

STRUCTURAL DESIGN ENCLOSED BUILDING

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

14 February 2020 Revision 8 M&A Project No. 16062S/16155S/16207S/17155S/17200S/18068S/18156S/18290S/20019S

Prepared for:

Steel Buildings and Structures, Inc. P.O. Box 1287 Mt. Airy, NC 27030

Prepared by:

Moore and Associates Engineering and Consulting, Inc.

1009 East Avenue North Augusta, SC 29841

401 S. Main St., Suite 200 Mt. Airy, NC 27030







,					
				e e	
					s
					SEAL 26784 VIES. MOONING
MOORE AND A ENGINEERING AND C	ASSOCIATES		WN BY: LT	N	LDINGS AND STRUCTURES, INC. P.O. BOX 1287, IOUNT AIRY, NC 27030
THIS DOCUMENT IS THE PROPERTY OF NOORE CONSULTING. THE UNAUTHORIZED REPRODUCTION THIS SOCIAL PRODUCTION OF SUBJECT TO LEGAL ACTION.			JECT MGR: WSM	30'-0"x20	0'-0" ENCLOSED STRUCTURE JUB ND 18068S SCALE NTS 18156S/18290S/20019S
BE SUBJECT TO LEGAL ACTION	FREI DE KUNDEPENT THEKEUPUN MAY	CLIE	NT: SBSI	SHT. 1	DWG. ND: SK-3 REV. 8

1	ye.				
					la de la companya de
					SEAL 26784
	MOORE AND A ENGINEERING AND OTHIS DOCUMENT IS THE PROPERTY OF MODRE CONSULTING. THE UNAUTHORIZED REPRODUCTS THIS DOCUMENT IS STRICTLY PROMOBITED AN RE SUBJECT TO LEGAL ACTION.	CONSULTING, INC.	DRAWN BY: LT CHECKED BY: PDH PROJECT MGR: WSM CLIENT: SBSI	30'-0"x2'	DINGS AND STRUCTURES, INC. P.O. BOX 1287, OUNT AIRY, NC 27030 P-0" ENCLOSED STRUCTURE JDB ND: 18068S 18156S/18290S/20019S DVG. ND: SK-3 REV. 8

DRAWING INDEX

SHEET	1	PE SEAL COVER SHEET (1 OF 2)	
SHEET	1A	PE SEAL COVER SHEET (2 DF 2)	
SHEET	2	DRAWING INDEX	
SHEET	3	INSTALLATION NOTES AND SPECIFICATIONS	
SHEET	4	TYPICAL SIDE AND END ELEVATIONS	
SHEET	5	TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOX EAVE STRUCTURE)
SHEET	5A	TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOX EAVE STRUCTURE	()
SHEET	5B	TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOX EAVE STRUCTURE	()
SHEET	6	COLUMN CONNECTION DETAILS (BOX EAVE STRUCTURE)	
SHEET	6A	COLUMN CONNECTION DETAILS (BOX EAVE STRUCTURE)	
SHEET	7	TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOW EAVE STRUCTURE	E)
SHEET	7A	TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOW EAVE STRUCTURE	E)
SHEET	7B	TYPICAL RAFTER/COLUMN FRAME AND SIDE FRAMING SECTION (BOW EAVE STRUCTURE	
SHEET	8	COLUMN CONNECTION DETAILS (BOW EAVE STRUCTURE)	
SHEET	88	COLUMN CONNECTION DETAILS (BOW EAVE STRUCTURE)	
SHEET	9	BASE RAIL ANCHORAGE OPTIONS	
SHEET	9A	ADDITIONAL BASE RAIL ANCHORAGE OPTION	
SHEET	10	BOX EAVE RAFTER END WALL AND SIDE WALL OPENINGS	
SHEET	11	BOW EAVE RAFTER END WALL AND SIDE WALL OPENINGS	
SHEET	12	CONNECTION DETAILS	
SHEET	13	CONNECTION DETAILS	
SHEET	14	BOX EAVE RAFTER LEAN-TO OPTIONS	
SHEET	15	BOW EAVE RAFTER LEAN-TO OPTIONS	
SHEET		VERTICAL ROOF/SIDING OPTION END AND SIDE ELEVATION AND SECTION	
SHEET	17	SIDE WALL AND END WALL HEADER OPTIONS	
SHEET	18	OPTIONAL BASE RAIL ON GRADE APPLICATION	
SHEET	19	OPTIONAL BASE RAIL ON TIMBER BEAM	
SHEET	20	OPTIONAL BASE RAIL ON TIMBER BEAM WITH SOIL NAIL	
SHEET	21	OPTIONAL CONCRETE STRIP FOOTING	



CONSULTING, THE UNAUTHORIZED REPRIDUCTION, COPYING, OR OTHERVISE USE OF THOS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENT: SBSI		DWG. NO SK-	_	REV. 8	
THIS DOCUMENT IS THE PROPERTY OF HOUSE AND ASSOCIATES ENGINEERING AND	PROJECT MGR: WSM	DATE: 2-14-20	SCALE: NTS		289081 (DI 180692 182902/200192	
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	The same and the s	MOUNT AIRY, NC 27030 30'-0"x20'-0" ENCLOSED STRUCTURE			
MOORE AND ASSOCIATES	DRAWN BY: LT		P.O. BOX 1287,			

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 2017 FLORIDA BUILDING CODE (FBC) 6TH EDITION, 2018 NORTH CAROLINA BUILDING CODE, 2006 INTERNATIONAL BUILDING CODE (IBC), 2009 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

= 30 PSF (< 26'-0"), 35 PSF (26'-0" (W (30'-0")

- NOTE: (UNBALANCED SNOW LOADS DUE TO DRIFTING HAVE NOT BEEN EVALUATED)
- 4. 3-SECOND GUST ULTIMATE WIND SPEED (VULT) = 105 TO 145 MPH (NOMINAL WIND SPEED = 82 TO 112 MPH): 5. MAXIMUM RAFTER/COLUMN AND END COLUMN SPACING = 5.0 FEET (UNLESS NOTED OTHERWISE)
- 6. END WALL COLUMNS (POSTS) ARE EQUIVALENT TO SIDE WALL POSTS IN SIZE AND SPACING (UNLESS NOTED OTHERWISE).

- 7. RISK CATEGORY I.
- 8. WIND EXPOSURE CATEGORY B.

C) GROUND SNOW LOAD

- 9. SPECIFICATIONS APPLICABLE TO 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/2" x 2 1/2" 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 1/4*x3/4* 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. ROOF SLOPES LESS THAN 3:12 REQUIRE USE OF LAP JOINT SEALANT.
- 12. GROUND 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 AND MAY BE USED IN SUITABLE SOILS.

 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:

SDIL SITE CLASS = D RISK CATEGORY I

R = 3.25

 $I_E = 1.0$ V= CsW

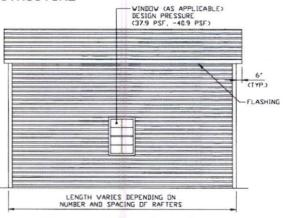
g = 20.39 gSpi= 1.258 g

15. WINDOW AND DOOR DESIGN PRESSURES ARE APPLICABLE TO THE STATE OF FLORIDA ONLY.



MOORE AND ASSOCIATES	DRAWN BY: LT	STEEL BUI	P.O. BOX 1287,			
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH		NC 27030 ED STRUCTURE			
	PREJECT MGR: WSM	DATE: 2-14-20	SCALE: NTS	JOB NO 18068S 18156S/18290S/20019S		
THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION	CLIENT: SBSI	SHT. 3	DWG. NO SK-	3 REV. 8		

BOX EAVE FRAME RAFTER STRUCTURE ROLL-UP DOOR (AS APPLICABLE) DESIGN PRESSURE (33.9 PSF. -37.15 PSF) PERSONNEL DOOR (AS APPLICABLE) DESIGN PRESSURE (36.2 PSF, -39.4 PSF) (TYP.) FLASHING: 30'-0" MAXIMUM RAFTER SPAN (W)



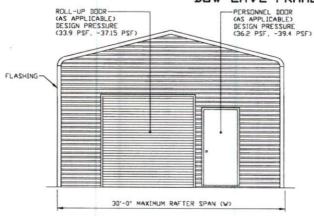
TYPICAL END ELEVATION

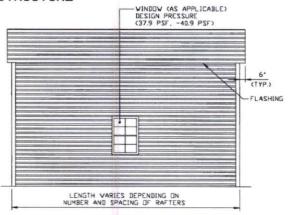
SCALE: NTS

TYPICAL SIDE ELEVATION

SCALE: NTS

BOW EAVE FRAME RAFTER STRUCTURE





TYPICAL END ELEVATION

SCALE: NTS

TYPICAL SIDE ELEVATION

SCALE: NTS



MOORE	AND ASSOCIATES
ENGINEERING	AND CONSULTING, INC.

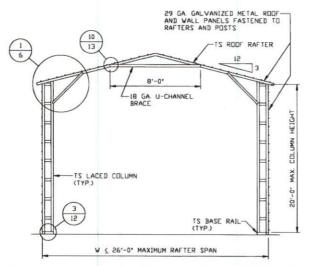
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNMITHORIZED REPRODUCTION, COPYING, OR OTHERVISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

	STEEL BUIL
DRAWN BY: LT	
	M

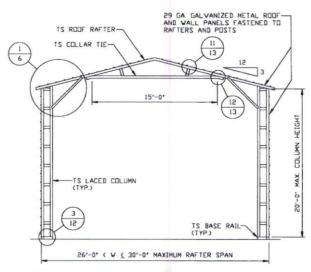
DINGS AND STRUCTURES, INC. MOUNT AIRY, NC 27030

CHECKED BY: PDH 30'-0"x20'-0" ENCLOSED STRUCTURE

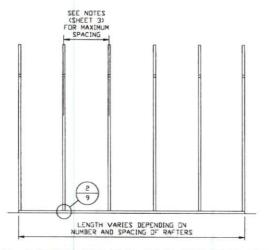
JDB ND: 18068S 18156\$/18290\$/20019\$ PROJECT MGR: WSM DATE: 2-14-20 SCALE: NTS SHT. 4 DWG. NO SK-3 REV. 8 CLIENT: SBSI



TYPICAL RAFTER/COLUMN FRAME SECTION



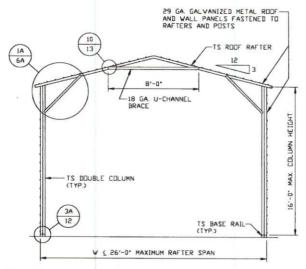
TYPICAL RAFTER/COLUMN FRAME SECTION
SCALE: NTS



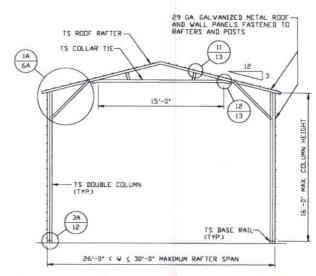
TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION SCALE: NTS



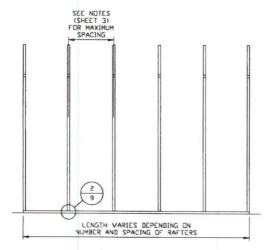
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT CHECKED BY: PDH	STEEL BUILDINGS AND STRUCTURES, INC. P.O. BOX 1287, MOUNT AIRY, NC 27030 30'-0"x20'-0" ENCLOSED STRUCTURE			030
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROMOBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	PROJECT MGR: VSM CLIENT: SBSI		SCALE: NTS	18156	ND: 18068S S/18290S/20019S REV.: 8



TYPICAL RAFTER/COLUMN FRAME SECTION
SCALE: NTS



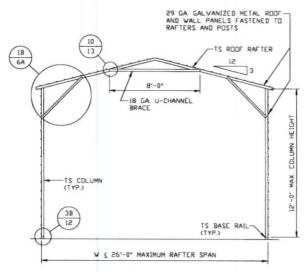
TYPICAL RAFTER/COLUMN FRAME SECTION



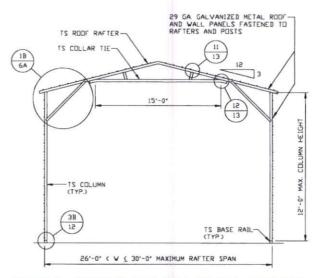
TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION



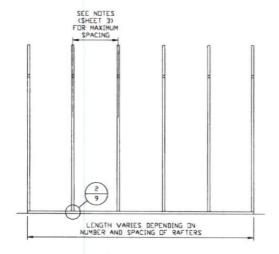
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT CHECKED BY: PDH	STEEL BUILDINGS AND STRUCTURES, INC. P.O. BOX 1287, MOUNT AIRY, NC 27030 30'-0"x20'-0" ENCLOSED STRUCTURE			30
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	PROJECT MGR: VSM CLIENT: SBSI		SCALE: NTS	181563	ID: 18068S S/18290S/20019S REV. 8



TYPICAL RAFTER/COLUMN FRAME SECTION
SCALE: NTS



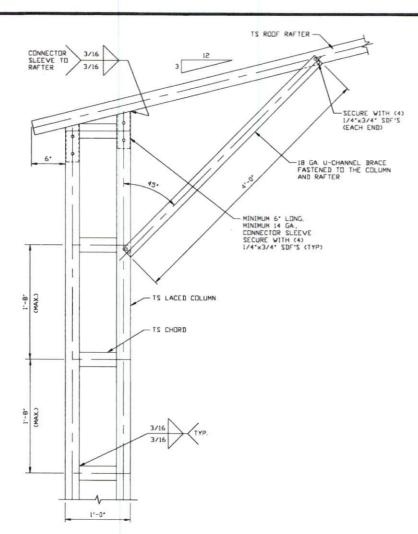
TYPICAL RAFTER/COLUMN FRAME SECTION
SCALE: NTS

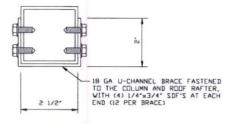


TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION SCALE: NTS



THIS DOCUMENT IS STRICTLY PROMIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENT: SBSI	SHT. 5B	DWG. ND SK-	-3	REV. 8			
THIS DOCUMENT IS THE PROPERTY OF MODIFE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERVISE USE OF	PROJECT MGR: WSM	DATE: 2-14-20	SCALE: NTS		ND: 180685 \$/182905/200195			
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	Opening the control of	MOUNT AIRY, NC 27030 30'-0"x20'-0" ENCLOSED STRUCTUR					
MOORE AND ASSOCIATES	DRAWN BY: LT	STEEL BUI	P.O. BOX 1287,					



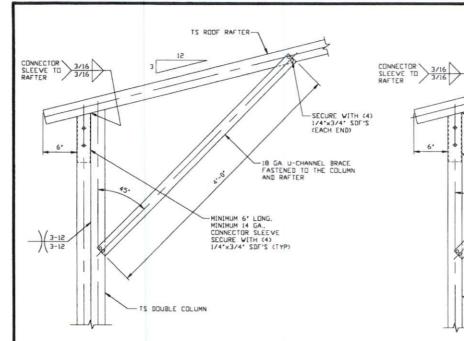


BRACE SECTION

BOX EAVE RAFTER/CORNER POST CONNECTION DETAIL FOR HEIGHTS 16'-0' < TO € 20'-0' 1 SCALE: NTS



ENGINEERING AND CONSULTING INC	DRAWN BY: LT	STEEL BUILDINGS AND STRUCTURES, INC. P.O. BOX 1287, MOUNT AIRY, NC 27030 30'-0"x20'-0" ENCLOSED STRUCTURE			30
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHERIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	PROJECT MGR: WSM		SCALE: NTS	191565	ID: 18068S \$/18290\$/20019\$ REV.: 8



BOX EAVE RAFTER/CORNER POST CONNECTION DETAIL

FOR HEIGHTS 12'-0' < TO < 16'-0"

BOX EAVE RAFTER/CORNER POST CONNECTION DETAIL FOR HEIGHTS <u>(</u> 12'-0'

-TS COLUMN

1B

-MINIMUM 6' LONG, MINIMUM 14 GA., CONNECTOR SLEEVE SECURE WITH (4) 1/4'x3/4' SDF'S (TYP)

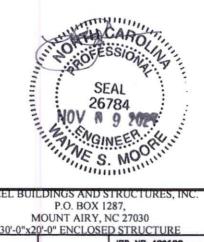
TS ROOF RAFTER-

SECURE WITH (4) 1/4'x3/4' SDF'S (EACH END)

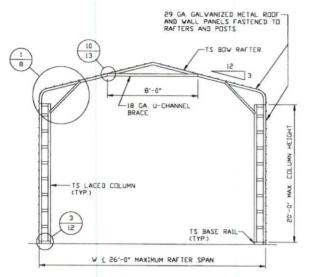
-18 GA. U-CHANNEL BRACE FASTENED TO THE COLUMN AND RAFTER

18 GA. U-CHANNEL BRACE FASTENED
TID THE COLUMN AND RIDE RAFTER,
WITH (4) 1/4*32/4* SDF'S AT EACH
END (8) PER BRACE.

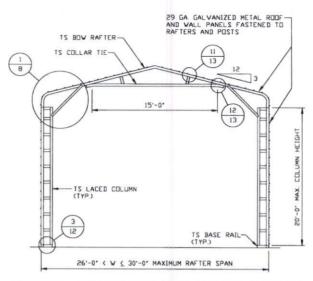
BRACE SECTION



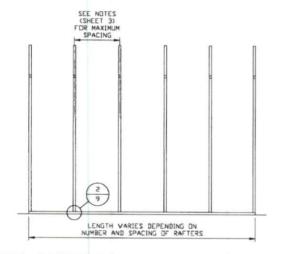
ENGINEEDING AND CONCULTING INC	DRAWN BY: LT	P.O. BOX 1287, MOUNT AIRY, NC 27030 30'-0"x20'-0" ENCLOSED STRUCTURE		
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRIDUCTION, COPYING, OR CITHERVISE USE OF THIS DOCUMENT IS STRICTLY PROHOBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	PROJECT MGR: WSM	DATE: 2-14-20	SCALE: NTS	JDB ND 18068S 18156S/18290S/20019S



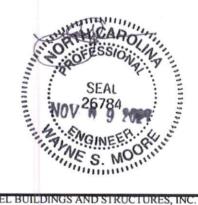
TYPICAL RAFTER/COLUMN FRAME SECTION
SCALE: NTS



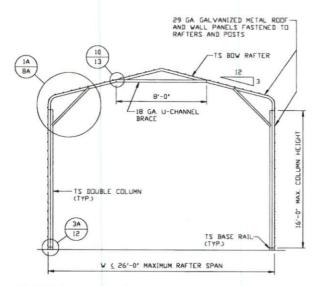
TYPICAL RAFTER/COLUMN FRAME SECTION
SCALE: NTS



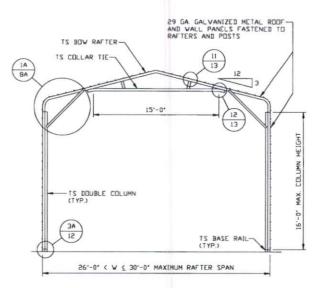
TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION



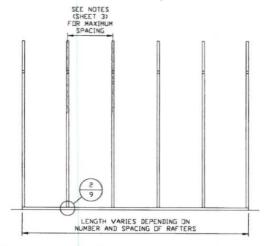
THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENT: SBSI	SHT. 7	DVG. NO SK-	3 REV. 8			
THIS DOCUMENT IS THE PROPERTY OF MODIFE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRIDUCTION, COPYING, OR OTHERVISE USE OF	PROJECT HGR: WSM	DATE: 2-14-20	SCALE: NTS	JOB NO: 18068S 18156S/18290S/20019S			
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH		MOUNT AIRY, NC 27030 30'-0"x20'-0" ENCLOSED STRUCTU				
MOORE AND ASSOCIATES	DRAWN BY: LT		P.O. BOX 1287,				



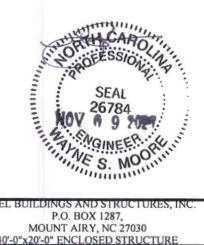
TYPICAL RAFTER/COLUMN FRAME SECTION SCALE: NTS



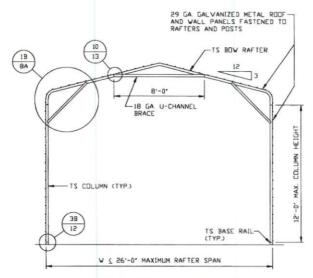
TYPICAL RAFTER/COLUMN FRAME SECTION
SCALE: NTS



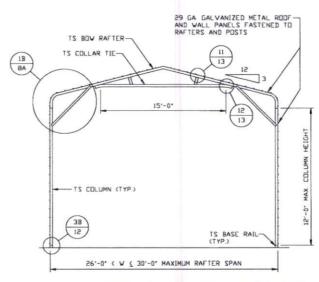
TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION SCALE: NTS



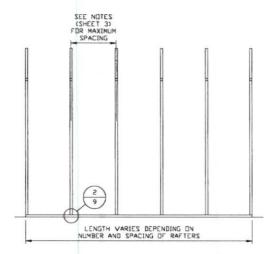
THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENT: SBSI	SHT. 7A	DWG. NO SK-	-3	REV. 8		
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRIDUCTION, COPYING, OR OTHERVISE USE OF	PROJECT MGR: VSM	DATE: 2-14-20	SCALE: NTS		ND: 18068S S/18290S/20019S		
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	MOUNT AIRY, NC 27030 30'-0"x20'-0" ENCLOSED STRUCT					
MOORE AND ASSOCIATES	DRAWN BY: LT	STEEL BU	P.O. BOX 1287,				



TYPICAL RAFTER/COLUMN FRAME SECTION SCALE: NTS



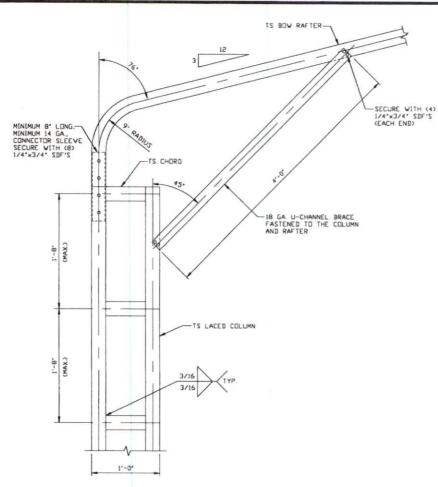
TYPICAL RAFTER/COLUMN FRAME SECTION

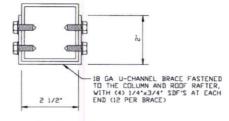


TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION SCALE: NTS



MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	P.O. BOX 1287, MOUNT AIRY, NC 27030 30'-0"x20'-0" ENCLOSED STRUCTURE				
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYDING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROMIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	PROJECT MGR: WSM		SCALE: NTS	JUB NO: 180685 181562/182905/200195		



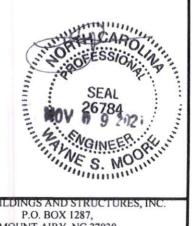


BRACE SECTION SCALE: NTS

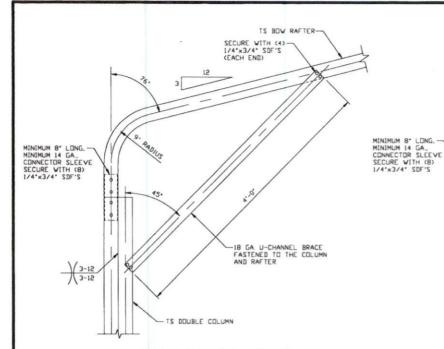
BOX EAVE RAFTER/CORNER POST CONNECTION DETAIL

FOR HEIGHTS 16'-0' < TO < 20'-0'

SCALE: NTS



MOORE AND ASSOCIATES	DRAWN BY: LT	STEEL BUI	P.O. BOX 1287,			
ENGINEEDING AND CONCLUTING INC	CHECKED BY: PDH	A CONTRACT C	MOUNT AIRY, 20'-0" ENCLOSE		And the second s	
THIS DOCUMENT IS THE PROPERTY OF HODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF	PROJECT MGR: WSM	DATE: 2-14-20	SCALE: NTS		ID: 180685 S/18290S/20019S	
THIS DOCUMENT IS STRICTLY PROHUBITED AND ANY DIFRONGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENT: SBSI	SHT. 8	DWG. NO SK-	3	REV. 8	

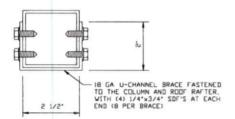


BOX EAVE RAFTER/CORNER POST CONNECTION DETAIL FOR HEIGHTS 12'-0" < TO ≤ 16'-0"

BOX EAVE RAFTER/CORNER POST CONNECTION DETAIL FOR HEIGHTS 12'-0"

SCALE: NTS

1B

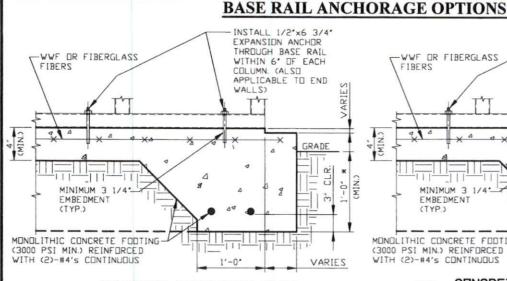


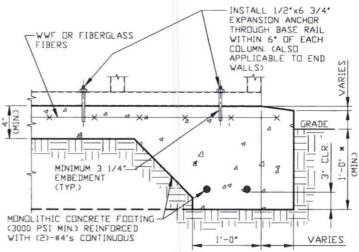
BRACE SECTION
SCALE: NTS

1A



THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING, THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERVISE USE OF THIS DOCUMENT IS STRICTLY PROHOBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	PROJECT MGR: WSM		SCALE: NTS	18156	ND: 18068S \$/18290\$/20019\$ REV.: 8
ENGINEEDING AND CONCULTING INC	CHECKED BY: PDH	MOUNT AIRY, NC 27030 30'-0"x20'-0" ENCLOSED STRUCTU			
MOORE AND ASSOCIATES	DRAWN BY: LT		TURES, INC.		





2

CONCRETE MONOLITHIC SLAB BASE RAIL ANCHURAGE

MINIMUM ANCHOR EDGE DISTANCE IS 4'.
* COORDINATE WITH LOCAL CODES/ORD.

GENERAL NOTES

NOTE: CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 1,500 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 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

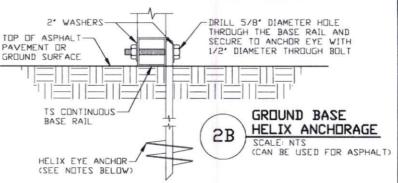
- REINFORCEMENT IS BENT COLD.
 THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN SIX-BAR DIAMETERS.
- 3. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT

HELIX ANCHOR NOTES:

- FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELOADED 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 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 OR SINGLE 6" HELIX WITH MINIMUM 50' EMBEDMENT
- FOR LODGE 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.



MINIMUM ANCHOR EDGE DISTANCE IS 4' COURDINATE WITH LOCAL CODES/ORD.



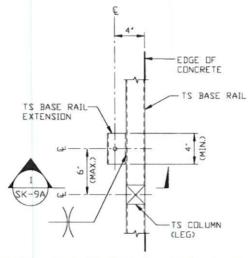


MOORE AND ASSOCIATES	
ENGINEERING AND CONSULTING, IN	IC.

THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHOBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

CLIENT: SBSI	SHT. 9	DVG. ND SK-3 REV. 8		REV. 8				
PROJECT MGR: WSM	DATE: 2-14-20	SCALE: NTS		ND: 18068S 55/182905/20019S				
CHECKED BY: PDH	MOUNT AIRY, NC 27030 30'-0"x20'-0" ENCLOSED STRUCTURE							
DRAWN BY: LT	P.O. BOX 1287,							

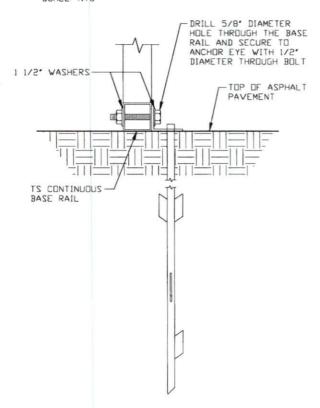
ADDITIONAL BASE RAIL ANCHORAGE OPTION



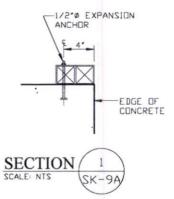
TYPICAL ANCHOR DETAIL WHEN BASE RAIL IS NEAR EDGE OF CONCRETE

SCALE: NTS

20



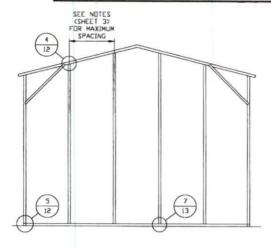
ASPHALT BASE ANCHORAGE





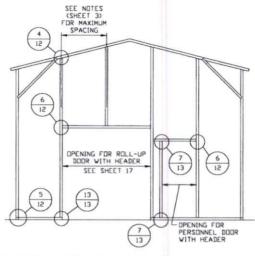
THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENT, SBSI	SHT. 9A	DVG. NO SK-	-3 REV. 8			
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERVISE USE OF	PROJECT MGR: WSM	DATE: 2-14-20	SCALE: NTS	JUB ND: 180685 18156\$/18290\$/20019\$			
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	and the second s	MOUNT AIRY,				
MOORE AND ASSOCIATES	DRAWN BY: LT	STEEL BUI	P.O. BOX 1287,				

BOX EAVE RAFTER END WALL AND SIDE WALL OPENINGS



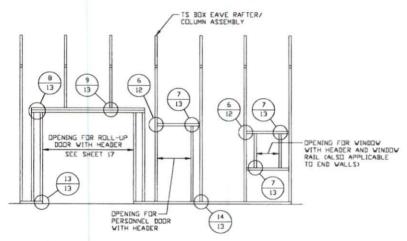
TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION

SCALE: NTS



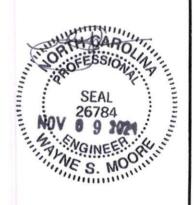
TYPICAL BOX EAVE RAFTER END WALL OPENINGS FRAMING SECTION

SCALE: NTS



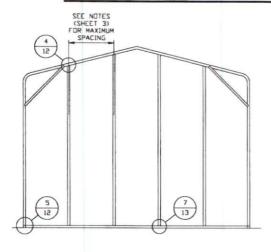
TYPICAL BOX EAVE RAFTER SIDE WALL OPENINGS FRAMING SECTION

SCALE: NTS



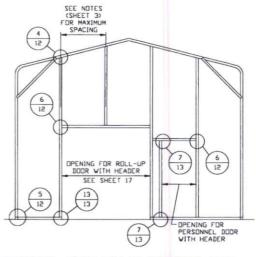
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	P.O. BOX 1287, MOUNT AIRY, NC 27030 30'-0"x20'-0" ENCLOSED STRUCTURE				
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND	PROJECT MGR: VSM			JOB N	UCTURE 18068S S/18290S/20019S	
CONSULTING THE UNMITHERIZED REPRODUCTION, COPYING, OR OTHERVISE USE OF THOS DOCUMENT IS STRUCTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.			DWG. NO SK-3		REV. 8	

BOW EAVE RAFTER END WALL AND SIDE WALL OPENINGS



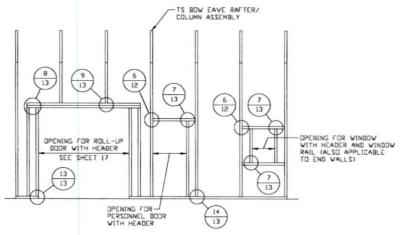
TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION

SCALE: NTS



TYPICAL BOX EAVE RAFTER END WALL OPENINGS FRAMING SECTION

SCALE: NTS

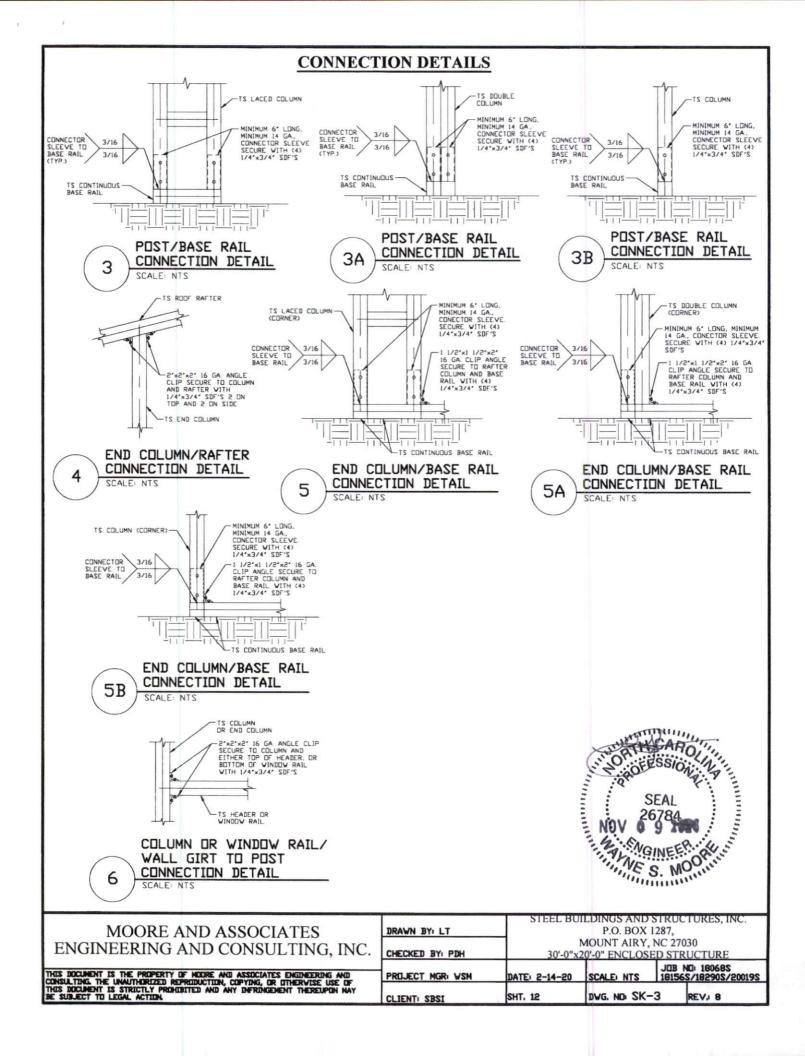


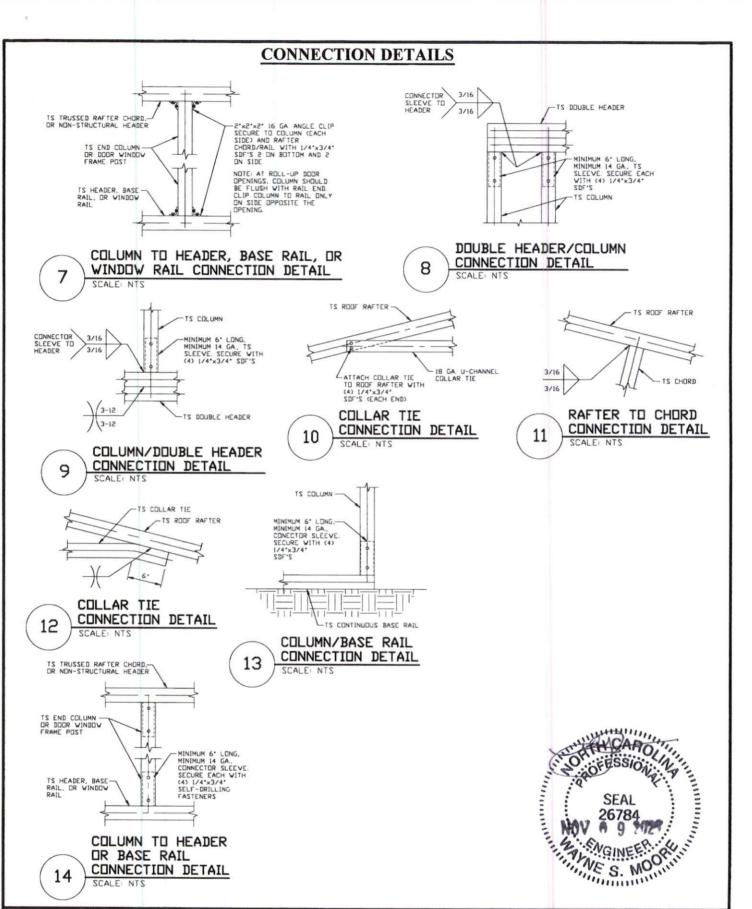
TYPICAL BOX EAVE RAFTER SIDE WALL OPENINGS FRAMING SECTION

SCALE: NTS



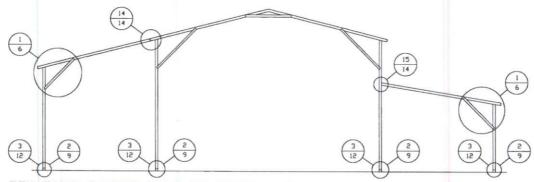
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	P.O. BOX 1287, MOUNT AIRY, NC 27030 30'-0"x20'-0" ENCLOSED STRUCTURES			030
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROPOSITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	PROJECT MGR: VSM	DATE: 2-14-20 SHT. 11	SCALE: NTS	19156	ND: 18068S S/18290S/20019S REV.: 8





MOORE AND ASSOCIATES	DRAWN BY: LT	STEEL BUI	P.O. BOX 1	STRUCTURES, INC. 287,
ENGINEEDING AND CONCULTING INC	CHECKED BY: PDH		MOUNT AIRY, N 0'-0" ENCLOSE	NC 27030 ED STRUCTURE
THIS DOCUMENT IS THE PROPERTY OF HOORE AND ASSOCIATES ENGINEERING AND CONSULTING, THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF	PROJECT MGR: WSM	DATE: 2-14-20	SCALE: NTS	JDB ND: 18068S 18156S/18290S/20019S
THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENT: SBSI	SHT. 13	DWG. NO SK-	3 REV. 8

BOX EAVE RAFTER LEAN-TO OPTIONS



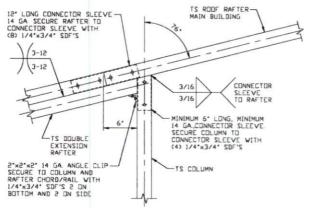
TYPICAL BOX EAVE RAFTER LEAN-TO OPTIONS FRAMING SECTION (BOTH OPTIONS SHOWN)

SCALE: NTS

MAXIMUM WIDTH DF SINGLE MEMBER (RAFTER) RODF EXTENSION LEAN-TO IS 12'-0'.

MAXIMUM WIDTH DF DOUBLE MEMBER RAFTER RODF EXTENSION LEAN-TO IS 16'-0'.

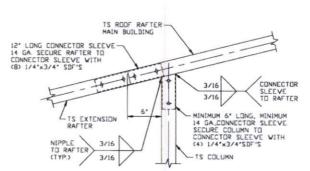
FOR SHARED COLUMN HEIGHTS REFERENCE RAFTER COLUMN CONNECTION DETAILS FOR APPROPRIATE COLUMN HEIGHT AND TUBING SPECIFICATIONS.



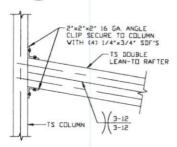
SIDE EXTENSION RAFTER/
COLUMN DETAIL FOR RAFTER

SPANS 12'-0' < TO < 16'-0'

SCALE: NTS



SIDE EXTENSION RAFTER/COLUMN DETAIL FOR RAFTER SPANS & 12'-0'



LEAN-TO RAFTER
TO RAFTER POST
CONNECTION DETAIL
FOR WIDTHS
12'-0" < TO < 16'-0"

15

2'x2'x2' 16 GA ANGLE
CLIP SECURE TO COLUNN
VITH (4) 1/4'x3/4' SDF'S

TS LEAN-TO
RAFTER

TS COLUMN

LEAN-TO RAFTER
TO RAFTER POST
CONNECTION DETAIL
FOR WIDTHS \(\sigma 12'-0'\)
SCALE: NTS

15A



MOORE AND ASSOCIATES	
ENGINEERING AND CONSULTING, IN	C.

THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRIDUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

DRAWN BY: LT

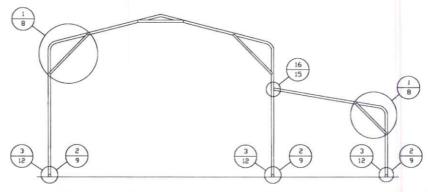
P.O. BOX 1287,
MOUNT AIRY, NC 27030
CHECKED BY: PDH

STEEL BUILDINGS AND STRUCTURES, INC.
P.O. BOX 1287,
MOUNT AIRY, NC 27030
30'-0"x20'-0" ENCLOSED STRUCTURE

PROJECT MGR: WSM DATE: 2-14-20 SCALE: NTS 18156S/18290S/20019S

CLIENT: SBSI SHT. 14 DWG, ND: SK-3 REV.: 8

BOW EAVE RAFTER LEAN-TO OPTIONS



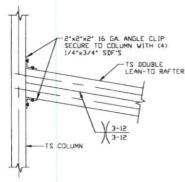
TYPICAL BOW EAVE RAFTER LEAN-TO OPTIONS FRAMING SECTION

SCALE: NTS SCALE: NIS

MAXIMUM WIDTH OF SINGLE MEMBER (RAFTER) ROOF EXTENSION LEAN-TO IS 12'-0'.

MAXIMUM WIDTH OF DOUBLE MEMBER RAFTER ROOF EXTENSION LEAN-TO IS 16'-0'.

FOR SHARED COLUMN HEIGHTS REFERENCE RAFTER COLUMN CONNECTION DETAILS FOR APPROPRIATE COLUMN HEIGHT AND TUBING SPECIFICATIONS.



LEAN-TO RAFTER TO RAFTER POST CONNECTION DETAIL FOR WIDTHS 12'-0' < T□ ≤ 16'-0' SCALE: NTS

16

-2'x2'x2' 16 GA. ANGLE CLIP SECURE TO COLUMN WITH (4) 1/4'x3/4' SDF'S TS LEAN-TO RAFTER TS COLUMN

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

16A

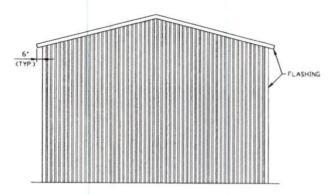
SEAL 26784
NOV 19 2021.

VES. MOON.

SAND STRUCTU
BOX 1287,
RY, NC 270
SED ST

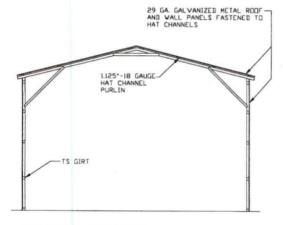
MOORE AND ASSOCIATES	DRAWN BY: LT	P.O. BOX 1287.				
ENGINEERING AND CONSULTING, INC.	DANWIN DIV LI	MOUNT AIRY, NC 27030				
	CHECKED BY: PDH	30'-0"x20'-0" ENCLOSED STRUCTURE				
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND	PROJECT MGR: WSM	DATE: 2-14-20	SCALE: NTS	JUB ND: 180685 181565/182905/200195		
CONSULTING THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERVISE USE OF THIS DOCUMENT IS STRICTLY PRODUCTION AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENT: SBSI	SHT. 15	DWG. NO SK-			

BOX EAVE RAFTER VERTICAL ROOF/SIDING OPTION



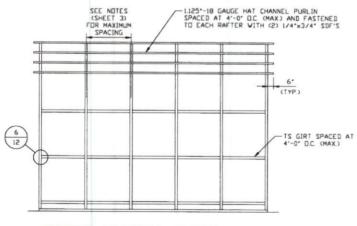
TYPICAL END ELEVATION VERTICAL ROOF/SIDING

SCALE: NTS



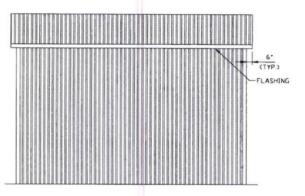
TYPICAL SECTION VERTICAL ROOF/SIDING OPTION

SCALE: NTS



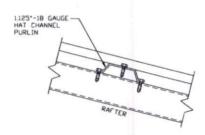
TYPICAL FRAMING SECTION VERTICAL ROOF/SIDING OPTION

SCALE: NTS



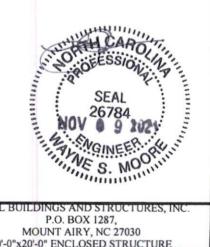
TYPICAL SIDE ELEVATION VERTICAL ROOF/SIDING

SCALE: NTS



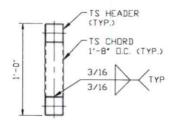
PANEL ATTACHMENT

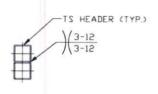
(ALTERNATE FOR VERTICAL ROOF PANELS) SCALE: NTS



THIS DOCUMENT IS STRICTLY PROMOBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENT: SBSI	SHT. 16	DWG. NO SK-	3	REVI 8
THIS DOCUMENT IS THE PROPERTY OF MODIFE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF	PROJECT MGR: WSM	DATE: 2-14-20	SCALE: NTS		D 18068S S/18290S/20019S
ENGINEEDING AND CONCULTING INC	CHECKED BY: PDH		MOUNT AIRY, NC 27030 30'-0"x20'-0" ENCLOSED STRUCTURE		
MOORE AND ASSOCIATES	DRAWN BY: LT	STEEL BU	P.O. BOX 1287,		

SIDE WALL HEADER OPTIONS





LACED HEADER DETAIL FOR DOOR OPENINGS 12'-0' < LENGTH \(\) 20'-0'

DOUBLE HEADER DETAIL FOR DOOR OPENINGS 7'-0' < LENGTH \(\) 12'-0'



SINGLE HEADER DETAIL FOR DOOR OPENINGS LENGTH < 7'-0"

END WALL HEADER OPTIONS



SINGLE HEADER DETAIL FOR DOOR OPENINGS LENGTH & 12'-0"



			and the second s			
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC. THIS BOCUMENT IS THE PROPERTY OF HOURE AND ASSOCIATES ENGINEERING AND CONSULTING THE UNAUTHORIZED REPRODUCTION, COPYONG, OR OTHERWISE USE OF	DRAWN BY: LT	STEEL BUILDINGS AND STRUCTURES, INC. P.O. BOX 1287,				
	CHECKED BY: PDH	MOUNT AIRY, NC 27030 30'-0"x20'-0" ENCLOSED STRUCTURE				
	PROJECT MGR: WSM	DATE: 2-14-20	SCALE: NTS		(D: 18068S S/18290S/20019S	
THIS DOCUMENT IS STRICTLY PROMISITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENT: SBSI	SHT. 17	DWG. NO SK-	-3	REV. 8	

