



CITY OF ARCADIA

Building Services Division
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EVSE CHECKLIST		
BD SECTION	22 FORM NUMBER	2022 CODE CYCLE
01/01/2023 EFFECTIVE DATE		12/13/2022 REVISION DATE

CHECKLIST FOR PERMITTING ELECTRIC VEHICLES AND ELECTRIC VEHICLE SERVICE EQUIPMENT (EVSE)

Please complete the following information related to permitting and installation of Electric Vehicle Service Equipment (EVSE) as a supplement to the application for a building permit. This checklist contains the technical aspects of EVSE installations and is intended to help expedite permitting and use for electric vehicle charging.

Upon this checklist being deemed complete, a permit shall be eligible for expedited review. However, if it is determined that the installation might have a specific adverse impact on public health or safety, additional verification will be required before a permit can be issued.

This checklist substantially 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” and is purposed to augment the guidebook’s checklist.

Job Address:	Permit No.
<input type="checkbox"/> Single-Family <input type="checkbox"/> Multi-Family (Apartment) <input type="checkbox"/> Multi-Family (Condominium) <input type="checkbox"/> Commercial (Single Business) <input type="checkbox"/> Commercial (Multi-Businesses) <input type="checkbox"/> Mixed-Use <input type="checkbox"/> Public Right-of-Way	
Location and Number of EVSE to be Installed: Garage _____ Parking Level(s) _____ Parking Lot _____ Street Curb _____	
Description of Work: 	

Applicant Name:	
Applicant Phone & email:	
Contractor Name:	License Number & Type:
Contractor Phone & email:	
Owner Name:	
Owner Phone & email:	

EVSE Charging Level: <input type="checkbox"/> Level 1 (120V) <input type="checkbox"/> Level 2 (240V) <input type="checkbox"/> Level 3 (480V)	
Maximum Rating (Nameplate) of EV Service Equipment = _____ kW	
Voltage EVSE = _____ V	Manufacturer of EVSE: _____
Mounting of EVSE: <input type="checkbox"/> Wall Mount <input type="checkbox"/> Pole Pedestal Mount <input type="checkbox"/> Other _____	

System Voltage: <input type="checkbox"/> 120/240V, 1 ϕ , 3W <input type="checkbox"/> 120/208V, 3 ϕ , 4W <input type="checkbox"/> 120/240V, 3 ϕ , 4W <input type="checkbox"/> 277/480V, 3 ϕ , 4W <input type="checkbox"/> Other _____
Rating of Existing Main Electrical Service Equipment = _____ Amperes
Rating of Panel Supplying EVSE (if not directly from Main Service) = _____ Amps
Rating of Circuit for EVSE: _____ Amps / _____ Poles
AIC Rating of EVSE Circuit Breaker (if not Single Family, 400A) = _____ A.I.C. (or verify with Inspector in field)

Specify Either Connected, Calculated OR Documented Demand Load of Existing Panel:

• Connected Load of Existing Panel Supplying EVSE = _____ Amps

• Calculated Load of Existing Panel Supplying EVSE = _____ Amps

• Demand Load of Existing Panel or Service Supplying EVSE = _____ Amps
(Provide Demand Load Reading from Electric Utility)

Total Load (Existing Load + EVSE Load) = _____ Amps

For Single Family Dwellings, if Existing Load is not known by any of the above methods, then the Calculated Load may be estimated using the "Load Calculation Estimator" located on page 5 of this document

CONDUCTOR SIZING

EVSE Rating _____ Amps x 1.25 = _____ Amps = Minimum Ampacity
of EVSE Conductor = # _____ AWG

For Single-Family: Size of Existing Service Conductors = # _____ AWG or kcmil
- **OR** - : Size of Existing Feeder Conductor
Supplying EVSE Panel = # _____ AWG or kcmil
(or Verify with Inspector in field)

MULTIFAMILY

Do the drive aisles and non-accessible parking spaces in the parking lot or parking structure meet the minimum dimensions listed in the table below?

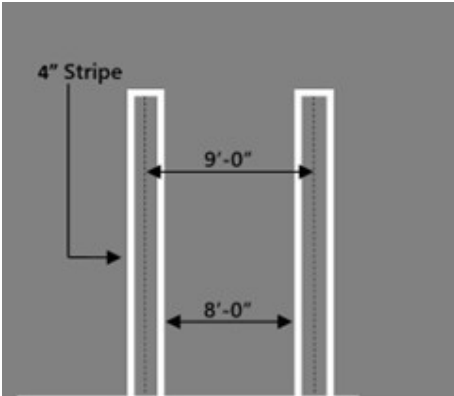
☐ Y

☐ N

Size of Parking Stall (minimum)

Width (General)	When Adjacent to Wall or Structure	Length	Back-up Clearance
10 ft	11ft, 6 in	20 ft	For lots greater than or equal to 65 ft in width: 25 ft For lots less than 65 ft in width: 23 ft

COMMERCIAL, INDUSTRIAL, AND MIXED USE				
Do the drive aisles and non-accessible parking spaces in the parking lot or parking structure meet the minimum dimensions listed in the table below?			<input type="checkbox"/> Y	<input type="checkbox"/> N
Standard Vehicle Space Requirements				
Parking Stall Angle	Stall Width ⁽¹⁾	Stall Length	Aisle Width	
			One-Way	Two-Way
Standard Parallel	10 ft	24 ft	14 ft	20 ft
30-Degree	9 ft	20 ft	16 ft	20 ft
45-Degree	9 ft	20 ft	16 ft	20 ft
60-Degree	9 ft	20 ft	20 ft	20 ft
65-Degree	9 ft	20 ft	19 ft	19 ft
90-Degree	9 ft	18 ft	25 ft	25 ft
Notes: (1) Minimum stall width for stalls adjacent to a wall shall be 11 feet, six inches				

MULTIFAMILY, COMMERCIAL, INDUSTRIAL, AND MIXED USE		
Are wheels stops provided for each EV parking space adjacent to and facing a wall, building, walkway, utility cabinet, or structure? The wheel stops shall be set a minimum of 36 inches from the forward end of the parking stall and shall be six inches high and made of concrete.	<input type="checkbox"/> Y	<input type="checkbox"/> N
Is each EV parking space identified by four-inch-wide stripes of paint, or other durable striping material? All parking stalls shall be clearly outlined with double stripes to provide a parking stall with a nine foot width, measured to the center of the lines.	<input type="checkbox"/> Y	<input type="checkbox"/> N
	<input type="checkbox"/> Y	<input type="checkbox"/> N
EV parking does not occur in the first 20 feet from the street right-of-way, parking lot entrance, or parking lot exit.	<input type="checkbox"/> Y	<input type="checkbox"/> N
This project does not include any modifications to parking lot lighting.	<input type="checkbox"/> Y	<input type="checkbox"/> N

Note: This criteria is intended for an expedited EVCS permitting process. If any items are checked NO, please revise plans to fit within the eligibility checklist; otherwise the permit application may go through the standard plan review and approval process.

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

Signature of Permit Applicant: _____ Date: _____

ELECTRIC VEHICLE CHARGER – LOAD CALCULATION ESTIMATOR

USE THIS FORM TO ESTIMATE IF AN EXISTING ELECTRICAL SERVICE WILL HANDLE THE EXTRA LOAD FROM A VEHICLE CHARGER. (Loads shown are rough estimates; actual loads may vary – for a more precise analysis, use the nameplate ratings for appliances and other loads and consult with a trained electrical professional.)

Check Applicable Loads	Description of Load	Typical Usage	Watts Used
GENERAL LIGHTING AND RECEPTACLE OUTLET CIRCUITS			
	Square Footage of House X 3	3 watts/sq. ft.	
KITCHEN CIRCUITS			
	Kitchen Circuits	3,000 watts	
	Electric Oven	2,000 watts	
	Electric Stove Top	5,000 watts	
	Microwave	1,500 watts	
	Garbage disposal under kitchen sink	1,000 watts	
	Automatic dish washer	3,500 watts	
	Garbage compactor	1,000 watts	
	Instantaneous hot water at sink	1,500 watts	
LAUNDRY CIRCUITS			
	Laundry circuit	1,500 watts	
	Electric clothes dryer	4,500 watts	
HEATING AND AIR CONDITIONING CIRCUITS			
	Central heating and air conditioning	6,000 watts	
	Window mounted air conditioning	1,000 watts	
	Whole-house or attic fan	500 watts	
	Central electric furnace	8,000 watts	
	Evaporative cooler	500 watts	
OTHER ELECTRICAL LOADS			
	Electric water heater (storage type)	4,000 watts	
	Electric tankless water heater	15,000 watts	
	Swimming pool or spa	3,500 watts	
	Other (describe)		
	Other (describe)		
	Other (describe)		
ELECTRIC VEHICLE CHARGER CIRCUIT			
	Electric vehicle charger wattage rating		
TOTAL WATTS USED			

INSTRUCTIONS: Using the “TOTAL WATTS USED” number from the previous page, check the appropriate line across to determine the minimum required size of the electrical service panel shown in column 3. In column 4, write the size of your existing service panel (main breaker size). If your existing service panel (column 4) is smaller than the minimum required size of the existing service (column 3), then you will need to install a new upgraded electrical service panel to handle the added electrical load from the proposed electric vehicle charger.

1	2	3	4
Check the appropriate line	Total watts used (from previous page)	Minimum required size of existing 240-volt electrical service panel (Main breaker size)	Identify the size of your existing main service breaker (Amps)*
	Up to 48,000	100 amps	
	48,001 to 63,000	125 amps	
	63,001 to 78,000	150 amps	
	78,001 to 108,000	200 amps	
	108,001 to 123,000	225 amps	

**Note that the size of your existing service (column 4) MUST be equal to or larger than the minimum required size (column 3) or a new larger electrical service panel will need to be installed in order to satisfy the electrical load demand of the EV charger.*

STATEMENT OF COMPLIANCE

By my signature, I attest that the information provided is true and accurate.

Job Address: _____
 (Print job address)

Signature: _____
 (Signature of applicant) _____
 (Date)

In addition to this document, you will also need to provide a copy of the manufacturer’s installation literature and specifications for the electric vehicle charger you are installing.

Note: This is a voluntary compliance alternative and you may wish to hire a qualified individual or company to perform a thorough evaluation of your electrical service capacity in lieu of this alternative methodology. Use of this electrical load calculation estimate methodology is at the user’s risk and carries no implied guarantee of accuracy. Users of this methodology and these forms are advised to seek professional assistance in determining the electrical capacity of a service panel.