

STRUCTURAL DESIGN ENCLOSED BUILDING

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

8 July 2022 Revision 0 M&A Project No. 22096S

Prepared for:

Unified Steel Structures, Inc. 154 N. Renfro Street Suite 100 Mount Airy, NC 27030

Prepared by:

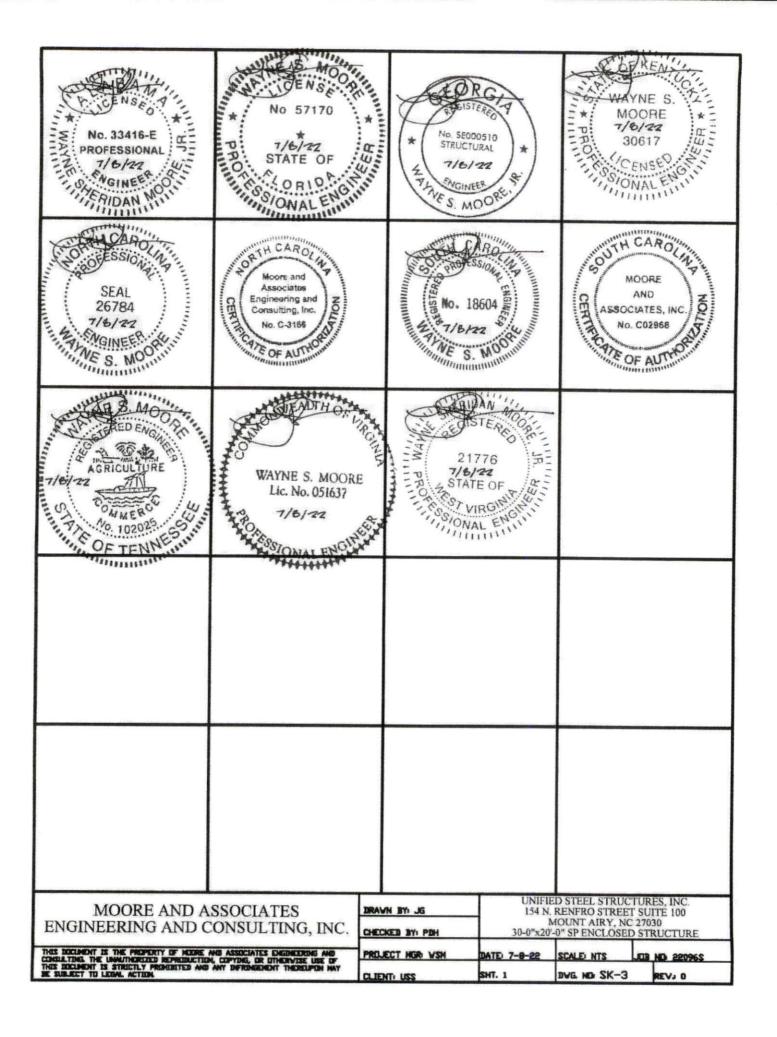
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MOORE AND ASSOCIATES	DRAWN BY: JG	154 N.	ED STEEL STRUK RENFRO STREE MOUNT AIRY, N	ET SUITE 100

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 ALL THE APPLICABLE BUILDING CODES LISTED ON SHEET 3A.
- 3. DESIGN LOADS ARE AS FOLLOWS:

A) ROOF DEAD LOAD!

SELF-WEIGHT = 1.5 PSF

COLLATERAL = 0 PSF

- B) ROOF LIVE LOAD = 12 PSF C) FLOOR LIVE LOAD = 100 PSF (4' CONCRETE SLAB-ON-GRADE)
- D) GROUND SNOW LOAD = 35 PSF
 - = 30 PSF (W & 24'-0' WITH U-CHANNEL RAFTER TIE)

NOTE: UNBALANCED LOADING DUE TO SNOW DRIFTING FROM AN ADJACENT TALLER STRUCTURE HAS NOT BEEN EVALUATED.

- 4. 3-SECOND GUST ULTIMATE WIND SPEED (VULT) 145 MPH (NOMINAL WIND SPEED 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 COLUMNS IN SIZE AND SPACING (UNLESS NOTED OTHERWISE),
- 7. RISK CATEGORY I.
- B. WIND EXPOSURE CATEGORY B/C.
- 9. STRUCTURAL ANALYSIS/DESIGN IS BASED ON IS MEETING THE REQUIREMENTS OF ASTN A653 GRADE 50 WITH MINIMUM YIELD STRENGTH (FY) OF 54 KSI AND GALVANIZING MEETING THE REQUIREMENTS OF G60.
- 10. SPECIFICATIONS APPLICABLE TO 29 GAUGE OR 26 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/2'x2 1/2'-14 GAUGE TUBE STEEL (TS) FRAMING MEMBERS (UNLESS NOTED OTHERWISE), WHERE TS 2 1/2' x 2 1/2' - 14 GAUGE IS SPECIFIED, TS 2 1/4 x 2 1/4' - 12 GAUGE MAY BE USED AS AN OPTION.
- 11. CONNECTOR SLEEVES ARE MINIMUM 6" LONG, TS 2 1/4"x2 1/4"-14 GAUGE FOR 2 1/2"x2 1/2"-14 GAUGE (UNLESS NOTED OTHERWISE).
 WHERE 6" LONG TS 2 1/4"x2 1/4"-14 GAUGE CONNECTOR SLEEVE IS SPECIFIED, 6" LONG TS 2"x2"-12 GAUGE TS CONNECTOR SLEEVE
 MAY BE USED AS AN OPTION.
- 12. AVERAGE PANEL FASTENER SPACING DN-CENTERS = 9' D.C. (MAX.)
- 13. 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, ROOF SLOPES LESS THAN 3/12 REQUIRE USE OF LAP JOINT SEALANT.
- 14. ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL AT DR WITHIN 6' OF EVERY RAFTER COLUMN,
- 15. STANDARD GROUND ANCHORS (SOIL NAILS) CONSIST OF #14 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.
- 16. CONTRACTOR TO PROVIDE ADEQUATE BRACING FOR STRUCTURE SO THAT IT WILL BE STABLE DURING ALL STAGES OF CONSTRUCTION. THE STRUCTURE AND FOUNDATION ARE DESIGNED FOR A COMPLETED CONDITION ONLY AND, THEREFORE, REQUIRE ADDITIONAL SUPPORT TO MAINTAIN STABILITY BEFORE COMPLETION.
- 17. WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE SUIL SITE CLASS = D RISK CATEGORY I Je= 1.0

R= 3.25

V= CsW Sps= 2.625 g

Sm= 2.13 g

- 18. IF MORE THAN 50% OF COLUMN (LEG) ARE REMOVED IN ANY LONGITUDINAL (SIDE) WALLS OF A BUILDING, THE ENGINEER IS TO BE NOTIFIED TO DETERMINE WHETHER PORTAL FRAMES OR OTHER LONGITUDINAL STABILITY ELEMENTS WILL BE REQUIRED.
- 29. THIS HASTER DESIGN IS A GENERIC MASTER DESIGN PRIMARILY INTENDED FOR PLANT FABRICATION AND ERECTION AND TO SHOP DRAWINGS. THE MASTER DESIGN IS NOT PRIMARILY INTENDED FOR CONSTRUCTION PENHOT, WHEN APPLYING FOR MELIDING PENHOT, THE CERTIFIED MALDING DEFICIAL HUST DECENSIALED TO VERIFY VHETHER THE UNLILING PENHOT, AND VARIATION FIRST THE MALTSTEPS OF THE MASTER DESIGN IS ADDITIONAL RESIGN FOR MALTER THE MALTSTEPS OF THE MASTER DESIGN PARAMETERS OF THE MASTER DESIGN REQUIRES THE MELIDING PROPERTY OF A SITE-SPECIFIC DESIGN.

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LIST OF APPLICABLE BUILDING CODES

2021 INTERNATIONAL BUILDING CODE (IBC 2021)

2018 INTERNATIONAL BUILDING CODE (IBC 2018)

2015 INTERNATIONAL BUILDING CODE (IBC 2015)

2012 INTERNATIONAL BUILDING CUDE (IEC 2012)

BUILDING CODE 2021 OF ALABAMA
(ADDPTS THE IBC 2021 WITHOUT AMENDMENTS)
(IBC 2015, IBC 2018, IBC 2021 (DEPENDENT UPON LOCAL JURISDICTION))

GEORGIA STATE MINIMUM STANDARD BUILDING CODE CADDRTS THE IBC 2018 WITH AMENDMENTS)

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

2018 NORTH CAROLINA BUILDING CODE CADOPTS THE IBC 2015 WITH AMENDMENTS)

DHID BUILDING CODE 2017 (ADDPTS THE IBC 2015 WITH AMENDMENTS)

2018 SOUTH CAROLINA BUILDING CODE (ADDRT THE IBC 2018 WITH AMENDMENTS)

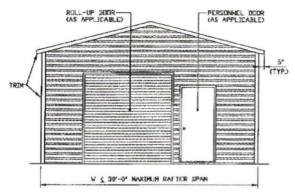
BUILDING CODE 2012 OF TENNESSEE
(ADDPTS THE IBC 2012 WITH AMENDMENTS)
BUILDING CODE OF THE CITY OF KNOXVILLE
(ADDPTS THE IBC 2018 WITH AMENDMENTS)
BUILDING CODE 2018 OF NASHVILLE AND DAVIDSON
COUNTY (ADDPTS THE IBC 2018 WITH AMENDMENTS)

2018 VIRGINIA CONSTRUCTION CODE (ADOPTS THE IBC 2018 VITH AMENDMENTS)

BUILDING CODE 2015 OF WEST VIRGINIA (ADOPTS THE IBC 2015 WITH AMENDMENTS)

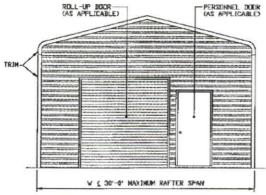
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BOX EAVE FRAME RAFTER STRUCTURE

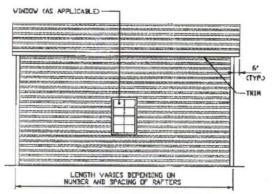


TYPICAL END ELEVATION

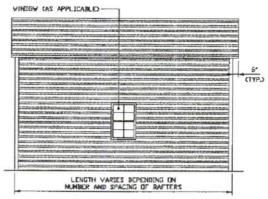
BOW FRAME RAFTER STRUCTURE



TYPICAL END ELEVATION SCALE NTS

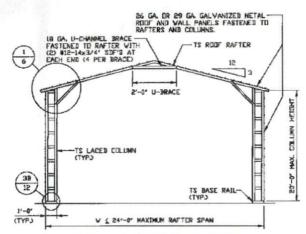


TYPICAL SIDE ELEVATION
SCALE: NTS



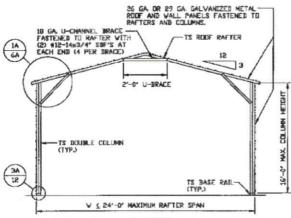
TYPICAL SIDE ELEVATION

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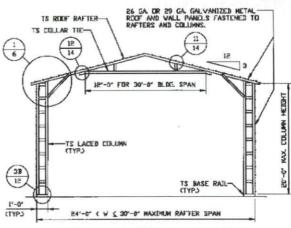
TYPICAL INTERIOR RAFTER/ COLUMN FRAME SECTION

SCALE: NTS



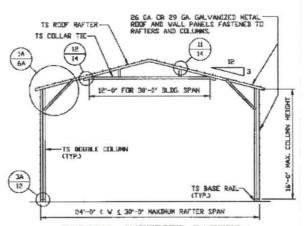
TYPICAL INTERIOR RAFTER/COLUMN FRAME SECTION

SCALE: NTS



TYPICAL INTERIOR RAFTER/ COLUMN FRAME SECTION

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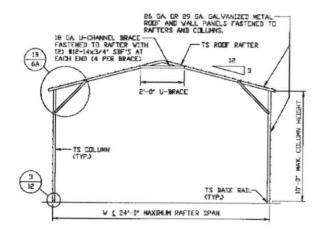


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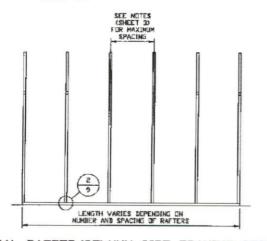
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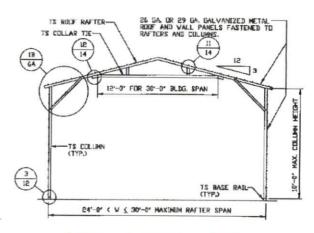
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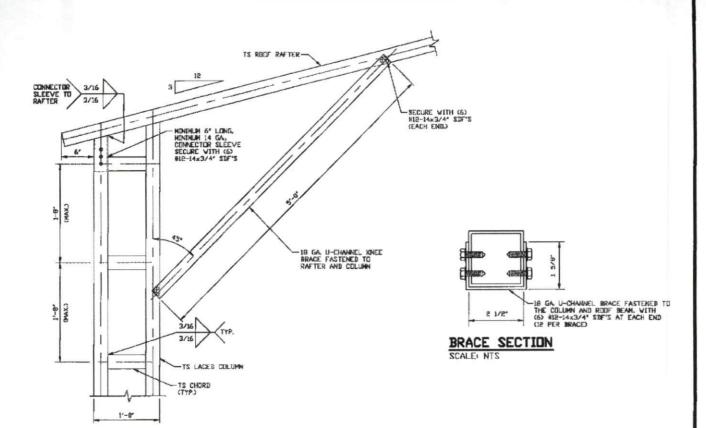


TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION
SCALE NTS



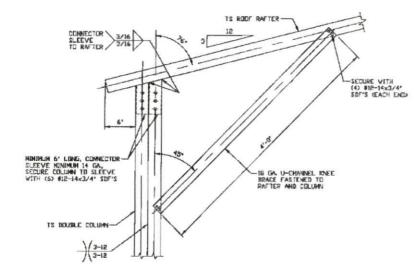
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BOX EAVE RAFTER COLUMN CONNECTION
DETAIL FOR HEIGHTS 16'-0" < TO \(\) 20'-0"

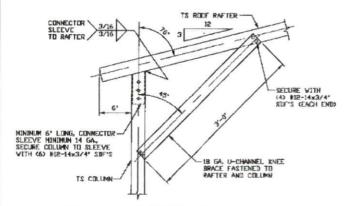
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BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 10'-0' < TO \(\) 16'-0'

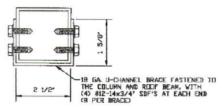
SCALE: NTS

1A



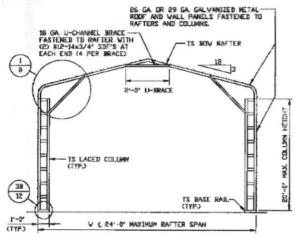
BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS ≤ 10'-0"

1B SCALE: NTS

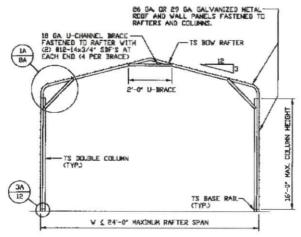


BRACE SECTION SCALE: NTS

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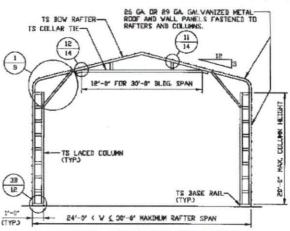


TYPICAL INTERIOR RAFTER/ COLUMN FRAME SECTION

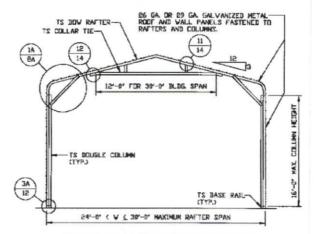


TYPICAL INTERIOR RAFTER/ COLUMN FRAME SECTION

SCALE: NTS



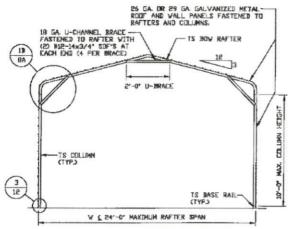
TYPICAL INTERIOR RAFTER/ COLUMN FRAME SECTION



TYPICAL INTERIOR RAFTER/ COLUMN FRAME SECTION

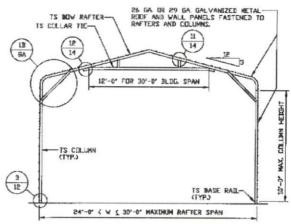
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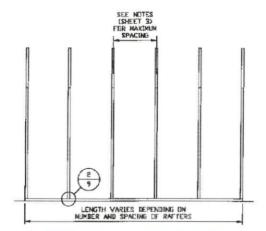
TYPICAL INTERIOR RAFTER/ COLUMN FRAME SECTION

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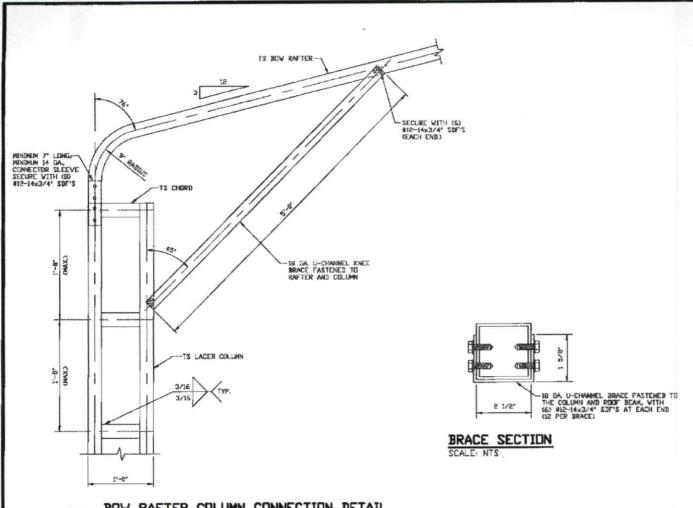
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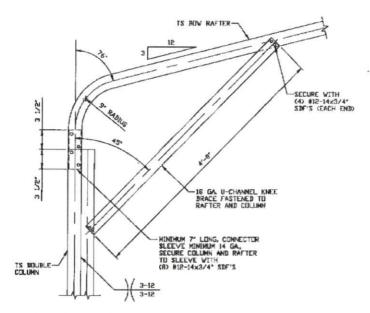
TYPICAL RAFTER/COLUMN FRAMING SIDE SECTION

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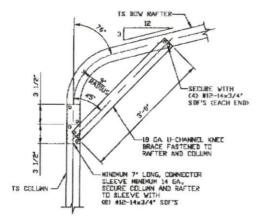
	BOW	RAFTER HEIGHTS	COLUMN	1	CON	NE	CTION	DETAIL
(1)	FOR	HEIGHTS	16'-0"	<	TO	۷	20'-0"	
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BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 10'-0' < TD ≤ 16'-0' 1A

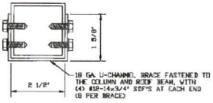
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BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS ≤ 10'-0"

SCALE: NTS

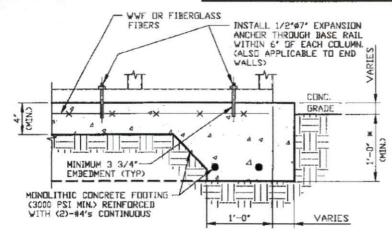
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BRACE SECTION SCALE: NTS

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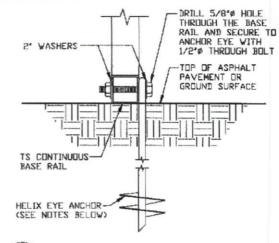
BASE RAIL ANCHORAGE OPTIONS





CONCRETE MONOLITHIC SLAB BASE RAIL ANCHURAGE

MINIMUM ANCHOR EDGE DISTANCE IS 4'. * COORDINATE WITH LOCAL BUILDING CODES/ORD. REGARDING REQUIRED FOOTING DEPTH



GROUND BASE HELIX ANCHORAGE

CAN BE USED FOR ASPHALT * COORDINATE WITH LOCAL CODES/ORD. REGARDING REQUIRED ANCHOR LENGTH.

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 VELDED WIRE FABRIC MEETING ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT.

REINFORCEMENT MAY BE BENT IN THE SHOP OR THE FIELD PROVIDED

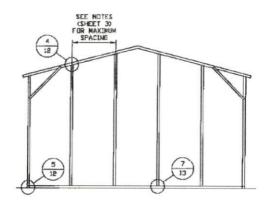
- REINFORCEMENT IS BENT COLD.
 THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN SIX-BAR DIAMETERS.
- 3. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT.

HELIX ANCHOR NOTES:

- 1. FOR VERY DENSE AND/OR CEMENTED SANDS, CDARSE 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 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 OR SINGLE 6' HELIX WITH MINIMUM 50' EMBEDMENT
- 4. FOR LOUSE 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.

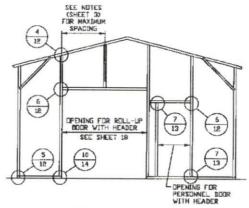
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAVN BY: JG CHECKED BY: PDH	N	RENFRO STREE MOUNT AIRY, NO -0" SP ENCLOSEI	27030
THES DECLARANT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THES DECLARANT IS STREETLY PROPERTY AND ANY INFROMEMENT THEREUPON MAY BE SUBJECT TO LEGIAL ACTION.	PROJECT MGR: WSM	DATE: 7-8-22	SCALE NTS	JUB NO 22096\$
THES DECLINENT IS STRUCTLY PROHESITED AND MAY INFROMEMENT THEREUPON MAY	CLIENT: USS	SHT. 9	DVG ND SK-3	REV. 0

TYPICAL END WALL AND SIDE WALL FRAMING SECTIONS (BOX EAVE RAFTER)



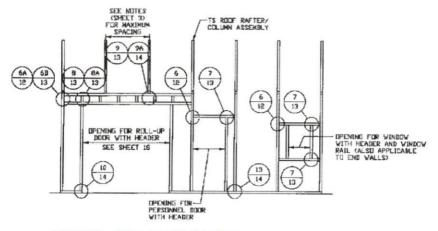
TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION

SCALE: NTS



TYPICAL BOX EAVE RAFTER END WALL OPENINGS FRAMING SECTION

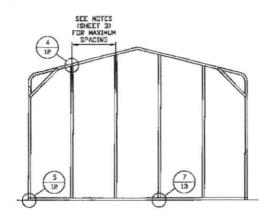
SCALE: NIS



TYPICAL BOX EAVE RAFTER
SIDE WALL OPENINGS FRAMING SECTION

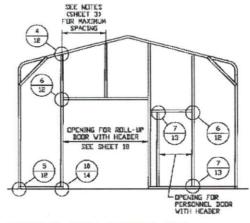
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	BRAVN BY: JG	UNIFIED STEEL STRUCTURES, INC. 154 N. RENFRO STREET SUITE 100 MOUNT AIRY, NC 27030			
	CHECKED BY PDH		0" SP ENCLOSED		
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THE EXCLUSION IS STRUCTLY PROPERTIES AND MAY INFRINCEMENT THEREUPEN MAY SE SUBJECT TO LEGAL ACTION.	CLIENTI USS	SHT. 10	DAC NO 2K-3	REVA 0	

TYPICAL END WALL AND SIDE WALL FRAMING SECTIONS (BOW RAFTER)



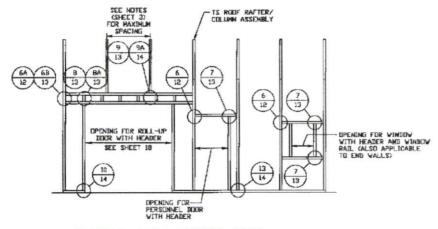
TYPICAL BOW RAFTER END WALL FRAMING SECTION

SCALE: NTS



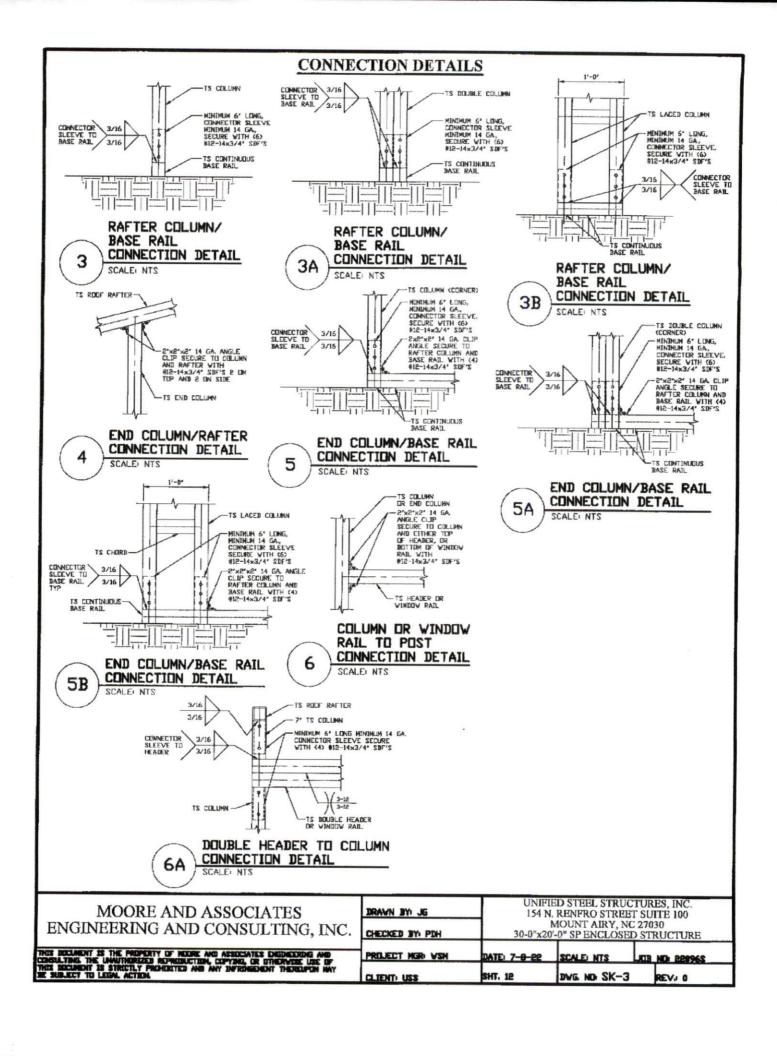
TYPICAL BOW RAFTER END WALL OPENINGS FRAMING SECTION

SCALE: NTS

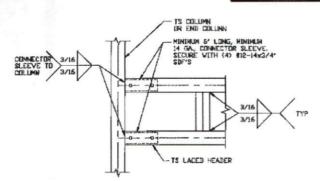


TYPICAL BOW RAFTER SIDE WALL OPENINGS FRAMING SECTION

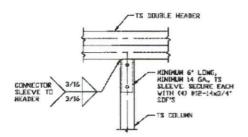
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ES DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND DESILTING THE UMUSTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF	PROJECT HIGH VISH	DATE 7-8-22	SCALE) NTS	JOB	ND 220965
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH		MOUNT AIRY, N 7-0" SP ENCLOS		
	DRAWN BY: JG	154 N	ED STEEL STRU . RENFRO STRE	ET SU	ITE 100



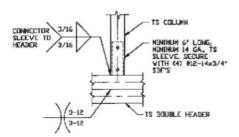
CONNECTION DETAILS



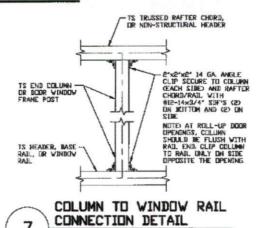
LACED HEADER
TID COLUMN
CONNECTION DETAIL
SCALE NTS



8 DOUBLE HEADER/
COLUMN
CONNECTION DETAIL
SCALE, NTS



9 COLUMN/
DOUBLE HEADER
CONNECTION DETAIL
SCALE: NTS



SCALE: NTS

3/16

TS LACED HEADER

TS LACED HEADER

CONNECTOR 3/16

SLEEVE TO 3/16

TS COLUMN

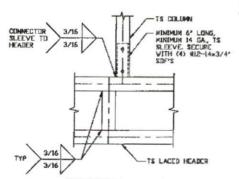
TS COLUMN

BA CONNECTION DETAIL
SCALE NTS

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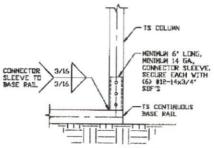
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THEM COME STATE	IN THE PROPERTY OF HEIGHE AND ASSOCIATES ENGINEERING AND E UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF ES STRUCTLY PROPERTIED AND ANY INFRINGEMENT THERELPON MAY LEGAL ACTION.
ME SUBJECT TO	LEGAL ACTION.

CLIENT: USS	USS SHT. 13		DVG. NO SK-3					
PROJECT MGR VSM	DATE 7-8-22	SCALE) NTS	JOB	ND 220965				
CHECKED BY: PDH	MOUNT AIRY, NC 27030 30-0"x20'-0" SP ENCLOSED STRUCTURE							
DRAVN BY JG	UNIFIED STEEL STRUCTURES, INC. 154 N. RENFRO STREET SUITE 100							



9A COLUMN/ LACED HEADER CONNECTION DETAIL

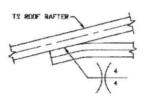
CONNECTION DETAILS



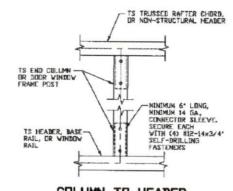
10 COLUMN/BASE RAIL CONNECTION DETAIL

75 ROOF RAFTER

RAFTER TO CHORD CONNECTION DETAIL SCALE: NTS



COLLAR TIE CONNECTION DETAIL



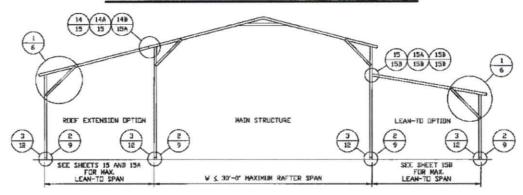
COLUMN TO HEADER OR BASE RAIL

CONNECTION DETAIL

SCALE: NTS

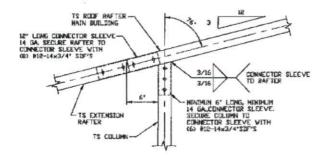
THE EMPLIED TO LEGAL ACTION	CLIENT USS	SHT. 14	DIVG. NO SK-3	REVA 0		
THE EDICHMENT IS THE PROPERTY OF HOUSE AND ASSOCIATES ENGINEERING AND CONSULTING, THE UNMUTHERIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF	PROJECT HOR: VSH	DATE: 7-8-22	SCALE: NTS	JUB ND 220968		
ENGINEERING AND CONSULTING, INC.	CHECKED BY PDH		OUNT AIRY, NC O" SP ENCLOSED			
MOORE AND ASSOCIATES	DRAVN BY: JG	UNIFIED STEEL STRUCTURES, INC. 154 N. RENFRO STREET SUITE 100				

BOX EAVE RAFTER LEAN-TO OPTIONS

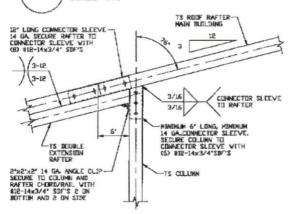


TYPICAL BOX EAVE RAFTER LEAN-TO OPTIONS FRAMING SECTION (BOTH OPTIONS SHOWN)

SCALE: NTS
MAXIMUM WIDTH OF LACED MEMBER ROOF EXTENSION AND LEAN-TO OPTION IS 20'-0".
MAXIMUM WIDTH OF DOUBLE MEMBER ROOF EXTENSION AND LEAN-TO OPTION IS 16'-0".
MAXIMUM WIDTH OF SINGLE MEMBER ROOF EXTENSION AND LEAN-TO OPTION IS 12'-0".
MAIN BUILDING COLUMNS WITH LEAN-TO OR ROOF EXTENSION ATTACHED ARE REQUIRED TO BE LACED COLUMNS FOR EAVE HEIGHTS 16'-0' < TO \(\lambda 20'-0' \).
MAIN BUILDING COLUMNS WITH LEAN-TO OR ROOF EXTENSION ATTACHED ARE REQUIRED TO BE DOUBLE COLUMNS FOR EAVE HEIGHTS 10'-0' < TO \(\lambda 16'-0' \).
MAIN BUILDING COLUMNS WITH LEAN-TO OR ROOF EXTENSION ATTACHED ARE REQUIRED TO BE SINGLE COLUMNS FOR EAVE HEIGHTS \(\lambda 10'-0' \).



SIDE EXTENSION RAFTER/ COLUMN DETAIL FOR RAFTER SPANS \(\sigma\) 12'-0'



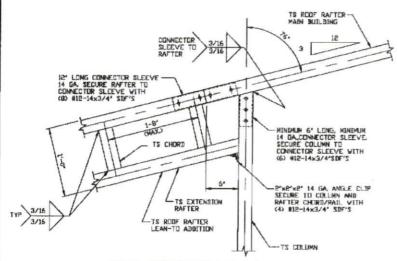
SIDE EXTENSION RAFTER/
COLUMN DETAIL FOR RAFTER
SPANS 12'-0' < TO \(\) 16'-0'

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CLIENT: USS	SHT. 15	DVG. NO SK-	3	REVA 0			
PROJECT HGR: VSH	DATE: 7-8-22	SCALE NTS	,m	NO 220965			
CHECKED BY: PDH		MOUNT AIRY, 0'-0" SP ENCLOS			-		
BRAWN BY: JG	UNIFIED STEEL STRUCTURES, INC. 154 N. RENFRO STREET SUITE 100						

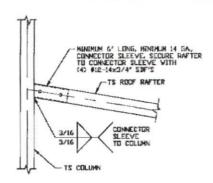
BOX EAVE RAFTER LEAN-TO OPTION



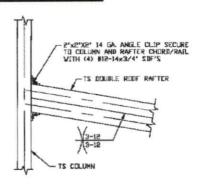
SIDE EXTENSION RAFTER/
COLUMN DETAIL FOR RAFTER
SPANS 16'-0' (TO \(\) 20'-0'

MOORE AND ASSOCIATES	DRAVN BY JG		D STEEL STRUC RENFRO STREET	
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	MOUNT AIRY, NC 27030 30-0"x20'-0" SP ENCLOSED STRUCTURE		
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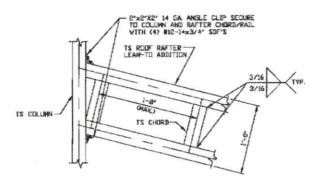
BOX EAVE RAFTER LEAN-TO OPTIONS



LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS ≤ 12'-0" 15



LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS 12'-0' < TO < 16'-0'



LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS 16'-0' < TO < 20'-0' 15B SCALE: NTS

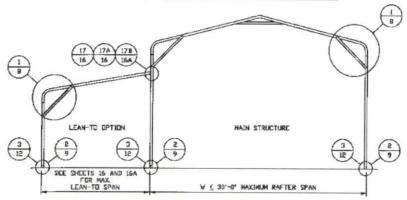
MOORE AND ASSOCIATES	DRAVN BYI JG	
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PIN	
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MAY	A 15

UNIFIED STEEL STRUCTURES, INC. 154 N. RENFRO STREET SUITE 100 MOUNT AIRY, NC 27030 30-0"x20'-0" SP ENCLOSED STRUCTURE

PROJECT NGR VSN	DATE: 7-0-22	SCALE NTS LI	23603E ON
CLIENT: USS	SHT. 15B	DWG. NO SK-3	REVJ 0





TYPICAL BOW RAFTER LEAN-TO OPTION FRAMING SECTION

SCALE: NTS

MAXIMUM WIDTH OF LACED MEMBER ROOF EXTENSION AND LEAN-TO OPTION IS 20'-0'.

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

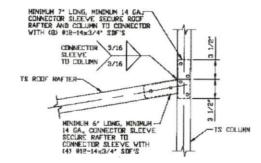
MAXIMUM WIDTH OF SINGLE MEMBER ROOF EXTENSION AND LEAN-TO OPTION IS 12'-0'.

MAXIMUM WIDTH OF SINGLE MEMBER ROOF EXTENSION AND LEAN-TO OPTION IS 12'-0'.

MAIN BUILDING COLUMNS WITH LEAN-TO OR ROOF EXTENSION ATTACHED ARE REQUIRED TO BE LACED COLUMNS
FOR EAVE HEIGHTS 16'-0' < TO < 20'-0'.

MAIN BUILDING COLUMNS WITH LEAN-TO OR ROOF EXTENSION ATTACHED ARE REQUIRED TO BE DOUBLE COLUMNS
FOR EAVE HEIGHTS 10'-0' < TO < 16'-0'.

MAIN BUILDING COLUMNS WITH LEAN-TO OR ROOF EXTENSION ATTACHED ARE REQUIRED TO BE SINGLE COLUMNS
FOR EAVE HEIGHTS (10'-0'.



LEAN-TO RAFTER TO RAFTER
COLUMN CONNECTION DETAIL

FOR RAFTER SPANS & 12'-0'

MINIDAUM 7' LONG, MINIDAUM
14 GA, CIDINECTUR SLEEVE
SECURE ROOF RAFTER AND
COLUMN TO CONNECTUR WITH
CO 912-14x3/4' SDF'S

TS DOUBLE ROOF
RAFTER

P'XP'XP' 14 GA ANGLE CLIP
SECURE TO COLUMN AND
NAFTER CHRED/RAIL WITH
(4) ME2-14x3/4' SDF'S

LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS 12'-0' < TO < 16'-0"

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.

17A

SCALE: NTS

AND PROJECT MGR VS

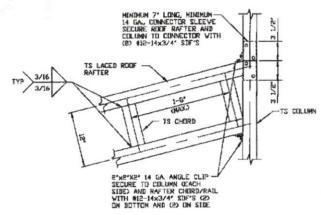
DRAVN BY: JG

UNIFIED STEEL STRUCTURES, INC. 154 N. RENFRO STREET SUITE 100 MOUNT AIRY, NC 27030 30-0"x20'-0" SP ENCLOSED STRUCTURE

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PROJECT MGR VSM DATE 7-8-22 SCALE NTS JOB NO 22096S
CLIENT USS SHT. 16 DVG NO SK-3 REV. 0

BOW RAFTER LEAN-TO OPTION

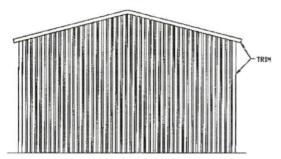


LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS 16'-0' < TO < 20'-0' SCALE: NTS

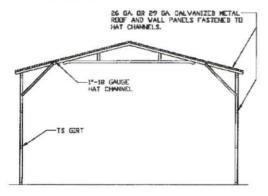
17B

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THE BECOMENT IS THE PROPERTY OF MICHE AND ASSOCIATES ENGINEERING AND	PROJECT HGR: VSH	DATE: 7-8-22	SCALE NTS	JOB ND 220965	
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH		30-0"x20'-0" SP ENCLOSED STRUCTU		
MOORE AND ASSOCIATES DRAWN BY: JG		154 N. RENFRO STREET SUITE 100 MOUNT AIRY, NC 27030			

BOX EAVE RAFTER VERTICAL ROOF/SIDING OPTION

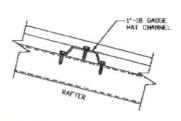


TYPICAL END ELEVATION VERTICAL ROOF/SIDING



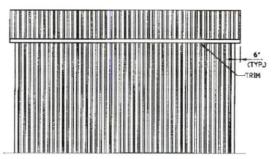
TYPICAL SECTION VERTICAL ROOF/SIDING OPTION

SCALE: NTS



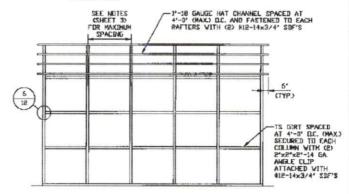
PANEL ATTACHMENT

(ALTERNATE FOR VERTICAL ROOF PANELS)



TYPICAL SIDE ELEVATION VERTICAL ROOF/SIDING

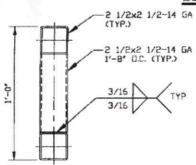
SCALE: NTS

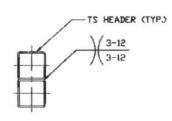


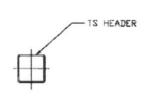
TYPICAL FRAMING SECTION VERTICAL ROOF/SIDING OPTION

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THIS SUCLEDIT IS THE PROPERTY OF NEEDE AND ASSISTATES ENGINEERING AND	PROJECT MGR VSM	DATE: 7-8-22	SCALE) NTS	JUB ND 22096S	
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH		MOUNT AIRY, NC 27030 0-0"x20"-0" SP ENCLOSED STRUCTURE		
MOORE AND ASSOCIATES BRAVE BY JG		UNIFIED STEBL STRUCTURES, INC. 154 N. RENFRO STREET SUITE 100			

SIDE WALL HEADER OPTIONS







HEADER DETAIL FOR

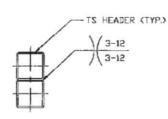
12'-0' < LENGTHS \(\) 20'-0"

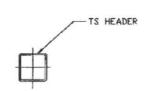
SCALE: NTS

HEADER DETAIL FOR 7'-0" < LENGTHS \(\) 12'-0"

HEADER DETAIL FOR LENGTHS ≤ 7'-0"

END WALL HEADER OPTIONS





HEADER DETAIL FOR 13'-0" < LENGTHS < 20'-0"

HEADER DETAIL FOR LENGTHS & 13'-0'

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MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH		30-0"x20'-0" SP ENCLOSED STRUCTURE		
	DRAWN BY: JG	154 N	IED STEEL STRUCTURES, INC. I. RENFRO STREET SUITE 100 MOUNT AIRY, NC 27030		