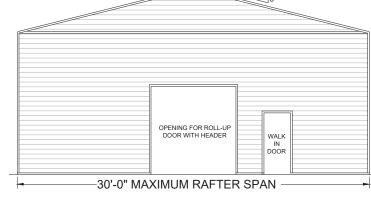
#### APPLICABLE CODES AND STANDARDS

- 2023 FLORIDA BUILDING CODE (8TH EDITION
- 2021 INTERNATIONAL BUILDING CODE
- ASCE 7-22: MINIMUM DESIGN LOADS ON BUILDINGS AND OTHER STRUCTURES
- AISC STEEL CONSTRUCTION MANUAL (15TH EDITION)
- ACI 318-14: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- TMS 402-16: BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES
- AWS D1.1: STRUCTURAL WELDING

#### INSTALLATION NOTES AND SPECIFICATIONS

- ROOF PITCH SHALL NOT BE GREATER THAN 12H:4V
- 2. END WALL COLUMNS (POST) AND SIDE WALL COLUMNS ARE THE SAME U.N.O.
- 29 GA METAL PANELS SHALL BE FASTENED DIRECTLY TO 2.5" x 2.5" x 14 GA TUBE STEEL (TS) FRAMING MEMBERS FOR VERTICAL PANELS.
- 29 GA METAL PANELS SHALL BE FASTENED DIRECTLY TO 18 GA HAT CHANNELS U.N.O.
- 4. FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS SHALL BE: INTERIOR = 9"
- 4.2.
- 5. FASTENERS SHALL BE #12-14 x 3/4" SELF-DRILLING SCREWS (SDS), USE CONTROL SEAL WASHER WITH EXTERIOR FASTENERS. APPLICABLE ONLY FOR:
- MEAN ROOF HEIGHT OF 20'-0" OR LESS
- ROOF SLOPES OF 18° (4:12 PITCH) OR LESS
- SPACING REQUIREMENTS FOR OTHER ROOF HEIGHTS AND/OR SLOPES MAY VARY.
- 6. ANCHORS SHALL BE INSTALLED THROUGH THE BASE RAIL WITHIN 6" OF EACH RAFTER COLUMN ALONG SIDES AND ENDS.
- STANDARD GROUND ANCHORS (SOIL NAILS) CONSIST OF #4 REBAR WITH WELDED NUT x 30" LONG AND MAY BE USED IN SUITABLE SOILS.
- 7.1. 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

# OPENING FOR ROLL-UP -30'-0" MAXIMUM RAFTER SPAN



**ENCLOSED METAL BUILDING DESIGN** 

24 FT WIDE X 30 FT LONG X 10 FT EAVE HT.

#### **TYPICAL ELEVATION - BOX EAVE** SCALE: NTS

**DESIGN LOADS** 

DEAD LOAD = 15 PSF

LIVE LOAD = 20 PSF

3. WIND LOAD (SEE TABLE 1)

**TYPICAL ELEVATION - BOW EAVE** 

SCALE: NTS

# BOW/RAFTER FRAME, END POST, GROUND ANCHOR AND PANEL FASTENER SPACING SPECIFICATIONS

		ULT	NOMINAL MAXIMUM WIND RAFTER/BOW		FASTENER SPACING O.C FOR RAFTERS/PURLINS, & POSTS (INCHES)			
RISK CATEGORY	WIND EXPOSURE CATEGORY	SURE SPEED SE		AND END POST SPACING (FEET)	INTERIOR BOWS/RAFTERS	END BOWS/RAFTERS		
I, II, III, or IV	B, C, or D	115 - 150 89 - 116		5.0	6	6		
		151 - 180	117 - 139	4.0	6	6		

NO JES:

1. SPECIFICATIONS APPLICABLE TO 26 OR 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 12 OR 14 GAUGE STEEL TUBE BOW FRAMES.

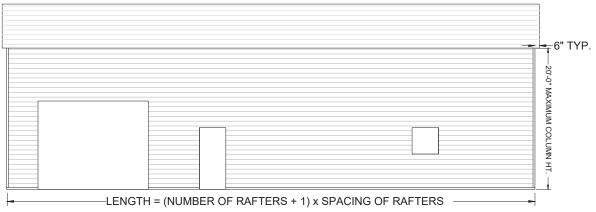
2. FASTENTERS CONSIST OF 1/4"-14X1" SELF-DRILLING SCREWS WITH CONTROL SEAL WASHER.

3. SPECIFICATIONS APPLICABLE ONLY FOR MEAN ROOF HEIGHT OF 20 FEET OR LESS, AND ROOF SLOPES OF 14"(3:12 PITCH).

- SPACING REQUIREMENTS FOR OTHER ROOF HEIGHTS AND/OR SLOPES MAY VARY.
- SPACING REQUIREMENTS FOR OTHER ROOF REIGHTS AND/OR SLOFES WAT VARY.

  GROUND ANCHOR REQUIREMENTS ARE 1@ EACH CORNER AND ONE EVERY OTHER INTERIOR BOW/RAFTER POST LOCATION, AT MAXIMUM OF 10' O.C., AND BOTH SIDES OF OPENINGS WHERE BASE RAIL IS ABSENT.

  5. GROUND ANCHORS ARE NOT REQUIRED WITH CONCRETE SLAB CONSTRUCTION.



## TYPICAL SIDE ELEVATION

SCALE: NTS

#### TABLE 1

MEMBER	PRODUCT	MAX WIND DESIGN				
	APPROVAL NUMBER	PRESSURES				
ROOF PANELS	FL39466	+41.6 PSF / -31.2 PSF				
WALL PANELS	FL39594	+55.4 PSF / -41.6 PSF				
GARAGE DOOR	CTP	CTP				
WALK-IN DOOR	CTP	CTP				

CTP = CONTRACTOR TO PROVIDE 2023 FBC APPROVED PRODUCTS THAT MEET OR EXCEED DESIGN PRESSURES AS TABLULATED.

## **DRAWING INDEX**

PAGE NO.	DESCRIPTION
S-1	NOTES AND SPECIFICATIONS
S-2	BOX-BOW EAVE FRAME RAFTER ENCLOSED BUILDING
S-3	CONNECTION DETAILS (1 OF 4)
S-4	BASE RAIL AND ANCHORAGE DETAILS
S-5	BOX EAVE RAFTER END WALL, SIDE WALL AND OPENING FRAMING
S-6	CONNECTION DETAILS (2 OF 4)
S-7	CONNECTION DETAILS (3 OF 4)
S-8	BOX EAVE RAFTER LEAN-TO OPTIONS
S-9	FREESTANDING BOX EAVE RAFTER LEAN-TO OPTIONS
S-10	CONNECTION DETAILS (4 OF 4)
S-11	BOX EAVE RAFTER VERTICAL ROOF-SIDING OPTION
S-12	OPTIONAL CONCRETE STRIP FOOTING
S-13	OPTIONAL HELICAL ANCHORING DETAIL

PLANS PREPARED BY: 12558 BASS ROAD, LIVE OAK, FLORIDA 32060 P:386.320.7400 F: 850.807.7309 WWW.COLLINSENG.COM **CERTIFICATE OF AUTHORIZATION: 31728** 

Reviewed for Code Compliance

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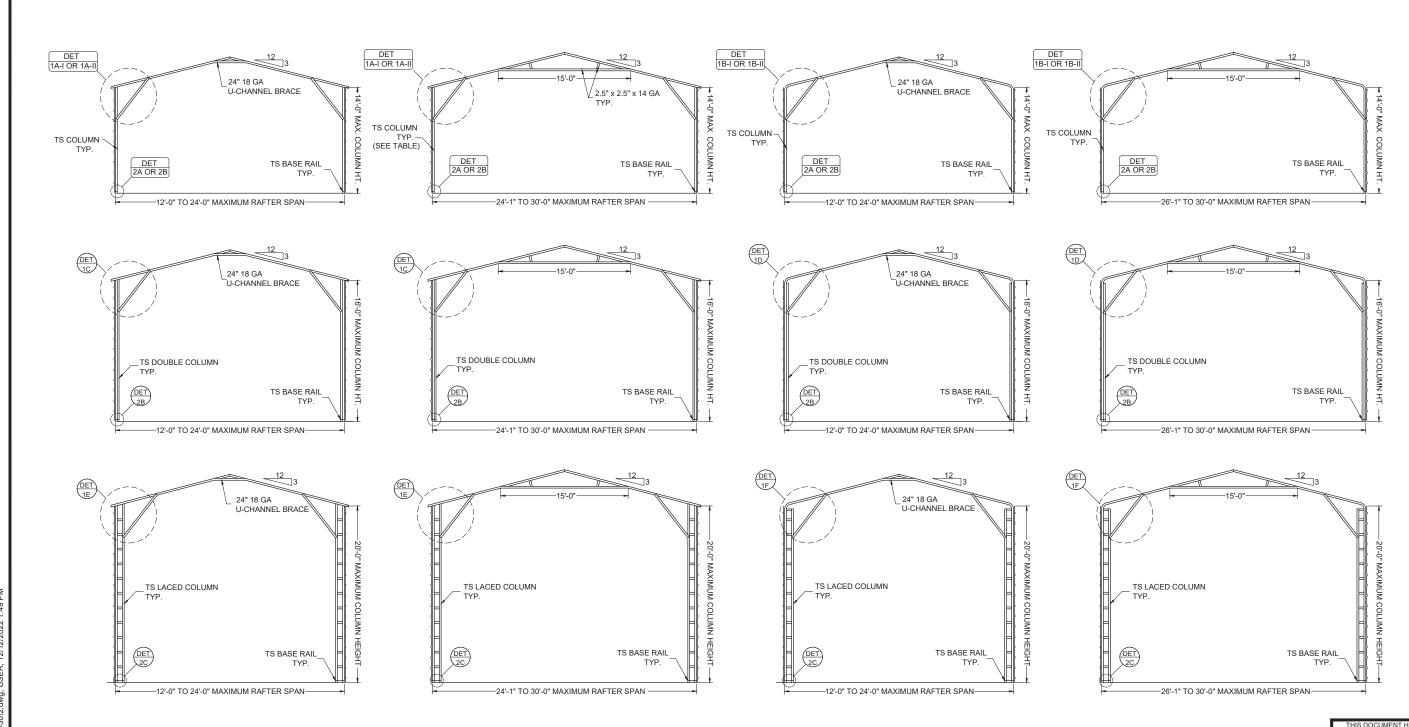
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			JOB No.	22047			CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COI

ELITE METAL MANUFACTURING 10121 88TH TRACE

NOTES AND **SPECIFICATIONS** 

Nicole Irving 5898 NW Falling Creek Rd White Springs, FI 32096

S-1 SCALE AS-SHOWN



# **BOX EAVE FRAME**

SCALE: NTS

# **BOW EAVE FRAME**

SCALE: NTS

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							ENGINEERING INC.	
				ATC			THO INC.	10121
			JOB No.	22047			CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM	

ELITE METAL
MANUFACTURING
10121 88TH TRACE
BOX-BOW EAVE
FRAME RAFTER
ENCLOSED BUILDING

Nicole Irving
5898 NW Falling Creek Rd
White Springs, FI 32096

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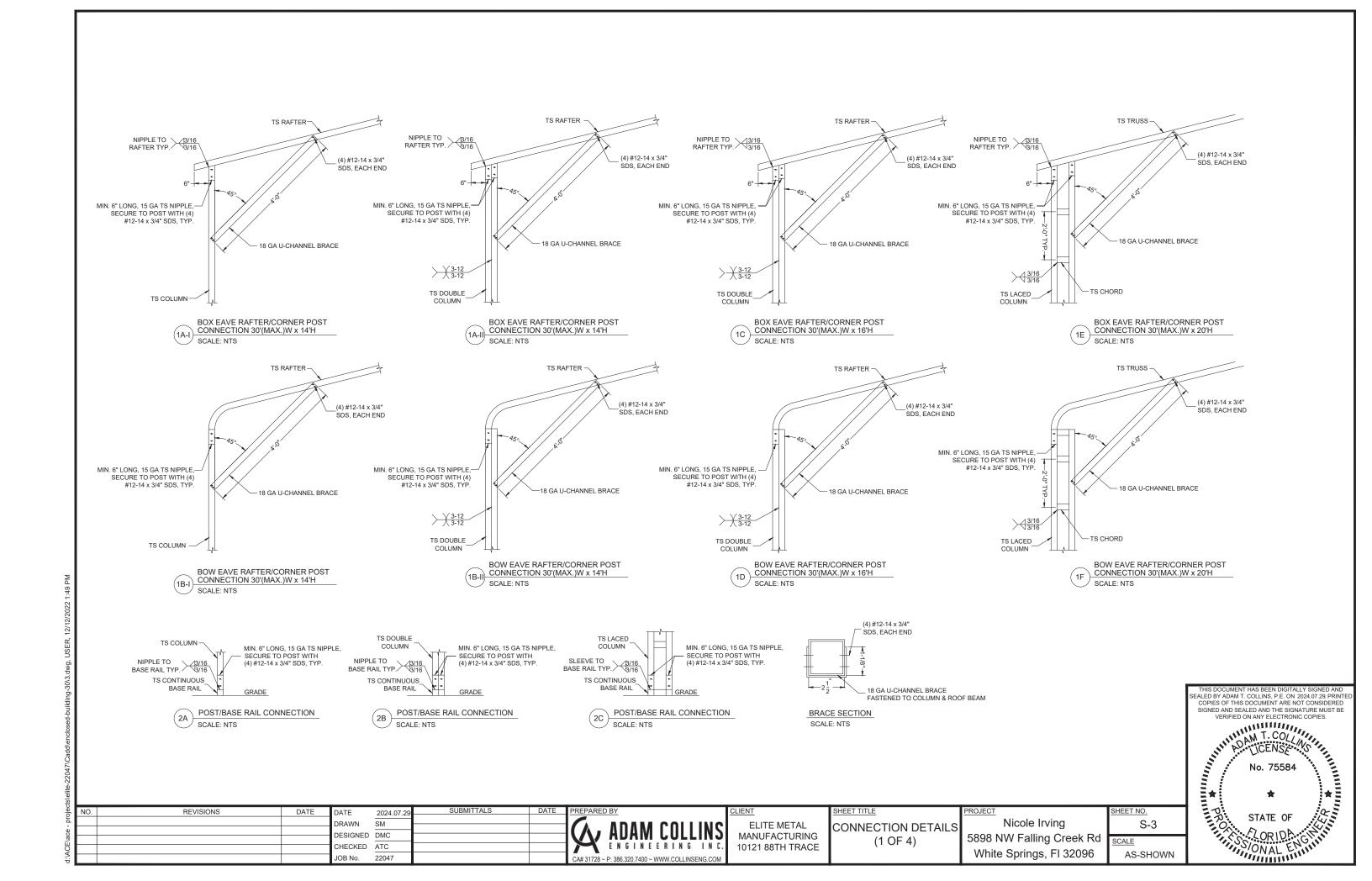
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#### **GENERAL NOTES**

MINIMUM SOIL BEARING CAPACITY: 1500 PSF. CONCRETE STRENGTH: 3000 PSI @ 28 DAYS

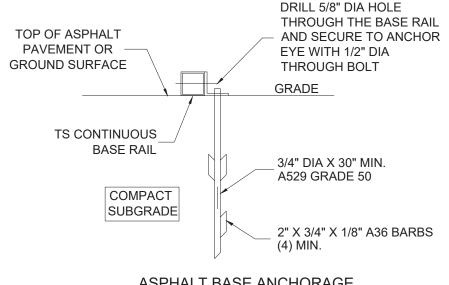
#### MONOLITHIC FOOTER SIZE 8" x 12" - (2) #4 110 C - 140 C 12" x 16" - (2) #4 ABOVE 140 C

#### REINFORCING STEEL

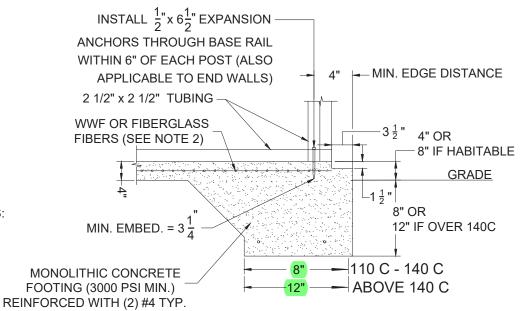
- REBAR SHALL BE ASTM A615 GRADE 60
- SLAB REINFORCEMENT = WELDED WIRE FABRIC PER ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT
- CONCRETE COVER SHALL BE
- 3.1. 3" WHERE EXPOSED TO SOIL OR WATER.
- 2" EVERYWHERE ELSE.
- 4. REBAR SHALL BE BENT WITHOUT HEATING.
- MINIMUM BEND = 6 X BAR DIAMETER
- REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD

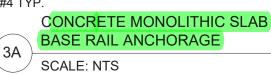
#### **HELIX ANCHOR NOTES**

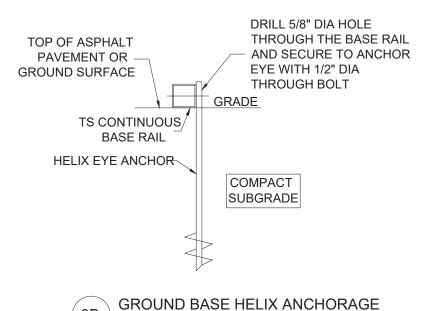
- 1. USE MINIMUM (2) 4" HELICES WITH 30" EMBEDMENT FOR THE FOLLOWING SOILS:
- VERY DENSE AND/OR CEMENTED SANDS
- COARSE GRAVEL AND COBBLES 1.2.
- 1.3. CALICHE
- PRELOADED SILTS AND CLAYS 1.4.
- CORALS 1.5.
- MEDIUM DENSE COARSE SANDS 1.6.
- 1.7. SANDY GRAVEL
- VERY STIFF SILTS AND CLAYS 1.8.
- 2. USE MINIMUM (2) 6" HELICES WITH MINIMUM 48" EMBEDMENT FOR
- LOOSE TO MEDIUM DENSE SANDS
- FIRM TO STIFF CLAYS AND SILTS
- ALLUVIAL FILL
- 3. USE MINIMUM (2) 8" HELICES WITH MINIMUM 60" EMBEDMENT.
- 3.1. FOR VERY LOOSE TO MEDIUM DENSE SANDS
- FIRM TO STIFFER CLAYS AND SILTS
- ALLUVIAL FILL.



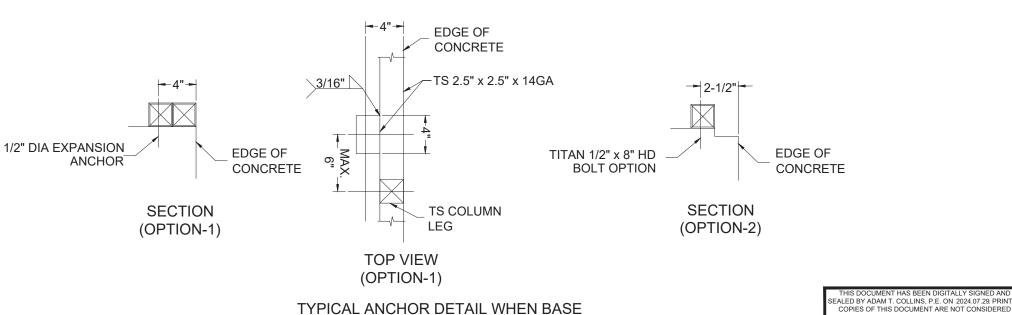








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**ELITE METAL** MANUFACTURING 10121 88TH TRACE

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BASE RAIL AND ANCHORAGE DETAILS

RAIL IS NEAR EDGE OF CONCRETE

Nicole Irving 5898 NW Falling Creek Rd White Springs, FI 32096

SCALE AS-SHOWN

S-4

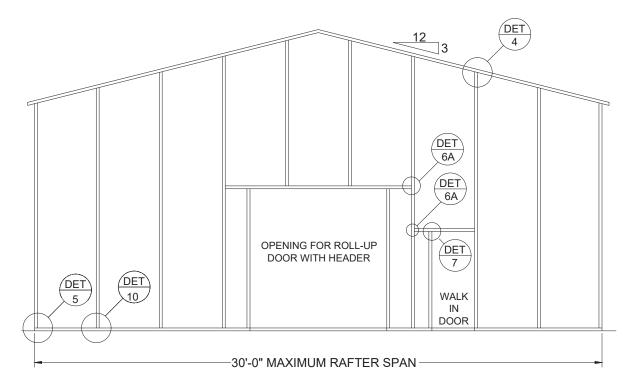
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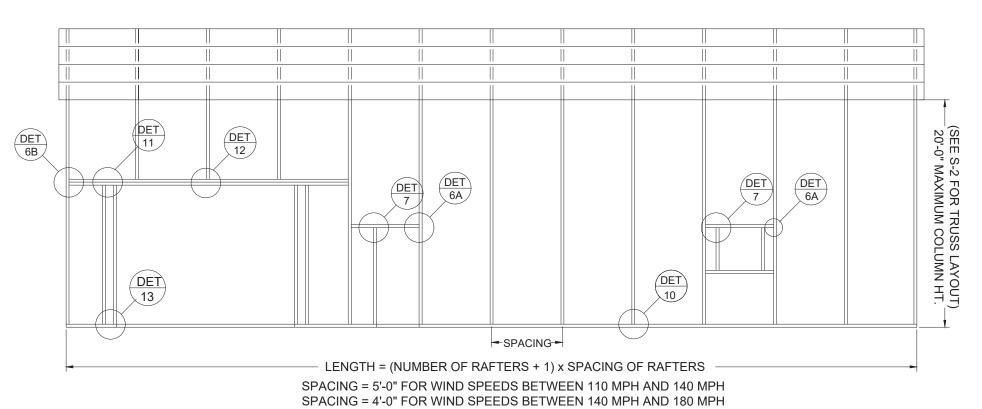
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SPACING = 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 140 MPH SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 140 MPH AND 180 MPH

### TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION

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## TYPICAL BOX EAVE RAFTER SIDE FRAMING SECTION

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			JOB No.	22047			CA# 31728 ~ P: 386 320 7/100 ~ WWW COLLINSENG COM	

**ELITE METAL** MANUFACTURING 10121 88TH TRACE

BOX EAVE RAFTER END WALL, SIDE WALL AND OPENING FRAMING

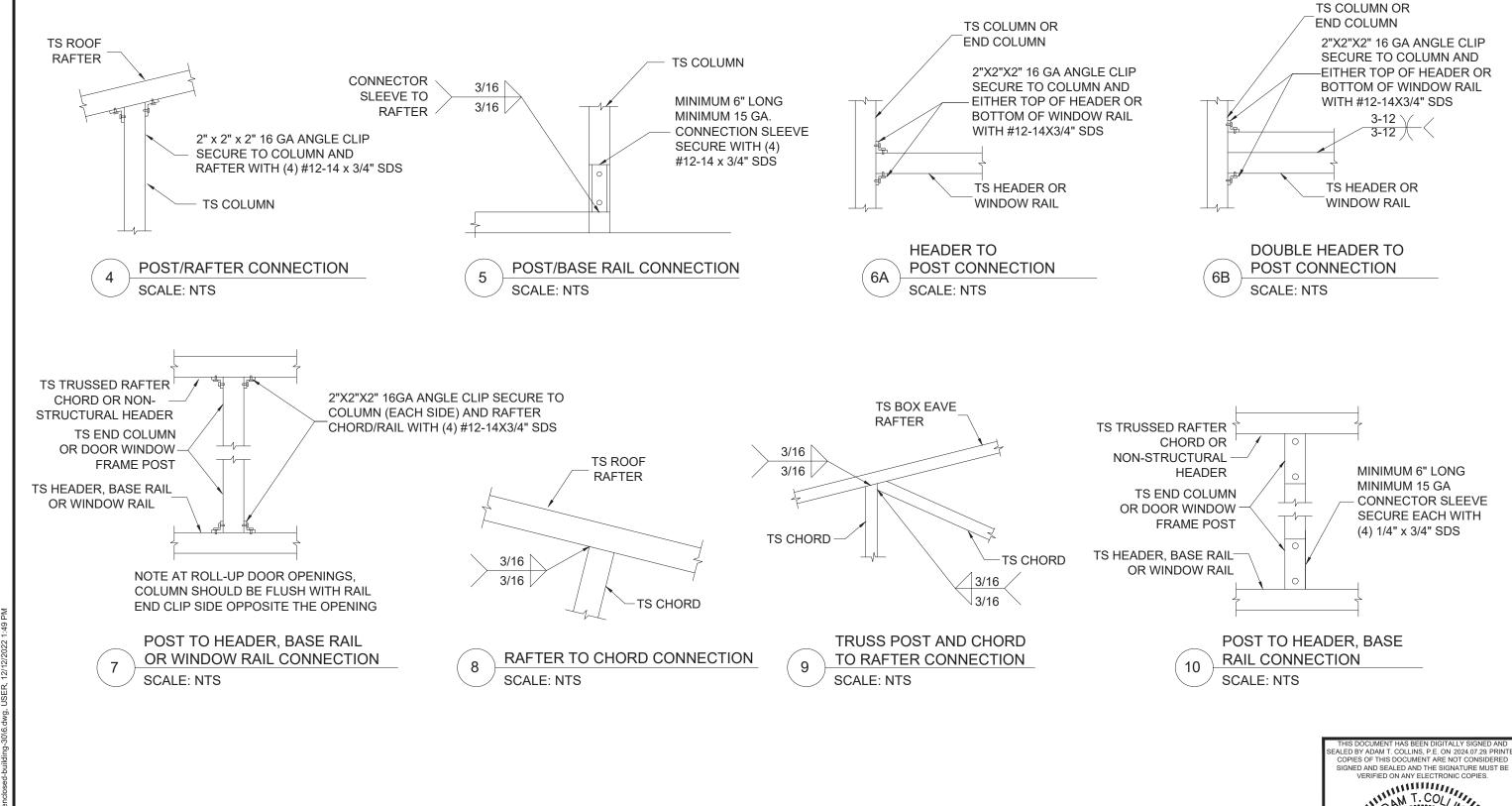
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ENGINEERING INC.

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ELITE METAL MANUFACTURING 10121 88TH TRACE CONNECTION DETAILS (2 OF 4)

SHEET TITLE

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5898 NW Falling Creek Rd
White Springs, FI 32096

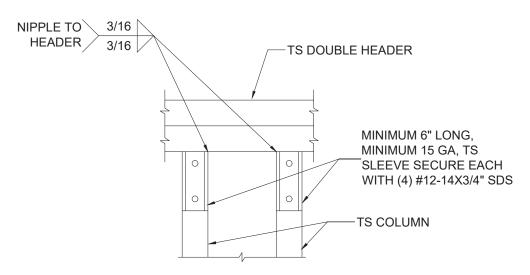
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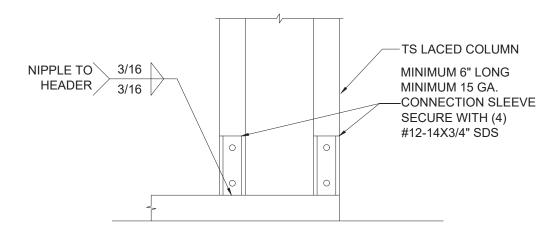
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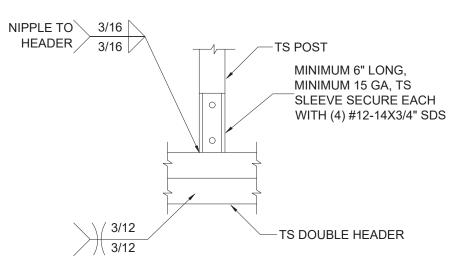
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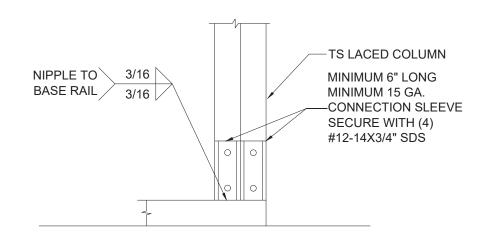
DOUBLE HEADER TO POST CONNECTION SCALE: NTS



POST/BASE RAIL CONNECTION



POST/DOUBLE HEADER CONNECTION 12 SCALE: NTS



POST/BASE RAIL CONNECTION (13B SCALE: NTS

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							ENGINEERING INC.
			CHECKED	ATC			ENGINEERING INC.
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**ELITE METAL** MANUFACTURING 10121 88TH TRACE SHEET TITLE CONNECTION DETAILS (3 OF 4)

Nicole Irving 5898 NW Falling Creek Rd White Springs, FI 32096

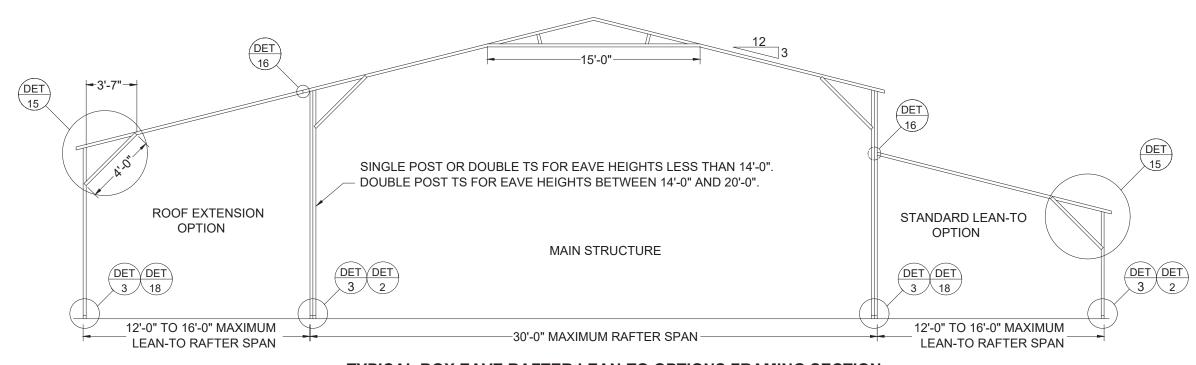
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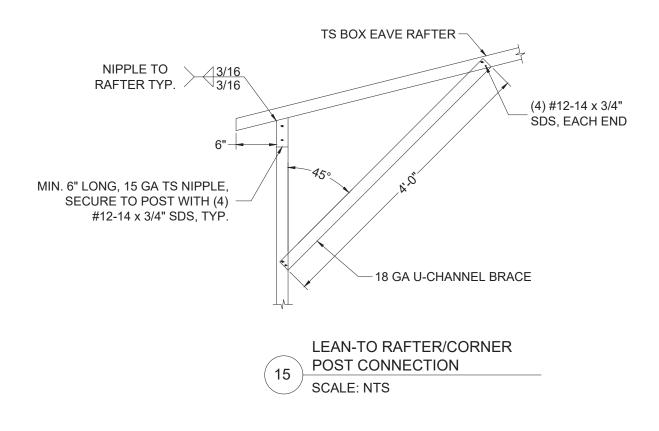
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TYPICAL BOX EAVE RAFTER LEAN-TO OPTIONS FRAMING SECTION SCALE: NTS



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				CHECKED	ATC			ENGINEERING INC.	10121 88TH TRACE	LEANIC
				JOB No.	22047			CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM		

BOX EAVE RAFTER LEAN TO OPTIONS Nicole Irving
5898 NW Falling Creek Rd
White Springs, FI 32096

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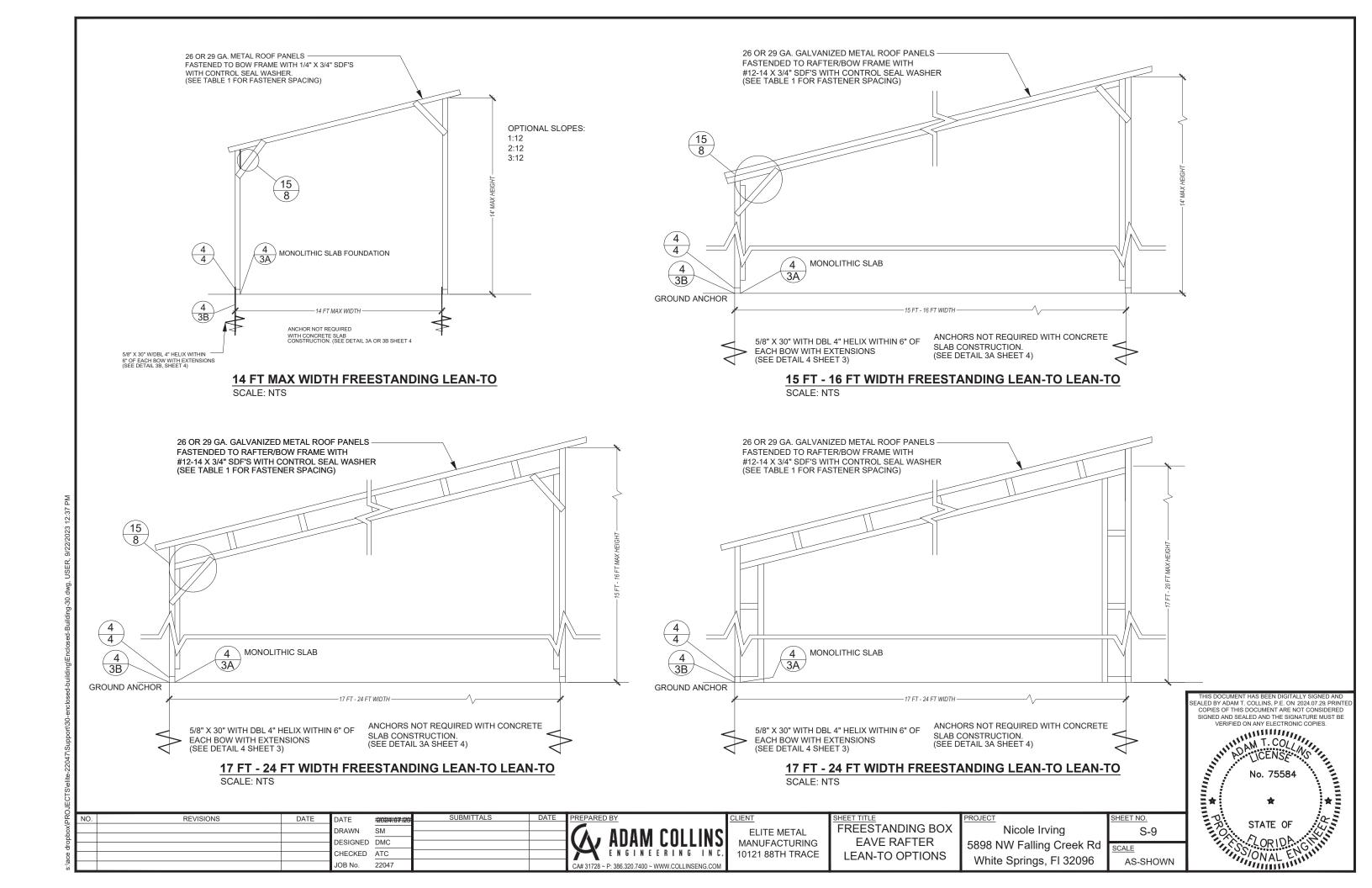
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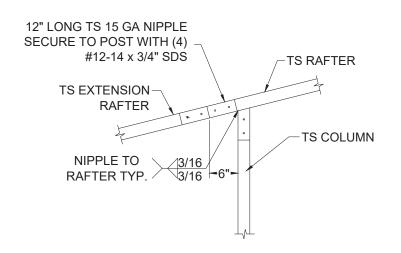
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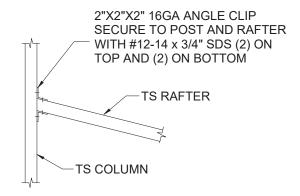
12" LONG TS 15 GA NIPPLE SECURE TO POST WITH (4) / NIPPLE TO #12-14 x 3/4" SDS RAFTER TYP. TS EXTENSION **RAFTER** 3-12 TS RAFTER TS COLUMN 2" x 2" x 2" 16 GA ANGLE CLIP <del>-</del>6"-SECURE TO COLUMN AND EITHER TOP OF HEADER OR-**BOTTOM OF WINDOW RAIL** WITH #12-14 x 3/4" SDS

SIDE EXTENSION RAFTER/POST CONNECTION RAFTER SPAN LESS THAN 12'-0"

SCALE: NTS

SIDE EXTENSION RAFTER/POST CONNECTION RAFTER SPAN BETWEEN 12'-0" AND 16'-0"

SCALE: NTS



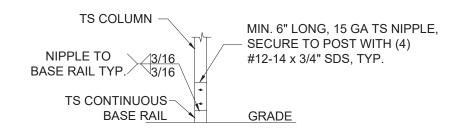
2"X2"X2" 16GA ANGLE CLIP
SECURE TO POST AND RAFTER
WITH #12-14 x 3/4" SDS (2) ON
TOP AND (2) ON BOTTOM

TS DOUBLE RAFTER

TS COLUMN

LEAN TO RAFTER/COLUMN CONNECTION
RAFTER SPANLESS THAN 12'-0"
SCALE: NTS

LEAN TO RAFTER/COLUMN CONNECTION
RAFTER SPAN BETWEEN 12'-0" AND 16'-0"
SCALE: NTS



18 LEAN-TO POST CONNECTION SCALE: NTS

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DRAWN SM

DESIGNED DMC

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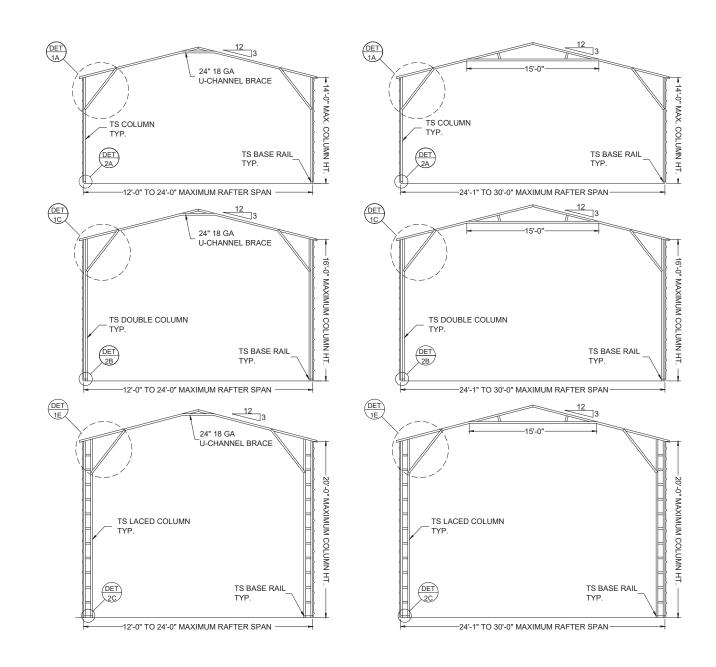
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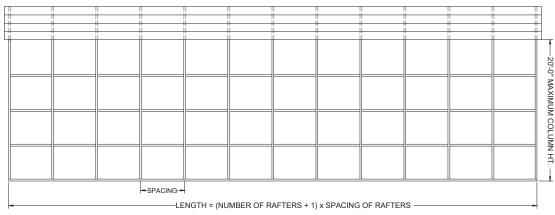
SHEET TITLE

CONNECTION DETAILS (4 OF 4) 5898

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5898 NW Falling Creek Rd
White Springs, FI 32096

S-10 SCALE AS-SHOWN

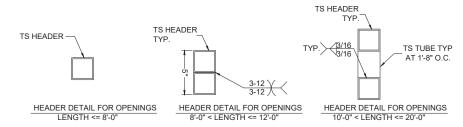




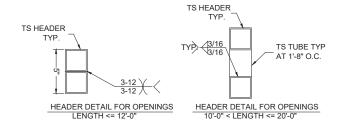
SPACING = 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 140 MPH SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 140 MPH AND 180 MPH 1.125" 18 GA HAT CHANNELS CAN BE USED IN LIEU OF TS FOR GIRTS.

#### TYPICAL SIDE FRAME SECTION

SCALE: NTS



#### SIDE WALL OPTION HEADER



#### **END WALL OPTION HEADER**

SCALE: NTS

**BOX EAVE FRAME** SCALE: NTS

1.125" 18 GA FURRING CHANNEL FASTENED TO EACH RAFTER WITH (2) #12-14 x 3/4" SDS SPACED AT 48" O.C. MAX TS RAFTER

PANEL ATTACHMENT (ALTERNATE FOR VERTICAL ROOF PANELS)

SCALE: NTS

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			JOB No.	22047			CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM

ELITE METAL MANUFACTURING 10121 88TH TRACE

**BOX EAVE RAFTER** VERTICAL **ROOF-SIDING OPTION** 

Nicole Irving 5898 NW Falling Creek Rd White Springs, FI 32096

SCALE AS-SHOWN

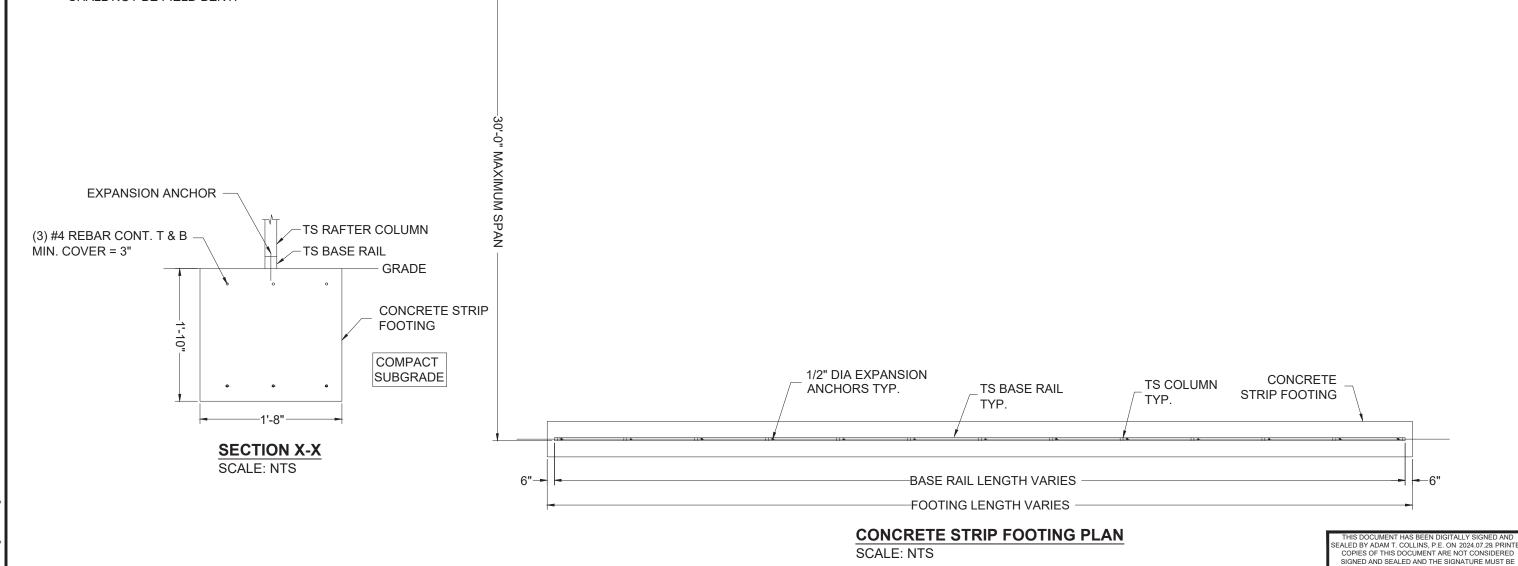
S-11



MINIMUM SOIL BEARING CAPACITY: 1500 PSF. CONCRETE STRENGTH: 3000 PSI @ 28 DAYS

#### **REINFORCING STEEL**

- 1. REBAR SHALL BE ASTM A615 GRADE 60
- SLAB REINFORCEMENT = WELDED WIRE FABRIC PER ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT
- 3. CONCRETE COVER SHALL BE
- 3.1. 3" WHERE EXPOSED TO SOIL OR WATER.
- 3.2. 2" EVERYWHERE ELSE.
- 4. REBAR SHALL BE BENT WITHOUT HEATING.
- 5. MINIMUM BEND = 6 X BAR DIAMETER
- 6. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT.



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DATE 2024.07.29 SUBMITTALS DATE PREPARED BY

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JOB No. 22047

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ELITE METAL MANUFACTURING 10121 88TH TRACE OPTIONAL CONCRETE STRIP FOOTING

HEET TITLE

Nicole Irving
5898 NW Falling Creek Rd
White Springs, FI 32096

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