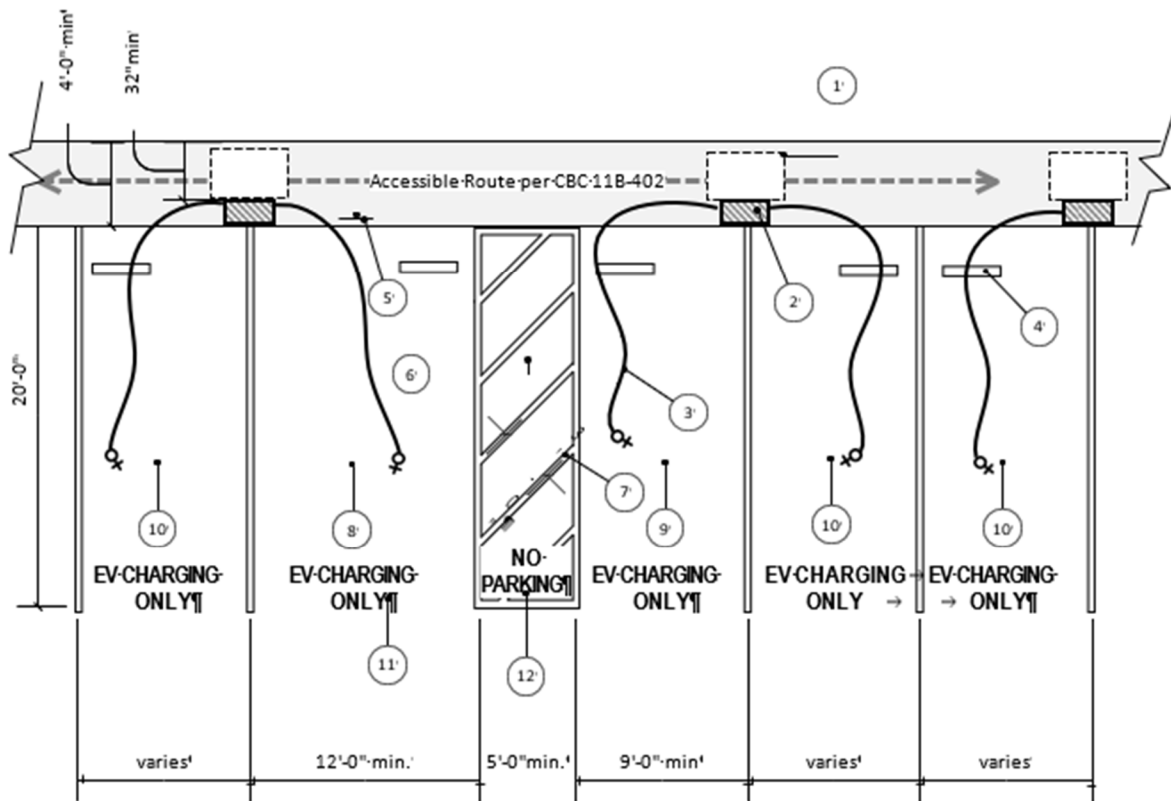
Once all permits to construct the EVCS have been issued and the system has been installed, it must be inspected before it may be allowed to be operated/used. On-site inspections can be scheduled by contacting the Building Department at: (530) 289-3251 or Building@SierraCounty.ca.gov. Permit holders must provide the inspector with the Building Department Approved Job Plans, the Building Permit Inspection Record Card and access to the location of the work. The permittee must be prepared to show conformance with all technical requirements in the field at the time of inspection. The inspector will verify that the installation is in conformance with applicable code requirements and the approved plans.

Sample Configuration 1: Typical Single Electric Vehicle Charging Station Configuration for an Existing Commercial Facility or Public Accommodation



- 1 30" x 48" clear space for parallel approach (CBC 11B-302).
- 2 Electric Vehicle Charging Station (EVCS)(see CBC 11B-228.3 & 11B-812 for requirements).
- 3 Electric Vehicle Charging Station coupling (nozzle) and conductor.
- 4 Curb
- 5 No International Symbol of Accessibility (ISA) sign or "Van Accessible" sign is required (see CBC 11B-812.8)
- 6 60" minimum width access aisle located on the passenger side of a van accessible space and at the same level as the adjacent vehicle space. (CBC 11B-812.7)
- 7 Contrasting border and 36" maximum on center diagonal hatched lines designating the access aisle. Access aisles borderlines and hatched lines for EVCS spaces shall not be blue. (CBC 11B-812.7.2)
- 8 Minimum 144" wide by 216" long van accessible lined EVCS space (ISA sign and "Van Accessible" sign NOT required). (CBC 11B-812.6.1 and 11B-812.8)
- 9 Parking space not regulated by CBC 11B-812.
- 10 12" high "EV CHARGING ONLY" surface marking at the end of each EVCS space. (CBC 11B-812.9)
- 11 12" high "NO PARKING" surface marking within the access aisle. (CBC 11B-812.7.3)

Sample Configuration 2: Typical Electric Vehicle Charging Stations Configuration for Public Use



- 1 30" x 48" clear space for parallel approach (CBC 11B-302).
- 2 Electric Vehicle Charging Station (EVCS)(see CBC 11B-228.3 & 11B-812 for requirements).
- 3 Electric Vehicle Charging Station coupling (nozzle) and conductor.
- 4 Wheel stop.
- 5 70 sq. in reflectorized International Symbol of Accessibility (ISA) sign required at van accessible charging station when 5 or more EVCS spaces are provided. "Van Accessible" sign shall also be provided. (see CBC 11B-812.8 for additional requirements)
- 6 60" minimum width access aisle located on the passenger side of a van accessible space and at the same level as the adjacent vehicle space. (CBC 11B-812.7)
- 7 Contrasting border and 36" maximum on center diagonal hatched lines designating the access aisle. Access aisles borderlines and hatched lines for EVCS spaces shall not be blue. (CBC 11B-812.7.2)
- 8 Minimum 144" wide by 216" long van accessible lined EVCS space (ISA sign and "Van Accessible" sign required). (CBC 11B-812.6.1 and 11B-812.8)
- 9 Minimum 108" wide by 216" standard accessible lined EVCS space (ISA sign not required unless 26 or more EVCS are provided). (CBC 11B-812.6.2)
- 10 EVCS space not regulated by CBC 11B-812.
- 11 12" high "EV CHARGING ONLY" surface marking at the end of each EVCS space. (CBC 11B-812.9)
- 12 12" high "NO PARKING" surface marking within the access aisle. (CBC 11B-812.7.3)