

ALUMINUM STANDS FOR MECHANICAL UNITS

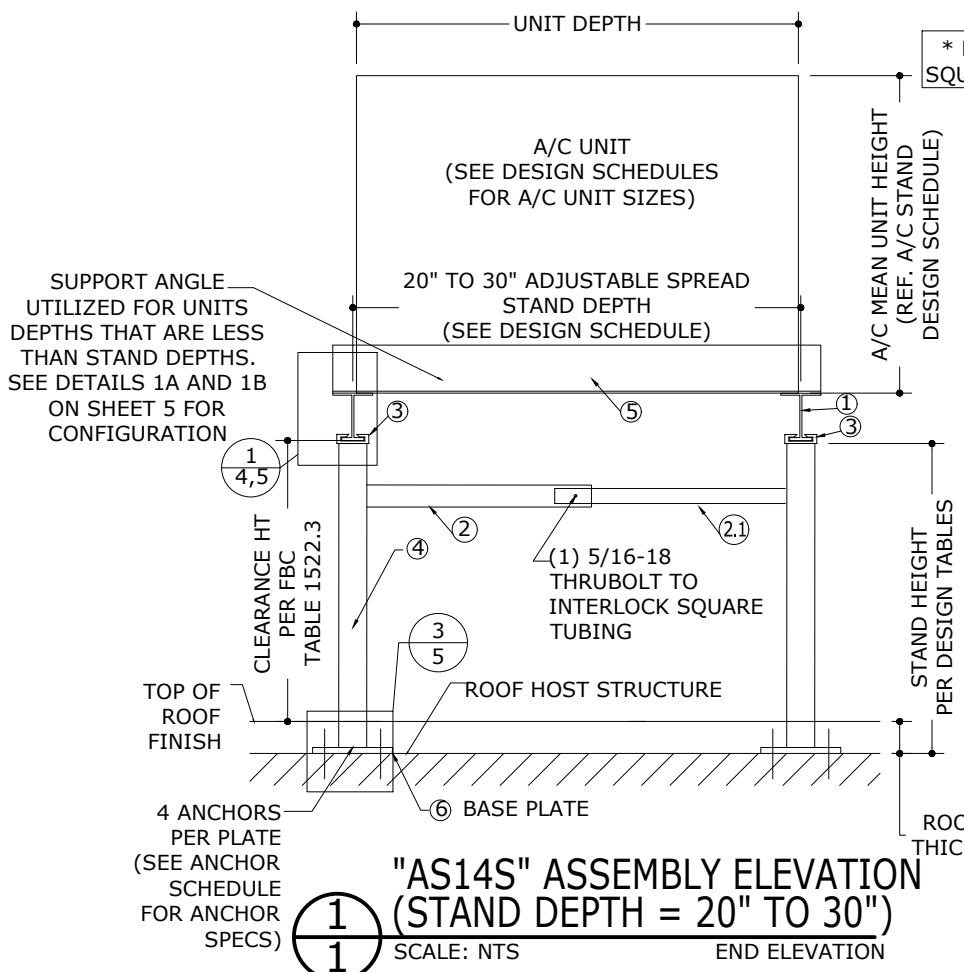
RICHARD NEET, P.E.
PE# 86488 CA# 9885

AUGUST 28, 2023

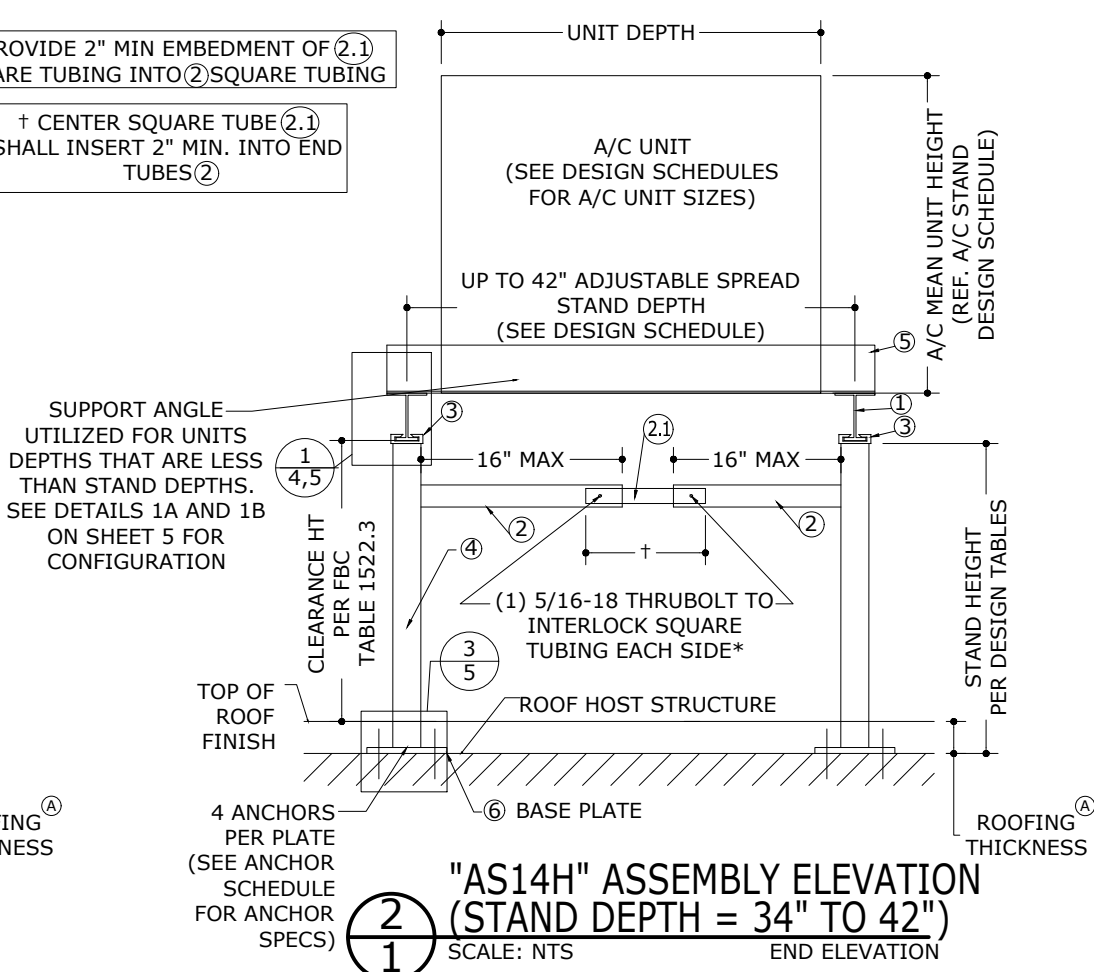


Digitally signed by Richard Neet
Date: 2023.08.28 10:29:58-04'00'

FL24546.1



"AS14S" ASSEMBLY ELEVATION
(STAND DEPTH = 20" TO 30")
SCALE: NTS
END ELEVATION



"AS14H" ASSEMBLY ELEVATION
(STAND DEPTH = 34" TO 42")
SCALE: NTS
END ELEVATION

"CUSTOM" ASSEMBLY NOTE: SEE SHEET 3 FOR CUSTOM ASSEMBLY ELEVATION WITH CROSS BRACING AND LIMITATIONS

^AROOFING FINISH THICKNESS SHALL BE ACCOUNTED FOR BY CONTRACTOR WHEN DETERMINING REQUIRED STAND HEIGHT IN ACCORDANCE WITH THE FBC OR THE LOCAL JURISDICTION.

REQUIRED STAND DEPTH SHALL BE DETERMINED BY CONTRACTOR

75# MIN./450 # MAX UNIT WEIGHT AS VERIFIED BY OTHERS, TYP. FOR LARGER/HEAVIER UNITS, SEE "CUSTOM" ASSEMBLY ON SHEET 3

NOTE REGARDING USE OF THIS DOCUMENT & USE OUTSIDE FLORIDA:
NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. THIS PRODUCT EVALUATION IS VALID FOR USE IN **FLORIDA ONLY**. USE OF THIS EVALUATION REQUIRES A REVIEW & CERTIFICATION BY A LOCAL DESIGN PROFESSIONAL WHO SHALL BE RESPONSIBLE FOR THE PROPER ADAPTATION OF THIS GENERAL PERFORMANCE EVALUATION TO ANY SITE-SPECIFIC PROJECT. CONTACT THIS OFFICE AT **ENGINEERINGEXPRESS.COM/QUOTE** FOR ASSISTANCE WITH YOUR PROJECT-SPECIFIC NEEDS & FOR ADAPTATION & CERTIFICATION OF THIS DOCUMENT OUTSIDE OF FLORIDA.

VISIT ECALC.IO/61587
FOR SITE-SPECIFIC DEVIATIONS & MORE INFORMATION ABOUT THIS DOCUMENT OR SCAN THIS QR CODE
VISIT ENGINEERINGEXPRESS.COM/STORE FOR ADDITIONAL PLANS, REPORTS & RESOURCES



MAXIMUM ALLOWABLE DESIGN PRESSURES:

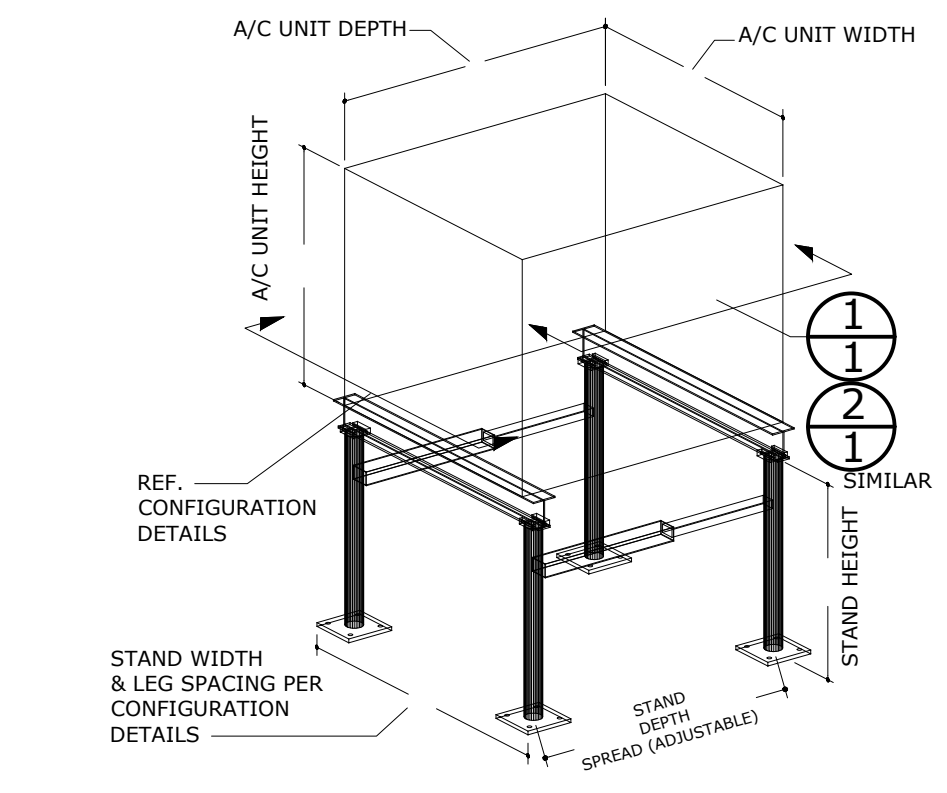
AS NOTED IN DESIGN SCHEDULES

DESIGN NOTES:

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. SITE-SPECIFIC PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7-22 AND THE FLORIDA BUILDING CODE SEVENTH EDITION (2023) SHALL BE LESS THAN OR EQUAL TO THE LATERAL AND UPLIFT DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.

GENERAL NOTES

- THIS SYSTEM HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE STRUCTURAL PROVISIONS OF THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) AND THE ALUMINUM DESIGN MANUAL (ADM 2020).
- MAXIMUM DIMENSIONS AND WEIGHT OF A/C UNIT SHALL CONFORM TO SPECIFICATIONS STATED HEREIN, MINIMUM 75LB OR MAXIMUM AS LISTED HEREIN.
- THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR.
- REACTION FORCES LISTED FOR USE WITH HOST STRUCTURE VERIFICATION ARE CALCULATED USING ASD METHODOLOGY. DESIGN PROFESSIONAL OF RECORD TO VERIFY APPLICABILITY AND/OR ADDITIONAL FACTORS FOR USE WITH HOST STRUCTURE VERIFICATION.
- ALL FASTENERS TO BE #10 OR GREATER SAE GRADE 5, UNLESS NOTED OTHERWISE, CADMIUM PLATED OR OTHERWISE CORROSION RESISTANT MATERIAL AND SHALL COMPLY WITH CHAPTER J, SPECIFICATIONS FOR ALUM. STRUCTURES -SECTION 1, THE ALUMINUM ASSOCIATION, INC., & APPLICABLE FEDERAL, STATE, AND LOCAL CODES. PROVIDE (3) PITCHES MIN PAST THREAD PLANE.
- ALL EXTRUDED MEMBERS SHALL BE ALUMINUM ALLOY TYPE 6061-T6 OR 6005-T5.
- ALL 22GA DEFORMED STEEL STRAPS USED FOR UNIT TIE-DOWNS SHALL BE $F_y = 36\text{KSI}$ MIN. STEEL. FABRICATION OF STEEL STRAPS SHALL BE BY STRAP MANUFACTURER ONLY.
- ALL EXISTING CONCRETE SUBSTRATE SHALL HAVE MINIMUM f_c COMPRESSIVE STRENGTH OF 3000 PSI AS VERIFIED BY OTHERS, U.N.O.
- ALUMINUM WELDING SHALL BE PERFORMED IN ACCORDANCE WITH FBC SECTION 2003.8.1 WITH WELD FILLER ALLOYS MEETING ANSI/AWS A5.10 STANDARDS TO ACHIEVE ULTIMATE DESIGN STRENGTH IN ACCORDANCE WITH THE ALUMINUM DESIGN MANUAL, TABLE J.2.1. SUGGESTED WELD FILLER: 5356 ELECTRODES. ALL ALUMINUM CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE TOLERANCES, QUALITY AND METHODS OF CONSTRUCTION AS SET FORTH IN FBC SECTION 2003.2 AND THE AMERICAN WELDING SOCIETY'S STRUCTURAL WELDING CODE-ALUMINUM (D1.2). MINIMUM WELD IS $\frac{1}{8}$ " THROAT FULL PERIMETER FILLET WELD UNLESS OTHERWISE NOTED.
- THE CONTRACTOR IS RESPONSIBLE TO INSULATE MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
- 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.
- ENGINEER SEAL AFFIXED HERETO VALIDATES 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.
- THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
- EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
- AC STANDS SHALL BE LABELED PER MIAMI-DADE REQUIREMENTS FOR NON-MANDATORY PRODUCT APPROVALS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE.



ENGINEERING EXPRESS
POSTAL ADDRESS:
401 W. ATLANTIC AVE R10 BOX 219
DELRAY BEACH, FL 33444
ENGINEERINGEXPRESS.COM

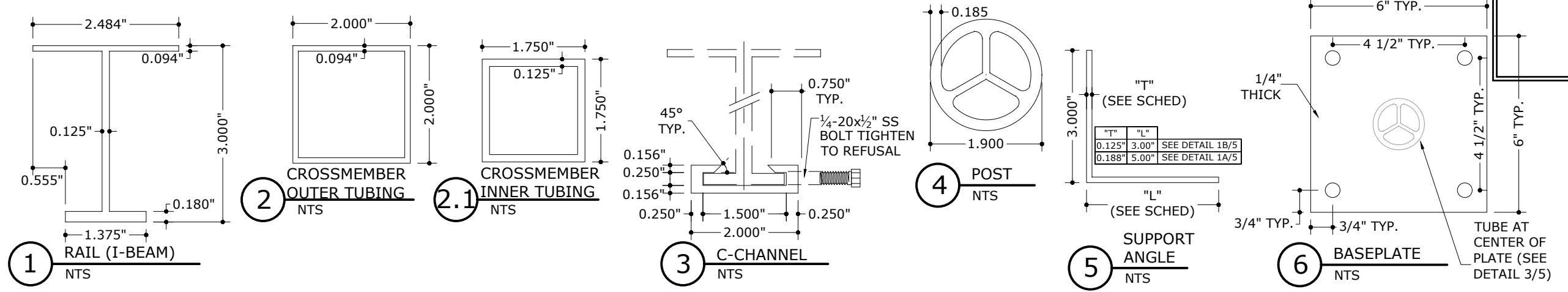
Miami Tech, Inc.
3611 NW 74th St
Miami, FL 33147
(305) 693-7054
Aluminum Stand for Mechanical Units
Florida Statewide Approval
Florida Building Code

REMARKS	DATE
INIT ISSUE	8/20/2023
DRWN	RN
CHKD	RN

23-61587
SCALE: NTS UNLESS NOTED
1 OF 5

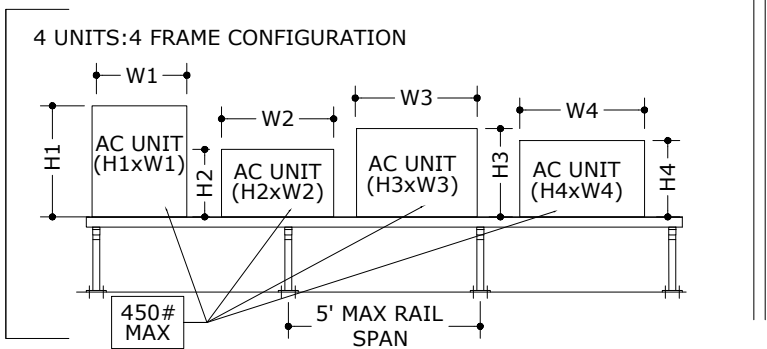
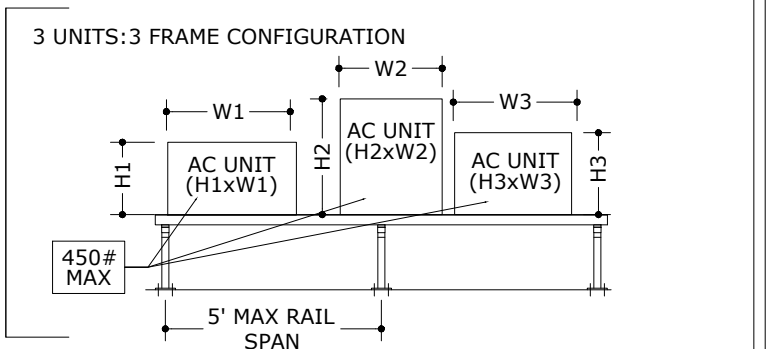
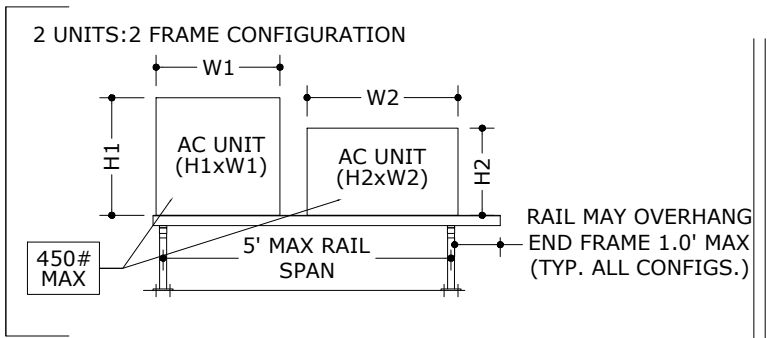


STAND COMPONENTS

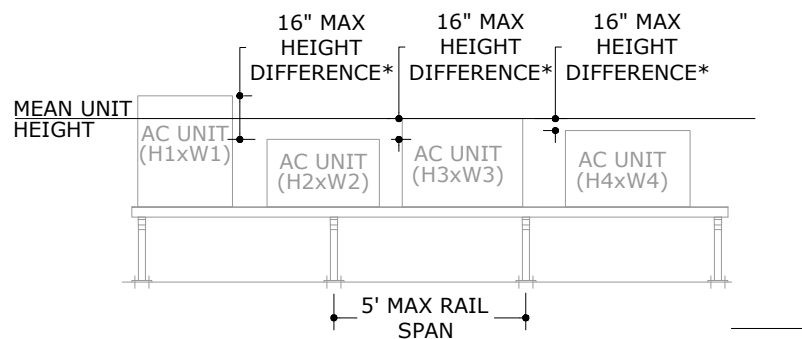
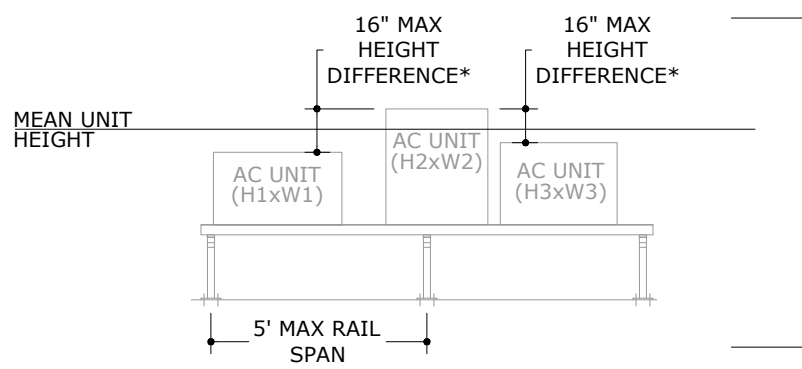
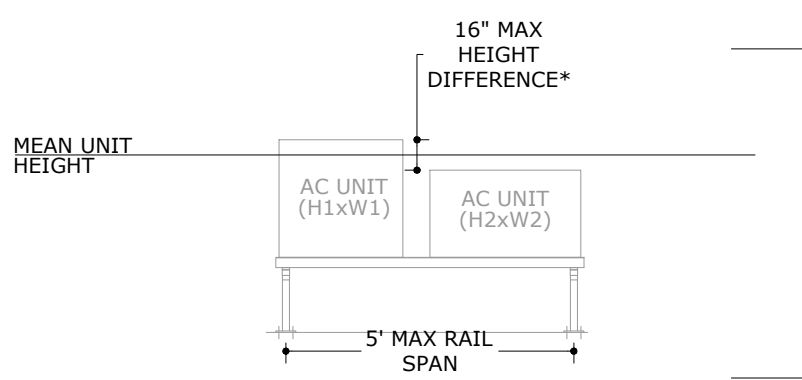


MEAN UNIT HEIGHT & MAX FACE AREA CALCULATION DIRECTIVE: THIS DIRECTIVE SHALL BE USED TO CALCULATE THE MEAN UNIT HEIGHT & MAXIMUM FACE AREA OF ANY MULTIPLE UNIT CONFIGURATION.

EXAMPLE CONFIGURATIONS:



NOTE: THE NUMBER OF UNITS PER STAND CONFIGURATION MAY BE UNLIMITED PROVIDED THAT MULTIPLE UNITS CONFORM TO THE MEAN UNIT HEIGHT & MAXIMUM UNIT FACE AREA RESTRICTIONS UTILIZED IN THE DESIGN SCHEDULES.



*MAXIMUM ALLOWABLE HEIGHT DIFFERENCE BETWEEN ANY UNITS IN A MULTIPLE UNIT CONFIGURATION IS RESTRICTED TO 16" MAX.

FORMULAS USED FOR DETERMINING MEAN UNIT HEIGHT & MAXIMUM UNIT FACE AREA:

1. CALCULATE THE MEAN UNIT HEIGHT BY THE FOLLOWING EQUATION:

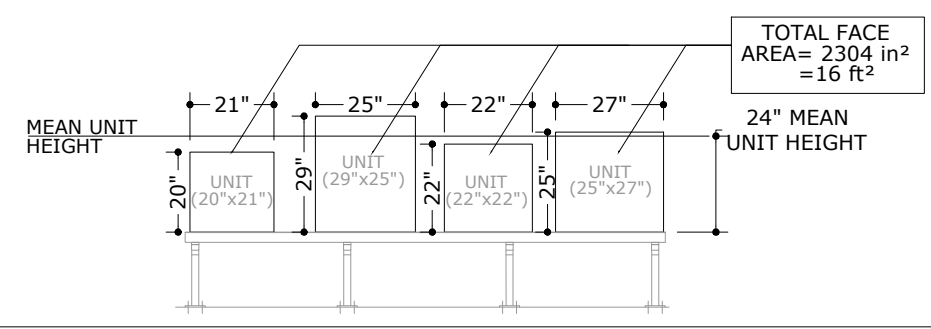
- TWO UNITS: $\frac{H1+H2}{2}$
- THREE UNITS: $\frac{H1+H2+H3}{3}$
- FOUR UNITS: $\frac{H1+H2+H3+H4}{4}$
- "n" UNITS: $\frac{H1+H2+H3+...+Hn}{n}$

2. CALCULATE THE MAXIMUM UNIT FACE AREA BY THE FOLLOWING EQUATION:

- TWO UNITS: (H1xW1)+(H2xW2)
- THREE UNITS: (H1xW1)+(H2xW2)+(H3xW3)
- FOUR UNITS: (H1xW1)+(H2xW2)+(H3xW3)+(H4xW4)
- "n" UNITS: (H1xW1)+...(HnxWn)

EXAMPLE SCENARIO:

- CONSIDER A FOUR UNIT CONFIGURATION WITH THE DIMENSIONS AS SHOWN BELOW.
- CALCULATE THE MEAN UNIT HEIGHT.
 - FOUR UNITS: $\frac{H1+H2+H3+H4}{4} = \frac{20"+29"+22"+25"}{4} = 24"$ MEAN UNIT HEIGHT
- CALCULATE THE MAXIMUM FACE AREA.
 - FOUR UNITS: (H1xW1)+(H2xW2)+(H3xW3)+(H4xW4) = (20"x21")+(29"x25")+(22"x22")+(25"x27") = 2304 in² = 16 ft²



FL24546.1

ENGINEERING EXPRESS
 POSTAL ADDRESS:
 401 W. ATLANTIC AVE R10 BOX 219
 DELRAY BEACH, FL 33444
 ENGINEERINGEXPRESS.COM

Miami Tech, Inc.
 3611 NW 74th St
 Miami, FL 33147
 (305) 693-7054
 Aluminum Stand for Mechanical Units
 Florida Statewide Approval
 Florida Building Code

DATE	6/20/2023
DRWN	RN
CHKD	RN
ISSUE	
REMARKS	
COPYRIGHT ENGINEERING EXPRESS®	

23-61587

SCALE: NTS UNLESS NOTED

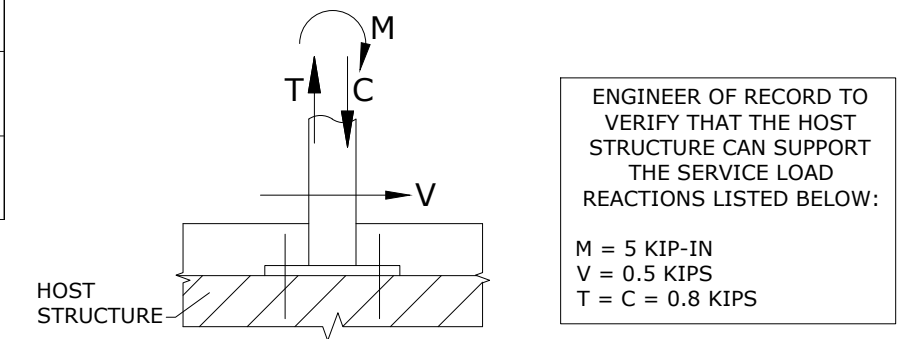
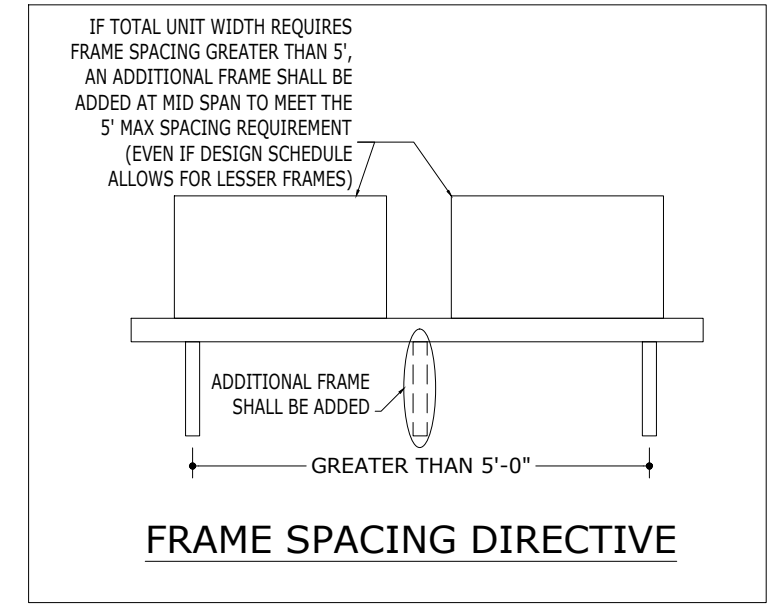
ALUMINUM STAND DESIGN SCHEDULE

RICHARD NEET, P.E.
PE# 86488 CA# 9885

AUGUST 28, 2023



MAX UNIT HEIGHT	MAX FACE AREA	MAX POST HEIGHT	2 FRAMES		3 FRAMES		4 FRAMES		5 FRAMES		6 FRAMES		7 FRAMES		8 FRAMES		9 FRAMES		10 FRAMES			
			LATERAL	UPLIFT	LATERAL	UPLIFT	LATERAL	UPLIFT	LATERAL	UPLIFT	LATERAL	UPLIFT	LATERAL	UPLIFT	LATERAL	UPLIFT	LATERAL	UPLIFT	LATERAL	UPLIFT	LATERAL	UPLIFT
24.0 in	576.0 in ² (= 4.0 sqft)	18 in	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf
		24 in	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf
		30 in	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf	200 psf	158 psf



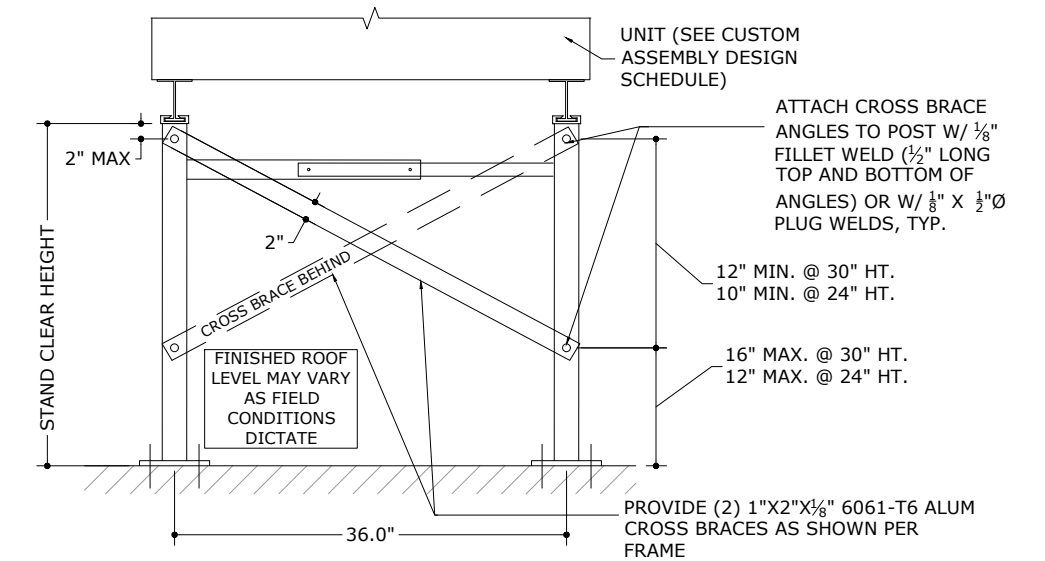
1 BASE PLATE REACTIONS
3 NTS

- DESIGN SCHEDULE NOTES:**
1. MAXIMUM FRAME-TO-FRAME SPACING SHALL NOT EXCEED 5'-0" O.C. (SEE FRAME SPACING DIRECTIVE)
 2. ALLOWABLE STAND DEPTH SHALL BE 20" MINIMUM UP TO 42" MAXIMUM.
 3. A "FRAME" CONSISTS OF (2) POSTS CONNECTED WITH (1) CROSS MEMBER. FOR EXAMPLE, A "2 FRAME" STAND WILL HAVE 4 POSTS TOTAL.
 4. REFERENCE STAND DETAILS HEREIN FOR STAND COMPONENTS AND INSTALLATION OPTIONS.
 5. SEE TIEDOWN DIRECTIVE FOR UNIT TIEDOWN REQUIREMENTS AND LIMITATIONS.
 6. UNIT OR STAND DIMENSIONS OUTSIDE THE PARAMETERS LISTED IN THIS SCHEDULE WILL REQUIRE SEPARATE SITE SPECIFIC ENGINEERING.
 7. REQUIRED DESIGN PRESSURES FOR INSTALLATION SHALL BE CALCULATED ON A SITE SPECIFIC BASIS AND BE LESS THAN OR EQUAL TO THE MAX ALLOWABLE PRESSURES LISTED IN THIS DRAWING.
 8. INTERPOLATION BETWEEN UNIT HEIGHTS, FACE AREA OR POST HEIGHT IS **NOT** PERMITTED.
 9. THE UNIT DEPTH SHALL NOT EXCEED THE MAX UNIT HEIGHT LISTED. SEE THE TIEDOWN STRAP SCHEDULE FOR MINIMUM ALLOWABLE UNIT DEPTHS.

"CUSTOM ASSEMBLY" DESIGN SCHEDULE

MAX UNIT WIDTH	MAX UNIT DEPTH	MAX UNIT HEIGHT	STAND CLEAR HEIGHT	(1) UNITS TO (3) FRAMES		(2) UNITS TO (4) FRAMES		(3) UNITS TO (5) FRAMES	
				MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT
50"	38"	74"	24"	94.5 PSF	74.6 PSF	63.0 PSF	49.7 PSF	52.5 PSF	41.4 PSF
			30"	79.5 PSF	62.8 PSF	53.0 PSF	41.8 PSF	44.3 PSF	35.0 PSF

- "CUSTOM" ASSEMBLY DESIGN SCHEDULE NOTES:**
1. MAXIMUM FRAME-TO-FRAME SPACING SHALL NOT EXCEED 4'-0" O.C. (SEE FRAME SPACING DIRECTIVE)
 2. ALLOWABLE STAND DEPTH SHALL BE 20" MINIMUM UP TO 42" MAXIMUM.
 3. A "FRAME" CONSISTS OF (2) POSTS CONNECTED WITH (1) CROSS MEMBER AND (2) CROSS BRACES. FOR EXAMPLE, A "2 FRAME" STAND WILL HAVE 4 POSTS TOTAL.
 4. REFERENCE STAND DETAILS HEREIN FOR STAND COMPONENTS AND INSTALLATION OPTIONS.
 5. SEE TIEDOWN DIRECTIVE FOR UNIT TIEDOWN REQUIREMENTS AND LIMITATIONS. UNIT SIZES THAT EXCEED THE MAX DIMENSIONS LISTED IN THE TIEDOWN/STRAP SCHEDULE REQUIRE SITE SPECIFIC TIEDOWN CERTIFICATION.
 6. UNIT OR STAND DIMENSIONS OUTSIDE THE PARAMETERS LISTED IN THIS SCHEDULE WILL REQUIRE SEPARATE SITE SPECIFIC ENGINEERING.
 7. REQUIRED DESIGN PRESSURES FOR INSTALLATION SHALL BE CALCULATED ON A SITE SPECIFIC BASIS AND BE LESS THAN OR EQUAL TO THE MAX ALLOWABLE PRESSURES LISTED IN THIS DRAWING.
 8. INTERPOLATION BETWEEN UNIT HEIGHTS, FACE AREA OR POST HEIGHT IS **NOT** PERMITTED.
 9. EACH FRAME (POST PAIR) SHALL UTILIZE THE CROSS BRACING PER THE DETAIL ON THIS SHEET.
 10. EACH STAND SHALL UTILIZE (3) SUPPORT ANGLES PER UNIT (SEE DETAIL 1/5 OF THIS DRAWING) EQUALLY SPACED ALONG LENGTH OF STAND (12" MINIMUM FROM ENDS OF STAND).



2 CROSS BRACE DETAIL - CUSTOM ASSEMBLY
3 SCALE: NTS
ELEVATION VIEW

FL24546.1

EX ENGINEERING EXPRESS
POSTAL ADDRESS:
401 W. ATLANTIC AVE R10 BOX 219
DELRAY BEACH, FL 33444
ENGINEERINGEXPRESS.COM

Miami Tech, Inc.
3611 NW 74th St
Miami, FL 33147
(305) 693-7054
Aluminum Stand for Mechanical Units
Florida Statewide Approval
Florida Building Code

DATE	DRWN	CHKD
6/20/2023	RN	RN

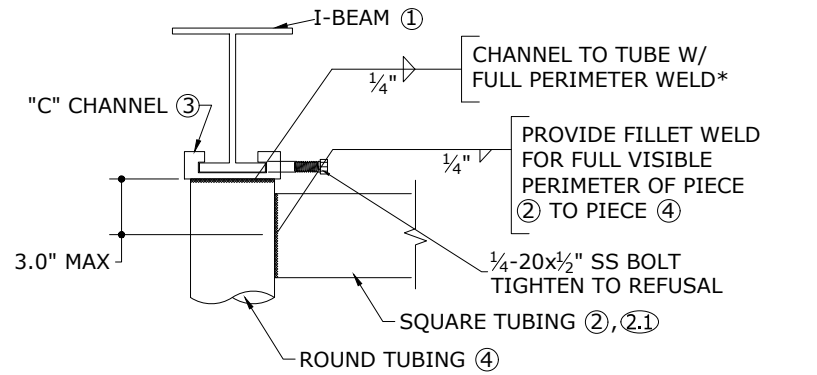
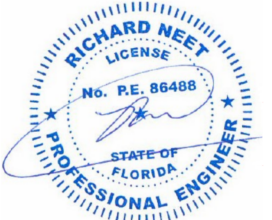
23-61587
SCALE: NTS UNLESS NOTED
3 OF 5

c:\users\rickn\engineering\express\production - documents\projects\23-123-61587\2023 product.fbc update fl24546\work\2023 fbc\drawings & cad\23-61587d fl24546.1.doc.dwg

FRAME ASSEMBLY & UNIT TIE-DOWN DETAILS:

RICHARD NEET, P.E.
PE# 86488 CA# 9885

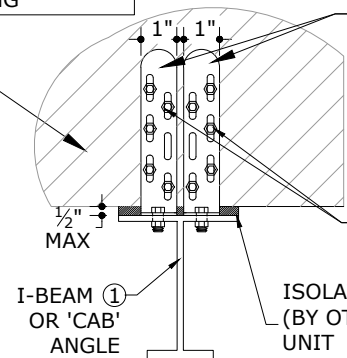
AUGUST 28, 2023



1 FRAME ASSEMBLY DETAIL
4 NTS

THIS DETAIL IS APPLICABLE FOR UNITS UP TO 54" TALL MAX. UNITS TALLER THAN 54" REQUIRE SITE SPECIFIC OR SEPARATE TIEDOWN ENGINEERING

22 GA (0.0299" MIN., Fu=58KSI MIN.) STEEL A/C HOUSING UNIT



(2) 1" WIDE x 14GA (0.070") OR x 12GA (0.105") ASTM A-653 GRADE 33 GALV STEEL ANGLE (CUTD-1 BY MIAMI TECH). UTILIZE (2) MIN. PER CORNER (8 TOTAL). **NOTE: IF UNIT MANUFACTURER HAS SEPARATE APPROVED TIEDOWN ENGINEERING IT MAY BE USED IN LIEU OF THIS DIRECTIVE.**

FASTEN CLIP VERTICAL LEG TO 22 GA (0.0299" MIN.) STEEL HOUSING WITH (5) #10 SAE GRADE 2 MIN. SHEET METAL SCREWS PER CLIP. FASTEN CLIP HORIZONTAL LEG TO I-BEAM RAIL WITH (1) 1/4" Ø SAE GRADE 2 MIN. THRU BOLT CENTERED ABOUT LEG.

ISOLATOR PADS BEYOND (BY OTHERS). MIN. 4 PER UNIT

2 A/C UNIT TIE-DOWN DETAIL
4 NTS (SEE TIEDOWN STRAP SCHED. FOR STRAP REQUIREMENTS)

NOTE: UNIT TIEDOWN DETAILS MAY ALSO BE USED TO ANCHOR THE UNIT TO THE SUPPORT ANGLE SHOWN ON NEXT SHEET. (I.E. I-BEAM CAN BE SUBSTITUTED WITH ANGLE SUPPORT AS BASE MATERIAL)

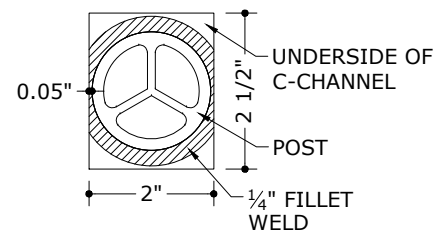
TIEDOWN STRAP SCHEDULE

MAX UNIT HEIGHT (in)	MIN UNIT DEPTH (in)	MAX LATERAL PRESSURE (psf)	NO. OF STRAPS REQUIRED (PER UNIT)
UP TO 24	12-19	UP TO 80	0
		UP TO 120	0
		UP TO 200	2
	20	UP TO 80	0
		UP TO 120	0
		UP TO 200	0
UP TO 30	12-19	UP TO 80	0
		UP TO 120	2
		UP TO 200	2
	20	UP TO 80	0
		UP TO 120	0
		UP TO 200	0
UP TO 36	12-19	UP TO 80	0
		UP TO 120	2
		UP TO 200	3
	20	UP TO 80	0
		UP TO 120	0
		UP TO 200	2
UP TO 40	14-23	UP TO 80	0
		UP TO 120	2
		UP TO 200	3
	24	UP TO 80	0
		UP TO 120	2
		UP TO 200	3
UP TO 48	16-23	UP TO 80	3
		UP TO 120	4
		UP TO 200	5
	24	UP TO 80	0
		UP TO 120	2
		UP TO 200	4
UP TO 54	16-23	UP TO 80	4
		UP TO 120	5
		UP TO 200	6
	24	UP TO 80	2
		UP TO 120	3
		UP TO 200	5
UP TO 60	SITE SPECIFIC DESIGN REQUIRED		

TIEDOWN SCHEDULE NOTES:

- THE TIEDOWN CLIP AND STRAP REQUIREMENTS ON THIS SHEET DO NOT ACCOUNT FOR INTEGRATED FEET OR RAILS ON THE MECHANICAL UNITS. IF INTEGRATED TIEDOWN FEET OR RAILS EXIST ON THE UNIT, SEPARATE ENGINEERING IS REQUIRED.
- THE TIEDOWN REQUIREMENTS ON THIS SHEET ACCOUNT FOR RECTANGULAR SHAPED UNITS ONLY. CIRCULAR OR OTHER SHAPED MECHANICAL EQUIPMENT (FANS, DUCTWORK, PIPES, ETC.) SHALL BE CERTIFIED SEPARATELY.

***C-CHANNEL TO POST WELD NOTE:**
IN AREAS WHERE 1/4" WELD DIAMETER CANNOT BE ACHIEVED, CONTINUE WELD AROUND FULL PERIMETER OF POST TO PREVENT WATER INFILTRATION. WELD DIAMETER WILL DECREASE TO 0.05" ALONG C-CHANNEL EDGE. SEE DETAIL BELOW.



22 GA (0.0299" MIN., Fu=58KSI MIN.) STEEL A/C HOUSING UNIT

ISOLATOR PADS BEYOND. MIN. 4 PER UNIT

I-BEAM OR 'CAB' ANGLE

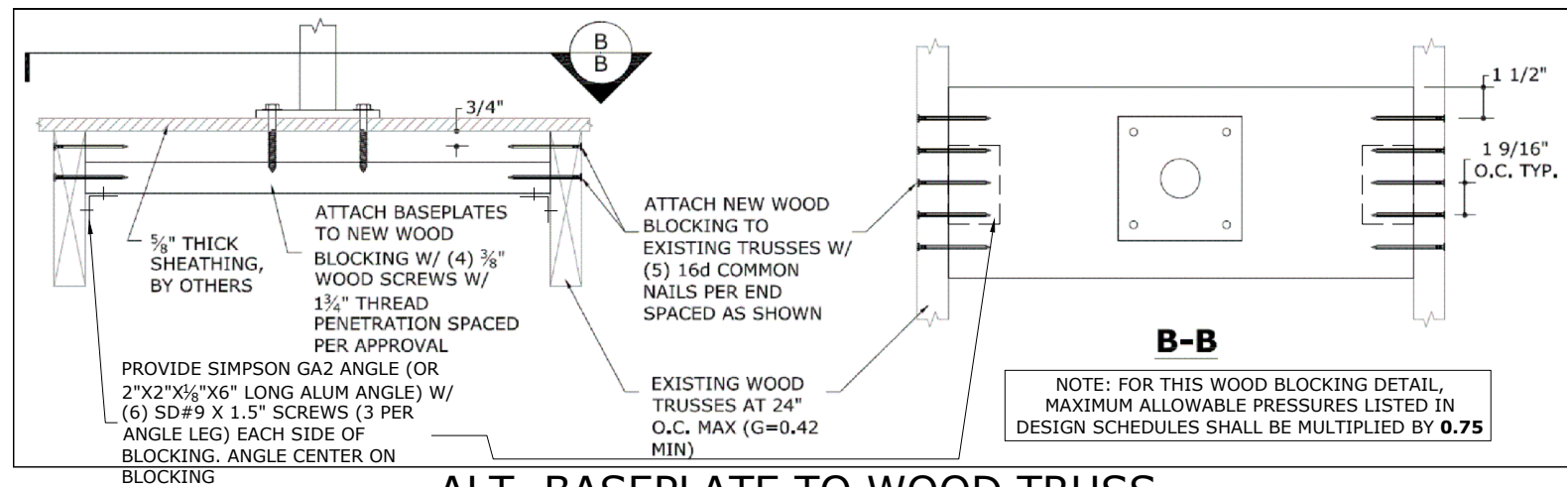
1"x 22ga CONTINUOUS GALV. STEEL STRAP (Fy = 36 KSI MIN.) SHALL PASS OVER UNIT TO I-BEAM ON OPPOSITE SIDE TIGHTENED SNUG AGAINST UNIT. STRAPS SHALL BE SPACED SYMMETRICALLY OVER UNITS NO CLOSER THAN 2" FROM UNIT EDGES, TYP.

SEE TIEDOWN STRAP SCHEDULE FOR REQUIRED NUMBER OF STRAPS PER UNIT

(2) #14 SAE GR 2 MIN. SMS WITH WASHERS AT EACH STRAP END TO UNDERSIDE OF I-BEAM OR SIDE OF 'CAB' ANGLE

3 TIE-DOWN STRAP DETAIL **
4 NTS

*SHALL BE USED IN COMBINATION WITH ANY A/C UNIT TIE-DOWN DETAIL ON THIS SHEET



4 ALT. BASEPLATE TO WOOD TRUSS ATTACHMENT (2X10 WOOD BLOCKING)
4 NTS

SCALE: NTS WOOD (G=0.55 MIN.)

FL24546.1

ENGINEERING EXPRESS
POSTAL ADDRESS:
401 W. ATLANTIC AVE R10 BOX 219
DELRAY BEACH, FL 33444
ENGINEERINGEXPRESS.COM

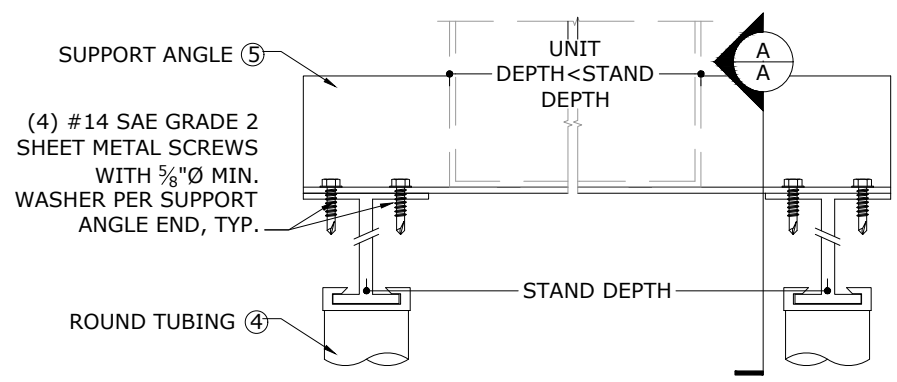
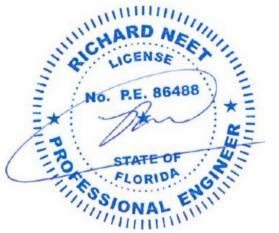
Miami Tech, Inc.
3611 NW 74th St
Miami, FL 33147
(305) 693-7054
Aluminum Stand for Mechanical Units
Florida Statewide Approval
Florida Building Code

DATE	DRWN	CHKD	DATE
6/20/2023	RN	RN	

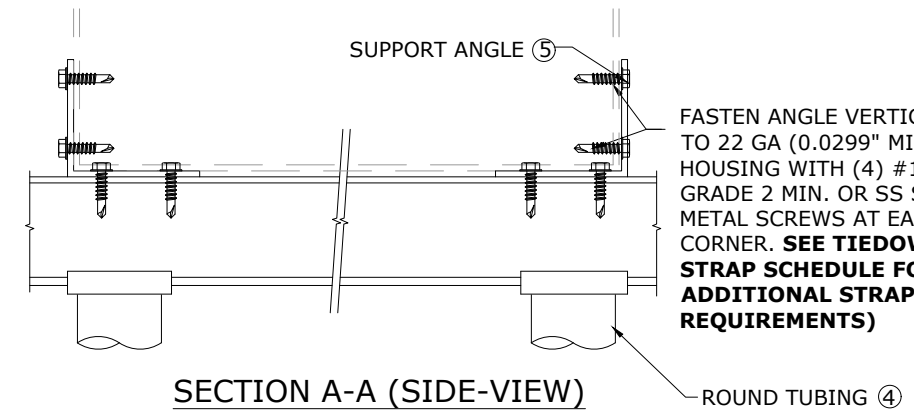
23-61587

SCALE: NTS UNLESS NOTED

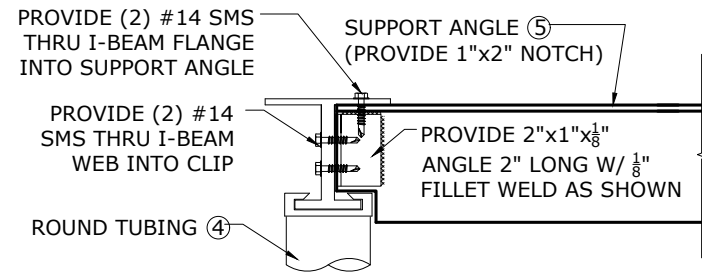
c:\users\rickn\engineering\express\production - documents\projects\23-123-61587\2023 product fbc update fl24546\work\2023 fbc\drawings & cad\23-61587d fl24546.1.doc.dwg



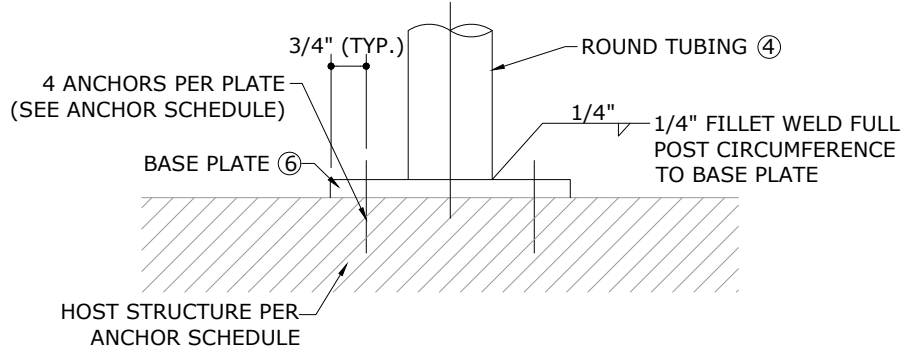
1A
5 NTS
SUPPORT ANGLE ATTACHMENT DETAIL



SECTION A-A (SIDE-VIEW)



1B
5 NTS
SUPPORT ANGLE ATTACHMENT DETAIL



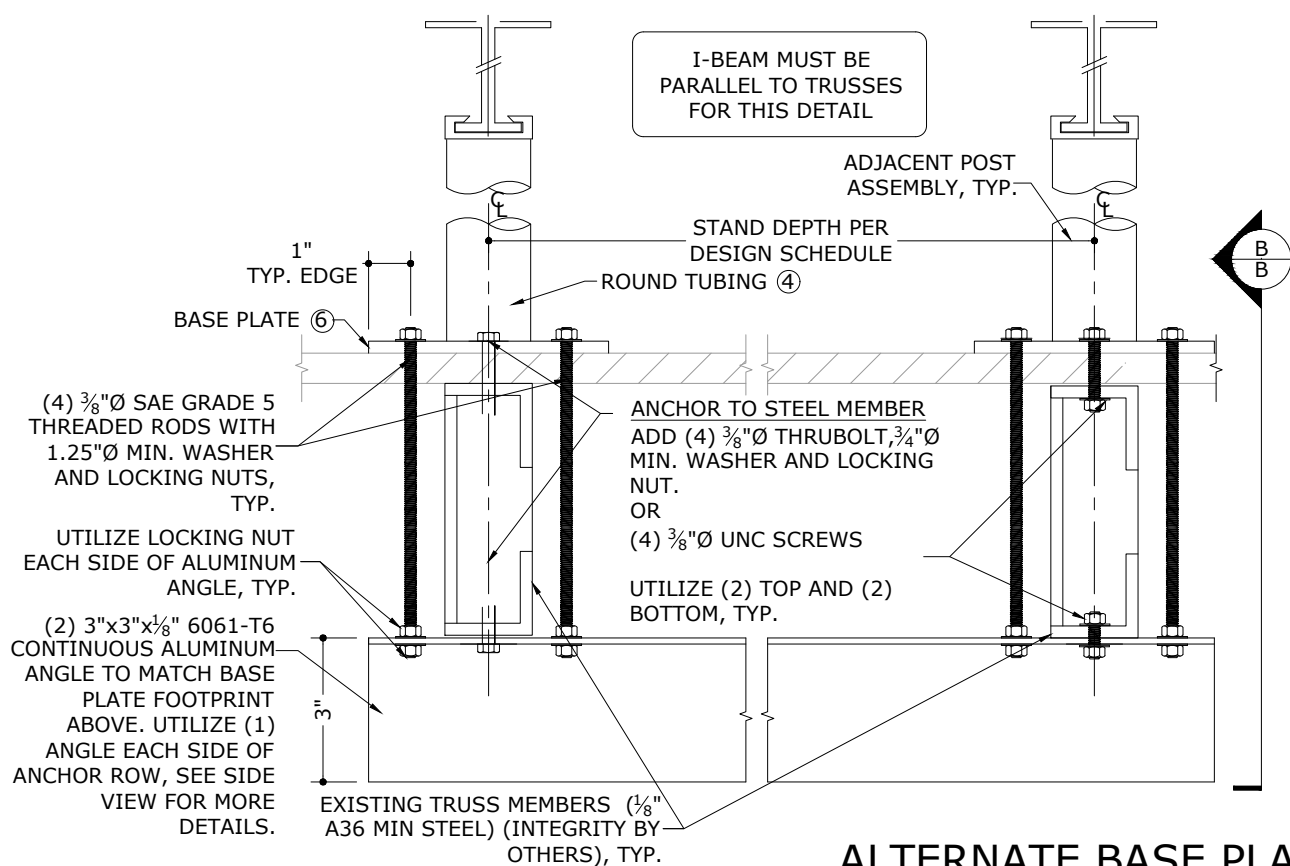
3
5 NTS
STANDARD BASE PLATE ATTACHMENT DETAIL

ANCHOR SCHEDULE

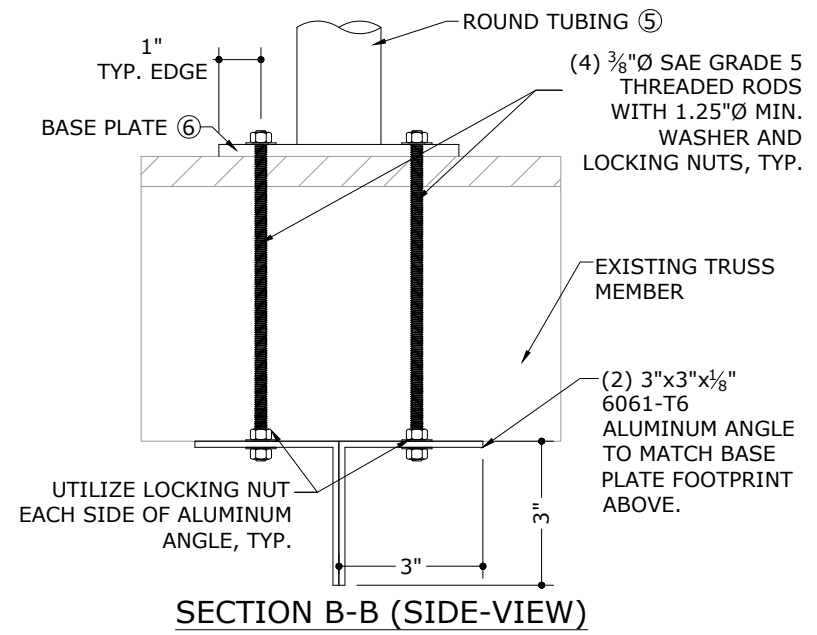
ANCHOR TYPE	HOST STRUCTURE	ANCHOR DESCRIPTION
1	STEEL	3/8"Ø SAE GRADE 5 SHEET METAL SCREWS WITH 1"Ø MIN. WASHER, TO STRUCTURAL A36 STEEL MEMBERS (3/16" MIN HOST THICKNESS)
2A	CONCRETE (3.0 KSI MIN)	3/8"Ø DEWALT CARBON STEEL SCREW-BOLT CONCRETE ANCHOR WITH 1"Ø MIN. WASHER, 2-1/2" EMBEDMENT & 6" MIN EDGE DISTANCE, SEE BASE PLATE COMPONENT #6 (ON SHEET 2) FOR TYPICAL ANCHOR SPACING.
2B	CONCRETE (5.0 KSI MIN)	1/2"Ø DEWALT MINI-DROPIN ANCHOR WITH 1.0" EMBEDMENT & 6" MIN EDGE DISTANCE, SEE BASE PLATE COMPONENT #6 (ON SHEET 2) FOR TYPICAL ANCHOR SPACING. NOTE: MAX ALLOWABLE PRESSURES LISTED IN THE STAND DESIGN SCHEDULE SHALL BE MULTIPLIED BY 0.8 WHEN USING THIS ANCHOR OPTION
3	WOOD*	*SEE DETAIL 4/4 OR SITE SPECIFIC ENGINEERING IS REQUIRED
4	STEEL	3/8"Ø SAE GRADE 5 THRU BOLT WITH 1"Ø MIN. WASHER & NUT, TO STRUCTURAL A36 STEEL MEMBERS (3/16" MIN HOST THICKNESS)

ANCHOR NOTES:

1. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
2. ENSURE MINIMUM EDGE DISTANCE AS NOTED IN ANCHOR SCHEDULE FOR EACH ANCHOR.
3. WOOD HOST STRUCTURE SHALL BE "SOUTHERN PINE" G=0.55 OR GREATER DENSITY. ALL CONCRETE SUBSTRATE SHALL BE UN-CRACKED CONCRETE AND SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI, U.N.O. CONCRETE SUBSTRATE THICKNESS SHALL BE GREATER THAN OR EQUAL TO 1.5xANCHOR EMBEDMENT. INSTALL CONCRETE ANCHORS TO UN-CRACKED CONCRETE ONLY.
4. MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES ROOFING FINISHES.
5. WHERE EXISTING STRUCTURE IS WOOD TRUSSES, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD TRUSS MEMBERS, NOT INTO PLYWOOD.



4
5 NTS
ALTERNATE BASE PLATE ATTACHMENT AT STEEL TRUSS MEMBERS



SECTION B-B (SIDE-VIEW)

FL24546.1

ENGINEERING EXPRESS
POSTAL ADDRESS:
401 W. ATLANTIC AVE R10 BOX 219
DELRAY BEACH, FL 33444
ENGINEERINGEXPRESS.COM

Miami Tech, Inc.
3611 NW 74th St
Miami, FL 33147
(305) 693-7054
Aluminum Stand for Mechanical Units
Florida Statewide Approval
Florida Building Code

DATE	DRWN	CHKD	REMARKS
6/20/2023	RN	RN	INIT ISSUE

23-61587
SCALE: NTS UNLESS NOTED

5 OF 5

c:\users\vrckn\engineering\express\production - documents\projects\23-123-61587\2023 product fbc update fl24546\work\2023 fbc\drawings & cad\23-61587d fl24546.1.doc.dwg