



## Submission Checklist for Electric Vehicle Supply Equipment (EVSE) Installations

**Project Address:** \_\_\_\_\_ **P/C #** \_\_\_\_\_

This document is a guideline to describe the minimum requirements for building permit submittal. Because each project is different, there may be additional information required.

<b>X</b>	<b>Submittal Requirements:</b> <u>(2) copies of each plan set required</u>
	One-line diagram; showing:  A floor plan showing the location(s) of new and existing meter/sub meter and charge controller.  Indicate wire sizing and routing.
	Provide manufactured installation details and specifications for the electrical supply charging unit.
	Provide information from the manufacturer indicating whether or not ventilation is required, if required, label plans accordingly and provide mechanical ventilation.
	Complete the Electrical Load Calculation Worksheet (Form CDD-0213) and provide load calculations of electrical Service including the electrical load required to charge the vehicle at 125%.
	Note the voltage (120V or 240V) and ampacities of the vehicle charger.
	All supply equipment shall be listed or labeled.
<b>X</b>	<b>General Requirements:</b>
	Coupling means of electric vehicle supply equipment shall be stored or located at a height of not less than 18" and Not more than 48" above the floor level.
	Electric vehicle supply equipment rated 125 volt, 15 or 20 amps may be cord and plug connected. All other Electric Vehicle supply equipment shall be permanently connected and fastened in place.
	If both 120v and 240v circuits are desired to be monitored by the electric vehicle meter, a meter with distribution will be required.
	<b>Note:</b> To qualify for SMUD's Residential Time-of-Use Electric Vehicle Rate, all electrical loads fed from the meter must be dedicated to an electric vehicle charging use only.

I understand a submittal missing any of the above listed items will be deemed incomplete and the plan check will not be scheduled until the Building Department receives all of the required items. This may affect applicable fees and codes since the official date of the application will be the date on which a complete application is received.

**All the items required on this checklist are present and complete.**

Print Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

I am the:     Building owner     Business owner     Contractor     Agent of the owner/contractor



## Electrical Load Calculation Worksheet

**THIS SHALL BE ON THE JOB SITE AT ALL TIMES**

**(2) COPIES REQUIRED**

Job Address: \_\_\_\_\_ Permit #: \_\_\_\_\_

Contractor/Owner/Authorized Agent: \_\_\_\_\_

Phone #: \_\_\_\_\_ Email Address: \_\_\_\_\_

Number	Item	Watts	Air Conditioning Example (not heat pump)
	Sq. Ft. @ 3 Watts per Sq. Ft - 220.12		<b>Air Conditioning Example (not heat pump)</b>  Compressor      20 amps Fan                5 amps Unit Total Load = 25 amps x 240V Elec. Furnace @ N.P.R.=6000 watts x 65% = 3900 watts Use 6000 watts since it is larger ~~~~~ <b>Heat Pump Example</b>  Compressor      20 amps Fan                5 amps Unit Total Load = 25 amps x 240V = 6000 watts Aux. Heat Strip = 6000 watts x 65% = 3900 watts Total Heat Pump Load = 9900 watts  <b>Heat Pump Note:</b> When doing load calculations where heat pumps are installed, the load for most heat pumps that are equipped with auxiliary heat strips will be larger under the demand for heat. For purposes of load calculations only, on heat pump compressor and fans use 65% of auxiliary heat load to show total heat pump load.
	20 Amps. Appliance circuits @ 1500 watts each - 220.52(A)		
	Range (Nameplate Rating = N.P.R.)		
	Oven (N.P.R.)		
	Cooking Units (N.P.R.)		
	Water Heater (N.P.R.)		
	Dishwasher (N.P.R.)		
	Disposal (N.P.R.)		
	Washer [(1500 watts min. N.E.C. 220.52(B))]		
	Dryer [(5000 watts min. or N.P.R. if larger) N.E.C. 220.54]		
	Motors (N.P.R.)		
	Other (N.P.R.)		
	Other (N.P.R.)		
Air Conditioning Equipment		Subtotal = _____	
Air Conditioning [cooling (N.P.R. x 100%)] =		(Loss 1 <sup>st</sup> 10KW – 10,000 @ 100% =	10,000 Watts
Electrical Heating @ (N.P.R. x 65% =		Remainder @ 40% _____ @ 40%	_____ Watts
NOTE: Use the largest load - Heat or Cool =		Total Air Cond. and/or heat pump load = _____ Watts	
Heat pump (compressor & fans) x 100% =		Total Service Load = _____ Watts	
Aux. Heat strips (or elect. furnace) x 65% =		Total Service Load _____ Watts 240V = _____ Amps	
Total Heat Pump Load =		Service Size _____	
NOTE: Amps x Circuit Voltage = Watts			