

# WOLTERS ENGINEERING

ENGINEERING, DRAFTING, CONSULTING

15211 97<sup>th</sup> Road N  
West Palm Beach, FL 33412  
Ph/Fx: (561) 225-1982

## PRODUCT EVALUATION

PRODUCT: **DM CLASS 2000 METAL ROOF SYSTEM INSTALLED OVER EXISTING METAL ROOFING or DIRECTLY OVER 16 Ga STRUCTURAL STEEL PURLINS. (FLPA# 32041.1)**

MANUFACTURER: DYNAMIC METALS, LLC  
3201 SE DOMINICA TERRACE  
STUART, FL 34997

To all concerned,

The DM Class 2000 Series Roof Panels are 24 Ga. galvalume or Fluoropon coated steel panels (50 ksi min), manufactured by Dynamic Metals LLC in 18" widths with 2" high mechanically seamed joints. The panels meet the requirements of Section 1507.4 and 1518.9 of the 7<sup>th</sup> Edition (2020) Florida Building Code. The panels have been tested per TAS 100, TAS 110, TAS 125, ASTM E1592 and FM 4471 Section 4.4 by Intertek B&C, with results shown in test reports K9508.01-450-18, K9508.02-450-18, K9508.03-450-18, K9508.04-450-18, and L5423.02-450-44.

### Technical Documentation:

1. Drawing "2MSWPLN" dated 4/17/21 signed and sealed by Scott Wolters, PE.
2. Test Reports listed above by Architectural Testing, Inc. signed and sealed by Vinu Abraham, PE.
3. Supplemental Calculations to support 2MSWPLN, signed and sealed by Scott Wolters, PE.

I have reviewed this submittal per the requirements of FAC Product Approval Rule Chapter 61G20-3.005 (4). Based on the limitations listed below and those provided in the documents above, this product meets all the requirements of the 7<sup>th</sup> Edition (2020) Florida Building Code generally, and chapter 15 specifically, including the HVHZ provisions.

Overall Limitations: **This panel is approved for use inside and outside of the HVHZ.** The panels may be installed EITHER using OPTION #1 (a) directly over 16 Ga. Steel Purlins, or (b) over existing roofing that is supported by 16 Ga. (min) Steel Purlins (with or without 6"x3" tall 26 Ga. hat channel spacers), OR using OPTION #2 over existing roofing supported by 16 Ga min Purlins, with 6" x 3" tall 16 Ga. hat channel spacers. NOTE: The combined height of hat channel, spacers, and existing roofing may not exceed 3".

<u>Overall Dimensions:</u>	Max. Panel Width:	18"
	Min. Rib Height:	2"
	Min. Roof Slope:	1/4" / 12"

	OPTION #1 INSTALLATION		OPTION #2 INSTALLATION
	DIRECTLY TO 16 Ga PURLINS	OVER EXISTING ROOFING (with or without 26 GA. Hat Channels) TO 16 Ga. PURLINS	TO 16 Ga. HAT CHANNELS (OVER EXISTING ROOFING)
CLIP TYPE:	2 pc. CLIP - 60" O.C.	2 pc. CLIP - 60" O.C.	CONTINUOUS CLIP
FASTENER TYPE:	#14 PANCAKE HEAD SCREWS	#14 PANCAKE HEAD SCREWS	#10 PANCAKE HEAD SCREWS
FASTENER SPACING:	(SEE BELOW)	(SEE BELOW)	12" MAX. O.C.
MAX DESIGN PRESSURE	-98 psf (2 SCREWS/CLIP)	-98 psf (2 SCREWS/CLIP) -122.5 psf (3 SCREWS/CLIP)	-157.5 psf
PANEL SEAMS	PANELS ARE SEAMED TO 180°	PANELS ARE SEAMED TO 180°	PANELS ARE SEAMED TO 180°  SEAM IS CAULKED WITH BOSTIK 915 SEALANT OR 1/8" BUTYL TAPE

- Notes:
1. Fasteners must fully penetrate Purlins or Hat Channels, with 3 threads beyond.
  2. Hat Channels at existing roofing are fastened to purlins with (2) #10 Fasteners per flange. (3) per flange required for Option #2 Installation with Design Pressures > 125 psf)
  3. When installing over existing roofing without hat channel spacers, the full base of the installation clips must sit flat on the rib of the existing panels.
  4. When installing over existing roofing without hat channel spacers, the existing panels must be fastened to the purlins with a minimum of (2) #10 Dia. Teks-Type screws on each side of the rib supporting the installation clips, at each purlin.

Other Limitations:

1. Fire classification is not a part of this evaluation. Refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Design of substrate is by others and is not a part of this evaluation.
3. Rational analysis, provided by a Florida licensed Architect/Engineer per FAS 61G20.3.005(e), may be used for project specific approval by the local authorities having jurisdiction.
4. Where required by FBC, panels shall be permanently labeled with the manufacturer's name and/or logo, and the following statement, "Dynamic Metals FL# 32041.1, DM Class 2000".

Panel Forming: These panels may be jobsite roll formed with the following Dynamic Metals machines, per approval of 3<sup>rd</sup> party QA provider, to the dimensions shown on Drawing 2MSWPLN:


SSQ-6800617  
SSQ-6690517  
5VC-0490718

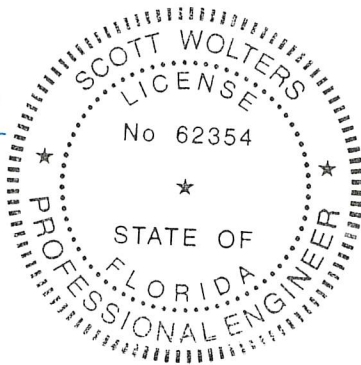
SSQ-5150216  
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SSQ-6810617  
SSQ2-2310920  
SSQ2-232092

If you have any questions or need more information concerning this approval, please contact me.

Thank you,

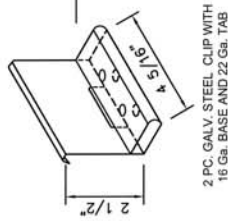
  
Scott Wolters  
FL PE# 62354  
APR 29 2021



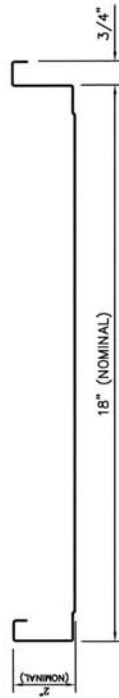
**DM CLASS 2000 2" MECHANICAL SEAM  
24 Ga. STEEL ROOF PANEL, 18" WIDE.  
INSTALLED DIRECTLY OVER 16 Ga. PURLINS  
(OPTION #1 INSTALLATION)**

**ALLOWABLE DESIGN PRESSURES:**  
18" PANELS WITH  
4 5/16" 2-PC. CLIPS  
SPACED 60" MAX O.C.

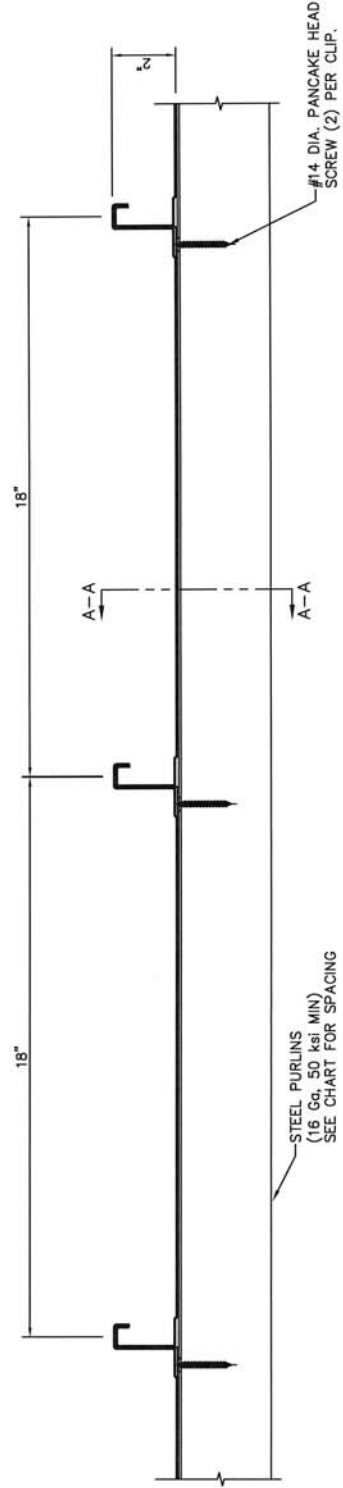
(2) FASTENERS PER CLIP: -98 PSF



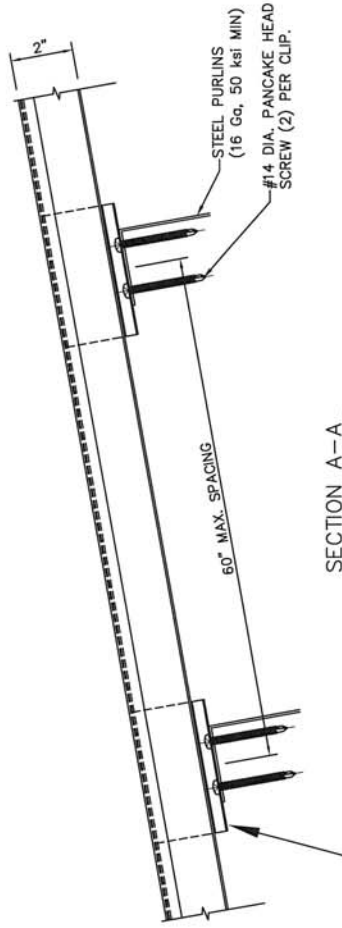
2 PC. GALV. STEEL CLIP WITH  
16 Ga. BASE AND 22 Ga. TAB



PANEL PROFILE



STEEL PURLINS  
(16 Ga, 50 ksi MIN)  
SEE CHART FOR SPACING



SECTION A-A

STEEL PURLINS  
(16 Ga, 50 ksi MIN)

#14 DIA. PANCAKE HEAD  
SCREW (2) PER CLIP.

60" MAX. SPACING

2"

SCOTT WOLTERS  
PROFESSIONAL ENGINEER  
STATE OF FLORIDA  
APR 29 2021  
NO. 62354

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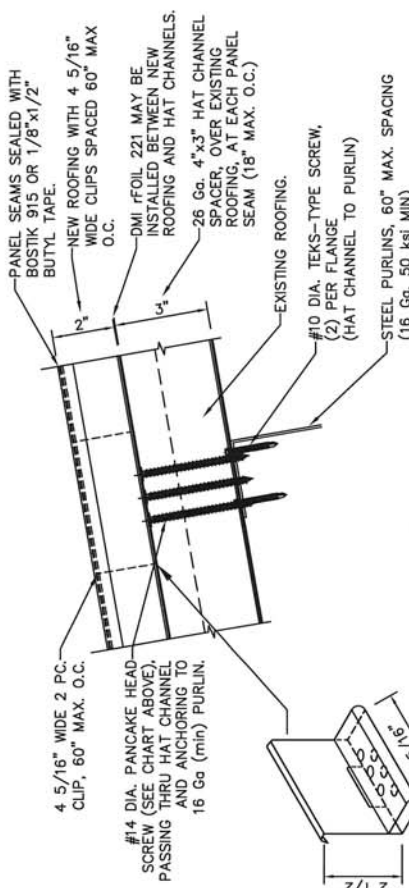
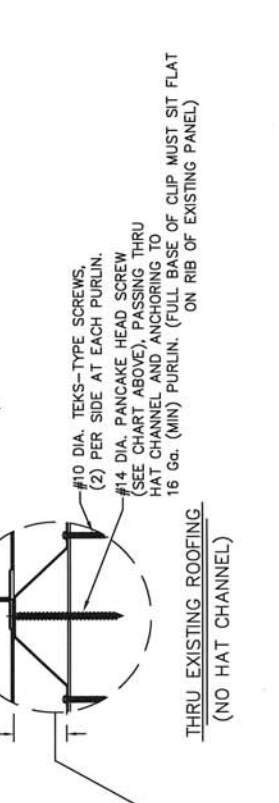
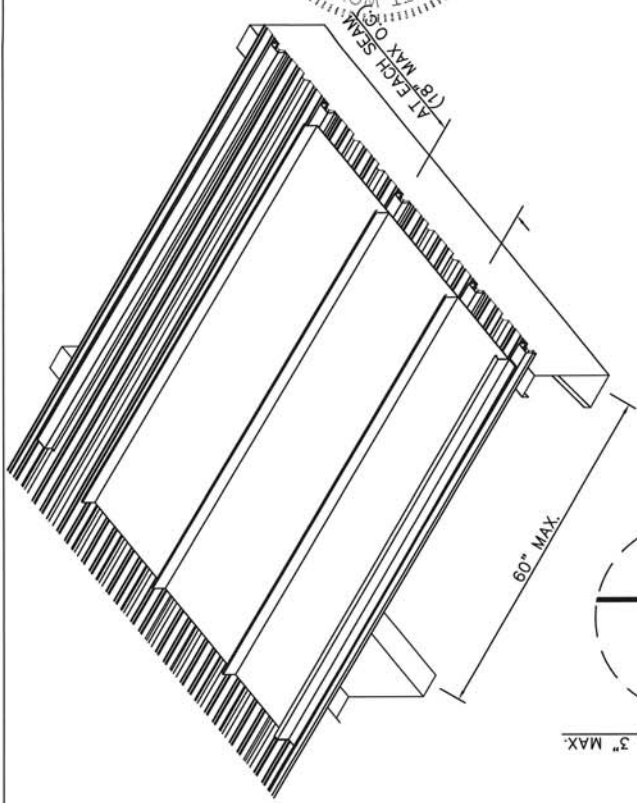
DWG: 2MSWPLN  
SHEET: 1/3

PRINTS ISSUED FOR	REV.#	DATE
3RD SUBMITTAL		4/17/21
2ND SUBMITTAL		10/26/20
1ST SUBMITTAL		4/9/20

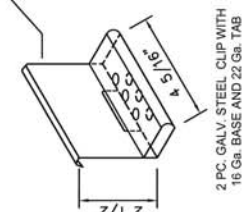
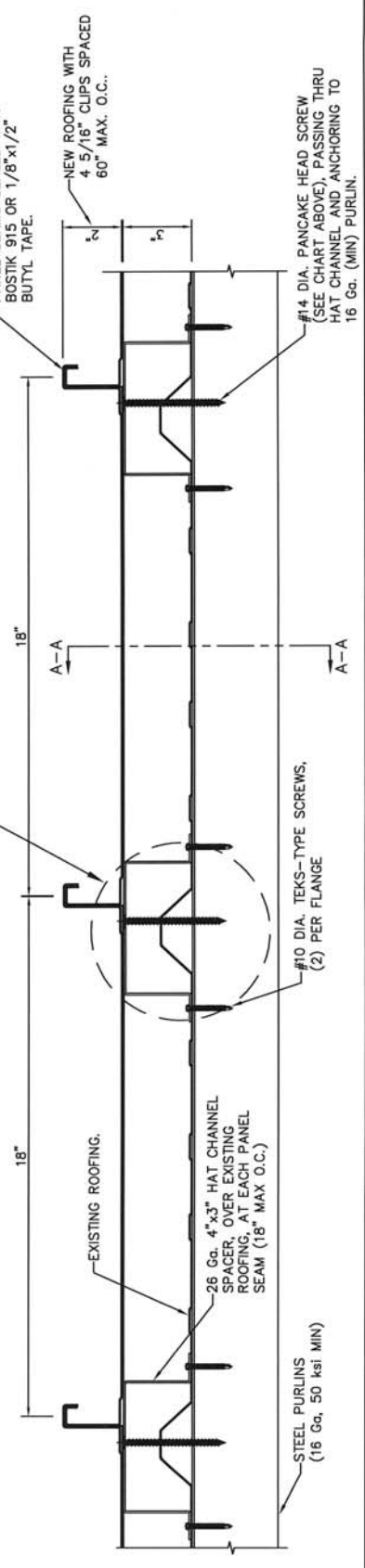
**DM CLASS 2000 2" MECHANICAL SEAM  
24 Ga. STEEL ROOF PANEL, 18" WIDE,  
OVER EXISTING ROOF WITH 16 Ga. PURLINS,  
USING 16 Ga. HAT CHANNELS (OPTION #1 INSTALLATION)**

**ALLOWABLE DESIGN PRESSURES:**

- (2) FASTENERS PER CLIP: -98. PSF
- (3) FASTENERS PER CLIP: -122.5 PSF



**SECTION A-A  
(WITH EXISTING ROOFING)**



PRINTS ISSUED FOR	REV.#	DATE
1ST SUBMITTAL		8/10/20
2ND SUBMITTAL		10/26/20
3RD SUBMITTAL		4/17/21

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APR 29 2021  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

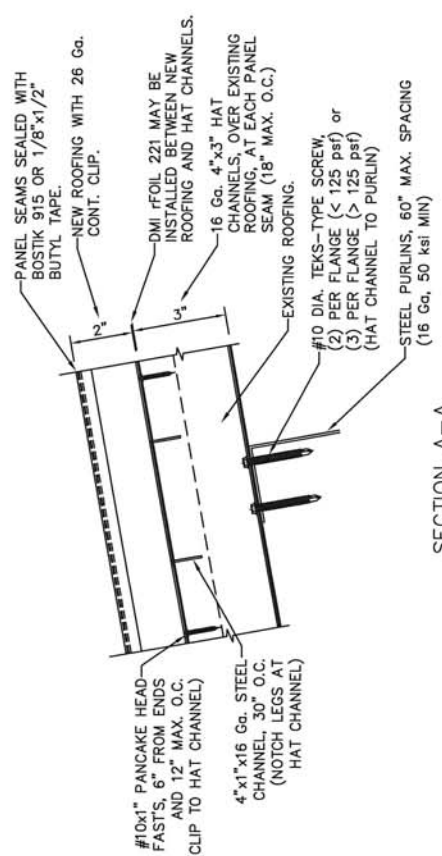
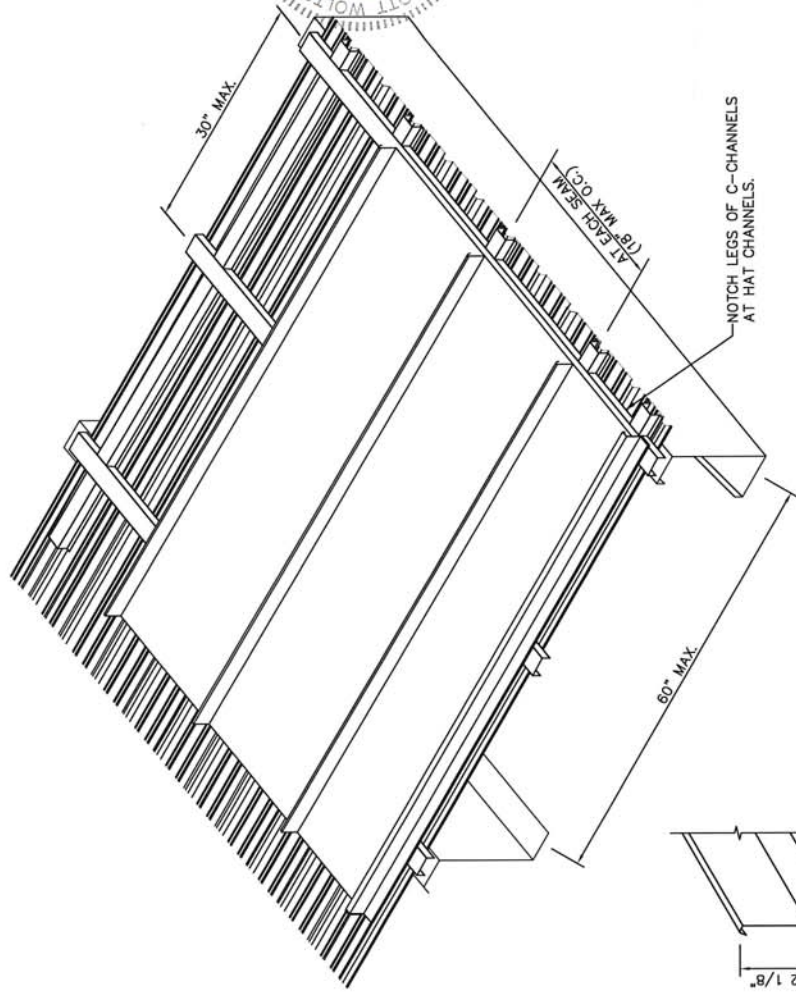
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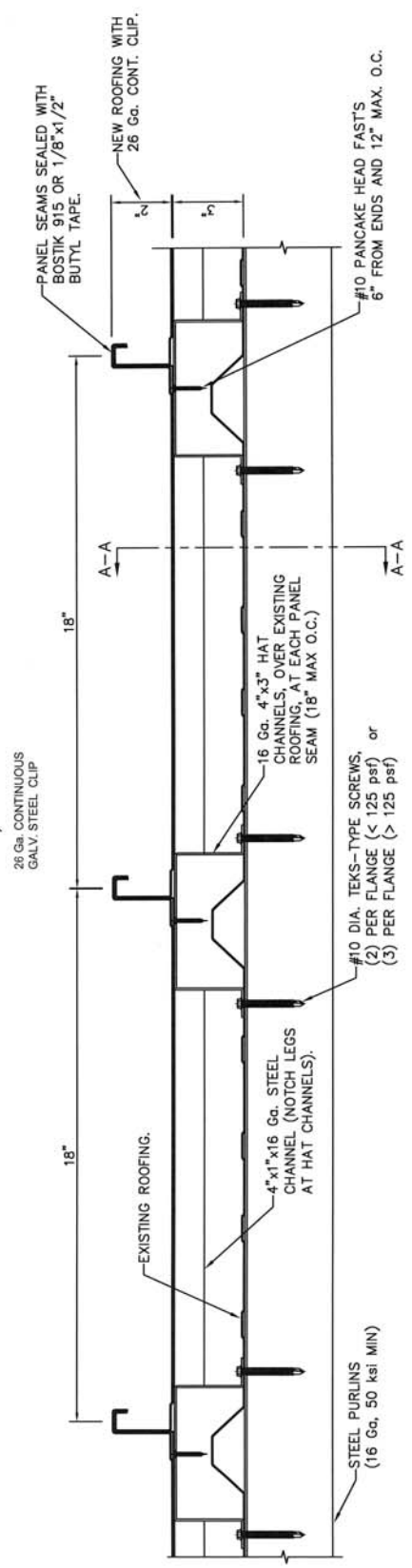
DWG: 2MSWPLN  
SHEET: 2/3

**DM CLASS 2000 2" MECHANICAL SEAM  
24 Ga. STEEL ROOF PANEL, 18" WIDE,  
OVER EXISTING ROOF WITH 16 Ga. PURLINS,  
USING 16 Ga. HAT CHANNELS (OPTION #2 INSTALLATION)**

ALLOWABLE DESIGN PRESSURE: -157.5 psf



SECTION A-A  
(WITH EXISTING ROOFING)



PRINTS ISSUED FOR	REV#	DATE
3RD SUBMITTAL		4/17/21
2ND SUBMITTAL		10/26/20
1ST SUBMITTAL		8/10/20

APR 17 2021  
STATE OF FLORIDA  
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