



MIAMI-DADE COUNTY
BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING

140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

NOTICE OF ACCEPTANCE (NOA)

www.miamidade.gov

Nucor Building Systems
200 Whetstone Road
Swansea, SC 29160

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) 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 Division (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. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division 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: VR-16, 0.0245" min. Structural Galvalume Steel Roof Panel

APPROVAL DOCUMENT: Drawing #1446, titled "VR-16, 24 Gage Structural Galvalume Steel Roof System", sheets 1 through 4 of 4, dated June 01, 2006, last revision #3 dated July 22, 2007, prepared, signed and sealed by Bala Sockalingam, P.E., bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and the approval date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: Large and Small Missile Impact

LABELING: Each panel shall bear a permanent label with the manufacturer's name or logo, city, state 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 consists of this page 1, evidence submitted page E-1 as well as approval document mentioned above. The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**



Helmy A. Makar
 09/13/2007

NOA No. 06-0803.04
Expiration Date: 09/13/2012
Approval Date: 09/13/2007
 Page 1

Nucor Building Systems

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. *Drawing #1446, titled "VR-16, 24 Gage Structural Galvalume Steel Roof System", sheets 1 through 4 of 4, dated June 01, 2006, last revision #3 dated July 22, 2007, prepared, signed and sealed by Bala Sockalingam, P.E.*

B. TESTS

1. *Test reports on 1) Uniform Static Air Pressure Test, Loading per ASTM E1592 and 2) Large Missile Impact Test per TAS 201 along with marked-up drawings and installation diagram 24 GA 16" steel roof panel, prepared by Hurricane Test Laboratory, Inc., Test Report No. 0420-0216-06 and 0420-0313-06, dated 05/25/2006, signed and sealed by Vinu J. Abraham, P.E.*
2. *Test reports on 1) Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems, TAS 100-95 along with marked-up drawings and installation diagram 24 GA 16" steel roof panel, prepared by Asphalt Technologies, Inc., Test Report No. NBS-002-02-01, dated 03/30/2006, signed and sealed by Charles L. Thomas, P.E.*
3. *Test reports on 1) Uniform Static Air Pressure Test, Loading per ASTM E1592 along with marked-up drawings and installation diagram 24 GA 16" steel roof panel, prepared by Hurricane Test Laboratory, Inc., Test Report No. 0420-0610-07, dated 07/12/2007, signed and sealed by Vinu J. Abraham, P.E.*
4. *Accelerated weathering per ASTM G153.*
5. *Test Report for Suseptability to Leakage for roof system assemblies per TAS-114, dated 04/03/2006, signed and sealed by Charles L. Thomas, P.E.*
6. *Salt Spray test per ASTM B117.*

C. CALCULATIONS

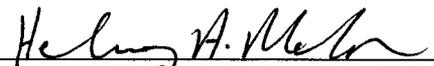
1. *Fasteners Calculations and structural analysis, prepared by Bala Sockalingam, P.E., dated 07/07/2006, signed and sealed by Bala Sockalingam, P.E.*
2. *Fasteners Calculations and structural analysis, prepared by Bala Sockalingam, P.E., dated 07/24/2007, signed and sealed by Bala Sockalingam, P.E.*

D. QUALITY ASSURANCE

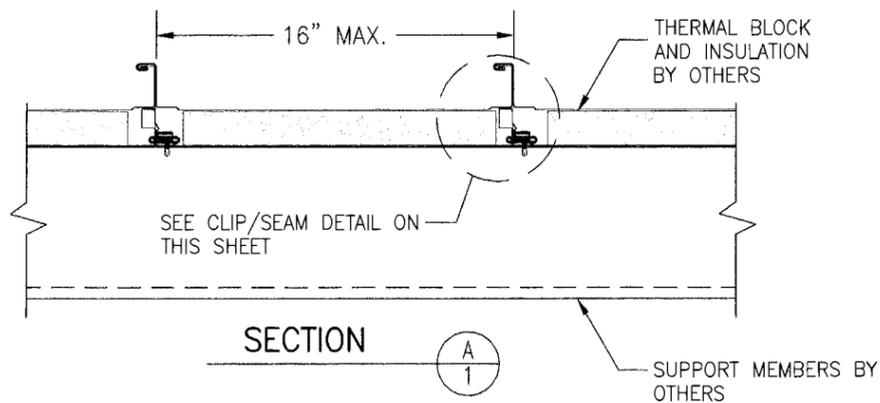
1. *By Miami-Dade County Building Code Compliance Office.*

E. MATERIAL CERTIFICATION

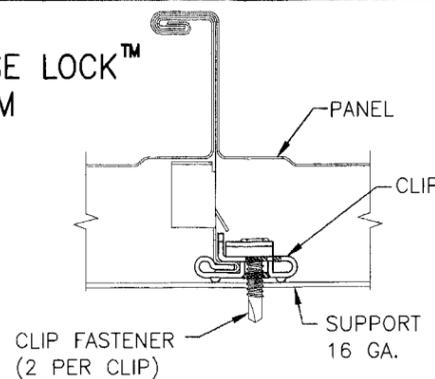
1. *Mill Certificate, prepared by Wheeling Nisshin, dated 01/09/2006.*
2. *Tensile Test prepared by QC Metallurgical, Inc., Project No. 6FM-501, dated 06/19/2006, for steel samples, tested per ASTM E8-00, signed and sealed by Frank Grate, P.E.*



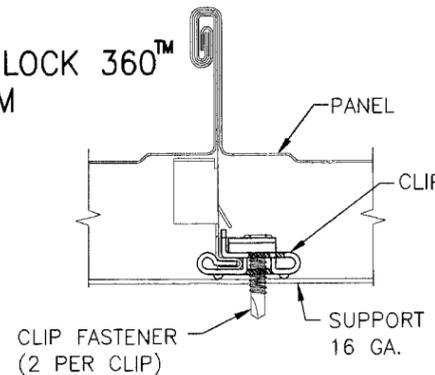
Hejny A. Makar, P.E., M.S.
Product Control Examiner
NOA No. 06-0803.04
Expiration Date: 09/13/2012
Approval Date: 09/13/2007



NUCOR VISE LOCK™ SEAM



NUCOR VISE LOCK 360™ SEAM

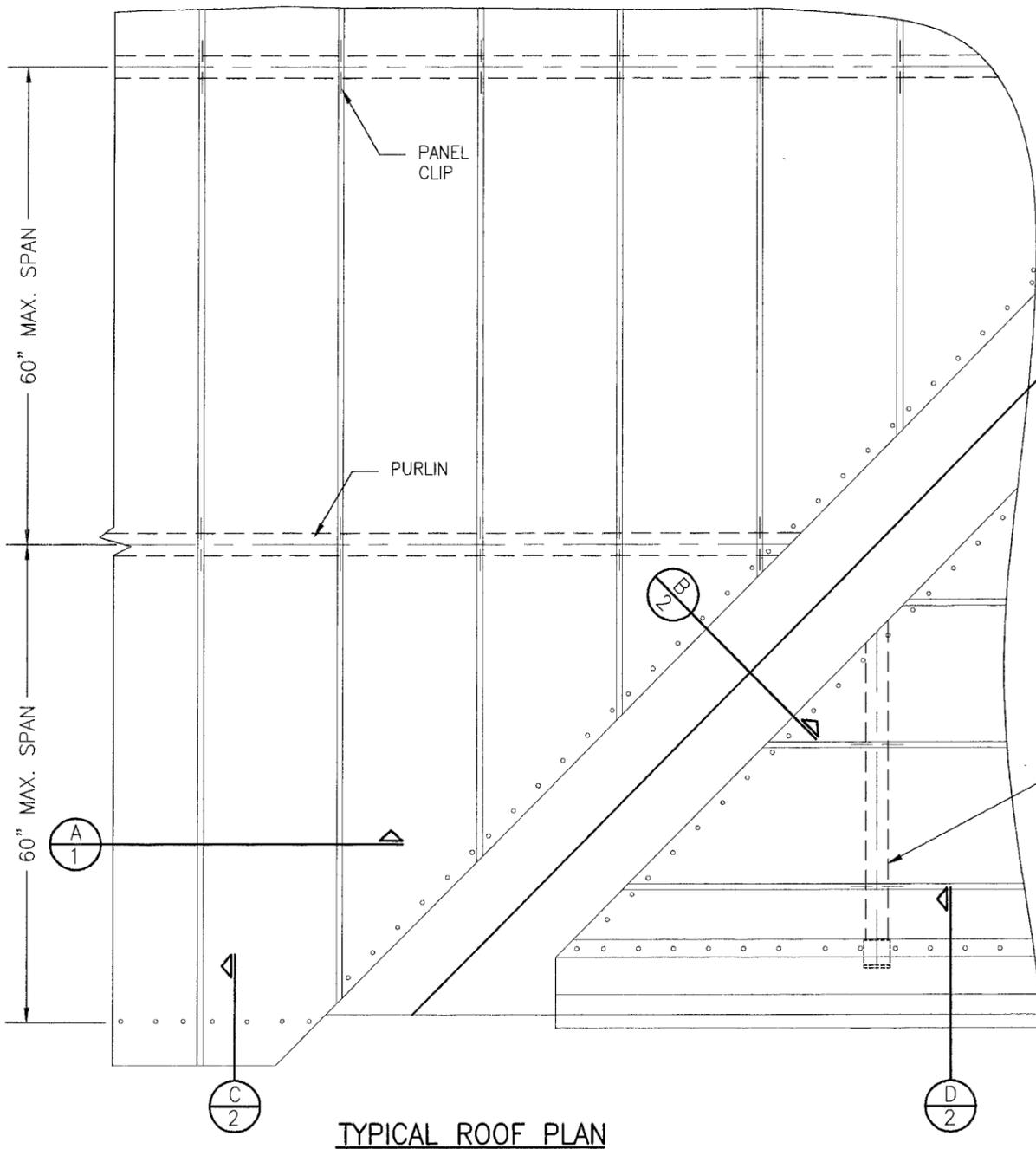


GENERAL NOTES:

1. THIS STRUCTURAL ROOF PANEL SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH 2004 FLORIDA BUILDING CODE (F.B.C.).
2. ROOF PANELS ARE FABRICATED FROM A MAX. 22.25" WIDE COIL & SHALL BE 24 GA. (t = 0.0245") ASTM 792 GRADE D STEEL WITH A SILICONIZED POLYESTER COATING APPLIED. EFFECTIVE COVERING WIDTH OF PANEL = MAX. 16". Fy = 56.4 ksi (MIN.)
3. THE ROOF PANELS SHALL BE INSTALLED OVER ROOF STRUCTURE AS SPECIFIED ON THESE DRAWINGS.
4. PANEL END OVERLAPS MAY OCCUR WITHIN 12" OF SUPPORTING PURLIN WEB PROVIDING THE END LAPS ARE CONSTRUCTED, SUPPORTED & SEALED PER THE END LAP DETAIL ON SHEET 3.
5. REQUIRED DESIGN WIND LOADS SHALL BE DETERMINED FOR EACH PROJECT.
6. THIS ROOFING PANEL SYSTEM HAS BEEN TESTED IN ACCORDANCE WITH FLORIDA BUILDING CODE:
 - * ACCELERATED TESTING OF COATING PER ASTM G153
 - * SALT SPRAY TESTING PER ASTM B117
 - * UPLIFT RESISTANCE TEST PER TAS-125 & ASTM E1592
 - * WIND DRIVEN RAIN & STANDING WATER TESTS PER TAS-100 & TAS-114
 - * TENSILE TESTS PER ASTM E8
7. ROOF PANEL MANUFACTURER'S PERMANENT LABEL SHALL BE PLACED AT THE END OF EACH PANEL RUN AND SHALL READ: NUCOR BUILDING SYSTEMS SWANSEA, SOUTH CAROLINA MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED
8. ALL SCREWS SHALL BE CORROSION RESISTANT SELF DRILLING SCREWS.
9. THE SUPPORTING STRUCTURE, OVER WHICH THE PANELS ARE TO BE INSTALLED, MUST BE MINIMUM 16 GAGE (MIN. 0.0598") STEEL WITH MIN. Fy = 50 KSI.
10. MAXIMUM POSITIVE AND NEGATIVE DESIGN LOADS FOR 24 GA. VR-16 WITH NUCOR VISE LOCK™ OR NUCOR VISE LOCK 360™ SEAM IN THE ROOF FIELD, PERIMETER AND CORNER ZONES SHALL BE THE LOWEST DESIGN LOAD CALCULATED BASED ON THE PANEL ALLOWABLES AND CLIP TYPE SHOWN. MAXIMUM ALLOWABLE DEFLECTION LIMIT = L/240.

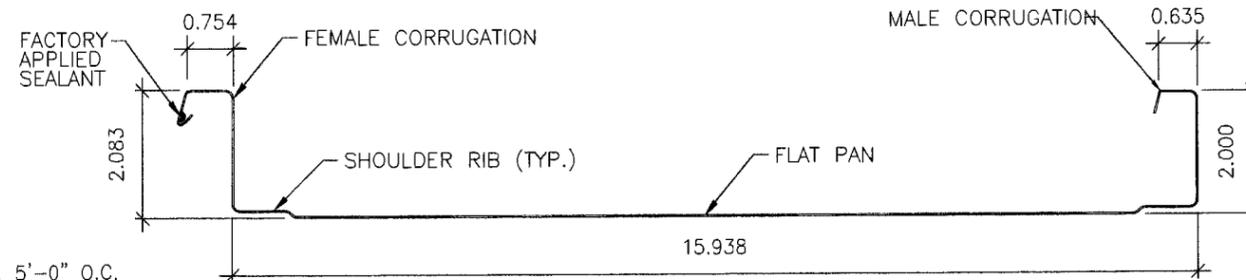
PANEL ALLOWABLES	FOR POSITIVE LOAD *		FOR UPLIFT LOAD *	
	ALL SEAM TYPES	NUCOR VISE LOCK™	NUCOR VISE LOCK 360™	
M (SUPPORT) (lb.ft/ft)	125	86	111	
M (SPAN) (lb.ft/ft)	100	69	89	
REACTION (lb/ft)	275	189	244	
EI (lb.in ³ /ft)	4074248	1654505	2246583	

* SEE NOTE 10.



TYPICAL ROOF PLAN

PURLINS AT MAX. 5'-0" O.C. BY OTHERS (MIN. 16 GA. STEEL MEMBER REQUIRED PER GENERAL NOTE #9)



TYPICAL PANEL PROFILE

24 GA. GALVALUME COATED STEEL WITH PAINTED FINISH (t = 0.0245" MIN.)

PRODUCT APPROVAL IS LIMITED TO THE ROOF PANEL & ITS CONNECTING CLIPS. THE STRUCTURAL ADEQUACY OF ALL OTHER STRUCTURAL ITEMS (BEAMS, COLUMNS, PURLINS, FACIA SUPPORTS, CONNECTIONS OF STRUCTURE, ETC. SHALL BE VERIFIED BY THE STRUCTURAL PLANS EXAMINER OF THE CORRESPONDING BUILDING DEPARTMENT. THE METAL ROOF PANELS SHALL NOT BE DESIGNED TO ACT AS A DIAPHRAGM.

Approved as complying with the Florida Building Code
Date 09/13/2007
NOA# 06-0803-04
Miami Dade Product Control Division
By *Helmut A. Mohr*

DRAWN BY: B.S.	CHECKED BY: A.B.
DATE: 6/22/07	DATE: 6/1/06
REVISION DESCRIPTION	BY
1 REVISE NOTES 2 & 10.	BS
2 ADD THICKNESS	BS
3 CHANGE SEAM NAMES	BS

DRAWING TITLE: VR-16, 24 GAGE STRUCTURAL GALVALUME STEEL ROOF SYSTEM

CONSULTANTS: MANUFACTURER: NUCOR BUILDING SYSTEMS
200 WHETSTONE ROAD
SWANSEA, SC 29160
803-568-2100

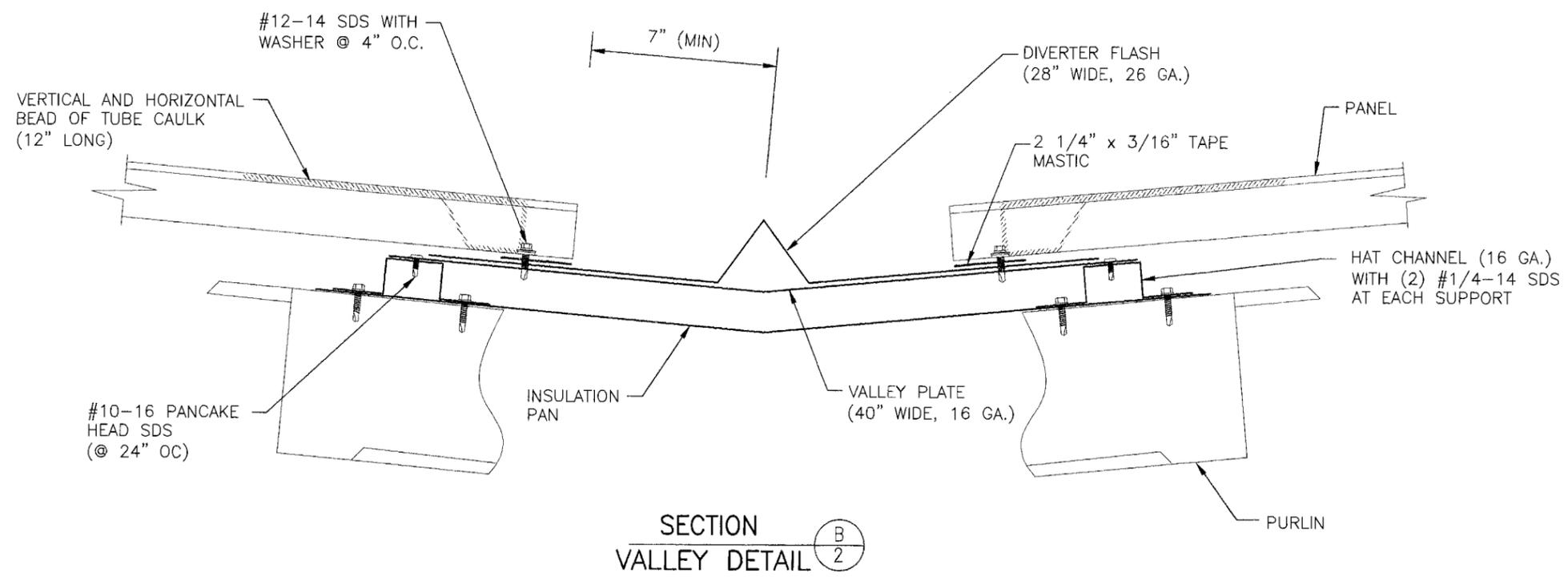
BALA SOCKALINGAM, PH.D., P.E.

6717 S. YALE AVE, SUITE 200
TULSA, OK 74136
PHONE: 918-492-5992 FAX: 918-493-3568

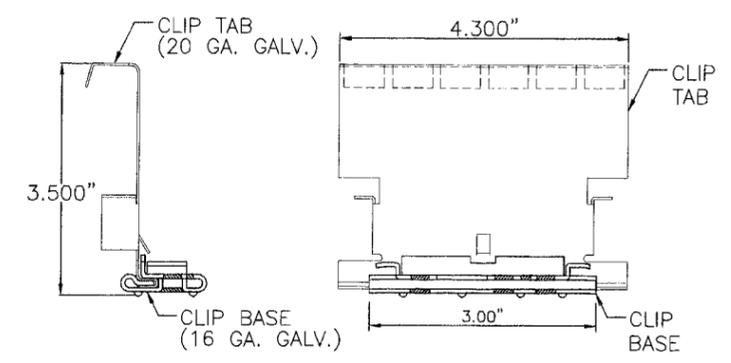
CERTIFICATION: *[Signature]* 7.24.07
BALA SOCKALINGAM, P.E.
P.E. NO. 62240

DRAWING NO. 1446 REV. A
SHEET NO. 1 OF 4

DRAWN BY: B.S.	CHECKED BY: A.B.
PLOT:	DATE: 6/1/06
NO.	REVISION DESCRIPTION
1	REVISE SECTION B, C & D

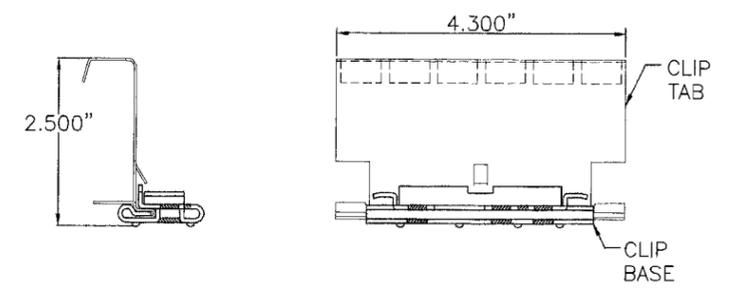


SECTION
VALLEY DETAIL B
2



MC 1213

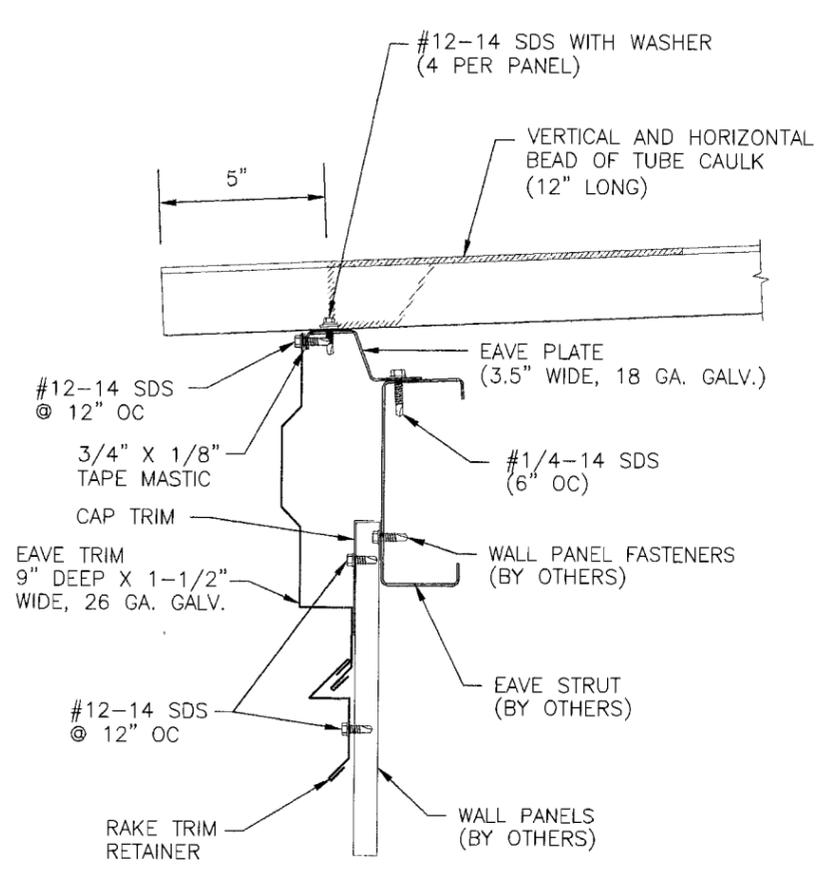
USED WITH 6" THICK INSULATION & THERMAL BLOCKS



MC 1203

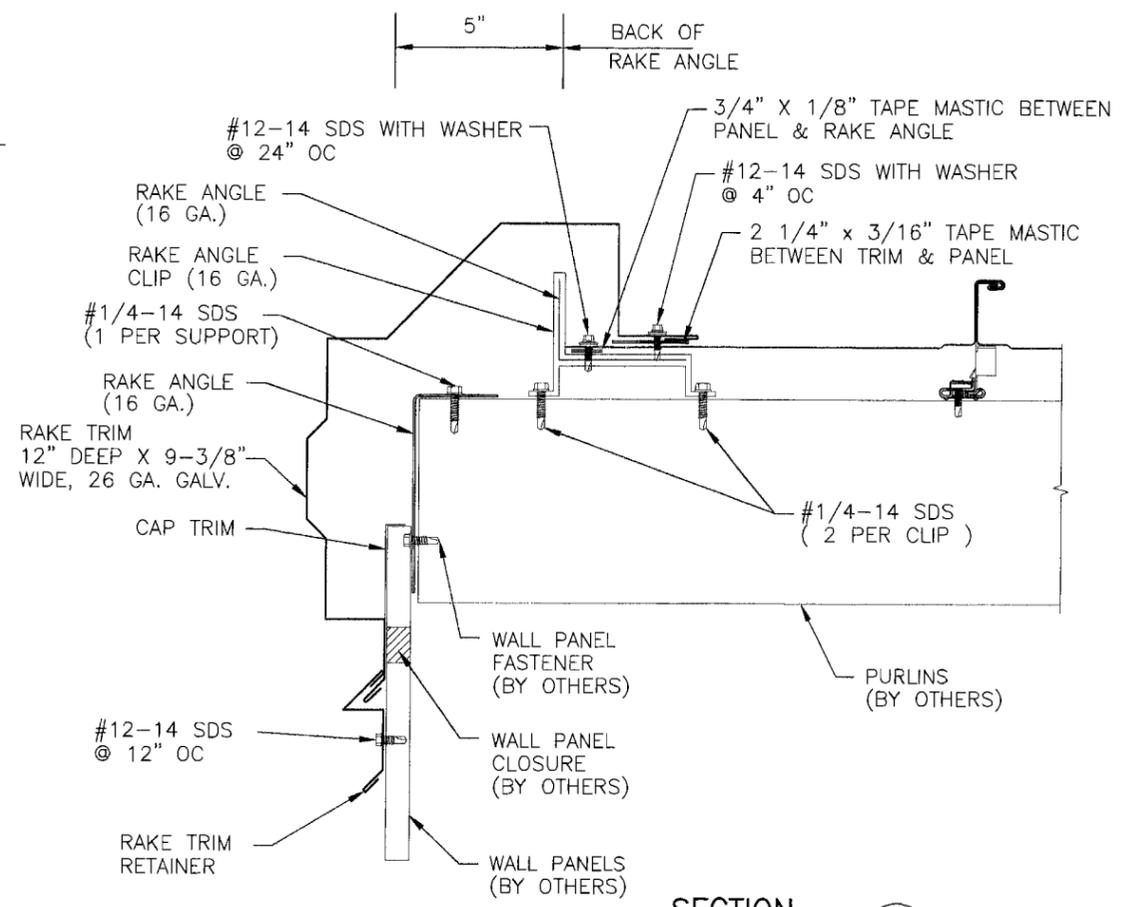
USED WITH 4" THICK INSULATION

PANEL CLIP



SECTION
EAVE DETAIL C
2

NOTE: ALL FLASHING MATERIAL NOT CALLED OUT WITH A SPECIFIC GAGE THICKNESS SHALL BE MIN. 26 GAGE.



SECTION
RAKE DETAIL D
2

Approved as complying with the
Florida Building Code
Date: 09/13/2007
NOA# 06-0803-04
Miami Dade Product Control
Division
By: *Helmut J. Helber*

DRAWING TITLE
VR-16, 24 GAGE STRUCTURAL GALVALUME STEEL ROOF SYSTEM

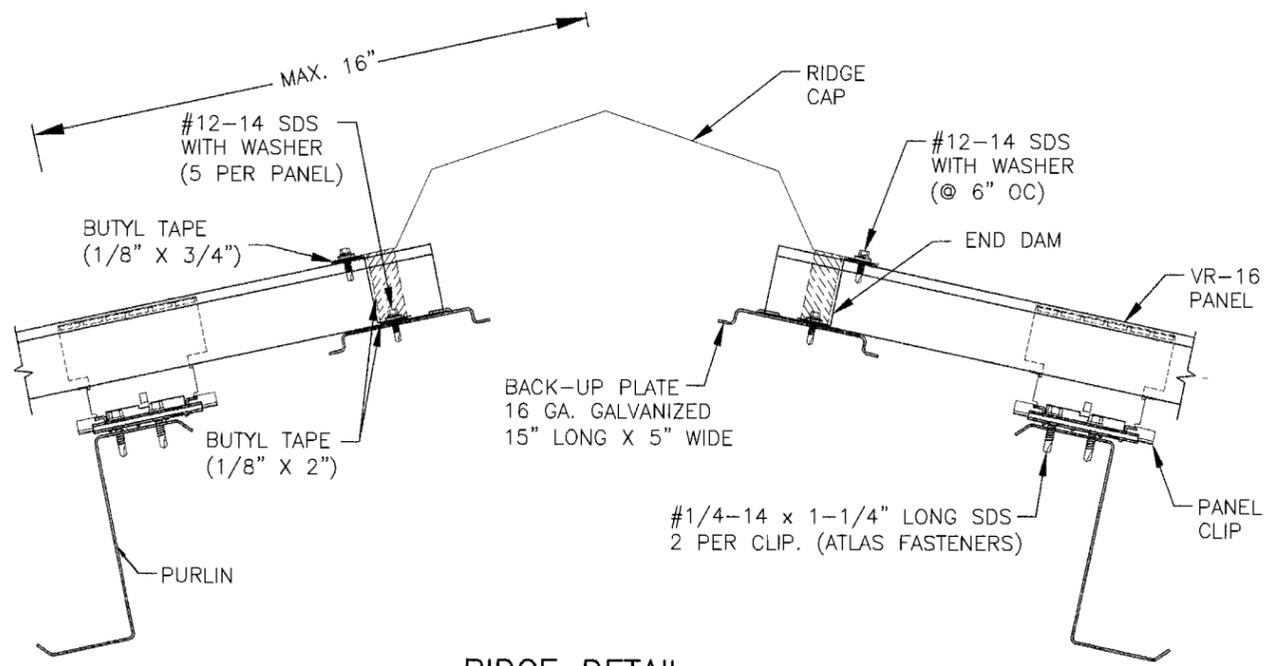
MANUFACTURER
NUCOR BUILDING SYSTEMS
200 WHETSTONE ROAD
SWANSEA, SC 29160
803-568-2100

CONSULTANTS
BALA SOCKALINGAM, PH.D., P.E.
6717 S. YALE AVE, SUITE 200
TULSA, OK 74136
PHONE: 918-492-5992 FAX: 918-493-3568

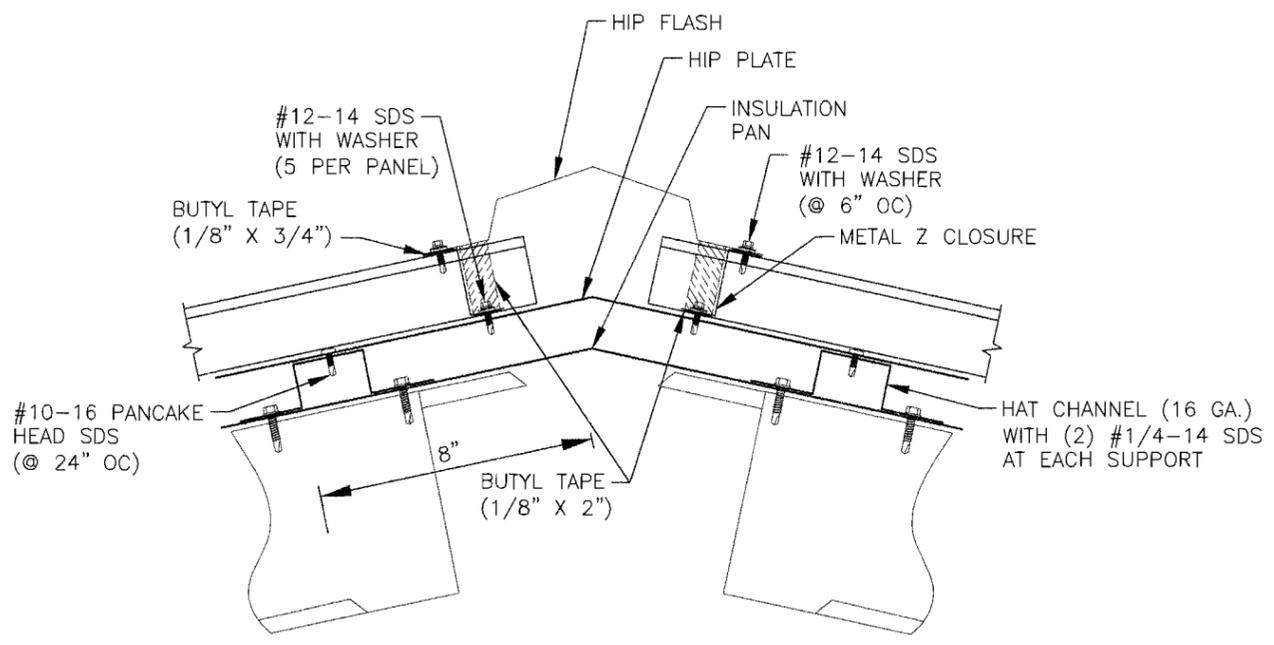
CERTIFICATION
[Signature]
7.24.07
BALA SOCKALINGAM, P.E.
P.E. NO. 62240

DRAWING NO. 1446 REV. A
SHEET NO. 2 OF 4

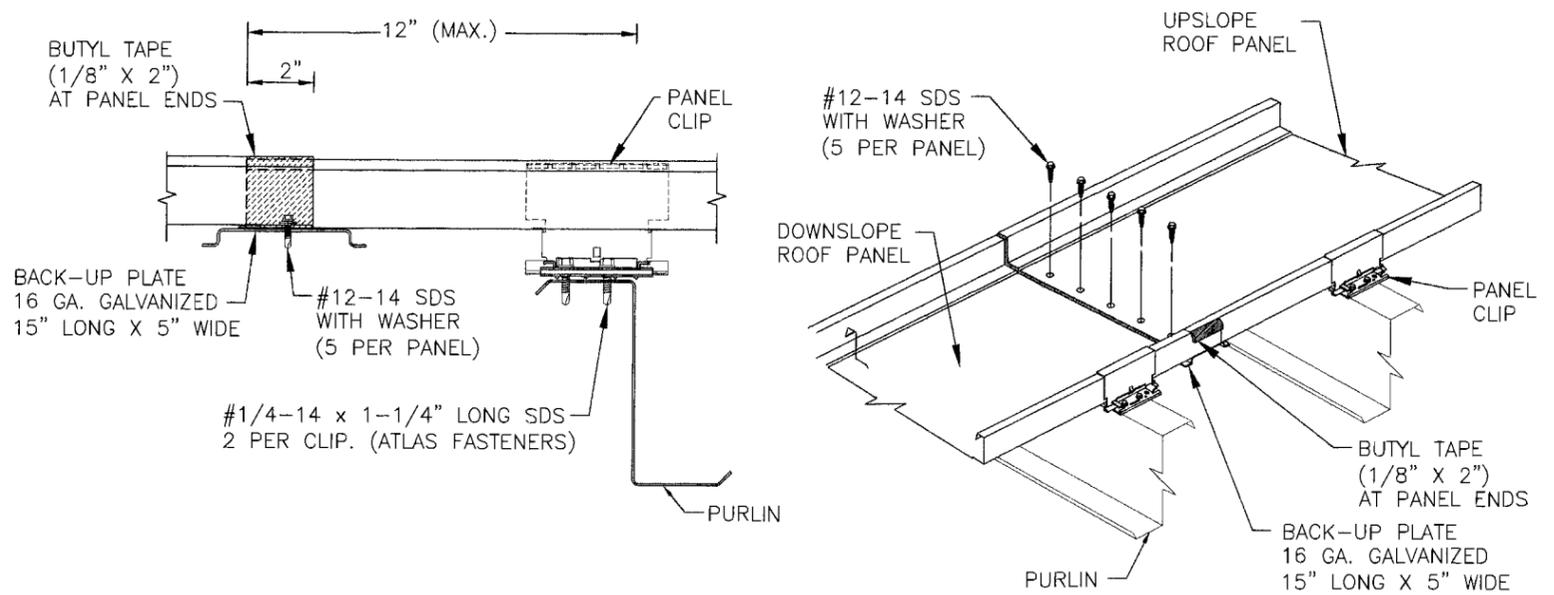
NO.	REVISION DESCRIPTION	BY	DATE	DRAWN BY:	CHECKED BY:
1	ADD SDS LENGTH (RIDGE)	BS	6.22.07	B.S.	A.B.
2	ADD 'MAX' TO ENLAP	BS	6.22.07		



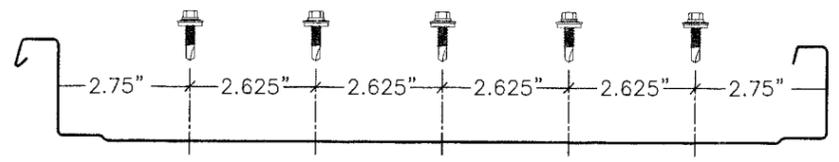
RIDGE DETAIL



HIP DETAIL

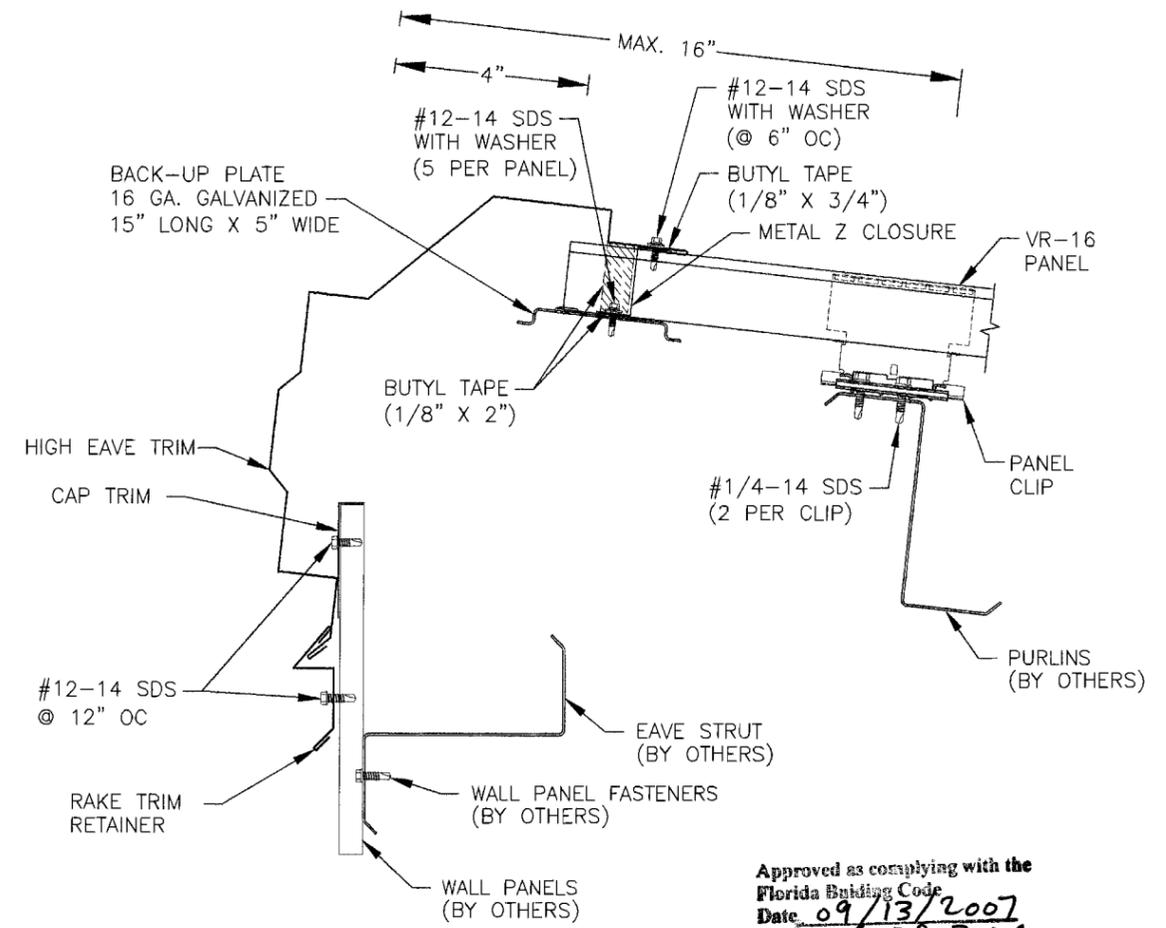


END LAP DETAILS



FASTENER PATTERN AT ENLAP

NOTE: ALL FLASHING MATERIAL NOT CALLED OUT WITH A SPECIFIC GAGE THICKNESS SHALL BE MIN. 26 GAGE.



HIGH EAVE DETAIL

Approved as complying with the Florida Building Code
 Date 09/13/2007
 NOA# 06-0803-04
 Miami Code Product Control Division
 By Helmut A. Heber

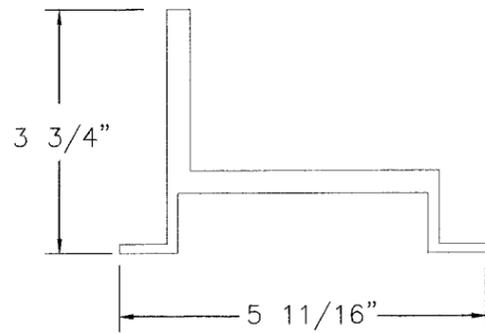
DRAWING TITLE: **VR-16, 24 GAGE STRUCTURAL GALVALUME STEEL ROOF SYSTEM**

CONSULTANTS: **BALA SOCKALINGAM, P.H.D., P.E.**

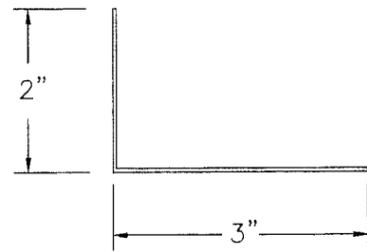
MANUFACTURER: **NUCOR BUILDING SYSTEMS**
 200 WHETSTONE ROAD
 SWANSEA, SC 29160
 803-568-2100

6717 S. YALE AVE., SUITE 200
 TULSA, OK 74136
 PHONE: 918-492-5992 FAX: 918-493-3588

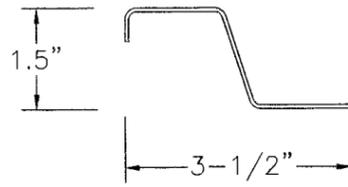
CERTIFICATION	7.24.07
DRAWING NO.	1446
REV.	A
SHEET NO.	3 OF 4



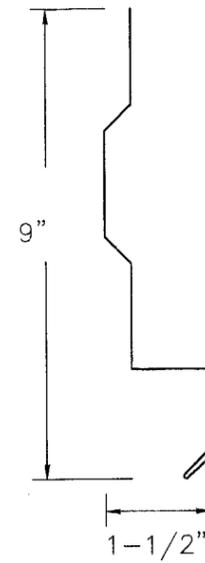
RAKE ANGLE CLIP
(16 GA. GALV.)



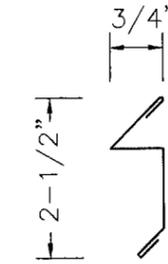
RAKE ANGLE
(16 GA. GALV.)



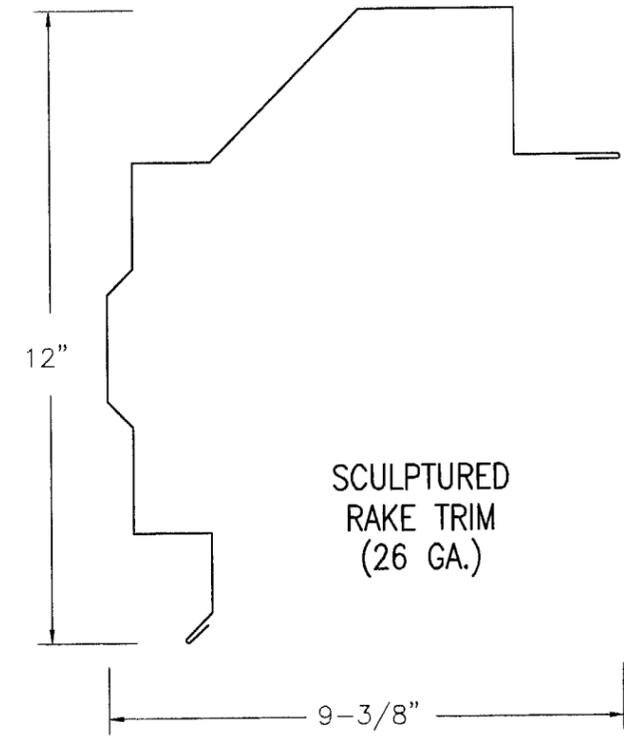
EAVE PLATE
(18 GA. GALV.)



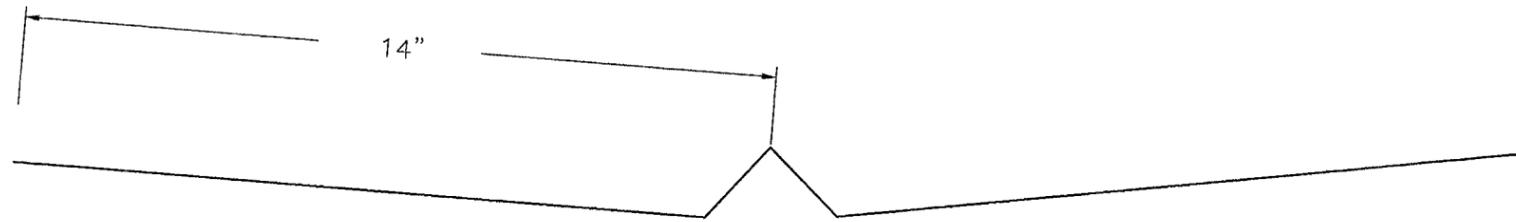
EAVE TRIM
(26 GA.)



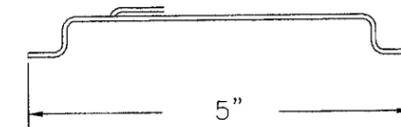
RAKE RETAINER TRIM
(26 GA.)



SCULPTURED RAKE TRIM
(26 GA.)

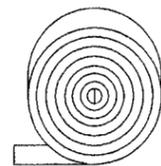


DIVERTER FLASH
(26 GA.)

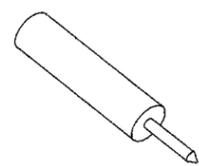


BACK-UP PLATE
(16 GA. GALV.)

ALL FLASHING MATERIAL -
ALUMINUM/ZINC COATED STEEL



TAPE SEALANT
(3/4"x1/8"x50') Butyl
(2-1/4"x3/16"x20') Butyl
(2"x1/8"x22") Butyl



TUBE SEALANT



CLIP FASTENER
1/4-14 SDS
1-1/4" LONG



FLASHING/PERIMETER
FASTENER
12-14 SDS WITH WASHER
1-1/4" LONG

Approved as complying with the
Florida Building Code
Date 09/13/2007
NOA# 06-0803.04
Miami Code Product Control
Division
By Helmy A. M. M.

DRAWN BY: B.S.		CHECKED BY: A.B.	
PLOT:		DATE: 7/8/07	
NO.	REVISION DESCRIPTION	BY	DATE
1	NEW DRAWING	BS	6.22.07
DRAWING TITLE VR-16, 24 GAGE STRUCTURAL GALVALUME STEEL ROOF SYSTEM			
CONSULTANTS BALA SOCKALINGAM, PH.D., P.E. 6717 S. YALE AVE., SUITE 200 TULSA, OK 74136 PHONE: 918-492-5992 FAX: 918-493-3568			
MANUFACTURER NUCOR BUILDING SYSTEMS 200 WHETSTONE ROAD SWANSEA, SC 29160 803-568-2100			
CERTIFICATION 7.24.07 BALA SOCKALINGAM, P.E. P.E. NO. 62240			
DRAWING NO. 1446		REV. A	
SHEET NO. 4 OF 4			