Non-Residential EVCS

Application Checklist

(Electric Vehicle Charging Station)

Planning Building & Transportation
2263 Santa Clara Ave., Room 190
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PERMITTING NON-RESIDENTIAL ELECTRIC VEHICLES CHARGERS AND ELECTRIC VEHICLE CHARGING STATIONS (EVCS).

Please complete the following checklist related to permitting and installation of **Electric Vehicle Service Equipment** (EVSE) as a supplement to the application for an EVCS permit. This checklist contains a list of the requirements for a complete streamlined submittal.

Upon this checklist being deemed complete, a permit shall be issued to the applicant. However, if it is determined that the installation might have a specific adverse impact on public health or safety, additional verification will be required prior to a permit issuance.

This checklist follows the *"Plug-In Electric Vehicle Infrastructure Permitting Checklist"* contained in the *Governor's Office of Planning and Research "Zero Emission Vehicles in California: Community Readiness Guidebook"*
Check boxes to the left of each row to verify completion of the required information

Check one	Type of charging station(s) proposed	Power levels (Proposed Circuit Rating)
◉	LEVEL 1	110/120 VAC (Volts Alternating Current) AT 15 OR 20 AMPS
○	LEVEL 2 – 3.3 KILOWATT (kW) (low)	208/240 VAC AT 20 OR 30 AMPS
○	LEVEL 2 – 6.6 kW (medium)	208/240 VAC AT 40 AMPS
○	LEVEL 2 – 9.6 kW (high)	208/240 VAC AT 50 AMPS
○	LEVEL 2 – 19.2 kW (highest)	208/240 VAC AT 100 AMPS
○	**DC** (Direct Current)Fast Charging	440 or 480 VAC
○	OTHER (Specify and Provide Details)	

CHECK BOX TO VERIFY	**ITEMS REQUIRED TO BE INCLUDED ON PLANSET** **Created by a registered design professional** **(stamped and signed)** **(California Code of Regulations, Title 24)**
☐ A)	The drawings are: 1. Drawn to scale 2. On a paper size not less than 17" wide by 11" high (36" x 24" preferred) 3. Oriented in landscape orientation 4. Are printed with text with not less than 9 point Arial font size or equal or 1/8"minimum neatly hand printed lettering
☐ B)	The plans include a **Title Page** with property information including, but not limited to: 1. Address of property 2. Name, address, phone number of the property owner 3. Name, address, phone number and license number of the person responsible for the EVCS system design 4. Codes applicable to the project 5. Occupancy and use of the facilities 6. Narrative description and scope of the proposed work
☐ C)	A **Site Plan** is included with the permit application and includes the following information 1. Location and name of structure(s) on the site; 2. Property lines, streets, lot dimensions, north arrow, the distance from property lines to structures and the proposed EVCS equipment 3. Dimensioned parking improvements, driveways, curbs, drainage inlets, swales, etc. 4. EVCS equipment, main electric service panel, disconnects and overcurrent protection locations 5. Underground conduit locations and routing 6. Location of additional meter, if applicable ***7.*** All site related accessibility requirements prescribed by CA Building Code (CBC) Sections 11B-228, 11B-309.4 and 11B-812 are shown and fully specified. ***[Applicable only to commercial facilities, public and common use areas, public accommodations and public housing as defined in the CA Building Code.]*** ***8.*** Detailed and specific site locations of all related proposed work. ***[See additional requirements below.]***
☐ D)	A **Single-Line Electrical Diagram** is included with the permit application and includes the following information 1. List and label all EVCS supply equipment; 2. Conductor and conduit size, type and location 3. Size of the over current device (circuit breaker) supplying the EVCS 4. The size and location of the main electric panel, distribution panels (sub panels),overcurrent protection, disconnects, additional meters, and EVCS equipment 5. The type (level), voltage and ampacity for each charging station
☐ E)	**EVCS Manufacturer Installation Details and Specifications are** included with the permit application plan set
☐ F)	**Electrical Service Load Calculations prepared by a registered Electrical Engineer (stamped and signed)** are provided for sizing of the electrical service panel pursuant to CA Electrical Code (CEC) Article 220. ***[NOTE: Make sure to include 125% of the EV charging station load in the calculation.]***
☐ G)	**WRITTEN APPROVAL FROM ALAMEDA MUNICIPAL POWER TO SUPPLY REQUIRED DEMAND LOADS** **Alameda Municipal Power** 2000 Grand Street Alameda, CA 94501

G)	Phone: 510-748-3900 Fax: 510-748-3975 https://www.alamedamp.com/251/Electric-Service-Planning **https://www.alamedamp.com/**
☐ H)	**Mechanical Plan:** If the EVCS equipment is listed for charging electric vehicles that require ventilation for indoor charging, a **Mechanical Plan** showing and specifying all of the ventilation requirements prescribed by CEC 625.52 shall be included.
◉ Yes I) ○ No	Is The project site is located inside of a 100 year flood hazard zone?***[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.]***
☐ J)	The plans indicate that the installation shall meet all requirements of **California Electrical Code** – **Article 625 Electrical Vehicle Power Transfer Systems**
☐ K)	The plans **prepared by a registered Electrical Engineer(stamped and signed)** identify the amperage and location of the existing (or new EUSERC approved) electrical service panel and the service panel is sized in accordance with the electrical service load calculations (CEC 220) 1. The plans indicate the size of the service entrance conductors 2. The plans indicate that the charging equipment shall have a Nationally Recognized Testing Laboratory (NRTL) approved listing mark (UL listing label) 3. The single-line electrical diagram shows and specifies the required overcurrent protection for the proposed EVCS 4. Conduit and conductor size and type are specified and the routes and requirements for their installation (i.e. within framing, mounted to structures, underground, related footing detail etc.) are shown 5. The plans specify that the electric vehicle charging system shall be installed in accordance with manufacturer's installation instructions and shall be suitable for the environment (indoor/outdoor) in which they will be installed 6. EV charging equipment 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 625.43) (CEC 110.25) 7. 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: Typically not required for Level 1 EVCS. 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 footing measuring 12" in diameter and 3' deep].*** 8. The plans show and specify the mounting height for the charging coupling (the connector nozzle) and the operable controls ***[NOTE: If indoors, the coupling shall be 18" to 48" above the finished floor. If outdoors, the coupling shall be 24" to 48" above the finished grade. (CEC625.50 and CBC 11B-308 CBC 11B-309)*** 9. ***Newly Constructed Multi-Family Residential and Newly Constructed Non-Residential Projects:*** 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 andA5.106.5.3)

☐	L)	***[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: 1. 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]** 2. 11B-228.3 (Electric Vehicle Charging Stations) 3. 11B-302 (Floor or Ground Surfaces) 4. 11B-303 (Changes in Level) 5. 11B-305 (Clear Floor or Ground Space) 6. 11B-308 (Reach Ranges) 7. 11B-309 (Operable Parts) 8. 11B-402 (Accessible Route) 9. 11B-703.3 (Braille) 10. 11B-703.7 (Symbols of Accessibility) 11. 11B-703.7.2.1 (International Symbol of Accessibility) 12. 11B-707.2 (Clear Floor or Ground Space) 13. 11B-707.3 (Operable Parts) 14. 11B-707.7.2 (Characters) 15. 11B-707.9 (Point-of-Sale Devices) 16. 11B-812 (Electric Vehicle Charging Stations)

Electrical plans shall be completed, stamped and signed by a California Licensed Electrical Engineer for load calculations and related plans.

Signature of Electrical Engineer: _____ Date: _____

Signature of C-10 Electrical Contractor: _____ Date: _____

CSLB Lic#: _____

I hereby acknowledge that the information presented is a true and correct representation of existing conditions at the job site and is complete including all applicable items above. Any causes for concern as to life-safety verifications may require further substantiation of information.

Signature of Permit Applicant: _____ _____ Date: _____