



December 19, 2017

Everest Solar
3809 Ocean Ranch Blvd., Ste. 111
Oceanside, CA 92056

Attn.: Engineering Department,

Re: Job 2017-06028: Everest Solar Multi-Row Tilt located in Mexico.
Subject: Configuration Design Table for Everest Solar 2x Row Tilt Kit.

Scope of Work:

PZSE's Scope of Work is limited to the review and analysis of the Everest Solar Roof Top racking system comprised of the Everest Solar CR48-X rail, and determining the maximum allowable spans and spacings for the racking system to meet all required dead, wind and seismic load criteria in conformance with American structural design standards, including but not limited to the following:

Building Codes:

1. Minimum Design Loads for Buildings and other Structures, ASCE/SEI 7-10
2. 2015 International Building Code, by International Code Council, Inc.
3. 2015 Aluminum Design Manual, by The Aluminum Association
4. AC428, Acceptance Criteria for Modular Framing Systems Used to Support Photovoltaic (PV) Panels, November 1, 2012 by ICC-ES

Design Responsibility:

These tables are intended to be used under the responsible charge of a registered design professional where required by the authority having jurisdiction. In all cases, these tables should be used under the direction of a design professional with sufficient structural engineering knowledge and experience to be able to:

- Evaluate whether these tables are applicable to the project, and
- Understand and determine the appropriate values for all input parameters of these tables.

This review and analysis of the Everest Solar Roof Top racking system excludes the capacity check of the building structure to support the loads imposed on the building by the array. This requires additional knowledge of the building and is outside the scope of our review.

If you have any questions on the above, do not hesitate to call.

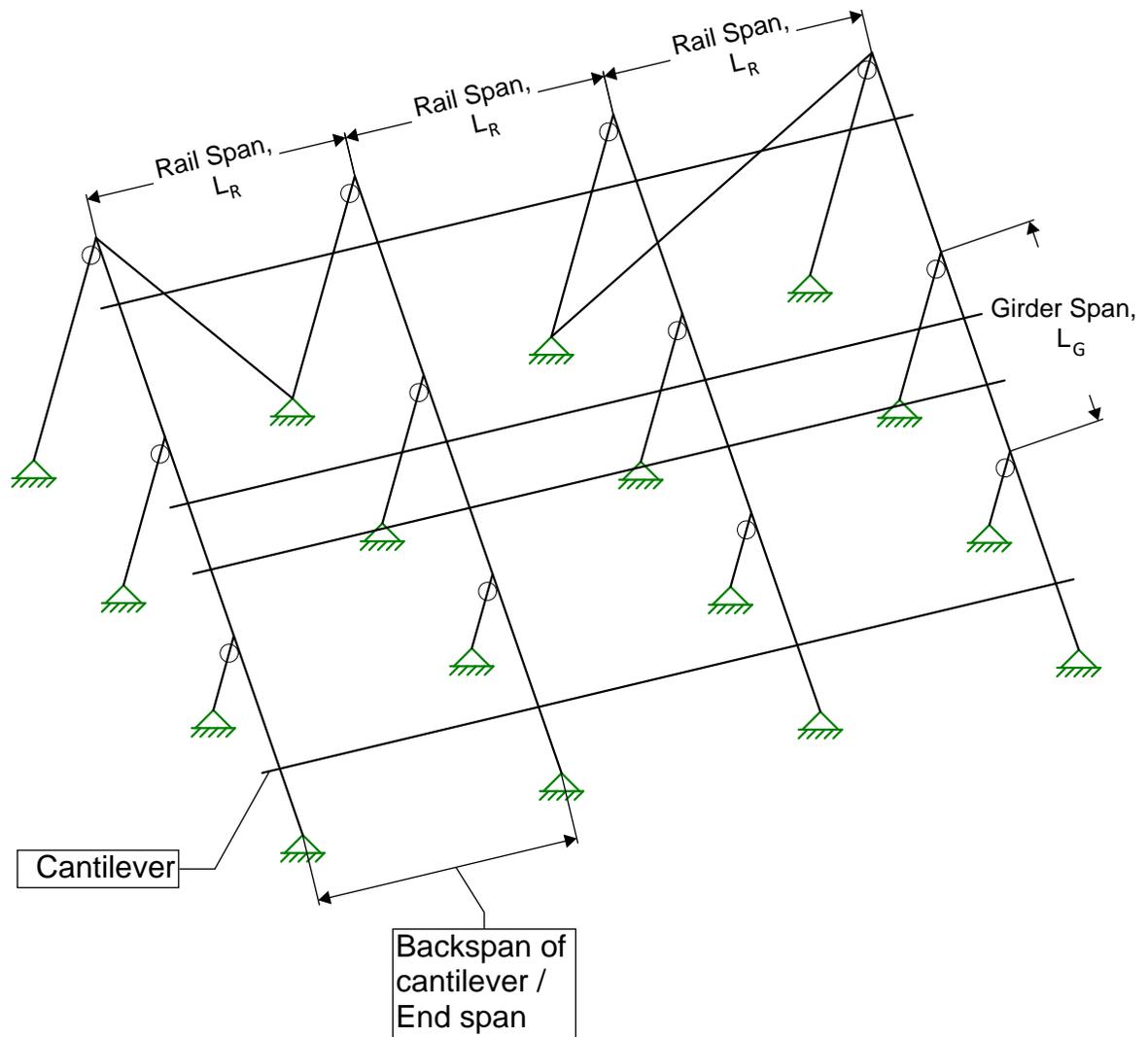
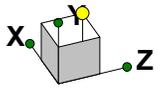
Prepared By:
PZSE, Inc. - Structural Engineers
Roseville, CA

Configuration Table - Maximum Allowable Spans				
Maximum Building Height above ground surface:				10.70 m
Wind Speed (Km/hr)	Array Pitch (degrees)			
	$0^\circ < \theta \leq 20^\circ$		$20^\circ < \theta \leq 35^\circ$	
	Rail Span, L_R (m)	Girder Span, L_G (m)	Rail Span, L_R (m)	Girder Span, L_G (m)
100	2.55	1.60	2.45	1.50
110	2.50	1.55	2.20	1.45
120	2.30	1.50	2.10	1.40
130	2.15	1.45	1.95	1.40
140	2.00	1.40	1.80	1.35
150	1.90	1.35	1.70	1.30
160	1.80	1.30	1.60	1.25
170	1.70	1.30	1.50	1.20
180	1.60	1.25	1.45	1.20
190	1.55	1.20	1.35	1.15
200	1.45	1.20	1.30	1.15

Maximum Factored Reactions		
Uplift:	820	lbs
Downward:	1000	lbs
Lateral:	500	lbs

NOTES:

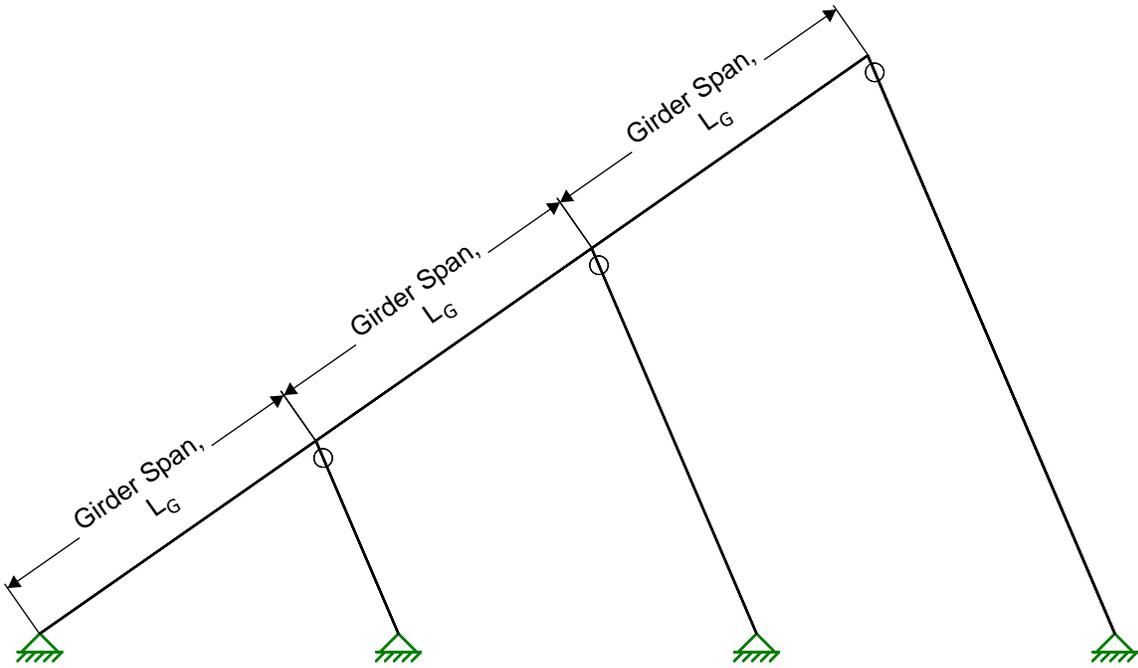
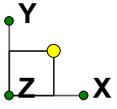
- Cantilever in any direction shall not exceed $(L/3)$, where L is the unsupported span.
- Splices shall not occur within the backspan of a cantilever, which is defined as the closest adjacent span to the cantilever element. Where cantilever(s) are omitted, splices shall not occur in the end span(s).
- There shall be a minimum of (2) full spans between splices on any single rail.
- Splices shall not occur within 0.3 meters of supports.
- No installations shall occur within 2.0 meters of a roof corner. See Figure 3.0 for clarity.
- Installations within 1.5 meters from roof edge, use $(1/2)$ allowable Rail spans. See Figure 3.0 for clarity.
- Anchor bolt design by others. Anchorage shall be adequate to service the above maximum Reactions.



Isometric View

Figure 1.0

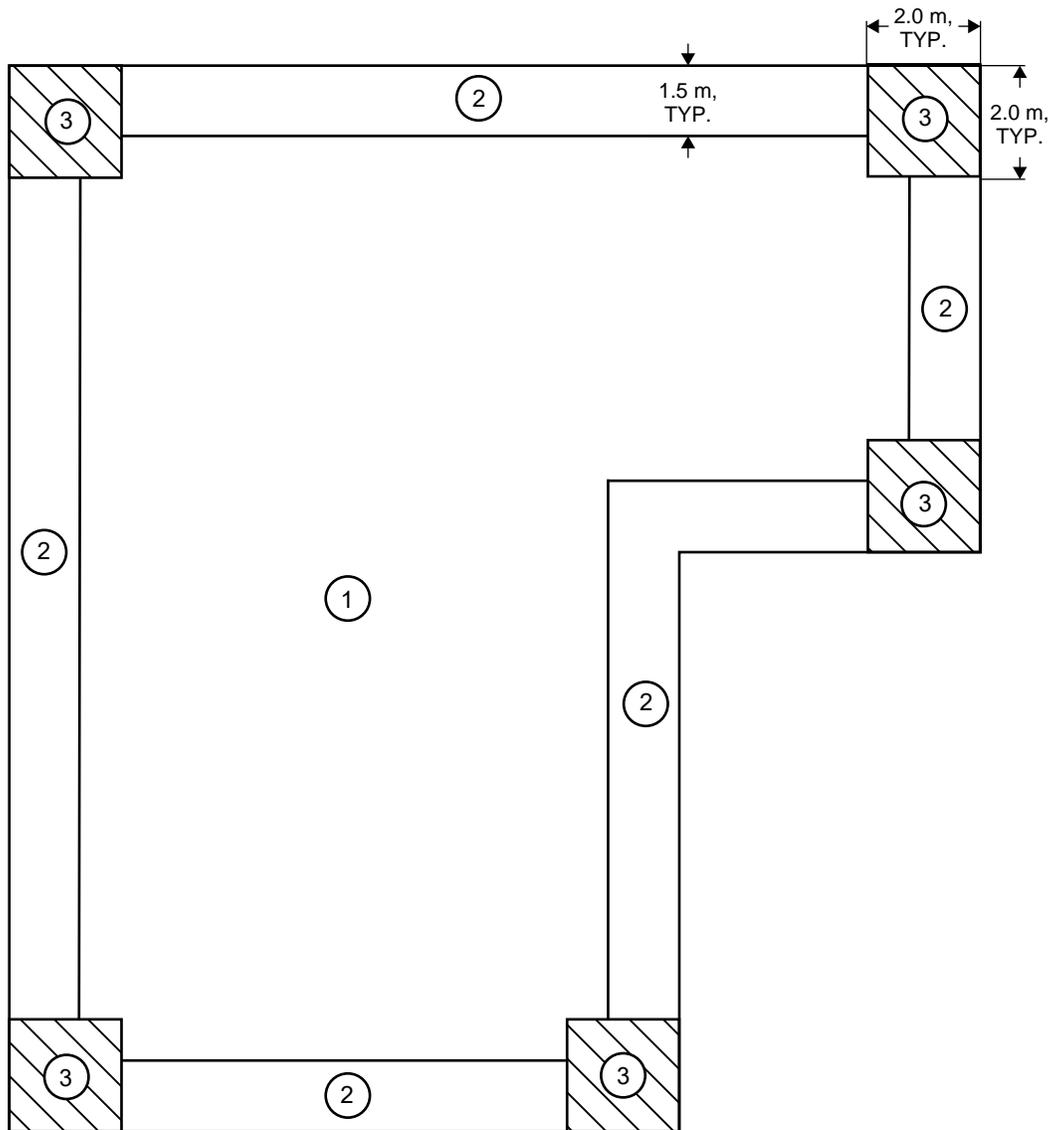
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Elevation View

Figure 2.0

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LEGEND

- ① ROOF ZONE 1, INSTALL PER CONFIGURATION TABLE
- ② ROOF ZONE 2, USE (1/2) ALLOWABLE RAIL SPANS AS SHOWN IN CONFIGURATION TABLE
- ③ ROOF ZONE 3, DO NOT INSTALL

Minimum Roof Setbacks

Figure 3.0
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