AIR BRACE

STEEL SUPPORT BRACKETS FOR MECHANICAL UNITS

NOT VALID FOR PERMIT OR CONSTRUCTION

SEE SEAL FOR SEALING ENGINEER
PE# (SEE SEAL) CA# (SEE SEAL)

APRIL 25, 2022

SPACE RESERVED FOR DIGITAL SEAL INFORMATION

WHEN DIGITALLY SEALED, THIS NOTE SHALL BE FULLY COVERED ON SHEET 1

WHEN PRINTED OR PHYSICALLY SEALED, SEAL OF CERTIFYING ENGINEER, AND DATE OF CERTIFICATION SHALL BE SHOWN TO THE RIGHT.

IN ALL CASES, CERTIFYING ENGINEER AND CERT OF AUTH AS LISTED ON STAMP

PE SEAL REQUIRED

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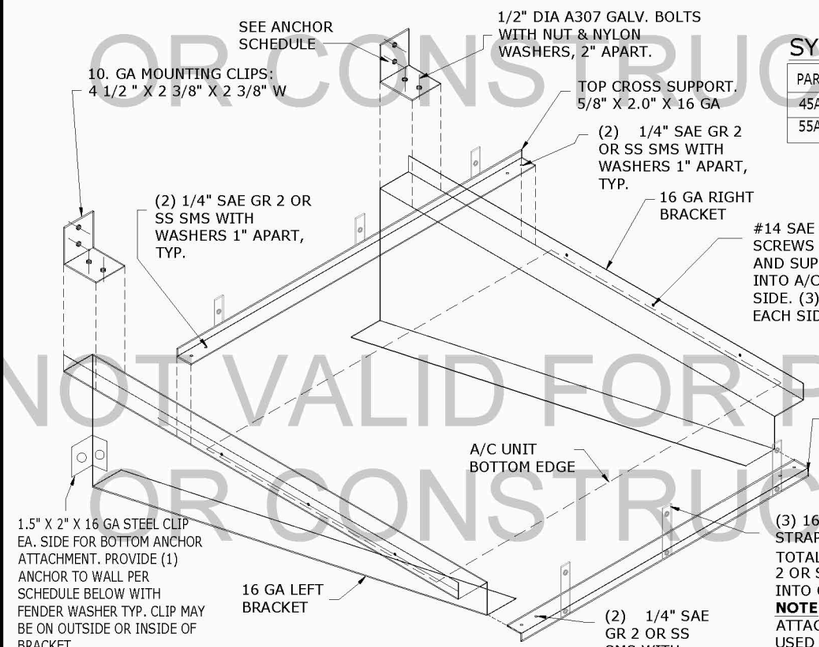
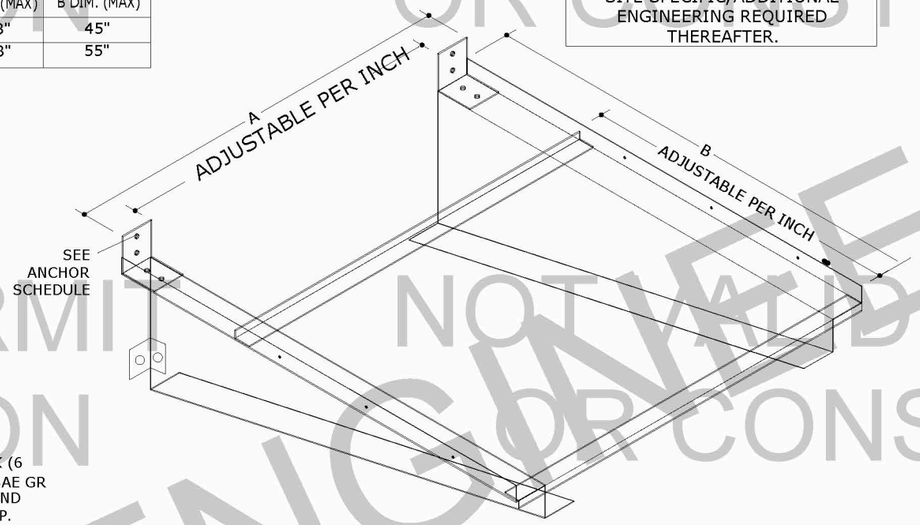


1/1 AIRBRACE MOUNTING BRACKET
SCALE: NTS EXPLODED VIEW

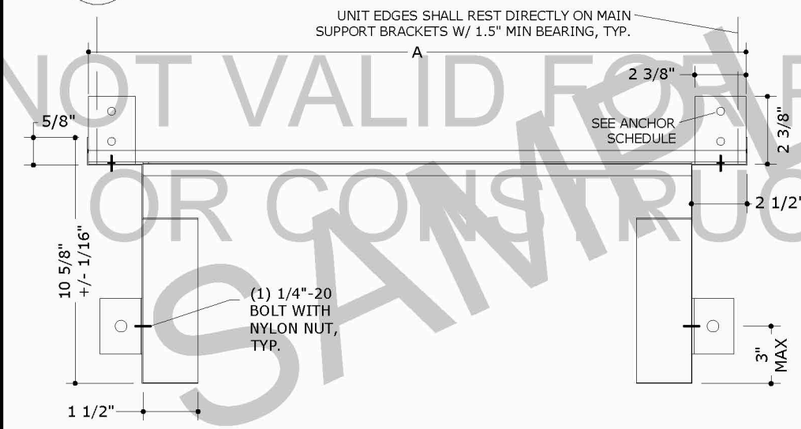
SYSTEM CONFIGURATIONS

PART NO.	A DIM. (MAX)	B DIM. (MAX)
45AB	48"	45"
55AB	48"	55"

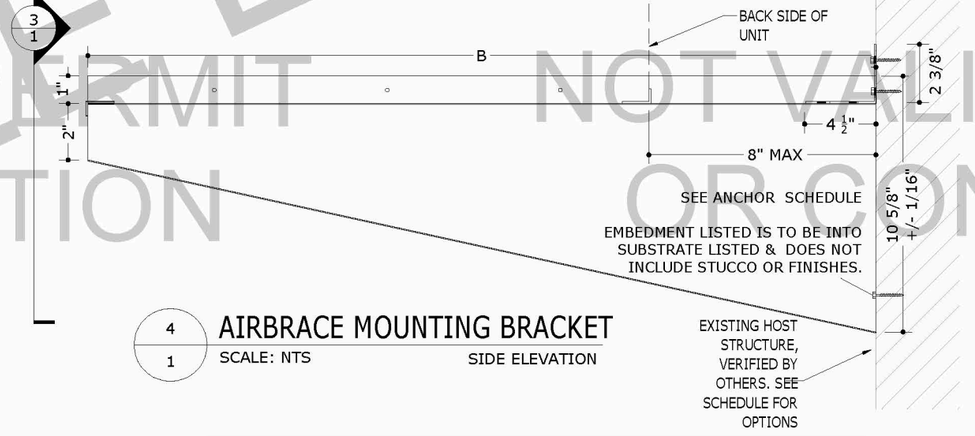
VALID AS A GENERIC SEALED MASTER PLAN ONLY FOR UP TO (2) INSTALLATIONS AT (1) LOCATION. SITE SPECIFIC/ADDITIONAL ENGINEERING REQUIRED THEREAFTER.



2/1 AIRBRACE MOUNTING BRACKET
SCALE: NTS ISOMETRIC VIEW



3/1 AIRBRACE MOUNTING BRACKET
SCALE: NTS FRONT ELEVATION



4/1 AIRBRACE MOUNTING BRACKET
SCALE: NTS SIDE ELEVATION

MAX WIND PRESSURE (UPLIFT)	MAX UNIT DIMENSIONS (LENGTH x WIDTH x HEIGHT, IN)	MAX UNIT WEIGHT (LBS)	ANCHOR SCHEDULE (PER BRACKET)			
			3 KSI MIN CONCRETE	1.5 KSI MIN GROUT FILLED CONCRETE BLOCK	1/8" THICK MIN. STEEL	WOOD (G=0.55 MIN)
± 75 PSF	48 x 48 x 30	425	(1) 1/2" DIA. DEWALT SCREW BOLT WITH 3-1/2" EMBED. AND 8" MIN EDGE DIST.	(1) 1/2" DIA. DEWALT SCREW BOLT WITH 4" EMBED. AND 12" MIN EDGE DIST.	(2) 1/2" SAE GRADE 5 UNC BOLTS WITH 1-1/2" MIN. SPACING AND 3/4" MIN FROM ANY STEEL EDGE. PROVIDE 5 PITCHES MIN PAST THREAD PLANE	(2) 1/2" DIA. LAG SCREWS WITH 2-1/2" MIN THREAD PENETRATION, 1-1/2" MIN. SPACING AND 3/4" MIN EDGE DIST.

NOTE*: THIS MOUNTING BRACKET IS CERTIFIED FOR BOTH LATERAL AND UPLIFT WIND PRESSURES ACTING **UN-CONCURRENTLY** ON THE MECHANICAL UNIT/BRACKET PER THE CRITERIA IN THE DESIGN SCHEDULE HEREIN. THIS BRACKET IS CERTIFIED ONLY FOR ATTACHMENTS TO THE SIDE OF BUILDINGS, NOT FOR ROOFTOP CONDITIONS OR INSTALLATIONS. THIS PRODUCT IS NOT APPROVED FOR MISSILE IMPACT UNDER ANY CIRCUMSTANCE.

DESIGN NOTES

MAXIMUM ALLOWABLE WIND SPEED, ELEVATION, AND EXPOSURE CATEGORY TO BE DETERMINED PER ASCE 7-16 "ABOVE GRADE SOLID SIGN" WIND PRESSURE METHODOLOGY.
MAX ALLOWABLE ASD DESIGN PRESSURE PER SCHEDULE
NOTE: THE MAXIMUM ALLOWABLE DESIGN PRESSURES LISTED ARE NOT CONSIDERED TO ACT CONCURRENTLY (LATERAL AND UPLIFT). IF THE AUTHORITY HAVING JURISDICTION REQUIRES CONCURRENT LATERAL AND UPLIFT LOADS TO BE CONSIDERED, SITE SPECIFIC ENGINEERING WILL BE REQUIRED.

GENERAL NOTES

1. THIS SYSTEM HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 7TH EDITION (2020). ALSO APPLICABLE FOR THE FBC 6TH EDITION (2017), IBC/IRC (2015 & 2018), AS WELL AS CURRENT VERSIONS OF THE MN, NC, NJ, NY, OH, SC, & VA BUILDING CODES AS APPLICABLE. CODE ENFORCED COMPLIES WITH STATE OF SEAL AND IF MULTIPLE VERSIONS ARE LISTED THEN MOST STRINGENT APPLIES. DESIGN SHALL UTILIZE ASD DESIGN METHOD USING ASCE 7-16 OR ASCE 7-10 CODES FOR SITE SPECIFIC APPLICATIONS AS APPLICABLE.
2. MAXIMUM DIMENSIONS AND WEIGHT OF UNIT SHALL CONFORM TO SPECIFICATIONS STATED HEREIN.
3. ALL MECHANICAL SPECIFICATIONS (CLEAR SPACE, TONNAGE, ETC.) SHALL BE AS PER MANUFACTURER RECOMMENDATIONS AND ARE THE EXPRESS RESPONSIBILITY OF THE CONTRACTOR. THIS DOCUMENT CERTIFIES THE STRUCTURAL INTEGRITY OF THE PROPOSED BRACKET AND ITS ATTACHMENT TO THE HOST STRUCTURE ONLY.
4. ALL FASTENERS TO BE ¼" X ¾" OR GREATER SERIES 300 NON-MAGNETIC STAINLESS STEEL, OR CADMIUM PLATED OR OTHERWISE CORROSION RESISTANT MATERIAL AND SHALL COMPLY ANY APPLICABLE FEDERAL,STATE, AND LOCAL CODES.
5. ANCHOR/BOLTS SHALL CONFORM TO TO A.S.T.M. A307 MINIMUM. ALL BOLTS SHALL BE HOT DIPPED GALVANIZED.
6. ALL MEMBERS SHALL BE 16GA MINIMUM THICKNESS ASTM A36 FOR SHAPES OR A653 FOR SHEET STEEL (GRADE 33 MIN) WITH Fy = 36 KSI OR BETTER. THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
7. FOR STEEL MEMBERS ALL ANCHORS SHALL BE SPACED WITH 3xDIAMETER MIN. SPACING TO ADJACENT ANCHORS AND 1.5xDIAMETER MIN. END DISTANCE.
8. ELECTRICAL GROUND, WHEN REQUIRED, TO BE DESIGNED & INSTALLED BY OTHERS.
9. 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 RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
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AIR BRACE
MASTER PLAN SHEET
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REMARKS	DRWN	CHK'D	DATE
INIT ISSUE	RWN	MD	3/15/22

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