

APPLICABLE CODES AND STANDARDS

- 1. 2023 FLORIDA BUILDING CODE (8TH EDITION)
- 2. 2021 INTERNATIONAL BUILDING CODE
- 3. ASCE 7-16: MINIMUM DESIGN LOADS ON BUILDINGS AND OTHER STRUCTURES
- 4. AISC STEEL CONSTRUCTION MANUAL (15TH EDITION)
- 5. ACI 318-14: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- 6. TMS 402-16: BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES
- 7. AWS D1.1: STRUCTURAL WELDING

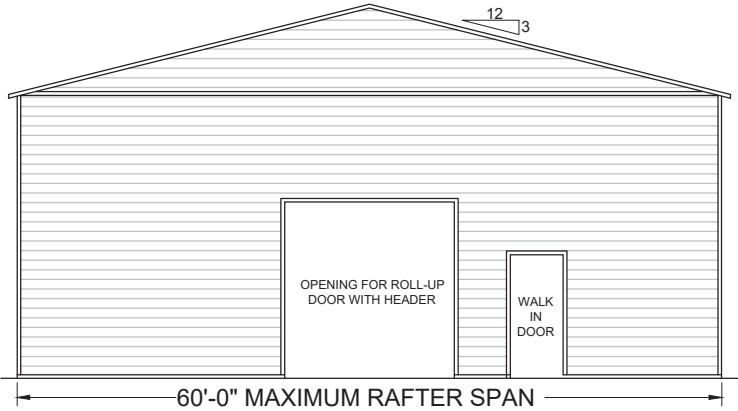
DESIGN LOADS

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

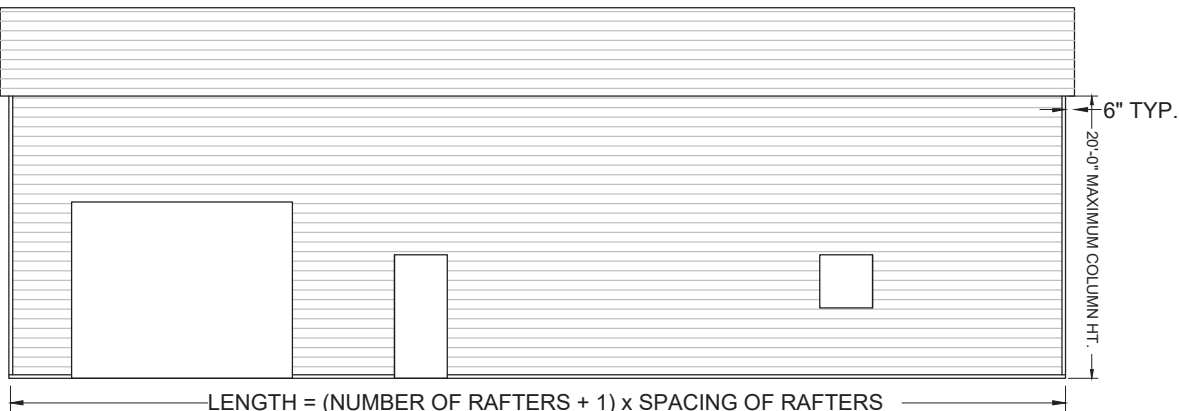
ENCLOSED METAL BUILDING DESIGN
FT WIDE X FT LONG X FT EAVE HT.

INSTALLATION NOTES AND SPECIFICATIONS

- 1. 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.
- 4. FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS SHALL BE:
 - 4.1. INTERIOR = 9"
 - 4.2. END = 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
 - 5.2. ROOF SLOPES OF 18° (4:12 PITCH) OR LESS.
 - 5.3. 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.
 - 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.



TYPICAL ELEVATION - BOX EAVE
SCALE: NTS



TYPICAL SIDE ELEVATION
SCALE: NTS

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

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

NOTES:
1. SPECIFICATIONS APPLICABLE TO 26 OR 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 12 OR 14 GAUGE STEEL TUBE BOW FRAMES.
2. FASTENERS CONSIST OF 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.
4. 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.

TABLE 1

MEMBER	PRODUCT APPROVAL NUMBER	WIND DESIGN PRESSURES
ROOF PANELS	FL39466	+12.1 PSF / -40.2 PSF
WALL PANELS	FL39594	+16.8 PSF / -21.3 PSF
GARAGE DOOR	CTP	+16.8 PSF / -21.3 PSF
WALK-IN DOOR	CTP	+16.8 PSF / -21.3 PSF

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

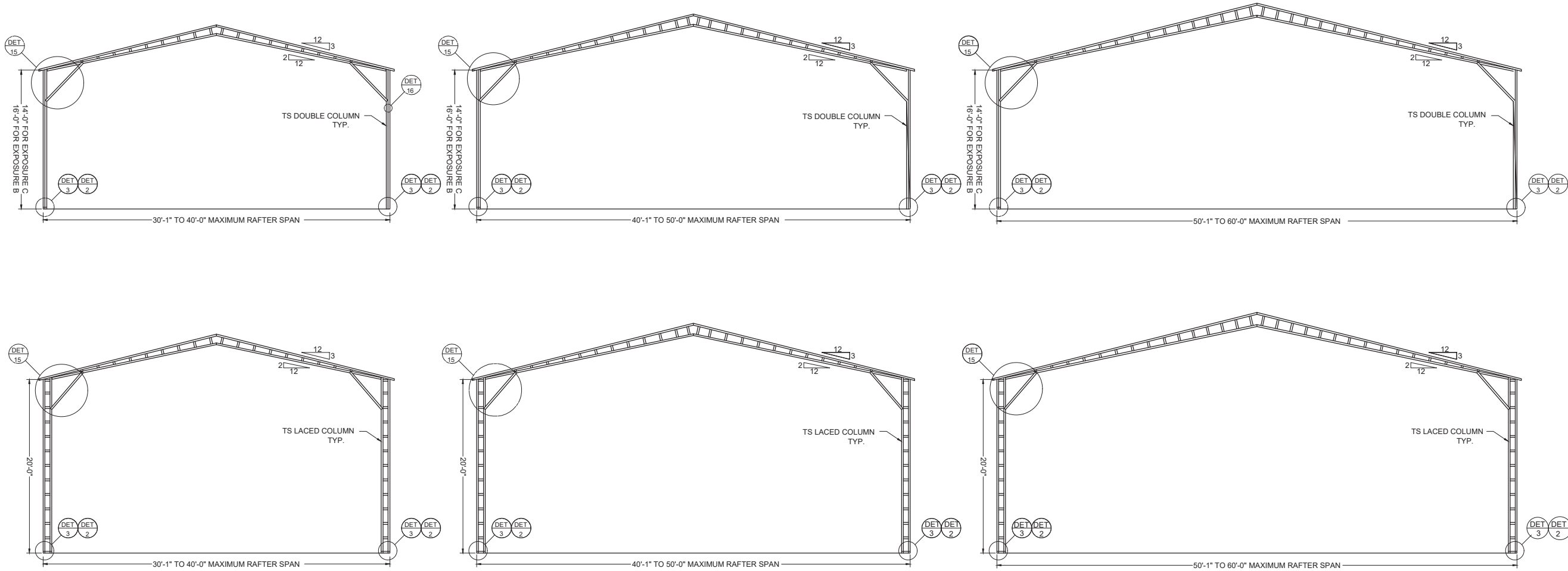
DRAWING INDEX

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	CONNECTION DETAILS (4 OF 4)
S-10	BOX EAVE RAFTER VERTICAL ROOF-SIDING OPTION
S-11	OPTIONAL CONCRETE STRIP FOOTING
S-12	OPTIONAL HELICAL ANCHORING DETAIL

NO.	REVISIONS	DATE	DATE	2023.01.17	SUBMITTALS	DATE	PREPARED BY	CLIENT	SHEET TITLE	PROJECT	SHEET NO.
			DRAWN	SM			ADAM COLLINS ENGINEERING INC. CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM	ELITE METAL MANUFACTURING	NOTES AND SPECIFICATIONS		S-1
			DESIGNED	DMC							SCALE
			CHECKED	ATC							AS SHOWN
			JOB No.	22047							

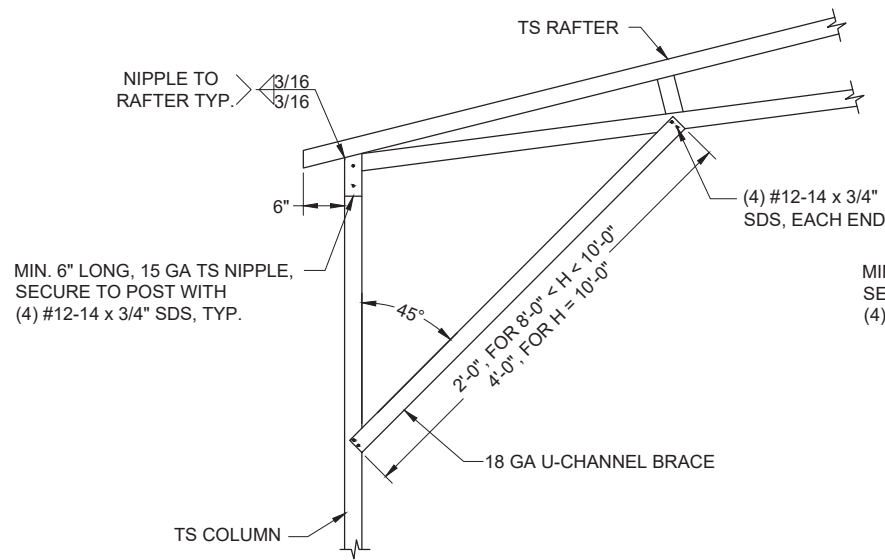
d:\ACE\ace - projects\elite-22047\Cadd\enclosed-building-60\enclosed 60x20\1.dwg, USER: 12/6/2022 10:33 PM

d:\ACE\ace - projects\elite-22047\Cadd\enclosed-building-60\enclosed 60x202.dwg, USER, 12/6/2022 10:33 PM

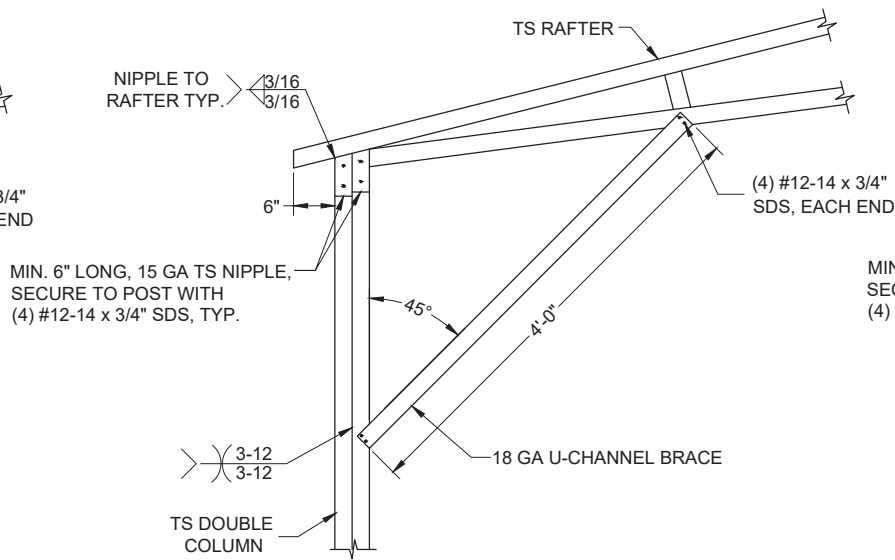


NO.	REVISIONS	DATE	DATE	2023.01.17	SUBMITTALS	DATE	PREPARED BY	CLIENT	SHEET TITLE	PROJECT	SHEET NO.
			DRAWN	SM			 ADAM COLLINS ENGINEERING INC. CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM	ELITE METAL MANUFACTURING	BOX EAVE FRAME RAFTER ENCLOSED BUILDING		S-2
			DESIGNED	DMC							SCALE
			CHECKED	ATC							AS SHOWN
			JOB No.	22047							

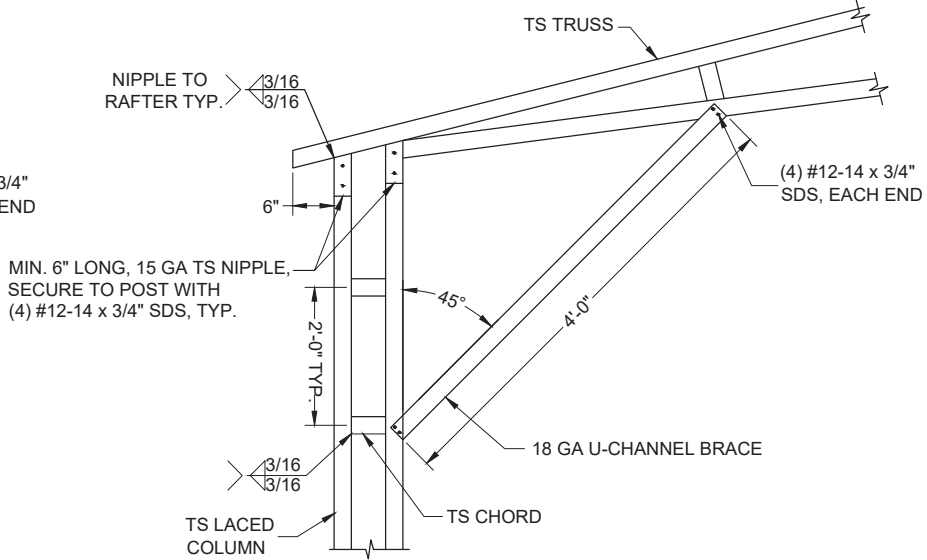
d:\ACE\ace - projects\elite-22047\Cadd\enclosed-building-60\enclosed 60x20\3.dwg, USER: 12/6/2022 10:34 PM



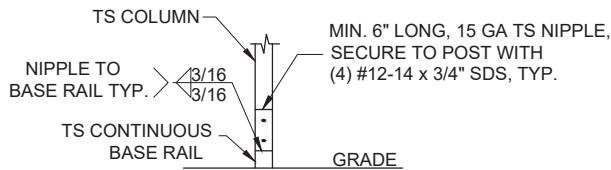
1A BOX EAVE RAFTER/CORNER POST
CONNECTION 30'(MAX.)W x 12'H
SCALE: NTS



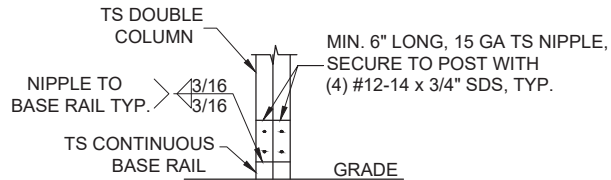
1C BOX EAVE RAFTER/CORNER POST
CONNECTION 30'(MAX.)W x 16'H
SCALE: NTS



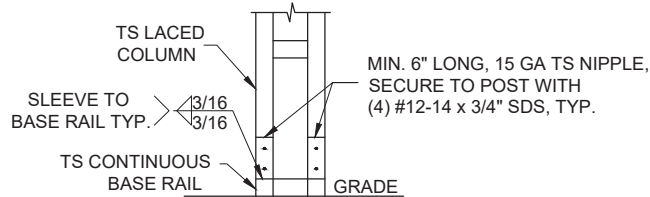
1E BOX EAVE RAFTER/CORNER POST
CONNECTION 30'(MAX.)W x 20'H
SCALE: NTS



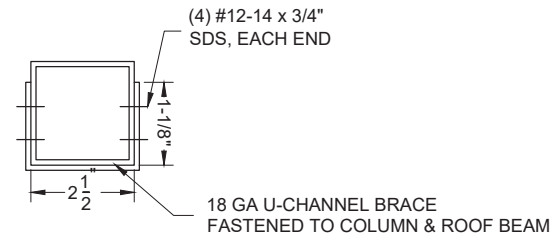
2A POST/BASE RAIL CONNECTION
SCALE: NTS



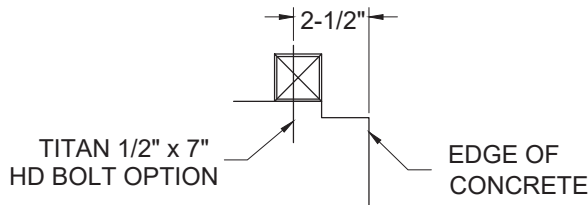
2B POST/BASE RAIL CONNECTION
SCALE: NTS



2C POST/BASE RAIL CONNECTION
SCALE: NTS



BRACE SECTION
SCALE: NTS



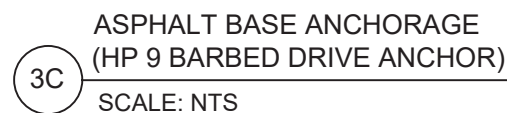
(OPTION-2) SECTION
SCALE: NTS

NO.	REVISIONS	DATE	DATE	2022-12-07	SUBMITTALS	DATE	PREPARED BY	CLIENT	SHEET TITLE	PROJECT	SHEET NO.
			DRAWN	SM			 ADAM COLLINS ENGINEERING INC. CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM	ELITE METAL MANUFACTURING	CONNECTION DETAILS(1 OF 4)		S-3
			DESIGNED	DMC		SCALE					
			CHECKED	ATC		AS SHOWN					
			JOB No.	22047							

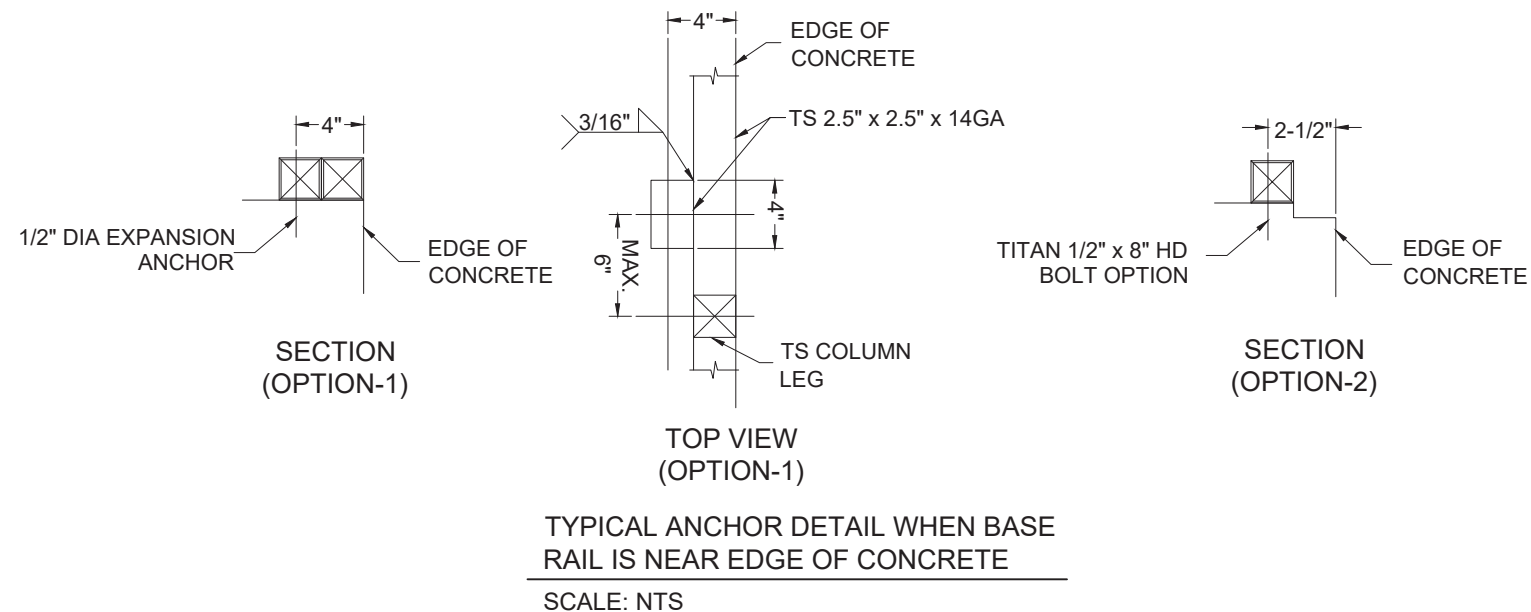
MINIMUM SOIL BEARING CAPACITY: 1500 PSF.
CONCRETE STRENGTH: 3000 PSI @ 28 DAYS

1. REBAR SHALL BE ASTM A615 GRADE 60
2. 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.

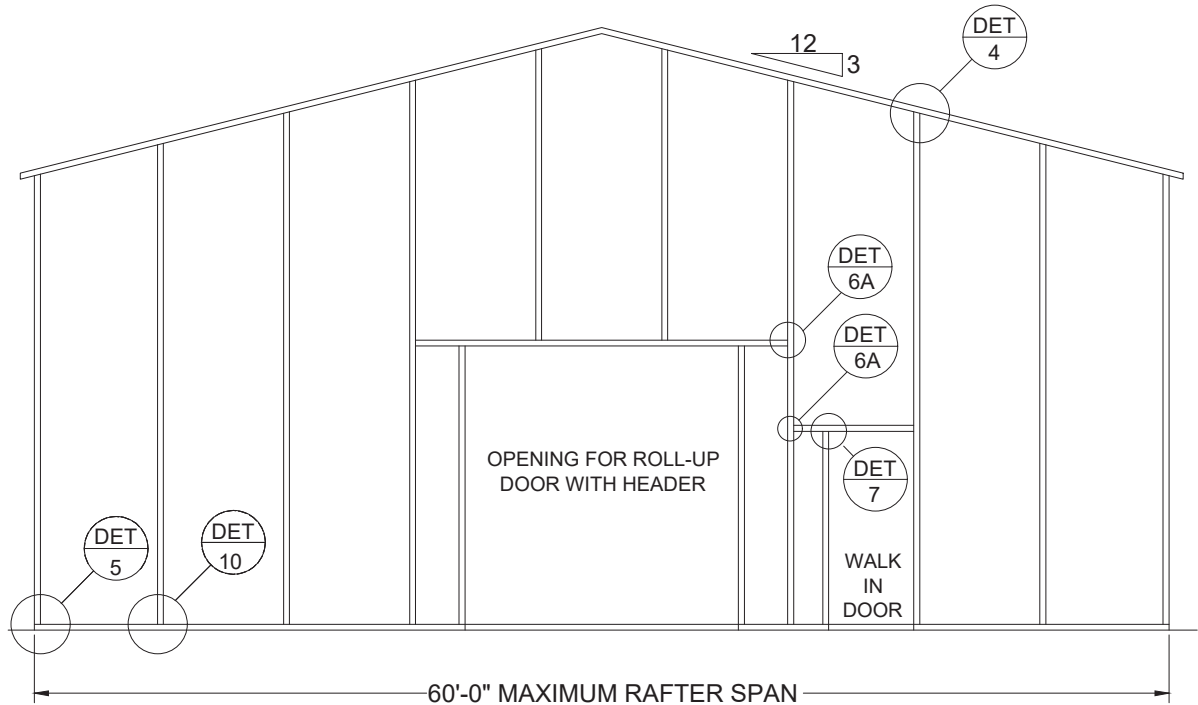
1. USE MINIMUM (2) 4" HELICES WITH 30" EMBEDMENT FOR THE FOLLOWING SOILS:
 - 1.1. VERY DENSE AND/OR CEMENTED SANDS
 - 1.2. COARSE GRAVEL AND COBBLES
 - 1.3. CALICHE
 - 1.4. PRELOADED SILTS AND CLAYS
 - 1.5. CORALS
 - 1.6. MEDIUM DENSE COARSE SANDS
 - 1.7. SANDY GRAVEL
 - 1.8. VERY STIFF SILTS AND CLAYS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



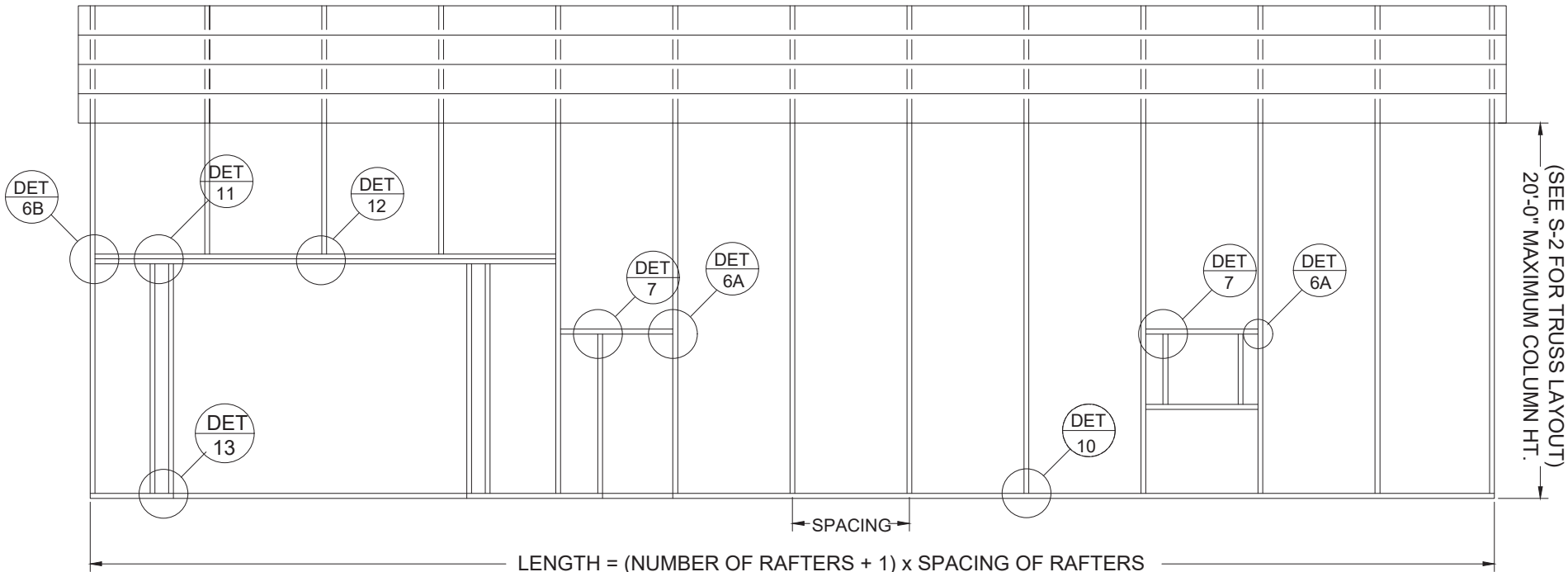
MONOLITHIC FOOTER SIZE	
110 C - 140 C	12" x 12" - (2) #4
ABOVE 140 C	16" x 16" - (2) #4



NO.	REVISIONS	DATE	DATE	SUBMITTALS	DATE	PREPARED BY	CLIENT	SHEET TITLE	PROJECT	SHEET NO.	
			2023-12-17			 ADAM COLLINS ENGINEERING INC. CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLENSENG.COM	ELITE METAL MANUFACTURING	BASE RAIL AND FOUNDATION ANCHORAGE		S-4	
			DRAWN	SM							SCALE
			DESIGNED	DMC							AS SHOWN
			CHECKED	ATC							
			JOB No.	22047							



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

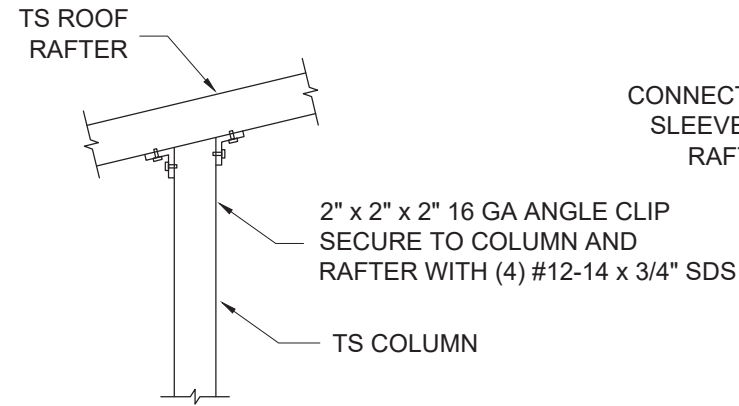


SPACING = 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 140 MPH
SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 140 MPH AND 180 MPH
TYPICAL BOX EAVE RAFTER SIDE FRAMING SECTION
SCALE: NTS

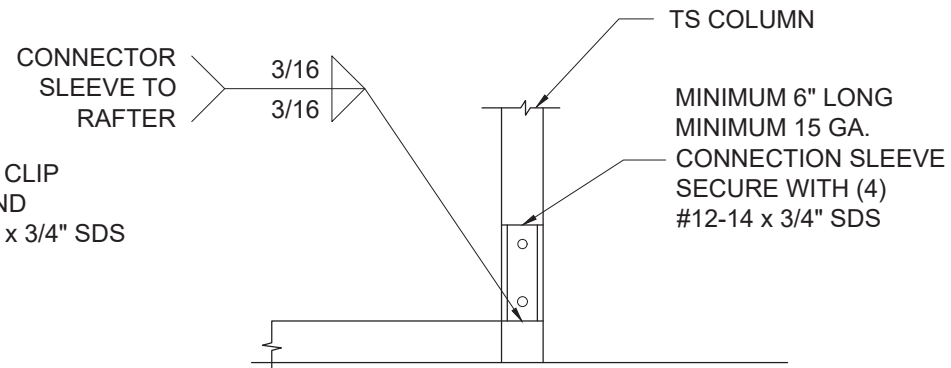
d:\ACE\ace - projects\elite-22047\Cadd\enclosed-building-60\enclosed 60x2015.dwg, USER: 12/6/2022 10:34 PM

NO.	REVISIONS	DATE	DATE	2023.01.17	SUBMITTALS	DATE	PREPARED BY	CLIENT	SHEET TITLE	PROJECT	SHEET NO.
			DRAWN	SM			 ADAM COLLINS ENGINEERING INC. CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM	ELITE METAL MANUFACTURING	BOX EAVE RAFTER END WALL, SIDE WALL AND OPENING FRAMING		S-5
			DESIGNED	DMC							SCALE
			CHECKED	ATC							AS SHOWN
			JOB No.	22047							

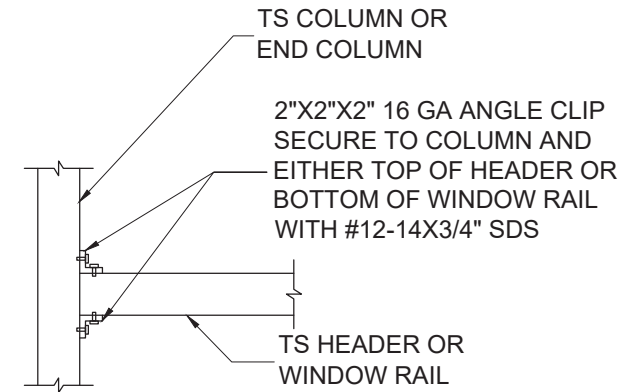
d:\ACE\ace - projects\elite-22047\Cadd\enclosed-building-60\enclosed 60x2016.dwg, USER: 12/6/2022 10:34 PM



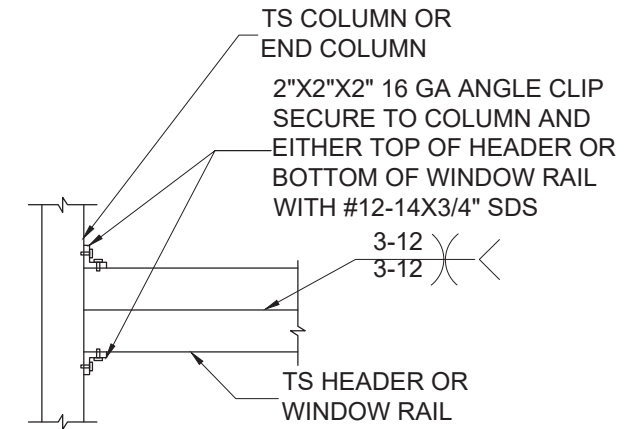
4 POST/RAFTER CONNECTION
SCALE: NTS



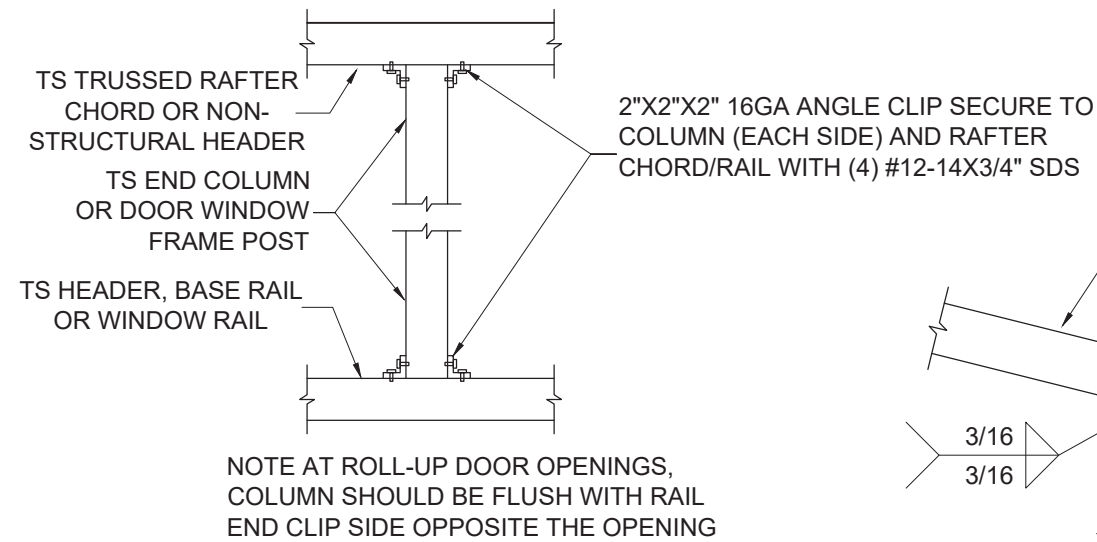
5 POST/BASE RAIL CONNECTION
SCALE: NTS



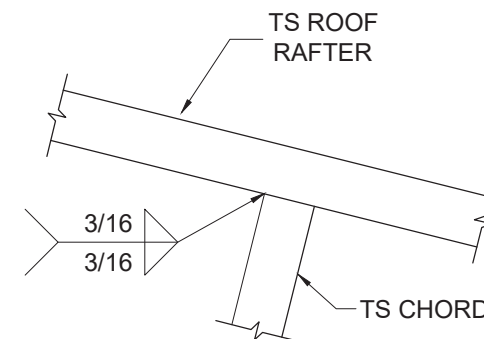
6A HEADER TO
POST CONNECTION
SCALE: NTS



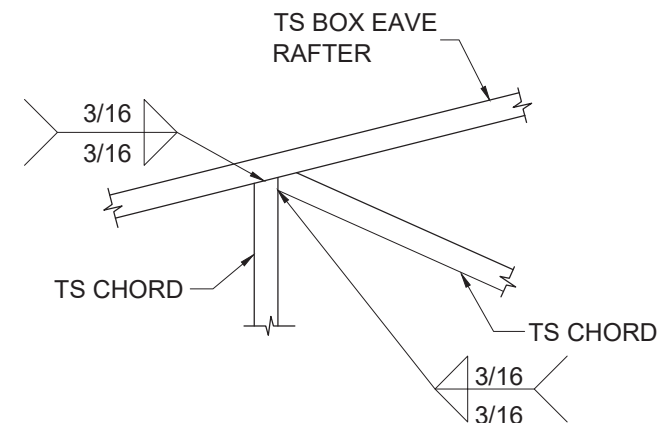
6B DOUBLE HEADER TO
POST CONNECTION
SCALE: NTS



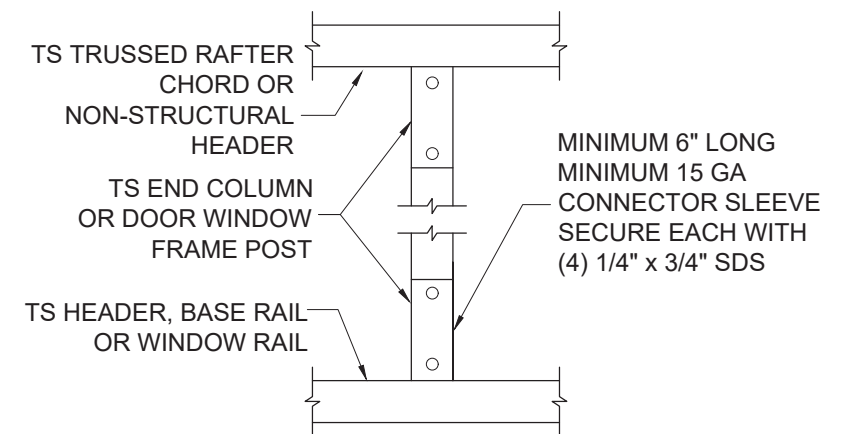
7 POST TO HEADER, BASE RAIL
OR WINDOW RAIL CONNECTION
SCALE: NTS



8 RAFTER TO CHORD CONNECTION
SCALE: NTS



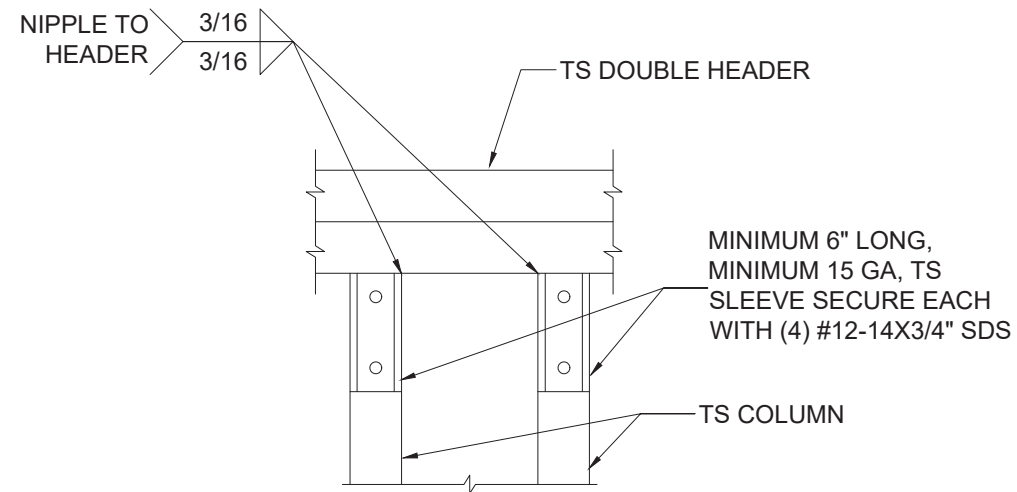
9 TRUSS POST AND CHORD
TO RAFTER CONNECTION
SCALE: NTS



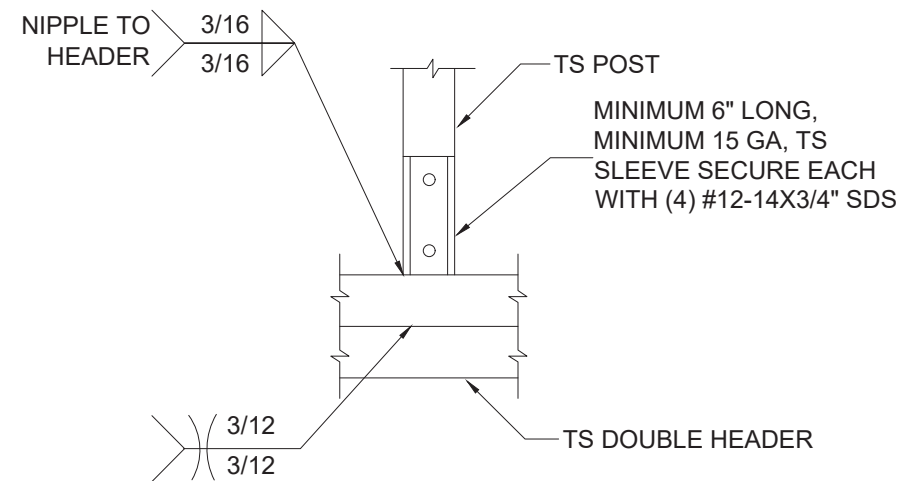
10 POST TO HEADER, BASE
RAIL CONNECTION
SCALE: NTS

NO.	REVISIONS	DATE	DATE	2023.01.17	SUBMITTALS	DATE	PREPARED BY	CLIENT	SHEET TITLE	PROJECT	SHEET NO.
			DRAWN	SM			 ADAM COLLINS ENGINEERING INC. CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM	ELITE METAL MANUFACTURING	CONNECTION DETAILS (2 OF 4)		S-6
			DESIGNED	DMC		SCALE					
			CHECKED	ATC		AS SHOWN					
			JOB No.	22047							

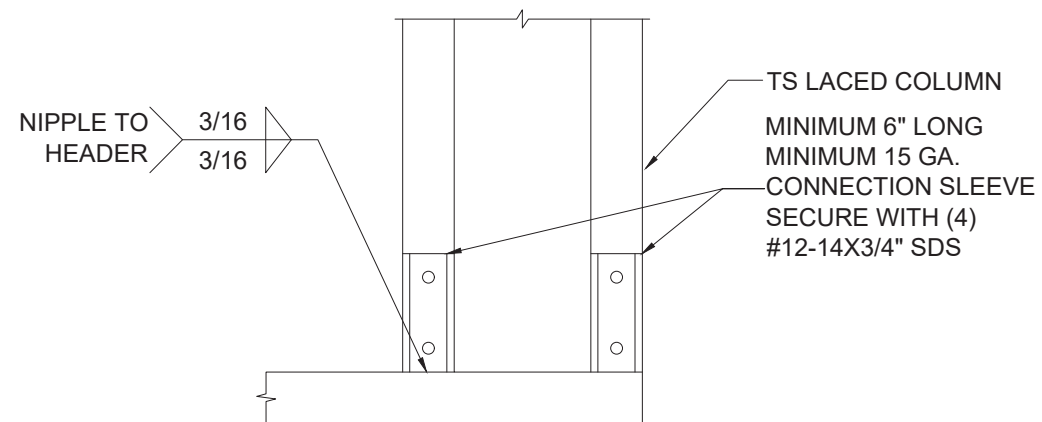
d:\ACE\ace - projects\elite-22047\Cadd\enclosed-building-60\enclosed 60x207.dwg, USER: 12/6/2022 10:34 PM



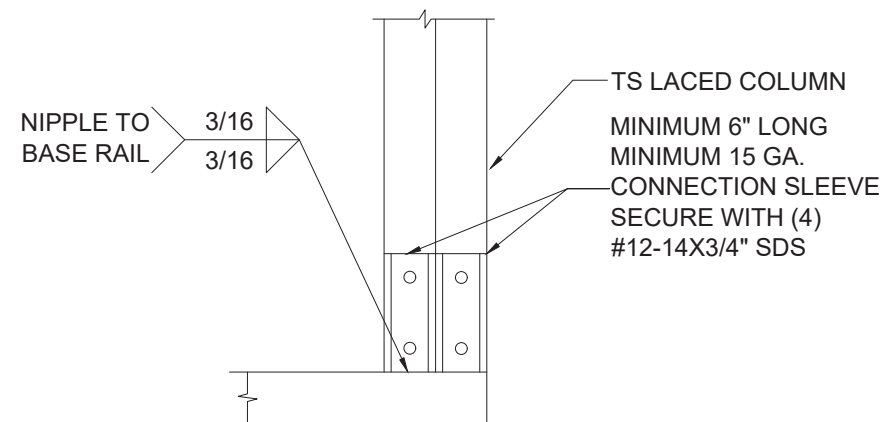
11 DOUBLE HEADER TO POST CONNECTION
SCALE: NTS



12 POST/DOUBLE HEADER CONNECTION
SCALE: NTS



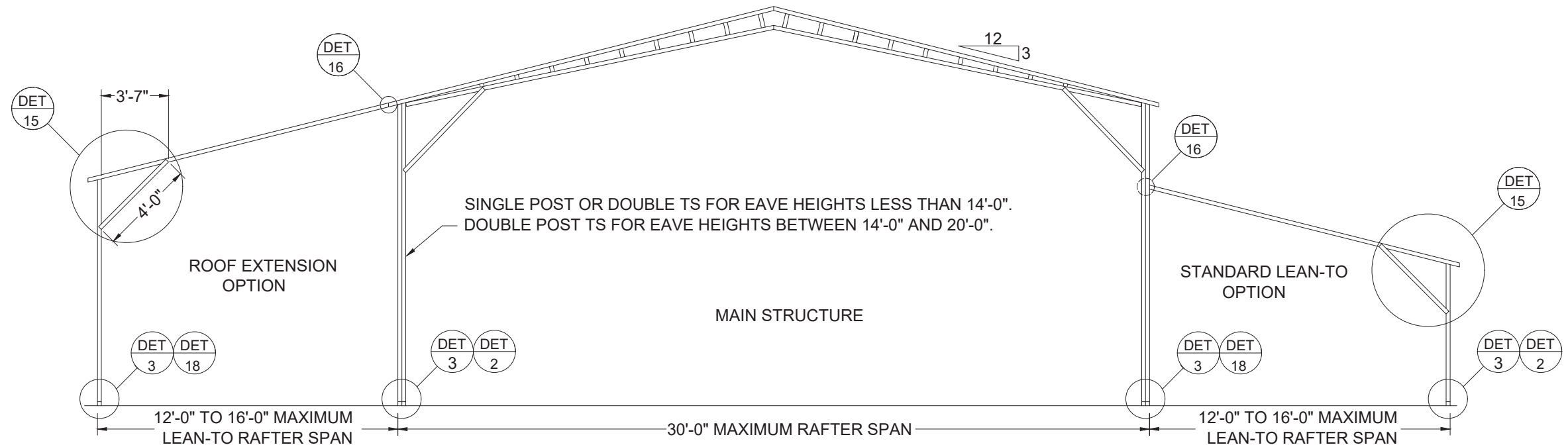
13A POST/BASE RAIL CONNECTION
SCALE: NTS



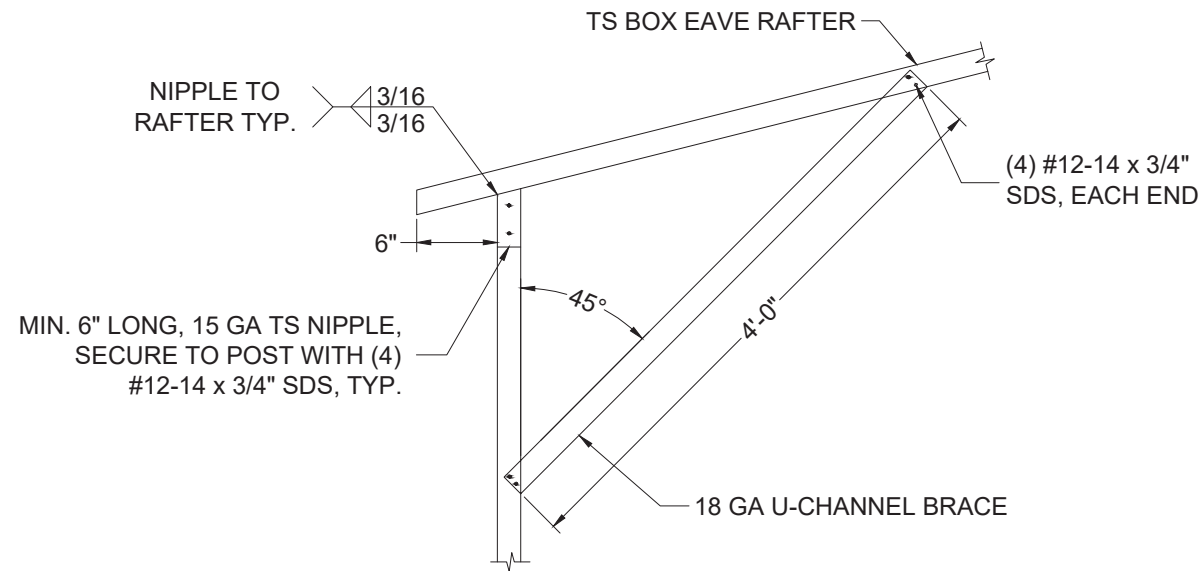
13B POST/BASE RAIL CONNECTION
SCALE: NTS

NO.	REVISIONS	DATE	DATE	2023.01.17	SUBMITTALS	DATE	PREPARED BY	CLIENT	SHEET TITLE	PROJECT	SHEET NO.
			DRAWN	SM			 ADAM COLLINS ENGINEERING INC. CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM	ELITE METAL MANUFACTURING	CONNECTION DETAILS (3 OF 4)		S-7
			DESIGNED	DMC							SCALE
			CHECKED	ATC							AS SHOWN
			JOB No.	22047							

d:\ACE\ace - projects\elite-22047\Cadd\enclosed-building-60\enclosed 60x208.dwg, USER: 12/6/2022 10:34 PM



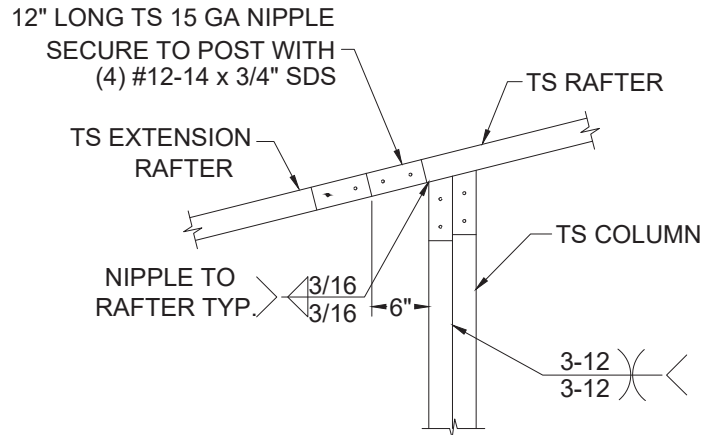
TYPICAL BOX EAVE RAFTER LEAN-TO OPTIONS FRAMING SECTION
SCALE: NTS



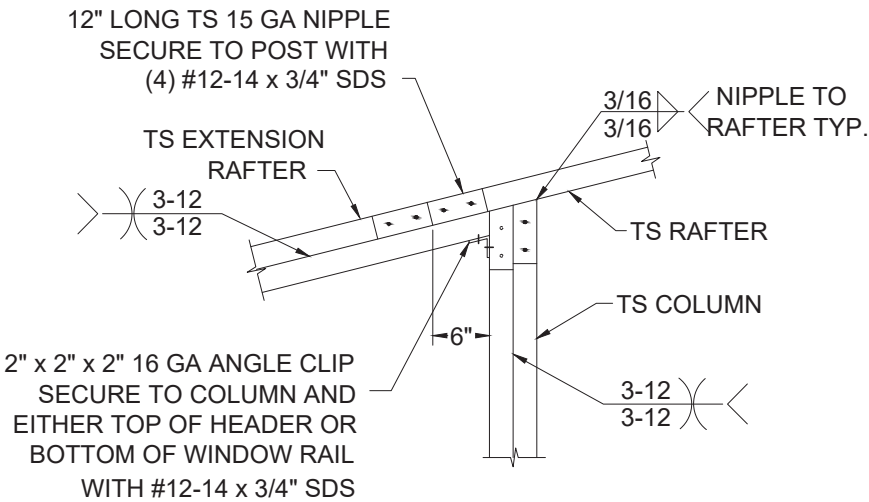
15 LEAN-TO RAFTER/CORNER POST CONNECTION
SCALE: NTS

NO.	REVISIONS	DATE	DATE	2023.01.17	SUBMITTALS	DATE	PREPARED BY	CLIENT	SHEET TITLE	PROJECT	SHEET NO.
			DRAWN	SM			 ADAM COLLINS ENGINEERING INC. CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM	ELITE METAL MANUFACTURING	BOX EAVE RAFTER LEAN TO OPTIONS		S-8
			DESIGNED	DMC		SCALE					
			CHECKED	ATC		AS SHOWN					
			JOB No.	22047							

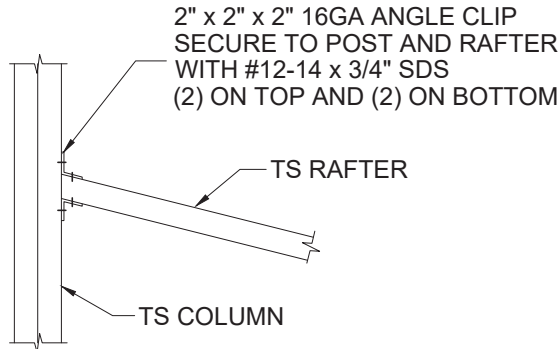
CONNECTION DETAILS



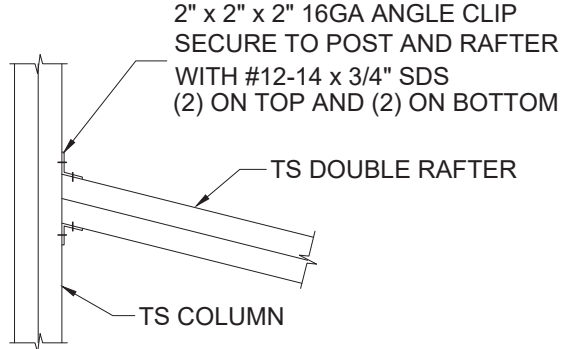
16A RAFTER SPAN LESS THAN 12'-0"
SCALE: NTS



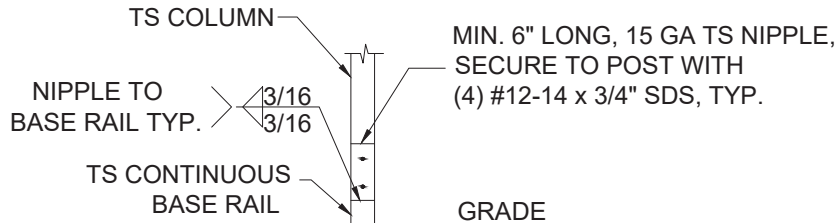
16B RAFTER SPAN BETWEEN 12'-0" AND 16'- 0"
SCALE: NTS



17A RAFTER SPAN LESS THAN 12'-0"
SCALE: NTS



17B RAFTER SPAN BETWEEN 12'-0" AND 16'-0"
SCALE: NTS



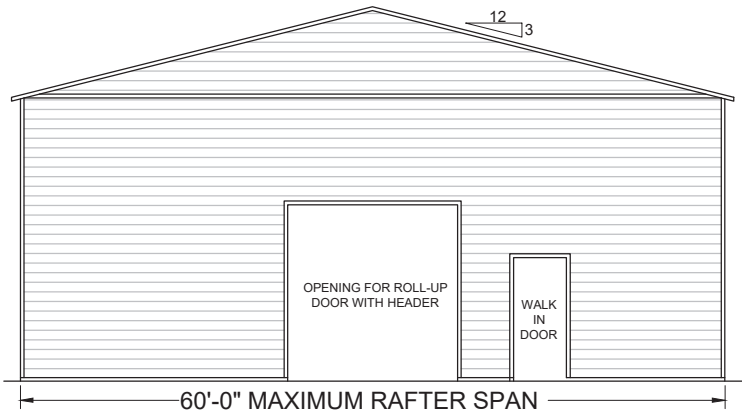
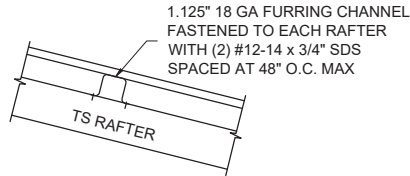
18 LEAN-TO POST CONNECTION
SCALE: NTS

COLUMN TO BE DOUBLE TS FOR EAVE HEIGHTS BETWEEN 6'-0" AND 16'-0".
COLUMN TO BE LACED TS FOR EAVE HEIGHTS BETWEEN 15'-0" AND 20'-0".

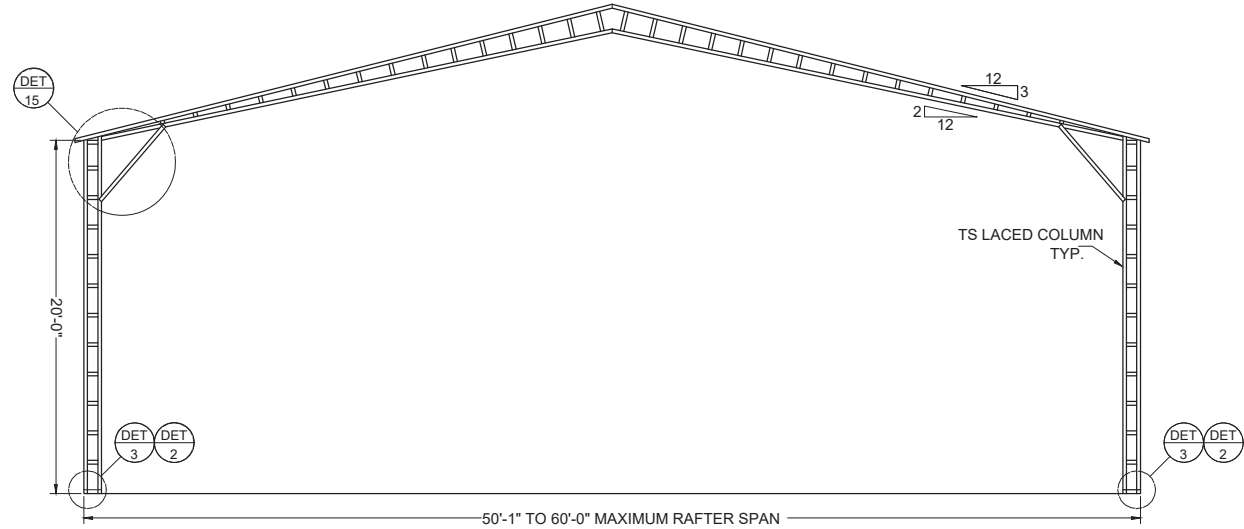
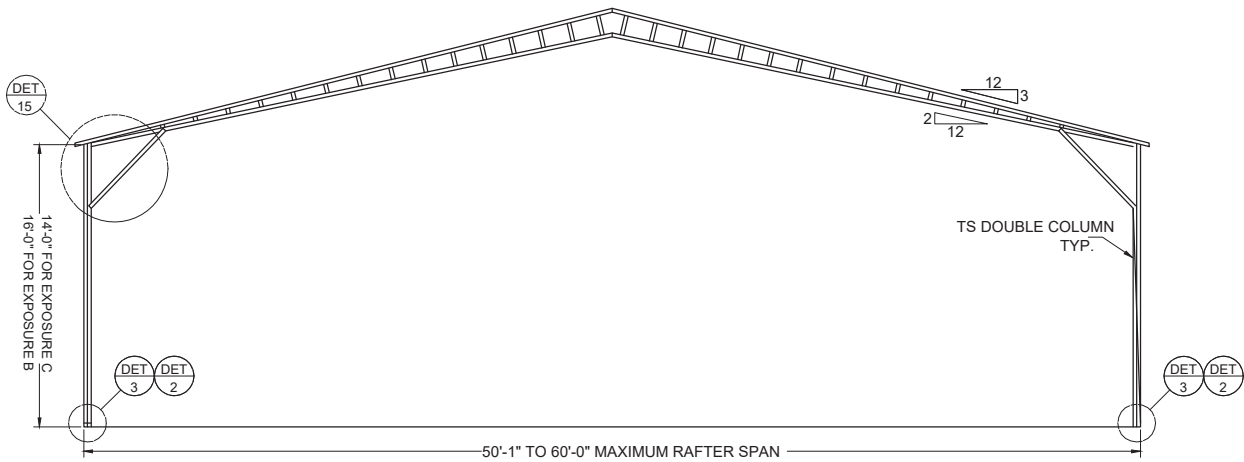
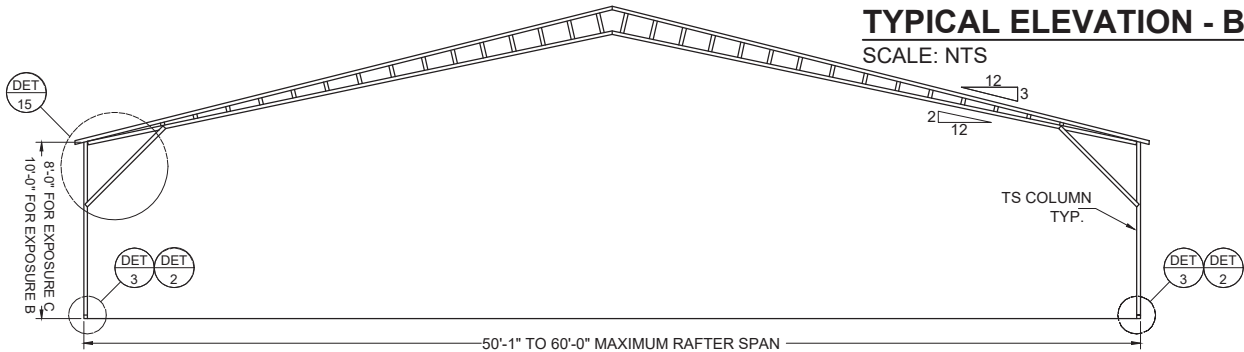
NO.	REVISIONS	DATE	DATE	2023.01.17	SUBMITTALS	DATE	PREPARED BY	CLIENT	SHEET TITLE	PROJECT	SHEET NO.
			DRAWN	SM			 ADAM COLLINS ENGINEERING INC. CA# 31728 ~ P. 386.320.7400 ~ WWW.COLLINSENG.COM	ELITE METAL MANUFACTURING	CONNECTION DETAILS (4 OF 4)		S-9
			DESIGNED	DMC		SCALE					
			CHECKED	ATC		AS SHOWN					
			JOB No.	22047							

D:\ACE\ACE - PROJECTS\Elite-22047\Cadd\Enclosed-Building-60x20x10.dwg, USER: 12/14/2022 10:57 PM, PLOT DATE: 12/14/2022 10:57 AM, PLOT BY: JAC, PLOT SCALE: 1/8"=1'-0", PLOT SHEET: 10 OF 10, PLOT STATUS: OK, PLOT MESSAGE: OK

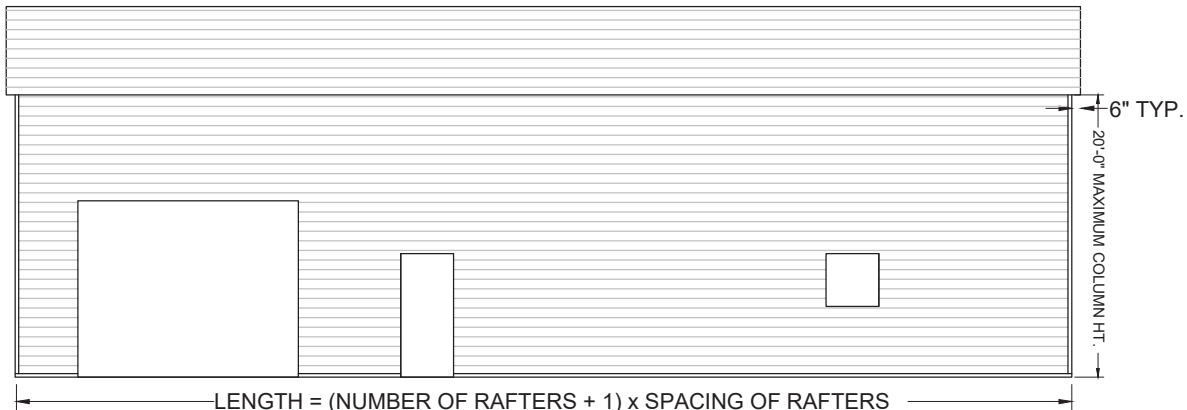
PANEL ATTACHMENT
(ALTERNATE FOR VERTICAL ROOF PANELS)
SCALE: NTS



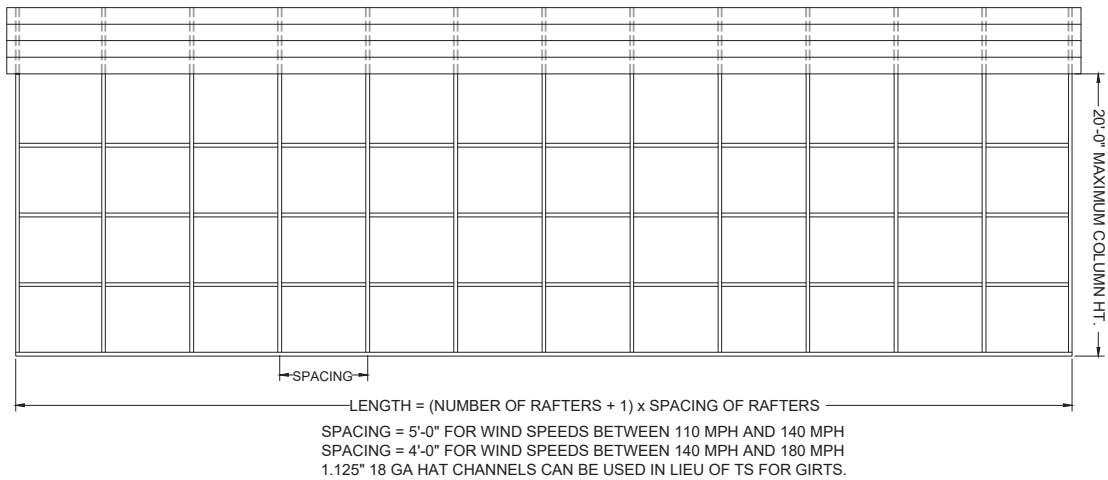
TYPICAL ELEVATION - BOX EAVE
SCALE: NTS



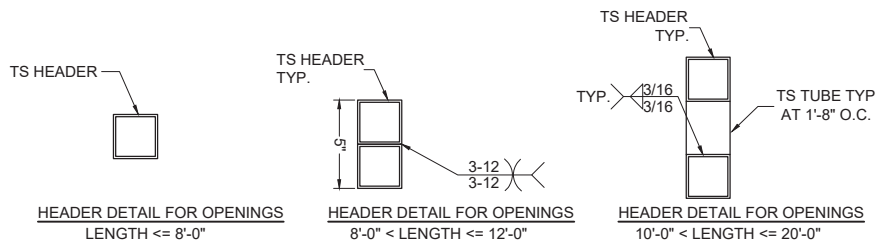
BOX EAVE FRAME
SCALE: NTS



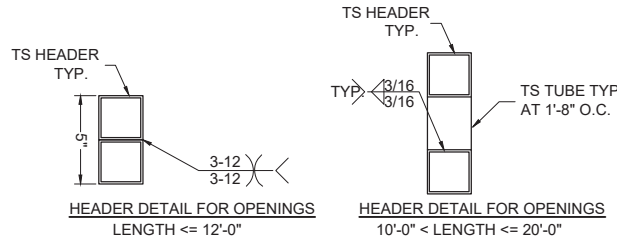
TYPICAL SIDE ELEVATION
SCALE: NTS



TYPICAL SIDE FRAME SECTION
SCALE: NTS



SIDE WALL OPTION HEADER
SCALE: NTS



END WALL OPTION HEADER

NO.	REVISIONS	DATE	DATE	2023.01.17	SUBMITTALS	DATE	PREPARED BY	CLIENT	SHEET TITLE	PROJECT	SHEET NO.
			DRAWN	SM			 ADAM COLLINS ENGINEERING INC. CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM	ELITE METAL MANUFACTURING	BOX EAVE RAFTER VERTICAL ROOF-SIDING OPTION		S-10
			DESIGNED	DMC		SCALE					
			CHECKED	ATC		AS SHOWN					
			JOB No.	22047							

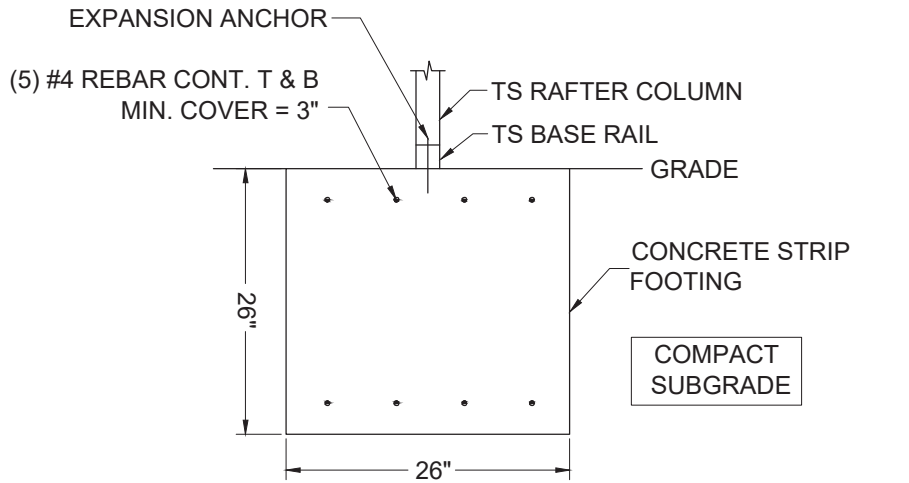
GENERAL NOTES

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

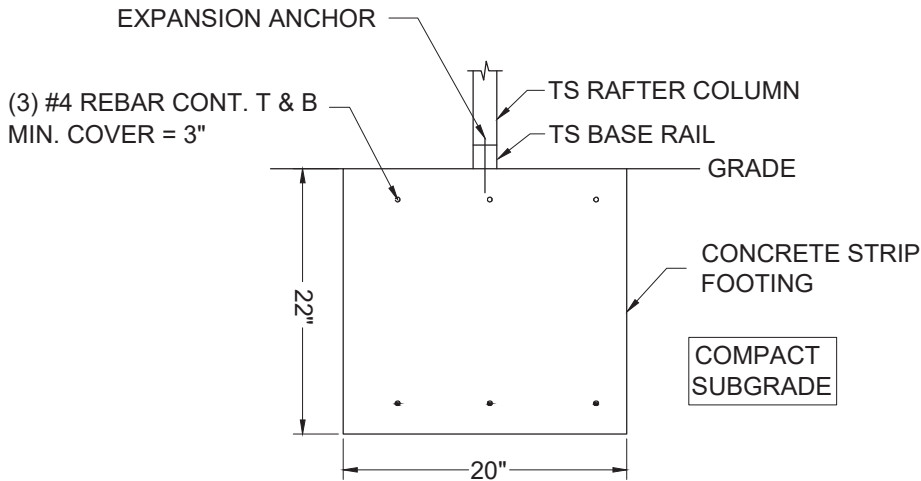
REINFORCING STEEL

- 1. REBAR SHALL BE ASTM A615 GRADE 60
- 2. SLAB REINFORCEMENT = WELDED WIRE FABRIC PER ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT
- 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.

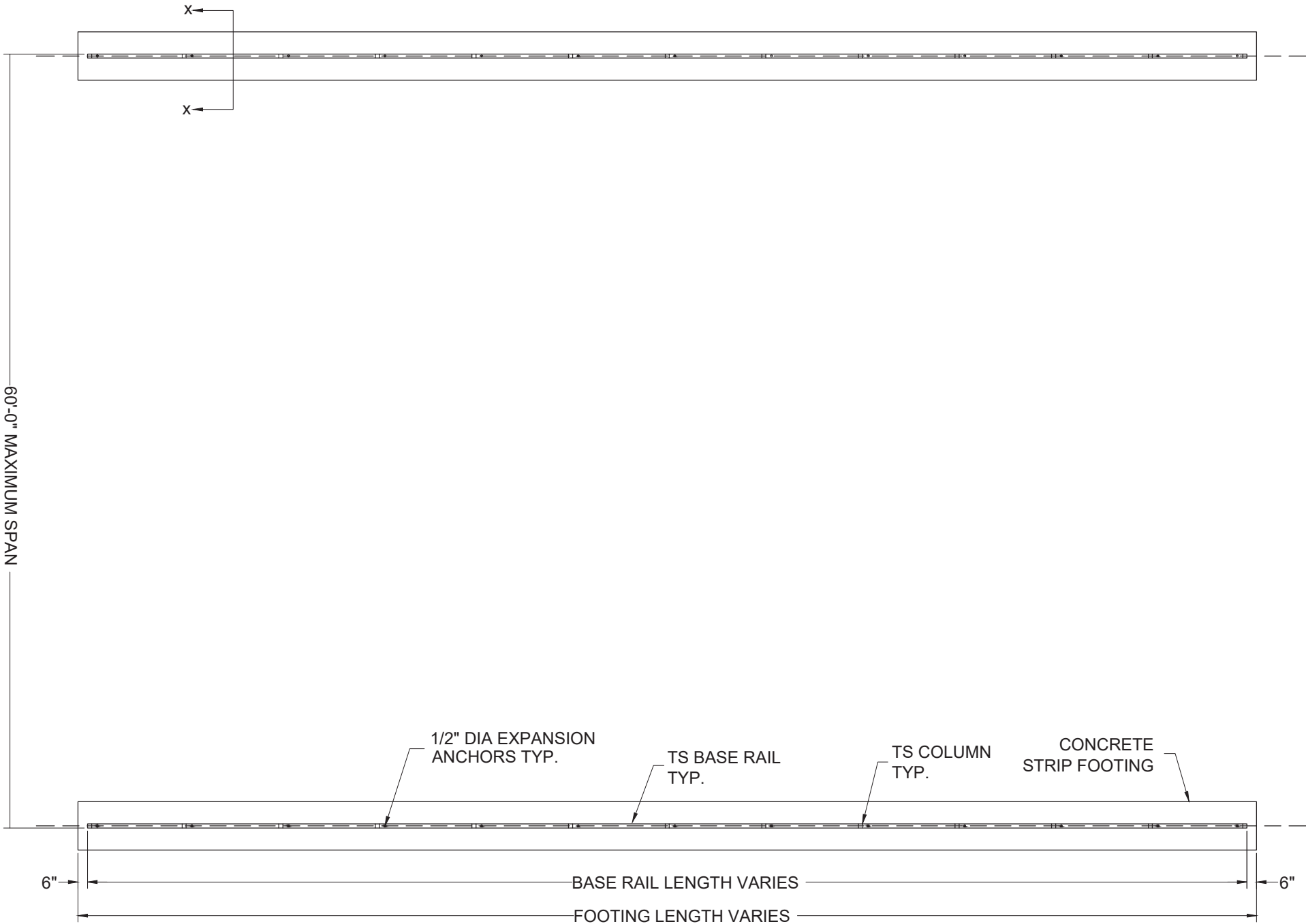
STRIP FOOTER SIZE	
110 C - 140 C	20"X22"
ABOVE 140 C	26"X26"



SECTION X-X
SCALE: NTS



SECTION X-X
SCALE: NTS



CONCRETE STRIP FOOTING PLAN
SCALE: NTS

d:\ACE\ace - projects\elite-22047\Cadd\enclosed-building-60\enclosed 60x20\11.dwg, USER: 12/6/2022 10:34 PM

NO.	REVISIONS	DATE	DATE	2023.01.17	SUBMITTALS	DATE	PREPARED BY	CLIENT	SHEET TITLE	PROJECT	SHEET NO.
			DRAWN	SM			CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM ADAM COLLINS ENGINEERING INC.	ELITE METAL MANUFACTURING	OPTIONAL CONCRETE STRIP FOOTING		S-11
			DESIGNED	DMC							SCALE
			CHECKED	ATC							AS SHOWN
			JOB No.	22047							

HELIX ANCHOR NOTES

1. USE MINIMUM (2) 4" HELICES WITH 30" EMBEDMENT FOR THE FOLLOWING SOILS:
- 1.1. VERY DENSE AND/OR CEMENTED SANDS

1.2. COARSE GRAVEL AND COBBLES

1.3. CALICHE

1.4. PRELOADED SILTS AND CLAYS

1.5. CORALS

1.6. MEDIUM DENSE COARSE SANDS

1.7. SANDY GRAVEL

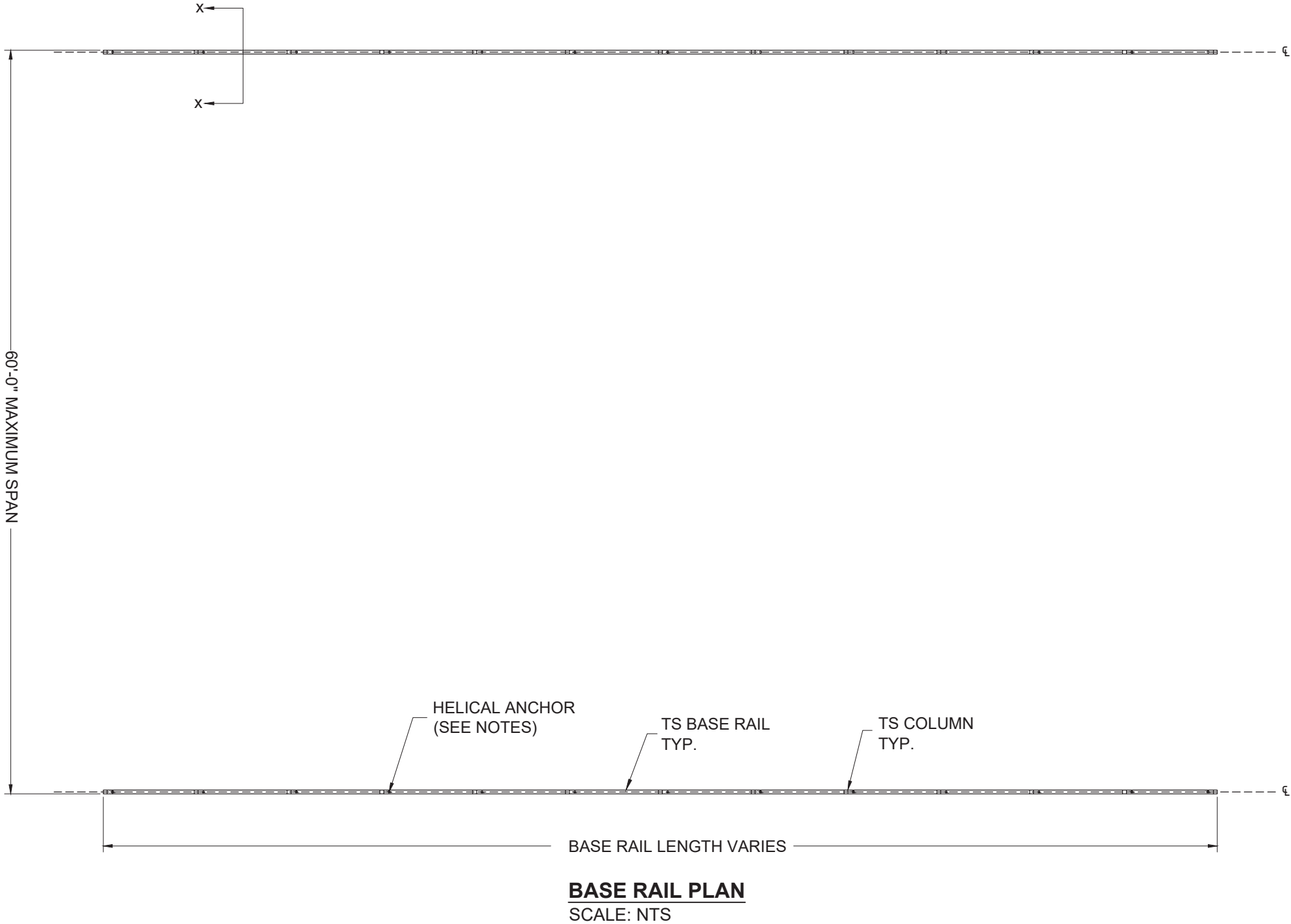
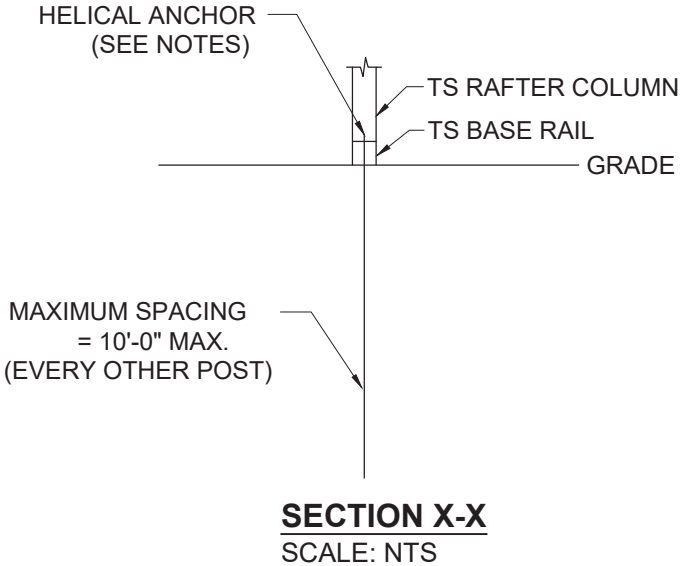
1.8. VERY STIFF SILTS AND CLAYS
2. USE MINIMUM (2) 6" HELICES WITH MINIMUM 50" EMBEDMENT FOR
- 2.1. LOOSE TO MEDIUM DENSE SANDS

2.2. FIRM TO STIFF CLAYS AND SILTS

2.3. ALLUVIAL FILL
3. USE MINIMUM (2) 8" HELICES WITH MINIMUM 60" EMBEDMENT.
- 3.1. FOR VERY LOOSE TO MEDIUM DENSE SANDS

3.2. FIRM TO STIFFER CLAYS AND SILTS

3.3. ALLUVIAL FILL,



d:\ACE\ace - projects\elite-22047\Cadd\enclosed-building-60\enclosed 60x20\12.dwg, USER, 12/6/2022 10:34 PM

NO.		REVISIONS		DATE		DATE		SUBMITTALS		DATE		PREPARED BY		CLIENT		SHEET TITLE		PROJECT		SHEET NO.	
																					S-12
																					SCALE
																					AS SHOWN

CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM

AC

ADAM COLLINS

ENGINEERING INC.

ELITE METAL
MANUFACTURING

OPTIONAL HELICAL
ANCHORING DETAIL