

# ENCLOSED GABLE END BUILDING MAXIMUM 30'-0" WIDE X 16'-0" EAVE HEIGHT WITH BOX FRAME / (UP TO) 145 M.P.H. WIND ZONE - 35 P.S.F. SNOW LOAD FOR:

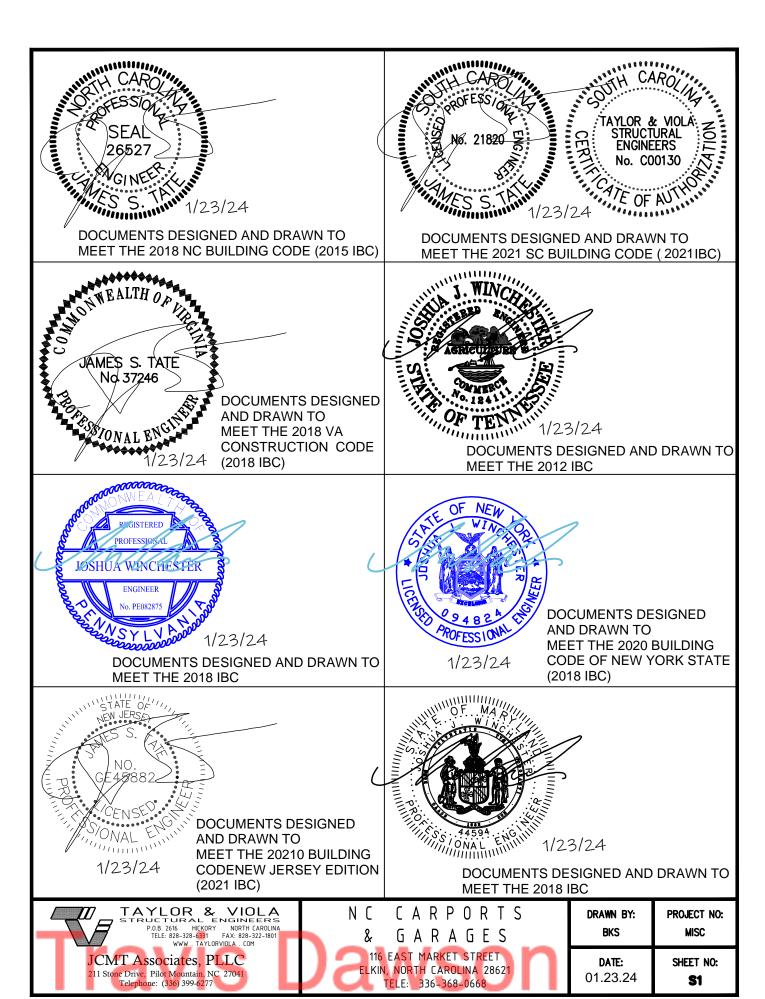
NC CARPORTS & GARAGE
116 EAST MARKET STREET
ELKIN, NORTH CAROLINA
TELE: 336-368-0668

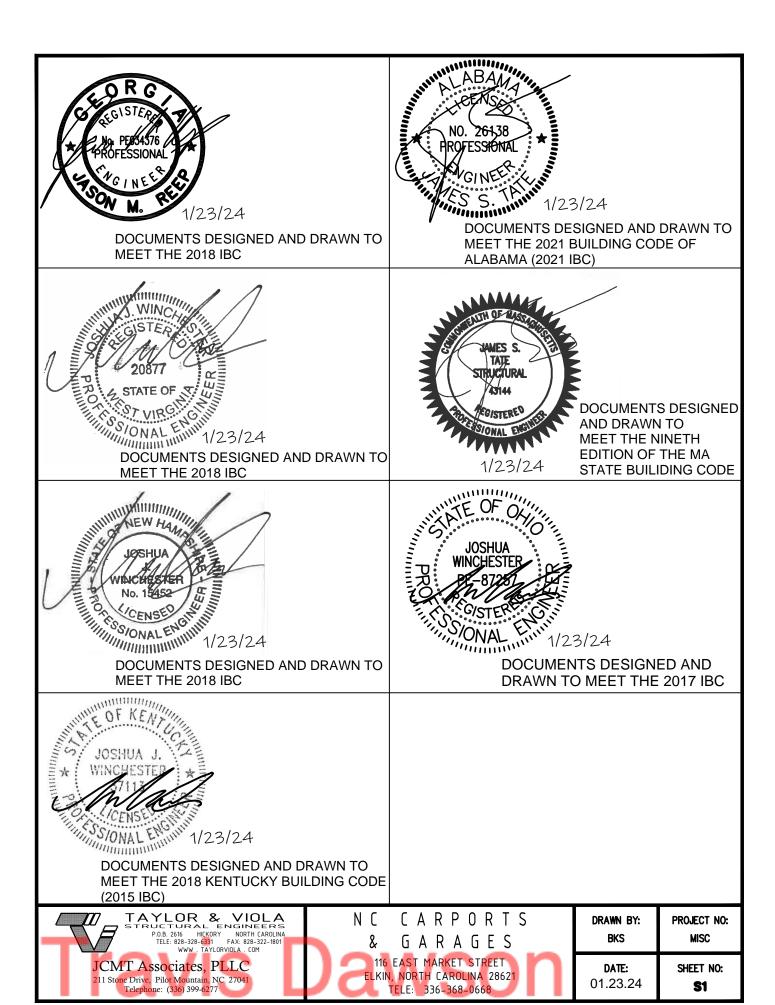
ISSUE DATE: 01.23.24











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TAYLOR & VIOLA STRUCTURAL ENGINEERS P.O.B. 2616 HICKORY NORTH CAROLINA TELE: 828-328-6331 FAX: 828-322-1801 WWW. TAYLORVIOLA. COM	NC CARPORTS & GARAGES	Drawn by: BKS	PROJECT NO: MISC
JCMT Associates, PLLC 211 Stone Drive, Pilot Mountain, NC 27041 Telephone: (336) 399-6277	116 EAST MARKET STREET ELKIN, NORTH CAROLINA 28621 TELE: 336-368-0668	<b>DATE:</b> 01.23.24	SHEET NO: <b>S2</b>

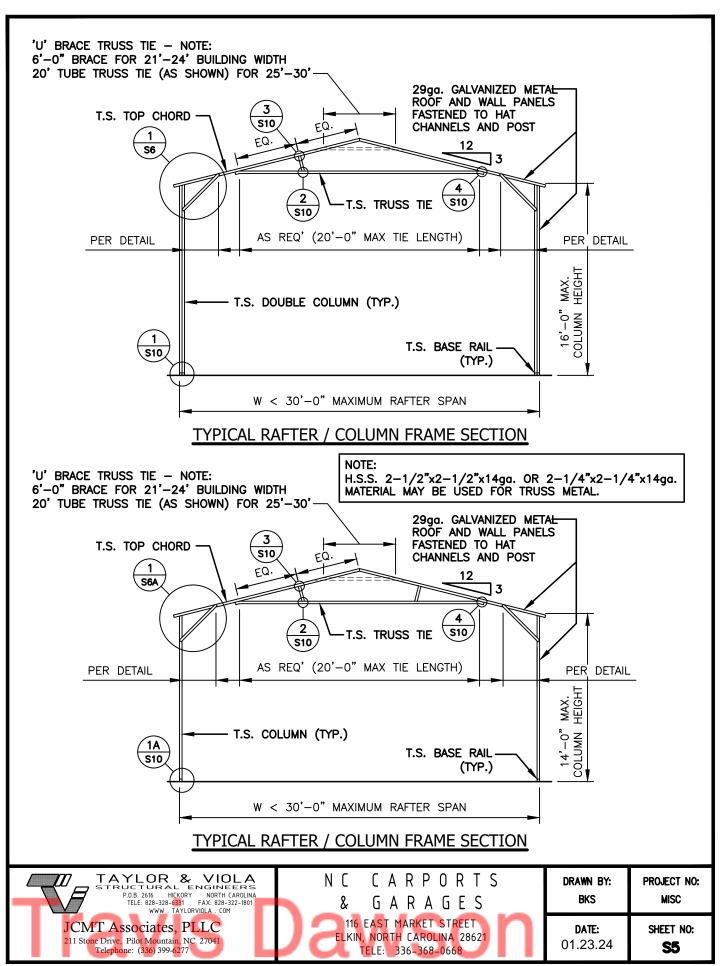
DESIGN LOADS:			
IMPORTANCE FACTORS	WIND         (1w)         1.00           SNOW         (1s)         1.00           SEISMIC         (1e)         1.00		
DEAD LOADS		_ P.S.F. _ P.S.F.	
LIVE LOADS	<b>ROOF</b> 20	_ P.S.F.	
GROUND SNOW LOAD:	35	_ P.S.F. * DRIFT LOAD HAS NOT BEEN CALCULATED	
WIND LOAD:	BASIC WIND SPEED V 14 EXPOSURE CATAGORY B		
SEISMIC DESIGN CATAGORY		A D B X C D	
PROVIDE THE FOLLOWING SE	SMIC DESIGN PARAMETERS:		
OCCUPANCY CATEGORY	+NOT FOR SLEEPING	QUARTERS	
SPECTRAL RESPONSE ACCEL	ERATION Ss 20.5	<b>%g</b> S1 <u>8.8</u> <b>%g</b>	
SITE CLASSIFICATIOND FIELD TEST . PRESUMPTIVE . HISTORICAL DATA			
BASIC STRUCTURAL SYSTEM (CHECK ONE)			
BEARING WALL DUAL W/ SPECTRAL MOMENT FRAME  X BUILDING FRAME DUAL W/ INTERMEDIATE R/C OR SPECIAL STEEL  MOMENT FRAME INVERTED PENDULUM			
ANALYSIS PROCEDURE SIMPLIFIEDX EQUIVALANT LATERAL FORCE MODAL			
LATERAL DESIGN CONTROL? EARTHQUAKEX WIND			
SOIL BEARING CAPACITIES:  PRESUMPTIVE BEARING CAPACITIES:  2,000  P.S.F.			

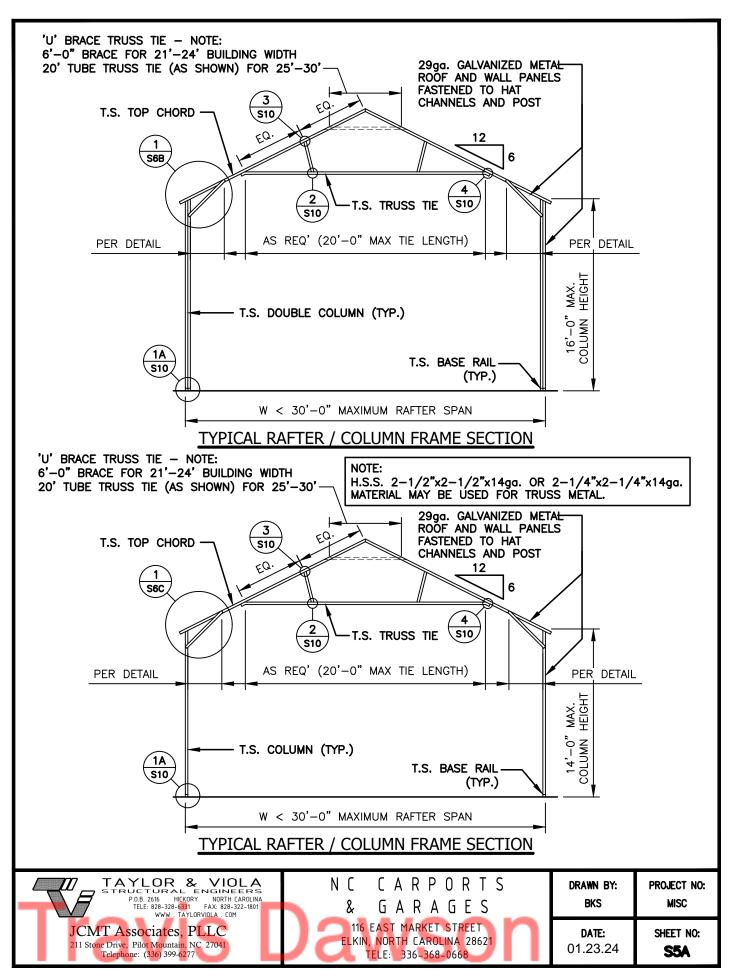
#### **GENERAL NOTES:**

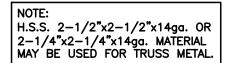
- 1. MAX FRAME SPACING SHALL BE 60"oc UNLESS NOTED OTHERWISE.
- 2. MAX. END-WALL COLUMN SPACING SHALL BE 60"oc UNLESS NOTED OTHERWISE.
- 3. TUBE MATERIAL SHALL BE  $2-1/2" \times 2-1/2" \times 14ga$ . 50 K.S.I. MIN. UNLESS NOTED OTHERWISE.
- 4. ALL FASTENERS SHALL BE (2) #12 SELF TAPPING AT 9"o.c. UNLESS NOTED OTHERWISE.
- 5. 2,000 P.S.F. ASSUMED BEARING CAPACITY UNLESS NOTED OTHERWISE.
- 6. THESE DRAWINGS ARE NOT APPLICABLE TO PARTIALLY OPEN / ENCLOSED OR OPEN BUILDINGS.
- IF FRAME SPACING IS AT 48"oc (SIDE & END WALLS) GROUND SNOW LOAD CAN INCREASE TO 43.5 P.S.F. (EXCLUDING DRIFT).

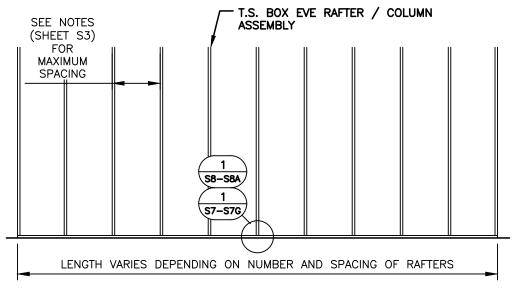


# **BOX EVE FRAME RAFTER STURCTURE** ROLL-UP DOOR PERSONNEL DOOR (AS APPLICABLE) (AS APPLICABLE) 6" (TYP.) FLASHING -W < 30'-0" MAXIMUM RAFTER SPAN TYPICAL END ELEVATION WINDOW (AS APPLICABLE) 6" (TYP.) FLASHING -LENGTH VARIES DEPENDING ON NUMBER AND SPACING OF RAFTERS TYPICAL SIDE ELEVATION TAYLOR & VIOLA STRUCTURAL ENGINEERS P.O.B. 2616 HICKORY NORTH CAROLINA TELE: 828-322-3331 FAX: 828-322-3801 WWW. TAYLORVIOLA . COM CARPORTS N C DRAWN BY: PROJECT NO: BKS MISC GARAGES 116 EAST MARKET STREET JCMT Associates, PLLC DATE: SHEET NO: ELKIN, NORTH CAROLINA 28621 211 Stone Drive, Pilot Mountain, NC 27041 Telephone: (336) 399-6277 01.23.24 **S4** TELE: 336-368-0668



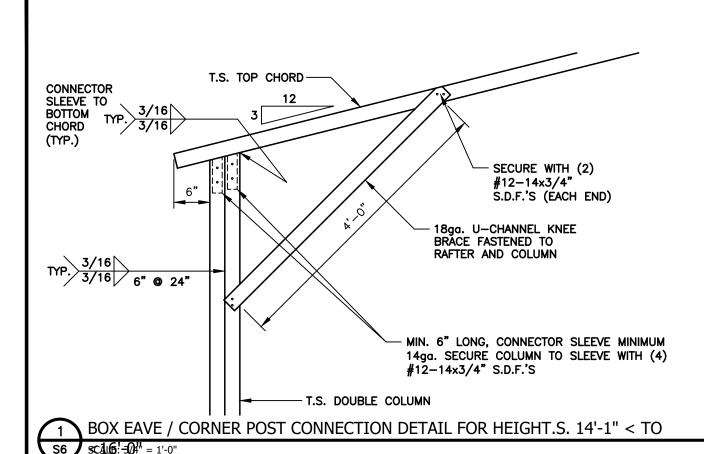


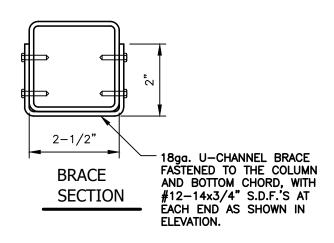




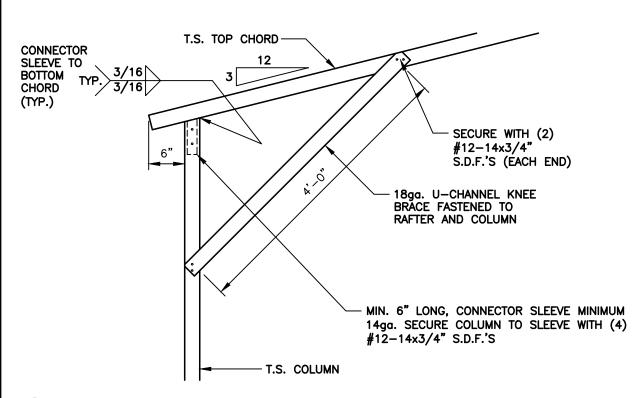
# TYPICAL RAFTER / COLUMN SIDE FRAME SECTION







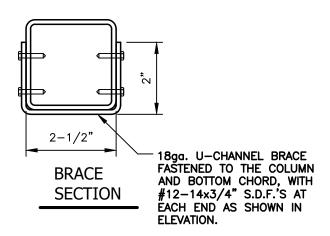




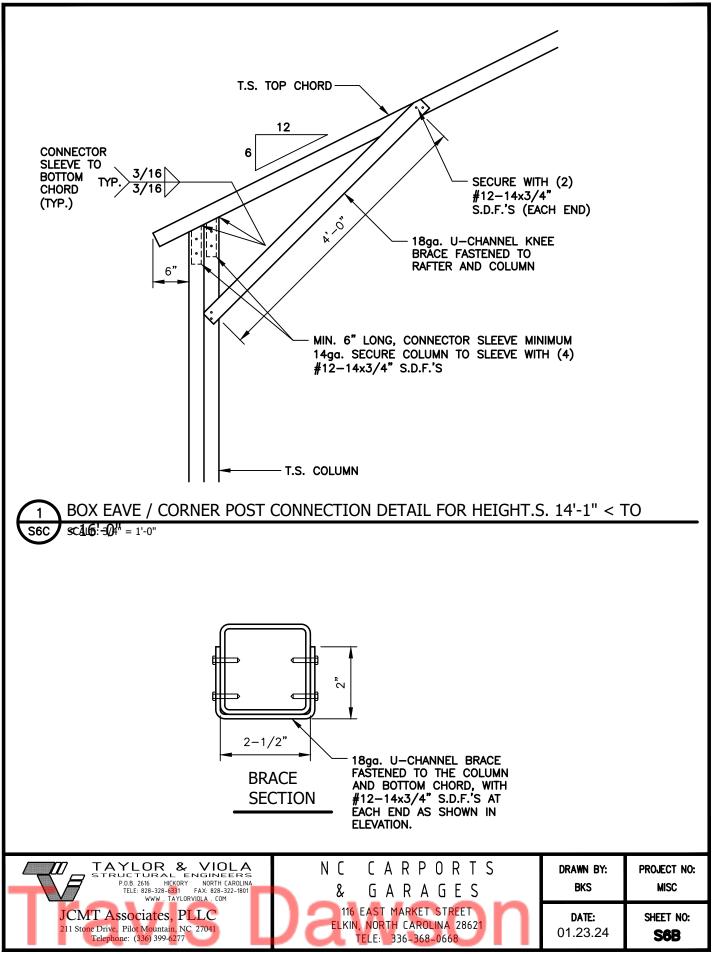
BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHT.S. < 14'-0"

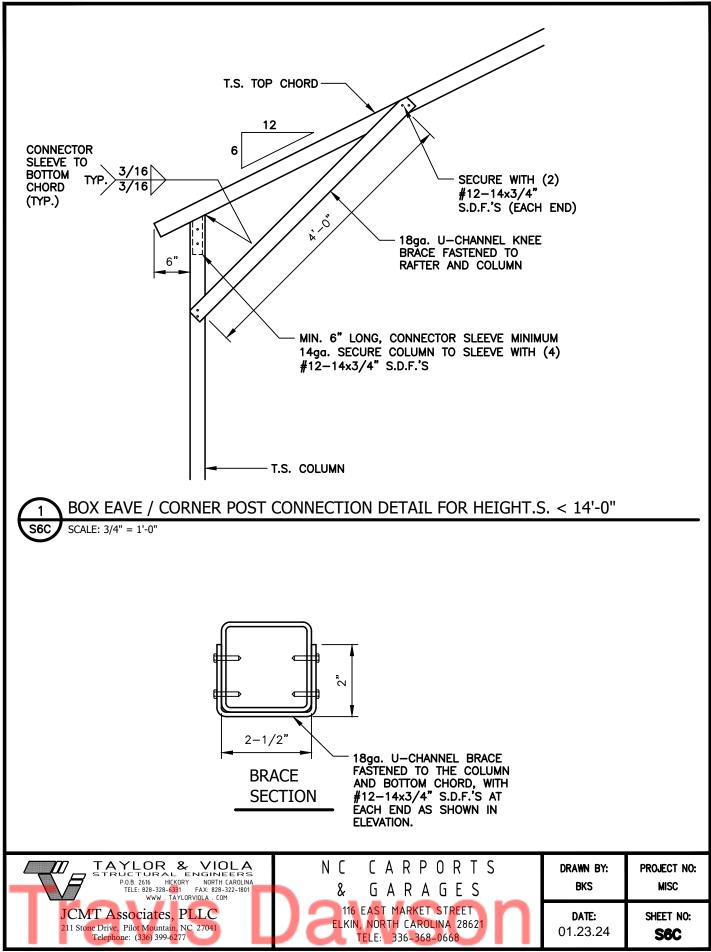
SCALE: 3/4" = 1'-0"

S6A

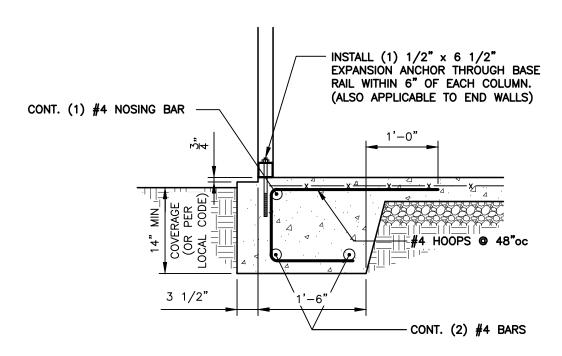








# **CONCRETE BASE RAIL ANCHORAGE**





#### **GENERAL NOTES:**

ALL CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 2,000 P.S.F.

#### **CONCRETE:**

CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3,000 P.S.I. 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.

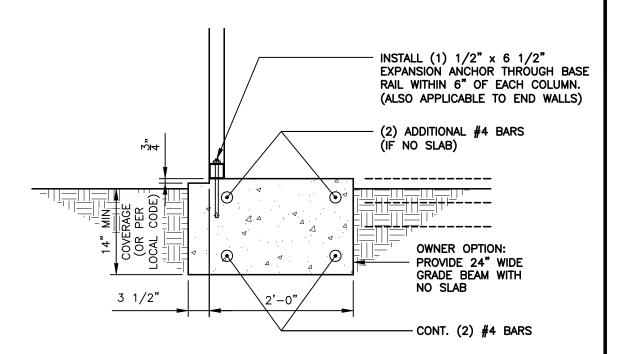
#### **REINFORCING STEEL:**

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.

- 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.



# CONCRETE BASE RAIL ANCHORAGE (NO SLAB)





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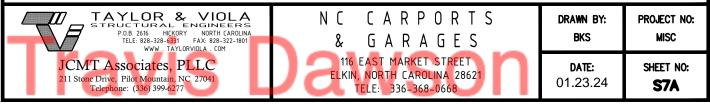
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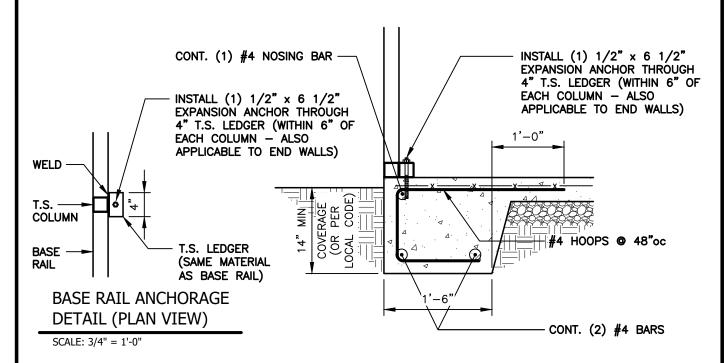
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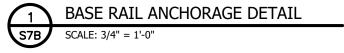
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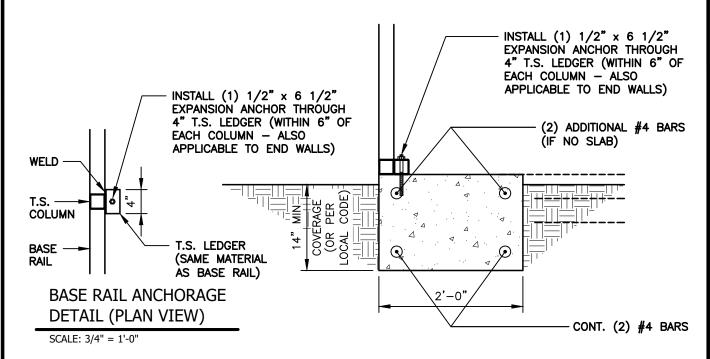
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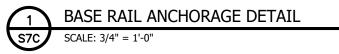
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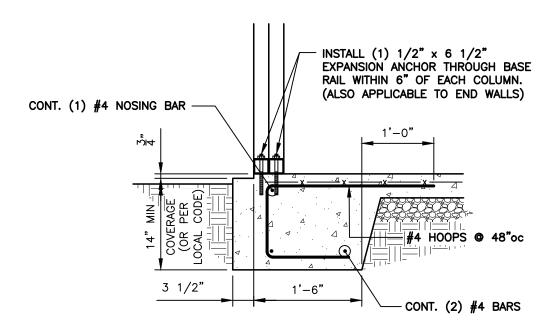
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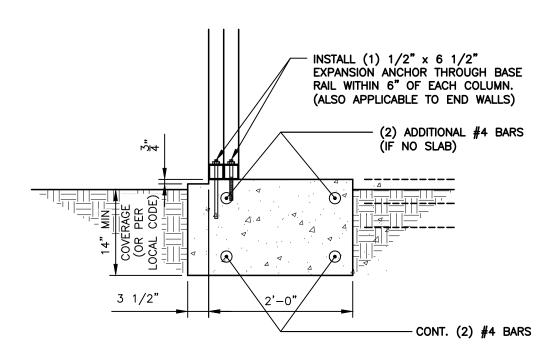
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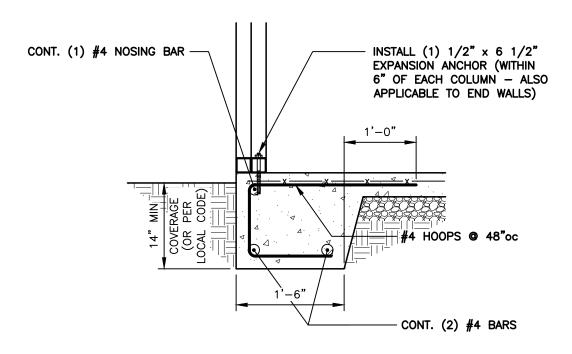
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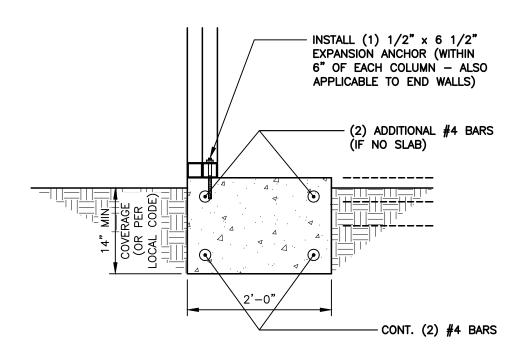
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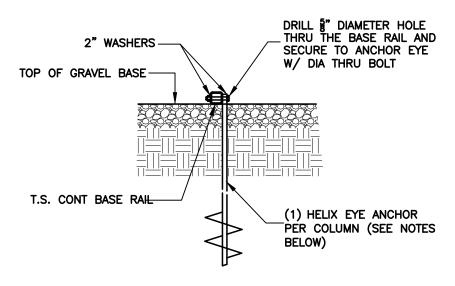
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# SOIL NAIL BASE RAIL ANCHORAGE



# 1 S8

### BASE RAIL ANCHORAGE DETAIL

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

#### HELIX EMBEDMENT INFORMATION:

FOR VERY DENSE OR CEMETED SANDS, COARSE GRAVEL, COBBLES, CALICHE, PRELOADED SILT.S. 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 SILT.S., 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 SILT.S., 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.

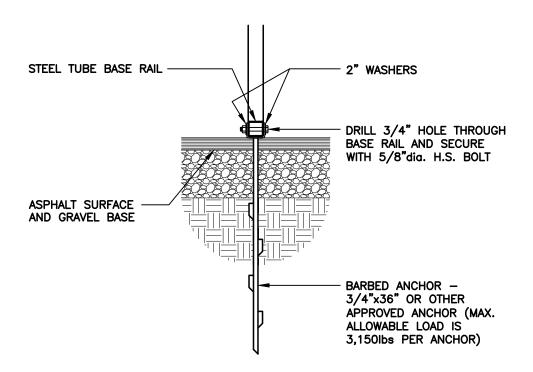
FOR VERY LOOSE TO MEDIUM DENSE SANDS, FIRM TO STIFFER CLAYS AND SILT.S. AND ALLUVIAL FILL, USE MIN (2) 8" HELICES WITH MINIMUM 60" EMBEDMENT — ONE EACH END BASE RAIL AND 20'-0"oc MAX. WITH #4 REBAR AT 5'-0"oc BETWEEN.

#### NOTE:

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



# ASPHALT ANCHOR BASE RAIL ANCHORAGE

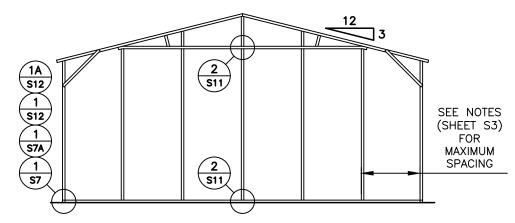


ASPHALT / BASE RAIL ANCHORAGE DETAIL

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

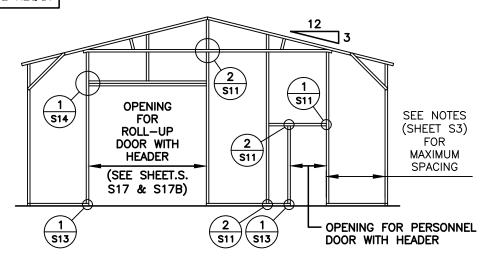


# **BOX EVE RAFTER END WALL OPENINGS**



# TYPICAL BOX EVE RAFTER / END WALL COLUMN FRAME SECTION

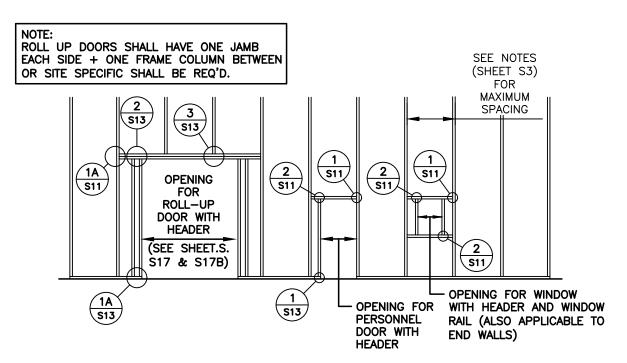
NOTE:
ROLL UP DOORS SHALL
HAVE ONE JAMB EACH
SIDE + ONE FRAME
COLUMN BETWEEN OR SITE
SPECIFIC SHALL BE REQ'D.



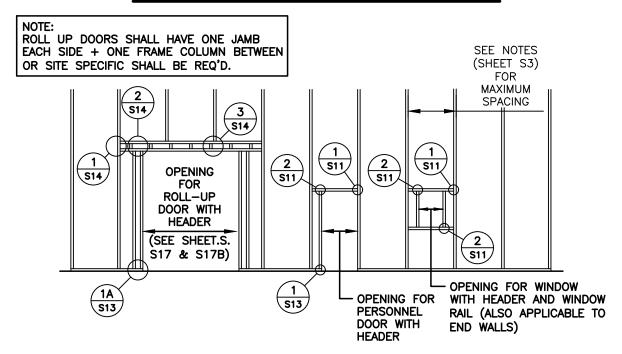
# TYPICAL BOX EVE RAFTER END WALL OPENINGS FRAMING SECTION



### BOX EVE RAFTER END WALL AND SIDE WALL OPENINGS

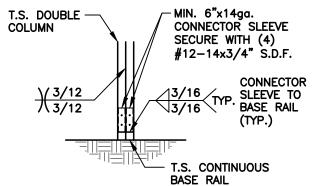


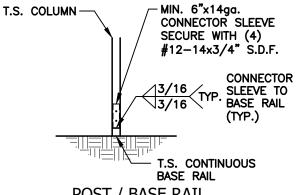
# TYPICAL END WALL OPENING FRAMING SECTION



### TYPICAL SIDE WALL OPENING FRAMING SECTION

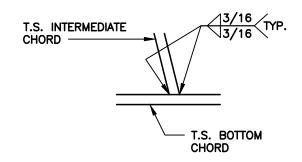


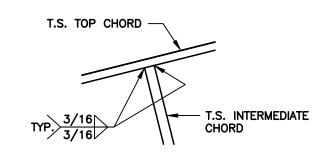




POST / BASE RAIL
CONNECTION DETAIL
S10 SCALE: 1/2" = 1'-0"

POST / BASE RAIL
CONNECTION DETAIL
S10 SCALE: 1/2" = 1'-0"





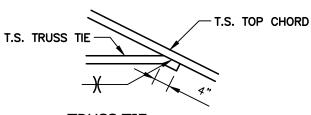
INTERMEDIATE CHORD TO BOTTOM CHORD CONNECTION DETAIL

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

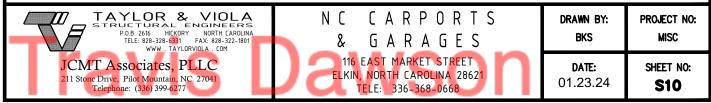
**S10** 

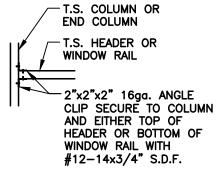
INTERMEDIATE CHORD TO TOP
CHORD CONNECTION DETAIL

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



TRUSS TIE
CONNECTION DETAIL
S10 SCALE: 1/2" = 1'-0"

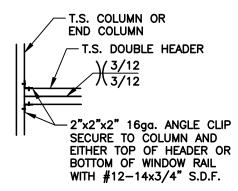




COLUMN OR WINDOW RAIL / WALL GIRT TO POST CONNECTION DETAIL

(1) (S11)

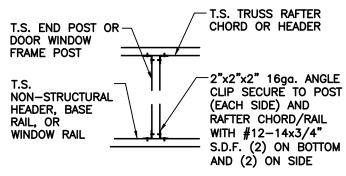
SCALE: 1/2" = 1'-0"



COLUMN / DOUBLE HEADER CONNECTION DETAIL

S11

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

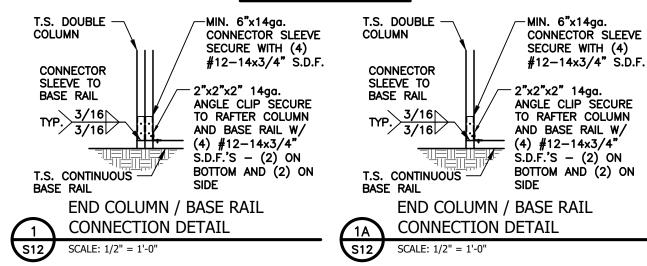


DOOR OR WINDOW HEADER RAIL TO POST CONNECTION DETAIL

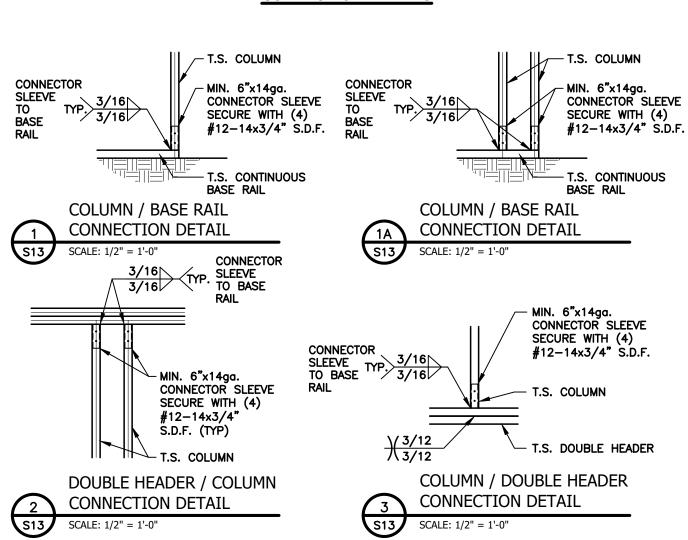
2 S11

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

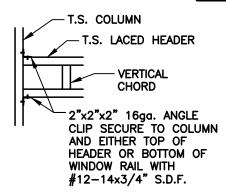












T.S. LACED HEADER

VERTICAL CHORD

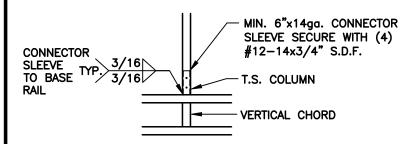
MIN. 6"x14ga. CONNECTOR SLEEVE SECURE WITH (4) #12-14x3/4" S.D.F.

T.S. COLUMN

COLUMN / LACED HEADER
CONNECTION DETAIL
SCALE: 1/2" = 1'-0"

LACED HEADER / COLUMN
CONNECTION DETAIL

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



COLUMN / LACED HEADER CONNECTION DETAIL

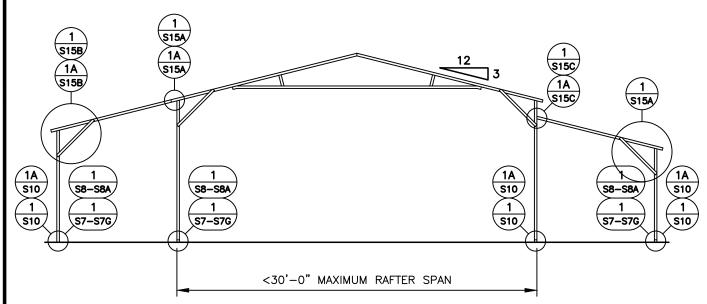
SCALE: 1/2" = 1'-0"

3

**S14** 



# **BOX EVE RAFTER LEAN-TO OPTIONS**

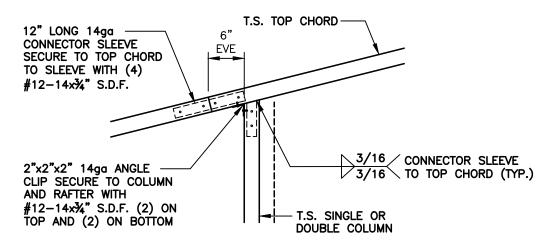


# TYPICAL LEAN-TO OPTIONS FRAMING SECTION (BOTH OPTIONS SHOWN)

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 16'-0" MAX. LEAN-TO HEIGHT WITH DOUBLE COLUMN



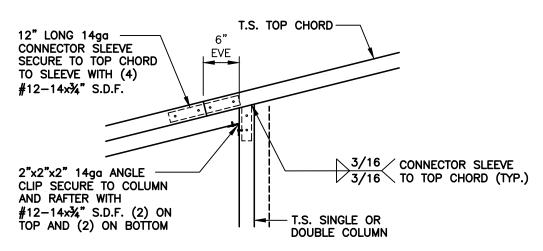
# **LEAN-TO CONNECTION DETAILS**



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

1 S15A

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



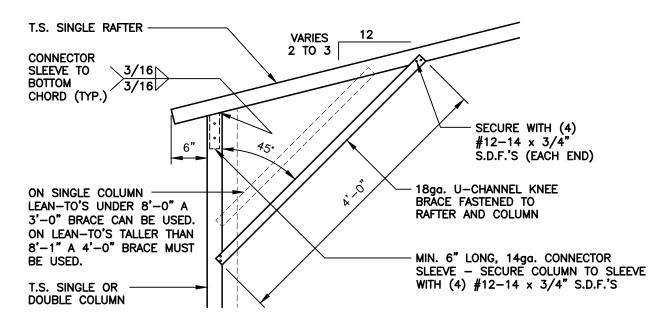
ROOF EXTENSION RAFTER / CORNER POST DETAIL FOR WIDTHS < 15'-0"

1A S15A

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

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# LEAN-TO CONNECTION DETAILS - SINGLE COLUMN



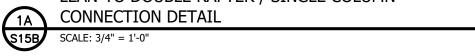
# LEAN-TO SINGLE RAFTER / SINGLE COLUMN CONNECTION DETAIL

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

DOUBLE COLUMN

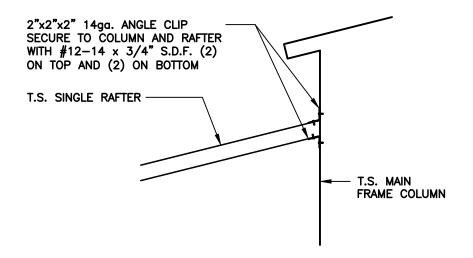
T.S. DOUBLE RAFTER -**VARIES** 2 TO 3 CONNECTOR SLEEVE TO 3/16 воттом ′3/16√ CHORD (TYP.) SECURE WITH (4) 6"  $\#12-14 \times 3/4$ " S.D.F.'S (EACH END) 18ga. U-CHANNEL KNEE ON SINGLE COLUMN BRĂCE FASTENED TO LEAN-TO'S UNDER 8'-0" A RAFTER AND COLUMN 3'-0" BRACE CAN BE USED. ON LEAN-TO'S TALLER THAN 8'-1" A 4'-0" BRACE MUST MIN. 6" LONG, 14ga. CONNECTOR SLEEVE — SECURE COLUMN TO SLEEVE BE USED. WITH (4)  $\#12-14 \times 3/4$ " S.D.F.'S T.S. SINGLE OR

LEAN-TO DOUBLE RAFTER / SINGLE COLUMN



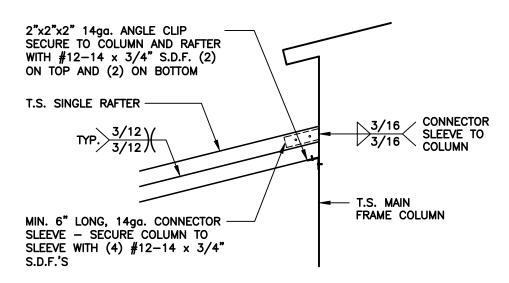


# LEAN-TO / MAIN FRAME CONNECTION DETAILS



# LEAN-TO SINGLE RAFTER / BUILDING FRAME CONNECTION DETAIL

S15C SCALE: 3/4" = 1'-0"



# LEAN-TO DOUBLE RAFTER / BUILDING FRAME CONNECTION DETAIL

S15C SCALE: 3/4" = 1'-0"



# **VERTICAL ROOF / SIDING OPTION** 6" (TYP.) FLASHING -W/ <30'-0" MAXIMUM RAFTER SPAN TYPICAL END ELEVATION - VERTICAL ROOF / SIDING 6" (TYP.) FLASHING -LENGTH VARIES DEPENDING ON NUMBER AND SPACING OF RAFTERS TYPICAL SIDE ELEVATION - VERTICAL ROOF / SIDING TAYLOR & VIOLA STRUCTURAL ENGINEERS P.O.B. 2616 HICKORY NORTH CAROLINA TELE: 828-322-3331 FAX: 828-322-3801 WWW. TAYLORVIOLA . COM CARPORTS N C DRAWN BY: PROJECT NO: BKS MISC GARAGES 116 EAST MARKET STREET

ELKIN, NORTH CAROLINA 28621

TELE: 336-368-0668

DATE:

01.23.24

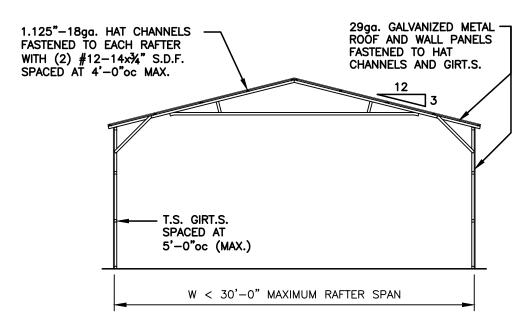
SHEET NO:

**S16** 

JCMT Associates, PLLC

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

# **VERTICAL ROOF / SIDING OPTION**

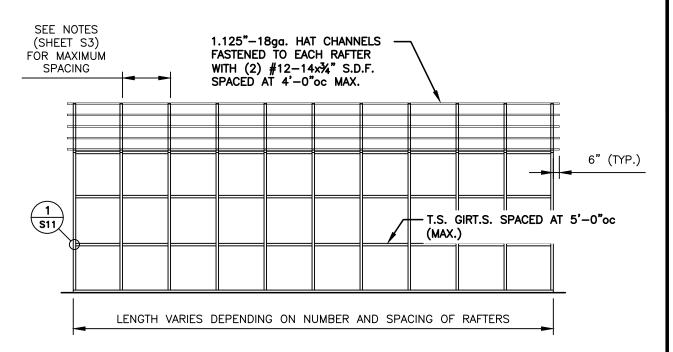


# TYPICAL SECTION VERTICAL ROOF / SIDING OPTION

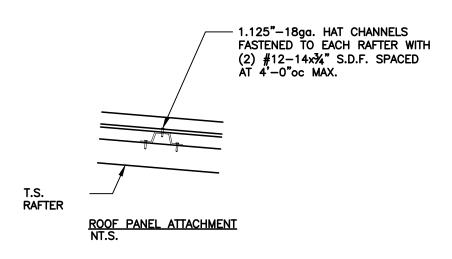
NOTE: H.S.S. 2-1/2"x2-1/2"x14ga. OR 2-1/4"x2-1/4"x14ga. MATERIAL MAY BE USED FOR TRUSS METAL.



# **VERTICAL ROOF / SIDING OPTION**

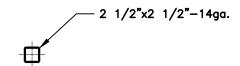


# TYPICAL SIDE FRAMING SECTION VERTICAL ROOF / SIDING OPTION

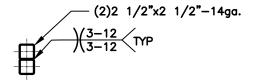




# **SIDE WALL HEADER OPTIONS**



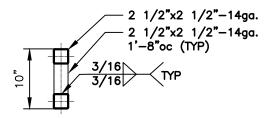
HEADER DETAIL FOR DOOR OPENINGS < 4'-0" NT.S.



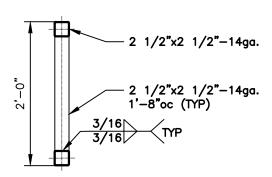
HEADER DETAIL FOR DOOR

OPENINGS 4'-1" < TO < 12'-0"

NT.S.



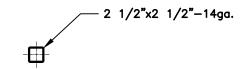
LACED HEADER DETAIL FOR DOOR OPENINGS 12'-1" < TO < 15'-0" NT.S.



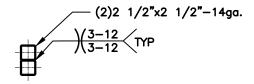
LACED HEADER DETAIL FOR DOOR OPENINGS 15'-1" < TO < 20'-0"

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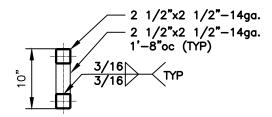
# **END WALL HEADER OPTIONS**



HEADER DETAIL FOR DOOR OPENINGS < 7'-0" NT.S.



<u>HEADER DETAIL FOR DOOR</u>
<u>OPENINGS 7'-1" < TO < 16'-0"</u>
NT.S.



<u>LACED HEADER DETAIL FOR DOOR OPENINGS 16'-1" < TO < 20'-0" NT.S.</u>

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