

Solar panel plan requirements

Purpose

This is a guide to help assist in the plan review, permit and inspection process for the installation of commercial and residential solar panel systems. Listed below are the minimum plan requirements needed to obtain permits

Permit requirements

A Building Permit and an Electrical permit are required for the installation. If the solar panel system is used in conjunction with the domestic water system (water heater) a plumbing permit from The Washington Suburban Sanitary Commission (WSSC) may be required.

Commercial solar panel plan requirement

When equipment is installed on an existing structure, a letter from a Structural Engineer indicating that the existing structure is sufficient to support the new loads associated with the additional weight and the wind resistance (minimum 90 mph wind speed design).

Structural plans shall be designed and sealed by a Maryland licensed professional engineer for securing the panels to the existing structure, or to a new foundation (ground or pole mounted).

At minimum, the following shall be indicated on the plans (including a site and or roof plan)

- Panel layout
- Calculations indicating the weight of the complete system (including working fluid), the weight of the complete system per square foot and the concentrated load at each mounting location.
- Mounting structure & anchors
- Roof penetrations
- Grounding points
- Conductor size & type
- Disconnect size & type
- Inverter size & type
- Battery (ies) size & type

Roof Mounted Systems

When equipment is installed on an existing structure the minimum shall be included and indicated on the plans

- Provide two copies of the plot plan showing the location of the house and solar equipment on the property.
- Provide two copies of the layout of the panels and its supporting structure, including anchorage to the roof and framing structure and schematic elevations. The plans showing the supporting structure must be signed and sealed by a professional engineer or Architect licensed in the state of Maryland as being designed in accordance with the applicable codes in Prince Georges County, Maryland. Applicable parts from the installation manuals shall be provided as well.
- Provide two copies of the attachment of the supporting structure to the roof framing (plywood, rafters, or truss joists). These plans must be signed and sealed by a professional engineer licensed in the state of Maryland as being designed in accordance with the applicable codes in Prince Georges County, Maryland. The design can be a generic design; however, for each project, indicate the specific installations conditions.

Ground / Pole Mounted Systems

- Provide a site plan indicating the location of the solar panel
- Provide footing details indicating width, depth and any reinforcement
- Provide general elevations indicating the finished height above grade
- Provide comprehensive plans showing mounting rails, support frame for mounting rails and the anchoring system (if not pole mounted)
- If the total height above grade, measured to the top of the panel is greater than six feet, Calculations and signed/sealed plans from a Maryland registered Engineer or Architect must be provided.

INSPECTION:

A copy of the permit and plans must be on site during construction. An inspection is required for any work to be concealed prior to concealing the work and a final inspection when all work is complete is required. Structural attachment shall be confirmed by a certification of a structural engineer that the work has been installed in accordance with the approved plans and the Prince George County Code **on commercial projects. On residential projects the installation contractor shall provide a report on his company letterhead indicating the system is installed in accordance with the approved plans and installation manual.** To request an inspection please contact the automated inspection request line at (301) 883-5390 or requests can be made on-line at the County's website. Please have the case number (NNNNN-YYYY) and a contact phone number available when calling. Inspections requests for **commercial** solar installation should use request code 252 for work to be concealed or 207 for a final inspection. Inspections requests for **residential** solar installation should use request code **152** for work

to be concealed or 107 for a final inspection. The Licenses and Inspections Division may be contacted at (301) 883-3820 if any questions related to inspection procedures should arise.

(Note- Residential permits for solar panel installations are issued for systems installed on detached one and two family dwellings and townhouses not more than three stories in height as defined by the 2006 IRC, section R101.2).

In all cases, an **electrical permit** is required. The permit can only be obtained by a licensed electrician.

Permitted Set — County Stamp

Please note, DPIE plan review staff will only stamp plan sheets relevant to the scope of work. All other sheets, such as electrical, structural, architectural, provided for reference only will not be stamped.