						•						
ASCE 7-10 & 7-16 ULT WIND VELOCITY TO ASD DESIGN PRESSURE AT GRADE CONVERSION CHART - HVHZ OR NON HVHZ												
EXAMPLE	RISK	EXPOSURE		RISK	EXPO	SURE	RISK	EXPC	SURE			
COUNTY	Ì	С	D	II	С	D	III, IV	С	D			
FORT MYERS	145 MPH	29.4 PSF	35.6 PSF	160 MPH	35.8 PSF	43.4 PSF	175 MPH	42.8 PSF	51.9 PSF			
PALM BEACH	150 MPH	31.5 PSF	38.1 PSF	170 MPH	40.4 PSF	49.0 PSF	180 MPH	45.3 PSF	54.9 PSF			
BROWARD	156 MPH	34.0 PSF	41.2 PSF	170 MPH	40.4 PSF	49.0 PSF	180 MPH	45.3 PSF	54.9 PSF			
MIAMI-DADE	165 MPH	38.1 PSF	46.1 PSF	175 MPH	42.8 PSF	51.9 PSF	186 MPH	48.4 PSF	58.6 PSF			
MONROE	175 MPH	42.8 PSF	51.9 PSF	180 MPH	45.3 PSF	54.9 PSF	200 MPH	55.9 PSF	67.8 PSF			
Kz (Exp C/D) (Ta	Kz (Exp C/D) (Table 26.10-1) = 0.85 1.03		1.03	Kd (Tab	le 26.6-1) =	0.9	G (Section 26.11) =		0.85			
	Kzt (Section 26.8.2) = 1.0		1.0	Ke (Sect	ion 26.9) =	1	Cf (Tabl	1.4				

NOTE: TABLE ABOVE INCLUDES A QUICK REFERENCE OF COMMON FLORIDA CONDITIONS (AT ULTIMATE DESIGN WIND VELOCITIES) FOR SITE-SPECIFIC CONDITIONS, CONSULT LOCAL BUILDING MUNICIPALITY. MAXIMUM DESIGN WIND PRESSURES AT GRADE PER SPECIFIED EXPOSURE REMAIN CONSTANT FOR ANY MAX WIND VELOCITY. FOR SITE-SPECIFIC WIND VELOCITY AND PRESSURE CONVERSIONS, SEE QR LINK PROVIDED BELOW.

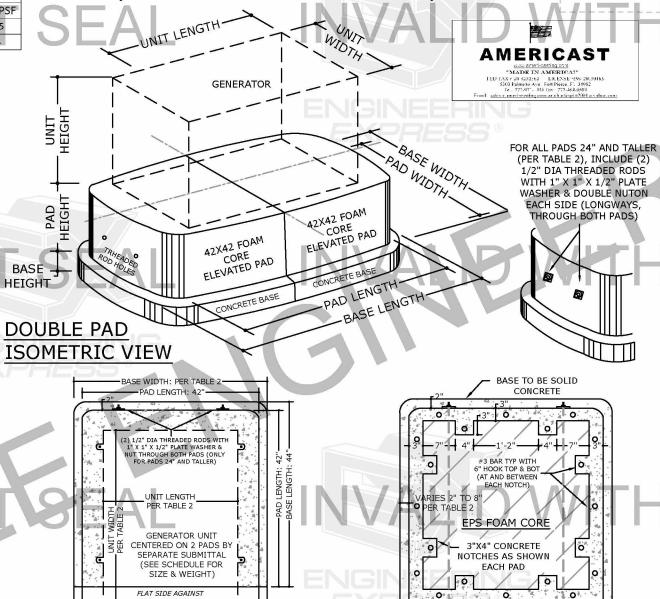
### STEP 2: DETERMINE ALLOWABLE WIND PRESSURE PER CONCRETE PAD & UNIT

TABLE	TABLE 2: ALLOWABLE LATERAL ASD PRESSURE FOR PAD / GENERATOR COMBINATION									
PAD & BASE PAD +				ENERA	TOR U		DESIGN ALLOWANCES			
PAD + BASE	BASE	BASE				MIN	ALLOWABLE	EQUIVALENT WIND		
HEIGHT, IN	REQ'D WIDTH, IN	WEIGHT,	IN	IN	IN	WT, LB	ASD PRESSURE	EXP C	EXP D	1
12 in	77121111111	LB	29	63	34	750	70.0 PSF	200 MPH	200 MPH	1
			31	63	39	750	70.0 PSF	200 MPH	200 MPH	
	10:	3250 lbs	37	73	37	1000	70.0 PSF	200 MPH	200 MPH	
	46 in		34	77	45	1200	60.8 PSF	200 MPH	186 MPH	
			35	77	47	1200	57.0 PSF	200 MPH	180 MPH	
			36	80	50	1500	53.9 PSF	195 MPH	175 MPH	
			29	63	34	750	70.0 PSF	200 MPH	200 MPH	
			31	63	39	750	62.7 PSF	200 MPH	190 MPH	
40.			37	73	37	1000	64.2 PSF	200 MPH	190 MPH	
18 in	46 in	3697 lbs	34	77	45	1200	50.8 PSF	190 MPH	170 MPH	
			35	77	47	1200	48.0 PSF	180 MPH	165 MPH	
			36	80	50	1500	45.7 PSF	180 MPH	160 MPH	Ī
			29	63	34	750	67.6 PSF		195 MPH	-
			31	63	39	750	59.1 PSF	200 MPH	186 MPH	đ
			37	73	37	1000	60.2 PSF	200 MPH	186 MPH	
24 in	50 in	4328 lbs	34	77	45	1200	49.0 PSF		165 MPH	٠.
			35	77	47	1200	46.6 PSF	180 MPH	165 MPH	1
			36	80	50	1500	44.5 PSF	175 MPH	160 MPH	
		A	29	63	34	750	63.5 PSF	200 MPH	190 MPH	ī
			31	63	39	750	56.3 PSF	200 MPH	180 MPH	1
		4959 lbs	37	73	37	1000	57.3 PSF	200 MPH	180 MPH	
30 in	54 in		34	77	45	1200	47.5 PSF	180 MPH	165 MPH	
			35	77	47	1200	45.4 PSF	180 MPH	160 MPH	
			36	80	50	1500	43.6 PSF	175 MPH	160 MPH	1
36 in	58 in	5590 lbs	29	63	34	750	60.3 PSF	200 MPH	186 MPH	1
			31	63	39	750	54.2 PSF	195 MPH	175 MPH	1
			37	73	37	1000	54.9 PSF	195 MPH	180 MPH	1
			34	77	45	1200	46.4 PSF	180 MPH	165 MPH	
			35	77	47	1200	44.5 PSF	175 MPH	160 MPH	1
			36	80	50	1500	42.9 PSF	175 MPH	156 MPH	1
	62 in	6221 lbs	29	63	34	750	57.8 PSF	200 MPH	180 MPH	
			31	63	39	750	52.4 PSF	190 MPH	175 MPH	
42 in			37	73	37	1000	53.1 PSF	190 MPH	175 MPH	
42 IN			34	77	45	1200	45.5 PSF	180 MPH	160 MPH	1
			35	77	47	1200	43.8 PSF	175 MPH	160 MPH	
			36	80	50	1500	42.3 PSF	170 MPH	156 MPH	1
	66 in	6851 lbs	29	63	34	750	55.7 PSF	195 MPH	180 MPH	
			31	63	39	750	51.0 PSF	190 MPH	170 MPH	
48 in			37	73	37	1000	51.5 PSF	190 MPH	170 MPH	
			34	77	45	1200	44.7 PSF	175 MPH	160 MPH	
			35	77	47	1200	43.2 PSF	175 MPH	156 MPH	
			36	80	50	1500	41.8 PSF	170 MPH	156 MPH	1

# AMERICAST GENERATOR

FOAM CORE, 12" TO 48" **ELEVATED CONCRETE DOUBLE PAD** 

(ON-GRADE APPLICATIONS ONLY)



SINGLE 42X42 PAD **DIMENSION PLAN VIEW** (2 REQUIRED FOR DOUBLE PAD) SINGLE 42X42 PAD SECTION & REINFORCEMENT PLAN VIEW (2 REQUIRED FOR DOUBLE PAD)

- 1- PAD + BASE WEIGHT CALCULATED BASED ON 150 PCF MIN CONCRETE & 1.25 PCF EPS FOAM CORE. 2- CONCRETE MIN COMPRESSIVE STRENGTH TO BE f'c=6,000 PSI AT 28 DAYS.
- 3- CONCRETE PAD + BASE HEIGHT ARE MAXIMUMS FOR RATINGS PROVIDED. (EX: RATINGS FOR 18 IN TALL PAD ARE ALSO APPLICABLE FOR 13 IN TO 17 IN PADS).
- 4- GENERATOR UNIT SIZE TO BE EQUAL OR SMALLER IN ALL DIMENSIONS FOR EACH TABLE ENTRY (EX: FOR 34" X 77" X 45", 1200 LB - ANY UNIT EQUAL OR SMALLER IN ALL DIMENSIONS IS EQUIVALENTLY RATED, BUT THIS RATING WOULD NOT EXTEND TO A 50" TALL UNIT OR 1000 LB UNIT)
- 5- GENERATOR UNIT WEIGHT TO BE EQUAL OR GREATER THAN SHOWN FOR EACH RATING. (EX: 750 LB UNIT RATING APPLICABLE FOR UNITS 750 LBS AND HEAVIER) 6- GENERATOR'S MANUFACTURER SPECS TO BE PROVIDED WITH THIS MASTER PLAN SHEET FOR
- SUBMISSION & CERTIFICATION. 7- FOR UNITS OR CONDITIONS REQUIRING GREATER ALLOWABLE PRESSURE, ADDITIONAL
- ENGINEERING MAY BE REQUIRED.

ALLOWABLE DESIGN PRESSURE REQUIRED WIND LOAD DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED LINDER SEPARATE CERTIFICATION ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE. SITE-SPECIFIC LOAD REOUIREMENTS AS DETERMINED IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE "ASD" CAPACITY VALUES LISTED

HEREIN FOR ANY ASSEMBLY AS

## DESIGN NOTES

- THIS SYSTEM HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE SIXTH & SEVENTH
- 2. POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE.

  3. MAXIMUM DIMENSIONS AND WEIGHT OF GENERATORS
- UNIT SHALL CONFORM TO SPECIFICATIONS STATED HEREIN THE AREA UNDER CONCRETE SLAB ON GROUND SHALL
- HAVE ALL VEGETATION, STUMPS, ROOTS, AND FOREIGN MATERIALS REMOVED PRIOR TO INSTALLATION ON COMPACTED SOIL AS VERTEIED BY OTHERS. THESE CONCRETE PADS HAVE BEEN DESIGNED FOR A MINIMUM BEARING CAPACITY OF 2,000 PSF AND MINIMUM SUBGRADE MODULUS = 100 PCI. SHOULD OTHER CONDITIONS OR MATERIALS BE ENCOUNTERED. THE ENGINEER OF RECORD SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE WORK
- SLIDING IS ASSUMED RESISTED BY 2" EMBEDMENT OF PAD IN GROUND ALONG WITH RESISTANCE FROM CONNECTED CABLING. NOMIAL SLIDING IS NOT ASSUMED A FAILURE CASE IN THIS DESIGN

### GENERAL NOTES

- 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.
- 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 EFES & 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. 15.
- NO FLOOD OR WATERPROOFING RATINGS OR CERTIFICATIONS ARE INTENDED
- HOLLOW PADS FOR USE WHERE APPLICABLE BY CODE. USE OF PADS MAY BE SUBJECT TO BUILDING DEPT
- 10. WATER-TIGHTNESS OF EXISTING FINISHES 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 MAY OCCUR AS WATER-TIGHTNESS SHALL BE THE FULL RESPONSIBILITY OF THE INSTALLING CONTRACTOR.
- THE ROLE OF THIS ENGINEER FOR THIS PROJECT IS THAT OF SPECIALTY ENGINEER AND NOT THE ENGINEER OF RECORD. CONSEQUENTLY, THE ARCHITECT/ENGINEER OF RECORD SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING.
- 12. THIS DOCUMENT IS GENERIC AND DOES NOT PERTAIN TO ANY SPECIFIC PROJECT SITE. INFORMATION CONTAINED HEREIN IS BASED ON CONTRACTOR-SUPPLIED DATA AND MEASUREMENTS. ENGINEERING EXPRESS SHALL NOT BE HELD RESPONSIBLE OR LIABLE IN ANY WAY FOR ERRONEOUS OR INACCURATE DATA OR MEASUREMENTS. DIMENSIONS ARE SHOWN TO ILLUSTRATE DESIGN FORCES AND OTHER DESIGN CRITERIA. THEY MAY VARY SLIGHTLY BUT MUST REMAIN WITHIN THE LIMITATIONS. SPECIFIED HEREIN. WORK SHALL BE FIELD VERIFIED BY OTHERS PRIOR TO CONSTRUCTION, ENGINEERING EXPRESS SHALL BE NOTIFIED AND GIVEN AN OPPORTUNITY TO REEVALUATE OUR WORK UPON OPPORTUNITY TO REEVALUATE OUR WORK UPON DISCOVERY OF ANY INACCURATE INFORMATION PRIOR TO MODIFICATION OF EXISTING FIELD CONDITIONS AND FABRICATION AND INSTALLATION OF MATERIALS. ALTERATIONS OR ADDITIONS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE OUR CERTIFICATION. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.

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MASTERFIBER MAC 100

**EPS FOAM CORE** 

EACH WAY

#3 BARS @ 12"

W6 X W6 / 6ga X 6ga MESH MIN

GFRC CONCRETE MIX

Y DISTANCE DEPEND ON GENERATOR BASE LENGTH, NO LESS THAN 2".

Z DISTANCE DEPEND ON GENERATOR BASE WIDTH, NO LESS THAN

X DISTANCE 3" FROM UNIT EDGE TO CLIP.

ANCHOR REQUIREMENTS

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# DESIGN NOTES

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  CALCULATED FOR USE WITH THIS SYSTEM SHALL BE
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  7. ENGINEER SEAL AFFIXED HERETO VALIDATES
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ENSURE MINIMUM EDGE DISTANCE

AS NOTED IN ANCHOR SCHEDULE.

INSTALLATION INSTRUCTIONS TO

ENSURE MINIMUM SPACING TO ANY ADJACENT ANCHORS.

FOLLOW MANUFACTURER'S

INSTALL ANCHORS.

−3"---

**VARIES PER** 

TABLE 2

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