



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

## NOTICE OF ACCEPTANCE (NOA)

**Florida Storm Panel Supply, LLC**  
14475 N.W. 26<sup>th</sup> Avenue  
Opa-Locka, Florida 33054

### 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: 0.029" (min.) Galvanized Steel Storm Panels Shutter

**APPROVAL DOCUMENT:** Drawing No. AD12-32, titled " 22 ga. Galvanized Steel Storm Panel-LMI ", sheets 1 through 4 of 4, prepared by MCY Engineering, Inc., revision #3 dated October 28, 2020, signed and sealed by Yiping Wang, P.E., on October 28, 2020, 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 #20-0107.04 and consists of this page 1, evidence submitted pages E-1, E-2, E-3, and E-4 as well as approval document mentioned above.

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



*Helmy A. Makar*  
03/04/2021

NOA No. 20-1102.14  
Expiration Date: 01/23/2025  
Approval Date: 03/04/2021

**Florida Storm Panels, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #02-1120.02**

**A. DRAWINGS**

1. *Drawing No. 02-868-111, titled " 22 ga Galvanized Steel Storm Panels ", sheets 1 through 4 of 4, prepared by Frank L. Bennardo, P.E., dated November 18, 2002, last revision dated January 02, 2003, signed and sealed by Frank L. Bennardo, P.E.*

**B. TESTS**

1. *Test report on: Uniform Static Air Pressure Test, Large Missile Impact Test and Cyclic Wind Pressure Test prepared by Construction Testing Corporation, Report No. 02-041, dated November 18, 2002, signed and sealed by Yamil G. Kuri, P.E.*
2. *Test report on fastener by Construction Testing Corporation, Report No. 02-007A, dated May 06, 2002, signed and sealed by Yamil G. Kuri, P.E.*
3. *Test report on Wood Bushings by Construction Testing Corporation, Report No. 02-038, dated October 07, 2002, signed and sealed by Yamil G. Kuri, P.E.*

**C. CALCULATIONS**

1. *22 ga. Galvanized Steel Storm Panels and Anchor Calculations, sheets 1 through 26 of 26, dated November 18, 2002, prepared by Frank L. Bennardo, P.E., signed and sealed by Frank L. Bennardo, P.E.*
2. *Anchor Calculations, 9 pages, dated November 18, 2002, prepared by Frank L. Bennardo, P.E., signed and sealed by Frank L. Bennardo, P.E.*

**D. MATERIAL CERTIFICATIONS**

1. *Mill Certified Inspection Report.*
2. *Certified Tensile Test Report issued by Certified Testing Laboratory, Report Number 1098H, dated October 29, 2002, signed and sealed by Ramesh Patel, P.E.*

**2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 07-0817.03**

**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.*

  
\_\_\_\_\_  
Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 20-1102.14  
Expiration Date: 01/23/2025  
Approval Date: 03/04/2021

**Florida Storm Panels, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 12-0410.01**

**A. DRAWINGS**

1. *Drawing No. AD12-32, titled " 22 ga. Galvanized Steel Storm Panel-LMI ", sheets 1 through 4 of 4, prepared by MCY Engineering, Inc., dated April 02, 2012, signed and sealed by Yiping Wang, P.E., on April 06, 2012.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Dept. of Permitting, Environment, and Regulatory Affairs.*

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**4. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 12-1210.01**

**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.*

**5. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #15-0615.06**

**A. DRAWINGS**

1. *Drawing No. AD12-32, titled " 22 ga. Galvanized Steel Storm Panel-LMI ", sheets 1 through 4 of 4, prepared by MCY Engineering, Inc., last revision #1 dated May 27, 2015, signed and sealed by Yiping Wang, P.E., on June 02, 2015.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*



Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor

NOA No. 20-1102.14

Expiration Date: 01/23/2025

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**Florida Storm Panels, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**6. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #17-1017.19**

**A. DRAWINGS**

1. *Drawing No. AD12-32, titled " 22 ga. Galvanized Steel Storm Panel-LMI ", sheets 1 through 4 of 4, prepared by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E., on September 29, 2017.*

**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. STATEMENTS**

1. *Letter of Compliance with the FBC, 2017 Edition, prepared by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E., on September 29, 2017.*

**7. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #18-1114.03**

**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 (RER).*

**E. MATERIAL CERTIFICATIONS**


1. *None.*

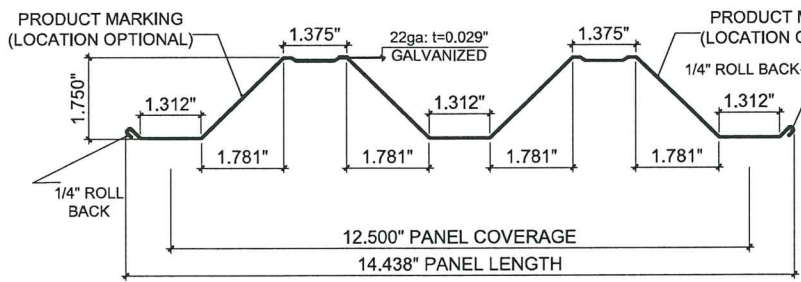
  
\_\_\_\_\_  
Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 20-1102.14  
Expiration Date: 01/23/2025  
Approval Date: 03/04/2021

**Florida Storm Panels, Inc.**

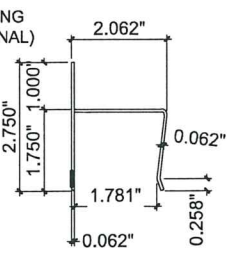
**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

- 8. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #20-0107.04**
  - 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. STATEMENTS**
    - 1. *Letter of Compliance with the FBC, 2017 Edition, prepared by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E., on September 29, 2017.*
  
- 9. NEW EVIDENCE SUBMITTED**
  - A. DRAWINGS**
    - 1. *Drawing No. AD12-32, titled " 22 ga. Galvanized Steel Storm Panel-LMI ", sheets 1 through 4 of 4, prepared by MCY Engineering, Inc., revision #3 dated October 28, 2020, signed and sealed by Yiping Wang, P.E., on October 28, 2020.*
  - 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. STATEMENTS**
    - 1. *Letter of Compliance with the FBC, 2020 Edition, prepared by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E., on October 28, 2020.*

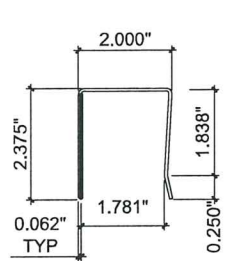
  
\_\_\_\_\_  
Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 20-1102.14  
Expiration Date: 01/23/2025  
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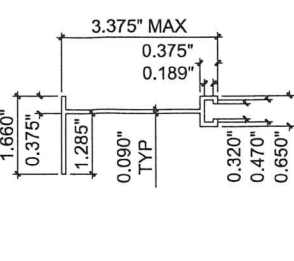
1 STORM PANEL



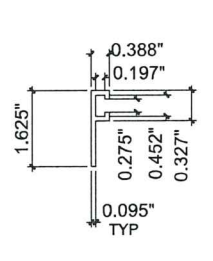
2 "H" HEADER



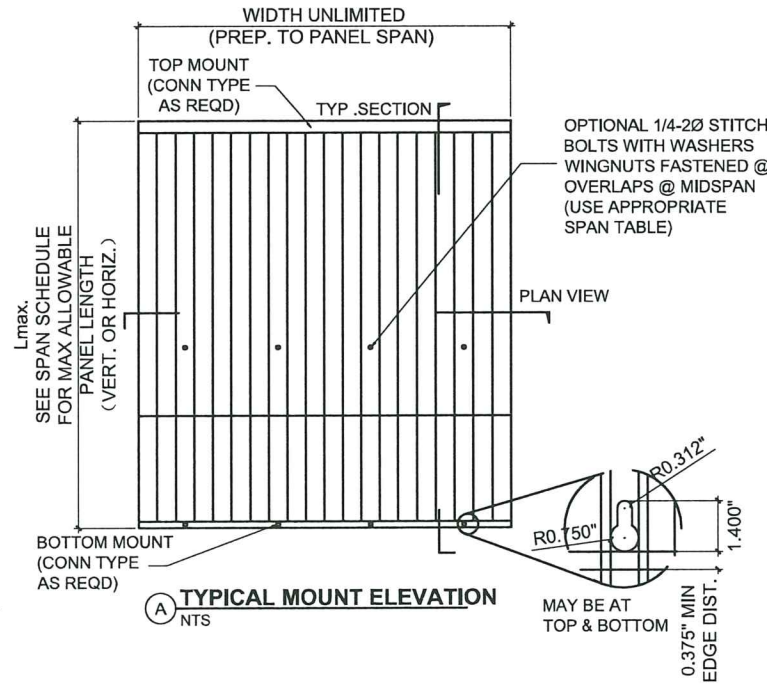
3 "U" HEADER



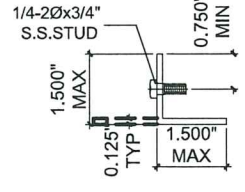
4 BUILD-OUT "F" TRACK



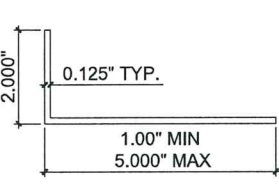
5 "F" TRACK



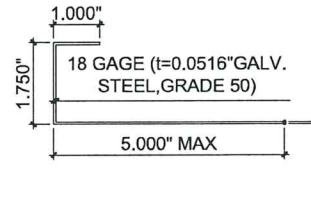
A TYPICAL MOUNT ELEVATION N.T.S.



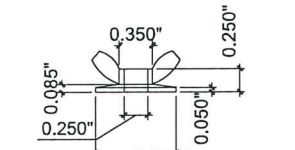
6 STUDDED ANGLE



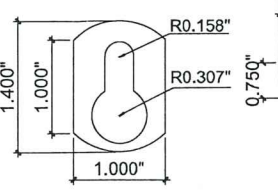
8 BULL DOUT/CLOSURE ANGLE



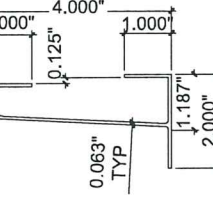
9 J-PAN CLOSURE



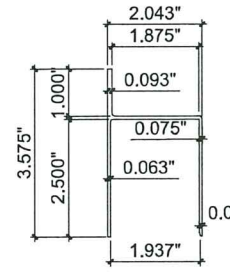
10 WASHERED WINGNUT (ZAMAC 3 ALLOY)



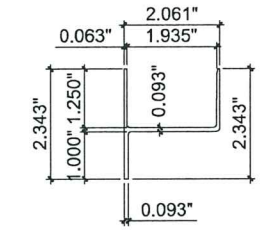
11 KEYHOLE WASHER (GLAV. STEEL GRADE 50 (USE IS OPTIONAL, REQUIRED ONLY FOR USE WITH TRUSS HEAD ANCHORS CALK-IN))



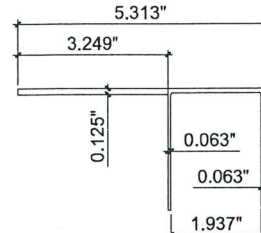
12 HEADER END CAP



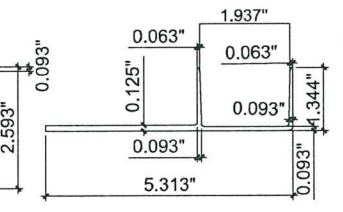
13 TOP "H" TRACK



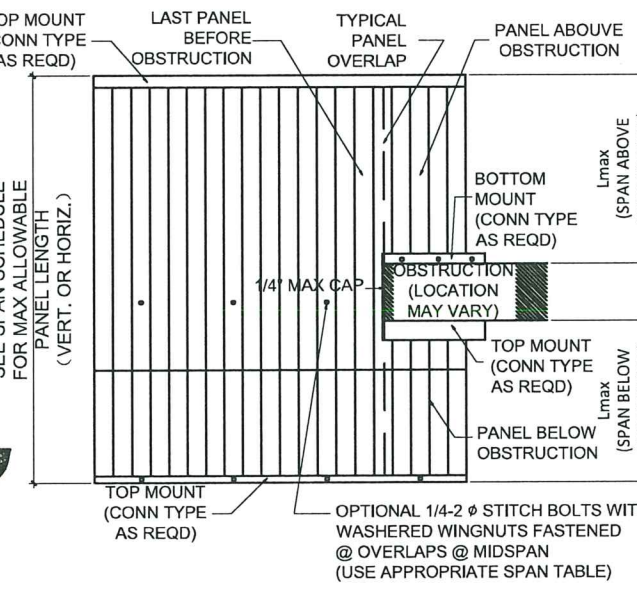
14 BOTTOM "H" TRACK



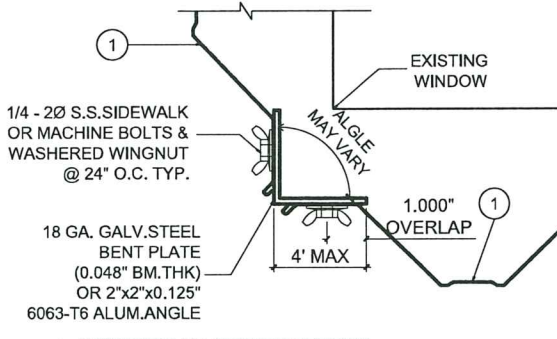
15 TOP "U" TRACK



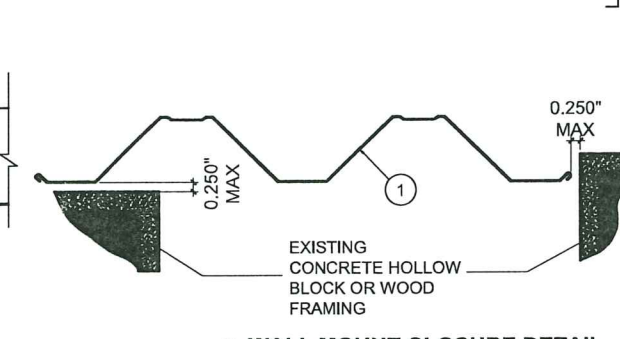
16 BOTTOM "U" TRACK



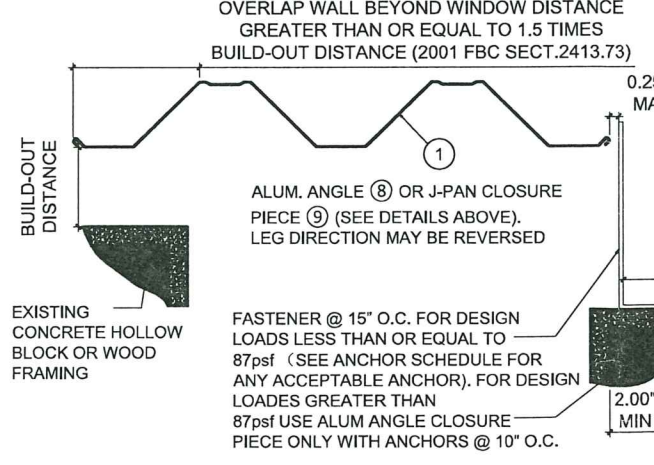
B TYPICAL MOUNT ELEVATION AROUND OBSTRUCTION N.T.S.



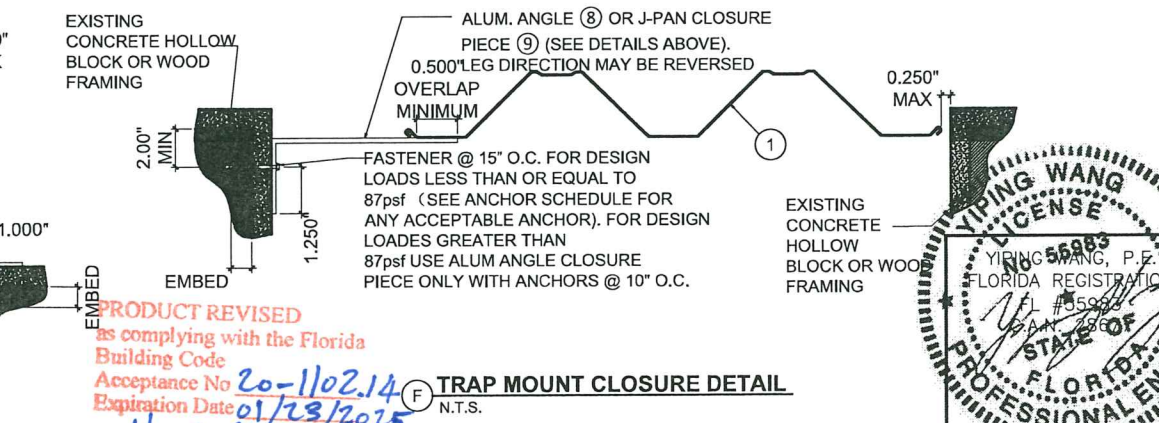
C CORNER CLOSURE DETAIL



D WALL MOUNT CLOSURE DETAIL N.T.S.



E BUILD-OUT MOUNT CLOSURE DETAIL N.T.S.



F TRAP MOUNT CLOSURE DETAIL N.T.S.

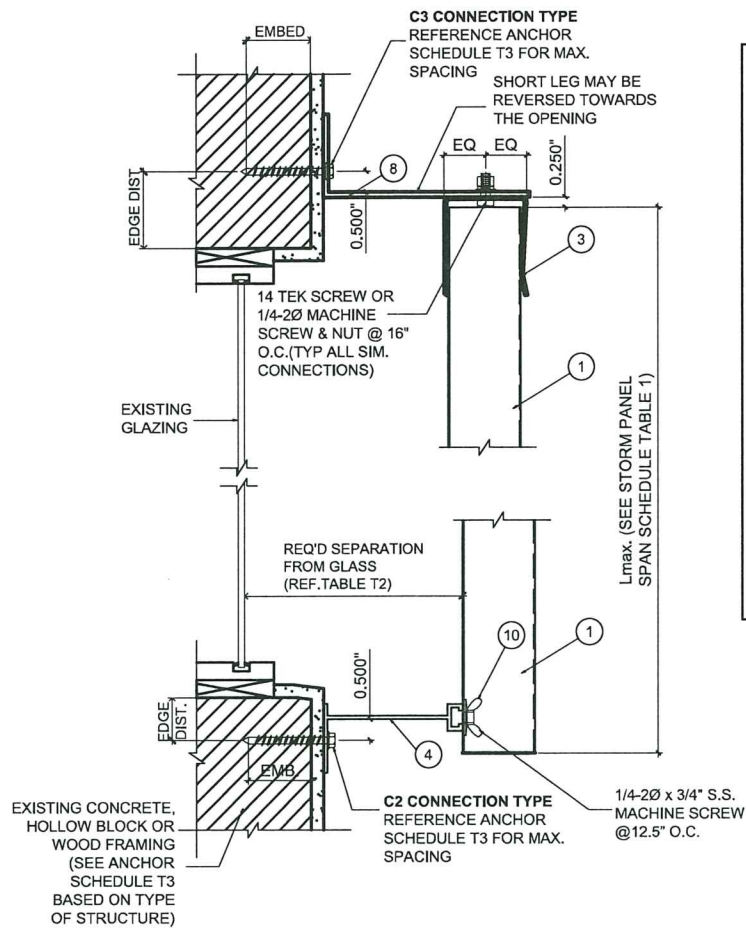
**GENERAL NOTES:**

- THIS SHUTTER SYSTEM HAS BEEN DESIGNED AND TESTED AS A LARGE MISSILE IMPACT PROTECTIVE SYSTEM IN ACCORDANCE WITH THE 6TH EDITION / 7TH EDITION OF FLORIDA BUILDING CODE 2017 / 2020 AND PROTOCOLS TAS 201 FOR LARGE MISSILE IMPACT, TAS 202 FOR UNIFORM STATIC AIR PRESSURE AND TAS 203 FOR CYCLIC WIND LOADING.
- ULTIMATE DESIGN LOAD OBTAINED FROM ASCE7-10 / ASCE 7-16, MULTIPLY BY 0.6 SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT.
- NO 33.3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THE ANCHOR SPACING TABLES.
- POSITIVE AND NEGATIVE DESIGN PRESSURES TO BE USED WITH THESE DRAWINGS SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE. WHEN ASCE 7-10 / ASCE 7-16 IS USED TO CALCULATE PRESSURES FOR USE WITH THIS PRODUCT, THE USE OF A DIRECTIONALITY FACTOR  $K_d=0.85$  IS ALLOWED.
- THE SHUTTER SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. IF SITE CONDITIONS DEVIATE FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS TO BE USED IN CONJUNCTION WITH THIS DOCUMENT.
- PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND ADDITIONAL IMPOSED LOADS.
- STORM PANELS SHALL BE 22GA STEEL (GALVANIZED THICKNESS  $t=0.029$ " MIN) CONFORMING TO ASTM A653, STRUCTURAL QUALITY, GRADE 80, G90 GALV. COATING WITH A MIN.  $F_y=92.0$  KSI. ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINIUM ALLOY.
- PANELS SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE MARKING PER PANEL AS FOLLOWS:  
  
FLORIDA STORM PANELS, INC  
OPA-LOCKA, FLORIDA  
MIAMI-DADE COUNTY PROD. CONTROL APPROVED
- STORM PANELS HAVE BEEN DESIGNED AND TESTED TO THE MAXIMUM SPANS AND LOADS SHOWN ON THESE DRAWINGS. REFERENCE CONSTRUCTION TESTING CORPORATION (CTC), OF MIAMI, FL, TEST REPORT NO. 02-041.
- TOP & BOTTOM DETAILS SHOWN MAY BE INTERCHANGED AS FILED CONDITIONS DICTATE. PANELS MAY BE MOUNTED HORIZONTALLY WHERE APPLICABLE, EXCEPT FOR MOUNTING CONDITIONS INCLUDING "H" OR "U" HEADERS.
- ALL BOLTS & WASHERS SHALL BE ZINC COATED, GALVANIZED OR STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 KSI.

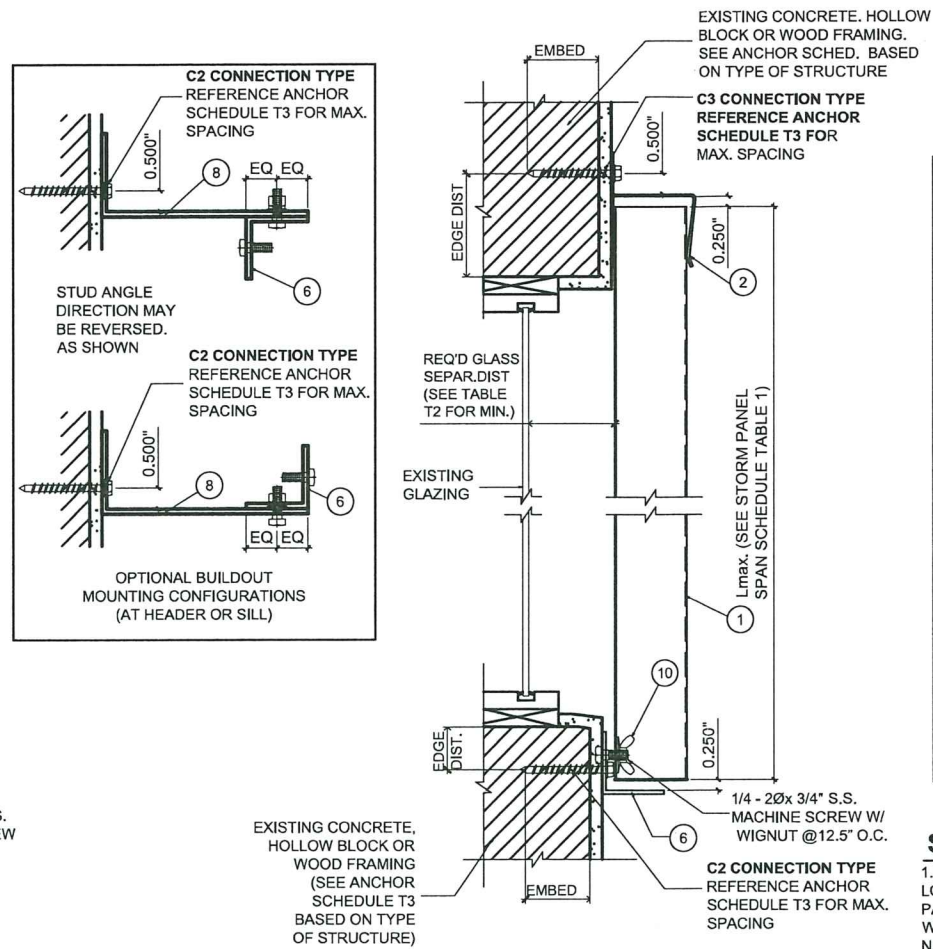
		<b>MCY ENGINEERING, INC.</b> GLAZING CONSULTANTS 12781 MIRAMAR PKWY. STE. 301 P: 305.271.0117 MIRAMAR, FL 33027 P: 786.360.2786 www.MCYEngineering.com mcy@mcyengineering.com
REVISIONS NO. DATE DESCRIPTION A 05-27-15 UPDATED TO 2014 FBC B 09-26-17 UPDATED TO 2017 FBC C 10-28-20 UPDATED TO 2020 FBC	22 GA. GALVANIZED STEEL STORM PANEL - LMI FLORIDA STORM PANEL SUPPLY, LLC. 14475 N.W. 26TH AVE. OPA LOCKA, FL. 33054 P: (305) 685 - 9000 F: (305) 685 - 7511	DATE 09-29-17 SCALE AS NOTED DRAWN S.L. PROJECT MCY 12-073 DRAWING NO. AD12-32 1 OF 4



**PRODUCT REVISED**  
 as complying with the Florida Building Code  
 Acceptance No 20-1102.14  
 Expiration Date 01/23/2025  
 By *Heidi A. Miller*  
 Miami Dade Product Control!



**G BUILD-OUT MOUNT SECTION**  
N.T.S.



**H WALL MOUNT SECTION**  
N.T.S.

**MAXIMUM ALLOWABLE SPAN SCHEDULE**

LOAD W(PSF)	T1	
	No Stitch Bolts LMAX(ft)	Stitch Bolts AT Midspan LMAX(ft)
25	10'-7"	10'-7"
30	10'-5"	10'-5"
35	10'-0"	10'-0"
39	9'-9"	9'-9"
40	9'-8"	9'-8"
45	9'-4"	9'-5"
49	8'-11"	9'-3"
50	8'-10"	9'-2"
55	8'-5"	8'-11"
58	8'-2"	8'-10"
60	8'-1"	8'-9"
65	7'-9"	8'-3"
70	7'-6"	7'-8"
72	7'-4"	7'-6"
75	7'-2"	7'-2"
80	6'-9"	6'-9"
90	6'-0"	6'-0"
100	5'-4"	5'-4"
110	4'-10"	4'-10"
120	4'-6"	4'-6"
130	4'-1"	4'-1"

**MINIMUM SEPARATION FROM GLASS SCHEDULE**

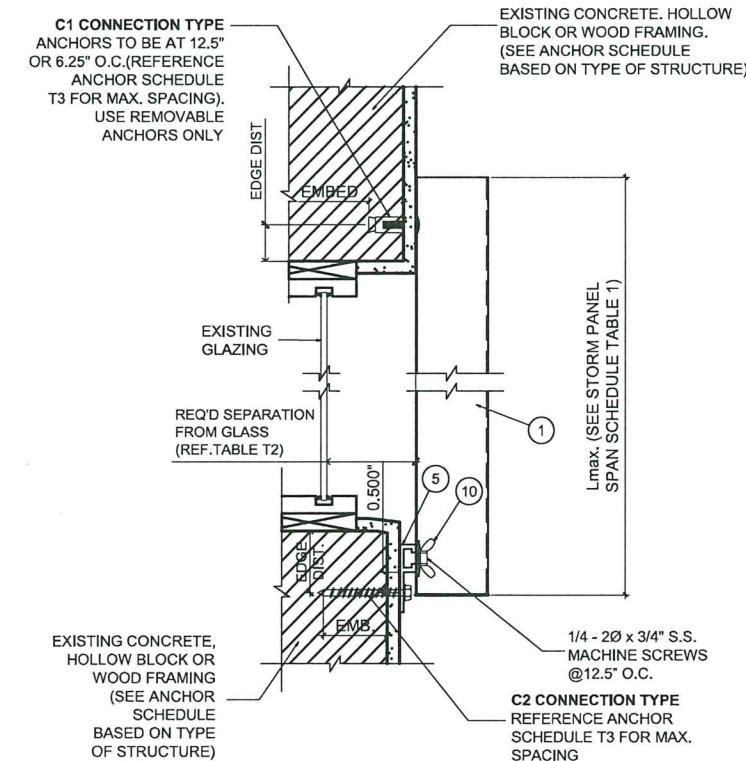
Positive Load (PSF)	T2		
	Span Less Than:	Separation (inches) at <=30'	Separation (inches) at >30'
30	6'-0"	2.75"	1.22"
	8'-8"	2.75"	1.94"
	10'-5"	3.00"	3.00"
35	6'-0"	2.75"	1.25"
	8'-8"	2.75"	2.10"
	10'-0"	3.00"	3.00"
40	6'-0"	2.75"	1.29"
	8'-8"	2.75"	2.26"
	9'-8"	3.00"	3.00"
45	6'-0"	2.75"	1.32"
	8'-8"	2.75"	2.41"
	9'-4"	2.92"	2.92"
50	6'-0"	2.75"	1.36"
	8'-10"	2.75"	2.73"
	9'-8"	2.75"	1.43"
60	8'-1"	2.75"	2.44"
	6'-0"	2.75"	1.51"
	7'-6"	2.75"	2.24"

**SPAN SCHEDULE NOTES:**

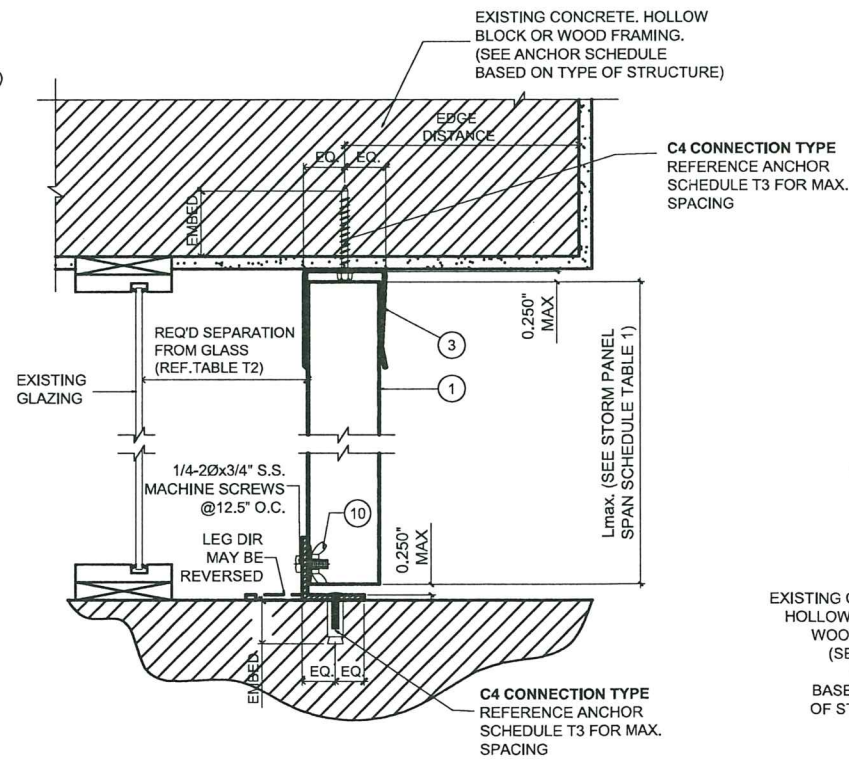
1. ENTER SPAN SCHEDULE WITH NEGATIVE DESIGN LOAD TO DETERMINE MAXIMUM ALLOWABLE STORM PANEL SPAN. SCHEDULE IS ACCEPTABLE FOR USE WITH POSITIVE LOADS LESS THAN OR EQUAL TO NEGATIVE DESIGN LOADS.
2. INTERPOLATION BETWEEN LOADS IS ACCEPTABLE. OTHERWISE USE NEXT HIGHER LOAD.

**TABLE T2 NOTES:**

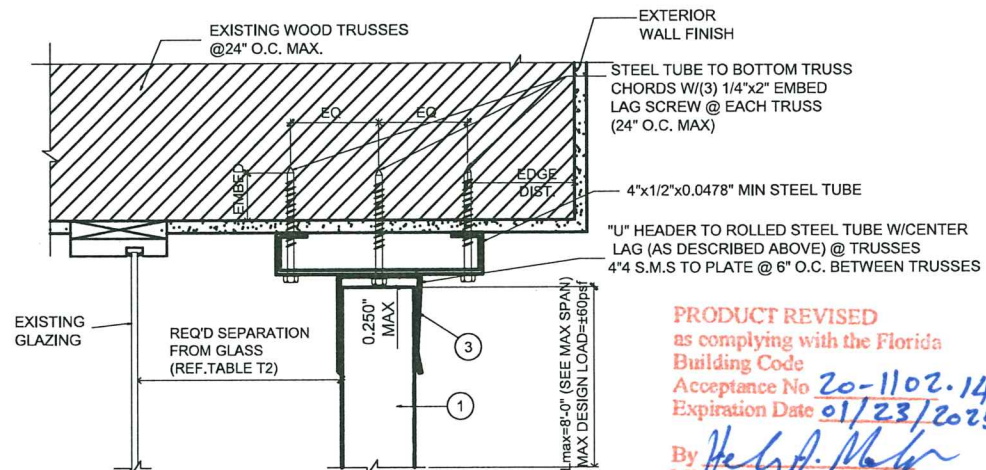
1. ENTER SPAN SCHEDULE WITH POSITIVE DESIGN LOAD TO DETERMINE MINIMUM ALLOWABLE STORM PANEL SEPARATION FROM GLASS OR DOOR TO BE PROTECTED. SCHEDULE IS REQUIRED FOR USE WITH POSITIVE LOADS ONLY.
2. INTERPOLATION BETWEEN LOADS IS ACCEPTABLE. OTHERWISE USE NEXT HIGHER LOAD.



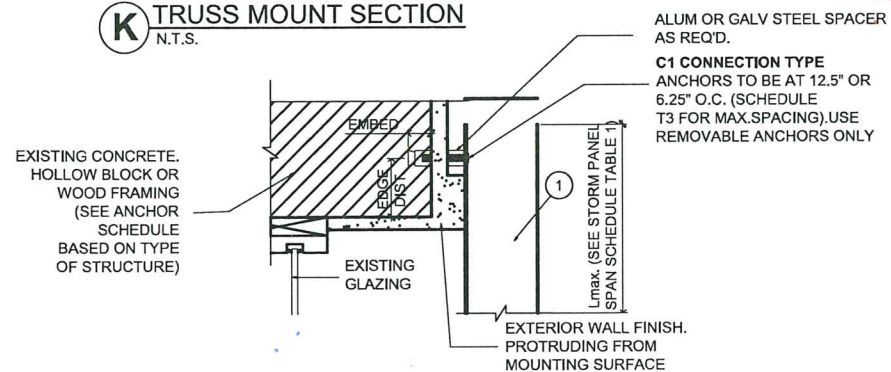
**I "F" TRACK / DIRECT MOUNT SECTION**  
N.T.S.



**J CEILING/FLOOR MOUNT SECTION**  
N.T.S.



**K TRUSS MOUNT SECTION**  
N.T.S.



**L OFFSET WALL MOUNT SECTION**  
N.T.S.

**PRODUCT REVISED**  
as complying with the Florida Building Code  
Acceptance No 20-1102-14  
Expiration Date 01/23/2025  
By *Wesley A. Mahon*  
Miami Dade Product Control



**REVISIONS**

NO.	DATE	DESCRIPTION
1	05-27-15	UPDATED TO 2014 FBC
2	09-28-17	UPDATED TO 2017 FBC
3	10-28-20	UPDATED TO 2020 FBC

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS

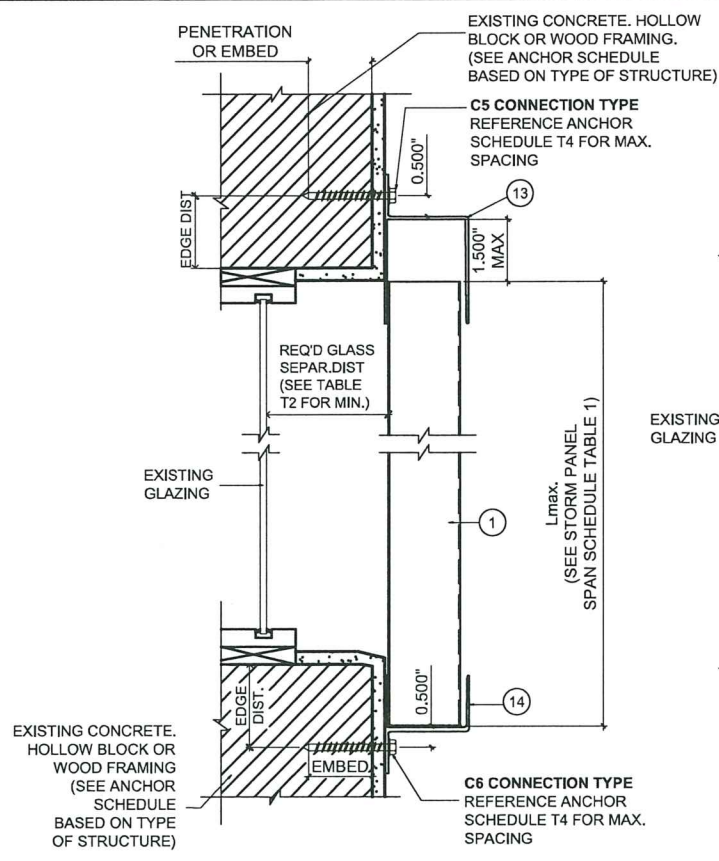
**M C Y**

12781 MIRAMAR PKWY. STE. 301 P: 305.271.0117  
MIRAMAR, FL 33027 P: 786.360.2786

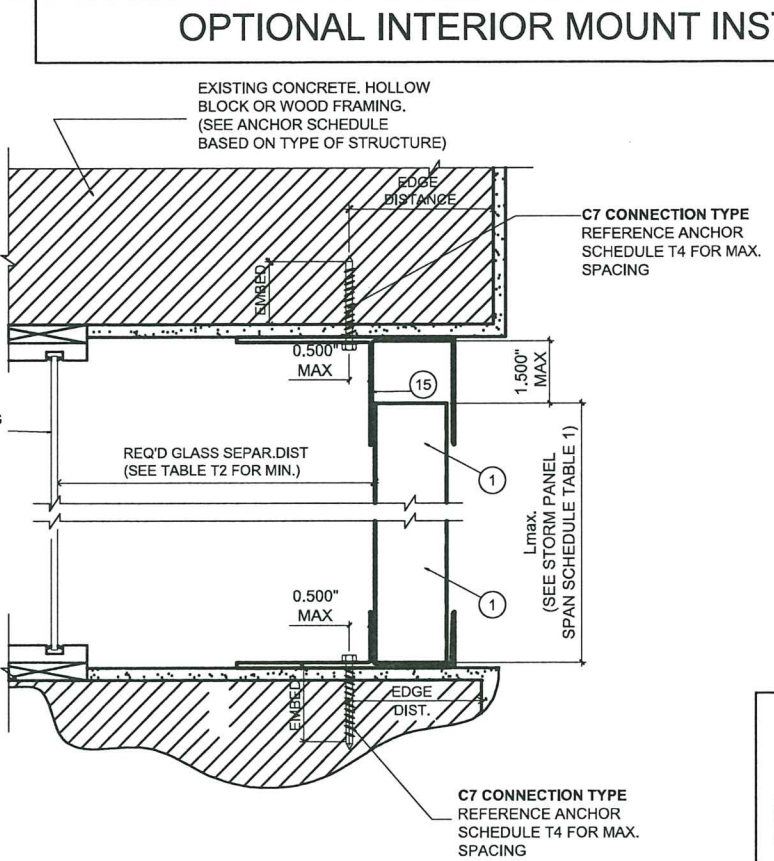
www.MCYEngineering.com mcy@mcyengineering.com

**22 GA. GALVANIZED STEEL STORM PANEL - LMI**  
**FLORIDA STORM PANEL SUPPLY, LLC.**  
14475 N.W. 26TH AVE.  
OPA LOCKA, FL 33054  
P: (305) 685 - 9000 F: (305) 685 - 7511

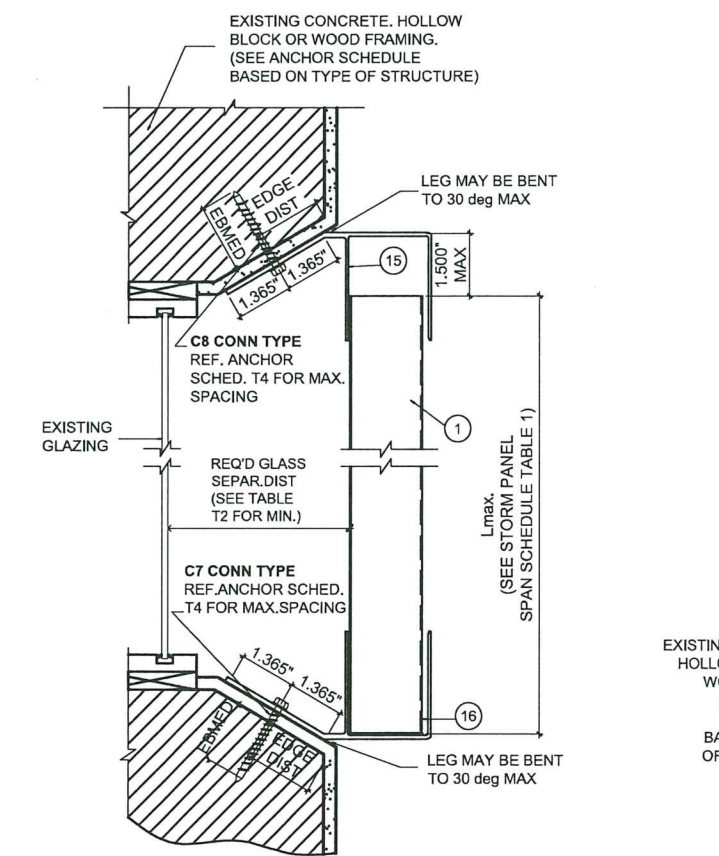
DATE 09-29-17  
SCALE AS NOTED  
DRAWN S.L.  
PROJECT MCY 12-073  
DRAWING NO. AD12-32  
2 OF 4



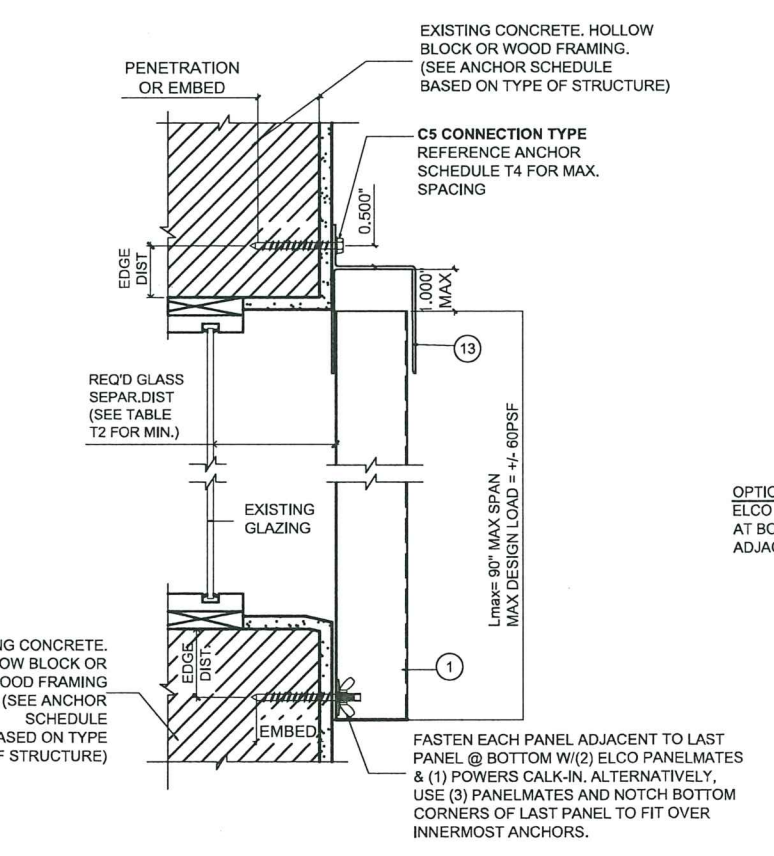
**M WALL MOUNT SECTION**  
WALL MOUNT TRACKS.N.T.S.



**N CEILING/FLOOR MOUNT SECTION**  
NTS



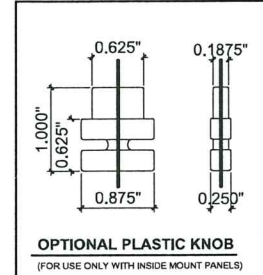
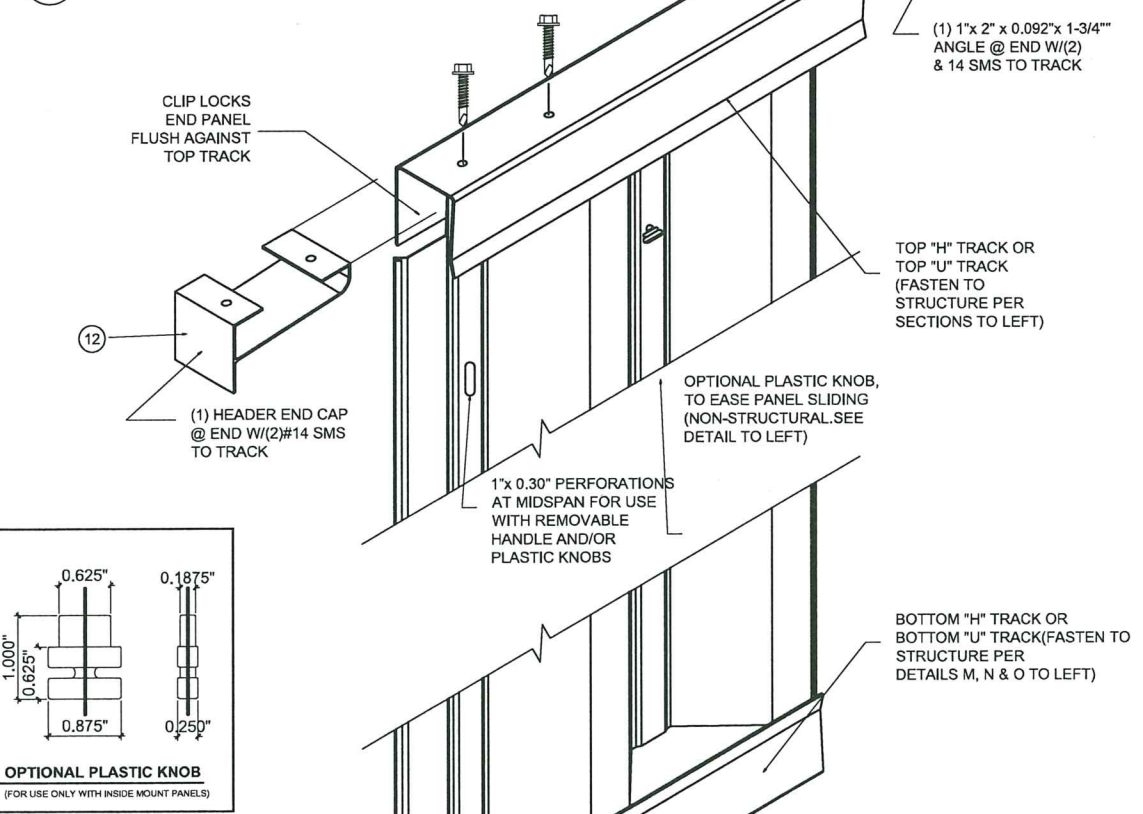
**O HEADER/SILL MOUNT SECTION**  
TRAP MOUNT TRACKS ON ANGLE.N.T.S.



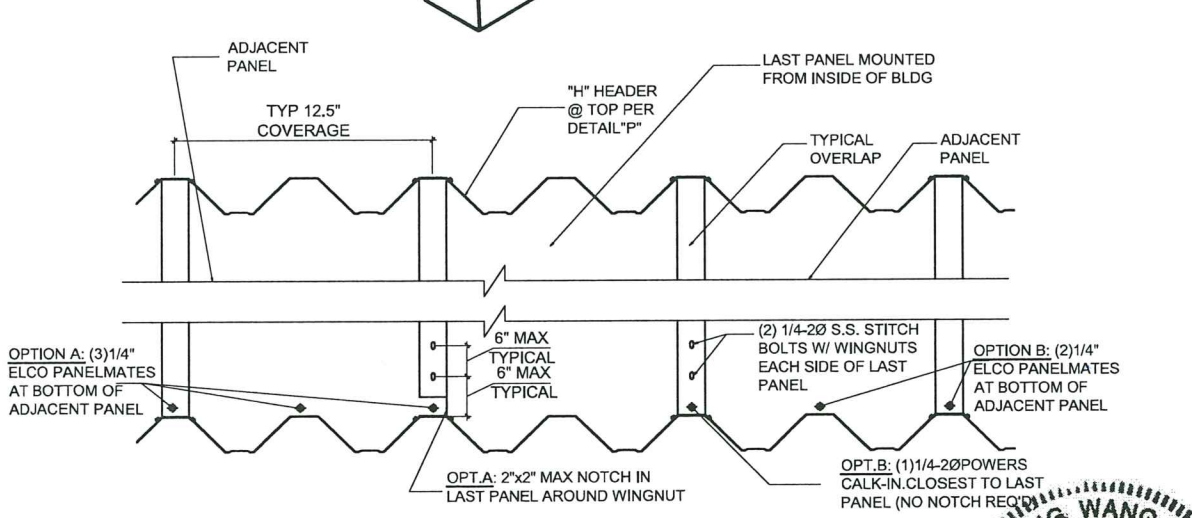
**P DIRECT WALL MOUNT SECTION**  
BOTTOM DIRECT WALL MOUNT (REF. DETAIL 'S').N.T.S.

**OPTIONAL INTERIOR MOUNT INSTALLATION DETAILS**

**Q HEADER TRACK ISOMETRIC**  
TOP TRACK.N.T.S

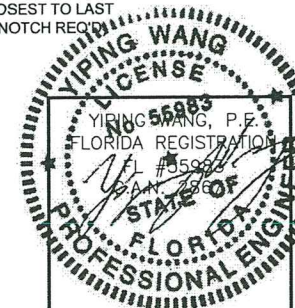


**R SILL TRACK ISOMETRIC**  
BOTTOM TRACK.N.T.S.



**S DIRECT WALL MOUNT EXTERIOR ELEVATION**  
BOTTOM DIRECT WALL MOUNT (REF. DETAIL 'P').N.T.S.

**PRODUCT REVISED**  
as complying with the Florida Building Code  
Acceptance No 20-1102.14  
Expiration Date 01/23/2025  
By *Helga A. M...*  
Miami Dade Product Control



NO	DATE	DESCRIPTION
1	05-27-15	UPDATED TO 2014 FBC
2	09-20-17	UPDATED TO 2017 FBC
3	10-28-20	UPDATED TO 2020 FBC

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS  
12781 MIRAMAR PKWY. STE. 301 P: 305.271.0117  
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22 GA. GALVANIZED STEEL STORM PANEL - LMI  
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14475 N.W. 26TH AVE.  
OPA LOCKA, FL. 33054  
P: (305) 685 - 9000 F: (305) 685 - 7511

DATE	09-29-17
SCALE	AS NOTED
DRAWN	S.L.
PROJECT	MCY 12-073
DRAWING NO.	AD12-32
3 OF 4	



**T3 ANCHOR SPACING SCHEDULE**

EXIST. STRUCT.	ANCHOR	LOAD (psf)	2.5" EDGE DISTANCE											
			PANS UP TO 5.50ft CONN TYPE				SPANS UP TO 8.67ft CONN TYPE				SPANS UP TO 10.67ft CONN TYPE			
			C1	C2	C3	C4	C1	C2	C3	C4	C1	C2	C3	C4
CONCRETE	1/4" x 1-3/4" EMBED	39	12.5"	16.0"	16.0"	16.0"	12.5"	16.0"	16.0"	16.0"	12.5"	16.0"	11.9"	13.5"
	ELCO TAPCON	49	12.5"	16.0"	16.0"	16.0"	12.5"	16.0"	11.6"	13.3"	12.5"	16.0"	8.4"	10.7"
	(MIN 3320 PSI CONC)	58	12.5"	16.0"	16.0"	16.0"	12.5"	16.0"	8.9"	11.1"	12.5"	16.0"	8.0"	10.3"
	Tcap(lb) = 483.00	72	12.5"	16.0"	13.0"	14.3"	12.5"	16.0"	8.0"	10.3"	12.5"	16.0"	8.0"	10.3"
	Vcap(lb) = 475.00	130	12.5"	16.0"	8.0"	10.3"	12.5"	16.0"	8.0"	10.3"	12.5"	16.0"	8.0"	10.3"
	1/4" x 1-7/8" EMBED	39	12.5"	16.0"	16.0"	16.0"	12.5"	16.0"	15.2"	15.0"	12.5"	16.0"	10.6"	12.1"
	ALL-POINTS SOLID-SET	49	12.5"	16.0"	16.0"	16.0"	12.5"	16.0"	10.2"	11.8"	12.5"	16.0"	7.5"	9.5"
	LEAD SHIELD ANCHOR	* 58	12.5"	16.0"	16.0"	16.0"	12.5"	16.0"	7.9"	9.9"	12.5"	16.0"	7.1"	9.2"
	Tcap(lb) = 428	72	12.5"	16.0"	11.5"	12.7"	12.5"	16.0"	7.1"	9.2"	12.5"	16.0"	7.1"	9.2"
	Vcap(lb) = 429	130	12.5"	16.0"	7.1"	9.2"	12.5"	16.0"	7.1"	9.2"	12.5"	16.0"	7.1"	9.2"
	1/4" x 1-2" EMBED	39	12.5"	16.0"	16.0"	16.0"	12.5"	16.0"	13.3"	15.7"	12.5"	16.0"	9.2"	12.6"
	ELCO PANELMATE	49	12.5"	16.0"	16.0"	16.0"	12.5"	16.0"	8.9"	12.4"	12.5"	16.0"	6.5"	9.9"
(MIN 3350 PSI CONC)	* 58	12.5"	16.0"	14.9"	16.0"	12.5"	16.0"	6.9"	10.4"	12.5"	16.0"	6.2"	9.6"	
Tcap(lb) = 372.00	72	12.5"	16.0"	10.0"	13.3"	12.5"	16.0"	6.2"	9.6"	12.5"	16.0"	6.2"	9.6"	
Vcap(lb) = 565.00	130	12.5"	16.0"	6.2"	9.6"	12.5"	16.0"	6.2"	9.6"	12.5"	16.0"	6.2"	9.6"	

EXIST. STRUCT.	ANCHOR	LOAD (psf)	2.5" EDGE DISTANCE											
			PANS UP TO 5.50ft CONN TYPE				SPANS UP TO 8.67ft CONN TYPE				SPANS UP TO 10.67ft CONN TYPE			
			C1	C2	C3	C4	C1	C2	C3	C4	C1	C2	C3	C4
HOLLOW CONC BLOCK	1/4" x 1-1/4" EMBED	39	10.0"	12.8"	12.8"	12.6"	10.0"	12.4"	6.2"	7.9"	10.0"	10.0"	4.3"	6.3"
	ELCO TAPCON	49	10.0"	12.8"	10.1"	10.0"	5.0"	9.8"	4.2"	6.1"	5.0"	8.0"	3.0"	4.9"
	(MIN 3320 PSI CONC)	58	10.0"	12.8"	6.9"	8.4"	5.0"	8.3"	3.2"	5.2"	5.0"	7.7"	4.8"	4.8"
	Tcap(lb) = 218.00	72	10.0"	10.5"	4.7"	6.6"	5.0"	7.7"	4.8"	4.8"	5.0"	7.7"	4.8"	4.8"
	Vcap(lb) = 398.00	130	5.0"	7.7"	4.8"	4.8"	5.0"	7.7"	4.8"	4.8"	5.0"	7.7"	4.8"	4.8"
	1/4" x 1-7/8" EMBED	39	10.0"	12.8"	12.8"	12.8"	10.0"	12.8"	10.1"	8.2"	10.0"	12.8"	7.0"	6.6"
	ALL-POINTS SOLID-SET	49	10.0"	12.8"	12.8"	10.4"	10.0"	12.8"	6.8"	6.5"	10.0"	12.8"	4.9"	5.2"
	LEAD SHIELD ANCHOR	* 58	10.0"	12.8"	11.4"	8.8"	10.0"	12.8"	5.2"	5.5"	10.0"	12.7"	4.7"	5.1"
	Tcap(lb) = 358	72	10.0"	12.8"	7.6"	7.0"	10.0"	12.7"	4.7"	5.1"	10.0"	12.7"	4.7"	5.1"
	Vcap(lb) = 249	130	10.0"	12.7"	4.7"	5.1"	10.0"	12.7"	4.7"	5.1"	10.0"	12.7"	4.7"	5.1"
	1/4" x 1-1/4" EMBED	39	10.0"	12.8"	12.8"	9.7"	10.0"	11.6"	5.8"	6.1"	5.0"	9.4"	4.0"	4.9"
	ELCO PANELMATE	49	10.0"	12.8"	9.5"	7.7"	5.0"	9.2"	3.9"	4.8"	5.0"	7.5"	3.9"	3.9"
(MIN 3350 PSI CONC)	* 58	10.0"	12.3"	6.5"	6.4"	5.0"	7.8"	3.0"	4.0"	5.0"	7.2"	3.7"	3.7"	
Tcap(lb) = 204.75	72	5.0"	9.9"	4.4"	5.2"	5.0"	7.2"	3.7"	3.7"	5.0"	7.2"	3.7"	3.7"	
Vcap(lb) = 233.50	130	5.0"	7.2"	3.7"	3.7"	5.0"	7.2"	3.7"	3.7"	5.0"	7.2"	3.7"	3.7"	

EXIST. STRUCT.	ANCHOR	LOAD (psf)	0.75" EDGE DISTANCE											
			PANS UP TO 5.50ft CONN TYPE				SPANS UP TO 8.67ft CONN TYPE				SPANS UP TO 10.67ft CONN TYPE			
			C1	C2	C3	C4	C1	C2	C3	C4	C1	C2	C3	C4
WOOD	1/4" x 2" THREAD	39	12.5"	16.0"	16.0"	7.5"	12.5"	16.0"	12.8"	4.8"	12.5"	16.0"	8.9"	3.9"
	PENETR.LAG SCREW	49	12.5"	16.0"	16.0"	6.0"	12.5"	16.0"	8.6"	3.8"	12.5"	16.0"	6.3"	3.1"
	(MIN 3320 PSI CONC)	58	12.5"	16.0"	14.4"	5.1"	12.5"	16.0"	6.6"	3.2"	12.5"	16.0"	6.0"	6.0"
	Tcap(lb) = 359.53	72	12.5"	16.0"	9.6"	4.1"	12.5"	16.0"	6.0"	6.0"	12.5"	16.0"	6.0"	6.0"
	Vcap(lb) = 82.97	130	12.5"	16.0"	6.0"	6.0"	12.5"	16.0"	6.0"	6.0"	12.5"	16.0"	6.0"	6.0"
	#14 x 1-1/2" THREAD	39	12.5"	16.0"	16.0"	7.7"	12.5"	16.0"	8.3"	4.8"	12.5"	13.5"	5.8"	3.9"
	PENETR.WOOD SCREW	49	12.5"	16.0"	13.6"	6.1"	12.5"	13.2"	5.6"	3.8"	6.25"	10.7"	4.1"	3.1"
	(MIN 3320 PSI CONC)	58	12.5"	16.0"	9.3"	5.1"	6.25"	11.2"	4.3"	3.2"	6.25"	10.4"	3.9"	3.9"
	Tcap(lb) = 234.00	72	12.5"	14.2"	6.3"	4.1"	6.25"	10.4"	3.9"	3.9"	6.25"	10.4"	3.9"	3.9"
	Vcap(lb) = 96.74	130	6.25"	10.4"	3.9"	3.9"	6.25"	10.4"	3.9"	3.9"	6.25"	10.4"	3.9"	3.9"
	7/16" x 5/8" EMBED	39	12.5"	16.0"	16.0"	13.0"	12.5"	16.0"	8.3"	8.1"	12.5"	13.4"	5.7"	6.6"
	BRASS BUSHING &	49	12.5"	16.0"	13.5"	10.3"	12.5"	13.1"	5.5"	6.4"	6.25"	10.6"	4.0"	5.2"
1/4-20 SCREW	* 58	12.5"	16.0"	9.2"	8.7"	6.25"	11.1"	4.3"	5.4"	6.25"	10.3"	3.8"	5.0"	
Tcap(lb) = 231.50	72	12.5"	14.0"	6.2"	6.9"	6.25"	10.3"	3.8"	5.0"	6.25"	10.3"	3.8"	5.0"	
Vcap(lb) = 232.50	130	6.25"	10.3"	3.8"	5.0"	6.25"	10.3"	3.8"	5.0"	6.25"	10.3"	3.8"	5.0"	

**ANCHOR NOTES:**

1. SPANS AND LOADS SHOWN HERE ARE FOR DETERMINING ANCHOR SPACING ONLY. ALLOWABLE STORM PANEL SPANS FOR SPECIFIC LOADS MUST BE LIMITED TO THOSE SHOWN IN MAX ALLOWABLE SPAN SCHEDULE (TABLE 'T1').
2. ENTER ANCHOR SCHEDULE BASED ON THE EXISTING STRUCTURE MATERIAL & ANCHOR TYPE. SELECT DESIGN LOAD GREATER THAN OR EQUAL TO NEGATIVE DESIGN LOAD ON SHUTTER AND SELECT SPAN GREATER THAN OR EQUAL TO SHUTTER SPAN.
3. SELECT CONNECTION TYPE BASED ON APPROPRIATE MOUNTING CONDITION (SEE MOUNTING DETAILS ON SHEETS 2 & 3 FOR IDENTIFICATION OF CONNECTION TYPE).
4. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
5. WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT PLYWOOD. FASTENING TO PLYWOOD IS ACCEPTABLE ONLY FOR SIDE CLOSURE PIECES.

**T4 ANCHOR SPACING SCHEDULE**  
(INSIDE MOUNT PANELS, WALL MOUNT)

EXIST. STRUCT.	ANCHOR	LOAD (psf)	2.5" EDGE DISTANCE							
			SPANS UP TO 5.50ft CONN TYPE				SPANS UP TO 8.67ft CONN TYPE			
			C5	C6	C5	C6	C5	C6	C5	C6
CONCRETE	1/4" x 1-3/4" EMBED	39	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	14.8"	16.0"
	ELCO TAPCON	45	16.0"	16.0"	11.4"	16.0"	16.0"	16.0"	10.1"	16.0"
	(MIN 3320 PSI CONC)	55	16.0"	16.0"	7.5"	16.0"	16.0"	16.0"	6.6"	16.0"
	Tcap(lb) = 483.00	65	14.2"	16.0"	6.0"	16.0"	16.0"	16.0"	5.3"	16.0"
	Vcap(lb) = 475.00	72	11.0"	16.0"	6.0"	16.0"	16.0"	16.0"	5.3"	16.0"
	1/4" x 1-7/8" EMBED	39	16.0"	16.0"	14.8"	16.0"	16.0"	16.0"	10.1"	16.0"
	ALL-POINTS SOLID-SET	45	16.0"	16.0"	10.1"	16.0"	16.0"	16.0"	6.6"	16.0"
	LEAD SHIELD ANCHOR	* 55	16.0"	16.0"	6.6"	16.0"	16.0"	16.0"	5.3"	16.0"
	Tcap(lb) = 428.00	65	12.6"	16.0"	5.3"	16.0"	16.0"	16.0"	5.3"	16.0"
	Vcap(lb) = 429.00	72	9.8"	16.0"	5.3"	16.0"	16.0"	16.0"	5.3"	16.0"
	1/4" x 1-2" EMBED	39	16.0"	16.0"	12.9"	16.0"	16.0"	16.0"	8.8"	16.0"
	ELCO PANELMATE	45	16.0"	16.0"	8.8"	16.0"	16.0"	16.0"	5.8"	16.0"
(MIN 3350 PSI CONC)	* 55	16.0"	16.0"	5.8"	16.0"	16.0"	16.0"	4.6"	16.0"	
Tcap(lb) = 372.00	65	11.0"	16.0"	4.6"	16.0"	16.0"	16.0"	4.6"	16.0"	
Vcap(lb) = 565.00	72	8.5"	16.0"	4.6"	16.0"	16.0"	16.0"	4.6"	16.0"	

EXIST. STRUCT.	ANCHOR	LOAD (psf)	2.5" EDGE DISTANCE							
			SPANS UP TO 5.50ft CONN TYPE				SPANS UP TO 8.67ft CONN TYPE			
			C5	C6	C5	C6	C5	C6	C5	C6
HOLLOW CONC BLOCK	1/4" x 1-1/4" EMBED	39	12.8"	12.8"	6.0"	12.4"	12.8"	12.8"	4.1"	10.7"
	ELCO TAPCON	49	12.8"	12.8"	8.8"	8.8"	12.8"	12.8"	4.4"	12.8"
	(MIN 3320 PSI CONC)	58	12.8"	12.8"	5.1"	11.6"	12.8"	12.8"	3.5"	12.7"
	Tcap(lb) = 218.00	72	5.1"	11.6"	4.0"	10.5"	12.8"	12.8"	3.5"	12.7"
	Vcap(lb) = 398.00	130	4.0"	10.5"	4.0"	10.5"	12.8"	12.8"	3.5"	12.7"
	1/4" x 1-7/8" EMBED	39	12.8"	12.8"	9.9"	12.8"	12.8"	12.8"	6.8"	12.8"
	ALL-POINTS SOLID-SET	49	12.8"	12.8"	4.4"	12.8"	12.8"	12.8"	4.4"	12.8"
	LEAD SHIELD ANCHOR	* 58	12.8"	12.8"	8.4"	12.8"	12.8"	12.8"	6.5"	12.8"
	Tcap(lb) = 358.00	72	8.4"	12.8"	3.5"	12.7"	12.8"	12.8"	3.5"	12.7"
	Vcap(lb) = 249.00	130	6.5"	12.8"	3.5"	12.7"	12.8"	12.8"	3.5"	12.7"
	1/4" x 1-1/4" EMBED	39	12.8"	12.8"	5.6"	11.6"	12.8"	12.8"	3.8"	10.0"
	ELCO PANELMATE	49	12.8"	12.8"	8.2"	8.2"	12.8"	12.8"	4.8"	10.9"
(MIN 3350 PSI CONC)	* 58	8.2"	12.8"	3.7"	9.9"	12.8"	12.8"	3.7"	9.9"	
Tcap(lb) = 204.75	72	4.8"	10.9"	3.7"	9.9"	12.8"	12.8"	3.7"	9.9"	
Vcap(lb) = 233.50	130	3.7"	9.9"	3.7"	9.9"	12.8"	12.8"	3.7"	9.9"	

EXIST. STRUCT.	ANCHOR	LOAD (psf)	0.75" EDGE DISTANCE							
			SPANS UP TO 5.50ft CONN TYPE				SPANS UP TO 8.67ft CONN TYPE			
			C5	C6	C5	C6	C5	C6	C5	C6
WOOD	1/4" x 2" THREAD	39	16.0"	16.0"	12.4"	16.0"	16.0"	16.0"	8.5"	16.0"
	PENETR.LAG SCREW	45	16.0"	16.0"	5.6"	16.0"	16.0"	16.0"	4.4"	16.0"
	(MIN 3320 PSI CONC)	55	16.0"	16.0"	8.2"	16.0"	16.0"	16.0"	4.4"	16.0"
	Tcap(lb) = 359.53	65	10.6"	16.0"	4.4"	16.0"	16.0"	16.0"	4.4"	16.0"
	Vcap(lb) = 82.97	72	8.2"	16.0"	4.4"	16.0"	16.0"	16.0"	4.4"	16.0"
	#14 x 1-1/2" THREAD	39	16.0"	16.0"	8.1"	16.0"	16.0"	16.0"	5.5"	14.4"
	PENETR.WOOD SCREW	45	16.0"	16.0"	11.8"	16.0"	16.0"	16.0"	6.9"	15.7"
	(MIN 3320 PSI CONC)	55	16.0"	16.0"	5.3"	14.2"	16.0"	16.0"	5.3"	14.2"
	Tcap(lb) = 234.00	65	6.9"	15.7"	5.3"	14.2"	16.0"	16.0"	5.3"	14.2"
	Vcap(lb) = 96.74	72	5.3"	14.2"	5.3"	14.2"	16.0"	16.0"	5.3"	14.2"
	7/16" x 5/8" EMBED	39	16.0"	16.0"	8.0"	16.0"	16.0"	16.0"	5.5"	14.2