

## GENERAL NOTES

1. MODEL WDV-75 VERTICAL ALUMINUM LOUVER SYSTEM SHOWN ON THIS PRODUCT APPROVAL DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE **2023 (8th EDITION)** OF THE FLORIDA BUILDING CODE. THIS ALUMINUM LOUVER SYSTEM MAY BE INSTALLED AT HIGH VELOCITY HURRICANE ZONES (H.V.H.Z).

DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTIONS **1620 & 1609** OF THE ABOVE MENTIONED CODE, USING **ASCE 7-22**, AND SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON THIS SHEET.

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 THIS SHEET.

ALUMINUM LOUVER SYSTEM ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTIONS **1626 & 1609.1.2** OF THE ABOVE MENTIONED CODE AS PER PRI CONSTRUCTION MATERIALS TECHNOLOGIES, LLC. TESTING LAB REPORT # 169T0003, AS PER TAS-201, TAS-202, TAS-203, AS WELL AS PER AMCA IMPACT STANDARD 540, PER TESTING REPORT # 169T0004, AND AS PER AMCA STANDARD 550-15 HIGH VELOCITY WIND DRIVEN RAIN AND TAS 100(A)-95, PER TEST REPORT # 169T0002.

2. ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T5 ALLOY AS PER BILL OF MATERIALS ON SHEET 2.
3. ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 SERIES WITH 50 ksi YIELD POINT AND 90 ksi TENSILE STRENGTH OR CORROSION RESISTANT CARBON STEEL AS PER DIN 50018 AND SHALL COMPLY W/ FLORIDA BUILDING CODE SECTION 2411.3.3.4.
4. ALL WELDING OF ALUMINUM FRAMING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY A.W.S. D.1.2 REGULATIONS. USE CERTIFIED WELDERS. USE ER-5356 ELECTRODES.
5. ANCHOR **(13)** TO EXISTING STRUCTURE SHALL BE AS FOLLOWS (SEE SHEETS 5 , 6 ).

(A). ANCHORS SHALL BE INSTALLED FOLLOWING ALL THE RECOMMENDATIONS AND SPECIFICATIONS OF THE ANCHORS MANUFACTURER. E.D. IS BEYOND ANY WALL FINISH.

| ANCHOR TYPE | MANUFACTURER | DIAMETER OR GAGE | MIN. EMBEDMENT                   |                                                          |                                                                |                    | MIN. EDGE DISTANCE (E.D.)  |                |        |
|-------------|--------------|------------------|----------------------------------|----------------------------------------------------------|----------------------------------------------------------------|--------------------|----------------------------|----------------|--------|
|             |              |                  | TO CONCRETE (f'c=3,000 psi) MIN. | TO CONCRETE BLOCK ASTM (C-90 UNIT) (f'c=1.5 ksi) GROUTED | 1/8" MIN. ALUMINUM (Fy=25ksi) or 14 GA GALV. STEEL (Fy=33 ksi) | TO WOOD (G ≥ 0.55) | CONCRETE OR CONCRETE BLOCK | STEEL OR ALUM. | WOOD   |
| SCREW-BOLT+ | DEWALT       | 3/8"             | 3 1/4"                           | 3 1/4"                                                   | N/A                                                            | N/A                | 1 1/2"                     | N/A            | N/A    |
| LAG SCREW   | -            | 3/8"             | N/A                              | N/A                                                      | N/A                                                            | 1 1/2"             | N/A                        | N/A            | 1 1/2" |
| TAP-FLEX    | ELCO CONST.  | 3/8"             | N/A                              | N/A                                                      | FULLY EMB. PLUS 3 THREADS BEYOND.                              | N/A                | N/A                        | 3/4"           | N/A    |

6. MODEL WDV-75 ALUMINUM LOUVER SYSTEM MAY BE INSTALLED IN LOCATIONS WHERE THE ROOM BEHIND IS NOT DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM, OR THE ROOM WILL HOUSE NON-WATER RESISTANT EQUIPMENT. COMPONENTS OR SUPPLIES INSTALLATION ON LOUVER IS LIMITED TO 40 FT. IN HEIGHT ACCORDING TO TABLE 3 OF TAS 100(A)-95.
7. ALUMINUM MEMBERS IN CONTACT WITH DISSIMILAR MATERIALS SHALL COMPLY WITH SECTION III-6 OF THE 2020 ALUMINUM DESIGN MANUAL.

8. IT SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE WHERE LOUVER SYSTEM IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE.
9. (A). THIS PRODUCT APPROVAL DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A 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 APPROVAL DOCUMENT WILL BE CONSIDERED INVALID IF MODIFIED.
- (D). SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR 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.
- (E). ORIGINAL P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER THAT PREPARED IT.
10. PRODUCT MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION AT PRODUCT IN ACCORDANCE WITH SECTION 1703.5 OF THE FLORIDA BUILDING CODE. ONE LABEL SHALL BE PLACED FOR EVERY OPENING.

A.S.D. DESIGN PRESSURE RATING:  
+100, -100 psf.

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

FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONE)

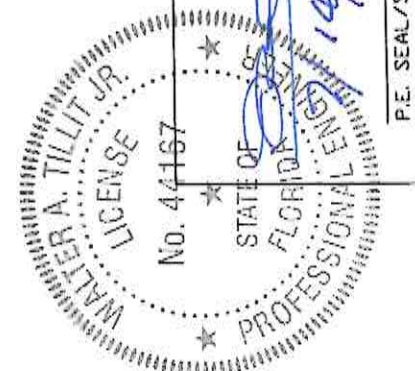
|                                                                                                                               |                    |                       |              |
|-------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------|--------------|
| Y.M.<br>DRAWN BY:                                                                                                             | 7/14/2023<br>DATE: | 23-093<br>DRAWING NO. | SHEET 1 OF 8 |
| MODEL WDV-75<br>VERTICAL ALUMINUM LOUVER SYSTEM                                                                               |                    |                       |              |
| UNITED ENERTECH HOLDINGS, LLC                                                                                                 |                    |                       |              |
| 3005 SOUTH HICKORY ST. 159 GENCO DRIVE<br>CHATTANOOGA, TN 37407 HARTFORD, AL 36344<br>PHONE: (423)698-7715 FAX: (423)698-6629 |                    |                       |              |
| REV. NO.                                                                                                                      | DATE               | DESCRIPTION           | DATE         |
| 1                                                                                                                             | 7/14/23            | 3                     | 4            |
| 2                                                                                                                             |                    |                       |              |

©2023 TILTECO, INC.

**TILTECO INC.**

TILLIT TESTING & ENGINEERING COMPANY  
6335 N.W. 36th. St. Ste. 305, VIRGINIA GARDENS, FL 33165  
Phone : (305)871-1530 . Fax : (305)871-1531

WALTER A. TILLIT JR., P.E.  
CA-0006719  
FLORIDA Lic. # 44167

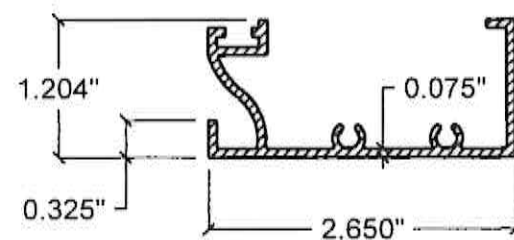


# BILL OF MATERIALS:

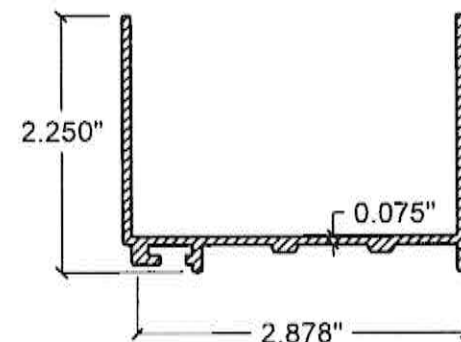
| COMPONENT # | DESCRIPTION                          | MATERIAL                              | NOTES                                        |
|-------------|--------------------------------------|---------------------------------------|----------------------------------------------|
| ①           | HEAD                                 | 6063-T5 ALUMINUM ALLOY/TEMPER         | CONTINUOUS                                   |
| ②           | SILL                                 | 6063-T5 ALUMINUM ALLOY/TEMPER         | CONTINUOUS                                   |
| ③           | SIDE JAMB/MULLION                    | 6063-T5 ALUMINUM ALLOY/TEMPER         | CONTINUOUS                                   |
| ③A          | LAST BLADE BLANK-OFF ANGLE           | 6063-T6 ALUMINUM ALLOY/TEMPER         | CONTINUOUS                                   |
| ⑤           | BLADE                                | 6063-T5 ALUMINUM ALLOY/TEMPER         | WDV-75 MODEL                                 |
| ⑥           | BLADE BRACE                          | 6063-T5 ALUMINUM ALLOY/TEMPER         | USE (1) EVERY (3) ⑤ 2" HIGH                  |
| ⑥A          | BLADE BRACE STRIP                    | 6063-T5 ALUMINUM ALLOY/TEMPER         | CONTINUOUS                                   |
| ⑦           | OPTIONAL BIRD SCREEN                 | 3/4" x 0.051" FLATTENED ALUMINUM      | OPTIONAL                                     |
| ⑨           | HEAD/SILL MOUNTING ANGLE             | 6061-T6 ALUMINUM ALLOY/TEMPER         | CONTINUOUS                                   |
| ⑩           | #10 x 1-1/2" HEX HEAD, TEK SCREW     | Fy=134 Ksi Fu=152Ksi CLIMASEAL COATED | USE (2) FOR BLADE ATTACHMENT EA. END         |
| ⑪           | 1/4 -14 x 1-1/2" HEX HEAD, TEK SCREW | Fy=134 Ksi Fu=152Ksi CLIMASEAL COATED | ANGLE CLIP ⑨ ATTACHMENT TO HEAD & SILL       |
| ⑫           | #10 x 3/4" HEX HEAD, TEK SCREW       | Fy=134 Ksi Fu=152Ksi CLIMASEAL COATED | BLADE BRACE ⑥, ⑥A ATTACHMENT & ③A ATTACHMENT |
| ⑬           | ANCHOR                               | SEE GENERAL NOTE 5A/1                 | SEE DETAILS FOR SPACING ON SHEETS 5 & 6      |
| ⑭           | FLANGE                               | 6063-T5 ALUMINUM ALLOY/TEMPER         | OPTIONAL                                     |

FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONE)

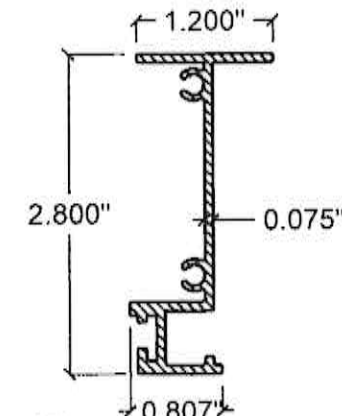
|                                                                                                                             |                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Y.M. DRAWN BY: 7/14/2023 DATE: 23-093 DRAWING NO. SHEET 2 OF 8                                                              |                                                                                                                      |
| MODEL WDV-75<br>VERTICAL ALUMINUM LOUVER SYSTEM                                                                             | UNITED ENERTECH HOLDINGS, LLC<br>159 GENCO DRIVE<br>CHATTANOOGA, TN 37407<br>PHONE: (423)898-7715 FAX: (423)898-6623 |
| TILECO INC.<br>TILLIT TESTING & ENGINEERING COMPANY<br>6355 N.W. 36th St., Ft. Lauderdale, FL 33309<br>Phone: (305)871-1531 | WALTER A. TILLIT JR., P.E.<br>FLORIDA LIC. # 44167                                                                   |



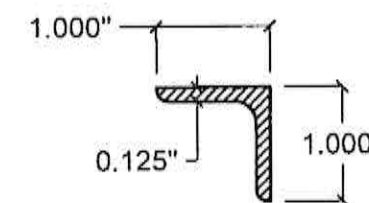
① HEAD



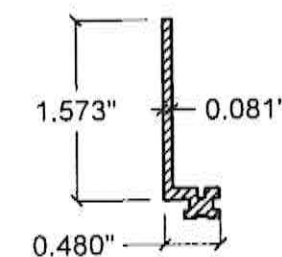
② SILL



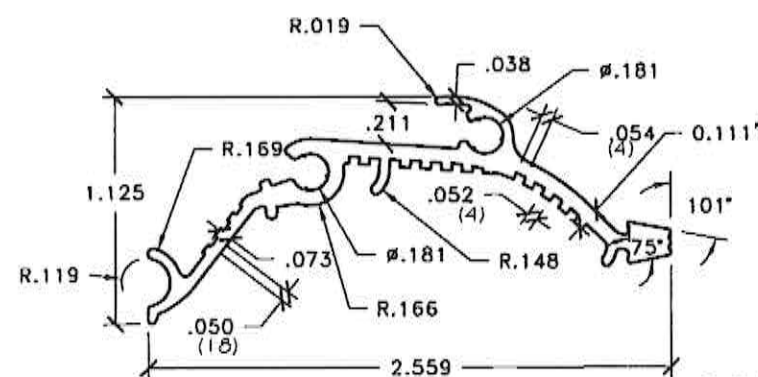
③ SIDE JAMB/MULLION



③A LAST BLADE  
BLANK-OFF ANGLE

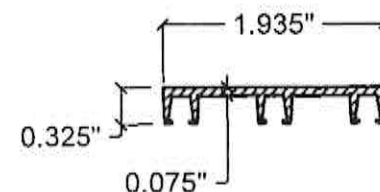


⑭ FLANGE

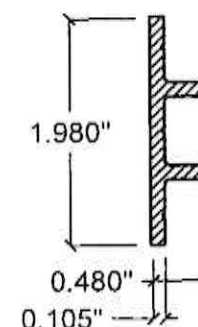


⑤ BLADE  
N.T.S.

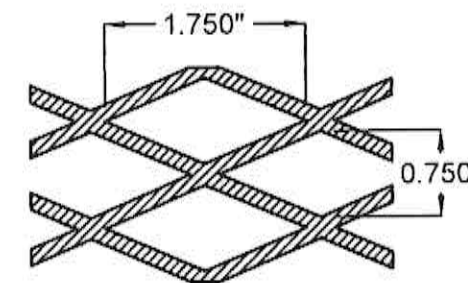
COMPONENTS:  
N.T.S.



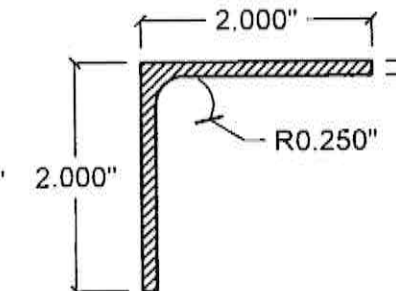
⑥ BLADE BRACE  
2" HIGH



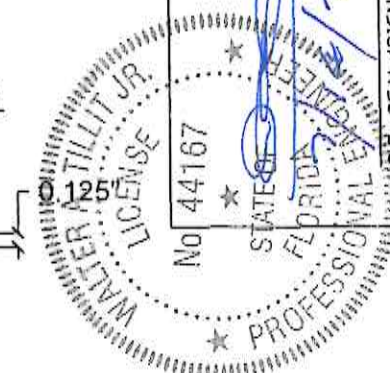
⑥A BLADE BRACE STRIP

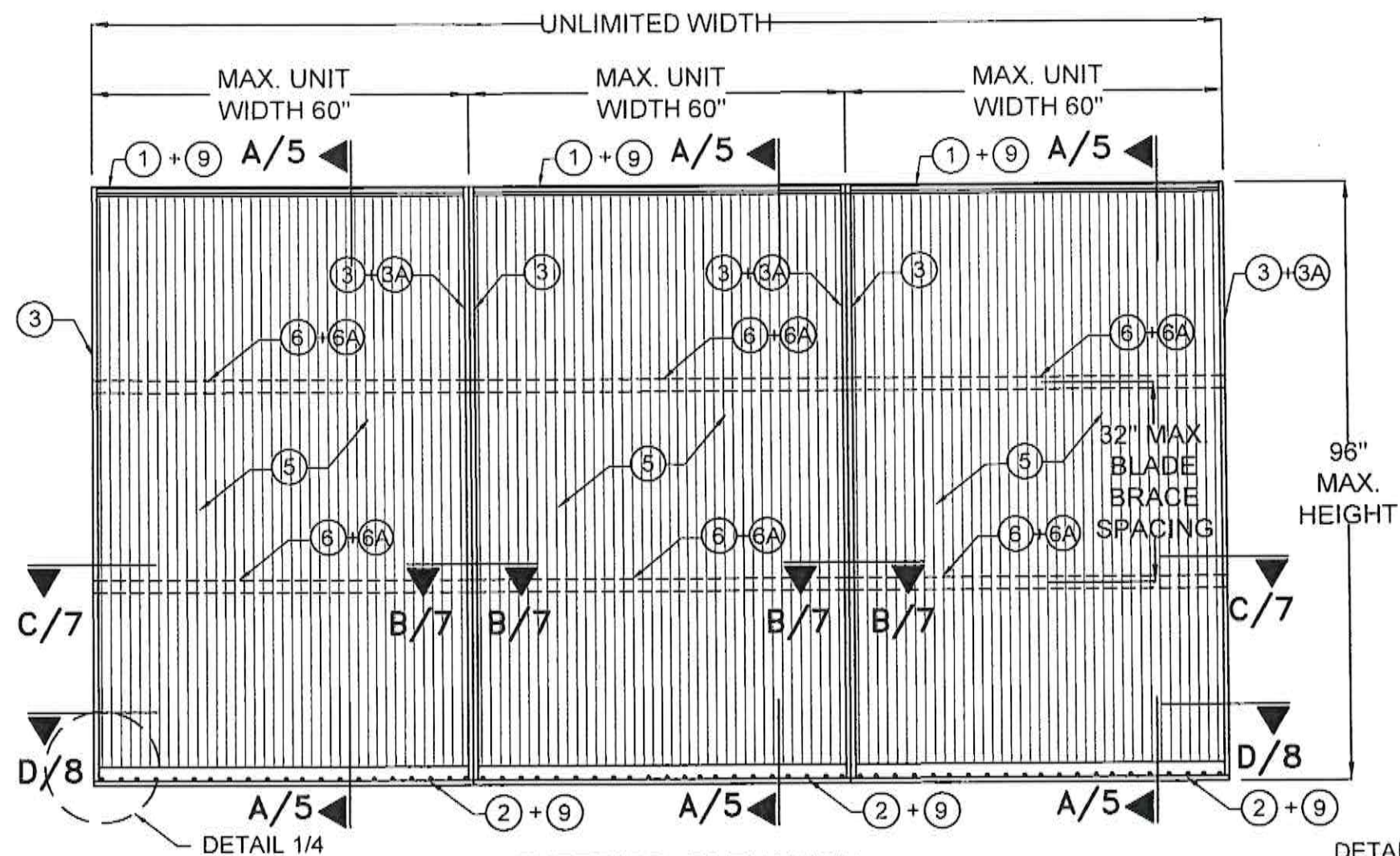


⑦ OPTIONAL BIRD SCREEN

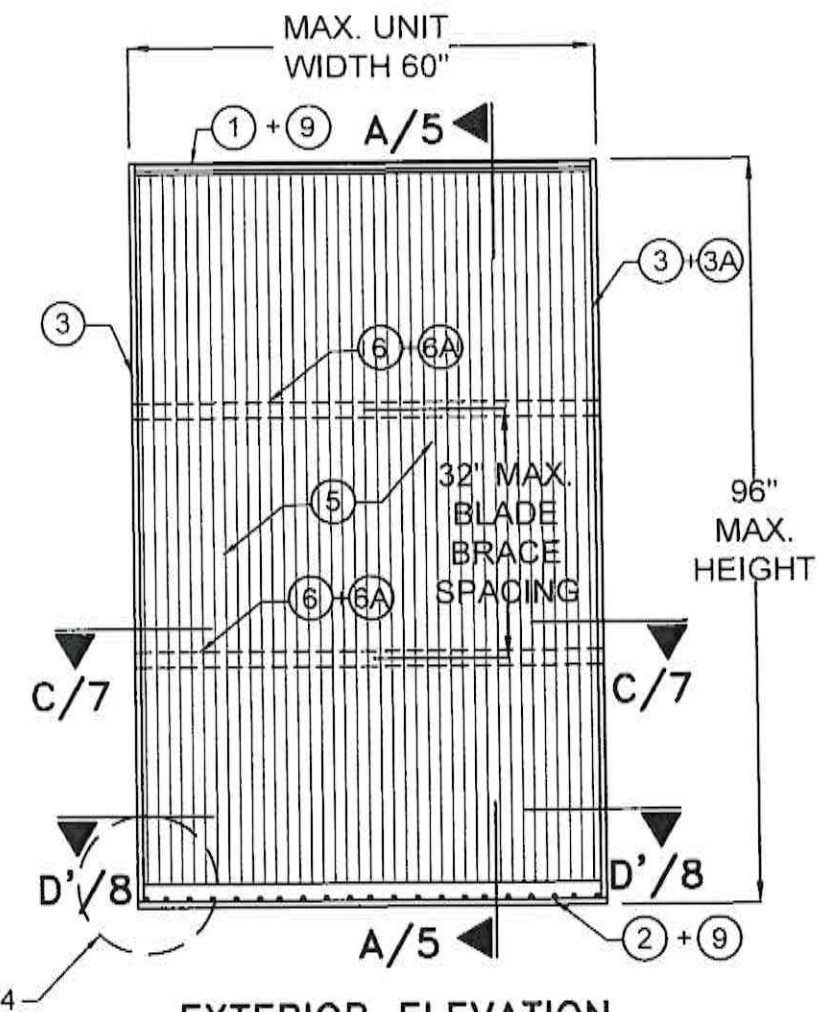


⑨ HEAD/SILL MOUNTING ANGLE





EXTERIOR ELEVATION  
MULTIPLE UNITS W/ (6) + (6A)  
SCALE: 1/2" = 1'-0"



EXTERIOR ELEVATION  
SINGLE UNIT W/ (6) + (6A)  
SCALE: 1/2" = 1'-0"

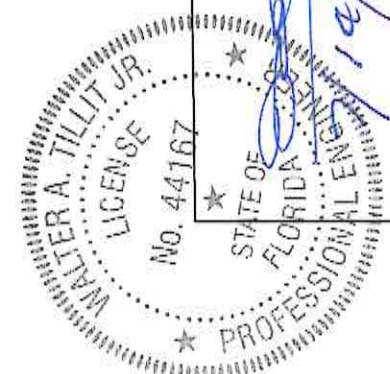
FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONE)

|                                                                                                                         |             |
|-------------------------------------------------------------------------------------------------------------------------|-------------|
| Y.M. DRAWN BY: 7/14/2023 DATE: 23-093 DRAWING NO. SHEET 3 OF 6                                                          |             |
| MODEL WDV-75 VERTICAL ALUMINUM LOUVER SYSTEM                                                                            |             |
| UNITED ENERTECH HOLDINGS, LLC                                                                                           |             |
| 3005 SOUTH HICKORY ST. 159 GENCO DRIVE CHATTANOOGA, TN 37407 HARTFORD, AL 35344 PHONE: (423)698-7715 FAX: (423)698-6629 |             |
| REV. NO.                                                                                                                | DESCRIPTION |
| 1                                                                                                                       | OLD 21-074  |
| 2                                                                                                                       | 7/14/23     |

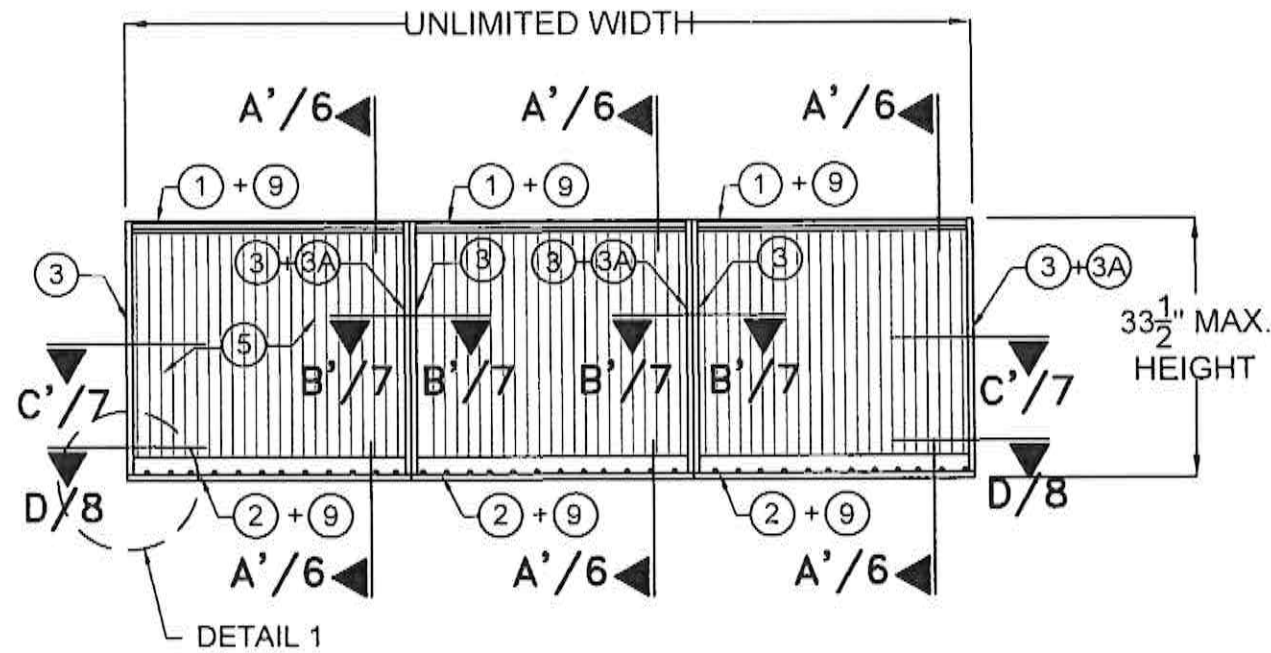
©2023 TILTECO, INC.

**TILTECO INC.**

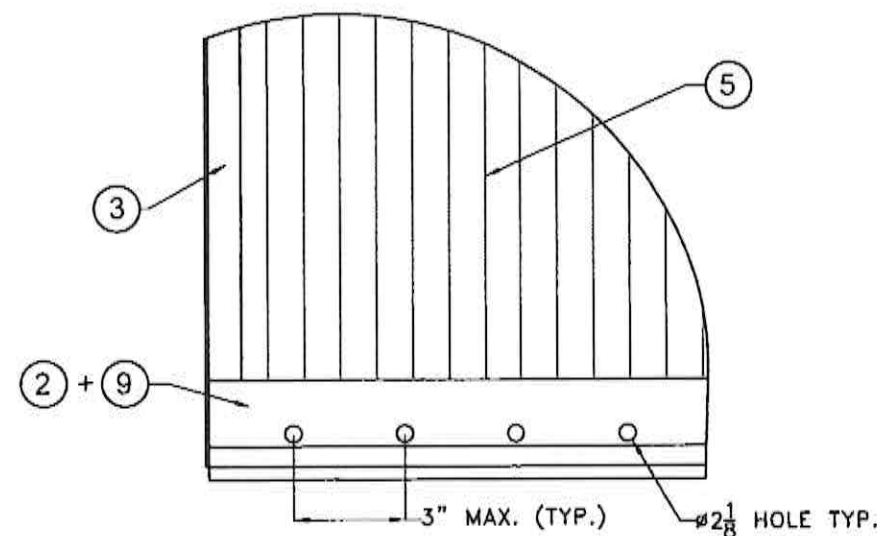
TILIT TESTING & ENGINEERING COMPANY  
6355 N.W. 38th St., Ste. 305, VERO BEACH, FL 33466  
Phone: (305)871-1530 Fax: (305)871-1531  
CA-0006719  
WALTER A. TILLIT JR., P.E.  
FLORIDA LIC. # 44167



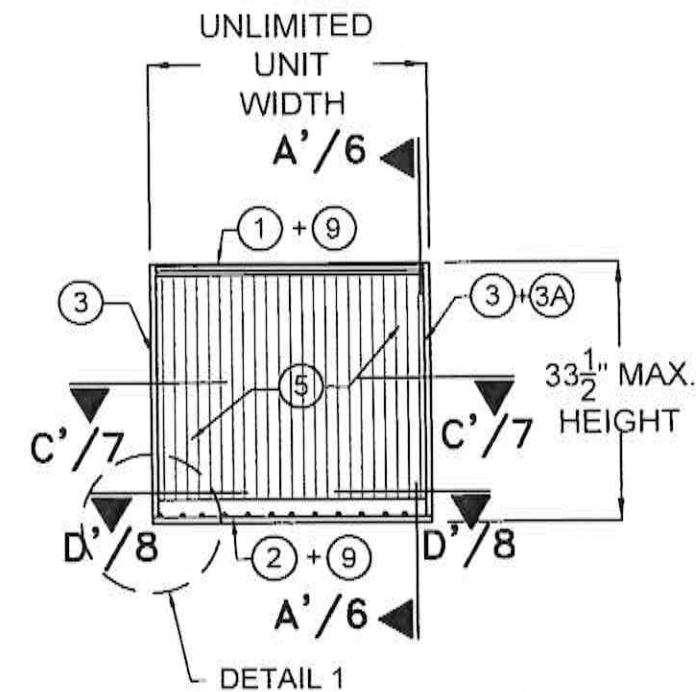
P.E. SEAL/SIGNATURE/DATE



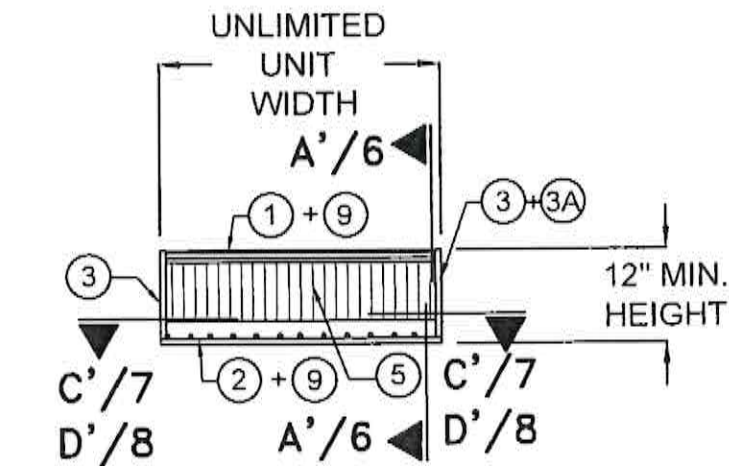
**DETAIL 1**  
**EXTERIOR ELEVATION**  
**MAX. HEIGHT FOR MULTIPLE UNITS**  
**W/O (6) + (6A)**



**DETAIL 1**  
**WEEP HOLES/SILL BAFFLE (2)**  
**SCALE: N.T.S.**



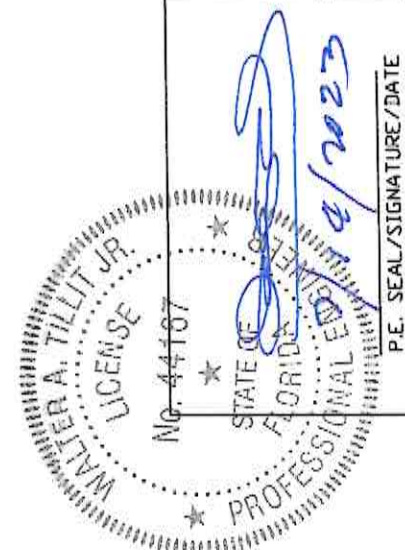
**DETAIL 1**  
**EXTERIOR ELEVATION**  
**MAX. HEIGHT FOR SINGLE UNIT**  
**W/O (6) + (6A)**

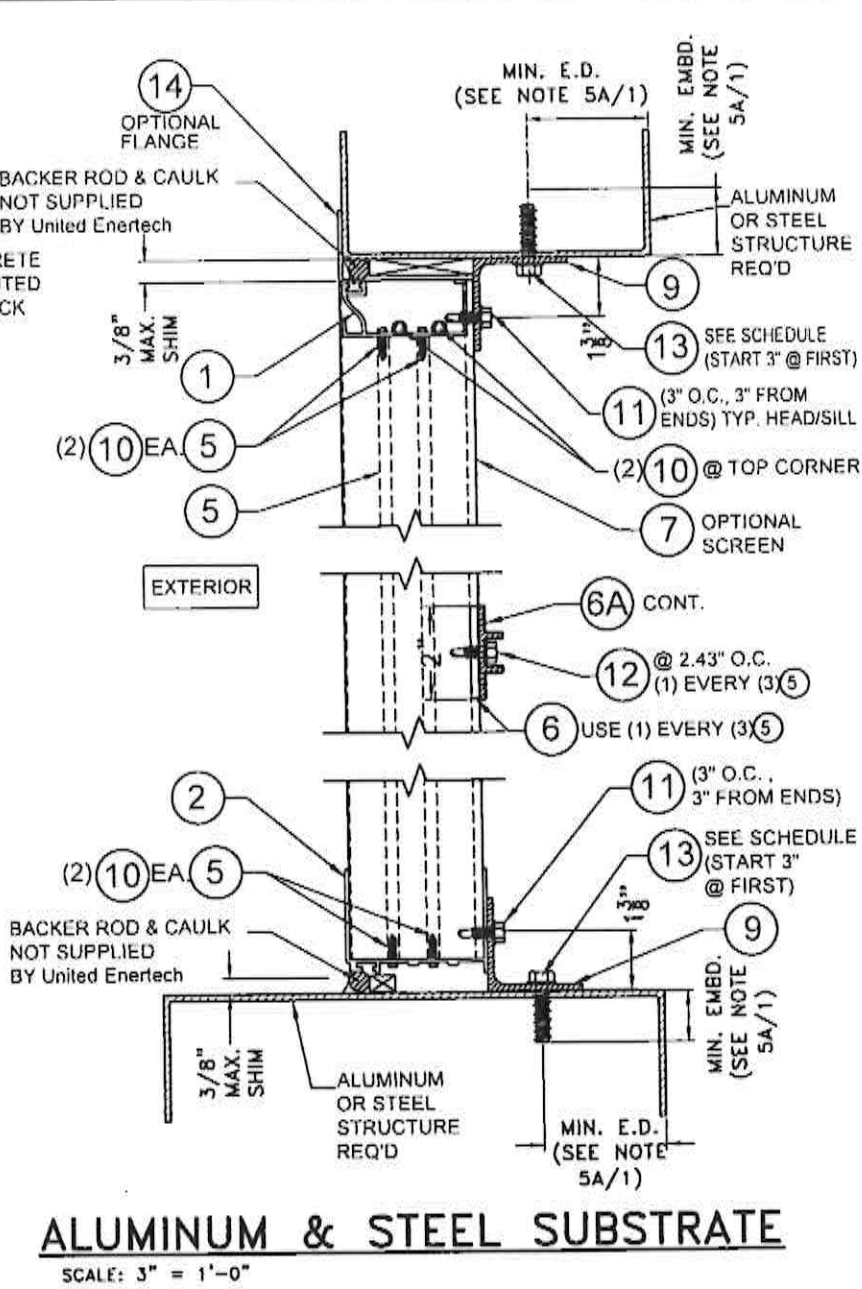
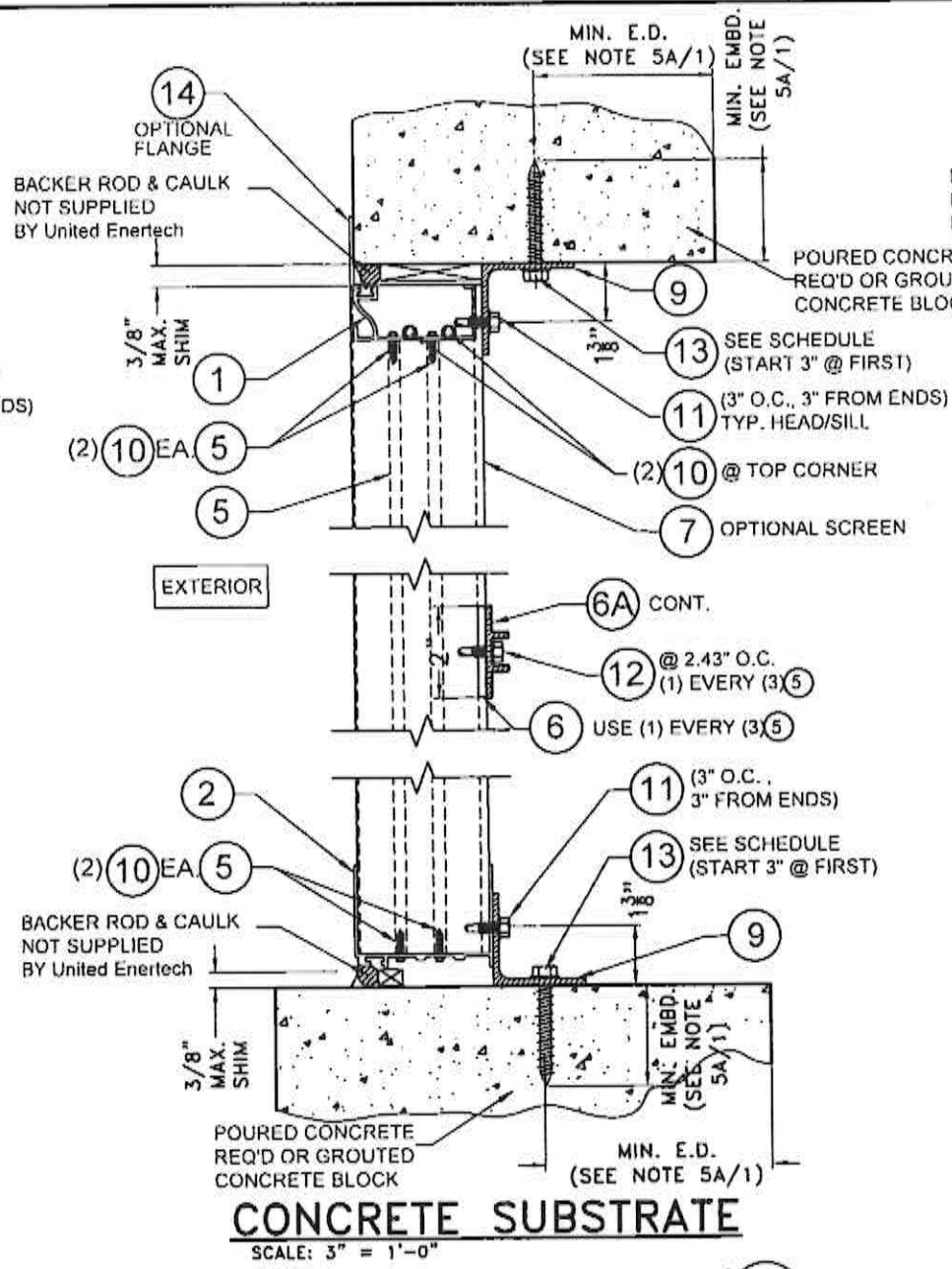
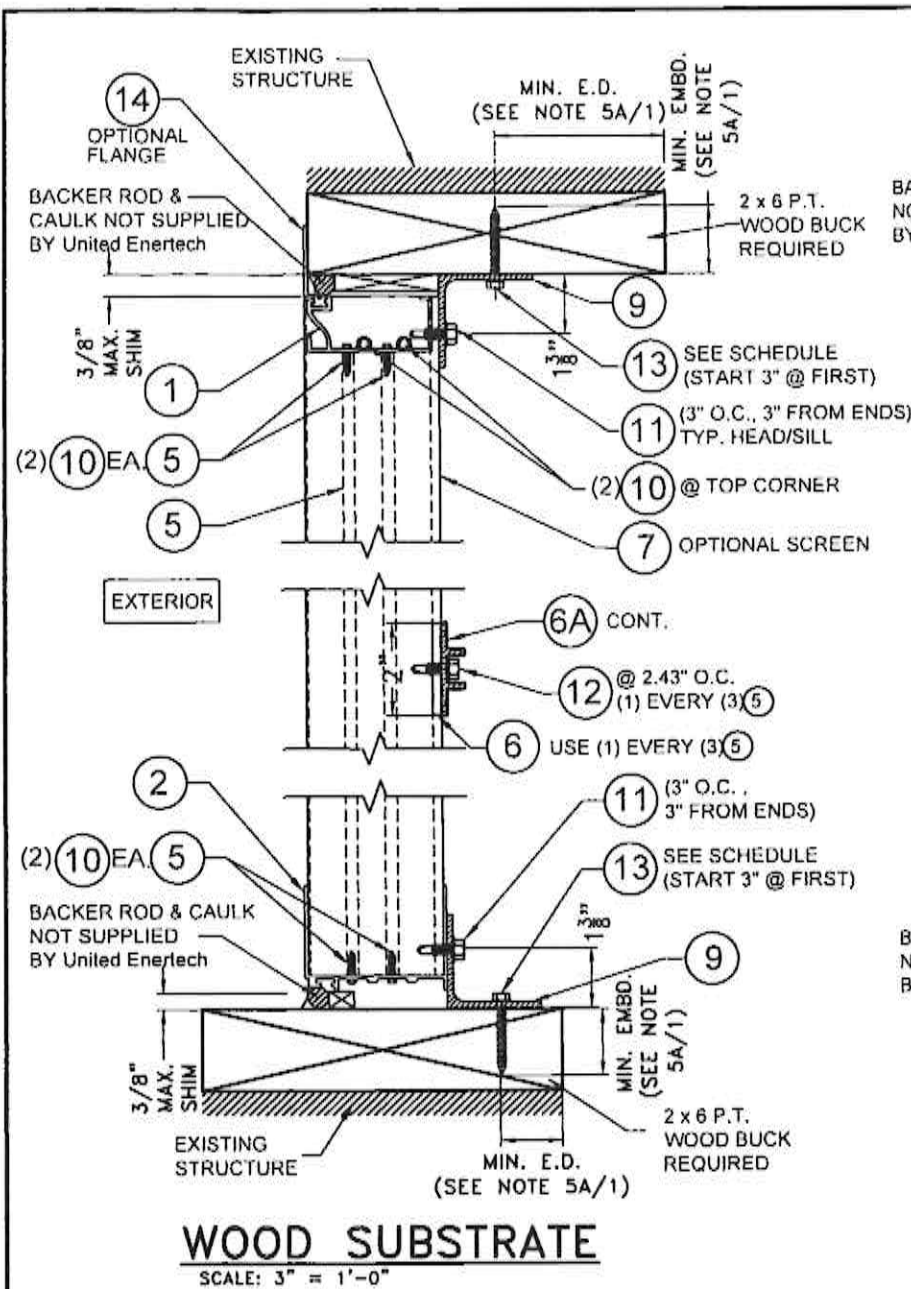


**EXTERIOR ELEVATION**  
**MIN. HEIGHT FOR SINGLE UNIT**  
**W/O (6) + (6A)**

FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONE)

|                                                        |  |                                 |  |                               |  |                 |  |                    |  |                       |  |                     |  |              |  |
|--------------------------------------------------------|--|---------------------------------|--|-------------------------------|--|-----------------|--|--------------------|--|-----------------------|--|---------------------|--|--------------|--|
| TILECO INC.                                            |  | MODEL WDV-75                    |  | DRAWN BY:                     |  | 7/14/2023       |  | DATE:              |  | 23-093                |  | DRAWING NO.         |  | SHEET 4 OF 8 |  |
| TILECO INC.                                            |  | VERTICAL ALUMINUM LOUVER SYSTEM |  | UNITED ENERTECH HOLDINGS, LLC |  | 159 GEMCO DRIVE |  | HARTFORD, CT 06104 |  | PHONE: (423) 898-7715 |  | FAX: (423) 898-6629 |  |              |  |
| TILLIT TESTING & ENGINEERING COMPANY                   |  |                                 |  |                               |  |                 |  |                    |  |                       |  |                     |  |              |  |
| 6335 NW 36th St., Ste. 305, Virginia Gardens, FL 33166 |  |                                 |  |                               |  |                 |  |                    |  |                       |  |                     |  |              |  |
| Phone: (305) 871-1530 Fax: (305) 871-1531              |  |                                 |  |                               |  |                 |  |                    |  |                       |  |                     |  |              |  |
| WALTER A. TILLIT JR., P.E.                             |  |                                 |  |                               |  |                 |  |                    |  |                       |  |                     |  |              |  |
| FLORIDA Lic. # 44167                                   |  |                                 |  |                               |  |                 |  |                    |  |                       |  |                     |  |              |  |





MAX. ANCHOR (13) SPACING SCHEDULE AS PER  
NOTE 5A/1 AT ANGLE (9) TOP & BOTTOM

| A.S.D. DESIGN<br>LOAD (p.s.f.) | MAX. UNIT<br>HEIGHT<br>(FT) | SUBSTRATE |                           |         |                      |
|--------------------------------|-----------------------------|-----------|---------------------------|---------|----------------------|
|                                |                             | CONCRETE  | GROUTED CONCRETE<br>BLOCK | WOOD    | STEEL OR<br>ALUMINUM |
| ≤ 75.0                         | ≤ 5'-0"                     | 6" O.C.   | 6" O.C.                   | 6" O.C. | 6" O.C.              |
|                                | > 5'-0" TO 8'-0"            | 6" O.C.   | 6" O.C.                   | 4" O.C. | 6" O.C.              |
| > 75-100                       | ≤ 5'-0"                     | 6" O.C.   | 6" O.C.                   | 3" O.C. | 6" O.C.              |
|                                | > 5'-0" TO 8'-0"            | 6" O.C.   | 6" O.C.                   | 3" O.C. | 6" O.C.              |

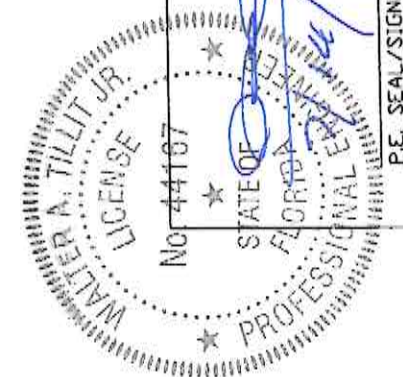
FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONE)

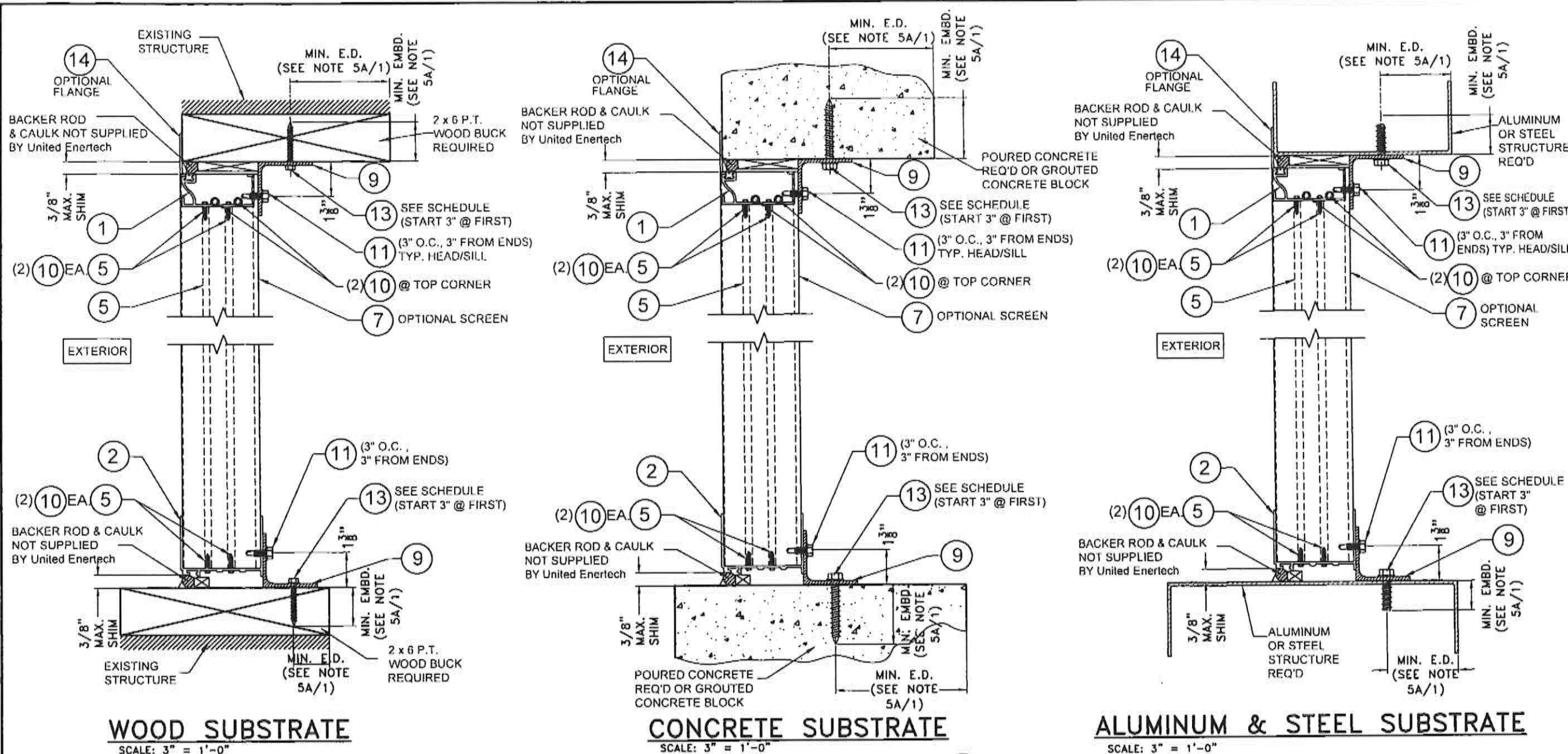
Y.M. DRAWN BY: 7/14/2023 DATE: 23-093 DRAWING NO. SHEET 5 OF 8

MODEL WDV-75  
VERTICAL ALUMINUM LOUVER SYSTEM

UNITED ENERTECH HOLDINGS, LLC  
3005 SOUTH HICKORY ST. HARTFORD, CT 06105  
CHATTANOOGA, TN 37407 FAX: (423) 698-6629  
PHONE: (423) 698-7715

TILECO INC.  
TILLIT TESTING & ENGINEERING COMPANY  
6355 N.W. 36th St., Suite 302, Virginia Gardens, FL 33166  
Phone: (305) 971-1330 Fax: (305) 971-1331  
CA-0006719  
WALTER A. TILLIT JR., P.E.  
FLORIDA LIC. # 44167





| A.S.D. DESIGN LOAD (p.s.f.) | MAX. UNIT HEIGHT (FT) | SUBSTRATE |                        |         |                   |
|-----------------------------|-----------------------|-----------|------------------------|---------|-------------------|
|                             |                       | CONCRETE  | GROUTED CONCRETE BLOCK | WOOD    | STEEL OR ALUMINUM |
| ≤ 75.0                      | ≤ 33½"                | 6" O.C.   | 6" O.C.                | 6" O.C. | 6" O.C.           |
| >75-100                     | ≤ 33½"                | 6" O.C.   | 6" O.C.                | 3" O.C. | 6" O.C.           |

**FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONE)**

**MODEL WDV-75 VERTICAL ALUMINUM LOUVER SYSTEM**

**UNITED ENERTECH HOLDINGS, LLC**  
3005 SOUTH HICKORY ST. HARTSFORD, CT 06105  
PHONE: (423) 698-6629 FAX: (423) 698-6629

**TILECO INC.**  
TILLIT TESTING & ENGINEERING COMPANY  
6335 W. 36th St. Suite 305, VIRGINIA GARDENS, FL 32166  
Phone: (321) 971-1320 Fax: (321) 971-1321

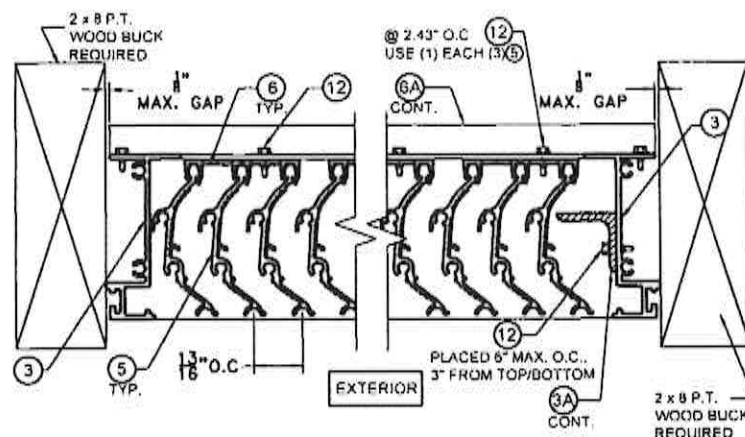
**WALTER A. TILLIT JR., P.E.**  
FLORIDA Lic. # 44167

**PROFESSIONAL SEAL**

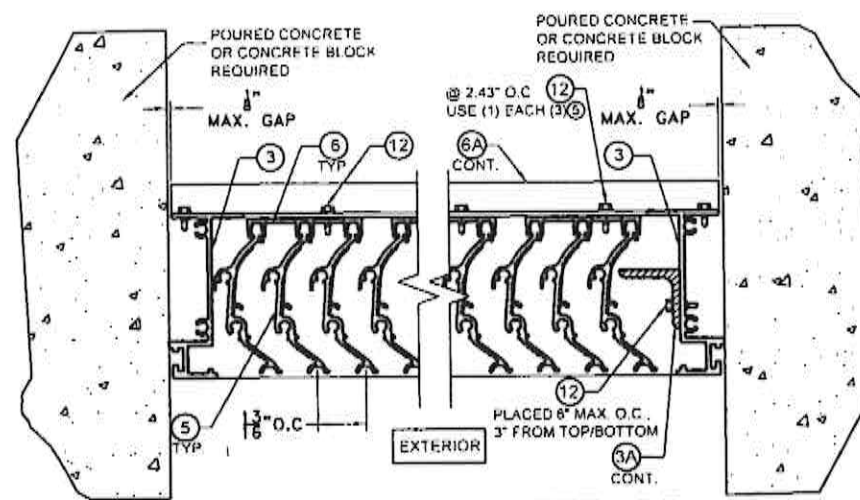
**DATE: 7/14/2023**

**23-093**

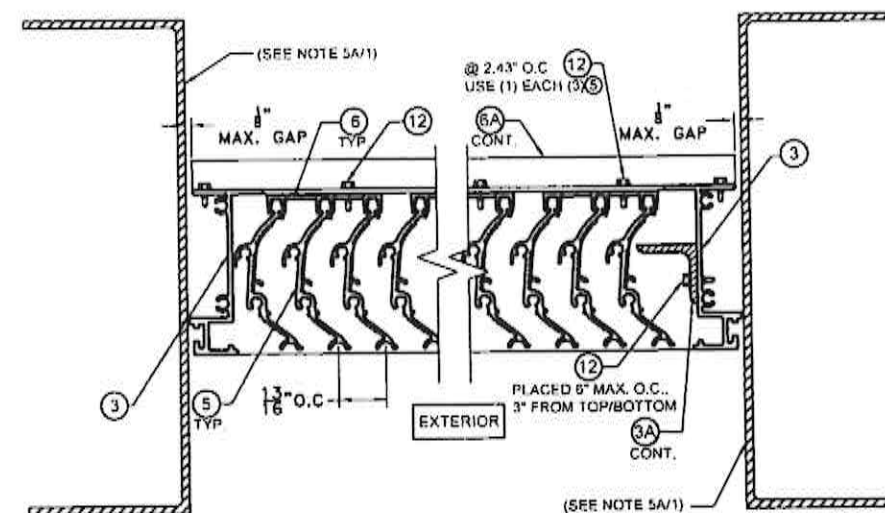
**DRAWING NO. SHEET 6 OF 8**



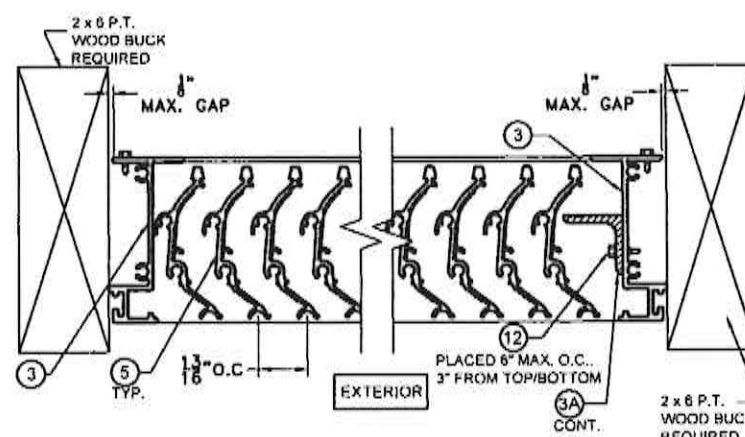
WOOD SUBSTRATE



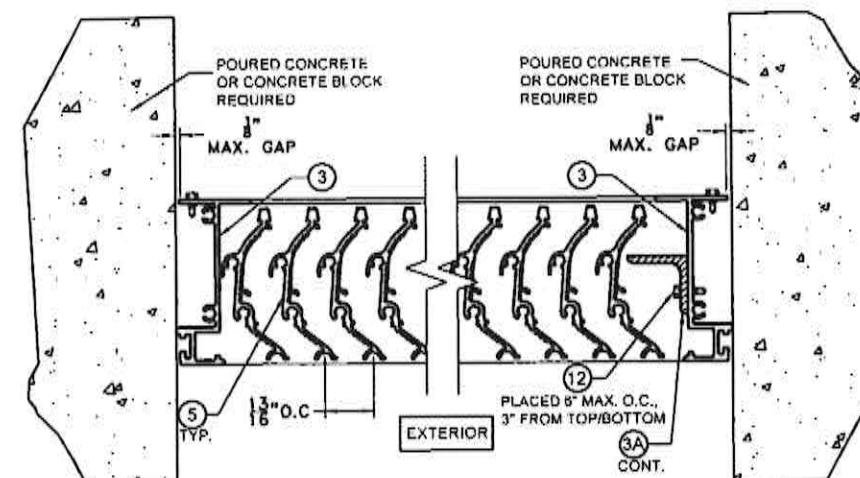
POURED CONCRETE OR  
CONCRETE BLOCK SUBSTRATE  
SECTION C-C W/ (6) & (6A)  
© SINGLE & MULTIPLE UNITS  
N.T.S.



ALUMINUM & STEEL SUBSTRATE

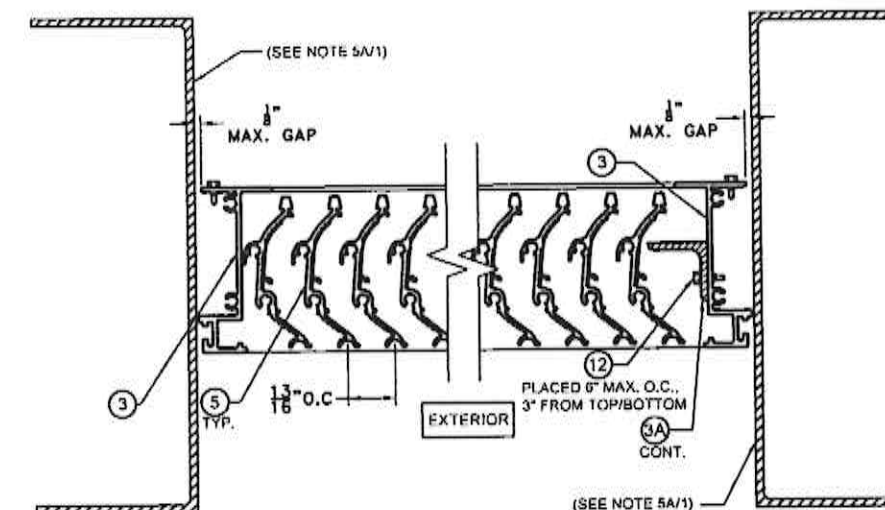


WOOD SUBSTRATE

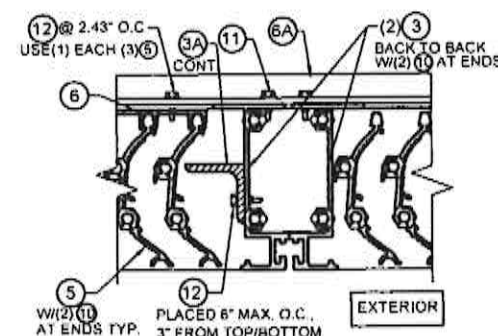


POURED CONCRETE OR  
CONCRETE BLOCK SUBSTRATE

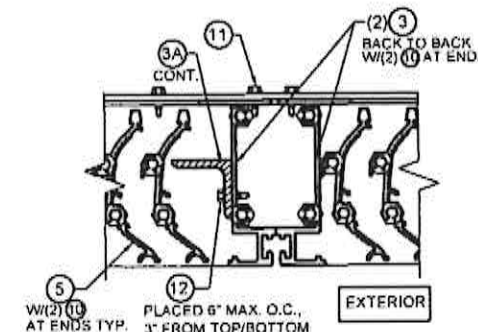
SECTION C'-C' W/O (6) & (6A)  
© SINGLE & MULTIPLE UNITS  
N.T.S.



ALUMINUM & STEEL SUBSTRATE



BACK TO BACK MULLION  
MULTIPLE UNITS W/ (6) & (6A)  
SECTION B-B  
N.T.S.

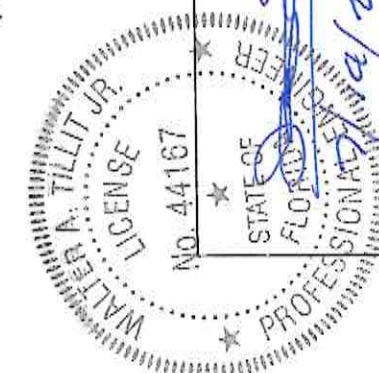


BACK TO BACK MULLION  
MULTIPLE UNITS W/O (6) & (6A)  
SECTION B'-B'  
N.T.S.

FLORIDA BUILDING CODE (HIGH & NON HIGH VELOCITY HURRICANE ZONE)

|                |  |                                 |  |                               |  |                                    |  |
|----------------|--|---------------------------------|--|-------------------------------|--|------------------------------------|--|
| Y.M. DRAWN BY: |  | 7/14/2023 DATE:                 |  | 23-093 DRAWING NO.            |  | SHEET 7 OF 9                       |  |
| MODEL WDV-75   |  | VERTICAL ALUMINUM LOUVER SYSTEM |  | UNITED ENERTECH HOLDINGS, LLC |  | 159 GEMCO DRIVE HARTFORD, AL 36344 |  |
| REV. NO.       |  | DESCRIPTION                     |  | DATE                          |  | REV. NO.                           |  |
| 1              |  | QLD 21-074                      |  | 7/14/23                       |  | 1                                  |  |
| 2              |  |                                 |  |                               |  | 2                                  |  |

TILECO INC.  
TILLIT TESTING & ENGINEERING COMPANY  
6355 N.W. 36th St., Ste. 305, Virginia Gardens, FL 33166  
Phone: (305) 871-1530 Fax: (305) 871-1531  
WALTER A. TILLIT JR., P.E.  
FLORIDA U.C. # 44167



P.E. SEAL/SIGNATURE/DATE

