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.
- 3. 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.
- 3.1. 29 GA METAL PANELS SHALL BE FASTENED DIRECTLY TO 18 GA HAT CHANNELS U.N.O. 18 GA HAT CHANNELS SHALL BE SPACED 48" O.C. UNLESS DESIGN PRESSURES FROM
- TABLE 3 EXCEED THE MAX ALLOWABLE PRESSURES IN TABLE 2. THEN THE SPACING SHALL BE 24" O.C. IN THE ZONES THAT EXCEED THE MAX PRESSURES
- 4. FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS SHALL BE: 4.1 INTERIOR = 9"
- 4.2. FND = 6"
- 5. FASTENERS SHALL BE #12-14 x 3/4" SELF-DRILLING SCREWS (SDS), USE CONTROL SEAL WASHER WITH EXTERIOR FASTENERS. APPLICABLE ONLY FOR:
- 5.1. 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.
- 7. STANDARD GROUND ANCHORS (SOIL NAILS) CONSIST OF #4 REBAR WITH WELDED NUT x 30" 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.

TABLE 1 BOW/RAFTER FRAME, END POST, GROUND ANCHOR AND PANEL FASTENER SPACING SPECIFICATIONS

		ULT	NOMINAL	MAXIMUM	FASTENER SPACING O.C FOR RAFTERS/PURLINS, & POSTS (INCHES)			
RISK CATEGORY	WIND EXPOSURE CATEGORY	WIND SPEED (MPH)	WIND SPEED (MPH)	RAFTER/BOW 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		

- 1. SPECIFICATIONS APPLICABLE TO 26 OR 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 12 OR 14 GAUGE STEEL TUBE BOW
- VAINES.
 FASTENTERS CONSIST OF 1/4"-14X1" SELF-DRILLING SCREWS WITH CONTROL SEAL WASHER. 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. 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.

- GROUND ANCHORS ARE NOT REQUIRED WITH CONCRETE SLAB CONSTRUCTION.

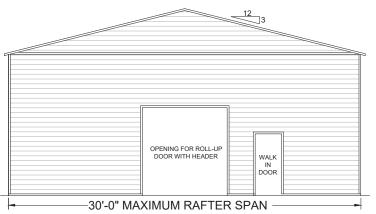
DRAWING INDEX

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

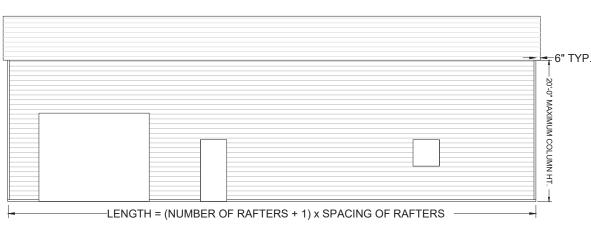
DESIGN LOADS

- DEAD LOAD = 15 PSF
- LIVE LOAD = 20 PSF
- 3. WIND LOAD (SEE TABLE 1)

ENCLOSED METAL BUILDING DESIGN 20FT WIDE X 35FT LONG X 14FT EAVE HT.



TYPICAL ELEVATION - BOX EAVE SCALE: NTS



TYPICAL SIDE ELEVATION SCALE: NTS

TABLE 2

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.

LEAN-TO INDEX								
BUILDING SIDE	LEAN-TO SIZE (FT)							
LEFT								
RIGHT								
FRONT								
REAR								

TABLE 3

COMPO	COMPONENTS AND CLADDING DESIGN PRESSURES MEAN ROOF HT 25 FT, EXPOSURE C (PSF)													
Zone	120		130		14	140		150		160		170		30
Zone	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG
1	9.7	-20.7	11.5	-24.3	13.2	-28.2	15.3	-32.4	17.4	-36.9	19.6	-41.6	22.0	-46.6
2	9.7	-27.9	11.5	-32.8	13.2	-38.1	15.3	-43.7	17.4	-49.7	19.6	-56.2	22.0	-62.9
3	11.1	-44.8	13.0	-52.7	15.0	-61.0	17.1	-70.1	19.6	-79.8	22.1	-90.0	24.7	-100.8
4	17.8	-19.6	20.9	-23.1	24.3	-26.7	27.9	-30.6	31.7	-34.8	35.8	-39.4	40.1	-44.1
5	18.8	-23.8	22.0	-27.8	25.5	-32.3	29.3	-37.0	33.3	-42.1	37.7	-47.5	42.3	-53.3

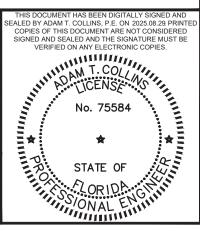
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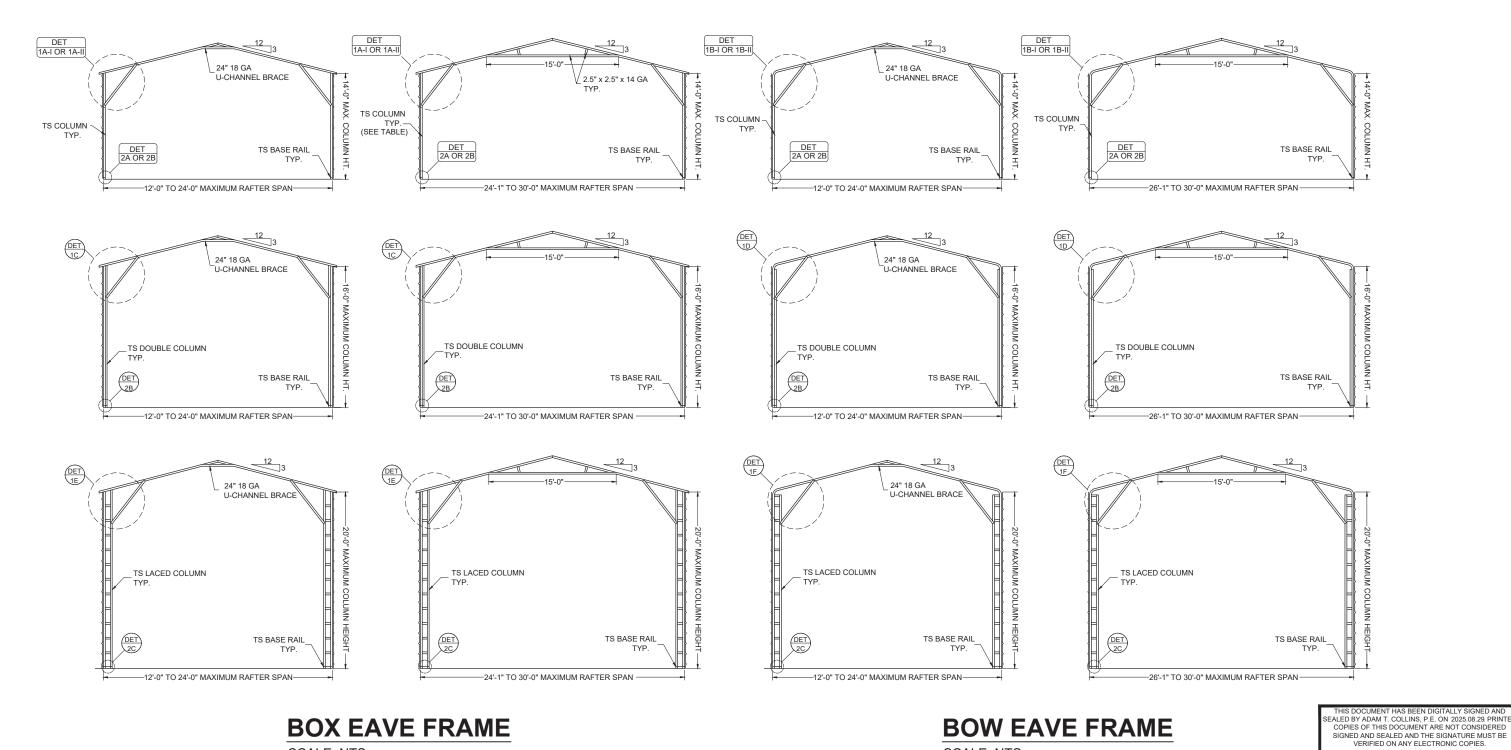
ELITE METAL MANUFACTURING 10121 88TH TRACE

NOTES AND **SPECIFICATIONS**

George Pax 625 NW Fairway Dr Lake City, FL 32055

S-1 SCALE AS-SHOWN





BOX EAVE FRAME

SCALE: NTS

BOW EAVE FRAME

SCALE: NTS

			_					
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CLIENT **ELITE METAL** MANUFACTURING 10121 88TH TRACE

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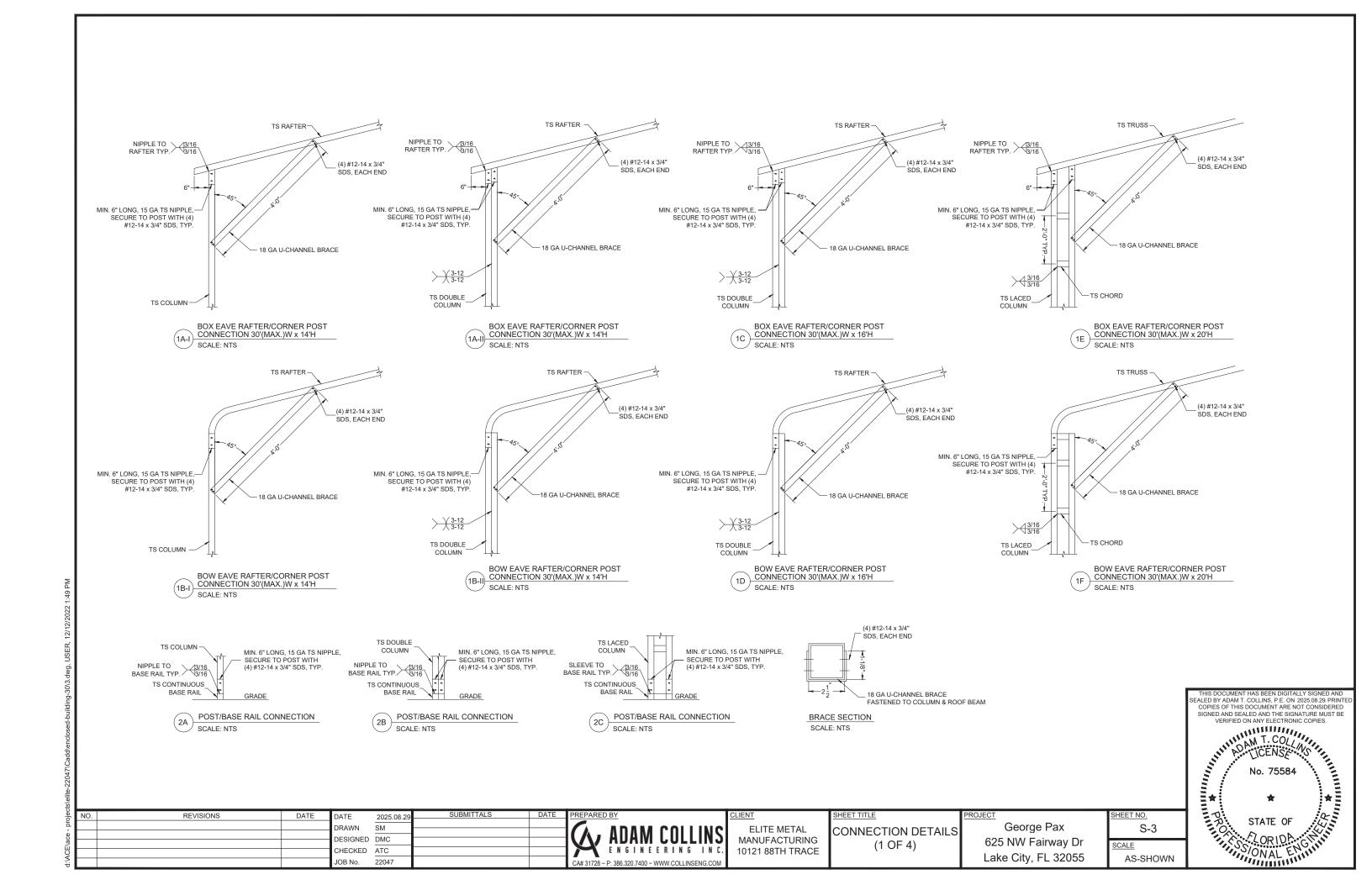
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BOX-BOW EAVE FRAME RAFTER **ENCLOSED BUILDING**

S-2 SCALE AS-SHOWN



GENERAL NOTES

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

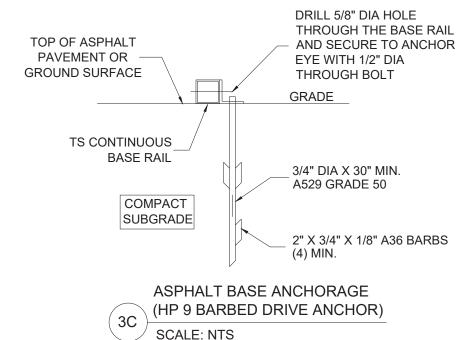
MONOLITHIC FOOTER SIZE 8" x 12" - (2) #4 110 C - 140 C 12" x 16" - (2) #4 ABOVE 140 C

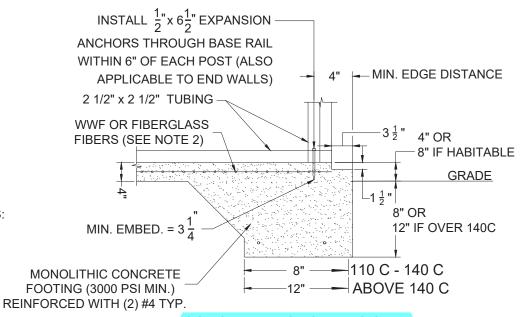
REINFORCING STEEL

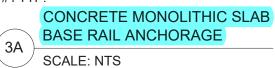
- REBAR SHALL BE ASTM A615 GRADE 60
- SLAB REINFORCEMENT = WELDED WIRE FABRIC PER ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT
- CONCRETE COVER SHALL BE
- 3.1. 3" WHERE EXPOSED TO SOIL OR WATER.
- 2" EVERYWHERE ELSE.
- 4. REBAR SHALL BE BENT WITHOUT HEATING.
- MINIMUM BEND = 6 X BAR DIAMETER
- REINFORCEMENT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

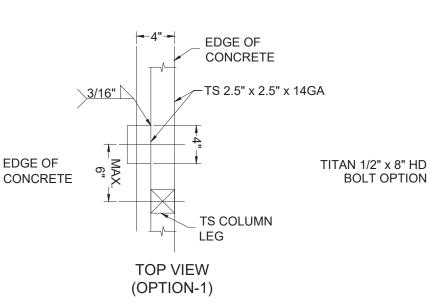
HELIX ANCHOR NOTES

- 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.









TYPICAL ANCHOR DETAIL WHEN BASE RAIL IS NEAR EDGE OF CONCRETE SCALE: NTS

GRADE TS CONTINUOUS/ **BASE RAIL** HELIX EYE ANCHOR COMPACT SUBGRADE **GROUND BASE HELIX ANCHORAGE**

SCALE: NTS

TOP OF ASPHALT

GROUND SURFACE

PAVEMENT OR

DRILL 5/8" DIA HOLE

EYE WITH 1/2" DIA

THROUGH BOLT

THROUGH THE BASE RAIL

AND SECURE TO ANCHOR

Reviewed for Code Compliance 2-1/2" Tate of Florida EDGE OF CONCRETE **SECTION** (OPTION-2)

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1/2" DIA EXPANSION

ANCHOR

SECTION

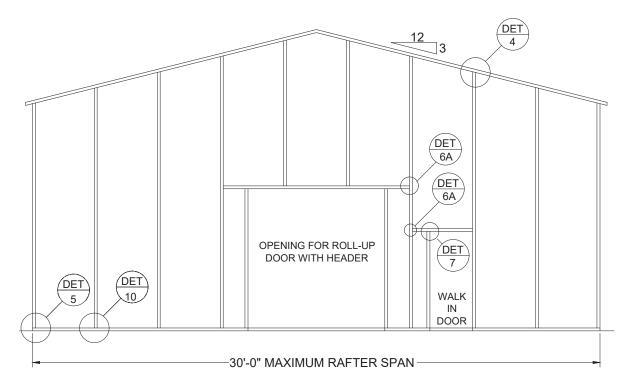
(OPTION-1)

ELITE METAL MANUFACTURING 10121 88TH TRACE

BASE RAIL AND ANCHORAGE DETAILS

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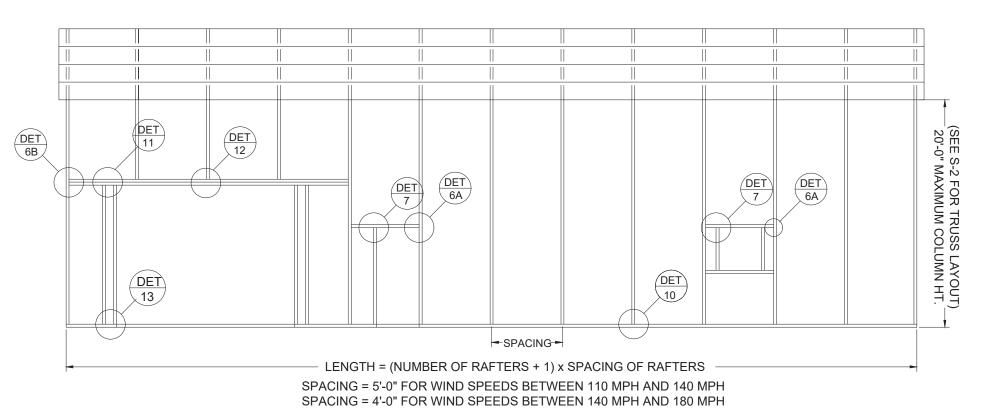
S-4 SCALE AS-SHOWN



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

TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION

SCALE: NTS



TYPICAL BOX EAVE RAFTER SIDE FRAMING SECTION

SCALE: NTS

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ELITE METAL MANUFACTURING 10121 88TH TRACE

BOX EAVE RAFTER END WALL, SIDE WALL AND OPENING FRAMING

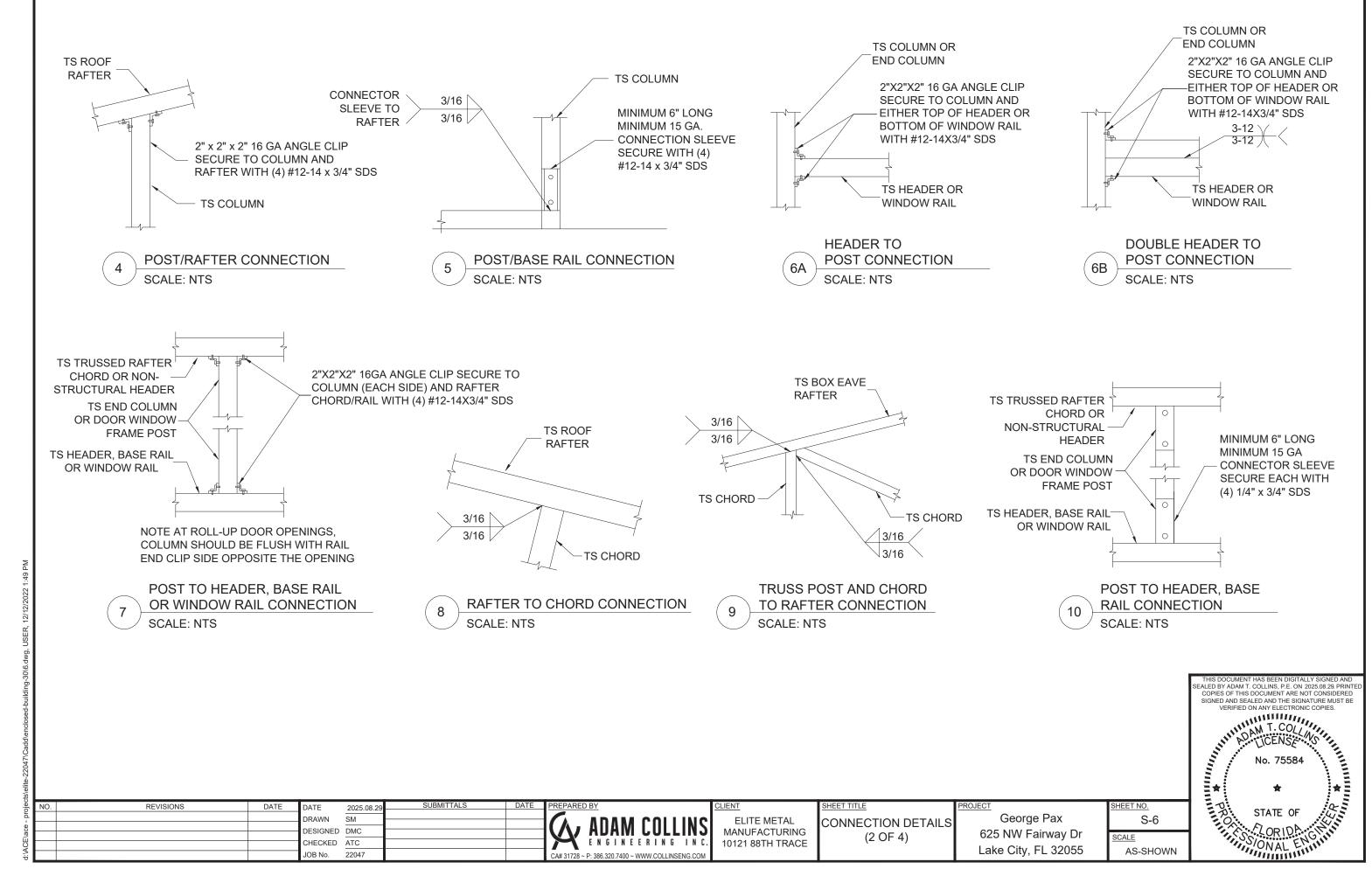
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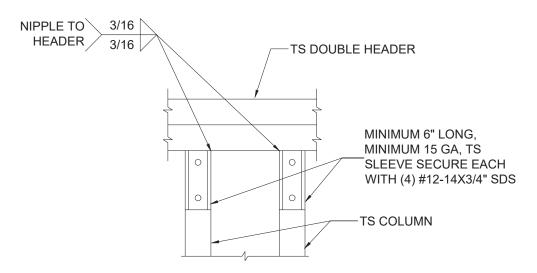
ELITE METAL MANUFACTURING 10121 88TH TRACE CONNECTION DETAILS (2 OF 4)

SHEET TITLE

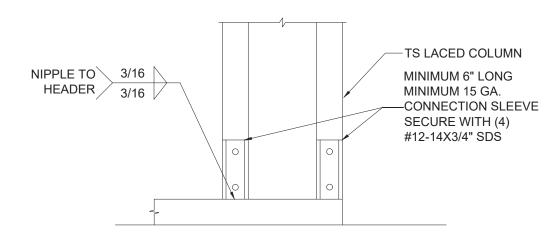
George Pax 625 NW Fairway Dr Lake City, FL 32055 SCALE

S-6

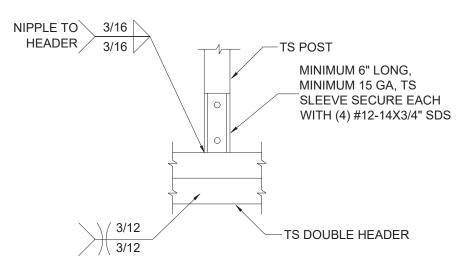
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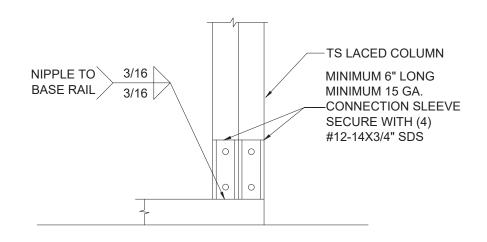
DOUBLE HEADER TO POST CONNECTION
SCALE: NTS



POST/BASE RAIL CONNECTION
SCALE: NTS



POST/DOUBLE HEADER CONNECTION
SCALE: NTS



POST/BASE RAIL CONNECTION
SCALE: NTS

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ELITE METAL
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10121 88TH TRACE

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CONNECTION DETAILS

(3 OF 4)

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S-7
SCALE
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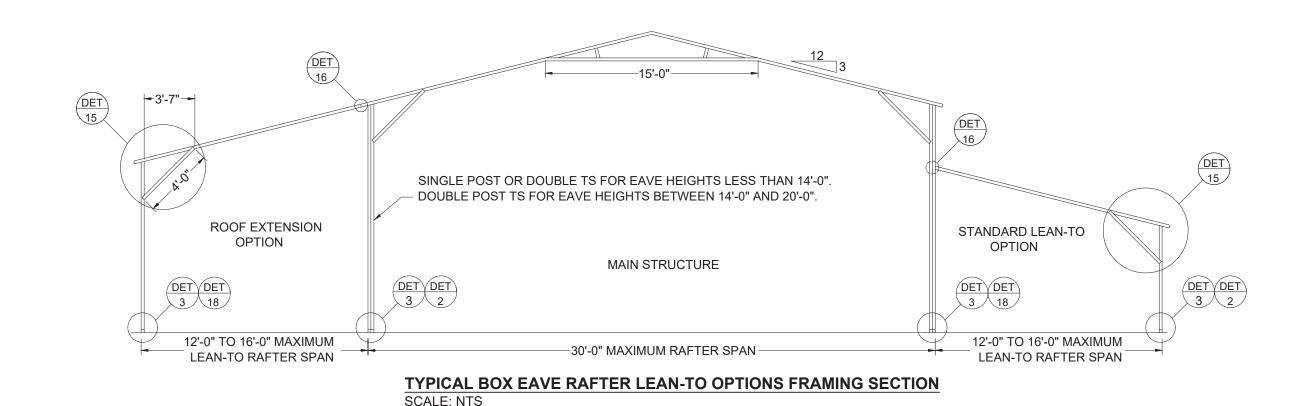
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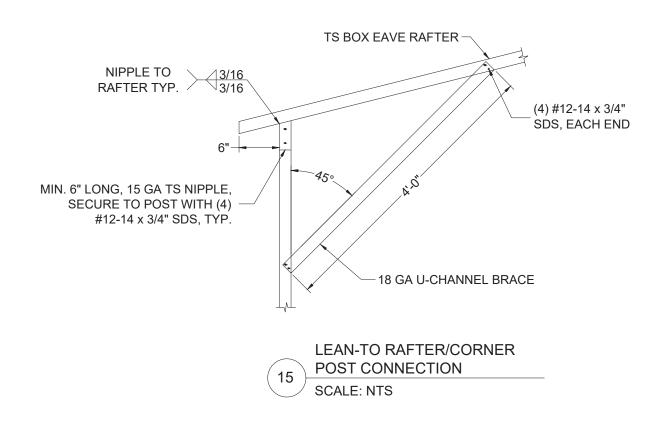
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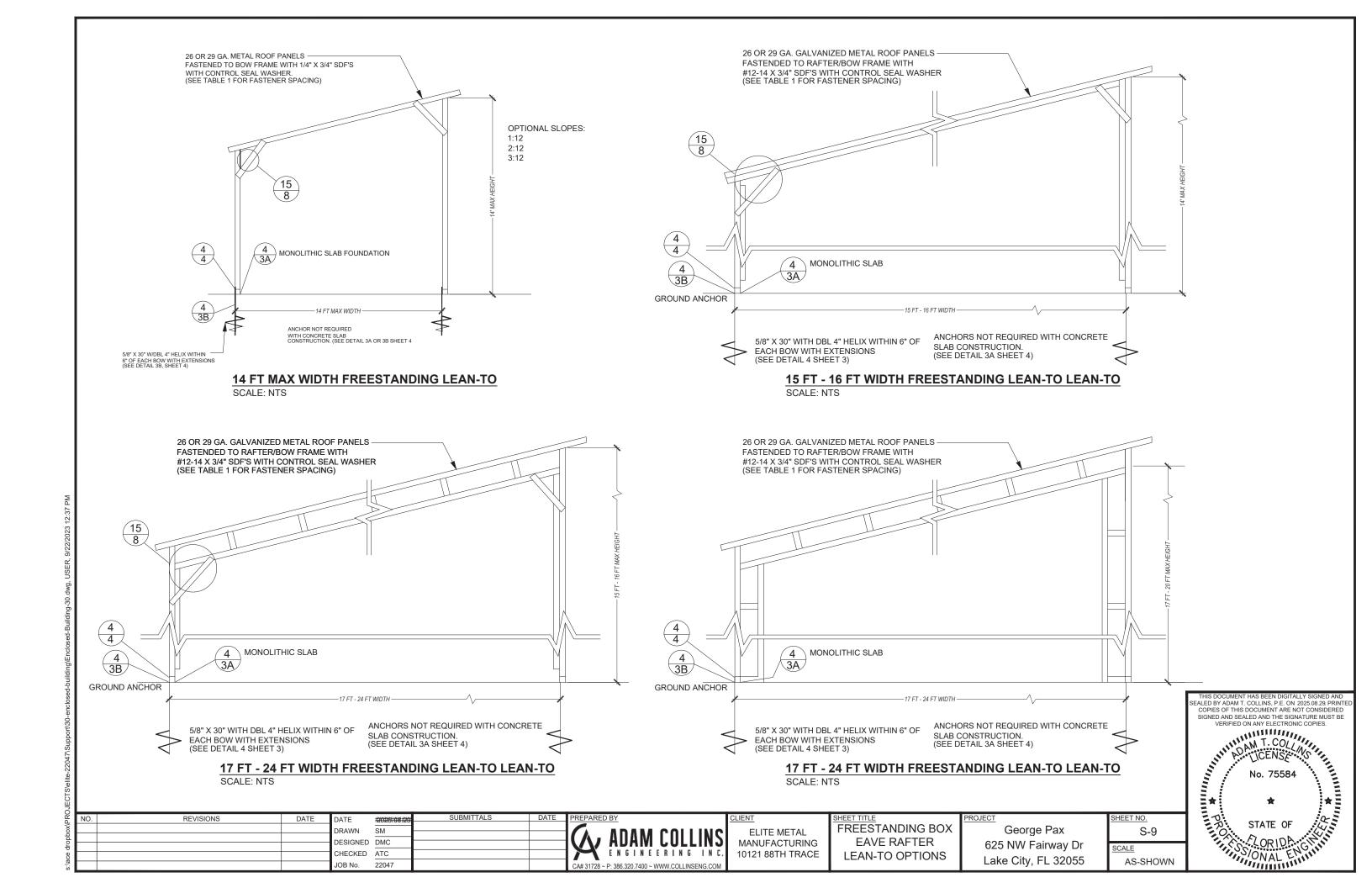
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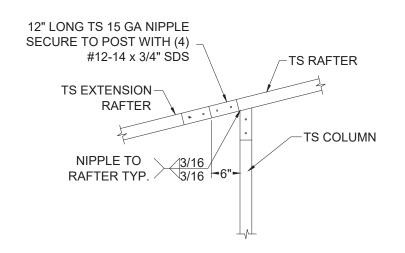
BOX EAVE RAFTER LEAN TO OPTIONS

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SCALE

AS-SHOWN





SCALE: NTS

SCALE: NTS

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 -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" 16A

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

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" 17B

LEAN TO RAFTER/COLUMN CONNECTION RAFTER SPAN BETWEEN 12'-0" AND 16'-0" 17B SCALE: NTS

TS COLUMN MIN. 6" LONG, 15 GA TS NIPPLE, SECURE TO POST WITH (4) NIPPLE TO 3/16 BASE RAIL TYP. 3/16 #12-14 x 3/4" SDS, TYP. TS CONTINUOUS-BASE RAIL GRADE

> LEAN-TO POST CONNECTION 18 SCALE: NTS

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ELITE METAL MANUFACTURING 10121 88TH TRACE

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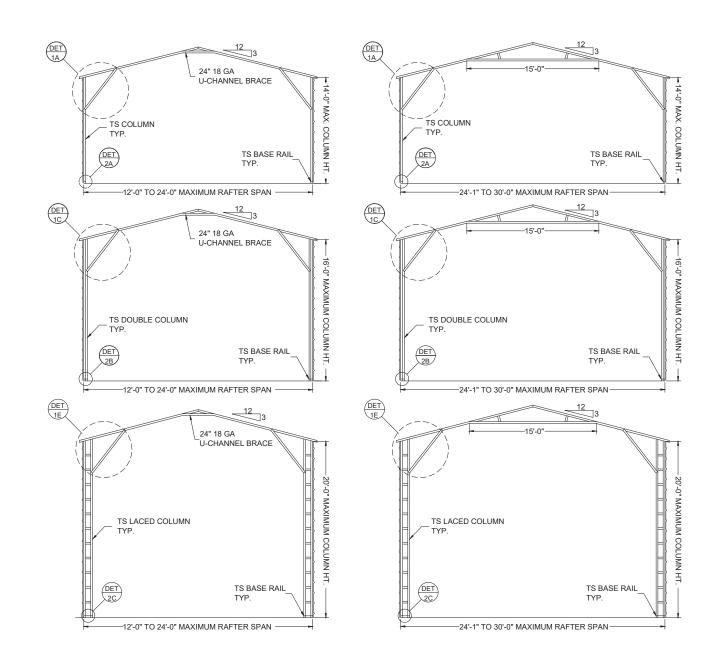
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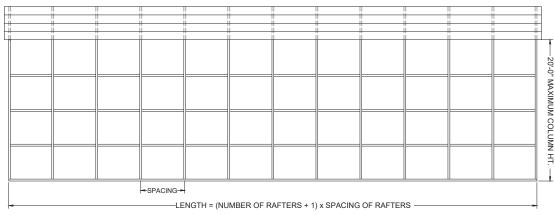
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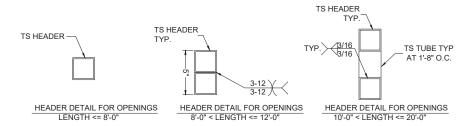




SPACING = 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 140 MPH SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 140 MPH AND 180 MPH 1.125" 18 GA HAT CHANNELS CAN BE USED IN LIEU OF TS FOR GIRTS.

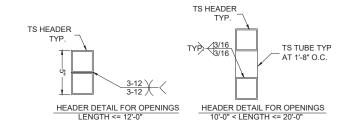
TYPICAL SIDE FRAME SECTION

SCALE: NTS



SIDE WALL OPTION HEADER

SCALE: NTS



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

PANEL ATTACHMENT
(ALTERNATE FOR VERTICAL ROOF PANELS)
SCALE: NTS

S-11
ALE
AS-SHOWN

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ELITE METAL BOX EAV
MANUFACTURING VER
10121 88TH TRACE ROOF-SID

BOX EAVE RAFTER

VERTICAL

ROOF-SIDING OPTION

George Pax 625 NW Fairway Dr Lake City, FL 32055

r <u>scale</u>



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

REINFORCING STEEL

- 1. REBAR SHALL BE ASTM A615 GRADE 60
- 2. 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.
- 3.2. 2" EVERYWHERE ELSE.
- 4. REBAR SHALL BE BENT WITHOUT HEATING.
- MINIMUM BEND = 6 X BAR DIAMETER

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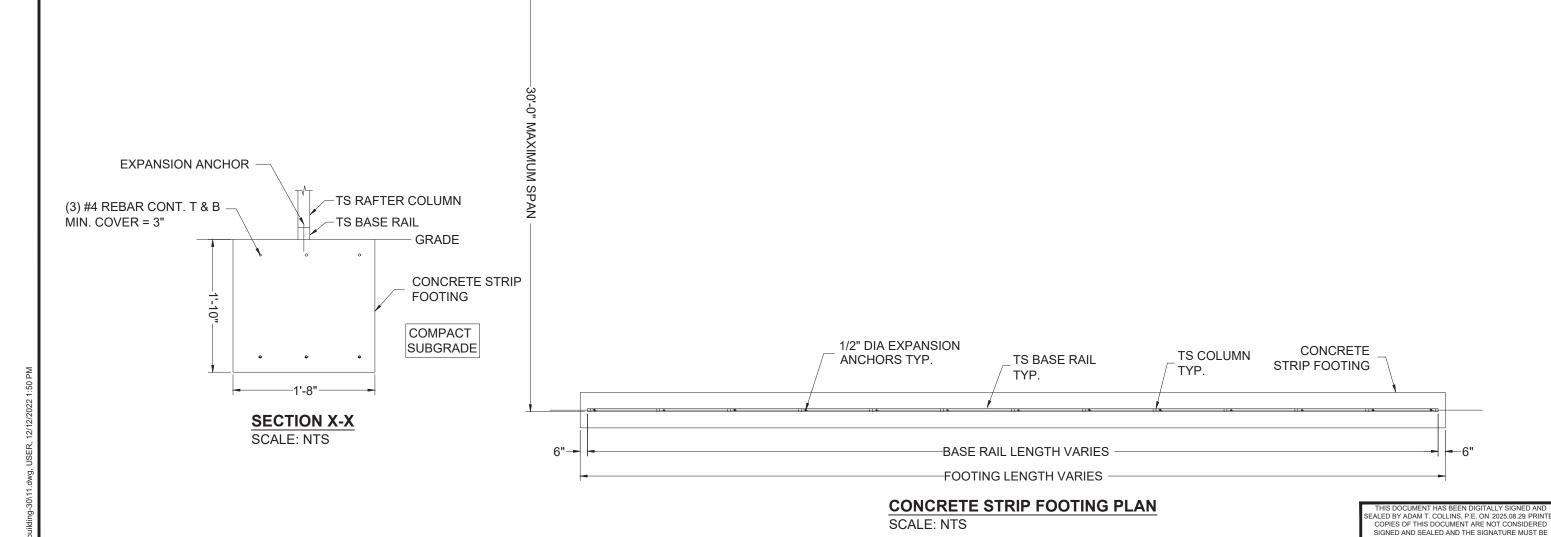
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REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT.



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X-

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ELITE METAL MANUFACTURING 10121 88TH TRACE

OPTIONAL CONCRETE STRIP FOOTING

HEET TITLE

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