Electric Vehicle Service Equipment Submittal Checklist (CD-B217)

A permit is required for the installation or modification of Electric Vehicle Service Equipment (EVSE) such as EV car chargers. EVSE shall be installed in accordance with the current adopted edition of the California Electrical Code Article 625, Folsom Municipal Code Chapter 14.35 and any other applicable articles or codes adopted by the City of Folsom. See below for the permitting process and items required for the review and approval of EVSE:

Permitting Process: Most EVSE qualifies as a Minor Permit and may be reviewed and approved using only the eTRAKiT system. Review and approval for qualifying EVSE may take 1-3 days if all information is provided and consistent with current code. Below are the basic steps to submitting an EVSE:

1. Applicant applies for permit and uploads all documents, plans and contract using the eTRAKiT system.
2. City staff reviews the electronic submittal for completeness and code compliance
    a. If the submittal is incomplete or not compliant, it will be deemed INCOMPLETE. The Applicant shall be notified via email and will log in to eTRAKiT to submit additional information or clarify existing information. The City staff will be notified electronically that additional information was provided and the permit application will be back in review with City Staff.
3. Once the permit application is deemed complete and in compliance with current Codes, fees will be calculated and the documents will be processed.
4. The Applicant will be notified via email the permit is approved and fees are due. The Applicant shall log in to eTRAKiT to pay fees electronically or can pay in person at the CDD Building Counter.
5. Once fees are paid, City staff is notified and the permit documents will be released and available to the Applicant.
6. The Applicant will be notified via email the permit documents are ready for download. The Applicant will log in to eTRAKiT to view and download all documents.
7. Inspections can now be scheduled for the issued building permit. To learn more about scheduling inspections, please visit the Inspections Page. Typically, the only required inspection for EVSE is 991 FINAL EV CHARGER inspection.

How to Apply for an EVSE Permit:

1. Log in to eTRAKiT and select Apply for a Permit
2. For PERMIT Type, select either ALTERATIONS-RESIDENTIAL or EXTERIOR MODIFICATIONS-COMMERCIAL depending on the type of project
3. For PERMIT Subtype, select ELECTRIC VEHICLE CHARGERS
4. Fill out all Additional Information below that is pertinent to an EVSE
5. Search for and select the Address the EVSE will be installed or modified at
6. Select if you are the Property Owner and/or the Contractor
7. **In the Attachments upload all necessary documentation including plans, electric load calculations, owner-builder form, Agent Authorization Form, and copy of the contract stating the project valuation**
8. Click on Next step and fill out the rest of the information and submit the permit application
9. Your permit application is now successfully submitted and in review with City Staff.

Documents and Plans required for EVSE:

- **Site Plan** – Site plan shall include the building footprint, address, and location of street. Include the location of the proposed EVSE and the wiring path, size, type, length from the main panel to the location of the EVSE. Call out any protection of the wiring required and the type and charging level of the EVSE and size main panel.
- **Electrical Load Calculations** – See example of load calculations on following page
- **EVSE Specifications –** Manufacturer specifications for the specific EVSE being utilized. If multiple EVSE are in the specifications, highlight or cloud the EVSE being used.
- **Copy of Contract –** Contract shall state the construction cost for the installation of the EVSE

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EVSE Load Calculator

Use the table below to calculate the electrical loads for an existing single family residence. Check the applicable loads on the left and calculate the watts used on the right. At the bottom, include the EVSE wattage based on the manufacturer specifications. (Volt-Amps, VA and Watts, W may be used interchangeably for these calculations)

Address: _____

Maximum Rating (Nameplate) of EVSE:	_____ W	Voltage of EVSE:	_ __ V

Check All Applicable Loads (✓)	Description of Load	Typical Usage	Watts Used
GENERAL LIGHTING AND RECEPTACLE OUTLET CIRCUITS			
	Multiply the 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	(Use nameplate rating)	
		TOTAL WATTS USED	

EVSE Load Calculator (contd.)

Check the appropriate line in Column 1 below and follow that line across to determine the minimum required size of the service panel:

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 Service 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	(Column 4 should be at least column 3 for the line selected in column 1)
	108,001 to 123,000	225 amps	

*The above table is based on the CEC 220.83(A), 230.42 and Annex D of the California Electrical Code
*Standard breaker sizes per CEC 240.60 and 408.30 include: 100A, 110A, 125A, 150A, 175A, 200A, 225A, 250A, 300A, 350A, 400A

EVSE RATING=	_ _Amps x 1.25 =	_ _Amps ==>	Minimum Ampacity of EVSE Conductor = #_ _ AWG
	(Example: 32A rated EVSE x 1.25 = 40A)		(EVSE Branch conductor must match plans and specifications)

The following two items may not apply to every installation. Leave blank of they do not apply.

1. If Main Service Panel is being upgraded·
   Size of Existing Service Conductors = #_ _ AWG
2. If the EVSE is connected to a subpanel:
   Size of Existing Feeder Conductor Supplying EVSE Panel = #_ _ AWG

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

Job Address: _____

Signature: _____ Date: _____