



## **Basic Information Required for Photovoltaic Plan Check Submittal**

*\*Informational Purposes Only\* 2013 CEC*

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### **ADMINISTRATIVE**

1. The following clearances or approvals are required before a building permit can be issued:
  - a. Planning Department
  - b. Building and Safety
  - c. Fire Department when required (see Santa Monica Fire Department Solar Photovoltaic Installation Guideline 2008 for additional requirement)

### **SITE PLAN**

2. Provide full dimensioned site plan. Show lot size, street, alley, easements, parking spaces, location, size and use of all structures on the lot, and property line. Identify property lines, lot dimensions, and distance to property line
3. Show voltage, ampere rating, and location of the service disconnecting means, and location of all solar photovoltaic system

### **LINE DIAGRAM**

4. Provide at minimum an electrical single line diagram showing:
  - a. Array configuration, module specified
  - b. Array conductors identified
  - c. Combiner/junction box identified
  - d. Conduits/conductors from array to inverter identified
  - e. DC grounding system specified
  - f. Disconnecting means (DC and AC) specified
  - g. Inverter specified
  - h. Conduits/conductors from inverter to interactive system points of interconnection identified
  - i. AC grounding and system grounding specified
  - j. Interconnecting provisions for the utility-interactive inverter identified

### **INVERTER INFORMATION**

5. Provide inverter manufacturer specification sheet

### **PV MODULE INFORMATION**

6. Provide module manufacturer specification sheet

### **ARRAY INFORMATION**

7. Show the following on the plan:
  - a. Number of module in series
  - b. Number of parallel source circuits
  - c. Total number of modules
  - d. Open circuit voltage (Voc)
  - e. Short-circuit current (Isc)
  - f. Temperature Coefficient (Voc)

**WIRING AND OVERCURRENT PROTECTION**

8. Show the following on plan:
- Conductors shall be 90° C wet and continuous rated
  - Conductor ampacity deration due to ambient temperature and location
  - Overcurrent protection on inverter output circuit is sufficient

**ROOF INFORMATION (ROOF TOP SYSTEM)**

9. Show the following information on plan:
- Weight of the arrays (pounds per square foot including mounting hardware)
  - Describe and show the roof structural elements
  - Identify roof type
  - Provide detail of photovoltaic panel mounting hardware attachment to the roof framing members
  - Provide mounting hardware manufacturer specification
  - Provide engineering calculations and details demonstrating adequacy of supporting members, including wind uplift effects and where required, seismic effects

**REQUIRED PHOTOVOLTAIC SIGNS****10. PHOTOVOLTAIC SOURCE AND OUTPUT CIRCUITS:**

*Caution: Solar Circuit*

DC conduit (every 10 feet) interior and exterior

**11. DC DISCONNECT:**

*PV system- DC disconnect"*

*Rated maximum power-point current-### ADC"*

*Rated maximum power-point voltage-### VDC"*

*Maximum system voltage-### VDC"*

*Short-circuit current-### ADC"*

*Maximum rated output current of the charge controller (if installed)-### ADC"*

**WARNING-Electric Shock Hazard. DO NOT TOUCH TERMINALS. TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION."**

**12. INVERTER:**

*WARNING. Electrical shock hazard. If a ground fault is indicated, normally grounded conductors may be ungrounded and energized.*

**13. AC DISCONNECT:**

*PV system- AC disconnect*

*Rated AC output current-### AMPS*

*AC normal operating voltage-### VOLTS*

**WARNING-Electric Shock Hazard. DO NOT TOUCH TERMINALS. TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION."**

**14. INTERACTIVE SYSTEM POINT OF INTERCONNECTION:**

*WARNING. Dual power sources. Utility and Photovoltaic power.*

*CAUTION: Solar electric system.*

*Rated AC output current-### AMPS*

*AC normal operating voltage-### VOLTS*

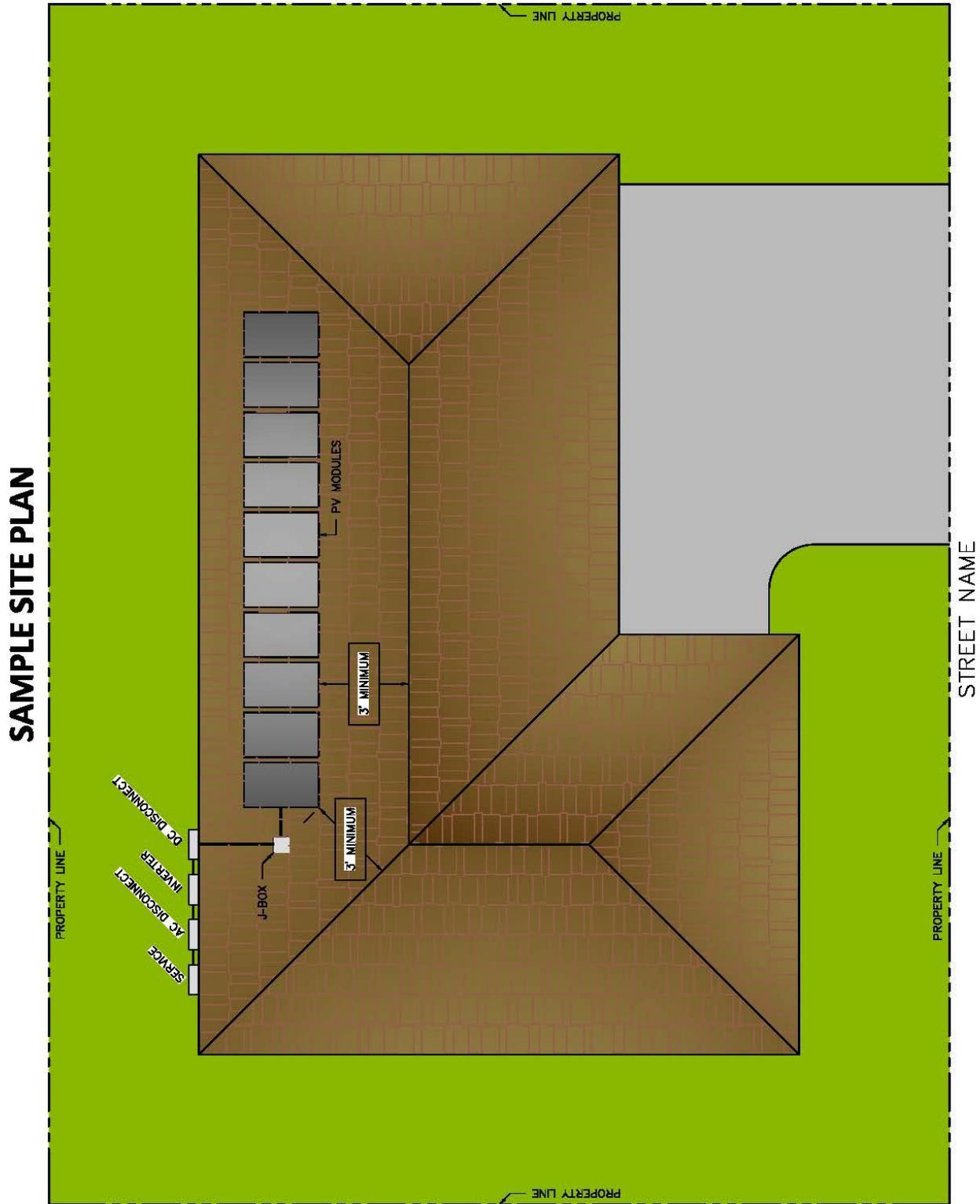
*WARNING*

*Inverter output connection*

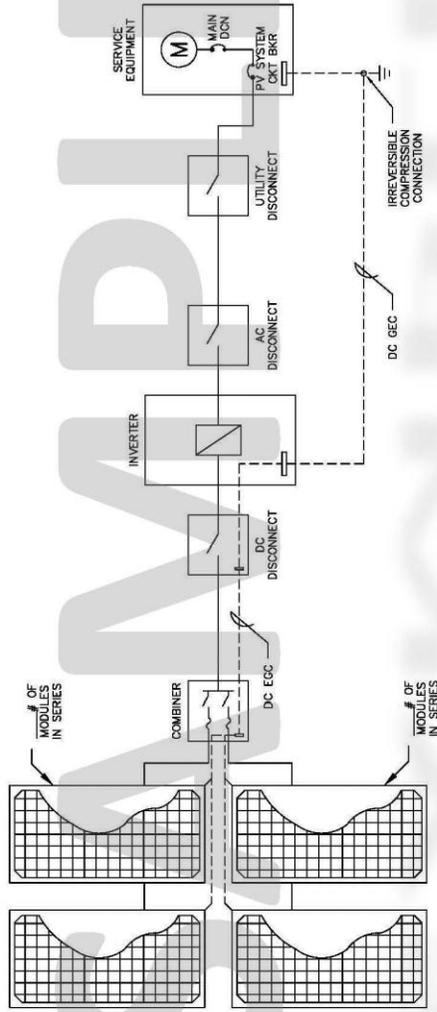
*Do not relocate this overcurrent device*

### SAMPLE SITE PLAN

Site plan shown is to illustrate the necessary information required for full plan review. Complete and accurate site plan is required for an expeditious review and approval.



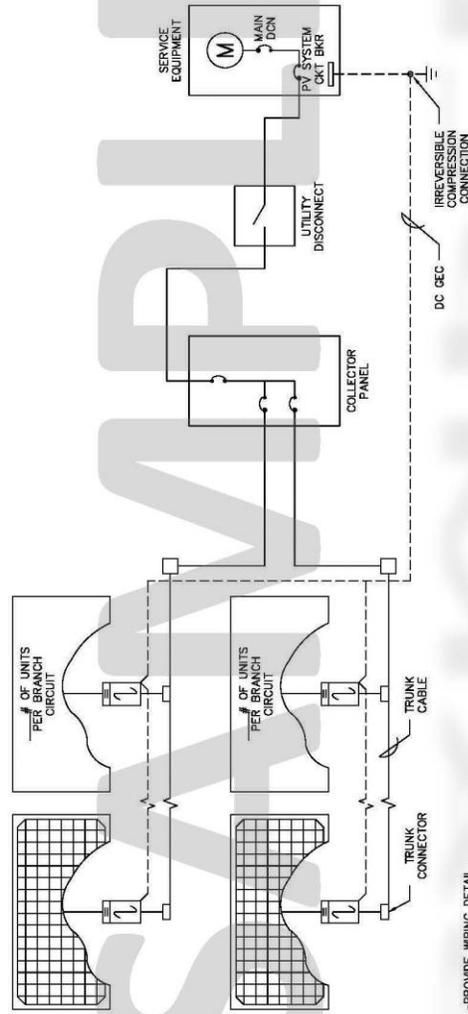
**SAMPLE PHOTOVOLTAIC SINGLE LINE DIAGRAM**  
FOR INFORMATIONAL PURPOSES ONLY



--PROVIDE WIRING DETAIL

CENTRAL INVERTER SYSTEM

**SAMPLE PHOTOVOLTAIC SINGLE LINE DIAGRAM**  
FOR INFORMATIONAL PURPOSES ONLY



**MICROINVERTER SYSTEM**

-PROVIDE WIRING DETAIL