

APPLICABLE CODES, REGULATIONS, & STANDARDS

- A. THE 2023 FLORIDA BUILDING CODE, 8TH EDITION
B. ASCE/SEI 7-22: MINIMUM DESIGN LOADS ON BUILDINGS AND OTHER STRUCTURES
C. ACI 318-19: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
D. AISC STEEL CONSTRUCTION MANUAL (15TH EDITION)
E. AWS D1.1: STRUCTURAL WELDING

1. THESE PLANS BELONG EXCLUSIVELY TO THE STRUCTURE, INCLUDING MAIN WIND FORCE RESISTING SYSTEM (MWFRS), COMPONENTS AND CLADDING (C&C), AND BASE RAIL ANCHORAGE. OTHER DESIGN ISSUES, INCLUDING BUT NOT LIMITED TO PROPERTY SET-BACKS, ELECTRICAL, PLUMBING, INGRESS/EGRESS, FINISH FLOOR SLOPES AND ELEVATIONS, OR OTHER LOCAL ZONING REQUIREMENTS ARE THE LIABILITY OF OTHERS.

2. THESE STRUCTURES ARE ENGINEERED AS CAPABLE OF SUPPORTING DEAD LOAD OF THE STRUCTURE AND LIVE AND WIND LOADS. UPGRADES NOT SPECIFICALLY ADDRESSED HEREIN, SUCH AS WINDOWS, DOORS, OR ANOTHER COMPONENT NOT LISTED IN THE FLORIDA BUILDING CODE APPROVED PRODUCT LIST, AND NOT PROVIDED AND INSTALLED BY TUBULAR BUILDING SYSTEMS, WHICH CAUSE ADDITIONAL LOADS ON THE STRUCTURE SHALL BE AT THE OWNER'S RISK. FLORIDA ENGINEERING LLC, SHALL NOT BE RESPONSIBLE FOR FAILURE OR STRUCTURAL DAMAGE DUE TO THE EXTRA LOAD.

3. LOW ULTIMATE WIND SPEED 105 TO 140 MPH (NOMINAL WIND SPEED 81 TO 108 MPH): MAXIMUM RAFTER/POST AND END POST SPACING = 5.0 FEET.

4. HIGH ULTIMATE WIND SPEED 141 TO 170 MPH (NOMINAL WIND SPEED 109 TO 132 MPH): MAXIMUM RAFTER/POST AND END POST SPACING = 4.0 FEET.

5. ALL STEEL TUBING SHALL BE 50 KSI GALVANIZED STEEL. ALL FASTENERS SHALL BE ZINC COATED HARDWARE.

6. SPECIFICATIONS APPLICABLE TO 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/2" x 2 1/2" - 14 GAUGE TUBE STEEL (TS) FRAMING MEMBERS FOR VERTICAL PANELS, 29 GAUGE METAL PANELS SHALL BE FASTENED TO 18 GAUGE HAT CHANNELS (UNLESS OTHERWISE NOTED).

7. FASTENERS CONSIST OF #12-14 x 3/4" SELF DRILLING FASTENER (SDF), USE CONTROL SEAL WASHER WITH EXTERIOR FASTENERS SPECIFICATIONS APPLICABLE ONLY FOR MEAN ROOF HEIGHT OF 20 FEET OR LESS, AND ROOF SLOPES OF 14° (3:12 PITCH) OR LESS SPACING REQUIREMENTS FOR OTHER ROOF HEIGHTS AND/OR SLOPES MAY VARY.

8. AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS, INTERIOR = 9" OR END = 6", (MAX.).

9. WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE:
SOIL SITE CLASS = D
RISK CATEGORY I/II/III
R = 3.25 Ie = 1.0
Sds = 0.087 g V = CsW
Sdi = 0.084 g

10. GROUND ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL WITHIN 6" OF EACH RAFTER COLUMN ALONG SIDES.

11. GROUND ANCHOR (SOIL NAILS) CONSIST OF #5 REBAR W/ WELDED NUT X 30" LONG IN SUITABLE SOIL CONDITIONS MAY BE USED FOR LOW (≤ 108 MPH NOMINAL) WIND SPEEDS ONLY. OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USE IN UNSUITABLE SOILS AS NOTED.

12. MIN. LAP REQUIREMENT FOR REBAR IN FOOTER IS 25".

13. SOIL TO BE COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY, AT OPTIMUM MOISTURE CONTENT, IN ACCORDANCE WITH ASTM D1557-93

14. PRIOR TO PLACING CONCRETE, TREAT THE ENTIRE SUBSURFACE AREA FOR TERMITES IN COMPLIANCE WITH THE FBC. FOR RISK CATEGORY II, III, & IV STRUCTURES ONLY.

15. ALL OPEN AREAS OF CONCRETE OUTSIDE OF THE PROPOSED STRUCTURE SHALL BE DESIGNED TO SLOPE AWAY FROM THE STRUCTURE.

16. A LANDING OF MIN. 36" WIDTH IN THE DIRECTION OF TRAVEL SHALL BE PROVIDED AT THE EXTERIOR DOORS. SLOPE OF LANDING NOT TO EXCEED 1/4"-1". LANDING LEVEL NOT TO BE LOWER THAN 1-1/2" (FOR EGRESS DOORS) & 7-3/4" (FOR OTHER EXTERIOR DOORS) BELOW THE TOP OF THRESHOLD.

DESIGN DATA	
DESIGN CRITERIA :	ASCE/SEI 7
RISK CATEGORY :	II
OCCUPANCY CLASSIFICATION :	R3
CONSTRUCTION TYPE :	II-B
DEFLECTION LIMIT =	L/240
ULTIMATE DESIGN WIND SPEED (MPH) VULT =	120
NOMINAL DESIGN WIND SPEED (MPH) VASD =	93
EXPOSURE CATEGORY :	C
MEAN BUILDING HEIGHT (FT) =	12.88
MINIMUM BUILDING PLAN DIMENSION (FT) =	30.00
END ZONE DIMENSION (FT) a =	3.00
ROOF STYLE :	GABLE
ROOF PITCH (IN 12) :	3
OCCUPANCY CLASSIFICATION :	PARTIALLY ENCLOSED
DEAD LOAD (DUE TO SELF-WEIGHT) =	4.3 PSF
ROOF LIVE LOAD =	12 PSF
GROUND SNOW LOAD =	3 PSF

ADJUSTED C & C WIND PRESSURES (ASD) (PSF)	
EFFECTIVE WIND AREA FOR ROOF (SQ. FT) :	75.00
ZONE 1' (POSITIVE) =	NA
ZONE 1' (NEGATIVE) =	NA
ZONE 1' (OVERHANG) =	NA
ZONE 1 (POSITIVE) =	15.2
ZONE 1 (NEGATIVE) =	-26.6
ZONE 1 (OVERHANG) =	-40.1
ZONE 2 (POSITIVE) =	15.2
ZONE 2 (NEGATIVE) =	-33.8
ZONE 2 (OVERHANG) =	-47.2
ZONE 3 (POSITIVE) =	15.2
ZONE 3 (NEGATIVE) =	-41.2
ZONE 3 (OVERHANG) =	-54.8

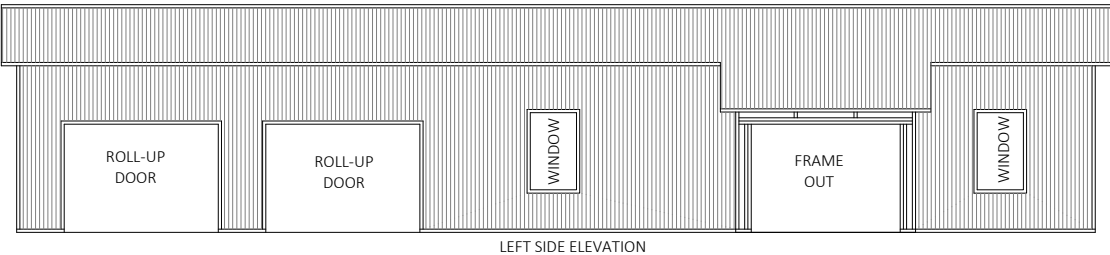
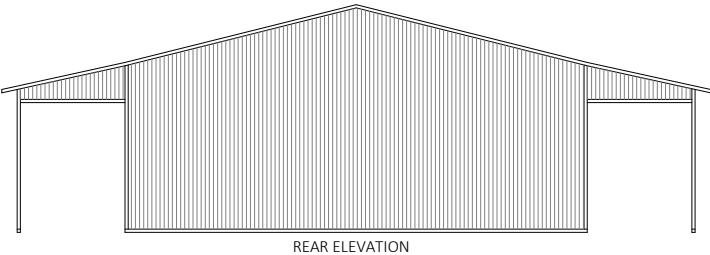
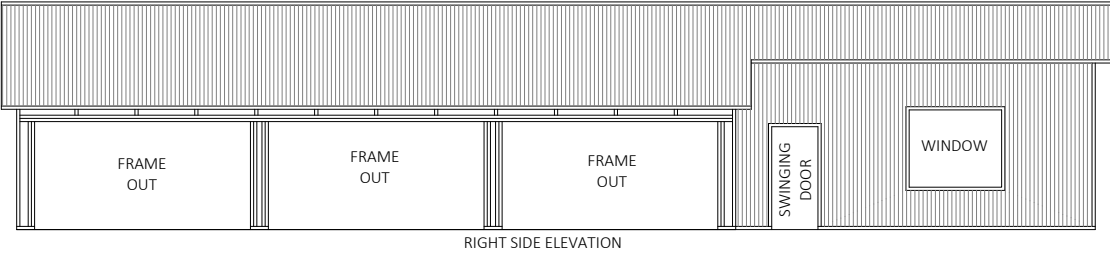
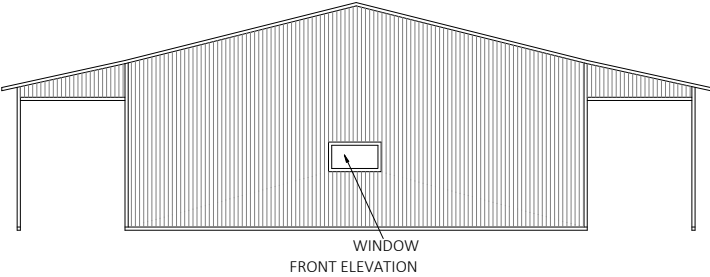
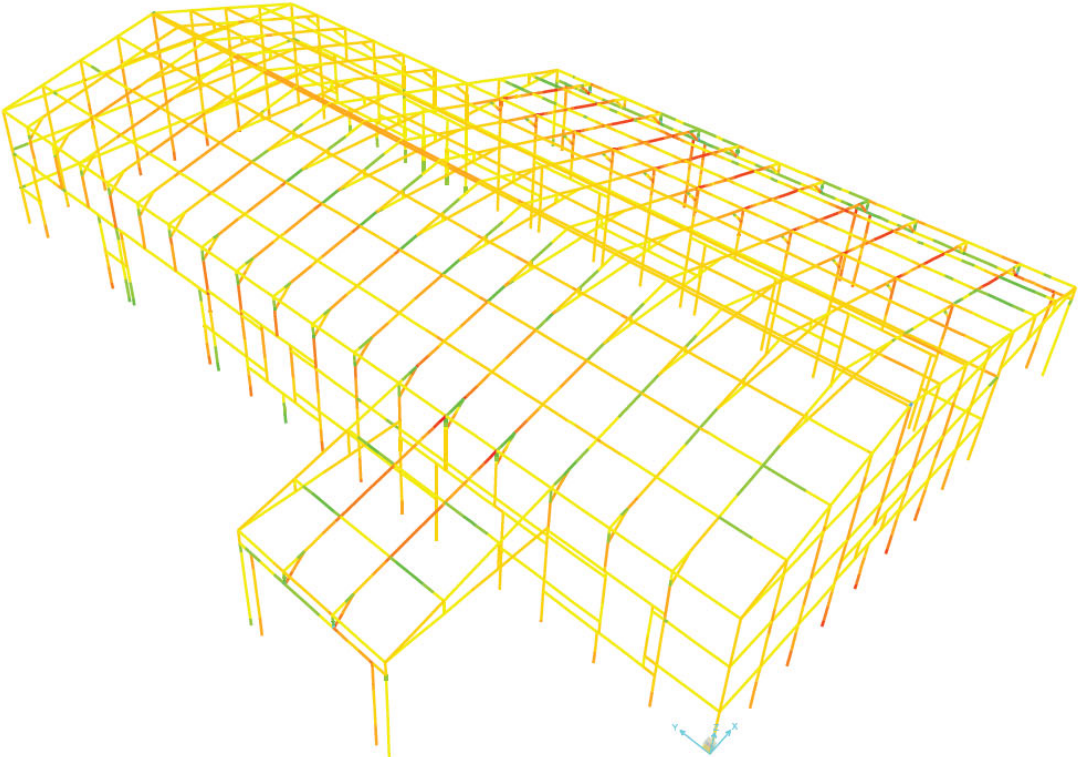
EFFECTIVE WIND AREA FOR WALLS (SQ. FT) :	44.00
ZONE 4 (POSITIVE) =	23.0
ZONE 4 (NEGATIVE) =	-24.6
ZONE 5 (POSITIVE) =	23.0
ZONE 5 (NEGATIVE) =	-27.6

CONTRACTOR TO PROVIDE BUILDING CODE APPROVED PRODUCTS TO MEET OR EXCEED THE DESIGN PRESSURES AS TABULATED.

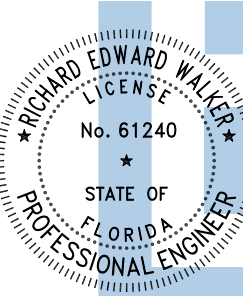
ADJUSTED C & C WIND PRESSURES (ASD) (PSF) FOR OPENINGS	
SWING DOOR	
EFFECTIVE WIND AREA (SQ. FT) =	20.00
ZONE 4 (POSITIVE) =	24.0
ZONE 4 (NEGATIVE) =	-25.6
ZONE 5 (POSITIVE) =	24.0
ZONE 5 (NEGATIVE) =	-29.5
ROLL-UP DOOR	
EFFECTIVE WIND AREA (SQ. FT) =	70.00
ZONE 4 (POSITIVE) =	22.5
ZONE 4 (NEGATIVE) =	-24.0
ZONE 5 (POSITIVE) =	22.5
ZONE 5 (NEGATIVE) =	-26.5
WINDOW	
EFFECTIVE WIND AREA (SQ. FT) =	4.50
ZONE 4 (POSITIVE) =	24.8
ZONE 4 (NEGATIVE) =	-26.5
ZONE 5 (POSITIVE) =	24.8
ZONE 5 (NEGATIVE) =	-31.3

PRODUCT CATEGORY	SUB CATEGORY	MANUFACTURER	APPROVAL No. & DATE
STRUCTURAL COMPONENTS	ROOF DECK	CAPITAL METAL SUPPLY, INC. 29 GA. CAPITAL RIB ROOF PANEL	FL20147.2-R3 12/13/23
	STRUCTURAL WALL	CAPITAL METAL SUPPLY, INC. 29 GA. CAPITAL RIB WALL PANEL	FL20148.2-R3 12/13/23
WINDOWS	SINGLE HUNG	MI WINDOWS AND DOORS 1620	FL47000.1 10/21/24
WINDOWS	SINGLE HUNG	MI WINDOWS AND DOORS 1630	FL47080.1 12/10/24
EXTERIOR DOORS	SWINGING	JELD-WEN DESIGN PRO	FL13541.2-R19 07/16/23
EXTERIOR DOORS	SWINGING	JELD-WEN DESIGN PRO	FL16708.3-R16 10/17/23
EXTERIOR DOORS	ROLL-UP	C.H.I. OVERHEAD DOORS 15074.08 SANDWICH DOORS, RESIDENTIAL	FL15074.8-R10 12/12/23

CTP = CONTRACTOR TO PROVIDE APPROVED PRODUCTS THAT MEET OR EXCEED WIND DESIGN PRESSURES.

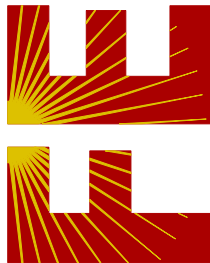


This item has been digitally signed and sealed by Richard E. Walker, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.



Digitally signed
by Richard E Walker
Date:
2025.01.02
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CA CERT. #30782

PROJECT NO. 2434511

SHEET NO.	DRAWING INDEX
S/01	GENERAL NOTES
S/02	PLAN/ ELEVATIONS
S/03	FOUNDATION PLAN
S/04	DETAILS

THE ENGINEERING ON THESE PLANS IS SITE SPECIFIC FOR (1) STRUCTURE ONLY AT THE PROVIDED ADDRESS(ES).

PROPOSED METAL BUILDING FOUNDATION & SHELL STRUCTURAL DESIGN ONLY. ALL OTHER REQUIRED PERMITS TO BUILD OUT TO A HABITABLE LIVING SPACE ARE TO BE BY OTHERS/ PER SEPERATE CERTIFICATE. INCLUDING BUT NOT LIMITED TO, ELECTRICAL, PLUMBING, ENERGY CALCS., ETC. FOR MORE INFORMATION VISIT:
<https://flengineeringllc.com/order/> OR SCAN QR CODE.



CONTRACTOR:

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FORT WHITE, FL 32038

DESIGN DATE: 12/18/2024

REVISION 1: DATE

REVISION 2: DATE

DRAWN BY: TCP

SCALE: NTS

SHEET:

01