

# PRODUCT APPROVAL FOR ALUMINUM STANDS FOR ROOF TOP VRF/VRV EQUIPMENT

1- THIS EQUIPMENT UNIT STAND SYSTEM SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D) HAS BEEN VERIFIED FOR CODE COMPLIANCE IN ACCORDANCE WITH THE 2023 (8th EDITION) OF THE FLORIDA BUILDING CODE, FOR USE WITHIN THE HIGH VELOCITY HURRICANE ZONE (HVHZ) AND OUT OF IT. DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED SEPARATELY ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE USING ASD METHODOLOGY, IN ACCORDANCE WITH ASCE 7-22 AND SECTIONS 1616.1, 1620.1, 1620.6 & 1609 OF THE FLORIDA BUILDING CODE, AND SHALL BE LESS THAN OR EQUAL TO THE LATERAL AND UPLIFT DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN. (SHEET 3 THRU 7 , 10 & 11)

2- THE ARCHITECT/ENGINEER OF RECORD FOR THE EXISTING STRUCTURE THAT WILL SUPPORT THESE ALUMINUM STANDS SHALL BE RESPONSIBLE FOR ITS INTEGRITY AND SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND THE SUPERIMPOSED LOADS (ASD) - REF "REACTION SCHEDULE" INDICATED ON THIS SHEET, WHERE REACTION FORCES ARE LISTED FOR USE WITH EXISTING STRUCTURE. DESIGN PROFESSIONAL OF RECORD SHALL VERIFY APPLICABILITY AND/OR ADDITIONAL FACTORS FOR USE WITH EXISTING STRUCTURE VERIFICATION.

3- STAND SHALL BE INSTALLED WITH MINIMUM CLEAR HEIGHT AS SPECIFIED IN THE ABOVE-NOTED BUILDING CODE. "STAND HEIGHT" AS USED HEREIN IS NOT NECESSARILY EQUIVALENT TO "STAND CLEAR HEIGHT" AS SPECIFIED IN THE BLDG CODE. STANDS SHALL BE INSTALLED WITH A MINIMUM CLEAR HEIGHT IN ACCORDANCE WITH SECTIONS 1522 & 1510 TABLES 1522.3 & 1510.10 OF THE FLORIDA BUILDING CODE, APPLICABLE TO HIGH VELOCITY HURRICANE ZONE & ZONES OUT OF IT, RESPECTIVELY.

4- VIBRATION ISOLATOR PADS SHALL BE PROVIDED BY OTHERS BETWEEN UNITS & STAND.

5- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT FASTENING AS SHOWN HEREIN WILL NOT VOID THE EQUIPMENT MANUFACTURER'S WARRANTY, ESPECIALLY WHERE UNITS ARE INSTALLED WITH OVERHANG PAST RAIL (SEE TIE-DOWN DETAILS). STRUCTURAL ADEQUACY OF EQUIPMENT FOR WIND RESISTANCE IS NOT PART OF THIS APPROVAL AND MUST BE VERIFIED SEPARATELY.

6- ELECTRICAL GROUND , WHEN REQUIRED , TO BE DESIGNED & INSTALLED BY OTHERS. ALL MECHANICAL SPECIFICATIONS (CLEAR SPACE, TONNAGE, ETC.) SHALL BE AS PER MANUFACTURER RECOMMENDATIONS AND ARE THE EXPRESS RESPONSIBILITY OF THE CONTRACTOR.

7- MAXIMUM DIMENSIONS AND WEIGHT OF MECHANICAL UNITS SHALL CONFORM TO SPECIFICATIONS STATED HEREIN, SEE SHEETS 5 AND 7 THRU 10 FOR LIMITATIONS.

8- ALL ANCHORS & BOLTS SHALL BE AS SPECIFIED ON THIS DRAWING, AND SHALL COMPLY WITH SECTION 2411.3.3.4 OF THE FLORIDA BUILDING CODE.

9- ALL ALUMINUM EXTRUSIONS SHALL BE 6061-T6 ALLOY & TEMPER, UNLESS NOTED OTHERWISE. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AWS D 1.2 REQUIREMENTS, USING 5356 FILLER ALLOYS.

10- ALL EXISTING CONCRETE SUBSTRATE SHALL HAVE MINIMUM  $f_c$  COMPRESSIVE STRENGTH OF 4000 PSI AS VERIFIED BY OTHERS.

11- ALL ALUMINUM EXTRUSIONS IN CONTACT WITH DISSIMILAR MATERIALS SHALL COMPLY WITH SECTION III-6 OF THE 2020 ALUMINUM DESIGN MANUAL.

12- ENGINEER SEAL AFFIXED HERETO VALIDATE STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED ON THIS DOCUMENT.

13- WATER-TIGHTNESS OF EXISTING HOST SUBSTRATE SHALL BE THE FULL RESPONSIBILITY OF THE INSTALLING CONTRACTOR. CONTRACTOR SHALL ENSURE THAT ANY REMOVED OR ALTERED WATERPROOFING MEMBRANE IS RESTORED AFTER FABRICATION AND INSTALLATION OF STRUCTURE PROPOSED HEREIN. THIS ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY WATERPROOFING OR LEAKAGE ISSUES WHICH WAY OCCUR AS WATER-TIGHTNESS SHALL BE THE FULL RESPONSIBILITY OF THE INSTALLING CONTRACTOR.

14- (a) THIS P.E.D. (PRODUCT EVALUATION DOCUMENT) 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.

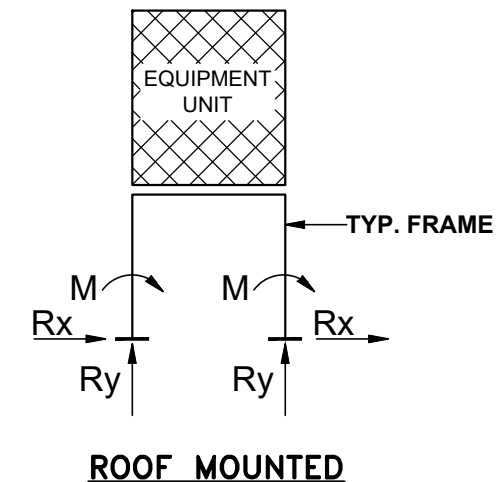
(d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D.

(e) ORIGINAL P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

15- PRODUCT MANUFACTURER'S LABEL SHALL BE PLACED ON AN EXPOSED SURFACE OF STAND, INCLUDING MANUFACTURER'S NAME, CITY WHERE LOCATED AND THE FLORIDA PRODUCT APPROVAL NUMBER.

### MAX. REACTION SCHEDULES: SEE NOTE 2/1

| REACTION AT BASE $R_x$ | REACTION AT BASE $R_y$                 | MOMENT (M) |
|------------------------|--|------------|
| 582 Lbs                | UPLIFT: 2257 Lbs<br>DOWNWARD: 1989 Lbs | 0.77 K-ft  |



### INSTRUCTIONS:

**STEP 1:** DETERMINE REQUIRED DESIGN WIND LOAD PER GENERAL NOTE 1, BASED ON BUILDING INFO.

**STEP 2:** FOR EQUIPMENT FOR WHICH STAND IS BEING DESIGNED GO THRU CASES I THRU VI.2 TO LOOK FOR THE CLOSEST EQUIPMENT TYPE & STAND SIZE THAT WILL MATCH JOB CONDITIONS.

**STEP 3:** VERIFY THAT REQUIRED WIND PRESSURE DETERMINED PER STEP 1 DOES NOT EXCEED THE MAX. PRESSURE RATING INDICATED ON THE CORRESPONDING CASE. STAND'S DESIGN WILL THEN BE THE INDICATED ONE.

**STEP 4:** IN CASE REQUIRED WIND PRESSURE OR REQUIRED STAND HEIGHT EXCEEDS MAX. PRESSURE RATING FOR THE GIVEN CASE, A SITE SPECIFIC WILL BE REQUIRED FOR THE SPECIFIC EQUIPMENT AND STAND HEIGHT.

**STEP 5:** REQUIRED TIE DOWN SHALL BE BASED ON CASES I THRU VI.2. SEE ADDITIONAL NOTES ON TIE DOWN BOLT LOCATIONS SHOWN ON SHEET 9 FOR CASES I THRU V.

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

FLORIDA BUILDING CODE (High and Non High Velocity Hurricane Zone)

DRAWN BY: W.H  
DATE: 05/23/2025  
DRAWING No: 25-034  
SHEET 1 OF 12

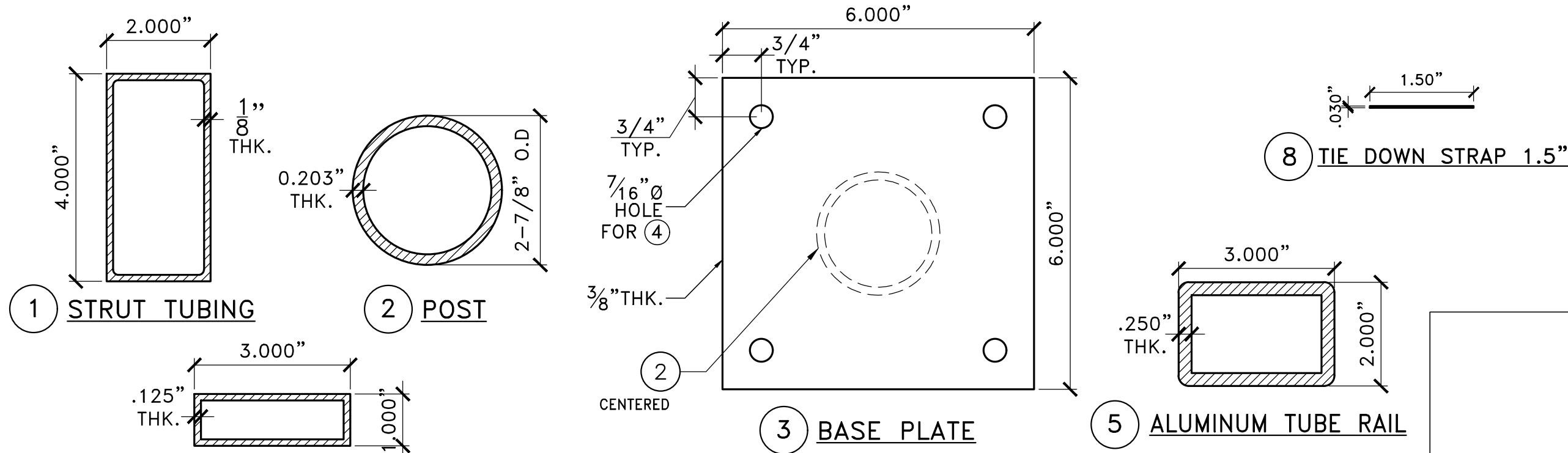
ALUMINUM STANDS FO ROOF TOP EQUIPMENTS (VRF'S & MINI-SPLITS)  
**F&L ALUMINUM PARTS, INC.**  
2087 N. POWERLINE RD. SUITE #1  
POMPANO BEACH, FL. 33069

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**TILTECO INC.**  
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WALTER A. TILLIT Jr. P.E.  
FLORIDA Lic. # 44167

P.E. SEAL/SIGNATURE/DATE

**BILL OF MATERIALS: CASES I THRU VI**

| COMPONENT No. | DESCRIPTION                  | DIMENSIONS                           | MATERIAL                              | MANUFACTURER        | NOTES  |
|---------------|------------------------------|--------------------------------------|---------------------------------------|---------------------|--|
| ①             | STRUT TUBING                 | 2" X 4" X 1/8" THK.                  | 6063-T5 ALLOY                         | F&L Aluminum parts. | WIND BRACING COMPONENT WELDED TO ②. CASES I THRU VI      |
| ②             | POST                         | 2 7/8" O.D X 0.203" THK.             | 6061-T6 ALLOY                         | F&L Aluminum parts. | WELDED TO ⑤ AT TOP & TO ③ AT BOTTOM. CASES I THRU VI     |
| ③             | BASE PLATE                   | 6" X 6" X 3/8" THK.                  | 6061-T6 ALLOY                         | F&L Aluminum parts. | WELDED TO ② & ANCHORED TO EXISTING SLAB. CASES I THRU VI |
| ④             | ANCHOR FOR ③                 | 3/8"Ø SCREW BOLT                     | GALVANIZED STEEL                      | DEWALT              | W/3/4"MIN. EMBEDMENT & 6"MIN. ED. CASES I THRU VI        |
| ⑤             | ALUMINUM TUBE RAIL           | 3" X 2" X 1/4" THK.                  | 6061-T6 ALLOY                         | F&L Aluminum parts. | WELDED TO ② AT BOTTOM. CASES I THRU VI                   |
| ⑥             | THRU BOLT                    | 1/2"Ø-13 X 4"                        | ASTM A-307 GALV. STL.                 | F&L Aluminum parts. | TIEDOWN CONNECTION TO ⑤. CASES I THRU V                  |
| ⑦             | THRU BOLT                    | 3/8"Ø-16                             | ASTM A-307 GALV. STL.                 | F&L Aluminum parts. | FOR ⑧ CONNECTIONS. SEE DETAILS. CASES VI.1 & VI.2        |
| ⑧             | TIE DOWN STRAP 1.5"          | 1.50" X 0.030"                       | ASTM A-653 GRADE 33, G-90 GALV. STEEL | VARIES              | CONNECT W/(1)⑦. SEE DETAILS. CASES VI.1 & VI.2           |
| ⑩             | VRF/VRV-1 (CASE I)           | 37"(W)MAX. x 30"(D)MAX. x 67"(H)MAX. | 0.035"MIN. Fu=58Ksi STEEL             | VARIES              | WEIGHT: 430 Lbs. MAX.                                    |
| ⑪             | VRF/VRV-2 (CASE II)          | 51"(W)MAX. x 31"(D)MAX. x 67"(H)MAX. | 0.035"MIN. Fu=58Ksi STEEL             | VARIES              | WEIGHT: 553 Lbs. MAX.                                    |
| ⑫             | VRF/VRV-3 (CASE III)         | 69"(W)MAX. x 31"(D)MAX. x 66"(H)MAX. | 0.035"MIN. Fu=58Ksi STEEL             | VARIES              | WEIGHT: 904 Lbs. MAX.                                    |
| ⑬             | VRF/VRV-4 (CASE IV)          | 39"(W)MAX. x 31"(D)MAX. x 73"(H)MAX. | 0.035"MIN. Fu=58Ksi STEEL             | VARIES              | WEIGHT: 574 Lbs. MAX.                                    |
| ⑭             | VRF/VRV-5 (CASE V)           | 69"(W)MAX. x 30"(D)MAX. x 72"(H)MAX. | 0.035"MIN. Fu=58Ksi STEEL             | VARIES              | WEIGHT: 757 Lbs. MAX.                                    |
| ⑮             | VRF/VRV-6 (CASE VI.1 & VI.2) | 40"(W)MAX. x 17"(D)MAX. x 61"(H)MAX. | 0.035"MIN. Fu=58Ksi STEEL             | VARIES              | WEIGHT: 311 Lbs. MAX.                                    |
| ⑯             | SECONDARY RAIL               | 3" X 1" X 1/8" THK.                  | 6063-T5 ALLOY                         | F&L Aluminum parts. | USE ONLY AT CASE VI.2.                                   |



**COMPONENTS: CASES I THRU V**

SCALE: N.T.S

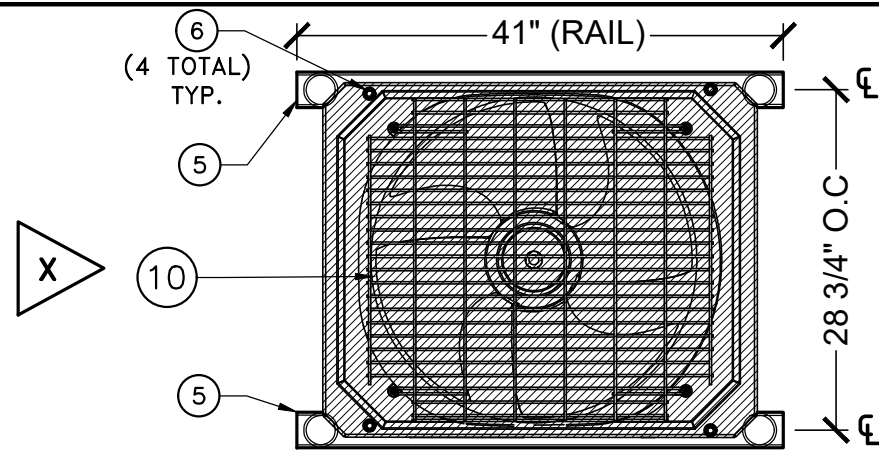
FLORIDA BUILDING CODE (High and Non High Velocity Hurricane Zone)

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| ALUMINUM STANDS FO ROOF TOP EQUIPMENTS (VRF'S & MINI-SPLITS) |   | F&L ALUMINUM PARTS, INC. |      | SHEET 2 OF 12               |      |
| 2087 N. POWERLINE RD. SUITE #1<br>POMPANO BEACH, FL. 33069   |   | REV. No                  | DATE | DESCRIPTION                 | DATE |
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**TILTECO INC.**

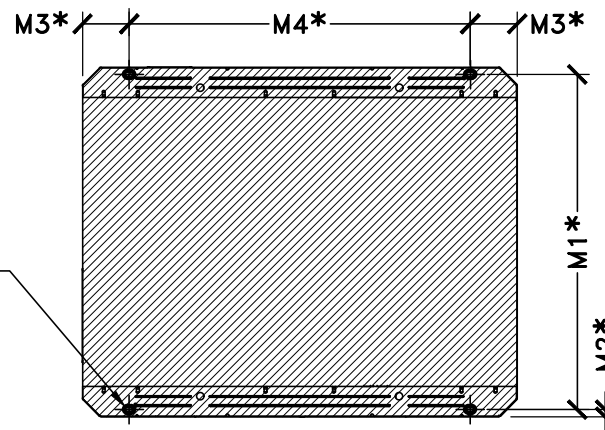
TILLIT TESTING & ENGINEERING COMPANY  
 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL. 33166  
 Phone : (305)871-1530 - Fax : (305)871-1531  
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 CA-0006719  
 WALTER A. TILLIT Jr. P.E.  
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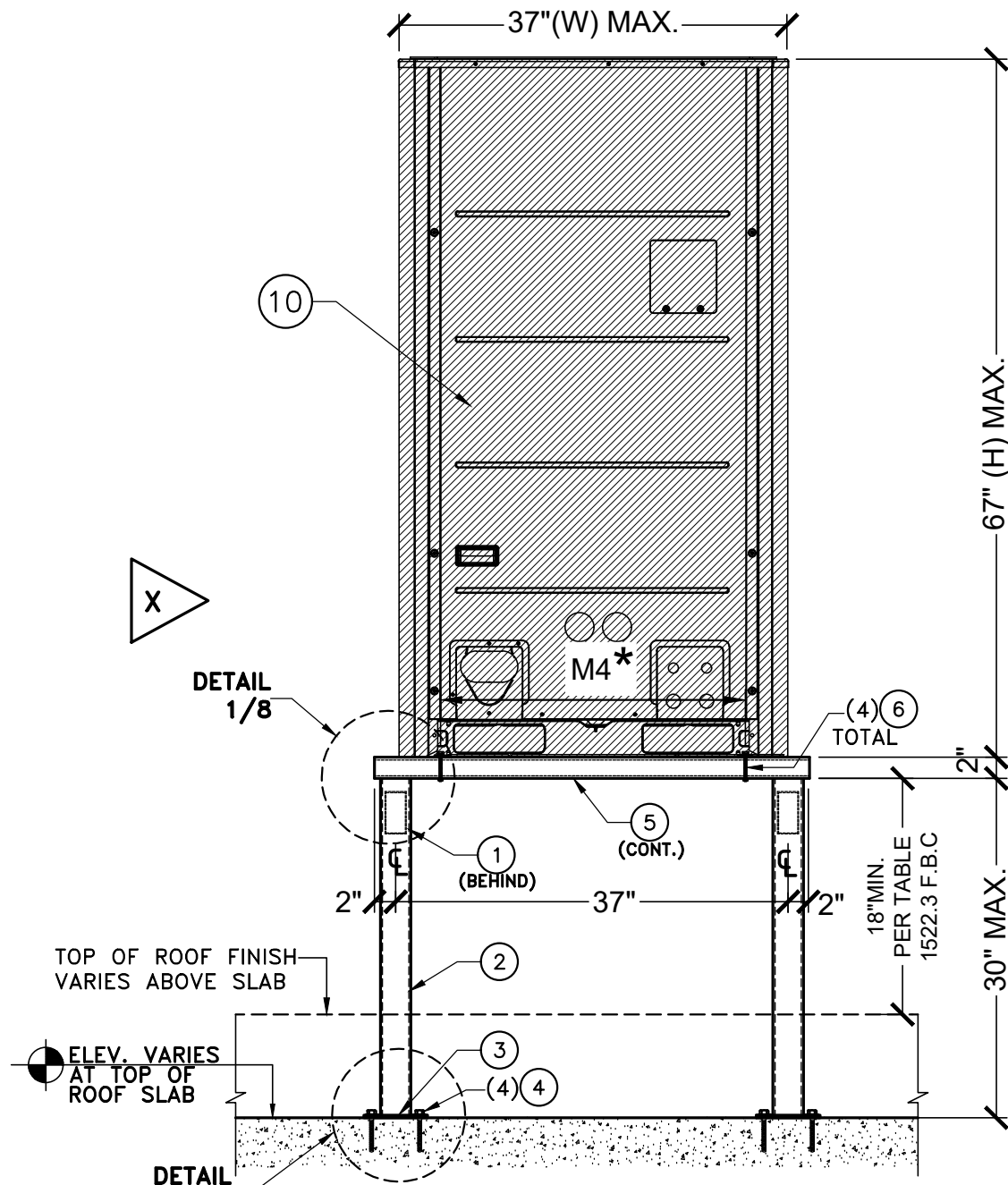
**TYP. PLAN VIEW VRF STAND**

SCALE: N.T.S



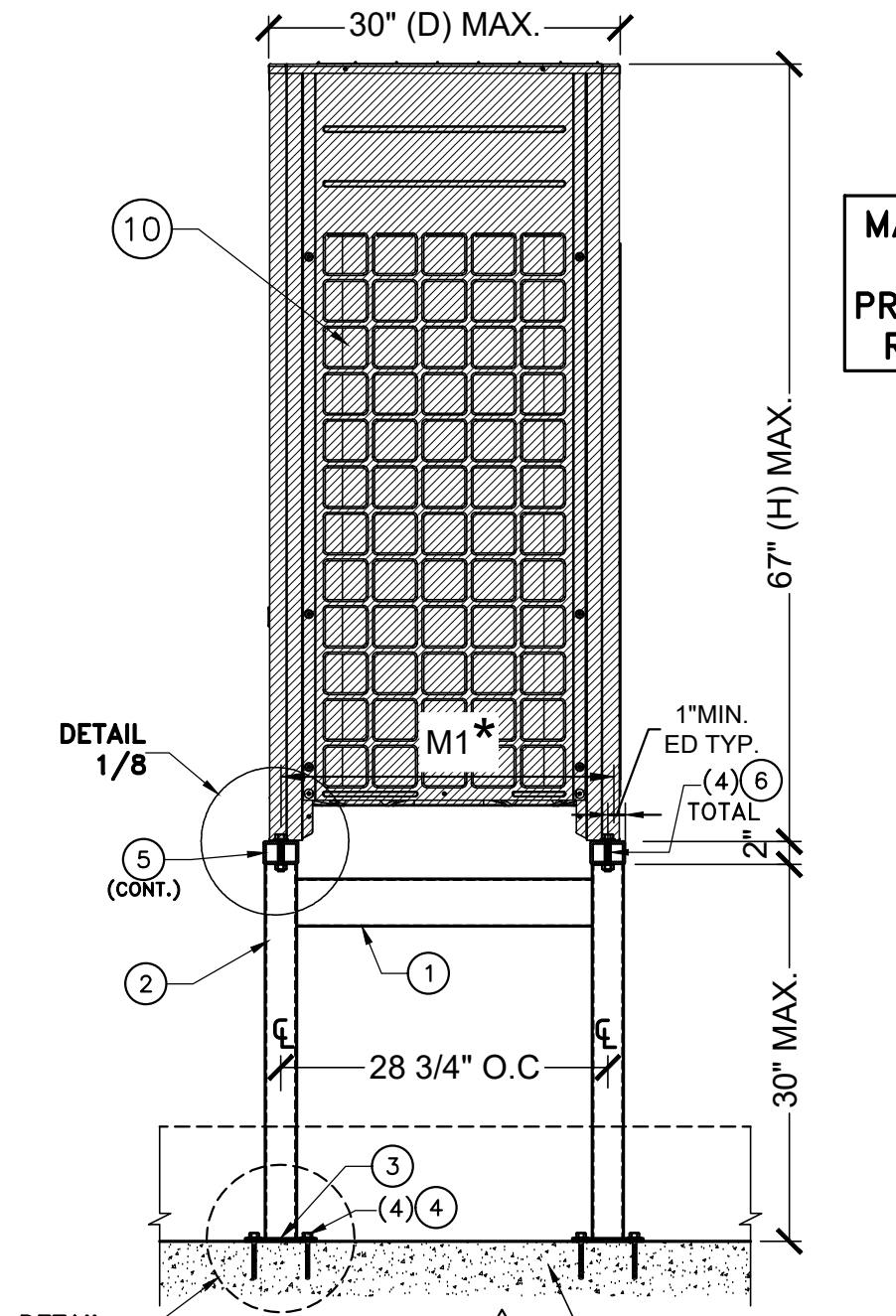
**BOTTOM MOUNTING HOLES**

SCALE: N.T.S



**TYP. ELEVATION VRF/VRV-1 (10)**

SCALE: N.T.S



**VIEW X**

SCALE: N.T.S

**CASE I**

| MAXIMUM ASD. PRESSURE RATING | LATERAL   | UPLIFT   |
|------------------------------|-----------|----------|
|                              | 113.2 psf | 89.4 psf |

**\*NOTE:** SEE SCHEDULE ON SHEET 9 FOR M1, M2, M3 & M4 VALUES COVERED BY THIS APPROVAL.

FLORIDA BUILDING CODE (High and Non High Velocity Hurricane Zone)

ALUMINUM STANDS FOR ROOF TOP EQUIPMENTS (VRF'S & MINI-SPLITS)

**F&L ALUMINUM PARTS, INC.**  
 2087 N. POWERLINE RD. SUITE #1  
 POMPANO BEACH, FL. 33069

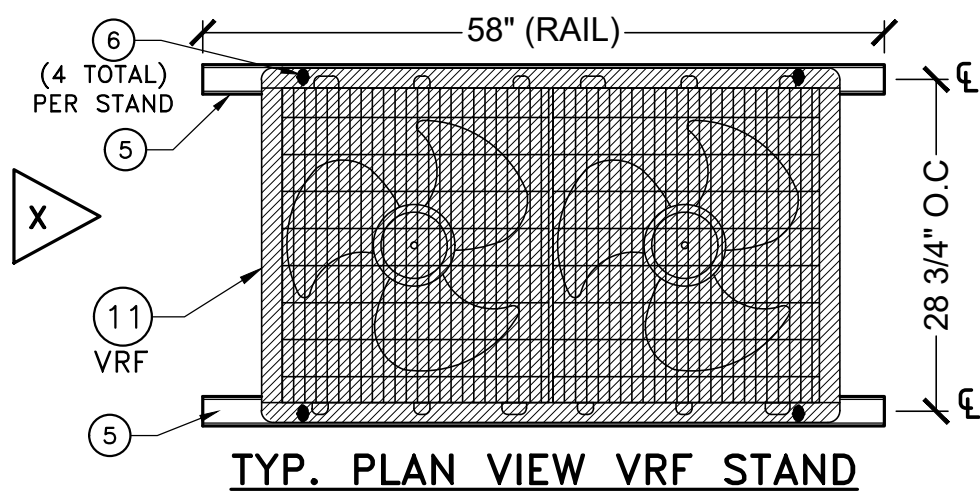
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 FLORIDA Lic. # 44167

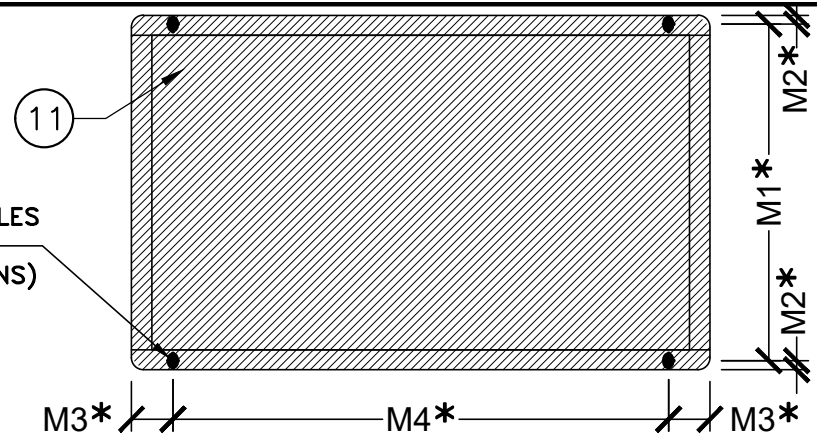
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| DRAWN BY:<br>W.H | DATE<br>05/23/2025 | DRAWING No<br><b>25-034</b> | SHEET 3 OF 12 |
| DESCRIPTION      | REV. No            | DATE                        | DESCRIPTION   |
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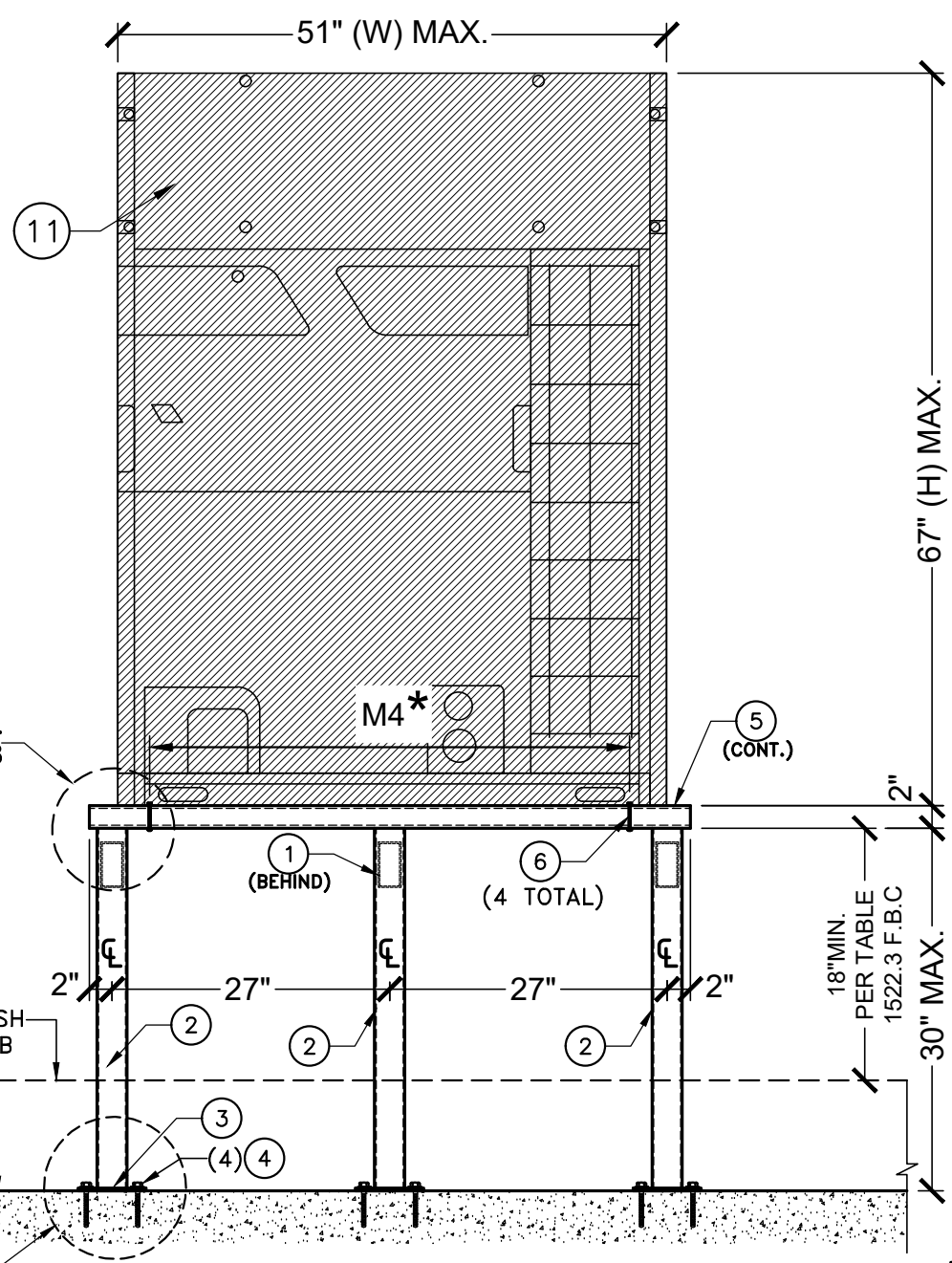
**TYP. PLAN VIEW VRF STAND**

SCALE: N.T.S



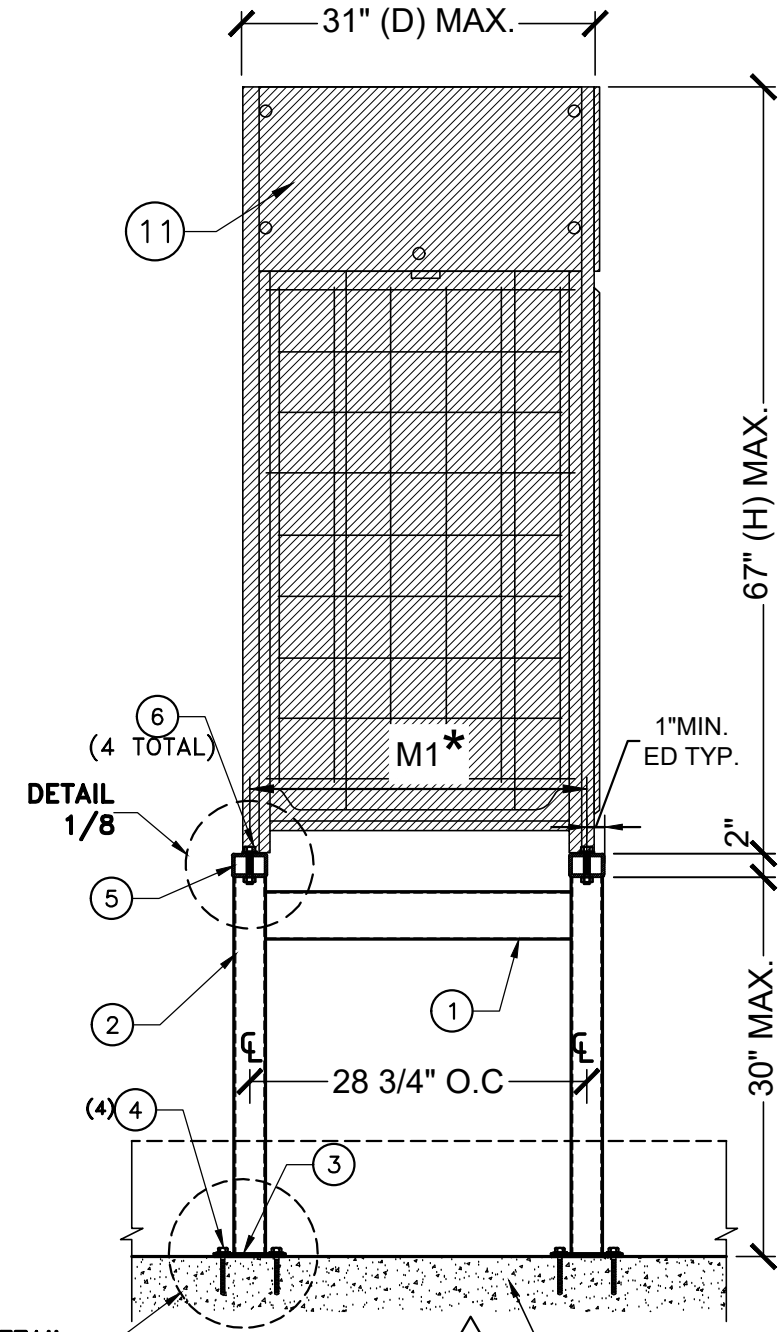
**BOTTOM MOUNTING HOLES**

SCALE: N.T.S



**TYP. ELEVATION VRF-2 (11)**

SCALE: N.T.S



**VIEW X**

SCALE: N.T.S

6" THK. MIN. &  $f_c' = 4\text{KSI}$  MIN. REQ'D. EXISTING CONCRETE SLAB

**CASE II**

| MAXIMUM ASD. PRESSURE RATING | LATERAL   | UPLIFT   |
|------------------------------|-----------|----------|
|                              | 106.4 psf | 84.0 psf |

**\*NOTE: SEE SCHEDULE ON SHEET 9 FOR M1, M2, M3 & M4 VALUES COVERED BY THIS APPROVAL.**

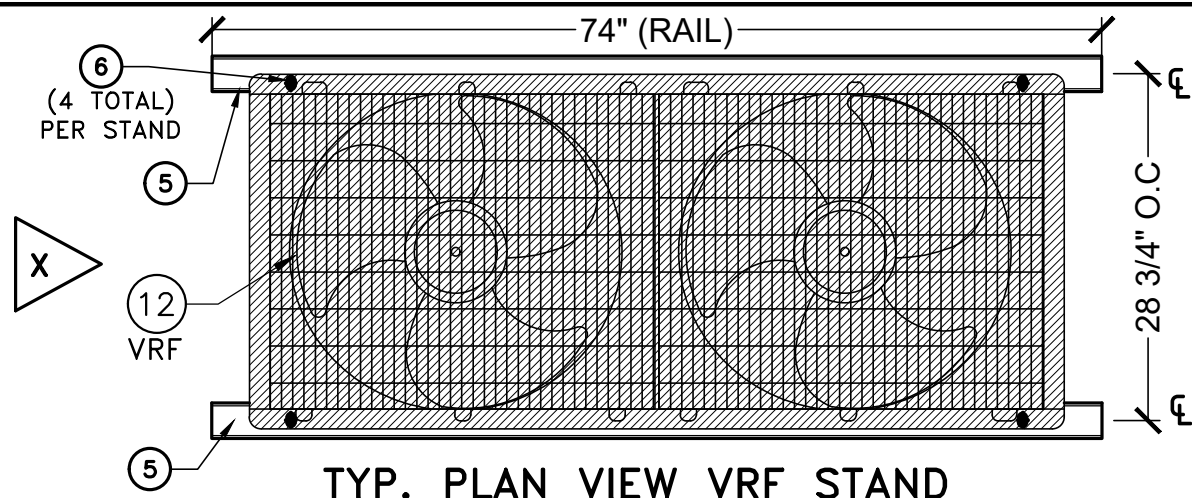
FLORIDA BUILDING CODE (High and Non High Velocity Hurricane Zone)

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| DRAWN BY:<br>W.H   |             | DATE<br>05/23/2025 |         | DRAWING No<br><b>25-034</b>  |      | SHEET <b>4</b> OF 12 |             |
| ALUMINUM STANDS FO ROOF TOP EQUIPMENTS (VRF'S & MINI-SPLITS) |             |                    |         | F&L ALUMINUM PARTS, INC.<br>2087 N. POWERLINE RD. SUITE #1<br>POMPANO BEACH, FL. 33069 |      |                      |             |
| REV. No  | DESCRIPTION | DATE               | REV. No | DESCRIPTION  | DATE | REV. No              | DESCRIPTION |
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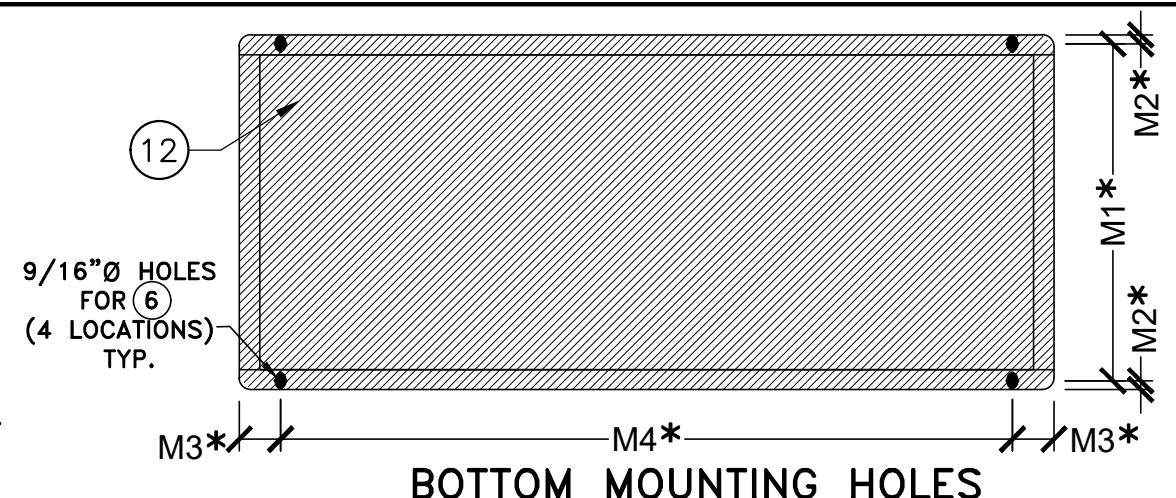


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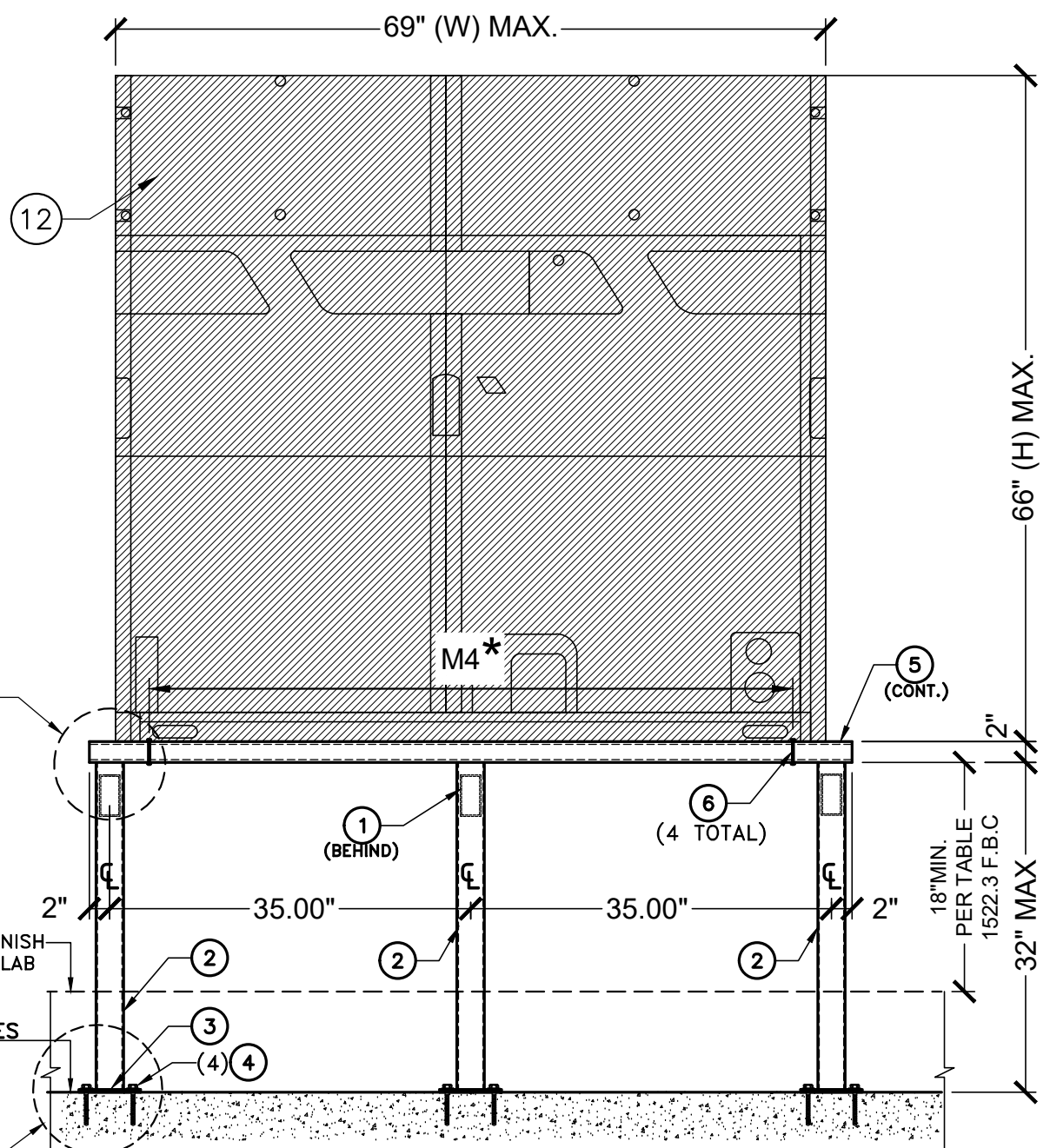


**TYP. PLAN VIEW VRF STAND**  
SCALE: N.T.S

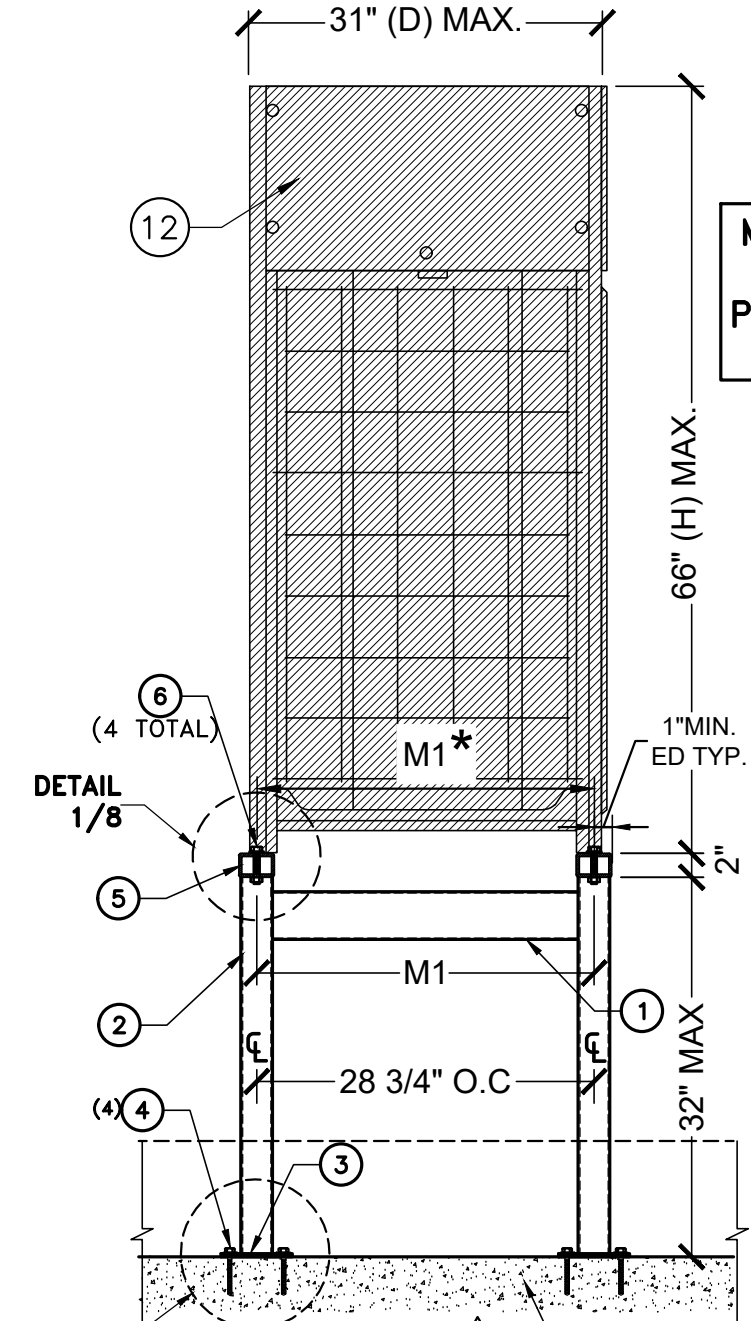


**BOTTOM MOUNTING HOLES**  
SCALE: N.T.S

9/16"Ø HOLES FOR (6) (4 LOCATIONS) TYP.



**TYP. ELEVATION VRF-3 (12)**  
SCALE: N.T.S



**VIEW X**  
SCALE: N.T.S

**CASE III**

| MAXIMUM ASD. PRESSURE RATING | LATERAL   | UPLIFT   |
|------------------------------|-----------|----------|
|                              | 111.7 psf | 88.2 psf |

**\*NOTE:** SEE SCHEDULE ON SHEET 9 FOR M1, M2, M3 & M4 VALUES COVERED BY THIS APPROVAL.

TOP OF ROOF FINISH VARIES ABOVE SLAB

ELEV. VARIES AT TOP OF ROOF SLAB

6" THK. MIN. & fc' = 4Ksi MIN. REQ'D. EXISTING CONCRETE SLAB

FLORIDA BUILDING CODE (High and Non High Velocity Hurricane Zone)

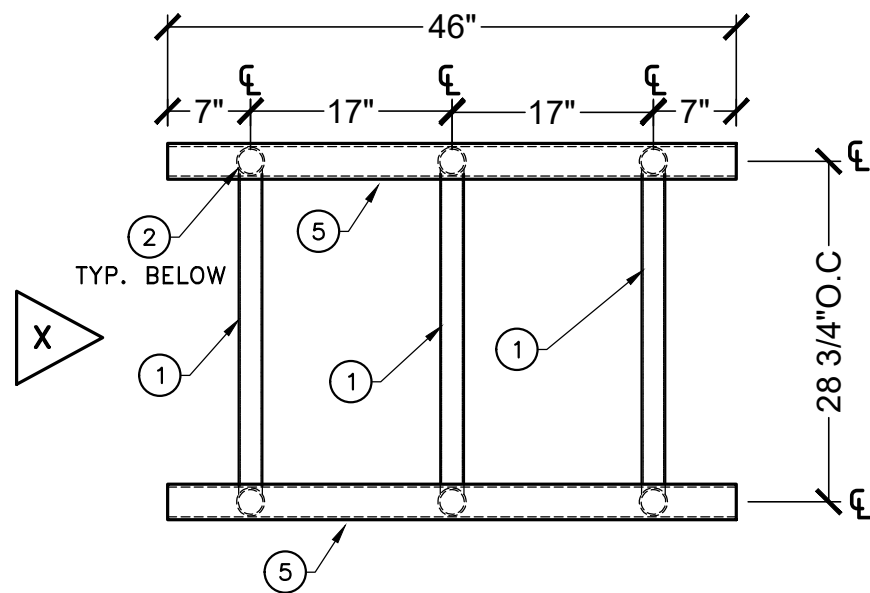
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| DRAWN BY: W.H  |             | DATE: 05/23/2025 |         | DRAWING No: 25-034   |      | SHEET 5 OF 12 |             |
| ALUMINUM STANDS FO ROOF TOP EQUIPMENTS (VRF'S & MINI-SPLITS) |             |                  |         | F&L ALUMINUM PARTS, INC.                                   |      |               |             |
|  |             |                  |         | 2087 N. POWERLINE RD. SUITE #1<br>POMPANO BEACH, FL. 33069 |      |               |             |
| REV. No  | DESCRIPTION | DATE             | REV. No | DESCRIPTION  | DATE | REV. No       | DESCRIPTION |
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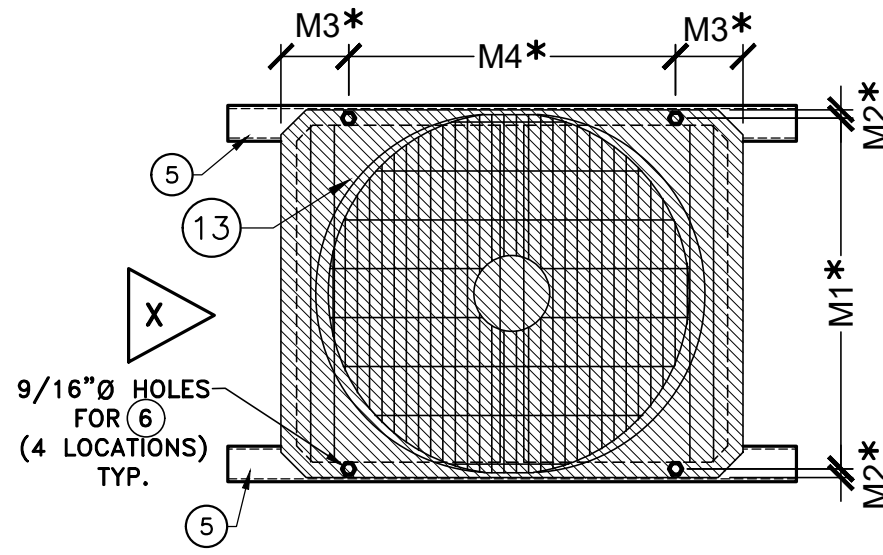
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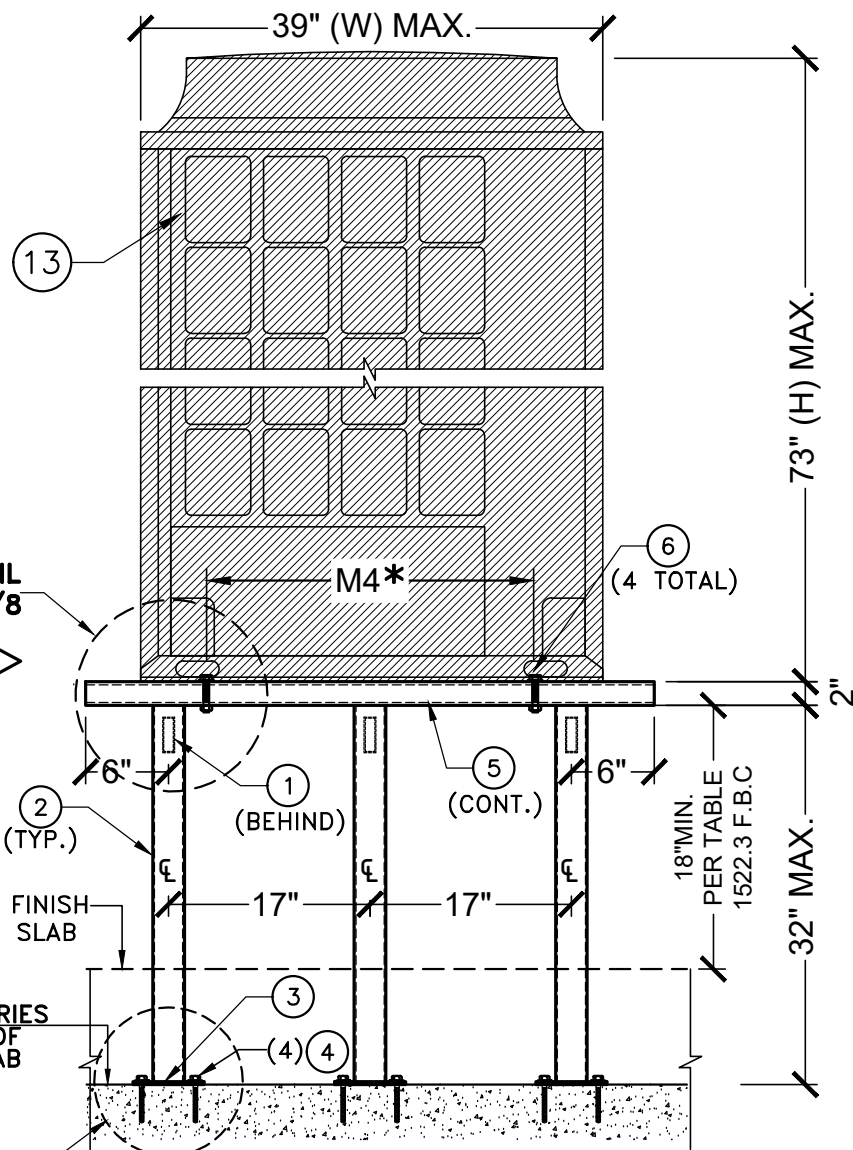
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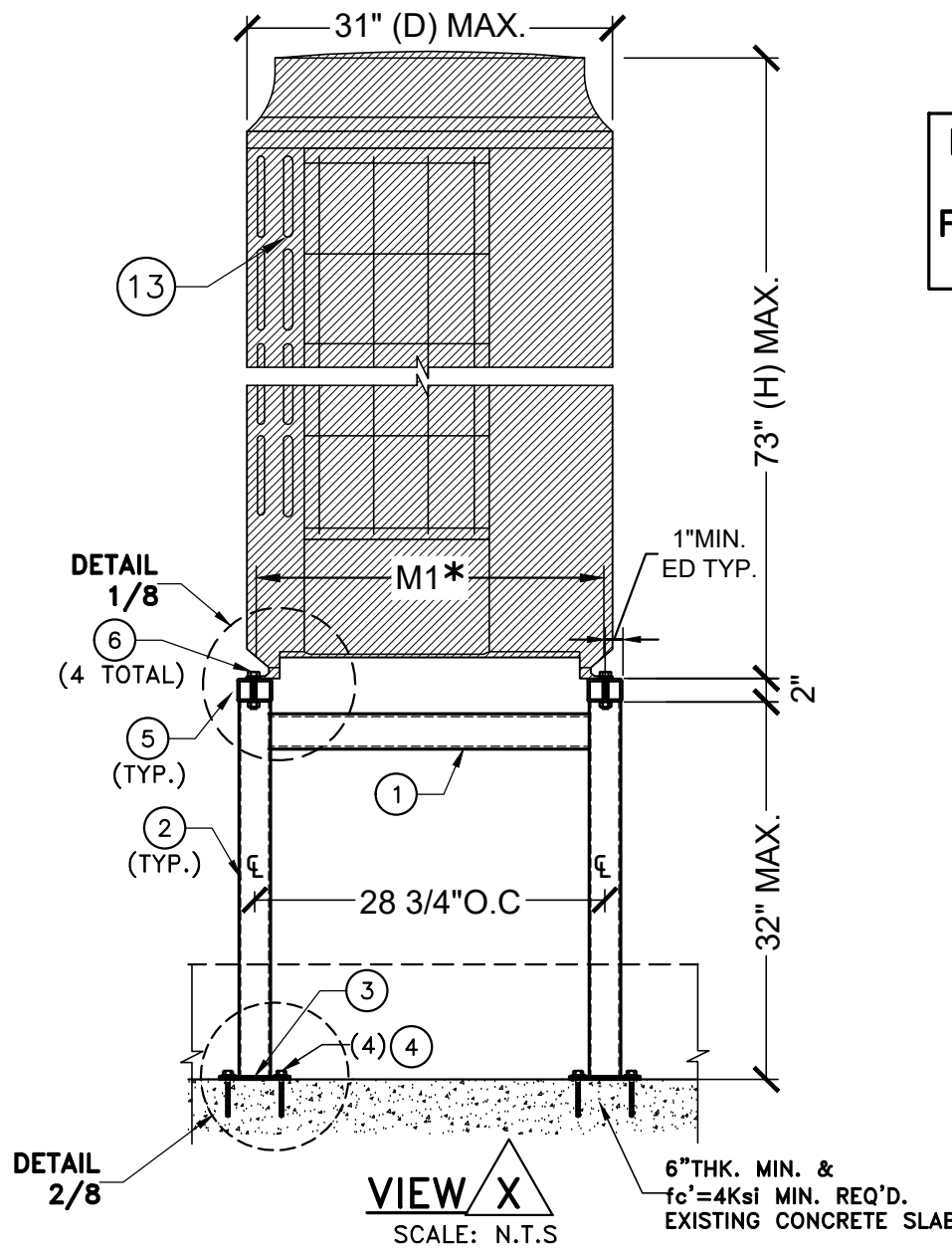
**TYP. PLAN VIEW VRF STAND**  
SCALE: N.T.S



**BOTTOM MOUNTING HOLES**  
SCALE: N.T.S



**TYP. ELEVATION VRF-4 (13)**  
SCALE: N.T.S



**VIEW X**  
SCALE: N.T.S

**CASE IV**

| MAXIMUM ASD. PRESSURE RATING | LATERAL  | UPLIFT   |
|------------------------------|----------|----------|
|                              | 88.3 psf | 69.8 psf |

**\*NOTE:** SEE SCHEDULE ON SHEET 9 FOR M1, M2, M3 & M4 VALUES COVERED BY THIS APPROVAL.

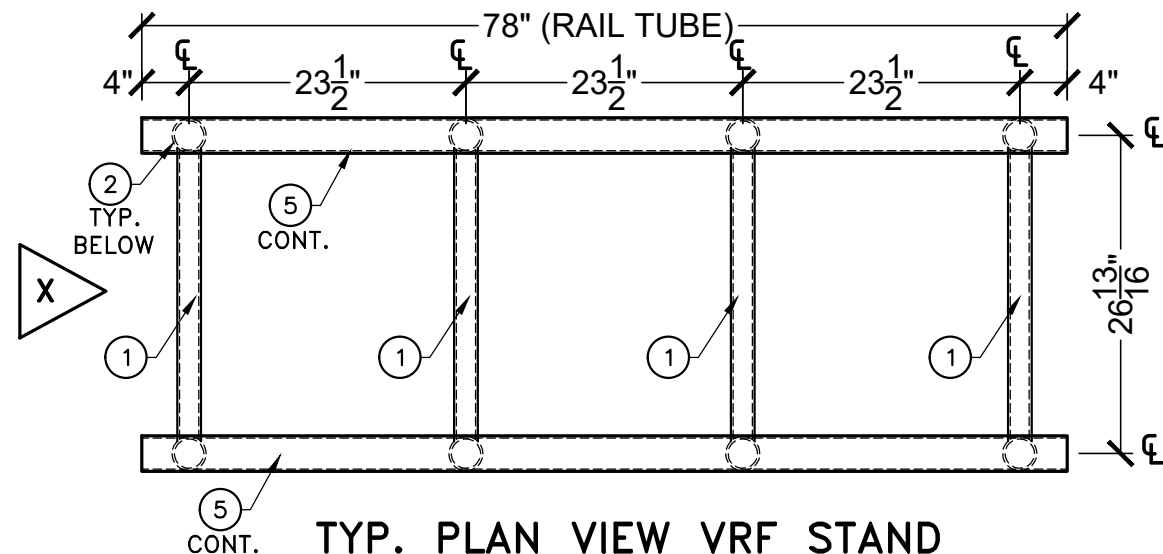
FLORIDA BUILDING CODE (High and Non High Velocity Hurricane Zone)

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| DRAWN BY:<br>W.H   |             | DATE<br>05/23/2025 |         | DRAWING No<br><b>25-034</b>  |      | SHEET <b>6</b> OF 12 |             |
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| REV. No  | DESCRIPTION | DATE               | REV. No | DESCRIPTION  | DATE | REV. No              | DESCRIPTION |
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**TILTECO INC.**

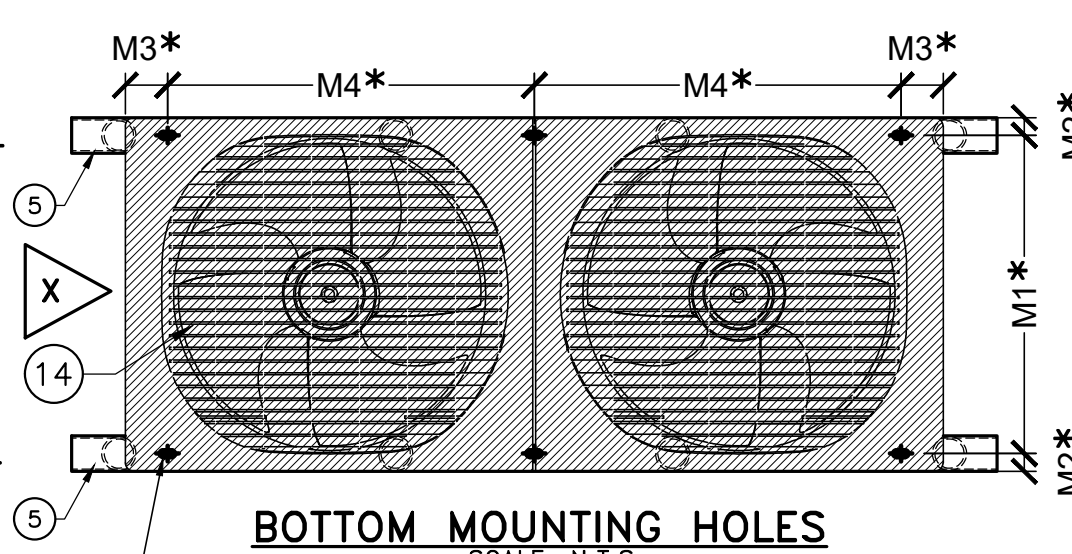
TILLIT TESTING & ENGINEERING COMPANY  
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL. 33166  
Phone : (305)871-1530 - Fax : (305)871-1531  
e-mail: tilteco@aol.com  
CA-0006719  
WALTER A. TILLIT Jr. P.E.  
FLORIDA Lic. # 44167

P.E. SEAL/SIGNATURE/DATE



**TYP. PLAN VIEW VRF STAND**

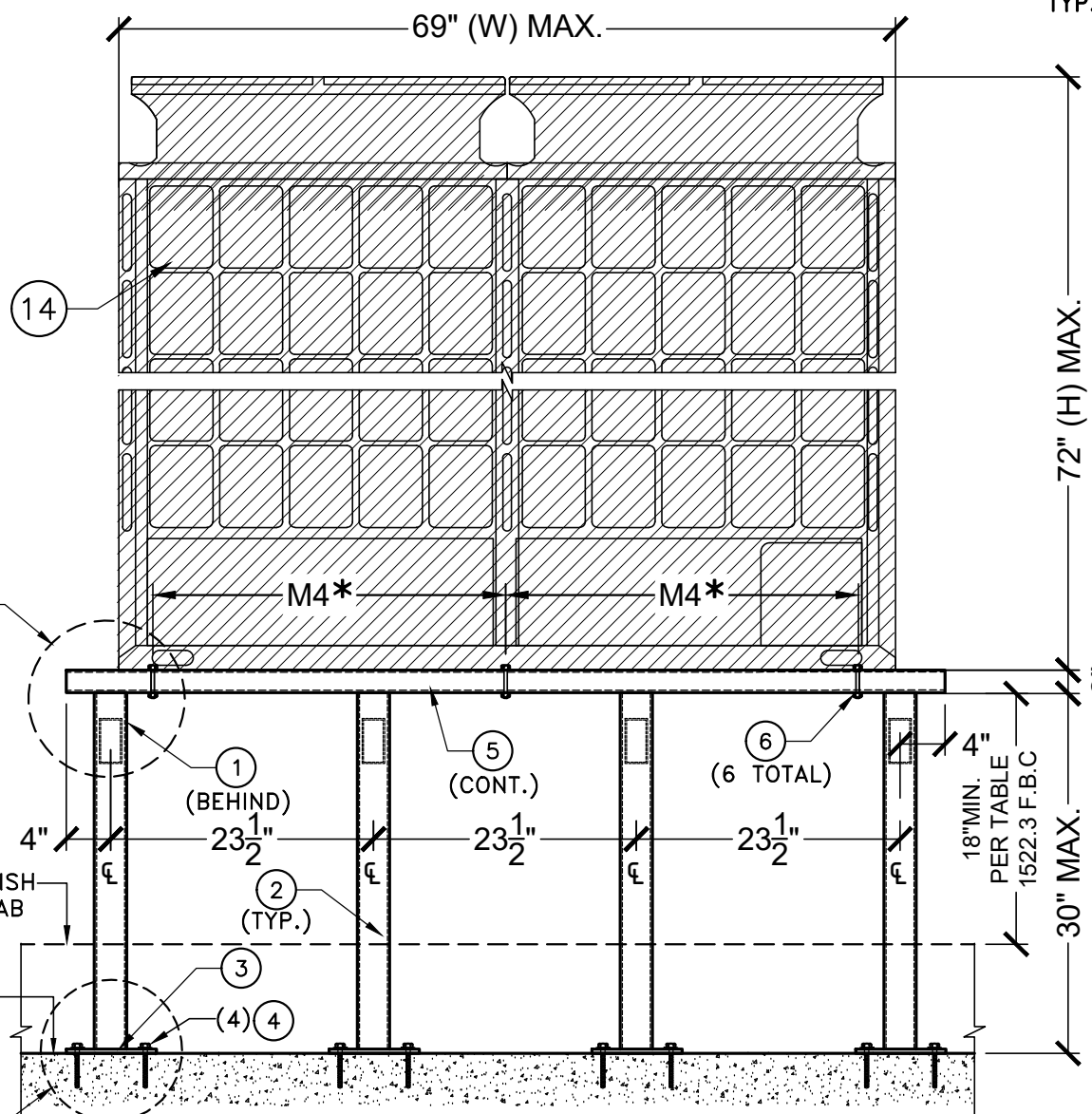
SCALE: N.T.S



**BOTTOM MOUNTING HOLES**

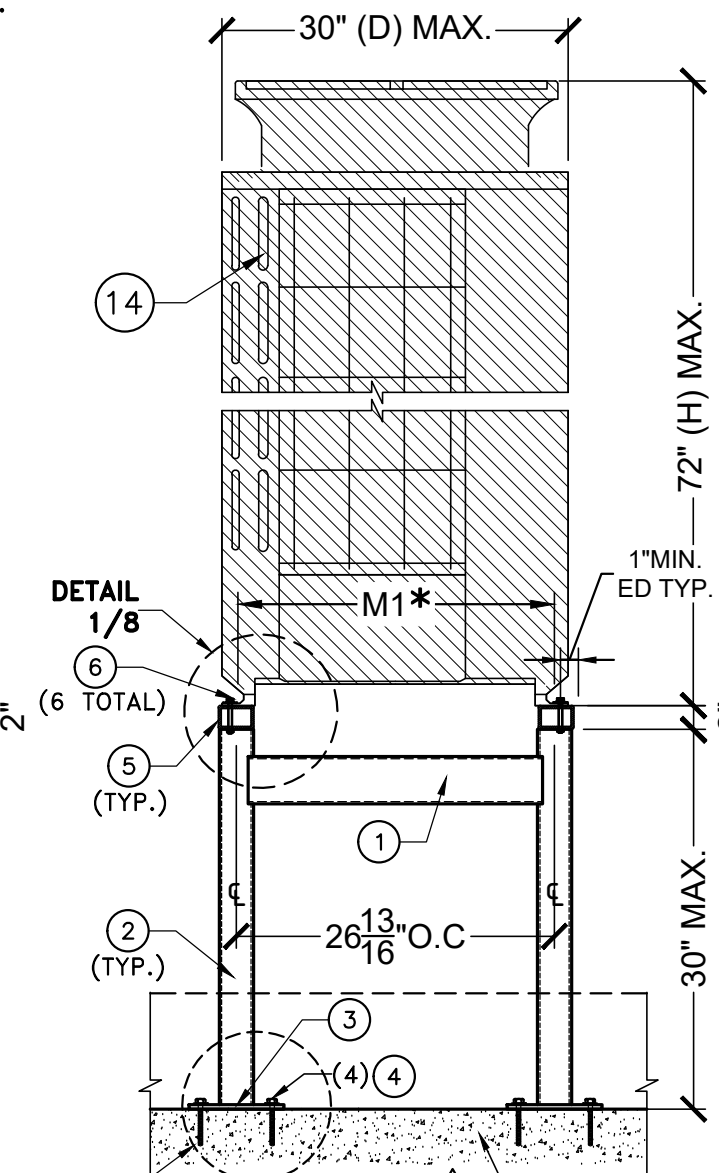
SCALE: N.T.S

9/16"Ø HOLES FOR (6) LOCATIONS TYP.



**TYP. ELEVATION VRF-5 (14)**

SCALE: N.T.S



**VIEW X**

SCALE: N.T.S

6"THK. MIN. & fc'=4Ksi MIN. REQ'D. EXISTING CONCRETE SLAB

**CASE V**

| MAXIMUM ASD. PRESSURE RATING | LATERAL  | UPLIFT   |
|------------------------------|----------|----------|
|                              | 74.5 psf | 58.8 psf |

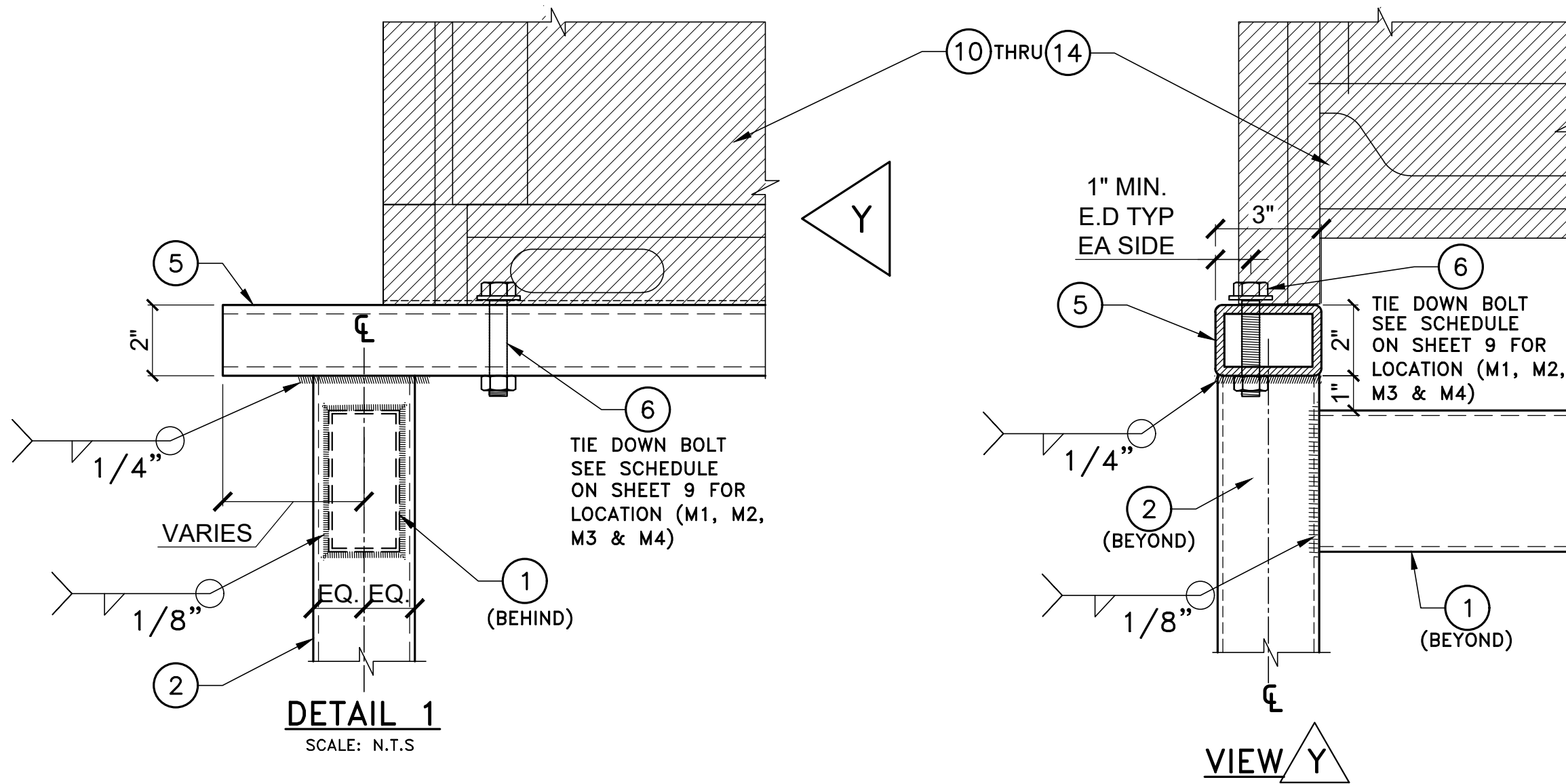
**\*NOTE: SEE SCHEDULE ON SHEET 9 FOR M1, M2, M3 & M4 VALUES COVERED BY THIS APPROVAL.**

FLORIDA BUILDING CODE (High and Non High Velocity Hurricane Zone)

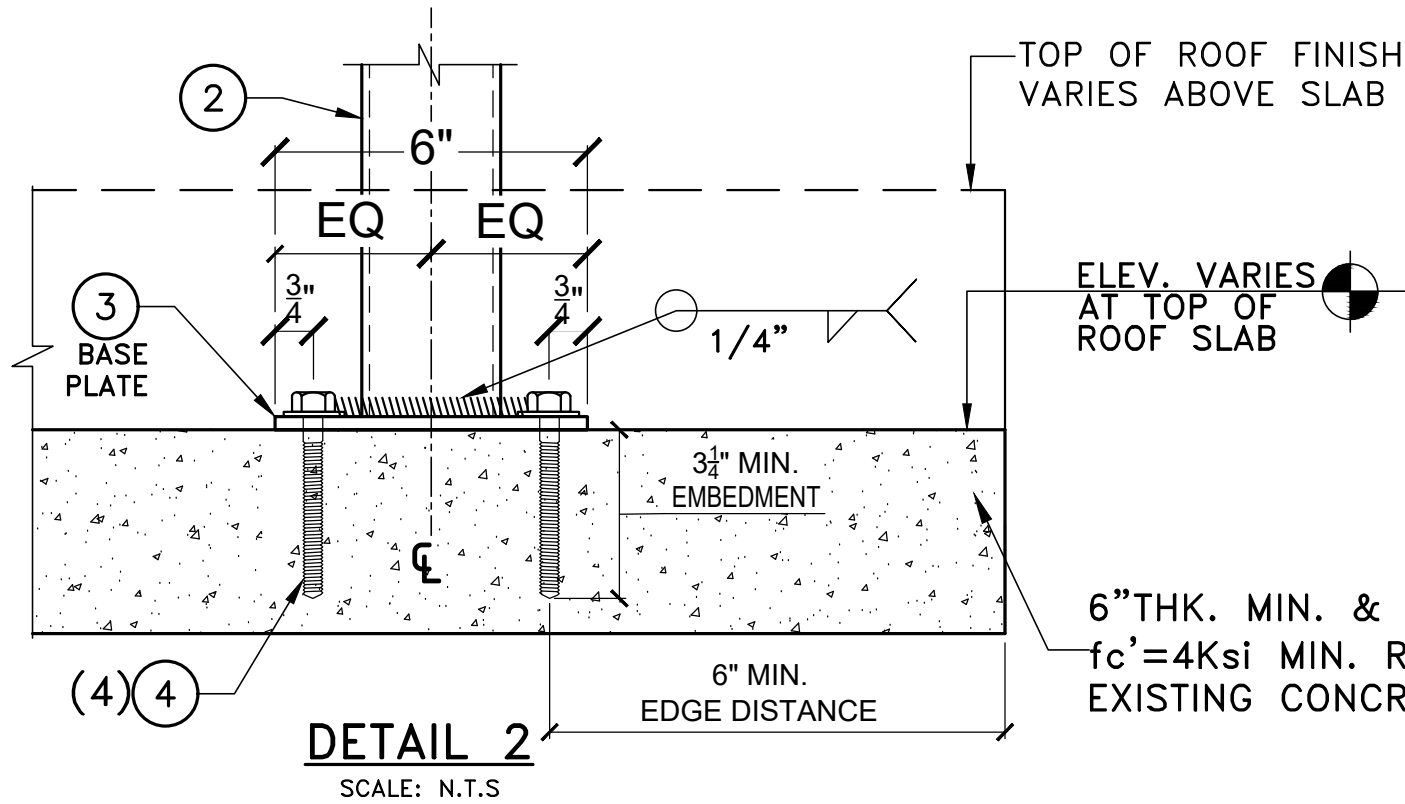
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| DRAWN BY:<br>W.H   |             | DATE<br>05/23/2025 |         | DRAWING No<br><b>25-034</b>  |      | SHEET 7 OF 12 |             |
| ALUMINUM STANDS FO ROOF TOP EQUIPMENTS (VRF'S & MINI-SPLITS) |             |                    |         | F&L ALUMINUM PARTS, INC.<br>2087 N. POWERLINE RD. SUITE #1<br>POMPANO BEACH, FL. 33069 |      |               |             |
| REV. No  | DESCRIPTION | DATE               | REV. No | DESCRIPTION  | DATE | REV. No       | DESCRIPTION |
| 1  |             |                    | 3       |  |      | 4             |             |
| 2  |             |                    |         |  |      |               |             |

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**DETAIL 1**  
SCALE: N.T.S



**DETAIL 2**  
SCALE: N.T.S

**CASES I THRU V**

6" THK. MIN. &  
fc' = 4Ksi MIN. REQ'D.  
EXISTING CONCRETE SLAB

FLORIDA BUILDING CODE (High and Non High Velocity Hurricane Zone)

|  |             |                    |         |  |      |               |             |
|--|-------------|--------------------|---------|--|------|---------------|-------------|
| DRAWN BY:<br>W.H   |             | DATE<br>05/23/2025 |         | DRAWING No<br>25-034   |      | SHEET 8 OF 12 |             |
| ALUMINUM STANDS FO ROOF TOP EQUIPMENTS (VRF'S & MINI-SPLITS) |             |                    |         | F&L ALUMINUM PARTS, INC.<br>2087 N. POWERLINE RD. SUITE #1<br>POMPANO BEACH, FL. 33069 |      |               |             |
| REV. No  | DESCRIPTION | DATE               | REV. No | DESCRIPTION  | DATE | REV. No       | DESCRIPTION |
| 1  |             |                    | 3       |  |      | 4             |             |
| 2  |             |                    |         |  |      |               |             |

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**TYPICAL TIE DOWN BOLT (6) LOCATION IN RESPECT TO  
VRF/VRV BASED ON MANUFACTURER & ON UNIT'S SIZE\*  
(VALID ONLY FOR CASES I THRU V)**

| MANUFACTURER | UNIT SIZE                          |                                    |                                    | TIE DOWN BOLT LOCATION             |                                   |                                   |                                    |
|--------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------------------|-----------------------------------|------------------------------------|
|              | (W)                                | (D)                                | (H)                                | M1                                 | M2                                | M3                                | M4                                 |
| LG           | 36 <sup>5</sup> / <sub>8</sub> "   | 29 <sup>29</sup> / <sub>32</sub> " | 66 <sup>17</sup> / <sub>32</sub> " | 28 <sup>25</sup> / <sub>32</sub> " | 5 <sup>8</sup> / <sub>8</sub> "   | 33 <sup>1</sup> / <sub>32</sub> " | 28 <sup>3</sup> / <sub>4</sub> "   |
|              | 48 <sup>13</sup> / <sub>16</sub> " | 29 <sup>29</sup> / <sub>32</sub> " | 66 <sup>17</sup> / <sub>32</sub> " | 28 <sup>25</sup> / <sub>32</sub> " | 5 <sup>8</sup> / <sub>8</sub> "   | 31 <sup>5</sup> / <sub>16</sub> " | 40 <sup>15</sup> / <sub>16</sub> " |
| SAMSUNG      | 51"                                | 30 <sup>1</sup> / <sub>8</sub> "   | 66 <sup>3</sup> / <sub>4</sub> "   | 28 <sup>3</sup> / <sub>4</sub> "   | 5 <sup>8</sup> / <sub>8</sub> "   | 2 <sup>3</sup> / <sub>4</sub> "   | 45 <sup>1</sup> / <sub>2</sub> "   |
| DAIKIN       | 48 <sup>13</sup> / <sub>16</sub> " | 30 <sup>1</sup> / <sub>8</sub> "   | 65 <sup>3</sup> / <sub>8</sub> "   | 28 <sup>7</sup> / <sub>16</sub> "  | <sup>7</sup> / <sub>8</sub> "     | 3 <sup>3</sup> / <sub>4</sub> "   | 42 <sup>3</sup> / <sub>8</sub> "   |
|              | 68 <sup>7</sup> / <sub>8</sub> "   | 30 <sup>1</sup> / <sub>8</sub> "   | 65 <sup>3</sup> / <sub>8</sub> "   | 28 <sup>7</sup> / <sub>16</sub> "  | 1 <sup>11</sup> / <sub>32</sub> " | 2 <sup>5</sup> / <sub>32</sub> "  | 62 <sup>7</sup> / <sub>16</sub> "  |
| CARRIER      | 39"                                | 31.1"                              | 72.9"                              | 29 <sup>3</sup> / <sub>4</sub> "   | 1 <sup>1</sup> / <sub>16</sub> "  | 5 <sup>11</sup> / <sub>16</sub> " | 27 <sup>1</sup> / <sub>2</sub> "   |
|              | 47.6"                              | 31.1"                              | 72.9"                              | 29 <sup>3</sup> / <sub>4</sub> "   | 1 <sup>1</sup> / <sub>16</sub> "  | 5 <sup>11</sup> / <sub>16</sub> " | 36 <sup>1</sup> / <sub>4</sub> "   |
| MITSUBISHI   | 48 <sup>7</sup> / <sub>8</sub> "   | 29 <sup>3</sup> / <sub>16</sub> "  | 71 <sup>5</sup> / <sub>8</sub> "   | 26 <sup>13</sup> / <sub>16</sub> " | 2"                                | 3 <sup>3</sup> / <sub>16</sub> "  | 29 <sup>15</sup> / <sub>16</sub> " |
|              | 68 <sup>15</sup> / <sub>16</sub> " | 29 <sup>3</sup> / <sub>16</sub> "  | 71 <sup>5</sup> / <sub>8</sub> "   | 26 <sup>13</sup> / <sub>16</sub> " | 2"                                | 3 <sup>3</sup> / <sub>16</sub> "  | 31 <sup>5</sup> / <sub>16</sub> "  |
| YORK         | 48 <sup>5</sup> / <sub>8</sub> "   | 30 <sup>1</sup> / <sub>2</sub> "   | 66 <sup>1</sup> / <sub>4</sub> "   | 28 <sup>1</sup> / <sub>16</sub> "  | 1 <sup>13</sup> / <sub>16</sub> " | 5 <sup>15</sup> / <sub>16</sub> " | 37 <sup>5</sup> / <sub>16</sub> "  |
|              | 38 <sup>3</sup> / <sub>8</sub> "   | 30 <sup>1</sup> / <sub>2</sub> "   | 66 <sup>1</sup> / <sub>4</sub> "   | 28 <sup>1</sup> / <sub>16</sub> "  | 1 <sup>13</sup> / <sub>16</sub> " | 5 <sup>11</sup> / <sub>16</sub> " | 27 <sup>1</sup> / <sub>16</sub> "  |
|              | 37 <sup>13</sup> / <sub>16</sub> " | 30 <sup>1</sup> / <sub>2</sub> "   | 66 <sup>1</sup> / <sub>4</sub> "   | 28 <sup>1</sup> / <sub>16</sub> "  | 1 <sup>13</sup> / <sub>16</sub> " | 5 <sup>7</sup> / <sub>16</sub> "  | 27 <sup>1</sup> / <sub>16</sub> "  |

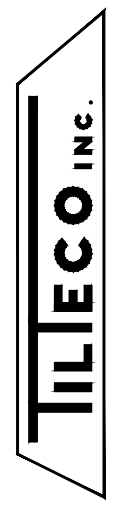
**\*NOTE: CONSULT WITH THIS OFFICE FOR  
EQUIPMENT MANUFACTURERS NOT INCLUDED ON THIS  
SCHEDULE.**

FLORIDA BUILDING CODE (High and Non High Velocity Hurricane Zone)

ALUMINUM STANDS FO ROOF TOP  
EQUIPMENTS (VRF'S & MINI-SPLITS)

**F&L ALUMINUM PARTS, INC.**  
2087 N. POWERLINE RD. SUITE #1  
POMPANO BEACH, FL. 33069

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FLORIDA Lic. # 44167

DRAWN BY:  
W.H

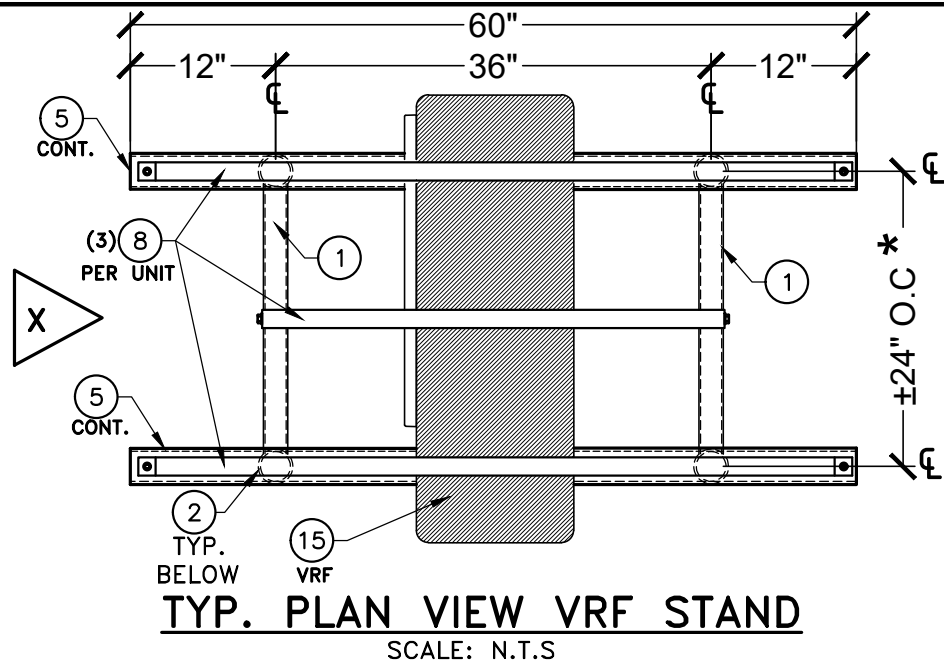
05/23/2025  
DATE

**25-034**  
DRAWING No

SHEET 9 OF 12

| REV. No | DESCRIPTION | DATE | REV. No | DESCRIPTION | DATE |
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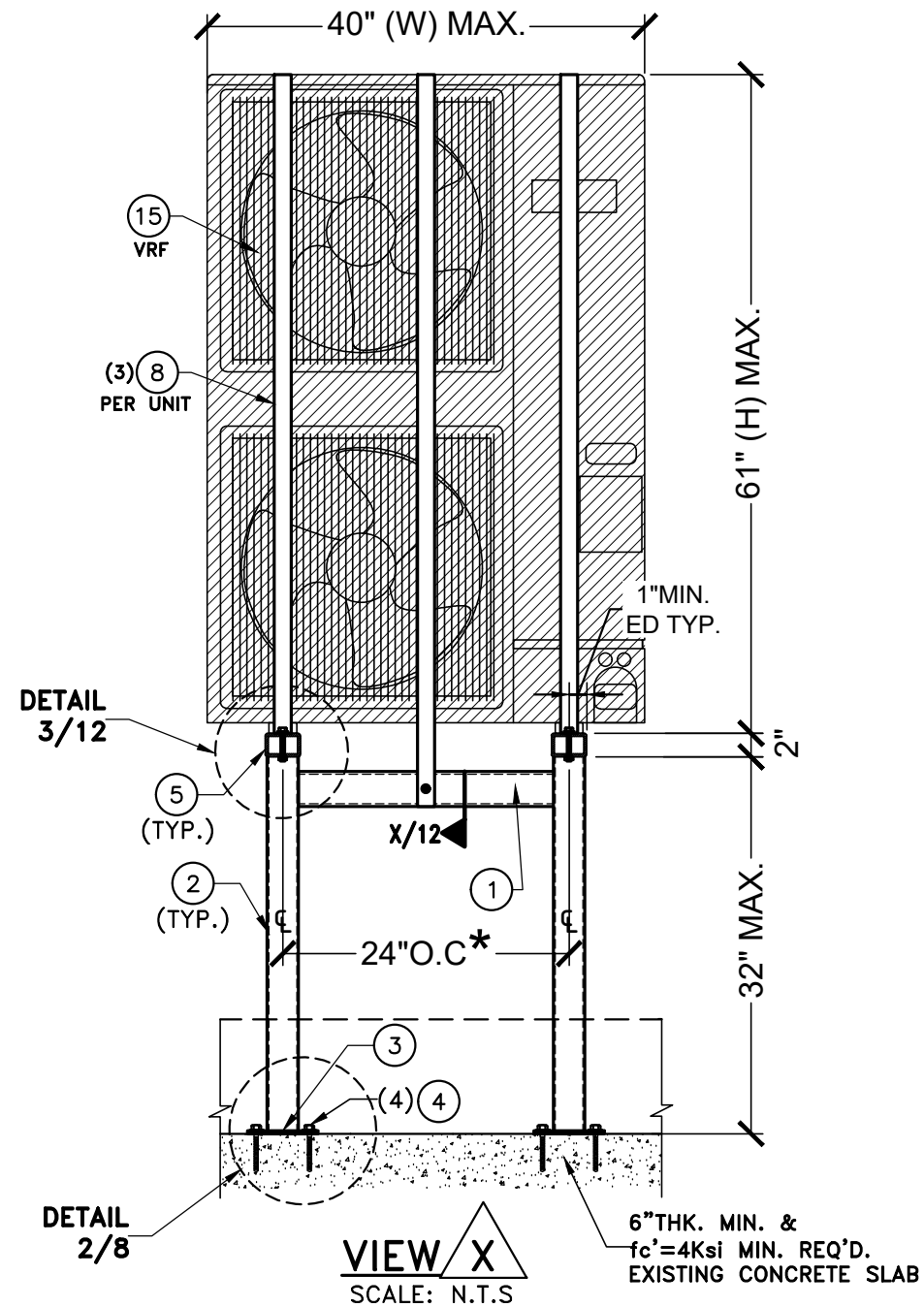
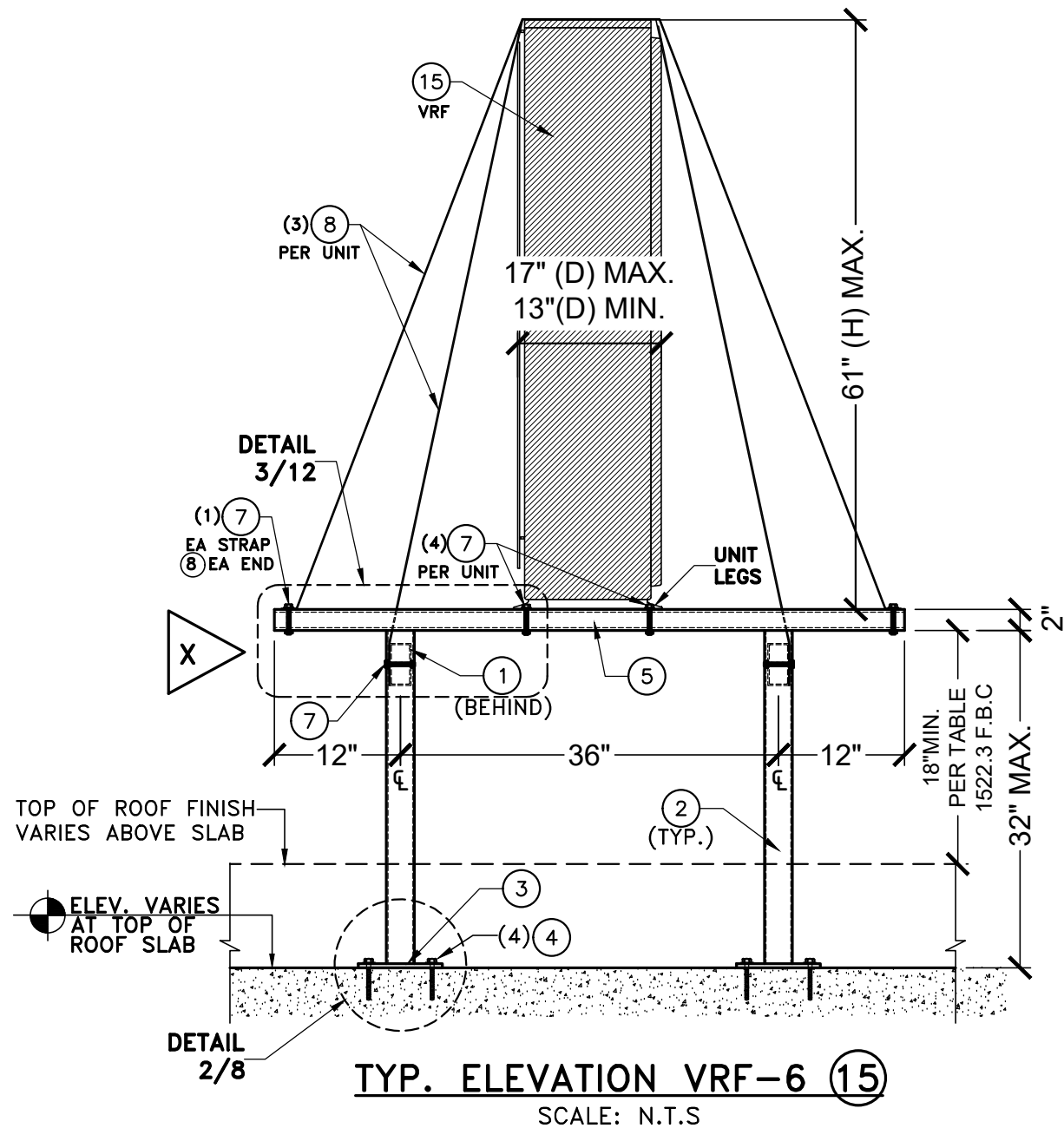
P.E. SEAL/SIGNATURE/DATE



**CASE VI.1**

| MAXIMUM ASD. PRESSURE RATING | LATERAL  | UPLIFT   |
|------------------------------|----------|----------|
|                              | 88.3 psf | 69.8 psf |

**\*NOTE:** DISTANCE ON CENTERS IN BETWEEN EQUIPMENT LEGS SHALL BE VERIFIED BASED ON MANUFACTURER SPECS. 24" SHOWN DIMENSION IS JUST AN APPROXIMATION.



FLORIDA BUILDING CODE (High and Non High Velocity Hurricane Zone)

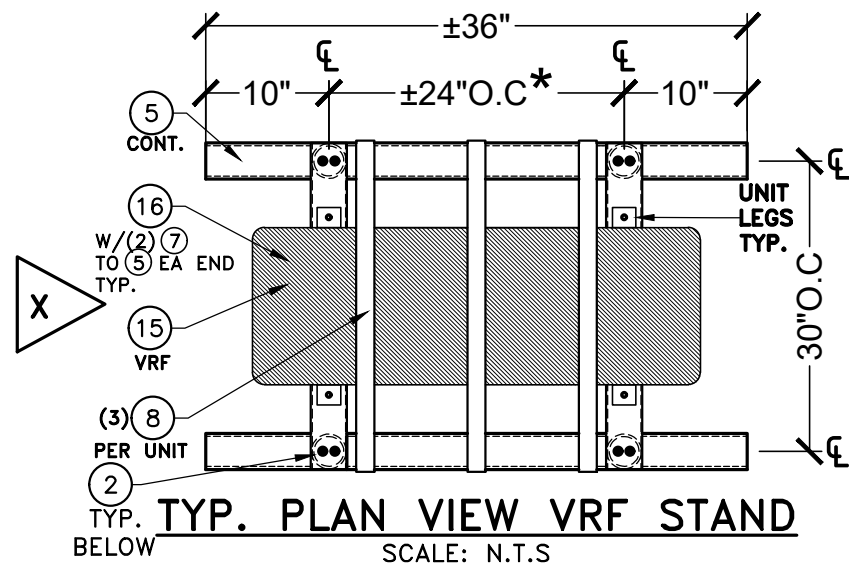
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| DRAWN BY:<br>W.H   |             | DATE<br>05/23/2025 |         | DRAWING No<br><b>25-034</b>  |      | SHEET 10 OF 12 |             |
| ALUMINUM STANDS FO ROOF TOP EQUIPMENTS (VRF'S & MINI-SPLITS) |             |                    |         | F&L ALUMINUM PARTS, INC.<br>2087 N. POWERLINE RD. SUITE #1<br>POMPANO BEACH, FL. 33069 |      |                |             |
| REV. No  | DESCRIPTION | DATE               | REV. No | DESCRIPTION  | DATE | REV. No        | DESCRIPTION |
| 1  |             |                    | 3       |  |      | 4              |             |
| 2  |             |                    |         |  |      |                |             |

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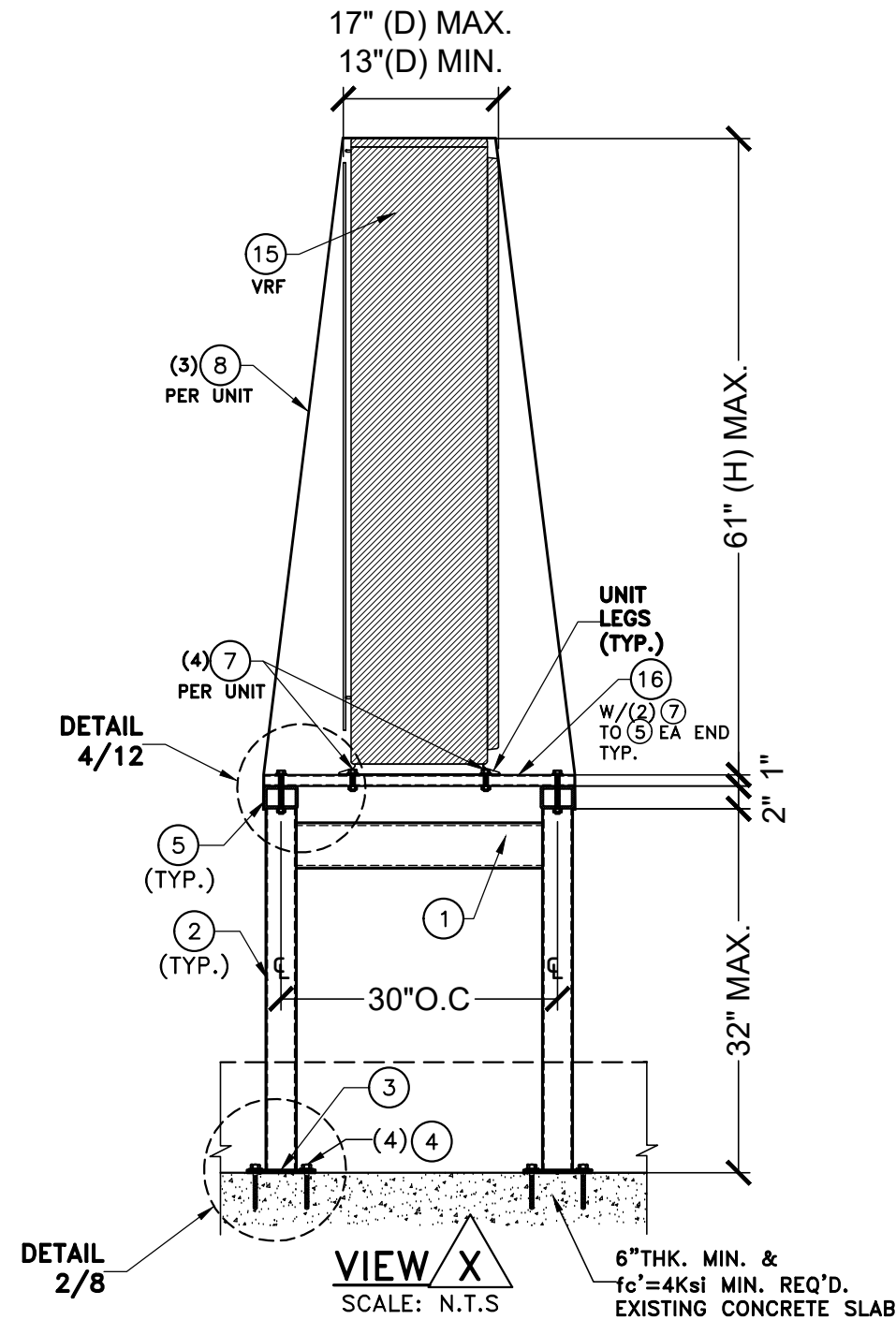
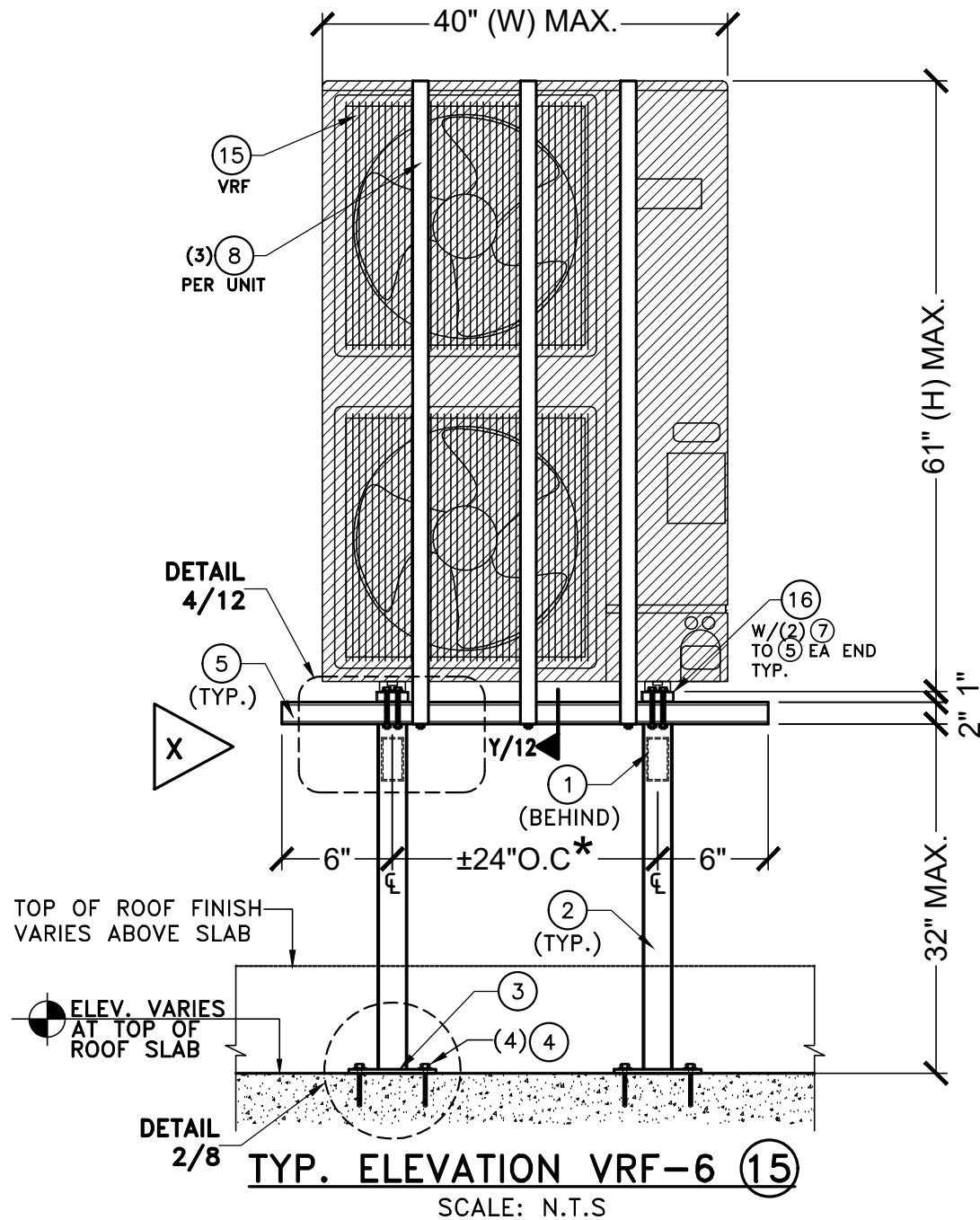
P.E. SEAL/SIGNATURE/DATE



CASE VI.2

| MAXIMUM ASD. PRESSURE RATING | LATERAL  | UPLIFT   |
|------------------------------|----------|----------|
|                              | 88.3 psf | 69.8 psf |

\*NOTE: DISTANCE ON CENTERS IN BETWEEN EQUIPMENT LEGS SHALL BE VERIFIED BASED ON MANUFACTURER SPECS. 24" SHOWN DIMENSION IS JUST AN APPROXIMATION.

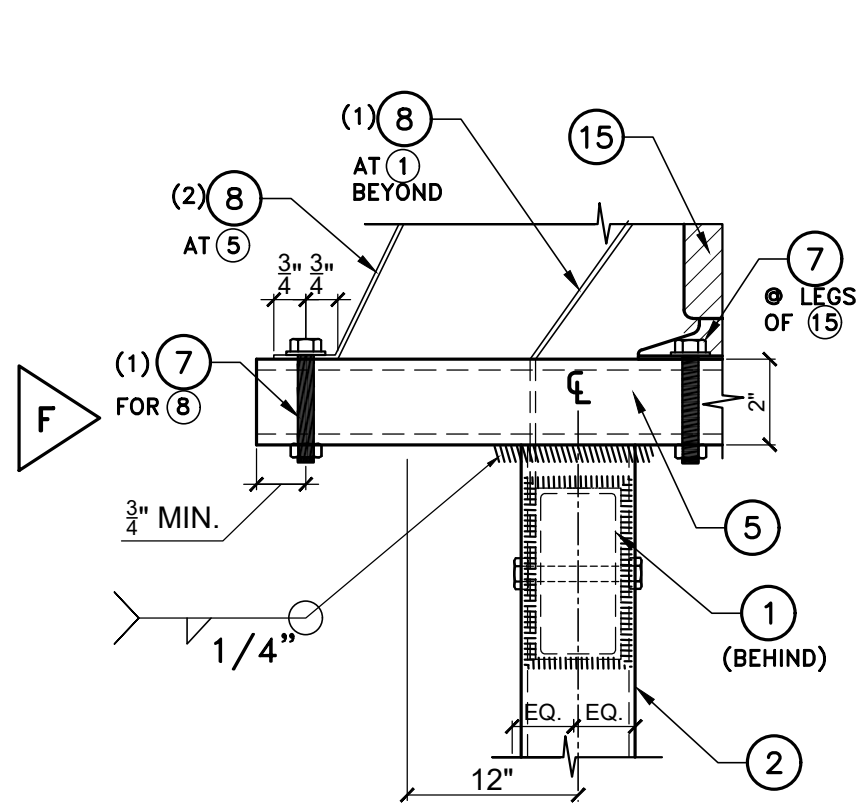


FLORIDA BUILDING CODE (High and Non High Velocity Hurricane Zone)

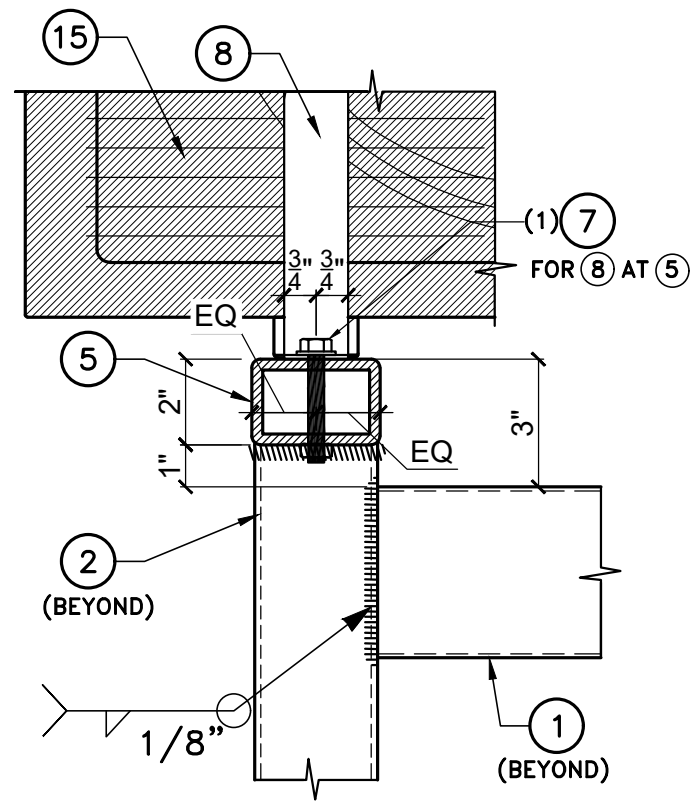
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| DRAWN BY:<br>W.H   |             | DATE<br>05/23/2025 |         | DRAWING No<br>25-034   |      | SHEET 11 OF 12 |             |
| ALUMINUM STANDS FO ROOF TOP EQUIPMENTS (VRF'S & MINI-SPLITS) |             |                    |         | F&L ALUMINUM PARTS, INC.<br>2087 N. POWERLINE RD. SUITE #1<br>POMPANO BEACH, FL. 33069 |      |                |             |
| REV. No  | DESCRIPTION | DATE               | REV. No | DESCRIPTION  | DATE | REV. No        | DESCRIPTION |
| 1  |             |                    | 3       |  |      | 4              |             |
| 2  |             |                    |         |  |      |                |             |

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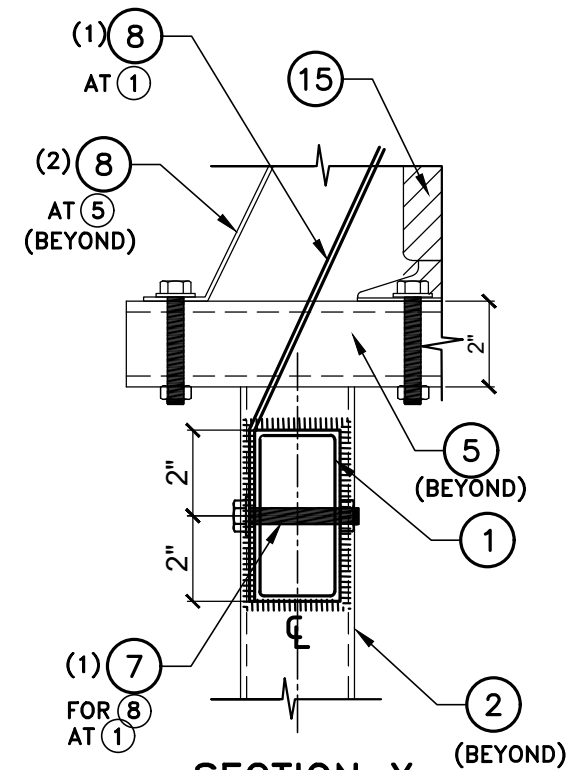
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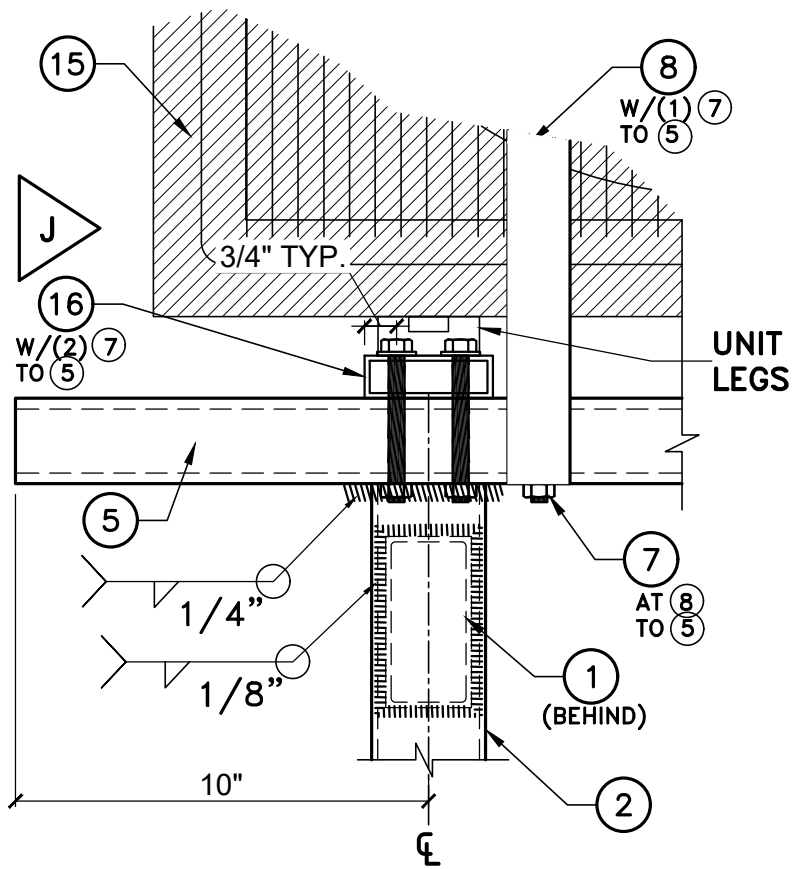
**DETAIL 3**  
SCALE: N.T.S  
(CASE VI.1)



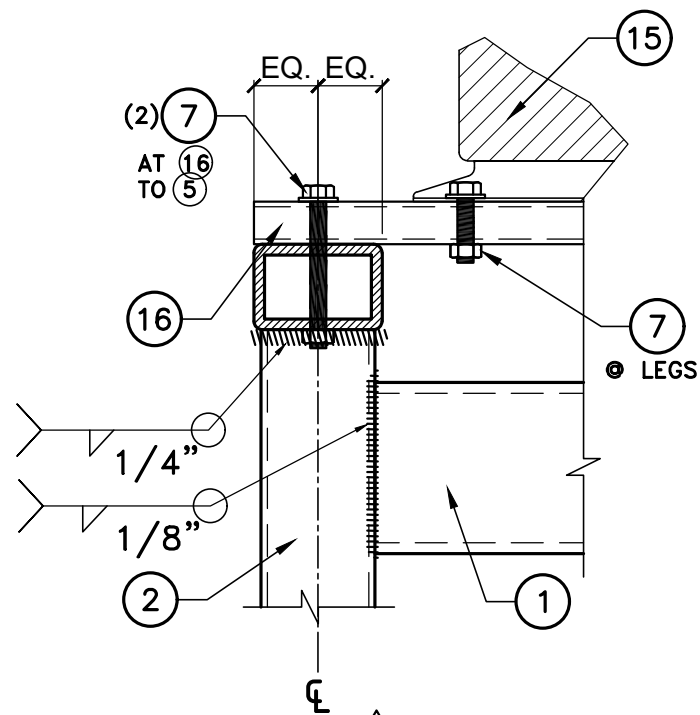
**VIEW F AT 5**  
(CASE VI.1)



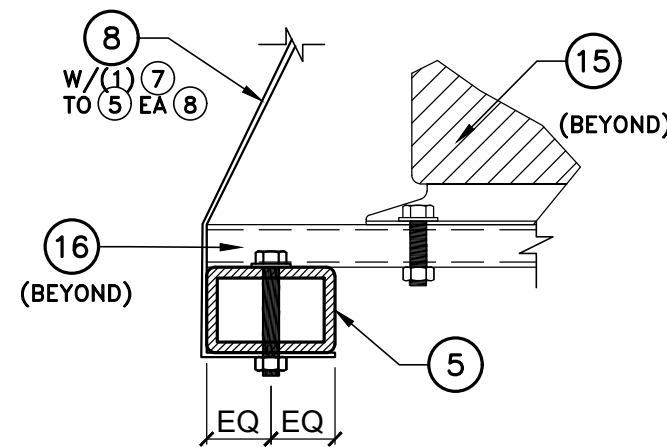
**SECTION X**  
SCALE: N.T.S  
(CASE VI.1)



**DETAIL 4**  
SCALE: N.T.S  
(CASE VI.2)



**VIEW J**  
(CASE VI.2)



**SECTION Y**  
SCALE: N.T.S  
(CASE VI.2)

FLORIDA BUILDING CODE (High and Non High Velocity Hurricane Zone)

|  |             |                    |         |  |      |                |             |
|--|-------------|--------------------|---------|--|------|----------------|-------------|
| DRAWN BY:<br>W.H   |             | DATE<br>05/23/2025 |         | DRAWING No<br><b>25-034</b>  |      | SHEET 12 OF 12 |             |
| ALUMINUM STANDS FO ROOF TOP EQUIPMENTS (VRF'S & MINI-SPLITS) |             |                    |         | F&L ALUMINUM PARTS, INC.<br>2087 N. POWERLINE RD. SUITE #1<br>POMPANO BEACH, FL. 33069 |      |                |             |
| REV. No  | DESCRIPTION | DATE               | REV. No | DESCRIPTION  | DATE | REV. No        | DESCRIPTION |
| 1  |             |                    | 3       |  |      | 4              |             |
| 2  |             |                    |         |  |      |                |             |

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