PERMIT REQUIREMENTS:

- A permit is required for the installation of a photovoltaic (PV) system on a residential property. All PV systems must be reviewed for code compliance, method of installation, and electrical safety.
- Permits are issued to either the property owner with a completed Owner/Builder form or to a California licensed C-10 or C-46 contractor with a current City of Stockton Business License.
- Residential solar permits are now available to apply, pay, and receive online via our Online Permit System. You must create a free user account to use this service. Please visit www.aca.accela.com/Stockton
- Permits can also be obtained at the Community Development Department Permit Center.
  - Located at 345 N. El Dorado St, Stockton, CA 95202
  - Office hours are from 8:00 a.m. to 4:30 p.m. Monday through Friday, closed alternate Fridays.
- Projects submitted in accordance with this handout may be approved over-the-counter.
  - PV systems over 15kw and/or including battery storage systems will require for plan review.

SUBMITTAL CHECKLIST:

☐ A. Completed Building Permit Application  
☐ B. (2) Copies of PV plans – See below for plan requirements  
☐ C. Completed Owner/Builder Form (if applicable)  
☐ D. Authorization Letter from the licensed contractor for the individual picking up the permit

PLAN REQUIREMENTS:

Plans need to be submitted containing the following items:

- Plan view showing the location of the PV installation and layout of existing roof framing members that support the system, or a site plan if panels are not mounted on the roof.
- Details for mounting of PV modules, type and number of roof coverings, and subsequent weatherproofing of the roof.
- Electrical single-line diagram clearly identifying all devices installed in the PV system and indicating total kVA rating of the system.
- Clearly identify the point of interconnection with the utility supplied wiring system and provide details for main breaker, PV breaker, and rating of bussing.
- Indicate types and size of all conduit and conductors throughout the PV system.
- Provide manufacturer’s cut-sheets and installation instruction for all PV modules, mounting systems, combiner boxes (if used), inverters, rapid shutdown devices, and disconnects.
- Provide structural calculations, prepared by a California licensed design professional, if the total weight of the PV system is over five pounds per square foot.
- The installation of the PV system shall conform to the requirements of CEC Article 690 and any other applicable articles or standards.
- The PV plans shall specify all Fire Department required signage.
GENERAL REQUIREMENTS:

• **Drain Waste Vent System** – Modifications of any drain waste vent piping systems or ventilation penetrations will require inspections and approvals, and shall comply with the requirements of the current editions of the California Building, Plumbing, and Mechanical Codes.

• **Bedroom Egress Window Requirements** – Panels and modules installed on dwellings shall not be placed on the portion of a roof that is below an emergency escape and rescue opening. A pathway not less than 36 inches wide shall be provided to the emergency escape and rescue opening. Every bedroom shall have at least one window for emergency egress. Photovoltaic modules shall not be located on any roof area that will impede any rescue efforts by emergency responders.

• **Exposed Cables on Roof** – All exposed wires/cables shall be in an approved conduit outside the perimeter of the branch/array and prior to entering the building.

• **Rough-In Inspection** – Contact the Stockton Building Division for inspection of all attic, wall cavity, and under floor rough wiring installations before drywall, flooring, or exterior wall coverings are applied.

• **Roof Smoke Venting Requirements** – See attached diagrams for approved photovoltaic panel installation locations. Other location designs may be approved prior to installation of photovoltaic panels by the Stockton Fire Prevention Department.

• **Subject to Field Approval** – Please note that all photovoltaic plan check approvals are subject to field inspection approvals.

SIGNAGE REQUIREMENTS:

• Provide all signage required by the City of Stockton Fire Department in accordance with guidelines provided by the Office of the State Fire Marshall.

• Provide all signage as required by the California Fire Code and California Electrical Code.

• All warning signs shall conform to the following formatting requirements:
  - Shall be red background with white lettering
  - Minimum 3/8” letter height
  - All capital letters
  - Arial Font
  - Must be reflective, weather resistant material suitable for the environment
SAMPLE ROOF LAYOUTS:

ROOF PLAN

NEED 3' AT THIS RAKE ALSO TO PROVIDE ACCESS AT TWO SIDES

PERSPECTIVE

RESIDENTIAL BUILDINGS WITH GABLE ROOF LAYOUTS:

RESIDENTIAL BUILDINGS WITH A SINGLE RIDGE: MODULES SHOULD BE LOCATED IN A MANNER THAT PROVIDES TWO (2) THREE-FOOT (3') WIDE ACCESS PATHWAYS FROM THE EAVE TO THE RIDGE ON EACH ROOF SLOPE WHERE MODULES ARE LOCATED.
SAMPLE ROOF LAYOUTS:

ROOF PLAN

PERSPECTIVE

RESIDENTIAL BUILDINGS WITH HIP ROOF LAYOUTS:

Modules should be located in a manner that provides one (1) three-foot (3') wide clear access pathway from the eave to the ridge on each roof slope where modules are located. The access pathway should be located at a structurally strong location on the building (such as a bearing wall).
SAMPLE ROOF LAYOUTS:

ROOF PLAN

PERSPECTIVE

HIP AND VALLEY ROOFS

Hips and valleys: modules should be located no closer than one and one half (1 1/2) feet to a hip or a valley. If modules are to be placed on both sides of a hip or valley. If the modules are to be located on only one side of a hip or valley that is of equal length then the modules may be placed directly adjacent to the hip or valley.
NOTES:

1. INSTALLER TO BE PREPARED TO PROVIDE PHYSICAL EVIDENCE THAT PANELS INSTALLED IN FIELD MATCH THOSE SPECIFIED ON PLANS AND TO PROVIDE ATTIC ACCESS TO VERIFY ARAY ATTACHMENTS UPON REQUEST.

2. AC & DC SIDE GROUNDING ELECTRODE CONDUCTOR TO BE BONDED PER ART. 690.47, AND MADE WITH IRREVERSIBLE CONNECTION PER ART. 250.64(C).

3. BONDING JUMPER REQUIRED TO MAINTAIN CONTINUITY BETWEEN SOURCE OF OUTPUT CIRCUIT GROUNDED CONDUCTOR WHILE PV EQUIPMENT IS REMOVED PER ART. 690.49.

4. PROVIDE SYSTEM LABELS AND WARNING FOR DC DISCONNECT, AC DISCONNECT AND INVERTER LABELS TO BE AFFIXED PRIOR TO FINAL INSPECTION WHERE ALL TERMINALS OF A DISCONNECTING MEANS ARE CAPABLE OF BEING ENERGIZED IN AN OPEN POSITION, A WARNING SIGN PER 690.17 MUST BE SUPPLIED.

5. ALL SYSTEMS INCLUDING SUPPORT FRAME SHALL BE GROUNDED IN ACCORDANCE WITH 690.43. EQUIPMENT GROUNDING CONDUCTORS FOR PHOTOVOLTAIC MODULES SMALLER THAN A #8 SHALL COMPLY WITH 250.120(C).

SAMPLE ELECTRICAL DIAGRAM FOR SMALL SCALE, SINGLE-PHASE PV SYSTEMS