3.18 Harnett



# STRUCTURAL DESIGN

# **ENCLOSED BUILDING**

# MAXIMUM 30'- 0" WIDE X 16'- 0" HEIGHT-BOX EAVE FRAME AND BOW FRAME

18 June 2021 Revision 2 M&A Project No. 19157S/19259S/21115S

**Prepared for:** 

Southeastern Building Products 714 Warsaw Rd. Clinton, NC 28328

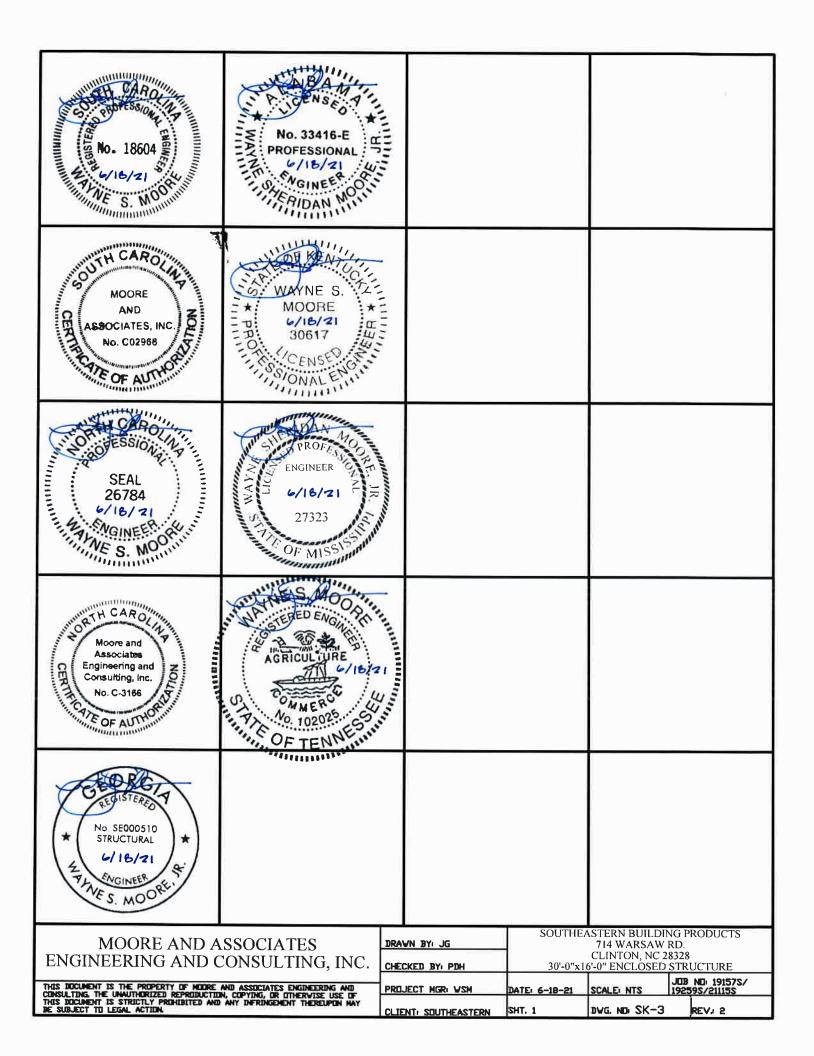
**Prepared by:** 

Moore and Associates Engineering and Consulting, Inc.

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	AND ASSOCIATES	DRAWN BYI JG	300162/	714 WARSAW RE	<b>)</b> .
	AND CONSULTING, INC.	CHECKED BY PDH	30'-0"x1	CLINTON, NC 2833 6'-0" ENCLOSED ST	RUCTURE
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#### INSTALLATION NOTES AND SPECIFICATIONS

- 1. DESIGN IS FOR MAXIMUM 30'-0' WIDE × 16'-0' EAVE HEIGHT ENCLOSED STRUCTURES.
- 2 DESIGN WAS DONE IN ACCORDANCE WITH ALL APPLICABLE BUILDING CODES LISTED ON SHEET 3A

3 DESIGN LOADS ARE AS FOLLOWS:

- A> DEAD LOAD = 1.5 PSF
- B) LIVE LOAD = 12 PSF
- C) GROUND SNOW LOAD = 25 PSF

NOTE: UNBALANCED SNOW LOADS DUE TO DRIFTING HAVE NOT BEEN EVALUATED

- 4 3-SECOND GUST ULTIMATE WIND SPEED (V<sub>ULT</sub>) = 105 MPH TO 145 MPH (NOMINAL WIND SPEED = 81 MPH TO 112 MPH): MAXIMUM RAFTER/POST AND END POST SPACING = 5.0 FEET.
- 5 3-SECOND GUST ULTIMATE WIND SPEED (V<sub>ULT</sub>) = 146 MPH TO 150 MPH (NOMINAL WIND SPEED = 113 MPH TO 116 MPH): MAXIMUM RAFTER/POST AND END POST SPACING = 4.0 FEET
- 6 END WALL COLUMNS (POSTS) ARE EQUIVALENT TO SIDE WALL COLUMNS IN SIZE AND SPACING (UNLESS NOTED OTHERWISE)
- 7 RISK CATEGORY I
- 8 WIND EXPOSURE CATEGORY B/C.
- 9 SPECIFICATIONS APPLICABLE TO 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 2" × 3" 14 GAUGE TUBE STEEL (TS) FRAMING MEMBERS (UNLESS NOTED DTHERWISE)
- 10 AVERAGE PANEL FASTENER SPACING DN-CENTERS = 10" D.C (MAX)
- 11. FASTENERS CONSIST OF #12-14×3/4" SELF-DRILLING FASTENER (SDF), USE CONTROL SEAL WASHER WITH EXTERIOR FASTENERS. SPECIFICATIONS APPLICABLE ONLY FOR MEAN ROOF HEIGHT OF 20 FEET OR LESS, AND ROOF SLOPES OF 14" (3:12 PITCH) OR LESS SPACING REQUIREMENTS FOR OTHER ROOF HEIGHTS AND/OR SLOPES MAY VARY!
- 12. ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL WITHIN 6' OF EACH RAFTER COLUMN ALONG SIDES
- 13 STANDARD GROUND ANCHORS (SOIL NAILS) CONSIST OF #4 REBAR W/ WELDED NUT x 36\* LONG AND MAY ONLY BE USED IN SUITABLE SOIL CONDITIONS OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USED IN UNSUITABLE SOILS AS NOTED.
  14 WIND FORCES GOVERN OVER SEISMIC FORCES SEISMIC PARAMETERS ANALYZED ARE:

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: JG		SOUTHEASTERN BUILDING PROD 714 WARSAW RD CLINTON, NC 28328 30'-0"x16'-0" ENCLOSED STRUCTU	
,	CHECKED BY PDH	30'-0"x1	<u>6'-0" ENCLOSEI</u> I	JOB NO: 191575/
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#### LIST OF APPLICABLE BUILDING CODES

2018 INTERNATIONAL BUILDING CODE (IBC 2018)

2015 INTERNATIONAL BUILDING CODE (IBC 2015)

2012 INTERNATIONAL BUILDING CODE (IBC 2012)

BUILDING CODE 2015 OF ALABAMA (ADOPTS THE IBC 2015 WITH AMENDMENTS)

GEDRGIA STATE MINIMUM STANDARD BUILDING CODE (ADOPTS THE IBC 2018 WITH AMENDMENTS)

2018 KENTUCKY BUILDING CODE (ADOPTS THE IBC 2015 WITH AMENDMENTS)

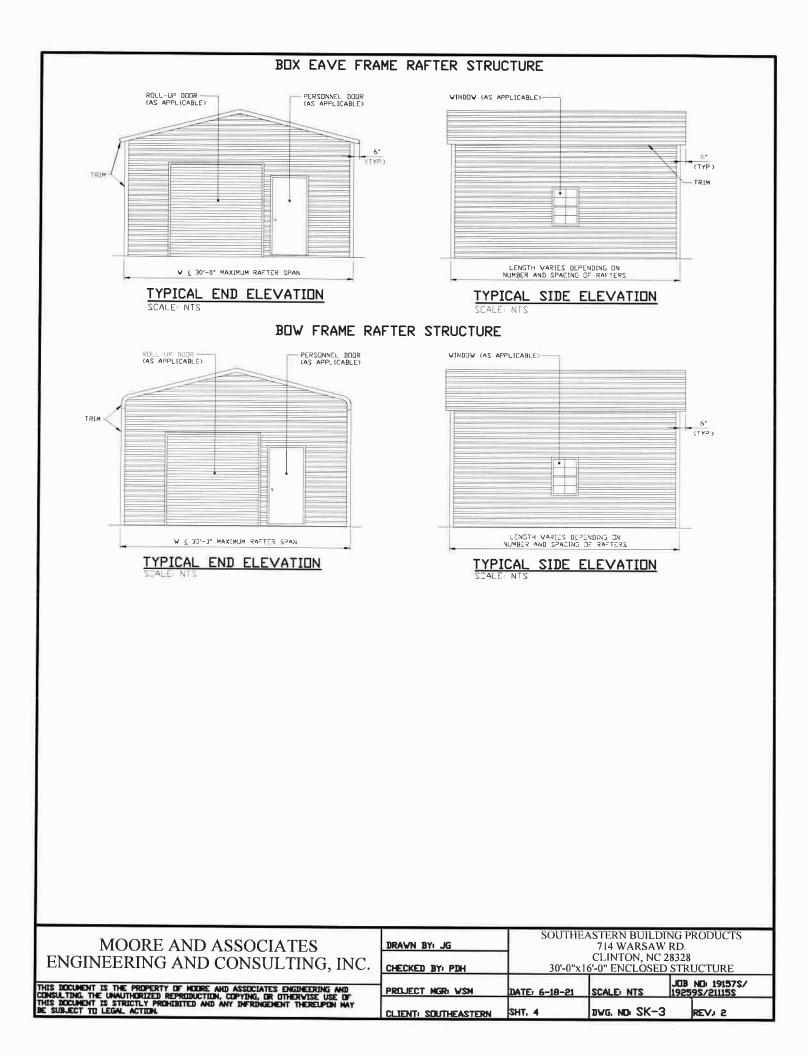
MISSISSIPPI BUILDING CODE (IBC 2018)

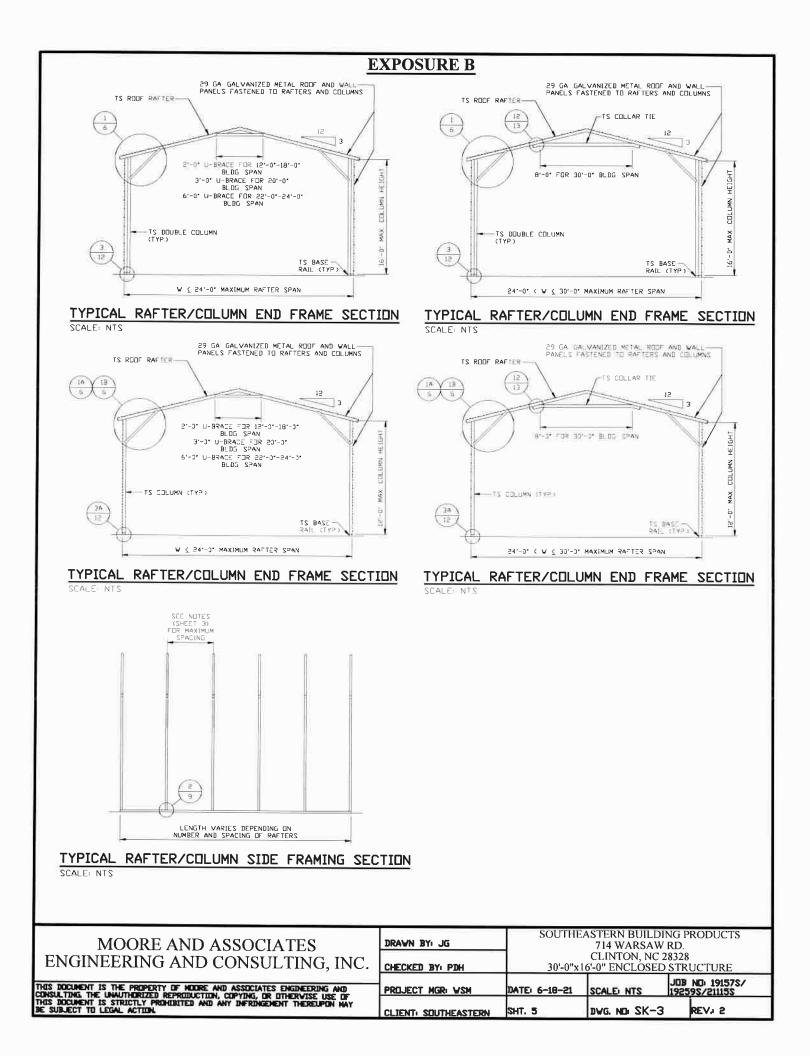
2018 NORTH CAROLINA BUILDING CODE (ADOPTS THE IBC 2015 WITH AMENDMENTS)

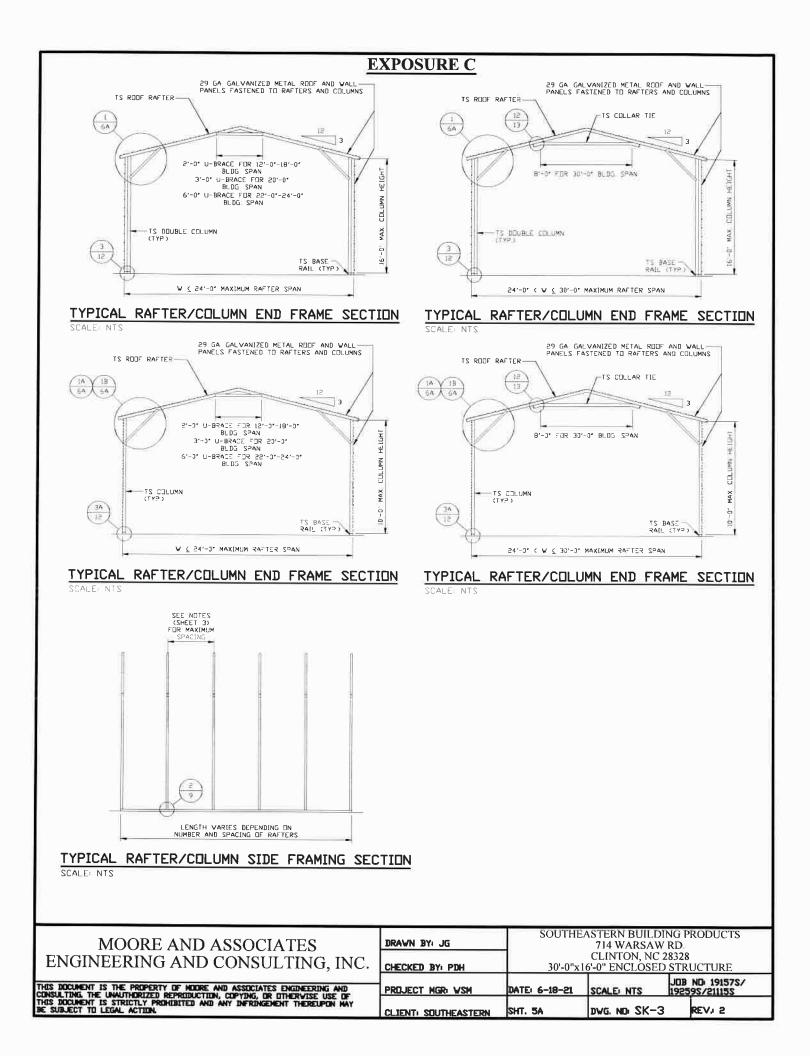
2018 SOUTH CAROLINA BUILDING CODE (ADOPTS THE IBC 2012 WITH AMENDMENTS)

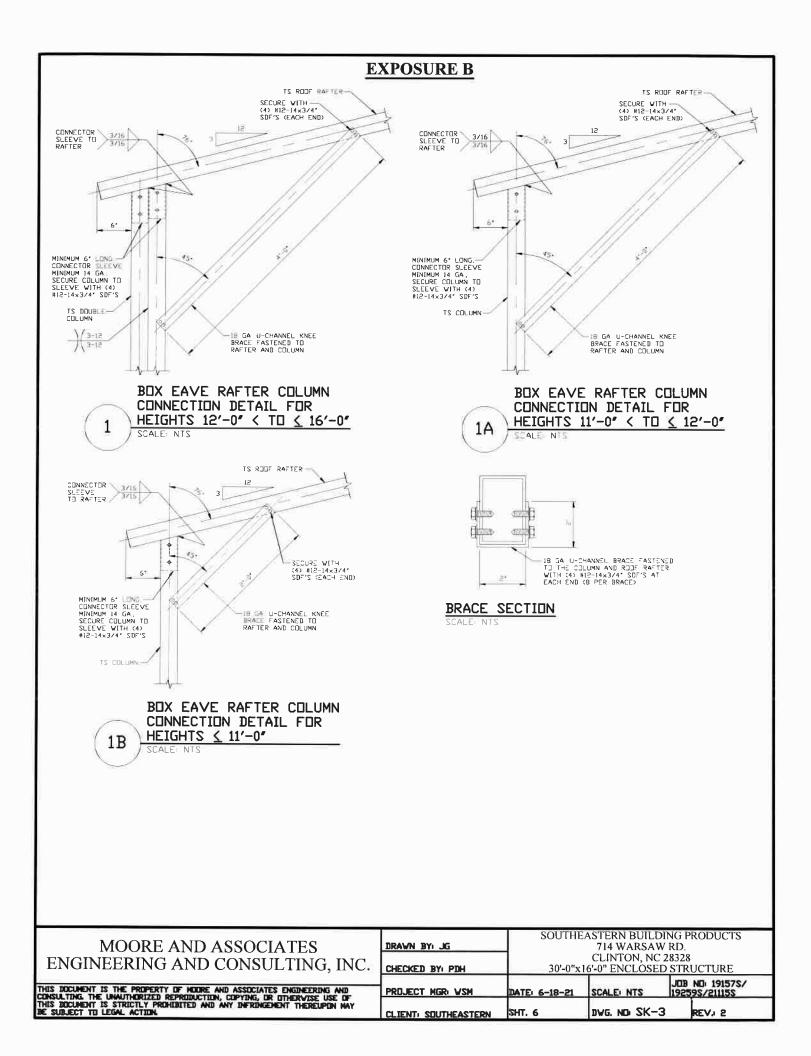
BUILDING CODE 2012 OF TENNESSEE (ADOPTS THE IBC 2012 WITH AMENDMENTS)

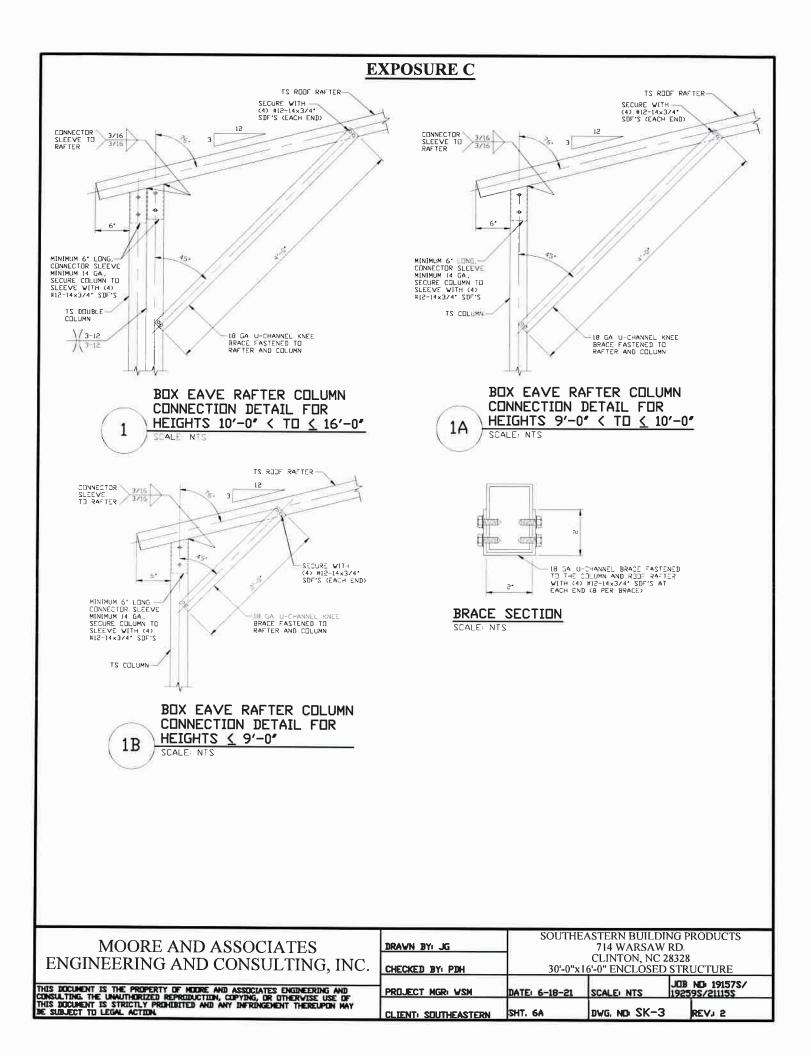
50 0 A	6'-0" ENCLOSE	DZIK	JCTURE
Date: 6-18-21	SCALE: NTS	19259	ND: 19157S/ 95/21115S REV: 2

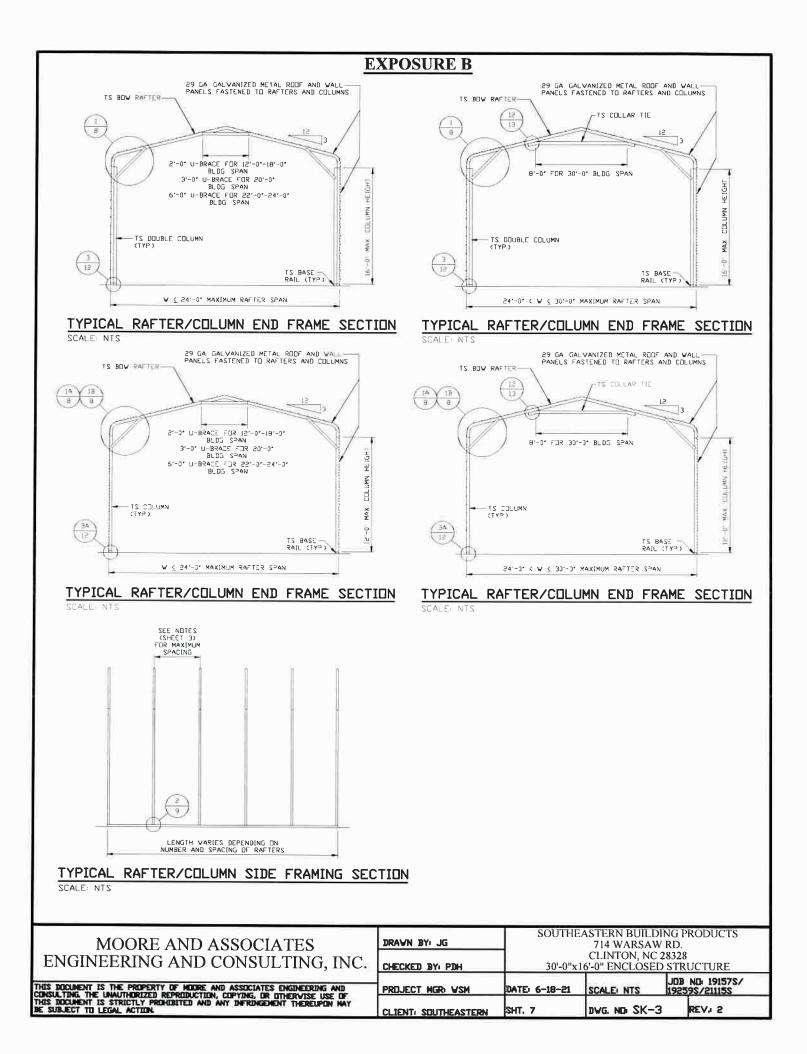


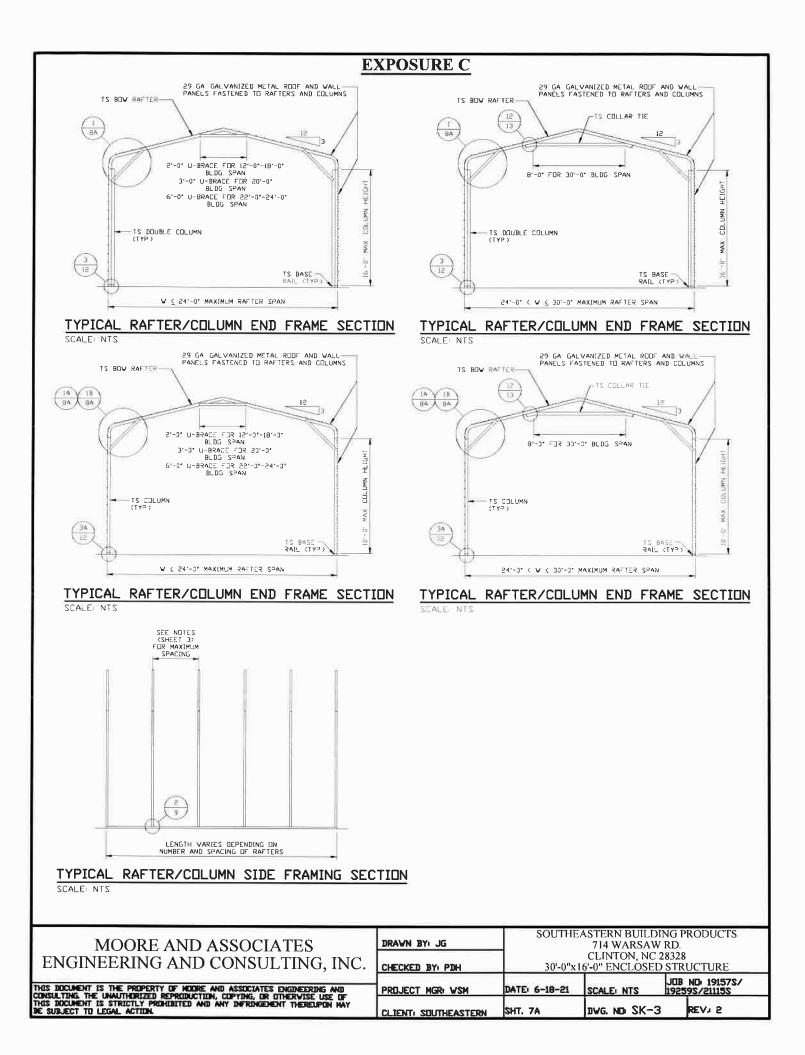


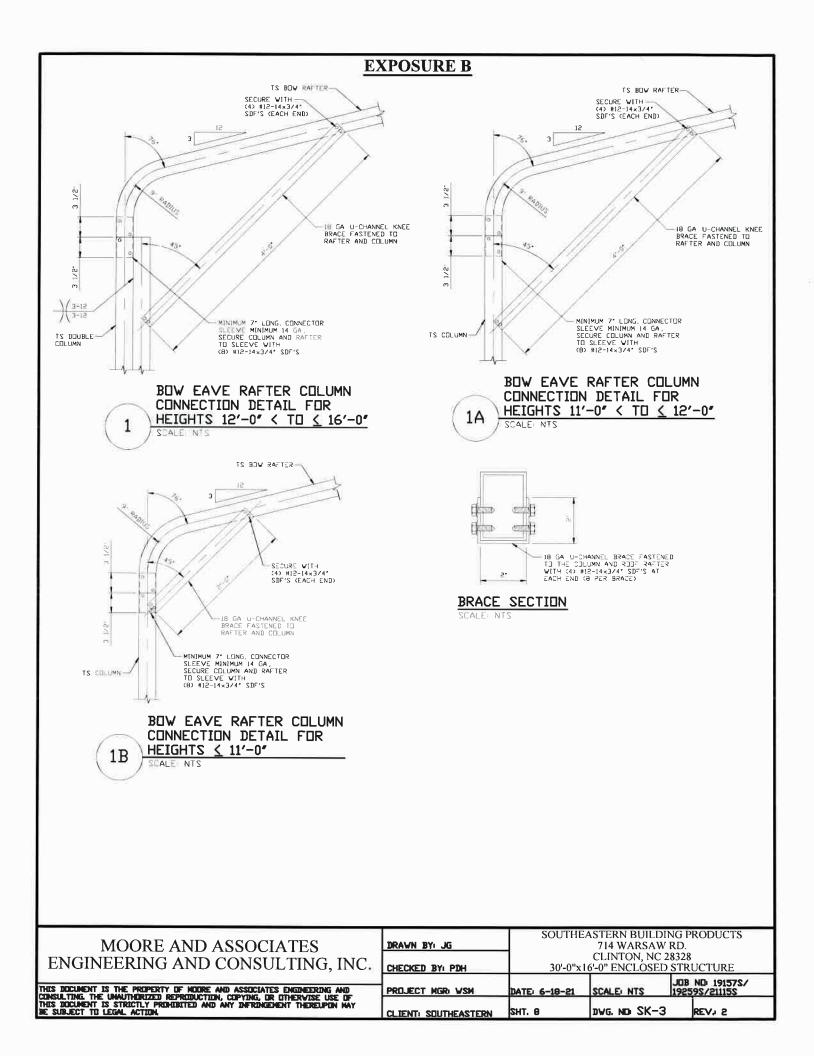


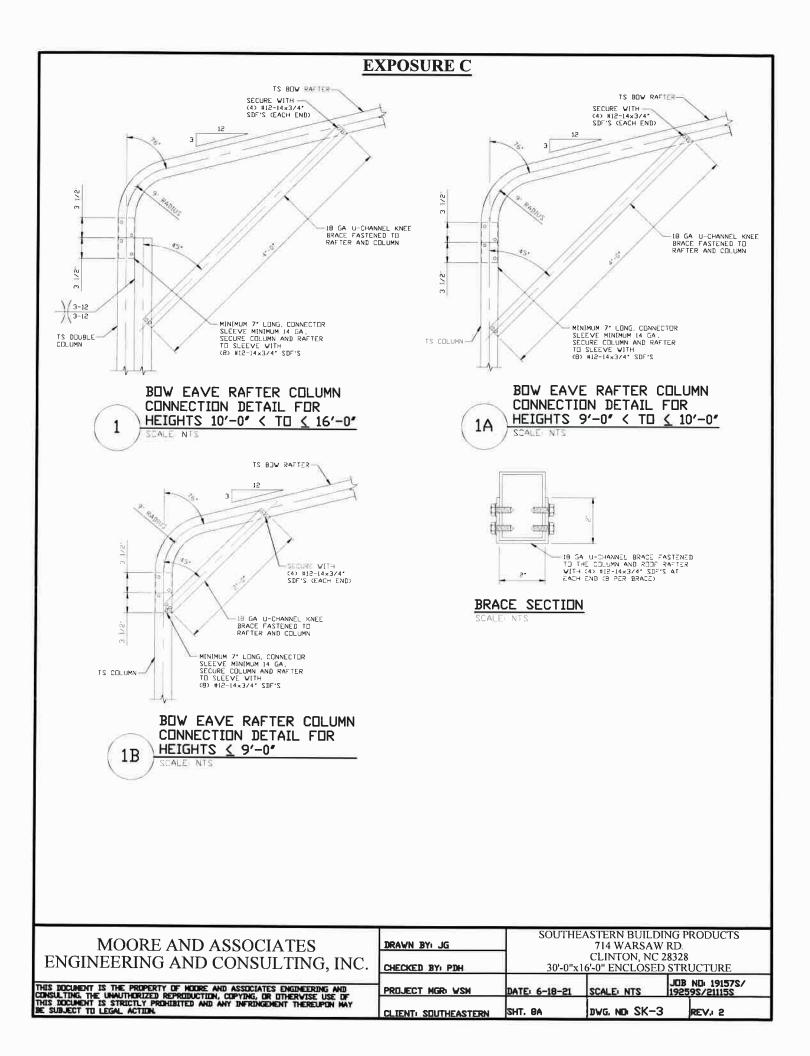




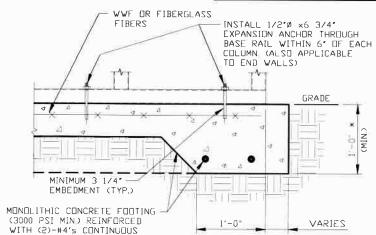








### **BASE RAIL ANCHORAGE OPTIONS**



#### CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE

SCALE: NTS MINIMUM ANCHOR EDGE DISTANCE IS 4" \* COORDINATE WITH LOCAL BUILDING CODE AND/ORD. BUILDING OFFICIAL REGARDING REQUIRED FOOTING DEPTH

#### **GENERAL NOTES**

2A

NDTE CONCRETE MONDLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 1,500 PSF

#### CUNCRETE

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.

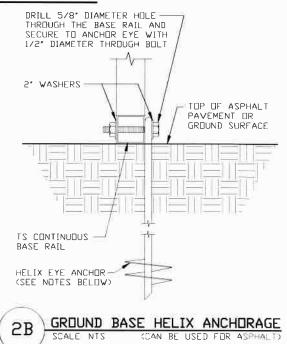
#### REINFORCEMENT MAY BE BENT IN THE SHOP OR THE FIELD PROVIDED

- REINFORCEMENT IS BENT COLD THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN SIX-BAR DIAMETERS 2
- 3 REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT

#### HELIX ANCHOR NOTES

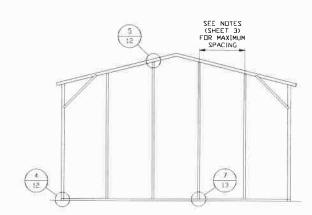
- 1 FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELIDADED SILTS AND CLAYS, USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH MINIMUM 50" EMBEDMENT
- 2 FOR CORAL USE MINIMUM (2) 4' HELICES WITH MINIMUM 30' EMBEDMENT OR SINGLE 6' HELIX WITH MINIMUM 50" EMBEDMENT
- 3 FOR MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS, AND CLAYS USE MINIMUM (2) 4' HELICES WITH MINIMUM 30 INCH EMBEDMENT DR SINGLE 6' HELIX WITH MINIMUM 50' EMBEDMENT
- 4 FOR LODSE TO MEDIUM DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS ALLUVIAL FILL, USE MINIMUM (2) 6' HELICES WITH MINIMUM 50" EMBEDMENT
- 5 FOR VERY LOSE TO MEDIUM DENSE SANDS, FIRM TO STIFFER CLAYS AND SILTS, ALLUVIAL FILL, USE MINIMUM (2) 8' HELICES WITH MINIMUM 60' EMBEDMENT

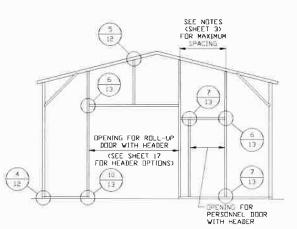
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\* COORDINATE WITH LOCAL BUILDING CODE AND/ORD BUILDING OFFICIAL RESARDING REQUIRED ANCHOR LENGTH

### **BOX EAVE RAFTER END WALL AND SIDE WALL OPENINGS**



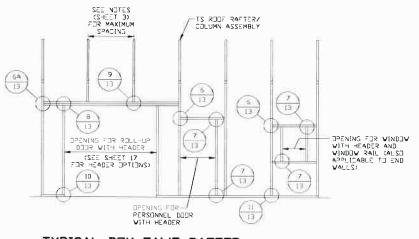


#### TYPICAL BOX EAVE RAFTER END WALL OPENINGS FRAMING SECTION

SCALE: NTS

END WALL FRAMING SECTION

TYPICAL BOX EAVE RAFTER



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

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MOORE AND ASSOCIATES	DRAWN BY JG	SOUTHEASTERN BUILDING PRODUCTS 714 WARSAW RD.		

### **BOW RAFTER END WALL AND SIDE WALL OPENINGS**

4

SEE NOTES (SHEET 3) FOR MAXIMUM SPACING

(7)

6

7

PERSONNEL DOOR

12

6

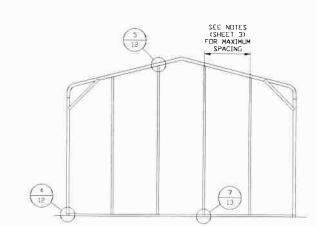
10

SCALE: NTS

DPENING FOR ROLL-UP DOOR WITH HEADER (SEE SHEET 17 FOR HEADER OPTIONS)

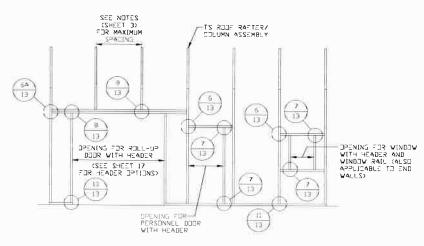
TYPICAL BOW RAFTER END

WALL OPENINGS FRAMING SECTION



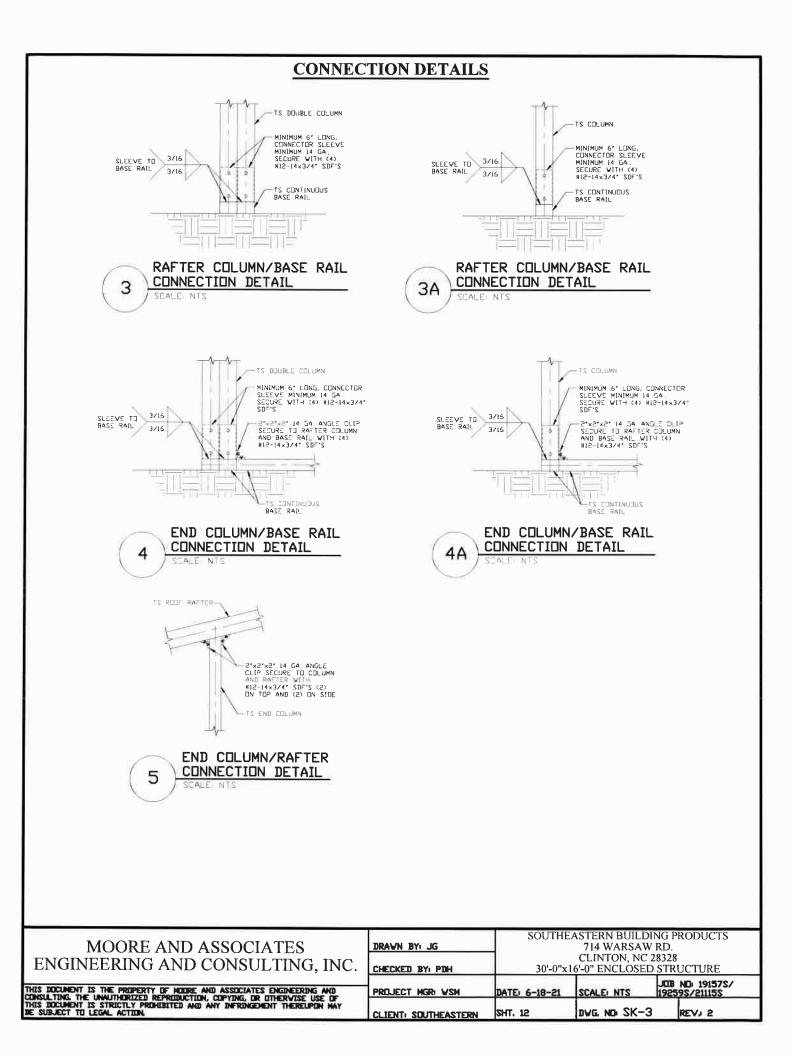
TYPICAL BOW RAFTER END WALL FRAMING SECTION

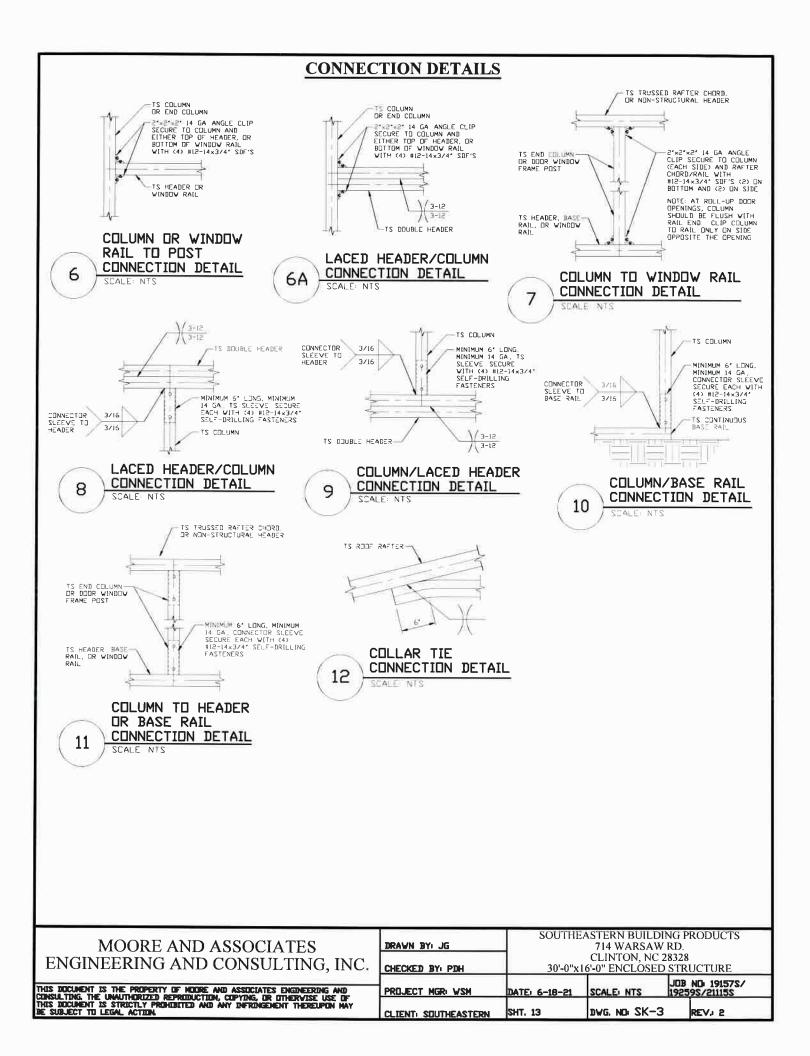


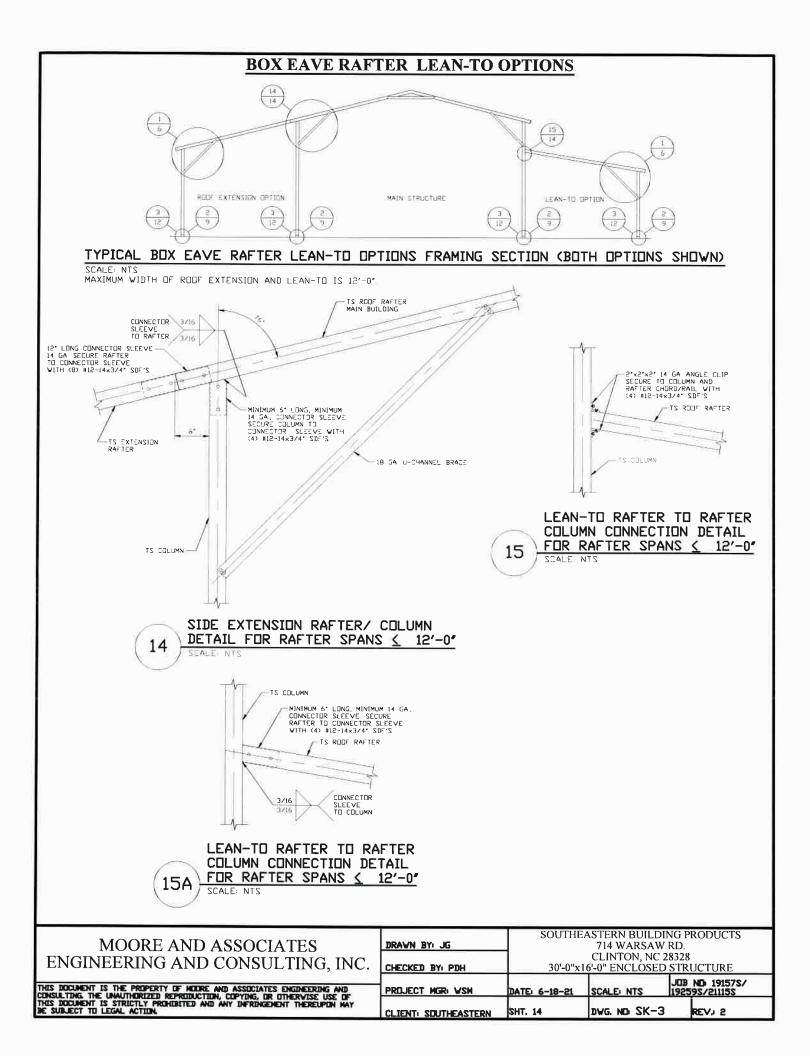


#### TYPICAL BOW RAFTER SIDE WALL OPENINGS FRAMING SECTION SCALE NTS

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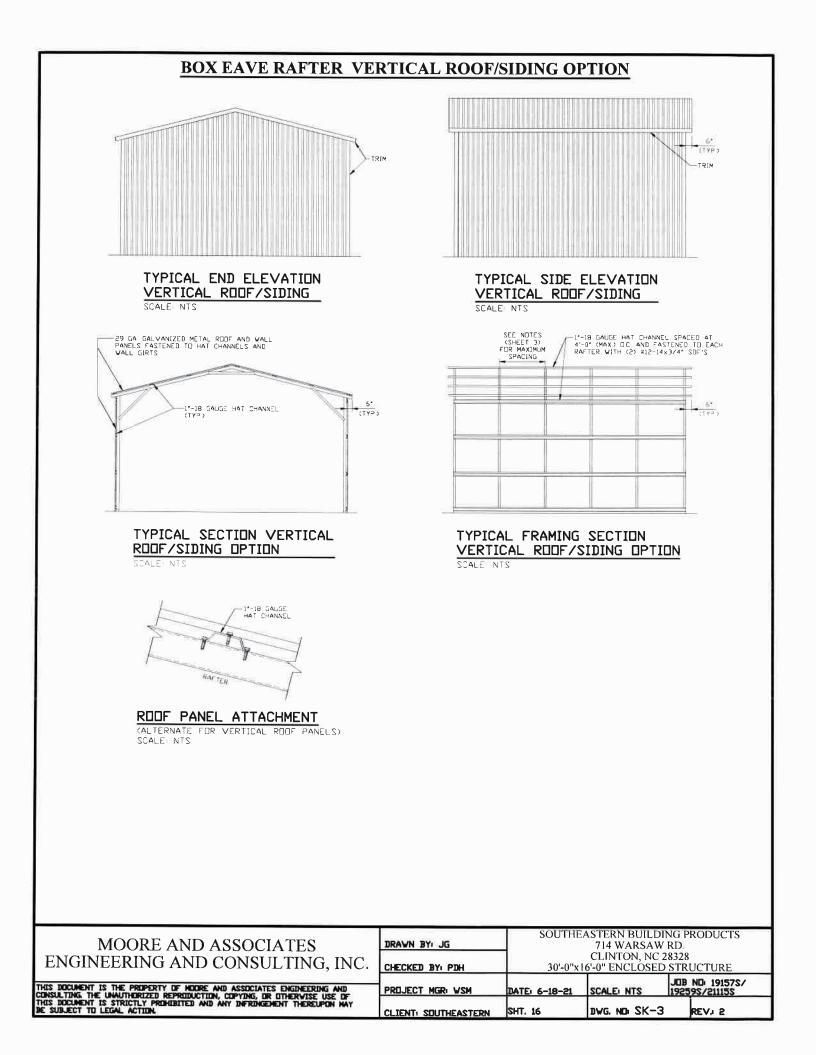






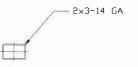
## DOW FAVE DAFTED LEAN TO ODTION

BOW EAVE RA	FTER LEAN-TO	<b>OPTION</b>		
1     16       1     15       1 <th>J</th> <th></th> <th></th> <th></th>	J			
Image: Structure of the st	MINIMUM 7' LONG, M 14 GA, CONNECTOR SECURATI COLUMN TO CONNEC (B) H12-14x3/4' SD IS RODF RAFIE MINIMUM 6' LONS, MINI 14 GA, CONNECTOR SI SECURE RAFTER IJ CONNECTOR SLEEVE V (4) H12-14x3/4' SD SLEEVE TJ COLUMN 3. LEAN-TD R COLUMN CO	SLEEVE RAND TOR WITH F'S MUM EEVE ITH	DETAIL	
MOORE AND ASSOCIATES	DRAWN BYI JG	SOUTHEA	ASTERN BUILDING 714 WARSAW RI CLINTON, NC 283	).
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### **HEADER OPTION DETAILS**

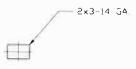
### **END WALL HEADER DETAILS**



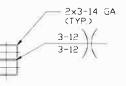
HEADER DETAIL FOR LENGTHS <u>12'-0'</u>

SCALE: NTS

### SIDE WALL HEADER DETAILS



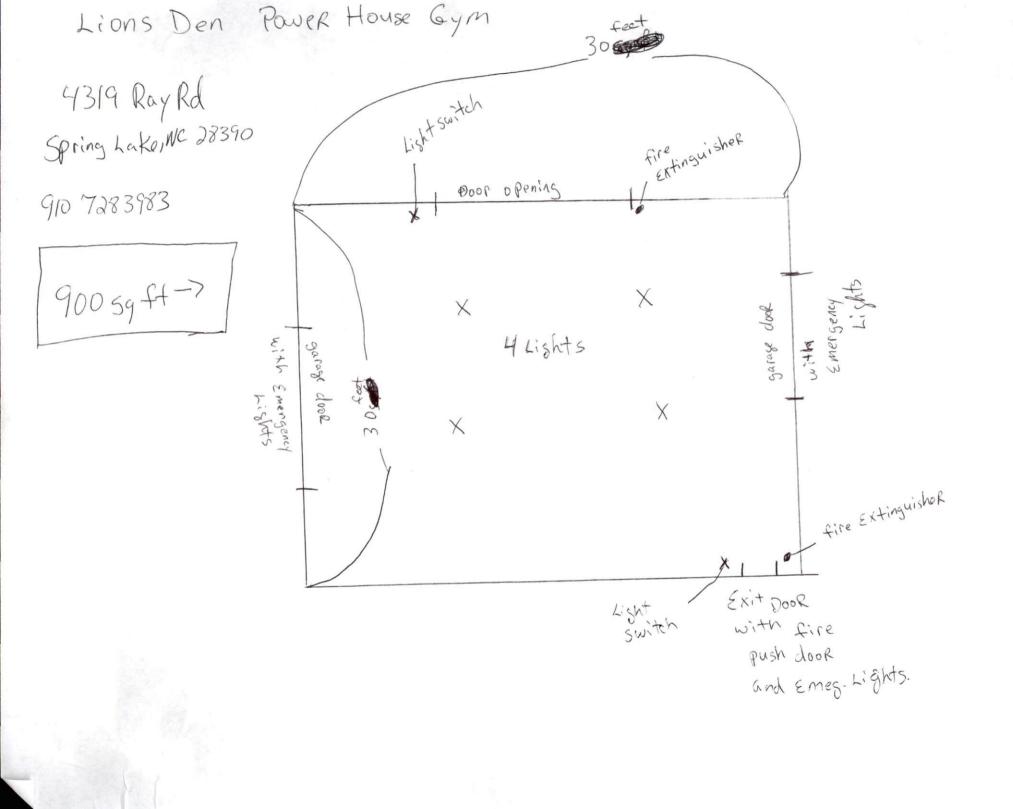
HEADER DETAIL FUR LENGTHS <u>4</u>9'-0"

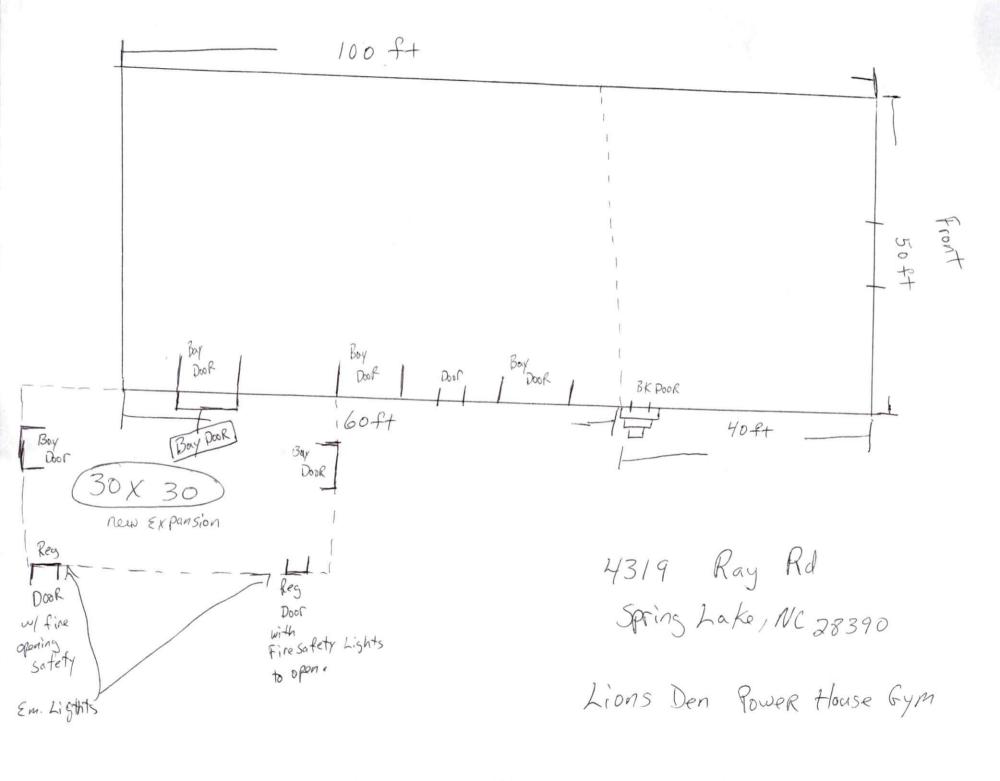


DOUBLE HEADER DETAIL FOR 9'-0' < LENGTHS < 12'-0'

SCALE NTS

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