MIAMI-DADE COUNTY
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
www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

American Metal Fabrications, Inc.
dba AMF Building
9040 Belvedere Road
West Palm Beach, Florida 33411

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: 0.063" (min.) Aluminum Storm Panels Shutter

APPROVAL DOCUMENT: Drawing No. AMF002, titled " 0.063" Aluminum Storm Panel ", sheets 1 through 5 of 5, prepared by Building Drops, Inc., dated June 27, 2015, last revised on June 20, 2023, signed and sealed by Hermes F. Norero, P.E., on June 20, 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 with the manufacturer's name or logo, city, state, the following statement: "Miami-Dade County Product Control Approved", and NOA number, per TAS-201, TAS-202, and TAS-203, 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 #22-0302.03** 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.**

MIAMI-DADE COUNTY APPROVED

Helmy A. Makar
10/05/2023

NOA No. 23-0816.19
Expiration Date: 04/18/2027
Approval Date: 10/05/2023

American Metal Fabrications, Inc.
dba AMF Building

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 95-0717.06

A. DRAWINGS

1. *Drawing No. 96-47, Poma Corporation, .063" Aluminum Storm Panel Drawing, Sheet 1 through 3 of 3, prepared by Knezevich & Associates, Inc., dated 02/15/96, Revision No. 2, dated 03/25/96, signed and sealed by V.J. Knezevich, P.E.*

B. TESTS

1. *Test report on: 1) Large Missile Impact Test, 2) Cyclic Wind Pressure Test, 3) Uniform Static Air Pressure Test of 0.063" aluminum storm panels x 104" high, prepared by Construction Testing Corp., Report No. CTC-96-008, dated 02/16/96, signed and sealed by Christopher G. Tyson, P.E.*

C. MATERIAL CERTIFICATIONS

1. *Mill Certified Inspection Report, dated 11/27/95, for Aluminum Alloy 5052-H36 by Precision Coil Incorporated, with chemical composition and physical properties.*
2. *Tensile Test Reports from QC Metallurgical, Inc., QCM Job No. 6BM-410, dated February 16, 1996 for Aluminum sample.*

D. CALCULATIONS

1. *Storm panel anchor calculations, pages 1 through 10 of 10, dated 02/28/96, prepared by Knezevich & Associates, signed and sealed by V.J. Knezevich, P.E.*

2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 99-0219.01

A. DRAWINGS

1. *None. (Drawings originally in file 95-0717.06.)*

B. TESTS

1. *None. (Tests originally in file 95-0717.06.)*

C. CALCULATIONS

1. *None. (Calculations originally in file 95-0717.06.)*

D. MATERIAL CERTIFICATIONS

1. *None. (Material certifications originally in file No. 95-0717.06.)*

E. OTHER

1. *Letter issued by Al Purino stating that all documents are unchanged copies of 0.063" Aluminum Storm Panel submittals, Acceptance No. 95-0717.06.*

Helmy A. Makar, P.E., M.S.
Product Control Section Supervisor
NOA No. 23-0816.19
Expiration Date: 04/18/2027
Approval Date: 10/05/2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 02-0417.06

A. DRAWINGS
See NOA 99-0219.01

B. TESTS
See NOA 99-0219.01

C. CALCULATIONS
See NOA 99-0219.01

D. MATERIAL CERTIFICATIONS
See NOA 99-0219.01

E. STATEMENTS
See NOA 99-0219.01

F. OTHER
See NOA 99-0219.01

4. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 06-0706.17

A. DRAWINGS

1. *Drawing No. 07-309, titled " 0.063" Aluminum Storm Panel ", sheets 1 through 5 of 5, prepared by Thornton Tomasetti, dated April 10, 2007, signed and sealed by J. W. Knezevich, P.E.*

B. TESTS

1. *Test report on Uniform Static Air Pressure Test, Large Missile Impact Test, and Cyclic Wind Pressure Test of 0.063" Aluminum Storm Panels Shutter, prepared by Hurricane Test Laboratory, LLC, Report No. 0411-1011-05, dated February 09, 2006, signed and sealed by Vinu J. Abraham, P.E.*

C. CALCULATIONS

1. *0.063" Aluminum Storm Panels Calculations, Sheets 1 through 45 of 45, by Thornton Tomasetti, dated April 09, 2007, signed and sealed by John W. Knezevich, P.E.*

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. *None.*

Helmy A. Makar, P.E., M.S.
Product Control Section Supervisor
NOA No. 23-0816.19
Expiration Date: 04/18/2027
Approval Date: 10/05/2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

5. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 12-0419.01

A. DRAWINGS

1. *Drawing No. 07-309, titled " 0.063" Aluminum Storm Panel ", sheets 1 through 5 of 5, prepared by Knezevich Associates Consulting Engineers, dated April 10, 2007, last revision #2 dated April 17, 2012, signed and sealed by V. J. Knezevich, P.E.*

B. TESTS

1. *Verification Test report on Uniform Static Air Pressure Test, Large Missile Impact Test, and Cyclic Wind Pressure Test of 0.063" Aluminum Storm Panels Shutter, prepared by Blackwater Testing, Inc., Report No. AE-12-002, dated April 23, 2012, signed and sealed by Yamil G. Kuri, P.E.*

C. CALCULATIONS

1. *None.*

D. QUALITY ASSURANCE

1. *By Miami-Dade County Department of Permitting, Environment, and Regulatory Affairs (PERA).*

E. MATERIAL CERTIFICATIONS

1. *None.*

F. OTHERS

1. *Letter of Compliance to Florida Building Code, 2010 Edition, prepared by Knezevich Associates Consulting Engineers, dated April 18, 2012, signed and sealed by V. J. Knezevich, P.E.*

6. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 12-0809.04

A. DRAWINGS

1. *Drawing No. 12-167, titled " 0.063" Aluminum Storm Panel ", sheets 1 through 5 of 5, prepared by Knezevich Associates Consulting Engineers, dated July 10, 2012, signed and sealed by V. J. Knezevich, P.E., on July 10, 2012.*

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.*

Helmy A. Makar, P.E., M.S.
Product Control Section Supervisor
NOA No. 23-0816.19
Expiration Date: 04/18/2027
Approval Date: 10/05/2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

7. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 15-1207.04

A. DRAWINGS

1. *Drawing No. AMF002, titled " 0.063" Aluminum Storm Panel ", sheets 1 through 5 of 5, prepared by Building Drops, Inc., dated June 27, 2015, signed and sealed by Hermes F. Norero, P.E., on June 02, 2016.*

B. TESTS

1. *None.*

C. CALCULATIONS

1. *0.063" Aluminum Storm Panels Calculations, Sheets 1 through 23 of 23, , prepared by Building Drops, Inc., dated June 02, 2016, signed and sealed by Hermes F. Norero, P.E., on June 02, 2016.*

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. *None.*

8. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 17-0118.08

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 (RER).*

E. MATERIAL CERTIFICATIONS

1. *None.*

Helmy A. Makar, P.E., M.S.
Product Control Section Supervisor
NOA No. 23-0816.19
Expiration Date: 04/18/2027
Approval Date: 10/05/2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

9. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 18-0516.07

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 (RER).

E. MATERIAL CERTIFICATIONS

1. None.

F. OTHERS

1. Letter of Compliance to Florida Building Code, 2017 Edition, prepared by Building Drops, Inc., dated August 21, 2017, signed and sealed by Hermes F. Norero, P.E.

10. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 20-1223.09

A. DRAWINGS

1. Drawing No. AMF002, titled " 0.063" Aluminum Storm Panel ", sheets 1 through 5 of 5, prepared by Building Drops, Inc., dated June 27, 2015, last revised on December 20, 2020, signed and sealed by Hermes F. Norero, P.E.

B. TESTS

1. None.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

1. By Miami-Dade County Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. None.

F. OTHERS

1. Letter of Compliance to Florida Building Code, 2020 Edition, prepared by Building Drops, Inc., dated November 02, 2020, signed and sealed by Hermes F. Norero, P.E.

Helmy A. Makar, P.E., M.S.
Product Control Section Supervisor
NOA No. 23-0816.19
Expiration Date: 04/18/2027
Approval Date: 10/05/2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

11. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 22-0302.03

A. DRAWINGS

1. *Drawing No. AMF002, titled " 0.063" Aluminum Storm Panel ", sheets 1 through 5 of 5, prepared by Building Drops, Inc., dated June 27, 2015, last revised on December 20, 2020, signed and sealed by Hermes F. Norero, P.E.*

B. TESTS

1. *None.*

C. CALCULATIONS

1. *None.*

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. *None.*

F. OTHERS

1. *Letter of Compliance to Florida Building Code, 2020 Edition, prepared by Building Drops, Inc., dated November 02, 2020, signed and sealed by Hermes F. Norero, P.E.*

12. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. *Drawing No. AMF002, titled " 0.063" Aluminum Storm Panel ", sheets 1 through 5 of 5, prepared by Building Drops, Inc., dated June 27, 2015, last revised on June 20, 2023, signed and sealed by Hermes F. Norero, P.E., on June 20, 2023.*

B. TESTS

1. *None.*

C. CALCULATIONS

1. *None.*

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. *None.*

F. OTHERS

1. *Letter of Compliance to Florida Building Code, 2020 Edition and 2023 Edition, prepared by Building Drops, Inc., dated June 20, 2023, signed and sealed by Hermes F. Norero, P.E., on June 20, 2023.*

Helmy A. Makar, P.E., M.S.
Product Control Section Supervisor
NOA No. 23-0816.19
Expiration Date: 04/18/2027
Approval Date: 10/05/2023

GENERAL NOTES

1. THESE PRODUCT EVALUATION DOCUMENTS REPRESENT A LARGE MISSILE IMPACT PROTECTIVE SHUTTER SYSTEM ANALYZED WITH THE PROVISION SET FOR THE ISSUANCE OF A NOTICE OF ACCEPTANCE (NOA) BY MIAMI-DADE COUNTY PRODUCT CONTROL SECTION FOR THE HIGH VELOCITY HURRICANE ZONE (HVHZ) OF THE 8TH EDITION FLORIDA BUILDING CODE.

2. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS PRODUCT. WIND LOAD DURATION FACTOR Cd = 1.6 WAS USED FOR WOOD SCREW DESIGN.

3. DETERMINE THE POSITIVE AND NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH ASCE 7-22 A DIRECTIONALITY OF Kd = 0.85 SHALL BE USED.

4. THESE PRODUCT EVALUATION DOCUMENTS ARE GENERIC AND DO NOT INCLUDE INFORMATION FOR SITE SPECIFIC APPLICATION OF THIS SHUTTER SYSTEM.

5. THESE PRODUCT EVALUATION DOCUMENTS ARE INTENDED FOR USE ONLY BY A LICENSED CONTRACTOR, PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT AND ARE SUITABLE TO BE APPLIED BY THE CONTRACTOR PROVIDED THE CONTRACTOR DOES NOT DEVIATE FROM THE CONDITIONS DETAILED HEREIN AND THE CONTRACTOR VERIFIES THAT THE EXISTING STRUCTURE DOES NOT DEVIATE IN EITHER FORM OR MATERIAL FROM THE STRUCTURAL SUBSTRATES DETAILED HEREIN. CONTRACTOR SHALL VERIFY EXISTING STRUCTURE CAN WITHSTAND SUPERIMPOSED LOAD OF SHUTTER.

6. ANY MODIFICATIONS OR ADDITIONS TO THESE PRODUCT EVALUATION DOCUMENTS WILL VOID THE PRODUCT EVALUATION DOCUMENTS.

7. WHEN THE SITE CONDITIONS DEVIATE FROM THESE PRODUCT EVALUATION DOCUMENTS, THE BUILDING OFFICIAL MAY ELECT ONE OF THE FOLLOWING OPTIONS.

   A) REQUIRE THAT SITE SPECIFIC DOCUMENTS BE PREPARED, SIGNED, DATED AND SEALED BY A LICENSED ENGINEER OR REGISTERED ARCHITECT, WHICH DETAIL AND JUSTIFY THE DEVIATION. SAID DOCUMENTS SHALL BE SUBMITTED TO THE PRODUCT ENGINEER FOR REVIEW AS A CONDITION TO THE BUILDING OFFICIAL GRANTING HIS/HER APPROVAL.

   B) REQUIRE THAT A ONE TIME SITE SPECIFIC APPROVAL BE APPLIED FOR AND SECURED FROM THE MIAMI-DADE COUNTY PRODUCT CONTROL SECTION.

   WHEN THE SITE CONDITIONING DEVIATIONS OCCUR WITHIN THE HIGH VELOCITY HURRICANE ZONE AREAS ONLY OPTION "B" SHALL BE ACCEPTED BY THE BUILDING OFFICIAL.

8. PRODUCT MARKINGS SHALL BE WITHIN 12" OF ONE END OF THE PANEL WITH A MINIMUM OF ONE MARKING PER PANEL AND SHOULD BE PERMANENTLY LABELED AS FOLLOWS.

   AMF BUILDING PRODUCTS
   WEST PALM BEACH, FLORIDA
   MIAMI-DADE COUNTY PRODUCT APPROVED

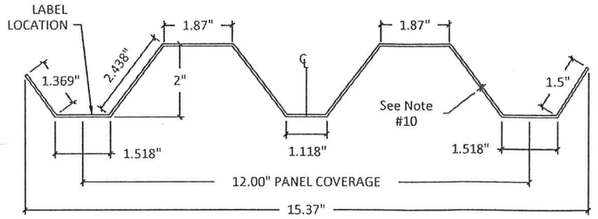
9. STORM PANELS SHALL BE .063" THICK, 3004-H34 ALUMINUM ALLOY WITH A MIN. Fy = 25.0 KSI OR 5052-H32 ALUMINUM ALLOY WITH A MIN. Fy=23.0 KSI.

10. ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, U.O.N.

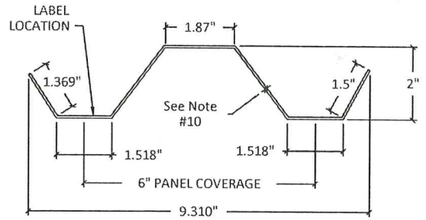
11. ALL BOLTS AND WASHERS SHALL BE GALVANIZED OR STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 K.S.I U.O.N.

12. TOP AND BOTTOM DETAILS MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE. PANELS MAY BE MOUNTED HORIZONTALLY WHERE APPLICABLE.

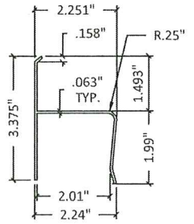
13. THE PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO SUSTAIN THE NEW SUPERIMPOSED LOADS AND TO VERIFY ALL DIMENSIONS AT THE JOB SITE, BEFORE COMMENCING WITH THE WORK.



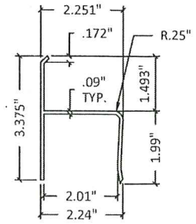
1 FULL ALUMINUM STORM PANEL
Scale: 3" = 1'-0"



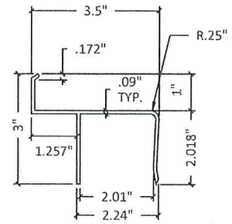
2 HALF ALUMINUM STORM PANEL
Scale: 3" = 1'-0"



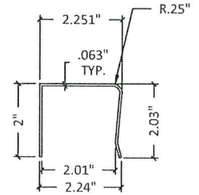
3 "h" HEADER
Scale: 3" = 1'-0"



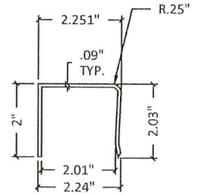
4 Heavy "h" Header
Scale: 3" = 1'-0"



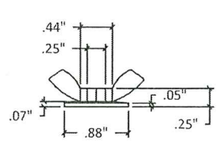
5 HEAVY "h" HEADER
Scale: 3" = 1'-0"



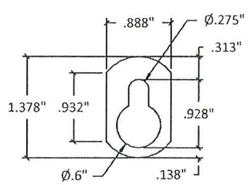
6 "U" HEADER
Scale: 3" = 1'-0"



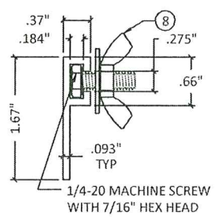
7 HEAVY "U" HEADER
Scale: 3" = 1'-0"



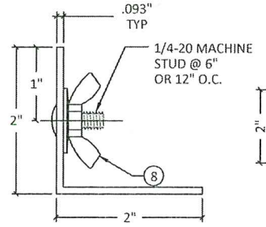
MATERIAL: ZAMAC 3 ALLOY
8 WASHERED WING NUT
Scale: HALF SIZE



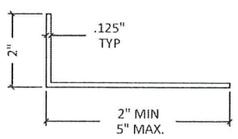
9 KEY HOLE WASHER
Scale: HALF SIZE



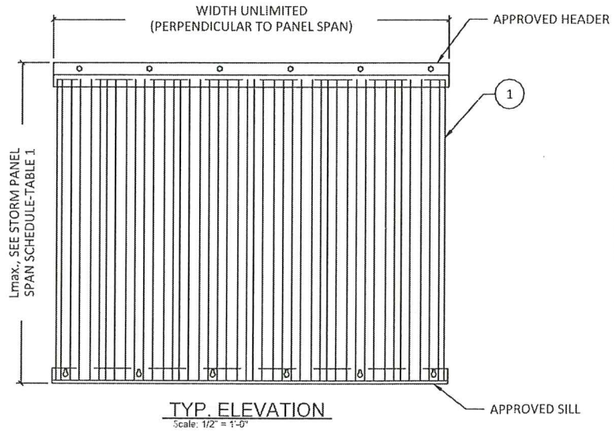
10 "F" TRACK
Scale: HALF SIZE



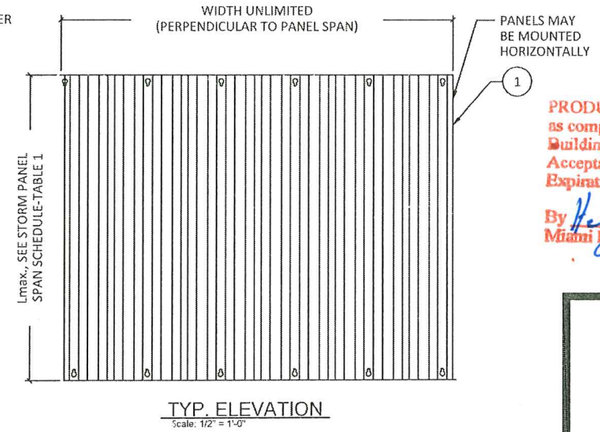
11 STUD ANGLE
Scale: HALF SIZE



12 BUILD OUT ANGLE
Scale: 3" = 1'-0"



TYP. ELEVATION
Scale: 1/2" = 1'-0"



TYP. ELEVATION
Scale: 1/2" = 1'-0"

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 23-0816.19
Expiration Date 04/18/2027
By
Miami Dade Product Control

Digitally signed by Hermes F. Norero, P.E.
Reason: I am approving this document
Date: 2023.07.11 10:24:46 +02'00'

AMERICAN METAL FABRICATORS, INC.
1501 53rd Street
Mangonia Park, FL 33407
PH: (561)790-5799
FAX: (561)790-2320

TITLE: 0.063" ALUMINUM STORM PANEL GENERAL NOTES

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
PH: (954) 399-8478 FX: (954) 744-4738

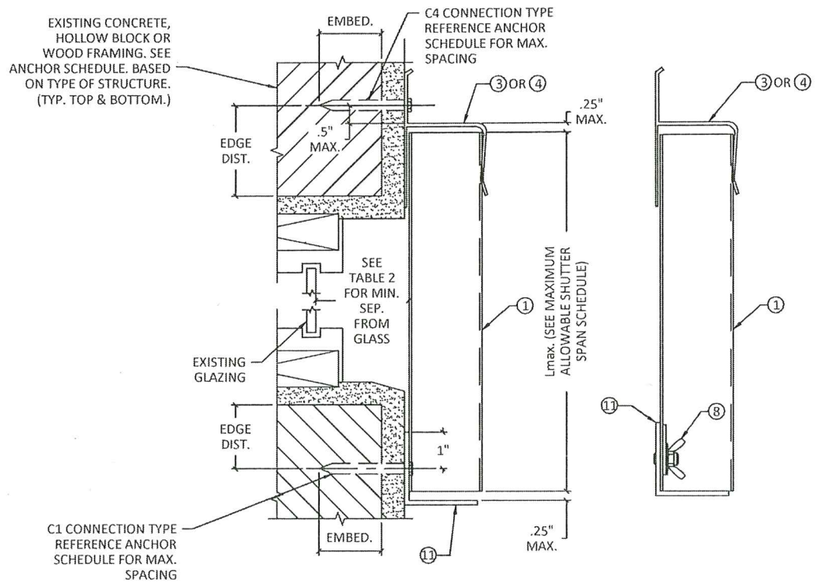
REVISIONS	BY	DATE
DESCRIPTION		
FBC 2020 UPDATE	LL	12/20
8TH FBC UPDATE	OL	06/23

HERMES F. NORERO LICENSE No. 73378 STATE OF FLORIDA PROFESSIONAL ENGINEER
HERMES F. NORERO, P.E.
CERTIFICATE OF AUTHORIZATION NO. 29578
FBPE CERTIFICATE OF AUTHORIZATION NO. 29578

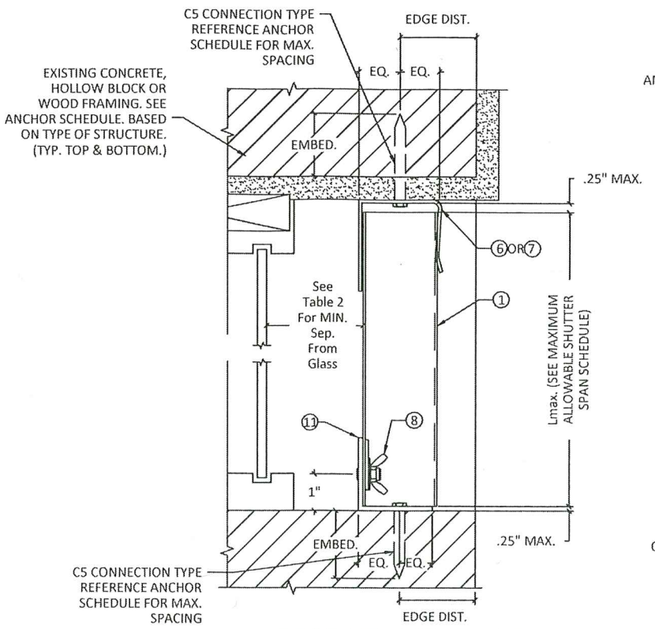
DATE: 06.27.15
DWN BY: LS
CHK BY: HFN
SCALE: NTS

DWG #: AMF002

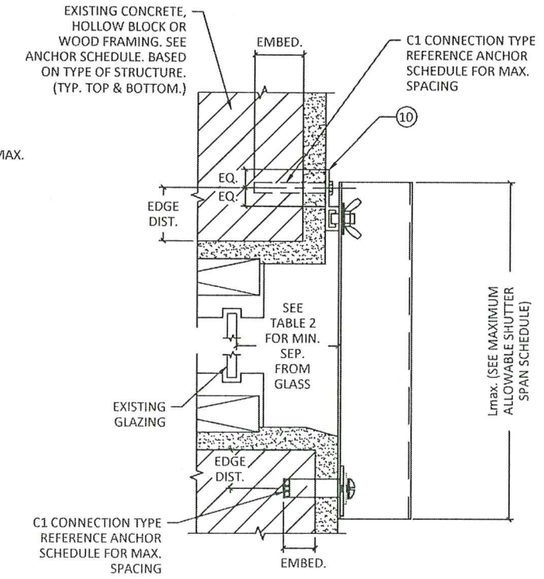
SHEET: 1 OF 5



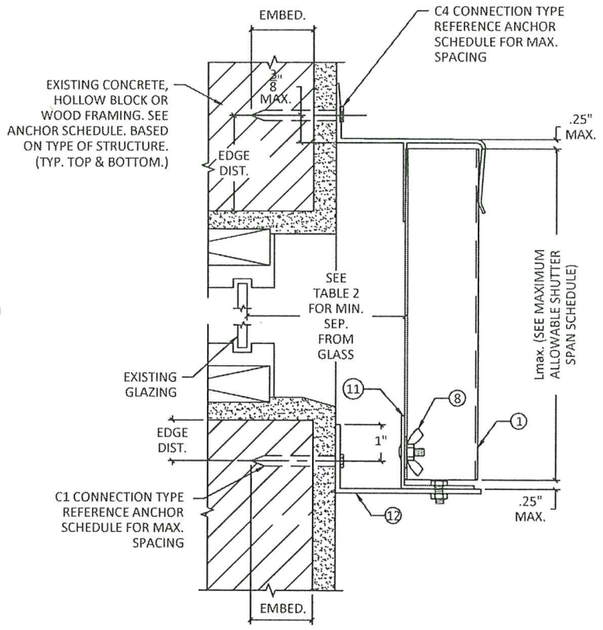
A **WALL MOUNT SECTION**
Scale: 3" = 1'-0"



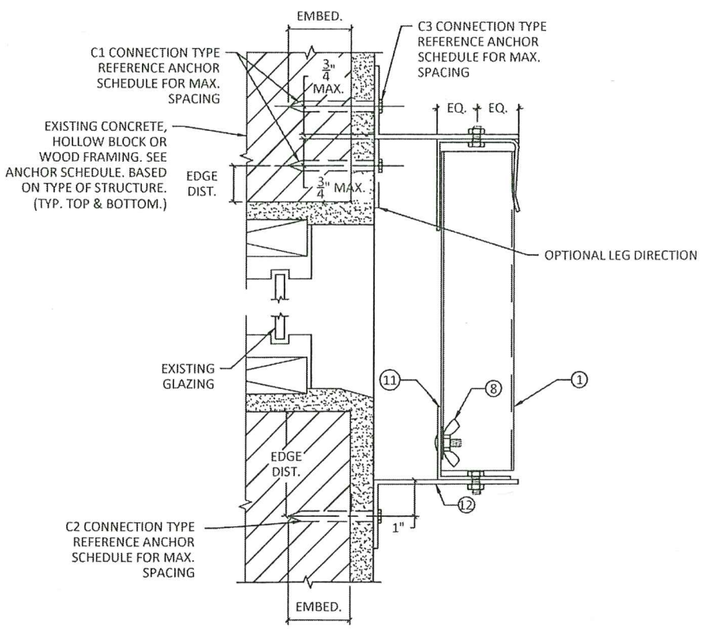
B **TRAP MOUNT SECTION**
Scale: 3" = 1'-0"



C **WALL MOUNT SECTION**
Scale: 3" = 1'-0"



D **BUILD-OUT MOUNT SECTION**
Scale: 3" = 1'-0"



E **ALT. BUILD-OUT MOUNT SECTION**
Scale: 3" = 1'-0"

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 23-0816.19
Expiration Date 04/18/2027
By
Miami Dade Product Control

AMERICAN METAL FABRICATORS, INC.
1501 53rd Street
Mangonia Park, FL 33407
PH: (561)790-5799
FAX: (561)790-2320

TITLE:
0.063" ALUMINUM STORM PANEL
VERTICAL SECTIONS

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
PH: (954) 399-8478 FX: (954) 744-4738

REVISIONS

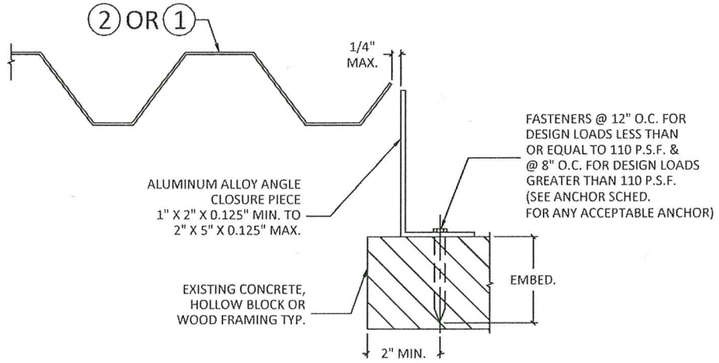
DESCRIPTION	DATE	BY
FBC 2020 UPDATE	12/20	LL
8TH FBC UPDATE	06/23	OL

HERMES F. NORIEGA, P.E. LICENSE No. 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER
FBPE CERT. OF AUTHORIZATION NO. 29578

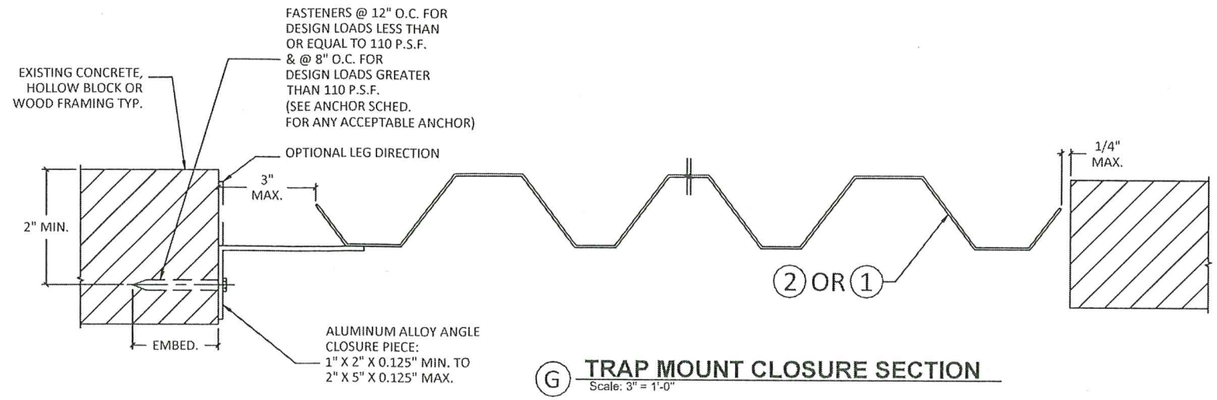
DATE: 06.27.15
DWN BY: LS
CHK BY: HFN
SCALE: NTS

DWG #: AMF002

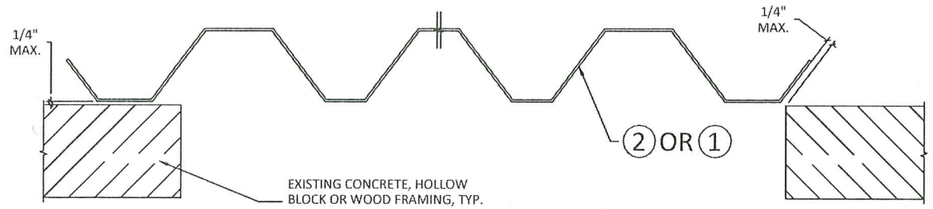
SHEET: 2 OF 5



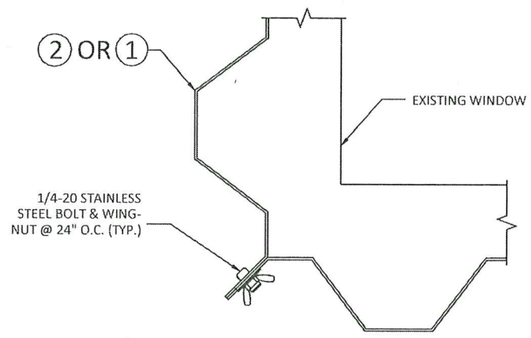
F **BUILD-OUT MOUNT CLOSURE SECTION**
Scale: 3" = 1'-0"



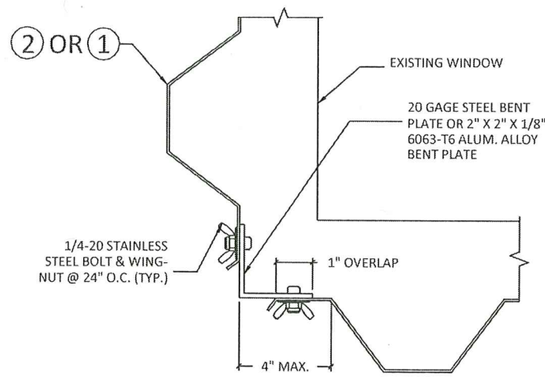
G **TRAP MOUNT CLOSURE SECTION**
Scale: 3" = 1'-0"



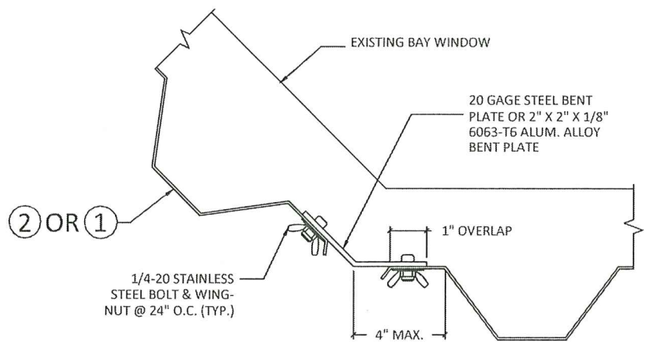
H **WALL MOUNT CLOSURE SECTION**
Scale: 3" = 1'-0"



J **TYPICAL CORNER COUSURE PLAN**
Scale: 3" = 1'-0"



K **TYPICAL CORNER COUSURE PLAN**
Scale: 3" = 1'-0"



L **TYPICAL CORNER COUSURE PLAN**
Scale: 3" = 1'-0"

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 23-0816.19
Expiration Date 04/18/2027
By
Miami Dade Product Control

AMERICAN METAL FABRICATORS, INC.
1501 53rd Street
Mangonia Park, FL 33407
PH: (561)790-5799
FAX: (561)790-2320

TITLE: 0.063" ALUMINUM STORM PANEL CLOSURE PLAN

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
PH: (954) 399-8478 FX: (954) 744-4738

REVISIONS

DESCRIPTION	BY	DATE
FBC 2020 UPDATE	LL	12/20
8TH FBC UPDATE	OL	06/23

HERMES F. NORIEGA, P.E. LICENSE No. 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER
HERMES F. NORIEGA, P.E. 398 E. DANIA BEACH BLVD. #338 DANIA BEACH, FL 33004 (954) 399-8478 FBPE CERT. OF AUTH. NO. 29578

DATE: 06.27.15
DWN BY: LS
CHK BY: HFN
SCALE: NTS

DWG #: AMF002

SHEET: 3 OF 5

ANCHOR SCHEDULE

FASTENER MAXIMUM SPACING (INCHES) REQUIRED FOR VARIOUS DESIGN LOADS AND SPANS

EXIST. STRUC.	ANCHOR TYPE	LOAD (W) P.S.F. MAX. (SEE NOTE 1)	MIN. 2" EDGE DISTANCE										MIN. 3" EDGE DISTANCE									
			SPANS UP TO 5'-0" (SEE NOTE 1)					SPANS UP TO 8'-8" (SEE NOTE 1)					SPANS UP TO 10'-0" (SEE NOTE 1)					SPANS UP TO 5'-0" (SEE NOTE 1)					SPANS UP TO 8'-8" (SEE NOTE 1)					SPANS UP TO 10'-0" (SEE NOTE 1)				
			CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)				
			C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5
CONCRETE	1/4" Ø ITW TAPCON WITH 1-3/4" MIN. EMBEDMENT (MIN. 3,192 PSI CONCRETE)	62	12	12	12	12	12	12	12	12	12	9	12	12	12	10	7	12	12	12	12	12	12	12	12	12	10	12	12	12	11	9
		72	12	12	12	12	12	12	12	12	12	10	7	12	12	11	7	6	12	12	12	12	12	12	12	12	11	9	12	12	12	8	7
		83	12	12	12	12	11	12	12	11	7	6	12	10	9	6	6	12	12	12	12	12	12	12	12	8	7	12	11	10	7	7
		120	12	12	12	11	8	12	10	9	6	6	12	10	9	6	6	12	12	12	12	9	12	11	10	7	7	12	11	10	7	7
		200	12	10	9	6	6	12	10	9	6	6	12	10	9	6	6	12	11	10	7	7	12	11	10	7	7	12	11	10	7	7
	* * 1/4" Ø DEWALT MALE/FEMALE "PANEL MATE" W/ 1-3/4" MIN. EMBED. & 1/4-10 MACHINE SCREW WITH NUT (MIN. 3,000 PSI CONCRETE)	62																12	12	12	12	12	12	12	12	8	12	12	12	8	7
		72																12	12	12	12	12	12	12	12	8	7	12	9	8	5	6
		83																12	12	12	12	11	12	9	8	5	6	12	8	7	4	6
		120																12	12	12	9	7	12	8	7	4	6	12	8	7	4	6
		200																12	8	7	4	6	12	8	7	4	6	12	8	7	4	6
	1/4" Ø DEWALT ULTRACON WITH 1-3/4" MIN. EMBEDMENT (MIN. 3,320 PSI CONCRETE)	62	12	12	12	12	12	12	12	12	12	8	12	12	12	9	7	12	12	12	12	12	12	12	12	12	9	12	12	12	9	8
		72	12	12	12	12	12	12	12	12	9	7	12	11	10	6	6	12	12	12	12	12	12	12	12	9	8	12	11	10	6	7
		83	12	12	12	12	10	12	11	10	6	6	12	9	8	5	5	12	12	12	12	12	12	11	10	6	7	12	9	8	5	6
		120	12	12	12	10	7	12	9	8	5	5	12	9	8	5	5	12	12	12	10	8	12	9	8	5	6	12	9	8	5	6
		200	12	9	8	5	5	12	9	8	5	5	12	9	8	5	5	12	9	8	5	6	12	9	8	5	6	12	9	8	5	6
	1/4" Ø POWERS ZAMAC WITH 1-3/4" MIN. EMBEDMENT (MIN. 3,192 PSI CONCRETE)	62	12	12	12	12	7	9	9	9	7	4	8	8	7	4	3	12	12	12	12	11	12	12	12	11	6	12	12	11	6	5
		72	12	12	12	12	6	8	8	7	4	3	7	5	4	3	3	12	12	12	12	10	12	12	11	6	5	11	8	7	4	5
		83	12	12	12	12	5	7	5	4	3	3	7	4	4		3	12	12	12	12	8	11	8	7	4	5	10	6	6	4	4
		120	8	8	8	5	4	7	4	4		3	7	4	4		3	12	12	12	7	6	10	6	6	4	4	10	6	6	4	4
		200	7	4	4		3	7	4	4		3	7	4	4		3	10	6	6	4	4	10	6	6	4	4	10	6	6	4	4
	* 1/4" Ø ALL POINTS SOLID SET WITH 7/8" MIN. EMBED. & 1/4-20 STAINLESS STEEL MACHINE SCREW (MIN. 2,000 PSI CONCRETE)	62	12	12	12	12	12	12	12	12	12	8	12	12	12	8	7	12	12	12	12	12	12	12	12	12	10	12	12	12	11	9
		72	12	12	12	12	12	12	12	12	8	7	12	10	9	6	6	12	12	12	12	12	12	12	12	10	9	12	12	11	7	8
		83	12	12	12	12	10	12	10	9	6	6	12	8	7	5	5	12	12	12	12	12	12	12	11	7	8	12	11	9	6	7
		120	12	12	12	9	7	12	8	7	5	5	12	8	7	5	5	12	12	12	12	9	12	11	9	6	7	12	11	9	6	7
		200	12	8	7	5	5	12	8	7	5	5	12	8	7	5	5	12	11	9	6	7	12	11	9	6	7	12	11	9	6	7
HOLLOW CONC. BLOCK	1/4" Ø ITW TAPCON WITH 1-1/4" MIN. EMBEDMENT (CONFORMING TO ASTM C-90)	62	9	9	9	9	4	5	5	5			4	4	4			9	9	9	9	4	5	5	5			4	4	4		
		72	7	7	7	7		4	4	4								7	7	7	7	4	4	4	4							
		83	6	6	6	6												6	6	6	6											
		120	4	4	4													4	4	4												
		200																														
	* * 1/4" Ø DEWALT MALE/FEMALE "PANEL MATE" W/ 1-1/4" MIN. EMBED. & 1/4-10 MACHINE SCREW WITH NUT (CONFORMING TO ASTM C-90)	62																12	12	12	12	6	9	9	9	6	3	8	8	7	4	3
		72																12	12	12	12	5	8	8	7	4	3	7	5	4		
		83																12	12	12	12	5	7	5	4			6	4	3		
		120																8	8	8	4	3	6	4	3			6	4	3		
		200																6	4	3			6	4	3			6	4	3		
	1/4" Ø DEWALT ULTRACON WITH 1-3/4" MIN. EMBEDMENT (MIN. 3,320 PSI CONCRETE)	62	10	10	10	10		6	6	6								10	10	10	10	6	6	6	6							
		72	9	9	9	9												9	9	9	9											
		83	8	8	8	8												8	8	8	8											
		120																														
		200																														
	** 1/4" Ø POWERS ZAMAC WITH 1-3/4" MIN. EMBEDMENT (MIN. 3,192 PSI CONCRETE)	62	12	12	12	12	6	7	7	7	5	3	6	6	5	3	3	12	12	12	12	9	11	11	11	8	5	9	9	8	5	4
		72	11	11	11	11	5	6	6	5	3	3	5	3	3			12	12	12	12	7	9	9	8	5	4	8	5	5	3	3
		83	9	9	9	9	4	5	3	3			5	3	3			12	12	12	12	6	8	5	5	3	3	7	5	4	3	3
		120	6	6	6	3	3	5	3	3			5	3	3			9	9	9	5	4	7	5	4	3	3	7	5	4	3	3
		200	5	3	3			5	3	3			5	3	3			7	5	4	3	3	7	5	4	3	3	7	5	4	3	3
	* 1/4" Ø ALL POINTS SOLID SET WITH 7/8" MIN. EMBED. & 1/4-20 STAINLESS STEEL MACHINE SCREW (CONFORMING TO ASTM C-90)	62	12	12	12	12	8	12	12	12	9	4	11	11	9	5	4	12	12	12	12	10	12	12	12	10	6	12	12	11	6	5
		72	12	12	12	12	6	10	10	9	5	4	9	6	6	4	3	12	12	12	12	9	12	12	10	6	5	10	7	6	4	4
		83	12	12	12	12	6	9	6	6	4	3	8	5	5	3	3	12	12	12	12	7	10	7	6	4	4	9	6	5	3	4
		120	11	11	11	6	4	8	5	5	3	3	8	5	5	3	3	12	12	12	7	5	9	6	5	3	4	9	6	5	3	4
		200	8	5	5	3	3	8	5	5	3	3	8	5	5	3	3	9	6	5	3	4	9	6	5	3	4	9	6	5	3	4

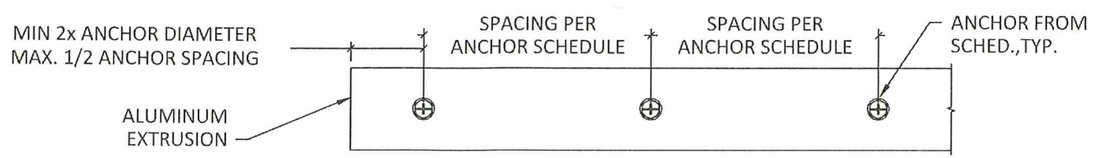
ANCHOR SCHEDULE

FASTENER MAXIMUM SPACING (INCHES) REQUIRED FOR VARIOUS DESIGN LOADS AND SPANS

EXIST. STRUC.	ANCHOR TYPE	LOAD (W) P.S.F.M MAX. (SEE NOTE 1)	MIN. 3/4" EDGE DISTANCE														
			SPANS UP TO 5'-0" (SEE NOTE 1)					SPANS UP TO 8'-8" (SEE NOTE 1)					SPANS UP TO 10'-0" (SEE NOTE 1)				
			CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)				
			C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5
WOOD	2" MIN. 1/4" Ø x MIN. 3" LONG LAG SCREW WITH MIN. 1-3/4" EMBEDMENT. SHEAR PARALLEL OR PERPENDICULAR TO WOOD GRAIN (MIN. 0.55 S.G.)	62	12	12	12	12	10	12	12	12	12	5	12	12	12	12	5
		72	12	12	12	12	8	12	12	12	12	4	12	12	12	12	4
		83	12	12	12	12	7	12	12	12	10	4	12	12	12	8	4
		120	12	12	12	12	5	12	12	12	8	4	12	12	12	8	4
		200	12	12	12	8	4	12	12	12	8	4	12	12	12	8	4
	* 7/16" Ø WOOD BUSHINGS WITH 7/8" MIN. EMBEDMENT & 1/4"-20 STAINLESS STEEL MACHINE SCREW ANCHOR INSTALLED IN SPRUCE PINE FIR LUMBER (MIN. 0.42 S.G.)	62	12	12	12	12		9	9	9	6		7	7	7	4	
		72	12	12	12	12		7	7	6	4		6	4	4		
		83	11	11	11	11		6	4	4			6	4	3		
		120	8	8	8	4		6	4	3			6	4	3		
		200	6	4	3			6	4	3			6	4	3		
	* * 1/4" Ø DEWALT MALE/FEMALE "PANEL MATE" W/ 1-7/8" MIN. EMBED. & 1/4-10 MACHINE SCREW WITH NUT (MIN. 0.55 S.G.)	62	12	12	12	12	10	12	12	12	11	6	12	12	11	7	5
		72	12	12	12	12	9	12	12	11	7	5	11	8	7	5	4
		83	12	12	12	12	8	11	8	7	5	4	10	7	6	4	4
		120	12	12	12	7	5	10	7	6	4	4	10	7	6	4	4
		200	10	7	6	4	4	10	7	6	4	4	10	7	6	4	4

ANCHOR NOTES:

1. SPANS AND LOADS SHOWN HERE ARE FOR DETERMINING ANCHOR SPACING ONLY. ALLOWABLE SHUTTER SPANS FOR SPECIFIC LOADS MUST BE LIMITED TO THOSE SHOWN IN TABLE 1.
2. ENTER ANCHOR SCHEDULE BASED ON THE EXISTING STRUCTURE MATERIAL, ANCHOR TYPE AND EDGE DISTANCE. SELECT DESIGN LOAD GREATER THAN OR EQUAL TO NEGATIVE DESIGN LOAD ON SHUTTER AND SELECT SPAN GREATER THAN OR EQUAL TO SHUTTER SPAN.
3. SEE MOUNTING SECTION DETAILS FOR IDENTIFICATION OF CONNECTION TYPE.
4. EXISTING STRUCTURE MAY BE CONCRETE, HOLLOW BLOCK OR WOOD FRAMING. REFERENCE ANCHOR SCHEDULE FOR PROPER ANCHOR TYPE BASED ON TYPE OF EXISTING STRUCTURE.
5. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
6. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES WALL FINISH OR STUCCO.
7. WHERE EXISTING STRUCTURE IS POST-TENSIONED CONCRETE CONTRACTOR SHALL LOCATE CABLES PRIOR TO ANCHORING AND COORDINATE ANCHORAGE SUCH THAT CABLES ARE NOT DAMAGED.
8. WHERE EXISTING STRUCTURE IS WOOD FRAMING, WOOD FRAMING CONDITIONS VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT PLYWOOD. FASTENING TO PLYWOOD IS ACCEPTABLE ONLY FOR SIDE CLOSURE PIECES.
9. WHERE LAG SCREWS, MALE AND FEMALE PANEL MATES FASTEN TO NARROW FACE OF STUD FRAMING, FASTENER SHALL BE LOCATED IN CENTER OF NOMINAL 2" x 4" (MIN,) WOOD STUD. 3/4" EDGE DISTANCE IS ACCEPTABLE FOR WOOD FRAMING. WOOD STUD SHALL BE "SOUTHERN PINE" G=0.55 OR GREATER DENSITY. LAG SCREWS SHALL HAVE PHILLIPS PAN HEAD OR HEX HEAD.
10. MACHINE SCREWS SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD (SIDEWALK BOLT), U.O.N.
11. DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE USES.
12. * DESIGNATES ANCHORS WHICH ARE REMOVABLE BY REMOVING MACHINE SCREW. NUT OR WASHERED WINGNUT.
13. ** THE MINIMUM EDGE DISTANCE FOR THE POWERS ZAMAC NAIL-IN EMBEDDED IN HOLLOW CONCRETE BLOCK IS 3-3/4".
14. POWERS ZAMAC NAIL-IN AND ALL POINTS SOLID SET MASONRY ANCHOR MAY NOT BE USED IN CONCRETE SLABS OR CEILINGS.
    EXCEPTION: THESE ANCHORS MAY BE USED IN CONCRETE SLABS ON GRADE.



PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 23-0816.19
Expiration Date 04/18/2027
By Miami Dade Product Control

AMERICAN METAL FABRICATORS, INC.
1501 53rd Street
Mangonia Park, FL 33407
PH: (561)790-5799
FAX: (561)790-2320

TITLE: 0.063" ALUMINUM STORM PANEL ANCHOR SCHEDULE

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
PH: (954) 399-8478 FX: (954) 744-4738

REVISIONS			
DESCRIPTION	BY	DATE	
FBC 2020 UPDATE	LL	12/20	
8TH FBC UPDATE	OL	06/23	

HERMES F. NORIEGA LICENSE No. 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER
HERMES F. NORIEGA, P.E.
FLORIDA P.E. LICENSE NO. 73778
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
CERTIFICATION NO. 29578
FBPE CERT. OF AUTHORIZATION NO.

DATE: 06.27.15
DWN BY: LS
CHK BY: HFN
SCALE: NTS

DWG #: AMF002

SHEET: 4 OF 5

TABLE 2

MINIMUM STORM PANEL SEPARATION FROM GLASS			
POSITIVE DESIGN LOAD (W)(PSF)	MAXIMUM STORM PANEL SPAN(FT-IN)	MINIMUM SEP. FOR ALL INSTALLATIONS LESS THAN 30' ABOVE GRADE (INCHES)	MINIMUM SEP. FOR ALL INSTALLATIONS GREATER THAN 30' ABOVE GRADE (INCHES)
30.00	5'-0"	3"	1"
30.00	7'-0"	3"	1-1/4"
30.00	9'-0"	3"	1-1/2"
30.00	10'-0"	3"	1-7/8"
50.00	5'-0"	3"	1-1/8"
50.00	7'-0"	3"	1-3/8"
50.00	9'-0"	3"	1-7/8"
50.00	10'-0"	3"	2-3/8"
70.00	5'-0"	3"	1-1/8"
70.00	7'-0"	3"	1-1/2"
70.00	9'-0"	3"	2-1/4"
70.00	10'-0"	3"	3"
90.00	5'-0"	3"	1-1/8"
90.00	6'-0"	3"	1-3/8"
90.00	7'-0"	3"	1-1/2"
120.00	5'-0"	3"	1-1/4"
120.00	5'-6"	3"	1-1/4"

TABLE 1 NOTES:

1. TABLE 1 IS APPLICABLE FOR BOTH POSITIVE AND NEGATIVE LOADS.
2. FOR DESIGN LOADS BETWEEN TABULATED VALUES, USE NEXT HIGHER LOAD. LINEAR INTERPOLATION MAY BE USED TO DETERMINE ALLOWABLE SPANS.

TABLE 2 NOTES:

1. USE REQUIRED POSITIVE DESIGN LOAD TO DETERMINE MINIMUM STORM SHUTTER SEPARATION FROM GLASS.

TABLE 1

STORM PANEL MAXIMUM SPAN SCHEDULE	
DESIGN LOAD W (P.S.F.)	ALL MOUNTING CONDITIONS
	L MAX. (FT-IN)
73.00	8'-8"
73.00	8'-6"
80.00	8'-0"
85.00	7'-6"
90.00	7'-1"
95.00	6'-8"
100.00	6'-4"
105.00	6'-1"
110.00	5'-9"
115.00	5'-6"
120.00	5'-4"
125.00	5'-1"
130.00	5'-0"
135.00	5'-0"
140.00	5'-0"
145.00	5'-0"
150.00	5'-0"
160.00	4'-9"
170.00	4'-5"
180.00	4'-2"
190.00	4'-0"
200.00	3'-9"

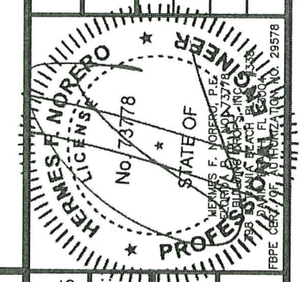
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 23-0816.19
Expiration Date 04/18/2027
By
Miami Dade Product Control

AMERICAN METAL FABRICATORS, INC.
1501 53rd Street
Mangonia Park, FL 33407
PH: (561)790-5799
FAX: (561)790-2320

TITLE: 0.063" ALUMINUM STORM PANEL STORM PANEL SPAN SCHEDULE

PREPARED BY:
BD BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD. #338
DANIA BEACH, FL 33004
PH: (954) 399-8478 FX: (954) 744-4738

REVISIONS			
DESCRIPTION	BY	DATE	
FBC 2020 UPDATE	LL	12/20	
8TH FBC UPDATE	OL	06/23	



DATE: 06.27.15
DWN BY: LS
CHK BY: HFN
SCALE: NTS

DWG #: AMF002

SHEET: 5 OF 5