



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

## NOTICE OF ACCEPTANCE (NOA)

High Velocity Hurricane Protection Systems, Inc.  
3827 Progress Ave.  
Naples, FL 34104

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

### 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 Florida Building Code, including the High Velocity Hurricane Zone.

### DESCRIPTION: Category 5 Aluminum Hurricane Abatement System – L.M.I.

**APPROVAL DOCUMENT:** Drawing No. 23-61997, titled "Category 5 Rolling Hurricane Curtain", sheets 1 through 6 of 6, dated 04/15/2009, with last revision dated 09/21/2023, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E., on 10/03/23, bearing the Miami-Dade County Product Control renewal 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 unit shall bear a permanent label with the manufacturer's name or logo, city, state and 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 **renews NOA #23-1010.08** and consists of this page 1 and evidence submitted pages E-1, E-2, E-3, E-4, and E-5, as well as approval document mentioned above.

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



*Helmy A. Makar*  
05/09/24

NOA No. 24-0321.04  
Expiration Date: 08/12/2029  
Approval Date: 05/09/2024  
Page 1



**High Velocity Hurricane Protection Systems, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS NOAs**

**A. DRAWINGS “Submitted under NOA # 15-0324.05”**


1. Drawing No. **14-2099**, titled “Category 5 Rolling Hurricane Curtain”, sheets 1 through 5 of 5, dated 04/15/2009, with last revision dated 03/17/2015, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.

**B. TESTS “Submitted under NOA # 10-0831.07”**

1. Test reports on Uniform Static Air Pressure Test per TAS 202 of Category 5 Rolling Hurricane Curtain, prepared by Hurricane Engineering & Testing, Inc., Report No. **HETI-10-3000**, dated 02/12/2010, signed and sealed by Candido F. Font, P.E.
2. Test reports on Large Missile Impact Test per TAS 201-94 and Cyclic Wind Loading Test per TAS 203-94 of Category 5 Rolling Hurricane Curtain, prepared by Hurricane Engineering & Testing, Inc., Report No. **HETI-10-3001**, dated 02/12/2010, signed and sealed by Candido F. Font, P.E.

**“Submitted under NOA # 09-0511.02”**

3. Test reports on Uniform Static Air Pressure Test per TAS 202 of Category 5 Dual End Retention Rolling Hurricane Curtain, prepared by Hurricane Engineering & Testing, Inc., Report No. **HETI-09-2503A**, dated 01/30/2009, signed and sealed by Candido F. Font, P.E.
4. Test reports on Large Missile Impact Test per TAS 201-94 and Cyclic Wind Loading Test per TAS 203-94 of Category 5 Dual End Retention Rolling Hurricane Curtain, prepared by Hurricane Engineering & Testing, Inc., Report No. **HETI-09-2503B**, dated 01/30/2009, signed and sealed by Candido F. Font, P.E.
5. Test reports on Uniform Static Air Pressure Test per TAS 202 of Category 5 Dual End Retention Rolling Hurricane Curtain, prepared by Hurricane Engineering & Testing, Inc., Report No. **HETI-09-2504A**, dated 01/30/2009, signed and sealed by Candido F. Font, P.E.
6. Test reports on Large Missile Impact Test per TAS 201-94 and Cyclic Wind Loading Test per TAS 203-94 of Category 5 Dual End Retention Rolling Hurricane Curtain, prepared by Hurricane Engineering & Testing, Inc., Report No. **HETI-09-2504B**, dated 01/30/2009, signed and sealed by Candido F. Font, P.E.
7. Test reports on Uniform Static Air Pressure Test per TAS 202 of Category 5 Dual End Retention Rolling Hurricane Curtain, prepared by Hurricane Engineering & Testing, Inc., Report No. **HETI-09-2505A**, dated 01/30/2009, signed and sealed by Candido F. Font, P.E.

  
\_\_\_\_\_  
Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 24-0321.04  
Expiration Date: 08/12/2029  
Approval Date: 05/09/2024



**High Velocity Hurricane Protection Systems, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**B. TESTS (Continued)**

8. Test reports on Large Missile Impact Test per TAS 201-94 and Cyclic Wind Loading Test per TAS 203-94 of Category 5 Dual End Retention Rolling Hurricane Curtain, prepared by Hurricane Engineering & Testing, Inc., Report No. **HETI-09-2505B**, dated 01/30/2009, signed and sealed by Candido F. Font, P.E.
9. Test report on Tensile Test of Category 5 Dual End Retention Rolling Hurricane Curtain Slats, Test Report No. **HETI-09-T100**, prepared by Hurricane Engineering & Testing, Inc., dated 01/30/2009, signed and sealed by Candido F. Font, P.E.

**C. CALCULATIONS “Submitted under NOA # 15-0324.05”**

1. Anchoring calculations and comparative analysis prepared Engineering Express, dated 03/17/2015, signed and sealed by Frank L. Bennardo, P.E.  
  
“Submitted under NOA # 14-0811.18”
2. Anchoring calculations and comparative analysis prepared Engineering Express, dated 08/07/2014, signed and sealed by Frank L. Bennardo, P.E.  
  
“Submitted under NOA # 10-0831.07”
3. Anchoring calculations and comparative analysis prepared Engineering Express, sheets 1 through 12 of 12, dated 08/25/2010, signed and sealed by Frank L. Bennardo, P.E.

**D. QUALITY ASSURANCE**


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

**E. MATERIAL CERTIFICATIONS**

1. None.

**F. STATEMENTS “Submitted under NOA # 15-0324.05”**

1. Statement letter of code conformance to the 5<sup>th</sup> edition (2014) FBC issued by Engineering Express, dated 03/17/2015, signed and sealed by Frank L. Bennardo, P.E.  
  
“Submitted under NOA # 14-0811.18”
2. Statement letter of code conformance to FBC 2010 issued by Engineering Express, dated 10/03/2013, signed and sealed by Frank L. Bennardo, P.E.  
  
“Submitted under NOA # 10-0831.07”
3. No financial interest letter issued by Engineering Express, dated 08/25/2010, signed and sealed by Frank L. Bennardo, P.E.

  
\_\_\_\_\_  
Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 24-0321.04  
Expiration Date: 08/12/2029  
Approval Date: 05/09/2024



**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #18-0301.03**

**A. DRAWINGS**

- 1. Drawing No. 14-2099, titled "Category 5 Rolling Hurricane Curtain", sheets 1 through 5 of 5, dated 04/15/2009, with last revision dated 02/23/2017, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.*

**B. TESTS**

- 1. None.*

**C. CALCULATIONS**

- 1. None.*

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**

- 1. None.*

**F. STATEMENTS**

- 1. Statement letter of code conformance to the 6<sup>th</sup> Edition (2017) FBC issued by Engineering Express, dated 02/23/2018, signed and sealed by Frank L. Bennardo, P.E.*

**3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #19-0528.01**

**A. DRAWINGS**

- 1. None.*

**B. TESTS**

- 1. None.*

**C. CALCULATIONS**

- 1. None.*

**D. QUALITY ASSURANCE**


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

**E. MATERIAL CERTIFICATIONS**

- 1. None.*

**F. STATEMENTS**

- 1. Statement letter of code conformance to the 6<sup>th</sup> Edition (2017) FBC issued by Engineering Express, dated 05/16/2019, signed and sealed by Frank L. Bennardo, P.E.*

  
\_\_\_\_\_  
Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 24-0321.04  
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Approval Date: 05/09/2024



**High Velocity Hurricane Protection Systems, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**4. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #20-1102.10**

**A. DRAWINGS**

1. *Drawing No. 20-29523, titled "Category 5 Rolling Hurricane Curtain", sheets 1 through 5 of 5, dated 04/15/2009, with last revision dated 10/19/2020, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E., on 10/27/20.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**F. STATEMENTS**

1. *Statement letter of code conformance to the 7<sup>th</sup> Edition (2020) FBC issued by Engineering Express, dated 10/19/2020, signed and sealed by Frank L. Bennardo, P.E.*

**5. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #23-1010.08**

**A. DRAWINGS**

1. *Drawing No. 23-61997, titled "Category 5 Rolling Hurricane Curtain", sheets 1 through 6 of 6, dated 04/15/2009, with last revision dated 09/21/2023, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E., on 10/03/23.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. QUALITY ASSURANCE**

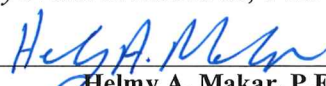
1. *By Miami-Dade Department of Regulatory and Economic Resources (RER).*

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**F. STATEMENTS**

1. *Statement letter of code conformance to the 8<sup>th</sup> Edition (2023) FBC issued by Engineering Express, dated 09/25/2023, signed and sealed by Frank L. Bennardo, P.E.*

  
\_\_\_\_\_  
Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 24-0321.04  
Expiration Date: 08/12/2029  
Approval Date: 05/09/2024



**High Velocity Hurricane Protection Systems, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**6. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. *None.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. QUALITY ASSURANCE**


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

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**F. STATEMENTS**

1. *Statement letter of code conformance to the 8<sup>th</sup> Edition (2023) FBC issued by Engineering Express, dated 03/14/2024, signed and sealed by Frank L. Bennardo, P.E.*

  
\_\_\_\_\_  
Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 24-0321.04  
Expiration Date: 08/12/2029  
Approval Date: 05/09/2024



10/3/2023 5:59 PM ERIC c:\users\eric\engineering\express\production - documents\projects\23-123-61997 2023 noa product update fl 20-1102.10\work\2023 fbc\docs for review\23-61997d noa dwg.dwg

# HIGH VELOCITY HURRICANE PROTECTION SYSTEMS, INC.

CATEGORY 5 ROLLING HURRICANE CURTAIN  
LARGE MISSILE IMPACT RESISTANT (MISSILE LEVEL D)  
VALID FOR USE INSIDE AND OUTSIDE THE HVHZ (SEE LIMITATIONS HEREIN)

NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. A DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR CERTIFYING THE APPLICATION OF THIS INFORMATION TO ANY SITE-SPECIFIC LOCATION.

**GENERAL NOTES:**

1. THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED AS AN IMPACT RESISTANT HURRICANE ABATEMENT PRODUCT IN ACCORDANCE WITH THE FLORIDA BUILDING CODE EIGHTH EDITION (2023), FOR USE INSIDE AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE (HVHZ), PER TAS 201 / 202 / 203 TEST STANDARDS.
2. POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED PER SEPARATE ENGINEERING IN ACCORDANCE WITH THE GOVERNING CODE. PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7 AND CHAPTER 1609 OF THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.
3. PRESSURE VALUES IN THIS APPROVAL ARE (ASD) ALLOWABLE DESIGN PRESSURES UNLESS NOTED OTHERWISE.
4. DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
5. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
6. PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS. THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR.
7. ALL EXTRUSIONS SHALL BE OF THE MATERIALS INDICATED HEREIN.
8. ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI, UNLESS OTHERWISE NOTED HEREIN. FASTENERS SHALL BE CADMIUM-PLATED OR OTHERWISE CORROSION-RESISTANT MATERIAL AND SHALL COMPLY WITH "SPECIFICATIONS FOR ALUMINUM STRUCTURES" SECTION J.3.7.2 BY THE ALUMINUM ASSOCIATION IN.C, AND ANY APPLICABLE FEDERAL, STATE AND OR LOCAL CODES.
9. REFER TO FASTENER MANUFACTURER'S PUBLISHED DATA SHEETS AND RECOMMENDATIONS FOR FASTENER INSTALLATION INSTRUCTIONS.
10. ALL STEEL IN CONTACT WITH ALUMINUM SHALL BE PAINTED OR PLATED. THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
11. THE SYSTEM SHALL BE LABELED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE AND MIAMI-DADE REQUIREMENTS.
12. ENGINEER SEAL AFFIXED HERETO VALIDATE STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
13. ALTERATIONS, ADDITIONS, AND OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.
14. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.

**NOTE REGARDING USE OF THIS DOCUMENT & USE OUTSIDE FLORIDA:**

NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. THIS PRODUCT EVALUATION IS VALID FOR USE IN **FLORIDA ONLY**. USE OF THIS EVALUATION REQUIRES A REVIEW & CERTIFICATION BY A LOCAL DESIGN PROFESSIONAL WHO SHALL BE RESPONSIBLE FOR THE PROPER ADAPTATION OF THIS GENERAL PERFORMANCE EVALUATION TO ANY SITE-SPECIFIC PROJECT. CONTACT ENGINEERING EXPRESS FOR ASSISTANCE WITH YOUR PROJECT-SPECIFIC NEEDS & FOR ADAPTATION & CERTIFICATION OF THIS DOCUMENT OUTSIDE OF FLORIDA.

**PAGE INDEX:**

DESCRIPTION	PAGE #
COVER PAGE	01
TYP. ELEV.	02
TYP. SECTION, EXT/INT MOUNTS	03
TYP. EXT/INT BO TUBE MOUNTS	04-05
TABLES 1 & 2: DESIGN SCHEDULES	06

**TERMINOLOGY:**

THE FOLLOWING ABBREVIATIONS MAY APPEAR IN THIS APPROVAL:

"ADDTL." FOR "ADDITIONAL", "AHJ" FOR "AUTHORITY HAVING JURISDICTION", "ALUM" FOR "ALUMINUM", "ASD" FOR "ALLOWABLE STRESS DESIGN", "BO" FOR "BUILD-OUT", "CS" FOR "CARBON STEEL", "EA." FOR "EACH", "E.D."/"EDGE"/"EDGE DIST." FOR "EDGE DISTANCE", "ELEV" FOR "ELEVATION", "EMBED" FOR "EMBEDMENT", "EQ"/"EQUIV." FOR "EQUIVALENT", "EXT" FOR "EXTERIOR", "FBC" FOR "FLORIDA BUILDING CODE", "ft" OR " ' " FOR "FEET", "G" FOR "SPECIFIC GRAVITY", "GA" FOR "GAUGE", "GALV" FOR "GALVANIZED", "GFB" FOR "GROUT-FILLED BLOCK", "GR" FOR "GRADE", "HOLLOW" FOR "HOLLOW BLOCK", "HORIZ" FOR "HORIZONTAL", "HVHZ" FOR "HIGH-VELOCITY HURRICANE ZONE", "in" OR " " " FOR "INCHES", "INT" FOR "INTERIOR", "KSI" FOR "1,000 lb / in<sup>2</sup>", "L" FOR "LENGTH", "LB" FOR "POUND", "MAX" FOR "MAXIMUM", "MIN" FOR "MINIMUM", "N.T.S." FOR "NOT TO SCALE", "O.C." FOR "ON-CENTER", "P.E." FOR "PROFESSIONAL ENGINEER", "PERP" FOR "PERPENDICULAR", "PSF" FOR "POUNDS PER SQUARE FOOT (lb/ft<sup>2</sup>)", "PSI" FOR "POUNDS PER SQUARE INCH (lb/in<sup>2</sup>)", "QTY" FOR "QUANTITY", "REF." FOR "REFERENCE", "SCHD." FOR "SCHEDULE", "SDS" FOR "SELF-DRILLING SCREWS", "SMS" FOR "SHEET METAL SCREWS", "SPECS" FOR "SPECIFICATIONS", "SS" FOR "STAINLESS STEEL", "SUB" FOR "SUBMITTAL", "TAS" FOR "TESTING APPLICATION STANDARD", "TYP." FOR "TYPICAL", "ULT" FOR "ULTIMATE LOADS", "U.N.O." FOR "UNLESS NOTED OTHERWISE", "UTS" OR "Fu" FOR "ULTIMATE TENSILE STRENGTH/STRESS", "VERT" FOR "VERTICAL", "WLL" FOR "WORKING LOAD LIMIT", "W/" FOR "WITH", "W/O" FOR "WITHOUT", "YS" FOR "YIELD STRENGTH", "#" FOR "NUMBER", "&" FOR "AND", AND "Ø" FOR "DIAMETER".

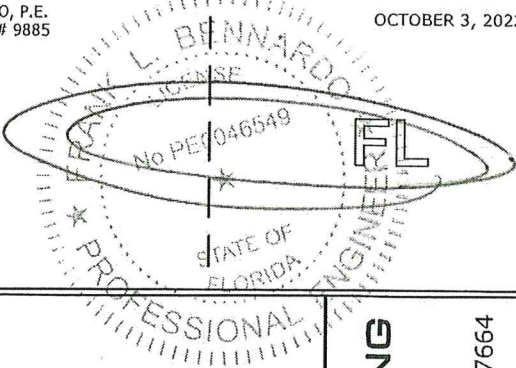
CONTACT ENGINEERING EXPRESS FOR ADDITIONAL ABBREVIATION/TERMINOLOGY CLARIFICATIONS.

PRODUCT RENEWED  
as complying with the Florida  
Building Code  
Acceptance No **24-0321.04**  
Expiration Date **08/12/2029**  
By **Heg A. Maw**  
Miami Dade Product Control

PRODUCT REVISED  
as complying with the Florida  
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By **Heg A. Maw**  
Miami Dade Product Control

FRANK BENNARDO, P.E.  
PE# 0046549 CA# 9885

OCTOBER 3, 2023



**ENGINEERING EXPRESS®**

POSTAL ADDRESS:  
2234 NORTH FEDERAL HWY #7664  
BOCA RATON, FL 33431  
ENGINEERINGEXPRESS.COM

HIGH VELOCITY HURRICANE  
PROTECTION SYSTEMS, INC.

3827 PROGRESS AVE, NAPLES, FL 34104  
(239) 403-2650

CATEGORY 5 ROLLING HURRICANE CURTAIN  
FLORIDA BUILDING CODE EIGHTH EDITION (2023)  
MIAMI-DADE COUNTY NOTICE OF ACCEPTANCE (NOA)

REMARKS	DATE	DRWN	CHKD	CCB	IRVN	IRVN	IRVN	IRVN	IRVN
PREV. SUB. NOA 20-1102.10	10/19/20								
2023 FBC UPDATE	09/21/23								

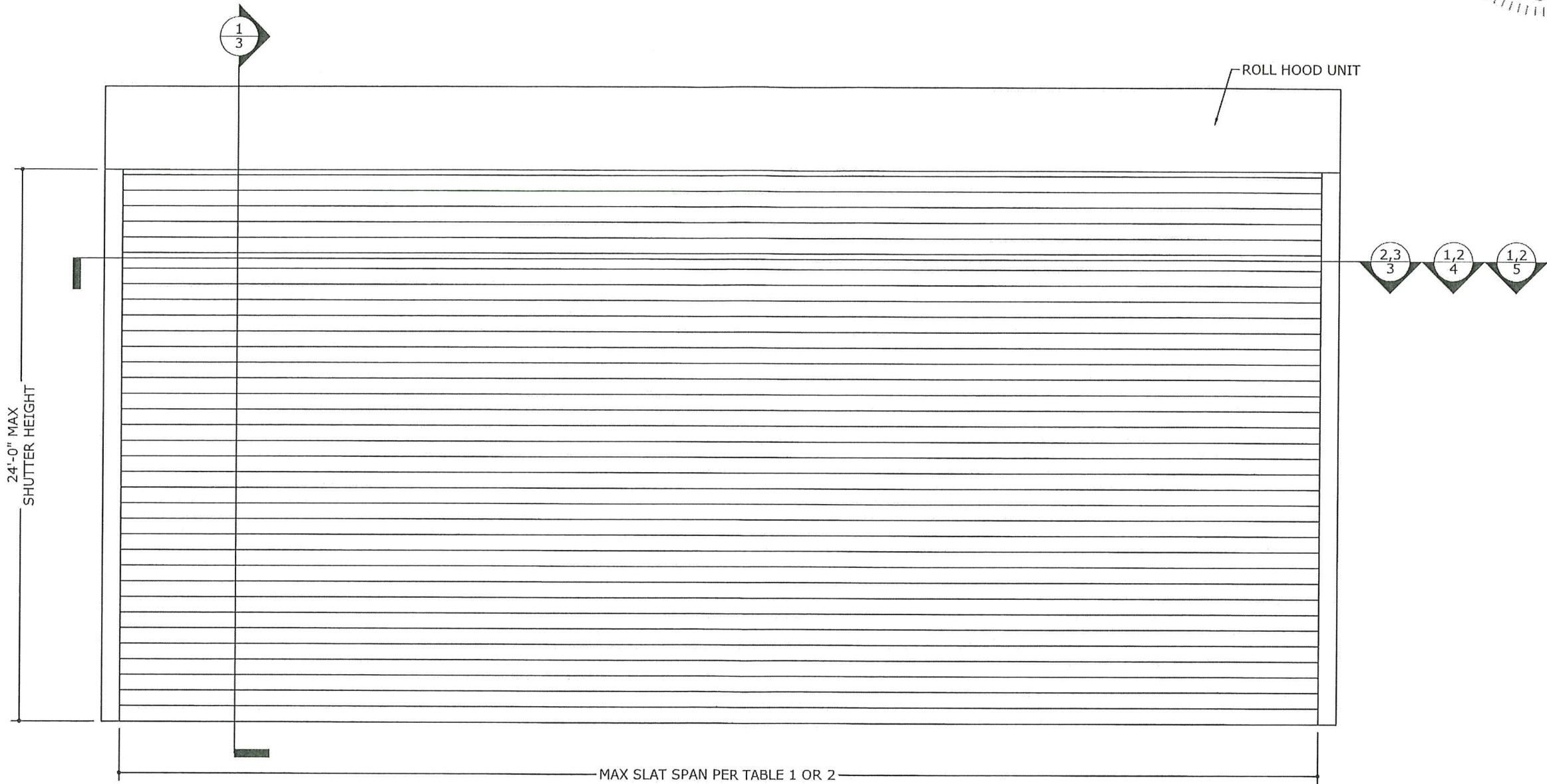
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23-61997

SCALE: NTS UNLESS NOTED

1





1 TYPICAL ELEVATION  
2 N.T.S. EXTERIOR ELEV

PRODUCT RENEWED  
as complying with the Florida  
Building Code  
Acceptance No. 24-0321.04  
Expiration Date 08/12/2029  
By *[Signature]*  
Miami Data Product Control

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. \_\_\_\_\_  
Expiration Date \_\_\_\_\_  
By *[Signature]*  
Miami Data Product Control

FRANK BENNARDO, P.E.  
PE# 0046549 CA# 9885

OCTOBER 3, 2023

**ENGINEERING EXPRESS®**  
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2234 NORTH FEDERAL HWY #7664  
BOCA RATON, FL 33431  
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CATEGORY 5 ROLLING HURRICANE CURTAIN  
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REMARKS	DRWN	CHKD	DATE
PREV. SUB. NOA 20-1102.10	CCB	IRWN	10/19/20
2023 FBC UPDATE	EPR	IRWN	09/21/23

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23-61997

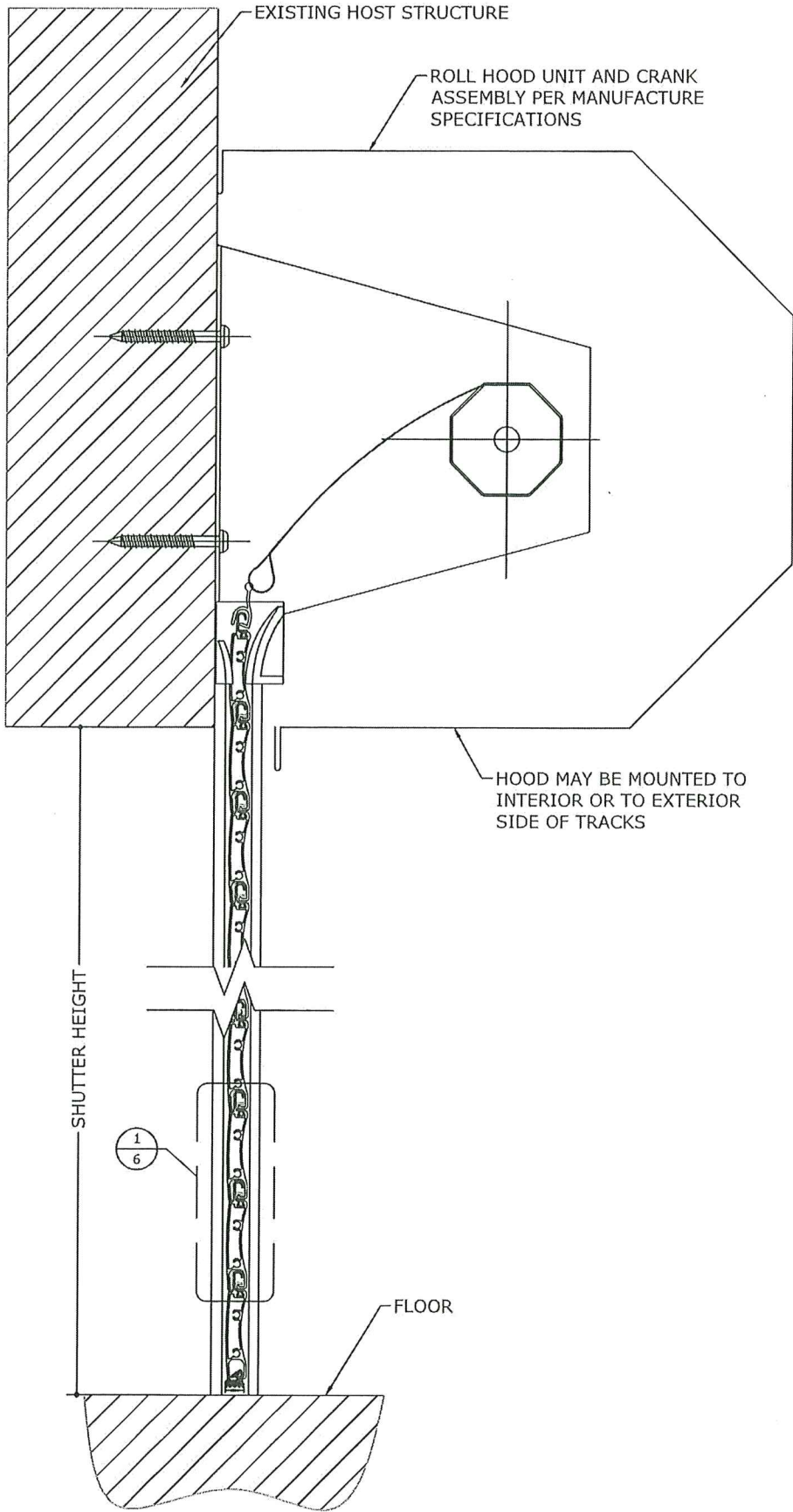
SCALE: NTS UNLESS NOTED

2

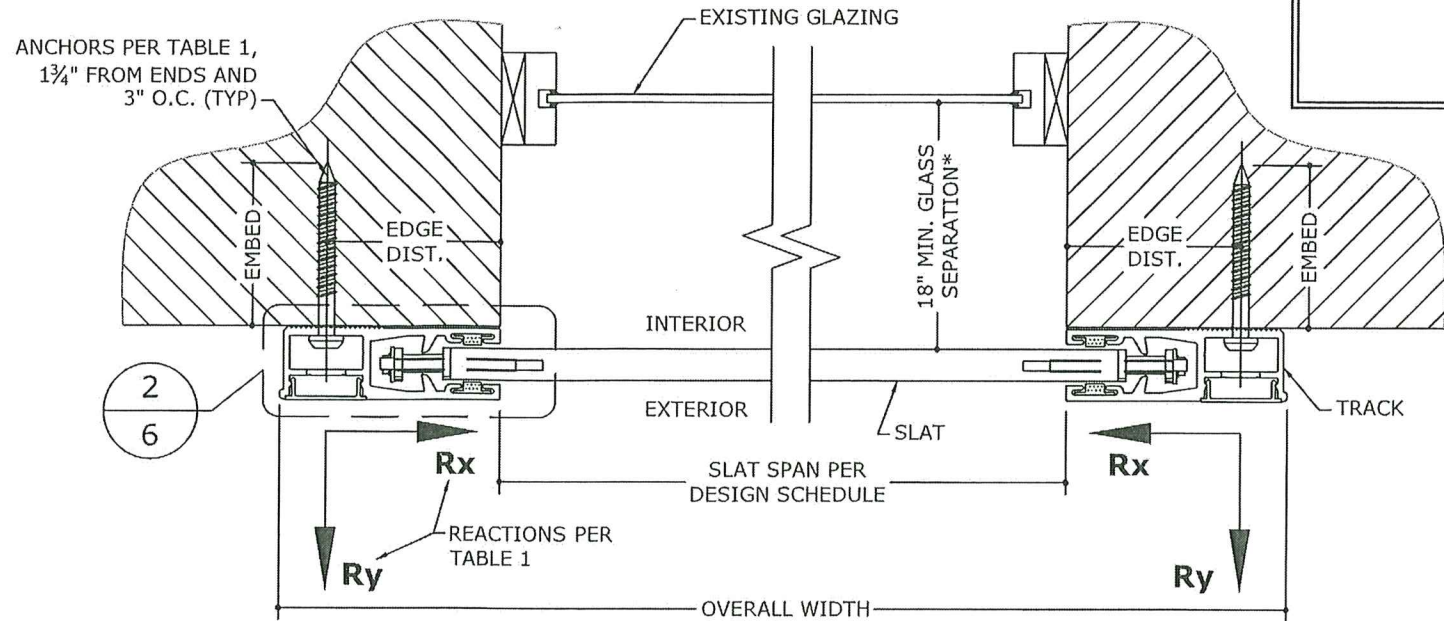
OF 6



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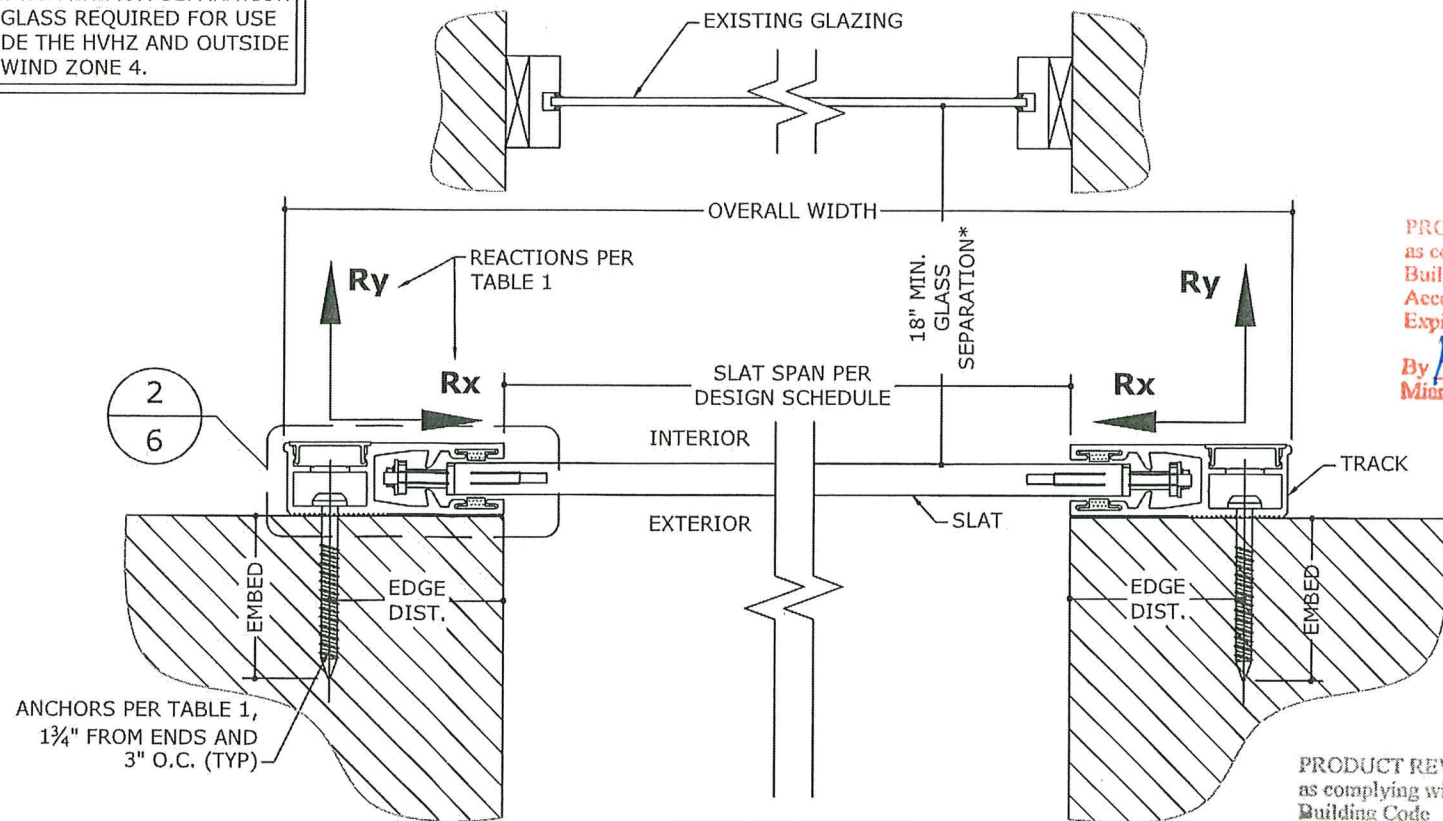


1 TYPICAL SECTION  
3 N.T.S. VERT SECTION



2 TYPICAL EXTERIOR MOUNT  
3 N.T.S. HORIZ SECTION

\*NOTE: NO MINIMUM SEPARATION FROM GLASS REQUIRED FOR USE OUTSIDE THE HVHZ AND OUTSIDE ASTM WIND ZONE 4.

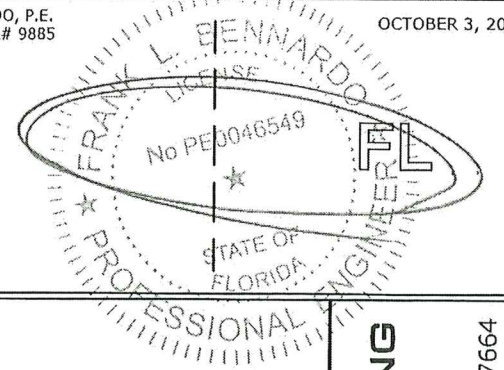


3 TYPICAL INTERIOR MOUNT  
3 N.T.S. HORIZ SECTION

NOTE: NOT APPROVED FOR USE WITH 26'-0\"/>

FRANK BENNARDO, P.E.  
PE# 0046549 CA# 9885

OCTOBER 3, 2023



ENGINEERING  
EXPRESS

POSTAL ADDRESS:  
2234 NORTH FEDERAL HWY #7664  
BOCA RATON, FL 33431  
ENGINEERINGEXPRESS.COM

HIGH VELOCITY HURRICANE  
PROTECTION SYSTEMS, INC.

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By *H. G. A. Miller*  
Miami Dade Product Control

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Miami Dade Product Control

REMARKS	DATE	DRWN	CHKD
PREV. SUB. NOA 20-1102.10	10/19/20	CCB	RVN
2023 FBC UPDATE	09/21/23	EPR	RVN

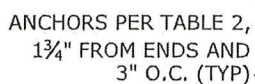
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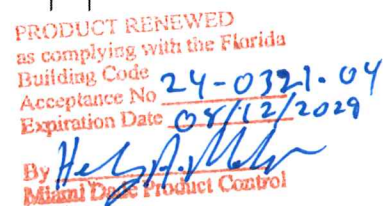
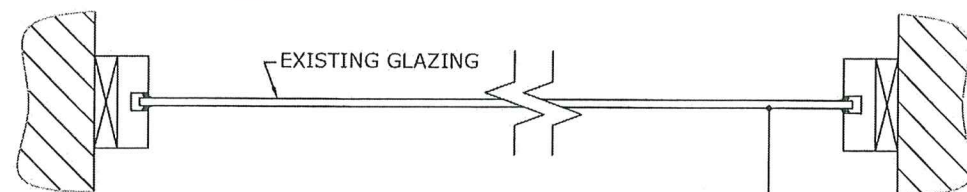
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3 OF 6

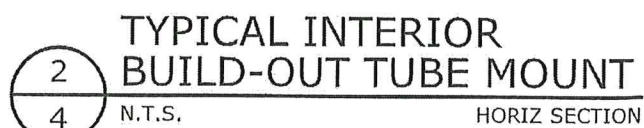




\*NOTE: NO MINIMUM SEPARATION FROM GLASS REQUIRED FOR USE OUTSIDE THE HVHZ AND OUTSIDE ASTM WIND ZONE 4.

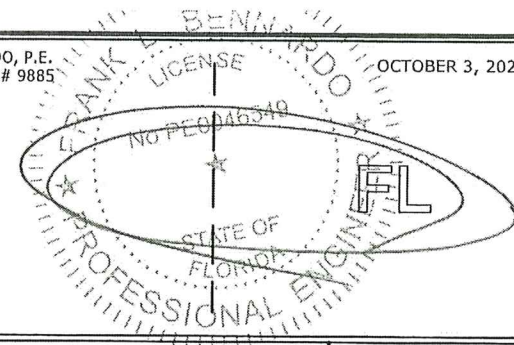


**NOTE:** NOT APPROVED  
FOR USE WITH 26'-0" SPAN



FRANK BENNARDO, P.E.  
PE# 0046549 CA# 9885

OCTOBER 3, 2023



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HIGH VELOCITY HURRICANE  
PROTECTION SYSTEMS, INC.

3827 PROGRESS AVE, NAPLES, FL 34104

CATEGORY 5 ROLLING HURRICANE CURTAIN  
FLORIDA BUILDING CODE EIGHTH EDITION (2023)  
MIAMI-DADE COUNTY NOTICE OF ACCEPTANCE (NOA)

REMARKS	DRWN	CHKD	DATE
PREV. SUB. NOA 20-1102-10	COB	RWN	10/19/20
2023 FBC UPDATE	EPR	RWN	09/21/23
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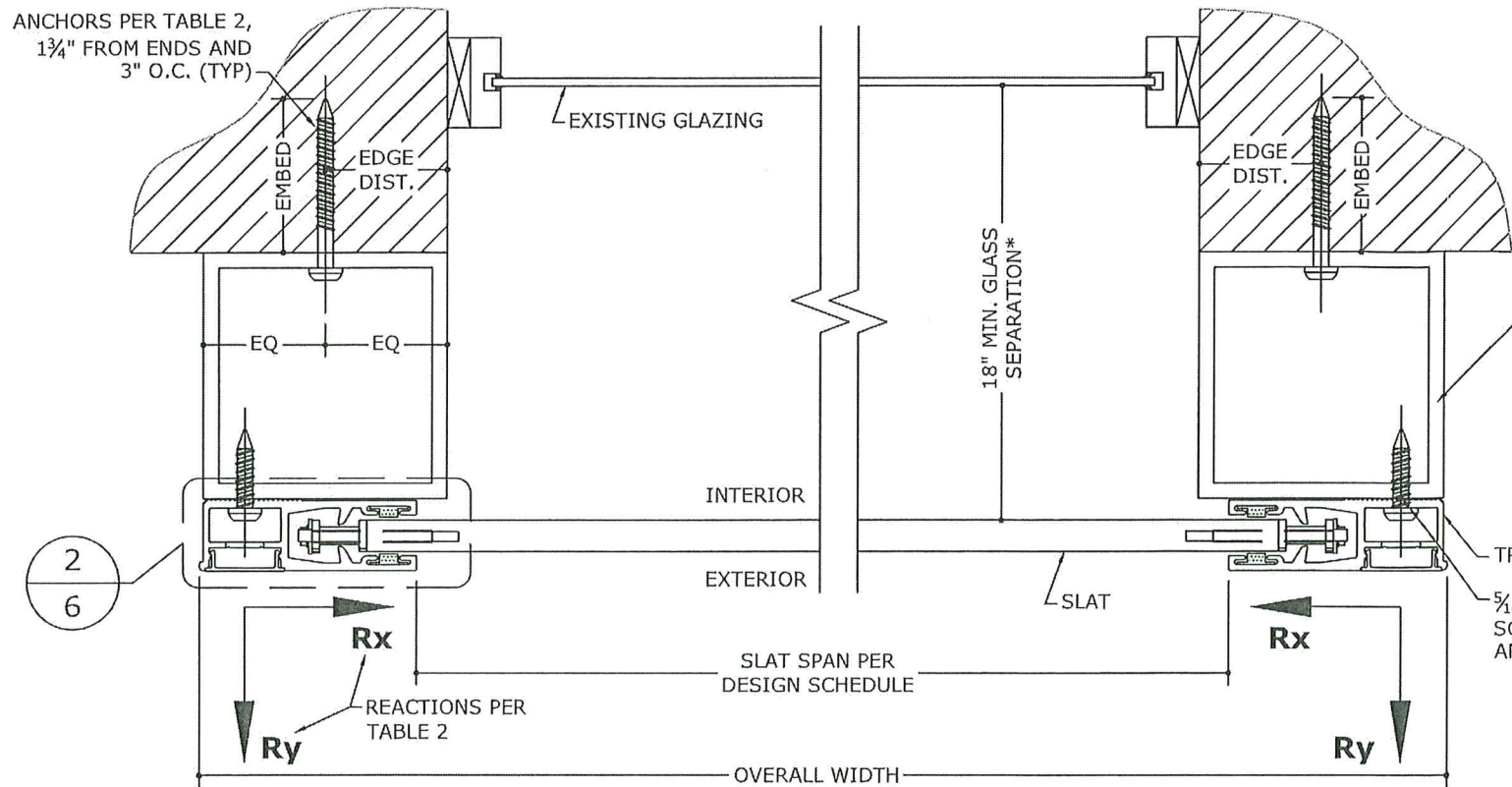
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OF
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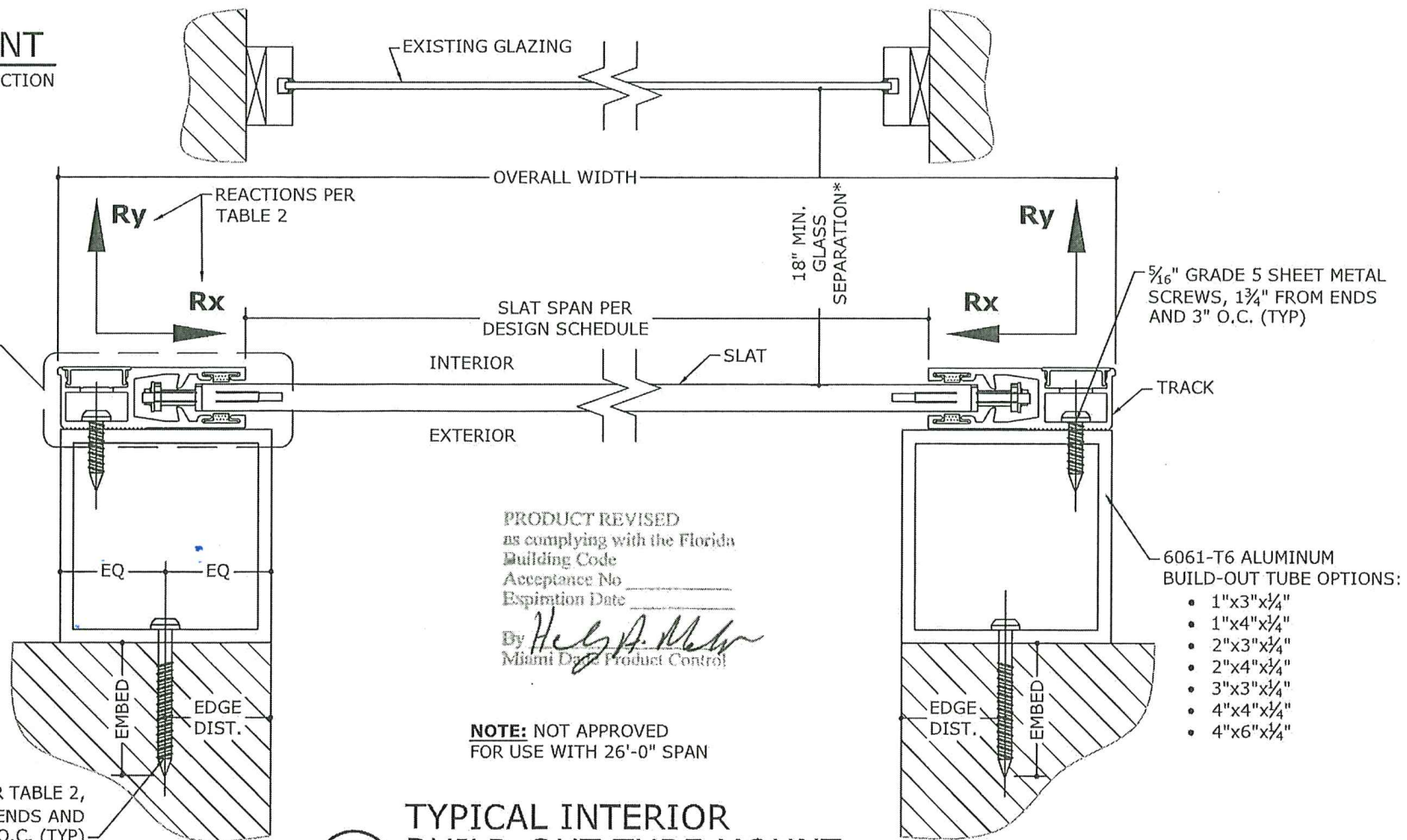


1  
5  
TYPICAL EXTERIOR  
BUILD-OUT TUBE MOUNT  
N.T.S. HORIZ SECTION

\*NOTE: NO MINIMUM SEPARATION  
FROM GLASS REQUIRED FOR USE  
OUTSIDE THE HVHZ AND OUTSIDE  
ASTM WIND ZONE 4.

PRODUCT RENEWED  
as complying with the Florida  
Building Code  
Acceptance No. 24-0321.04  
Expiration Date 08/12/2029  
By Hely A. Mohr  
Miami Data Product Control

ANCHORS PER TABLE 2,  
1 3/4" FROM ENDS AND  
3" O.C. (TYP)



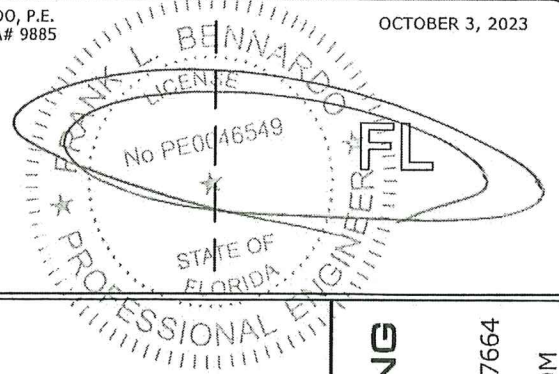
PRODUCT REVISED  
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Expiration Date \_\_\_\_\_  
By Hely A. Mohr  
Miami Data Product Control

NOTE: NOT APPROVED  
FOR USE WITH 26'-0" SPAN

2  
5  
TYPICAL INTERIOR  
BUILD-OUT TUBE MOUNT  
N.T.S. HORIZ SECTION

FRANK BENNARDO, P.E.  
PE# 0046549 CA# 9885

OCTOBER 3, 2023



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(239) 403-2650

CATEGORY 5 ROLLING HURRICANE CURTAIN  
FLORIDA BUILDING CODE EIGHTH EDITION (2023)  
MIAMI-DADE COUNTY NOTICE OF ACCEPTANCE (NOA)

REMARKS	DATE	DRWN	CHKD	CCB	RVN	EPR	RVN	EPR	RVN
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TABLE 1: DIRECT MOUNT INSTALLATION

SUBSTRATE	ANCHOR TYPE	SLAT SPAN															
		12'-0"				16'-0"				20'-0"				26'-0"			
		ALLOWABLE DESIGN PRESSURES (PSF)		REACTIONS (LB/FT)		ALLOWABLE DESIGN PRESSURES (PSF)		REACTIONS (LB/FT)		ALLOWABLE DESIGN PRESSURES (PSF)		REACTIONS (LB/FT)		ALLOWABLE DESIGN PRESSURES (PSF)		REACTIONS (LB/FT)	
		+	-	Ry	Rx	+	-	Ry	Rx	+	-	Ry	Rx	+	-	Ry	Rx
A36 STEEL (3/16" MIN)	5/16" GRADE 5 SHEET METAL SCREW	80.0	80.0	480.0	2560.0	80.0	80.0	640.0	3014.7	61.4	55.9	613.6	3808.3	37.5	44.8	582.4	3875.4
6061-T6 ALUMINUM (1/4" MIN)	5/16" GRADE 5 SHEET METAL SCREW	80.0	80.0	480.0	2560.0	70.3	73.1	585.0	2647.5	44.7	40.7	447.5	2772.6	27.2	32.6	424.4	2815.2
CONCRETE (3000 PSI MIN)	5/16" ITW TAPCON WITH 2-1/4" MIN EMBED AND 3-1/8" MIN EDGE DISTANCE	59.2	59.6	357.7	1895.7	49.3	51.3	410.5	1859.6	31.6	28.7	315.6	1958.4	19.3	23.0	299.5	1992.3
	3/8" HILTI HIT-RE 500 EPOXY ANCHOR WITH 4-1/2" MIN EMBED, 4" MIN EDGE DISTANCE AND S.S. HAS ROD	80.0	80.0	480.0	2560.0	80.0	80.0	640.0	3014.7	80.0	80.0	800.0	5454.5	50.0	60.0	780.0	5173.5
	3/8" DEWALT SCREW-BOLT WITH 3-1/2" MIN EMBED AND 3" MIN EDGE DISTANCE	80.0	80.0	480.0	2560.0	80.0	80.0	640.0	3014.7	50.5	45.7	504.6	3113.5	30.4	36.7	477.4	3144.6
GROUT-FILLED BLOCK	5/16" ITW TAPCON WITH 2-1/4" MIN EMBED AND 4" MIN EDGE DISTANCE	54.3	54.7	328.0	1738.0	45.3	47.1	377.2	1707.5	28.9	26.3	288.9	1790.7				

\*NOTE: 26'-0" SPAN IS NOT APPROVED FOR INTERIOR MOUNT CONDITIONS

TABLE 2: BUILD-OUT TUBE MOUNT INSTALLATION

SUBSTRATE	ANCHOR TYPE	SLAT SPAN															
		12'-0"				16'-0"				20'-0"				26'-0"			
		ALLOWABLE DESIGN PRESSURES (PSF)		REACTIONS (LB/FT)		ALLOWABLE DESIGN PRESSURES (PSF)		REACTIONS (LB/FT)		ALLOWABLE DESIGN PRESSURES (PSF)		REACTIONS (LB/FT)		ALLOWABLE DESIGN PRESSURES (PSF)		REACTIONS (LB/FT)	
		+	-	Ry	Rx	+	-	Ry	Rx	+	-	Ry	Rx	+	-	Ry	Rx
A36 STEEL (3/16" MIN)	5/16" GRADE 5 SHEET METAL SCREW	80.0	80.0	480.0	2560.0	70.3	73.1	585.0	2647.5	44.7	40.7	447.5	2772.6	27.2	32.6	424.4	2815.2
6061-T6 ALUMINUM (1/4" MIN)	5/16" GRADE 5 SHEET METAL SCREW	80.0	80.0	480.0	2560.0	70.3	73.1	585.0	2647.5	44.7	40.7	447.5	2772.6	27.2	32.6	424.4	2815.2
CONCRETE (3000 PSI MIN)	5/16" ITW TAPCON WITH 2-1/4" MIN EMBED AND 3-1/8" MIN EDGE DISTANCE	59.2	59.6	357.7	1895.7	49.3	51.3	410.5	1859.6	31.6	28.7	315.6	1958.4	19.3	23.0	299.5	1992.3
	3/8" HILTI HIT-RE 500 EPOXY ANCHOR WITH 4-1/2" MIN EMBED, 4" MIN EDGE DISTANCE AND S.S. HAS ROD	80.0	80.0	480.0	2560.0	70.3	73.1	585.0	2647.5	44.7	40.7	447.5	2772.6	27.2	32.6	424.4	2815.2
	3/8" DEWALT SCREW-BOLT WITH 3-1/2" MIN EMBED AND 3" MIN EDGE DISTANCE	80.0	80.0	480.0	2560.0	70.3	73.1	585.0	2647.5	44.7	40.7	447.5	2772.6	27.2	32.6	424.4	2815.2
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\*NOTE: 26'-0" SPAN IS NOT APPROVED FOR INTERIOR MOUNT CONDITIONS

FRANK BENNARDO, P.E.  
PE# 0046549 CA# 9885

OCTOBER 3, 2023

ROLL UP SHUTTER BUMBER

SLAT

0.035" THICK SLAT LINER

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By *H. A. Miller*  
Miami Date Product Control

PRODUCT RENEWED as complying with the Florida Building Code  
Acceptance No. **24-0321-04**  
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REINFORCED NYLON WINDLOCK MANUFACTURED BY M & M PLASTICS

REINFORCED NYLON GUIDE MANUFACTURED BY ROLLER STAR

STEEL WASHER

#10 SMS

**1 SLAT ASSEMBLY**  
6" = 1'-0" VERT SECTION

**2 TRACK ASSEMBLY**  
6" = 1'-0" HORIZ SECTION

TABLE NOTES:  
1. DETERMINE WHICH MOUNTING CONDITION IS APPLICABLE AND SELECT TABLE 1 OR 2 ACCORDINGLY.  
2. TO DETERMINE THE ALLOWABLE DESIGN PRESSURES AND REACTIONS, MATCH THE ANCHOR TYPE WITH THE CORRESPONDING SLAT SPAN.  
3. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.  
4. EDGE DISTANCE OF 1/2" IS ACCEPTABLE FOR ANCHORS TO STEEL OR ALUMINUM.  
5. MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.  
6. MACHINE SCREWS SHALL BE INSTALLED WITH FULL ENGAGEMENT OF THREADS INTO METAL HOST STRUCTURE AND MAY HAVE EITHER A FLAT HEAD, PAN HEAD, TRUSS HEAD, OR OTHER HEAD STYLES.  
7. DENOTES CONDITIONS NOT APPROVED FOR USE.

REMARKS	DRWN	CHKD	DATE
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2023 FBC UPDATE	EPR	IRVN	09/21/23

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