



**City of Milpitas
Building And Safety Department**

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**Solar Photovoltaic Panels Supported
by a Structure over Parking Stalls**

Policy:	BDP-BLG37
Effective Date:	10/28/14
Proposed by:	BYC
Last Reviewed/ Revised:	
Reviewed/ Revised by:	Bldg./Eng LD/ Fire/Planning
Approved By:	Keyvan Irannejad P.E. Chief Building Official



CODE REFERENCES:

2013 CBC Section 503 Exception 3

ISSUES:

CBC Section 503 Exception 3 exempts a structure supporting solar photovoltaic panels over parking stalls from the building area and height limits provided the 5 conditions listed are met. In addition to the building code requirements, these structures are also subject to other City Departments' requirements. This policy will provide general Building Code and City requirements of these structures. Note that this policy provides only general guidelines, each project condition will be subject to review on a case by case basis.

POLICY:

Building Department Requirements based on CBC sec. 503.1 exception 3:

1. The area within the perimeter of the photovoltaic array has max. rectangular dimension of 40' x 150'.
2. The distance between solar photovoltaic array structures is a min. of 10' clear.
3. The driveway aisle separating solar photovoltaic array structures has a min. width of 25' clear.
4. Solar photovoltaic array structure is used only for parking purposes with no storage.
5. Completely open on all sides (other than necessary structural supports) with no interior partitions.
6. A min. 2' clear distance shall be provided from the edge of the photovoltaic array structure to the property line (CBC Table 705.2) and a min. 5' clear distance from the supporting post to the property line. (CBC Table 602). Please also refer to Planning Division requirement for min. set back.

Fire Department Requirements:

1. **Fire apparatus access:** Encroachment of any type by the photovoltaic system is not permitted into the designated fire apparatus access road and/or driveway. (CA Fire Code Section 503.4)
2. **Fire devices clearance:** The photovoltaic system shall not be installed over fire protection devices (hydrants, Fire Department Connection Valves, Post Indicating Valves, etc). Fire protection devices shall not be surrounded by the photovoltaic system on all sides. At least one side shall be open for access to such devices and such access shall be approved by the Fire Department. Provide a minimum of 10 feet clearance to the photovoltaic system on all sides of the fire protection devices. (CA Fire Code Section 102.9)
3. **Fire Sprinklers for detached structures:** Automatic fire sprinkler systems are required for all

structures (overhead photovoltaic system with usable space below) over 1,000 square feet. (Milpitas Municipal Code Section V-300.2.62, CA Fire Code 903.2)

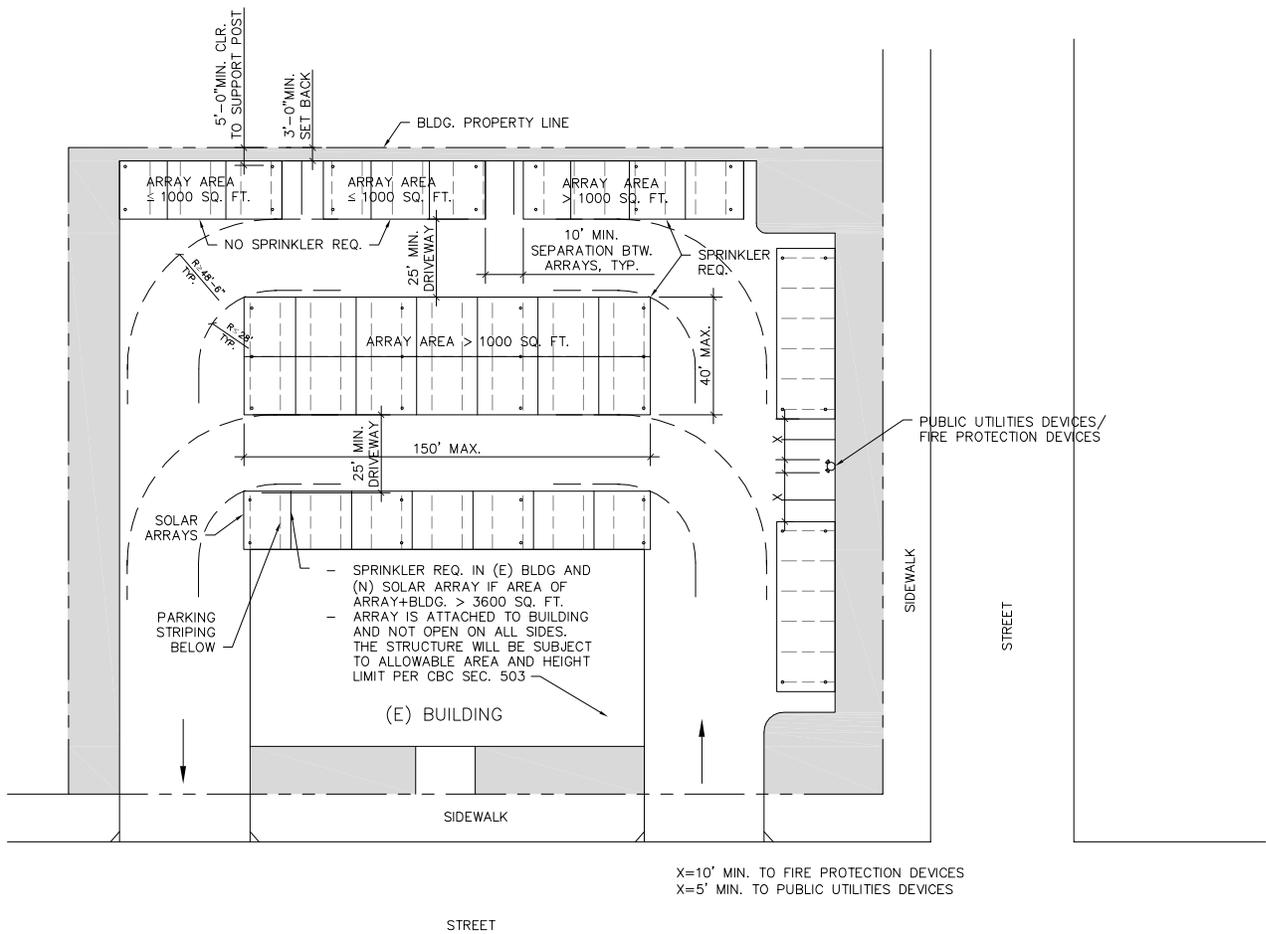
4. **Structure Separation:** When the photovoltaic array structures are less than 1,000 sq. ft., and they are not provided with an automatic fire sprinkler system, such structures shall be separated by not less than 10 feet. (CA Fire Code Section 102.93)
5. **Fire Sprinklers for attached structures:** When a photovoltaic system is attached to an existing structure that has automatic fire sprinklers, automatic fire sprinkler shall be provided. (NFPA 13) When the photovoltaic system is attached to an existing non-sprinklered structure and the total area of the existing structure and the photovoltaic system exceeds 3600 sq ft, the existing structure and the photovoltaic system shall be provided with automatic fire sprinkler system. (Milpitas Municipal Code Section V-300.2.62, CA Fire Code 903.2)
6. **Fire Truck Access:** The photovoltaic system shall allow fire truck access through the driveway with outside turning radius of min. 48'-6" and inside turning radius of max. 28'-0".

Planning Division Requirements:

1. Ground mounted solar photovoltaic systems are considered as accessory structures which are reviewed in the same manner and process as exterior equipment. Planning Staff provides site and architectural review for the installation of solar photovoltaic systems for compliance with the zoning district development standards for height, setback, and any other applicable zoning regulations.
2. Solar photovoltaic systems shall have a minimum set back of 3' from any side or rear lot line.
3. Solar photovoltaic systems shall be properly sited and designed so that it shall not cause any obstructions to the site circulations, parking spaces, removal of landscaping, or conflict with any clearances for above or underground utilities or other improvements on the ground or building.

Engineering Department Requirements:

1. The solar photovoltaic systems shall not be located within existing easements or over public utilities.
2. The solar photovoltaic systems shall not block the circulation of trash collection vehicles and emergency vehicles. The systems must remain outside the vehicle path represented by the turning template for solid waste vehicle collection for a height of 15'-0".
3. The solar photovoltaic systems shall not prevent access to meters, backflow preventers, etc. A 5' min. clearance shall be maintained from these facilities.
4. The drainage from the solar photovoltaic systems shall be treated like any other impervious surface.



NOTE: THIS DIAGRAM IS A DIAGRAMATIC ILLUSTRATION OF SOME REQUIREMENTS ON SOLAR PHOTOVOLTAIC SYSTEM OVER PARKING STALLS. NOT ALL REQUIREMENTS ARE SHOWN IN THIS DIAGRAM. SEE POLICY FOR FULL DESCRIPTION OF ALL REQUIREMENTS.



REV.	DATE	BY:	SCALE: N.T.S.
			DATE: 10/28/14
			CREATED BY: BYC
			DRAWN BY: BYC
			REVIEWED BY: FIRE, ENG LD, PLANNING, BLDG.

City of Milpitas
 Building & Safety Department
**SOLAR PHOTOVOLTAIC PANELS SUPPORTED
 BY A STRUCTURE OVER PARKING STALLS**

SHEET
3
 OF 3 SHEETS