

GENERAL NOTES:

1. STORM PANEL SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2023 (8th EDITION) OF THE FLORIDA BUILDING CODE.

DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTIONS 1620 (HVHZ) & 1609 (NHVHZ) OF THE ABOVE MENTIONED CODE, FOR A BASIC WIND SPEED AS REQUIRED BY THE JURISDICTION WHERE THIS PRODUCT TO BE INSTALLED AND FOR A DIRECTIONALITY FACTOR $K_d=0.85$, USING ASCE 7-22 & SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATING INDICATED ON SHEETS 3 AND 4.

IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7-22 SHALL BE FIRST REDUCED TO A.S.D. DESIGN WIND LOADS BY MULTIPLYING THEM BY 0.6 IN ORDER TO COMPARE THESE W/ MAX. (A.S.D) DESIGN PRESSURE RATINGS INDICATED ON SHEETS 3 AND 4.

IN ORDER TO VERIFY THAT ANCHORS ON THIS P.E.D., AS TESTED, WERE NOT OVERSTRESSED, A 33% INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS. FASTENERS SPACING TO WOOD HAS BEEN DETERMINED IN ACCORDANCE WITH N.D.S. 2018.

THIS PRODUCT'S ADEQUACY FOR IMPACT AND CYCLIC RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTIONS 1626 & 1609.1.2 OF THE ABOVE MENTIONED CODE AS PER PROTOCOLS TAS-201, TAS-202, TAS-203, PER HETI LAB REPORTS # 98-710, 98-711 & 98-730 AND AS PER SUBMITTED STRUCTURAL CALCULATIONS, PERFORMED AS PER SECTIONS 1616 & 1604 OF THE FLORIDA BUILDING CODE.

2. ALL STEEL SHEET METAL PANELS TO BE STRUCTURAL QUALITY ASTM A-653 GRADE 40 WITH $F_y= 49.7$ k.s.i. (AFTER ROLLED), G-90 GALVANIZED AS PER HETI LAB REPORT # 98-T93.
3. ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T5 ALLOY AND TEMPER UNLESS OTHERWISE NOTED. INSTALLATION INTO DISSIMILAR MATERIALS SHALL COMPLY WITH SECTION III-6 OF THE 2020 ALUMINUM DESIGN MANUAL.
4. ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 AISI SERIES OR CORROSION RESISTANT COATED CARBON STEEL AS PER DIN 50018 W/50ksi YIELD STRENGTH AND 90 ksi TENSILE STRENGTH AND SECTION 2411.3.3.4 OF THE FLORIDA BUILDING CODE.
5. BOLTS TO BE ASTM A-307 GALVANIZED STEEL, OR AISI 304 SERIES STAINLESS STEEL WITH 36 ksi MINIMUM YIELD STRENGTH.
6. ANCHORS TO WALL SHALL BE AS FOLLOWS: (UNLESS OTHERWISE NOTED)
- (A) TO EXISTING POURED CONCRETE:
- 1/4" $\varnothing$ TAPCON ANCHORS, AS MANUFACTURED BY I.T.W. BUILDEX OR ELCO CONSTRUCTION PRODUCTS.
 - 1/4" ELCO male/female PANELMATE ANCHORS, AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS.
 - 1/4" $\varnothing$ x 7/8" CALK-IN ANCHORS, AS MANUFACTURED BY DEWALT INC.

NOTES:

A.1) MINIMUM EMBEDMENT OF TAPCON ANCHORS INTO CONCRETE SHALL BE 1 3/4", AND 1 7/8" FOR ELCO PANELMATE.

A.2) 7/8" CALK-IN SHALL BE ENTIRELY EMBEDDED INTO THE POURED CONCRETE. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4" $\varnothing$ -20 AISI 304 SERIES SCREWS USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST, AND 1" MINIMUM FOR WALLS WITH NO STUCCO. SCREWS TO BE SIDEWALK BOLT TYPE WITH 3/4" DIAMETER HEAD.

A.3) IN CASE THAT PRECAST STONE, PRECAST CONCRETE PANELS, OR PAVERS BE FOUND ON THE EXISTING WALL OR FLOOR, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS, ANCHORAGE SHALL BE 1 3/4" MINIMUM FOR ANCHORS MENTIONED IN A.1), & 7/8" FOR ANCHORS MENTIONED IN A.2).

- (B) TO EXISTING CONCRETE BLOCK WALL:
- 1/4" $\varnothing$ TAPCON ANCHORS, AS MANUFACTURED BY I.T.W. BUILDEX OR ELCO CONSTRUCTION PRODUCTS.
 - 1/4" ELCO male/female PANELMATE ANCHORS, AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS.
 - 1/4" $\varnothing$ x 7/8" CALK-IN ANCHORS, AS MANUFACTURED BY DEWALT INC..

NOTES:

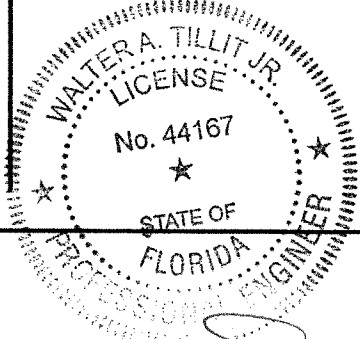
B.1) MINIMUM EMBEDMENT OF TAPCON ANCHORS AND ELCO PANELMATES, INTO THE CONCRETE BLOCK UNIT SHALL BE 1 1/4".

B.2) 7/8" CALK-IN ANCHORS SHALL BE ENTERILY EMBEDDED INTO THE CONCRETE BLOCK UNIT. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4" $\varnothing$ -20 AISI 304 SERIES SCREWS USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST, AND 1" MINIMUM FOR WALLS WITH NO STUCCO. SCREWS TO BE SIDEWALK BOLT TYPE WITH 3/4" DIAMETER HEAD.

B.3) IN CASE THAT PRECAST STONE OR PRECAST CONCRETE PANELS BE FOUND ON THE EXISTING WALL, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS. ANCHORAGE SHALL BE AS INDICATED ON NOTES B.1) & B.2) ABOVE.

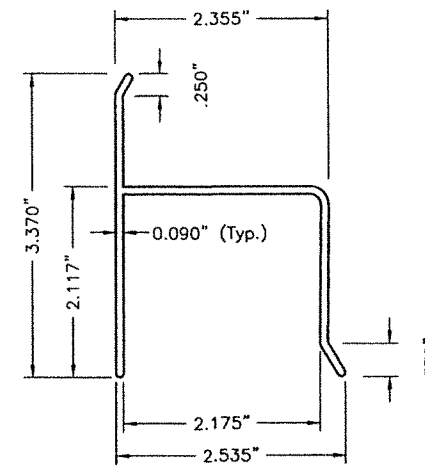
- (C) ANCHORS SHALL BE INSTALLED FOLLOWING ALL OF THE RECOMMENDATIONS AND SPECIFICATIONS OF THE ANCHOR'S MANUFACTURER.
7. PANELS MAY ALSO BE INSTALLED HORIZONTALLY FOLLOWING INSTALLATION DETAILS SHOWN ON SECTIONS 1, 2, 3 & 4 (SHEET 2 OF 4). EXCEPT THAT FOR SECTIONS 1 & 2 ONLY, COMPONENT # ④ SHALL BE USED AT BOTH ENDS.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE WHERE SHUTTER IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE. THIS SHUTTER SHALL ONLY BE ATTACHED TO CONCRETE, BLOCK OR WOOD FRAME BUILDINGS.
9. THE INSTALLATION CONTRACTOR IS TO SEAL/CAULK ALL SHUTTER COMPONENT EDGES WHICH REMAIN IN CONTINUOUS CONTACT WITH THE BUILDING TO PREVENT WIND/RAIN INTRUSION, CAULK AND SEAL SHUTTER TRACKS ALL AROUND FULL LENGTH.
10. STORM PANEL INSTALLATION SHALL COMPLY WITH SPECS INDICATED IN THIS DRAWING PLUS ANY BUILDING AND ZONING REGULATIONS PROVIDED BY THE JURISDICTION WHERE PERMIT IS APPLIED TO.
11. (a) THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; i.e. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.
- (b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT BASED ON THIS P.E.D. PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.
- (c) THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF MODIFIED.
- (d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME OF THE ENGINEER RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
- (e) ORIGINAL P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.
12. SHUTTER MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION AT PANEL IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE. ONE LABEL SHALL BE PLACED FOR EVERY OPENING. LABELING TO COMPLY WITH SECTION 1709.9.2 OF THE FLORIDA BUILDING CODE.

THIS DRAWING SHALL ONLY BE USED TO
OBTAIN PERMITS IN THE STATE OF FLORIDA



9/15/2023
P.E. SEAL/SIGNATURE/DATE

FLORIDA BUILDING CODE (HIGH AND NON HIGH VELOCITY HURRICANE ZONES)					
© 2023 TILTECO INC.			0.0375" THICK GALVANIZED STEEL STORM PANEL		W.H DRAWN BY:
 TILIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th. St., Ste. 305 - VIRGINIA GARDENS, FL 33166 Phone : (305) 871-1530 , Fax : (305) 871-1531 e-mail: tiliteco@aol.com CA-0006719 WALTER A. TILLIT Jr., P.E. FLORIDA Lic. # 44167			MIAMI DADE ALUMINUM CORP.		09/15/2023 DATE:
			1615 W 31 PLACE HIALEAH, FL 33012		23-218 DRAWING N°
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-278	09/15/23			
2					
					SHEET 1 OF 4



Technical drawing of a rectangular component with the following dimensions and features:

- Overall width: 2.355"
- Overall height: 2.117"
- Inner width: 2.175"
- Inner height: 2.535"
- Note: 0.090" (Typ.) with an arrow pointing to the inner vertical edge.
- A small rectangular feature is shown on the right side of the component.

Technical drawing of a base angle showing front and side views with dimensions and specifications.

Front View Dimensions:

- Top flange thickness: $.093"$
- Vertical leg height: $2.000"$
- Horizontal leg length: $2.000"$
- Vertical leg width: $.750"$
- Horizontal leg thickness: $.093"$

Side View Dimensions:

- Top flange thickness: $.375" \varnothing$
- Vertical leg height: $.438" \varnothing$
- Horizontal leg length: $1.1875"$
- Horizontal leg thickness: $.036"$

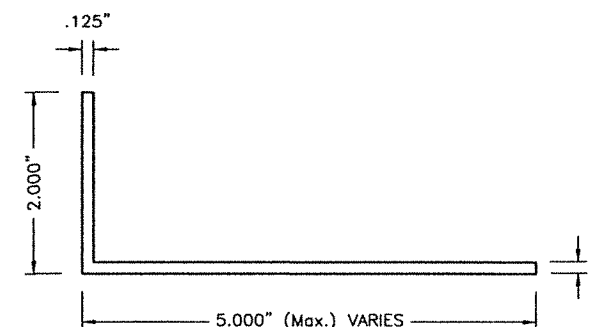
Annotations:

- $1/4" \varnothing - 20 \text{ S. S. STUD RIVETED TO ANGLE @ } 12' \text{ O.C.}$
- SEE DETAIL 1

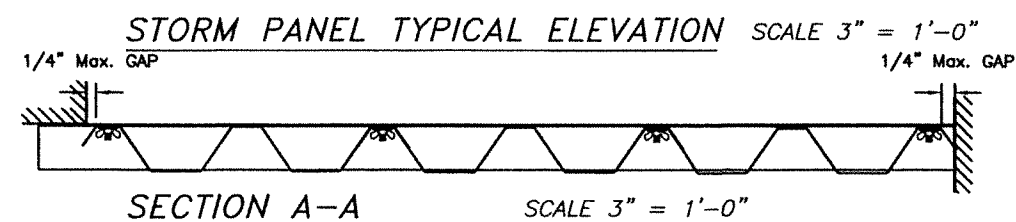
BASE ANGLE

DETAIL 1: STUD W/ ZAMAC
NICKEL PLATED
SCALE: 1 1/2" : 1" WASHER WING NUT

⑥ .125" PLATE
6063-T6 ALLOY
SCALE: 1/2" = 1"



COMPONENTS



WALTER A. TILLIT JR.
LICENSE
No. 44167
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

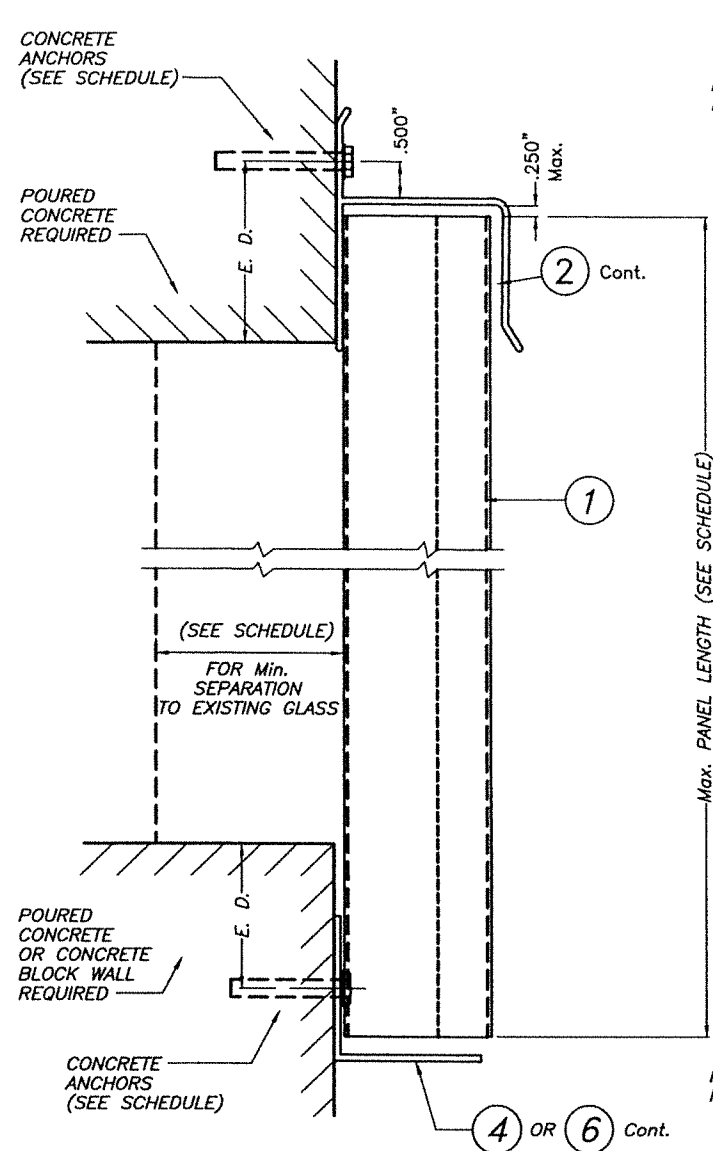
TILTECO INC.

TILLIT TESTING & ENGINEERING COMPANY

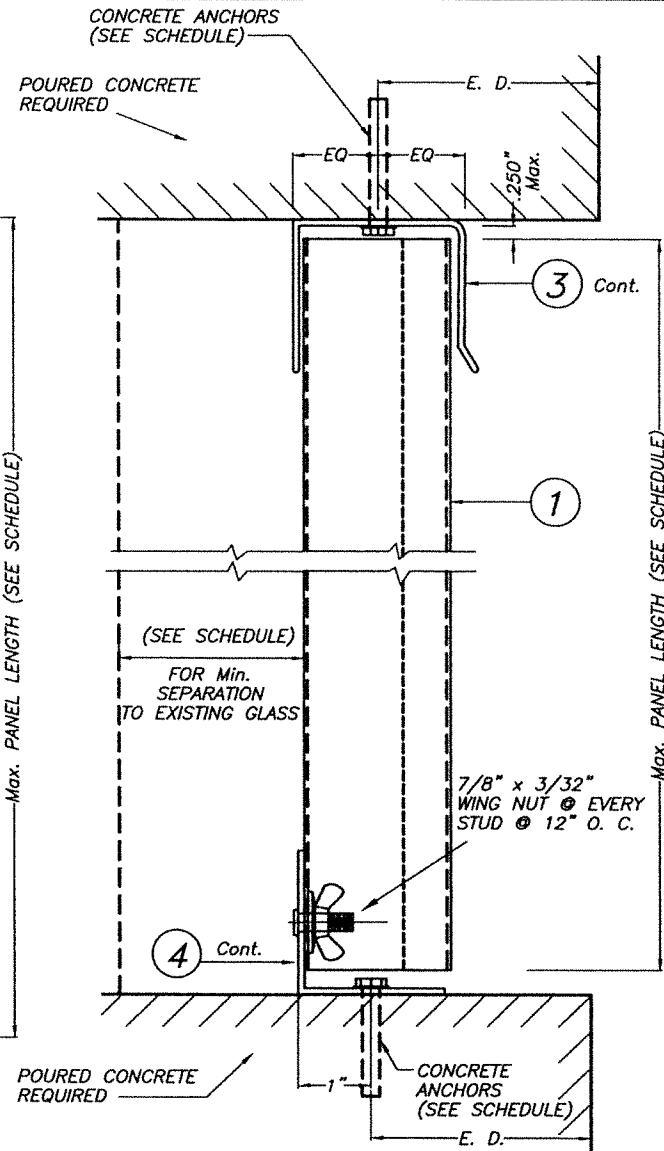
6355 N.W. 36th. St., Ste. 305 - VIRGINIA GARDENS, FL 33166
Phone : (305) 871-1530 , Fax : (305) 871-1531
e-mail: tiltenco@aol.com
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FLORIDA Lic. # 44167

PAGE 1A OF 4

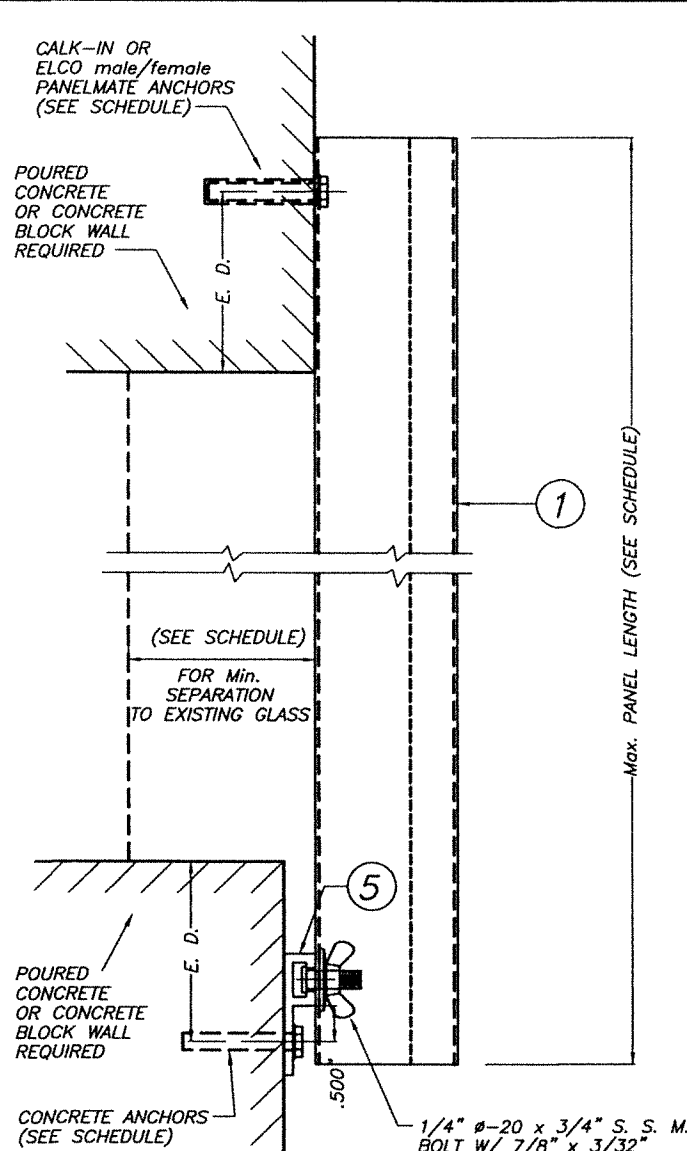


SECTION @ ANCHOR



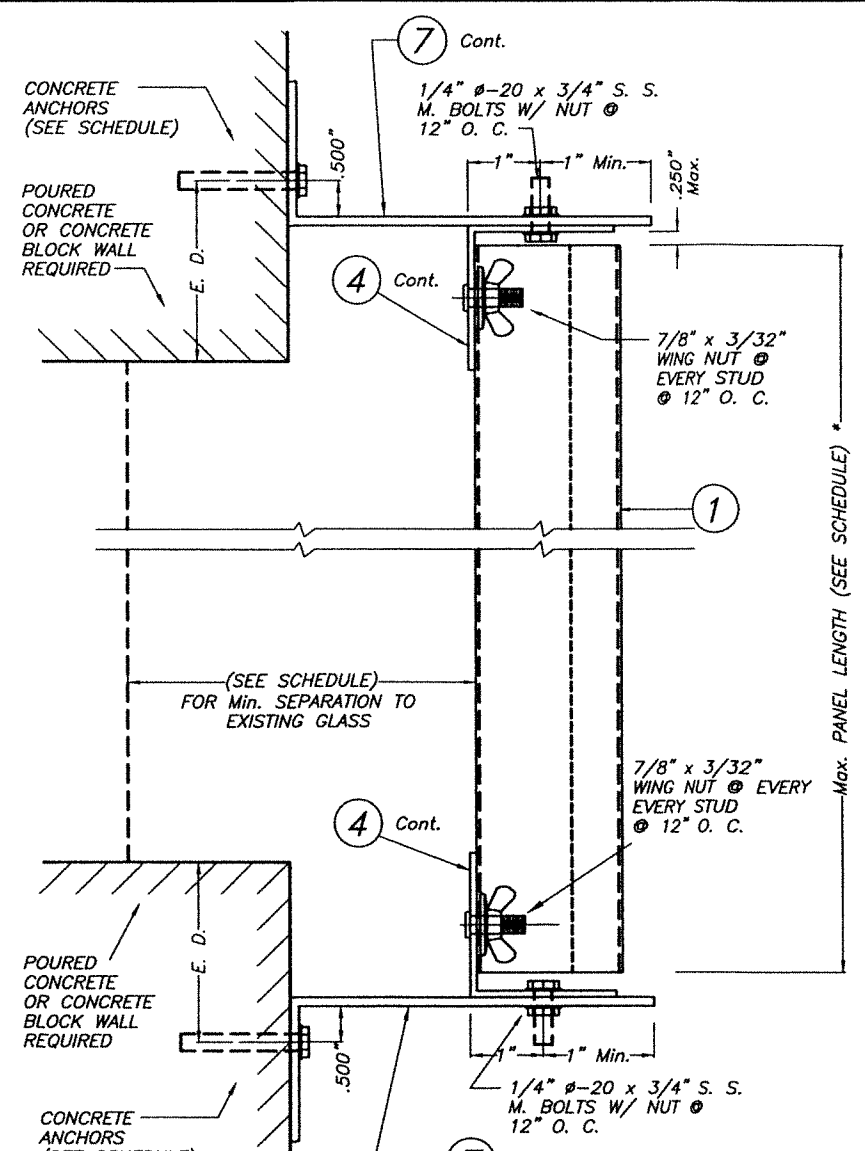
CEILING & FLOOR MOUNT. INSTALL.
- SECTION 2

SCALE: 3/8" = 1"



WALL MOUNTING INSTALLATION W/
DIRECT MOUNT - SECTION 3

SCALE: 3/8" = 1"



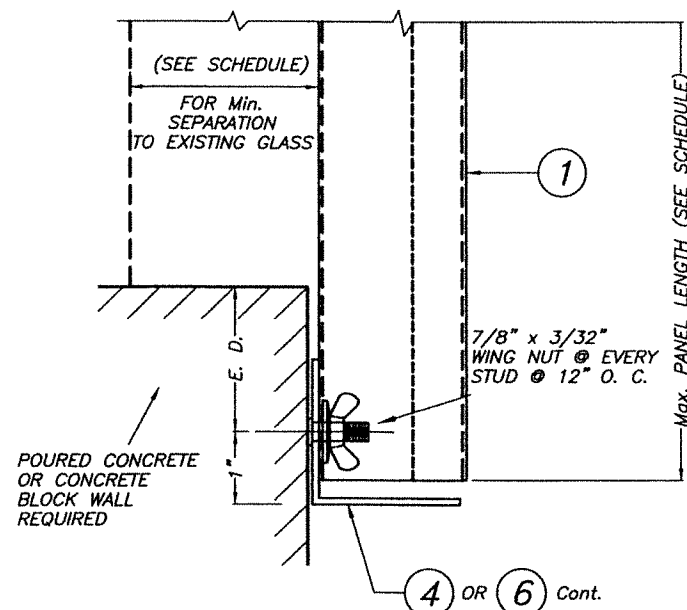
BUILD-OUT WALL MOUNTING INSTALLATION
- SECTION 4 *

SCALE: 3/8" = 1"

* FOR CONCRETE BLOCK TOP & BOTTOM: THIS INSTALLATION IS VALID ONLY FOR ASD DESIGN PRESSURE RATING OF ± 64.0 psf FOR 8'-7" PANEL LENGTH, OR 10'-0" PANEL LENGTH FOR ± 55.0 psf ASD DESIGN PRESSURE RATING.

NOTE FOR COMBINATION OF SECTIONS :
WALL/FLOOR/CEILING MOUNTING SECTIONS
CAN BE COMBINED IN ANY WAY TO SUIT
ANY INSTALLATION.

E. D. = EDGE DISTANCE
(SEE SCHEDULE
ON SHEET 3 OF 4)



SECTION @ STUD

WALL MOUNTING INSTALLATION
- SECTION 1

SCALE: 3/8" = 1"

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0.0375" THICK GALVANIZED STEEL
STORM PANEL

W.H
DRAWN BY:

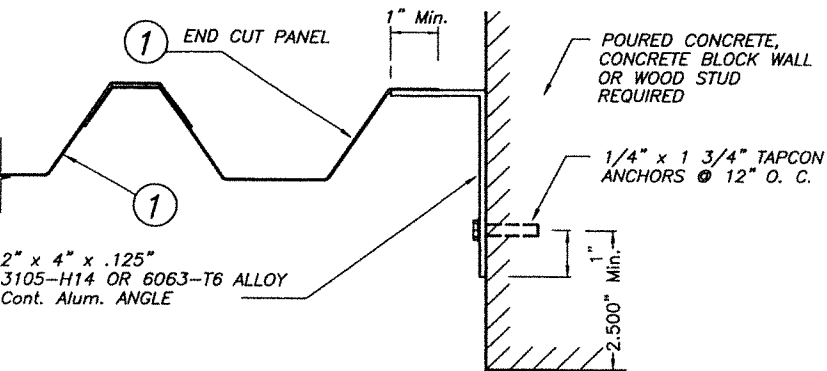
MIAMI DADE ALUMINUM CORP.

09/15/2023
DATE:

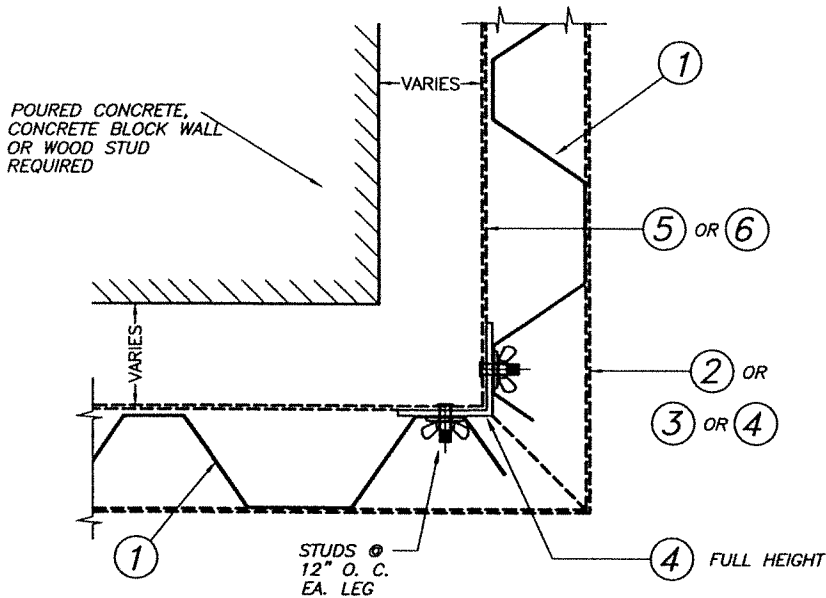
1615 W 31 PLACE
HIALEAH, FL 33012

23-218
DRAWING N°

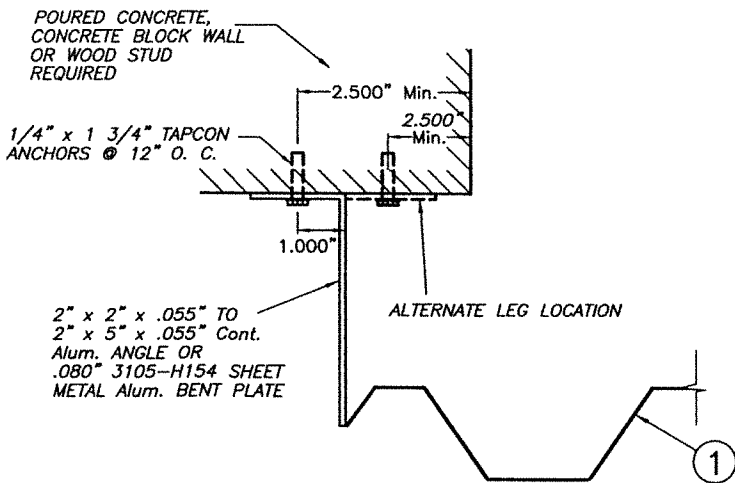
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2					



CASE A (Plan)



CASE B (Plan)



CASE C (Plan)

END CLOSURES DETAILS

SCALE : 3/8" = 1"

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) AND
CORRESPONDING MAXIMUM SPAN "L" SCHEDULE

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	Max. PANEL SPAN L (ft.)	MINIMUM SEPARATION TO GLASS *	APPLICABLE TO SECTIONS # (SEE SHEET 2 OF 4) OR ANY COMBINATION OF THEM
+60.0, -64.0 Δ	10'-0" OR LESS Δ	3 3/8" *	1, 2, 3 & 4

* INDICATED SEPARATION IS VALID FOR INSTALLATIONS WHITIN HIGH VELOCITY HURRICANE ZONES.
FOR INSTALLATIONS WHITIN NON HIGH VELOCITY HURRICANE ZONES, USE 1" SEPARATION FOR WIND ZONES 1, 2 & 3, AND USE 3 1/2" SEPARATION FOR WIND ZONE 4, AS DEFINED BY ASTM E-1996 STANDARD.

Δ SEE SHEET 2 FOR LIMITATIONS FOR BUILD OUT INSTALLATIONS INTO CONCRETE BLOCK WALLS

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) AND CORRESPONDING MAXIMUM ANCHOR
SPACING SCHEDULE FOR INSTALLATIONS INTO CONCRETE AND C.B.S. STRUCTURES *

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM ANCHORS SPACING **						APPLICABLE TO SECTIONS #	MAXIMUM PANEL SPAN L (ft.)
	TAPCON		CALK-IN		PANELMATE			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+60.0, -64.0	5 1/2"	N/A	5 1/2"	N/A	3"	N/A	1 (TOP)	10'-0" OR LESS
	12"	4"	12"	6 1/2"	10"	7 1/2"	1 (BOTTOM)	
	9"	N/A	8 1/2"	N/A	7"	N/A	2 (TOP)	
	8"	N/A	7"	N/A	5 1/2"	N/A	2 (BOTTOM)	
	N/A	N/A	12"	6"	6"	6"	3 (TOP)	
	11 1/2"	4"	11 1/2"	6 1/2"	10"	7 1/2"	3 (BOTTOM)	
	11 1/2"	4" ♦	11 1/2"	4"	6 1/2"	5"	4 (TOP/BOTTOM)	

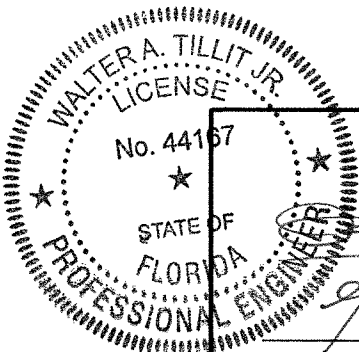
* SEE SHEET 4 OF 4 FOR ANCHORS TYPE & SPACING FOR INSTALLATION INTO WOOD FRAME BUILDINGS.

** MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3 1/2" EDGE DISTANCE. FOR E. D. LESS THAN 3 1/2", REDUCE ANCHOR SPACING BY MULTIPLYING SPACINGS SHOWN ON SCHEDULE BY THE FOLLOWING FACTORS. (Min. E. D. FOR CALK-IN ANCHORS IS 2 1/2").

♦ VALID FOR COMBINATION OF 64.0psf ASD PRESSURE RATING & 8'-7" PANEL LENGTH OR 10'-0" PANEL LENGTH W/ 55.0psf ASD PRESSURE RATING

ACTUAL E. D.	FACTOR	
	TAPCON / PANELMATE	CALK-IN
3"	.86	.75
2 1/2"	.71	.50
2"	.50	-

THIS EDGE DISTANCE REDUCTION IS NOT ALLOWED FOR DIRECT MOUNT INSTALLATIONS (SEE SECTION 3 (TOP) ON SHEET 2 OF 4)

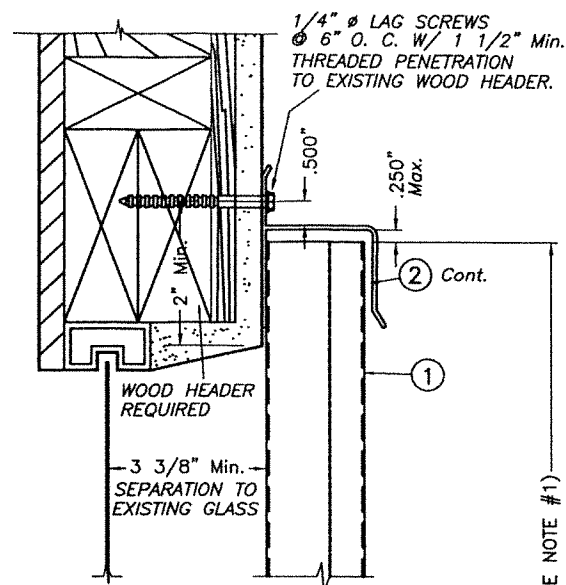


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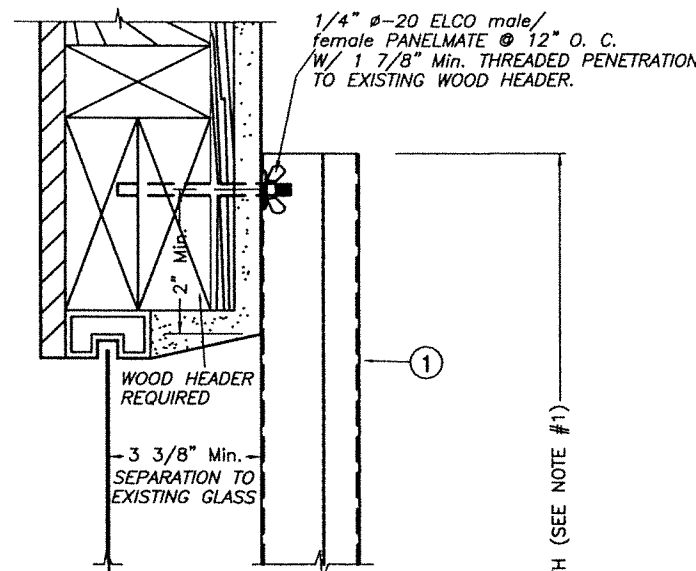
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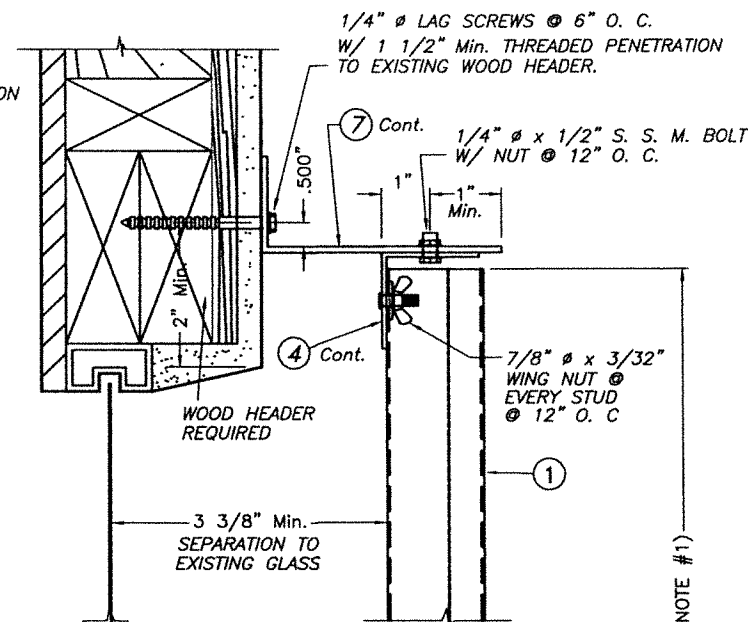
0.0375" THICK GALVANIZED STEEL STORM PANEL			W.H DRAWN BY:		
MIAMI DADE ALUMINUM CORP.			09/15/2023 DATE:		
1615 W 31 PLACE HALEAH, FL 33012			23-218 DRAWING N°		
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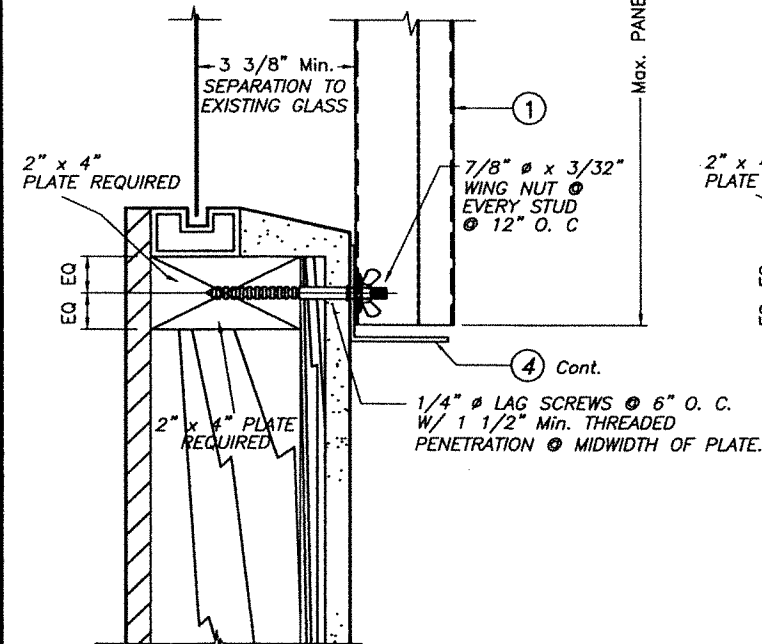
ALTERNATIVE 1



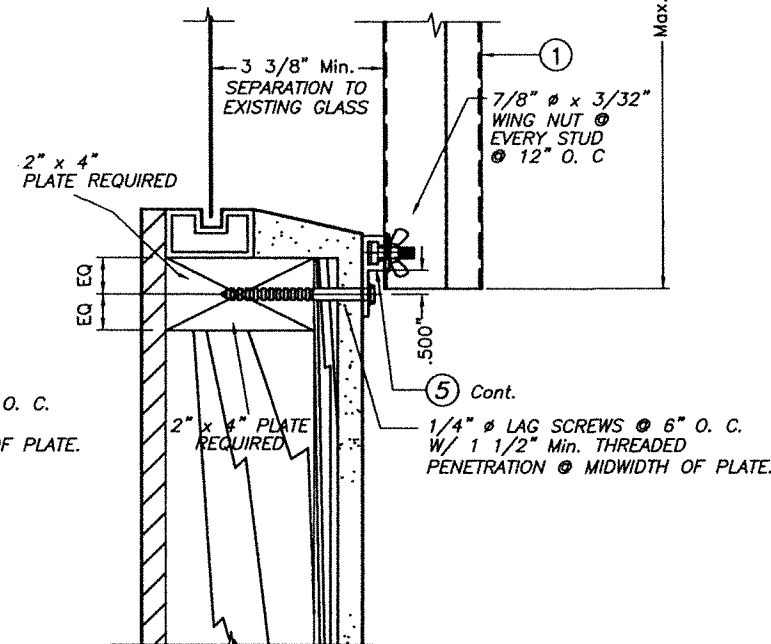
ALTERNATIVE 3



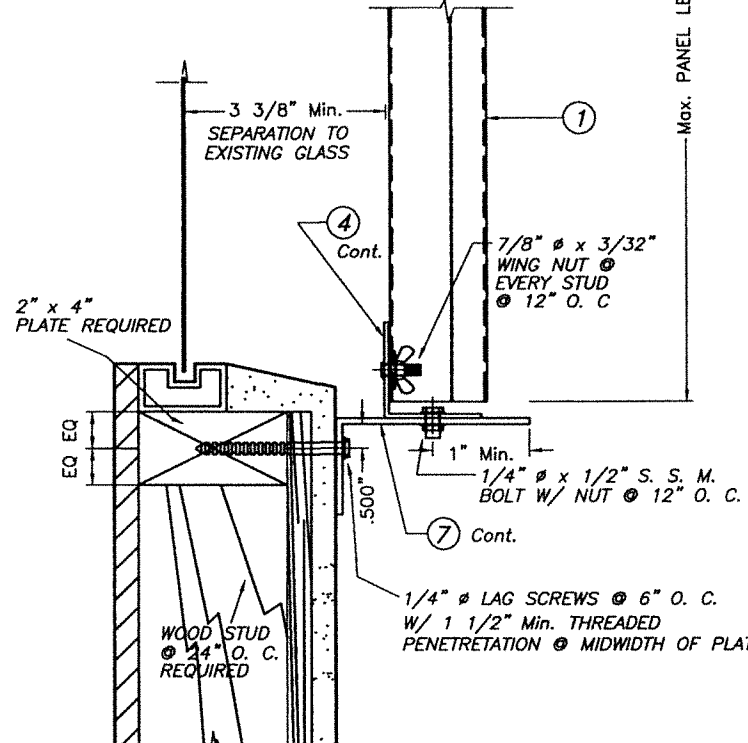
ALTERNATIVE 5



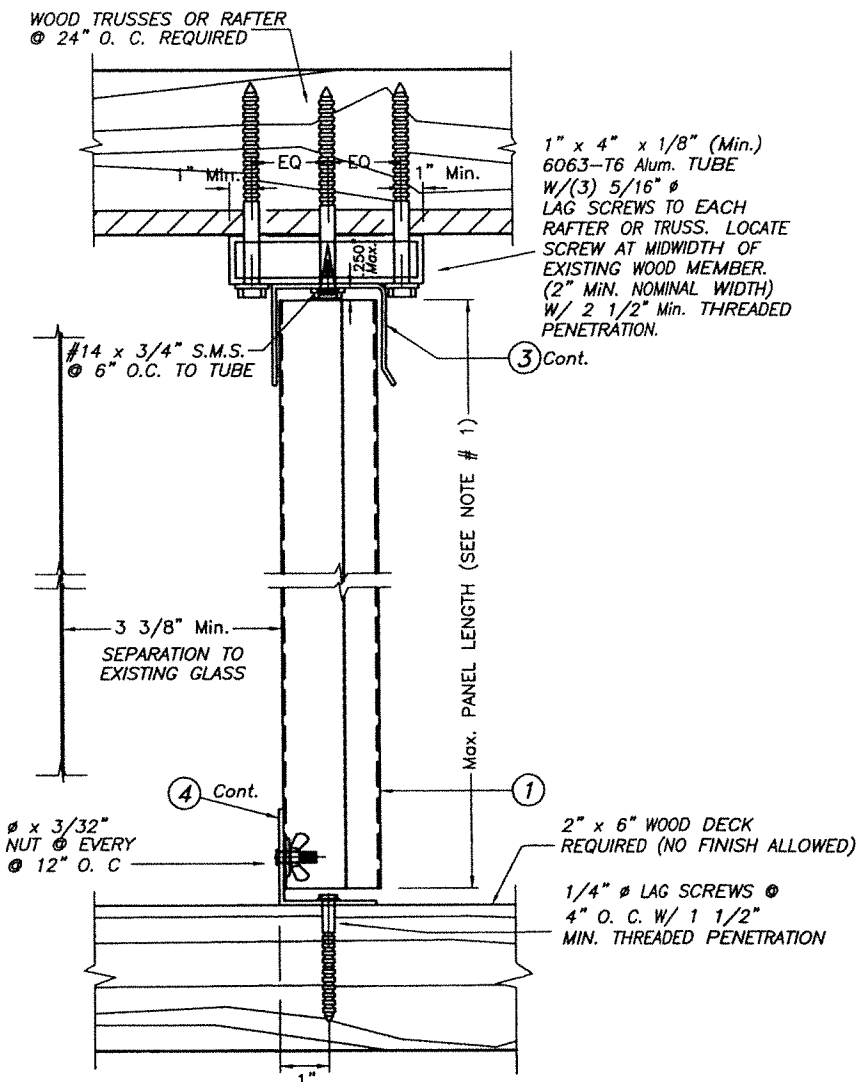
ALTERNATIVE 2



ALTERNATIVE 4



ALTERNATIVE 6



CEILING & FLOOR MOUNTING INSTALLATIONS

- SECTION B

SCALE : 1/4" = 1"

WALL MOUNTING INSTALLATIONS - SECTIONS A

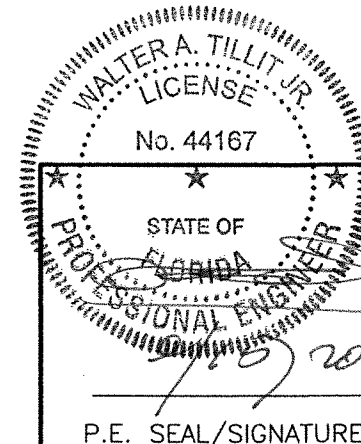
SCALE : 1/4" = 1"

NOTE FOR COMBINATION OF SECTIONS:

SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

NOTES:

1. INSTALLATIONS ARE ONLY VALID FOR BUILDINGS WITH A.S.D. DESIGN PRESSURE RATING UP TO +60.0, -64.0 p.s.f. AND PANEL'S LENGTH UP TO 10'-0".
2. FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.



P.E. SEAL/SIGNATURE/DATE

FLORIDA BUILDING CODE (HIGH AND NON HIGH VELOCITY HURRICANE ZONES)

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WALTER A. TILLIT Jr., P.E.
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0.0375" THICK GALVANIZED STEEL STORM PANEL

W.H
DRAWN BY:

MIAMI DADE ALUMINUM CORP.

1615 W 31 PLACE
HIALEAH, FL 33012

09/15/2023
DATE:

23-218
DRAWING N°

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-278	09/15/23			
2					

SHEET 4 OF 4