



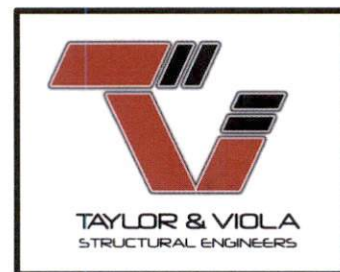
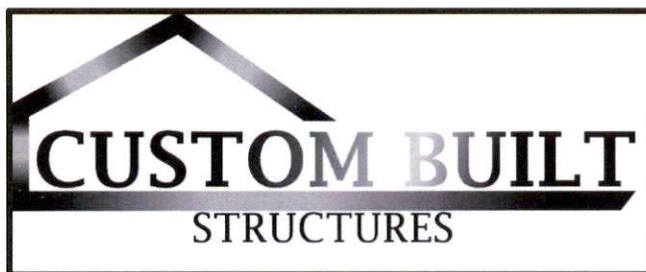
**ENCLOSED GABLE END BUILDING**

**MAXIMUM 30'-0" WIDE X 16'-0" EAVE HEIGHT WITH BOX FRAME / (UP TO) 145 M.P.H. WIND ZONE - 30 P.S.F. SNOW LOAD**

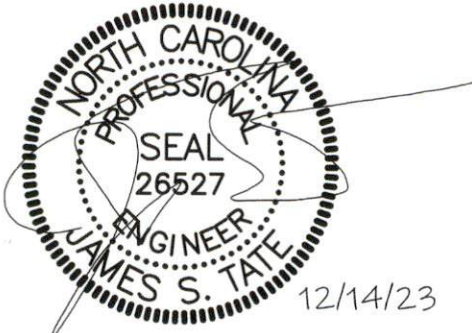
**FOR:**

CUSTOM BUILT STRUCTURES, INC.  
510 RIVERSIDE DRIVE  
MOUNT AIRY, NORTH CAROLINA 27030  
TELE: 336-415-4520

ISSUE DATE: OCTOBER 16, 2023



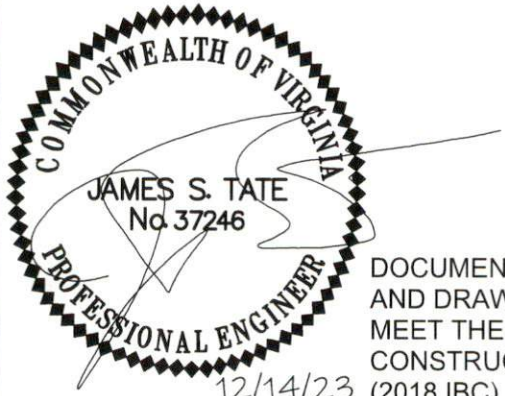
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DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 NC BUILDING CODE (2015 IBC)



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2021 SC BUILDING CODE (2021 IBC)



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 VA CONSTRUCTION CODE (2018 IBC)



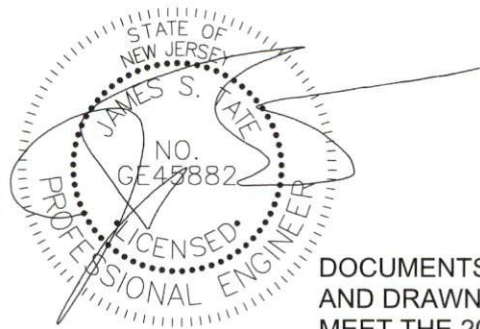
DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2012 IBC



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 IBC



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2020 BUILDING CODE OF NEW YORK STATE (2018 IBC)



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 20210 BUILDING CODENEW JERSEY EDITION (2021 IBC)



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 IBC



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23-509

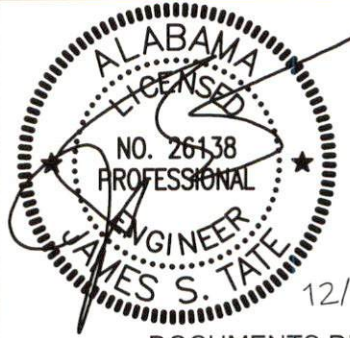
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12/14/23

DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 IBC



12/14/23

DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2021 BUILDING CODE OF ALABAMA (2021 IBC)



12/14/23

DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 IBC



12/14/23

DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2021 IBC



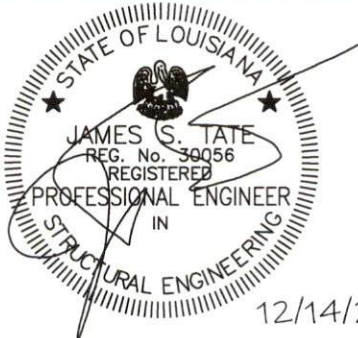
12/14/23

DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2017 IBC



12/14/23

DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2012 IBC



12/14/23

DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2023 LSUCCC/2018 IBC



12/14/23

DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2021 IBC



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S1

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S4	SIDE AND END ELEVATIONS
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S5B	TYPICAL RAFTER / COLUMN FRAME AND SIDE FRAMING SECTION
S6	COLUMN CONNECTION DETAILS (LACED COLUMN)
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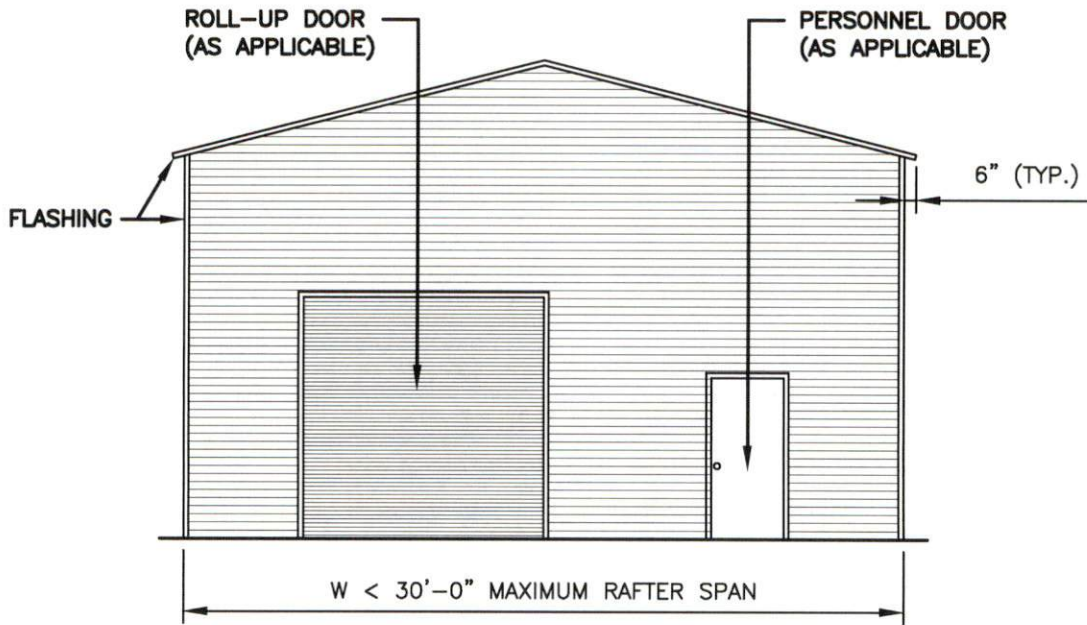
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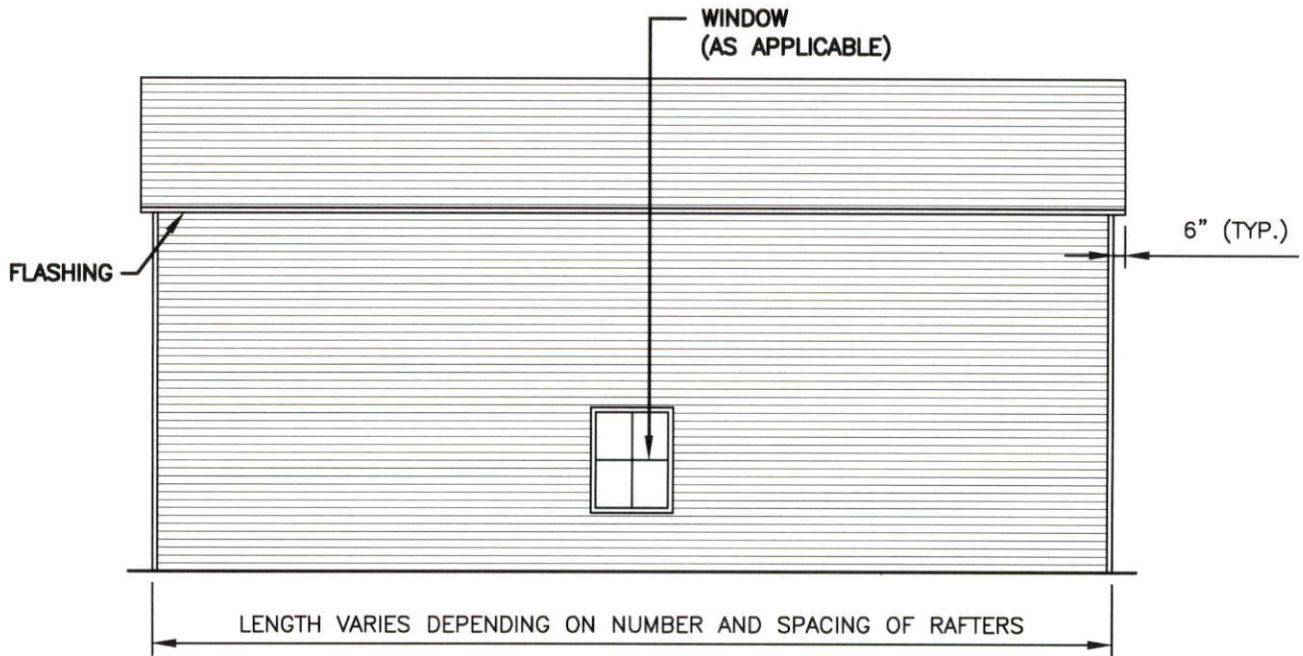
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BOX EVE FRAME RAFTER STRUCTURE



TYPICAL END ELEVATION



TYPICAL SIDE ELEVATION



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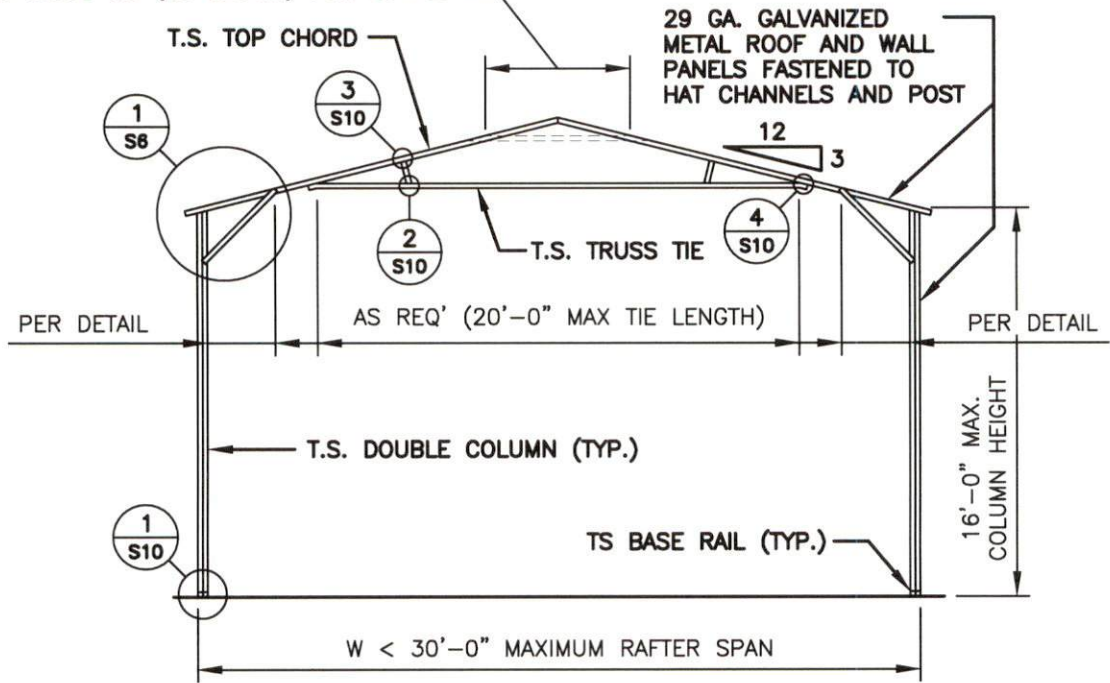
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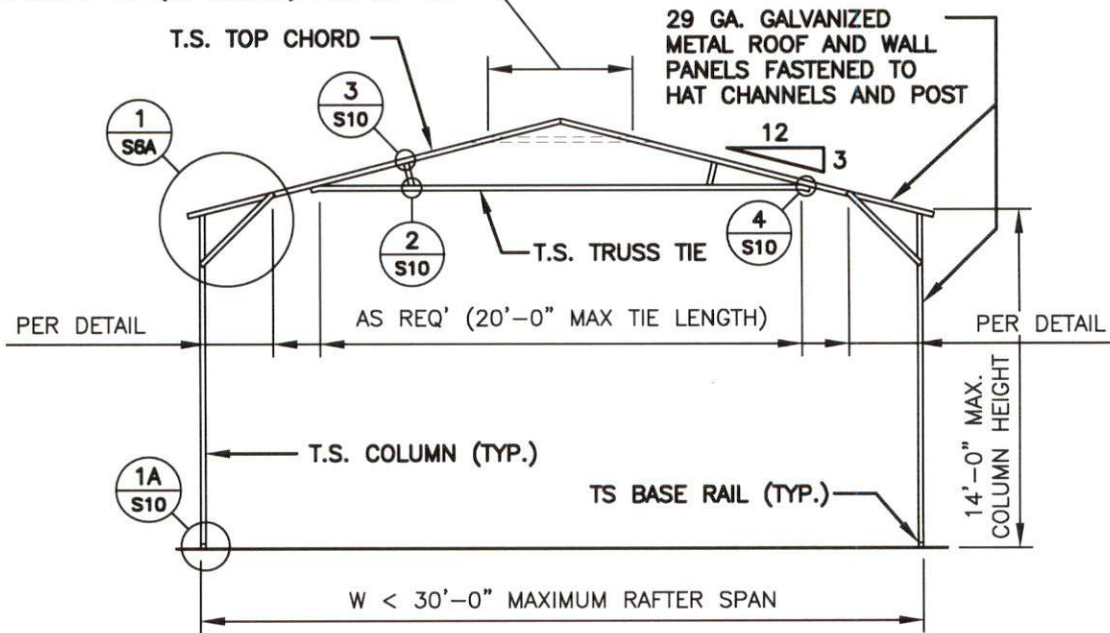
'U' BRACE TRUSS TIE - NOTE:  
 6'-0" BRACE FOR 21'-24' BUILDING WIDTH  
 20' TUBE TRUSS TIE (AS SHOWN) FOR 25'-30'



**TYPICAL RAFTER / COLUMN FRAME SECTION**

'U' BRACE TRUSS TIE - NOTE:  
 6'-0" BRACE FOR 21'-24' BUILDING WIDTH  
 20' TUBE TRUSS TIE (AS SHOWN) FOR 25'-30'

NOTE:  
 H.S.S. 2-1/2"x2-1/2"x14ga. OR 2-1/4"x2-1/4"x14ga.  
 MATERIAL MAY BE USED FOR TRUSS METAL.



**TYPICAL RAFTER / COLUMN FRAME SECTION**



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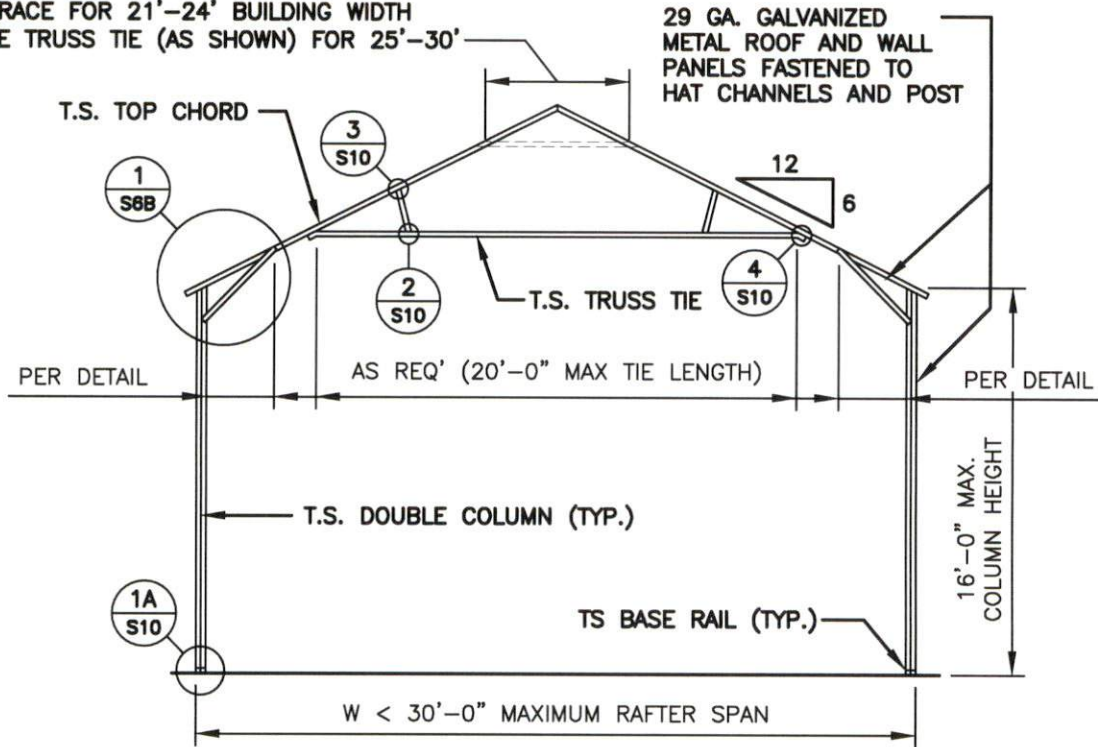
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DATE:  
 2023.10.16

SHEET NO:  
**S5**

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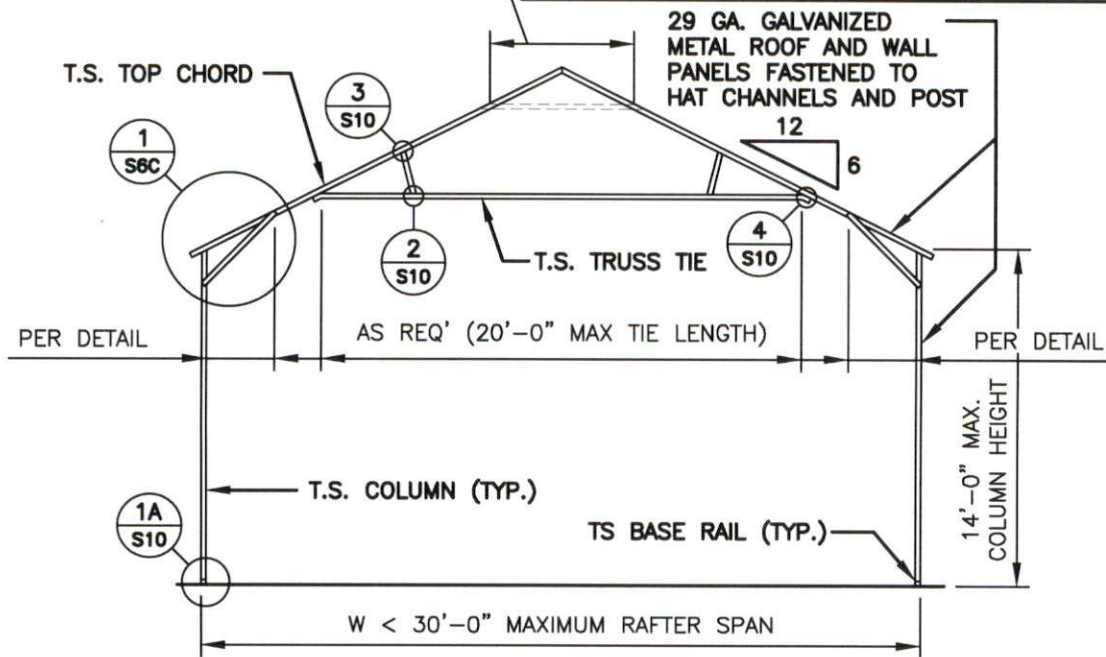
'U' BRACE TRUSS TIE - NOTE:  
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 20' TUBE TRUSS TIE (AS SHOWN) FOR 25'-30'



**TYPICAL RAFTER / COLUMN FRAME SECTION**

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 20' TUBE TRUSS TIE (AS SHOWN) FOR 25'-30'

NOTE:  
 H.S.S. 2-1/2"x2-1/2"x14ga. OR 2-1/4"x2-1/4"x14ga.  
 MATERIAL MAY BE USED FOR TRUSS METAL.



**TYPICAL RAFTER / COLUMN FRAME SECTION**



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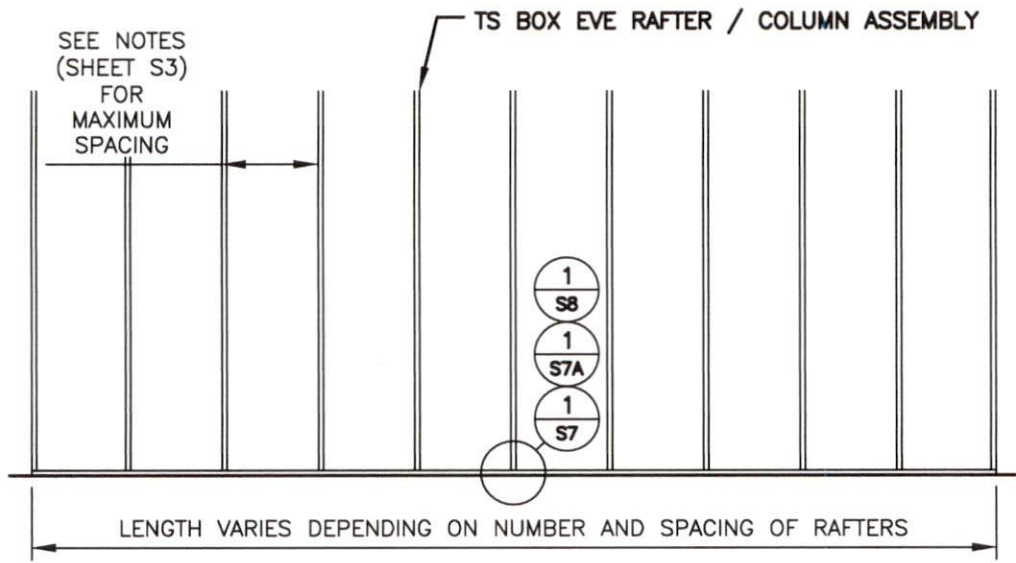
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**S5A**

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**NOTE:**  
H.S.S. 2-1/2"x2-1/2"x14ga. OR  
2-1/4"x2-1/4"x14ga. MATERIAL  
MAY BE USED FOR TRUSS METAL.



**TYPICAL RAFTER / COLUMN SIDE FRAME SECTION**



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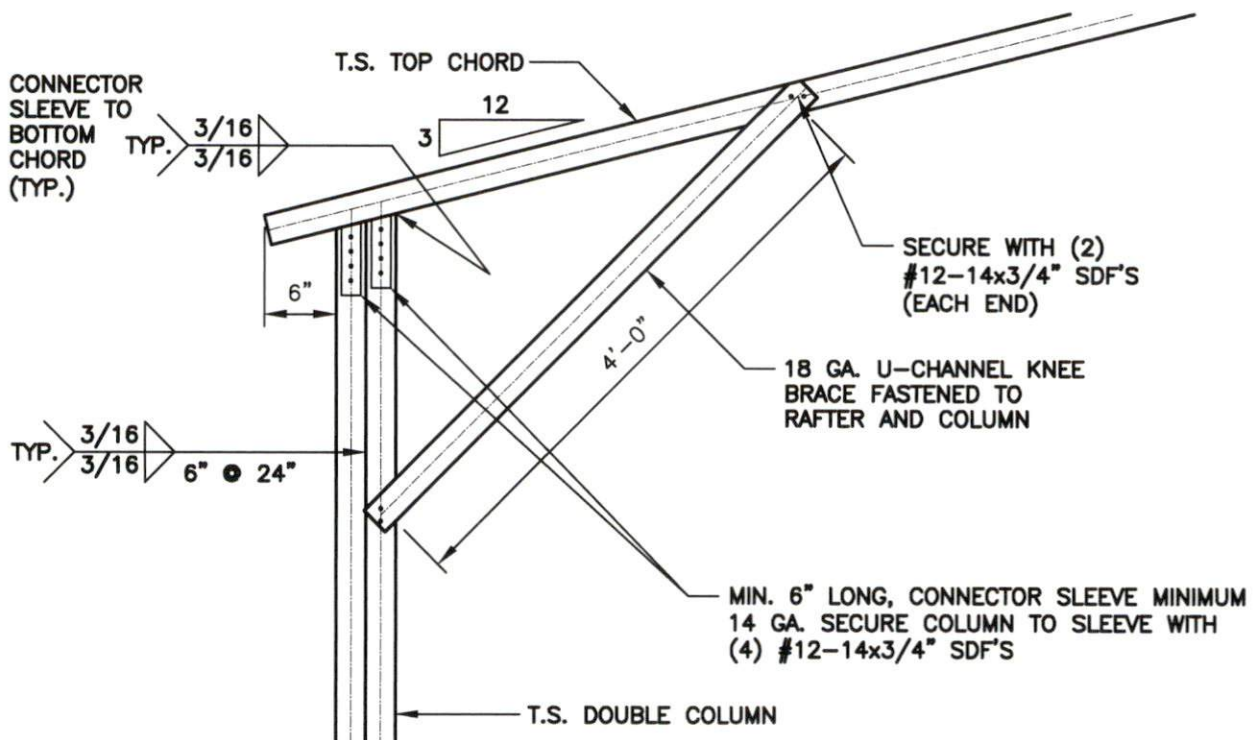
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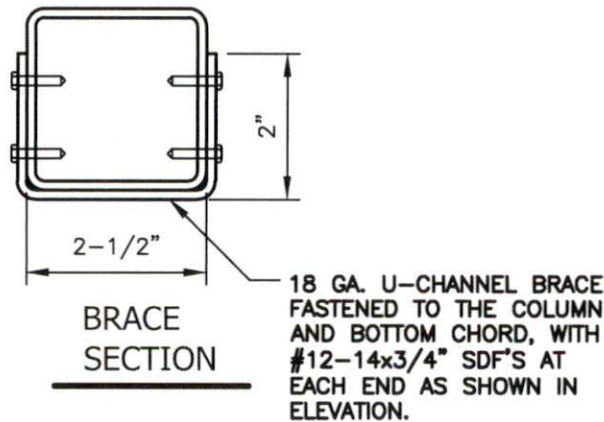
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**2023.10.16**

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**S5B**

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**1** BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHTS 14'-1" < TO <16'-0"  
**S6** SCALE: 3/4" = 1'-0"



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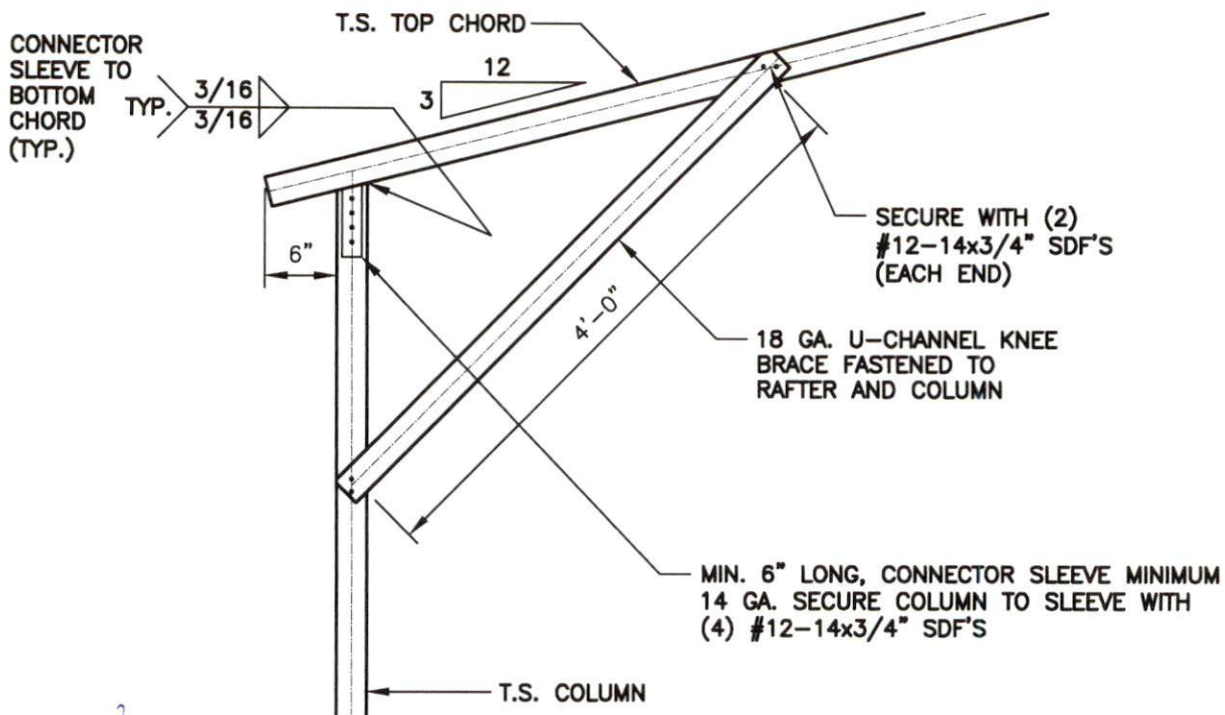
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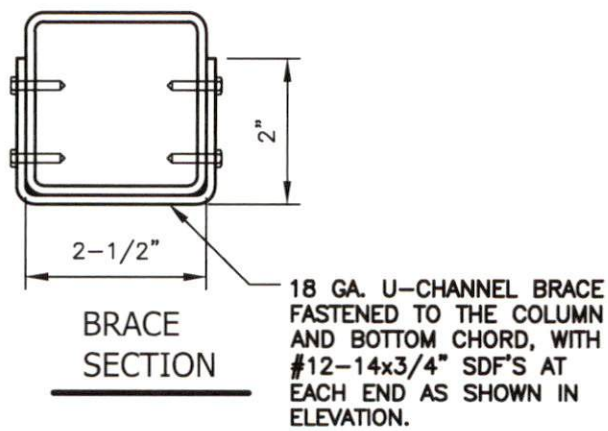
**DATE:**  
 2023.10.16

**SHEET NO:**  
**S6**



**1** BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHTS < 14'-0"

**S6A** SCALE: 3/4" = 1'-0"



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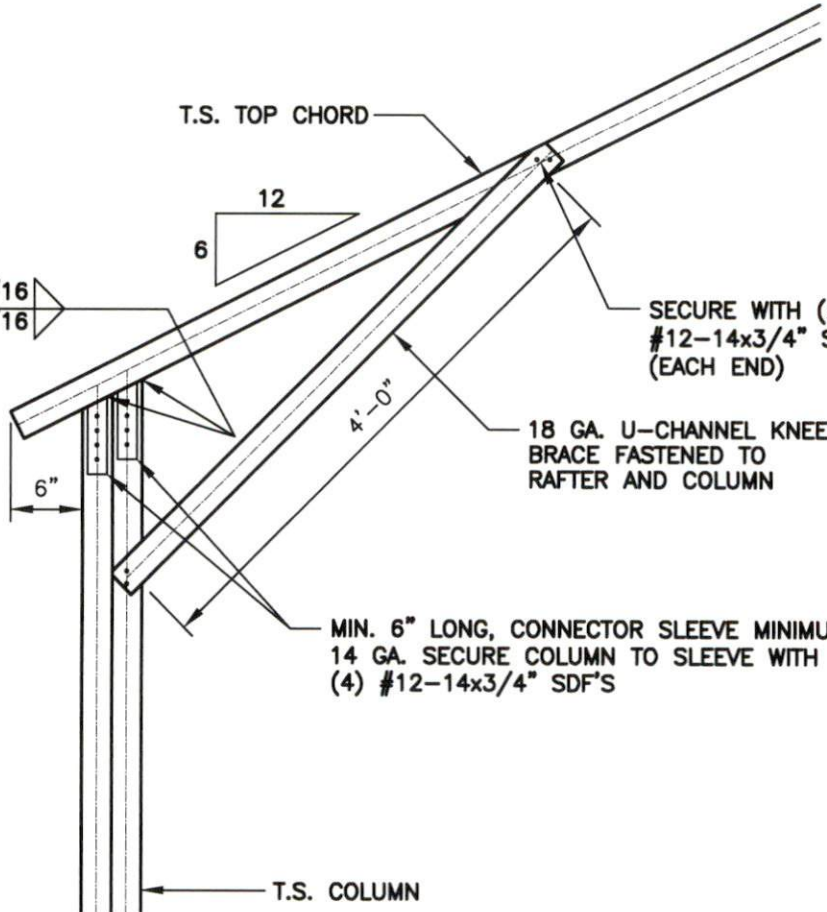
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**S6A**

CONNECTOR SLEEVE TO BOTTOM CHORD (TYP.)

TYP.  $\frac{3}{16}$  /  $\frac{3}{16}$



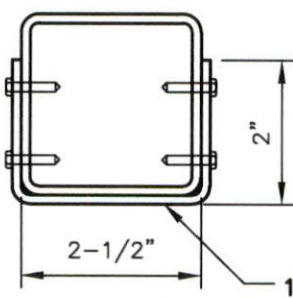
SECURE WITH (2) #12-14x3/4" SDF'S (EACH END)

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

MIN. 6" LONG, CONNECTOR SLEEVE MINIMUM 14 GA. SECURE COLUMN TO SLEEVE WITH (4) #12-14x3/4" SDF'S

T.S. COLUMN

**1** BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHTS 14'-1" < TO <16'-0"  
**S6C** SCALE: 3/4" = 1'-0"



BRACE SECTION

18 GA. U-CHANNEL BRACE FASTENED TO THE COLUMN AND BOTTOM CHORD, WITH #12-14x3/4" SDF'S AT EACH END AS SHOWN IN ELEVATION.

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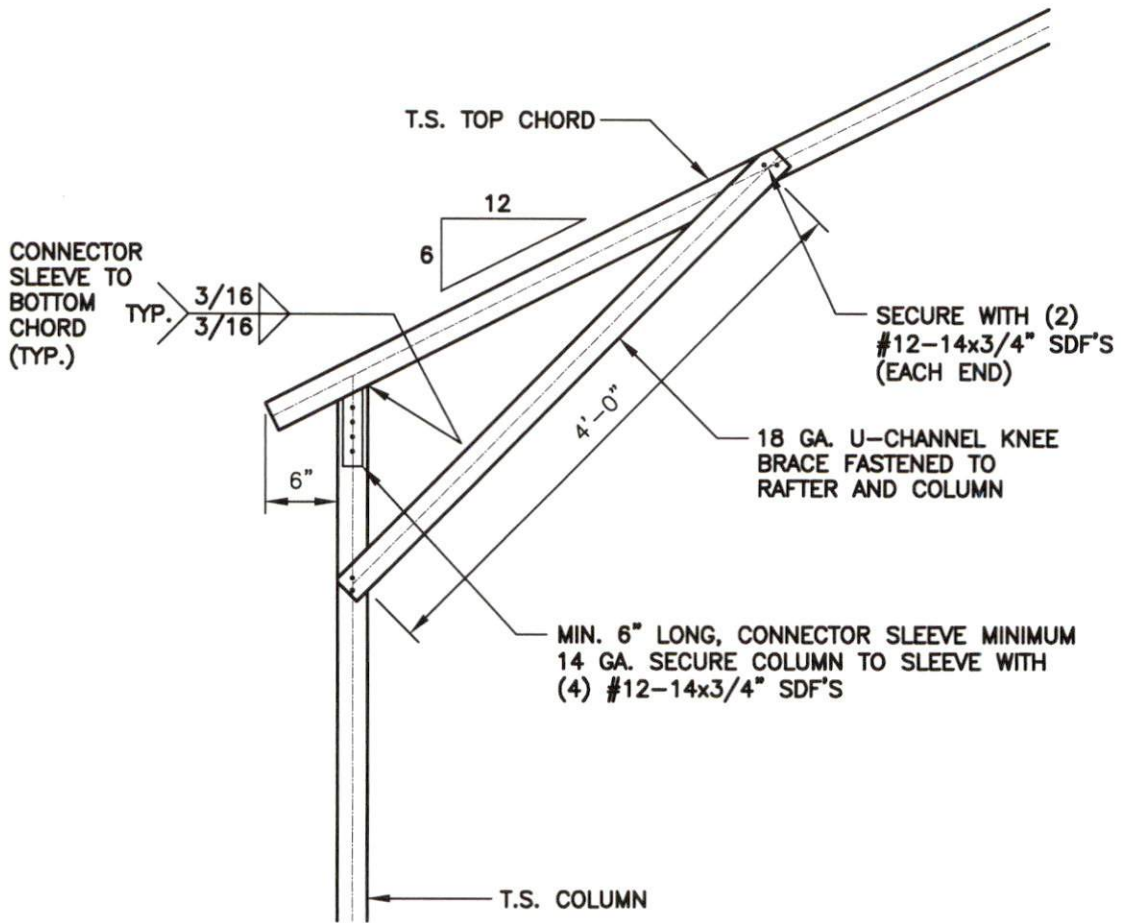
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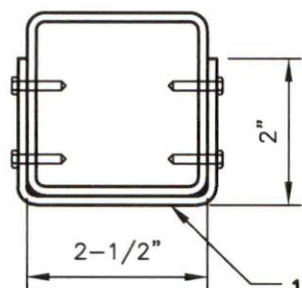
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**1** BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHTS < 14'-0"  
**S6C** SCALE: 3/4" = 1'-0"



**BRACE SECTION**  
 18 GA. U-CHANNEL BRACE FASTENED TO THE COLUMN AND BOTTOM CHORD, WITH #12-14x3/4" SDF'S AT EACH END AS SHOWN IN ELEVATION.

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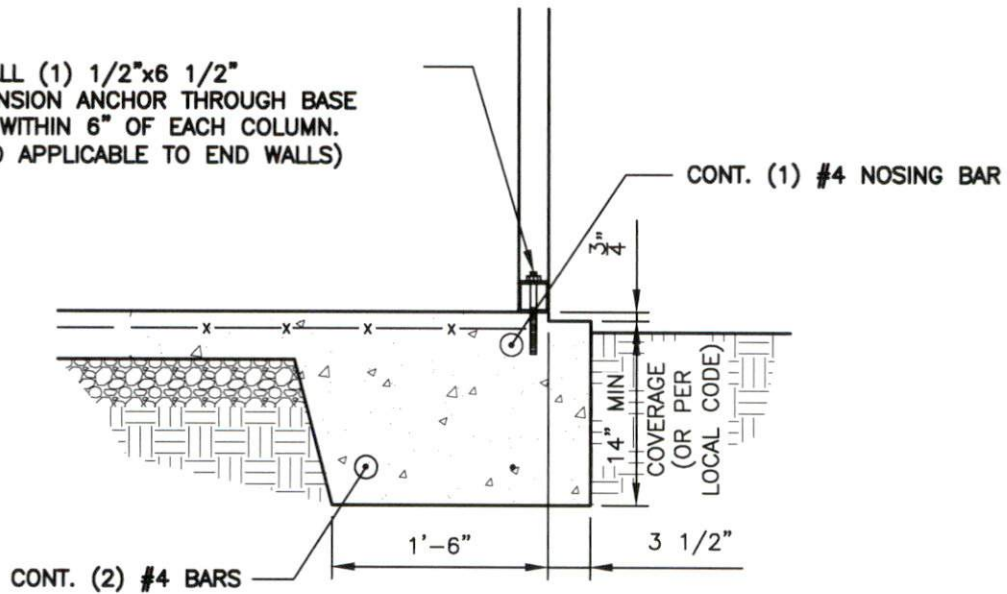
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<b>DATE:</b> 2023.10.16	<b>SHEET NO:</b> <b>S6C</b>

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## CONCRETE BASE RAIL ANCHORAGE

INSTALL (1) 1/2"x6 1/2"  
EXPANSION ANCHOR THROUGH BASE  
RAIL WITHIN 6" OF EACH COLUMN.  
(ALSO APPLICABLE TO END WALLS)



### 1 BASE RAIL ANCHORAGE DETAIL

SCALE: 3/4" = 1'-0"

**GENERAL NOTES:**

ALL CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 2,000 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 AND 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 MAT BE BENT IN THE SHOP OF 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.



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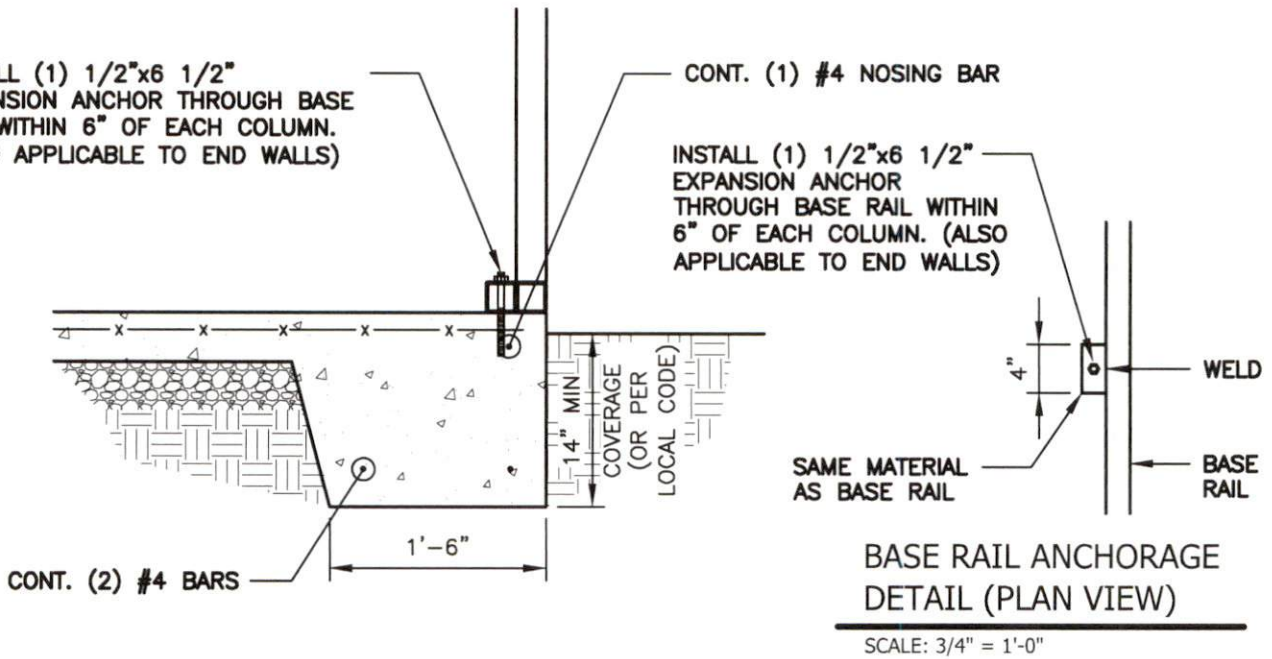
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SHEET NO:  
**S7**

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## CONCRETE BASE RAIL ANCHORAGE



1  
S7A

### BASE RAIL ANCHORAGE DETAIL

SCALE: 3/4" = 1'-0"

**GENERAL NOTES:**

ALL CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 2,000 PSF

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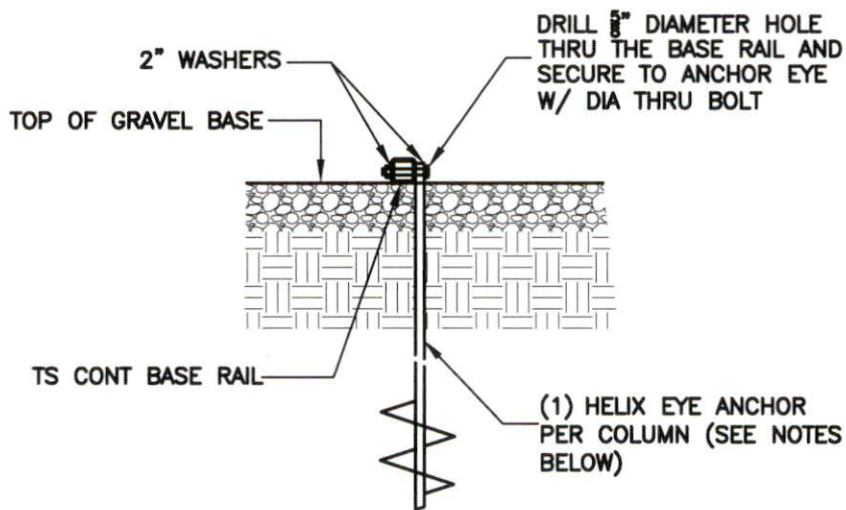
PROJECT NO:  
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**S7A**

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## SOIL NAIL BASE RAIL ANCHORAGE



1  
S8

### BASE RAIL ANCHORAGE DETAIL

SCALE: 3/4" = 1'-0"

#### HELIX EMBEDMENT INFORMATION:

FOR VERY DENSE OR CEMENTED SANDS, COARSE GRAVEL, COBBLES, CALICHE, PRELOADED SILTS AND CLAYS, USE MIN. (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH 50" EMBEDMENT - ONE EACH END BASE RAIL AND 20'-0"oc MAX. WITH #4 REBAR AT 5'-0"oc BETWEEN.

FOR CORAL, USE MIN (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH 50" EMBEDMENT - ONE EACH END BASE RAIL AND 20'-0"oc MAX. WITH #4 REBAR AT 5'-0"oc BETWEEN.

FOR MED DENSE COARSE SANDS, SANDY GRAVEL, VERY STIFF SILTS, AND CLAYS, USE MIN (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH 50" EMBEDMENT - ONE EACH END BASE RAIL AND 20'-0"oc MAX. WITH #4 REBAR AT 5'-0"oc BETWEEN.

FOR LOOSE TO MEDIUM DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS, USE MIN (2) 6" HELICES WITH MINIMUM 50" EMBEDMENT - ONE EACH END BASE RAIL AND 20'-0"oc MAX. WITH #4 REBAR AT 5'-0"oc BETWEEN.

FOR VERY LOOSE TO MEDIUM DENSE SANDS, FIRM TO STIFFER CLAYS AND SILTS AND ALLUVIAL FILL, USE MIN (2) 8" HELICES WITH MINIMUM 60" EMBEDMENT - ONE EACH END BASE RAIL AND 20'-0"oc MAX. WITH #4 REBAR AT 5'-0"oc BETWEEN.

#### NOTE:

IN ALL CASES, IF FROST DEPTH EXCEEDS STATED DEPTH, ANCHOR SHOULD EXTEND A MIN. OF 12" BELOW FROST LINE.



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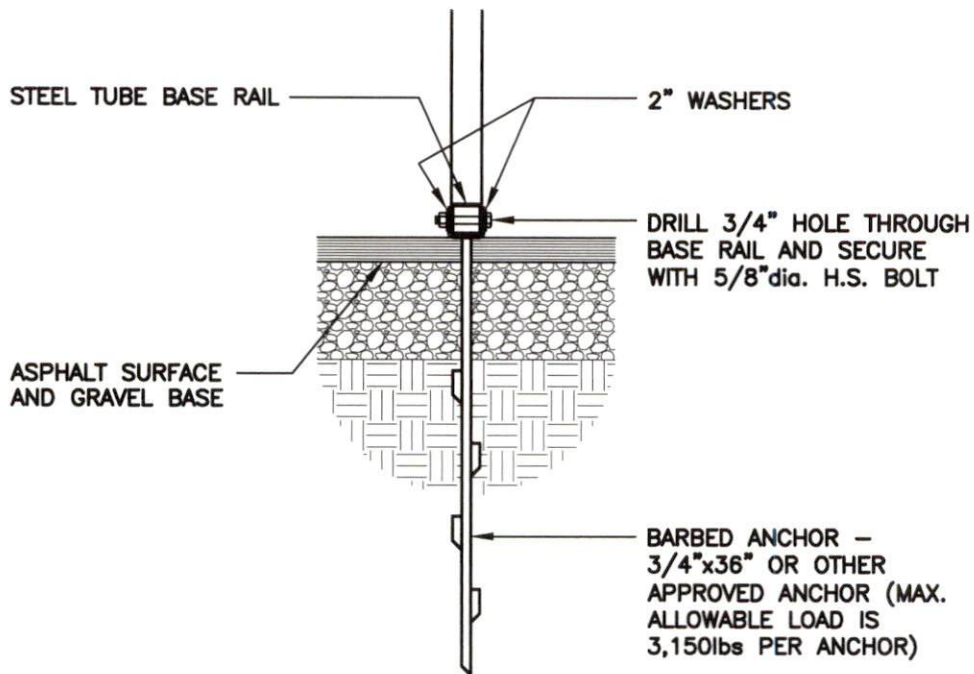
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S8

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## ASPHALT ANCHOR BASE RAIL ANCHORAGE



1
ASPHALT / BASE RAIL ANCHORAGE DETAIL

---

SBA
SCALE: 3/4" = 1'-0"



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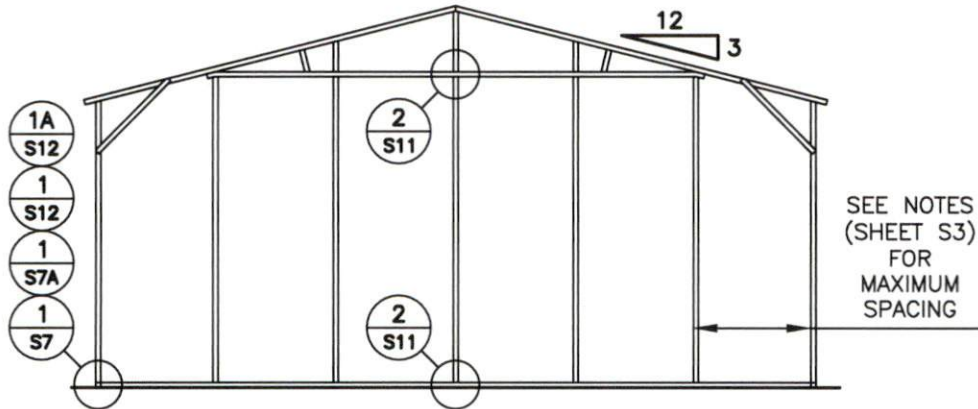
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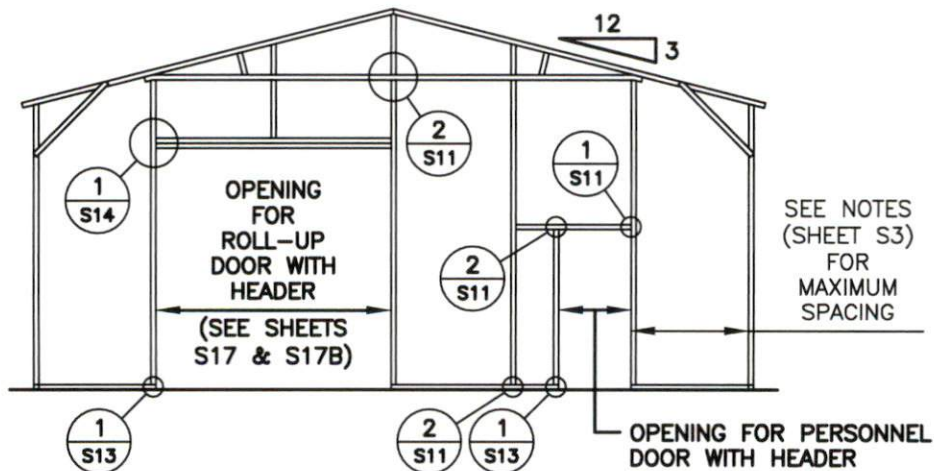
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BOX EVE RAFTER END WALL OPENINGS



TYPICAL BOX EVE RAFTER / END WALL COLUMN FRAME SECTION

**NOTE:**  
 ROLL UP DOORS SHALL  
 HAVE ONE JAMB EACH  
 SIDE + ONE FRAME  
 COLUMN BETWEEN OR SITE  
 SPECIFIC SHALL BE REQ'D.



TYPICAL BOX EVE RAFTER END WALL OPENINGS FRAMING SECTION



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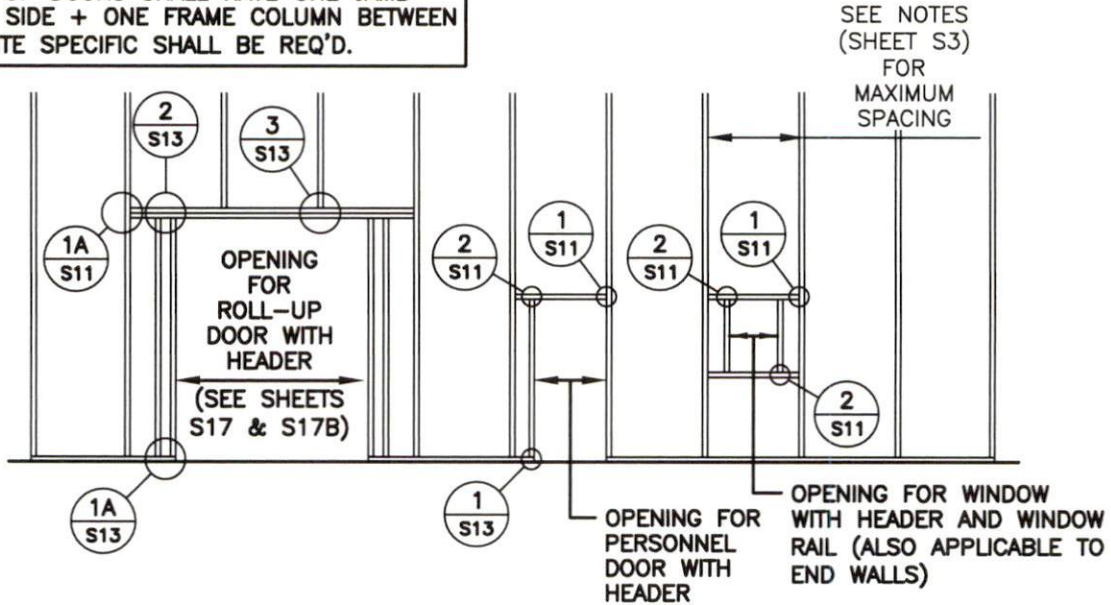
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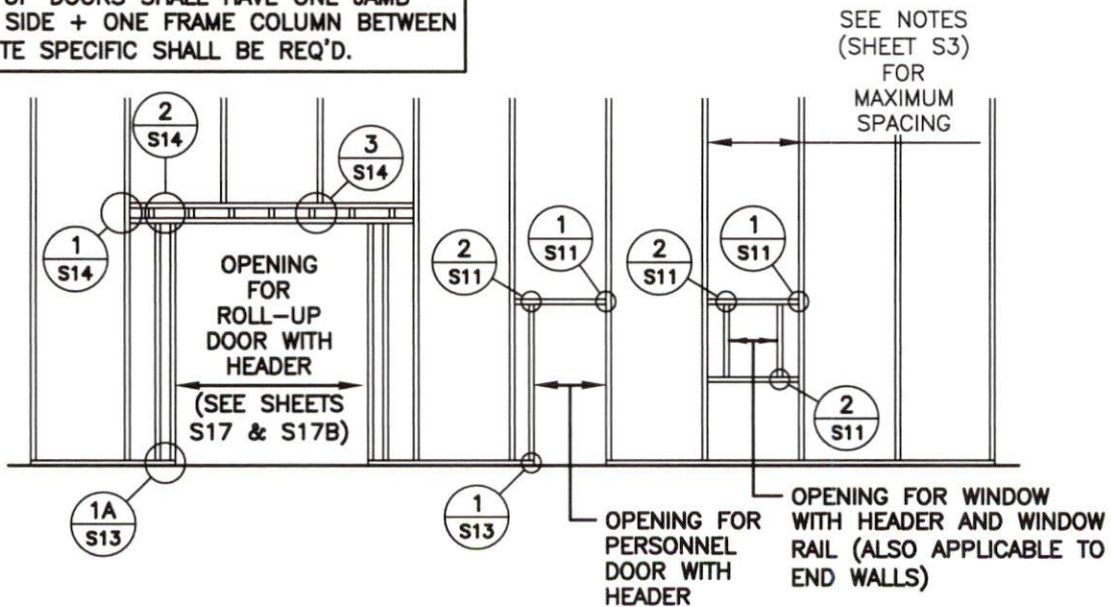
## BOX EVE RAFTER END WALL AND SIDE WALL OPENINGS

**NOTE:**  
 ROLL UP DOORS SHALL HAVE ONE JAMB  
 EACH SIDE + ONE FRAME COLUMN BETWEEN  
 OR SITE SPECIFIC SHALL BE REQ'D.



### TYPICAL END WALL OPENING FRAMING SECTION

**NOTE:**  
 ROLL UP DOORS SHALL HAVE ONE JAMB  
 EACH SIDE + ONE FRAME COLUMN BETWEEN  
 OR SITE SPECIFIC SHALL BE REQ'D.



### TYPICAL SIDE WALL OPENING FRAMING SECTION



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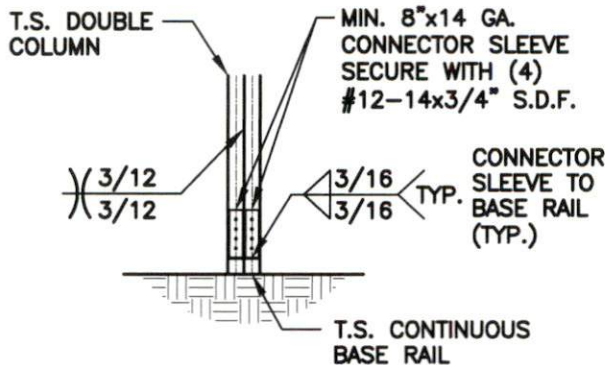
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**S9A**

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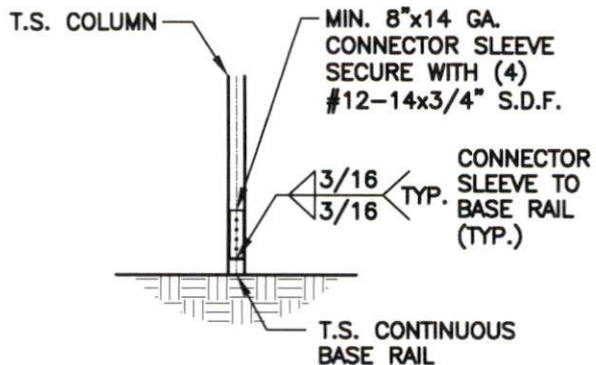
## CONNECTION DETAILS



**1**  
POST / BASE RAIL  
CONNECTION DETAIL

**S10**

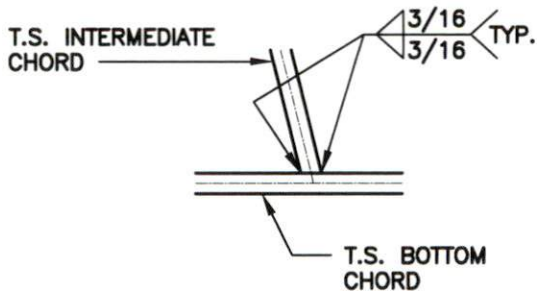
SCALE: 1/2" = 1'-0"



**1A**  
POST / BASE RAIL  
CONNECTION DETAIL

**S10**

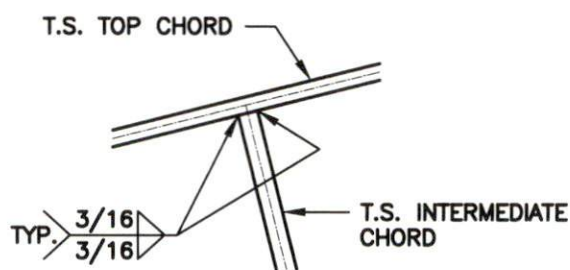
SCALE: 1/2" = 1'-0"



**2**  
INTERMEDIATE CHORD  
TO BOTTOM CHORD  
CONNECTION DETAIL

**S10**

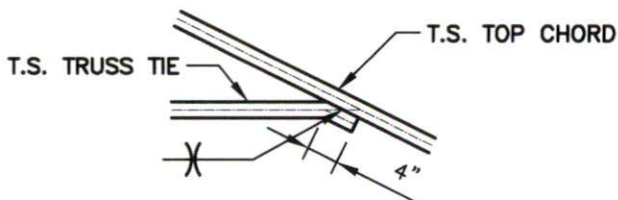
SCALE: 1/2" = 1'-0"



**3**  
INTERMEDIATE CHORD TO TOP  
CHORD CONNECTION DETAIL

**S10**

SCALE: 1/2" = 1'-0"



**4**  
TRUSS TIE  
CONNECTION DETAIL

**S10**

SCALE: 1/2" = 1'-0"



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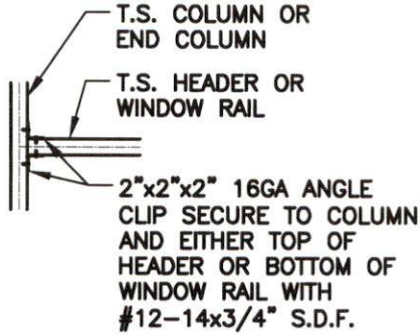
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**S10**

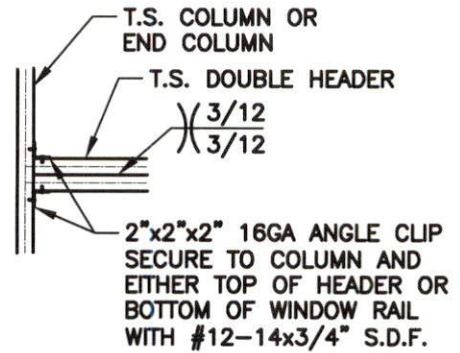
CONNECTION DETAILS



COLUMN OR WINDOW  
RAIL / WALL GIRT TO POST  
CONNECTION DETAIL

**1**  
S11

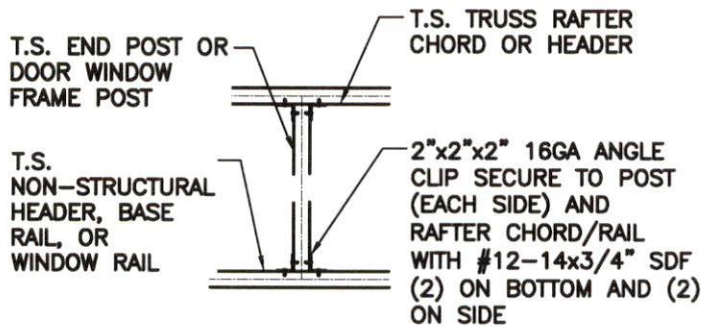
SCALE: 1/2" = 1'-0"



COLUMN / DOUBLE HEADER  
CONNECTION DETAIL

**1A**  
S11

SCALE: 1/2" = 1'-0"



DOOR OR WINDOW HEADER  
RAIL TO POST CONNECTION  
DETAIL

**2**  
S11

SCALE: 1/2" = 1'-0"



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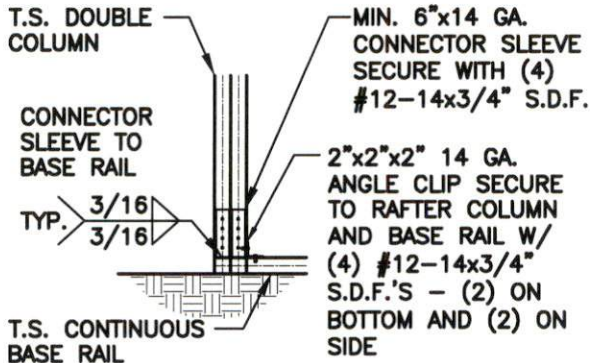
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**S11**

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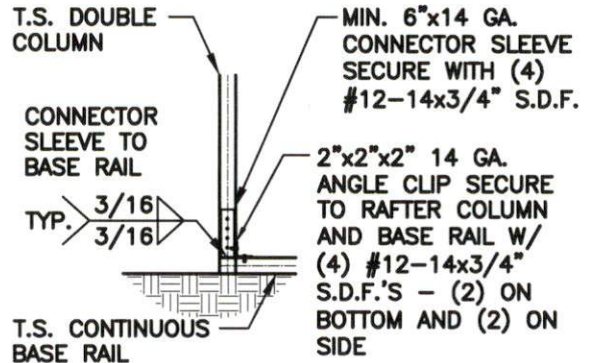
## CONNECTION DETAILS



END COLUMN / BASE RAIL  
CONNECTION DETAIL

1  
S12

SCALE: 1/2" = 1'-0"



END COLUMN / BASE RAIL  
CONNECTION DETAIL

1A  
S12

SCALE: 1/2" = 1'-0"



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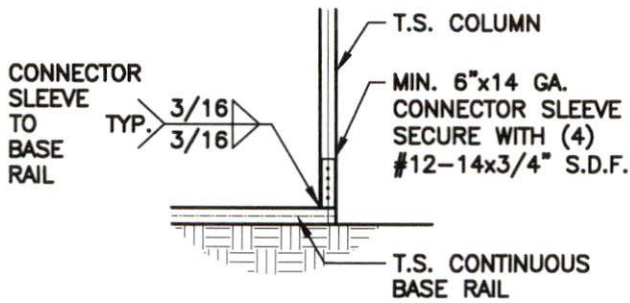
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**S12**

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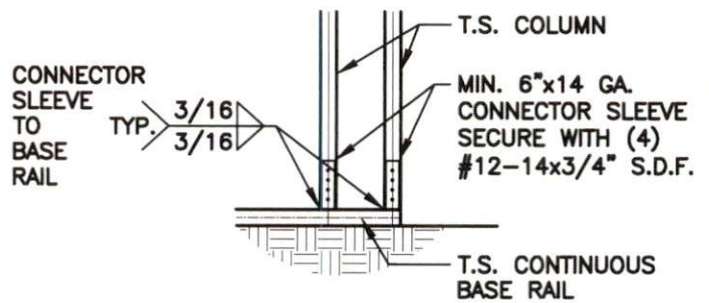
## CONNECTION DETAILS



**1**  
COLUMN / BASE RAIL CONNECTION DETAIL

**S13**

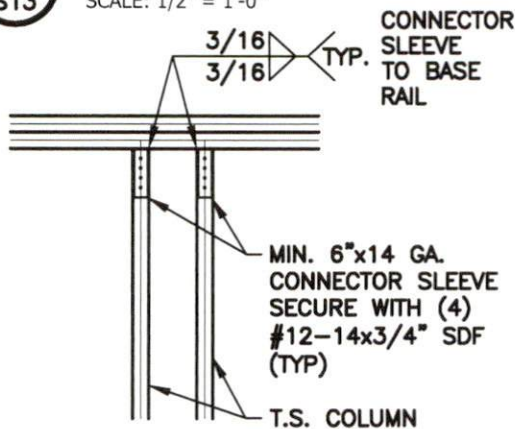
SCALE: 1/2" = 1'-0"



**1A**  
COLUMN / BASE RAIL CONNECTION DETAIL

**S13**

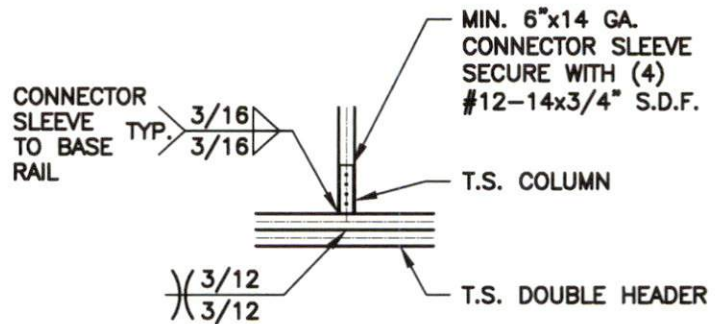
SCALE: 1/2" = 1'-0"



**2**  
DOUBLE HEADER / COLUMN CONNECTION DETAIL

**S13**

SCALE: 1/2" = 1'-0"



**3**  
COLUMN / DOUBLE HEADER CONNECTION DETAIL

**S13**

SCALE: 1/2" = 1'-0"



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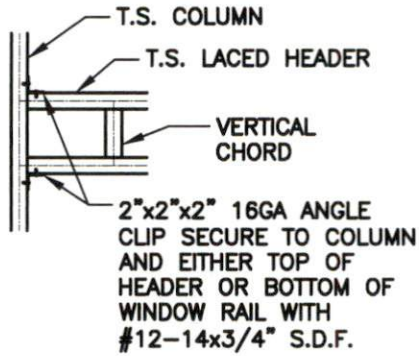
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**S13**

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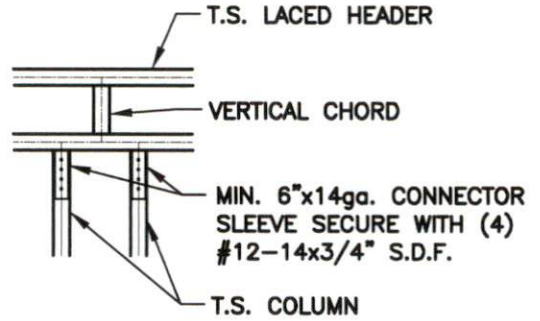
## CONNECTION DETAILS



COLUMN / LACED HEADER  
CONNECTION DETAIL

1  
S14

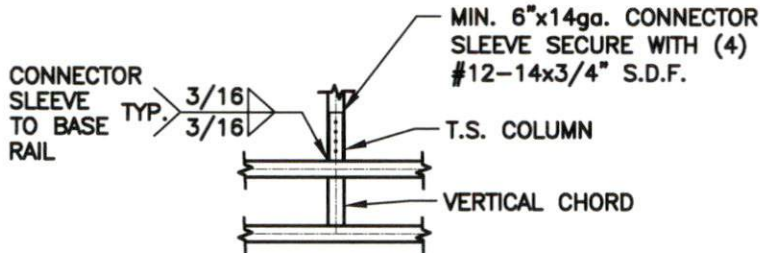
SCALE: 1/2" = 1'-0"



LACED HEADER / COLUMN  
CONNECTION DETAIL

2  
S14

SCALE: 1/2" = 1'-0"



COLUMN / LACED HEADER  
CONNECTION DETAIL

3  
S14

SCALE: 1/2" = 1'-0"



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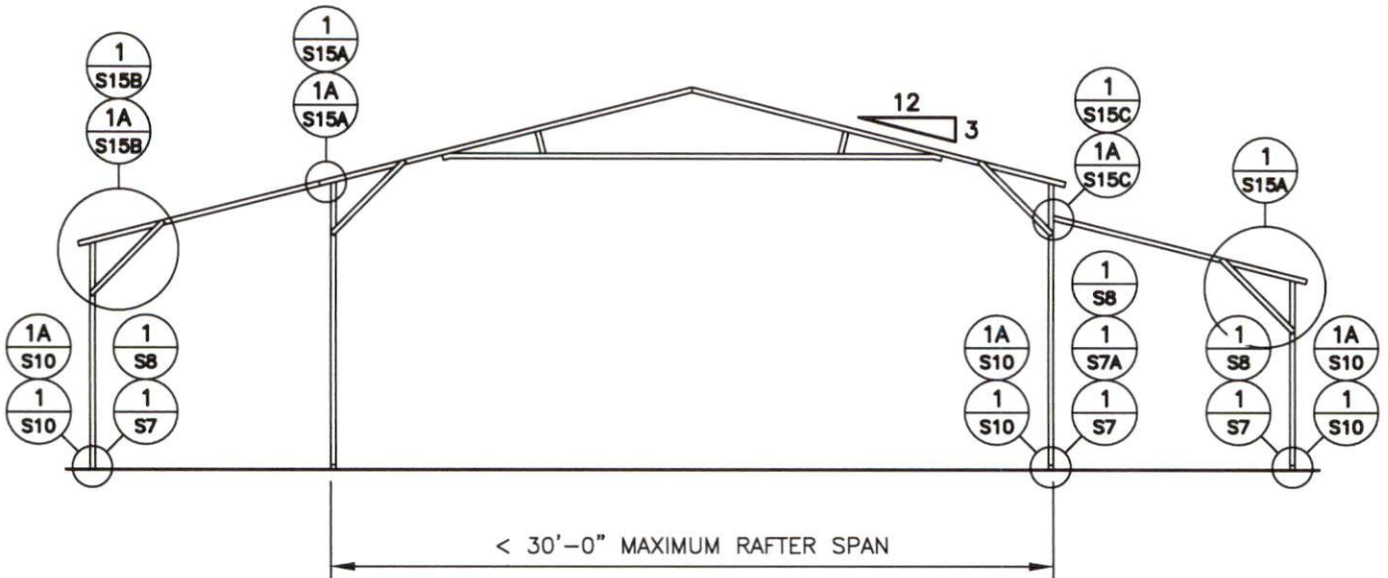
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BOX EVE RAFTER LEAN-TO OPTIONS



TYPICAL LEAN-TO OPTIONS FRAMING SECTION (BOTH OPTIONS SHOWN)

MAXIMUM WIDTH OF SINGLE MEMBER ROOF EXTENSION AND LEAN-TO OPTION IS 12'-0"  
 MAXIMUM WIDTH OF DOUBLE MEMBER ROOF EXTENSION AND LEAN-TO IS 15'-0"  
 12'-0" MAX. LEAN-TO HEIGHT WITH SINGLE COLUMN



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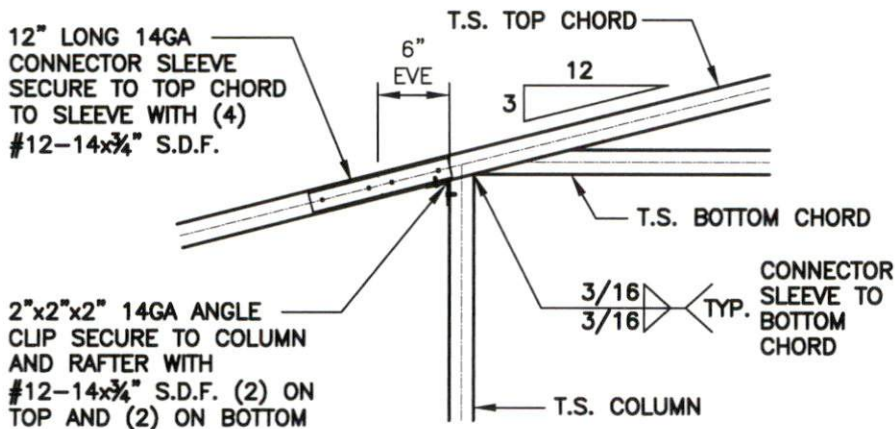
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**S15**

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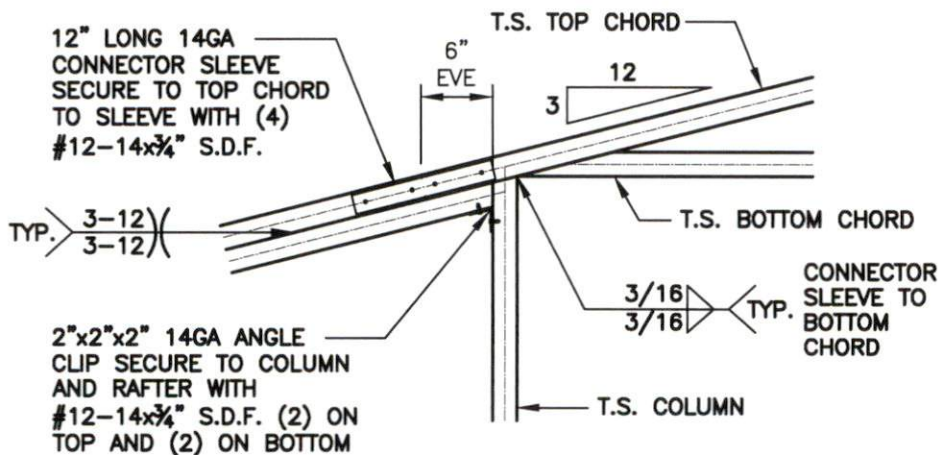
## LEAN-TO CONNECTION DETAILS



ROOF EXTENSION RAFTER / CORNER POST  
DETAIL FOR WIDTHS < 12'-0"

1  
S15A

SCALE: 3/4" = 1'-0"



ROOF EXTENSION RAFTER / CORNER POST  
DETAIL FOR WIDTHS < 15'-0"

1A  
S15A

SCALE: 3/4" = 1'-0"



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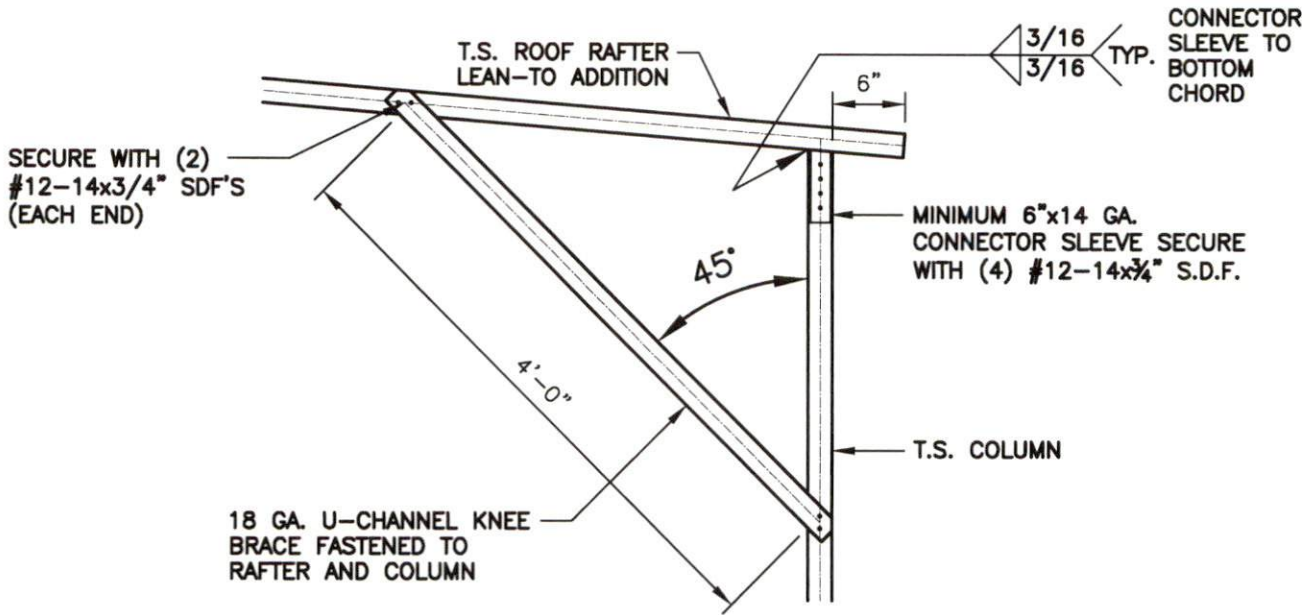
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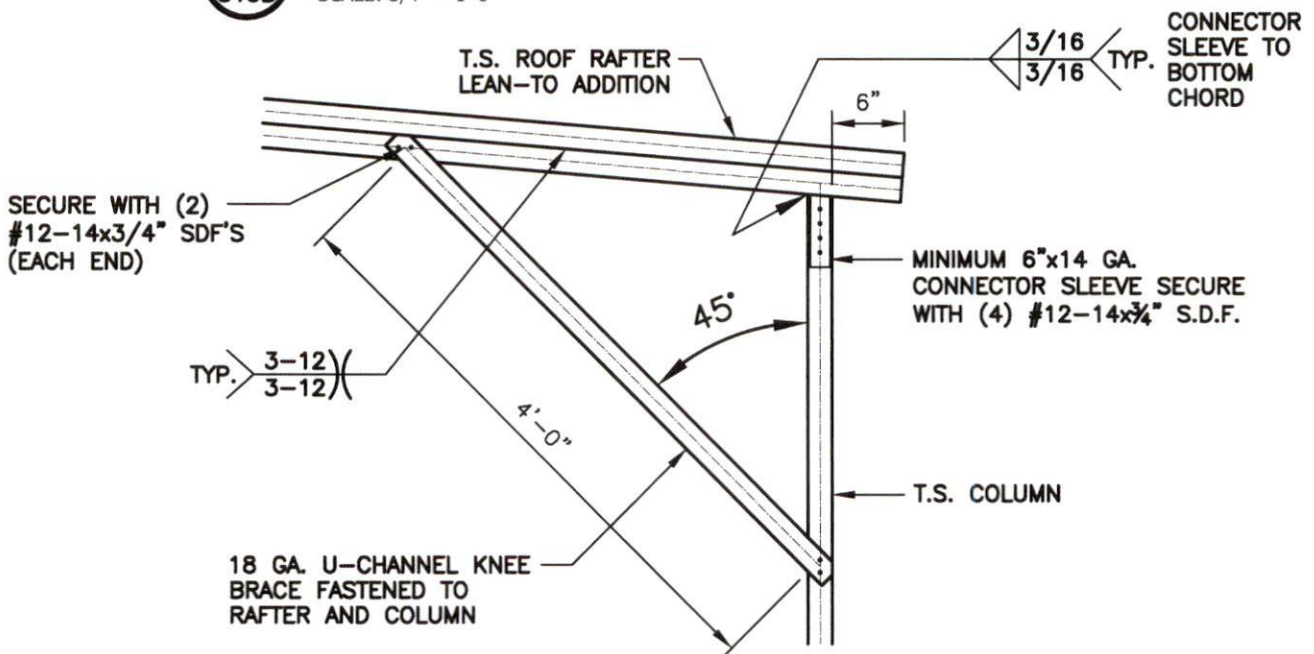
## LEAN-TO CONNECTION DETAILS



### BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR LEAN-TO RAFTER SPAN <12'-0"

1  
S15B

SCALE: 3/4" = 1'-0"



### BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR LEAN-TO RAFTER SPAN <15'-0"

1A  
S15B

SCALE: 3/4" = 1'-0"



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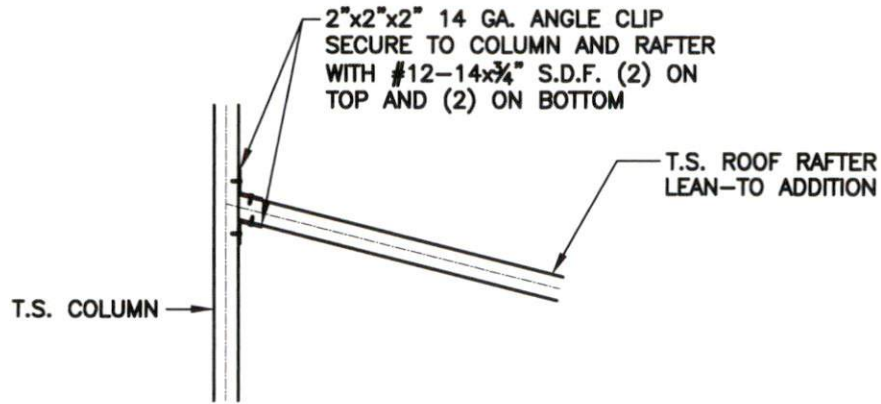
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**S15B**

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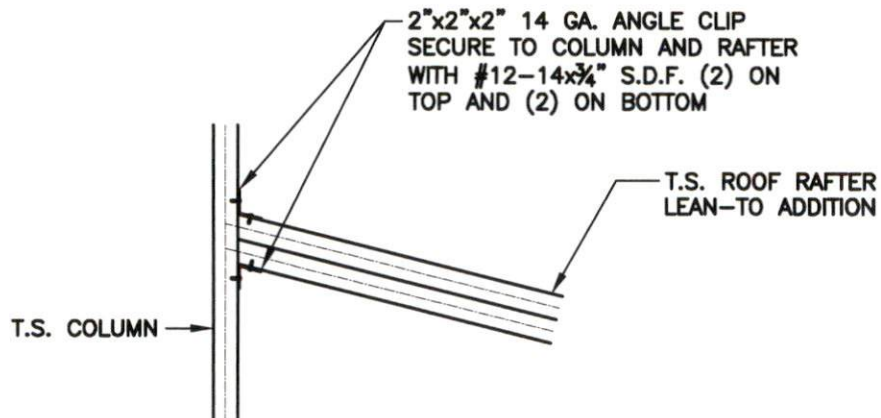
## LEAN-TO CONNECTION DETAILS



LEAN-TO RAFTER TO RAFTER POST  
CONNECTION DETAIL FOR WIDTHS < 12'-0"

1  
S15C

SCALE: 3/4" = 1'-0"



LEAN-TO RAFTER TO RAFTER POST  
CONNECTION DETAIL FOR WIDTHS < 15'-0"

1A  
S15C

SCALE: 3/4" = 1'-0"



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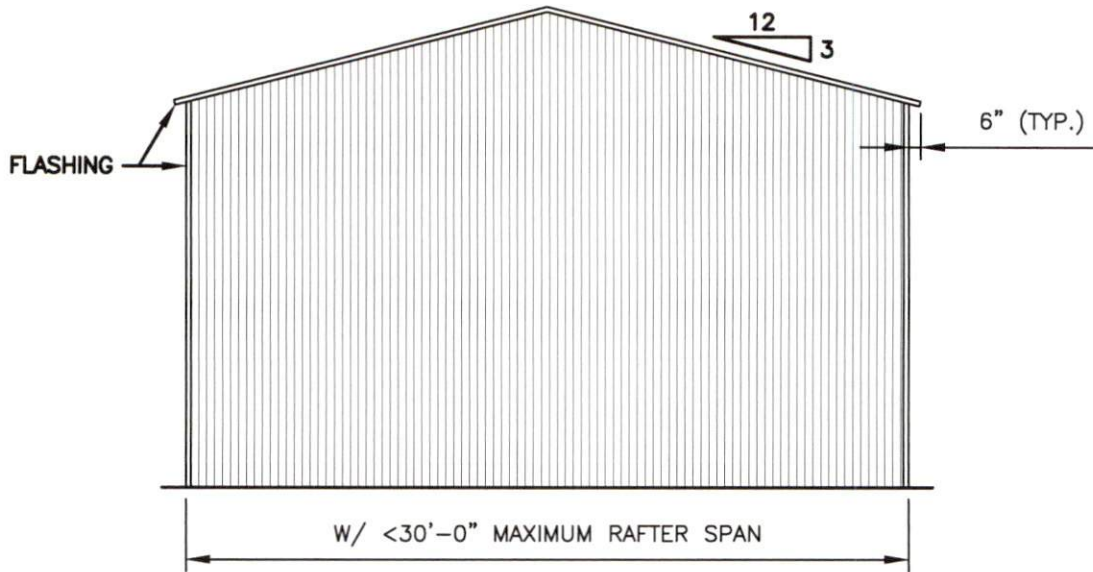
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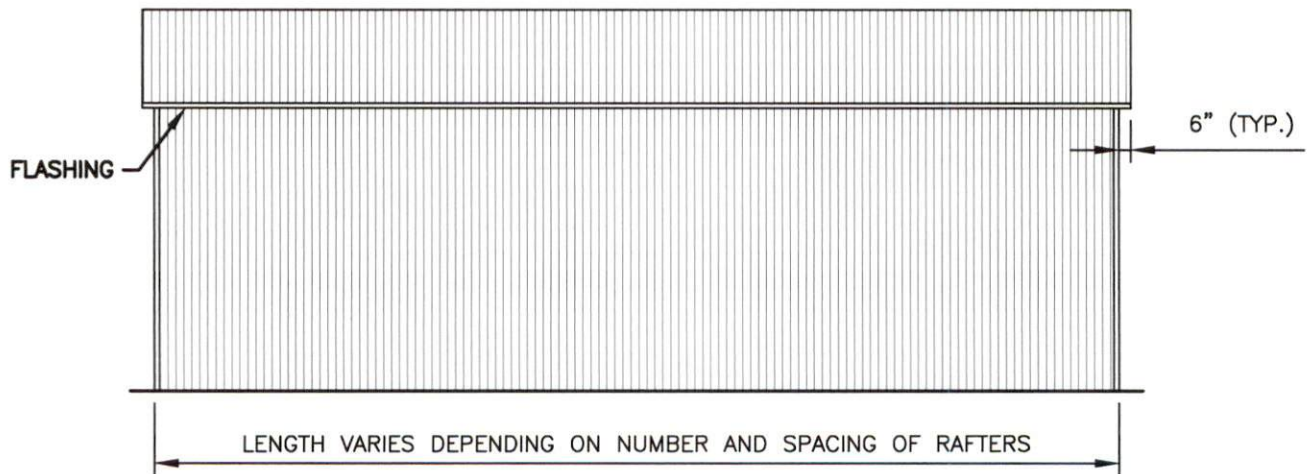
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**S15C**

VERTICAL ROOF / SIDING OPTION



TYPICAL END ELEVATION - VERTICAL ROOF / SIDING



TYPICAL SIDE ELEVATION - VERTICAL ROOF / SIDING



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TELE: 828-328-6331 FAX: 828-322-1801  
WWW.TAYLORVIOLA.COM

**JCMT Associates, PLLC**  
211 Stone Drive, Pilot Mountain, NC 27041  
Telephone: (336) 399-6277

**CUSTOM BUILT  
STRUCTURES, INC.**

510 RIVERSIDE DRIVE  
MOUNT AIRY, NORTH CAROLINA 27030  
TELE: 336-415-4520

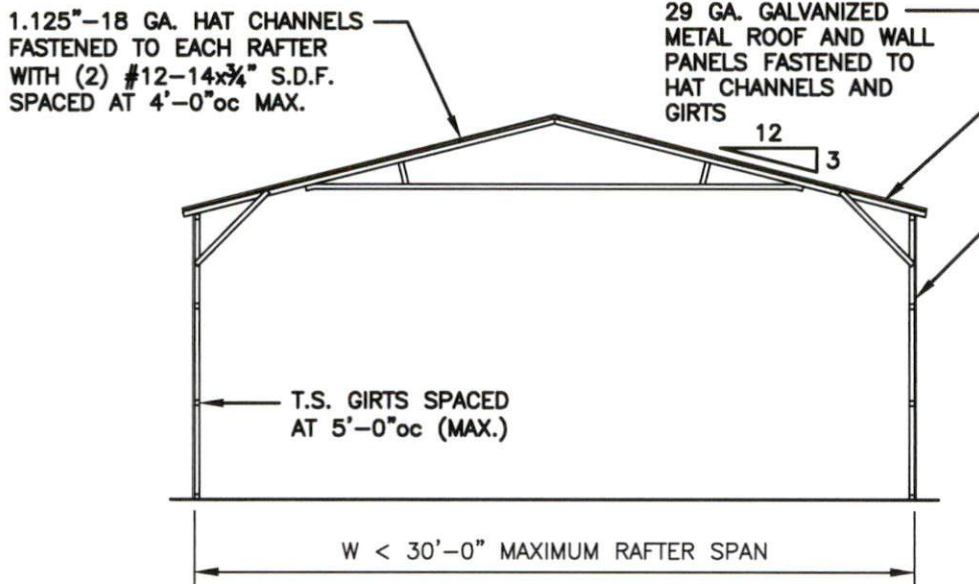
**DRAWN BY:**  
BKS

**DATE:**  
2023.10.16

**PROJECT NO:**  
23-509

**SHEET NO:**  
**S16**

VERTICAL ROOF / SIDING OPTION



TYPICAL SECTION VERTICAL ROOF / SIDING OPTION

**NOTE:**  
 H.S.S. 2-1/2"x2-1/2"x14ga. OR  
 2-1/4"x2-1/4"x14ga. MATERIAL  
 MAY BE USED FOR TRUSS METAL.



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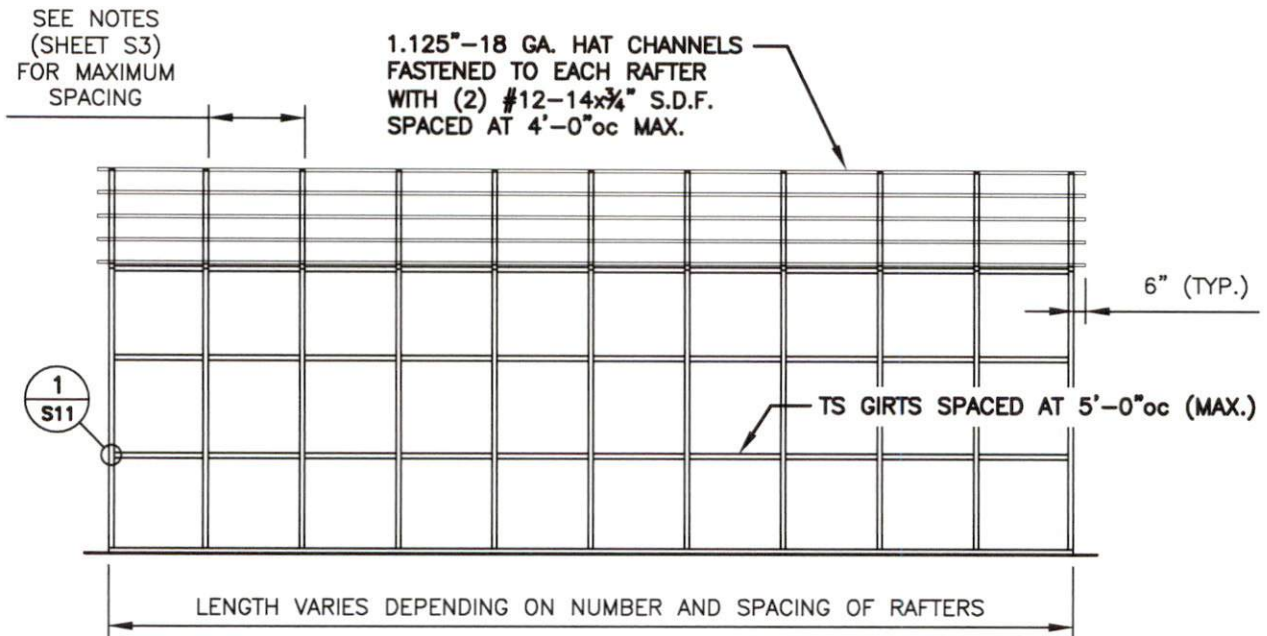
**DRAWN BY:**  
 BKS

**PROJECT NO:**  
 23-509

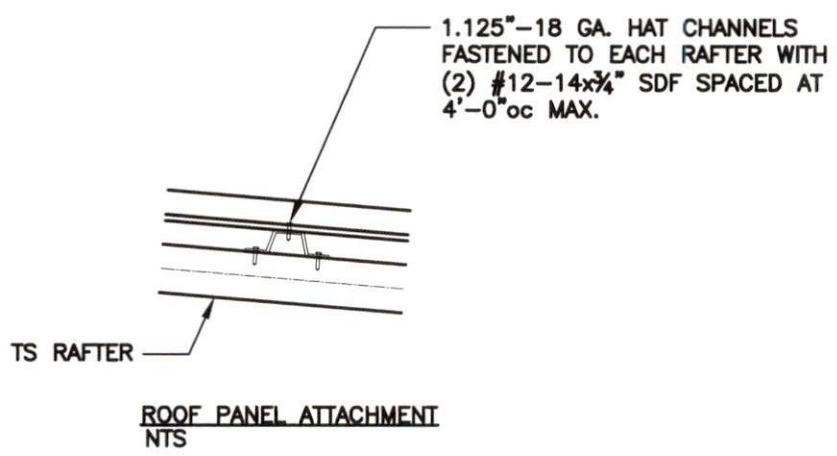
**DATE:**  
 2023.10.16

**SHEET NO:**  
**S16A**

VERTICAL ROOF / SIDING OPTION



TYPICAL SIDE FRAMING SECTION VERTICAL ROOF / SIDING OPTION




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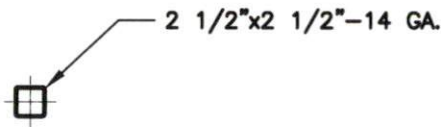
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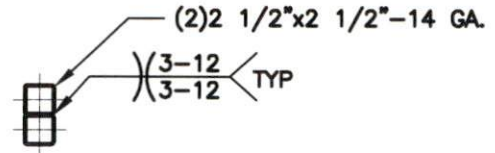
**PROJECT NO:**  
 23-509  
  
**SHEET NO:**  
**S108**

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDAR YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

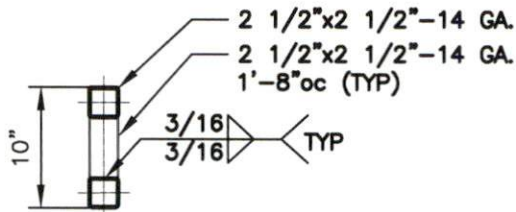
## SIDE WALL HEADER OPTIONS



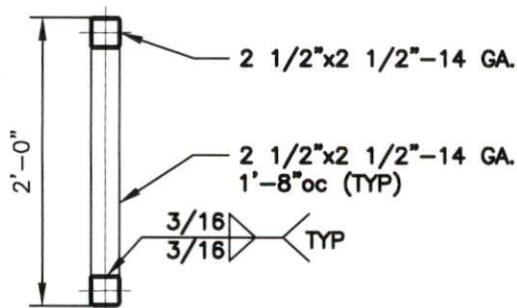
**HEADER DETAIL FOR DOOR**  
**OPENINGS < 4'-0"**  
 NTS



**HEADER DETAIL FOR DOOR**  
**OPENINGS 4'-1" < TO < 12'-0"**  
 NTS



**LACED HEADER DETAIL FOR DOOR**  
**OPENINGS 12'-1" < TO < 15'-0"**  
 NTS



**LACED HEADER DETAIL FOR DOOR**  
**OPENINGS 15'-1" < TO < 20'-0"**



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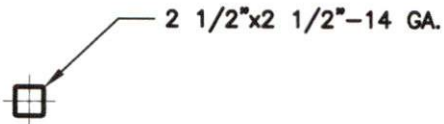
**PROJECT NO:**  
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**DATE:**  
 2023.10.16

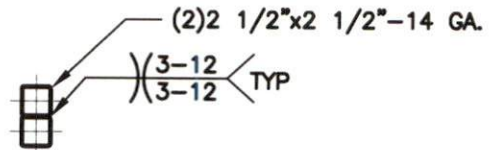
**SHEET NO:**  
**S17**



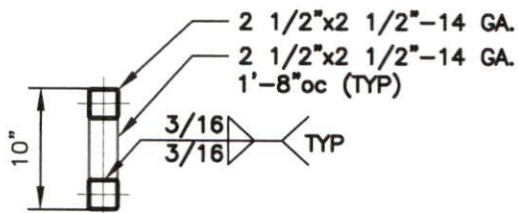
## END WALL HEADER OPTIONS



HEADER DETAIL FOR DOOR  
OPENINGS < 7'-0"  
NTS



HEADER DETAIL FOR DOOR  
OPENINGS 7'-1" < TO < 16'-0"  
NTS



LACED HEADER DETAIL FOR DOOR  
OPENINGS 16'-1" < TO < 20'-0"  
NTS



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