

❖ DSA-PC Solar Carport-Single Cantilever 'L' – Shared Purlin - 5 or 6 Modules in Landscape

Single cantilever column and beam structures with shared purlins are offered in two design models;

- **L-5-L:** Full Cantilever 'L', 5 module rows in Landscape @ 17'-0" max. beam length, 7 or 10 degree tilt angle
- **L-6-L:** Partial Cantilever 'L', 6 module rows in Landscape @ 20'-6" max. beam length, 7 or 10 degree tilt angle

The 'Shared Purlin' design consists of (East/West) parallel purlins evenly spaced, below the length of the PV module in landscape. Adjacent PV module rows share the purlin and 'middle clamps', which are positioned along the 'long side' of the PV module frame. Design limits based on 5 or 6 PV modules 39" W x 65" L (approx.).

Designs are choice of Tapered or Straight Beams, either Wide-Flange (W beam) or Hollow Structural Steel (HSS).

The 'W Beam' attachment to the column is by stiffener plates welded to the HSS column and bolting the W Beam to the stiffener plates in the field. Option to Full-Pen. weld stiffener plates to the W beam and field weld to the HSS column. HSS beams are field welded to the HSS columns with a 'saddle' stiffener plate between. Beams can be positive or negative tilt, positive shown below.

Columns

HSS Steel Tubing: ASTM A500, Grade B, Fy = 46 KSI

Spacing: 20ft. or 27ft O.C. (see table)

Finish: Hot Dip Galvanized ASTM A123

Beams

W Beam: ASTM A992 or A572, Fy = 50 KSI

HSS Beam: ASTM A500, Grade B, Fy = 46 KSI

Finish: Hot Dip Galvanized ASTM A123

Cee Purlins

Cold Formed #14GA. (or #12GA.) Steel

ASTM A653, A1003 or A1011-04, Fy = 55 KSI

Size: 10" x 3-1/2"

Finish: ASTM A653 G90 Galvanized

Trim

Purlin End Caps: Cold Formed Steel #14GA.

ASTM A653, A1003 or A1011-04, Fy = 55 KSI

Size: 1000T125-43 Track

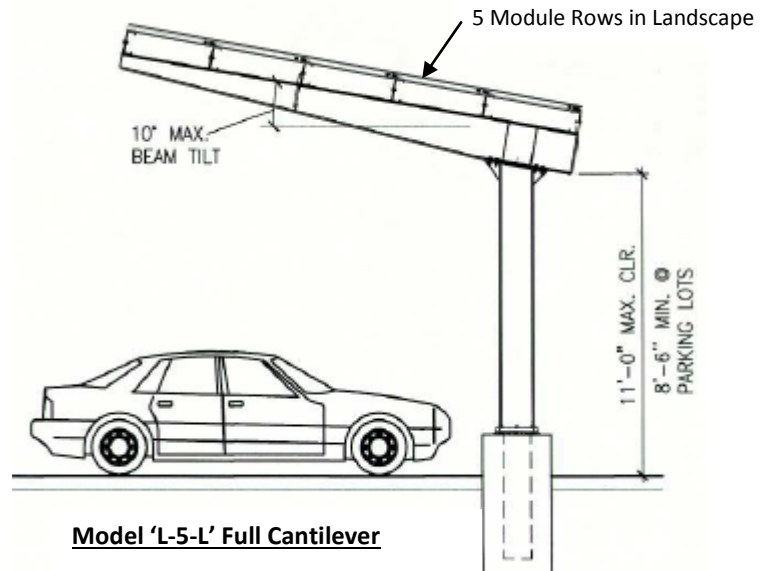
Finish: ASTM A653 G90 Galvanized

PV Module Mounting to Purlin

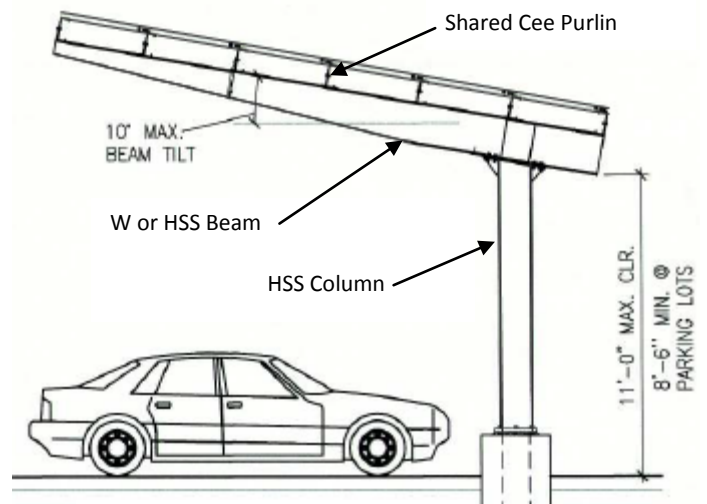
SSI Top Clamps: W/2 Self Drilling Screws-#12

Option: SkyGrip Top Clamps-Self Grounding

Beam Tilt	Bay Spacing (Max)	Wind Speed	Snow Load	Purlin Gauge
10-Degree	27'-0"	115 MPH	0 PSF	# 12
10-Degree	27'-0"	110 MPH	0 PSF	# 14
10-Degree	20'-0"	115 MPH	20 PSF	# 14
7-Degree	27'-0"	115 MPH	0 PSF	# 14
7-Degree	20'-0"	115 MPH	20 PSF	# 14



Model 'L-5-L' Full Cantilever



Model 'L-6-L' Partial Cantilever