

Mike Fino
220 Bishop Mill Ln.
Lillington, NC 27546
24'x31'x9'

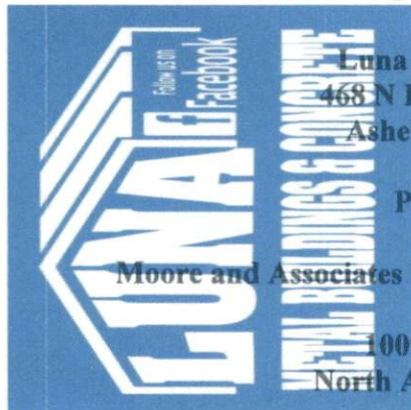


STRUCTURAL DESIGN
RISK CATEGORY I/II
ENCLOSED BUILDING

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

10 November 2020
Revision 0
M&A Project No. 20214S

Prepared for:



Luna Metal Buildings
468 N Fayetteville Street
Asheboro, NC 27203

Prepared by:

Moore and Associates Engineering and Consulting, Inc.

1009 East Avenue
North Augusta, SC 29841

401 S. Main Street, Suite 200
Mount Airy, NC 27030



MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING

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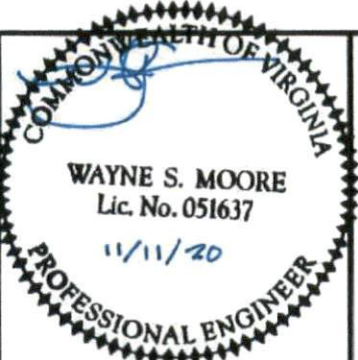

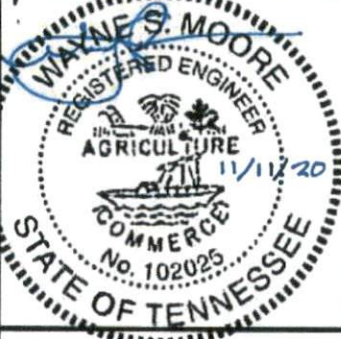
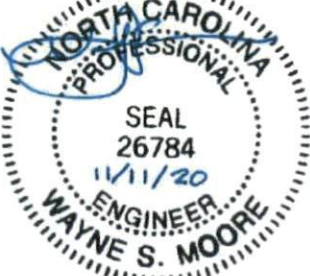



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ENGINEERING AND CONSULTING**

MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.

DRAWN BY: JG

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: LUNA METAL

LUNA METAL BUILDINGS
468 N FAYETTEVILLE ST.
ASHEBORO, NC 27203
30'-0"x20'-0" RC I / II ENCLOSED STRUCTURE

DATE: 11-10-20

SHT. 1

SCALE: NTS

DWG. NO: SK-3

JOB NO: 20214S

REV: 0

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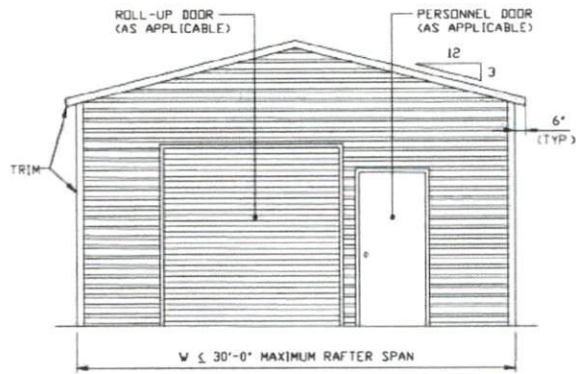
INSTALLATION NOTES AND SPECIFICATIONS

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, 2012 INTERNATIONAL BUILDING CODE (IBC), 2015 IBC, AND 2018 IBC
3. DESIGN LOADS ARE AS FOLLOWS:
 - A) DEAD LOAD = 115 PSF FOR RISK CATEGORY II
= 15 PSF FOR RISK CATEGORY I.
 - B) LIVE LOAD = 20 PSF FOR RISK CATEGORY II
= 12 PSF FOR RISK CATEGORY I.
 - C) GROUND SNOW LOAD = 30 PSF WITH U-CHANNEL PEAK BRACE ($W \leq 24'-0"$)
= 35 PSF
(UNBALANCED SNOW LOADS DUE TO DRIFTING HAVE NOT BEEN EVALUATED)
4. 3-SECOND ULTIMATE WIND SPEED (V_{ULT}) = ≤ 155 MPH (NOMINAL WIND SPEED = 120 MPH) FOR RISK CATEGORY II.
5. 3-SECOND ULTIMATE WIND SPEED (V_{ULT}) = ≤ 145 MPH (NOMINAL WIND SPEED = 112 MPH) FOR RISK CATEGORY I.
6. MAXIMUM RAFTER/POST AND END POST SPACING = 4.0 FEET FOR RISK CATEGORY II (UNLESS NOTED OTHERWISE)
7. MAXIMUM RAFTER/POST AND END POST SPACING = 5.0 FEET FOR RISK CATEGORY I (UNLESS NOTED OTHERWISE)
8. END WALL COLUMNS/POSTS ARE EQUIVALENT TO SIDE WALL COLUMNS/POSTS IN SIZE AND SPACING UNLESS NOTED OTHERWISE
9. RISK CATEGORY I/II
10. WIND EXPOSURE CATEGORY B (RISK CATEGORY I)/C (RISK CATEGORY II)
11. SPECIFICATIONS APPLICABLE TO 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/4"x2 1/4"-14 GAUGE TUBE STEEL (TS) FRAMING MEMBERS (UNLESS NOTED OTHERWISE). WHERE TS 2 1/4" x 2 1/4" - 14 GAUGE IS SPECIFIED, TS 2 1/4" x 2 1/4" - 12 GAUGE MAY BE USED AS AN OPTION
12. AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR HAT CHANNELS, AND COLUMNS (INTERIOR OR END) = 10" O.C. (MAX.) FOR RISK CATEGORY I AND 8" O.C. (MAX.) FOR RISK CATEGORY II. FOR WIND SPEEDS > 145 MPH = 6" O.C. (MAX.).
13. FASTENERS CONSIST OF #12-14x3/4" 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. GROUND ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL WITHIN 6" OF EACH RAFTER COLUMN ALONG SIDES
15. STANDARD SOIL NAIL FOUNDATION SYSTEM CONSISTS OF #4 REBAR W/ WELDED NUT x 30" LONG AND ARE APPLICABLE ONLY IN MEDIUM TO STIFF (SUITABLE) SOILS. SOIL NAILS MAY BE USED FOR WIND SPEEDS ≤ 145 MPH. OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USED FOR WIND SPEEDS > 145 MPH AND/OR IN UNSUITABLE SOILS AS NOTED. COORDINATE WITH LOCAL CODES/ORDINANCES REGARDING MINIMUM LENGTH FOR FROST DEPTH PROTECTION.
16. WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE:
SOIL SITE CLASS = D
RISK CATEGORY I/II

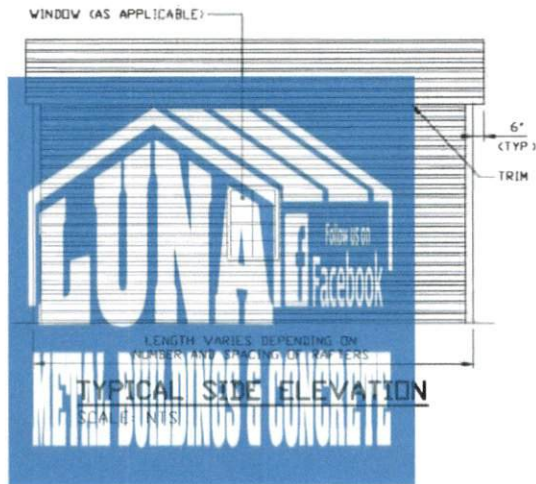
R= 325	$I_E = 1.0$
$S_{DS} = 2.039 g$	$V = C_S W$
$S_{D1} = 1.258 g$	
17. FOR RISK CATEGORY II STRUCTURES, MAXIMUM THRESHOLD HEIGHT IS $\leq 1/2'$ FOR PERSONNEL DOORS UTILIZED AS MEANS OF EGRESS



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TYPICAL END ELEVATION
SCALE: NTS



TYPICAL SIDE ELEVATION
SCALE: NTS

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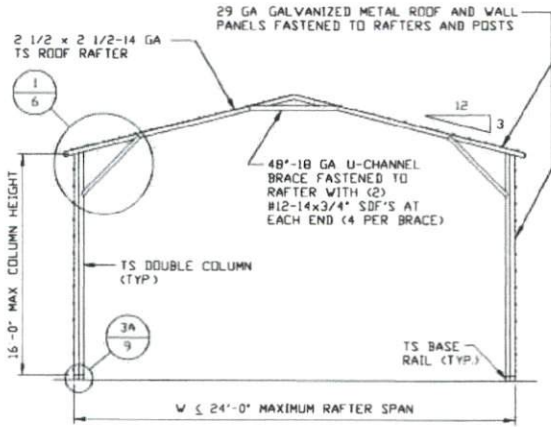
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DWG. NO SK-3

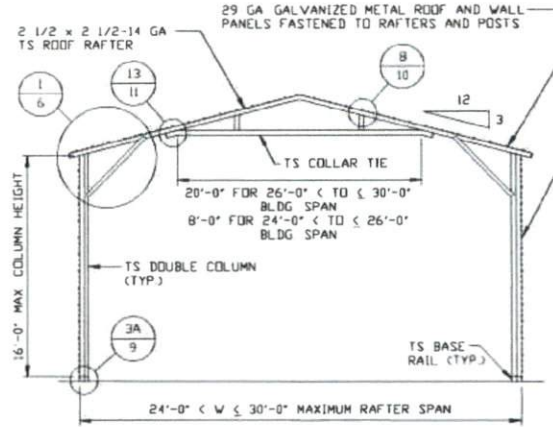
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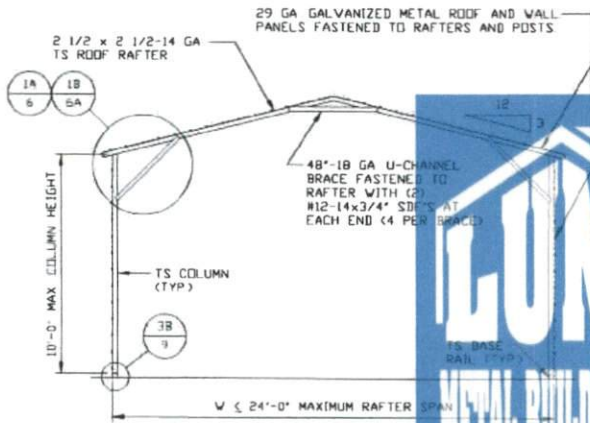
EXPOSURE B



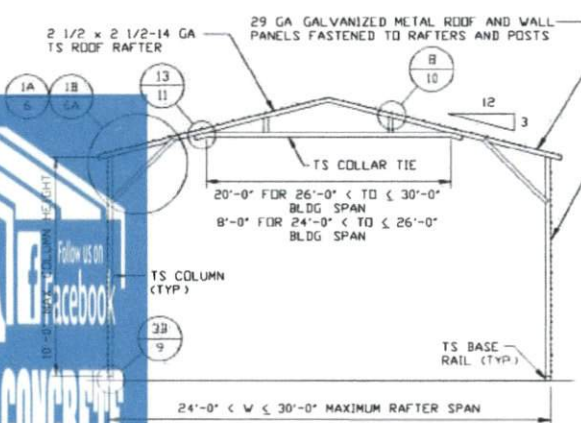
TYPICAL RAFTER/COLUMN END FRAME SECTION
SCALE: NTS



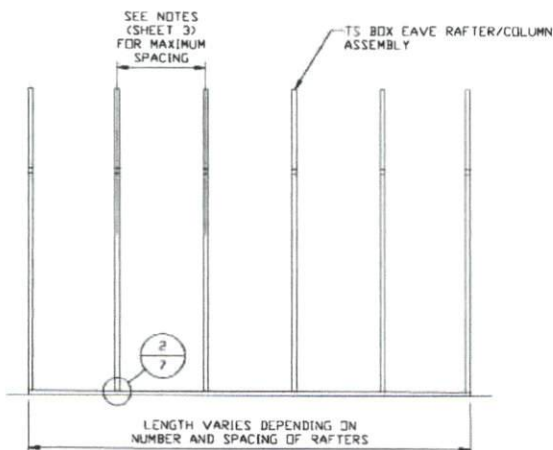
TYPICAL RAFTER/COLUMN END FRAME SECTION
SCALE: NTS



TYPICAL RAFTER/COLUMN END FRAMING SECTION
SCALE: NTS



TYPICAL RAFTER/COLUMN END FRAMING SECTION
SCALE: NTS



TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION
SCALE: NTS

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SHT. 5

SCALE: NTS

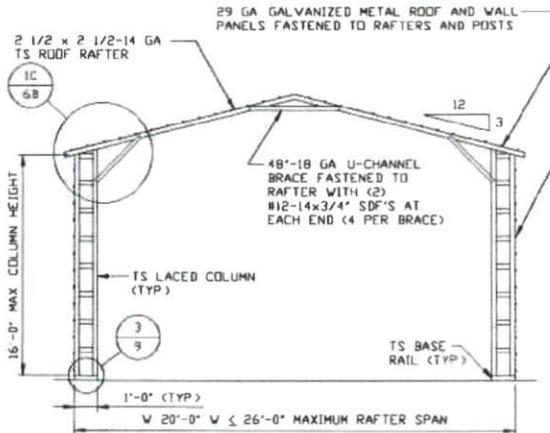
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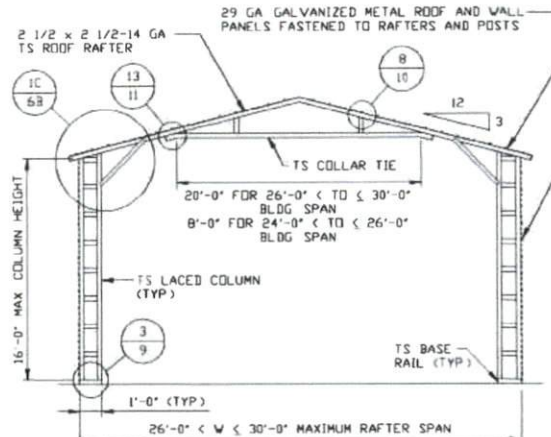
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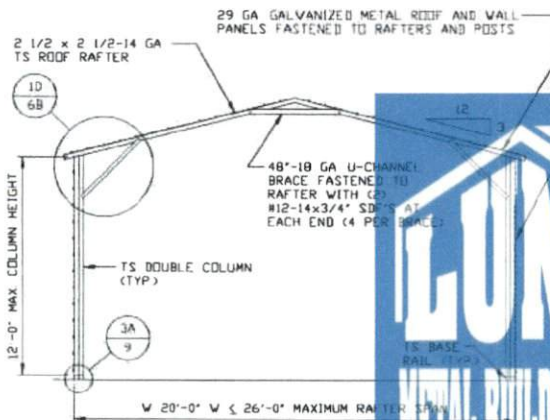
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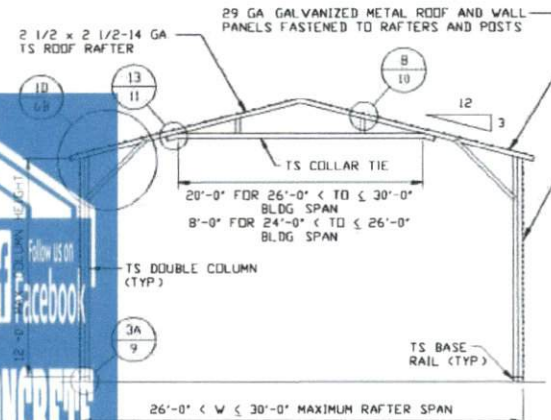
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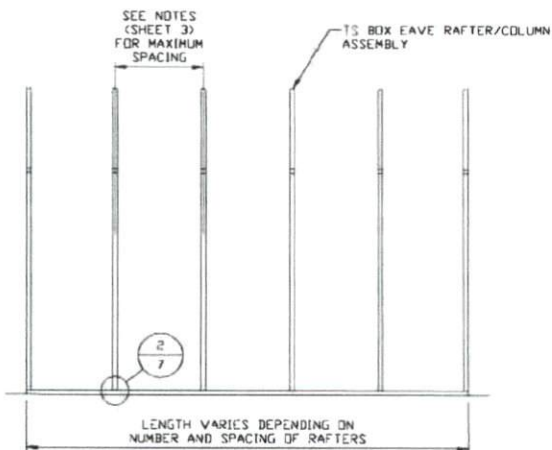
TYPICAL RAFTER/COLUMN END FRAME SECTION
SCALE: NTS



TYPICAL RAFTER/COLUMN END FRAMING SECTION
SCALE: NTS



TYPICAL RAFTER/COLUMN END FRAMING SECTION
SCALE: NTS



TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION
SCALE: NTS

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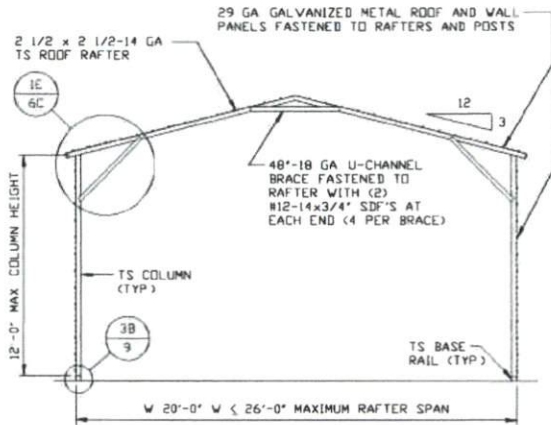
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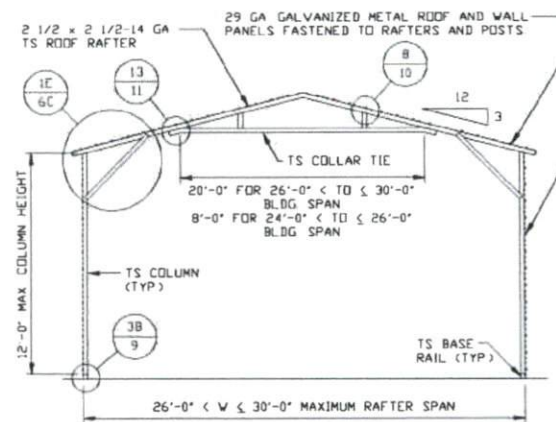
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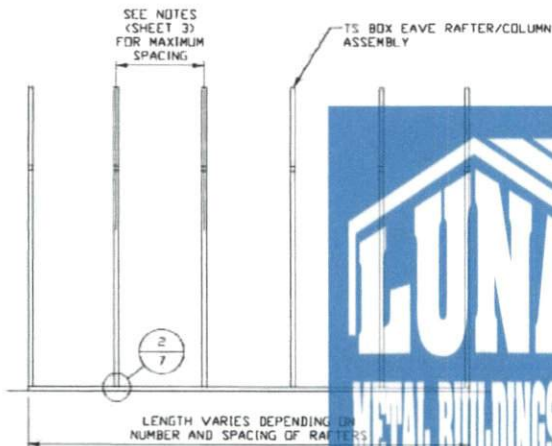
EXPOSURE C



TYPICAL RAFTER/COLUMN END FRAME SECTION
SCALE: NTS



TYPICAL RAFTER/COLUMN END FRAME SECTION
SCALE: NTS



TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION
SCALE: NTS



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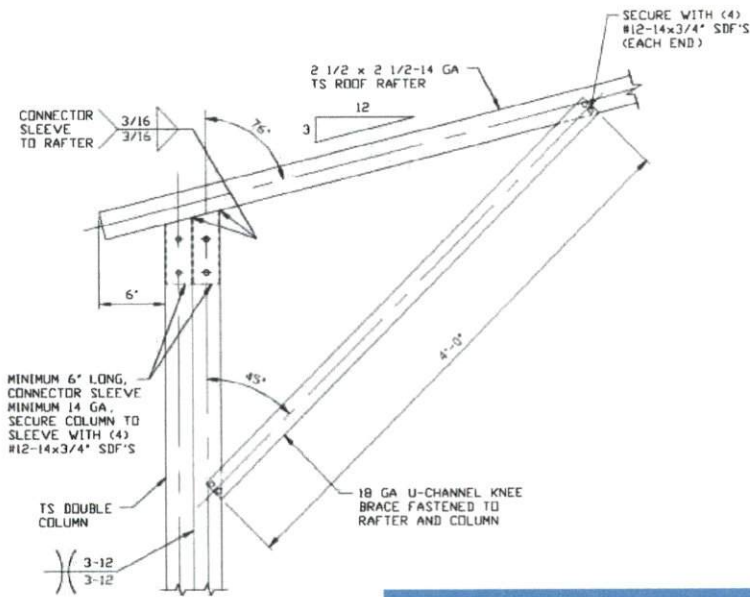
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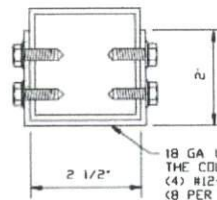
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EXPOSURE B COLUMN CONNECTION DETAILS



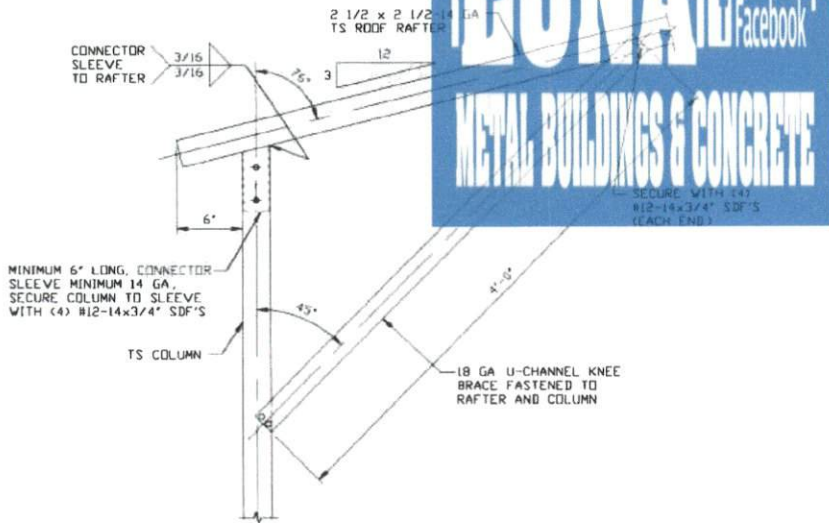
1
BOX EAVE RAFTER COLUMN
CONNECTION DETAIL FOR
HEIGHTS 10'-0" < TO ≤ 16'-0"

SCALE: NTS



BRACE SECTION

SCALE: NTS



1A
BOX EAVE RAFTER COLUMN
CONNECTION DETAIL FOR
HEIGHTS 8'-0" < TO ≤ 10'-0"

SCALE: NTS

NOTE: SINGLE COLUMN HEIGHT UP TO 12'-0" FOR
MAXIMUM 115 MPH WIND SPEED

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SHT. 6

SCALE: NTS

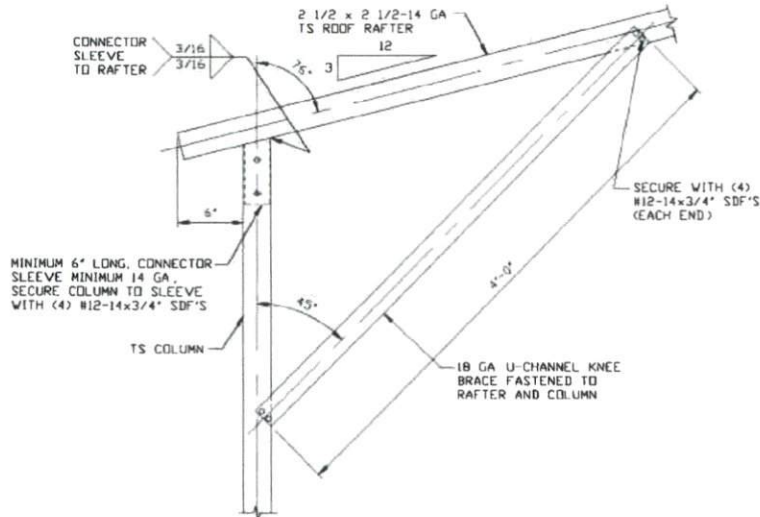
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EXPOSURE B COLUMN CONNECTION DETAILS

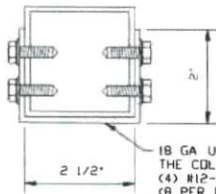


**BOX EAVE RAFTER COLUMN
CONNECTION DETAIL FOR
HEIGHTS $\leq 8'-0"$**

1B

SCALE: NTS

NOTE: 2'-0" KNEE BRACE MAY BE USED FOR BUILDING WIDTHS $\leq 28'-0"$



18 GA U-CHANNEL BRACE FASTENED TO THE COLUMN AND ROOF BEAM WITH (4) #12-14x3/4" SDF'S AT EACH END (8 PER BRACE)

BRACE SECTION

SCALE: NTS



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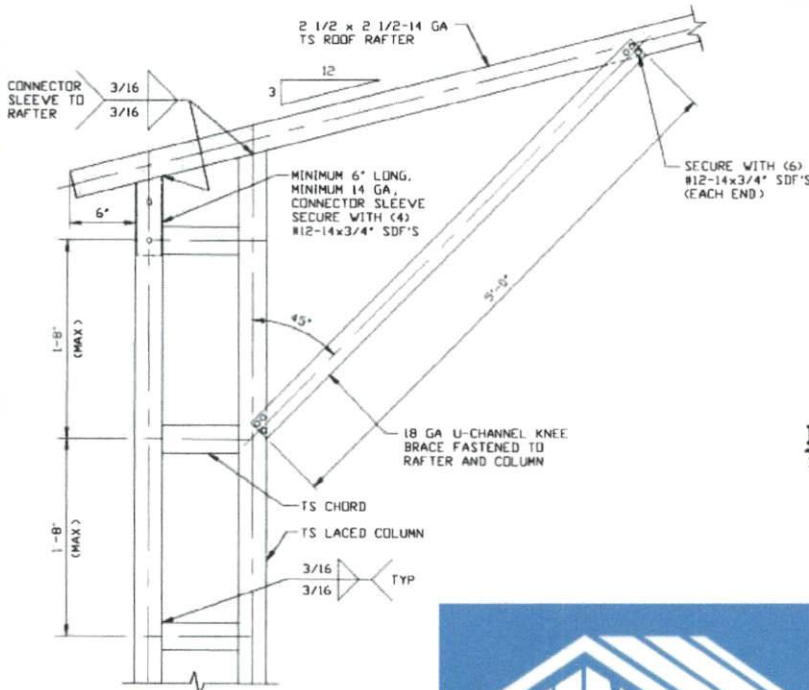
SHT. 6A

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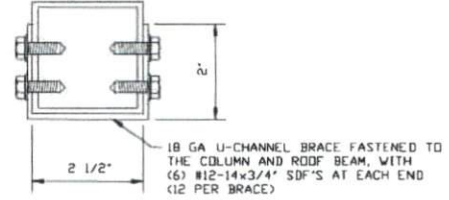
EXPOSURE C COLUMN CONNECTION DETAILS



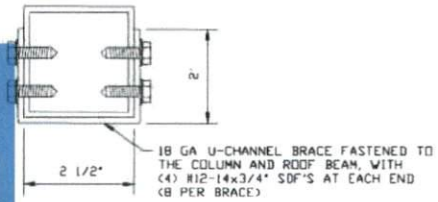
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BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 12'-0" < TO <= 16'-0"

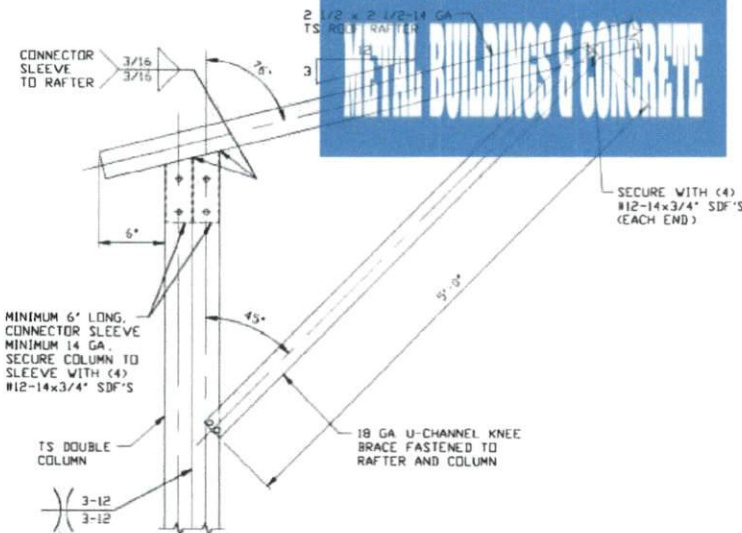
SCALE: NTS
NOTE: 4'-0" KNEE BRACE FOR BUILDING SPANS < 28'-0"



BRACE SECTION
SCALE: NTS



BRACE SECTION
SCALE: NTS



1D

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

SCALE: NTS
NOTE: 4'-0" KNEE BRACE FOR BUILDING SPANS < 28'-0"

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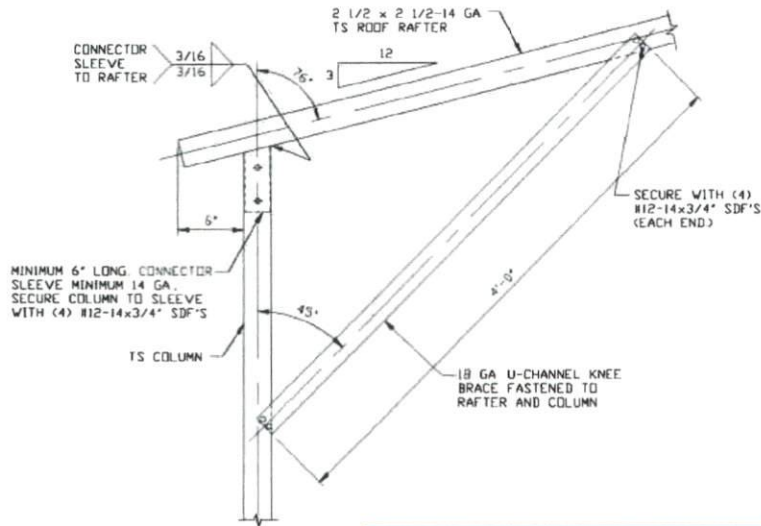
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EXPOSURE C COLUMN CONNECTION DETAILS

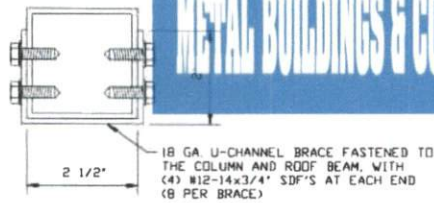


BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS $\leq 12'-0"$

1E

SCALE: NTS

NOTE: SINGLE COLUMN HEIGHT UP TO 12'-0" FOR
MAXIMUM 105 MPH WIND SPEED



BRACE SECTION

SCALE: NTS



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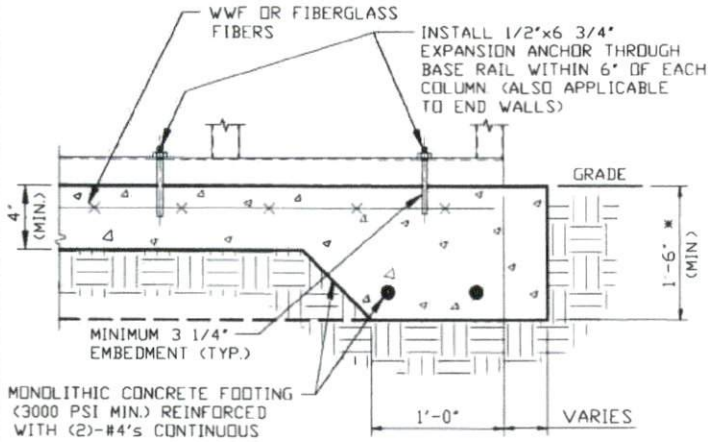
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DWG. NO: SK-3

REV: 0

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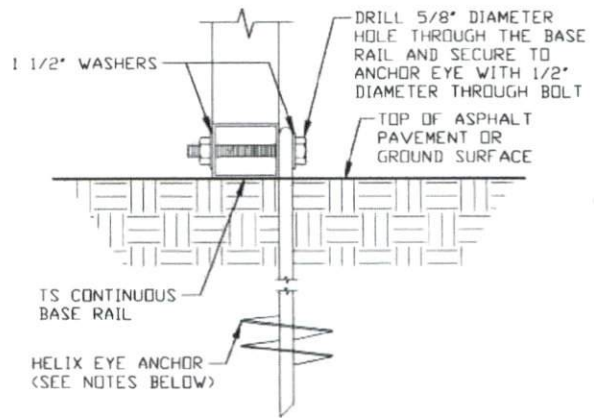
BASE RAIL ANCHORAGE OPTIONS (EXPOSURE B)



2

CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE

SCALE: NTS
NOTE: MIN ANCHOR EDGE DISTANCE IS 4"
* COORDINATE WITH LOCAL BUILDING CODE ORD
REGARDING REQUIRED FROST DEPTH (LENGTH)



2B

GROUND BASE HELIX ANCHORAGE

SCALE: NTS (CAN BE USED FOR ASPHALT)
* COORDINATE WITH LOCAL CODES/ORD
REGARDING MIN FROST DEPTH (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 AS PER AISC 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:

- 1 REINFORCEMENT IS BENT COLD
- 2 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, 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 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 LOOSE TO MEDIUM DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS ALLUVIAL FILL, USE MINIMUM (2) 6" HELICES WITH MINIMUM 50" EMBEDMENT
- 5 FOR VERY LOOSE 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.**

DRAWN BY: JG

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: LUNA METAL

LUNA METAL BUILDINGS
468 N FAYETTEVILLE ST.
ASHEBORO, NC 27203
30'-0"x20'-0" RC I / II ENCLOSED STRUCTURE

DATE: 11-10-20

SHT. 7

SCALE: NTS

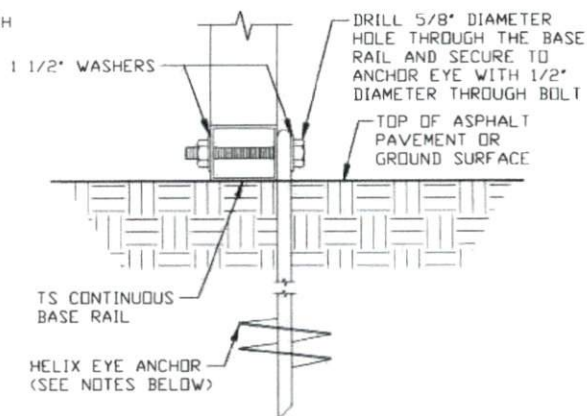
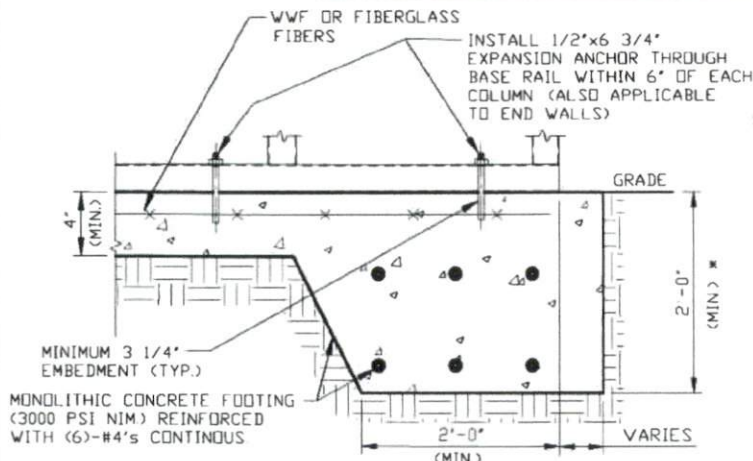
DWG. NO: SK-3

JOB NO: 20214S

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BASE RAIL ANCHORAGE OPTIONS (EXPOSURE C)



2

CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE

SCALE: NTS
NOTE: MIN ANCHOR EDGE DISTANCE IS 4"
* COORDINATE WITH LOCAL BUILDING CODE ORD REGARDING REQUIRED FROST DEPTH (LENGTH)

2B

GROUND BASE HELIX ANCHORAGE

SCALE: NTS (CAN BE USED FOR ASPHALT)
* COORDINATE WITH LOCAL CODES/ORD REGARDING MIN. FROST DEPTH (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 WELDED WIRE FABRIC MEETING ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT.

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

- 1 REINFORCEMENT IS BENT COLD
- 2 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, 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 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 LOOSE 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.**

DRAWN BY: JG

CHECKED BY: PDH

PROJECT MGR: VSM

CLIENT: LUNA METAL

LUNA METAL BUILDINGS
468 N FAYETTEVILLE ST.
ASHEBORO, NC 27203

30'-0"x20'-0" RC 1 / II ENCLOSED STRUCTURE

DATE: 11-10-20

SHT. 7A

SCALE: NTS

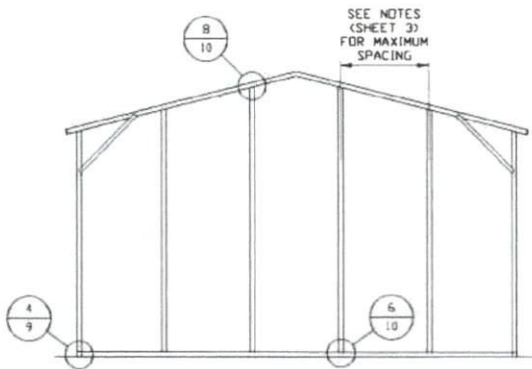
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JOB NO: 20214S

REV: 0

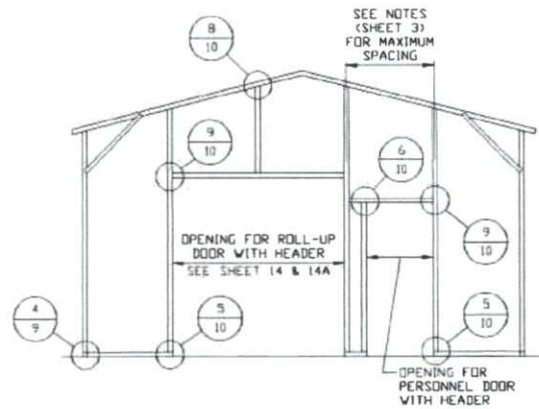
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BOX EAVE RAFTER END WALL AND END WALL OPENINGS



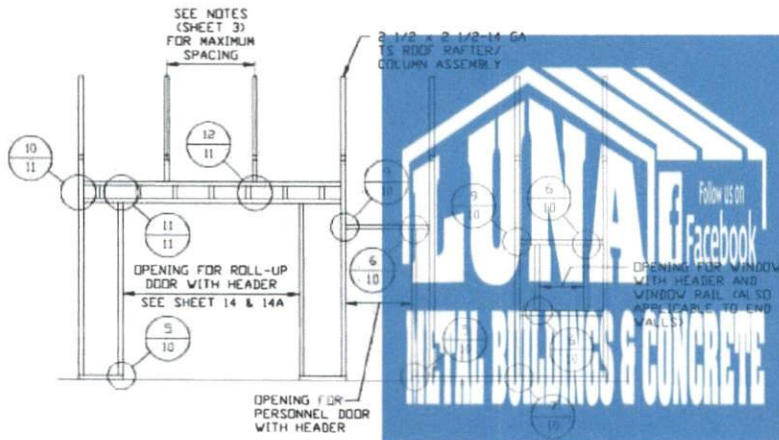
**TYPICAL BOX EAVE RAFTER
END WALL FRAMING SECTION**

SCALE: NTS



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

SCALE: NTS



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

SCALE: NTS

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ENGINEERING AND CONSULTING, INC.**

DRAWN BY: JG

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: LUNA METAL

LUNA METAL BUILDINGS

468 N FAYETTEVILLE ST.

ASHEBORO, NC 27203

30'-0"x20'-0" RC I / II ENCLOSED STRUCTURE

DATE: 11-10-20

SHT. 8

SCALE: NTS

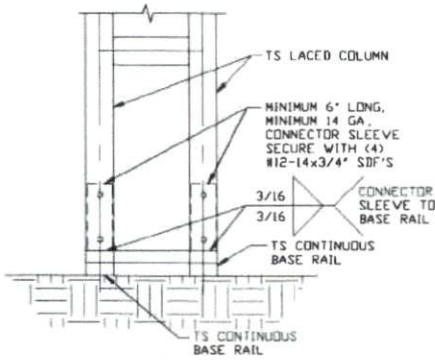
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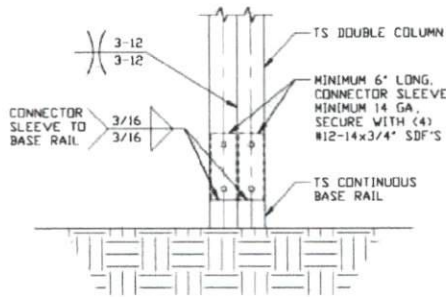
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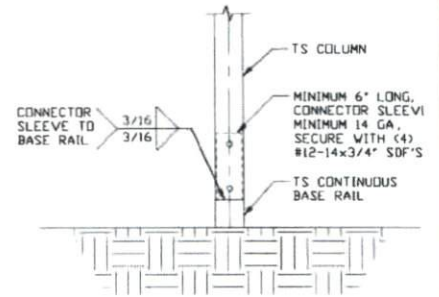
CONNECTION DETAILS



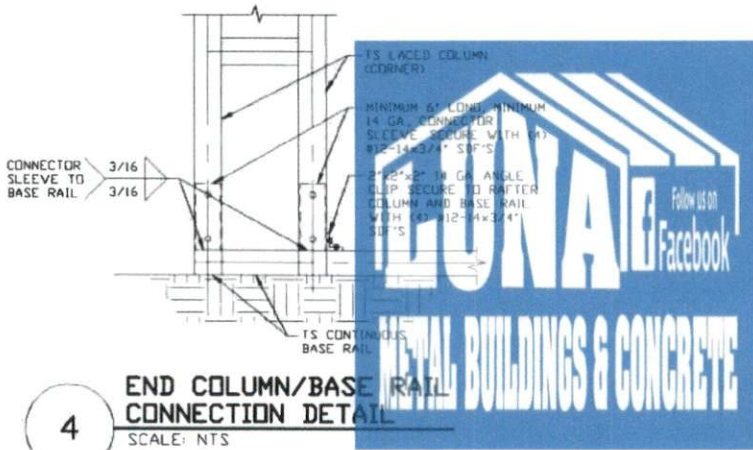
3 RAFTER COLUMN/
BASE RAIL
CONNECTION DETAIL
SCALE: NTS



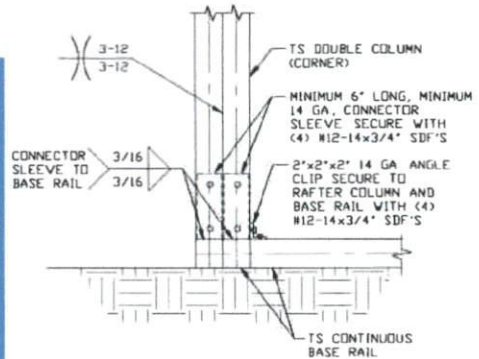
3A RAFTER COLUMN/
BASE RAIL
CONNECTION DETAIL
SCALE: NTS



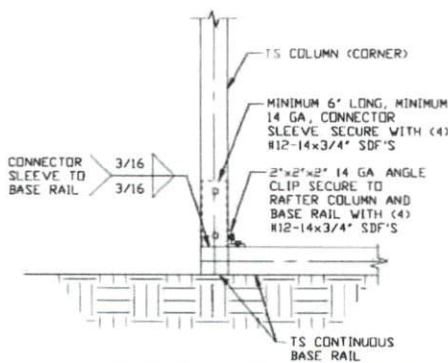
3B RAFTER COLUMN/
BASE RAIL
CONNECTION DETAIL
SCALE: NTS



4 END COLUMN/BASE RAIL
CONNECTION DETAIL
SCALE: NTS



4A END COLUMN/BASE RAIL
CONNECTION DETAIL
SCALE: NTS



4B END COLUMN/BASE RAIL
CONNECTION DETAIL
SCALE: NTS

**MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.**

DRAWN BY: JG

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: LUNA METAL

LUNA METAL BUILDINGS
468 N FAYETTEVILLE ST.
ASHEBORO, NC 27203
30'-0" x 20'-0" RC 1 / II ENCLOSED STRUCTURE

DATE: 11-10-20

SHT. 9

SCALE: NTS

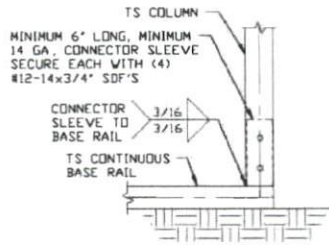
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JOB NO: 20214S

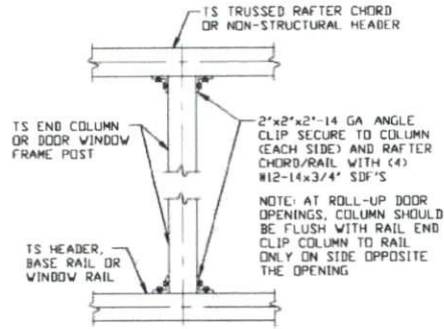
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CONNECTION DETAILS



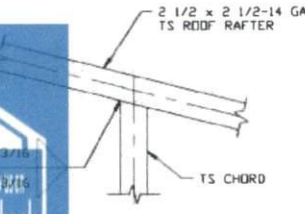
5 **COLUMN/BASE RAIL CONNECTION DETAIL**
SCALE: NTS



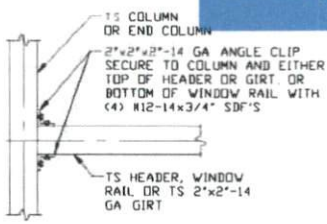
6 **COLUMN TO WINDOW RAIL CONNECTION DETAIL**
SCALE: NTS



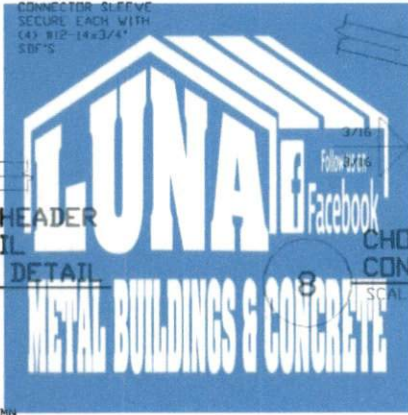
7 **COLUMN TO HEADER OR BASE RAIL CONNECTION DETAIL**
SCALE: NTS



8 **CHORD TO POST CONNECTION DETAIL**
SCALE: NTS



9 **COLUMN OR WINDOW RAIL/WALL GIRT TO POST CONNECTION DETAIL**
SCALE: NTS



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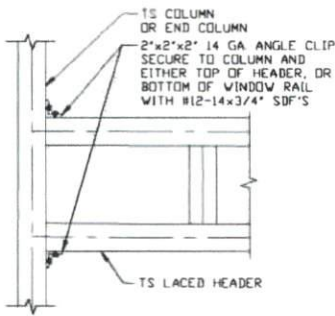
LUNA METAL BUILDINGS
468 N FAYETTEVILLE ST.
ASHEBORO, NC 27203
30'-0" x 20'-0" RC I / II ENCLOSED STRUCTURE

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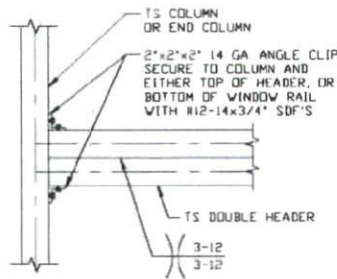
PROJECT MGR: WSM
CLIENT: LUNA METAL

DATE: 11-10-20
SHT. 10
SCALE: NTS
DWG. NO SK-3
JOB NO: 20214S
REV: 0

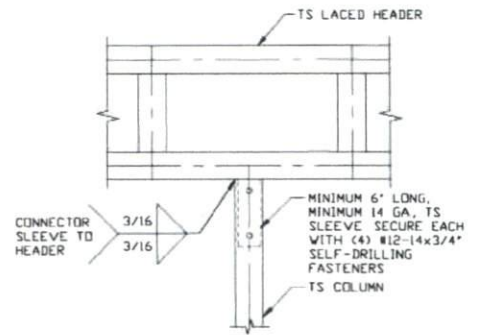
CONNECTION DETAILS



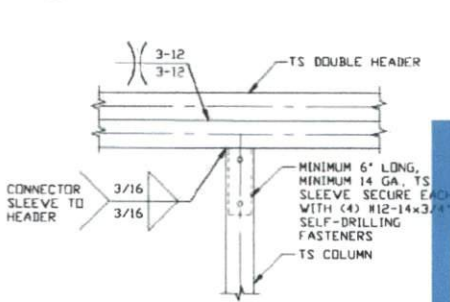
10 LACED HEADER TO COLUMN CONNECTION DETAIL
SCALE: NTS



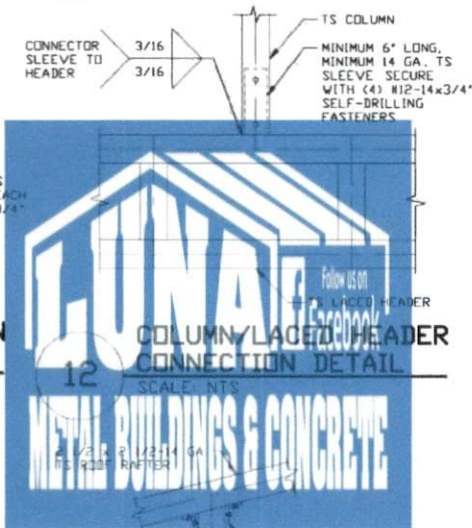
10A DOUBLE HEADER TO COLUMN CONNECTION DETAIL
SCALE: NTS



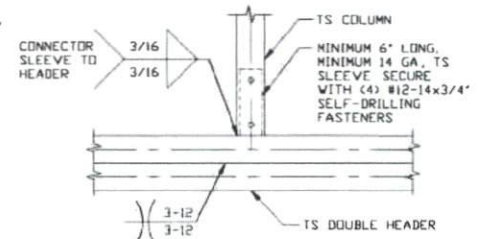
11 LACED HEADER/COLUMN CONNECTION DETAIL
SCALE: NTS



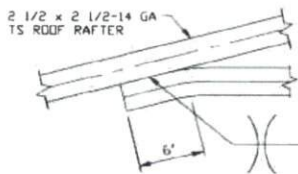
11A DOUBLE HEADER/COLUMN CONNECTION DETAIL
SCALE: NTS



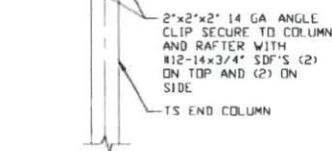
12 COLUMN/LACED HEADER CONNECTION DETAIL
SCALE: NTS



12A COLUMN/LACED HEADER CONNECTION DETAIL
SCALE: NTS



13 COLLAR TIE CONNECTION DETAIL
SCALE: NTS



14 END COLUMN/RAFTER CONNECTION DETAIL
SCALE: NTS

**MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.**

DRAWN BY: JG

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: LUNA METAL

LUNA METAL BUILDINGS
468 N FAYETTEVILLE ST.
ASHEBORO, NC 27203
30'-0" x 20'-0" RC I / II ENCLOSED STRUCTURE

DATE: 11-10-20

SHT. 11

SCALE: NTS

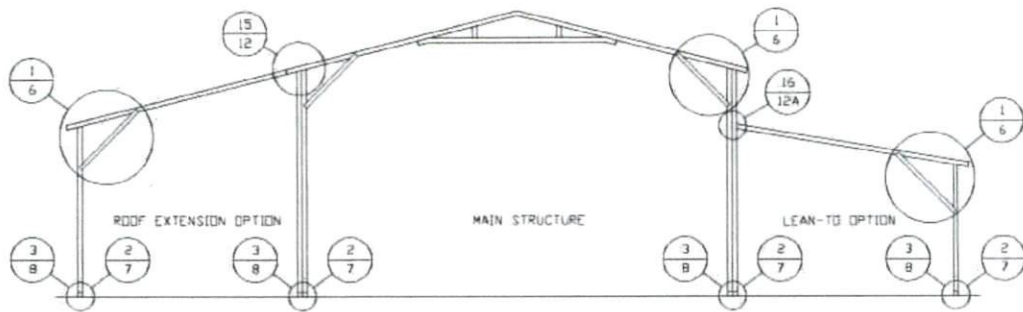
DWG. NO SK-3

JOB NO: 202145

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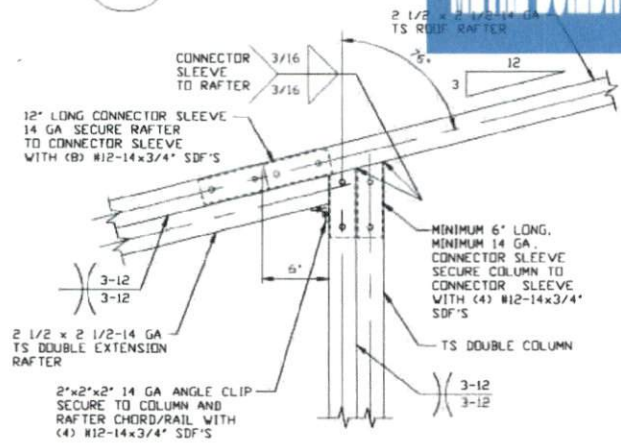
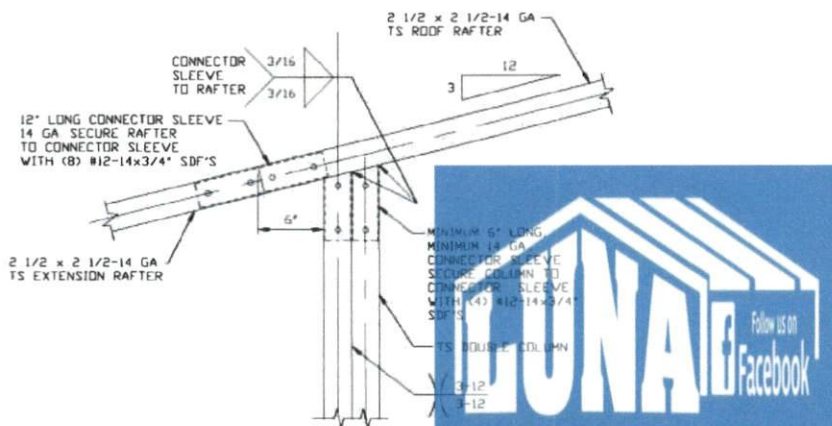
BOX EAVE RAFTER LEAN-TO OPTIONS



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

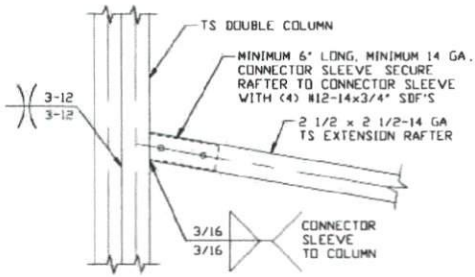
SCALE: NTS

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



MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: JG	LUNA METAL BUILDINGS 468 N FAYETTEVILLE ST. ASHEBORO, NC 27203		
	CHECKED BY: PDH	30'-0"x20'-0" RC I / II ENCLOSED STRUCTURE		
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	CLIENT: LUNA METAL	SHT. 12	DVG. NO: SK-3	REV: 0

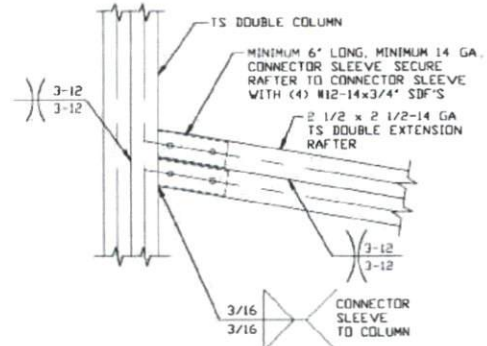
BOX EAVE RAFTER LEAN-TO OPTIONS



16

**LEAN-TO RAFTER TO RAFTER
COLUMN CONNECTION DETAIL
FOR RAFTER SPANS $\leq 10'-0"$**

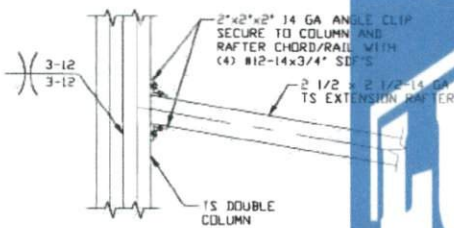
SCALE: NTS



16A

**LEAN-TO RAFTER TO RAFTER
COLUMN CONNECTION DETAIL
FOR RAFTER SPANS
 $10'-0" < TO \leq 12'-0"$**

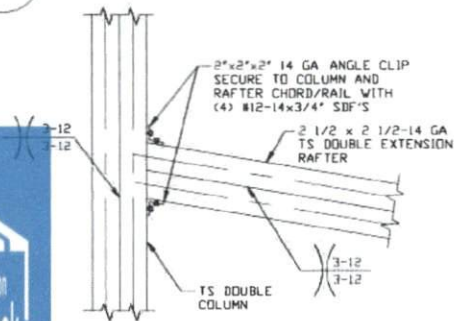
SCALE: NTS



16B

**LEAN-TO RAFTER TO RAFTER
COLUMN CONNECTION DETAIL
FOR RAFTER SPANS $\leq 10'-0"$**

SCALE: NTS



**LEAN-TO RAFTER TO RAFTER
COLUMN CONNECTION DETAIL
FOR RAFTER SPANS
 $10'-0" < TO \leq 12'-0"$**

SCALE: NTS



**MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.**

DRAWN BY: JG

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: LUNA METAL

LUNA METAL BUILDINGS
468 N FAYETTEVILLE ST.
ASHEBORO, NC 27203
30'-0" x 20'-0" RC I / II ENCLOSED STRUCTURE

DATE: 11-10-20

SHT. 12A

SCALE: NTS

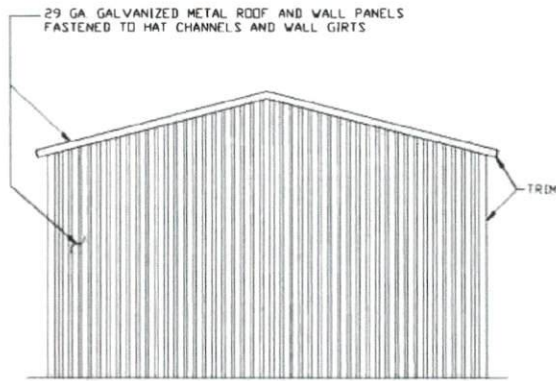
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JOB NO: 20214S

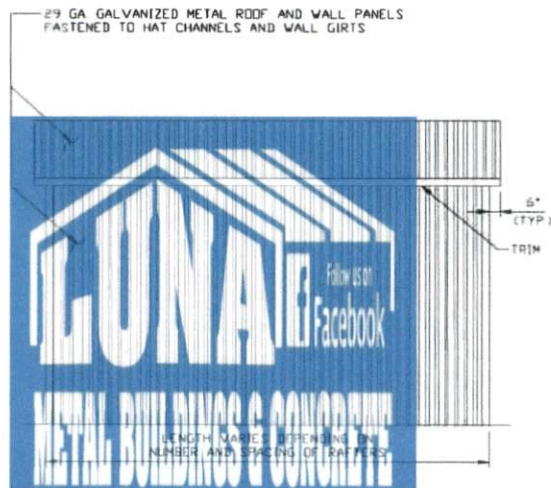
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BOX EAVE RAFTER VERTICAL ROOF/SIDING OPTION



TYPICAL END ELEVATION VERTICAL ROOF/SIDING
SCALE: NTS



TYPICAL SIDE ELEVATION VERTICAL ROOF/SIDING
SCALE: NTS

**MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.**

DRAWN BY: JG

CHECKED BY: PDH

PROJECT MGR: VSM

CLIENT: LUNA METAL

LUNA METAL BUILDINGS
468 N FAYETTEVILLE ST.
ASHEBORO, NC 27203
30'-0" x 20'-0" RC I / II ENCLOSED STRUCTURE

DATE: 11-10-20

SHT. 13

SCALE: NTS

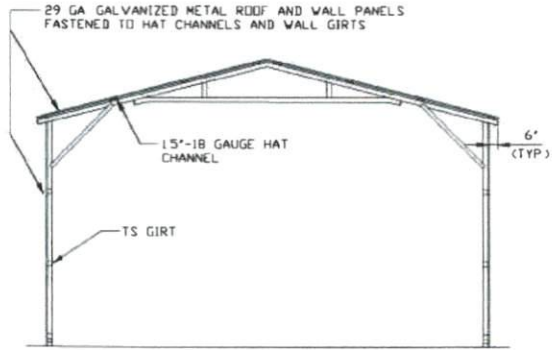
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JOB NO: 20214S

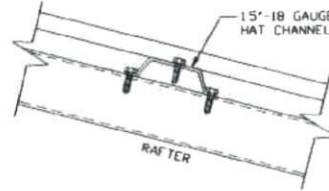
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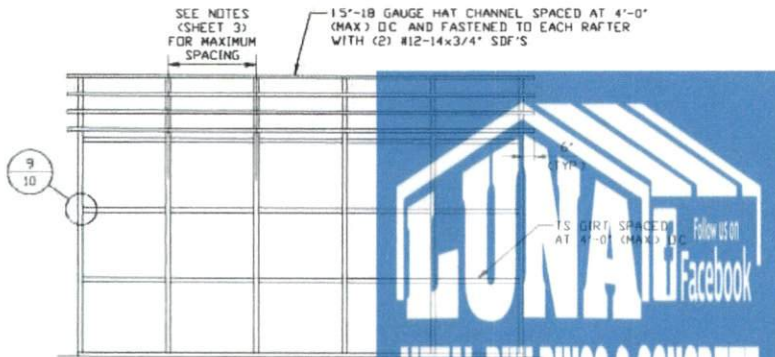
BOX EAVE RAFTER VERTICAL ROOF/SIDING



TYPICAL SECTION VERTICAL ROOF/SIDING
SCALE: NTS



PANEL ATTACHMENT
(ALTERNATE FOR VERTICAL ROOF PANELS)
SCALE: NTS



TYPICAL FRAMING SECTION VERTICAL ROOF/SIDING
SCALE: NTS



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ENGINEERING AND CONSULTING, INC.**

DRAWN BY: JG

CHECKED BY: PDH

PROJECT MGR: VSM

CLIENT: LUNA METAL

LUNA METAL BUILDINGS
468 N FAYETTEVILLE ST.
ASHEBORO, NC 27203
30'-0"x20'-0" RC I / II ENCLOSED STRUCTURE

DATE: 11-10-20

SCALE: NTS

JOB NO: 20214S

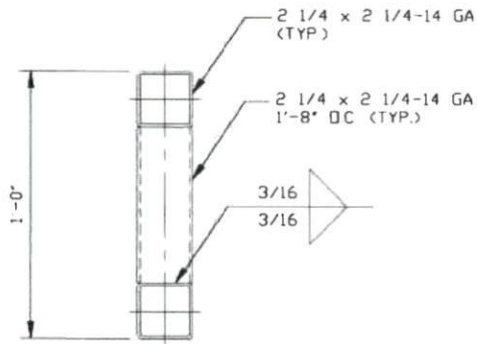
SHT. 13A

DWG. NO SK-3

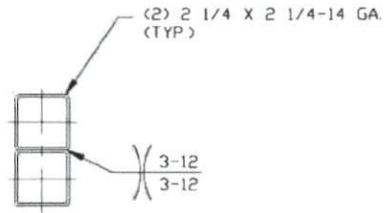
REV: 0

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EXPOSURE B
SIDE WALL HEADER OPTIONS

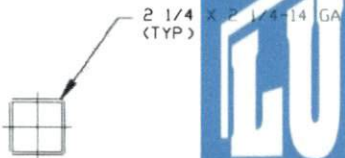


HEADER DETAIL FOR SPANS 10'-0" < TO ≤ 14'-0"
SCALE: NTS



HEADER DETAIL FOR SPANS < 10'-0"
SCALE: NTS

END WALL HEADER OPTIONS



HEADER DETAIL FOR SPANS < 14'-0"
SCALE: NTS



**MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.**

DRAWN BY: JG

CHECKED BY: PDH

PROJECT MGR: VSM

CLIENT: LUNA METAL

**LUNA METAL BUILDINGS
468 N FAYETTEVILLE ST.**

**ASHEBORO, NC 27203
30'-0" x 20'-0" RC I / II ENCLOSED STRUCTURE**

DATE: 11-10-20

SHT. 14

SCALE: NTS

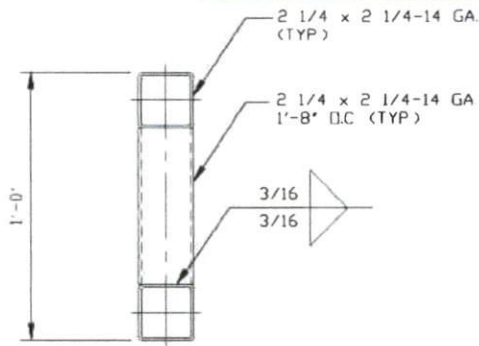
DWG. NO: SK-3

JOB NO: 202145

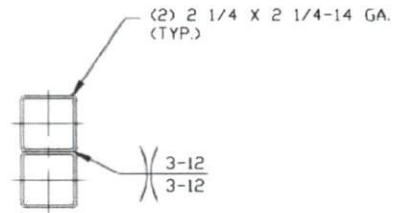
REV: 0

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EXPOSURE C
SIDE WALL HEADER OPTIONS

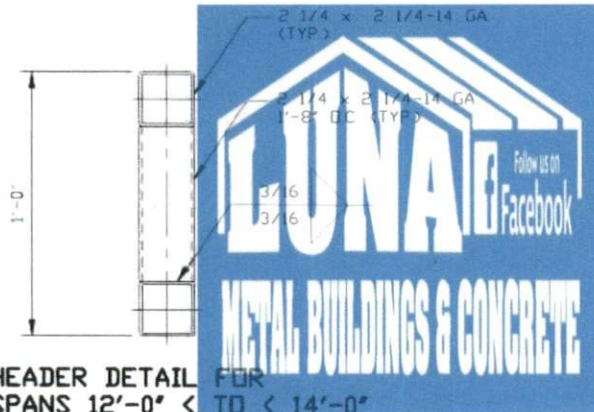


HEADER DETAIL FOR SPANS 8'-0" < TO <= 14'-0"
SCALE: NTS

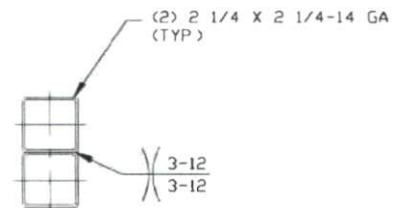


HEADER DETAIL FOR SPANS <= 8'-0"
SCALE: NTS

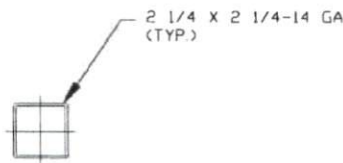
END WALL HEADER OPTIONS



HEADER DETAIL FOR SPANS 12'-0" < TO <= 14'-0"
SCALE: NTS



HEADER DETAIL FOR SPANS 7'-0" < TO <= 12'-0"
SCALE: NTS



HEADER DETAIL FOR SPANS <= 7'-0"
SCALE: NTS

**MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.**

DRAWN BY: JG

CHECKED BY: PDH

PROJECT MGR: VSM

CLIENT: LUNA METAL

**LUNA METAL BUILDINGS
468 N FAYETTEVILLE ST.
ASHEBORO, NC 27203
30'-0"x20'-0" RC I / II ENCLOSED STRUCTURE**

DATE: 11-10-20

SHT. 14A

SCALE: NTS

IMG. NO: SK-3

JOB NO: 20214S

REV: 0

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