

UNIQUE ENGINEERING SOLUTIONS

CONSULTING ENGINEERS

720 PONCE DE LEON BLVD *
BROOKSVILLE, FLORIDA 34601

352-345-8443

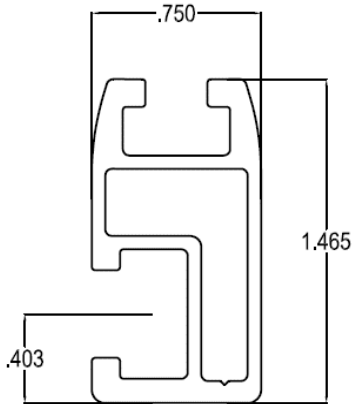
Job:

SOLAR RAIL

PCM S.L. PLOTA

By: **ADH** Date: **12/03/18** Sht.No. of

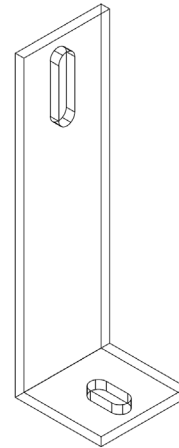
Job No: 217-110 Revision: **0**



PCM MICRO RAIL

I_{xx} = 0.0256 in⁴

S_{xx} = 0.375 in³



RC-7

5/16" SS Lag Screw
min. 2.5" embedment
G = 0.55

Design For Wind Speed Per FBC 2014 and ASCE 7-10 Roof Zone 1 Exposure B 7° Roof Slope

Max Moment Standard Rail = 85 #-ft

Max Anchor Load = 767.5 #

Eq 1 $M_{max} = \frac{wL^2}{8}$

Using This Design Equation The Allowable Spacings Are :

Rail Control

- 180mph Spacing = 3'-3"
- 170mph Spacing = 3'-6"
- 160mph Spacing = 3'-9"
- 150mph Spacing = 4'-0"
- 140mph Spacing = 4'-3"
- 130mph Spacing = 4'-7"

Anchor Control

- 180mph Spacing = 6'-8"
- 170mph Spacing = 7'-7"
- 160mph Spacing = 8'-8"
- 150mph Spacing = 9'-10"
- 140mph Spacing = 11'-2"
- 130mph Spacing = 13'-1"