



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)  
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION  
11805 SW 26 Street, Room 208  
Miami, Florida 33175-2474  
T (786) 315-2590 F (786) 315-2599

## NOTICE OF ACCEPTANCE (NOA)

[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

### Butler Manufacturing

A Division of BlueScope Buildings North America, Inc.

13500 Botts Road

Grandview, Missouri 64030

### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER- Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

### DESCRIPTION: "MR-24" 0.032" (min.) Galvalume Steel Roof Panel

**APPROVAL DOCUMENT:** Drawing No. B, titled "MR-24 Roof Panel", sheets 1 through 6 of 6, prepared by Butler Manufacturing, A Division of BlueScope Buildings North America, Inc., signed & sealed by Russell L. Benton, P.E., on August 24, 2023, bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and the expiration date by the Miami-Dade County Product Control Section.

### MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

**LABELING:** Each panel shall bear a permanent label w/the manufacturer's name or logo, Jackson, TN, and the following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises** NOA #20-0922.07 and consists of this page 1, evidence submitted pages E-1, E-2, E-3, E-4, E-5 & E-6 as well as approval document mentioned above.

The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**



*Helmy A. Makar*  
11/23/2023

NOA No. 23-0908.03  
Expiration Date: 12/09/2024  
Approval Date: 11/23/2023

**Butler Manufacturing**

**A Division of BlueScope Buildings North America, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 99-0816.08**

**A. DRAWINGS**

1. *Drawing No. B, sheets 1 through 6 of 6, prepared by Suresh C. Satsangi, P.E., dated November 4, 1999, signed and sealed by Suresh C. Satsangi, P.E.*

**B. TESTS**

1. *Test report on Uplift Resistance per UL 580 Class 90 on MR-24 Roof Panel, prepared by Hurricane Test Laboratory, Inc., Report No. 0063-0311-99, dated 03/22-24/99, signed and sealed by Vinu J. Abraham, P.E.*
2. *Test report on Accelerated Weathering Testing of Coating 2000 hours per ASTM G26-96, prepared by Celotex, Report No. 520223, dated 08/02/99, signed and sealed by R. C. Miller, P.E.*
3. *Test report on Salt Spray of Coating 1000 hours per ASTM B117-95, issued by Celotex, Report # 520223, dated 08/02/99, signed & sealed by R. C. Miller, P.E.*
4. *Susceptibility to leakage test in accordance with Miami-Dade County Protocol PA 114 Appendix G, prepared by Celotex, Report No. 520223-1, dated 07/01/99, signed and sealed by R. C. Miller, P.E.*

**C. CALCULATIONS**

1. *Calculations titled "MR-24 Wind Load Design for Roof", dated 07/28/99, pages 1 through 10 of 10, prepared by Suresh C. Satsangi, P.E., signed and sealed by Suresh C. Satsangi, P.E.*

**D. MATERIAL CERTIFICATIONS**

1. *Mill Certified Test Report issued by U. S. Steel Group, dated 01/21/99, with chemical composition and mechanical properties of galvalume steel.*
2. *Tensile Test on specimen #3 of Test # 0063-0311-99, Report #9CM-777A, issued by QC Metallurgical, Inc., dated 04/23/99, signed & sealed by Frank Grate, P.E.*

**2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 02-1211.09**

**A. DRAWINGS**

1. *Drawing No. B, titled "Mr-24 Roof Panel ", sheets 1 through 6 of 6, prepared by Butler Manufacturing Company, dated 01/06/03, sheets 1 & 2 of 6, and 11/04/99, sheets 3, 4, 5, & 6 of 6, signed & sealed by John Ernest Lamb, P.E. on 01/16/03.*

**B. TESTS**


1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. MATERIAL CERTIFICATIONS**

1. *None.*

  
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Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 23-0908.03  
Expiration Date: 12/09/2024  
Approval Date: 11/23/2023



**Butler Manufacturing**  
**A Division of BlueScope Buildings North America, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 04-0803.01**

**A. DRAWINGS**

1. *Drawing No. B, titled "MR-24 Roof Panel", sheets 1 through 6 of 6, prepared by Butler Manufacturing Company, dated 07/12/2004, sheets 1 & 2 of 6, & 11/04/1999, sheets 3, 4, 5, & 6 of 6, all signed & sealed by John Ernest Lamb, P.E. on 07/25/2004*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *Calculations titled "MR-24 Roof Panel", dated 07/08/04, 5 pages, prepared by Myron Kottwitz, P.E., signed and sealed by Myron Kottwitz.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Building Code Compliance Office.*

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**4. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #08-0208.04**

**A. DRAWINGS**

1. *None.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Building Code Compliance Office.*

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**5. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #08-1112.11**

**A. DRAWINGS**

1. *None.*

**B. TESTS**

1. *None.*



Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 23-0908.03  
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**Butler Manufacturing**  
**A Division of BlueScope Buildings North America, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**C. CALCULATIONS**

1. *None.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Building Code Compliance Office.*

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**6. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #09-0811.17**

**A. DRAWINGS**

1. *Drawing #B, titled "MR-24 Roof Panel", sheets 1 through 6 of 6, issued by Butler Manufacturing Company, signed & sealed by Russell Benton, P.E., on 09/15/09.*

**B. TESTS**

1. *Test report on Uplift Resistance per ASTM 1592 on MR-24 Roof Panel, prepared by Hurricane Test Laboratory, Inc., Report No. 0063-0904-08, dated 12/19/08, signed and sealed by Vinu J. Abraham, P.E.*

**C. CALCULATIONS**

1. *None.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Building Code Compliance Office.*

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**7. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #10-0901.20**

**A. DRAWINGS**

1. *Drawing No. B, titled "MR-24 Roof Panel", sheets 1 through 6 of 6, prepared by Butler Manufacturing, A Division of BlueScope Buildings North America, Inc., signed & sealed by Russell L. Benton, P.E., on August 20, 2010.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Building and Neighborhood Compliance Department.*

**E. MATERIAL CERTIFICATIONS**

1. *None.*



Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 23-0908.03  
Expiration Date: 12/09/2024  
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**Butler Manufacturing**  
**A Division of BlueScope Buildings North America, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**8. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #14-0520.16**

**A. DRAWINGS**

1. *Drawing No. B, titled "MR-24 Roof Panel", sheets 1 through 6 of 6, prepared by Butler Manufacturing, A Division of BlueScope Buildings North America, Inc., signed & sealed by Russell L. Benton, P.E., on June 10, 2014.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Department of Regulatory and Economic Resources.*

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**9. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #14-0922.03**

**A. DRAWINGS**

1. *None.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Department of Regulatory and Economic Resources.*

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**10. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #17-0803.42**

**A. DRAWINGS**

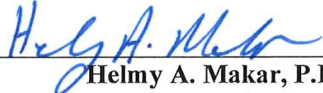
1. *Drawing No. B, titled "MR-24 Roof Panel", sheets 1 through 6 of 6, prepared by Butler Manufacturing, A Division of BlueScope Buildings North America, Inc., signed & sealed by Russell L. Benton, P.E., on September 27, 2017.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

  
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Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 23-0908.03  
Expiration Date: 12/09/2024  
Approval Date: 11/23/2023

**Butler Manufacturing**  
**A Division of BlueScope Buildings North America, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Department of Regulatory and Economic Resources.*

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**11. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #19-0708.07**

**A. DRAWINGS**

1. *None.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Department of Regulatory and Economic Resources.*

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**12. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #20-0922.07**

**A. DRAWINGS**

1. *Drawing No. B, titled "MR-24 Roof Panel", sheets 1 through 6 of 6, prepared by Butler Manufacturing, A Division of BlueScope Buildings North America, Inc., signed & sealed by Russell L. Benton, P.E., on September 11, 2020.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Department of Regulatory and Economic Resources.*

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**F. STATEMENTS**

1. *FBC, 2020 Edition compliance letter, prepared by Butler Manufacturing, A Division of BlueScope Buildings NA, Inc., signed & sealed by Russell L. Benton, P.E., on 09/11/20*



**Helmy A. Makar, P.E., M.S.**  
**Product Control Section Supervisor**  
**NOA No. 23-0908.03**  
**Expiration Date: 12/09/2024**  
**Approval Date: 11/23/2023**

**Butler Manufacturing**  
**A Division of BlueScope Buildings North America, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**13. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. *Drawing No. B, titled "MR-24 Roof Panel", sheets 1 through 6 of 6, prepared by Butler Manufacturing, A Division of BlueScope Buildings North America, Inc., signed & sealed by Russell L. Benton, P.E., on August 24, 2023.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. QUALITY ASSURANCE**

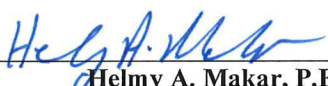
1. *By Miami-Dade County Department of Regulatory and Economic Resources.*

**E. MATERIAL CERTIFICATIONS**

1. *None.*

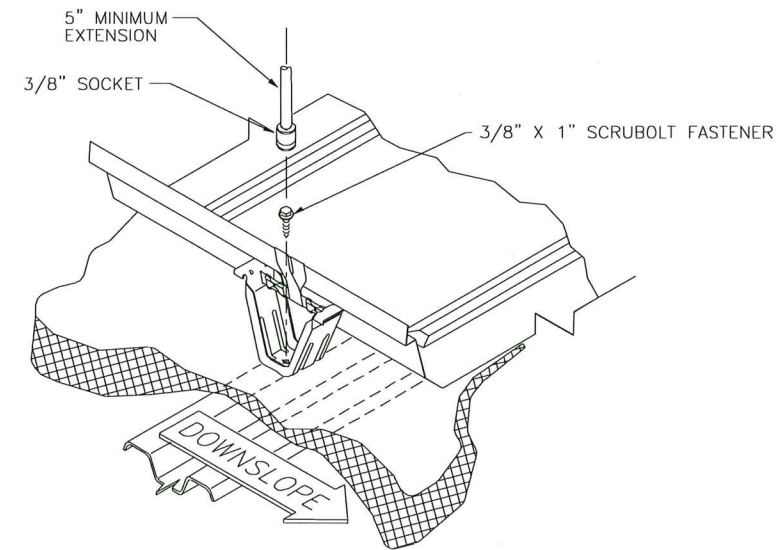
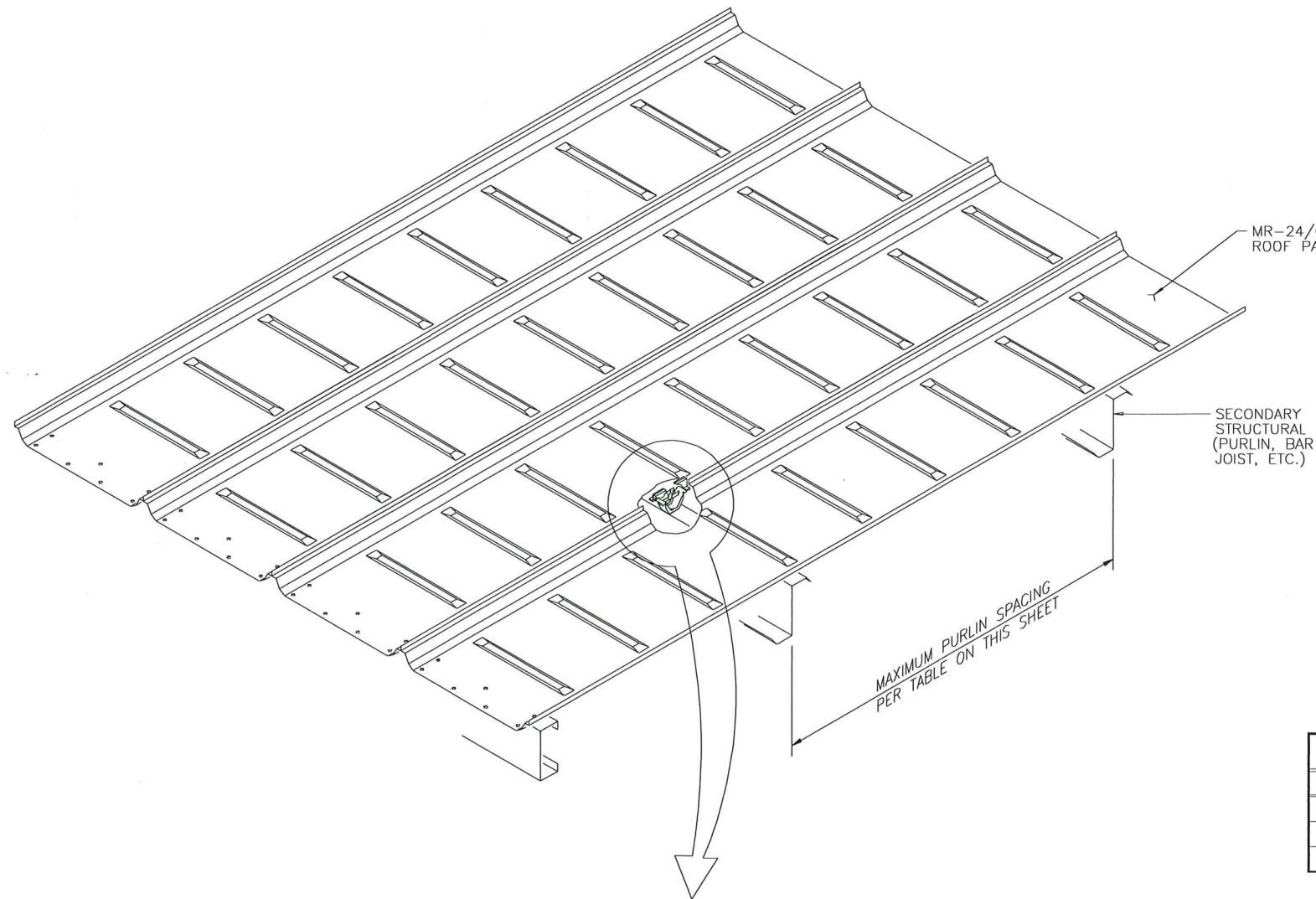
**F. STATEMENTS**

1. *FBC, 2023 Edition compliance letter, prepared by Butler Manufacturing, A Division of BlueScope Buildings NA, Inc., signed & sealed by Russell L. Benton, P.E., on 08/22/2023.*

  
\_\_\_\_\_  
Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 23-0908.03  
Expiration Date: 12/09/2024  
Approval Date: 11/23/2023



REVISION NUMBER 1			REVISION NUMBER 2			REVISION NUMBER 3			REVISION NUMBER 4			REVISION NUMBER 5		
REVISE TO BNA TITLE BLOCK AND NUMBER TO P-081383. ADD BUTLER LOGO			REVISED REFERENCE IN NOTE 1 FOR FLORIDA BUILDING CODE TO 2010, WAS 2007.			CHANGE 2010 TO 2017 IN NOTE: 1			REVISE FLORIDA BUILDING CODE DATE FROM 2017 TO 2020.			REVISED FLORIDA BUILDING CODE DATE FROM 2020 TO 2023.		
DATE 07/01/10	DWBY BSN	RLB	DATE 06/09/14	DWBY RHE	CHKD MJH	DATE 07/14/17	DWBY BSN	CHKD MJH	DATE 09/08/20	DWBY BSN	CHKD BSN	DATE 08/21/23	DWBY NF	CHKD RLB

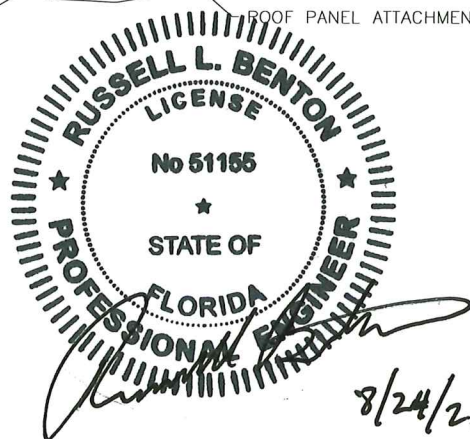
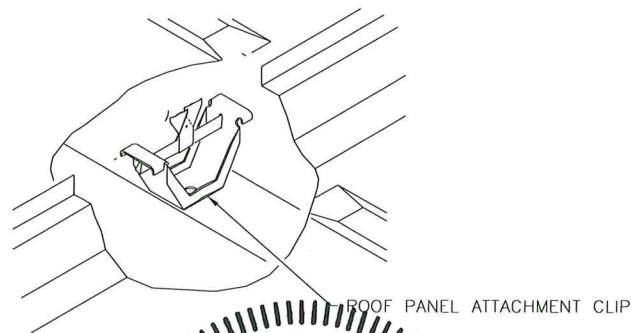


NOTE:  
WITH THE EXCEPTION OF THE PURLIN SPACING AND THE CLIP ATTACHMENT FASTENER SHOWN ON THIS DRAWING REFER TO THE STANDARD MR-24 DRAWINGS FOR ALL OTHER DETAILS AND INSTALLATION INSTRUCTIONS.

PURLIN SPACING		
ROOF ZONE	MAXIMUM PURLIN SPACING	MAX. UPLIFT PRESSURE
FIELD (INTERIOR)	4'-0"	45.0
EDGE	2'-0"	77.5
CORNER	1'-3"	115.8

#### GENERAL NOTES:

1. THIS STRUCTURAL ROOF PANEL SHALL BE DESIGNED IN ACCORDANCE WITH THE 2023 EDITION OF THE FLORIDA BUILDING CODE.
2. ALL BUTLER MR-24 ROOF PANELS SHALL BE 22 GAUGE (0.032" MIN.) GALVALUME STEEL SHEET CONFORMING TO ASTM A 792, COATING DESIGNATION AZ55, WITH A MINIMUM FY=50 KSI.
3. ALL PANEL CLIPS SHALL HAVE A 16 GAUGE (0.062") BASE CONFORMING TO ASTM A 653 GRADE 42, COATING DESIGNATION G60 SHALL HAVE OVERALL DIMENSIONS OF 4 3/8" (LONG) X 1 1/2" (WIDE) X 2 1/4" (TALL) OR 3 5/16" (TALL), AND SHALL HAVE A 24 GAUGE STAINLESS STEEL TAB, 1 1/4" (WIDE).
4. ALL SCREWS SHALL BE 3/8" DIA. X 1" HEX HEAD, SELF TAPPING SCRUBOLT, WITH EPDM BACKED STEEL WASHER, PART NUMBER 097196 BY BUTLER MANUFACTURING COMPANY.
5. ALL PANEL CLIPS SHALL BE ATTACHED TO PURLINS WITH A MINIMUM THICKNESS OF 0.067".
6. VALLEY ASSEMBLY IS NOT ALLOWED IN THIS ROOF PANEL APPROVAL.
7. EACH PANEL TO PANEL CONNECTION IS TO BE MADE WITH A POSITIVE, FIELD FORMED STANDING DOUBLE-LOCK SEAM.
8. THIS 22 GAUGE (0.032" MIN.) BUTLER MR-24 ROOF PANEL SHALL BE USED FOR ROOF CONSTRUCTION. EVERY PROJECT SHALL BE CONSTRUCTED USING THE SAME DETAILS SHOWN ON THESE APPROVED DRAWINGS INCLUDING:
  - DETAILS OF ALL PANEL MATERIAL CHARACTERISTICS AND SECTIONS WITH DIMENSIONS AND THICKNESS.
  - ASSEMBLY DETAILS INCLUDING ALL CONNECTIONS AND FASTENERS DIAGRAM WITH SIZE AND LOCATION.
  - PANEL'S MAXIMUM SPAN AND PRESSURE FOR THE ROOF'S FIELD, PERIMETER, AND CORNER ZONES BASED ON THE PANEL'S ALLOWABLES SHOWN IN THE TABLE ABOVE.



Russell L Benton, PE#51155

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 23-0908.03  
Expiration Date 12/09/2024  
By: *[Signature]*  
Miami Code Product Control

**BUTLER**  
Butler Manufacturing  
a division of BlueScope Buildings North America, Inc.  
1540 GENESSEE ST.  
KANSAS CITY, MO. 64102

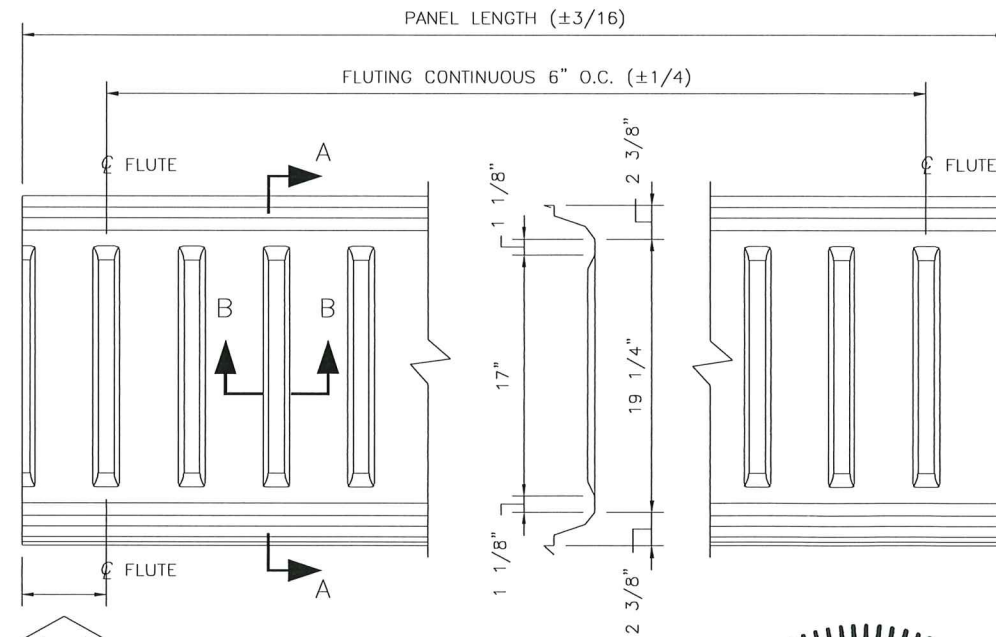
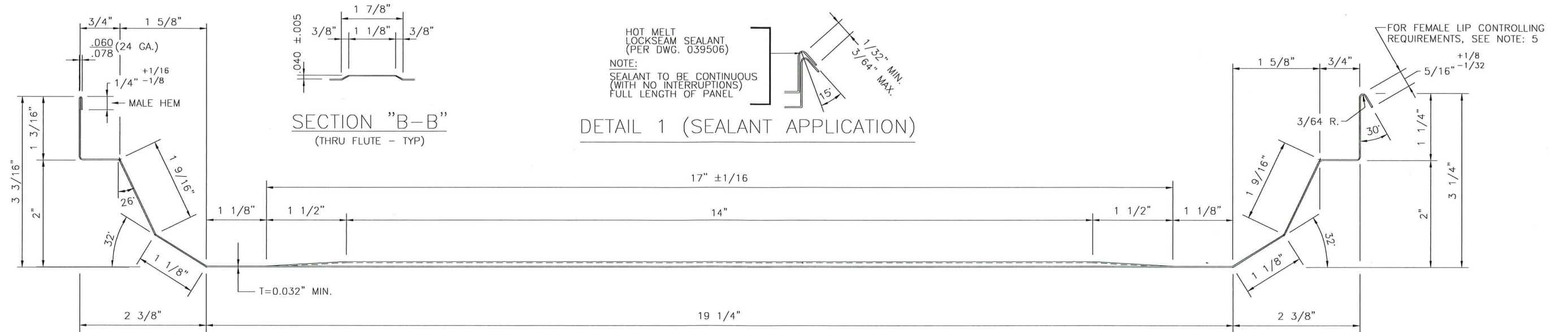
MR-24 PANEL INSTALLATION  
DADE COUNTY FLORIDA

DRAWN BY JRS	CHECKED BY MJH	GROUP NUMBER: 02 - 030 - 06	
FIRST RELEASE DATE 01/21/10	REVISION DATE 08/21/23	B	P-081383 05

SHEET 1 OF 6

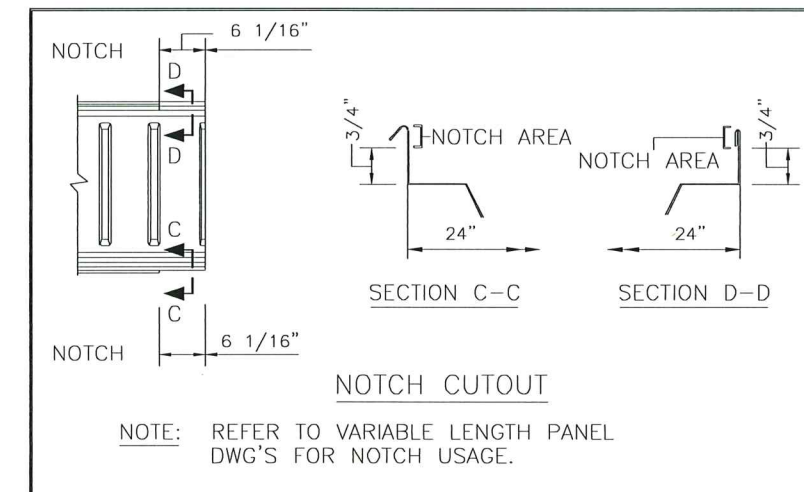
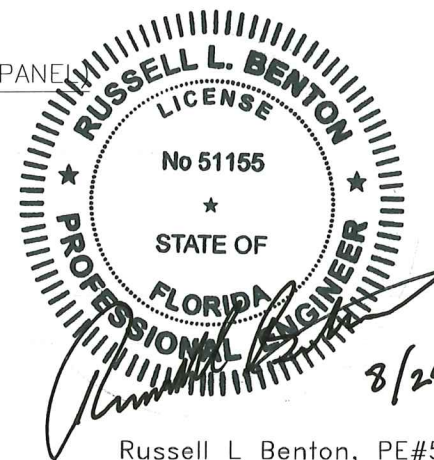


REVISION NUMBER 1		REVISION NUMBER 2	
DATE	07/01/10	DATE	07/17/17
BY	CHD	BY	CHD
BSN	RLB	BSN	MJH
REVISE TO BENA TITLE BLOCK AND NUMBER TO P-081384. ADD BUTLER LOGO.		CHANGE 10179 TO MS-05-01 IN MATERIAL DESCRIPTION	



NO DIMENSIONAL LOCATION REQUIREMENTS FOR 6" FLUTE PATTERN IN RELATION TO END OF PANEL (TYPICAL BOTH ENDS OF PANEL)

MATERIAL GRADES	MATERIAL DESCRIPTION	B. M. C. SPEC. NO.
GA. OF MAT'L		
22 (0.032" MIN.)		
GR. 50	ALUMINUM ZINC ALLOY (GALVALUME)	MS-05-01



- NOTES:
- DIMENSIONAL TOLERANCES =  $\pm 1/32$  (EXCEPT AS NOTED)
  - ALL INSIDE FORMING RADII =  $1/32$  (EXCEPT AS NOTED)
  - ANGLE TOLERANCES  $\pm 2^\circ$  (EXCEPT AS NOTED)  
(ANGLES TO BE MEASURED FROM A FLAT PLANE WITH PANEL HELD TO THAT PLANE WITHOUT DISTORTION OF FABRICATED CROSS-SECTIONAL SHAPE AND WITH OUTSIDE CORRUGATIONS FREE).
  - CROSS SECTIONAL TOLERANCES SHOWN TO BE HELD THROUGHOUT LENGTH OF PANEL EXCEPT WHERE PANEL IS DISTORTED BY SHEARING OR BENDING. (MAXIMUM ALLOWABLE LATERAL OR VERTICAL DISTORTION BY THE SHEARING OPERATIONS IS  $\pm 1/32$  FROM "AS ROLLED SHAPE")
  - THE LENGTH OF FEMALE LIP MUST BE AT LEAST  $1/16$ " LONGER THAN THE MALE HEM.

PRODUCT REVISED  
as complying with the Florid.  
Building Code  
Acceptance No. 23-0908.03  
Expiration Date 12/09/2024  
By: *Hely A. Miller*  
Miami Dade Product Control

SHEET 2 OF 6

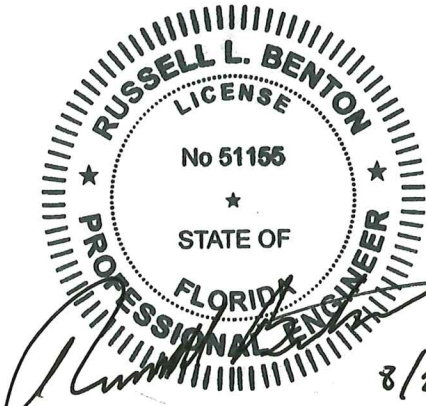
BUTLER		MR-24 ROOF PANEL	
Butler Manufacturing		DADE COUNTY FLORIDA	
DRAWN BY	CHECKED BY	GROUP NUMBER: 02-030-06	
JRS	MJH		
FIRST RELEASE DATE	REVISION DATE		
01/21/10	07/17/17		
1540 GENESSEE ST. KANSAS CITY, MO. 64102		B	P-081384 02

REVISION NUMBER 1			REVISION NUMBER 2			REVISION NUMBER 3		
DATE 07/01/10	REVISE TO BENA TITLE BLOCK AND NUMBER TO P-081385. ADD BUTLER LOGO.		DATE 07/17/17	CHANGE EWS 10.073 TO MS-06-03 IN MATERIAL NOTE: 1 AND 2 23731		DATE 01/04/23	REVISED TO SHOW 097222 AS A FULLY THREADED FASTENER PER ENH #149752	
DWBY CHKD	BSN	RLB	DWBY CHKD	BSN	MJH	DWBY CHKD	RHE	ARS

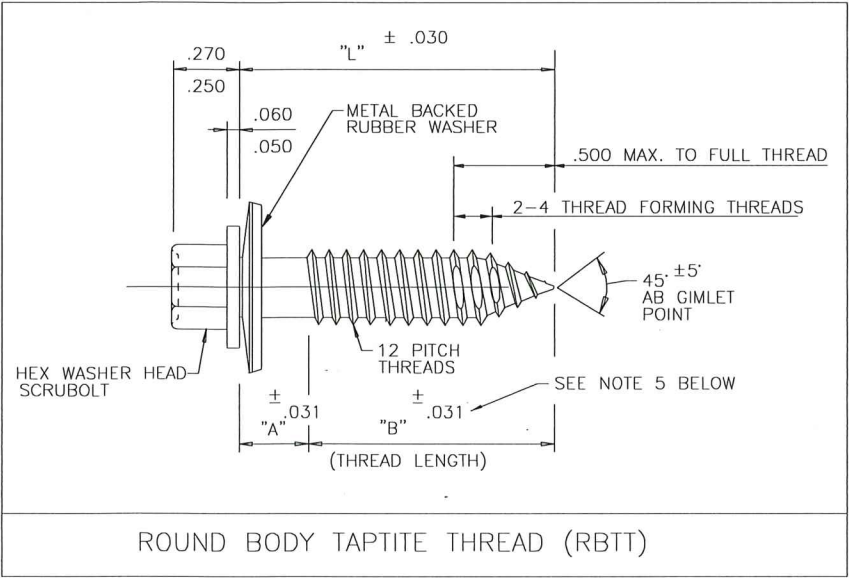
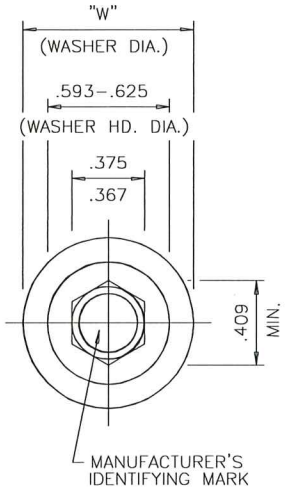
3

ASSEMBLY		SCRUBOLT WITHOUT WASHER						METAL BACKED RUBBER WASHER		
		SCRUBOLT PART NO.	MATERIAL	NOMINAL SIZE (SEE NOTE 6)	"L"	"A"	"B"	WASHER PART NO.	"W"	WASHER DWG. NO.
095984	0.031	095304	SS NOTE 1	11/32" X 7/8"	.875"	SEE NOTE 4	.875"	097436	.729	095016
096932	0.038	096930	ST. NOTE 2	3/8" X 1 1/4"	1.25"	SEE NOTE 4	1.250"	095154	.729	095016
097104	0.039	097103	SS NOTE 1	11/32" X 1 1/4"	1.25"	SEE NOTE 4	1.250"	097436	.729	095016
097196	0.039	097195	ST. NOTE 2	3/8" X 1"	1.00"	SEE NOTE 4	1.00"	095154	.729	095016
097222	0.055	097221	ST. NOTE 2	3/8" X 2"	2.00"	SEE NOTE 4	2.00"	095154	.729	095016
097264	0.074	096931	ST. NOTE 2	3/8" X 2 3/4"	2.75"	.750"	2.00"	095154	.729	095016
097270	0.060	097268	ST. NOTE 2	3/8" X 2 1/4"	2.25"	.250"	2.00"	095154	.729	095016
097271	0.086	097269	ST. NOTE 2	3/8" X 3 1/2"	3.50"	.500"	3.00"	095154	.729	095016
097292	0.125	097291	ST. NOTE 2	3/8" X 5"	5.00"	2.000"	3.00"	095154	.729	095016
097298	0.145	097297	ST. NOTE 2	3/8" X 6"	6.00"	3.000"	3.00"	095154	.729	095016

SEE NOTE 5



Russell L Benton, PE#51155



MATERIALS:

- 410 STAINLESS WITH CLEAR CHROMATE, MS-06-03
- CARBON STEEL WITH YELLOW CHROMATE - MS-06-03
- WASHER SPEC. AND DIMENSIONS - SEE DWG 095016

SCRUBOLT WITH FULL THREADS:

- FULL THREAD TO WITHIN 1 THREAD OF HEAD AND SHANK JUNCTURE.
- 3" THREAD LENGTH  
HAS A ± .050 TOLERANCE
- DIAMETER OF 3/8" SCRUBOLT IS .367±.003  
DIAMETER OF 11/32" SCRUBOLT IS .345±.003

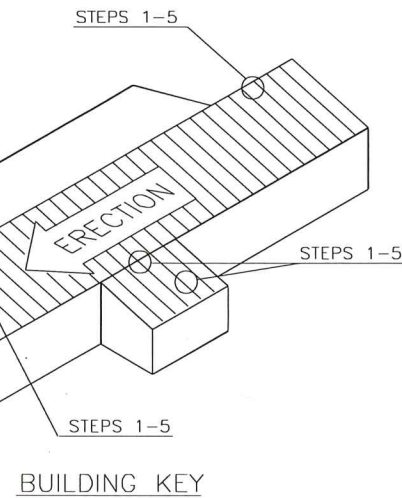
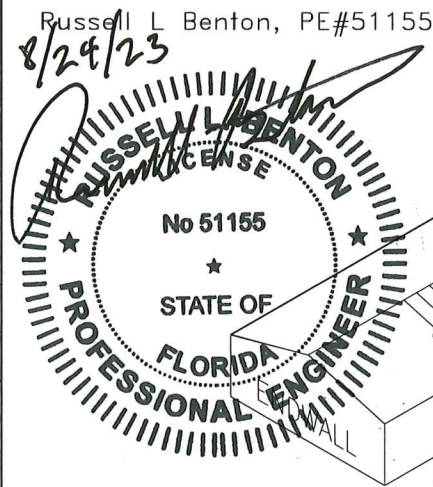
PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 23-0908.03  
Expiration Date 12/09/2024  
By *Heidi P. Miller*  
Miami Date Product Control

SHEET 3 OF 6

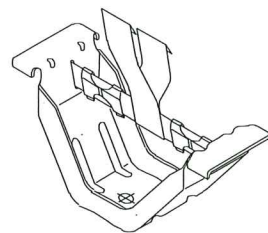
BUTLER		MR-24 HEX HEAD SCRUBOLTS		DADE COUNTY FLORIDA	
Butler Manufacturing a division of BlueScope Buildings North America, Inc. 1540 GENESSEE ST. KANSAS CITY, MO. 64102	DRAWN BY JRS	CHECKED BY MJH	FIRST RELEASE DATE 01/21/10	REVISION DATE 01/04/23	GROUP NUMBER: 02-030-01 B P-081385 03



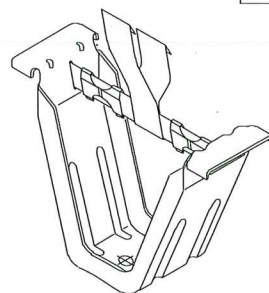
REVISION NUMBER 1	REVISION NUMBER 2	REVISION NUMBER 3
DATE: 07/01/10 DWBY CHKD RLB	DATE: 03/02/15 DWBY CHKD RKP	DATE: 09/08/20 DWBY CHKD RLB
REVISE TO BINA TITLE BLOCK AND NUMBER TO P-081386. ADD BUTLER LOGO.	ADD EXTRA TALL CLIP (560745) AND FASTENERS FOR INSTALLATION. ADD FM CLIPS (560743 AND 560744).	ADD NOTE: 2 TO IMPORTANT NOTES.



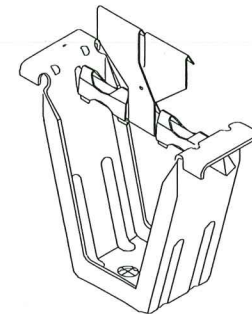
\*NOTE:  
MR-24 CLIP 560743, 560744 OR 560745  
MAY BE SUPPLIED WHEN FACTORY MUTUAL  
CLASSIFICATION IS SPECIFIED.



SHORT PANEL CLIP (560440 OR \*560743)  
(WITHOUT THERMAL SPACER BLOCK)



TALL PANEL CLIP (560441 OR \*560744)  
(WITH THERMAL SPACER BLOCK)



EXTRA TALL PANEL CLIP (\*560745)  
(WITH THERMAL SPACER BLOCK FOR 6" TO 9" INSULATION)

**WARNING**  
ALWAYS USE FALL PROTECTION WHILE  
WORKING AROUND ROOF OPENINGS.

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Expiration Date 12/09/2024  
By *Heidi M. Miller*  
Miami Data Product Control

- IMPORTANT NOTES:
1. ALWAYS MAKE SURE TABS ARE CENTERED IN THE MR-24 CLIP AFTER THE CLIP IS INSTALLED.
  2. PANEL CLIPS MUST BE ATTACHED TO ALL ROOF SECONDARY SUPPORT MEMBERS INCLUDING ALL INTERMEDIATE MEMBERS, SUB-PURLINS, ETC.

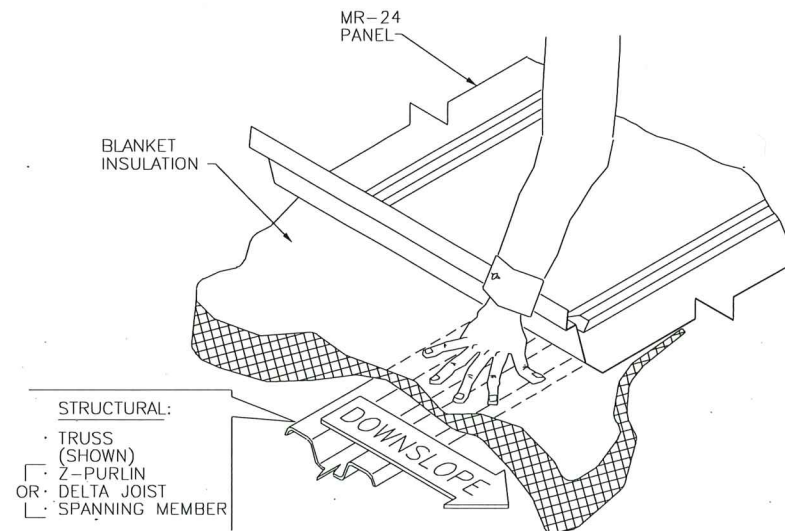
SHEET 4 OF 6

INSTALLATION OF SCRUBOLT REQUIRES A 3/8" SOCKET AND A 5" (MINIMUM) EXTENSION.

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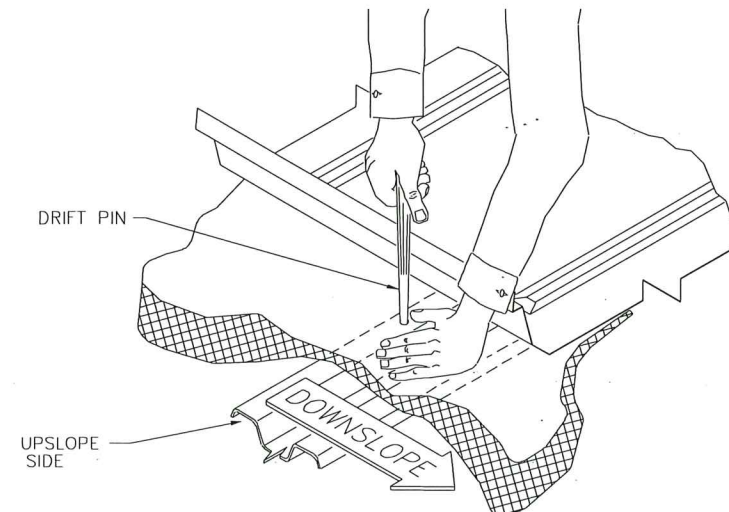
MR-24 PANEL CLIP INSTALLATION  
DADE COUNTY FLORIDA

DRAWN BY	CHECKED BY	GROUP NUMBER:
JRS	MJH	02 - 030 - 06
FIRST RELEASE DATE	REVISION DATE	
01/21/10	09/08/20	B P-081386 03



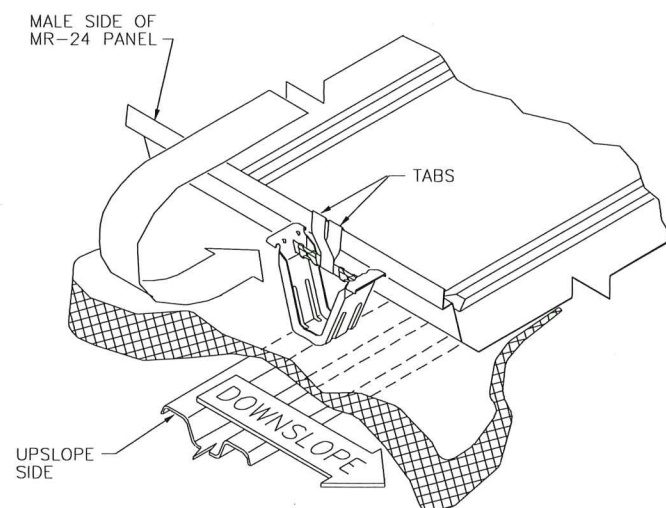
STEP 1 LOCATE STRUCTURAL

FROM THE ADJACENT MR-24 PANEL.  
LOCATE THE STRUCTURAL UNDER  
THE BLANKET INSULATION.

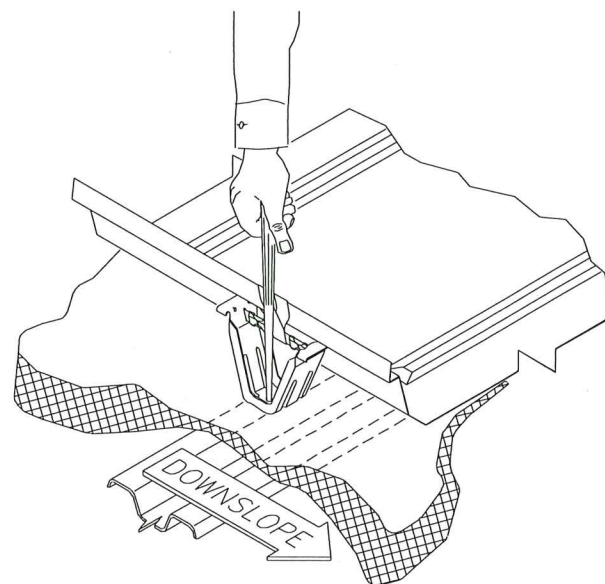


STEP 2 LOCATE HOLE IN STRUCTURAL WITH DRIFT PIN

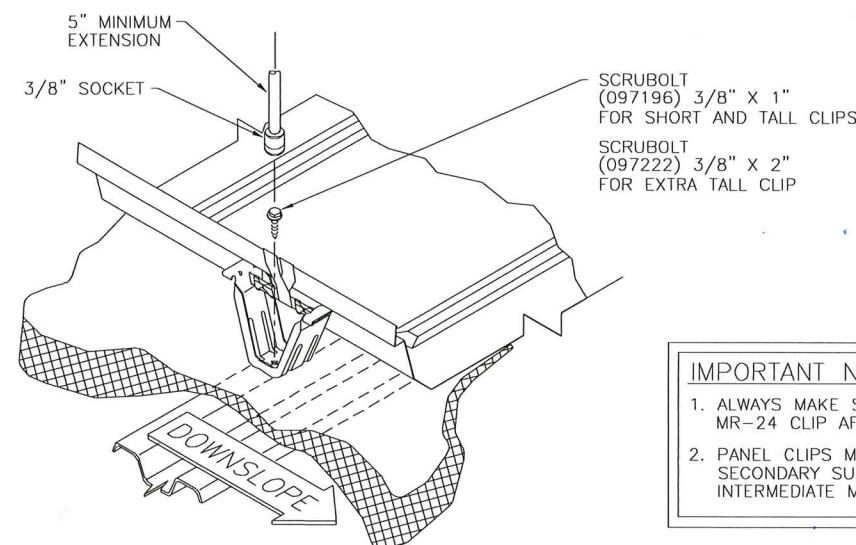
IMPORTANT NOTE: ALWAYS LOCATE PANEL CLIPS ON THE UPSLOPE SIDE OF TRUSS OR DELTA JOIST. (FOR DELTA JOIST SYSTEM, AT THE HIGH SIDE OF SINGLE SLOPE MOUNT CLIP ON ROOF SUPPORT ANGLE.)



STEP 3 HOOK PANEL CLIP TABS OVER PANEL AND ROTATE CLIP INTO POSITION



STEP 4 TEMPORARILY SECURE THE PANEL CLIP WITH A DRIFT PIN

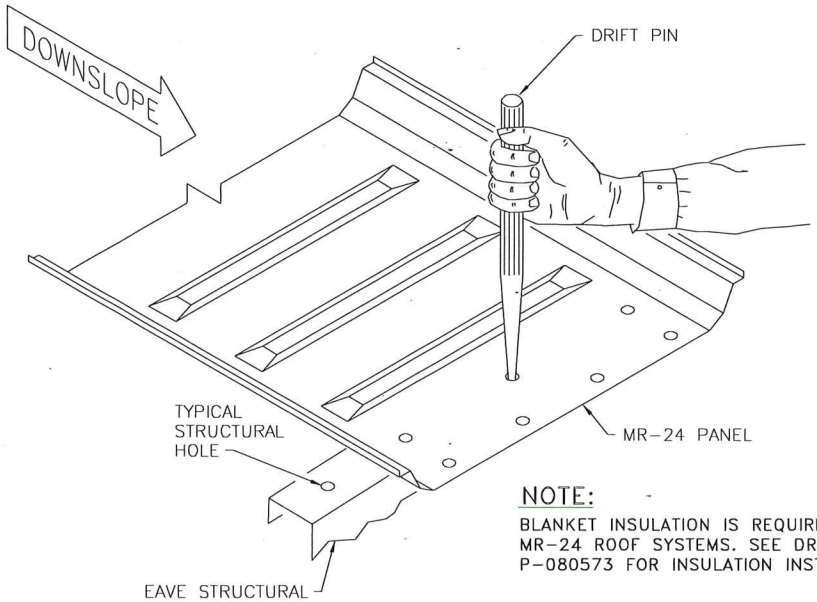


STEP 5 INSTALL SCRUBOLT FASTENER



REVISION NUMBER 1	REVISION NUMBER 2	REVISION NUMBER 3	REVISION NUMBER 4
DATE: 07/01/10 DWBY: CHKD BSN: RLB	DATE: 03/11/14 DWBY: CHKD RHE: MJH	DATE: 09/20/16 DWBY: CHKD RHE: RWC	DATE: 09/08/20 DWBY: CHKD BSN: RLB
REVISE TO BINA TITLE BLOCK AND NUMBER TO P-081387. ADD BUTLER LOGO.	REVISED TO SHOW NEW STARTING PLATFORM AND SAFETY PROCEDURE FOR ENGAGING ROOF RUNNER. ADDED FLUTES TO MR-24 PANEL.	REVISED TO IMPORTANT NOTE: CALL OUT TO ALWAYS MAKE SURE THE QUICK RELEASE PINS ARE IN PLACE BEFORE ATTEMPTING TO PLACE ROOF RUNNER ON STARTING PLATFORM.	ADD NOTES FOR HIGH SIDE SINGLE SLOPE BUILDINGS IN STEP 4.

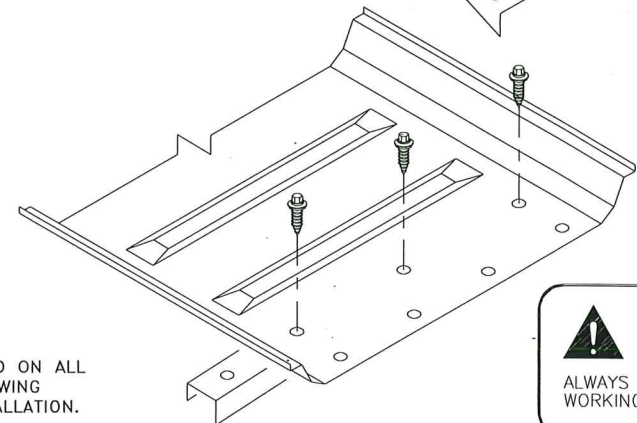
**RUSSELL L. BENTON**  
LICENSE  
No 51155  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER  
8/24/23  
Russell L Benton, PE#51155



### STEP 1 - LOCATE STRUCTURAL HOLE

- REFER TO ROOF PANEL LAYOUT DRAWING PROVIDED WITH EACH ORDER FOR PANEL PLACEMENT.
- PANELS CLIPS ARE NOT INSTALLED AT EAVE STRUCTURAL.

**NOTE:**  
BLANKET INSULATION IS REQUIRED ON ALL MR-24 ROOF SYSTEMS. SEE DRAWING P-080573 FOR INSULATION INSTALLATION.

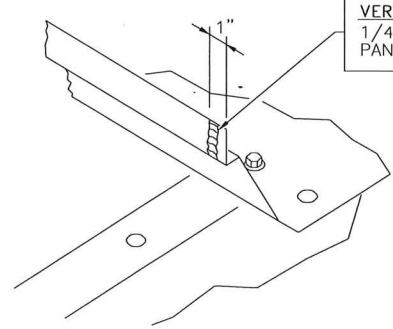


### STEP 2 - INSTALL FASTENERS

- INSTALL APPROPRIATE FASTENERS BEFORE PANEL CORRUGATIONS ARE LOCK SEALED.

### WARNING

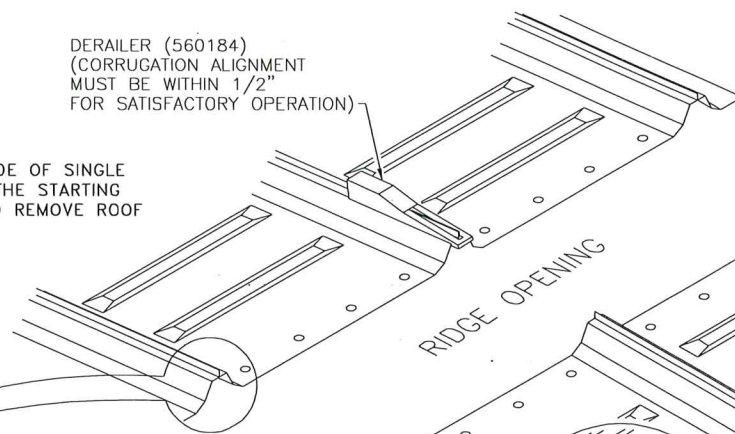
ALWAYS USE FALL PROTECTION WHILE WORKING AROUND ROOF OPENINGS.



### STEP 3 - INSTALL SEALANT

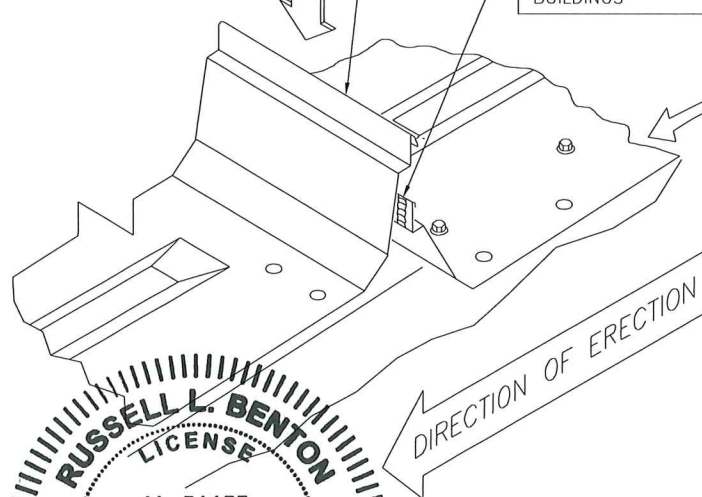
### NOTE:

TO HELP PREVENT WALL STAINING CAUSED BY ROOF RUN-OFF, INSTALL EDGE OF ROOF TRIM OR GUTTER PARTS IMMEDIATELY AFTER ROOF PANELS ARE INSTALLED.



**NOTE:**  
FOR HIGH SIDE OF SINGLE SLOPE USE THE STARTING PLATFORM TO REMOVE ROOF RUNNER.

**VERY IMPORTANT:**  
APPLY 1/4" DIA. BEAD OF GUN GRADE PANLASTIC (025392) AT HIGH SIDE SINGLE SLOPE BUILDINGS

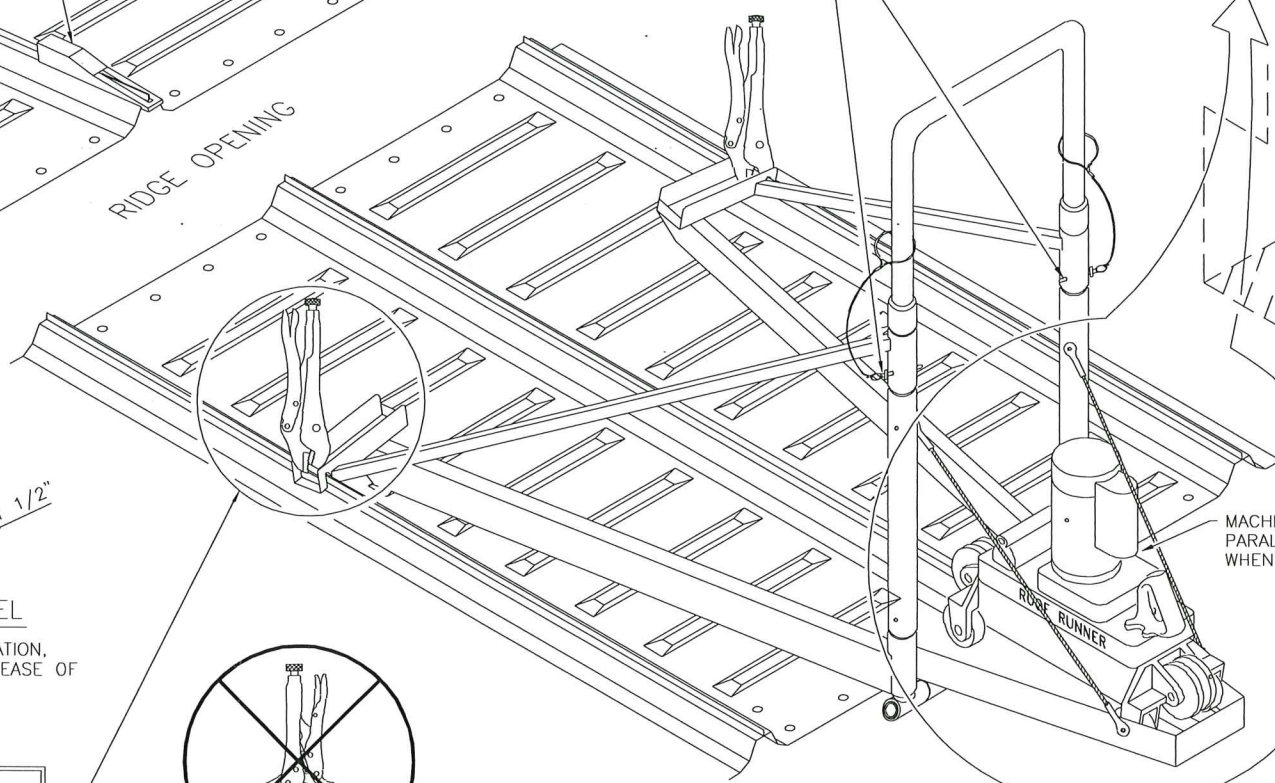
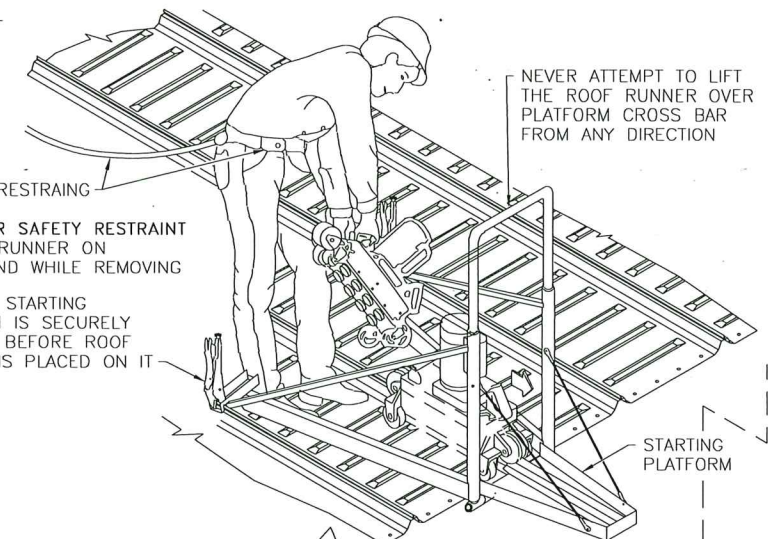


### STEP 5 - CRIMP PANEL

- BEFORE STARTING SEAMING OPERATION, CRIMP THE START OF SEAM FOR EASE OF ROOF RUNNER ENGAGEMENT.

**IMPORTANT:**  
DO NOT USE C-CLAMP STYLE LOCKING PLIERS WHEN SECURING THE STARTING PLATFORM AT MR-24 CORRUGATION SEAM LOCATIONS. ONLY CURVED JAW TYPE, (9" MIN.), MAY BE USED.

**IMPORTANT:**  
QUICK RELEASE PINS MUST ALWAYS BE IN PLACE BEFORE ATTEMPTING TO PLACE ROOF RUNNER ON STARTING PLATFORM



### STEP 6 - SEAMING OPERATION

- BE SURE PANELS ARE PROPERLY NESTED TOGETHER PRIOR TO SEAMING
- PANELS CAN BE TEMPORARILY HELD IN PLACE WITH VICE GRIPS BEFORE SEAMING.

**IMPORTANT:**  
THE AREA BELOW WHERE A STARTING PLATFORM IS BEING USED MUST BE DESIGNATED A WORK EXCLUSION ZONE.

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By Hely A. Nolasco  
Miami Date Product Control

CENTER FRONT GUIDE WHEEL ON PANEL CORRUGATION

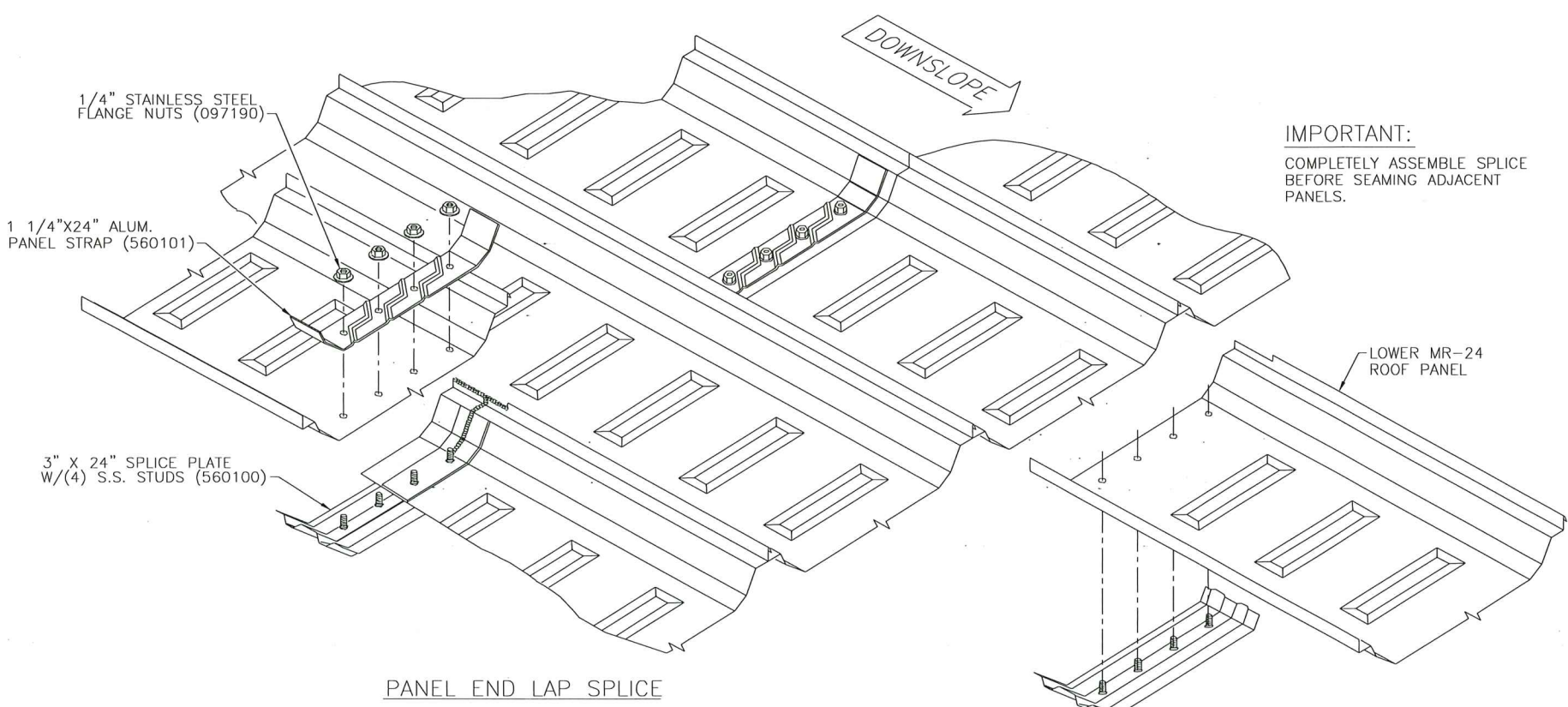
**BUTLER**  
Butler Manufacturing  
a division of BlueScope Buildings North America, Inc.  
1540 GENESSEE ST.  
KANSAS CITY, MO. 64102

MR-24 PANEL INSTALLATION  
DADE COUNTY FLORIDA

DRAWN BY: JRS	CHECKED BY: MJH	GROUP NUMBER: 02-030-06
FIRST RELEASE DATE: 01/21/10	REVISION DATE: 09/08/20	B P-081387 04



REVISION NUMBER 1		REVISION NUMBER 2	
DATE	REVISION	DATE	REVISION
07/01/10	REVISE TO BNA TITLE BLOCK AND NUMBER TO P-081388.	08/06/18	REVISED TO ADD TORQUE LIMITER SOCKET DETAIL AND DIRECTIONS FOR USE.
DWBY CHD	ADD BUTLER LOGO.	DWBY CHD	ENH #44263.
BSN	RLB	RHE	ARB



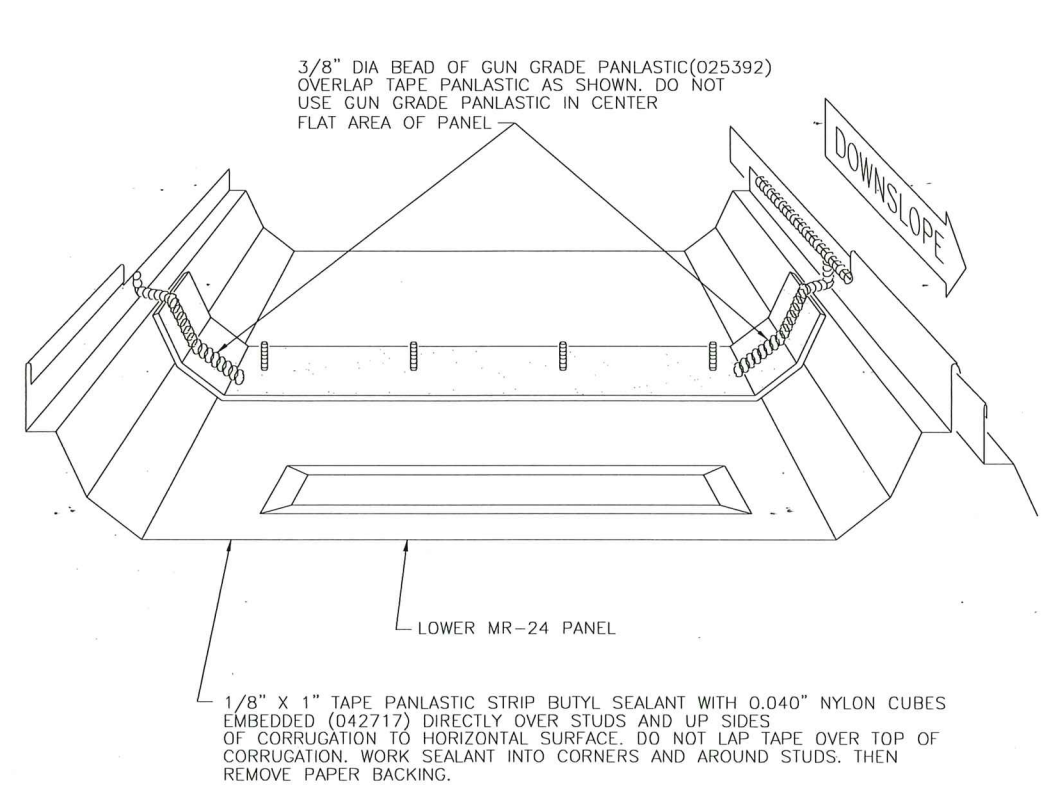
PANEL END LAP SPLICE

- PUNCHED AND NOTCHED PANELS ARE FURNISHED WITH LENGTHS CALCULATED FOR END LAP SPLICES TO OCCUR OVER SECONDARY STRUCTURALS.
- REFER TO ROOF PANEL LAYOUT DRAWINGS PROVIDED WITH EACH ORDER FOR PROPER PLACEMENT OF STAGGERED END LAP SPICE LOCATIONS.

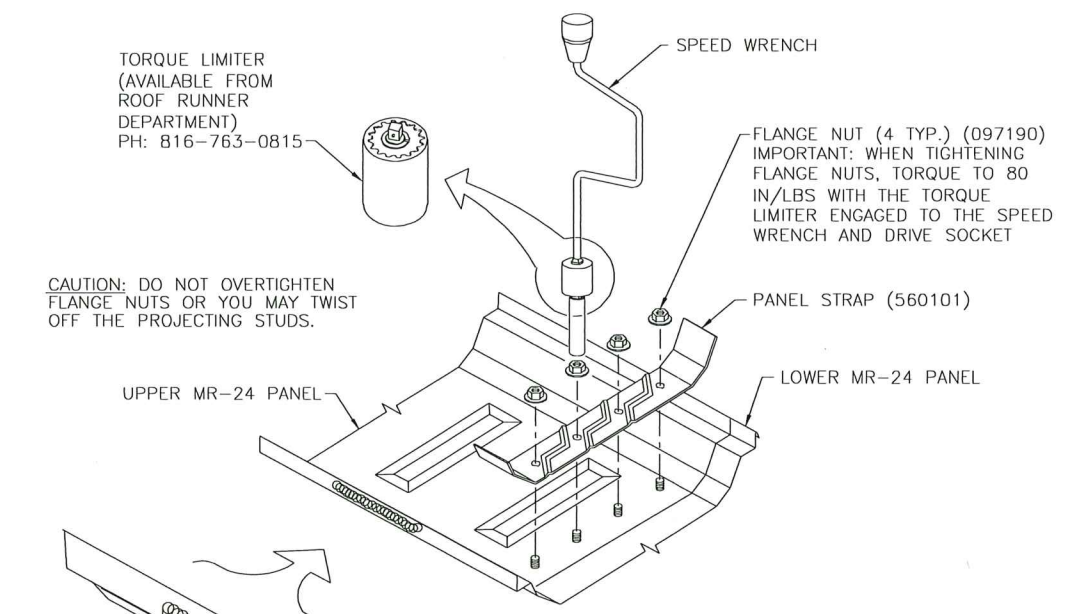
**IMPORTANT:**  
COMPLETELY ASSEMBLE SPLICE BEFORE SEAMING ADJACENT PANELS.

STEP 1 – SPLICE PLATE INSTALLATION

- ATTACH PANEL AT EAVE TO STRUCTURAL MEMBER.
- FOR EASE OF INSTALLATION, SPLICE PLATE (560100) CAN BE TEMPORARILY ATTACHED TO PANEL WITH (2) FLANGE NUTS BEFORE POSITIONING PANEL.

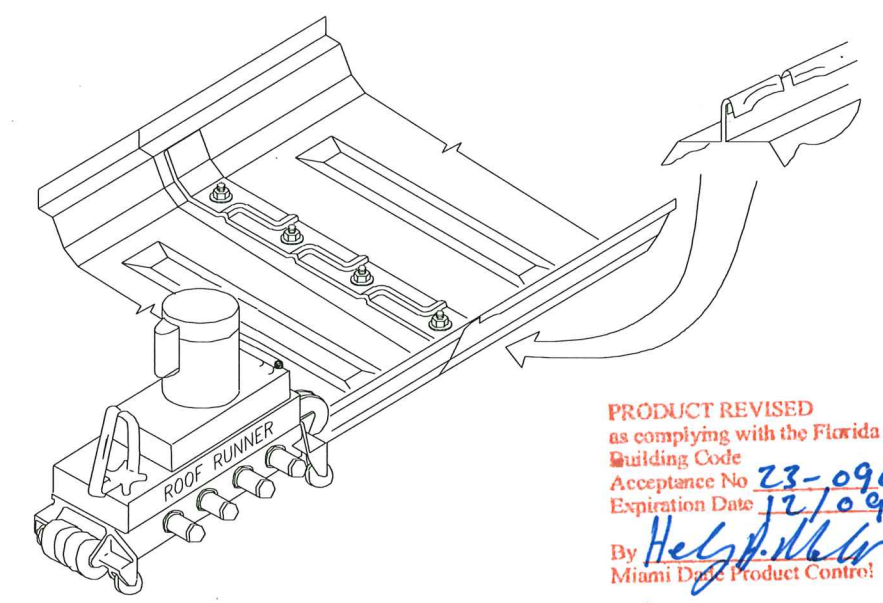


STEP 2 – SEALANT APPLICATION



STEP 3 – PANEL STRAP INSTALLATION

- POSITION UPPER PANEL INTO NOTCHED AREA ON LOWER PANEL WHILE ENGAGING STUDS IN PREPUNCHED HOLES.
- HAND HELD WRENCH IS RECOMMENDED TO TIGHTEN FLANGE NUTS (DO NOT USE POWER TOOLS.)
- IF STUDS BREAK, INSTALL A NEW SPLICE PLATE.
- APPLY GUN GRADE PANLASTIC TO BACK SIDE OF SEAM BEFORE SUCCEEDING PANELS ARE INSTALLED.



STEP 4 – SEAMING OPERATION

- INSPECT EACH END LAP SPLICE FOR PROPER FIT AND WEATHER TIGHTNESS.

**RUSSELL L. BENTON**  
LICENSE  
No 51155  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER

8/24/23

Russell L Benton, PE#51155

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
Acceptance No **23-0908.03**  
Expiration Date **12/09/2024**  
By **Helga H. H. H.**  
Miami Dade Product Control!

BUTLER		MR-24 END LAP SPLICE		DADE COUNTY FLORIDA	
DRAWN BY	CHECKED BY	GROUP NUMBER: 02-030-06			
JRS	MJH				
FIRST RELEASE DATE	REVISION DATE				
01/21/10	08/06/18				
B		P-081388		02	

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