

Photovoltaic (PV) Solar Panel Systems. The purpose of these standards is to 1) accommodate the infusion of an alternative energy source into the Lake of Radisson Community, 2) minimize the visual impact that solar panels can have on the appearance of a Dwelling and 3) ensure that the solar panel system will not create any structural, electrical or firefighting hazards.

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1. Allowable Roof-Mounted PV Solar Panel Systems. Roof-mounted PV solar panel systems are permitted within the Lakes of Radisson Property provided they are not visible from the street that fronts the Dwelling. If the installation restriction imposed by this provision will result in a roof surface orientation and/or inclination that will produce a significant decrease in the energy efficiency of the solar panel system and a documented reduction in the optimum energy production by at least 20 percent, the permit reviewing authority may consider street-facing and/or viewable alternatives on a case-by-case basis, with the reservation that it may disapprove any such alternative installations.
2. Prohibition of Ground-Mounted and Wall-Mounted PV Solar Panel Systems. Ground-mounted and wall-mounted PV solar panel systems are prohibited within the Lakes of Radisson Property.
3. Prohibition of Other Renewable Energy Systems. Stand-alone small wind turbine and hybrid renewable energy systems are prohibited within the Lakes of Radisson Property.
4. Structural Certification. The Dwelling Owner must provide a copy of a certified statement from a registered Minnesota structural engineer that the roof of the subject Dwelling will structurally support the installation of the proposed PV solar panel system.
5. PV Solar Panel Component Certification. The Dwelling Owner must document that the PV solar panel system components and equipment have been certified as being in compliance with standards and guidelines developed by accredited third-party and/or state-based entities.
6. Underwriters Laboratories Certification. All system components must be Underwriters Laboratories (UL) certified.

7. Professional Installation. All permitted PV solar panel systems must be installed by a qualified licensed and/or certified professional installer or contractor in accordance with the most recent version of the National Electrical Code (NEC) and the State Building Code which includes the Minnesota Residential Code.
8. Solar Panels. Solar panels or photovoltaic modules must be placed in a manner that least affects the external appearance of the Dwelling. Solar panels must be an integrated part of the roof design following the roof plane and supported by an appropriate racking and mounting system. All solar panels must be uniform in appearance (color, size, and shape) with inconspicuous or matching color frames and grids. Solar panels must be low profile and must not project more than seven (7) inches above the surface of the roof. Array skirts must be attached to the front and sides of the panel array.
9. Conduit Finishes. All exterior conduit must be painted to match, or the initial color of the conduit material used must match the color of the supporting siding or wall of the Dwelling, and be as inconspicuous as possible. Painted conduit must be maintained in satisfactory condition, and if there is noticeable paint deterioration, the conduit must be restored in a timely manner.
10. Roof Access. Roof-mounted PV solar panel systems must accommodate roof access including access pathways from the lowest roof edge to the ridge and setbacks at roof edges and the ridgeline. Such access and pathways must comply with the requirements of Section R324 of the 2020 Minnesota Residential Code.
11. Operational Equipment Location. Solar system operational equipment or devices including solar inverters, solar energy storage batteries, battery storage systems, backup load panels and automatic transfer switches must be located inside the Dwelling, except the solar quick disconnect switch must be located on an exterior wall near the electric meter. If the installation of solar energy storage batteries inside the Dwelling is not feasible, and such a decision can be justified, the solar energy storage batteries may be installed outside of the Dwelling on the wall in close proximity to the array of other utility boxes, provided the color of enclosures is light gray, taupe, beige or ivory.
12. Panel Removal. Solar panels that have been damaged beyond repair or are no longer in use must be removed in a timely manner.
13. Permit Application Requirements. All proposed roof-mounted photovoltaic solar panel systems require the submission of a Permit Application to the Master Association for review and approval by the ACC. The Permit Application must include the following attachments:
 - a. Required certifications from a structural engineer and PV solar system component rating entities.
 - b. Set of Plans that includes general and electrical notes, site plan (showing panel layout with setbacks, conduit runs, equipment locations and standoff locations), structural side views and details of mounting hardware

Adopted: September 2021