

WIND PRESSURE

PER ASCE 7-22, SECTION 26.10-1
WIND VELOCITY V= 115 MPH EXPOSURE C
Kzt= 1
Kh= 0.575
Kd= 0.85
G= 0.85

BASIC WIND PRESSURE: qz= 0.00256 Kzt Kh Kd V^2 0.6
qz= 9.92827 PSF

PER ASCE 7-22 SECT 29.3 FIG 29.3-1

FENCE DIMENSIONS h= 6 B= 16
s= 6 s/h= 1 B/s= 2.66667
THEN Cf= 1.4

DESIGN WIND LOAD F=qz G Kd Cf F= 10.0424 PSF

GALVANIZED FENCE POST FOOTING

Wind pressure	F= 10.04 psf	Trib= 6	ft	w= FxTrib
Calculate Depth Embedment	FOR EXPOSURE "C"	w= 60.24 plf		
Height above ground line at which force P is applied, h=	3 ft	Post high	6 ft	
Total horizontal load	P= 361.44 lbs	P=	361.44	
Diameter of concrete casing, B=	1 ft			
So=	400 psf (form FBC 2023, Table 1806.2)			
Assume d1=	2.5 ft	and movement of pole=1/2"	Use So 2 times per 1806.3.4	
S1=So*d1^2/3=	666.7 psf			
A=2.34*P/(S1*B)=	1.3			
d=A/2*(1+√(1+(4.36*h/A)))=	2.77 ft			

00200 BUILDING CODES

FLORIDA BUILDING CODE - 2023 8th EDITION

00500 STRUCTURAL LOADING:

THE STRUCTURE HAS BEEN DESIGNED IN ACCORD WITH THE 2023 FLORIDA BUILDING CODE AND / OR MORE RESTRICTIVE REQUIREMENTS FOR LOADS AS GIVEN BELOW UNLESS SPECIFICALLY CALL FOR DIFFERENT LOADING CRITERIA. REFER TO DRAWINGS FOR LOAD SCHEDULE.

WIND LOAD PER ASCE 7-22:
V=115 MPH FOR FENCES UP TO 6'-0"

FOUNDATIONS:

* PERFORMED: WE OBSERVED A SANDY SOIL WITH LIMESTONE FRAGMENTS. AS PER FBC 2023; TABLE 1806.2; SECTION 1806.3.4 WE ASSUME A MAXIMUM OF 200 PSF LATERAL SOIL BEARING PRESSURE CAPACITY (WILL BE INCREASED BY 2)

03300 CAST-IN-PLACE CONCRETE: ACI 318-11

ALL CONCRETE TO HAVE 28 DAY COMPRESSIVE STRENGTHS AS
F'C = 3,000 PSI

05120 STRUCTURAL STEEL: AISC 13TH EDITION

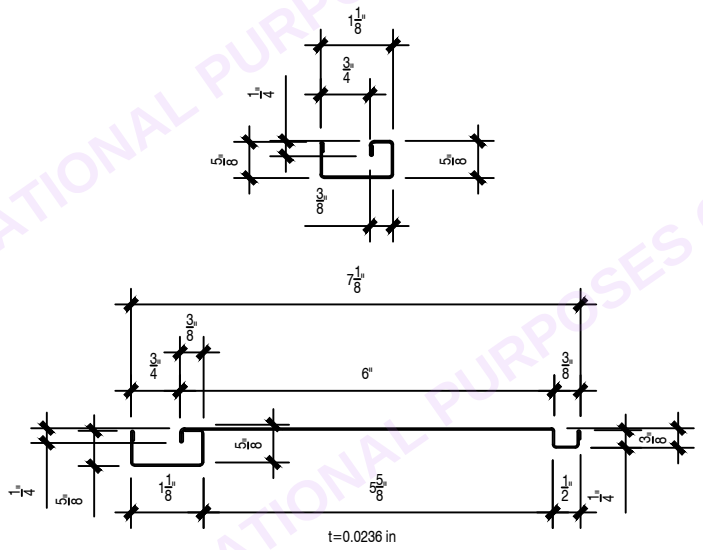
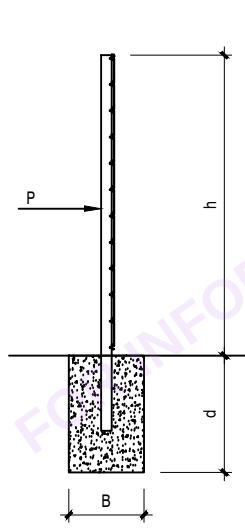
PER LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "SPECIFICATIONS FOR THE DESIGN, TO CONFORM TO:

SHAPES & PLATES

ASTM A 500 GRADE C
FY=36 KSI; FB=23.76 KSI

TUBES

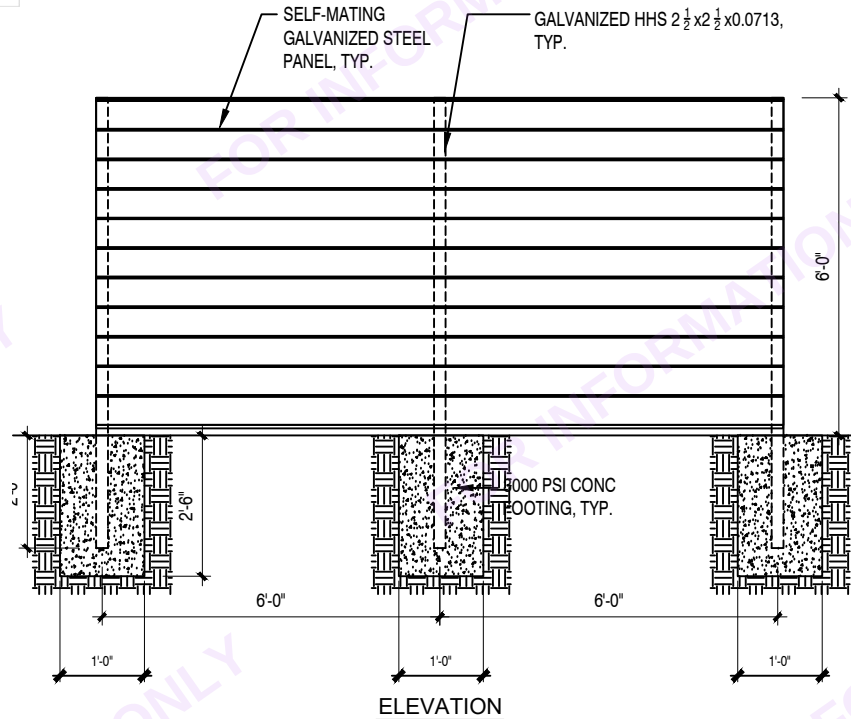
ASTM A 500 GRADE B



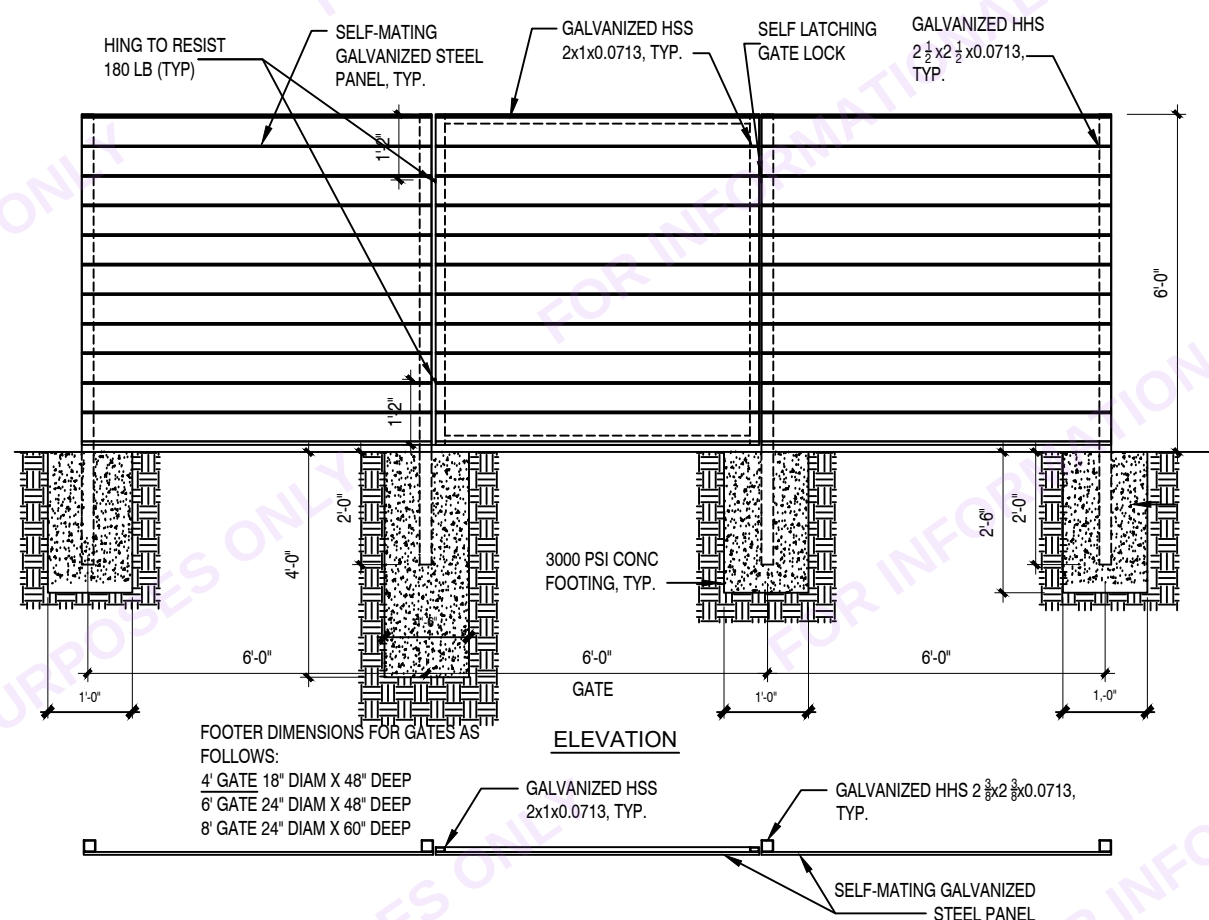
MINIMUM FENCE FRAME FOR V=115 MPH				
WIND EXPOSURE	POST SIZE HSS	SLAT THICKNESS (INCH)	FOUNDATION SIZE	HORIZ STRUT HSS
"C"	2 1/2 x 2 1/2 x 0.0713	0.0236	12"Øx2'-6" DEPTH	2x1x0.0713

STRESS CAP: Fb=30.36 ksi

FENCE HEIGHT UP TO 6'-0"



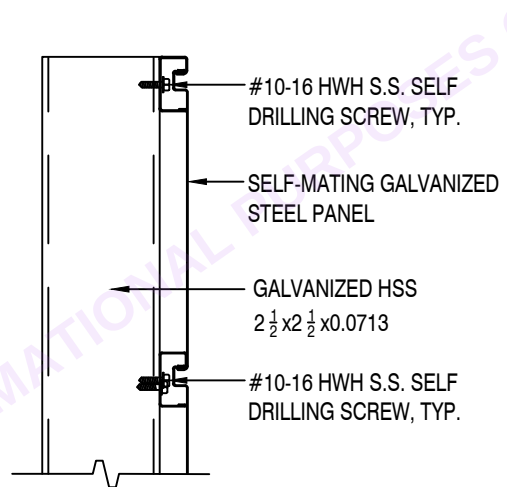
TYPICAL FENCE
NTS



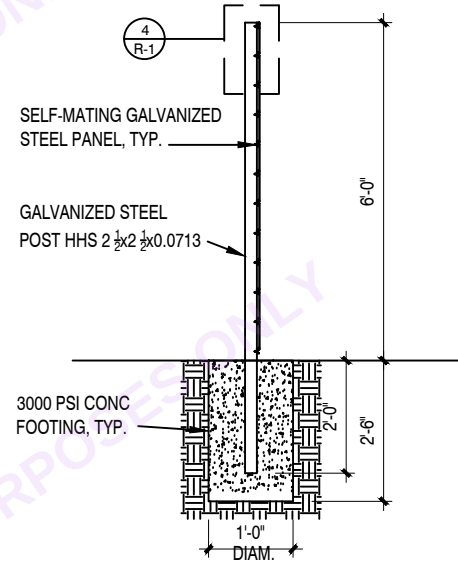
ELEVATION

SECTION

TYPICAL FENCE W/ GATE
NTS



CONNECTION DETAIL
NTS



TYPICAL FENCE SECTION
NTS

		REVISIONS		
		No	DATE	BY
		PROJECT NAME: METAL FENCE MANUFACTURER: ecFENCE SYSTEMS ADDRESS: FOR USE IN THE HVHZ FLORIDA BUILDING CODE 2023		
Date				
Scale		NOTED		
Drawn				
Job		EC FENCE		
Sheet		S-1		
		1 OF 1		