

## APPENDIX **CB** SOLAR-READY ZONE—COMMERCIAL

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

### **User note:**

**About this appendix:** *Appendix CB is intended to encourage the installation of renewable energy systems by preparing buildings for the future installation of solar energy equipment, piping and wiring.*

### SECTION **CB101**

#### SCOPE

#### **CB101.1** General.

These provisions shall be applicable for new construction where solar-ready provisions are required.

### SECTION **CB102**

#### GENERAL DEFINITION

**SOLAR-READY ZONE.** A section or sections of the roof or building overhang designated and reserved for the future installation of a solar photovoltaic or solar thermal system.

### SECTION **CB103**

#### SOLAR-READY ZONE

#### **CB103.1** General.

A solar-ready zone shall be located on the roof of buildings that are five stories or less in height above grade plane, and are oriented between 110 degrees and 270 degrees of true north or have low-slope roofs. Solar-ready zones shall comply with Sections CB103.2 through CB103.9.

**Exceptions:**

1. A building with a permanently installed, on-site renewable energy system.
2. A building with a solar-ready zone that is shaded for more than 70 percent of daylight hours annually.
3. A building where the licensed design professional certifies that the incident solar radiation available to the building is not suitable for a solar-ready zone.
4. A building where the licensed design professional certifies that the solar zone area required by Section CB103.3 cannot be met because of extensive rooftop equipment, skylights, vegetative roof areas or other obstructions.

**CB103.2 Construction document requirements for a solar-ready zone.**

Construction documents shall indicate the solar-ready zone.

**CB103.3 Solar-ready zone area.**

The total solar-ready zone area shall be not less than 40 percent of the roof area calculated as the horizontally projected gross roof area less the area covered by skylights, occupied roof decks, vegetative roof areas and mandatory *access* or set back areas as required by the *International Fire Code*. The solar-ready zone shall be a single area or smaller, separated sub-zone areas. Each sub-zone shall be not less than 5 feet (1524 mm) in width in the narrowest dimension.

**CB103.4 Obstructions.**

Solar ready zones shall be free from obstructions, including pipes, vents, ducts, HVAC equipment, skylights and roof-mounted equipment.

**CB103.5 Roof loads and documentation.**

A collateral dead load of not less than 5 pounds per square foot (5 psf) (24.41 kg/m<sup>2</sup>) shall be included in the gravity and lateral design calculations for the solar-ready zone. The structural design loads for roof dead load and roof live load shall be indicated on the construction documents.

**CB103.6 Interconnection pathway.**

Construction documents shall indicate pathways for routing of conduit or piping from the solar-ready zone to the electrical service panel [and electrical energy storage system area](#) or service hot water system.

**CB103.7 Electrical energy storage system-ready area.**

The floor area of the electrical energy storage system-ready area shall be not less than 2 feet (610 mm) in one dimension and 4 feet (1219 mm) in another dimension, and located in accordance with Section 1207 of the *International Fire Code*. The location and layout diagram of the electrical energy storage system-ready area shall be indicated on the construction documents.

**CB103.8 Electrical service reserved space.**

The main electrical service panel shall have a reserved space to allow installation of a dual-pole circuit breaker for future solar electric and a dual-pole circuit breaker for future electrical energy storage system installation. These spaces shall be labeled "For Future Solar Electric and Storage." The reserved spaces shall be positioned at the end of the panel that is opposite from the panel supply conductor connection.

**CB103.9 Construction documentation certificate.**

A permanent certificate, indicating the solar-ready zone and other requirements of this section, shall be posted near the electrical distribution panel, water heater or other conspicuous location by the builder or registered design professional.