Checklist for Residential Electric Vehicle Charging Stations

All forms are available at:
http://www.elkgrovecity.org/city_hall/departments_divisions/building_safety__inspection__permits/forms_handouts_featured_articles

☐ Completed building permit application
☐ A site plan
☐ An electrical plan
☐ Equipment Manufacturer’s Installation Instructions

Electronic Submittal Requirements

☐ Each required document listed above shall be submitted in separate PDF attachments
☐ Submit the PDF attachments to the Building Department Filedrop:
http://share.elkgrovecity.org/filedrop/BuildingFileDrop

GENERAL REQUIREMENTS:

Level of EV charging:
☐ Level 1 (120V) ☐ Level 2 (240V)

Type of equipment being installed:
☐ NEMA 14-50 ☐ NEMA 5-15 ☐ NEMA 5-20 ☐ Other________

Equipment Overcurrent Protection Rating:
☐ 50A ☐ 15A ☐ 20A ☐ Other________

Existing Electrical Service (If less than 150A, provide Electric Load Worksheet)
☐ 100A ☐ 125A ☐ 150A ☐ 200A

Branch Circuit Distance:
☐ 100 Feet or less ☐ More Than 100

Feet Conductor Size:
☐ #14 Cu ☐ #12 Cu ☐ #6 Cu ☐ Other______

Less preferred EVSE location

Preferred EVSE locations

Utility Panel
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

\[ \text{Total B (from above)} - 10,000 \text{ watts} \times 0.40 + 10,000 \text{ watts} + \frac{\text{Total C (from above)}}{240} = \text{Total Amps} \]

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.