



## **STRUCTURAL DESIGN**

## **ENCLOSED BUILDING**

**MAXIMUM 40'-0" WIDE X 20'-0" EAVE HEIGHT-  
BOX EAVE FRAME**

**17 April 2020**

**Revision 9**

**M&A Project No.**

**15130S/15207S/15209S/16155S/16207S/17155S/17200S/18068S/18290S/20019S**

**Prepared for:**

**Steel Building Structures, Inc.**

**P.O. Box 1287**

**Mt. Airy, NC 27030**

**Prepared by:**

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**Mt. Airy, NC 27030**



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING**

		<p>I HAVE RESEARCHED THIS CHAPTER AND THE LOUISIANA STATE UNIFORM CONSTRUCTION CODE AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, THESE DRAWINGS ARE IN COMPLIANCE THEREWITH. I TAKE FULL RESPONSIBILITY FOR THE CONTENTS OF THESE PLANS.</p>	

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CHECKED BY: PDH

PROJECT MGR: WSH

CLIENT: SBSI

STEEL BUILDING AND STRUCTURES INC.  
PE COVER SHEET  
40'-0"x20'-0" ENCLOSED BUILDING

DATE: 4-17-20

SHT. 1

SCALE: NTS


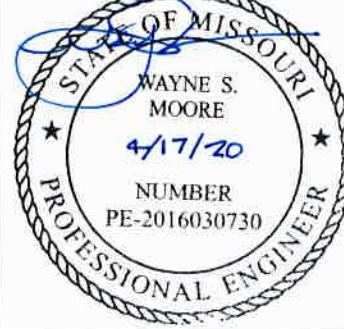




DWG. NO: SK-3

JOB NO: 17200S

18068S/18290S/20019S

REV: 9

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	<p><b>Professional Certification.</b> I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 49744, Expiration Date 6/6/20</p>		
			
			
			
			

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		<p><b>CHECKED BY: PDH</b></p>						<p><b>PROJECT MGR: WSM</b></p>	
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				<p><b>SHT. 1A</b></p>		<p><b>DWG. NO: SK-3</b></p>		<p><b>REV: 9</b></p>	

## DRAWING INDEX

SHEET 1	PE SEAL COVER SHEET (1 OF 2)
SHEET 1A	PE SEAL COVER SHEET (2 OF 2)
SHEET 2	DRAWING INDEX
SHEET 3	INSTALLATION NOTES AND SPECIFICATIONS
SHEET 4	TYPICAL END ELEVATION
SHEET 4A	TYPICAL SIDE ELEVATION
SHEET 5	TYPICAL RAFTER/POST FRAME AND SIDE FRAMING SECTIONS (SINGLE COLUMN)
SHEET 5A	TYPICAL RAFTER/POST FRAME AND SIDE FRAMING SECTIONS (DOUBLE COLUMN)
SHEET 5B	TYPICAL RAFTER/POST FRAME AND SIDE FRAMING SECTIONS (LACED COLUMN)
SHEET 6	TYPICAL RAFTER/POST CONNECTION DETAILS (SINGLE COLUMN)
SHEET 6A	TYPICAL RAFTER/POST CONNECTION DETAILS (DOUBLE COLUMN)
SHEET 6B	TYPICAL RAFTER/POST CONNECTION DETAILS (LACED COLUMN)
SHEET 7	BASE RAIL ANCHORAGE
SHEET 7A	ADDITIONAL BASE RAIL ANCHORAGE OPTION
SHEET 8	TYPICAL ENDWALL FRAMING SECTIONS
SHEET 8A	TYPICAL ENDWALL OPENING FRAMING SECTIONS
SHEET 8B	TYPICAL SIDEWALL OPENING FRAMING SECTIONS
SHEET 9	CONNECTION DETAILS
SHEET 10	CONNECTION DETAILS
SHEET 11	LEAN-TO OPTIONS
SHEET 11A	LEAN-TO OPTIONS
SHEET 11B	LEAN-TO OPTIONS
SHEET 11C	LEAN-TO OPTIONS
SHEET 12	VERTICAL ROOF/SIDING OPTION END ELEVATION
SHEET 12A	VERTICAL ROOF/SIDING OPTION SIDE ELEVATION
SHEET 13	VERTICAL ROOF/SIDING OPTION SECTION
SHEET 13A	VERTICAL ROOF/SIDING OPTION SIDE FRAMING
SHEET 14	OPTIONAL BASE RAIL ON GRADE APPLICATION
SHEET 15	OPTIONAL BASE RAIL ON TIMBER BEAM
SHEET 16	OPTIONAL BASE RAIL ON TIMBER BEAM WITH SOIL NAIL
SHEET 17	OPTIONAL CONCRETE STRIP FOOTING
SHEET 18	SIDEWALL AND ENDWALL HEADER OPTIONS

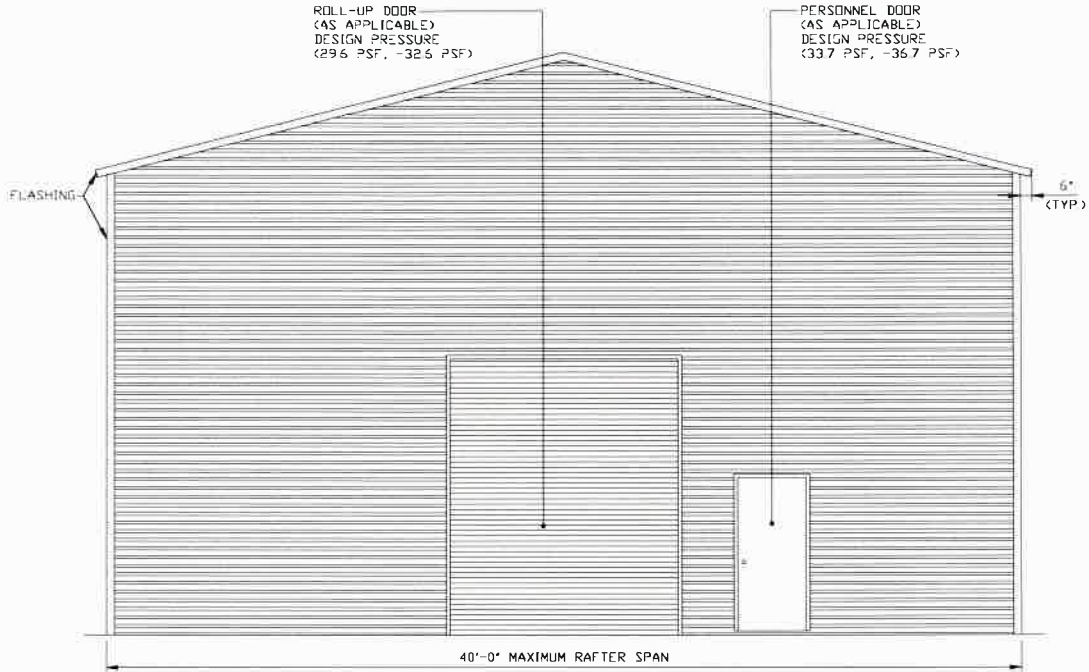
<b>MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.</b>	DRAWN BY: LT	STEEL BUILDING AND STRUCTURES INC. P.O. BOX 1287, MOUNT AIRY, NC 27030 40'-0" x 20'-0" ENCLOSED BUILDING		
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## INSTALLATION NOTES AND SPECIFICATIONS

- 1 DESIGN IS FOR A MAXIMUM 40'-0" WIDE x 20'-0" EAVE HEIGHT ENCLOSED STRUCTURES
- 2 DESIGN WAS DONE IN ACCORDANCE WITH THE 2017 FLORIDA BUILDING CODE (FBC) 6TH EDITION, 2018 NORTH CAROLINA BUILDING CODE, 2006 INTERNATIONAL BUILDING CODE (IBC), 2009 IBC, 2012 IBC, 2015 IBC AND 2018 IBC
- 3 DESIGN LOADS ARE AS FOLLOWS:
  - A) DEAD LOAD = 15 PSF
  - B) ROOF LIVE LOAD = 12 PSF
  - C) GROUND SNOW LOAD = 35 PSF
 NOTE: (UNBALANCED SNOW LOADS DUE TO DRIFTING HAVE NOT BEEN EVALUATED.)
- 4 3-SECOND GUST ULTIMATE WIND SPEED = 105 TO 140 MPH (NOMINAL WIND SPEED = 81 TO 108 MPH)
- 5 MAXIMUM RAFTER/COLUMN AND END COLUMN SPACING = 50 FEET (UNLESS NOTED OTHERWISE)
- 6 END WALL COLUMNS (POSTS) ARE EQUIVALENT TO SIDE WALL POSTS IN SIZE AND SPACING (UNLESS NOTED OTHERWISE)
- 7 LOW HAZARD RISK CATEGORY I (WIND)
- 8 WIND EXPOSURE CATEGORY B
- 9 SPECIFICATIONS APPLICABLE TO 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/2" x 2 1/2" - 14 GAUGE STEEL TUBE FRAMING MEMBERS (UNLESS NOTED OTHERWISE).
- 10 AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS (INTERIOR OR END) = 8 INCHES
- 11 FASTENERS CONSIST OF 1/4"x3/4" SELF-DRILLING FASTENERS 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. ROOF SLOPES LESS THAN 3:12 REQUIRE USE OF LAP JOINT SEALANT.
- 12 ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL WITHIN 6" OF EACH COLUMN.
- 13 STANDARD GROUND ANCHORS (SOIL NAILS) CONSIST OF #4 REBAR W/ WELDED NUT x 36" LONG AND MAY BE USED IN SUITABLE SOILS. OPTIONAL ANCHORAGE MAY USED IN SUITABLE SOILS AND MUST BE USED IN UNSUITABLE SOILS AS NOTED.
- 14 WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE:
  - SOIL SITE CLASS = D
  - RISK CATEGORY I/II/III
  - R= 3.25
  - S<sub>DS</sub>= 2.039 g
  - S<sub>DI</sub>= 1.258 g
  - I<sub>E</sub>= 10
  - V= C<sub>s</sub>W
- 15 WINDOW AND DOOR DESIGN PRESSURES ARE APPLICABLE TO THE STATE OF FLORIDA ONLY

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**BOX EAVE FRAME RAFTER ENCLOSED BUILDING**



**TYPICAL END ELEVATION-HORIZONTAL ROOF**  
SCALE: NTS

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**DATE: 4-17-20**

**SHT. 4**

**SCALE: NTS**

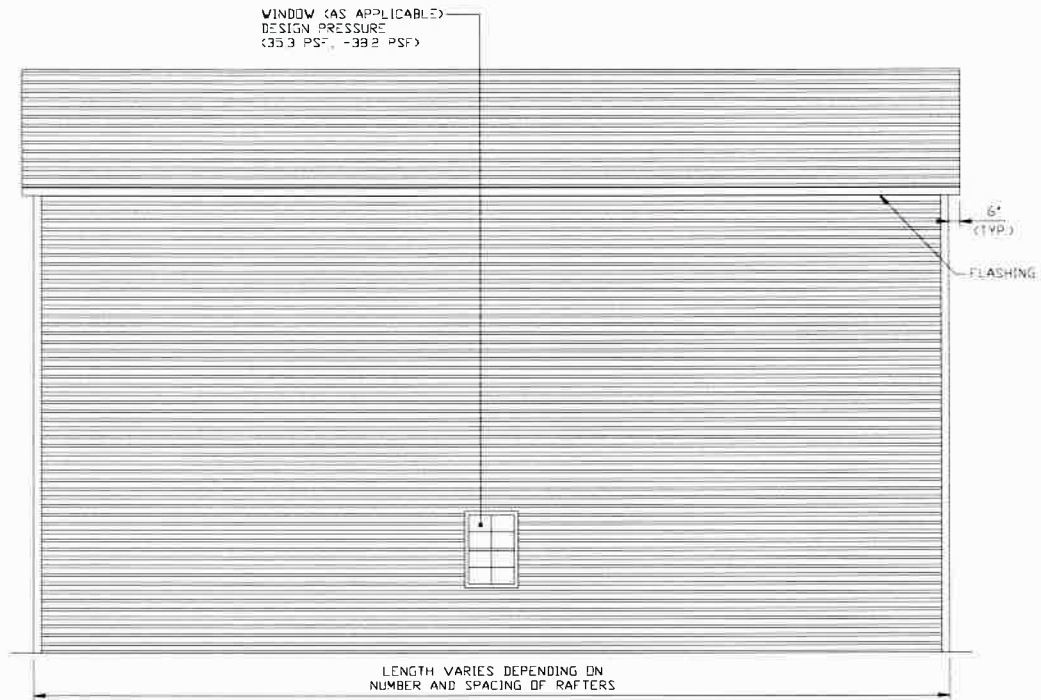
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BOX EAVE FRAME RAFTER ENCLOSED BUILDING



**TYPICAL SIDE ELEVATION-HORIZONTAL ROOF**  
SCALE: NTS

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SCALE: NTS

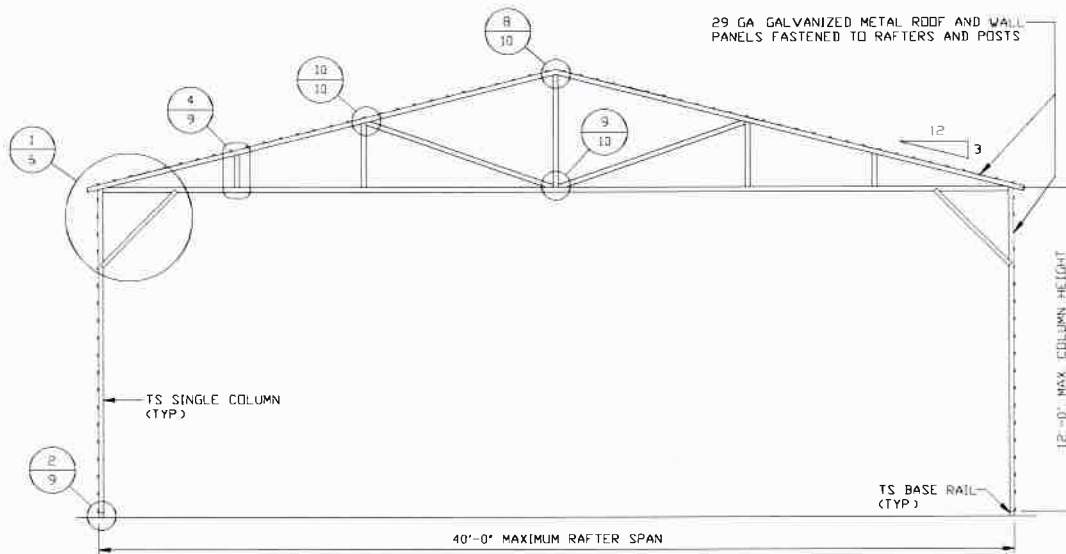
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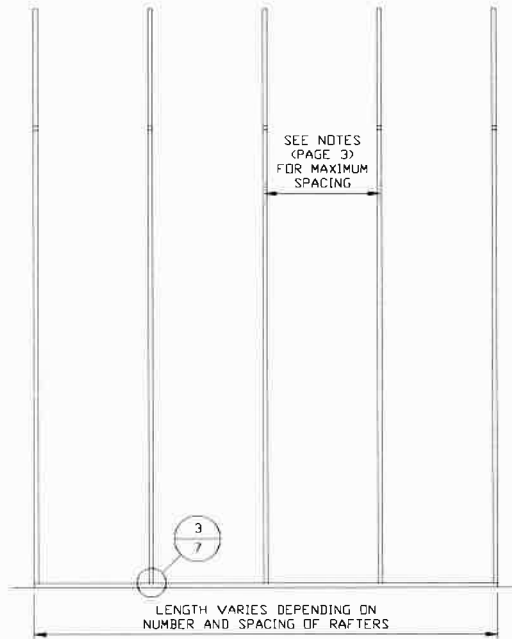
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**TYPICAL RAFTER/POST FRAME SECTION (H ≤ 12'-0")**  
SCALE: NTS



**TYPICAL RAFTER/POST SIDE FRAMING SECTION**  
SCALE: NTS

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**SHT. 5**

**SCALE: NTS**

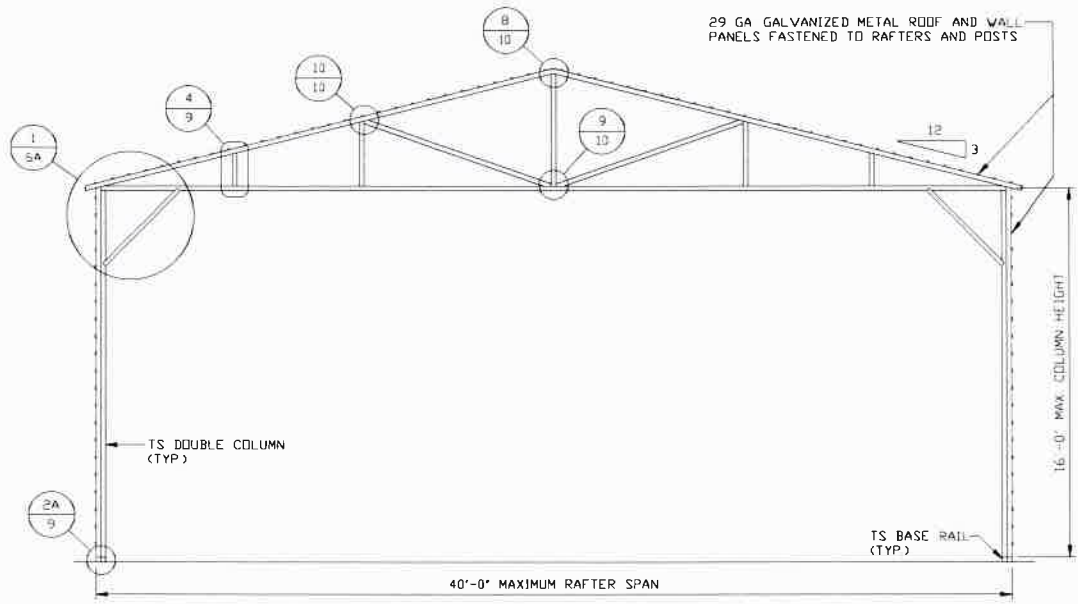
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**JOB NO: 17200S  
18068S/18290S/20019S**

**REV: 9**

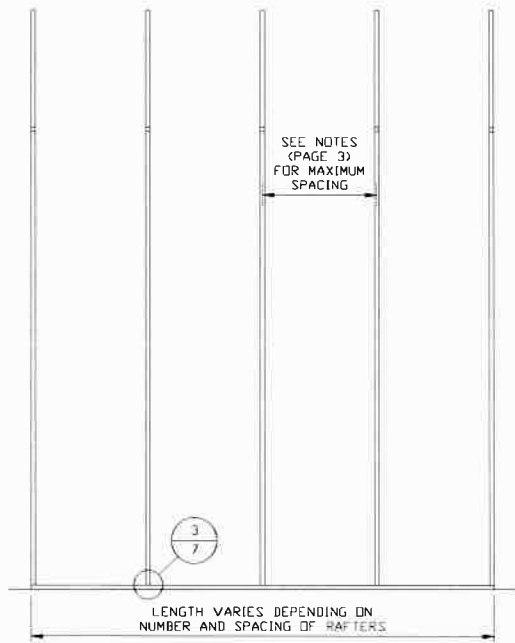
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**TYPICAL RAFTER/POST FRAME SECTION (12'-0" < H ≤ 16'-0")**

SCALE: NTS



**TYPICAL RAFTER/POST SIDE FRAMING SECTION**

SCALE: NTS

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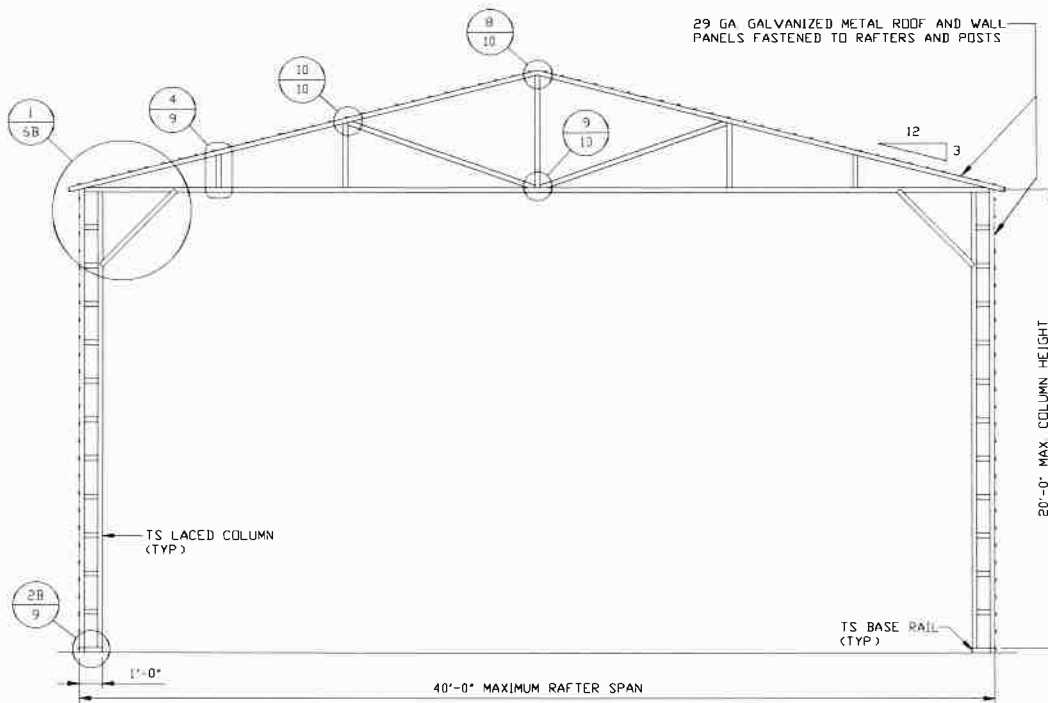
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**DWG. NO: SK-3**

**JOB NO: 17200S  
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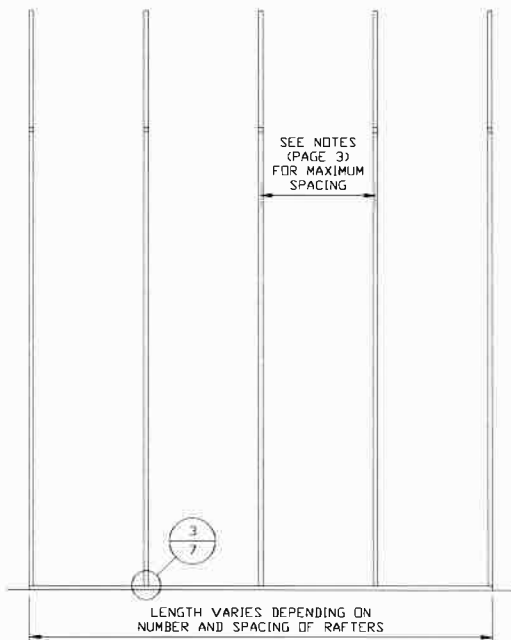
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**TYPICAL RAFTER/POST FRAME SECTION (16'-0" < H ≤ 20'-0")**

SCALE: NTS



**TYPICAL RAFTER/POST SIDE FRAMING SECTION**

SCALE: NTS

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**SHT. 5B**

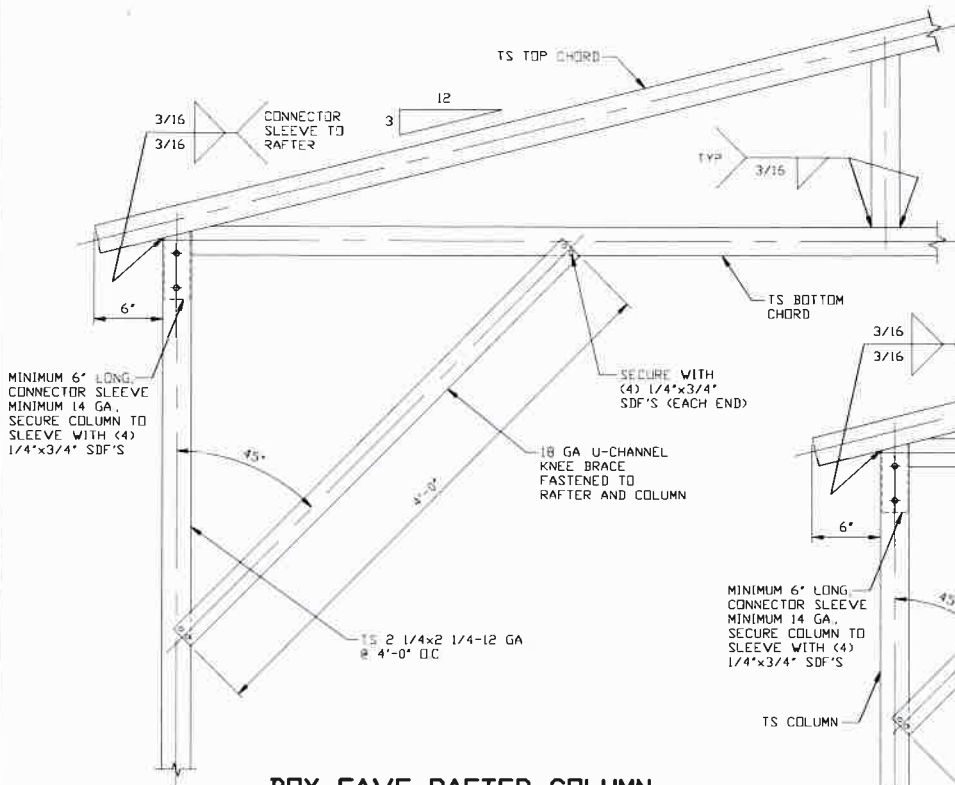
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MINIMUM 6" LONG  
CONNECTOR SLEEVE  
MINIMUM 14 GA.  
SECURE COLUMN TO  
SLEEVE WITH (4)  
1/4"x3/4" SDF'S

SECURE WITH  
(4) 1/4"x3/4"  
SDF'S (EACH END)

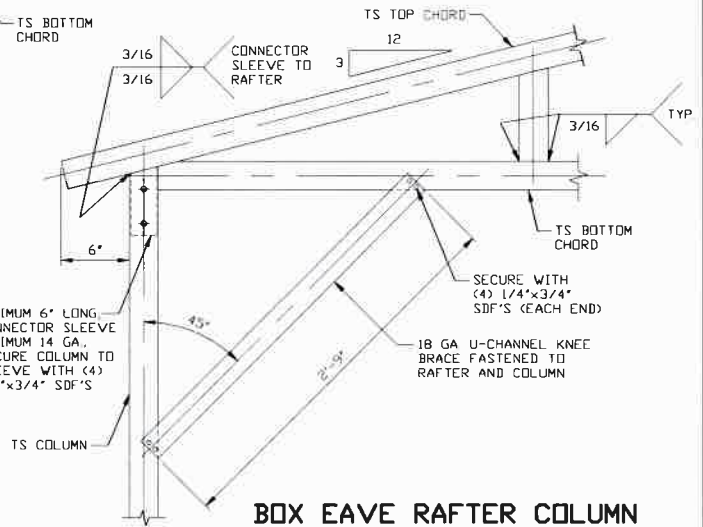
18 GA U-CHANNEL  
KNEE BRACE  
FASTENED TO  
RAFTER AND COLUMN

TS 2 1/4x2 1/4-12 GA  
@ 4'-0" O.C.

1

**BOX EAVE RAFTER COLUMN  
CONNECTION DETAIL FOR  
HEIGHTS 8'-0" < TO <= 12'-0"**

SCALE: NTS



MINIMUM 6" LONG  
CONNECTOR SLEEVE  
MINIMUM 14 GA.  
SECURE COLUMN TO  
SLEEVE WITH (4)  
1/4"x3/4" SDF'S

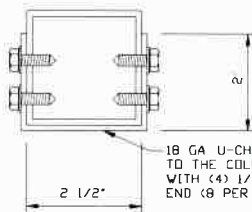
SECURE WITH  
(4) 1/4"x3/4"  
SDF'S (EACH END)

18 GA U-CHANNEL  
KNEE BRACE  
FASTENED TO  
RAFTER AND COLUMN

1A

**BOX EAVE RAFTER COLUMN  
CONNECTION DETAIL FOR  
HEIGHTS <= 8'-0"**

SCALE: NTS



18 GA U-CHANNEL BRACE FASTENED  
TO THE COLUMN AND ROOF BEAM,  
WITH (4) 1/4"x3/4" SDF'S AT EACH  
END (8 PER BRACE)

**BRACE SECTION**

SCALE: NTS

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**PROJECT MGR: WSM**

**CLIENT: SBSI**

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**SHT. 6**

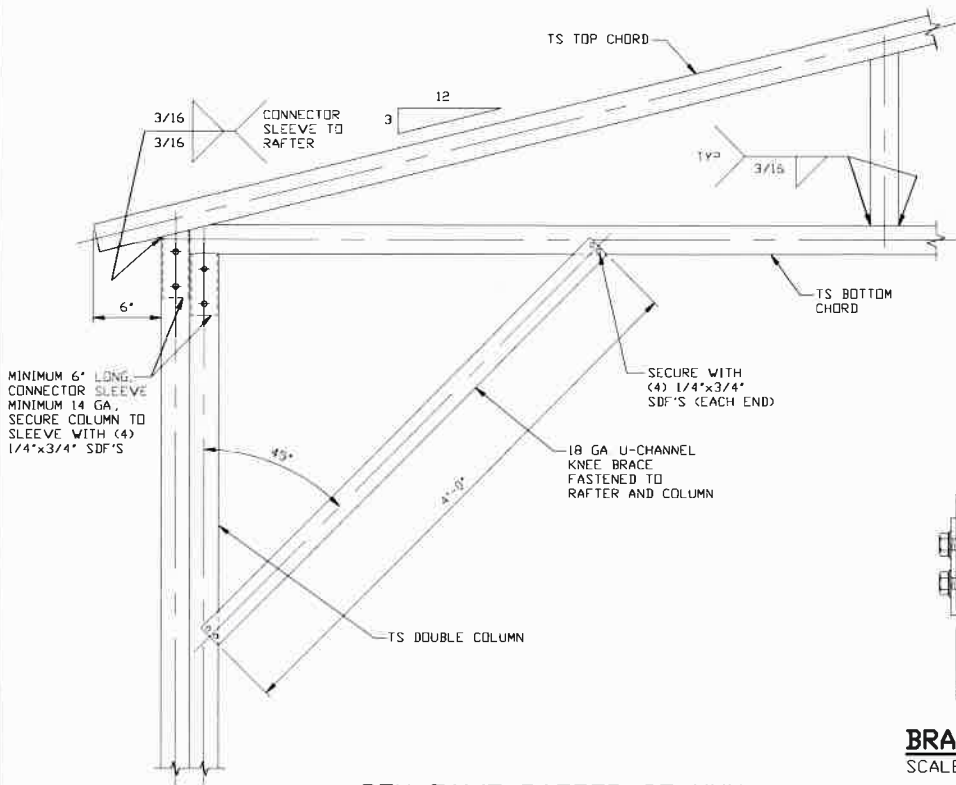
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**DWG. NO: SK-3**

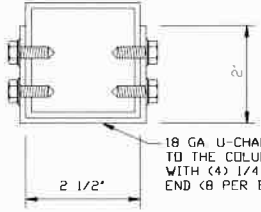
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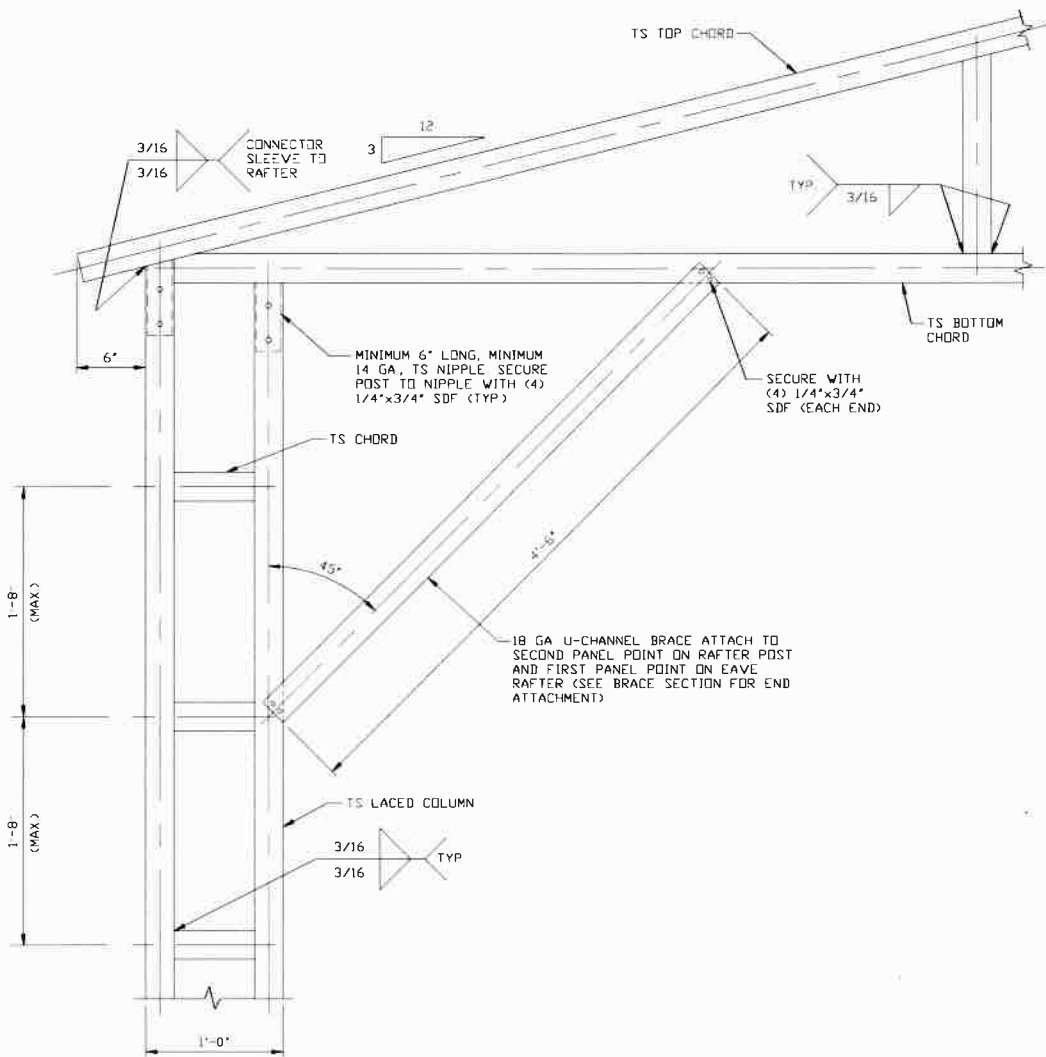
MINIMUM 6' LONG  
CONNECTOR SLEEVE  
MINIMUM 14 GA,  
SECURE COLUMN TO  
SLEEVE WITH (4)  
1/4"x3/4" SDF'S



**BRACE SECTION**  
SCALE: NTS

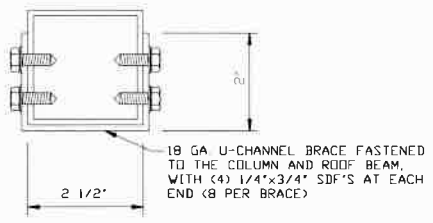
**1**  
**BOX EAVE RAFTER COLUMN  
CONNECTION DETAIL FOR  
HEIGHTS 12'-0" < TO ≤ 16'-0"**  
SCALE: NTS

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	CLIENT: SBSI	SHT. 6A	DWG. NO: SK-3	REV: 9



**BOX EAVE RAFTER/CORNER POST CONNECTION DETAIL FOR HEIGHTS 16'-0" < TO ≤ 20'-0"**

1  
SCALE: NTS

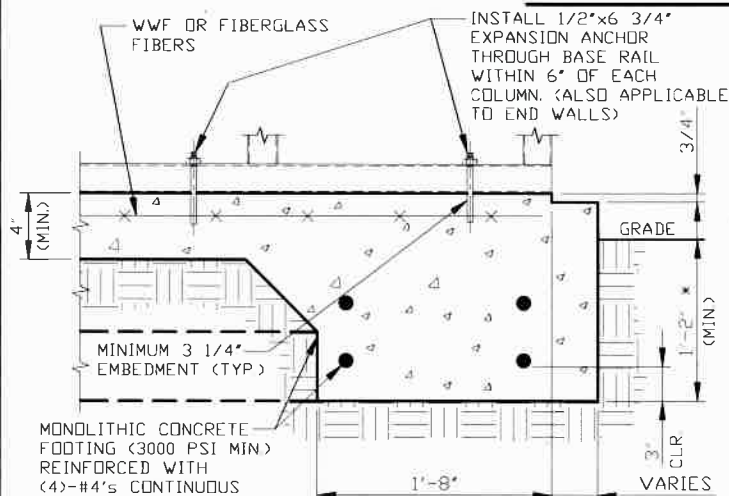


**BRACE SECTION**  
SCALE: NTS

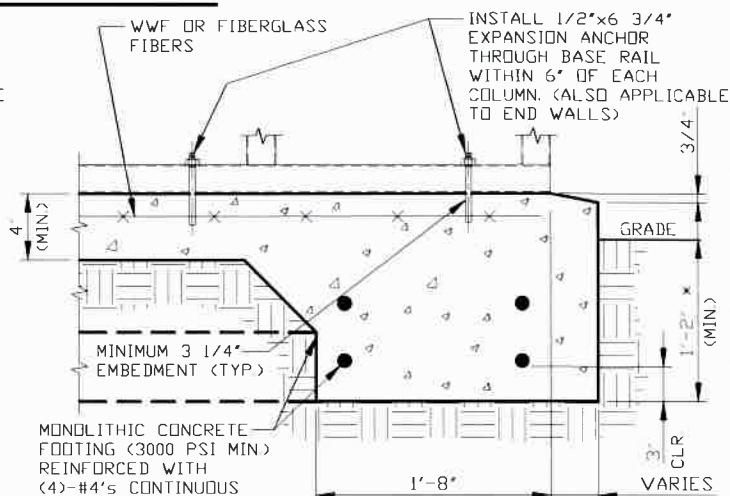
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## BASE RAIL ANCHORAGE



**3 CONCRETE MONOLITHIC SLAB  
BASE RAIL ANCHORAGE**  
SCALE: NTS  
MINIMUM ANCHOR EDGE DISTANCE IS 4"  
\* COORDINATE WITH LOCAL CODES/ORD.



**3A CONCRETE SLAB BASE  
RAIL ANCHORAGE**  
SCALE: NTS  
MINIMUM ANCHOR EDGE DISTANCE IS 4"  
\* COORDINATE WITH LOCAL CODES/ORD.

### GENERAL NOTES

NOTE: CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 1,500 PSF.

#### CONCRETE:

CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS.

#### COVER OVER REINFORCING STEEL:

FOR FOUNDATIONS, MINIMUM CONCRETE COVER OVER REINFORCING BARS SHALL BE PER ACI-318:  
3" IN FOUNDATIONS WHERE THE CONCRETE IS CAST AGAINST AND PERMANENTLY IN CONTACT WITH THE EARTH OR EXPOSED TO THE EARTH OR WEATHER, AND 1 1/2" ELSEWHERE.

#### REINFORCING STEEL:

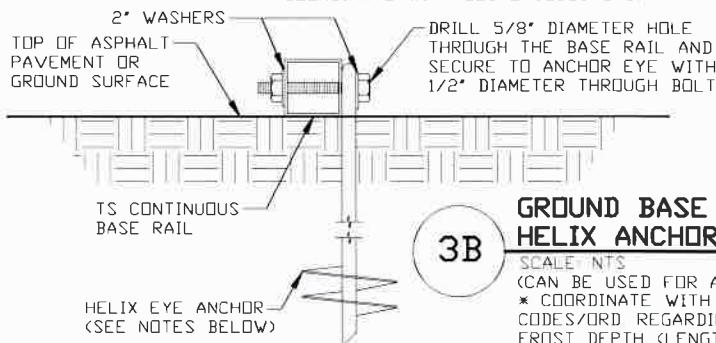
THE TURNDOWN REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. THE SLAB REINFORCEMENT SHALL BE WELDED WIRE FABRIC MEETING ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT.

#### REINFORCEMENT MAY BE BENT IN THE SHOP OR THE FIELD PROVIDED:

1. REINFORCEMENT IS BENT COLD.
2. THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN SIX-BAR DIAMETERS.
3. 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, USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH MINIMUM 50" EMBEDMENT.
2. FOR CORAL USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH MINIMUM 50" EMBEDMENT.
3. FOR MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS, AND CLAYS USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH MINIMUM 50" EMBEDMENT.
4. FOR LOOSE TO MEDIUM DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS ALLUVIAL FILL, USE MINIMUM (2) 6" HELICES WITH MINIMUM 50" EMBEDMENT.
5. FOR VERY LOOSE TO MEDIUM DENSE SANDS, FIRM TO STIFFER CLAYS AND SILTS, ALLUVIAL FILL, USE MINIMUM (2) 8" HELICES WITH MINIMUM 50" EMBEDMENT.



**3B GROUND BASE  
HELIX ANCHORAGE**  
SCALE: NTS  
(CAN BE USED FOR ASPHALT)  
\* COORDINATE WITH LOCAL CODES/ORD REGARDING MIN FROST DEPTH (LENGTH).

**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

**DRAWN BY: LT**

**CHECKED BY: PDH**

**PROJECT MGR: WSM**

**CLIENT: SBSI**

STEEL BUILDING AND STRUCTURES INC.  
P.O. BOX 1287,  
MOUNT AIRY, NC 27030  
40'-0" x 20'-0" ENCLOSED BUILDING

**DATE: 4-17-20**

**SHT. 7**

**SCALE: NTS**

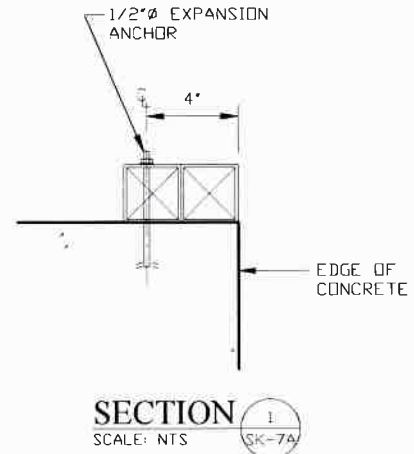
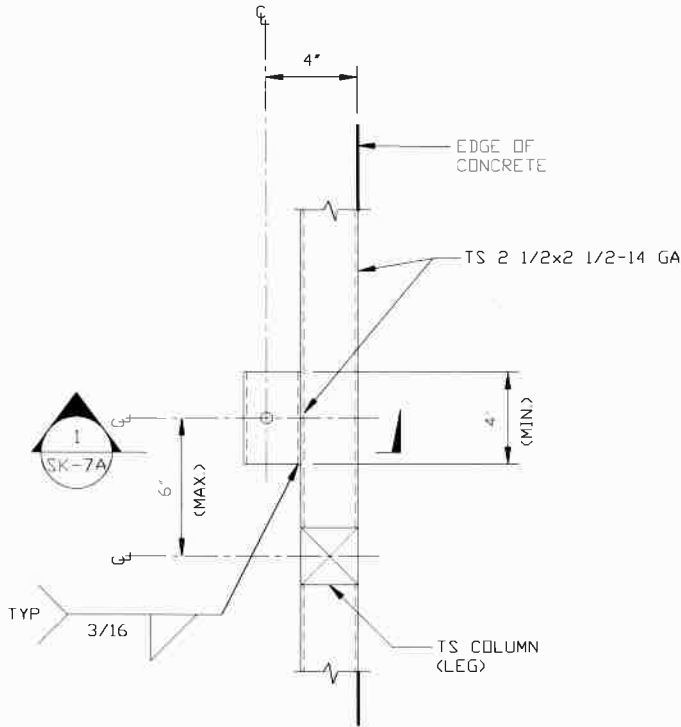
**DWG. NO SK-3**

**JOB NO: 17200S  
18068S/18290S/20019S**

**REV: 9**

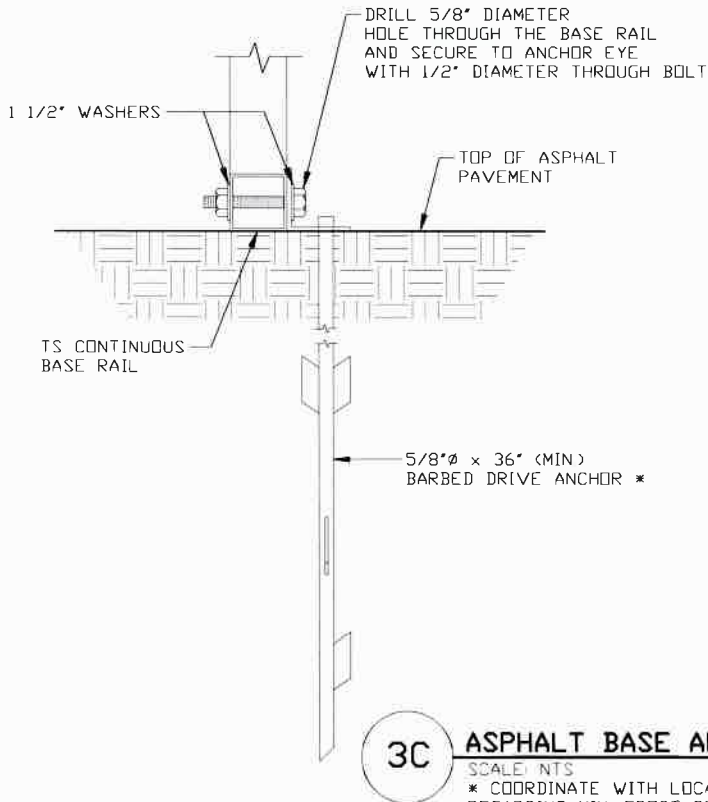
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## ADDITIONAL BASE RAIL ANCHORAGE OPTION



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

SCALE: NTS



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**SHT. 7A**

**SCALE: NTS**

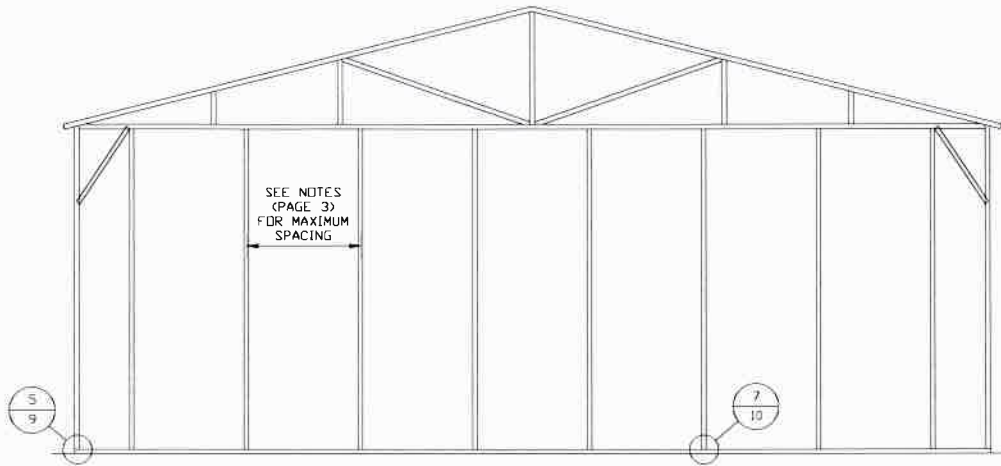
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## BOX EAVE RAFTER END WALL AND WALL OPENINGS



**TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION**

SCALE: NTS

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**PROJECT MGR: WSM**

**CLIENT: SBSI**

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**SHT. 8**

**SCALE: NTS**

**DWG. NO: SK-3**

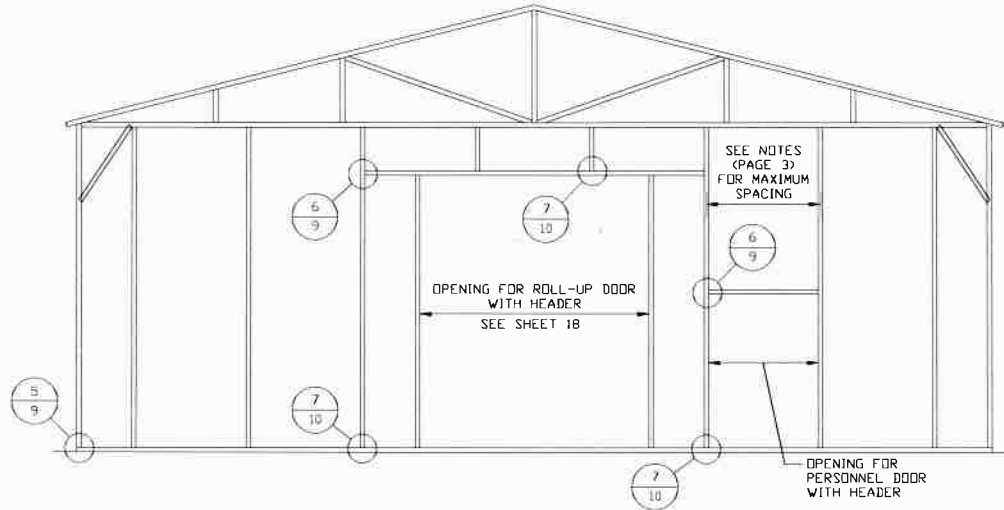
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## BOX EAVE RAFTER END WALL AND WALL OPENINGS



### TYPICAL BOX EAVE RAFTER END WALL OPENING FRAMING SECTION

SCALE: NTS

**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

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**PROJECT MGR: WSM**

**CLIENT: SBSI**

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**DATE: 4-17-20**

**SHT. 8A**

**SCALE: NTS**

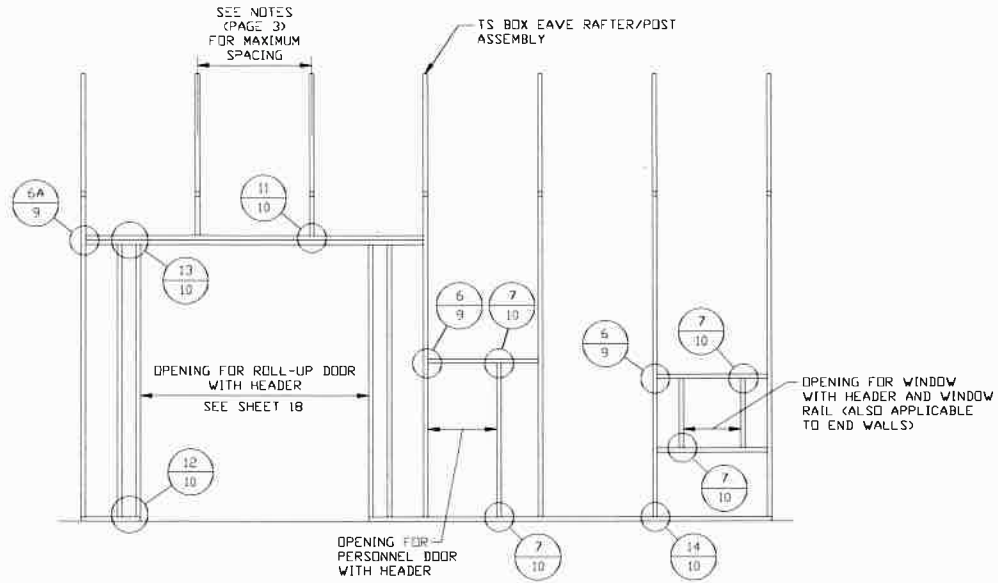
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**JOB NO: 17200S  
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**REV: 9**

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# BOX EAVE RAFTER SIDE WALL AND WALL OPENINGS

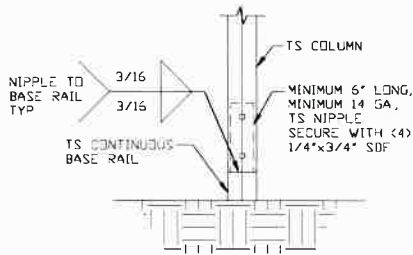


**TYPICAL BOX EAVE RAFTER SIDE WALL OPENINGS FRAMING SECTION**

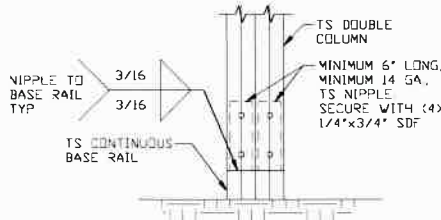
SCALE: NTS

<b>MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.</b>	DRAWN BY: LT	STEEL BUILDING AND STRUCTURES INC. P.O. BOX 1287, MOUNT AIRY, NC 27030 40'-0"X20'-0" ENCLOSED BUILDING		
	CHECKED BY: PDH			
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	CLIENT: SBSI	SHT. 8B	DWG. NO: SK-3	REV: 9

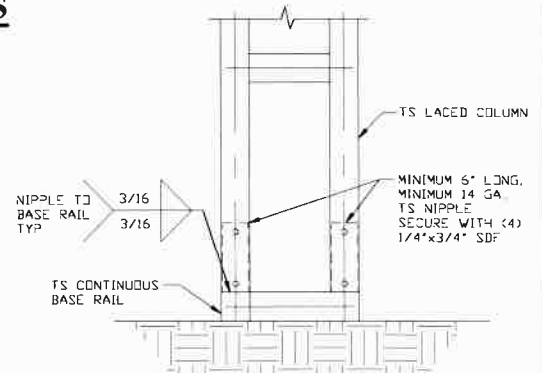
# CONNECTION DETAILS



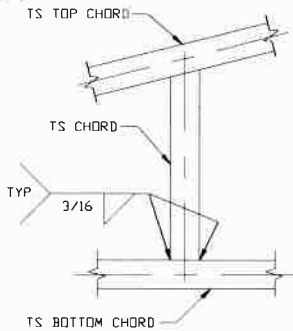
**2** POST/BASE RAIL CONNECTION DETAIL  
SCALE: NTS



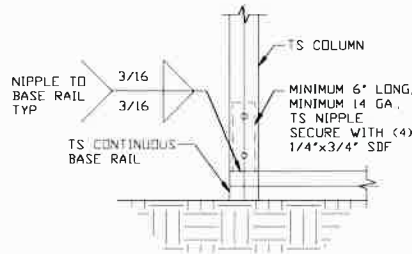
**2A** POST/BASE RAIL CONNECTION DETAIL  
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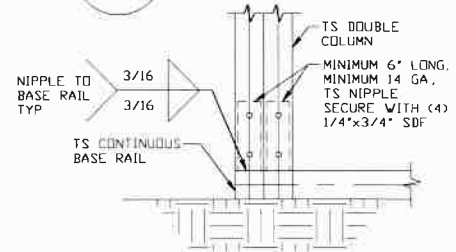
**2B** POST/BASE RAIL CONNECTION DETAIL  
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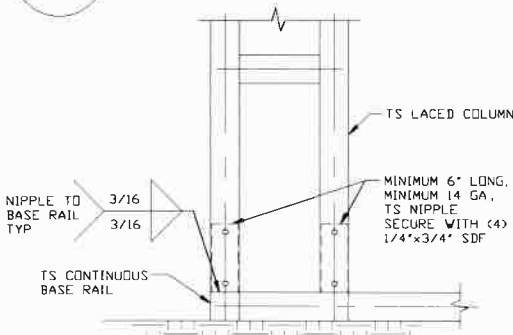
**4** END POST/RAFTER CONNECTION DETAIL  
SCALE: NTS



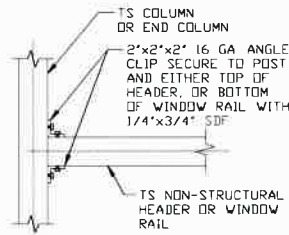
**5** END POST/BASE RAIL CONNECTION DETAIL  
SCALE: NTS



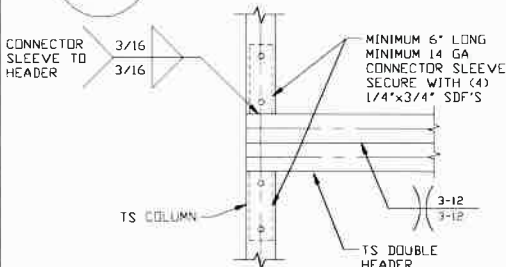
**5A** END POST/BASE RAIL CONNECTION DETAIL  
SCALE: NTS



**5B** END POST/BASE RAIL CONNECTION DETAIL  
SCALE: NTS



**6** HEADER OR WINDOW RAIL/WALL GIRT TO POST CONNECTION DETAIL  
SCALE: NTS



**6A** COLUMN OR WINDOW RAIL TO POST CONNECTION DETAIL  
SCALE: NTS

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**CLIENT: SBSI**

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**SCALE: NTS**

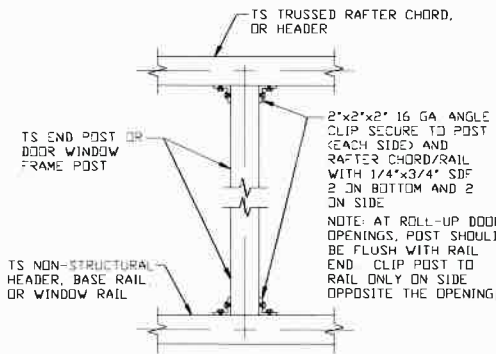
**DWG. NO: SK-3**

**JOB NO: 17200S  
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**REV: 9**

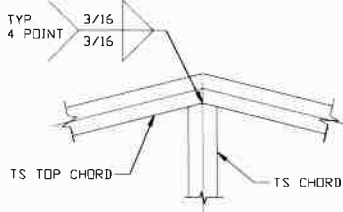
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# CONNECTION DETAILS



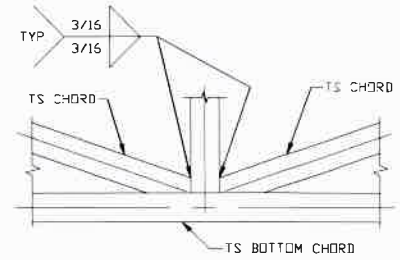
**7 POST TO HEADER, BASE RAIL, OR WINDOW RAIL CONNECTION DETAIL**

SCALE: NTS



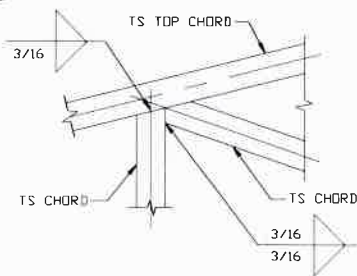
**8 CENTER POST TO RAFTER CONNECTION DETAIL**

SCALE: NTS



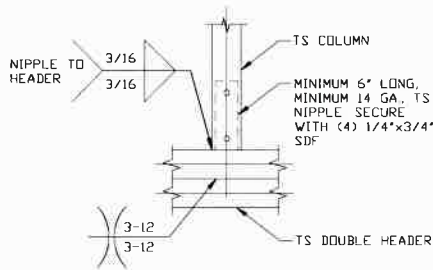
**9 CENTER POST TO TRUSS BASE CONNECTION DETAIL**

SCALE: NTS



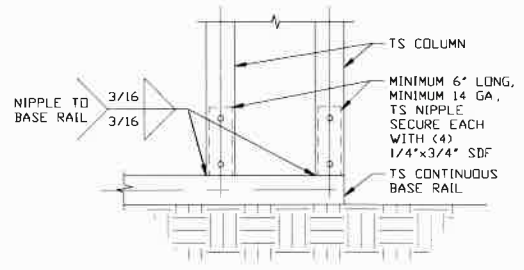
**10 TRUSS POST AND CHORD TO RAFTER CONNECTION DETAIL**

SCALE: NTS



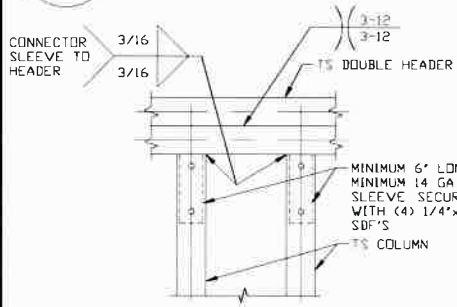
**11 POST/DOUBLE HEADER CONNECTION DETAIL**

SCALE: NTS



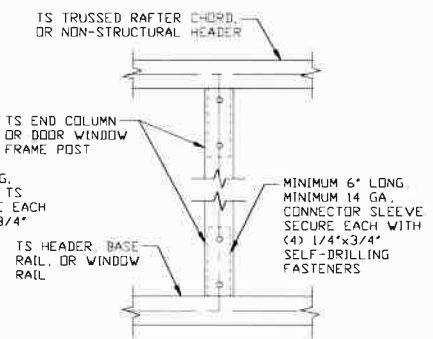
**12 POST/BASE RAIL CONNECTION DETAIL**

SCALE: NTS



**13 DOUBLE HEADER/POST CONNECTION DETAIL**

SCALE: NTS



**14 COLUMN TO HEADER OR BASE RAIL CONNECTION DETAIL**

SCALE: NTS

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**SHT. 10**

**SCALE: NTS**

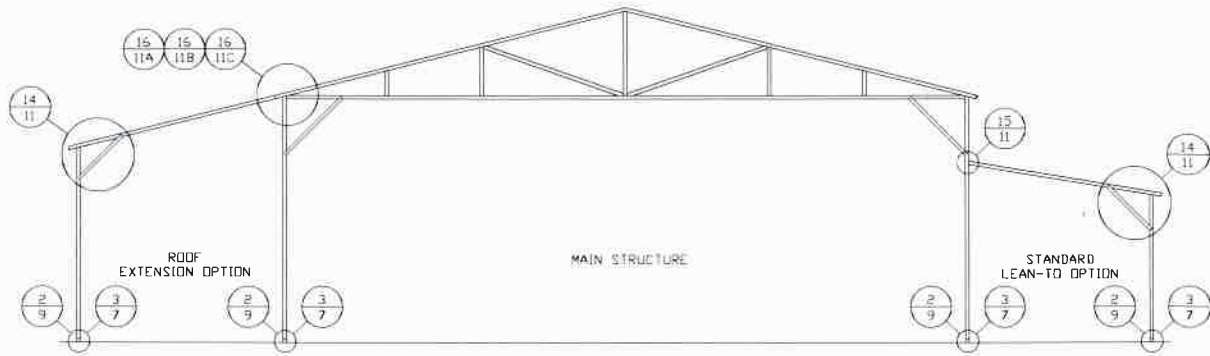
**DWG. NO: SK-3**

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# LEAN-TO OPTIONS

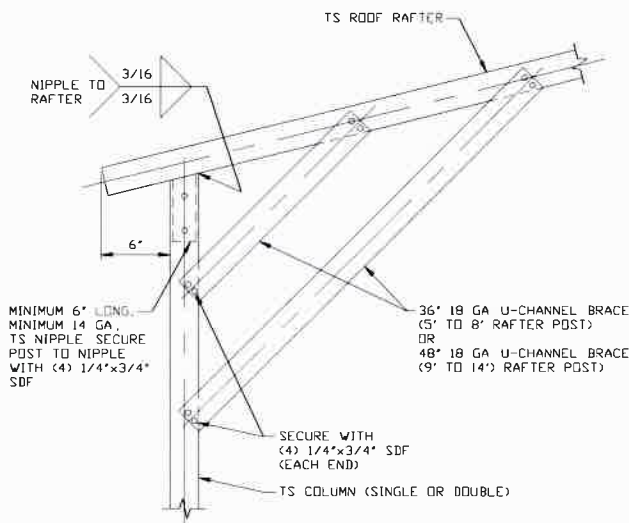


## TYPICAL BOX EAVE RAFTER LEAN-TO OPTIONS FRAMING SECTION (BOTH OPTIONS SHOWN)

SCALE: NTS

MAXIMUM WIDTH OF STANDARD LEAN-TO AND ROOF EXTENSION IS 12'-0"

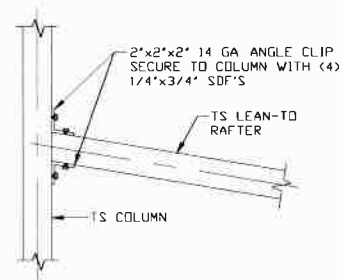
FOR SHARED COLUMN HEIGHTS REFERENCE RAFTER COLUMN CONNECTION DETAILS FOR APPROPRIATE COLUMN HEIGHT AND TUBING SPECIFICATIONS.



14

### LEAN-TO RAFTER/ CORNER POST DETAIL

SCALE: NTS



15

### LEAN-TO RAFTER TO RAFTER POST CONNECTION DETAIL

SCALE: NTS

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SHT. 11

SCALE: NTS

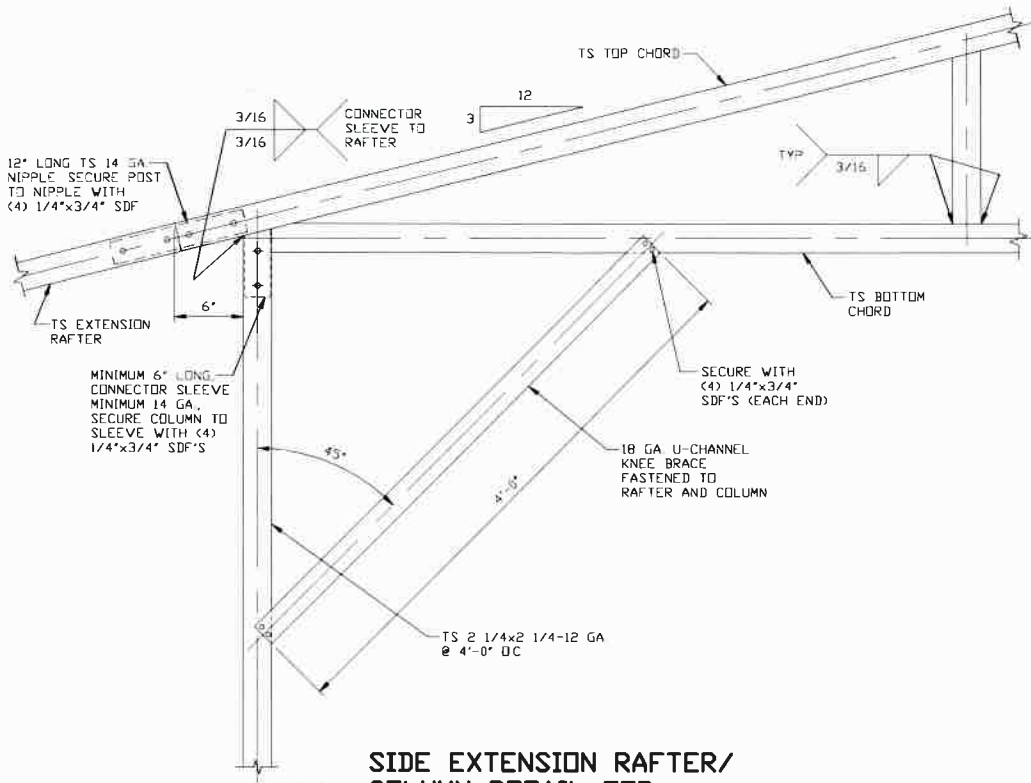
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JOB NO: 17200S  
18068S/18290S/20019S

REV: 9

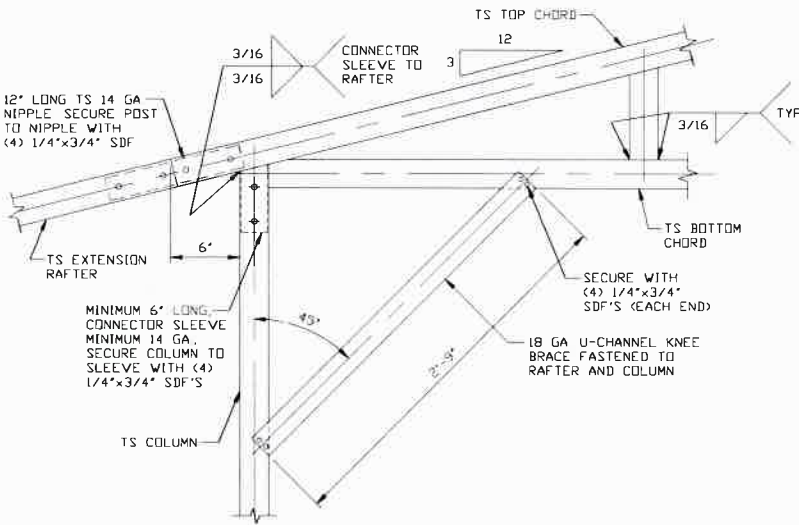
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# LEAN-TO OPTIONS



**16**

**SIDE EXTENSION RAFTER/  
COLUMN DETAIL FOR  
HEIGHTS 8'-0" < TO ≤ 12'-0"**  
SCALE: NTS



**16A**

**SIDE EXTENSION RAFTER/  
COLUMN DETAIL FOR  
RAFTER SPANS ≤ 8'-0"**  
SCALE: NTS

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**SHT. 11A**

**SCALE: NTS**

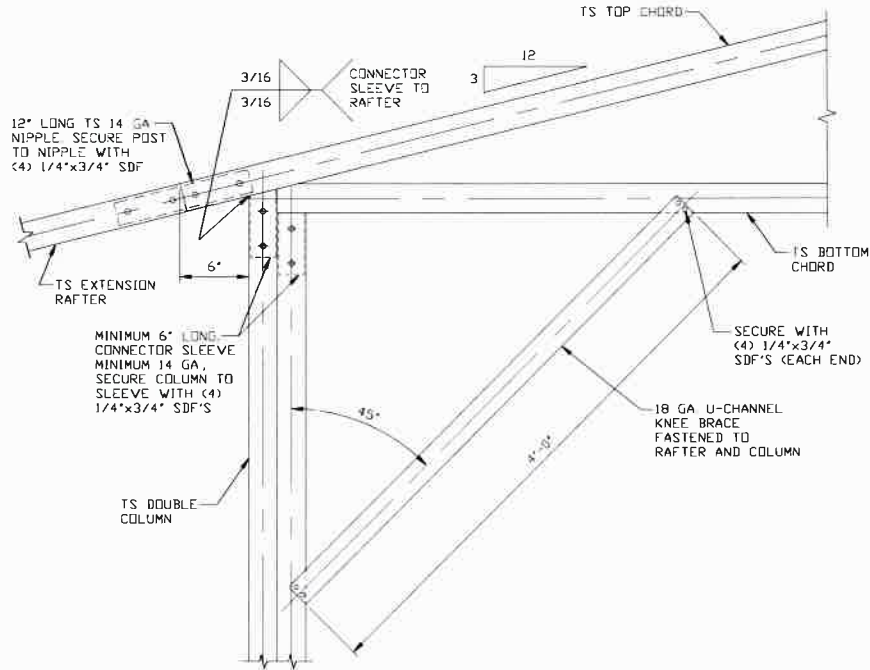
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# LEAN-TO OPTIONS



16B

**SIDE EXTENSION RAFTER/  
COLUMN DETAIL FOR  
HEIGHTS 12'-0" < TO ≤ 16'-0"**

SCALE: NTS

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**SHT. 11B**

**SCALE: NTS**

**DWG. NO: SK-3**

**JOB NO: 17200S  
18068S/18290S/20019S**

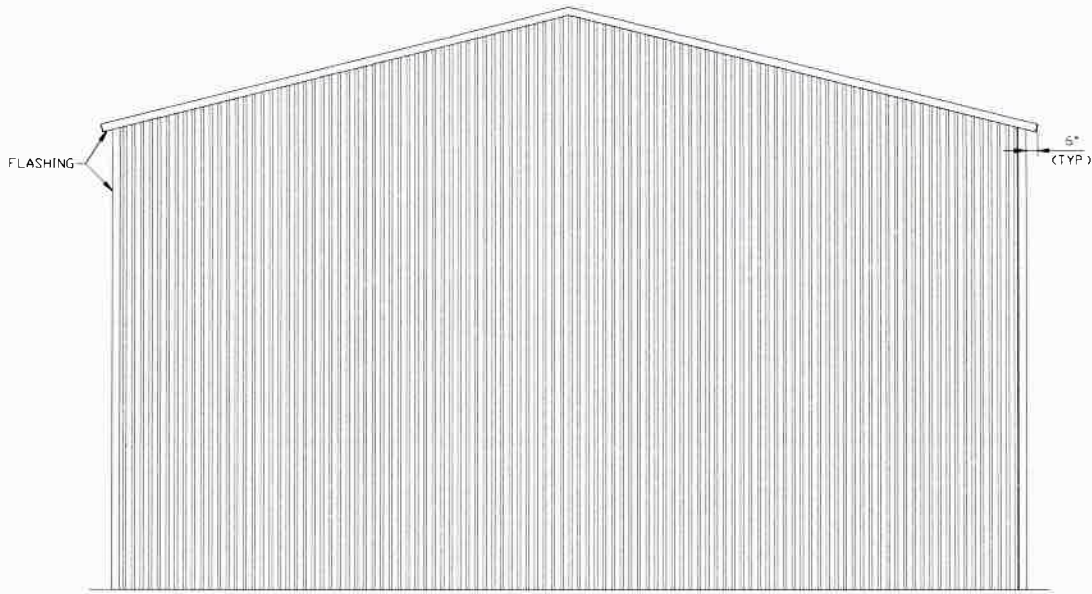
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**VERTICAL ROOF/SIDING OPTION**



**TYPICAL END ELEVATION VERTICAL ROOF/SIDING**

SCALE: NTS

**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

**DRAWN BY: LT**

**CHECKED BY: PDH**

**PROJECT MGR: WSM**

**CLIENT: SBSI**

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**SHT. 12**

**SCALE: NTS**

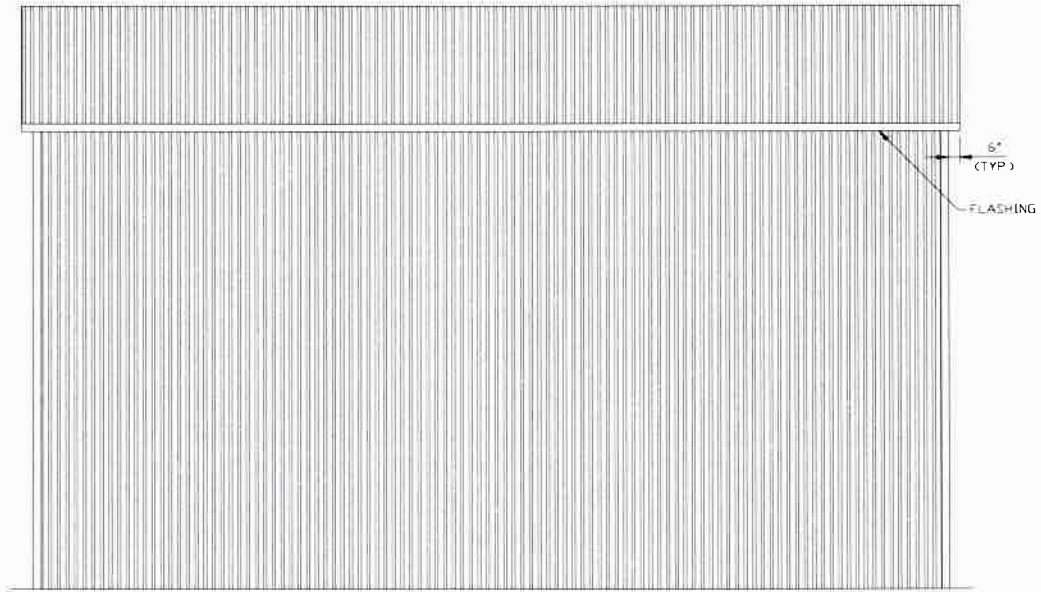
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**JOB NO: 17200S  
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**REV: 9**

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**VERTICAL ROOF/SIDING OPTION**



**TYPICAL SIDE ELEVATION VERTICAL ROOF/SIDING**

SCALE: NTS

**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

**DRAWN BY: LT**

**CHECKED BY: PDH**

**PROJECT MGR: VSM**

**CLIENT: SBSI**

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**DATE: 4-17-20**

**SHT. 12A**

**SCALE: NTS**

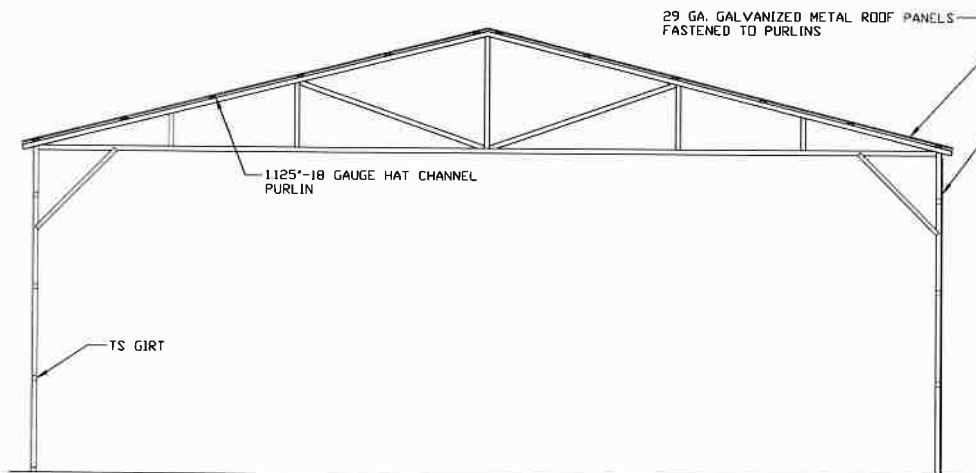
**DWG. NO: SK-3**

**JOB NO: 17200S  
18068S/18290S/20019S**

**REV: 9**

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## VERTICAL ROOF/SIDING OPTION



**TYPICAL SECTION VERTICAL ROOF/SIDING OPTION**

SCALE: NTS

**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

**DRAWN BY: LT**

**CHECKED BY: PDH**

**PROJECT MGR: VSM**

**CLIENT: SBSI**

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**SHT. 13**

**SCALE: NTS**

**DWG. NO: SK-3**

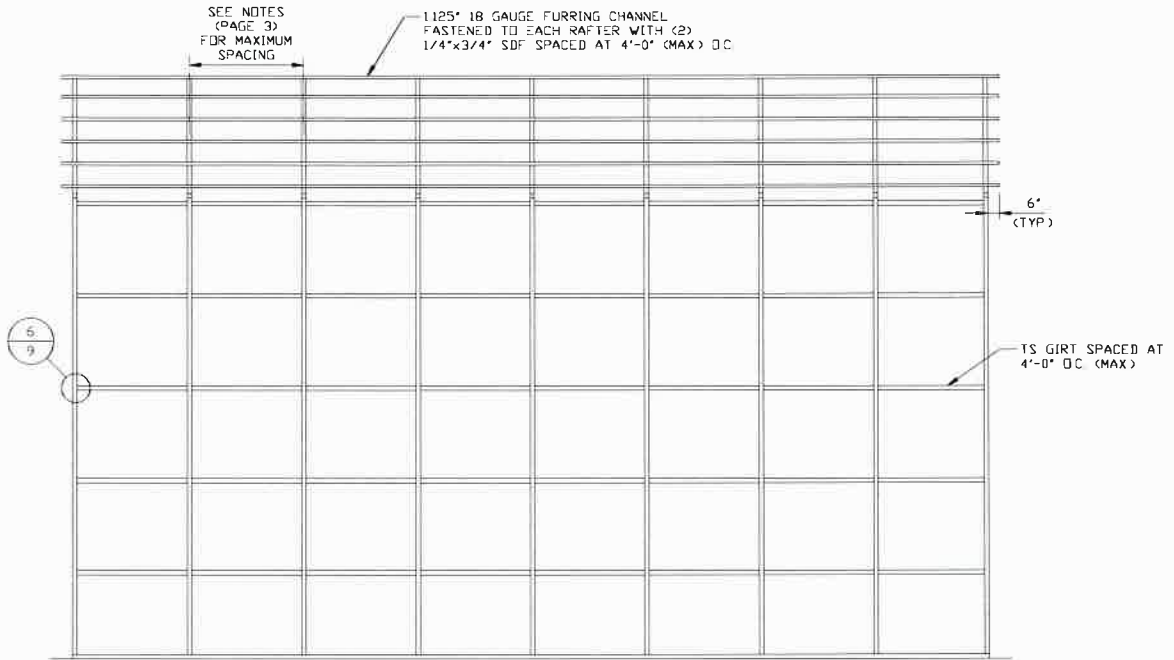
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**18068S/18290S/20019S**

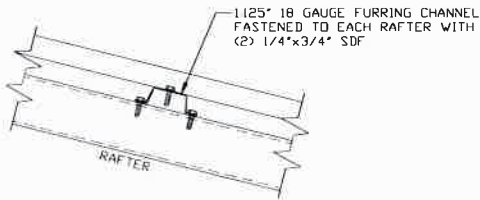
**REV: 9**

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## VERTICAL ROOF/SIDING OPTION



**TYPICAL FRAMING SECTION VERTICAL ROOF/SIDING OPTION**  
SCALE: NTS



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

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**SHT. 13A**

**SCALE: NTS**

**DWG. NO: SK-3**

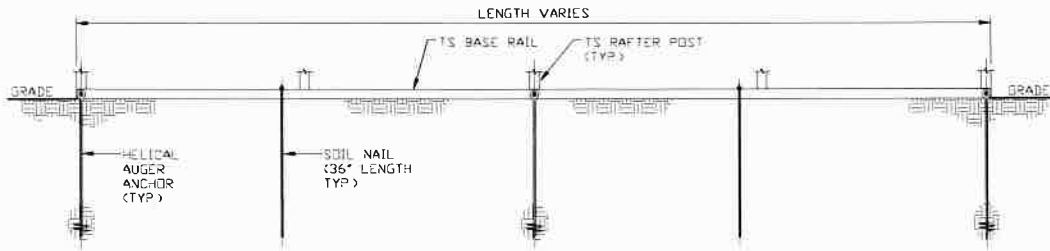
**JOB NO: 17200S**

**18068S/18290S/20019S**

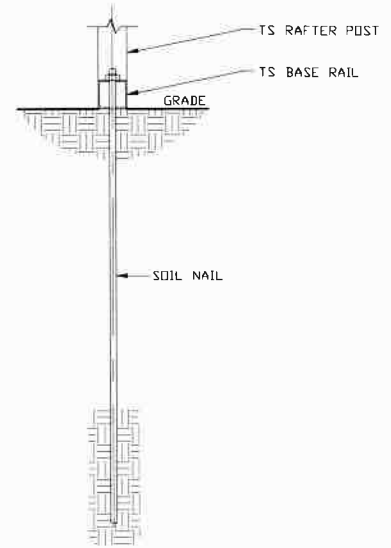
**REV: 9**

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# OPTIONAL BASE RAIL ON GRADE APPLICATION

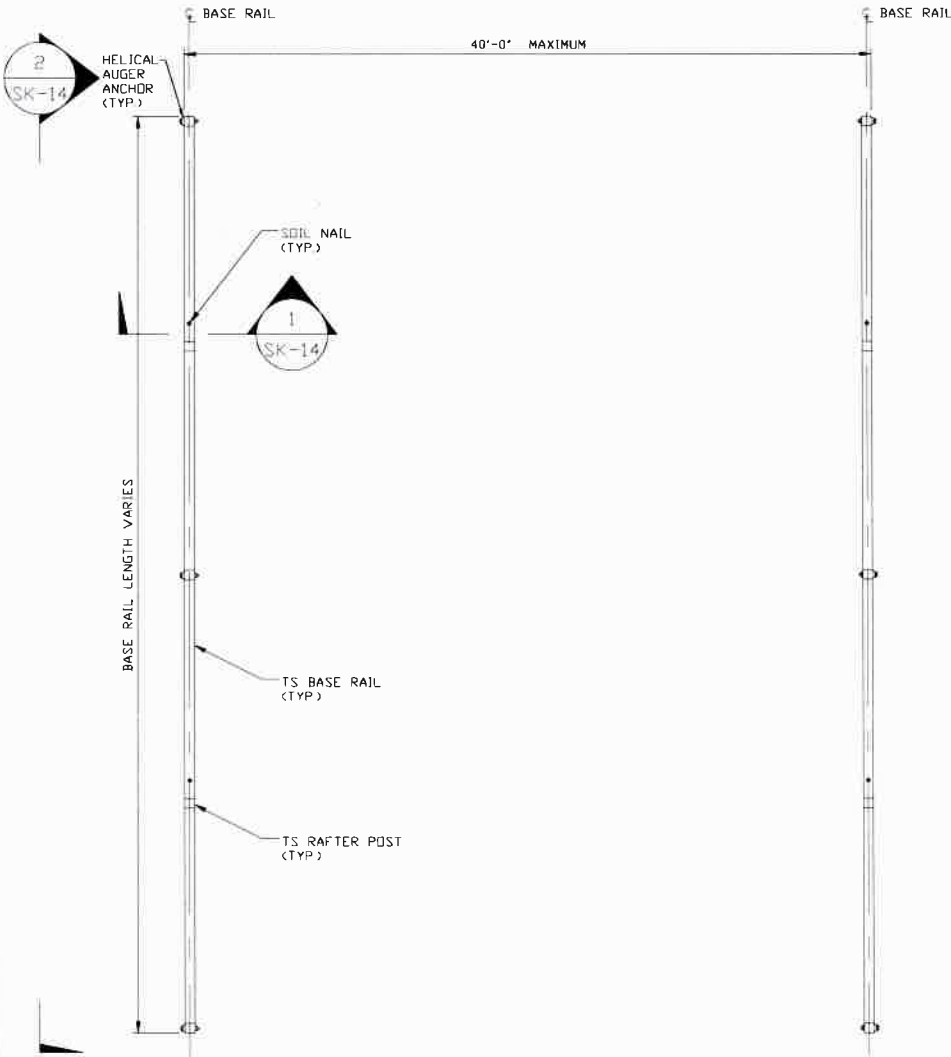


**SECTION 2**  
SCALE: NTS



**SECTION 1**  
SCALE: NTS

\* COORDINATE WITH LOCAL CODES/ORD REGARDING MIN. FROST DEPTH (LENGTH).



**BASE RAIL PLAN**  
SCALE: NTS

HELIX ANCHOR	
SIDE LENGTH	SPACING
VARIES	10'-0" (EVERY OTHER POST)

\* COORDINATE WITH LOCAL CODES/ORD REGARDING MIN. FROST DEPTH (LENGTH)

**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

**DRAWN BY: LT**

**CHECKED BY: PDH**

**PROJECT MGR: WSM**

**CLIENT: SBSI**

STEEL BUILDING AND STRUCTURES INC.  
P.O. BOX 1287,  
MOUNT AIRY, NC 27030  
40'-0" x 20'-0" ENCLOSED BUILDING

**DATE: 4-17-20**

**SHT. 14**

**SCALE: NTS**

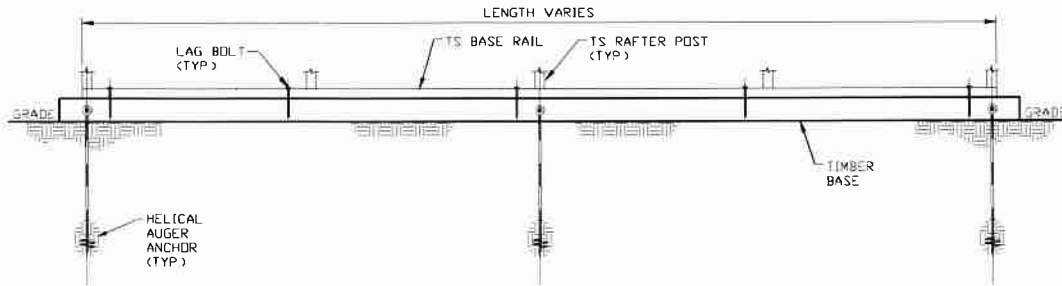
**DWG. NO: SK-3**

**JOB NO: 17200S  
18068S/18290S/20019S**

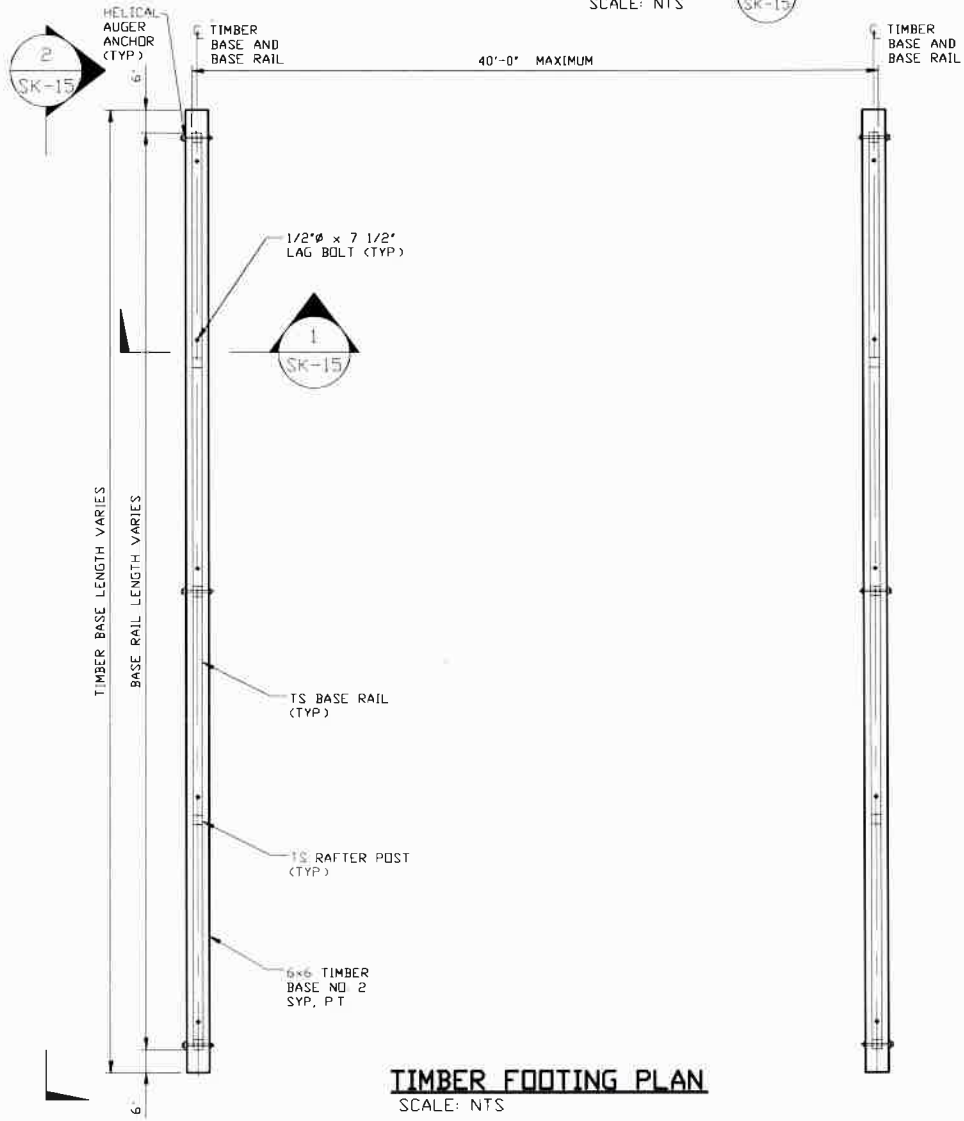
**REV: 9**

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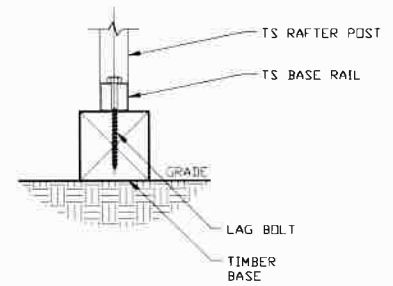
# OPTIONAL BASE RAIL ON TIMBER BEAM



**SECTION 2**  
SCALE: NTS



**TIMBER FOOTING PLAN**  
SCALE: NTS



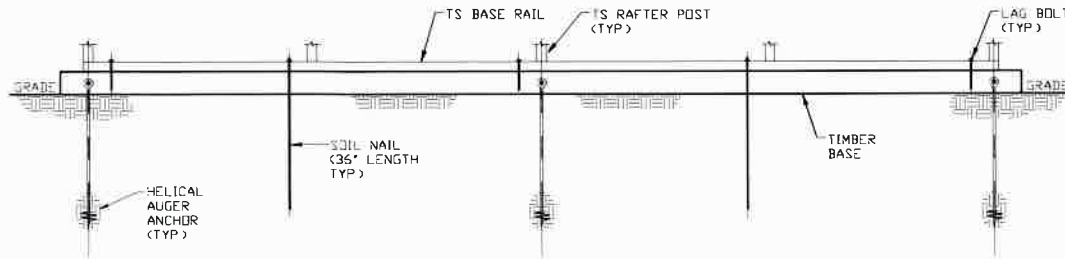
**SECTION 1**  
SCALE: NTS

HELIX ANCHOR	
SIDE LENGTH	SPACING
VARIES	10'-0" (EVERY OTHER POST)

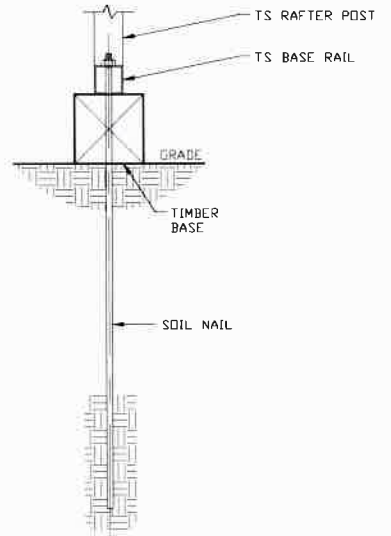
\* COORDINATE WITH LOCAL CODES/ORD REGARDING MIN. FROST DEPTH (LENGTH).

<b>MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.</b>	DRAWN BY: LT	STEEL BUILDING AND STRUCTURES INC. P.O. BOX 1287, MOUNT AIRY, NC 27030 40'-0"x20'-0" ENCLOSED BUILDING		
	CHECKED BY: PDH	DATE: 4-17-20	SCALE: NTS	JOB NO: 17200S 18068S/18290S/20019S
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	CLIENT: SBSI			

# OPTIONAL BASE RAIL ON TIMBER BEAM WITH SOIL NAIL

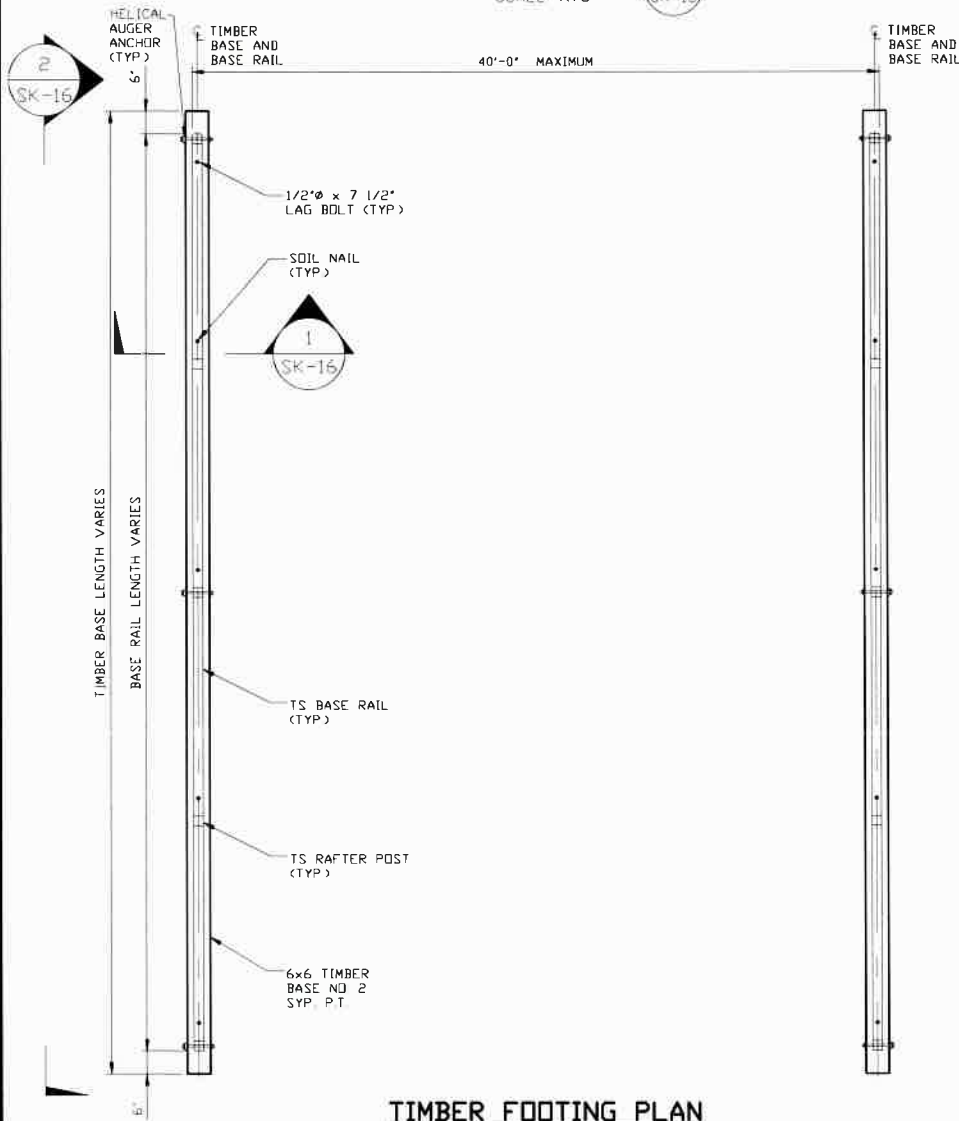


**SECTION 2**  
SCALE: NTS (SK-16)



**SECTION 1**  
SCALE: NTS (SK-16)

\* COORDINATE WITH LOCAL CODES/ORD. REGARDING MIN. FROST DEPTH (LENGTH)



**TIMBER FOOTING PLAN**  
SCALE: NTS

HELIX ANCHOR	
SIDE LENGTH	SPACING
VARIES	13'-0" (EVERY OTHER POST)

\* COORDINATE WITH LOCAL CODES/ORD. REGARDING MIN. FROST DEPTH (LENGTH)

**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

**DRAWN BY: LT**

**CHECKED BY: PDH**

**PROJECT MGR: VSH**

**CLIENT: SBSI**

STEEL BUILDING AND STRUCTURES INC.  
P.O. BOX 1287,  
MOUNT AIRY, NC 27030  
40'-0"x20'-0" ENCLOSED BUILDING

**DATE: 4-17-20**

**SHT. 16**

**SCALE: NTS**

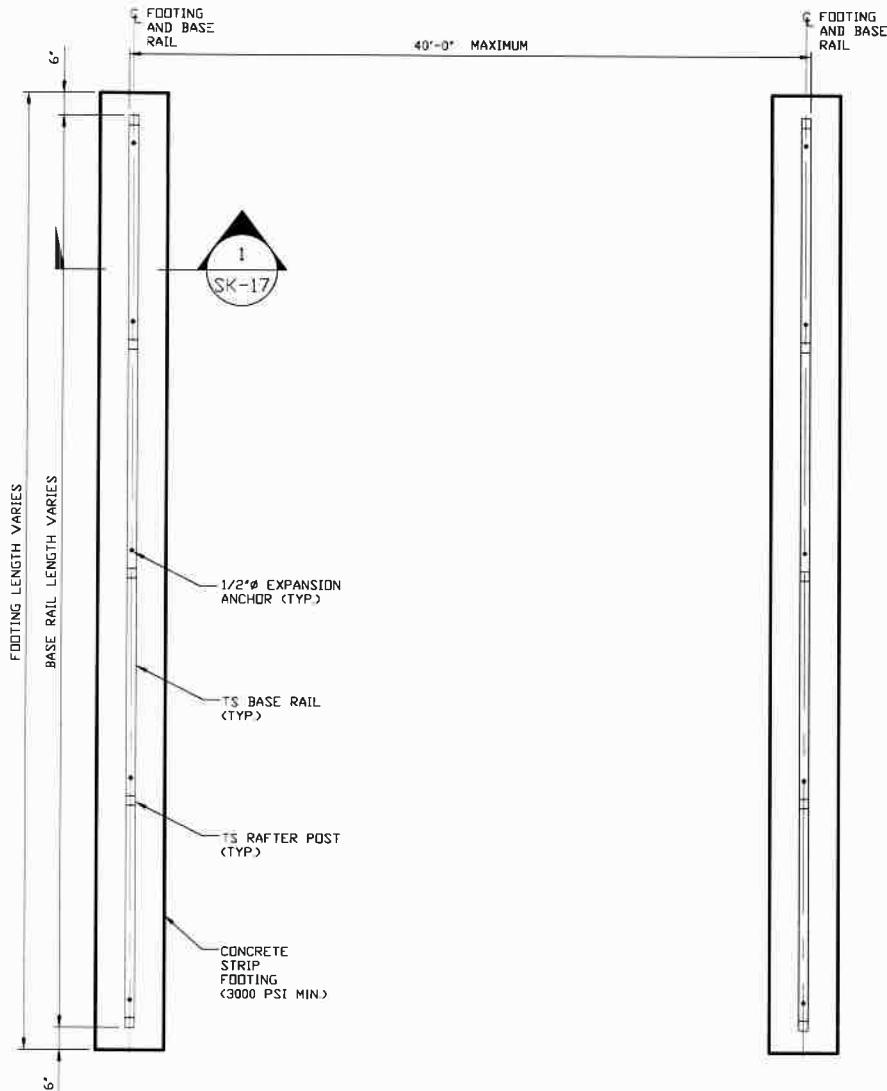
**DWG. NO: SK-3**

**JOB NO: 17200S  
18068S/18290S/20019S**

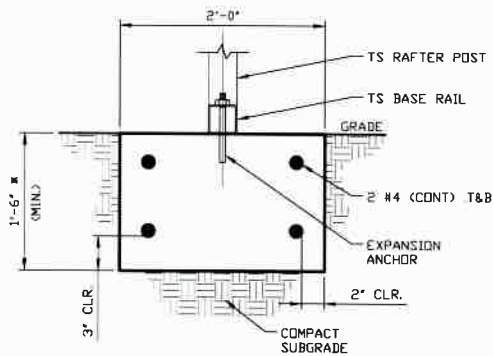
**REV: 9**

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# OPTIONAL CONCRETE STRIP FOOTING



**CONCRETE STRIP FOOTING PLAN**  
SCALE: NTS



**SECTION 1**  
SCALE: NTS

\* COORDINATE WITH LOCAL CODES/ORD.

**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

**DRAWN BY: LT**

**CHECKED BY: PDH**

**PROJECT MGR: WSH**

**CLIENT: SBSI**

**STEEL BUILDING AND STRUCTURES INC.**  
 P.O. BOX 1287  
 MOUNT AIRY, NC 27030  
 40'-0"x20'-0" ENCLOSED BUILDING

**DATE: 4-17-20**

**SHT. 17**

**SCALE: NTS**

**DWG. NO: SK-3**

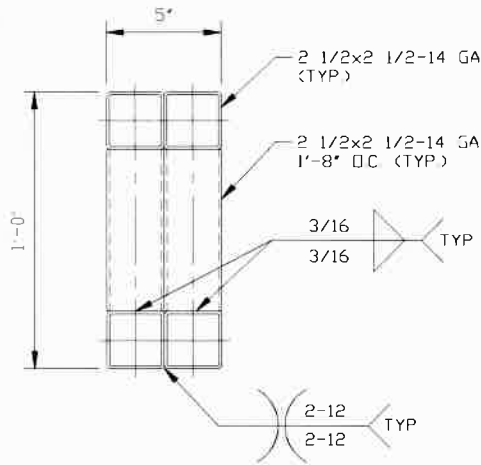
**JOB NO: 17200S**  
**18068S/18290S/20019S**

**REV: 9**

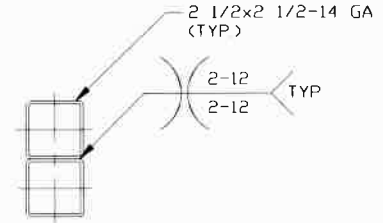
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## SIDE WALL HEADER OPTIONS

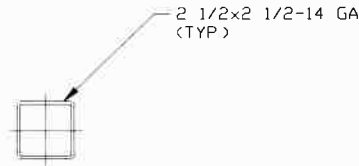


**HEADER DETAIL FOR DOOR  
OPENINGS 10'-0" < LENGTH ≤ 20'-0"**  
SCALE: NTS



**HEADER DETAIL FOR DOOR  
OPENINGS ≤ 10'-0"**  
SCALE: NTS

## END WALL HEADER OPTIONS



**HEADER DETAIL FOR DOOR  
OPENINGS ≤ 12'-0"**  
SCALE: NTS

**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

**DRAWN BY: LT**

**CHECKED BY: PDH**

**PROJECT MGR: WSM**

**CLIENT: SBSI**

STEEL BUILDING AND STRUCTURES INC.  
P.O. BOX 1287,  
MOUNT AIRY, NC 27030  
40'-0" x 20'-0" ENCLOSED BUILDING

**DATE: 4-17-20**

**SHT. 18**

**SCALE: NTS**

**DWG. NO: SK-3**

**JOB NO: 17200S  
18068S/18290S/20019S**

**REV: 9**

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