



## Solar Thermal/Photovoltaic Installation Plan Review Checklist

Before approval and issuance of permit(s) for Solar Thermal/Photovoltaic installations, applicant shall submit the following minimum information. Required drawings shall be scaled and dimensioned, readable, and legible. Installation must comply with the manufacturer's instructions and building and fire code requirements, including the National Electric Code. Contractors must comply with Minnesota Department of Labor and Industries contractor licensing requirements.

### The following information will be required for all installations:

1. Provide the following information for a fully completed building permit application found online at <https://www.red-wing.org/media/files/departments/inspections/building%20permit%20apps.pdf>
  - Job address
  - Date of permit application
  - Owner's name, address, phone number and email
  - Contractor's License number and expiration date
  - Name, address and phone numbers of the person preparing the plans and/or the contractor's name
  - Property type (please select one)
  - Construction type: remodel/alteration (unless this is new construction)
  - Value of the work (includes materials and labor)
  - Description of proposed work, including both solar equipment installation and all associated construction. ***You must indicate if it is a roof- or ground-mounted solar voltaic (PV) system***

Freestanding and building mounted solar energy systems located on a parcel with a principal structure and that meet the provisions in Division 55-118 (C) of the Red Wing Zoning Ordinance (Chapter 11 of City Code) shall be allowed as permitted accessory uses in all districts. Off-grid freestanding solar energy systems located on parcels without principal structures that have a solar collector surface of 100 square feet or less in size that meet the provisions in Division 55-118 (C) shall be allowed as a permitted accessory use in all districts. Additional Zoning and Heritage Preservation approvals may be required for some installations.

- A Certificate of Compliance will be required for solar energy systems located on a parcel without a principal structure that has a solar collector surface larger than 100 sq. ft but less than 250 sq. ft.
- A Conditional Use Permit will be required for solar energy systems not meeting provisions outlined in Division 55-118 C.
- A Conditional Use Permit will be required for off-grid freestanding solar energy systems located on a parcel without a principal structure that has a solar collector surface of 250 square feet or larger, or for a proposed freestanding community solar garden to be located on a parcel without a principal structure.
- Please see Division 55-118 of [Chapter 11](#) of our City Code for Zoning regulations.
- Specific guidelines are in place for properties located in a local historic or conservation district, please see [Chapter 16](#) of our City Code. Some solar installations may require a design review application to be submitted to the Heritage Preservation Commission. The Commission would need to issue a Certificate of Appropriateness prior to issuance of a building permit.

## Additional information required for Rooftop or Building Mounted Systems

1. Two copies of plans designed by a MN Structural Engineer or provide proof of structural compliance as stated below. Plans should include the following:
  - Any zoning related information that may impact the installation
  - Type of roof utilized for roof mounted solar energy system (flat or pitched and the highest point of roof)
  - Height of building mounted solar energy system
  - Setbacks from mounted location
  - Location of all structures
  - Historical designation, if applicable (location within a historic district is subject to additional review)
2. Proof electrical service provider (**Xcel Energy**) has been informed of intent to install customer owned solar energy system. **Please see information below for Xcel Energy.**
3. Proof solar energy system is certified by Underwriters laboratories, Inc. the Solar Rating and Certification Corporation, or other body as determined by Zoning Administrator.

## Additional Information required for Ground-Mounted or Freestanding Systems

For ground-mounted solar energy systems, the installation must meet property line setback standards for accessory structures.

1. A to-scale site plan/diagram showing:
  - Each free standing solar energy systems and square footage of each system's collector surface
  - Finished height of freestanding solar energy system
  - Type of screening, if applicable, for freestanding solar energy system
  - The location of the proposed solar panel installation
  - Setbacks from property lines and property line locations (setbacks are required to be verified via a survey or denote *property pins* on site plan as located by homeowner or contractor)
  - Location of all structures
  - Main service location
  - Historical designation, if applicable (location within a historic district is subject to additional review)
2. Proof electrical service provider (**Xcel Energy**) has been informed of intent to install customer owned solar energy system. **Please see information below for Xcel Energy.**
3. Proof solar energy system is certified by Underwriters laboratories, Inc. the Solar Rating and Certification Corporation, or other body as determined by Zoning Administrator.

## City Permit Review

Please allow 3-5 business days for application to be reviewed. This process may be delayed if the plans are incomplete. You will be notified when your permit is ready to be picked up and paid for.

## City Fees

Building permit fees are based on the valuation of the work, including materials and labor. The fee schedule for the City of Red Wing is available at:

[https://www.red-wing.org/media/files/planning/Permit\\_Plan\\_Check\\_&\\_State\\_Surcharge\\_Fees.pdf](https://www.red-wing.org/media/files/planning/Permit_Plan_Check_&_State_Surcharge_Fees.pdf)

## City Permit Submission

Ensure that all required materials have been completed and compiled and submit them to:

— In Person: Community Development Department, 315 West 4<sup>th</sup> Street, Red Wing, MN 55066

— By Email to: [building.permits@ci.red-wing.mn.us](mailto:building.permits@ci.red-wing.mn.us)

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## Building Inspection Information

- Building permit, approved plans, inspection record card and all city notices shall be on site at all times.
- **Call 651-385-3623** to schedule a building inspection(s) at least 2 business days in advance. Longer delays may occur during periods of busy construction. Have address ready when scheduling.
- **Final Inspection required** – all work must be completed, including the State electrical final inspection.
- For answers to questions please visit [www.red-wing.mn.us](http://www.red-wing.mn.us) or call Frank Peterson, Building Inspector, at 651-385-3611.

## State Electrical Permit Application and Inspection Requirements

A separate electrical permit will be required through the State of Minnesota. Solar PV installation Electrical Inspection Fees do apply, see [http://www.dli.mn.gov/CCLD/PDF/solar\\_fees.pdf](http://www.dli.mn.gov/CCLD/PDF/solar_fees.pdf).

Submit the State Electric Permit on-line at: [http://www.dli.mn.gov/CCLD/etrakit\\_electrical.asp](http://www.dli.mn.gov/CCLD/etrakit_electrical.asp)

Please contact State Electrical Inspector, Doug Sparby at 651-388-2409 to schedule a state electrical inspection within city limits.

## Xcel Energy Application and Requirements

- All customers installing solar systems must apply for interconnection through Xcel Energy's online Salesforce portal: [https://xcelenergy.force.com/SolarRewards/SR\\_CommunitiesLogin?startURL=null](https://xcelenergy.force.com/SolarRewards/SR_CommunitiesLogin?startURL=null).
- Any project will need to be reviewed and approved by their area and metering engineering teams.
- Applicants will need to submit appropriate drawings (site plan, line diagram, witness test procedure, etc.) required by Xcel Energy.
- Questions? Contact [solarprogramm@xcelenergy.com](mailto:solarprogramm@xcelenergy.com)

## Additional Information from the Minnesota Department of Labor and Industry:

**Are building permits required to install solar PV Systems?** Solar photovoltaic (PV) installations must comply with the Minnesota State Building Code. A building permit is required for all solar PV installations.

**Is a structural engineer required to design the roof support of roof-mounted solar PV systems?** Roof-mounted solar PV systems add weight and snow-drift loads to the roof. The Minnesota Department of Labor and Industry (DLI) and Minnesota Department of Commerce developed a standardized load table to help determine if the roof structure of wood-framed buildings is sufficient to hand the additional weight of solar PV systems (see: <http://mn.gov/commerce-stat/pdfs/standardized-load-table-report.pdf>). Permit applicants use the standardized load table report to demonstrate structural compliance without consultation by a structural engineer.

**Which solar PV system installations need to comply with Section 3113 of the 2015 Minnesota State Building Code (Minnesota Rule 1305)?** Buildings classified as IRC-1, IRC-2, IRC-3 and IRC-4 are regulated by the Minnesota Residential Code (Minnesota Rule 1309). When the 2012 International Residential Code (IRC) was adopted to serve as the model code for the 2015 Minnesota Residential Code, Chapter 23 "Solar Energy Systems," was intentionally deleted.

**What are some of the more common provisions contained in Section 3113 of the Minnesota State Building Code?** Solar PV arrays are limited to 150 feet in any direction. Residential buildings, such as apartments, are not required to

have an access pathway around the perimeter of the building but must have 3-foot-wide pathways from the eave to ridge or peak if the roof slope exceeds a 2:12 pitch. Review this section for specific access pathway requirements for residential buildings with roofs having slopes less than a 2:12 pitch.

Questions regarding contractor licenses should be directed to the Minnesota Department of Labor and Industry (651) 284-5069 or 1-800-342-5354.