Brian Rose 234 Peach Farm Road





**Brian Rose** 234 Peach Farm Road Lillington NC 27546

# STRUCTURAL DESIGN

# **ENCLOSED BUILDING**

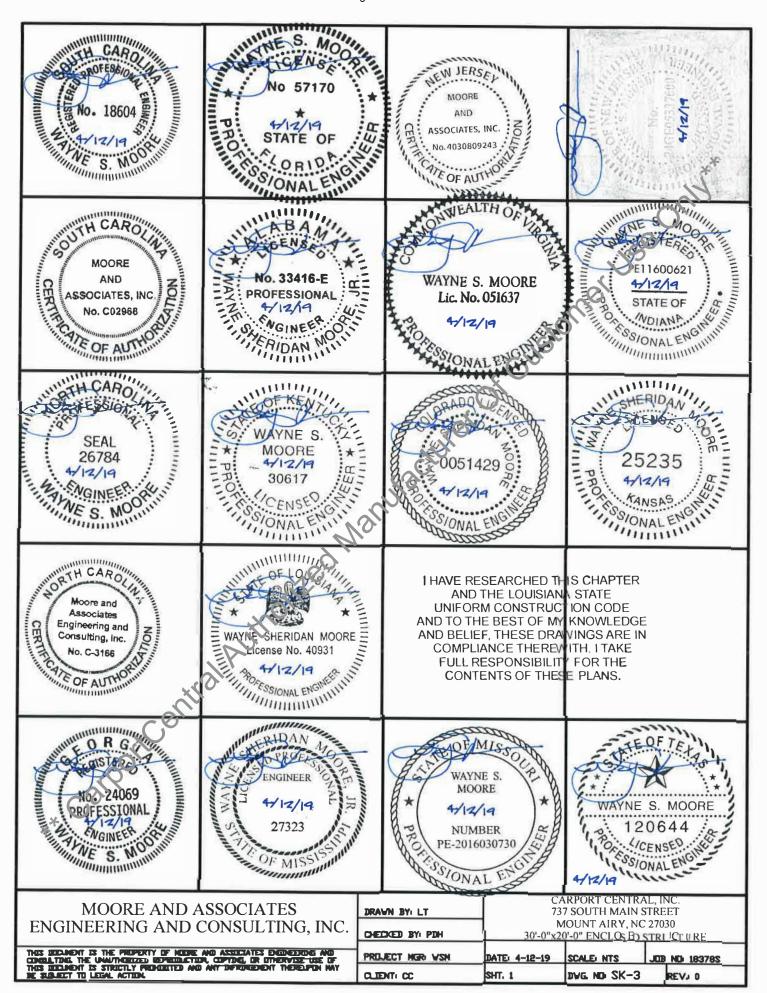
MAXIMUM 30'- 0" WIDE X 20'- 0" EAVE HEIGHT-**BOX EAVE FRAME AND BOW FRAME** 

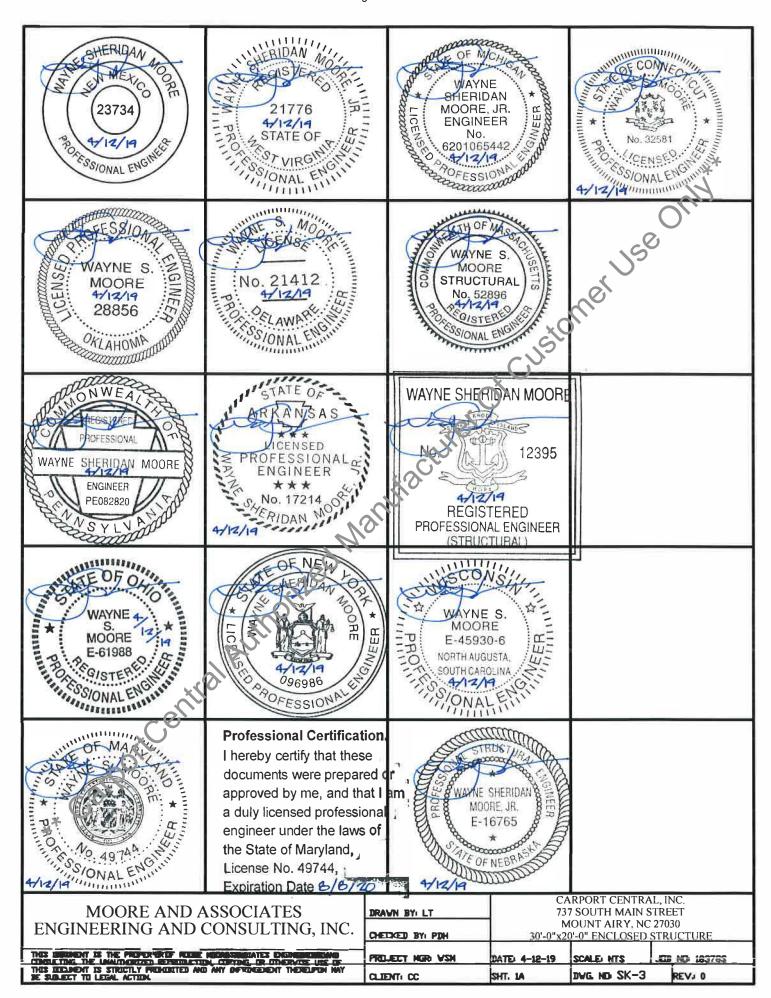
ared for:

Prepared by:

1009 East Avenue
North Augusta, SC 2984\* arport Central, Inc.







### INSTALLATION NOTES AND SPECIFICATIONS

- 1 DESIGN IS FOR MAXIMUM 30'-0' WIDE x 20'-0' EAVE HEIGHT ENCLOSED STRUCTURES.
- 2. DESIGN WAS DONE IN ACCORDANCE WITH THE 2018 NORTH CAROLINA BUILDING CODE, 2017 FLORIDA BUILDING CODE (FBC) 6TH EDITION, 2018 INTERNATIONAL BUIDLING CODE (IBC), 2006 IBC, 2019 IBC, 2012 IBC, 2015 IBC, AND 2018 IBC.
- 3. DESIGN LOADS ARE AS FOLLOWS:

A) DEAD LOAD = 1.5 PSF B) LIVE LOAD = 12 PSF

C) GROUND SNOW LOAD = 33 PSF AT 5'-0' D.C. SPACING

= 42 PSF AT 4'-0" D.C. SPACING.

30 PSF (WITH U-CHANNEL PEAK BRACE) W & 26'-0" (UNBALANCED SNOW LOADS DUE TO DRIFTING HAVE NOT BEEN EVALUATED.)

4 ULTIMATE WIND SPEED 105 TO 143 MPH (NOMINAL WIND SPEED 82 TO 110 MPH)

MAXIMUM RAFTER/COLUMN AND END COLUMN SPACING = 5.0 FEET

- 5. ULTIMATE WIND SPEED 144 TO 155 MPH (NOMINAL WIND SPEED 111 TO 120 MPH). MAXIMUM RAFTER/COLUMN AND END COLUMN SPACING = 4.0 FEET
- 6 END WALL COLUMNS (POSTS) ARE SIMILAR TO SIDE WALL POSTS IN SIZE AND SPACING UNLESS NOTED DTHERWISE.
- 7. LOW HAZARD RISK CATEGORY I.
- 8. WIND EXPOSURE CATEGORY B.
- 9. SPECIFICATIONS APPLICABLE TO 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/4" x 2 1/4" 14 GAUGE TUBE STEEL (TS) FRAMING MEMBERS (UNLESS NOTED OTHERWISE).
- 10 AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR HAT CHANNELS, AND COLUMNS (INTERIOR OR EM) 8 INCHES.
- 11. FASTENERS CONSIST OF #12-14x3/4" (UNLESS OTHERWISE NOTED) SELF-DRILLING FASTENER (SDF), USE COUTNOL 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 VAR
- 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 SOIL NAILS MAY BE USED FOR MAXIMUM WIND V = 145 MPH AND IN SUITABLE SOIL CONDITIONS OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USED FOR WIND V > 145 MPH AND/OR IN UNSUITABLE SOILS AS NOTED ARE: (
  AR

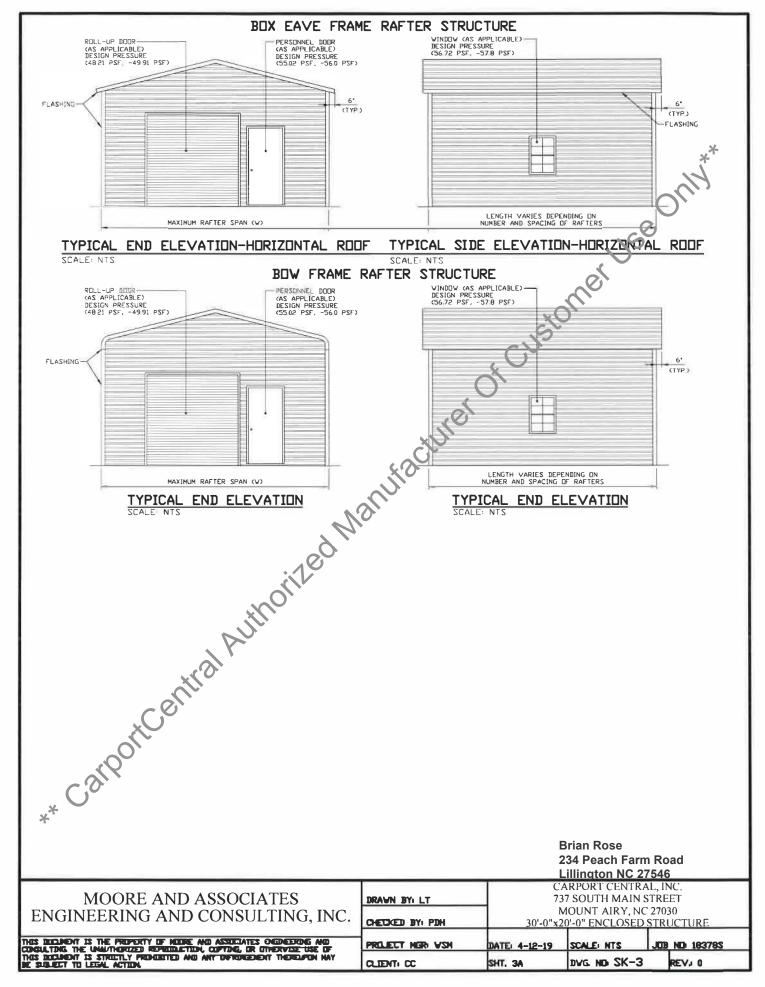
**Brian Rose** 234 Peach Farm Road Lillington NC 27546

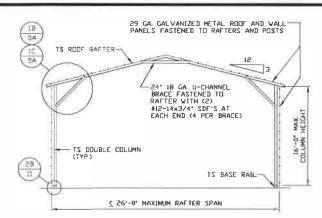
CARPORT CENTRAL INC

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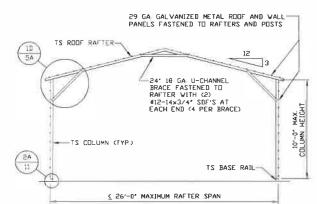
|   | CLIENT: CC       | <b>знт. з</b>  | DAC NO 2K-3  |     | REV. 0    |  |  |
|---|------------------|--|--------------|-----|-----------|--|--|
| - | PROJECT HIGH VSH | DATE: 4-12-19  | SCALE: NTS   | JOB | ND 193785 |  |  |
|   | CHECKED BY: PDH  | MOUNT AIRY, NC 27030<br>30'-0"x20'-0" ENCLOSED STRUCTURE |              |     |           |  |  |
|   | DRAWN BY: LT     |  | SOUTH MAIN S | , - |           |  |  |





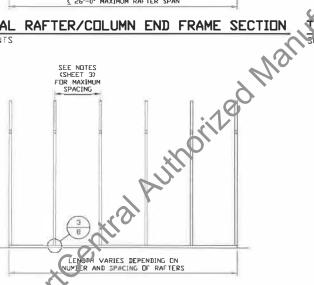
# TYPICAL RAFTER/COLUMN END FRAME SECTION

SCALE: NTS



# TYPICAL RAFTER/COLUMN END FRAME SECTION

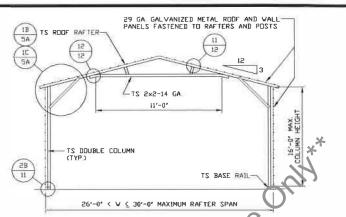
SCALE: NTS



### TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION

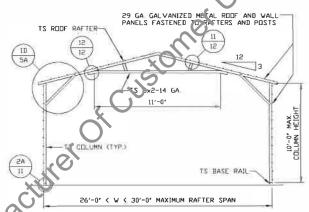
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### TYPICAL RAFTER/COLUMN END FRAME SECTION

SCALE: NTS

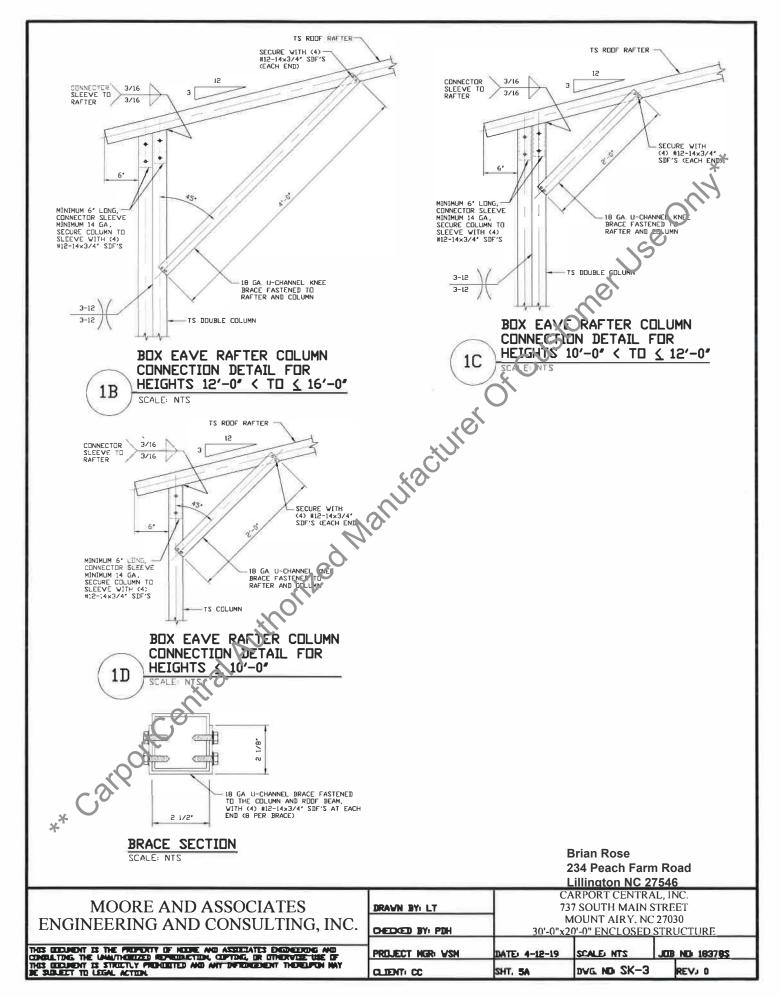


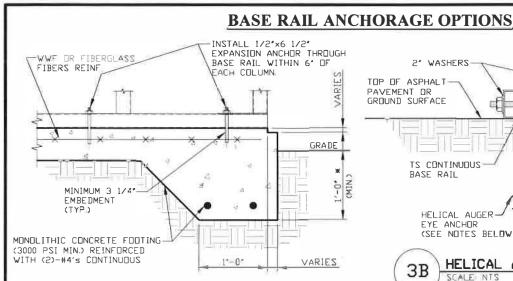
### **TYPICAL** RAFTER/COLUMN END FRAME SECTION

**Brian Rose** 234 Peach Farm Road **Lillington NC 27546** 

CARPORT CENTRAL, INC. 737 SOUTH MAIN STREET DRAWN BY: LT MOUNT AIRY, NC 27030 CHECKED BY: PDH 30'-0"x20'-0" ENCLOSED STRUCTURE

PROLECT MORN WSM DATE: 4-12-19 ND 18378S BWG. ND SK-3 CLIENT: CC SHT: 4A REV. 0





- 1 FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELITATED SILTS AND CLAYS, USE MINIMUM (2) 4" HELICES WILL MINIMUM 30" EMBEDMENT OR SINCLE 6" HELIX WITH MINIMUM 50" EMBEDMENT
- FOR CORAL USE MINIMUM (2) 4' HELICES WITH MINIMUM 3C' EMBEDMENT OR SINGLE 6' HELIX WITH MINIMUM 5C' EMBEDMENT.
- 3 FOR MEDIUM DENSE CHARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS, AND CLAYS USE MINIMUM (2) 4' HELICES WITH MINIMUM 30 AND EMBEDMENT OR SINGLE 6' HELIX WITH MINIMUM 50' EMBEDIEN 4

  4 FOR LOUSE TO MEDIUM DENSE SANDS, FIRM TO STIFF CLAYS AND SIL'S 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.

2" WASHERS 5/8' DIAMETER HOLE TOP OF ASPHALT THROUGH THE BASE RAIL AND SECURE TO ANCHOR EYE WITH PAVEMENT OR GROUND SURFACE DIAMETER THROUGH BOLT seonly TS CONTINUOUS BASE RAIL HELICAL AUGER EYE ANCHOR (SEE NOTES BELOW) AINTIMUM

APECIFIED COMPRESSIVE

JAYS.

AINFORCING STEEL:

AMANENTLY INCONTACT WITH THE EARTH OR EXPOSED TO THE EARTH OR WEATHER, AND 1 1/2" ELSEWHERE

REINFORCING STEEL:

THE TURNDOWN REINFORCING STEEL SHALL BE ASTM AGIS GRADE

ON THE SLAB REINFORCEMENT SHALL BE WELDED WIRE FABBIC MEETING ASTM AGIS BY FIBERGLASS FIBER REINFORCEMENT.

REINFORCEMENT MAY BE BENT IN THE SHOP OF THE FIELD PROVIDED.

THE DIAMETER OF THE BEND, MEASURED ON THE BAR. IS NOT LESS THAN SIX-BAR DIAMETER REINFORCEMENT PARTIALLY EMBEDDED.

THE LIAMETER OF THE BEND, MEASURED DIA THE BAR. IS NOT LESS THAN SIX-BAR DIAMETER.

REINFORCEMENT PARTIALLY EMBEDDED.

LICAL AUGER AND

OR VERY DENSE.

ND. COBBLES.

NIMMM.

NOT. AUGER ANCHURAGE HELICAL (CAN BE USED FOR ASPHALT)

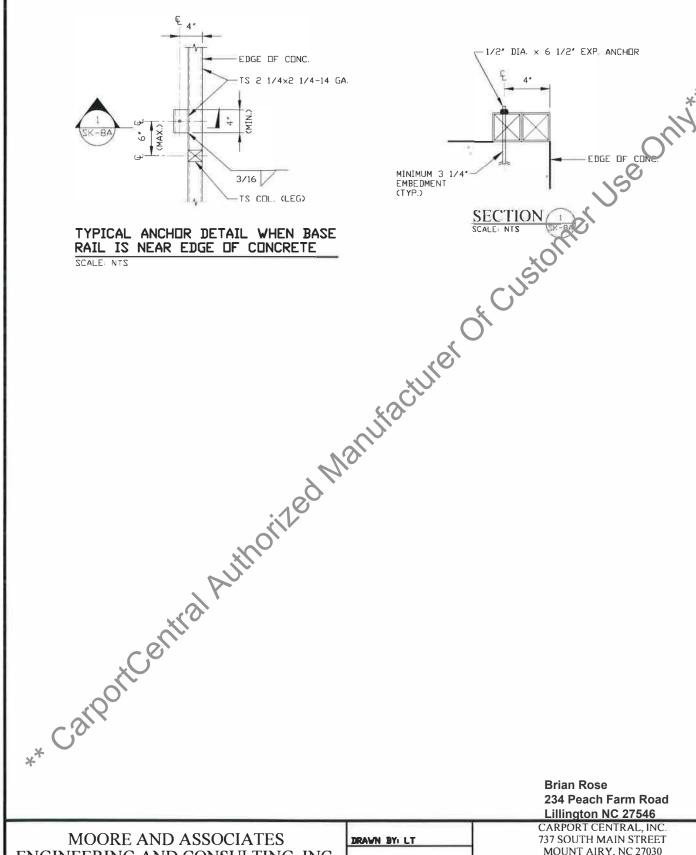
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| CLIDITI CC    |     | SHT. B                           | DVG. ND SK-          | 3    | REV. 0    |  |  |
|---------------|-----|----------------------------------|----------------------|------|-----------|--|--|
| PROJECT MGR   | VSH | DATE: 4-12-19                    | SCALE HTS            | Jos  | ND 18378S |  |  |
| CHECKED BY: P | TOH | 30'-0"x20'-0" ENCLOSED STRUCTURE |                      |      |           |  |  |
|               |     | MOUNT AIRY, NC 27030             |                      |      |           |  |  |
| DRAWN BY: LT  |     | 737 SOUTH MAIN STREET            |                      |      |           |  |  |
|               |     | CARPORT CENTRAL, INC.            |                      |      |           |  |  |
|               |     |                                  | <u>Lillington NC</u> | 2754 | <u> </u>  |  |  |

# **BASE RAIL ANCHORAGE OPTIONS**



1/2" DIA. x 6 1/2" EXP ANCHOR

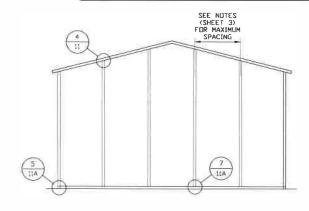
Lillington NC 27546

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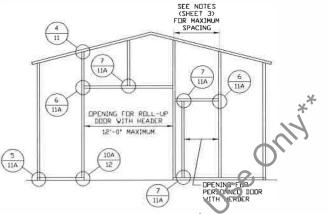
CARPORT CENTRAL, INC. 737 SOUTH MAIN STREET DRAWN BY: LT MOUNT AIRY, NC 27030 CHECKED BY: PDH 30'-0"x20'-0" ENCLOSED STRUCTURE PROJECT MGR: WSM DATE: 4-12-19 CB NO 18378S CLIENT: CC SHT. 8A DWG. ND SK-3 REV. 0

## BOX EAVE RAFTER END WALL AND SIDE WALL OPENINGS



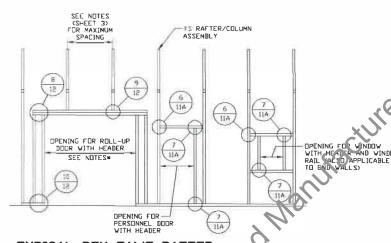
### TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION

SCALE: NTS



TYPICAL BOX EAVE RAFTER END WALL OPENINGS FRAMING SECTION Wet Of Chesto

SCALE: NTS



TYPICAL BOX EAVE RAFTER SIDE WALL OPENINGS FRAMING SECTION

SCALE: NTS

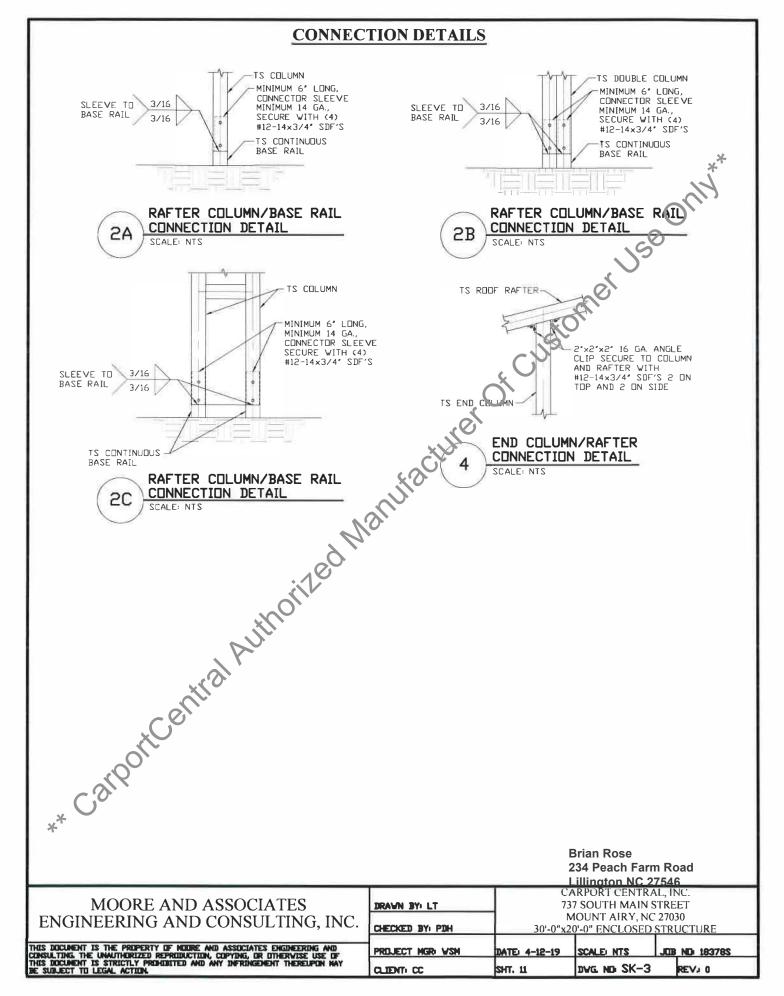
\* 10'-C' MAX. FOR 5'-O' D.C. RAFTER/COLUMN SPACING. \* 9'-C' MAX FOR 4'-O' D.C. RAFTER/COLUMN SPACING. RA RAF CAIRPORTCERTHAL A

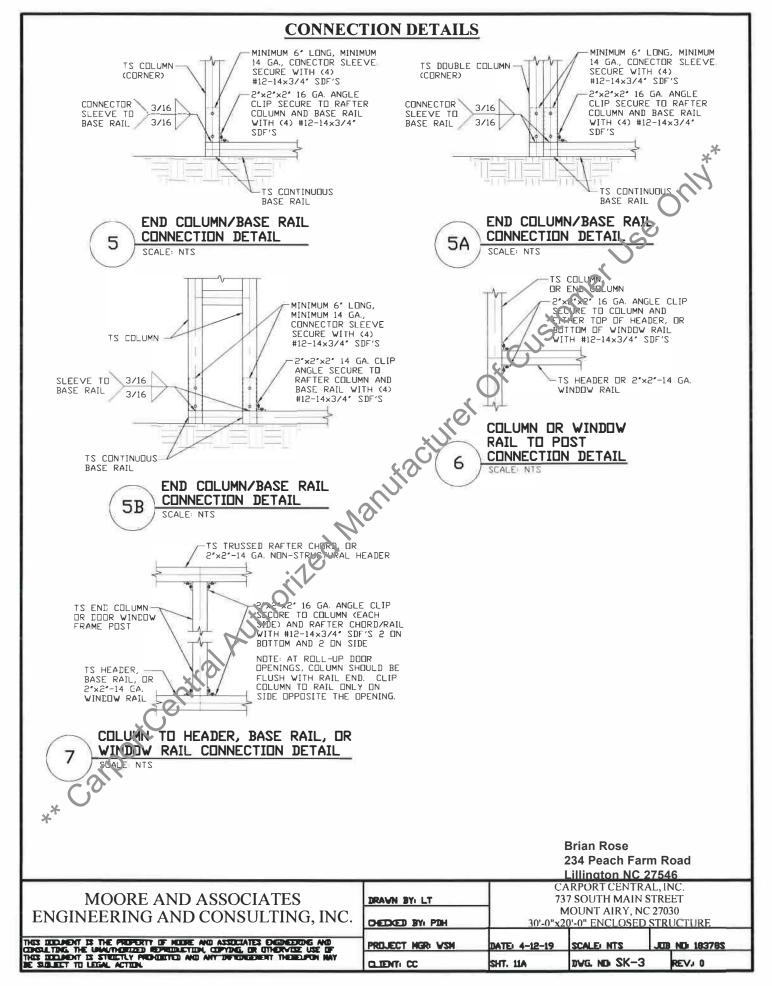
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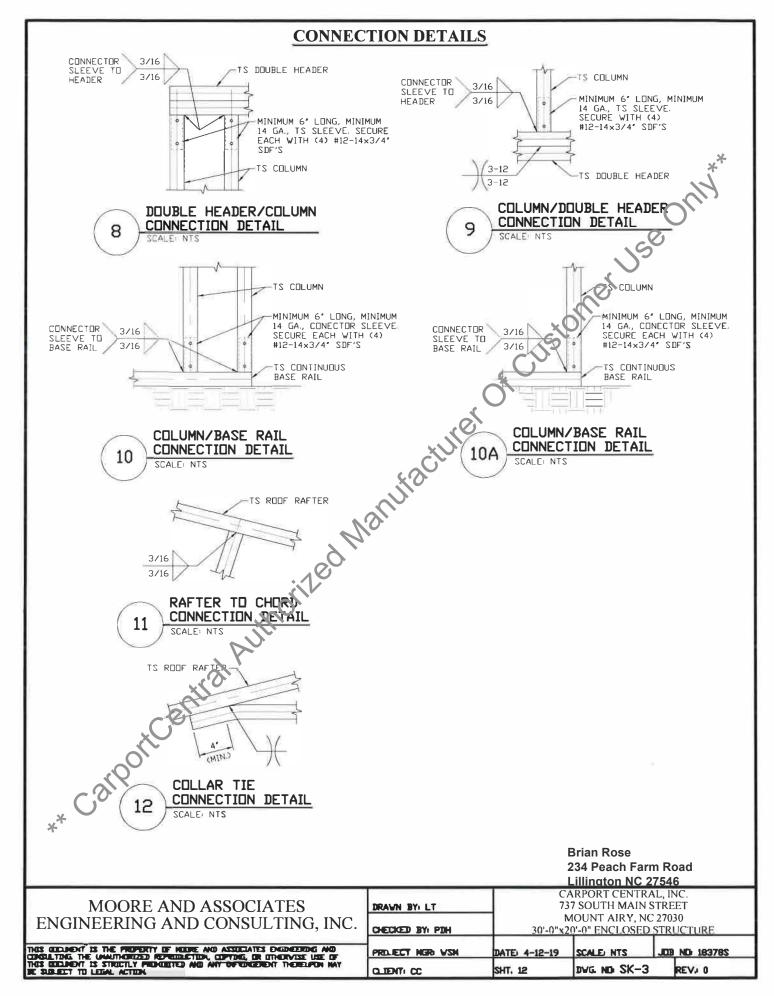
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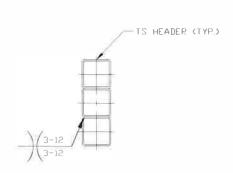
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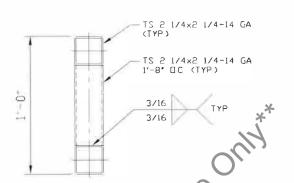




### **OPTIONAL HEADER**



HEADER DETAIL FOR □PENINGS 10'-0" < LENGTH ≤ 15'-0"</pre> WITH 5'-0' D.C. RAFTER/COLUMN SPACING Carport Central Authorized Manufacturer Of Cust OR HEADER DETAIL FOR □PENINGS 9'-0' < LENGTH ≤ 13'-0'</pre>



HEADER DETAIL FOR DPENINGS 15'-0' < LENGTH \$ 20'-0" WITH 5'-0' D.C. RAFTER/COLUMN SPACING OR HEADER DETAIL FOR ♥ OPENINGS 13'-0' < LENGTH \( \) 20'-0' WITH 4'-0' D.C. RAFTER/COLUMN SPACING

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