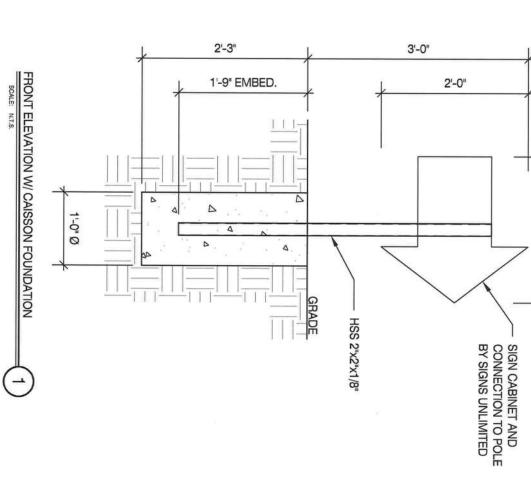
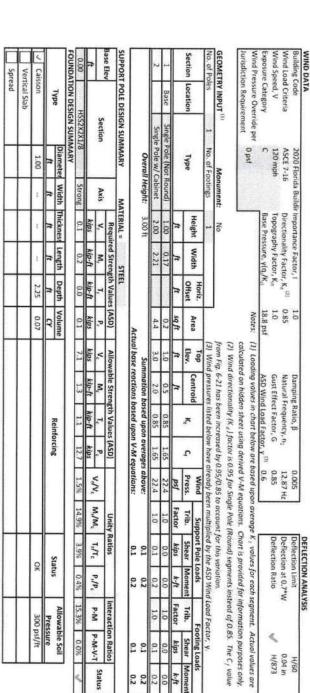




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MBI COMPANIES INC. PHONE 865.584.0999 SIGN-ENGINEER.COM

299 N. WEISGARBER RD. KNOXVILLE, TN 37919

PROJECT:

TAKE S

345 West Duval Street, Lake City, Florida, 32055 DRAWING TITLE:

> DRAWN BY: DEW

CHECKED BY:

MST COMM. NO.

DATE:

220149.164

BUS. LIC. # AA26000828 ENG. C.O.A. # 29794 CORP. LIC. # F02000002650

09/27/22 DATE

DWG. S

DRAWING NO. 0492 010 SET WEERS Ho176013

CALCULATIONS INCLUDE THE FOLLOWING CONSIDERATIONS
AS OUTLINED IN THE 2020 FLORIDA BUILDING CODE (7th ED.):
CHAPTER 16-LOADS AND FORCES
CHAPTER 17-SPECIAL INSPECTIONS
CHAPTER 18-SOILS AND FOUNDATIONS
CHAPTER 19-CONCRETE
CHAPTER 20-ALUMINUM
CHAPTER 21-MASONRY
CHAPTER 21-MASONRY
CHAPTER 23-WOOD
\*ALL SIGNS SHALL BE COMPLIANT WITH CURRENT NEC CODES\*

2-0

NOTES

1.) SEE MANUFACTURERS DRAWINGS FOR

ADDITIONAL DETAILS AND DIMENSIONS.

SIGN CABINET AND CONNECTION BY SIGNS UNLIMITED.

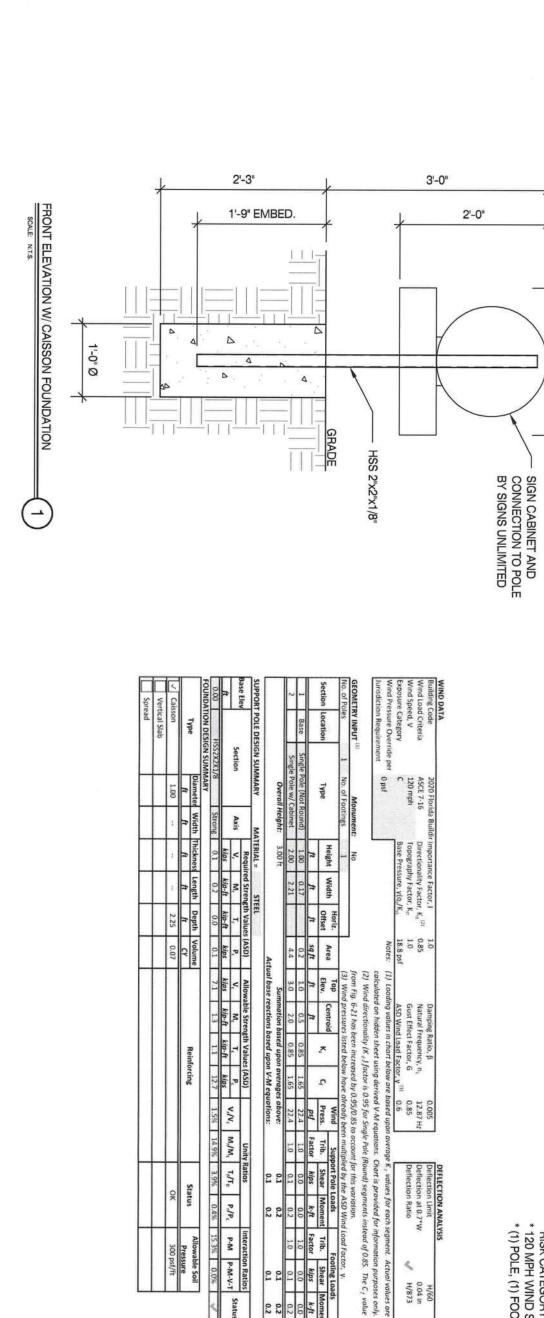
\* 120 MPH WIND SPEED, EXP. C

\* (1) POLE, (1) FOOTING

\* RISK CATEGORY II

\* 2020 FLORIDA BUILDING CODE 7TH ED.

\* CLIENT - SIGNS UNLIMITED



V./V.

M/M

1,/1,

P,/Pc

P-M P-M-V-T Status

Status

Allowable Soil Pressure 300 psf/ft

CALCULATIONS INCLUDE THE FOLLOWING CONSIDERATIONS
AS OUTLINED IN THE 2020 FLORIDA BUILDING CODE (7th ED.):
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CHAPTER 19-SOILS AND FOUNDATIONS
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NOTES

1.) SEE MANUFACTURERS DRAWINGS FOR ADDITIONAL DETAILS AND DIMENSIONS.

2.) SIGN CABINET AND CONNECTION BY SIGNS UNLIMITED.

\* CLIENT - SIGNS UNLIMITED

\* 2020 FLORIDA BUILDING CODE 7TH ED.

2-0

\* 120 MPH WIND SPEED, EXP. C \* (1) POLE, (1) FOOTING

0.005 12.87 H 0.85 0.6

DEFLECTION ANALYSIS
Deflection Limit
Deflection at 0.7\*W
Deflection Ratio

H/60 0.04 in H/873

to account for this variation.

Trib.

\* RISK CATEGORY II

DARREN S. ANTLE, 4/18/ P.E. LIC # 76813

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MBI COMPANIES INC.

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TAKE

S

DRAWING NO. DWG.

GROUND SIGN DESIGN SPECIFICATIONS:

1. REFER TO SIGN COMPANY'S DRAWINGS FOR MORE DETAILS. ALL DESIGNS, DETAILING FABRICATION AND CONSTRUCTION SHALL CONFORM TO: AMERICAN WELDING SOCIETY LOCAL BUILDING CODES & ORDINANCES 2020 FLORIDA BUILDING CODE 7TH ED. 2'-2 1/2" CHAPTER 17-SPECIAL INSPECTIONS
CHAPTER 18- SOILS AND FOUNDATIONS
CHAPTER 19-CONCRETE
CHAPTER 20-ALLMINUM
CHAPTER 21-MASONRY CHAPTER 22-STEEL CHAPTER 23-WOOD CALCULATIONS INCLUDE THE FOLLOWING CONSIDERATIONS AS OUTLINED IN THE 2020 FLORIDA BUILDING CODE (7th ED.): CHAPTER 16-LOADS AND FORCES \*ALL SIGNS SHALL BE COMPLIANT WITH CURRENT NEC CODES\* NOTES BY SIGNS UNLIMITED.

1.) SEE MANUFACTURERS DRAWINGS FOR ADDITIONAL DETAILS AND DIMENSIONS.

2.) SIGN-CABINET AND CONNECTION

2020 FLORIDA BUILDING CODE 7TH ED. CLIENT - SIGNS UNLIMITED

- \* RISK CATEGORY II
- \* 120 MPH WIND SPEED, EXP. C
- (1) POLE, (1) FOOTING
- Deflection at 0.7\*W Deflection Limit lection Ratio
- ASD Wind Load Factor, y (3) 0.6
  (1) Loading values in chart below are based Gust Effect Factor, G 0.005 12.87 Hz 0.85 0.6 values for each segment. Actual values are H/60 0.04 in H/873

from Fig. 6-21 has been increased by 0.95/0.85 to account for this [3]. Wind pressures listed below have already been multiplied by ti calculated on hidden sheet using derived V-M equations. Chart is provided for information purposes only. (2) Wind directionality  $(K_a)$  factor is 0.95 for Single Pole (Round) segments instead of 0.85. The  $C_f$  value

0 psf

2020 Florida ASCE 7-16 120 mph

Directionality Factor, K<sub>d</sub> (2) Topography Factor, K<sub>n</sub>

1.0

Type Height Width Area al base reactions based upon V-M equations 0.1 0.2 Trib.

PORT POLE DESIGN SUMMARY Type Axis Length Depth s (ASD) Reinforcing ٧,/٧ M/M 1,/1, Status P,/Pc 15.3% 0.0% P-M Mowable Soil P.M.V-T Status

2'-3" 3'-0" 1'-9" EMBED 2'-0" TE CONTROLLED 4 1'-0" Ø 8 GRADE HSS 2"x2"x1/8" SIGN CABINET AND BY SIGNS UNLIMITED CONNECTION TO POLE Wind Load Criteria Wind Speed, V Nind Pressure Override per ise Elev OMETRY INPUT are Category

1211098765432

CONNECTION BOLTS: ASTM A325

N SHAPES: ASTM A992 (Fy = 50 KSI)

THREADED RODS: ASTM A193 GRADE B7

ANCHOR BOLTS: ASTM F1554 GRADE 36 U.N.O. (ALTERNATES GRADE 55 & 105)

STEEL PIPE SECTION (> 20" Ø): ASTM A252 GRADE 3 (Fy=42 KSI MIN.) U.N.O.

HSS ROUND SECTION: ASTM A500 GRADE B (Fy=42 KSI) U.N.O.

ISS SQUARE/RECTANGULAR SECTION: ASTM A500 GRADE B (Fy=46 KSI)

STD. STEEL PIPE SECTION: ASTM A53 GRADE B (Fy=35 KSI), U.N.O.

CONCRETE: 2500 PSI @ 28 DAYS

26 ALL EXPOSED STEEL SHALL BE PAINTED WITH AN ENAMEL PAINT TO INHIBIT GROUT UNDER BASE PLATES WITH NON-SHRINK GROUT.

ADEQUATELY BRACE POLE(S) UNTIL CONCRETE HAS SET UP FOR 14 DAYS.

FRONT ELEVATION W/ CAISSON FOUNDATION

THIS ENGINEER DOES NOT WARRANT THE ACCURACY OF DIMENSIONS

FURNISHED BY OTHERS.

EXCAVATION SHALL BE FREE OF LOOSE SOIL BEFORE POURING CONCRETE

ENGINEER SHOULD BE CONTACTED FOR RE-EVALUATION.

LESS THAN THE ABOVE ASSUMED AND/OR CALCULATED PRESSURES, THE

WELDERS SHALL BE CERTIFIED FOR THE TYPE OF WELDING.

20.

ENGINEERED EARTH.

FILL COMPACTED TO 98% OF ITS MAXIMUM DRY DENSITY AS PER ASTM D

698-70 (STANDARD PROCTOR) UNLESS NOTED OTHERWISE. THE SOIL

BEARING CAPACITY IS TO BE VERIFIED BY A GEOTECHNICAL ENGINEER PRIOR

TO CONSTRUCTION. IF ALLOWABLE BEARING AND/OR LATERAL PRESSURE IS

ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED RESIDUAL SOIL AND/OR

SHORT TERM LATERAL LOADS SHALL BE PERMITTED TO BE DESIGNED USING

ADVERSELY AFFECTED A 1/2" MOTION AT THE GROUND SURFACE DUE TO

TWO TIMES THE TABULATED CODE VALUES.

19.

15.

NO FIELD HEATING FOR BENDING OR CUTTING OF STEEL SHALL BE ALLOWED

THE CONTRACTOR (INSTALLER) IS RESPONSIBLE FOR THE MEANS & METHODS

OF CONSTRUCTION IN REGARDS TO JOBSITE SAFETY.

PROVIDE A MINIMUM OF THREE INCHES OF CONCRETE COVER OVER

REINFORCING: GRADE 60 ASTM A615

EMBEDDED STEEL.

STEEL ANGLES, CHANNELS, STRUCTURAL SHAPES & PLATES ASTM A36

16.

ASSUMED HORIZONTAL (PASSIVE PRESSURE) ASSUMED AT 150 PSF/FT OF

DEPTH. ISOLATED LATERAL BEARING FOUNDATIONS FOR SIGNS NOT

ALLOWABLE SOIL BEARING PRESSURE ASSUMED: 2000 PSF

WELDING ELECTRODES: E70XX

WITHOUT THE ENGINEER'S APPROVAL.

27 THIS DESIGN IS FOR THE INDICATED ADDRESS ONLY, AND SHOULD NOT BE ENGINEER USED AT OTHER LOCATIONS WITHOUT WRITTEN PERMISSION OF THE

28. DESIGN OF DETAILS AND STRUCTURAL MEMBERS NOT SHOWN, BY OTHERS

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