

**GENERAL NOTES:**

1. STORM PANEL SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2018 EDITIONS OF THE INTERNATIONAL BUILDING CODE, (I.B.C.) AND INTERNATIONAL RESIDENTIAL CODE, (I.R.C.).

DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1609 OF THE INTERNATIONAL BUILDING CODE, FOR A BASIC WIND SPEED AS REQUIRED BY THE JURISDICTION WHERE THESE SHUTTERS WILL BE INSTALLED, AND FOR A DIRECTIONALITY FACTOR  $K_d=0.85$ , IN ACCORDANCE W/ ASCE 7-16 STANDARD.

IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7-16 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 5 THRU 9.

IN ORDER TO VERIFY THAT COMPONENTS AND ANCHORS ON THIS P.E.D. AS TESTED WERE NOT OVER STRESSED, 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.

STORM PANEL'S ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1609.2 OF THE INTERNATIONAL BUILDING CODE, (I.B.C.), AS PER ATL REPORTS # 0525.01-00, #0512.01-03 AND # 0617.02-04, AS PER MISSILE TYPE D IMPACT TESTING EQUIVALENT TO ASTM E-1996 STANDARD & ASTM E 330 STANDARD, LIMITED TO INSTALLATIONS WITHIN WIND ZONES 1, 2 & 3, BASIC PROTECTION AS DEFINED BY ASTM E-1996 STANDARD; AND REPORT # 0221.01-01 PER FLORIDA HIGH VELOCITY HURRICANE ZONE PROTOCOLS PER TAS 201, 202 & 203.

2. ALL ALUMINUM SHEET METAL PANELS SHALL HAVE 5052-H32 OR 3004-H34 ALLOY.

3. ALL ALUMINUM EXTRUSIONS SHALL BE ALUMINUM ASSOCIATION 6063-T6 ALLOY & TEMPER UNLESS OTHERWISE NOTED. STORM PANEL COMPONENTS (4) STUDDED PLATE AND (5) SNAP CAP ARE PATENT PENDING. ALL ALUMINUM EXTRUSIONS IN CONTACT WITH DISSIMILAR MATERIALS SHALL COMPLY WITH SECTION III-6 OF THE 2015 ALUMINUM DESIGN MANUAL.

4. ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 AISI SERIES AND MEET ASTM A167, OR HOT DIPPED GALVANIZED (AFTER FABRICATION) CARBON STEEL AS PER ASTM A123 OR ASTM A153, OR HOT DIPPED GALVANIZED OR GALVANNEALED (PRIOR TO FABRICATION) AND MEET ASTM A653 WITH 50 KSI YIELD STRENGTH AND 90 KSI TENSILE STRENGTH.

5. BOLTS TO BE ASTM A-307 GALVANIZED STEEL OR AISI 304 SERIES STAINLESS STEEL, WITH 35 KSI MINIMUM YIELD STRENGTH.

6. ANCHORS TO WALL SHALL BE AS FOLLOWS: (UNLESS OTHERWISE NOTED)

(A) TO EXISTING POURED CONCRETE:

- 1/4"  $\phi$  TAPCON ANCHORS AS MANUFACTURED BY I.T.W. BUILDEX.
- 1/4"  $\phi$  CF TAP-GRIP ANCHORS (BERTHA STUD-CON), AS MANUFACTURED BY TRU-FAST CORPORATION.
- 1/4"  $\phi$  ZAMAC NAILIN ANCHORS AS MANUFACTURED BY DEWALT, INC.
- 1/4"  $\phi$  x 7/8" CALK-IN ANCHORS OR ELCO male & female "PANELMATE" AS MANUFACTURED BY DEWALT, INC. AND ELCO CONSTRUCTION PRODUCTS, RESPECTIVELY.
- 1/4"  $\phi$  x 3/4" ALL POINTS SOLID-SET ANCHORS AS DISTRIBUTED BY ALL POINTS SCREW, BOLT & SPECIALTY COMPANY.

NOTES:

A.1) MINIMUM EMBEDMENT INTO POURED CONCRETE OF TAPCON ANCHORS IS 1 3/4"; FOR ZAMAC NAILIN ANCHORS IS 1 3/8"; FOR ELCO PANELMATE ANCHORS IS 1 3/4" AND FOR CF TAP-GRIP ANCHORS IS 1 1/4".

A.2) 7/8" CALK-IN ANCHORS SHALL BE ENTIRELY EMBEDDED INTO THE POURED CONCRETE. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4"  $\phi$ -20 SCREWS USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST, AND 1" MINIMUM FOR WALLS WITH NO STUCCO.

A.3) MINIMUM EMBEDMENT OF 1/4"  $\phi$  x 3/4" ALL POINTS SOLID-SET ANCHORS SHALL BE 7/8" INTO THE POURED CONCRETE. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4"  $\phi$ -20 S.S. MACHINE SCREW USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST, AND 1" MINIMUM FOR WALLS WITH NO STUCCO.

A.4) 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 AS INDICATED ON NOTES A.1) & A.2) ABOVE.

(B) TO EXISTING CONCRETE BLOCK WALL:

- 1/4"  $\phi$  TAPCON ANCHORS AS MANUFACTURED BY I.T.W. BUILDEX.
- 1/4"  $\phi$  CF TAP-GRIP ANCHORS (BERTHA STUD-CON), AS MANUFACTURED BY TRU-FAST CORPORATION.
- 1/4"  $\phi$  ZAMAC NAILIN ANCHORS AS MANUFACTURED BY DEWALT, INC.
- 1/4"  $\phi$  x 7/8" CALK-IN ANCHORS OR ELCO male & female "PANELMATE" AS MANUFACTURED BY DEWALT, INC. AND ELCO CONSTRUCTION PRODUCTS, RESPECTIVELY.
- 1/4"  $\phi$  x 3/4" ALL POINTS SOLID-SET ANCHORS AS DISTRIBUTED BY ALL POINTS SCREW, BOLT & SPECIALTY COMPANY.
- 1/4"  $\phi$  RED HEAD DYNABOLT SLEEVE ANCHORS AS MANUFACTURED BY RED HEAD.

NOTES:

B.1) MINIMUM EMBEDMENT OF TAPCON, ELCO PANELMATE, AND CF TAP-GRIP ANCHORS INTO CONCRETE BLOCK UNIT SHALL BE 1 1/4"; 1 3/8" FOR ZAMAC NAILIN ANCHORS AND 1 1/8" FOR RED HEAD DYNABOLT SLEEVE ANCHORS

B.2) 7/8" CALK-IN ANCHORS SHALL BE ENTIRELY EMBEDDED INTO THE CONCRETE BLOCK UNIT. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4"  $\phi$ -20 SCREWS USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST, AND 1" MINIMUM FOR WALLS WITH NO STUCCO.

B.3) MINIMUM EMBEDMENT OF 1/4"  $\phi$  x 3/4" ALL POINTS SOLID-SET ANCHORS SHALL BE 7/8" INTO THE CONCRETE BLOCK. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4"  $\phi$ -20 S.S. MACHINE SCREW USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST, AND 1" MINIMUM FOR WALLS WITH NO STUCCO.

B.4) 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 IN B.1) AND 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 THRU 8 (SHEET 3 & 4 OF 9) EXCEPT THAT HEADERS 3, 4 & 5 SHALL NOT BE USED.

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. (a) THIS 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.

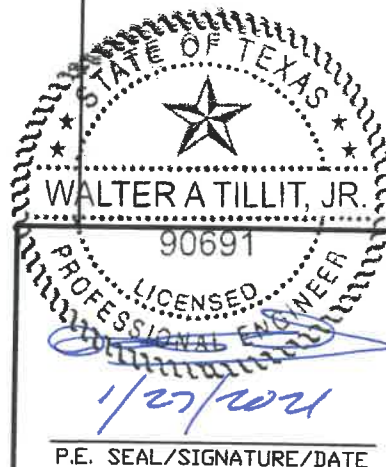
(c) THIS P.E.D. WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

(d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT WHICH WILL BECOME THE ENGINEER OF 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) THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

11. SHUTTER MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION AT STORM PANEL IN ACCORDANCE WITH THE TEXAS DEPARTMENT OF INSURANCE REQUIREMENTS. ONE LABEL SHALL BE PLACED FOR EVERY OPENING.

**THIS DRAWING SHALL BE USED ONLY TO OBTAIN PERMITS UNDER THE TEXAS DEPARTMENT OF INSURANCE JURISDICTION**



P.E. SEAL/SIGNATURE/DATE

WALTER A. TILLIT Jr. P.E.  
PROFESSIONAL ENGINEER

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VIRGINIA GARDENS, FL 33166  
PHONE (305) 871-1530 FAX (305) 871-1531

TEXAS LIC. # 90691

FIRM REGISTRATION # F-13790

TEXAS DEPARTMENT OF INSURANCE - 2018

0.050" BERTHA ALUMINUM STORM PANEL  
(2.25" DEEP)

EASTERN METAL SUPPLY, INC

4268 WEST ROADS DRIVE  
WEST PALM BEACH, FL 33407  
PHONE: (561)209-8263  
FAX: (561)841-1716

M.P.  
DRAWN BY:

01/20/2021  
DATE:

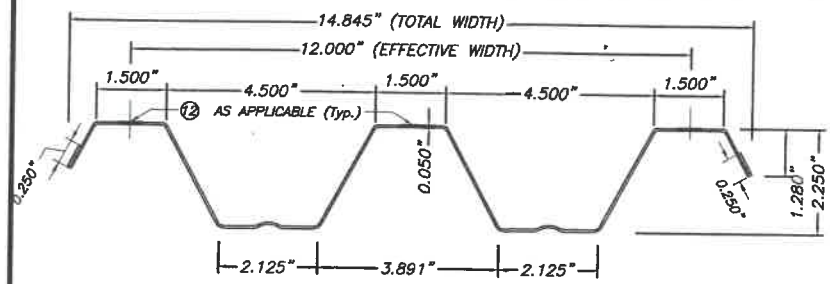
21-026

DRAWING No

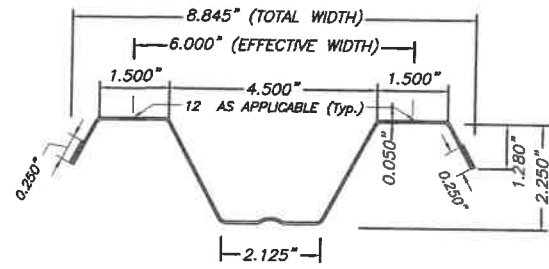
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SHEET 1 OF 14

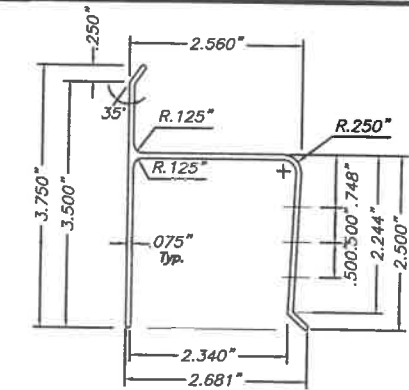




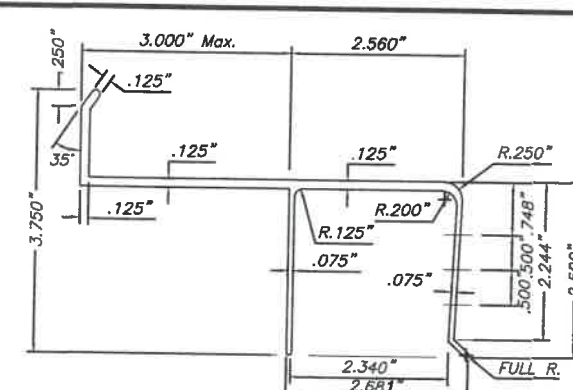
1 FULL ALUMINUM PANEL W/ HEMMED EDGES



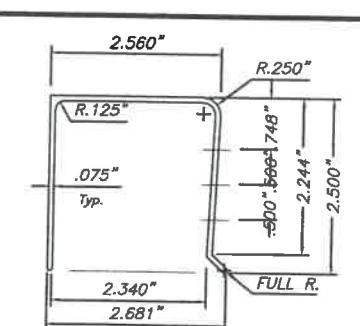
1A HALF ALUMINUM PANEL W/ HEMMED EDGES



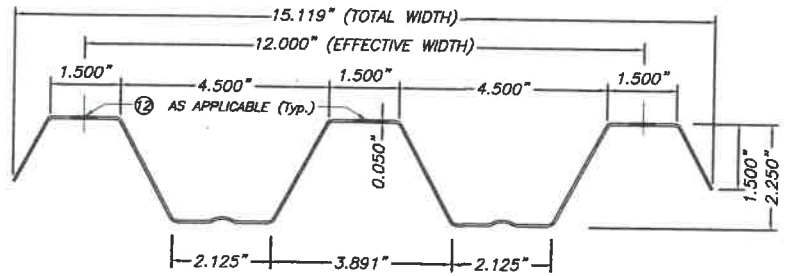
3 "h" HEADER  
SCALE: 3/8" = 1"



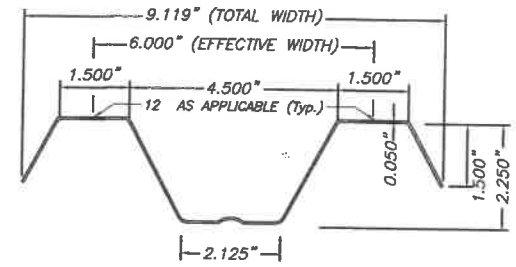
4 3" Max. "U" BUILD OUT  
SCALE: 3/8" = 1"



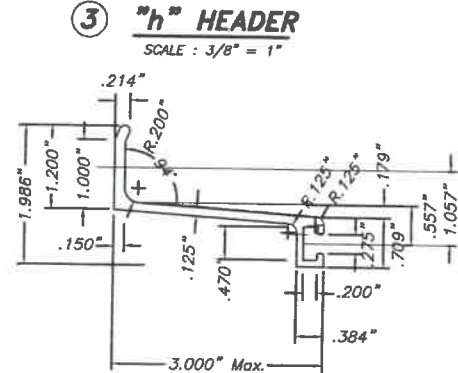
5 "U" HEADER  
SCALE: 3/8" = 1"



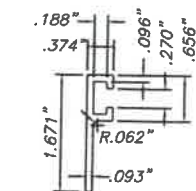
1 FULL ALUMINUM PANEL W/O HEMMED EDGES



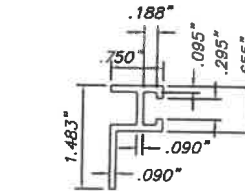
1A HALF ALUMINUM PANEL W/O HEMMED EDGES



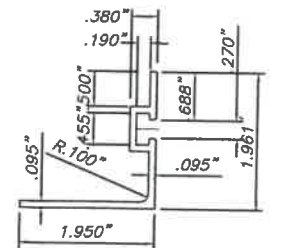
6 3" ANGLE BUILD OUT BRACKET  
SCALE: 3/8" = 1"



7 3/8" B. O. "F" TRACK  
SCALE: 3/8" = 1"

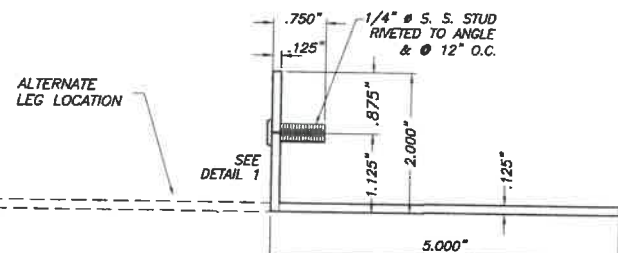


7A 3/4" B. O. "F" TRACK  
SCALE: 3/8" = 1"



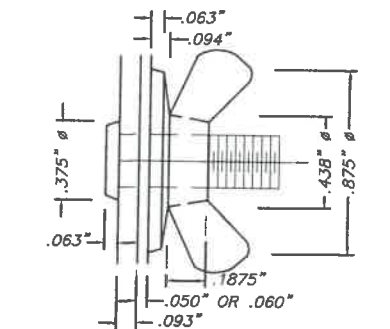
8 REVERSED "F" ANGLE TRACK  
SCALE: 3/8" = 1"

1 STORM PANEL  
SCALE: 1/4" = 1"

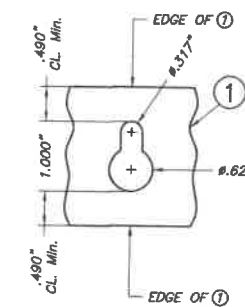


17 2"x5" (MAX.) x 1/8" ANGLE WITH STUD

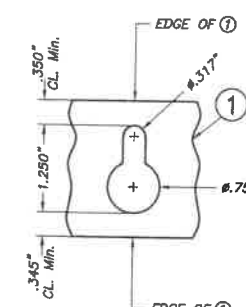
SCALE: 3/8" = 1"



DETAIL 1: STUD W/ DIE CAST ZINC NICKEL PLATED WING NUT

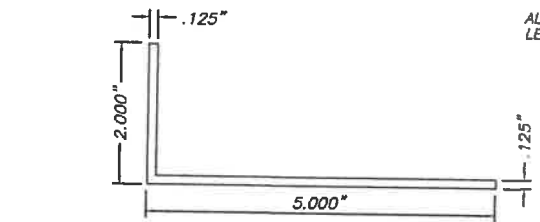


OPTION 1

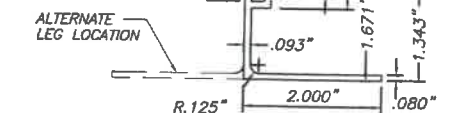


OPTION 2

12 KEY HOLE AT PANEL

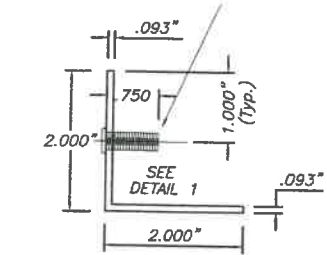


11 2" x 5" (MAX.) x .125" ANGLE  
SCALE: 3/8" = 1"

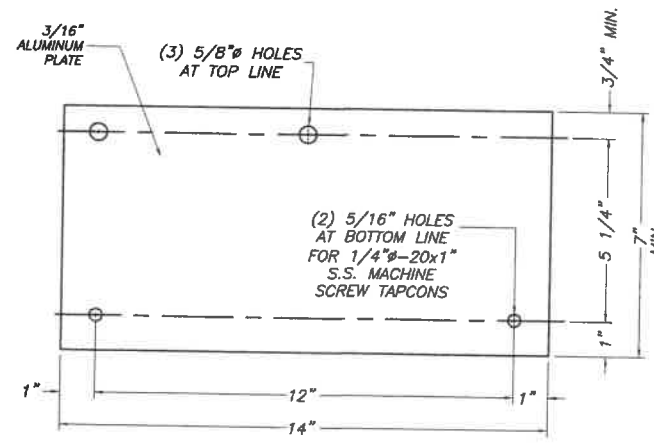


9 "F" TRACK ANGLE  
SCALE: 3/8" = 1"

1/4" # 304 SERIES S. S. STUD RIVETED TO ANGLE @ SPACINGS SHOWN ON SECTIONS.

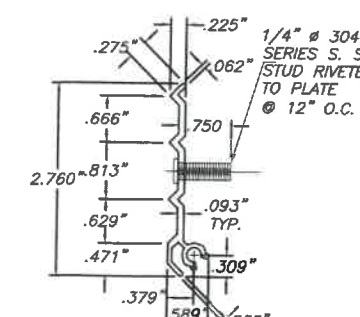


10 STUDDED ANGLE  
6063-T5 ALUM. ALLOY  
SCALE: 3/8" = 1"

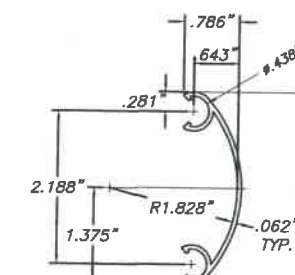


16 3/16"x7"x14" LONG WALL PLATE

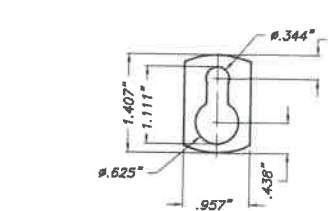
SCALE: 3/16" = 1"



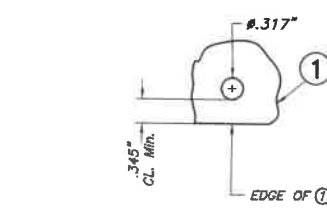
14 STUDDED PLATE  
6063-T6 ALLOY  
SCALE: 1" = 1"



15 SNAP CAP  
6063-T6 ALLOY  
SCALE: 1" = 1"



13 KEY HOLE WASHER  
3105-H154 ALUM. ALLOY  
SCALE: 3/8" = 1"



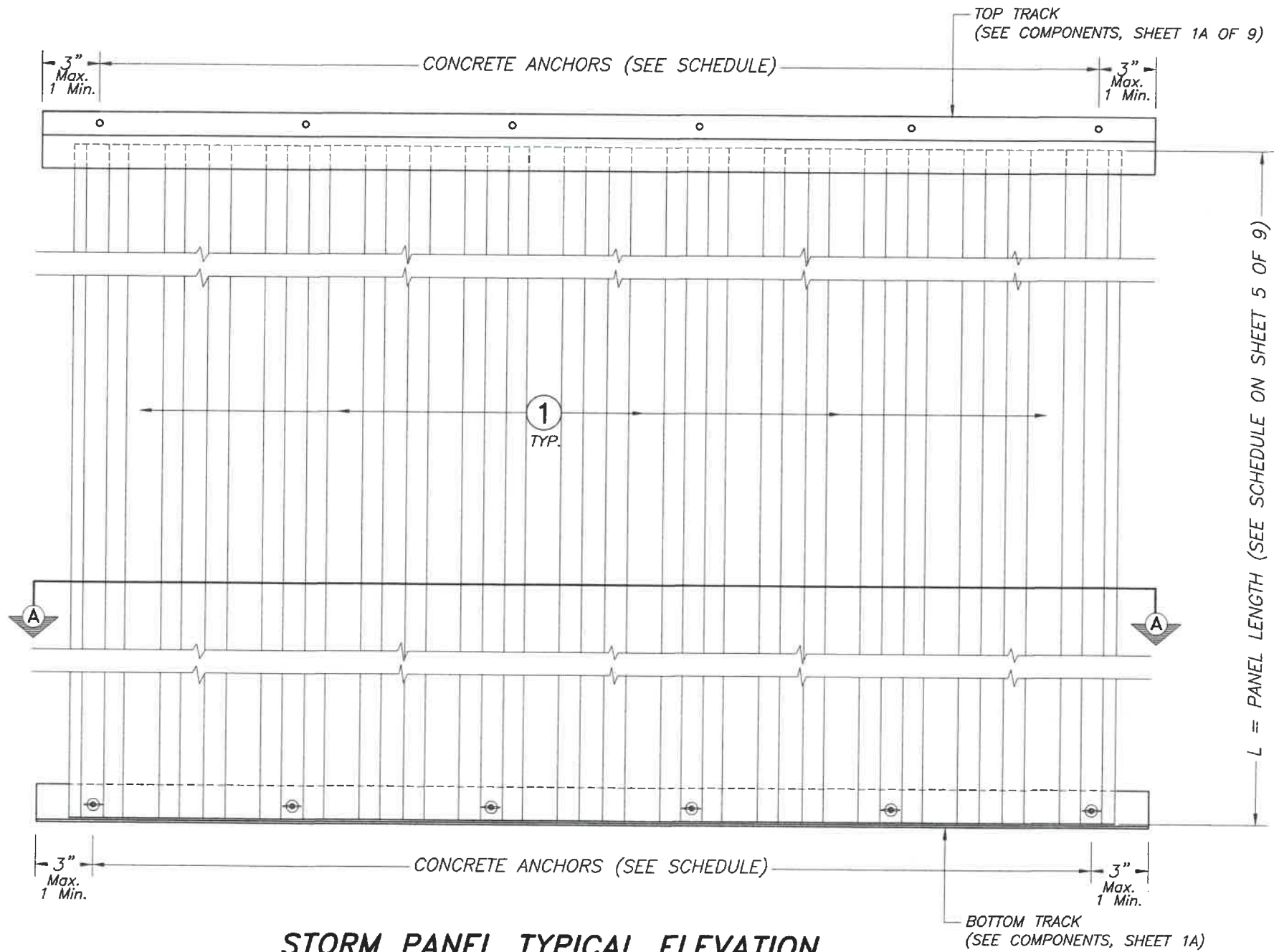
12A ROUND HOLE AT PANEL  
(OPTION TO 12)

STATE OF TEXAS  
WALTER A. TILLIT, JR.  
90691  
LICENSED PROFESSIONAL ENGINEER  
SEAL/SIGNATURE/DATE

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TEXAS LIC. # 90691  
FIRM REGISTRATION # F-13790

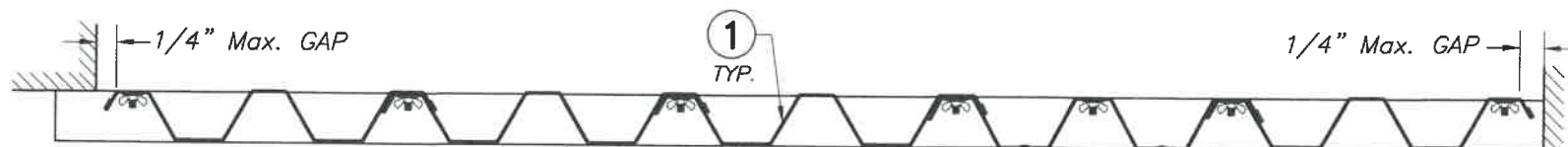
TEXAS DEPARTMENT OF INSURANCE - 2018

|  |             |                     |
|--|-------------|---------------------|
| 0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)  |             | M.P.                |
| EASTERN METAL SUPPLY, INC  |             | DRAWN BY:           |
| 4268 WEST ROADS DRIVE<br>WEST PALM BEACH, FL 33407<br>PHONE: (561)209-8263<br>FAX: (561)841-1716 |             | 01/20/2021<br>DATE: |
| 21-026   |             | DRAWING No          |
| REV. No  | DESCRIPTION | DATE                |
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| 2  | -           | -                   |
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| 4  | -           | -                   |
| SHEET 1A OF 14   |             |                     |



**STORM PANEL TYPICAL ELEVATION**

SCALE : 1/8" = 1"



**SECTION A-A**

SCALE : 1/8" = 1"



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 TEXAS LIC. # 90691  
 FIRM REGISTRATION # F-13790

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0.050" BERTHA ALUMINUM STORM PANEL  
 (2.25" DEEP)

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 4268 WEST ROADS DRIVE  
 WEST PALM BEACH, FL 33407  
 PHONE: (561) 209-8263  
 FAX: (561) 841-1716

M.P.  
 DRAWN BY:

01/20/2021  
 DATE:

**21-026**  
 DRAWING No

| REV. No | DESCRIPTION | DATE | REV. No | DESCRIPTION | DATE |
|---------|-------------|------|---------|-------------|------|
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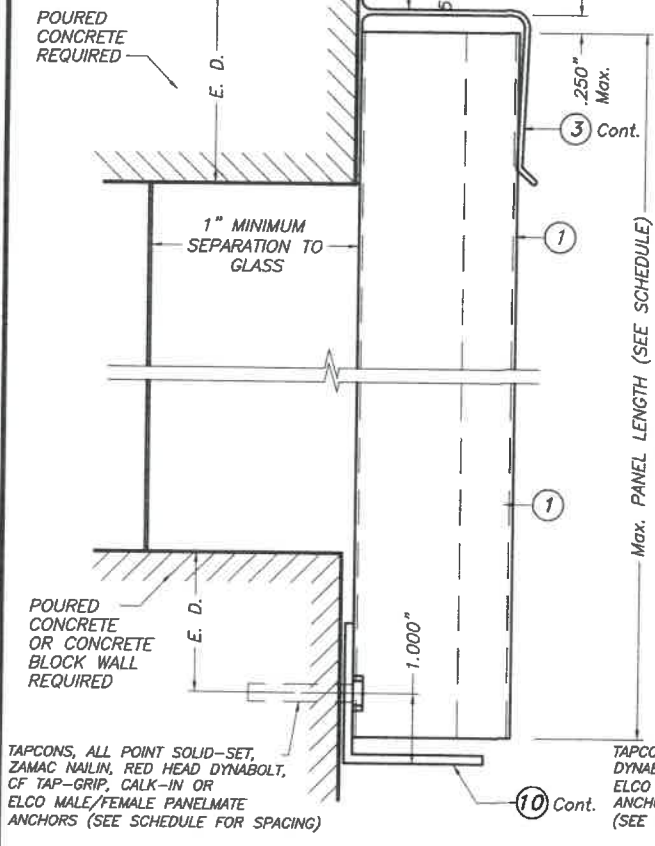


TAPCONS, ZAMAC NAILIN, RED HEAD DYNABOLT, CF TAP-GRIP, CALK-IN OR ELCO MALE/ FEMALE PANELMATE ANCHORS (SEE SCHEDULE FOR SPACING)

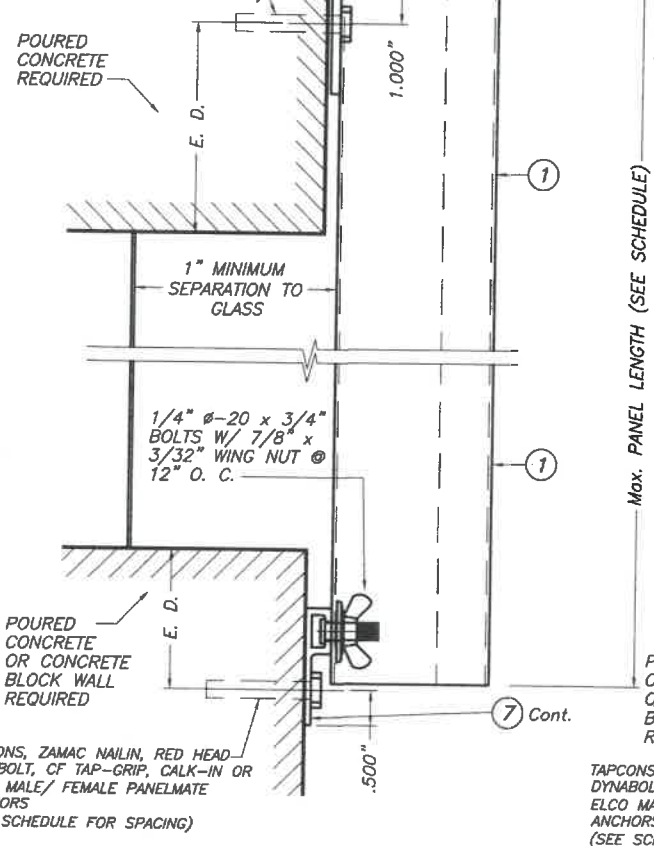
TAPCONS, ALL POINT SOLID-SET, ZAMAC NAILIN, RED HEAD DYNABOLT, CF TAP-GRIP, CALK-IN OR ELCO MALE/ FEMALE PANELMATE ANCHORS (SEE SCHEDULE FOR SPACING)

TAPCONS, ZAMAC NAILIN, RED HEAD DYNABOLT, CF TAP-GRIP, CALK-IN OR ELCO MALE/ FEMALE PANELMATE ANCHORS (SEE SCHEDULE FOR SPACING)

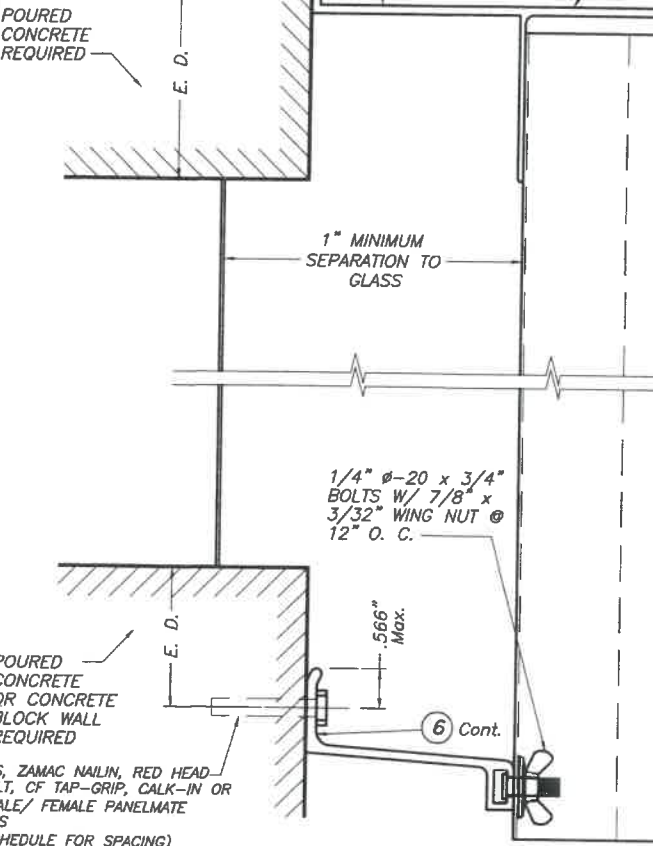
TAPCONS, ZAMAC NAILIN, RED HEAD DYNABOLT, CF TAP-GRIP, CALK-IN OR ELCO MALE/ FEMALE PANELMATE ANCHORS (SEE SCHEDULE FOR SPACING)



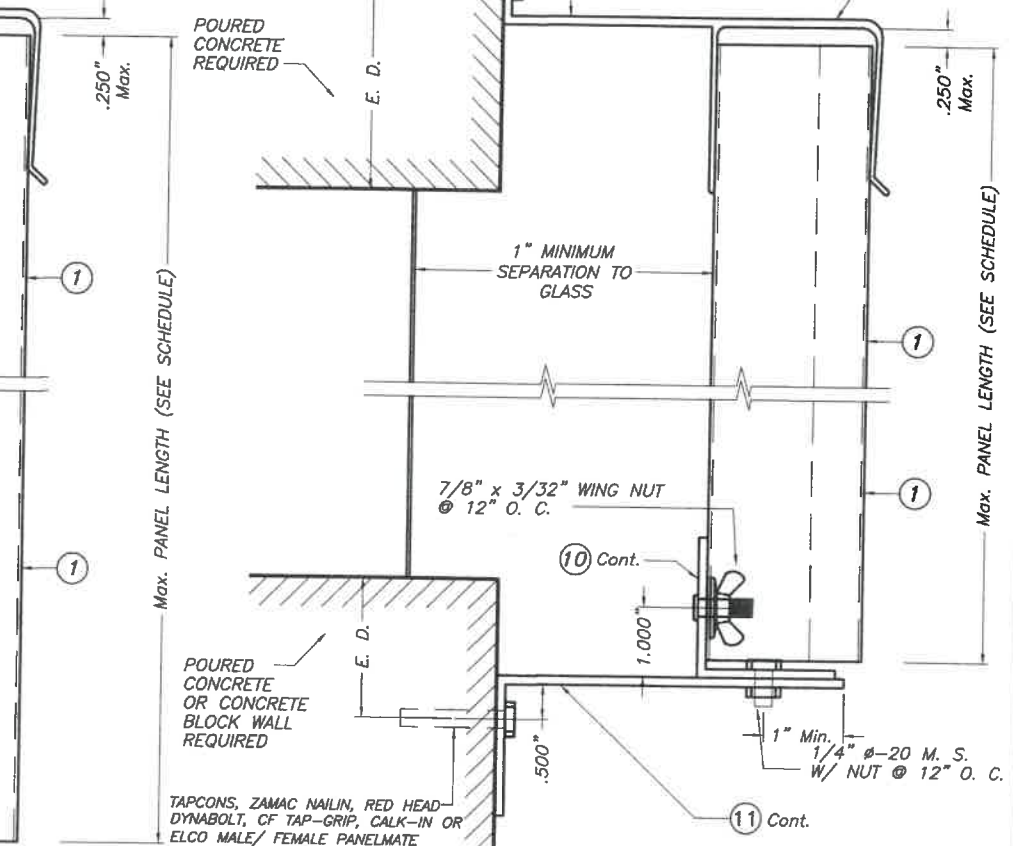
SECTION @ ANCHOR



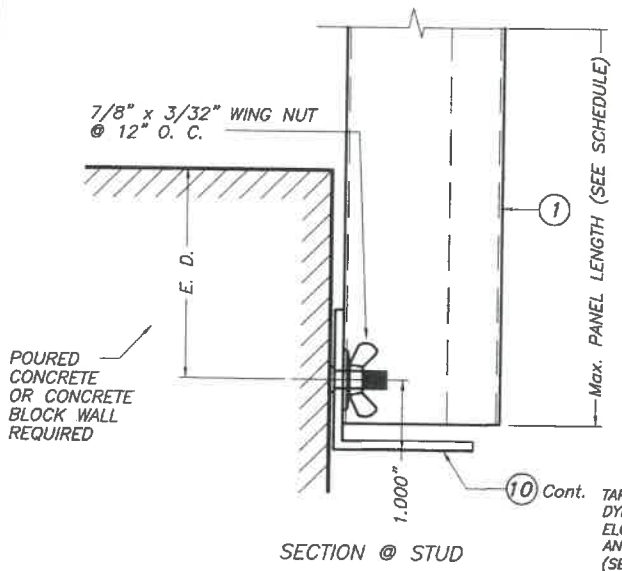
**WALL MOUNTING INSTALLATION SECTION 2**  
SCALE : 3/8" = 1"



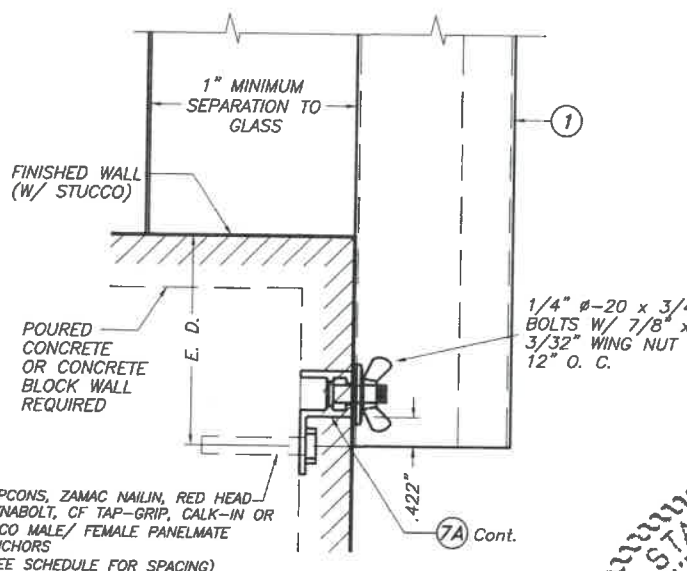
**BUILD OUT INSTALLATION SECTION 3**  
SCALE : 3/8" = 1"



**BUILD OUT INSTALLATION SECTION 4**  
SCALE : 3/8" = 1"



SECTION @ STUD



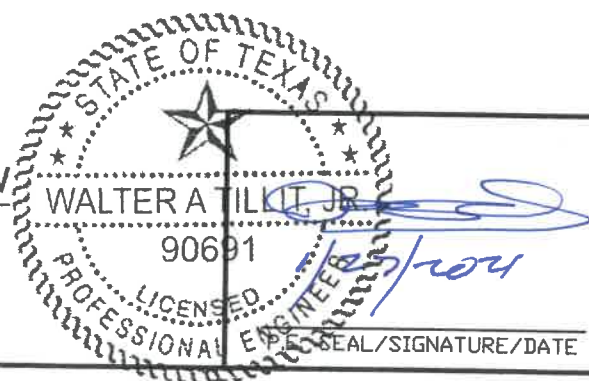
**WALL MOUNTING INSTALLATION SECTION 2A**  
SCALE : 3/8" = 1"

E. D. = EDGE DISTANCE (SEE SCHEDULE ON SHEETS 6 & 7)

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

**WALL MOUNTING INSTALLATION SECTION 1**  
SCALE : 3/8" = 1"

NOTE : DETAIL OF SECTION @ STUD VALID ALSO FOR WALL MOUNTING INSTALLATION - SECTION 2 (TOP)



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TEXAS LIC. # 90691  
FIRM REGISTRATION # F-13790

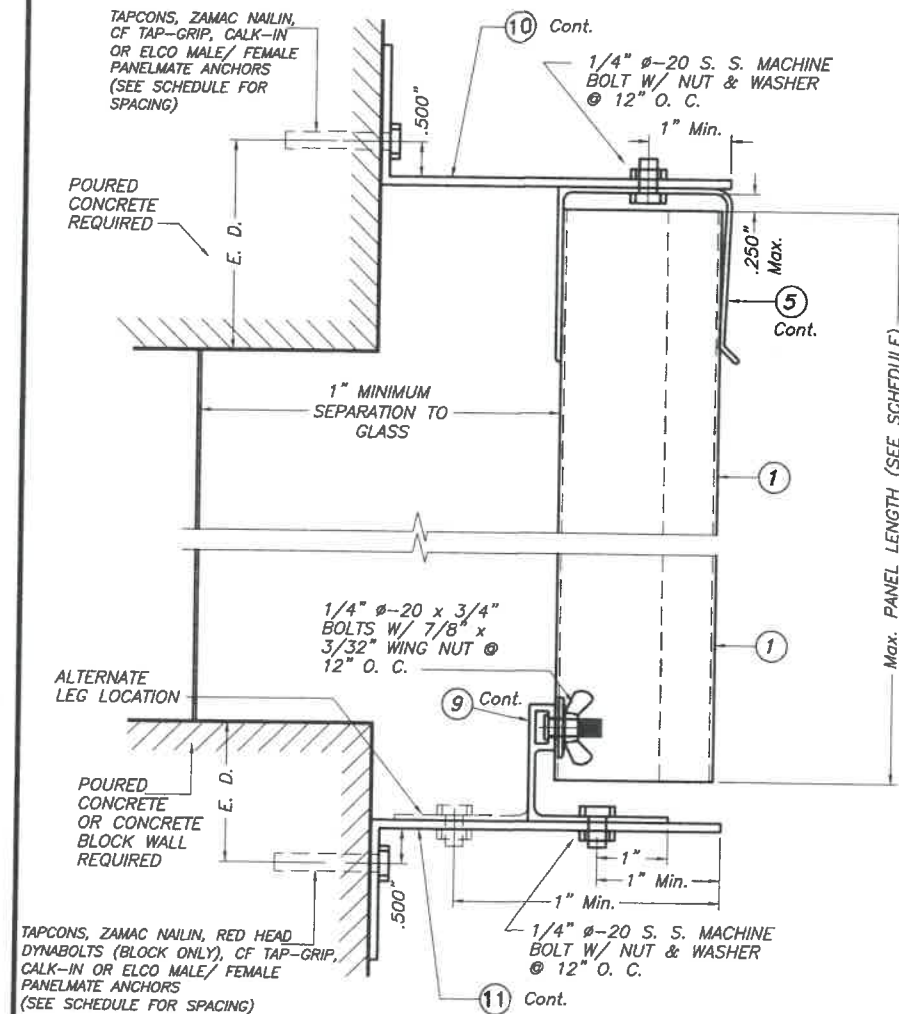
TEXAS DEPARTMENT OF INSURANCE - 2018

0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)

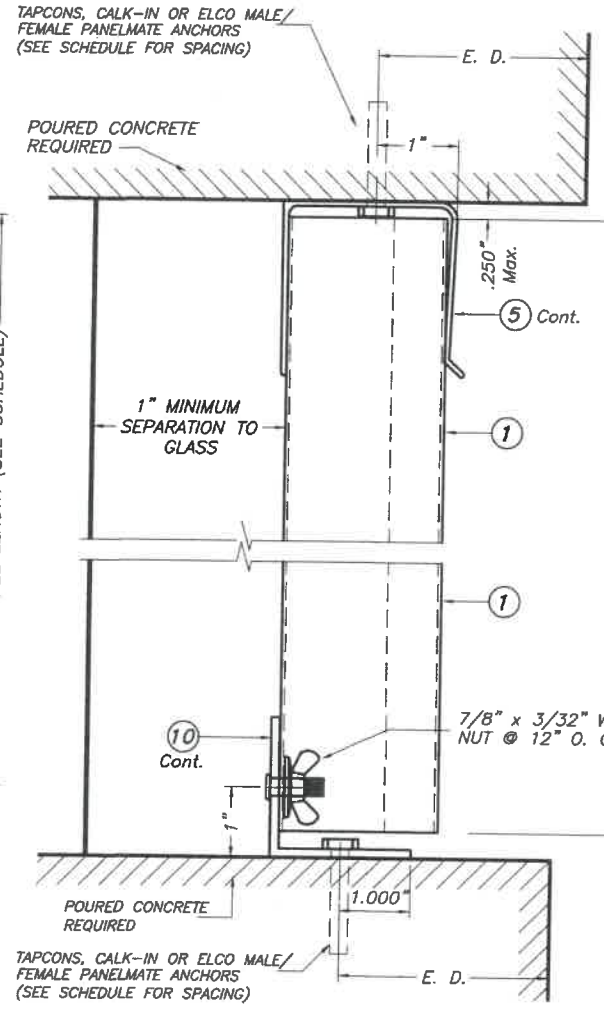
**EASTERN METAL SUPPLY, INC**  
4268 WEST ROADS DRIVE  
WEST PALM BEACH, FL 33407  
PHONE: (561)209-8263  
FAX: (561)841-1716

| REV. No | DESCRIPTION | DATE | REV. No | DESCRIPTION | DATE |
|---------|-------------|------|---------|-------------|------|
| 1       | -           | -    | 3       | -           | -    |
| 2       | -           | -    | 4       | -           | -    |

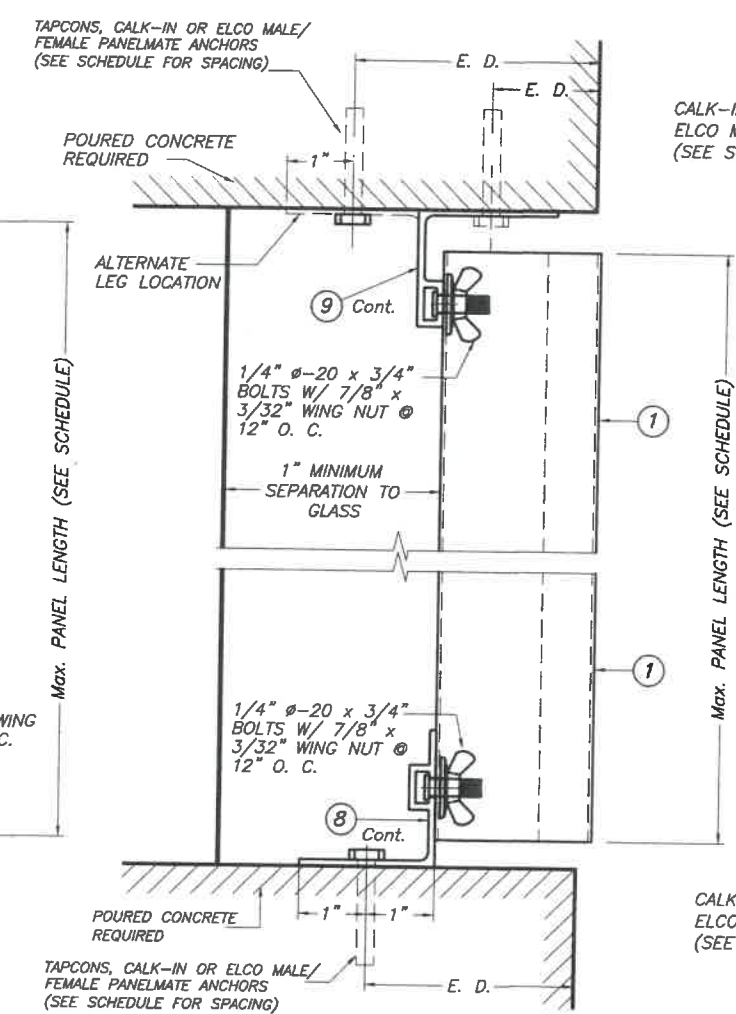
M.P. DRAWN BY:  
01/20/2021 DATE:  
**21-026** DRAWING No  
SHEET 3 OF 14



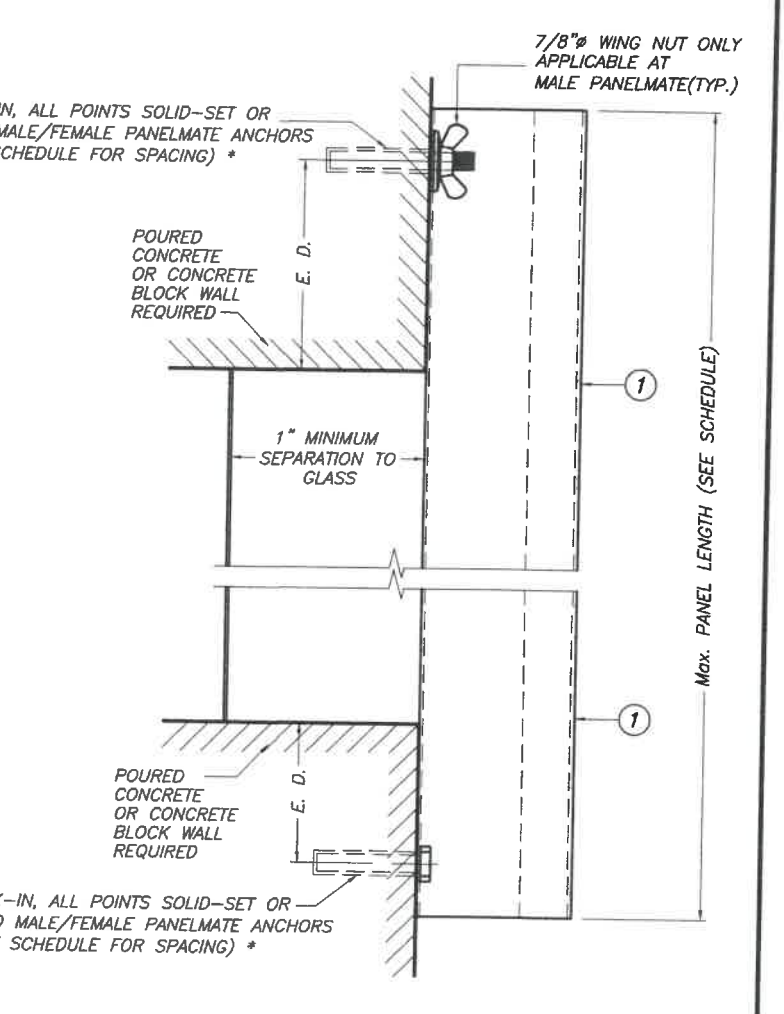
**BUILD OUT INSTALLATION**  
**- SECTION 5** SCALE : 3/8" = 1"



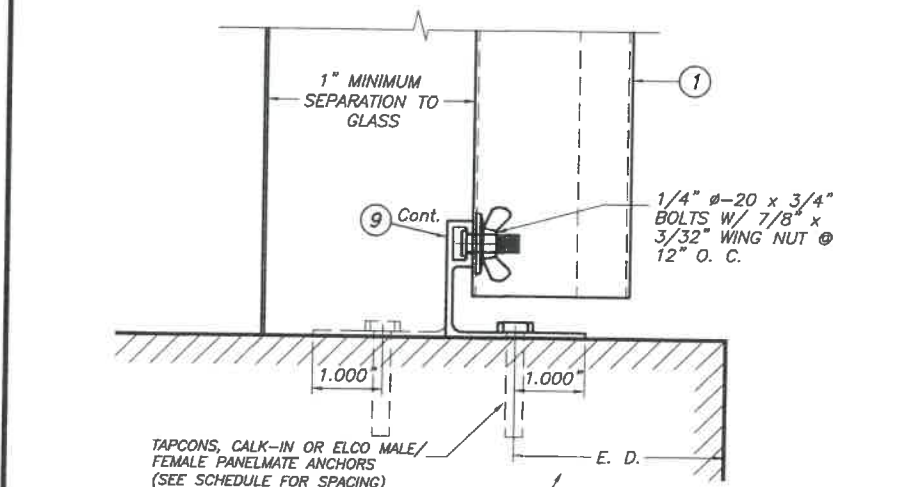
**CEILING & FLOOR MOUNTING**  
**INSTALLATION - SECTION 6**  
 SCALE : 3/8" = 1"



**CEILING & FLOOR MOUNTING**  
**INSTALLATION - SECTION 7**  
 SCALE : 3/8" = 1"



**WALL MOUNTING INSTALLATION (D. M.)**  
**- SECTION 8**  
 SCALE : 3/8" = 1"



**FLOOR MOUNTING INSTALLATION**  
**- SECTION 5A** SCALE : 3/8" = 1"

E. D. = EDGE DISTANCE  
 (SEE SCHEDULE ON  
 SHEET 6 & 7)

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

\* SCREWS USED AT ANCHORS MAY BE 1/4"Ø-20 SIDE  
 WALK BOLT W/ (12) OR 1/4"Ø-20 TRUSS HEAD BOLT  
 W/ (12) & (13).  
 \* SIDE WALK BOLTS ARE 3/4"Øx3/32" THICK  
 HEAD MACHINE SCREW W/ LENGTH AS PER NOTES A.2  
 & B.2 (SHEET 1).  
 \* TRUSS HEAD BOLTS ARE 1/2"Øx1/8" THICK HEAD  
 MACHINE SCREW W/ LENGTH AS PER NOTES A.2 &  
 B.2 (SHEET 1)



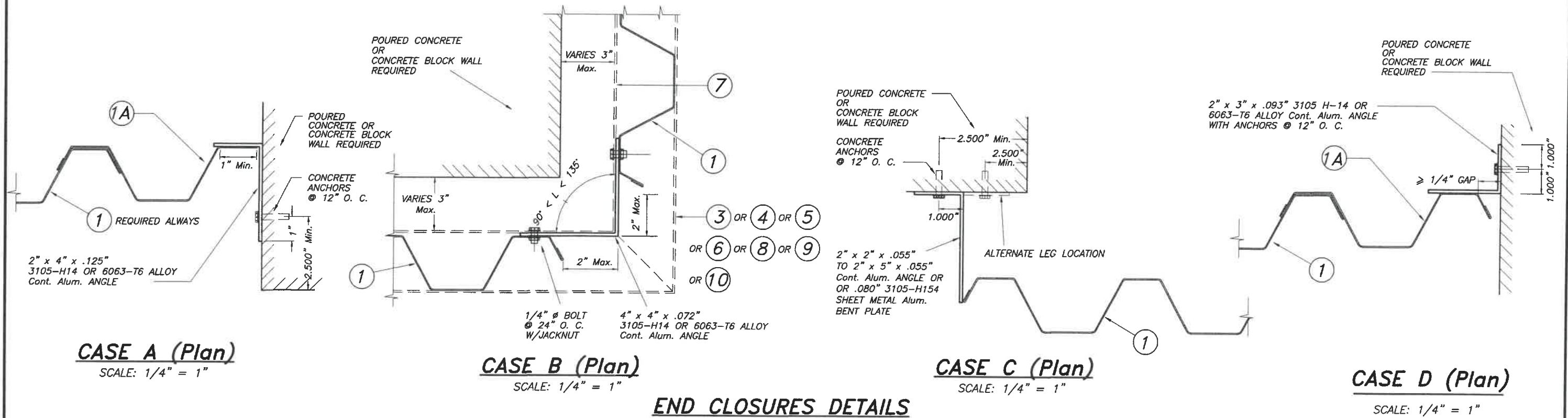
90691  
 WALTER A. TILLIT Jr. P.E.  
 PROFESSIONAL ENGINEER  
 6355 N.W. 36 STREET, STE. 305  
 VIRGINIA GARDENS, FL 33166  
 PHONE (305) 871-1530 FAX (305) 871-1531  
 TEXAS LIC. # 90691  
 FIRM REGISTRATION # F-13790

TEXAS DEPARTMENT OF INSURANCE - 2018

|  |             |      |                      |             |      |
|--|-------------|------|----------------------|-------------|------|
| 0.050" BERTHA ALUMINUM STORM PANEL<br>(2.25" DEEP)   |             |      | M.P.<br>DRAWN BY:    |             |      |
| EASTERN METAL SUPPLY, INC  |             |      | 01/20/2021<br>DATE:  |             |      |
| 4268 WEST ROADS DRIVE<br>WEST PALM BEACH, FL 33407<br>PHONE: (561)209-8263<br>FAX: (561)841-1716 |             |      | 21-026<br>DRAWING No |             |      |
| REV. No  | DESCRIPTION | DATE | REV. No              | DESCRIPTION | DATE |
| 1  | -           | -    | 3                    | -           | -    |
| 2  | -           | -    | 4                    | -           | -    |

SHEET 4 OF 14



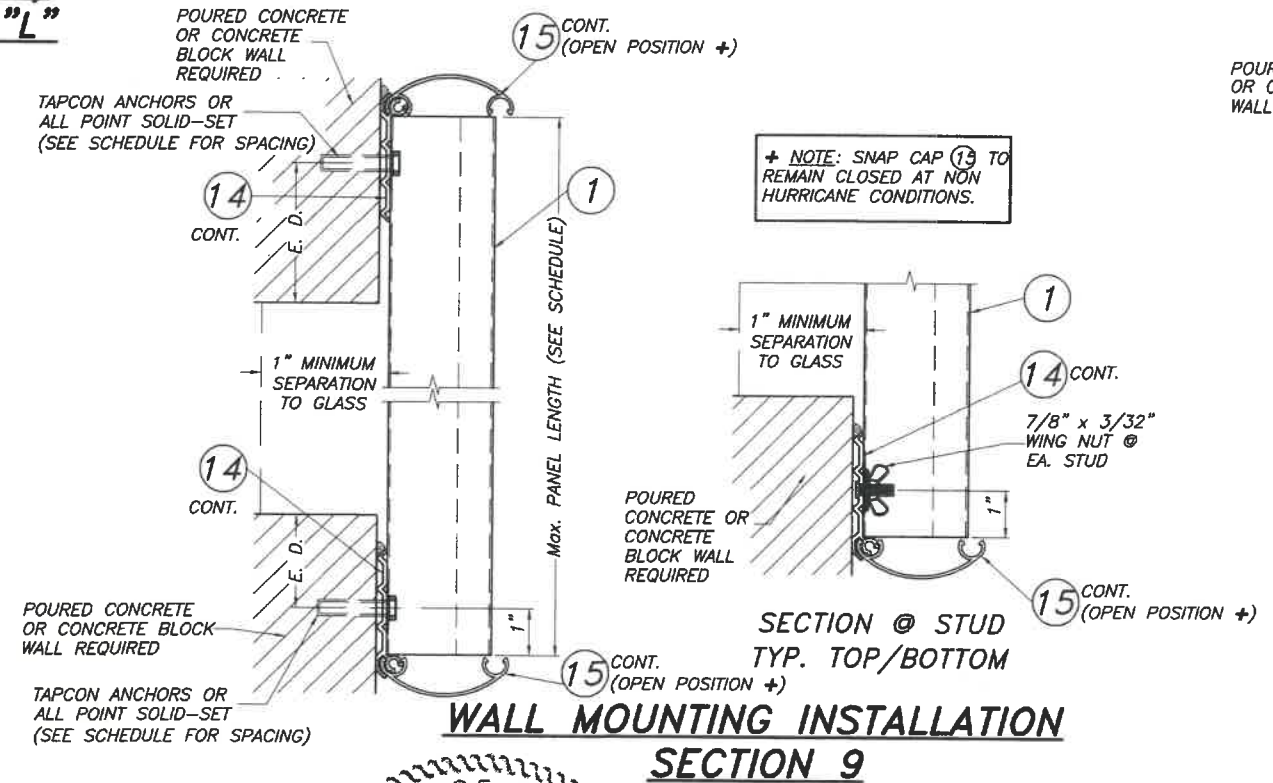


**MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) AND CORRESPONDING MAXIMUM PANEL LENGTH "L" SCHEDULE FOR A GIVEN PANEL SYSTEM**

| MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) | Max. PANEL LENGTH L (ft.)   |                            |  |
|--|-----------------------------|----------------------------|--|
|  | MOUNTING W/O "h" HEADER (3) | MOUNTING W/ "h" HEADER (3) | WALL MOUNTING W/ COMPONENT (14) & (15) |
| +30.0, -30.0                                   | 12'-11"                     | 12'-11"                    | 12'-11"                                |
| +30.0, -35.0                                   | 12'-11"                     | 12'-11"                    | 12'-11"                                |
| +35.0, -40.0                                   | 12'-0"                      | 12'-0"                     | 12'-0"                                 |
| +40.0, -45.0                                   | 11'-2"                      | 11'-2"                     | 11'-2"                                 |
| +45.0, -50.0                                   | 10'-7"                      | 10'-4"                     | 10'-7"                                 |
| +50.0, -55.0                                   | 10'-0"                      | 9'-4"                      | 10'-0"                                 |
| +55.0, -60.0                                   | 9'-7"                       | 8'-6"                      | 9'-7"                                  |
| +60.0, -65.0                                   | 9'-2"                       | 7'-9"                      | 9'-2"                                  |
| +65.0, -70.0                                   | 8'-9"                       | 7'-2"                      | 8'-9"                                  |
| +70.0, -75.0                                   | 8'-6"                       | 6'-8"                      | 8'-6"                                  |
| +75.0, -80.0                                   | 8'-2"                       | 6'-3"                      | 8'-2"                                  |

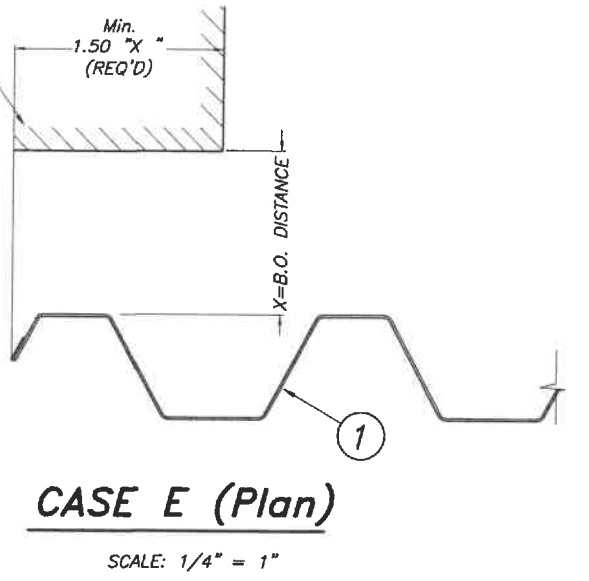
NOTE: MINIMUM PANEL LENGTH IS 3'-0".

**END CLOSURES DETAILS**



**WALL MOUNTING INSTALLATION SECTION 9**

SCALE: 3/8" = 1"



**CASE E (Plan)**

SCALE: 1/4" = 1"

STATE OF TEXAS  
 WALTER A. TILLIT, JR.  
 90691  
 LICENSED PROFESSIONAL ENGINEER  
 SEAL/SIGNATURE/DATE

WALTER A. TILLIT Jr. P.E.  
 PROFESSIONAL ENGINEER  
 6355 N.W. 36 STREET, STE. 305  
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 FIRM REGISTRATION # F-13790

TEXAS DEPARTMENT OF INSURANCE - 2018

|   |             |                      |
|---|-------------|----------------------|
| 0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)   |             | M.P. DRAWN BY:       |
| EASTERN METAL SUPPLY, INC<br>4268 WEST ROADS DRIVE<br>WEST PALM BEACH, FL 33407<br>PHONE: (561)209-8263<br>FAX: (561)841-1716 |             | 01/20/2021<br>DATE:  |
|   |             | 21-026<br>DRAWING No |
| REV. No   | DESCRIPTION | DATE                 |
| 1   | -           | 3                    |
| 2   | -           | 4                    |

SHEET 5 OF 14

THIS SCHEDULE INDICATES REQUIRED ANCHOR SPACING FOR A GIVEN A.S.D. DESIGN LOAD AND PANEL LENGTH. HOWEVER MAXIMUM PANEL LENGTH FOR A GIVEN A.S.D. DESIGN LOAD MUST BE VERIFIED AS PER SCHEDULE ON SHEET 4.

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

E. D. = EDGE DISTANCE

| MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) | MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" ** |            |                                |            |             |            |             |            |             |            |             |                | APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM | MAXIMUM PANEL LENGTH "L" (ft.) |
|--|---|------------|--------------------------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|----------------|--|--------------------------------|
|  | TAPCONS                                       |            | ZAMAC NAILIN/ RED HD. DYNABOLT |            | CALK-IN     |            | SOLID-SET   |            | PANELMATES  |            | CF TAP-GRIP |                |  |                                |
|  | TO CONCRETE                                   | TO MASONRY | TO CONCRETE                    | TO MASONRY | TO CONCRETE | TO MASONRY | TO CONCRETE | TO MASONRY | TO CONCRETE | TO MASONRY | TO CONCRETE | TO MASONRY     |  |                                |
| +35.0, -40.0<br>OR<br>LESS                     | 12"   | -          | 12" <sup>++</sup>              | -          | 12"         | -          | -           | -          | 12"         | -          | 12"         | -              | 1 (TOP)  | 8'-0"<br>OR<br>LESS            |
|  | 12"   | 10"        | 12" <sup>++</sup>              | 12"        | 12"         | 8"         | 12"         | 12"        | 12"         | 12"        | 12"         | 10 1/2"        | 1, 9 <sup>t</sup> (BOTTOM)                         |                                |
|  | 12"   | -          | 12" <sup>++</sup>              | -          | 12"         | 12"        | 12"         | 12"        | 12"         | -          | 12"         | -              | 2, 9 <sup>t</sup> (TOP)                            |                                |
|  | 12"   | 10"        | 12" <sup>++</sup>              | 12"        | 12"         | 8"         | -           | -          | 12"         | 12"        | 12"         | 10 1/2"        | 2 (BOTTOM)   |                                |
|  | 12"   | 10"        | 12" <sup>++</sup>              | 12"        | 12"         | 8"         | -           | -          | 12"         | 12"        | 12"         | 10 1/2"        | 2A (BOTTOM)  |                                |
|  | 12"   | -          | 12" <sup>++</sup>              | -          | 12"         | -          | -           | -          | 12"         | -          | 12"         | -              | 3 & 4 (TOP)  |                                |
|  | 12"   | 10"        | 12" <sup>++</sup>              | 12"        | 12"         | 8"         | -           | -          | 12"         | 12"        | 12"         | 10 1/2"        | 3 (BOTTOM)   |                                |
|  | 12"   | 10"        | 12" <sup>++</sup>              | 12"        | 12"         | 8"         | -           | -          | 12"         | 12"        | 12"         | 10 1/2"        | 4 (BOTTOM)   |                                |
|  | 12"   | -          | 12" <sup>++</sup>              | -          | 12"         | -          | -           | -          | 12"         | -          | 12"         | -              | 5 (TOP)  |                                |
|  | 12"   | 10"        | 12" <sup>++</sup>              | 12"        | 12"         | 8"         | -           | -          | 12"         | 12"        | 12"         | 10 1/2"        | 5 (BOTTOM)   |                                |
|  | 12"   | -          | -                              | -          | 12"         | -          | -           | -          | 12"         | -          | -           | -              | 6 (TOP)  |                                |
|  | 12"   | -          | -                              | -          | 12"         | -          | -           | -          | 12"         | -          | -           | -              | 6 (BOTTOM)   |                                |
|  | 11"   | -          | -                              | -          | 11"         | -          | -           | -          | 12"         | -          | -           | -              | 5A (BOTTOM)<br>7 (TOP)                             |                                |
|  | 11"   | -          | -                              | -          | 12"         | -          | -           | -          | 12"         | -          | -           | -              | 7 (BOTTOM)   |                                |
| -  | -   | -          | -                              | 12"        | 6"          | 12"        | 12"         | 12"        | 12"         | -          | -           | 8 (TOP/BOTTOM) |  |                                |
| +35.0, -40.0<br>OR<br>LESS                     | 12"   | -          | 12" <sup>++</sup>              | -          | 12"         | -          | -           | -          | 12"         | -          | 12"         | -              | 1 (TOP)  | >8'-0"<br>TO<br>10'-0"         |
|  | 12"   | 8"         | 12" <sup>++</sup>              | 12"        | 12"         | 6"         | 12"         | 12"        | 12"         | 12"        | 12"         | 8 1/2"         | 1, 9 <sup>t</sup> (BOTTOM)                         |                                |
|  | 12"   | -          | 12" <sup>++</sup>              | 12"        | 12"         | 12"        | 12"         | 12"        | 12"         | -          | 12"         | -              | 2, 9 <sup>t</sup> (TOP)                            |                                |
|  | 12"   | 8"         | 12" <sup>++</sup>              | 12"        | 12"         | 6"         | -           | -          | 12"         | 12"        | 12"         | 8 1/2"         | 2 (BOTTOM)   |                                |
|  | 12"   | 8"         | 12" <sup>++</sup>              | 12"        | 12"         | 6"         | -           | -          | 12"         | 12"        | 12"         | 8 1/2"         | 2A (BOTTOM)  |                                |
|  | 12"   | -          | 12" <sup>++</sup>              | -          | 12"         | -          | -           | -          | 12"         | -          | 12"         | -              | 3 & 4 (TOP)  |                                |
|  | 12"   | 8"         | 12" <sup>++</sup>              | 12"        | 12"         | 6"         | -           | -          | 12"         | 12"        | 12"         | 8 1/2"         | 3 (BOTTOM)   |                                |
|  | 12"   | 8"         | 12" <sup>++</sup>              | 12"        | 12"         | 6"         | -           | -          | 12"         | 12"        | 12"         | 8 1/2"         | 4 (BOTTOM)   |                                |
|  | 12"   | -          | 12" <sup>++</sup>              | -          | 12"         | -          | -           | -          | 12"         | -          | 12"         | -              | 5 (TOP)  |                                |
|  | 12"   | 8"         | 12" <sup>++</sup>              | 12"        | 12"         | 6"         | -           | -          | 12"         | 12"        | 12"         | 8 1/2"         | 5 (BOTTOM)   |                                |
|  | 12"   | -          | -                              | -          | 12"         | -          | -           | -          | 12"         | -          | -           | -              | 6 (TOP)  |                                |
|  | 10"   | -          | -                              | -          | 10"         | -          | -           | -          | 12"         | -          | -           | -              | 6 (BOTTOM)   |                                |
|  | 9"  | -          | -                              | -          | 9"          | -          | -           | -          | 12"         | -          | -           | -              | 5A (BOTTOM)<br>7 (TOP)                             |                                |
|  | 9"  | -          | -                              | -          | 9"          | -          | -           | -          | 12"         | -          | -           | -              | 7 (BOTTOM)   |                                |
| -  | -   | -          | -                              | 12"        | 6"          | 12"        | 12"         | 12"        | 12"         | -          | -           | 8 (TOP/BOTTOM) |  |                                |

| MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) | MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" ** |            |                                |            |             |            |             |            |             |            |             |                | APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM | MAXIMUM PANEL LENGTH "L" (ft.) |
|--|---|------------|--------------------------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|----------------|--|--------------------------------|
|  | TAPCONS                                       |            | ZAMAC NAILIN/ RED HD. DYNABOLT |            | CALK-IN     |            | SOLID-SET   |            | PANELMATES  |            | CF TAP-GRIP |                |  |                                |
|  | TO CONCRETE                                   | TO MASONRY | TO CONCRETE                    | TO MASONRY | TO CONCRETE | TO MASONRY | TO CONCRETE | TO MASONRY | TO CONCRETE | TO MASONRY | TO CONCRETE | TO MASONRY     |  |                                |
| +35.0, -40.0<br>OR<br>LESS                     | 12"   | -          | 12" <sup>++</sup>              | -          | 12"         | -          | -           | -          | 12"         | -          | 10"         | -              | 1 (TOP)  | >10'-0"<br>TO<br>12'-11"       |
|  | 12"   | 6"         | 12" <sup>++</sup>              | 12"        | 12"         | 5"         | 12"         | 12"        | 12"         | 12"        | 11 1/2"     | 6 1/2"         | 1, 9 <sup>t</sup> (BOTTOM)                         |                                |
|  | 12"   | 6"         | 11" <sup>++</sup>              | -          | 12"         | 12"        | 12"         | 12"        | 12"         | -          | 11 1/2"     | -              | 2, 9 <sup>t</sup> (TOP)                            |                                |
|  | 12"   | 6"         | 12" <sup>++</sup>              | 12"        | 12"         | 5"         | -           | -          | 12"         | 12"        | 11 1/2"     | 6 1/2"         | 2 (BOTTOM)   |                                |
|  | 12"   | 6"         | 12" <sup>++</sup>              | 12"        | 12"         | 5"         | -           | -          | 12"         | 12"        | 11 1/2"     | 6 1/2"         | 2A (BOTTOM)  |                                |
|  | 12"   | -          | 12" <sup>++</sup>              | -          | 12"         | -          | -           | -          | 12"         | -          | 11 1/2"     | -              | 3 & 4 (TOP)  |                                |
|  | 12"   | 6"         | 12" <sup>++</sup>              | 12"        | 12"         | 5"         | -           | -          | 12"         | 12"        | 11 1/2"     | 6 1/2"         | 3 (BOTTOM)   |                                |
|  | 12"   | 6"         | 12" <sup>++</sup>              | 12"        | 12"         | 5"         | -           | -          | 12"         | 12"        | 11 1/2"     | 6 1/2"         | 4 (BOTTOM)   |                                |
|  | 12"   | -          | 12" <sup>++</sup>              | -          | 12"         | -          | -           | -          | 12"         | -          | 11 1/2"     | -              | 5 (TOP)  |                                |
|  | 12"   | 6"         | 12" <sup>++</sup>              | 12"        | 12"         | 5"         | -           | -          | 12"         | 12"        | 11 1/2"     | 6 1/2"         | 5 (BOTTOM)   |                                |
|  | 10"   | -          | -                              | -          | 10"         | -          | -           | -          | 12"         | -          | -           | -              | 6 (TOP)  |                                |
|  | 8"  | -          | -                              | -          | 8"          | -          | -           | -          | 11"         | -          | -           | -              | 6 (BOTTOM)   |                                |
|  | 7"  | -          | -                              | -          | 7"          | -          | -           | -          | 9 1/2"      | -          | -           | -              | 5A (BOTTOM)<br>7 (TOP)                             |                                |
|  | 7"  | -          | -                              | -          | 7"          | -          | -           | -          | 10"         | -          | -           | -              | 7 (BOTTOM)   |                                |
| -  | -   | -          | -                              | 12"        | -           | 12"        | 12"         | 12"        | 12"         | -          | -           | 8 (TOP/BOTTOM) |  |                                |

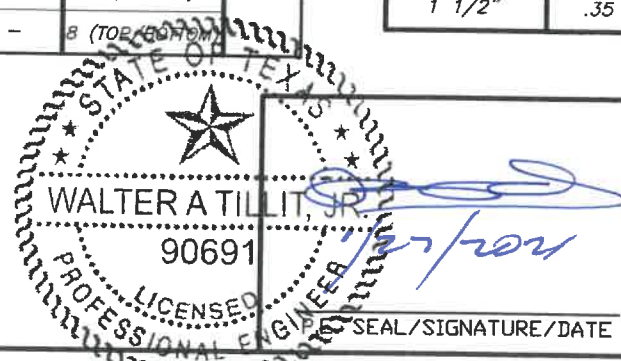
+ ONLY TAPCON ANCHORS OR ALL POINT SOLID-SET ALLOWED FOR MOUNTING SECTION 9.

++ ANCHORS SPACING ONLY VALID FOR ZAMAC NAILIN.

\* SEE SHEET 8 & 9 FOR ANCHORS TYPE & SPACING FOR INSTALLATIONS 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 & ELCO PANELMATE IS 2 1/2", AND 3 1/2" FOR SOLID-SET ANCHORS).

| ACTUAL E. D. | FACTOR |                                      |         |           |             |
|--------------|--------|--------------------------------------|---------|-----------|-------------|
|              | TAPCON | ZAMAC NAILIN / DYNABOLT / PANELMATES | CALK-IN | SOLID-SET | CF TAP-GRIP |
| 3"           | -      | .86                                  | .75     | .78       | 1.00        |
| 2 1/2"       | -      | .71                                  | .50     | -         | .80         |
| 2"           | -      | .50                                  | -       | -         | -           |
| 1 1/2"       | .35    | -                                    | -       | -         | -           |

STATE OF TEXAS  
  
**WALTER A. TILLIT, JR.**  
 90691  
 LICENSED PROFESSIONAL ENGINEER  
 SEAL/SIGNATURE/DATE

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 TEXAS LIC. # 90691  
 FIRM REGISTRATION # F-13790

**TEXAS DEPARTMENT OF INSURANCE - 2018**  
**0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)**  
**EASTERN METAL SUPPLY, INC**  
 4268 WEST ROADS DRIVE  
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 M.P. DRAWN BY:  
 01/20/2021 DATE:  
**21-026**  
 DRAWING No  
 SHEET 6 OF 14

| REV. No | DESCRIPTION | DATE | REV. No | DESCRIPTION | DATE |
|---------|-------------|------|---------|-------------|------|
| 1       | -           | -    | 3       | -           | -    |
| 2       | -           | -    | 4       | -           | -    |



THIS SCHEDULE INDICATES REQUIRED ANCHOR SPACING FOR A GIVEN A.S.D. DESIGN LOAD AND PANEL LENGTH. HOWEVER MAXIMUM PANEL LENGTH FOR A GIVEN A.S.D. DESIGN LOAD MUST BE VERIFIED AS PER SCHEDULE ON SHEET 4.

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


E. D. = EDGE DISTANCE

| MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) | MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" ** |                  |                               |            |             |            |             |            |             |            |             |                            | APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM | MAXIMUM PANEL LENGTH "L" (ft.) |
|--|---|------------------|-------------------------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|----------------------------|--|--------------------------------|
|  | TAPCONS                                       |                  | ZAMAC NAILIN/RED HD. DYNABOLT |            | CALK-IN     |            | SOLID-SET   |            | PANELMATES  |            | CF TAP-GRIP |                            |  |                                |
|  | TO CONCRETE                                   | TO MASONRY       | TO CONCRETE                   | TO MASONRY | TO CONCRETE | TO MASONRY | TO CONCRETE | TO MASONRY | TO CONCRETE | TO MASONRY | TO CONCRETE | TO MASONRY                 |  |                                |
| >+35.0, -40.0<br>TO<br>+55.0, -60.0            | 12"   | -                | 12" <sup>++</sup>             | -          | 12"         | -          | -           | -          | 12"         | -          | 12"         | -                          | 1 (TOP)  | 8'-0" OR LESS                  |
|  | 12"   | 6"               | 12" <sup>++</sup>             | 12"        | 12"         | 5"         | 12"         | 12"        | 12"         | 12"        | 12"         | 7"                         | 1, 9 <sup>+</sup> (BOTTOM)                         |                                |
|  | 12"   | -                | 12" <sup>++</sup>             | -          | 12"         | -          | 12"         | 12"        | 12"         | -          | 12"         | -                          | 2, 9 <sup>+</sup> (TOP)                            |                                |
|  | 12"   | 6"               | 12" <sup>++</sup>             | 12"        | 12"         | 5"         | -           | -          | 12"         | 12"        | 12"         | 7"                         | 2 (BOTTOM)   |                                |
|  | 12"   | 6"               | 12" <sup>++</sup>             | 12"        | 12"         | 5"         | -           | -          | 12"         | 12"        | 12"         | 7"                         | 2A (BOTTOM)  |                                |
|  | 12"   | -                | 12" <sup>++</sup>             | -          | 12"         | -          | -           | -          | 12"         | -          | 12"         | -                          | 3 & 4 (TOP)  |                                |
|  | 12"   | 6"               | 12" <sup>++</sup>             | 12"        | 12"         | 5"         | -           | -          | 12"         | 12"        | 12"         | 7"                         | 3 (BOTTOM)   |                                |
|  | 12"   | -                | 12" <sup>++</sup>             | -          | 12"         | -          | -           | -          | 12"         | -          | 12"         | -                          | 4 (BOTTOM)   |                                |
|  | 12"   | 6"               | 12" <sup>++</sup>             | 12"        | 12"         | 5"         | -           | -          | 12"         | 12"        | 12"         | 7"                         | 5 (TOP)  |                                |
|  | 12"   | 6"               | 12" <sup>++</sup>             | 12"        | 12"         | 5"         | -           | -          | 12"         | 12"        | 12"         | 7"                         | 5 (BOTTOM)   |                                |
| 10"  | -   | -                | -                             | 10"        | -           | -          | -           | 12"        | -           | -          | -           | 6 (TOP)                    | 8'-0" TO 12'-0"                                    |                                |
| 8"   | -   | -                | -                             | 8"         | -           | -          | -           | 12"        | -           | -          | -           | 6 (BOTTOM)                 |  |                                |
| 7"   | -   | -                | -                             | 7"         | -           | -          | -           | 10 1/2"    | -           | -          | -           | 5A (BOTTOM)<br>7 (TOP)     |  |                                |
| 8"   | -   | -                | -                             | 8"         | -           | -          | -           | 11"        | -           | -          | -           | 7 (BOTTOM)                 |  |                                |
| -  | -   | -                | -                             | 12"        | -           | 12"        | 12"         | 12"        | 12"         | -          | -           | 8 (TOP/BOTTOM)             |  |                                |
| 6"   | -   | 5" <sup>++</sup> | -                             | 6"         | -           | -          | -           | 9 1/2"     | -           | 4"         | -           | 1 (TOP)                    |  |                                |
| 11"  | 4"  | 9" <sup>++</sup> | 8"                            | 11"        | 3"          | 12"        | 12"         | 12"        | 8"          | 7 1/2"     | 4"          | 1, 9 <sup>+</sup> (BOTTOM) |  |                                |
| 12"  | -   | 9" <sup>++</sup> | -                             | 11"        | -           | 12"        | 12"         | 12"        | -           | 7 1/2"     | -           | 2, 9 <sup>+</sup> (TOP)    |  |                                |
| 11"  | 4"  | 9" <sup>++</sup> | 8"                            | 11"        | 3"          | -          | -           | 12"        | 8"          | 7 1/2"     | 4"          | 2 (BOTTOM)                 |  |                                |
| 11"  | 4"  | 9" <sup>++</sup> | 8"                            | 11"        | 3"          | -          | -           | 12"        | 8"          | 7 1/2"     | 4"          | 2A (BOTTOM)                |  |                                |
| 11"  | -   | 9" <sup>++</sup> | -                             | 11"        | -           | -          | -           | 12"        | -           | 7 1/2"     | -           | 3 & 4 (TOP)                |  |                                |
| 11"  | 4"  | 9" <sup>++</sup> | 8"                            | 11"        | 3"          | -          | -           | 12"        | 8"          | 7 1/2"     | 4"          | 3 (BOTTOM)                 |  |                                |
| 11"  | 4"  | 9" <sup>++</sup> | 8"                            | 11"        | 3"          | -          | -           | 12"        | 8"          | 7 1/2"     | 4"          | 4 (BOTTOM)                 |  |                                |
| 11"  | -   | 9" <sup>++</sup> | -                             | 11"        | -           | -          | -           | 12"        | -           | 7 1/2"     | -           | 5 (TOP)                    |  |                                |
| 11"  | 4"  | 9" <sup>++</sup> | 8"                            | 11"        | 3"          | -          | -           | 12"        | 8"          | 7 1/2"     | 4"          | 5 (BOTTOM)                 |  |                                |
| 6"   | -   | -                | -                             | 6"         | -           | -          | -           | 8 1/2"     | -           | -          | -           | 6 (TOP)                    |  |                                |
| 5"   | -   | -                | -                             | 5"         | -           | -          | -           | 7"         | -           | -          | -           | 6 (BOTTOM)                 |  |                                |
| 4"   | -   | -                | -                             | 4"         | -           | -          | -           | 6 1/2"     | -           | -          | -           | 5A (BOTTOM)<br>7 (TOP)     |  |                                |
| 5"   | -   | -                | -                             | 5"         | -           | -          | -           | 6 1/2"     | -           | -          | -           | 7 (BOTTOM)                 |  |                                |
| -  | -   | -                | -                             | 6"         | -           | 12"        | 12"         | 12"        | 6"          | -          | -           | 8 (TOP/BOTTOM)             |  |                                |

| MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) | MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" ** |                  |                               |            |             |            |             |            |             |            |             |                            | APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM | MAXIMUM PANEL LENGTH "L" (ft.) |
|--|---|------------------|-------------------------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|----------------------------|--|--------------------------------|
|  | TAPCONS                                       |                  | ZAMAC NAILIN/RED HD. DYNABOLT |            | CALK-IN     |            | SOLID-SET   |            | PANELMATES  |            | CF TAP-GRIP |                            |  |                                |
|  | TO CONCRETE                                   | TO MASONRY       | TO CONCRETE                   | TO MASONRY | TO CONCRETE | TO MASONRY | TO CONCRETE | TO MASONRY | TO CONCRETE | TO MASONRY | TO CONCRETE | TO MASONRY                 |  |                                |
| >+55.0, -60.0<br>TO<br>+75.0, -80.0            | 8"  | -                | 7" <sup>++</sup>              | -          | 9"          | -          | -           | -          | 12"         | -          | 6"          | -                          | 1 (TOP)  | 8'-0" OR LESS                  |
|  | 12"   | 5"               | 11" <sup>++</sup>             | 10"        | 12"         | 4"         | 12"         | 12"        | 12"         | 9 1/2"     | 9"          | 5"                         | 1, 9 <sup>+</sup> (BOTTOM)                         |                                |
|  | 12"   | -                | 9" <sup>++</sup>              | -          | 12"         | -          | 12"         | 12"        | 12"         | -          | 9"          | -                          | 2, 9 <sup>+</sup> (TOP)                            |                                |
|  | 12"   | 5"               | 11" <sup>++</sup>             | 10"        | 12"         | 4"         | -           | -          | 12"         | 9 1/2"     | 9"          | 5"                         | 2 (BOTTOM)   |                                |
|  | 12"   | 5"               | 11" <sup>++</sup>             | 10"        | 12"         | 4"         | -           | -          | 12"         | 9 1/2"     | 9"          | 5"                         | 2A (BOTTOM)  |                                |
|  | 12"   | -                | 11" <sup>++</sup>             | -          | 12"         | -          | -           | -          | 12"         | -          | 9"          | -                          | 3 & 4 (TOP)  |                                |
|  | 12"   | 5"               | 11" <sup>++</sup>             | 10"        | 12"         | 4"         | -           | -          | 12"         | 9 1/2"     | 9"          | 5"                         | 3 (BOTTOM)   |                                |
|  | 12"   | -                | 11" <sup>++</sup>             | -          | 12"         | -          | -           | -          | 12"         | -          | 9"          | -                          | 4 (BOTTOM)   |                                |
|  | 12"   | 5"               | 11" <sup>++</sup>             | 10"        | 12"         | 4"         | -           | -          | 12"         | 9 1/2"     | 9"          | 5"                         | 5 (TOP)  |                                |
|  | 12"   | 5"               | 11" <sup>++</sup>             | 10"        | 12"         | 4"         | -           | -          | 12"         | 9 1/2"     | 9"          | 5"                         | 5 (BOTTOM)   |                                |
| 8"   | -   | -                | -                             | 8"         | -           | -          | -           | 10 1/2"    | -           | -          | -           | 6 (TOP)                    | 8'-0" TO 9'-7"                                     |                                |
| 6"   | -   | -                | -                             | 6"         | -           | -          | -           | 9"         | -           | -          | -           | 6 (BOTTOM)                 |  |                                |
| 5"   | -   | -                | -                             | 5"         | -           | -          | -           | 7 1/2"     | -           | -          | -           | 5A (BOTTOM)<br>7 (TOP)     |  |                                |
| 6"   | -   | -                | -                             | 6"         | -           | -          | -           | 8"         | -           | -          | -           | 7 (BOTTOM)                 |  |                                |
| -  | -   | -                | -                             | 12"        | -           | 12"        | 12"         | 12"        | 12"         | 6"         | -           | -                          |  | 8 (TOP/BOTTOM)                 |
| 5"   | -   | 4" <sup>++</sup> | -                             | 5"         | -           | -          | -           | 8"         | -           | 3"         | 3 1/2"      | 1 (TOP)                    |  |                                |
| 10"  | 3"  | 8" <sup>++</sup> | 7"                            | 10"        | 3"          | 12"        | 12"         | 12"        | 7"          | 6 1/2"     | -           | 1, 9 <sup>+</sup> (BOTTOM) |  |                                |
| 10"  | -   | 7" <sup>++</sup> | -                             | 12"        | -           | 12"        | 12"         | 12"        | -           | 6 1/2"     | -           | 2, 9 <sup>+</sup> (TOP)    |  |                                |
| 10"  | 3"  | 8" <sup>++</sup> | 7"                            | 10"        | 3"          | -          | -           | 12"        | 7"          | 6 1/2"     | 3 1/2"      | 2 (BOTTOM)                 |  |                                |
| 10"  | 4"  | 8" <sup>++</sup> | 7"                            | 10"        | 3"          | -          | -           | 12"        | 7"          | 6 1/2"     | 3 1/2"      | 2A (BOTTOM)                |  |                                |
| 10"  | -   | 8" <sup>++</sup> | -                             | 10"        | -           | -          | -           | 12"        | -           | 6 1/2"     | -           | 3 & 4 (TOP)                |  |                                |
| 10"  | 3"  | 8" <sup>++</sup> | 7"                            | 10"        | 3"          | -          | -           | 12"        | 7"          | 6 1/2"     | 3 1/2"      | 3 (BOTTOM)                 |  |                                |
| 10"  | 3"  | 8" <sup>++</sup> | 7"                            | 10"        | 3"          | -          | -           | 12"        | 7"          | 6 1/2"     | 3 1/2"      | 4 (BOTTOM)                 |  |                                |
| 10"  | -   | 8" <sup>++</sup> | -                             | 10"        | -           | -          | -           | 12"        | -           | 6 1/2"     | -           | 5 (TOP)                    |  |                                |
| 9"   | 3"  | 8" <sup>++</sup> | 7"                            | 9"         | 3"          | -          | -           | 12"        | 6 1/2"      | 6 1/2"     | 3 1/2"      | 5 (BOTTOM)                 |  |                                |
| 6"   | -   | -                | -                             | 6"         | -           | -          | -           | 7 1/2"     | -           | -          | -           | 6 (TOP)                    |  |                                |
| 5"   | -   | -                | -                             | 5"         | -           | -          | -           | 6 1/2"     | -           | -          | -           | 6 (BOTTOM)                 |  |                                |
| 4"   | -   | -                | -                             | 4"         | -           | -          | -           | 5 1/2"     | -           | -          | -           | 5A (BOTTOM)<br>7 (TOP)     |  |                                |
| 4"   | -   | -                | -                             | 4"         | -           | -          | -           | 6"         | -           | -          | -           | 7 (BOTTOM)                 |  |                                |
| 4"   | -   | -                | -                             | 4"         | -           | -          | -           | 6"         | -           | 12"        | 12"         | 12"                        | 6"   | 8 (TOP/BOTTOM)                 |

| ACTUAL E. D. | FACTOR |                                    |         |           |             |
|--------------|--------|------------------------------------|---------|-----------|-------------|
|              | TAPCON | ZAMAC NAILIN /DYNABOLT /PANELMATES | CALK-IN | SOLID-SET | CF TAP-GRIP |
| 3"           | -      | .86                                | .75     | .78       | 1.00        |
| 2 1/2"       | -      | .71                                | .50     | -         | .80         |
| 2"           | -      | .50                                | -       | -         | -           |
| 1 1/2"       | .35    | -                                  | -       | -         | -           |

+ ONLY TAPCON ANCHORS OR ALL POINT SOLID-SET ALLOWED FOR MOUNTING SECTION 9.  
 ++ ANCHORS SPACING ONLY APPLICABLE TO ZAMAC NAILIN ANCHORS  
 \* SEE SHEET 7 & 8 FOR ANCHORS TYPE & SPACING FOR INSTALLATIONS 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 & ELCO PANELMATE IS 2 1/2", AND 3 1/2" FOR SOLID-SET ANCHORS). FOR THIS OPERATION TO BE MADE REDUCED SPACINGS RESULTING FROM APPLYING ABOVE FACTORS SHALL NOT RESULT ON SPACINGS LESS THAN 3" FOR ALL ANCHORS (EXCEPT +4.5" FOR RED HD. DYNABOLT ANCHORS).

  
**WALTER A. TILLIT, JR.**  
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 TEXAS LIC. # 90691  
 FIRM REGISTRATION # F-13790

**TEXAS DEPARTMENT OF INSURANCE - 2018**

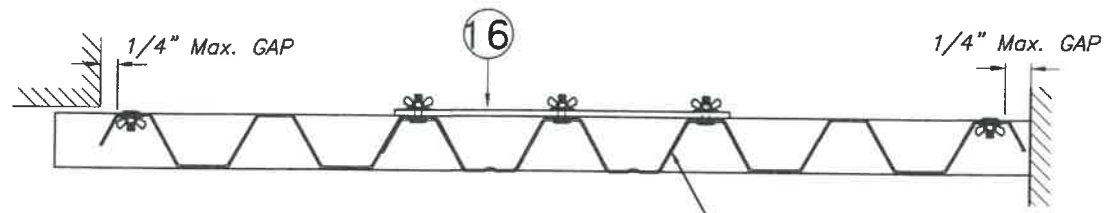
**0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)**

**EASTERN METAL SUPPLY, INC**  
 4268 WEST ROADS DRIVE  
 WEST PALM BEACH, FL 33407  
 PHONE: (561)209-8263  
 FAX: (561)841-1716

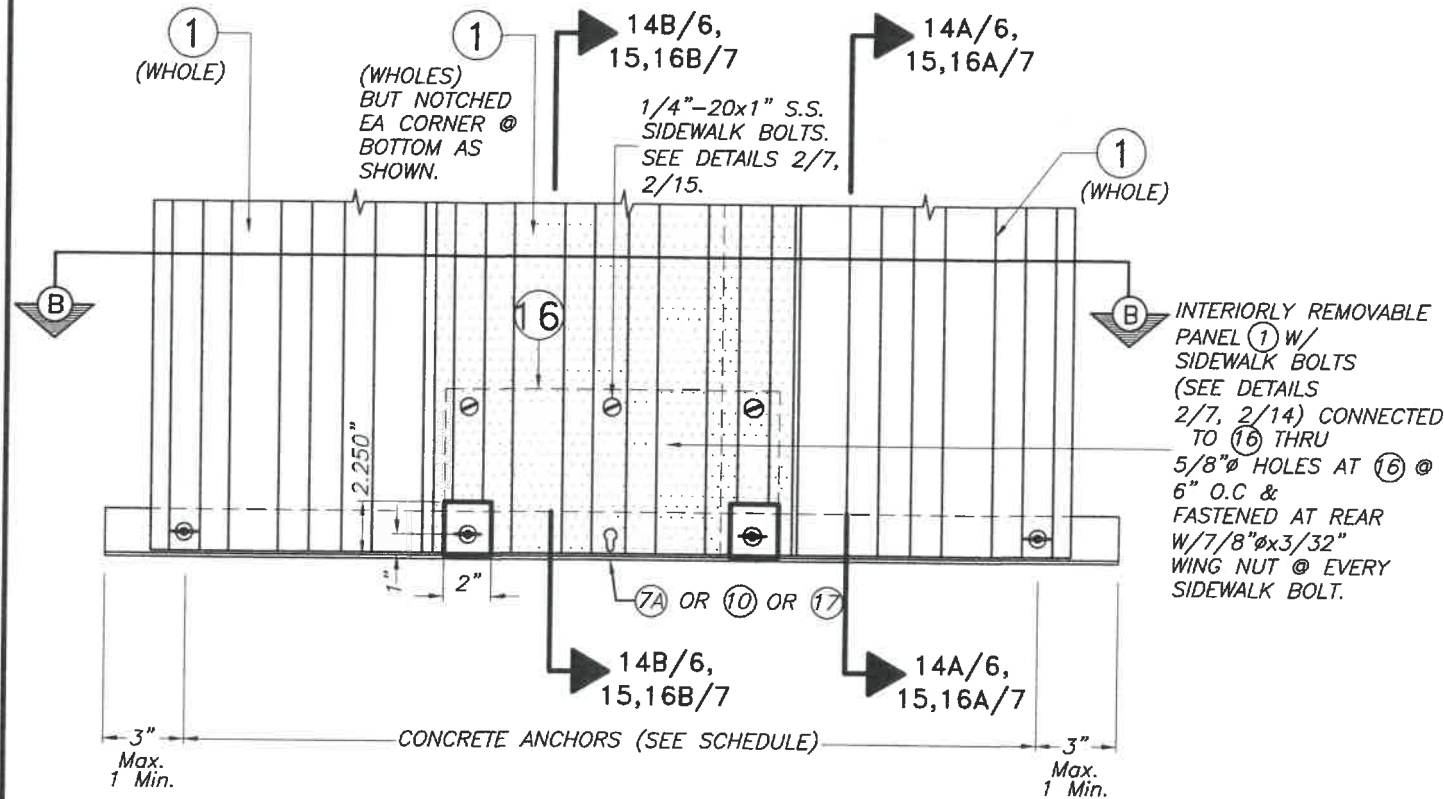
M.P. DRAWN BY:  
 01/20/2021 DATE:  
**21-026** DRAWING No  
 SHEET 7 OF 14

| REV. No | DESCRIPTION | DATE | REV. No | DESCRIPTION | DATE |
|---------|-------------|------|---------|-------------|------|
| 1       | -           | -    | 3       | -           | -    |
| 2       | -           | -    | 4       | -           | -    |

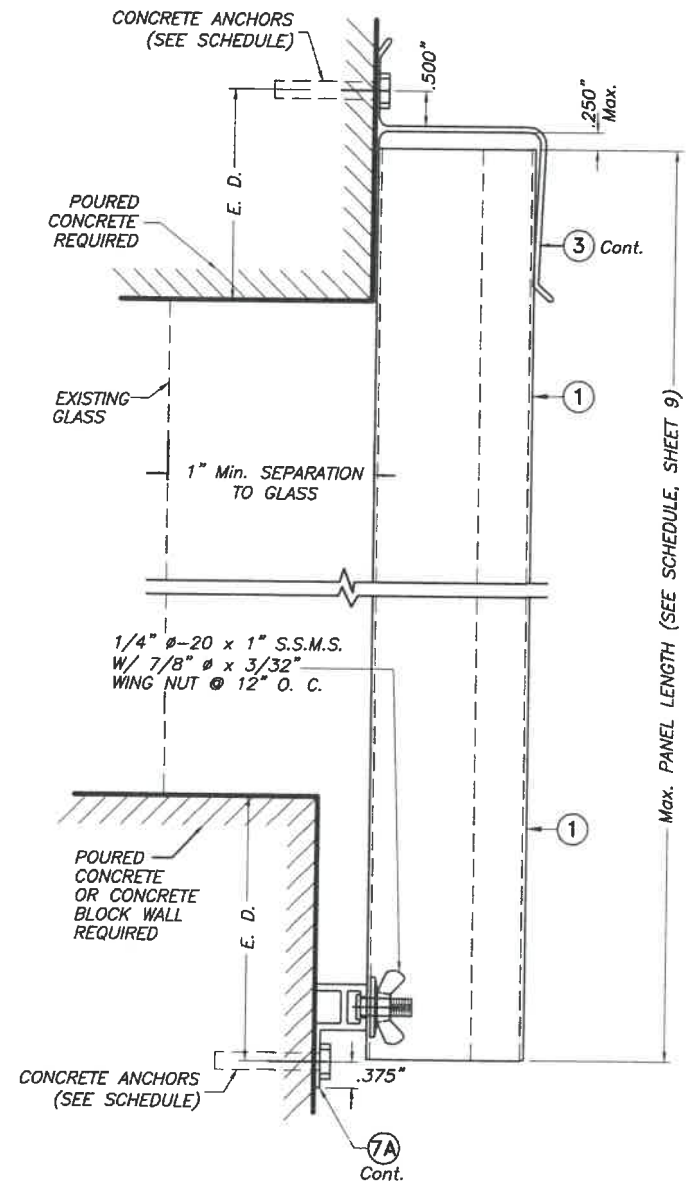




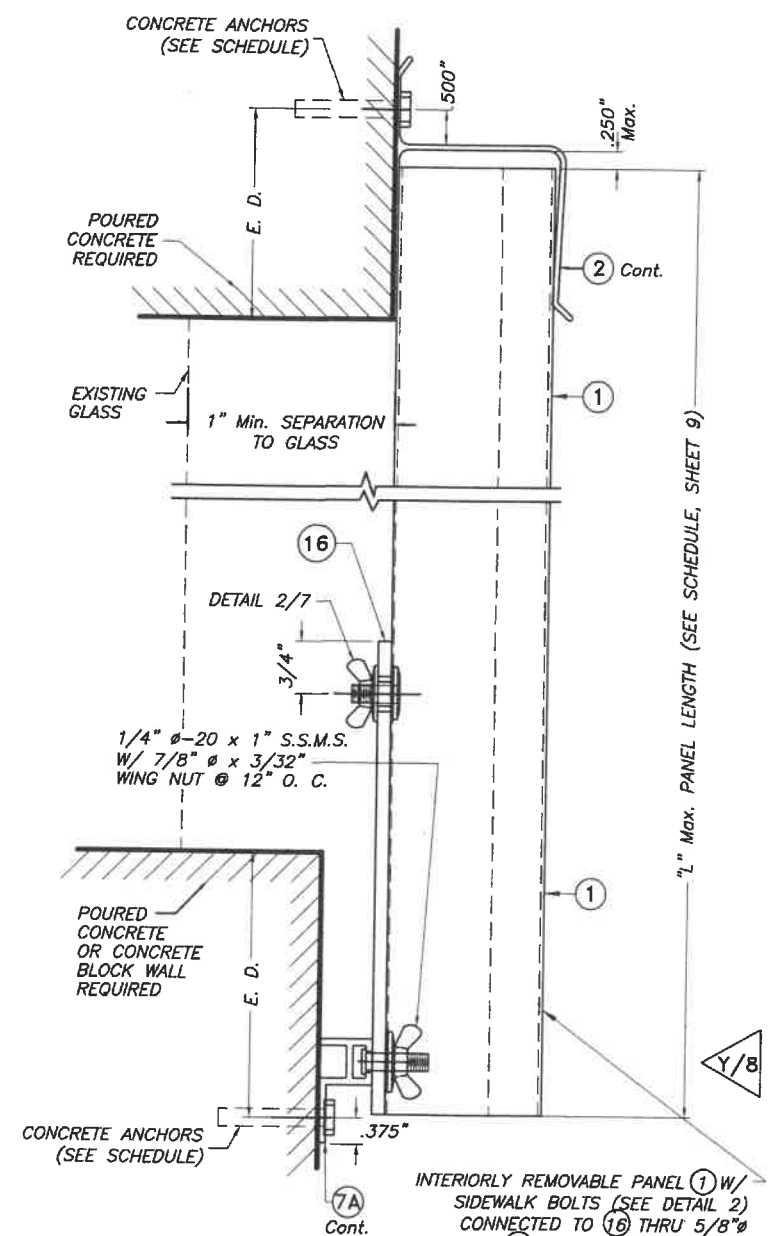
**SECTION B-B**  
SCALE : 1/8" = 1"



**INTERIORLY REMOVABLE STORM PANEL  
PARTIAL ELEVATION Y**  
SCALE : 1/8" = 1"

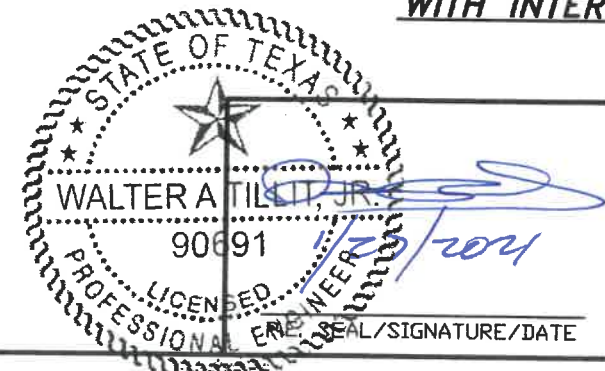


**SECTION 10A**  
**WALL MOUNTING INSTALLATIONS**  
**SECTIONS 10**  
SCALE : 3/8" = 1"



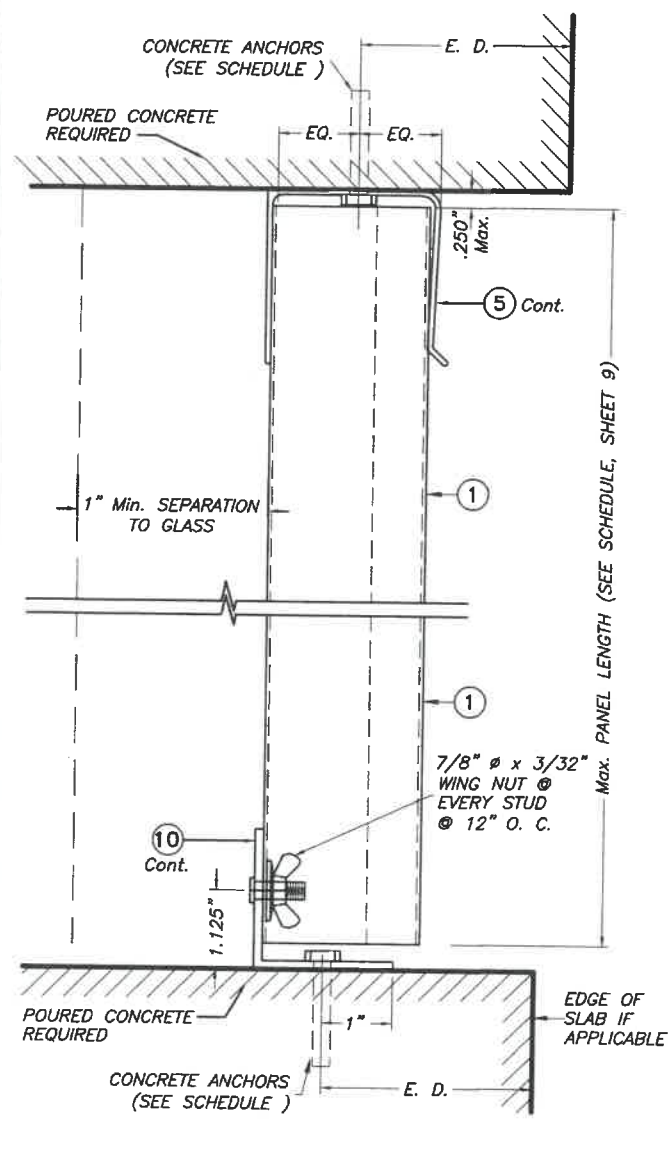
**SECTION 10B**

**INSTALLATIONS VALID FOR PANELS (1) USED JOINTLY  
WITH INTERIORLY REMOVABLE PANELS (1)**



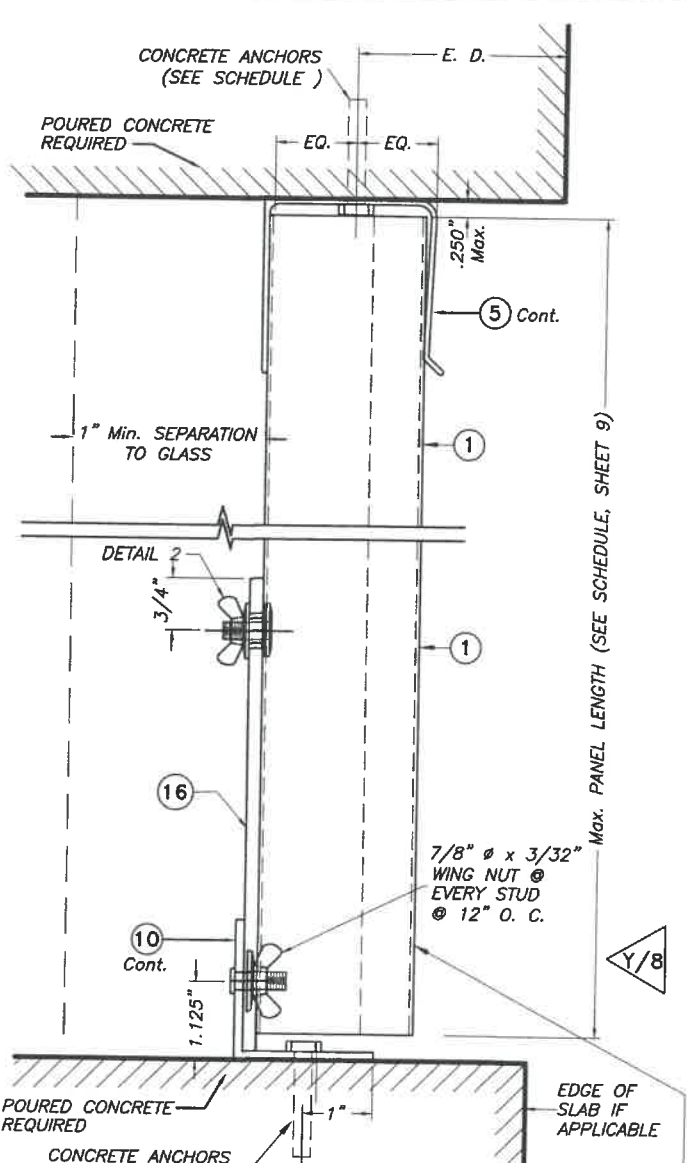
WALTER A. TILLIT Jr. P.E.  
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TEXAS LIC. # 90691  
FIRM REGISTRATION # F-13790

|  |             |      |         |                             |               |
|--|-------------|------|---------|-----------------------------|---------------|
| <b>TEXAS DEPARTMENT OF INSURANCE - 2018</b>  |             |      |         |                             |               |
| <b>0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)</b>   |             |      |         | M.P.<br>DRAWN BY:           |               |
| <b>EASTERN METAL SUPPLY, INC</b>   |             |      |         | 01/20/2021<br>DATE:         |               |
| 4268 WEST ROADS DRIVE<br>WEST PALM BEACH, FL 33407<br>PHONE: (561)209-8263<br>FAX: (561)841-1716 |             |      |         | <b>21-026</b><br>DRAWING No |               |
| REV. No  | DESCRIPTION | DATE | REV. No | DESCRIPTION                 | DATE          |
| 1  | -           | -    | 3       | -                           | -             |
| 2  | -           | -    | 4       | -                           | -             |
|  |             |      |         |                             | SHEET 8 OF 14 |



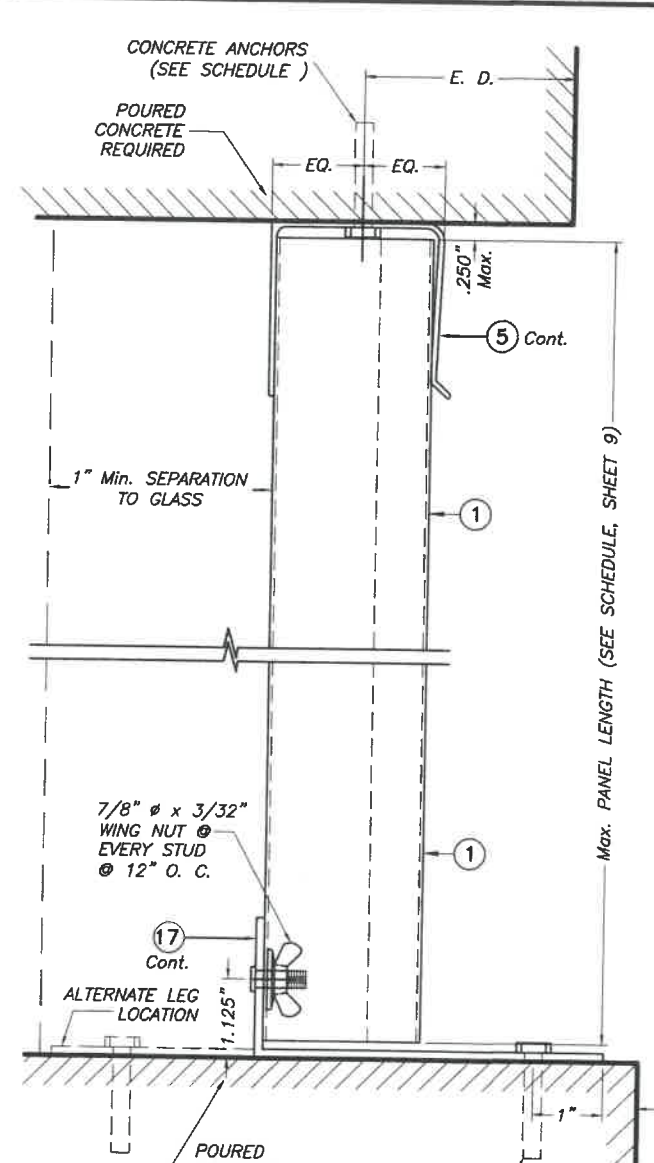
**SECTION 11A**  
**CEILING & FLOOR MOUNTING INSTALLATIONS**

**SECTIONS 11**  
SCALE: 3/8" = 1"



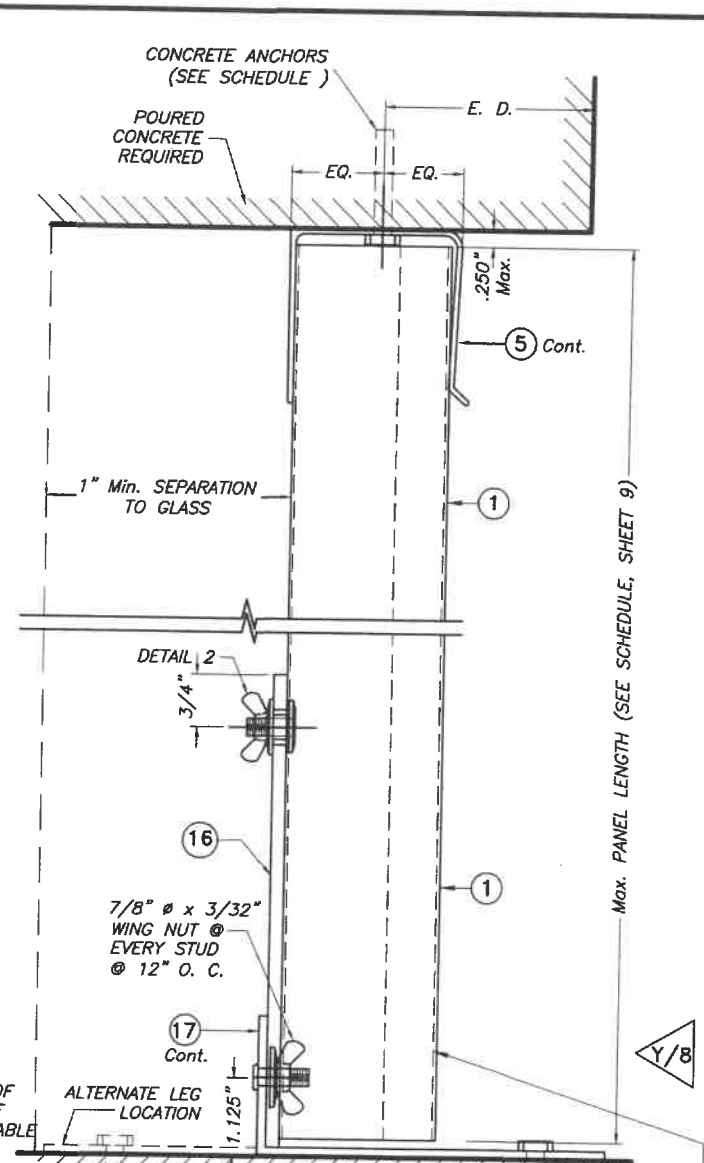
**SECTION 11B**  
**CEILING & FLOOR MOUNTING INSTALLATIONS**

INTERIORLY REMOVABLE PANEL (1) W/  
SIDEWALK BOLTS (SEE DETAIL 2)  
CONNECTED TO (16) THRU 5/8\"/>



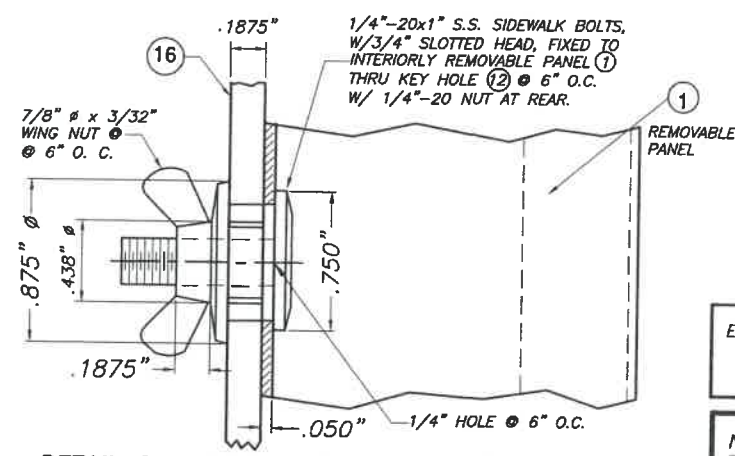
**SECTION 12A**  
**CEILING & FLOOR MOUNTING INSTALLATIONS**

**SECTIONS 12**  
SCALE: 3/8" = 1"



**SECTION 12B**  
**CEILING & FLOOR MOUNTING INSTALLATIONS**

INTERIORLY REMOVABLE PANEL (1) W/  
SIDEWALK BOLTS (SEE DETAIL 2)  
CONNECTED TO (16) THRU 5/8\"/>



**DETAIL 2 - INSTALLATION OF 1/4\"/>**

**INSTALLATIONS VALID FOR PANELS (1) USED JOINTLY WITH INTERIORLY REMOVABLE PANELS (1)**

E. D. = EDGE DISTANCE  
(SEE SCHEDULE ON  
SHEET 10 & 11)

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

STATE OF TEXAS  
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FIRM REGISTRATION # F-13790

TEXAS DEPARTMENT OF INSURANCE - 2018

0.050" BERTHA ALUMINUM STORM PANEL  
(2.25" DEEP)  
EASTERN METAL SUPPLY, INC  
4268 WEST ROADS DRIVE  
WEST PALM BEACH, FL. 33407  
PHONE: (561)209-8263  
FAX: (561)841-1716

| REV. No | DESCRIPTION | DATE | REV. No | DESCRIPTION | DATE |
|---------|-------------|------|---------|-------------|------|
| 1       | -           | -    | 3       | -           | -    |
| 2       | -           | -    | 4       | -           | -    |

M.P.  
DRAWN BY:  
01/20/2021  
DATE:  
**21-026**  
DRAWING No  
SHEET 9 OF 14



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

| MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) | MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" * |          |                |          |              |          |             |          |             |          |             |          |             |          |                |          |                 |              | APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM | MAXIMUM PANEL LENGTH "L" (ft.) |
|--|--|----------|----------------|----------|--------------|----------|-------------|----------|-------------|----------|-------------|----------|-------------|----------|----------------|----------|-----------------|--------------|--|--------------------------------|
|  | REGULAR TAPCONS                              |          | CRETE-FLEX SS4 |          | ZAMAC NAILIN |          | CALK-IN     |          | SOLID-SET   |          | CF TAP-GRIP |          | PANELMATES  |          | PANELMATE PLUS |          | 410 S.S. TAPCON |              |  |                                |
|  | TO CONCRETE                                  | TO BLOCK | TO CONCRETE    | TO BLOCK | TO CONCRETE  | TO BLOCK | TO CONCRETE | TO BLOCK | TO CONCRETE | TO BLOCK | TO CONCRETE | TO BLOCK | TO CONCRETE | TO BLOCK | TO CONCRETE    | TO BLOCK | TO CONCRETE     | TO BLOCK     |  |                                |
| +63.5, -63.5                                   | 12"  | N/A      | 12"            | N/A      | N/A          | N/A      | 12"         | N/A      | N/A         | N/A      | N/A         | N/A      | 12"         | N/A      | 12"            | N/A      | 12"             | N/A          | 10 (TOP)   |                                |
|  | 12"  | 4"       | 12"            | 10"      | N/A          | N/A      | 12"         | 9"       | N/A         | N/A      | N/A         | N/A      | 12"         | 8        | 12"            | 7 1/2"   | 12"             | 6"           | 10A (BOTTOM)                                       |                                |
|  | 12"  | N/A      | 12"            | 7"       | N/A          | N/A      | 12"         | 6 1/2"   | N/A         | N/A      | N/A         | N/A      | 12"         | 6"       | 12"            | 5 1/2"   | 12"             | 4"           | 10B (BOTTOM)                                       |                                |
|  | 11 1/2"                                      | N/A      | 12"            | N/A      | N/A          | N/A      | 12"         | N/A      | N/A         | N/A      | N/A         | N/A      | 12"         | N/A      | 12"            | N/A      | 12"             | N/A          | 11 (TOP)   |                                |
|  | 8 1/2"                                       | N/A      | 12"            | N/A      | N/A          | N/A      | 7 1/2"      | N/A      | N/A         | N/A      | N/A         | N/A      | 11 1/2"     | N/A      | 11"            | N/A      | 9 1/2"          | N/A          | 11A (BOTTOM)                                       |                                |
|  | N/A  | N/A      | N/A            | N/A      | N/A          | N/A      | N/A         | N/A      | N/A         | N/A      | N/A         | N/A      | 3"          | N/A      | 3"             | N/A      | 3"              | N/A          | 11B (BOTTOM)                                       |                                |
|  | 11 1/2"                                      | N/A      | 12"            | N/A      | N/A          | N/A      | 12"         | N/A      | N/A         | N/A      | N/A         | N/A      | 12"         | N/A      | 12"            | N/A      | 12"             | N/A          | 12 (TOP)   |                                |
|  | 8 1/2"                                       | N/A      | 12"            | N/A      | N/A          | N/A      | 7 1/2"      | N/A      | N/A         | N/A      | N/A         | N/A      | 11 1/2"     | N/A      | 11"            | N/A      | 9 1/2"          | N/A          | 12A (BOTTOM)                                       |                                |
| 3" **  | N/A  | N/A      | N/A            | N/A      | N/A          | 3"       | N/A         | N/A      | N/A         | N/A      | N/A         | 4"       | N/A         | 4"       | N/A            | 4"       | N/A             | 12B (BOTTOM) |  |                                |

E. D. = EDGE DISTANCE

\* MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3 1/2" EDGE DISTANCE. FOR E. D. LESS THAN 3 1/2", REDUCE ANCHOR SPACING BY MULTIPLYING SPACING SHOWN ON SCHEDULE BY THE FOLLOWING FACTORS. (NOTE: Min. E. D. FOR CALK-IN ANCHORS IS 2 1/2") FOR THIS OPERATION TO BE POSSIBLE, REDUCED SPACING OBTAINED USING FACTOR SHALL NOT BE LESS THAN MINIMUM SPACING INDICATED FOR EACH ANCHOR TYPE AT ANCHORS LEGEND.

| ACTUAL E. D. | FACTOR                           |   |         |           |             |
|--------------|----------------------------------|---|---------|-----------|-------------|
|              | REGULAR TAPCON & 410 S.S. TAPCON | ZAMAC NAILIN, CRETE-FLEX SS4 & PANELMATE OR PANELMATE PLUS. | CALK-IN | SOLID-SET | CF TAP-GRIP |
| 3"           | -                                | .86   | .75     | .78       | 1.00        |
| 2 1/2"       | -                                | .71   | .50     | -         | .80         |
| 2"           | -                                | .50   | -       | -         | -           |
| 1 1/2"       | 0.35                             | -   | -       | -         | -           |

\*\* LIMITED TO 5'-4" MAX. SPAN.

**ANCHORS LEGEND**

| ANCHOR TYPE   | Min. ANCHOR SPACING |
|---|---------------------|
| 410 S.S. TAPCON, ZAMAC NAILING, CF TAP-GRIP, PANELMATE OR PANELMATE PLUS. | 3.0"                |
| CALK-IN   | 2.5"                |
| SOLID-SET   | 3.5"                |
| CRETE FLEX SS4  | 6.0"                |
| REGULAR TAPCON IN BLOCK   | 4.0"                |
| REGULAR TAPCON IN CONCRETE  | 3.0"                |

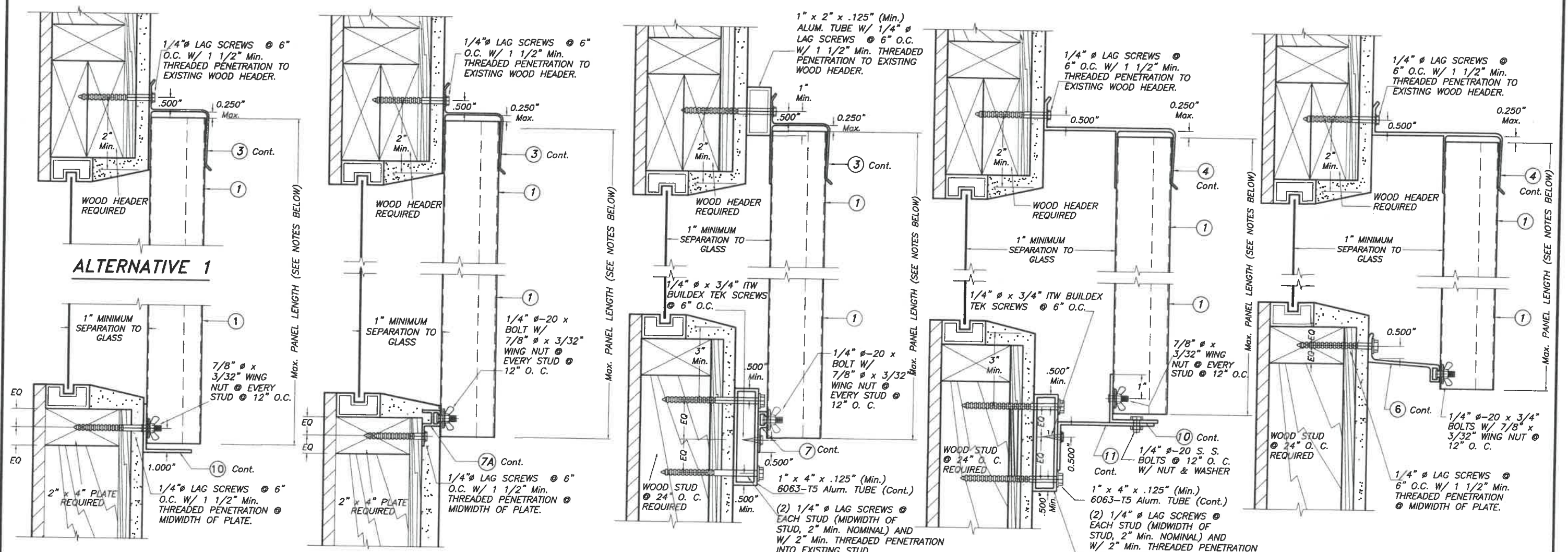
STATE OF TEXAS  
 WALTER A. TILLIT, JR.  
 90691  
 LICENSED PROFESSIONAL ENGINEER  
 1/27/2024  
 P.E. SEAL/SIGNATURE/DATE

WALTER A. TILLIT Jr. P.E.  
 PROFESSIONAL ENGINEER  
 6355 N.W. 36 STREET, STE. 305  
 VIRGINIA GARDENS, FL 33166  
 PHONE (305) 871-1530 FAX (305) 871-1531  
 TEXAS LIC. # 90691  
 FIRM REGISTRATION # F-13790

TEXAS DEPARTMENT OF INSURANCE - 2018

|   |             |                             |
|---|-------------|-----------------------------|
| 0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)   |             | M.P. DRAWN BY:              |
| EASTERN METAL SUPPLY, INC<br>4268 WEST ROADS DRIVE<br>WEST PALM BEACH, FL 33407<br>PHONE: (561)209-8263<br>FAX: (561)841-1716 |             | 01/20/2021<br>DATE:         |
|   |             | <b>21-026</b><br>DRAWING No |
| REV. No   | DESCRIPTION | DATE                        |
| 1   | -           | 3                           |
| 2   | -           | 4                           |

SHEET 10 OF 14



**ALTERNATIVE 1**

**ALTERNATIVE 4**

**ALTERNATIVE 5**

**ALTERNATIVE 6**

**ALTERNATIVE 7**

**WALL MOUNTING INSTALLATIONS  
SECTIONS A**

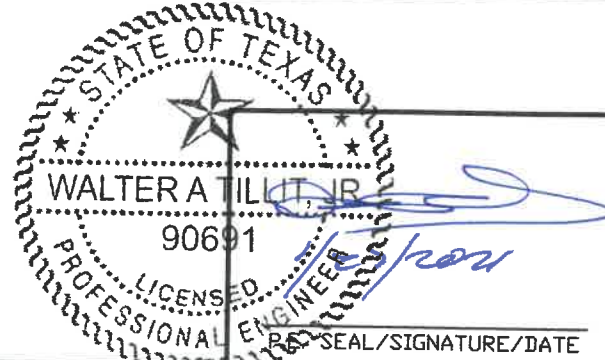
SCALE : 1/4" = 1"

**INSTALLATION DETAILS ON  
EXISTING WOOD BUILDINGS**

**NOTES:**

1. INSTALLATIONS ARE ONLY VALID FOR MAX. A.S.D. DESIGN PRESSURE RATING UP TO +65.0, -72.0 psf AND PANEL'S LENGTHS UP TO 9'-0".
2. FOR WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.

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



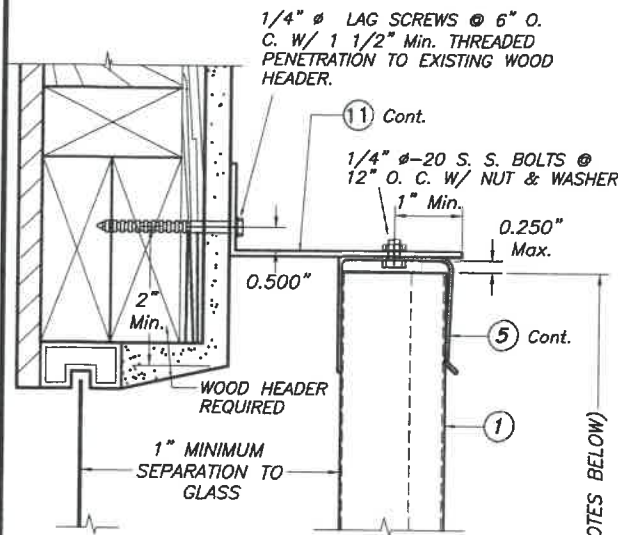
**WALTER A. TILLIT Jr. P.E.**  
PROFESSIONAL ENGINEER

6355 N.W. 36 STREET, STE. 305  
VIRGINIA GARDENS, FL 33166  
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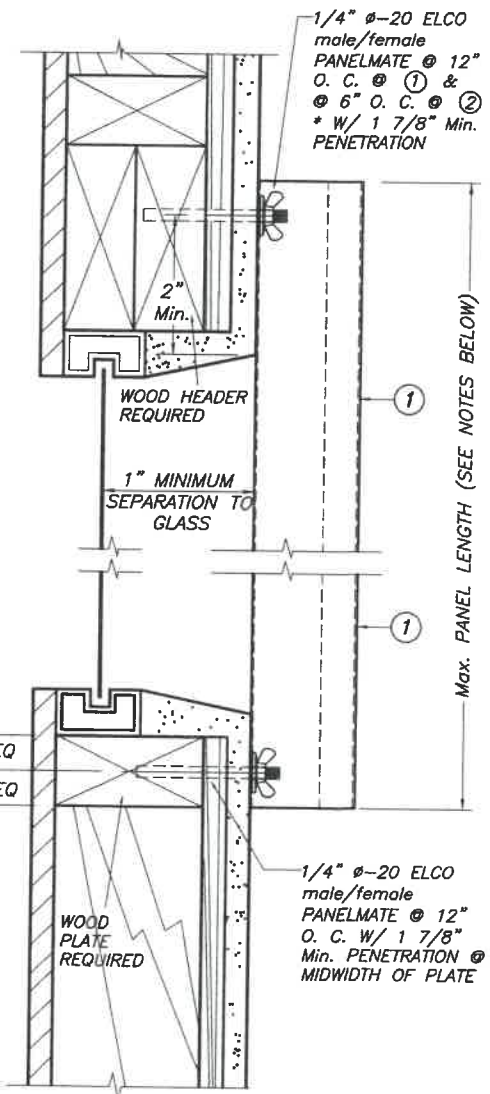
TEXAS LIC. # 90691  
FIRM REGISTRATION # F-13790

|  |             |      |         |                             |                |
|--|-------------|------|---------|-----------------------------|----------------|
| <b>TEXAS DEPARTMENT OF INSURANCE - 2018</b>  |             |      |         |                             |                |
| <b>0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)</b>   |             |      |         | M.P.<br>DRAWN BY:           |                |
| <b>EASTERN METAL SUPPLY, INC</b>   |             |      |         | 01/20/2021<br>DATE:         |                |
| 4268 WEST ROADS DRIVE<br>WEST PALM BEACH, FL 33407<br>PHONE: (561)209-8263<br>FAX: (561)841-1716 |             |      |         | <b>21-026</b><br>DRAWING No |                |
| REV. No  | DESCRIPTION | DATE | REV. No | DESCRIPTION                 | DATE           |
| 1  | -           | -    | 3       | -                           | -              |
| 2  | -           | -    | 4       | -                           | -              |
|  |             |      |         |                             | SHEET 11 OF 14 |

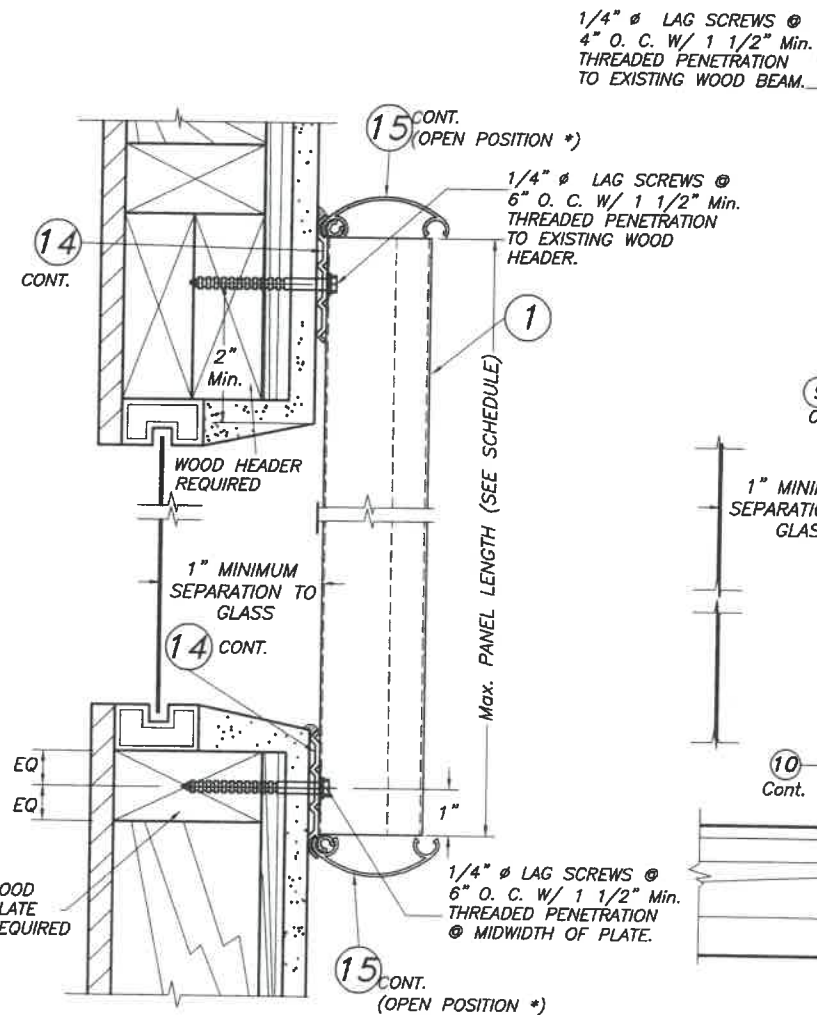




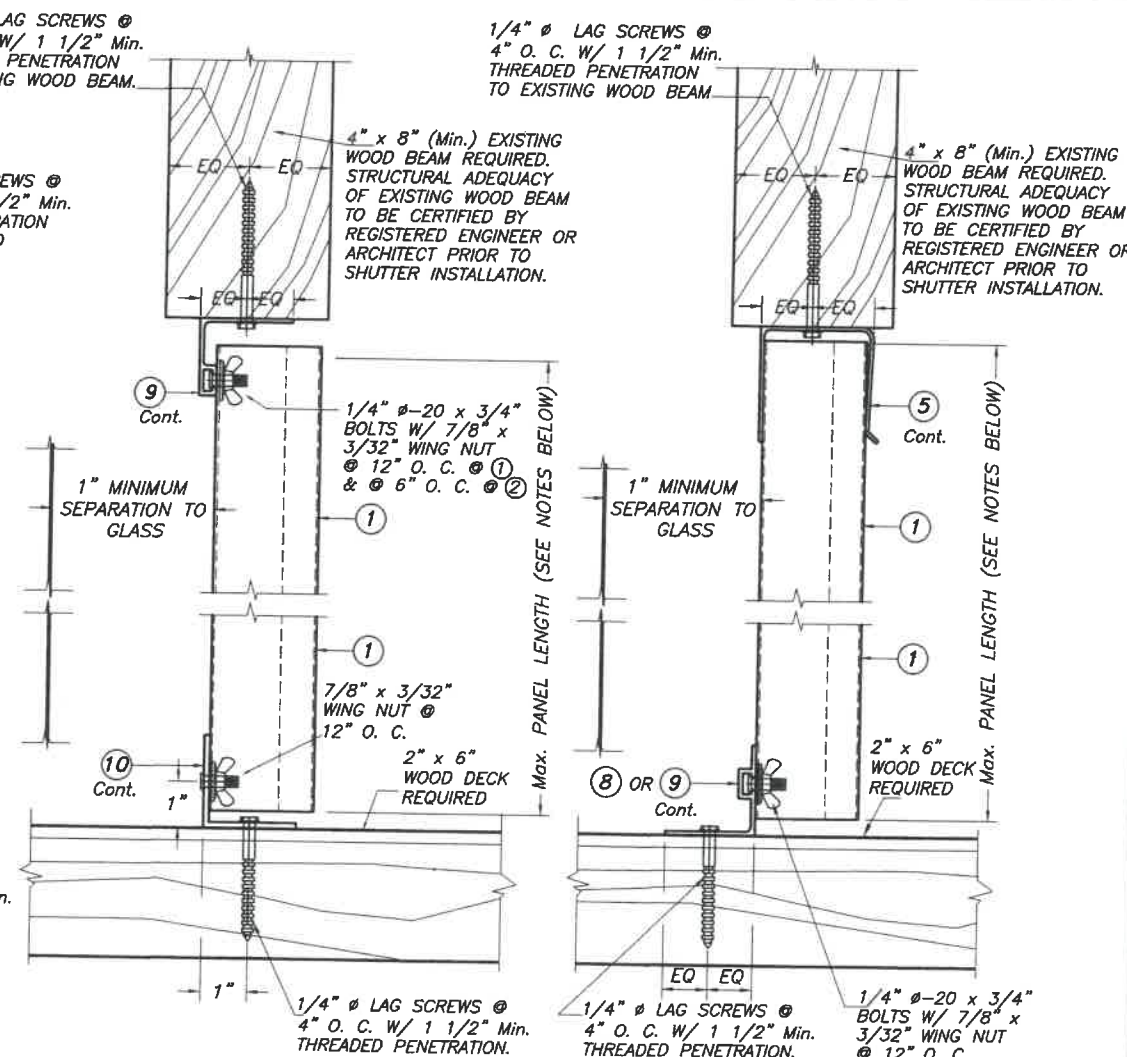
**ALTERNATIVE 8**



**ALTERNATIVE 10**



SECTION @ STUD TYP. TOP/BOTTOM  
**ALTERNATIVE 11**



**ALTERNATIVE 1**

**ALTERNATIVE 2**

**CEILING & FLOOR MOUNTING INSTALLATIONS**

**SECTIONS B** SCALE: 1/4" = 1"

**WALL MOUNTING INSTALLATIONS**  
**SECTIONS A** SCALE: 1/4" = 1"

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

**NOTES:**  
1. INSTALLATIONS ARE ONLY VALID FOR MAX. A.S.D. DESIGN PRESSURE RATING UP TO +65.0, -72.0 psf AND PANEL'S LENGTHS UP TO 9'-0".  
2. FOR WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.

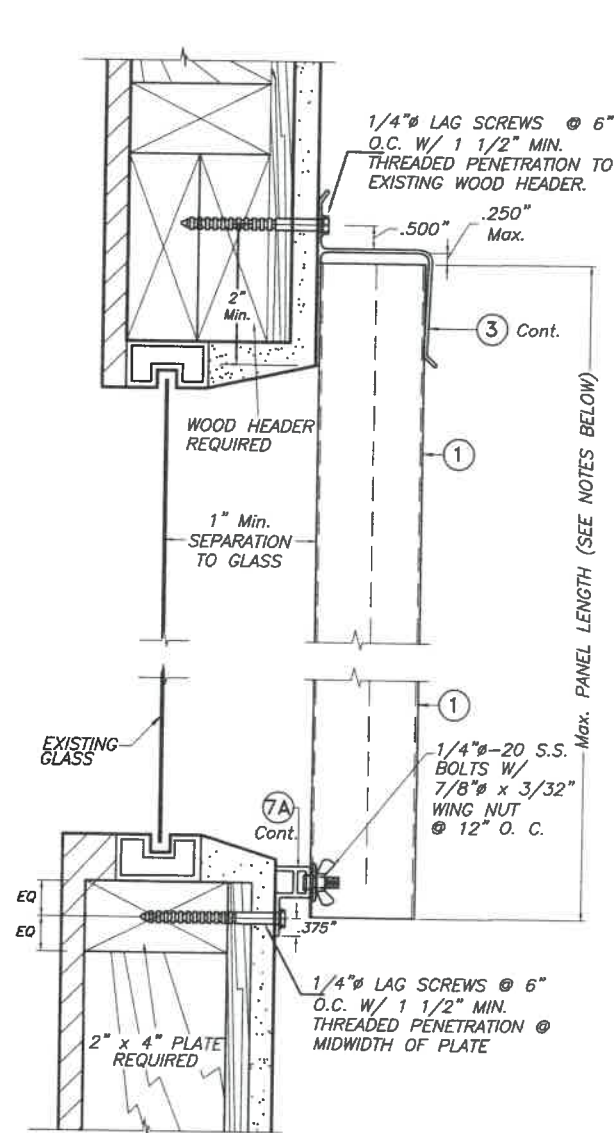
\* NOTE: SNAP CAP (15) TO REMAIN CLOSED AT NON HURRICANE CONDITIONS.

**INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS**

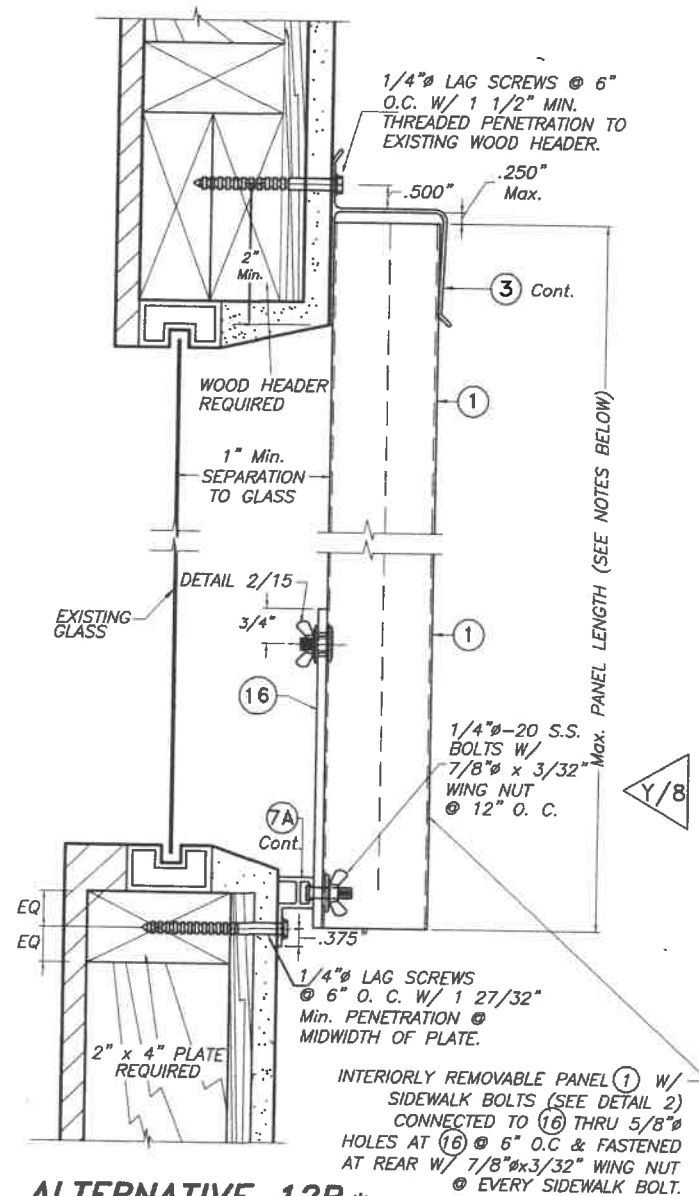


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TEXAS LIC. # 90691  
FIRM REGISTRATION # F-13790

|  |             |      |         |                   |      |
|--|-------------|------|---------|-------------------|------|
| TEXAS DEPARTMENT OF INSURANCE - 2018   |             |      |         |                   |      |
| 0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)  |             |      |         | M.P. DRAWN BY:    |      |
| EASTERN METAL SUPPLY, INC  |             |      |         | 01/20/2021 DATE:  |      |
| 4268 WEST ROADS DRIVE<br>WEST PALM BEACH, FL 33407<br>PHONE: (561)209-8263<br>FAX: (561)841-1716 |             |      |         | 21-026 DRAWING No |      |
| REV. No  | DESCRIPTION | DATE | REV. No | DESCRIPTION       | DATE |
| 1  | -           | -    | 3       | -                 | -    |
| 2  | -           | -    | 4       | -                 | -    |
| SHEET 12 OF 14   |             |      |         |                   |      |



**ALTERNATIVE 12A \***



**ALTERNATIVE 12B \***

**WALL MOUNTING INSTALLATIONS**

**SECTIONS 12**

SCALE : 1/4" = 1" \* VALID FOR Max. +63.5, -63.5 psf.  
A.S.D. DESIGN PRESSURE RATING.

**INSTALLATIONS VALID FOR PANELS 1 USED JOINTLY  
WITH INTERIORLY REMOVABLE PANELS 1**

**INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS**



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TEXAS LIC. # 90691

FIRM REGISTRATION # F-13790

TEXAS DEPARTMENT OF INSURANCE - 2018

0.050" BERTHA ALUMINUM STORM PANEL  
(2.25" DEEP)

**EASTERN METAL SUPPLY, INC**

4268 WEST ROADS DRIVE  
WEST PALM BEACH, FL. 33407  
PHONE: (561)209-8263  
FAX: (561)841-1716

M.P.  
DRAWN BY:

01/20/2021  
DATE:

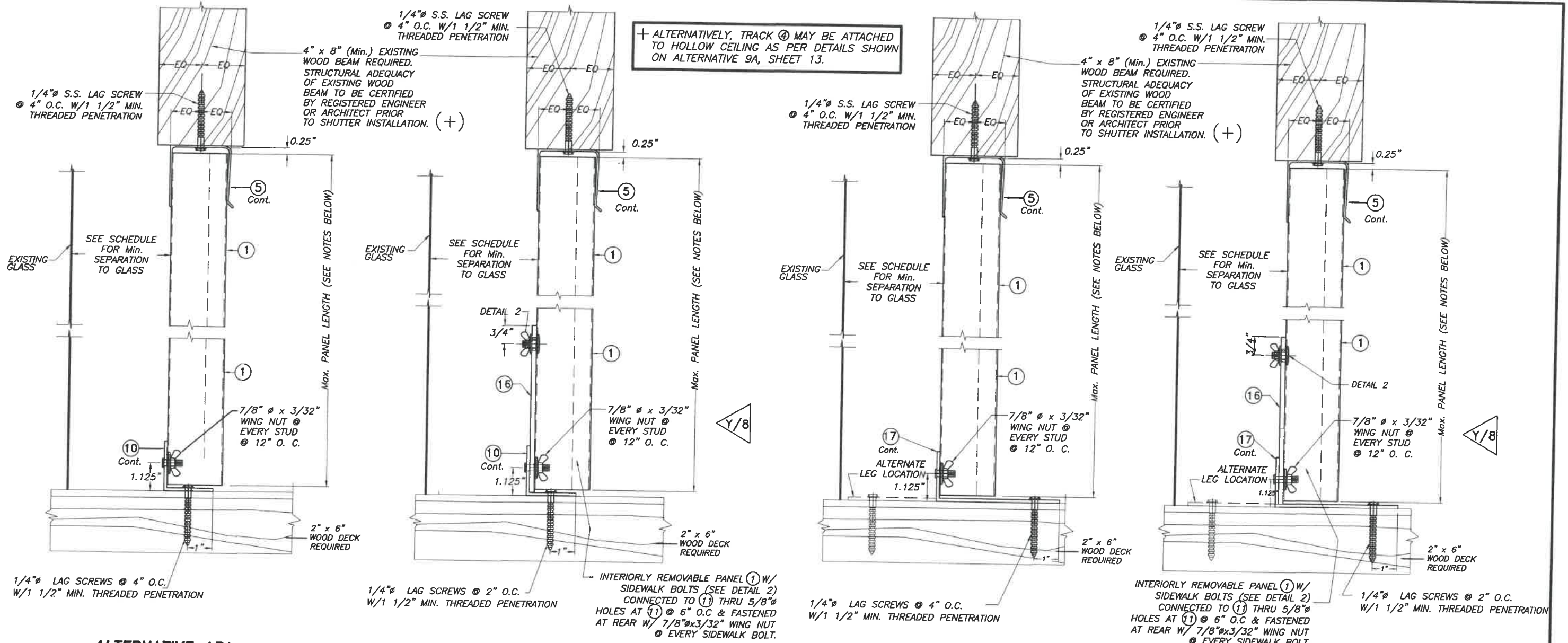
**21-026**

DRAWING No

| REV. No | DESCRIPTION | DATE | REV. No | DESCRIPTION | DATE |
|---------|-------------|------|---------|-------------|------|
| 1       | -           | -    | 3       | -           | -    |
| 2       | -           | -    | 4       | -           | -    |

SHEET 13 OF 14





**ALTERNATIVE 13A**

**CEILING & FLOOR MOUNTING INSTALLATIONS**

**SECTIONS 13**

SCALE: 1/4" = 1"

**ALTERNATIVE 13B**

**ALTERNATIVE 14A**

**CEILING & FLOOR MOUNTING INSTALLATIONS**

**SECTIONS 14**

SCALE: 1/4" = 1"

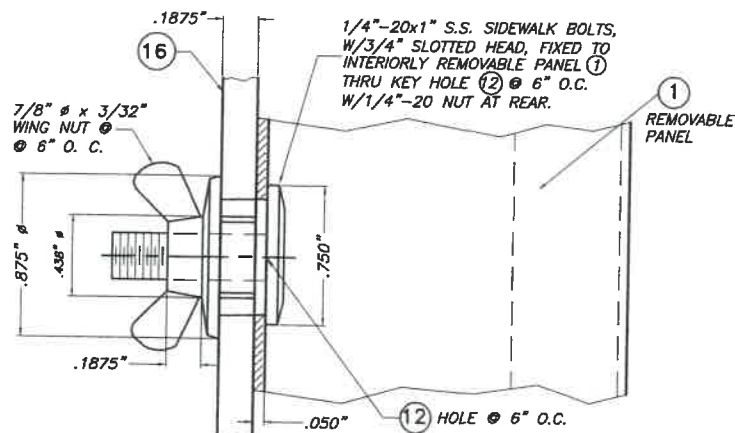
**ALTERNATIVE 14B**

**INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS**

**NOTES:**

- INSTALLATIONS ARE ONLY VALID FOR A.S.D. DESIGN PRESSURE RATING UP TO +65.0, -65.0 psf AND PANEL'S LENGTHS UP TO 9'-0".
- FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.

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



**DETAIL 2 - INSTALLATION OF 1/4"x1" SIDEWALK BOLTS @ REMOVABLE PANEL**

SCALE: 1" = 1"



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FIRM REGISTRATION # F-13790

**TEXAS DEPARTMENT OF INSURANCE - 2018**  
**0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP)**  
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| REV. No | DESCRIPTION | DATE | REV. No | DESCRIPTION | DATE |
|---------|-------------|------|---------|-------------|------|
| 1       | -           | -    | 3       | -           | -    |
| 2       | -           | -    | 4       | -           | -    |

M.P.  
DRAWN BY:  
01/20/2021  
DATE:  
**21-026**  
DRAWING No  
SHEET 14 OF 14