



Humboldt County Building Department
Building Inspection Division 3015 H Street Eureka, CA 95501-4484
Phone (707) 445-7245

Commercial Electric Vehicle Charging Stations (EVCS) Plan Review List

GENERAL PROJECT INFORMATION

PLAN CHECK NO _____ DATE _____
JOB ADDRESS _____ CITY _____ ZIP _____
REVIEWED BY _____ PHONE _____ EMAIL _____

NOTE: Code references are to the current California Building Codes.

Complete the County of Humboldt Building Permit Application form.

- Submit two (2) sets of plans to the Building Department.
- Manufacturer's installation instructions must accompany each submittal.
- Provide a job specific site plan showing the location of the building, street, parking lot, all charging stations, electrical service, disconnects, and the existing premise wiring grounding electrode system. Setbacks for EVCS, shall follow building setbacks for the zoning district.
- Electrical Vehicle Charging Stations will need to meet all the requirements of the California Building Standards Codes. Other than single-family residential, Chapters 11A and or 11B (ADA), also will be required.
- Include load calculations per the California Electrical Code Article 220.
- If an electrical service replacement and/or upgrade is to be part of this application this should be specified in the building permit application and on the construction plans.
- A line diagram must be included in the submittal with the following information:
 - Size of the over current device (e.g. circuit breaker)
 - Conduit size, type, and location
 - The manufacturer and model of the charging stations
 - The size of the main electric panel, distribution panels (sub-panels), and disconnects.
 - **Additionally**, the plans should indicate the following:
 1. Number of chargers being installed.
 2. Is the charger level 1, 2 or 3 (see table below)
 3. For level 3 charge stations provide: voltage (V), current (A) and power (kVA)

Level	Voltage (V)	Maximum Current (A)	Frequency	Power (kVA)
1	120	12	60	1.4
2	208/240	32	60	6.7/7.8
3	High Power, High Speed Charging – Defined by Manufacturer’s Requirements			

General

- Show new EVCS installed are in compliance with Section 11B-812.
- Alterations to existing EVCS shall comply with current access requirements. **§11B-228.3**
- Revise the plans and parking summary to provide a minimum of _____ van accessible, _____ standard accessible and _____ ambulatory EV spaces. **Table 11B-228.3.2.1**
- The required number and type of compliant EVCS spaces shall be based on the proposed total of both existing and new EV spaces. **§11B-228.3.2.1**
- Where EV spaces are provided in more than one parking facility on a site, the number and type of complying EV spaces shall be calculated and provided separately for each parking facility. **§11B-228.3.2**
- Fully dimension and detail all Drive-up EVCS to show compliance with current access requirements. **§11B-812 & 11B-812.6.4**
- Provide site work or topography plans with point elevations sufficient to show the proposed finished surface slopes and cross-slopes of all EV spaces, access aisles, and accessible routes. Access aisles shall be level with the EV space served, and slopes/cross-slopes shall not exceed 1:48. **§11B-302**
- Relocate the detectable warnings shown on the plans to be outside the minimum required area of all EV spaces and access aisles. **§11B-302**
- Provide building sections and dimension the actual vertical clearances along the full length of the vehicle spaces. Access aisles and vehicular routes serving the EVCS. A minimum vertical clearance of 98” inches shall be maintained under all vertical obstructions, including cable management systems. **§11B-812.4**
- Correct the plan and specify those checked for compliance.

Accessible Routes & Access Aisles

- Show locations of all EV spaces and accessible routes on the site plan. Compliant EV spaces shall be located on an accessible route to an accessible building entrance. **§11B-206.4 & 11B-812.5**
- Provide and clearly identify the accessible route on the plans between each EV space and the EV charger which serves the space. **§11B-402 & 11B-812.5.3**

- Provide curbs, wheel stops, bollards, or other barriers to prevent encroachment of vehicle over the required clear width of accessible routes. **§11B-812.5.3**
- Relocate the EVCS accessible spaces and access aisles so that persons using them are not required to travel behind vehicles or parking spaces other than their own. **§11B-812.5.3**
- EVCS shall be designed so accessible routes are not obstructed by cables or other elements. **§11B-812.5.5**
- Fully dimension all EV spaces on the plans. The minimum dimensions shall be: **§11B-812.6**
 - a. 144" inches by 216" inches (12' ft. x 18' ft.) long for van accessible EV spaces;
 - b. 108" inches by 216" inches (9' x 18' ft.) long for standard accessible EV spaces;
 - c. 120" inches by 216" inches (10' x 18' ft.) long for ambulatory EV spaces; and,
 - d. 204" inches by 240" inches (17' x 20' ft.) long for drive-up EVCS spaces.
- Dimension and provide access aisles adjacent to each accessible/ambulatory EV space, complying with the following: **§11B-812.7**
 - a. Minimum 60" inches wide;
 - b. Minimum length equal to the length of the vehicle spaces served;
 - c. Shall not overlap the vehicular way; and
 - d. Shall be located on the passenger side of van accessible EV spaces.

Striping & Markings

- Revise the striping plan and details to accurately dimension the accessible vehicle spaces and access aisles. The required dimensions shall be provided from the centerline of the markings. **§11B-812.1**
- Provide complete striping details and notes for the EV spaces and access aisles, to show compliance with the following: **§11B-812.7**
 - a. Access aisles shall be marked with painted borderlines around their perimeter;
 - b. The area within the borderlines shall be marked with hatched lines minimum of 36" inches on center;
 - c. The color of the border-lines, hatch-lines, and letters shall contrast with that of the surface of the access aisle;
 - d. The color of all striping and markings shall NOT be blue color used for identification of accessible parking spaces per 11B-502.3.3;
 - e. The words "NO PARKING" shall be painted within each access aisle in letters a minimum 12" inches in height and located to be visible from the adjacent vehicular way: and,
 - f. The words "EV CHARGING ONLY" shall be painted at the lower end of each EV space in letters a minimum of 12" inches in height. The center-line of the text shall be 6" inches maximum from the center-line of the vehicle space and its lower corner at, or lower side aligned with, the end of the parking space. **§11B-812.8.9**

Signage

- Detail and provide identification signage as follows: **§11B-812.8**
 - a. Accessible signage is not required where a total of four or fewer EV spaces are provided;
 - b. Five to twenty-five total EV spaces are provided:
 - I. One van accessible EV space shall be identified by ISA signage.
 - II. Accessible signage is not required at the standard accessible EV spaces.
 - c. Twenty-six or more EV spaces are provided:
 - I. All required van accessible and standard accessible EV spaces shall be identified by ISA signage.
- Identification signs shall be reflectorized with a minimum area of 70 square inches. **§11B-812.8.6**
- The identification sign shall be visible from the EV space it serves.
- Signs identifying van accessible EV spaces shall contain the words “Van Accessible”.
- Identification signs shall be permanently posed either immediately adjacent to the vehicle space or within the projected vehicle space width at the front end of the vehicle space. **§11B-812.8.7**
- Mounting height of identification signs shall be:
 - a. 60” inches minimum above the finish floor or ground surface measured to the bottom of the sign; or,
 - b. 80” inches minimum above the finish floor or ground surface measured to the bottom of the sign, when the sign projects over an access aisle or other circulation path.

Equipment

- EV chargers shall be adjacent to, and within the projected width of the EV space being served. **§11B-812.10.4**
- Provide typical plan and elevation views of the EV chargers showing required clear ground space and all operable parts. **§11B-305, 11B-308, 11B-309 & 11B-812.10**
- Dimension the height above the clear ground space to all operable parts and controls. All operable parts and control shall be 15 to 48 inches above the clear ground space for both forward and side approaches. **§11B-308.**
- Where point-of-sale (POS) devices are separate from the EV charger equipment, provide plan and elevation views for the POS in addition to the EV chargers, to show compliance with Section 11B-707.9. **§11B-812.10.3**