



STRUCTURAL DESIGN

ENCLOSED BUILDING

**MAXIMUM 24'- 0" WIDE X 17'- 0" EAVE HEIGHT-
BOX EAVE FRAME AND BOW FRAME**

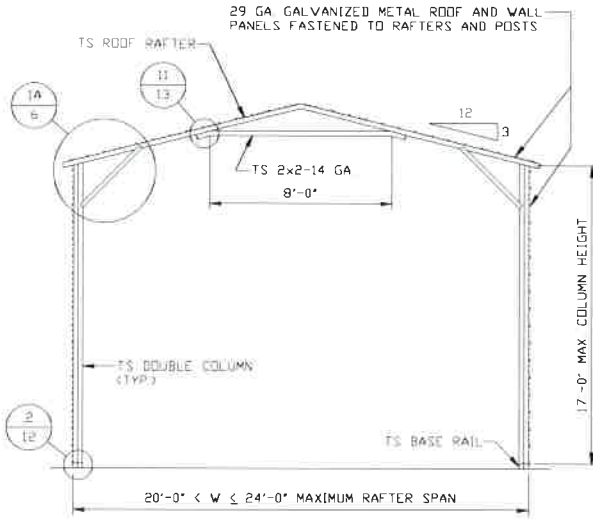
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INSTALLATION NOTES AND SPECIFICATIONS

- 1 DESIGN IS FOR MAXIMUM 24'-0" WIDE x 17'-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, 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) LIVE LOAD = 12 PSF
 - C) GROUND SNOW LOAD = 37 PSF AT 5'-0" O.C. SPACING
= 41 PSF AT 4'-0" O.C. SPACINGNOTE: UNBALANCED SNOW LOADS DUE TO DRIFTING HAVE NOT BEEN EVALUATED
- 4 ULTIMATE WIND SPEED 105 TO 127 MPH (NOMINAL WIND SPEED 82 TO 99 MPH)
MAXIMUM RAFTER/COLUMN AND END COLUMN SPACING = 5.0 FEET
- 5 ULTIMATE WIND SPEED 105 TO 140 MPH (NOMINAL WIND SPEED 82 TO 108 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 OTHERWISE
- 7 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 END) = 8 INCHES
- 11 FASTENERS CONSIST OF #12-14x3/4" (UNLESS OTHERWISE NOTED) 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 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
- 14 WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE:
SOIL SITE CLASS = D
RISK CATEGORY I/II/III
R= 325 I_E= 10
S_{DS}= 2.039 g V= C_SW
S_{D1}= 1.258 g
- 14 DOOR AND WINDOW PRESSURES APPLICABLE TO THE STATE OF FLORIDA

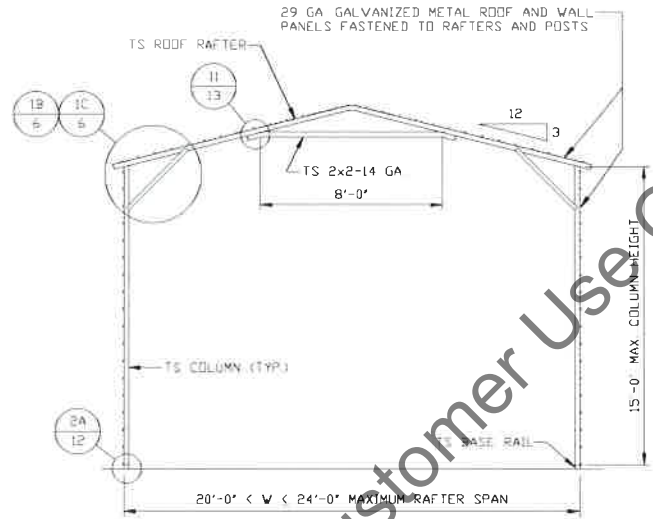
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20'-0" < W ≤ 24'-0" SPAN



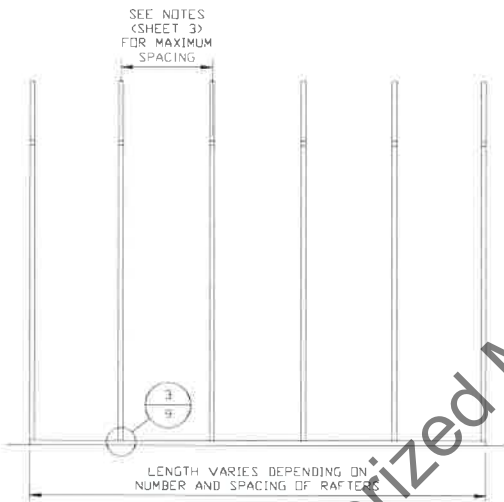
TYPICAL RAFTER/COLUMN END FRAME SECTION

SCALE: NTS



TYPICAL RAFTER/COLUMN END FRAME SECTION

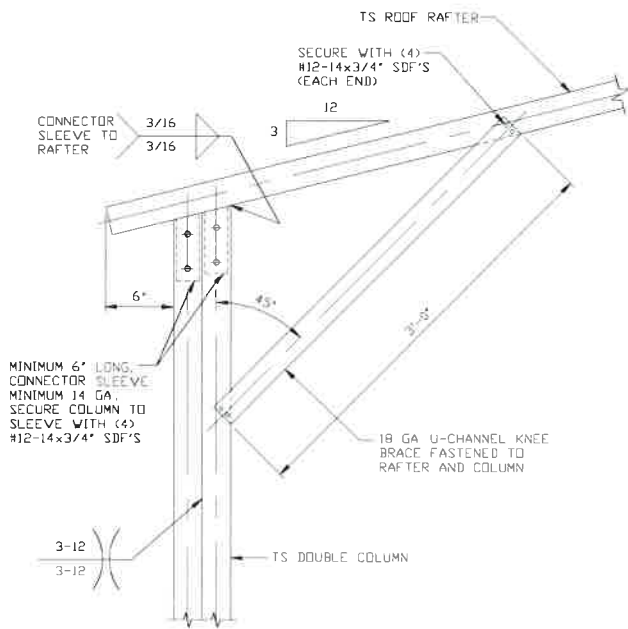
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TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION

SCALE: NTS

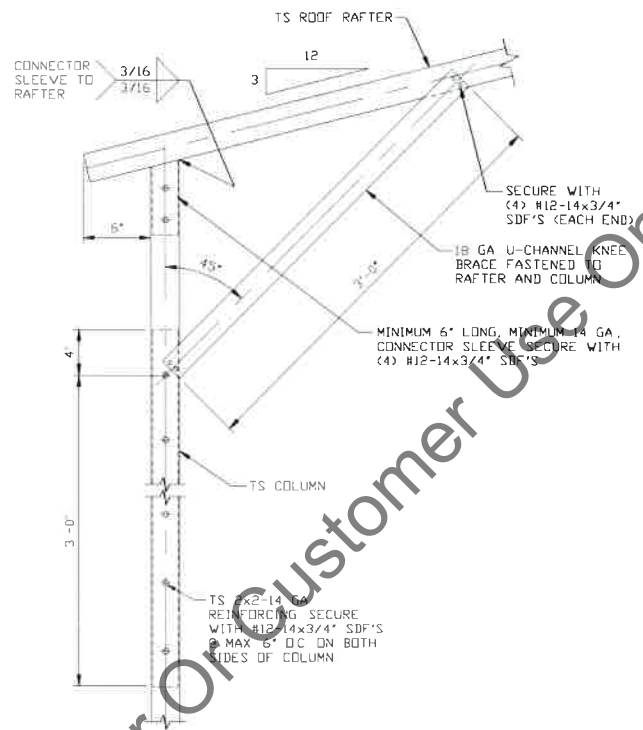
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BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 15'-0" < TO <= 17'-0"

1A

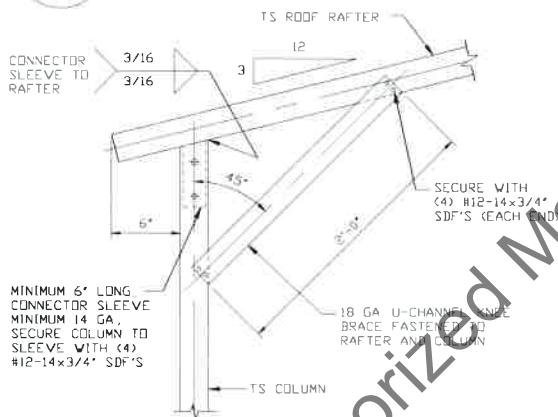
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BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 12'-0" < TO <= 15'-0"

1B

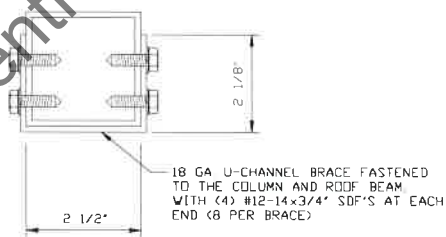
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BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS <= 12'-0"

1C

SCALE: NTS

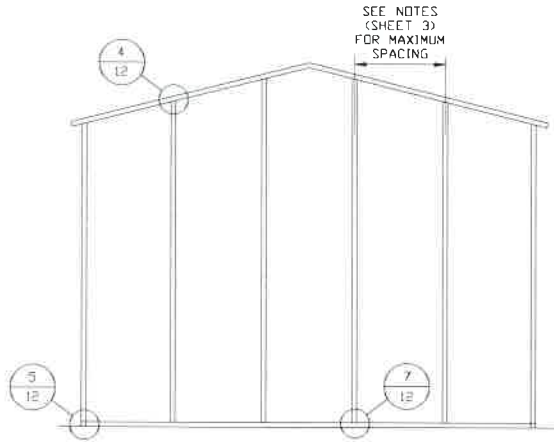


BRACE SECTION

SCALE: NTS

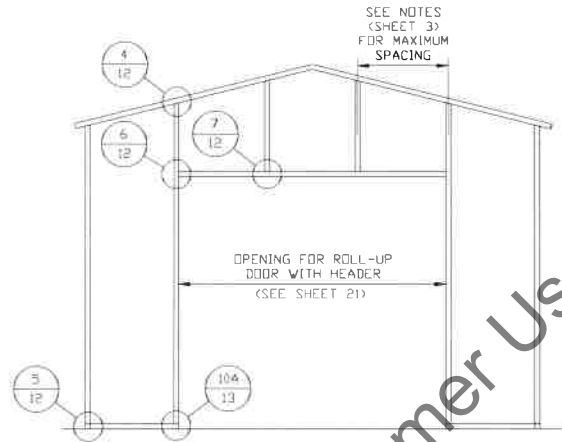
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BOX EAVE RAFTER END WALL AND SIDE WALL OPENINGS



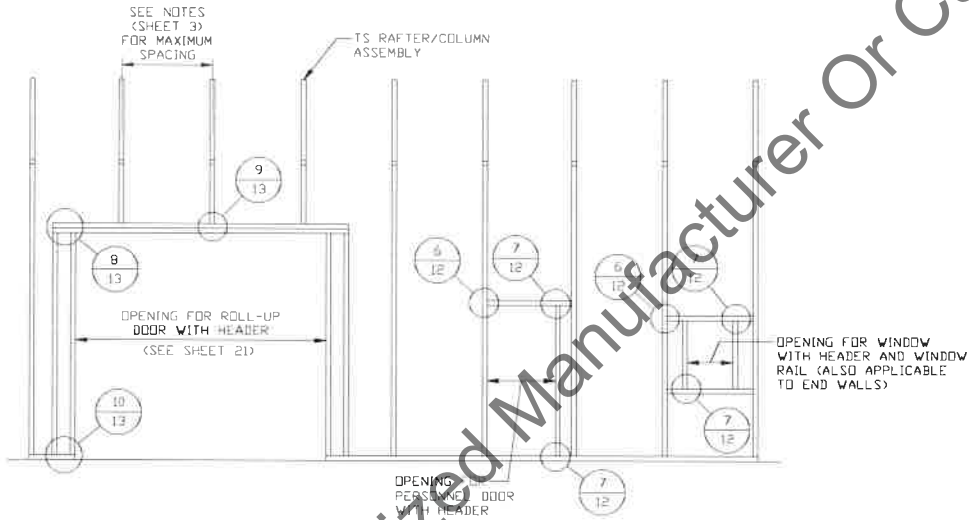
**TYPICAL BOX EAVE RAFTER
END WALL FRAMING SECTION**

SCALE: NTS



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

SCALE: NTS

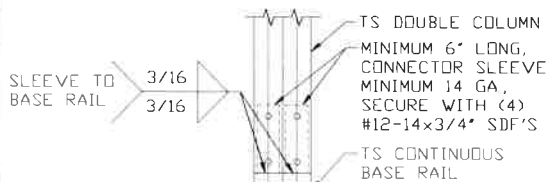


**TYPICAL BOX EAVE RAFTER
SIDE WALL OPENINGS FRAMING SECTION**

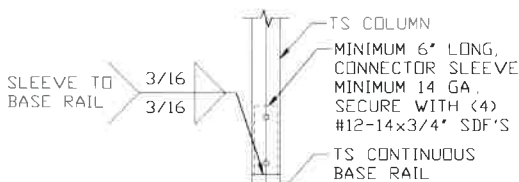
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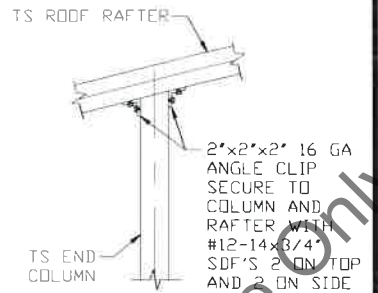
CONNECTION DETAILS



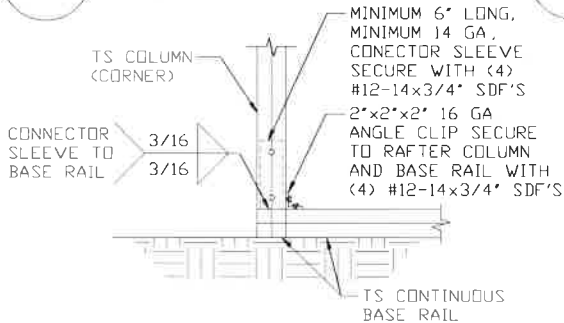
2
**RAFTER COLUMN/
 BASE RAIL
 CONNECTION DETAIL**
 SCALE: NTS



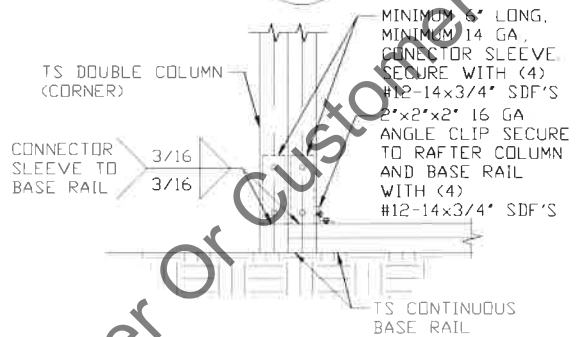
2A
**RAFTER COLUMN/
 BASE RAIL
 CONNECTION DETAIL**
 SCALE: NTS



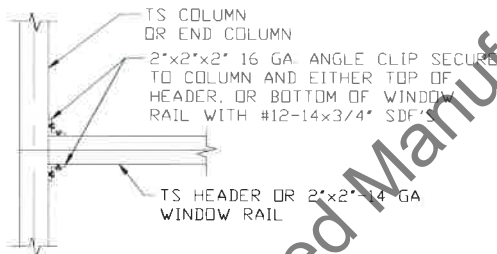
4
**END COLUMN/RAFTER
 CONNECTION DETAIL**
 SCALE: NTS



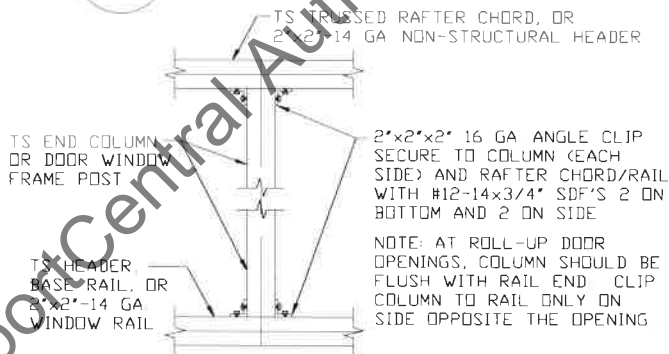
5
**END COLUMN/BASE RAIL
 CONNECTION DETAIL**
 SCALE: NTS



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



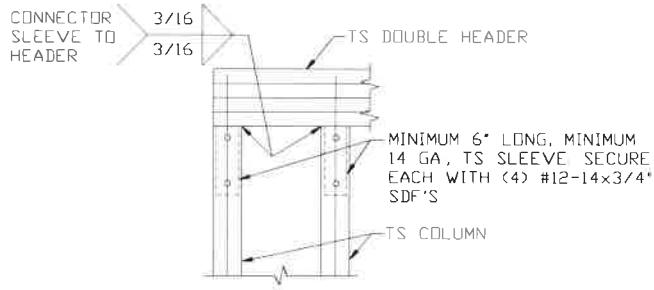
6
**COLUMN OR WINDOW
 RAIL TO POST
 CONNECTION DETAIL**
 SCALE: NTS



7
**COLUMN TO HEADER, BASE RAIL, OR
 WINDOW RAIL CONNECTION DETAIL**
 SCALE: NTS

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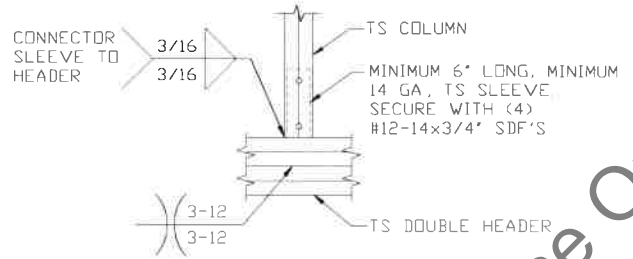
CONNECTION DETAILS



8

DOUBLE HEADER/COLUMN CONNECTION DETAIL

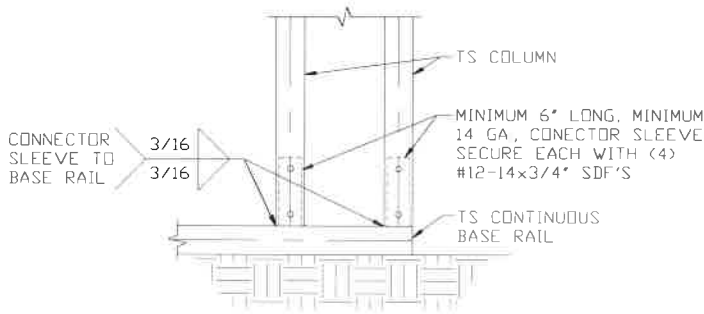
SCALE: NTS



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COLUMN/DOUBLE HEADER CONNECTION DETAIL

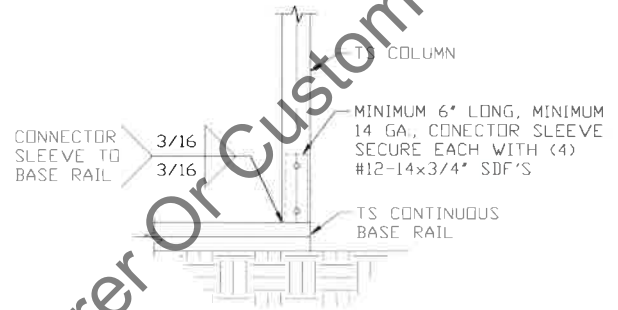
SCALE: NTS



10

COLUMN/BASE RAIL CONNECTION DETAIL

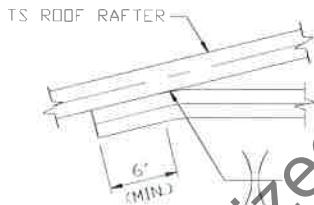
SCALE: NTS



10A

COLUMN/BASE RAIL CONNECTION DETAIL

SCALE: NTS



11

COLLAR TIE CONNECTION DETAIL

SCALE: NTS

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