City of Elk Grove
Development Services • Building Safety & Inspection
8401 Laguna Palms Way • Elk Grove, California 95758
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www.elkgrovecity.org

Checklist for Residential Electric Vehicle Charging Stations

Submittal Checklist

- ☐ Complete building permit application. An application form is available online at: https://www.elkgrovecity.org/building-safety-inspection-permits/building-forms-handouts-and-featured-articles
- ☐ Equipment Manufacturer's Installation Instructions
- ☐ Completed Residential Electric Vehicle Charging Station Checklist

Electronic Submittal Requirements

- ☐ Each required document listed above shall be submitted in separate PDF attachments
- ☐ Attach the PDF attachments to your online eTrakit application. Registration is required to apply for permits using the eTrakit permit portal. If you are a Contractor, please use the link below to register:
  https://cityofelkgrove.formstack.com/forms/contractor_online_inspection_registration_form
  All other applicants can register for a public account through the eTrakit site, please use the link below:
  https://elgr-trk.aspgov.com/eTRAKiT/publicUserAccount.aspx?action=npa
  Once registered, you can access the eTrakit permit portal here: https://elgr-trk.aspgov.com/eTRAKiT/

General Requirements

1 All receptacles installed for connection of electric vehicle charging shall have ground fault circuit interrupter protection for personnel. California Electrical Code 625.54

2 All receptacles installed in wet location for Vehicle charging shall have enclosure that is weatherproof with the attachment plug cap inserted and removed. California Electrical Code 625.56

3 If the charger power converter in not integral to primary pad it should be mounted at height not less than 18" above floor level for indoor locations and 24" above grade level for outdoor locations. California Electrical Code 625.102(B)

4 The Power transfer equipment shall have sufficient rating to supply the load served. California Electrical Code 625.42

5 The overall usable length of cord and cable shall not exceed 7.5 m(25ft) unless equipped with cable management system that is part of the listed electrical vehicle supply equipment. California Electrical Code 625.17(C)

6 EVSE (Electrical Vehicle Supply Equipment) and WPTE (Wireless Power Transfer Equipment) shall be connected to the premises wiring system in accordance with one of the methods in 625.44(a) through (C)

7 EMT (Electrical Metallic Tubing) shall be installed as a complete system in accordance with 300.18 and shall be securely fastened in place and supported in accordance with 358.30(A) and (B). California Electrical Code 358.30

8 RMC (Rigid Metal Conduit) shall be installed as a complete system in accordance with 300.18 and shall be securely fastened in place and supported in accordance with 344.30(A) and (B). California Electrical Code 344.30

9 Metal boxes shall be grounded and bonded in accordance with Parts I, IV,V, VI, VII and X of article 250. California Electrical Code 314.4

10 Conductors entering boxes, conduit bodies or fittings shall be protected from abrasion and shall comply with 314.17(a) through (d). California Electrical Code 314.17

11 Provide installation instructions, as required by this code, will be available on the job site at the time of inspection. California Residential Code R106.12

Level 1 EV Charging; (120V)

Type of equipment being installed:
□ NEMA 5-15 □Other_____

Equipment Overcurrent Protection Rating:
□ 15A □ 20A

Existing Electrical Service
(If less than 150A see electrical load worksheet on page 3)
□ 100A □125A □Other_____

Branch Circuit Distance:
□100 Feet or less

Feet Conductor Size:
□ #14 Cu □ #12 Cu

Level 2 EV Charging; (240V)

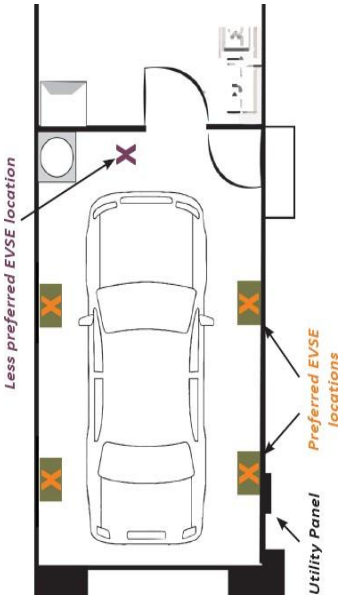
Type of equipment being installed:
□ NEMA 14-50 □ NEMA 6-50

Equipment Overcurrent Protection Rating:
□ 50A □ Other_____

Existing Electrical Service
(If less than 150A, see electrical load worksheet on page 3)
□ 125A □ 150A □ 200A □Other_____

Branch Circuit Distance:
□More than 100 Feet

Feet Conductor Size:
□ #6 Cu □ Other



Site Plan: In the box below show the location of new EV charger in relation to the residence. Use legend provided to identify the following item(s) on the site plan.

Legend:

#1 = *Garage Door*
#2 = *Main Service Panel*
#3 = *EV Charger*

□ 2022 California Residential Code □ 2022 California Electrical Code □ 2022 California Building Code □ 2022 California Green Building Standards Code

Project Address_____ City_____ Zip Code_____

Owners Name_____ Contractor or Applicants Name _____

Contractor License #_____ Contractor Address _____

Contractor or Applicants Signature_____ Date _____

Upon completing the following checklist, applicant acknowledges that all work performed on site will be subject to field approval by the city of Elk Grove Building Department.

Electric Load Worksheet

Address:_____ Date: _____

Main Electric Panel Service Size: Existing_____(Amps) / New *(if applicable)*_____(Amps)

Quantity of Existing Subpanels: _____ Quantity of New Subpanels: _____ Gas Furnace (Y/N) _____

*Breaker Size(s) feeding subpanel(s)?*_____ *Wires Size(s) feeding subpanel(s)?* _____

A. Calculate Habitable[1] Square Footage

_____(Existing S.F) +_____(New S.F., if any) =_____Total Habitable[1] Square Footage

B. Identify General Loads

General Lighting and Use Receptacles:	_____	Total Habitable[1] SF	x	3	=_____total watts
Kitchen Small Appliance Branch Circuits:	_____	(Quantity, Min. 2)	x	1500	=_____total watts
Bathroom Small Appliance Branch Circuits:	_____	(Quantity, Min. 1)	x	1500	=_____total watts
Range:	_____	(Nameplate Rating)	x	1	=_____total watts
Oven:	_____	(Nameplate Rating)	x	1	=_____total watts
Water Heater:	_____	(Nameplate Rating)	x	1	=_____total watts
Dishwasher:	_____	(Nameplate Rating)	x	1	=_____total watts
Garbage Disposal:	_____	(Nameplate Rating)	x	1	=_____total watts
Washer:	_____	(Nameplate Rating)	x	1	=_____total watts
Dryer:	_____	(Nameplate Rating)	x	1	=_____total watts
Total Subpanel Load[2]:	_____	(Combined Watts[2])	x	1	=_____total watts
Motor Loads:	_____	(Nameplate Rating)	x	1	=_____total watts
Other Loads:_____	_____	(Nameplate Rating)	x	1	=_____total watts

Add total watts together (from above) =_____*Total B*

C. Identify Largest of the Following Six Heating and Air Conditioning (HAC) Loads

Electric Thermal Storage:	_____	(Nameplate Rating)	x	1	=_____total watts
Air Conditioning and Cooling:	_____	(Nameplate Rating)	x	1	=_____total watts
Heat Pump (without any supplemental electric heating):	_____	(Nameplate Rating)	x	1	=_____total watts
3 or Less (Separately Controlled) Electric Space Heating Units:	_____	(Nameplate Rating)	x	0.65	=_____total watts
4 or more (Separately Controlled) Electric Space Heating Units:	_____	(Nameplate Rating)	x	0.40	=_____total watts
Central Electric Space Heating System[3]:	_____	(Combined Nameplate Rating[3])			=_____total watts

Enter single largest Heating and Air Conditioning Load (from above) =_____*Total C*

D. Calculate Total Service Load

_____ **- 10,000 watts x 0.40 + 10,000 watts +** _____ **÷ 240 =** _____**Total Amps**

Total B (from above) Total C (from above)

_____ _____ _____

Signature Print Name State License Number *(if applicable)*

[1]Habitable square footage includes the floor area for each floor, calculated from the outside dimensions of the dwelling unit. It does not include open porches, garages, or unused or unfinished spaces not adaptable for future use.

[2]Add all subpanel loads here that are not already included elsewhere on this form.

[3]For Central Electric Space Heating Systems, add 100% of the heat pump compressor's nameplate rating plus 65% of the supplemental electric heating's nameplate rating. If the heat pump compressor is prevented from operating at the same time as the supplementary heat, it does not need to be added to the supplementary heat for the total central space heating load.