

CHAPTER 17150: LAND USAGE

[Reserved for local legislation]

Editor's note:

See Title V of the Minnesota Basic Code.

1305.3113 SECTION 3113, SOLAR PHOTOVOLTAIC POWER SYSTEMS.

IBC chapter 31 is amended to add a section to read as follows:

3113. Solar photovoltaic power systems; general. Solar photovoltaic power systems shall be installed in accordance with this part and Minnesota Rules, chapter 1315.

Exception: Detached, nonhabitable Group U structures including parking shade structures, carports, solar trellises, and similar structures shall not be subject to the requirements of this part. Minnesota Rules, chapter 1315, applies.

3113.1 Access and pathways. Roof access, pathways, and spacing requirements shall be provided in accordance with Sections 3113.1 through 3113.3.

Exceptions:

1. Residential structures shall be designed so that each photovoltaic array is no greater than 150 feet (45,720 mm) by 150 feet (45,720 mm) in either axis.
2. Panels/modules shall be permitted to be located up to the roof ridge where an alternative ventilation method approved by the fire department has been provided or where the fire department has determined vertical ventilation techniques will not be employed.

3113.1.1 Roof access points. Roof access points shall be located in areas that do not require the placement of fire department ground ladders over openings such as windows or doors, and located at strong points of building construction in locations where the access point does not conflict with overhead obstructions such as tree limbs, wires, or signs.

3113.1.2 Residential systems for dwelling units. Access to residential systems for dwelling units shall be provided in accordance with Sections 3113.1.2.1 through 3113.1.2.4.

3113.1.2.1 Residential buildings with hip roof layouts. Panels or modules installed on residential buildings with hip roof layouts shall be located in a manner that provides a 3-foot-wide (914 mm) clear access pathway from the eave to the ridge on each roof slope where panels/modules are located. The access pathway shall be located at a location on the building capable of supporting the live load of firefighters accessing the roof.

Exception: These requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

3113.1.2.2 Residential buildings with a single ridge. Panels or modules installed on residential buildings with a single ridge shall be located in a manner that provides two 3-foot-wide (914 mm) clear access pathways from the eave to the ridge on each roof slope where panels/modules are located.

Exception: This requirement shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

An Ordinance Adopting the City's Zoning Ordinance to include regulations relating to Solar Energy Systems

17150.01 Definitions

Building-integrated solar energy system. A solar energy system that is directly incorporated into the building by replacing typical building materials.

Ground-mounted solar energy system. A solar energy system that is installed onto the ground directly or by means of brackets or poles.

Roof-mounted solar energy system. A solar energy system mounted to a house or other building.

Solar energy system. A set of devices whose primary purpose is to provide for the collection, storage and distribution of solar energy for space heating or cooling, electricity generation or water heating.

Solar thermal system. A system that includes a solar collector and a heat exchanger that heats or preheats water for building heating systems or other hot water needs of the building.

17150.02 Solar Energy Systems

Permitted accessory use. Solar energy systems are allowable as an accessory use in all zoning districts, subject to the following requirements:

a) Standards

1. *Height.* Roof-mounted solar energy systems shall not project beyond the peak of the roof and shall not be more than 3 feet above the roof surface to which they are attached. Ground-mounted solar energy systems shall not exceed 15 feet in height.
2. *Location.* Ground-mounted solar energy systems must be located in the rear yard only.
3. *Setbacks.* Ground mounted solar energy systems shall be set back a minimum of 10 feet from all property lines, a minimum of 15 feet from all buildings located on adjacent lots, a minimum of 10ft from all public right-of-way, and a minimum of 15 Feet from all utility easements. Roof-mounted solar energy systems shall comply with all building setbacks in the applicable zoning district and shall not extend beyond the exterior perimeter of the building on which the system is mounted.
4. *Coverage.* Roof-mounted solar energy systems shall not cover more than 80 percent of the total area of the roof.
5. *Feeder Lines.* All power exterior electrical or other service lines must be buried below the surface of the ground.
6. *Exemption.* Building integrated solar energy systems are exempt from the requirements of this section and shall be regulated as any other building element.

b) Safety

1. *Compliance with building codes.* All solar energy systems shall comply with the Minnesota Building Code and any local building code requirements. Design shall comply with section 3113 of the MN Building Code.
2. *Compliance with electric code.* All solar energy systems shall comply with the National Electrical Code.
3. *Compliance with plumbing code.* All solar thermal systems shall comply with the Minnesota State Plumbing Code.

4. *Certifications.* Solar energy system components shall be certified by Underwriters Laboratories Inc. and the Solar Rating and Certification Corporation. The city reserves the right to deny a building permit for proposed solar energy systems deemed to have inadequate certification.

c) Approval

1. *Permits.* The erection, alteration, improvement, reconstruction, and movement of a solar energy system requires a building permit from the city.
2. *Utility Notification.* The owner of a solar energy system that will physically connect to a house or other building's electrical system and/or the electric utility grid must enter into a signed interconnection agreement with the utility prior to the issuance of a building permit.

d) Abandonment

1. If the solar energy system remains nonfunctional or inoperative for more than twelve consecutive months, the system shall constitute a public nuisance. The owner shall obtain a demolition permit and remove the abandoned system at their expense. Removal includes the entire structure, including collector, mount, and transmission equipment.
Purpose. This ordinance permits, as an accessory use, solar energy systems, while protecting the health, safety and welfare of city residents and the property interests of adjacent and surrounding land uses through appropriate zoning and land use controls.

Aesthetics. All solar energy systems shall use colors that blend with the color of the roof or other structure. Reflection angles from collector surfaces shall be oriented so as not to interfere with the use and enjoyment of other properties. Where necessary, screening may be required to address glare.

Easements. It shall be the responsibility of the property owner to secure any desired solar easement to protect solar access for the system (per Minnesota Statutes Section 500.30).

Installation. Solar energy systems shall be installed only by licensed contractors.

Variation by zone. Standards for residential districts may be different than for commercial, industrial and agricultural districts.

Adopted July 5, 2016

3113.1.2.3 Residential buildings with roof hips and valleys. Panels or modules installed on residential buildings with roof hips and valleys shall be located no closer than 18 inches (457 mm) to a hip or valley where panels/modules are to be placed on both sides of a hip or valley. Where panels are to be located on only one side of a hip or valley that is of equal length, the panels shall be permitted to be placed directly adjacent to the hip or valley.

Exception: These requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

3113.1.2.4 Residential building smoke ventilation. Panels or modules installed on residential buildings shall be located no higher than 3 feet (914 mm) below the ridge in order to allow for fire department smoke ventilation operations.

3113.2 Other than residential buildings. Access to systems for occupancies other than dwelling units shall be provided in accordance with Sections 3113.2.1 through 3113.2.1.2.

Exception: Where it is determined by the fire department that the roof configuration is similar to that of dwelling units, the residential access and ventilation requirements in Sections 3113.1.2 through 3113.1.2.4 shall be permitted.

3113.2.1 Access. There shall be a minimum 6-foot-wide (1829 mm) clear perimeter around the edges of the roof.

Exception: Where either access of the building is 250 feet (76,200 mm) or less, there shall be a minimum 4-foot-wide (1290 mm) clear perimeter around the edges of the roof.

3113.2.1.2 Pathways. The solar installation shall be designed to provide designated pathways. The pathways shall meet the following requirements:

1. The pathway shall be over areas capable of supporting the live load of firefighters accessing the roof.
2. The centerline access pathways shall be provided in both axes of the roof. Centerline access pathways shall run where the roof structure is capable of supporting the live load of firefighters accessing the roof.
3. The pathway shall be a straight line not less than 4 feet (1290 mm) clear to skylights or ventilation hatches.
4. The pathway shall be a straight line not less than 4 feet (1290 mm) clear to roof standpipes.
5. The pathway shall provide not less than 4 feet (1290 mm) clear around roof access hatch with at least one not less than 4 feet (1290 mm) clear pathway to parapet or roof edge.

3113.3 Smoke ventilation. The solar installation shall be designed to meet the following requirements:

1. Arrays shall be no greater than 150 feet (45,720 mm) by 150 feet (45,720 mm) in distance in either axis in order to create opportunities for fire department smoke ventilation operations.

2. Smoke ventilation options between array sections shall be one of the following:

2.1 A pathway 8 feet (2438 mm) or greater in width.

2.2 A 4-foot (1290 mm) or greater in width pathway and bordering roof skylights or smoke and heat vents.

2.3 A 4-foot (1290 mm) or greater in width pathway and bordering 4-foot by 8-foot (1290 mm by 2438 mm) "venting cutouts" every 20 feet (6096 mm) on alternating sides of the pathway.

3113.4 Ground-mounted photovoltaic arrays. Ground-mounted photovoltaic arrays shall comply with this part and Minnesota Rules, chapter 1315. Setback requirements shall not apply to ground-mounted, free-standing photovoltaic arrays. A clear, brush-free area of 10 feet (3048 mm) shall be required for ground-mounted photovoltaic arrays.

Statutory Authority:

MS s 326B.02; 326B.101; 326B.106

History:

39 SR 1605

Published Electronically:

June 19, 2015

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CHAPTER 57: UNDERGROUND UTILITY CONSTRUCTION

- Section 1757.01 Underground Construction Required
- Section 1757.02 Exceptions to Application
- Section 1757.03 Repair and Maintenance of Existing Installations
- Section 1757.04 Developer Responsibility
- Section 1757.05 Placement
- Section 1757.06 Special Requirements in New Construction

1757.01 Underground Construction Required

All utility lines hereafter installed, constructed or otherwise placed within the City for electric, telephone, TV cable or other like or similar services to serve residential, commercial and industrial customers in newly platted areas, and which utilize metallic conductors to carry electric current, whether owned, installed or constructed by the supplier, consumer or any party, shall be installed and placed underground, subject only to the exceptions hereinafter stated; however, above-ground placement, construction, modification or replacement of meters, gauges, transformers, street lighting and service connection pedestals shall be allowed. The requirements of this Section shall apply equally outside of the corporate limits of the City coincident with City jurisdiction of platting, subdivision regulation or comprehensive planning as may now or in the future be allowed by law. All companies installing and operating lines such as those described herein shall be referred to as "utility companies" for purposes of this Section.

1757.02 Exceptions to Application.

The following exceptions to the strict applicability of this Section shall be allowed upon the conditions stated:

A. Transmission Lines.

Above-ground placement, construction, modification or replacement of these lines commonly referred to as "high voltage transmission lines" upon which the conductor's normal operating voltage equals or exceeds 23,000 volts (phase to phase) shall be allowed; provide, however, that sixty days prior to commencement of construction of such a project, the City shall be furnished notice of the proposed project and, upon request, the utility company involved shall furnish any relevant information regarding such project to the City. This Section shall not be construed as waiving the requirements of any other ordinance or regulation of the City as the same may apply to any such proposed project.

B. Technical and Economic Feasibility.

Above-ground placement, construction, modification or replacement of lines shall be allowed in residential, commercial and industrial areas where the Council,

following consideration and recommendation by the Planning Commission, finds that:

1. Underground placement would place an undue financial burden upon the landowner or the utility company or deprive the landowner of the preservation and enjoyment of substantial property rights; or,
2. Underground placement is impractical or not technically feasible due to topographical, subsoil or other existing conditions which adversely affect underground utility placement.

C. Temporary Service.

Above-ground placement of temporary service lines shall only be allowed.

1. During the new construction of any project for a period not to exceed twelve months;
2. During any emergency to safeguard lives or property within the City;
3. For a period of not more than seven months when soil conditions make excavation impractical.

1757.03 Repair and Maintenance of Existing Installations.

Nothing in this Section shall be construed to prevent repair, maintenance, replacement or modification of existing overhead utility lines.

1757.04 Developer Responsibility.

All owners, platters or developers are responsible for complying with the requirements of this Section, and prior to the final approval of any plat or development plan, shall submit to the Planning Commission written instruments from the appropriate utility companies showing that all necessary arrangements with said companies for installation of such utilities have been made.

1757.05 Placement.

A. All utility lines shall be placed within appropriate easements or dedicated public ways so as to cause minimum conflict with other underground services. Whenever feasible, all utilities shall be placed within the same trench.

1757.06 SPECIAL REQUIREMENTS IN NEW CONSTRUCTION.

Connections Required.

All buildings for which permits are issued after adoption of this Section shall be connected to the City sewerage disposal system and water distribution system if required by the City Code.

Adopted: April 4, 2017