

ID	DESCRIPTION	CONFIGURATION
GT	NUMBER OF GIRDER ASSEMBLIES	3
GL	GIRDER TYPE	2980
SL	GIRDER LENGTH (mm)	1498
	STRUT LENGTH (mm)	1568
	NUMBER OF MODULE ROWS	2
	RACK CONFIGURATION (V/CH/H)	Vertical

ITEM QTY	PART NUMBER	DESCRIPTION
1	143007-000-308-108	Post, 7, Galvanized, Custom, L= 308 mm, A= 108 mm
2	141000-000	Rail, Girder, FS, Configurable, Assembly
3	943912-010	Nut, Flange, Serrated, M10, DIN 6223, 316 SS
4	943921-010	Washer, M10, DIN 125, 304 SS
5	943000-913	Screw, Hex Head, M10x90mm, DIN 931, A2
6	142900-000	Head Assembly, Gen 5
7	142009-002	Wedge, Safety, Generation 5, ETL
8	135002-003	Mid Clamp, Rapid2+, Grounding, 40-50mm, Assembly, ETL
9	131001-040	End Clamp, Rapid2+, 40mm, Assembly
10	124303-08270	Rail, S1.5, L = 8270 mm
11	124303-05960	Rail, S1.5, L = 5960 mm
12	123903-000	Splice, S1.5, Kit

DESIGN CRITERIA:
2012 NORTH CAROLINA BUILDING CODE

LOADS:
MODULE DEAD LOAD = 2.42 PSF
SNOW LOAD = 9.9 PSF (BASED ON 20 PSF GROUND SNOW LOAD)
I_s = 0.80 C_p = 0.90 C_f = 1.20 C_s = 0.82

WIND DESIGN:
DESIGN BASED UPON WIND TUNNEL TEST REPORT #RC-11270510-9
BASIC WIND SPEED = 90 MPH @ SECOND GUST)
EXPOSURE: C
I_w = 0.87

INSTALLATION TOLERANCES:
LATERAL POST PLACEMENT IS ±5.0"
TOTAL LATERAL DEVIATION OF POSTS WITHIN AN ARRAY IS ±45.0"
POST HEIGHT VARIATION TOLERANCE IS ±4.0"
POST VERTICALITY TOLERANCE <2.0° IN ALL DIRECTIONS
POST ROTATIONAL TOLERANCE <2.0°
ARRAY TILT ANGLE TOLERANCE ±1.0°

GENERAL:
1. THE STRUCTURAL CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THE TENDON INDICATE THE METHOD OR SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES FOR PROCEDURE OF CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERE TO (NOR SHALL OBSERVATION VISITS TO THE SITE INCLUDE INSPECTION OF THESE ITEMS). THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SCAFFOLDING, BRACING AND SHORING.
2. WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDA.

ALUMINUM:
1. ALL ALUMINUM SHALL CONFORM WITH THE LATEST ALUMINUM DESIGN HANDBOOK.
2. ALL ALUMINUM SECTIONS SHALL BE:
a. SEMI-HOLLOW AND HOLLOW SHALL BE 6105-T5, 6005A-T6, OR 6005-T5
b. SOLIDS SHALL BE 6063-T6

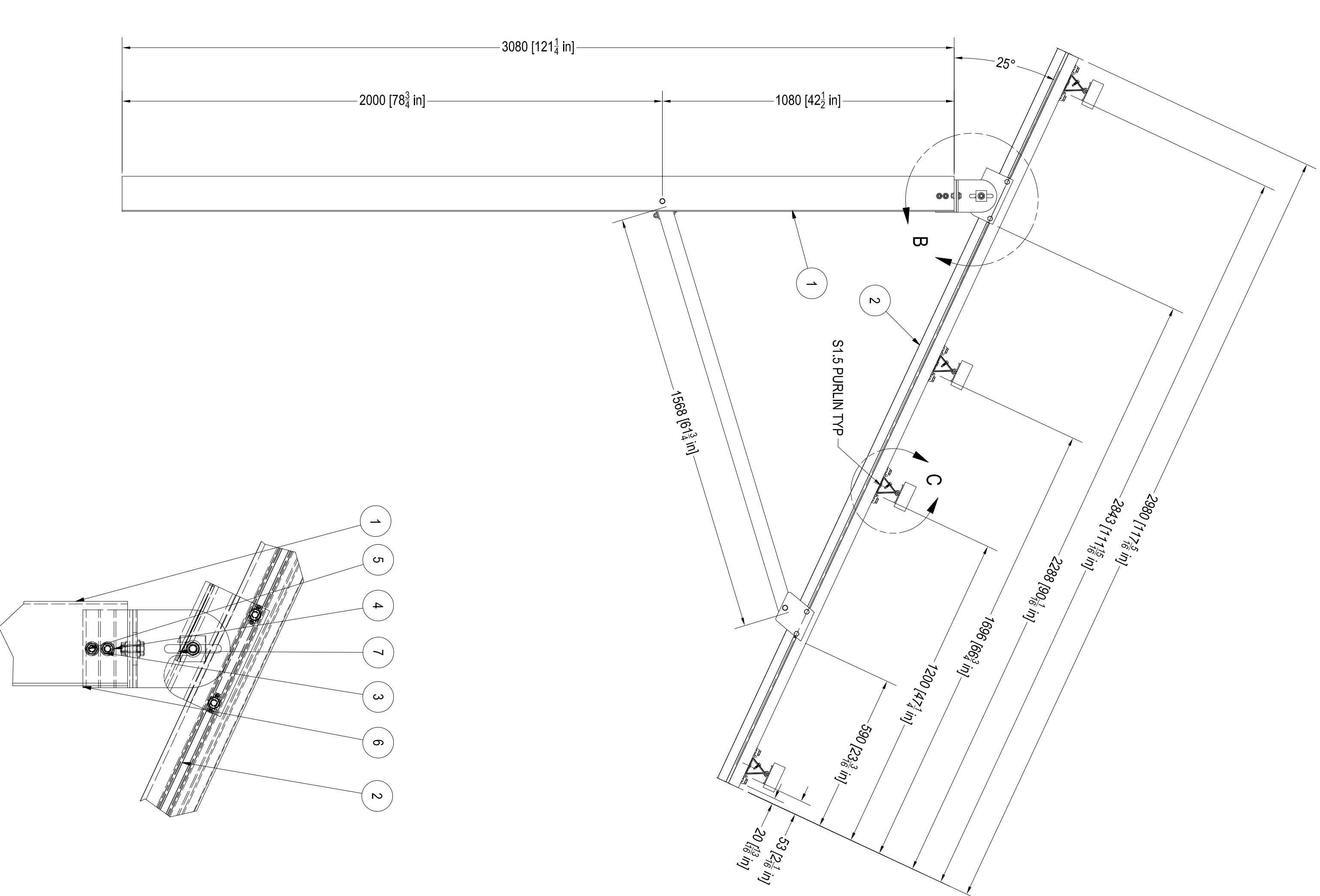
STEEL:
1. ALL BOLTS AND WASHERS SHALL BE 304 STAINLESS STEEL, CLASS 2 (A2-70).
2. ALL NUTS SHALL BE 316 STAINLESS STEEL, CLASS 2 (A2-70).

TORQUE:
TORX BOLT FOR RAPID 2+ MODULE CLAMPS IS 14 N·M (10.5 FT-LBS)
M6 AND 1/4" BOLT TORQUE IS 6 N·M (4.5 FT-LBS)
M8 AND 5/16" BOLT TORQUE IS 14 N·M (10.5 FT-LBS)
M10 AND 3/8" BOLT TORQUE IS 30 N·M (23 FT-LBS)
M12 AND 1/2" BOLT TORQUE IS 50 N·M (37 FT-LBS)
M16 AND 5/8" BOLT TORQUE IS 121 N·M (89 FT-LBS)
M20 AND 3/4" BOLT TORQUE IS 244 N·M (180 FT-LBS)

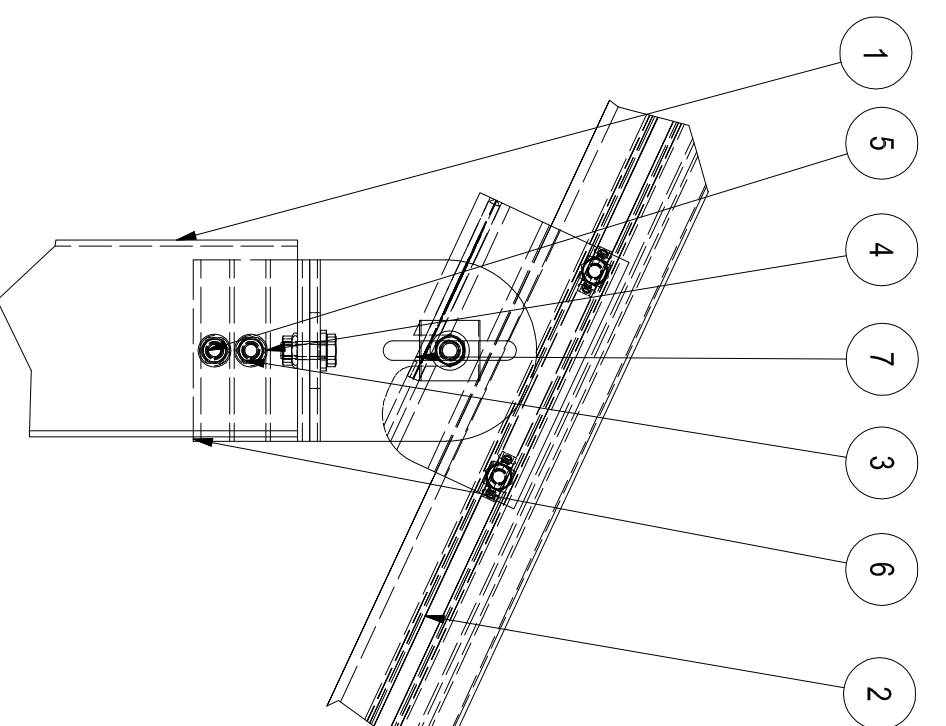
NOTE: RECOMMENDED SPEED FOR INSTALLATION OF SELF-DRILLING 1/4" DIAMETER SCREWS IS 1200-1800 RPM'S.

MODULE SIZE:
RACKING SYSTEM DESIGNED FOR MODULE SIZE: 1639 mm x 982 mm x 40 mm
VERTICAL MODULE GAP: 23 mm
HORIZONTAL MODULE GAP: 5 mm

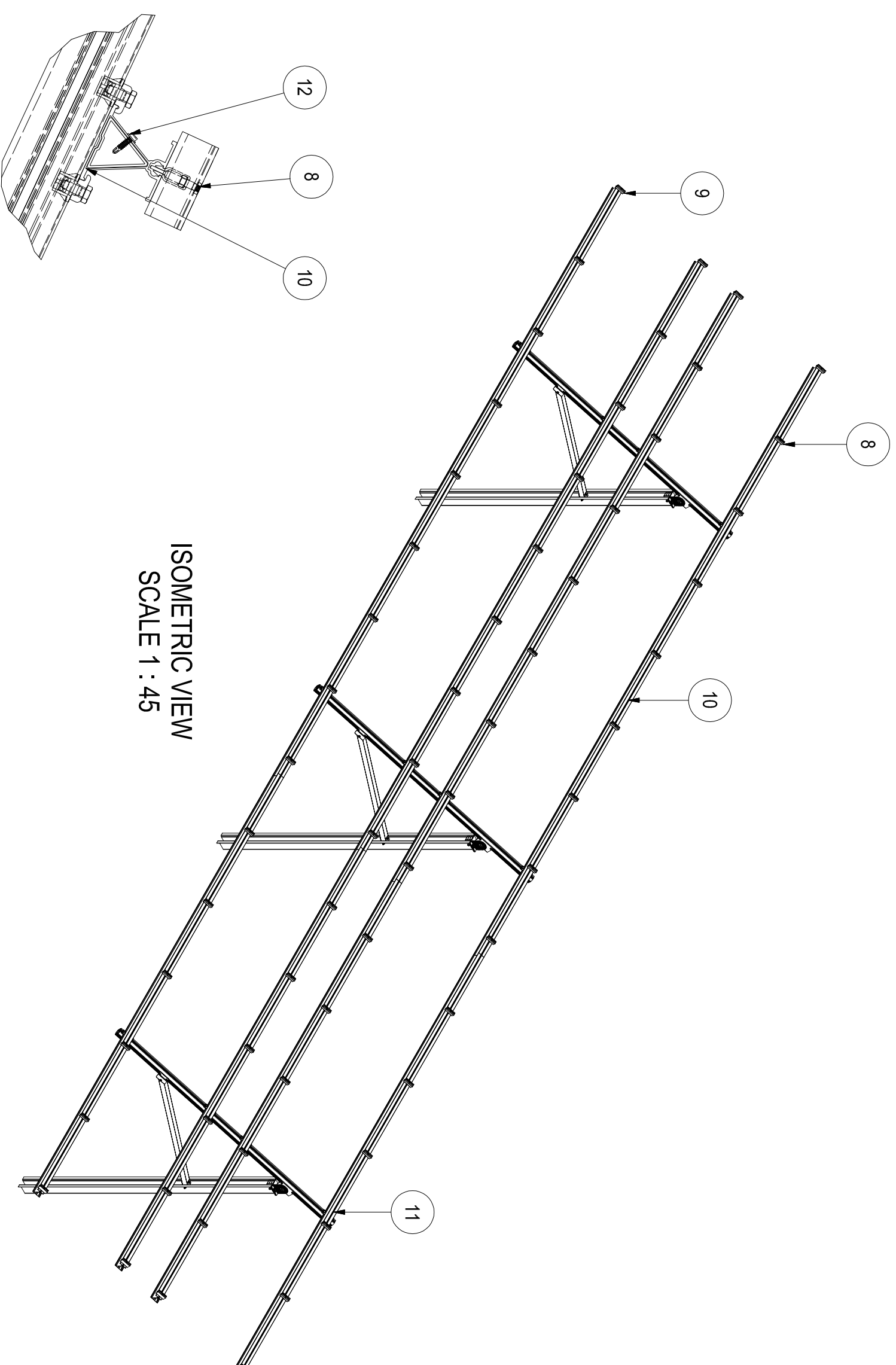
FOUNDATIONS:
1. FOUNDATION DESIGN IS BASED UPON GEOTECHNICAL REPORT/TESTING REQUIREMENTS BY TERRACON; PROJECT NO. 70139153
ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE GEOTECHNICAL REPORT.
2. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR ANY GEOTECHNICAL ASPECTS OF THIS PROJECT. IF THE INSTALLER NOTICES ANY SOIL THAT HAS DIFFERENT DRIVING CHARACTERISTICS THAN EXISTED FOR TESTED DRIVEN POSTS, CONTACT THE ENGINEER IMMEDIATELY.



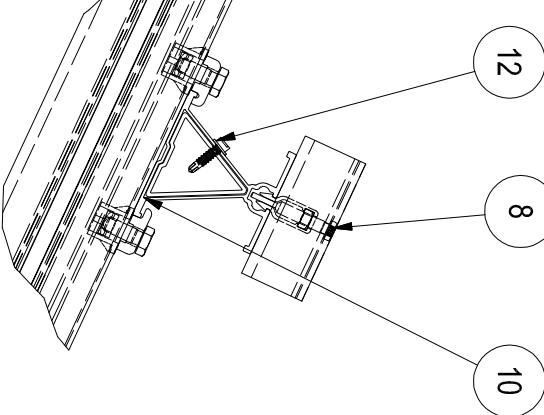
SUPPORT TRIANGLE
SCALE 1 : 12



DETAIL B
SCALE 1 : 5



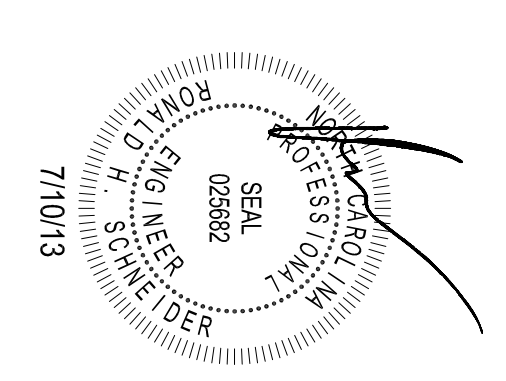
ISOMETRIC VIEW
SCALE 1 : 45



DETAIL C
SCALE 1 : 5

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SCHNEIDER
STRUCTURAL ENGINEERS

FIRST DEDICATION TO STRUCTURAL INNOVATION

1700 E. Fl. Level Rd #109 | Tucson, AZ 85719 | 520.512.8188 | www.structural.com

Project Number: 11326

PLEASE THE DRAWING IS SIGNED AND SEALED BY A LICENSED STRUCTURAL ENGINEER. IT IS A RECOMMENDED DESIGN AND SHALL NOT BE USED FOR CONSTRUCTION.

NO.	DRAWN:	CHECKED:	REVIEWED:	APPROVED:	REVISIONS:
0	Bosnula 6/19/2013				New Drawing
1	Bosnula 6/25/2013				Update Terracon Geotech Information
2	Bosnula 7/1/2013				Added Project Number
3					
4					
5					
6					
7					
8					

Client:
Strata Solar (NC)
1119 US 15 501 Hwy South Ste 101
Chapel Hill, NC 27517

SCHLETTNER
3761 E. FARINUM PLACE | TUCSON, AZ 85706
TEL: (520) 289-8700 | FAX: (520) 289-8695
EMAIL: MAIL@SCHLETTNER.US
WWW.SCHLETTNER.US

Ground Mount FS 2V x 14 25°
Interior Racking Structure
Details and Parts List
ISSUED BY: SCHLETTNER INC.
PROPRIETARY AND CONFIDENTIAL

Project Site:
Whitcross Farm
Whitcross Rd
Chapel Hill, NC 27516

Drawing Number:
V2132.01
JOB NUMBER: V
SCALE: SEE DRAWING VIEWS
SHEET 2 of 2

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