



Standardized Permitting Template

JOB SITE ADDRESS _____

NAME OF BUILDING OWNER _____

JOB VALUATION _____

Installation Contractor (Box below)

Name _____
Installation Address _____
Contractor City _____ State _____ Zip _____
State License No. _____ Phone _____

Required Information for Permit:

1. Site plan showing location of major components on the property and a framing cross section that identifies type of support (rafter or truss), spacing, span dimension, and approximate roof slope. The drawings need not be exactly to scale, but it should represent relative location of components. PV arrays on dwellings with a 3’ perimeter space at ridge and sides may not need separate fire service review.
 - a. If location of the solar resource on the roof requires installation within three feet of sides or ridge, check with building official to determine if fire service review is needed.
2. Specification sheets and installation manuals for all manufactured components including, but not limited to, PV modules, inverter(s), combiner box, disconnects, and mounting system.

Step 1: Structural Review of PV Installation Mounting System

1. Is the roof supporting the installation a pitched roof in good condition, without visible sag or deflection, no cracking or splintering of support, or other potential structural defect? Yes No
2. Is the roof a rafter system? Yes No
3. Is the equipment to be flush-mounted to the roof such that the collector surface is parallel to the roof? Yes No
4. Is the roofing type lightweight? Yes (composition, lightweight masonry, metal, etc...) No
5. Does the roof have a single layer roof covering? Yes No

If “No” to any of questions 1 -4 above, additional documentation may be required. Documentation may need to demonstrate the structural integrity of the roof and all necessary structural modifications needed to maintain integrity. A statement stamped by a Minnesota licensed/certified structural



engineer certifying integrity may be needed. Contact the building official to determine submittal requirements.

6. Identify method and types of weatherproofing for roof penetrations (e.g. flashing, caulk).

For truss systems, additional information may be needed to ascertain the truss’ design loads. The SolarStruc tool (<http://www.growsolar.org/wpcontent/uploads/2012/06/Solarstruc-2.2.xls>) allows contractors to calculate truss capacity for solar installations. Please contact the building official for standards on when structural analysis will be needed.

Mounting System Information:

7. Is the mounting structure an engineered product designed to mount PV modules with no more than an 18” gap beneath the module frames? Yes No

If No, provide details of structural attachment certified by a design professional. Manufacturer’s engineering specifications are sufficient to meet this requirement.

8. For manufactured mounting systems, fill information on the mounting system below:

a. Mounting System Manufacturer _____

b. Product Name and Model # _____

c. Total Weight of PV Modules and Rails _____ lbs

d. Total Number of Attachment Points _____

(Attachment points must be equally distributed across the array)

e. Weight per Attachment Point _____ lbs

f. Maximum Spacing between Attachment Points on a Rail _____ inches (see product manual for maximum spacing allowed based on maximum design wind speed).

g. Total Surface Area of PV Modules (square feet) _____ ft²

h. Distributed Weight of PV Module on Roof (c÷g) _____ lbs/ft²

Attaching the rail to each rafter or truss that passes under the array, or to blocking installed between each support, may serve to mitigate for any structural uncertainties on older roofs or wind loading concerns. This approach was used by Minneapolis and Saint Paul based upon engineering studies conducted with their building stock. Contact the building official to determine requirements.

If distributed weight of the PV system is greater than 5 lbs/ft2, a study or statement demonstrating the structural integrity of the installation, or a statement stamped by a Minnesota licensed/certified structural engineer, may be required. Contact the building official to determine requirements.

This section should be included in the permit only if the local government administers electric permits and inspections. **Otherwise the electric permit is administered by the State of Minnesota Department Labor and Industry.** In either case, the electric permit application can be a separate document, as in some cases the licensed electrician may be a different contractor).

Step 2: Permit fee for residential installations

___ Fees \$100

___ Additional inspection \$ 50.00

(Per inspection, when needed)

TOTAL FEE = \$ _____

RECEIPT NO. _____

DATE _____

I HEREBY CERTIFY that I have completed and examined this application and certify that the information contained therein is correct. If a permit is issued, I agree all work will be done in conformance with all applicable ordinances and codes of this City and laws of the State of Minnesota.

CONTRACTOR OR AUTHORIZED AGENT/HOMEOWNER