



City of Foster City

Community Development Department, Building Division
610 Foster City Blvd., Foster City, CA 94404

Submittal Requirements for a Roof-Mounted Solar Pool Heating System 30 kWth or Less on a One- or Two-Family Dwelling

This information is provided to guide applicants through the permit application process for a roof mounted solar pool heating (SPH) project 30 kWth (462 square feet) in size or smaller ONLY and includes information about the application submittal requirements, plan review, required fees, and inspections.

1. Approval Requirements

- A. Mechanical, electrical, plumbing, and building permits are required to install a SPH system with a maximum thermal power output of 30 kWth or less. NOTE: All permits will be issued under a single building permit number which will include the M-E-P permits.
- B. Planning review is required for SPH installations of this size.
- C. Fire Department approval is required for solar SPH installations of this size. NOTE: The Building Division will perform the plan check and inspection for this application.

2. Submittal Requirements

- A. A properly completed building permits application form. The permit application form may be downloaded at www.fostercity.org.
- B. Demonstrate compliance with the eligibility checklist for expedited permitting. These criteria can be downloaded at www.fostercity.org.
- C. A completed Standard Mechanical, Electrical, Plumbing, and Structural plans. The standard plan may be used for proposed roof-mounted solar installations 30 kWth in size or smaller ONLY.

The plans must include the following:

- *Total number of collectors and area*
- *A single-line isometric diagram of the system including the labeling of all major components*
- *Make, model, and collector certification numbers*
- *System certification number*
- *Solar storage tank name, model, insulation, and capacity*
- *Heat exchanger make and model (if applicable)*

- *Specification of heat transfer fluids (if applicable)*
- *Site diagram showing the arrangement of the collectors on the roof or , north arrow, lot dimensions, and the distance from property lines to adjacent buildings/structures (existing and proposed)*

D. A roof plan showing roof layout, , collectors, clearances to plumbing and mechanical vents and the following fire safety items: approximate location of roof access point, location of code-compliant access pathways, PV system fire classification, and the locations of all required labels and markings. Examples of clear path access pathways are available in the State Fire Marshall Solar PV Installation Guide.

<http://osfm.fire.ca.gov/pdf/reports/solarphotovoltaicguideline.pdf>.

E. A completed and signed CF2R-PLMB-04-E. California Energy Compliance forms are available from the California Energy Commission website.

http://www.energy.ca.gov/title24/2013standards/residential_manual.html

NOTE: The roof plan must show compliance with the requirements found in the latest editions of the California Building Code, California Fire Code, California Residential Code, and California Electrical Code. If there is a conflict between the regulations found in these Codes and the recommendations found in the State Fire Marshal Solar PV Installation Guide (above) then the Code requirements will govern.

F. Completed expedited Structural Criteria along with required documentation. Provide structural drawings and calculations stamped and signed by a California-licensed Civil or Structural Engineer, along with the following information.

- The type of roof covering and the number of roof coverings installed
- Type of roof framing, size of members and spacing
- Weight of collectors, support locations, and method of attachment
- Framing plan and details for any work necessary to strengthen the existing roof structure
- Site-specific structural calculations
- Where an approved racking system is used, provide documentation showing manufacture of the rack system, maximum allowable weight the system can support, attachment method to the roof or ground and product evaluation information or structural design for the rack system

- Equipment cut sheets including collectors, controllers, storage tank, and heat exchanger (if applicable.)

A full explanation of the methods and calculations used to produce these criteria can be found in the Structural Technical Appendix for Residential Rooftop Solar Installations, which is available at

http://www.opr.ca.gov/docs/Solar_Structural_Technical_Appendix.pdf.

3. Plan Review

Permit applications can be submitted to the City of Foster City Building Inspection Division in person at 610 Foster City Blvd., Foster City CA 94404 and electronically by email at Building@fostercity.org . Permit applications utilizing the standard plan should be reviewed in one to three business days.

After your application and plans have been reviewed you will receive an email from the Building Division notifying you of the status of your application.

If your application has been **Rejected** then you must revise the application and plans as directed in the notification letter and re-submit your application. As an alternative you may choose to submit your application and plans at the Building Division front counter using the regular permit application submittal process.

If your application has been **Approved** then you will be directed to pick up your building permit at the City of Foster City Building Division front counter. When you visit the Building Division front counter you will need to submit four complete sets of submittal documents, including plans and documentation that are identical to the package that you submitted electronically. (NOTE: Plan pages must be at least 11" x 17". All other documents must be at least 8-1/2" x 11".) The Building Division will collect payment at that time and issue the building permit and approved Job Copy of the plans to a licensed contractor or to the building owner.

4. Fees

See City of Foster City Master Fee Schedule

5. Inspections

Once all permits to construct the solar installation have been issued and the system has been installed, it must be inspected before final approval is granted for the solar system. On-site inspections can be scheduled by contacting the City of Foster City Building Inspection Division by telephone at 650-286-3227. Inspection requests received during regular business hours are typically scheduled for the next business day. If the next business day is not available, the inspection should be scheduled within a five-day window.

Permit holders must be prepared to show conformance with all technical requirements in the field at the time of inspection. The inspector will verify that the installation is in conformance with applicable code requirements and with the approved plans.

- All collectors and exterior piping to be installed in conformance with the Architectural and Solar Guidelines of the City of Foster City.
- All exterior piping to be painted to match the nearest adjacent surface.
- Smoke Detectors and Carbon Monoxide Alarms are required.

6. Departmental Contact Information

City of Foster City Building Inspection Division by telephone at 650-286-3227.