

BUILDING & SAFETY DIVISION

30001 LADYFACE COURT AGOURA HILLS, CA 91301 PHONE: (818) 597-7334 FAX: (818) 597-7352 www.AgouraHillsCity.org

NON-RESIDENTIAL EVCS SUBMITTAL CHECKLIST

OP-01G

4-15-22

2019 Checklist for Installing Non-Residential Electric Vehicle Charging Station (EVCS) at Existing Facilities

Check One	Type of Charging Station(s) Proposed	Power Levels (Proposed circuit rating)	Typical NON-RES Charging Locations	
	Level 1	110/120 volt AC (15 or 20 Amps)	Commercial	
	Level 2 – 3.3 kW (low)	208/240 VAC (20 or 30 Amps)		
	Level 2 – 6.6 kW(medium)	208/240 VAC (40 Amps)	Commercial Office Bldgs.	
	Level 2 – 9.6 kW (high)	208/240 VAC (50 Amps)	Public Access	
	Level 2 – 19.2 kW (highest)	208/240 VAC (100 Amps)		
	DC Fast Charging	440 or 480 VAC	 Public Access Large Commercial Office Bldgs or park Hospitality & Recreation 	
	Other (provide detail)			
RMIT DES	SCRIPTION			
1. Sub a.	mittal requirements: Checklist			

- b. Electrical load calculation worksheet
- c. Electrical permit application
- d. Site plan
- e. Single-line diagram (If applicable)
- f. Manufacturer specifications
- 2. Does the scope of work on the plans match the electrical permit application description? ☐ Yes ☐ No

ELECTRICAL LOAD CALCULATION

1.	Electrical load calculation is required, is it included in the submittal? (CEC 220) ¹ □ Yes	s □ No
2.	Based on the load calculation, is a new electrical service panel upgrade requir	red²? □ Yes	□ No
	a. If yes, do plans include the electrical service panel upgrades?	☐ Yes	□ No
	b. If yes, has a separate permit been pulled for the panel upgrade?	☐ Yes	□ No
3.	Is the charging circuit appropriately sized for a continuous load (125%)?	☐ Yes	□ No
4.	Is the charging equipment proposed a Level 2 – 9.6kW station with a circuit ra	ating of 50 amps	
	or higher?	☐ Yes	□ No
	a. If yes, is a panel schedule showing phase loading with electrical calculation	ions included	
	with the single-line diagram?	Applicable \square Yes	□ No

 $^{^{}m 1}$ 2019 California Electrical Code. Article 220 Branch-Circuit, Feeder, and Service Calculations.

² The size of the <u>existing</u> service MUST be <u>equal to or larger than the Minimum Required Size</u> of main service breaker. 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**.

³ 2019 California Green Buildings Standards Code. Title 24, Part 11, Section 5.106.5. *Nonresidential Mandatory measures*.



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1. If yes to section 2 Q2, is the required single-line diagram submitted for the proposed project	?	
	☐ Yes	□ No
a. Are mechanical ventilation requirements triggered for indoor venting requirements		
per (CEC 625.52(B))?	☐ Yes	□No
i. If yes, is a mechanical plan included with the permit application?	☐ Yes	□ No
2. Is the site plan fully dimensioned and drawn to scale?	☐ Yes	□ No
a. Showing location, size and use of all structures?	☐ Yes	
b. Showing the location of the electrical panel AND charging system?	☐ Yes	
c. Showing accessible route AND parking stall location?		_
d. Showing type of charging system and mounting?	☐ Yes	□No
e. Is the type of mounting for the charging system included if the charging system is not		
wall-mounted?	☐ Yes	□ No
	**	*
***EVCS spaces will be required to follow 2019 CBC Chapter 11B Accessible Parking required	ements	
	ements	
	ements ···	
	□ Yes	
Section 4: COMPLIANCE WITH 2019 CALIFORNIA ELECTRICAL CODE (TITLE 24, PART 3) 1. Does the plan include EVCS manufacturer's specs and installation guidelines? 2. Does the site plan identify the amperage and location of existing electrical service panel?	□ Yes	□ No
 Does the plan include EVCS manufacturer's specs and installation guidelines? Does the site plan identify the amperage and location of existing electrical service panel? a. If yes, does existing panel schedule have room for additional breakers? 	☐ Yes ☐ Yes ☐ Yes	□ No □ No □ No
 Does the plan include EVCS manufacturer's specs and installation guidelines? Does the site plan identify the amperage and location of existing electrical service panel? If yes, does existing panel schedule have room for additional breakers? Are sizes for the conduit and conductor included? 	☐ Yes ☐ Yes ☐ Yes ☐ Yes	□ No □ No □ No □ No
 Does the plan include EVCS manufacturer's specs and installation guidelines? Does the site plan identify the amperage and location of existing electrical service panel? a. If yes, does existing panel schedule have room for additional breakers? b. Are sizes for the conduit and conductor included? Is the charging unit rated more than 60 Amps or more than 150V to ground? 	☐ Yes ☐ Yes ☐ Yes	□ No □ No □ No □ No
 Does the plan include EVCS manufacturer's specs and installation guidelines? Does the site plan identify the amperage and location of existing electrical service panel? a. If yes, does existing panel schedule have room for additional breakers? b. Are sizes for the conduit and conductor included? Is the charging unit rated more than 60 Amps or more than 150V to ground? a. If yes, are disconnecting means provided in a readily accessible location in line of sight 	☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes	□ No □ No □ No □ No □ No
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 Does the plan include EVCS manufacturer's specs and installation guidelines? Does the site plan identify the amperage and location of existing electrical service panel? a. If yes, does existing panel schedule have room for additional breakers? b. Are sizes for the conduit and conductor included? Is the charging unit rated more than 60 Amps or more than 150V to ground? a. If yes, are disconnecting means provided in a readily accessible location in line of sight and within 50ft of EVCS? (CEC 625.43) ("Within sight" defined as 50') Does the charging equipment have a Nationally Recognized Testing Laboratory (NRTL) 	☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes	No No No No No No No No
 Does the plan include EVCS manufacturer's specs and installation guidelines? Does the site plan identify the amperage and location of existing electrical service panel? a. If yes, does existing panel schedule have room for additional breakers? b. Are sizes for the conduit and conductor included? Is the charging unit rated more than 60 Amps or more than 150V to ground? a. If yes, are disconnecting means provided in a readily accessible location in line of sight and within 50ft of EVCS? (CEC 625.43) ("Within sight" defined as 50') Does the charging equipment have a Nationally Recognized Testing Laboratory (NRTL) approved listing mark? (UL 2202/UL 2200) 	☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes	No No No No No No No No
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Section 5: COMPLIANCE WITH 2019 CALGREEN MANDATORY MEASURES FOR NEW CONSTRUCTION AND 2019 CBC CHAPTER 11B ACCESSIBILITY REQUIREMENTS

2019 CALGreen Mandatory EVCS requirements for New Construction³

 Note: CALGreen requirements for non-residential apply to the following projects: New projects, additions or alterations that add 10+ parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient, and carpool vehicles conforming to CALGreen Table 5.106.5.2.

Table 5.106.5.2				
Total number of parking spaces	Number of required spaces			
0-9	0			
10-25	2			
26-50	4			
51-75	7			
76-100	9			
101-150	13			
151-200	18			
201 and over	At least 10% of			

2. HOTEL/MOTEL: Is your project a new hotel or motel? ☐ Yes ☐ No Should be identified during plan review (4.106.4.3 & 4.106.4.3.1)

Table 4.106.4.3.1				
Total number of parking Number of required E				
spaces	Charging spaces			
0-9	0			
10-25	1			
26-50	2			
51-75	4			
76-100	5			
101-150	7			
151-200	10			
201 and over	At least 6% of total			

2019 CBC Chapter 11B (Disable Accessibility) Proposed EVCS Requirements

Total Number Of	Minimum Number (by type) Of EVCS Required					
EVCS At Facility	Van Accessible	Standard Accessible	Ambulatory			
1-4	1	0	0			
5-25	1	1	0			
26-50	1	1	1			
>50		See CBC Table 11B-228.3.2.1				

1.	If installing between 1 and 4 EVCS parking stalls, does at least 1 EVCS parking stall meet Chapter 11E dimension requirements for a van accessible parking space (144" wide with adjacent access aisle) a	nd acces	s aisle
	(60" minimum width)(CBC Table 11B-228.3.2.1, 11B-402, 11B-812.5 & 11B-812.6.1)?	☐ Yes	
2.	If installing between 5 and 25 EVCS, is there at least 1 EVCS parking stall that meets Chapter 11B acc	essibility	/
	dimension requirements for a van accessible parking space (144" wide with an adjacent access aisle) and 1 E	VCS
	parking stall that meets the standard accessible parking space (108" wide with an adjacent access a	isle) (CB	C Table
	11B-228.3.2.1, 11B-812.6.1 & 812.6.2)?	☐ Yes	□No
3.	If installing 26 or more EVCS, please refer to Section 11B-812 for minimum accessible parking space for van, standard and ambulatory stalls.	requirer	nents
4.	Is there proper signage and markings for the EVCS parking stall(s) (CBC 11B-812.8)?	☐ Yes	\square No
5.	Have the requirements for clear floor and operable parts been met with called out dimensions on the	ne plans?	•
		☐ Yes	□ No
	Are the required markings for the access aisle provided (CBC 11B-812.7.2 & 812.7.3)? ORRECTION(S) SUMMARY:	☐ Yes	□No
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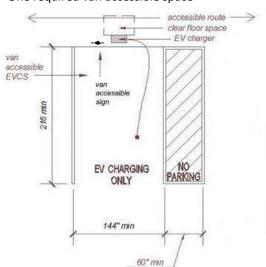
OP-01G

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EVCS INSTALLATION EXAMPLE #1:

One to Four EVCS Spaces

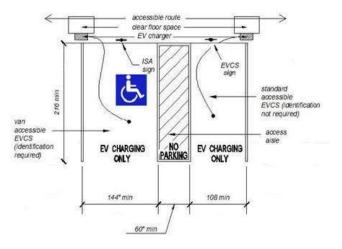
*One required van accessible space



EVCS INSTALLATION EXAMPLE #2:

Five to Twenty Five EVCS Spaces

*One required van accessible space and one required standard accessible space



Floor and ground surfaces (CBC 11B-812.3): Access aisles shall be at the same level as the vehicle space they serve. Slope not to exceed 1:48.

Clear floor or ground space (CBC 11B-309.2 & 305.3): The clear floor or ground space shall be 30 inches minimum by 48 inches minimum.

Access aisle- Markings (CBC 11B-812.7.2): The color of the borderlines, hatched lines, and letters shall contrast with that of the surface of the access aisle. The blue color required for the identification of access aisles for accessible parking shall not be used.

Accessible Route (CBC 11B-202.4 Exception 10): Alterations solely for the purpose of installing EVCS at facilities where vehicle fueling, recharging, parking, or storage is not a primary function shall not be required to comply with section 11B-202.4 Path of Travel Requirements.

Surface Markings (CBC 11B-812.9): EVCS vehicle spaces shall provide surface marking stating "EV CHARGING ONLY" in letters 12" high minimum.

Identification signs – Location (CBC 11B-812.8.7): Signs shall be permanently posted either immediately adjacent to the vehicle space or within the projected vehicle space width at the head end of the vehicle space. Signs identifying van-accessible vehicle spaces shall contain the designation "van accessible."

- Minimum 60" above the finish floor or ground surface
- Located within an accessible route: Minimum 80" ground surface
- Identification signs shall be reflectorized with a minimum area of 70 square inches. (CBC 11B-812.8.6)

Identification signs- Five to twenty-five (CBC 11B-812.8.3): One van accessible EVCS shall be identified by an ISA complying with section 11B-703.7.2.1. The required standard accessible EVCS shall not be required to be identified with an ISA

Operable parts (CBC 11B-812.10.2 & 308): Reach ranges shall comply with forward reach or side reach requirements per section 11B-308.