



I certify that I have received a copy of these regulations and will comply with the regulations contained herein.

Name

Date

INSPECTIONAL
SERVICES DIVISION
630-823-5860

VILLAGE OF HANOVER PARK FIRE DEPARTMENT
Solar Permitting Guidelines

UPDATED JANUARY 2020

General Requirements

1. A permit is required to install a solar collection system.
2. Contractors performing the installation must have a current Village of Hanover Park registration on file prior to the issuance of the permit.

Location

1. Solar collectors installed on the roof of an existing structure will be considered part of the structure on which they are being mounted and not an accessory structure as long as the solar collectors are mounted near the surface of the roof on a frame attached to the structural framing of the roof.
2. Ground mounted collectors will be considered as an accessory structure.

Submittal Documents

1. Ground mounted installations shall required two (2) non-reduced Plats of Survey showing the proposed equipment locations.
2. Provide two (2) copies of plans prepared and stamped by an Illinois Registered Design Professional. Plans shall show the location and layout of the system and all components along with all required access paths.
3. Provide two (2) copies of electrical diagrams that illustrate all components to be installed. Electrical drawings shall comply with the current adopted version of NFPA 70.
4. Provide structural calculations prepared and stamped by an Illinois Registered Design Professional to show that the roof is able to support the additional loading of the solar panels. Confirm the weight of the panels and provide the weight per square foot and weight of all point loads.
Provide cut sheets for all equipment to be used in the proposed system. System shall comply with all manufacturer specifications.

Construction

1. It is recommended that new PV systems be installed on relatively new or recently re-roofed roofs.
2. Photovoltaic panels and modules shall be listed and labeled in accordance with UL 1703. Inverters shall be listed and labeled in accordance with UL 1741. Systems connected to the utility grid shall use inverters listed for utility interaction. 2018 IRC §R324.3.1.
3. The existing roof structure shall be capable of supporting the added load of the photovoltaic system. 2018 IRC §R324.4.1.
4. Solar mounting track fasteners shall extend through roof decking into roof structure to resist uplift.
5. Existing roof penetrations shall remain unaltered unless approved by the code official or inspector. New roof penetrations shall be flashed and sealed in accordance with Chapter 9 of the IRC. 2018 IRC §R324.4.3.
6. Adequate roof access for firefighters shall be provided in accordance with 2018 IRC §324.6. Roof access shall provide clear 36-inch wide access pathways on EACH roof plane with a photovoltaic array from eave to ridge. Pathways shall be structurally capable of supporting the added live load of firefighters on the roof and shall contain minimal obstructions.
7. Setback shall be provided at the ridge of all roofs to allow for fire department smoke ventilation operations in accordance with 2018 IRC §324.6.2. If photovoltaics cover not more than 33 percent of the plan view of the roof, an 18-inch setback is required on each side of the ridge. If more than 33 percent of the plan view of the total roof area is covered by photovoltaics, a 36-inch setback shall be required on each side of the ridge.
8. Photovoltaic circuit maximum voltage, current, and overcurrent protections shall be designed in compliance with 2017 NFPA 70 Article 690, Part II.



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- 9. Photovoltaic systems installed on or in buildings shall include a rapid shutdown function to reduce shock hazard for emergency responders in compliance with 2017 NFPA 70 §690.12.
- 10. Photovoltaic disconnecting means shall be installed at a readily accessible location and shall be marked in accordance with 2017 NFPA 70 Article 690, Part III.
- 11. All wiring methods shall comply with 2017 NFPA 70 Article 690, Part IV.
- 12. The photovoltaic system shall be grounded and bonded accordance with 2017 NFPA 70 Article 690, Part V.
- 13. Provide marking to all components of the photovoltaic system in accordance with 2017 NFPA 70 Article 690, Part VI.
- 14. EMT used shall be treated to resist corrosion in accordance with 2017 NFPA 70 §300.6.
- 15. All wiring shall be installed in conduit (EMT, IMC conduit or rigid pipe). The use of plastic pipe or other nonmetallic wiring systems is not allowed except when buried 18 inches or greater or as otherwise approved by the code official. Municipal Code Section 18-21.70.

Inspection

- 1. A final inspection is required once installation of the solar collectors is completed. The Inspector will verify that the system is labeled with the following information and meets the following list of requirements.
 - A. A NAMEPLATE indicating the manufacturer, phase, voltage, frequency, and required electrical specifications.
 - B. A TESTING LABORATORY LABEL indicating that the unit has been tested and approved by a qualified electrical testing laboratory, such as Underwriter's Laboratory.
 - C. No E.M.T. conduit is to be used outdoors, unless treated as per Section 300-6 of the National Electric Code. IMC and heavy wall are preferred materials.
 - D. The Inspector will verify that the unit has been installed in compliance with the requirements on the nameplate and/or label. **The Inspector must enter the home to inspect the service panel; therefore, the homeowner must be present for the inspection.**
 - E. Approved plans shall be on site for use by the contractor and inspector.

To request an inspection, contact the Fire Department's Inspectional Services Division at 630-823-5860 **at least twenty-four (24) hours in advance.**



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