APPLICABLE CODES

APPLICABLE STANDARDS

- 1. ASCE 7-22: MINIMUM DESIGN LOADS ON BUILDINGS AND OTHER STRUCTURES
- 2. AISC STEEL CONSTRUCTION MANUAL (17TH EDITION)
- 3. ACI 318-19: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- 4. TMS 402-16: BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES
- 5. AWS D1.1: STRUCTURAL WELDING

- 3. WIND LOAD
- A RISK CATEGORY = II
- B. WIND EXPOSURE CATEGORY = C

- 1. DEAD LOAD = 1.5 PSF
- 2. ROOF LIVE LOAD = 12 PSF

- C. ULTIMATE WIND SPEED = 130 MPH NOMINAL WIND SPEED = 102 MPH

DRAWING INDEX

PAGE NO.	DESCRIPTION				
1	TITLE PAGE WITH INDEX				
2	TRUSS DESIGN FOR RAFTER SPAN				
3	CONNECTION DETAILS (1-3)				
4	BASE RAIL AND FOUNDATION ANCHORAGE				
5	RAFTER END WALL, SIDE WALL AND OPENING FRAMING				
6	CONNECTION DETAILS (5-17)				
7	BOX EAVE RAFTER LEAN-TO OPTIONS				
8	CONNECTION DETAILS (19-21)				
9	BOX EAVE RAFTER VERTICAL ROOF/SIDING OPTION				
10	OPTIONAL HELICAL ANCHORING ON GRADE DETAIL				

- 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, FLECTRICAL, PLUMBING, INGRESS/EGRESS, FINISH FLOOR SLOPES AND FLEVATIONS, 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, APROVED PRODUCT LIST, AND NOT PROVIDED AND INSTALLED BY THE CONTRACTOR, WHICH CAUSE ADDITIONAL LOADS ON THE STRUCTURE SHALL BE AT THE OWNER'S RISK. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR FAILURE OR STRUCTURAL DAMAGE DUE TO THE EXTRA LOAD.
- 54 KSI, ALL FASTENERS SHALL BE ZINC COATED HARDWARE
- 4. END WALL COLUMNS (POST) AND SIDE WALL COLUMNS ARE EQUIVALENT IN SIZE AND
- 5. SPECIFICATIONS APPLICABLE TO 29 GA METAL PANELS FASTENED DIRECTLY TO 2.5"X2.5"X14 GA/2.5"X2.5"X12GA TUBE STEFL (TS) FRAMING MEMBERS FOR VERTICAL PANELS, 29 GA METAL PANELS SHALL BE FASTENED DIRECTLY TO 18 GA HAT CHANNELS U.N.O.
- 6. AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS INTERIOR = 9" AND END = 6" MAX.
- 7. FASTENERS CONSIST OF #12-14X3/4" SELF-DRILLING SCREWS (SDS), USE CONTROL SEAL WASHER WITH EXTERIOR FASTENERS. SPECIFICATIONS APPLICABLE ONLY FOR MEAN ROOF HEIGHT OF 20'-0" OR LESS, AND ROOF SLOPES OF 14° (3:12 PITCH) OR LESS. SPACING REQUIREMENTS FOR OTHER ROOF HEIGHTS AND/OR SLOPES MAY VARY.
- 8. ANCHORS SHALL BE INSTALLED THROUGH THE BASE RAIL WITHIN 6" OF EACH RAFTER COLUMN ALONG SIDES AND ENDS
- 9. STANDARD GROUND ANCHORS (SOIL NAILS) CONSIST OF #4 REBARS WITH WELDED NUT X 36" LONG AND MAY BE USED IN SUITABLE SOILS. OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USED IN UNSUITABLE SOILS AS NOTED. SOIL NAILS MAY BE USED FOR WIND SPEEDS LESS THAN OR EQUAL TO 145 MPH.
- 10. RAFTER SPACING IS 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 140 MPH AND 4'-0" FOR WIND SPEEDS BETWEEN 140 MPH AND 170 MPH.
- 11. WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE: SOIL SITE CLASS = D

RISK CATEGORY II

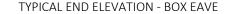
ENCLOSED METAL BUILDING DESIGN

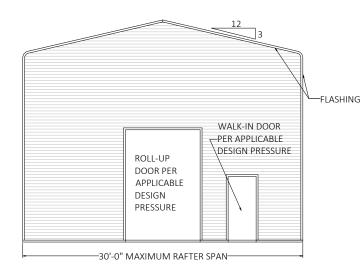
MAXIMUM 30'-0" WIDE X 100'-0" LONG X 20'-0" HIGH (EAVE)

BOX EAVE FRAME / BOW EAVE FRAME

Ie = 1.0 Sds = 0.075 g V = CsW Sd1 = 0.051 g

FLASHING WALK-IN DOOR -PER APPLICABLE DESIGN PRESSURE ROLL-UP DOOR PER APPLICABLE DESIGN PRESSURE -30'-0" MAXIMUM RAFTER SPAN-





TYPICAL END ELEVATION - BOW EAVE



Columbia

THE ENGINEERING ON THESE PLANS IS SITE

SPECIFIC FOR (1) STRUCTURE ONLY AT THE

PROVIDED ADDRESS(ES).

STATE OF

STATE OF THE STATE

PORT CHARLOTTE, FLORIDA 33952 (941) 391-5980 FLEng.com FLORIDA ENGINEER 1161 TAMIAMI TRAIL,

Digitally signed

by Richard E

2024.07.15

11:04:58-04'00'

FLEng.com Orders@FLEng.com

PROJECT NO.

Walker

Date:

BEST METAL BUILDINGS LLC 484 NW TURNER AVE LAKE CITY FL 32055 BARNETT 331 SW. NANTUCKET PL FORT WHITE, FL. 32038

DESIGN DATE 07/11/2024 REVISION 1: 07/15/2024 REVISION 2: DATE SHEET:

JS

DRAWN BY:

SCALE:

WINDOW PER APPLICABLE DESIGN PRESSURE

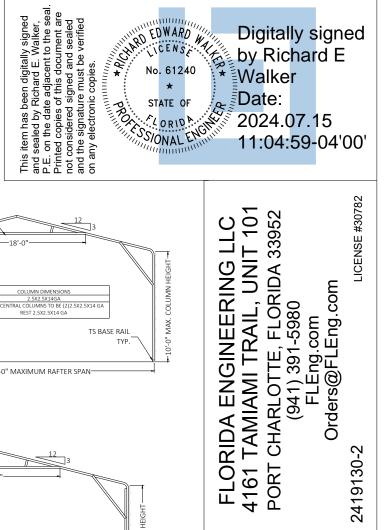
-100'-0" MAXIMUM LENGTH

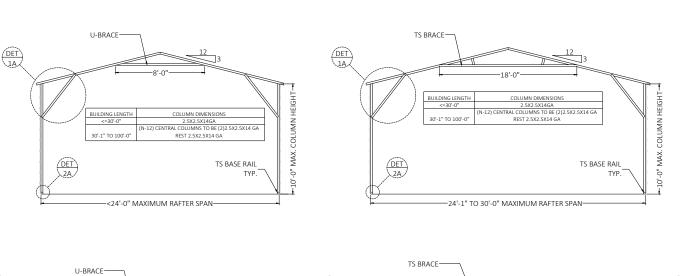
TYPICAL SIDE ELEVATION - HORIZONTAL ROOF

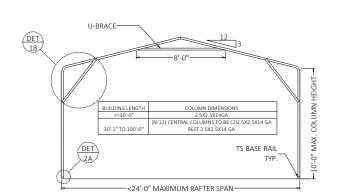
MEMBER LEGEND:

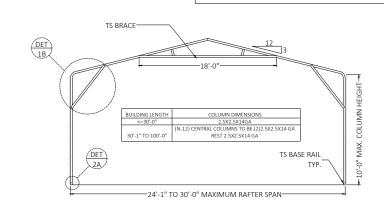
- 1. TS COLUMN = 2.5X2.5X14 GA U.N.O.
- 2. TRUSS MEMBERS = 2.5X2.5X14 GA U.N.O.
- 3. KNEE-BRACE = 2.5"X2"X18GA CHANNEL
- 4. PURLIN = 1.125"X18GA HAT CHANNEL
- 5. TS BRACE = 2.5"X2.5"X14GA TUBE
- 6. U-BRACE = 2.5"X2"X18GA CHANNEL
- 7. END WALL COLUMN = (2)2.5X2.5X14GA U.N.O.

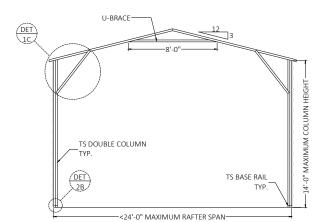


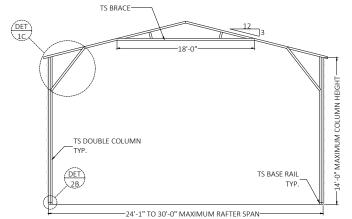


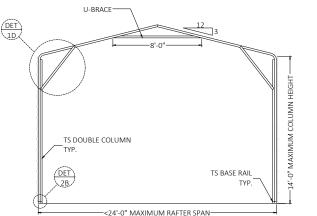


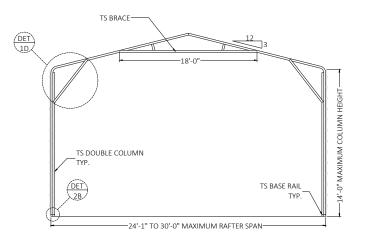










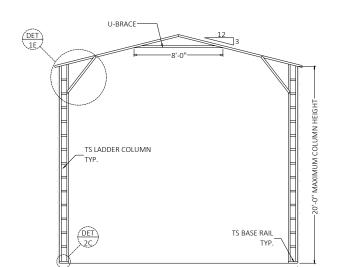




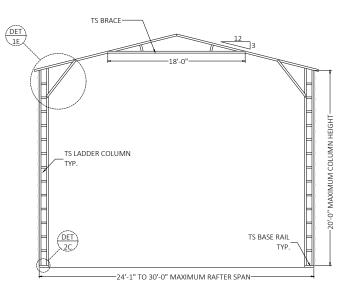


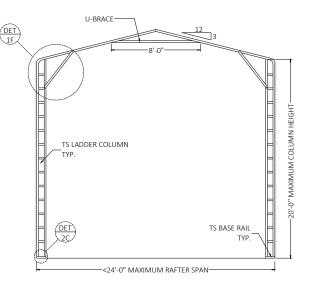
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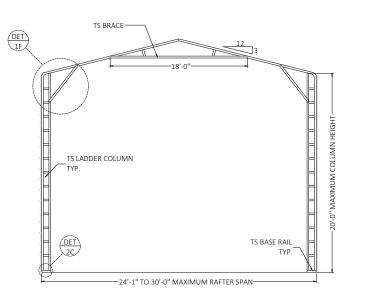
PROJECT NO.



-<24'-0" MAXIMUM RAFTER SPAN-

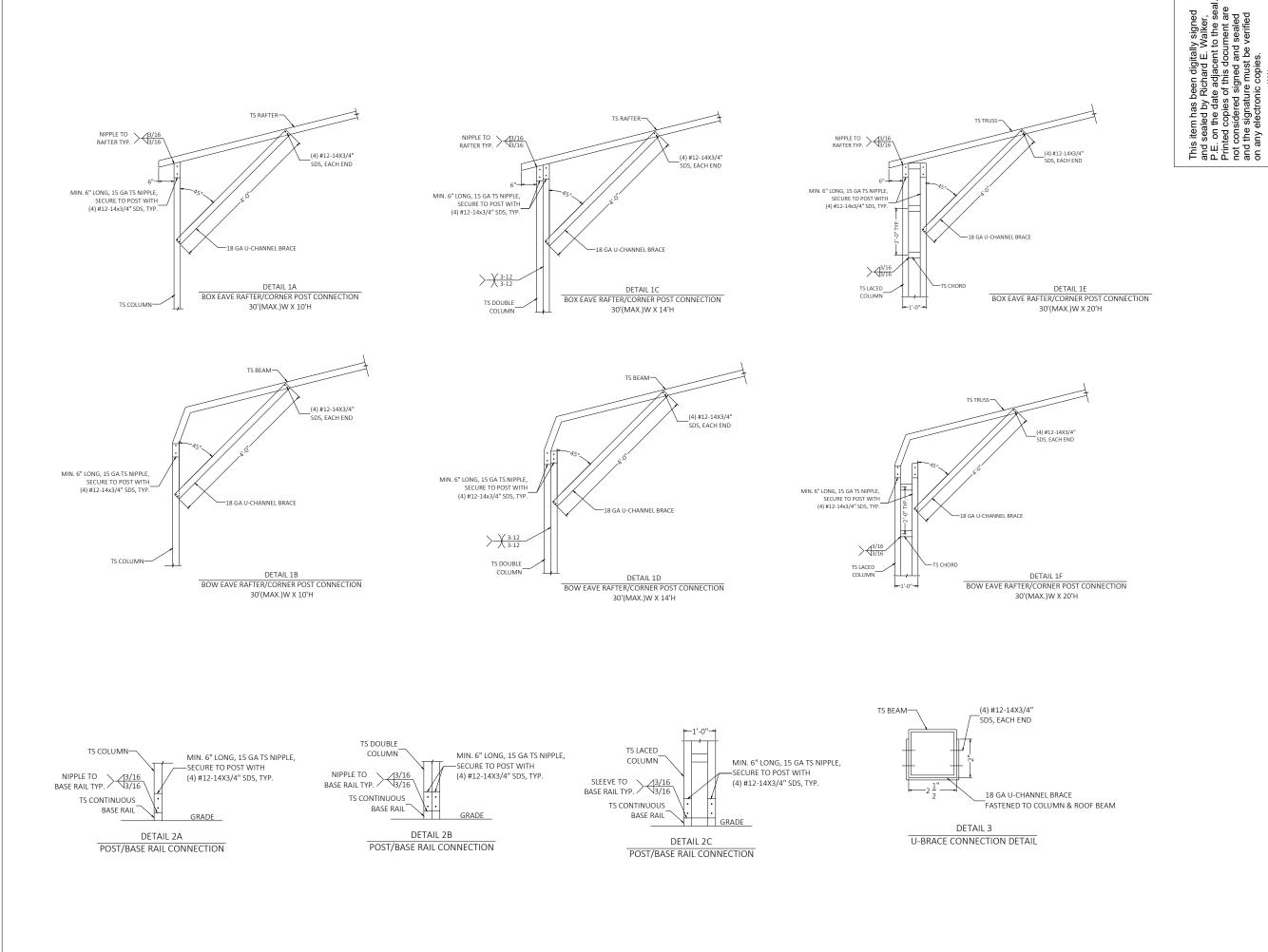






3EST METAL BUILDINGS LLC 184 NW TURNER AVE AKE CITY FL 32055 NO NTRACTOR:

BEST METAL BUILDINGS 484 NW TURNER AVE LAKE CITY FL 32055		PROJECT ADDRESS:	BABNETT	331 SW. NANTUCKET PL.	FORT WHITE, FL. 32038
SIGN DATE:	07/11/2024				
EVISION 1:	07/15/2024				
VISION 2:	DATE		SH	IEET:	
RAWN BY:	JS				
CALE:	NTS		2	OF 10	



FLORIDA ENGINEERING LLC 4161 TAMIAMI TRAIL, UNIT 101 PORT CHARLOTTE, FLORIDA 33952 (941) 391-5980 FLEng.com Orders@FLEng.com

Digitally signed

11:05:00-04'00'

LICENSE #30782

2419130-2

PROJECT NO.

by Richard E Walker

2024.07.15

Date:

No. 61240

STATE OF CORIDA CHANGE STATE OF

BEST METAL BUILDINGS LLC 484 NW TURNER AVE LAKE CITY FL 32055 BARNETT 331 SW. NANTUCKET PL. FORT WHITE, FL. 32038 PROJECT ADDRESS:

DESIGN DATE: 07/11/2024 07/15/2024 REVISION 1: REVISION 2: DATE SHEET: DRAWN BY: JS

NTS

SCALE:

3 OF 10

GENERAL NOTE

CONCRETE MONOLITHIC SLAB DESIGN IS BASED ON A MINIMUM SOIL BEARING CAPACITY OF 2500 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 PERMENENTLY 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.

HELIX ANCHOR NOTES

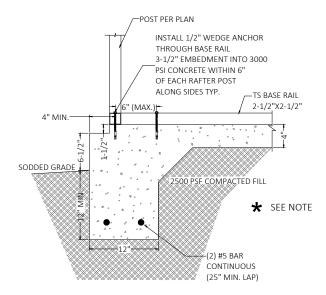
- 1. FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELOADED SILTS AND CLAYS, CORALS, MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS AND CLAYS, USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT EVERY 10'.
- 2. FOR MEDIUM TO VERY LOOSE DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS, ALLUVIAL FILL, USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT EVERY 5' OR EVERY POST (LEG).
- 3. THE UPLIFT/BEARING CAPACITY OF EACH ANCHOR MUST BE EQUAL TO OR GREATER THAN 8.5 KIPS.

HP 9 BARBED DRIVE ANCHOR NOTES

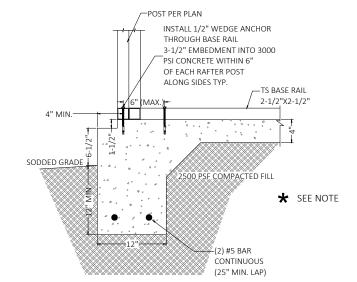
- 1. ANCHOR TO BE 3/4" DIA (A529 GRADE 50) WITH 30" MIN. EMBEDMENT & (4) MIN. BARBS AS SHOWN IN DETAIL 3C.
- FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELOADED SILTS AND CLAYS, CORALS, MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS AND CLAYS, MAXIMUM SPACING TO BE 10'.
- 2. FOR MEDIUM TO VERY LOOSE DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS, ALLUVIAL FILL, MAX. SPACING TO BE 5' OR EVERY POST (LEG).
- 3. THE UPLIFT/BEARING CAPACITY OF EACH ANCHOR MUST BE EQUAL TO OR GREATER THAN 8.5 KIPS.

1/2" DIA EXPANSION

SECTION



DETAIL 4A-I
CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE



DETAIL 4A-II
CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE

POST PER PLAN OPTIONAL 1/2" WEDGE ANCHOR INSTALL 1/2" WEDGE ANCHOR THROUGH BASE RAIL THROUGH BASE RAIL 3-1/2" EMBEDMENT INTO 3000 3-1/2" EMBEDMENT INTO 3000 PSI CONCRETE WITHIN 6" PSI CONCRETE WITHIN 6" OF EACH RAFTER POST OF EACH RAFTER POST ALONG SIDES TYP. ALONG SIDES TYP. 2.25"X2.25"X15GA 4" (MIN.) SODDED GRAI 500 PSF COMPACTED FILL * SEE NOTE CONTINUOUS DETAIL 4A-III

CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE

★ = COORDINATE WITH LOCAL BUILDING CODE AND/OR BUILDING OFFICIAL REGARDING REQUIRED FOOTING DEPTH BASED ON FROST LINE DEPTH.

DRILL 5/8" DIAMETER

-RAIL AND SECURE TO

SUBGRADE

DFTAIL 3B

GROUND BASE HELIX ANCHORAGE

ANCHOR EYE WITH 1/2"

DIAMETER THROUGH BOLT

TOP OF ASPHALT

GROUND SURFACE

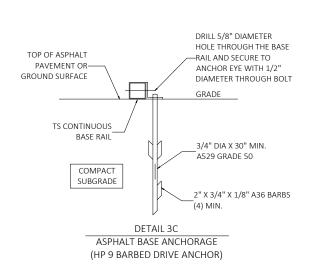
PAVEMENT OR

TS CONTINUOUS

HELIX EYE ANCHOR-

BASE RAIL

HOLE THROUGH THE BASE



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Digitally signed

by Richard E

2024.07.15

11:05:01-04'00'

Walker
Date:

No. 61240

STATE OF ORIDA CHANGE

This item has be and sealed by R P.E. on the date Printed copies o not considered s and the signatur on any electronic

2419130

S.

PROJECT

BEST METAL BUILDINGS LLC
484 NW TURNER AVE
LAKE CITY FL 32055
OJECT ADDRESS:
BARNETT
331 SW. NANTUCKET PL.
FORT WHITE, FL. 32038

07/11/2024

07/15/2024

SHEET:

DATE

JS NTS

DESIGN DATE:

REVISION 1: REVISION 2:

DRAWN BY:

SCALE:

TYPICAL ANCHOR DETAIL WHEN BASE RAIL IS NEAR EDGE OF CONCRETE _EDGE OF

TS COLUMN

TOP VIEW

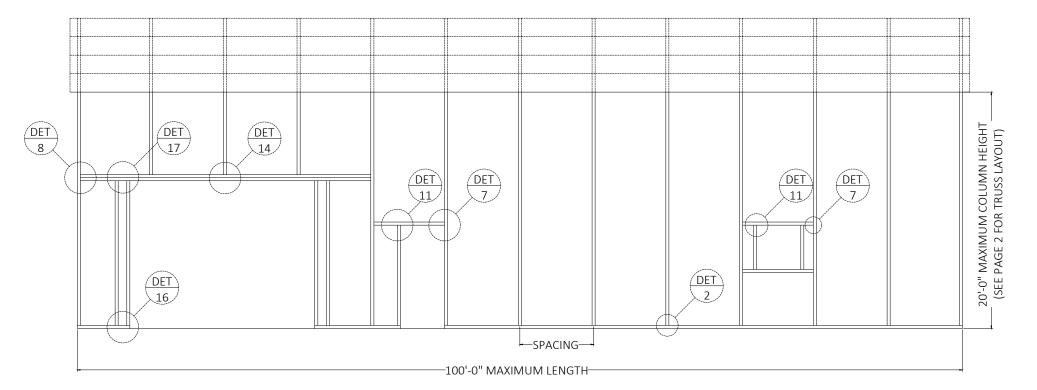
TS 2.5"X2.5"X14GA

BASE RAIL ANCHORAGE OPTION

TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION

SPACING = 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 150 MPH SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 151 MPH AND 170 MPH

(SEE PG-09 FOR HEADER DETAILS)



TYPICAL BOX EAVE RAFTER SIDE WALL FRAMING SECTION

SPACING = 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 150 MPH SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 151 MPH AND 170 MPH

Digitally signed by Richard E
Walker No. 61240 Date: STATE OF CARD A CHANGE STATE OF 2024.07.15 11:05:02-04'00'

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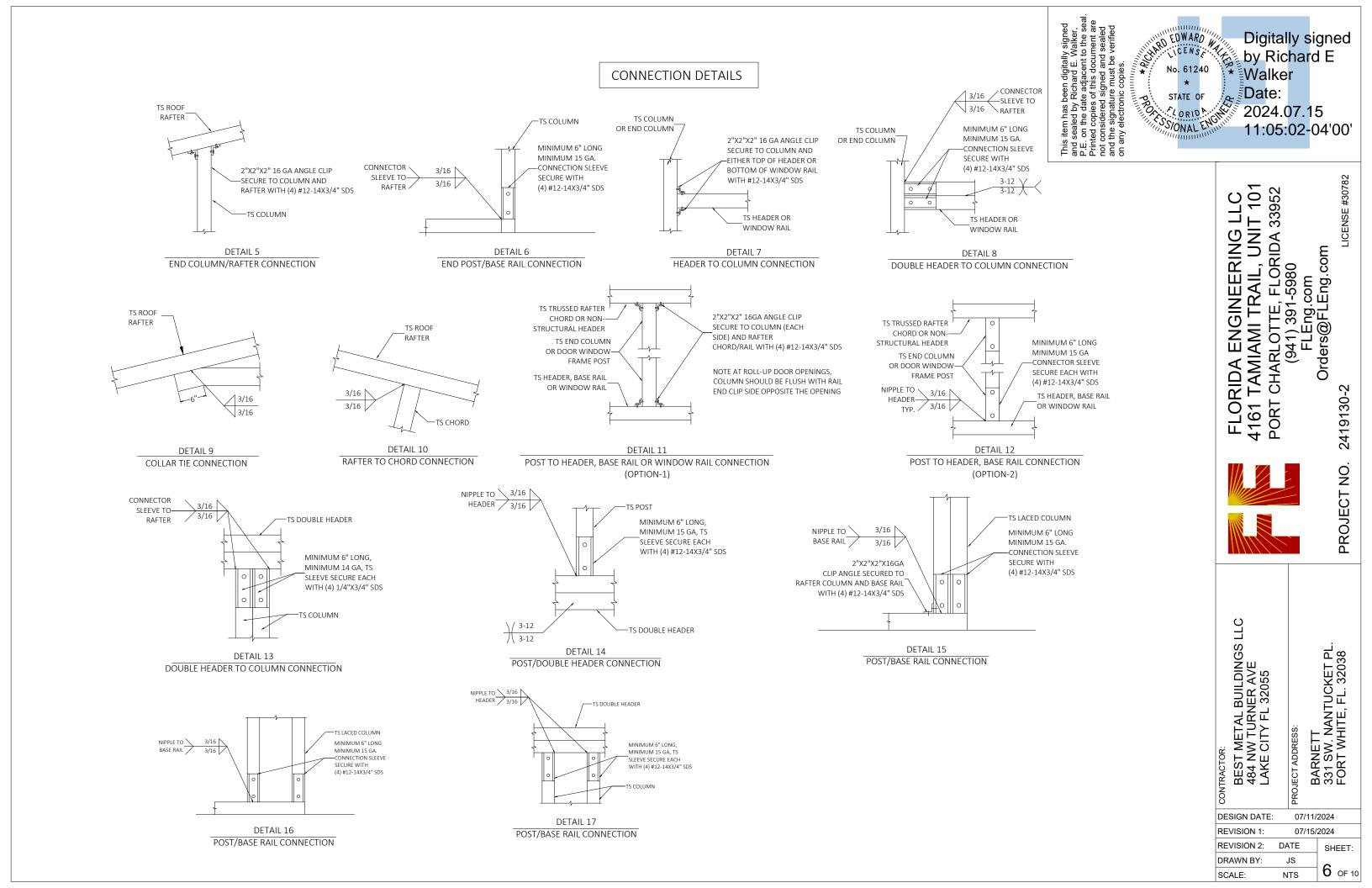
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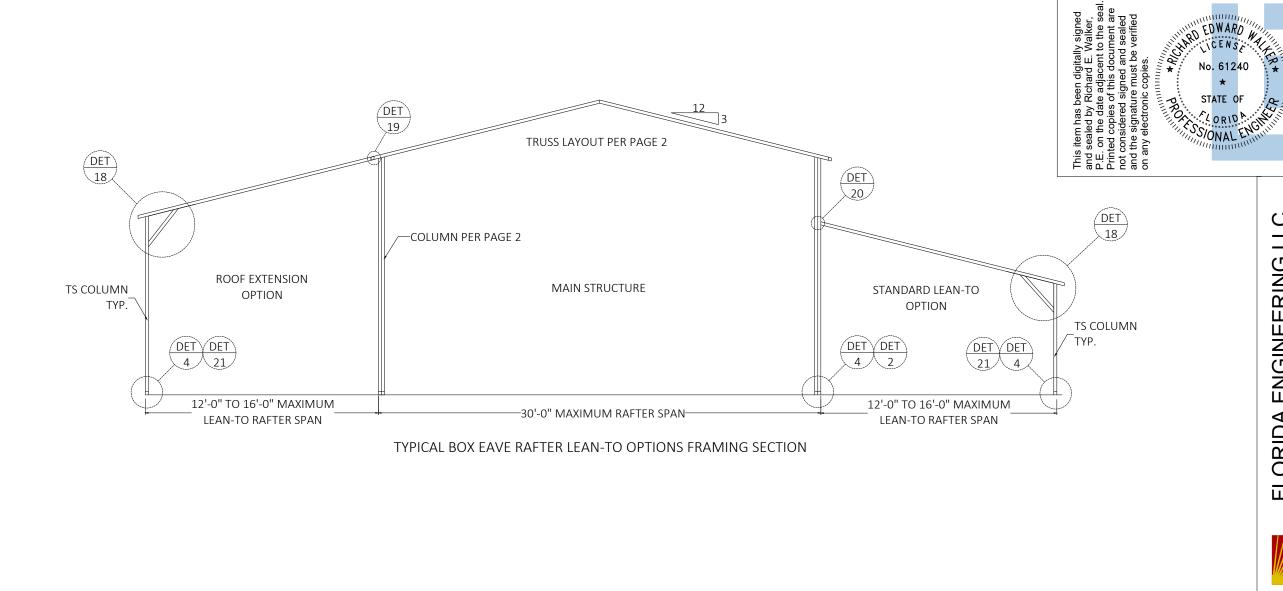
BEST METAL BUILDINGS LLC 484 NW TURNER AVE LAKE CITY FL 32055 BARNETT 331 SW. NANTUCKET PL FORT WHITE, FL. 32038

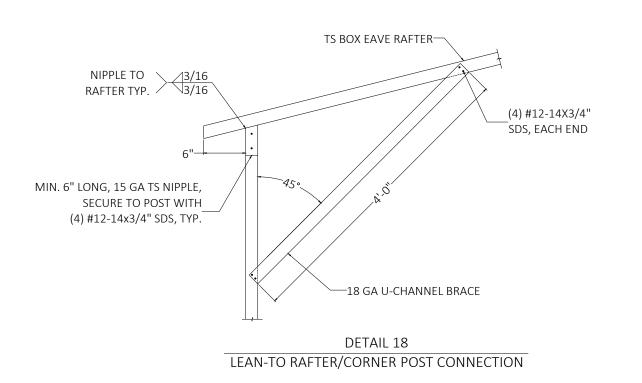
PROJECT ADDRESS: 07/11/2024

DESIGN DATE: 07/15/2024 REVISION 1: REVISION 2: DATE SHEET: DRAWN BY: JS **5** OF 10 SCALE: NTS

CONTRACTOR







FLORIDA ENGINEERING LLC 4161 TAMIAMI TRAIL, UNIT 101 PORT CHARLOTTE, FLORIDA 33952 (941) 391-5980 FLEng.com Orders@FLEng.com

Digitally signed

11:05:03-04'00'

LICENSE #30782

2419130-2

PROJECT NO.

by Richard E Walker

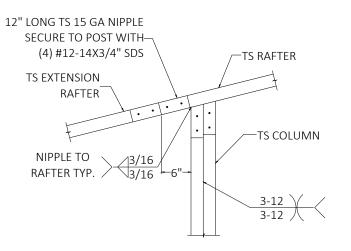
2024.07.15

Date:

BEST METAL BUILDINGS LLC 484 NW TURNER AVE LAKE CITY FL 32055 BARNETT 331 SW. NANTUCKET PL. FORT WHITE, FL. 32038 PROJECT ADDRESS

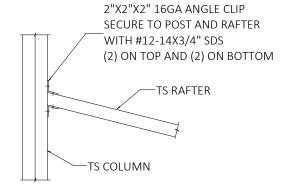
DESIGN DATE: 07/11/2024 07/15/2024 REVISION 1: REVISION 2: DATE SHEET: DRAWN BY: JS 7 OF 10 SCALE: NTS

CONNECTION DETAILS



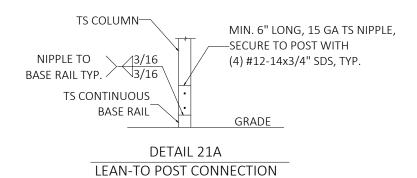
DETAIL 19A

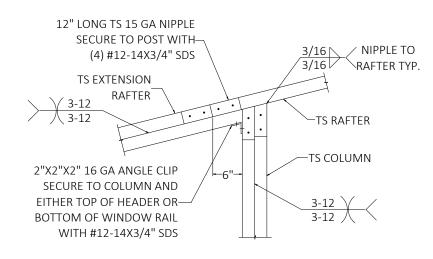
SIDE EXTENSION RAFTER/COLUMN CONNECTION
FOR RAFTER SPANS LESS THAN 12'-0"



DETAIL 20A

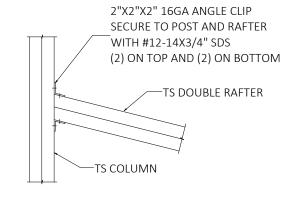
LEAN TO RAFTER/COLUMN CONNECTION
FOR RAFTER SPANS LESS THAN 12'-0"





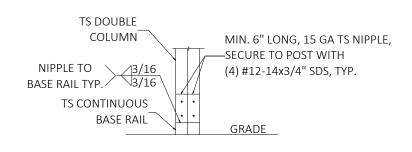
DETAIL 19B

SIDE EXTENSION RAFTER/COLUMN CONNECTION
FOR RAFTER SPANS BETWEEN 12'-0" AND 16'-0"



DETAIL 20B

LEAN TO RAFTER/COLUMN CONNECTION
FOR RAFTER SPANS BETWEEN 12'-0" AND 16'-0"



DETAIL 21B
LEAN-TO DOUBLE POST CONNECTION

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11:05:04-04'00'

Walker Date:

2024.07.15

No. 61240

STATE OF CORID A CHANGE

2419130

PROJECT NO.

BEST METAL BUILDINGS LLC
484 NW TURNER AVE
LAKE CITY FL 32055
PROJECT ADDRESS:
BARNETT
331 SW. NANTUCKET PL.
FORT WHITE, FL. 32038

DESIGN DATE: 07/11/2024

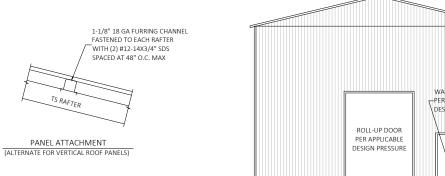
REVISION 1: 07/15/2024

REVISION 2: DATE

DRAWN BY: JS

SCALE: NTS

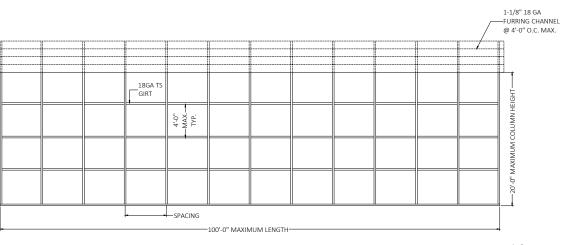
8 OF 10



-30'-0" MAXIMUM RAFTER SPAN TYPICAL END ELEVATION - VERICAL ROOF/SIDING

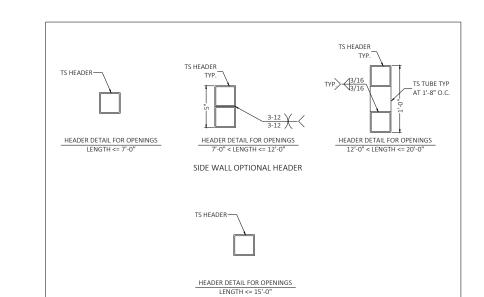
TYPICAL SIDE ELEVATION - VERTICAL ROOF/SIDING

BOX EAVE FRAME RAFTER ENCLOSED BUILDING



TYPICAL RAFTER/POST SIDE FRAME SECTION

SPACING = 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 150 MPH SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 151 MPH AND 170 MPH



END WALL OPTIONAL HEADER

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BEST METAL BUILDINGS LLC 484 NW TURNER AVE LAKE CITY FL 32055

BARNETT 331 SW. NANTUCKET PL FORT WHITE, FL. 32038 PROJECT ADDRESS:

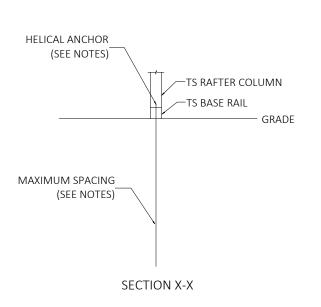
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PROJECT NO.

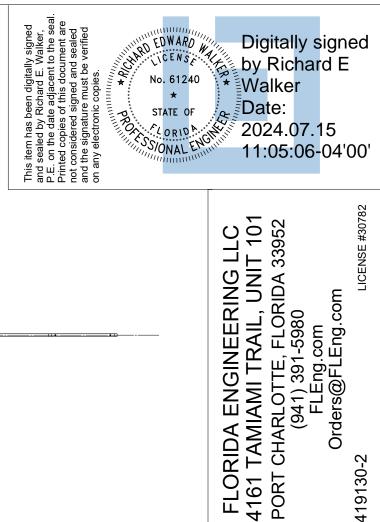
DESIGN DATE: 07/11/2024 07/15/2024 REVISION 1: REVISION 2: DATE SHEET: DRAWN BY: JS 9 OF 10 SCALE: NTS

HELIX ANCHOR NOTES

- 1. FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELOADED SILTS AND CLAYS, CORALS, MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS AND CLAYS, USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT
- 2. FOR MEDIUM TO VERY LOOSE DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS, ALLUVIAL FILL, USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT EVERY 5' OR EVERY POST (LEG).
- 3. THE UPLIFT/BEARING CAPACITY OF EACH ANCHOR MUST BE EQUAL TO OR GREATER THAN 8.5 KIPS.



OPTIONAL HELICAL ANCHORING ON GRADE DETAIL



2419130

PROJECT NO.

BARNETT 331 SW. NANTUCKET PL FORT WHITE, FL. 32038

PROJECT ADDRESS:

DATE

JS

NTS

07/11/2024

07/15/2024

SHEET:

10 OF 10

BEST METAL BUILDINGS LLC 484 NW TURNER AVE LAKE CITY FL 32055

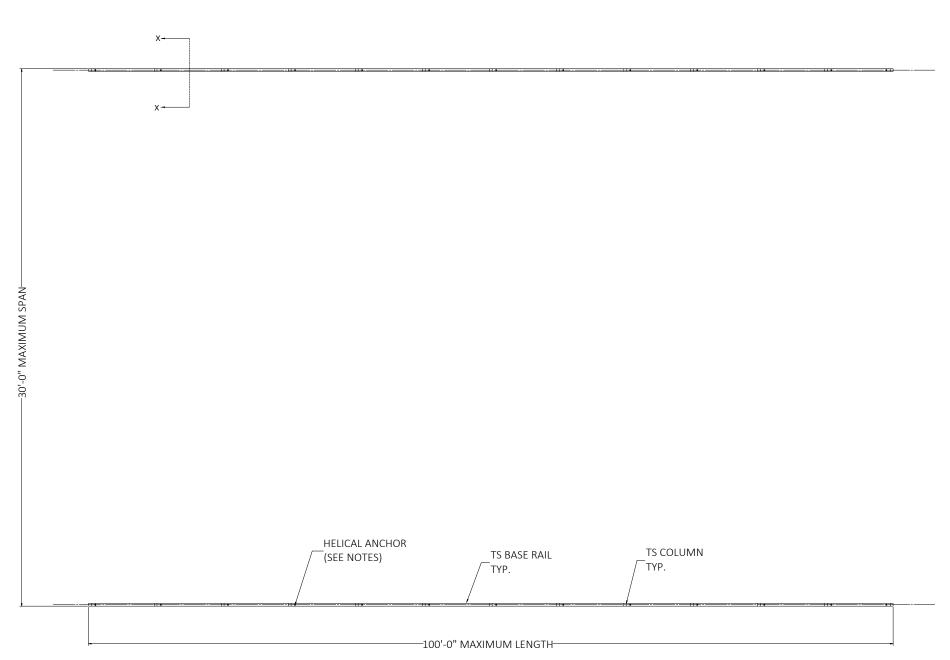
DESIGN DATE:

REVISION 1:

REVISION 2:

DRAWN BY:

SCALE:



BASE RAIL PLAN