

**EVALUATION REPORT OF
BETCO INC.'S
'TRQ250 PANEL'**

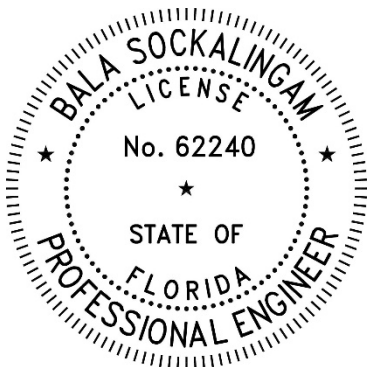
**FLORIDA BUILDING CODE 8TH EDITION (2023)
FLORIDA PRODUCT APPROVAL
FL 16372.4-R1
STRUCTURAL COMPONENTS
ROOF DECK**

**Prepared For:
BETCO Inc.
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**Prepared By:
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**This report consists of
Evaluation Report (3 Pages including cover)
Installation Details (1 Page)
Load Span Table (1 Page)**

**Report No. C2700-4
Date: 8.5.2023**



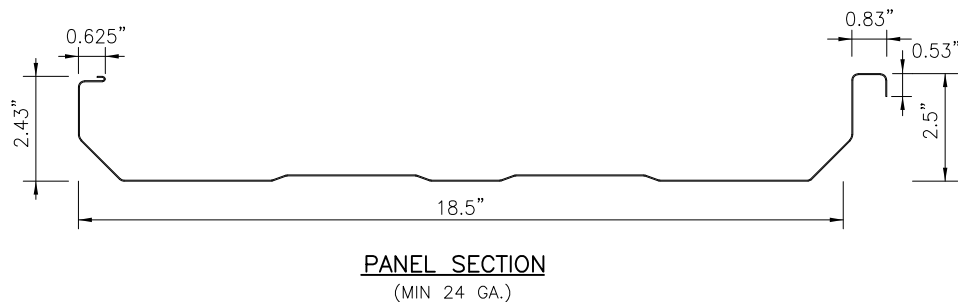
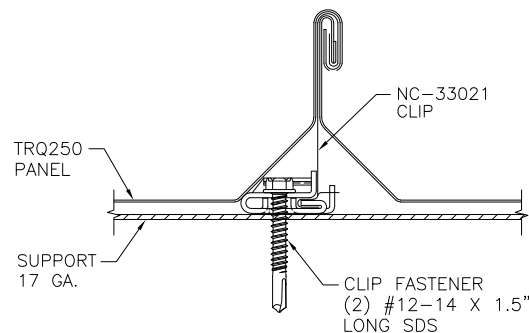
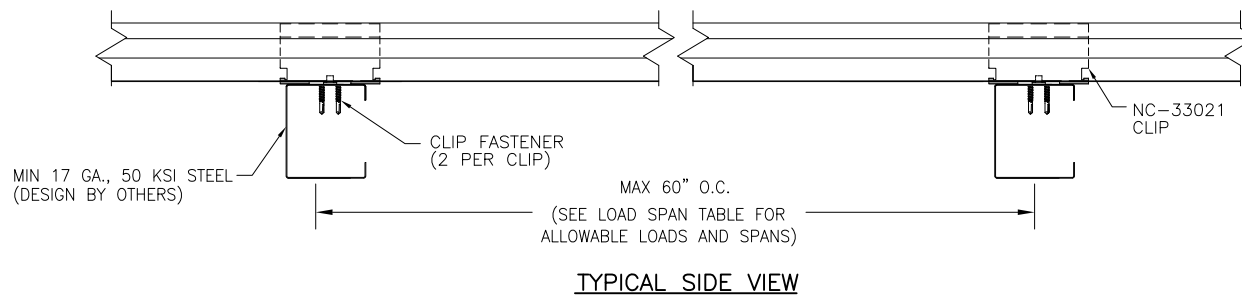
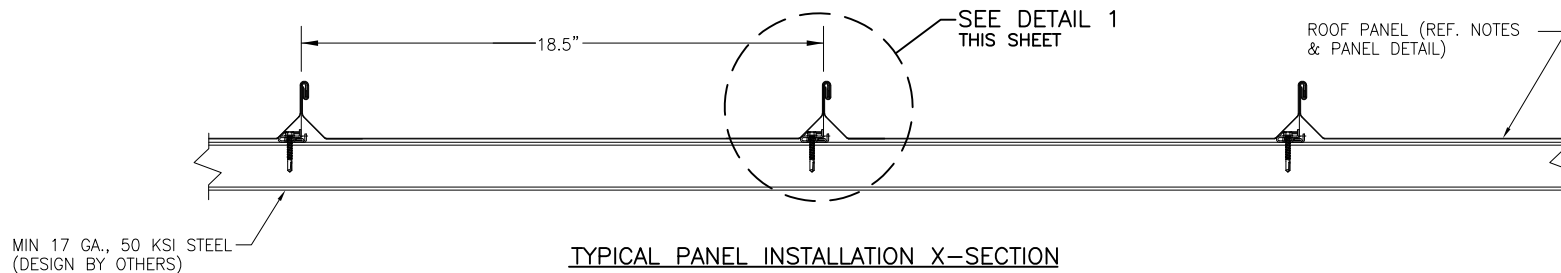
This item has been digitally signed and sealed by Bala Sockalingam, PE, on the date indicated.

Printed copies of this document are not considered signed and sealed and this signature must be verified on any electronic copies.

**2023.08.05
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Manufacturer:	BETCO Inc.
Product Name:	TRQ250 Panel
Panel Description:	Standing seam panel with max. 18.5" wide coverage and 2.5" high trapezoidal ribs
Materials:	Min 24 ga. with galvalume coated steel (ASTM A792) or painted steel (ASTM A755) ($F_y = 50$ ksi). Corrosion resistant as per FBC 2023 Section 1507.4.3.
Support Description:	Min 17 ga., 50 ksi steel section (Must be designed by others)
Slope:	1/4:12 or greater in accordance with FBC 2023 Section 1507.4.2
Design Uplift Pressure: (Factor of Safety: 2)	Panel Seam: 180° 30 psf at clip spacing of 60" o.c. 60 psf at clip spacing of 30" o.c.
Panel Attachment:	NC-33021 sliding clip (22 ga. tab with 16 ga. base) with (2) #12-14 x 1-1/2" long self-drilling screws per clip at each support. Clips and fasteners are corrosion resistant as per FBC 2023 Section 1506.7 and 1507.4.4, respectively.
Test Standards:	Roof assembly tested in accordance with ASTM E1592-05(2017) 'Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference' and FM 4470 Section 4.6 'Resistance to Foot Traffic'.
Code Compliance:	The product described herein has demonstrated compliance with FBC 2023 Section 1507.4.
Product Limitations:	Design wind loads shall be determined for each project in accordance with FBC 2023 Section 1609 or ASCE 7-22 using allowable stress design. The design uplift pressure for reduced clip spacing may be computed using rational analysis prepared by a Florida Professional Engineer or based on BETCO's load span table. This evaluation report is not applicable in High Velocity Hurricane Zone. Fire classification is not within the scope of this Evaluation Report. Refer to FBC 2023 Section 1505 and current approved roofing materials directory or ASTM E108/UL790 report from an accredited laboratory for fire ratings of this product.
Supporting Documents:	ASTM E1592 Test Report ENCON Technology Inc. C2362-2, Reporting Date 10/5/2023

FM 4470 Test Report
ENCON Technology Inc.
C2541-1, Reporting Date 2/9/2022



GENERAL NOTES:

1. STRUCTURAL ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
2. ROOF PANELS SHALL BE 24 GA. ($t = 0.022$). EFFECTIVE COVERING WIDTH OF PANEL = 18.5".
3. ROOF PANELS SHALL BE INSTALLED OVER STRUCTURE AS SPECIFIED ON THIS DRAWING.
4. REQUIRED DESIGN WIND LOADS SHALL BE DETERMINED FOR EACH PROJECT. THIS PANEL SYSTEM MAY NOT BE INSTALLED WHEN THE REQUIRED DESIGN WIND LOADS ARE GREATER THAN THE ALLOWABLE DESIGN LOADS.
5. CLIPS AND FASTENERS MUST BE IN ACCORDANCE WITH THIS DRAWING & FLORIDA BUILDING CODE. IF A DIFFERENCE OCCURS BETWEEN THE MINIMUM REQUIREMENTS OF THIS DRAWING & THE CODE, THE CODE SHALL CONTROL.
6. SUPPORTS MUST BE DESIGNED TO WITHSTAND WIND LOADS AS REQUIRED FOR EACH APPLICATION AND ARE THE RESPONSIBILITY OF OTHERS.

DRAWN BY: B.S.	CHECKED BY: R.S.
PLOT:	DATE: 2/7/2022
NO.	DATE
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE TSQ250 STANDING SEAM ROOF PANEL	
CONSULTANTS BALA SOCKALINGAM, PH.D., P.E. 1216 N LANSING AVE SUITE C TULSA OK 74106 PHONE: 918-492-9992 FAX: 866-366-1543	
MANUFACTURER BETCO INC. 228 COMMERCE BLVD STATESVILLE, NC 28625 704-872-2999	
DRAWING NO. 2700-4	REV.
PAGE NO. 1	OF 1

BETCO INC
TRQ250 Panel with NC-33021 Sliding Clips
Allowable Uplift Loads

Description	Fastener Spacing along panel length (in)	Allowable Uplift Load (psf)
TRQ250 Panel Min. 24 ga. Maximum 18.5" wide NC-33021 sliding clip with (2) #12-14 x1.25" long SDS Support Min 17 ga.	30	60.0
	32	56.3
	34	52.9
	36	50.0
	38	47.4
	40	45.0
	42	42.9
	44	40.9
	46	39.1
	48	37.5
	50	36.0
	52	34.6
	54	33.3
	56	32.1
	58	31.0
	60	30.0

Notes:

1. The bold numbers indicate design loads calculated from test data with safety factor of 2.
2. Panels must be installed as per Evaluation Report FL 16372.4 and BETCO current installation procedure.