

Solar Ready New Construction Checklist

Home builders who want to construct houses that are designed to ease the installation of solar photovoltaic systems (Solar Ready Homes) may use this checklist to ensure their houses are constructed to minimize modification to accommodate solar systems. This checklist is not a list of what is needed to install solar photovoltaic systems (PV). Homeowners or developers which plan to install solar PV will need to meet the requirements of the municipality and utility with jurisdiction over the Solar Ready Home location.

Designing for solar access (most important factor)

- Roofs should be south-facing and located to best avoid shading from trees and other buildings and equipment. Show on the Site Plan the best roof space available for accommodating photovoltaic (PV) solar collector panels or solar PV array.
- Minimize roof-top equipment and vents to maximize available open space for the solar PV array placement. Minimize or eliminate roof penetrations or chimneys, particularly on the southern side of the roof.

Electrical

- Provide a Site Plan showing the location of the proposed solar PV array layout on the roof deck(s) and the best space available for accommodating the PV equipment, also known as the balance of system (BOS), which includes the (inverter, disconnect & solar production meter).
- Locate the BOS or PV equipment adjacent to the electrical service panel if feasible or on a wall close to the proposed solar PV array.
- Show an Electrical Panel Schedule with a 240 volt circuit breaker space labeled “reserved for Solar PV”; this circuit breaker location should be at the furthest point in the electric panel away from the main circuit breaker or the at the further point along the busbars from the service feeders.
- Run electrical conduit from the solar PV array location to the electrical panel and other electrical components. If the electrical conduit is run inside the house, it must be metal conduit from the point of penetration to a DC disconnect; also, after penetrating the roof, the metal conduit must run vertical to at least 10 inches below the roof deck before it can run horizontal inside the attic space.

Structural

- Provide a roof structure designed for the additional solar PV array dead loading (typically 3-6 lbs/SF).
- Record roof specifications, such as any reinforcement done in preparation for solar, in site drawings to benefit future solar installers. This would include rafter or truss sizes, designs, and spacing.
- Wind loads on rooftop solar equipment must be analyzed to ensure that the roof structure is sufficient.
- Verify that roofing warranties accommodate installation of rooftop solar equipment.