

1. DESIGN IS FOR MAXIMUM 30'-0" WIDE X 20'-0" EAVE HEIGHT FULLY ENCLOSED STRUCTURES.
2. APPLICABLE CODES, REGULATIONS, & STANDARDS:
 - A. 2024 FLORIDA BUILDING CODE (8TH EDITION)
 - B. 2024 INTERNATIONAL BUILDING CODE
 - C. 2024 INTERNATIONAL PLUMBING & MECHANICAL CODE
 - D. AISC STEEL CONSTRUCTION MANUAL (13TH EDITION)
 - E. ACI 318-19
 - F. TMS-402-16: BUILDING CODE REQUIREMENTS FOR MASONRY CONCRETE
 - G. AWS D1.1: STRUCTURAL WELDING
3. EXPOSURE CATEGORY: C-2
4. MIN. ULTIMATE WIND SPEED: 105 TO 150 MPH (NOMINAL WIND SPEED 81 TO 116 MPH); MAXIMUM RAEETER POINT AND END POST SPACING = 5.0 FEET.
5. MIN. ULTIMATE WIND SPEED: 151 TO 180 MPH (NOMINAL WIND SPEED 117 TO 139 MPH); MAXIMUM RAEETER POINT AND END POST SPACING = 4.0 FEET.
6. DEAD LOAD = 10 PSF
7. LIVE LOAD = 10 PSF
8. SPECIFICATIONS APPLICABLE TO 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/2" x 2 1/2" - 14 GAUGE TYPE STEEL (TS) FRAMING MEMBERS FOR VERTICAL PANELS, 29 GAUGE METAL PANELS SHALL BE FASTENED TO 18 GAUGE INCH CHANNELS (UNLESS OTHERWISE NOTED).
9. OPTIONAL BASE RAIL ANCHORAGE MAY BE USED FOR LOW AND MUST BE USED FOR HIGH WIND SPEEDS.
10. FASTENERS CONSIST OF #12-14 x 3/4" SELF DRILLING FASTENER (SDF). USE CONTROL SEAL WASHERS WITH EXTERIOR FASTENERS SPECIFICATIONS APPLICABLE ONLY FOR 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.
11. AVERAGE FASTENER SPACING ON CENTERS ALONG RAFTERS OR PURLINS, AND POSTS, INTERIOR = 9" OR END = 6" (MAX.).
12. WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE:

RISK CATEGORY: II/III	
R = 3.25	le = 1.0
Sds = 0.087 g	V = CSW
Sdi = 0.084 g	
13. GROUND ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL WITHIN 6" OF EACH RAFTER COLUMN ALONG SIDES.
14. 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. OPTIMAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USED IN UNSUITABLE SOILS AS NOTED.
15. MIN. LAP REQUIREMENT FOR REBAR IN FOOTER IS 25".
16. SOIL TO BE COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY, AT OPTIMUM MOISTURE CONTENT, IN ACCORDANCE WITH ASTM D1557-95
17. PRIOR TO PLACING CONCRETE, TREAT THE ENTIRE SUBSURFACE AREA FOR TERMITES IN COMPLIANCE WITH THE FBC.

PAGE NO.	DESCRIPTION
1	NOTES AND SPECIFICATIONS
2	BOX EAVE FRAME RAFTER ENCLOSED BUILDING
3	BOW EAVE FRAME RAFTER ENCLOSED BUILDING/WIND PRESSURES
4	BASE RAIL AND FOUNDATION ANCHORAGE
5	BOW/BOW EAVE VERTICAL, ROOF/SIDING OPTION
6	BOW/BOW EAVE RAFTER LEAN-TO OPTIONS
7	BOX EAVE RAFTER END WALL, SIDE WALL AND OPENING FRAMING
8	VENT AND CWJ STEM WALL DETAIL
9	OPTIONAL CONCRETE STRIP FOOTING

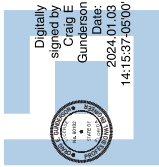
PRODUCT CATEGORY	SUB CATEGORY	MANUFACTURER	APPROVAL No. & DATE
STRUCTURAL COMPONENTS	ROOF DECK	CAPITAL METAL SUPPLY, INC. 29 GA. CAPITAL RIB ROOF PANEL	FL20147.2-R2 10/13/2020
STRUCTURAL COMPONENTS	STRUCTURAL WALL	CAPITAL METAL SUPPLY, INC. 29 GA. CAPITAL RIB WALL PANEL	FL20148.2-R2 10/13/2020
EXTERIOR DOORS	ROLL-UP	JANUS INTERNATIONAL GROUP, LLC SERIES 3652	FL14435.1-R6 11/27/21
EXTERIOR DOORS	ROLL-UP	JANUS INTERNATIONAL GROUP, LLC SERIES 750	FL21450.10-R8 12/13/22
EXTERIOR DOORS	ROLL-UP	JANUS INTERNATIONAL GROUP, LLC SERIES 3100	FL12766.4-R6 10/12/20
EXTERIOR DOORS	SWINGING	ELVIR DOOR AND METAL COMPANY SERIES 407	FL17996.5-R2 02/28/21
WINDOWS	SINGLE HUNG	KINRO, INC 9750 SH	FL993.5-RL8 05/20/19
WINDOWS	VERTICAL SLIDING	KINRO, INC 18000-R V5	FL993.8-RL8 08/11/20

TRACTOR:
TUBULAR BUILDING SYSTEMS
631 SE INDUSTRIAL CIRCLE,
LAKE CITY, FL 32025

PROJECT DESCRIPTION:

DESIGN DATE:	12/14/2023	PAGE :	1
REVISION 1:	DATE		
REVISION 2:	DATE		
SCALE:	NTS		

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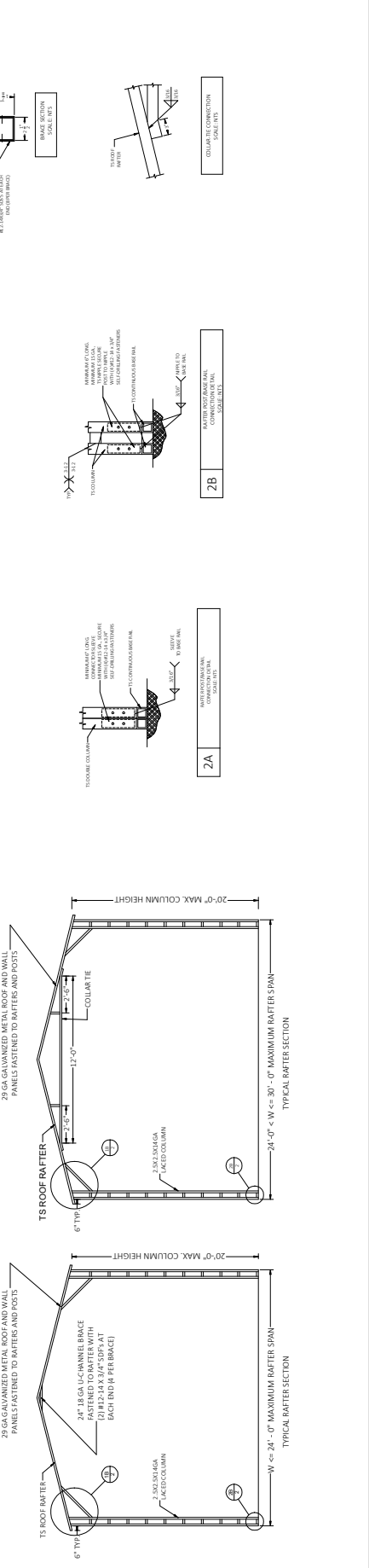
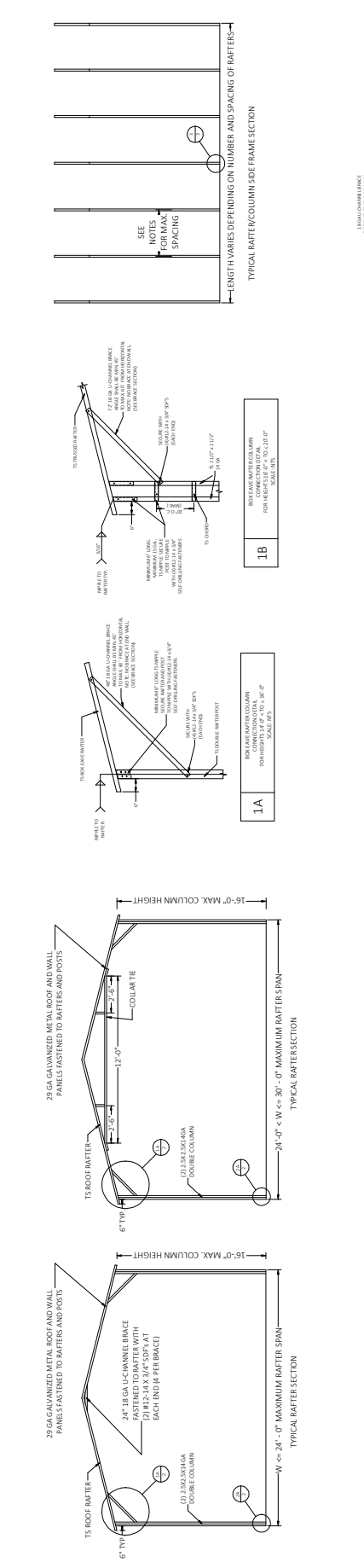
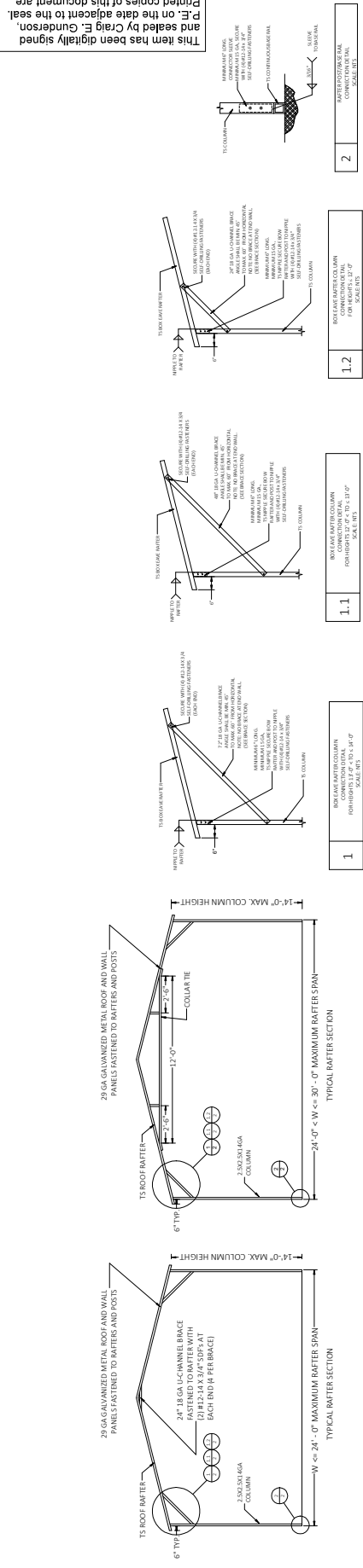
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(941) 391-5980
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PROJECT NO. 2322771-30-E
CA CERT. #30782

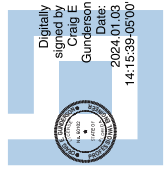


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2024.01.03 14:15:38-0500

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LAKE CITY, FL 32025
PROJECT DESCRIPTION:
30" WIDE X 20" HIGH
ENCLOSED STRUCTURE





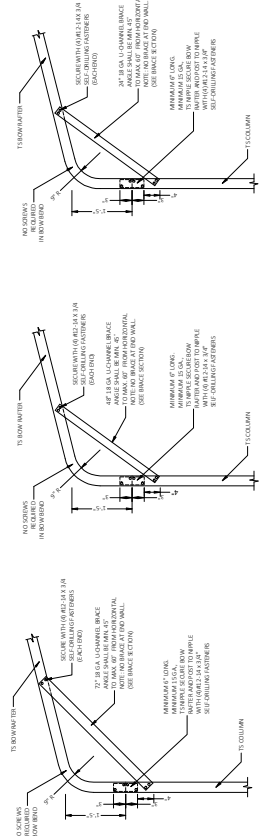
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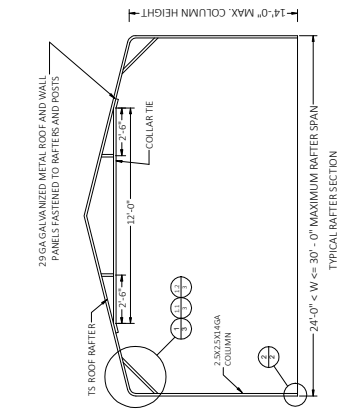


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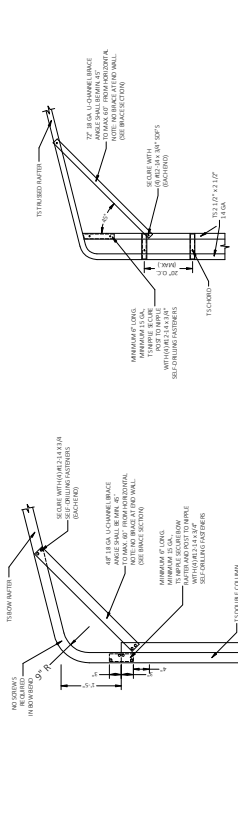
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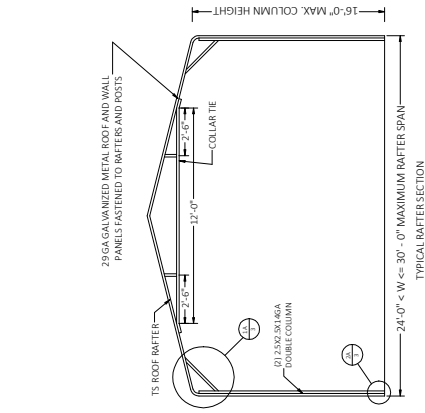
1.1 BOW EAVE AFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 12'-0\"/>



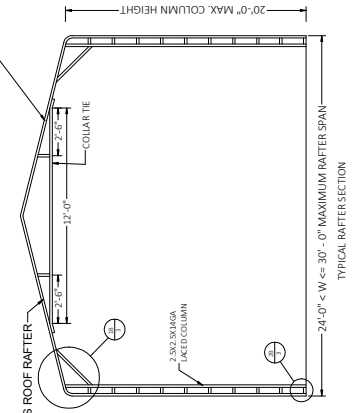
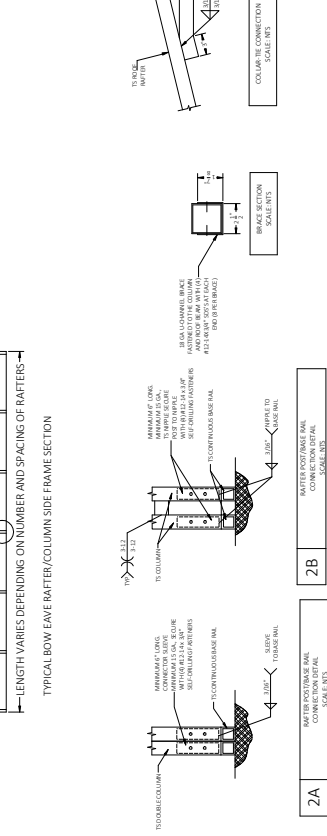
1.2 BOW EAVE AFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 24'-0\"/>



1.3 BOW EAVE AFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 30'-0\"/>



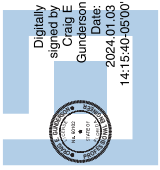
2 TYPICAL BOW EAVE RAFTER/COLUMN SIDE FRAME SECTION



2A Rafter Footing Detail

2B Rafter Footing Detail

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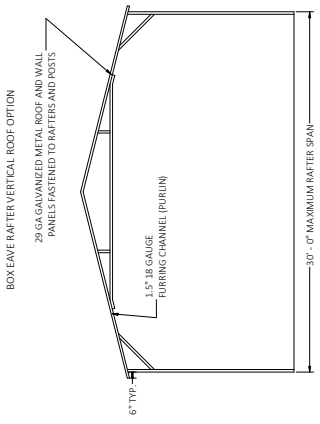


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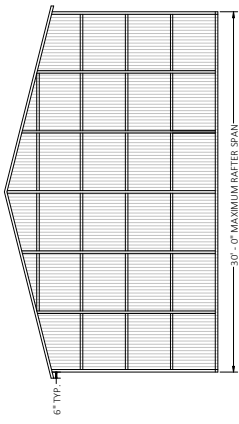


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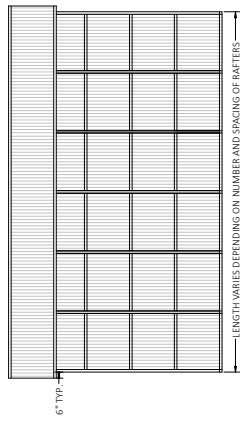
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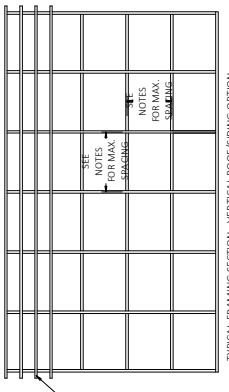
TYPICAL SECTION VERTICAL ROOF/SIDING OPTION



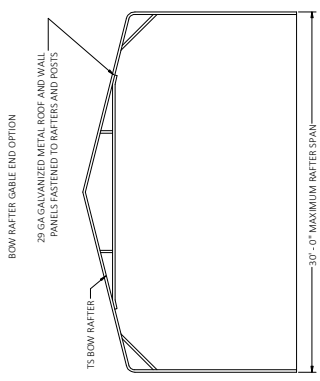
TYPICAL END ELEVATION VERTICAL ROOF/SIDING OPTION



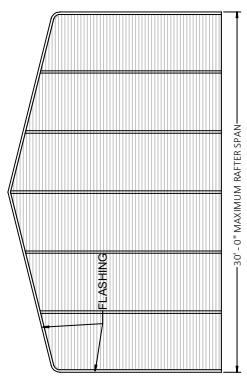
TYPICAL SIDE ELEVATION - VERTICAL ROOF/SIDING OPTION



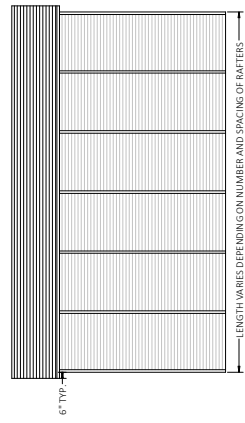
TYPICAL FRAMING SECTION - VERTICAL ROOF/SIDING OPTION



TYPICAL RAFTER/POST FRAME SECTION EXTRA SIDE PANELS



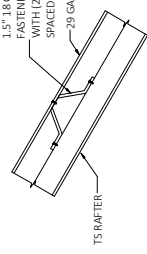
TYPICAL END ELEVATION EXTRA SIDE PANELS



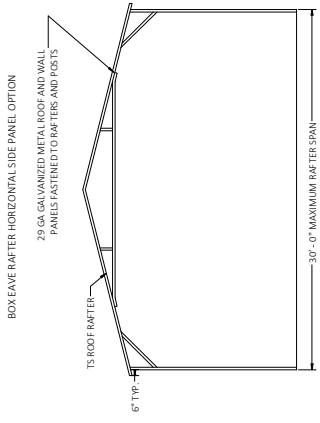
TYPICAL SIDE ELEVATION - EXTRA SIDE PANELS

1.5\"/>

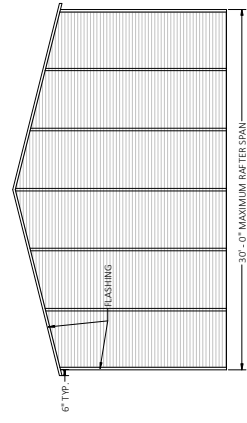
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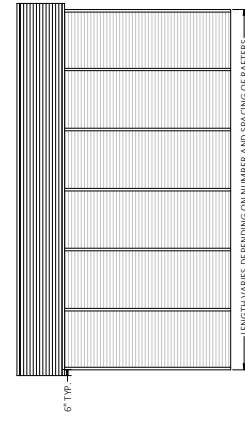
ROOF PANEL ATTACHMENT SCALE: NTS



TYPICAL RAFTER/POST FRAME SECTION EXTRA SIDE PANELS



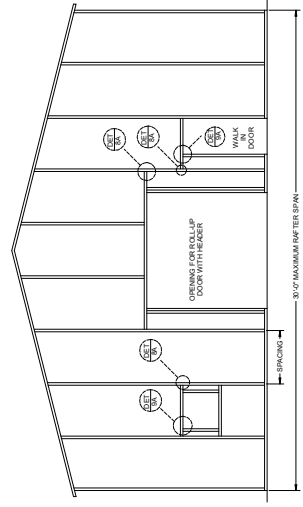
TYPICAL END ELEVATION EXTRA SIDE PANELS



TYPICAL SIDE ELEVATION - EXTRA SIDE PANELS

18 GA U-CHANNEL BRACE FASTENED TO THE COLUMN AND ROOF BEAM WITH (4) #12-1/4\"/>

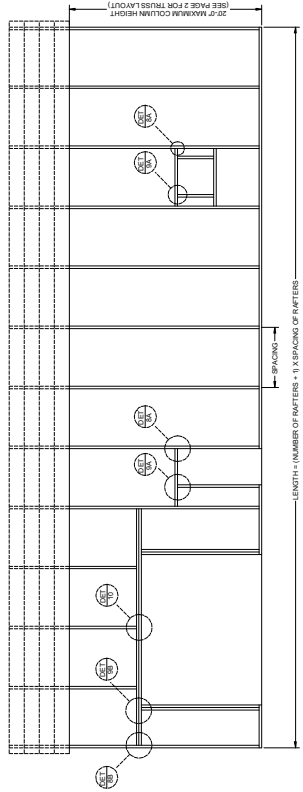
BRACE SECTION SCALE: NTS



SPACING = 6'-0" FOR WIND SPEEDS BETWEEN 10 MPH AND 100 MPH
SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 100 MPH AND 150 MPH
SPACING = 3'-0" FOR WIND SPEEDS BETWEEN 150 MPH AND 180 MPH

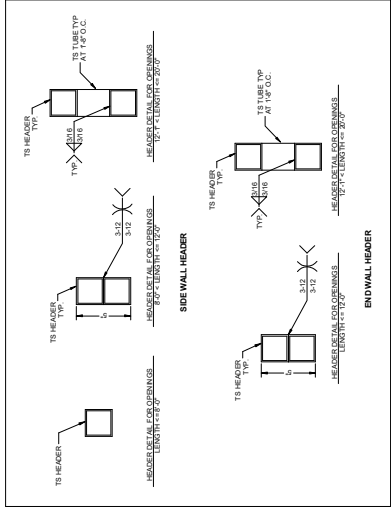
3'-0" MAXIMUM RAFTER SPAN

TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION



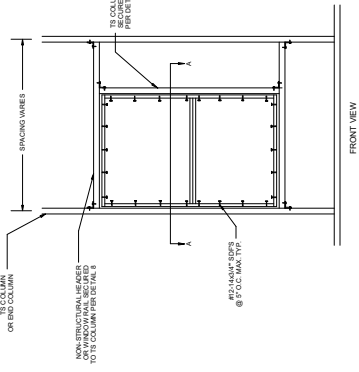
LENGTH = (NUMBER OF RAFTERS - 1) x SPACING OF RAFTERS
SPACING = 6'-0" FOR WIND SPEEDS BETWEEN 10 MPH AND 100 MPH
SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 100 MPH AND 150 MPH
SPACING = 3'-0" FOR WIND SPEEDS BETWEEN 150 MPH AND 180 MPH

TYPICAL BOX EAVE RAFTER SIDE WALL FRAMING SECTION

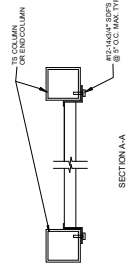


SIDE WALL HEADER

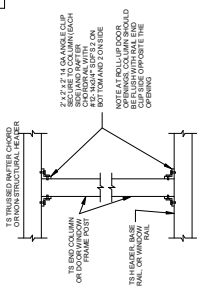
END WALL HEADER



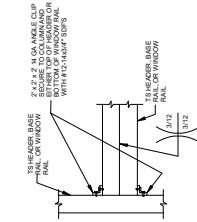
FRONT VIEW



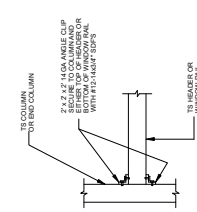
SECTION A-A



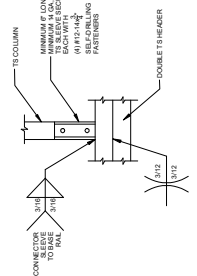
9A POST TO NON-STRUCTURAL HEADER BASE
SCALE: NTS



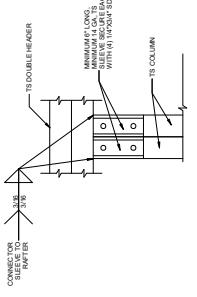
9B DOUBLE HEADER OR WINDOW RAIL
TO POST CONNECTION DETAIL
SCALE: NTS



9C NON-STRUCTURAL HEADER OR WINDOW RAIL
TO POST CONNECTION DETAIL
SCALE: NTS



10 POST TO DOUBLE HEADER BASE
SCALE: NTS



9B DOUBLE HEADER OR WINDOW RAIL
TO POST CONNECTION DETAIL
SCALE: NTS



FLORIDA ENGINEERING LLC

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CA CERT. #30782

PROJECT NO. 2322771-30-E

CA CERT. #30782

TUBULAR BUILDING SYSTEMS

631 SE INDUSTRIAL CIRCLE,

LAKE CITY, FL 32025

CONTRACTOR:

PROJECT DESCRIPTION:

30" WIDE X 20" HIGH

ENCLOSED STRUCTURE

DESIGN DATE: 12/14/2023

REVISION 1: DATE

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7

PAGE:

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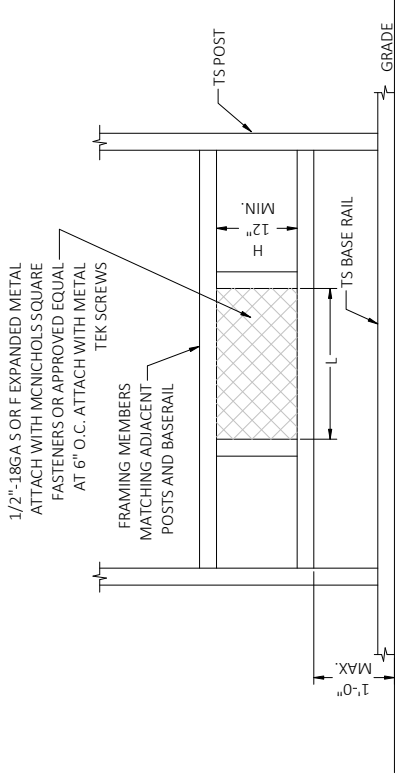
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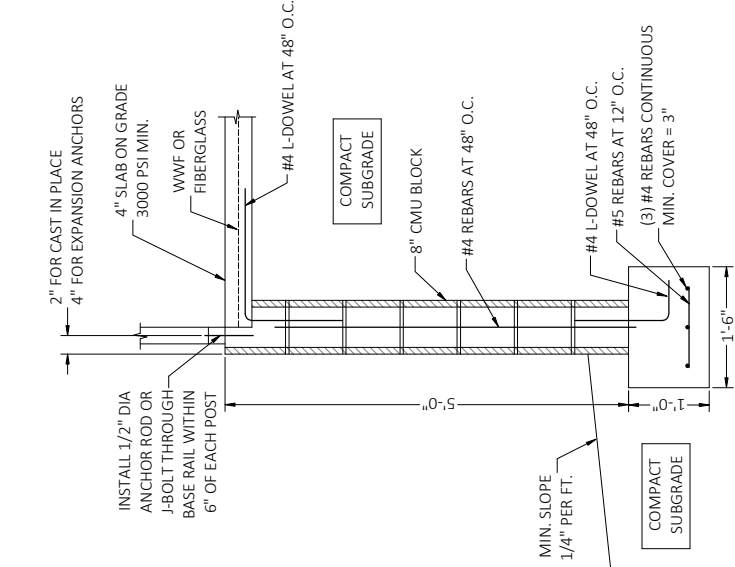
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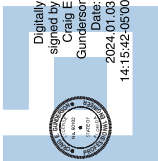
TYPICAL FLOOD VENT DETAIL

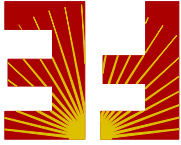
- NOTES:
1. MINIMUM VENT SPACE REQUIRED = 1 SQ. IN. OF OPEN VENT AREA PER SQ. FT. OF BUILDING AREA.
 2. PROVIDE A MINIMUM OF TWO OPENINGS ON DIFFERENT SIDES OF EACH ENCLOSED BUILDING.
 3. APPLY A 1.3 FACTOR WHEN CALCULATING TOTAL OPEN AREA WHEN USING 1/2"-18GA S OR F EXPANDED METAL.
 4. TOTAL OPEN AREA OF VENT = L X H (MIN. 12").
 5. FLOOD VENT DETAIL COMPLIES WITH FEMA/NFIP.
 6. PREFABRICATED FLOOD VENTS MEETING THE REQUIREMENTS OF FEMA/NFIP MAY BE USED.



STAND-ALONE CONCRETE MASONRY UNIT (CMU)
FOUNDATION STEM WALL DETAIL

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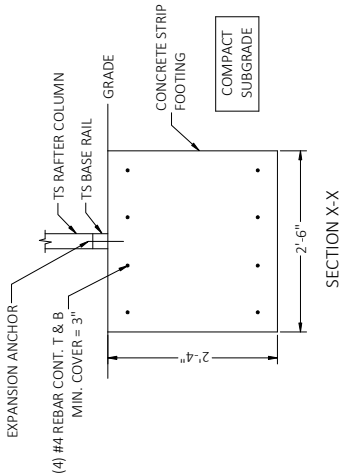
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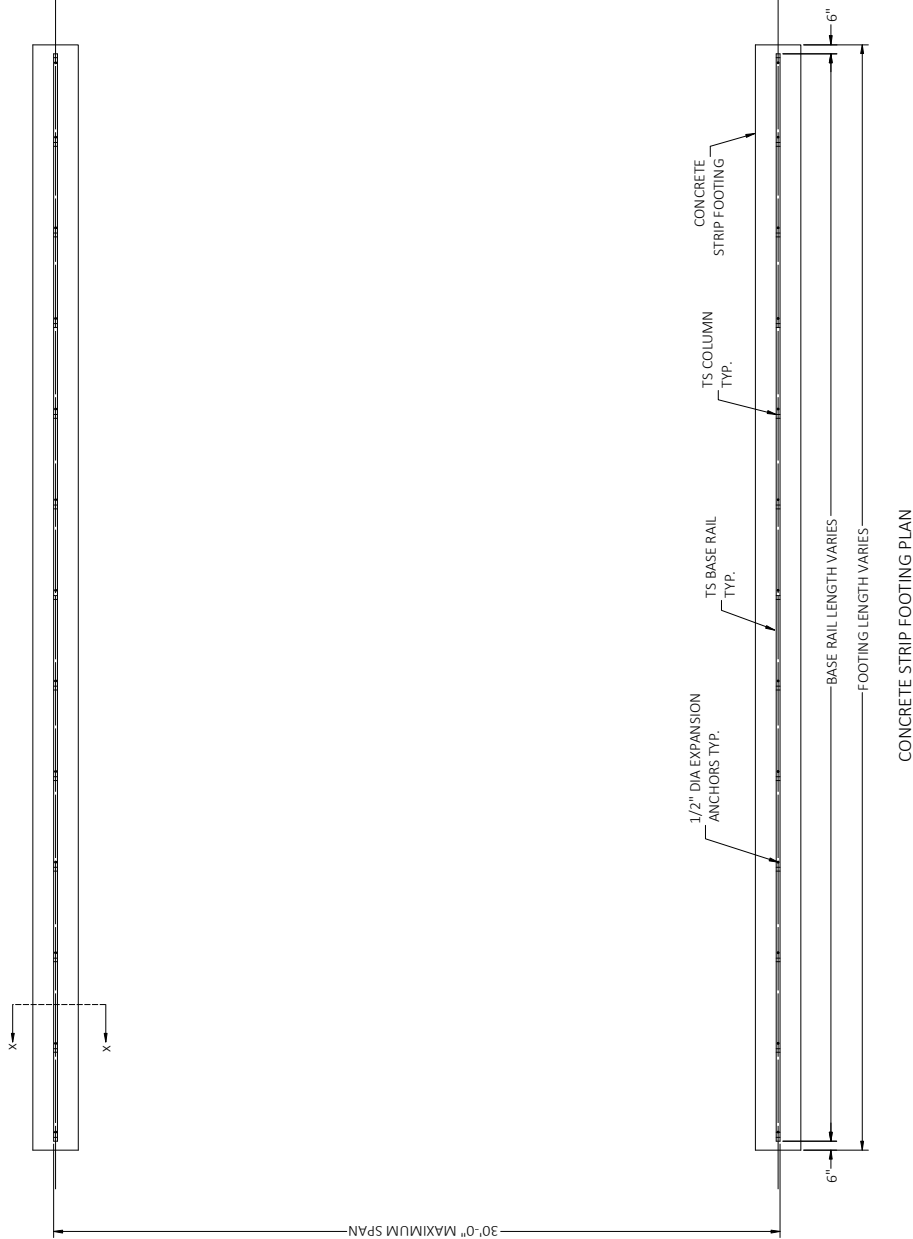
CONTRACTOR:		DESIGN DATE: 12/14/2023	
TUBULAR BUILDING SYSTEMS		REVISION 1: DATE	
631 SE INDUSTRIAL CIRCLE,		REVISION 2: DATE	
LAKE CITY, FL 32025		SCALE: NTS	
PROJECT DESCRIPTION:		PAGE: 8	
30' WIDE X 20' HIGH			
ENCLOSED STRUCTURE			

GENERAL NOTES:
CONCRETE MONOLITHIC SLAB DESIGN IS BASED ON A MINIMUM SOIL BEARING CAPACITY OF 1500 PSF.

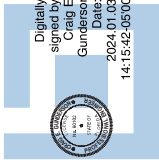
- CONCRETE:
MINIMUM 28-DAY SPECIFIED COMPRESSIVE STRENGTH = 3000 PSI
- REINFORCING STEEL:
1. TURNDOWN REINFORCING STEEL = ASTM A615 GRADE 60
2. SLAB REINFORCEMENT = WELDED WIRE FABRIC PER ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT
3. REINFORCING STEEL COVER = 3" WHERE CASE AGAINST AND PERMANENTLY EXPOSED TO SOIL OR WATER, 1.5" EVERYWHERE ELSE.
4. REINFORCEMENT IS BENT COLD.
5. MINIMUM INSIDE DIAMETER OF BEND = (6) BAR DIAMETERS
6. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT.



OPTIONAL CONCRETE STRIP FOOTING



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TUBULAR BUILDING SYSTEMS

631 SE INDUSTRIAL CIRCLE,

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CONTRACTOR:

PROJECT DESCRIPTION:

30' WIDE X 20' HIGH

ENCLOSED STRUCTURE

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