

5030 E. 37th St N

Rv Storage/Garage Site Plan

Mark Hopp

RV Storage/Garage Site Plan

- Building will be used to house a 24 ft fishing boat and a 21 ft Riverside RV and a lifted Ford F150 truck. This is why I picked this size of building.
- Owned vehicles/RV's do not fit in the attached garage and have to be stored off-site.
- My house roof is 12 ft tall and a low slope roof. With the building size I cannot go with a low slope roof metal building and must go conventional. The new building will be 14 ft so I can get the required clearance for my vehicles.
- This building will be for private use only.
- Build site is flat, trees have already been removed from site.



20 ft

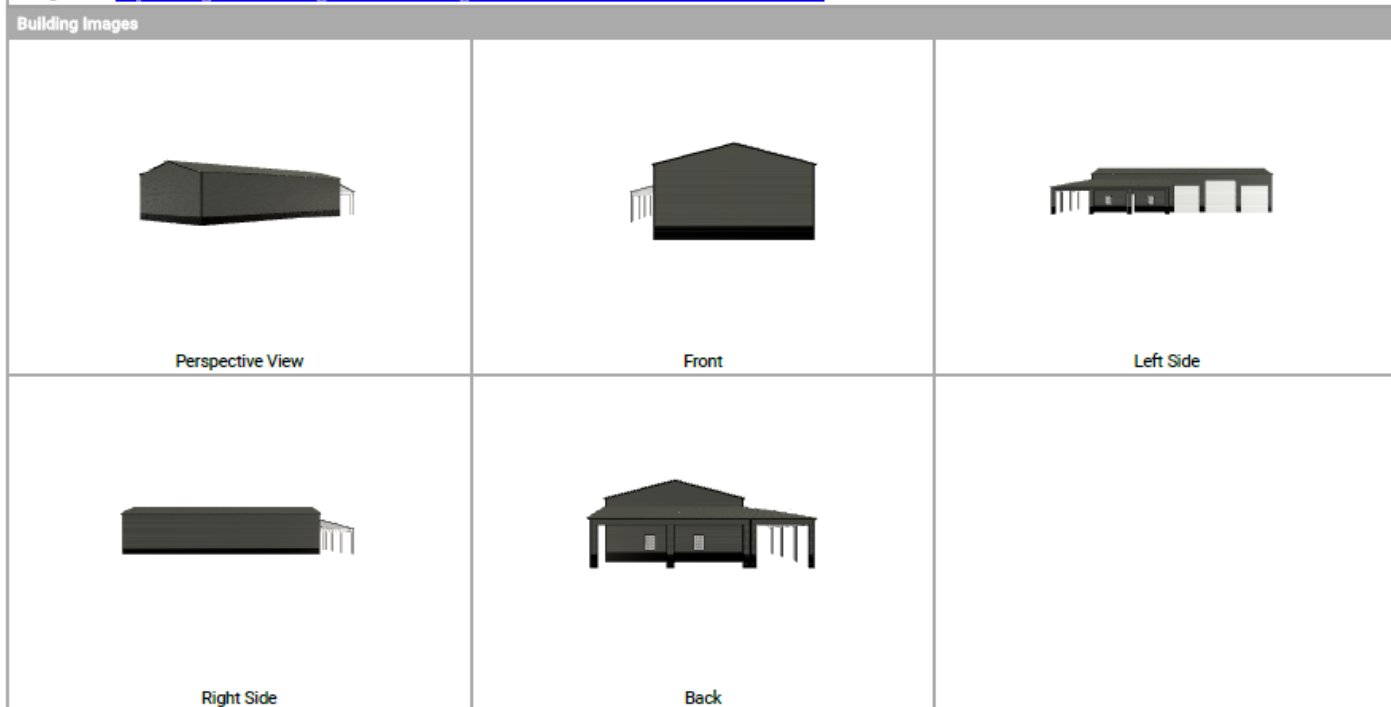


Metal Building Outfitters
844-70-METAL
sales@metalbuildingoutfitters.com

Customer Order - Jul 2, 2024

Ship To			
Name <u>Mark Hopp</u>		Order # <u>1718396359468311</u>	
Install Address <u>5030 E. 37th N</u>			
City <u>Bel Aire</u>		State <u>KS</u>	Zip Code <u>67220</u>
Email <u>mhoppp@txtav.com</u>		Phone # <u>(409) 770-3469</u>	Mobile # _____
Building Info	Size	Color	Anchoring & Site Preparation
Style: <u>Garage</u>	$\frac{42'}{\text{Width}} \times \frac{70'}{\text{Frame Length}} \times \frac{14'9''}{\text{Leg Height}}$	Roof <u>Quaker Gray</u>	Installation Surface: <u>Concrete</u>
Roof Overhang: <u>6"</u>		Trim: <u>Black</u>	Power Available <input type="checkbox"/>
Roof Style: <u>A-Frame Vertical</u>		Siding: <u>Zinc Gray</u>	Jobsite Level <input type="checkbox"/>
Gauge: <u>14 Gauge</u>		Wainscot <u>Black</u>	Permits Required <input type="checkbox"/>
Leg Style: <u>Standard</u>			Engineering Plans Required <input type="checkbox"/>
Brace: <u>Standard Brace</u>			Payment Method

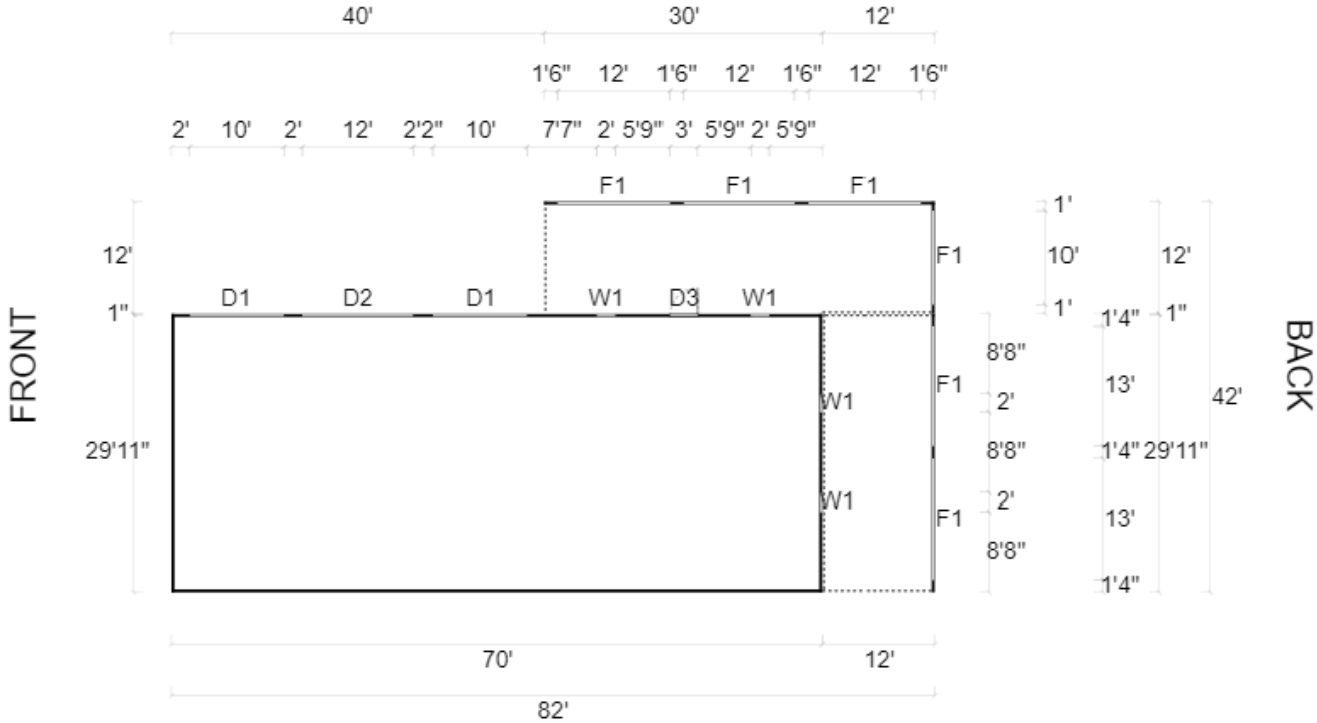
Design Link & Notes
Design Link: <https://design.metalbuildingoutfitters.com/?lng=en-US#bfcd31c16eb58eea79dfb1bbded0c738>

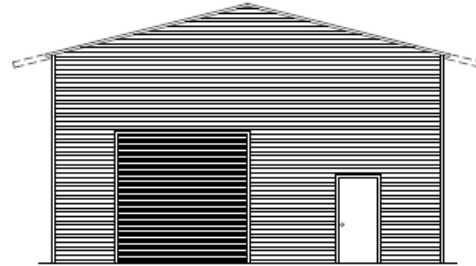


FLOOR PLAN



LEFT SIDE





ENCLOSED GABLE END BUILDING

MAX. 30' WIDE X 16' EAVE HEIGHT WITH BOX FRAME / (UP TO) 145 M.P.H. WIND ZONE - 30 P.S.F. SNOW LOAD







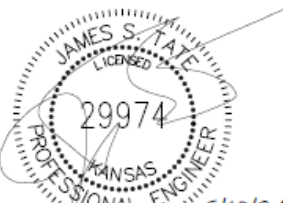


FOR:

RHINO METAL STRUCTURES
PORTALES, NM 88130
TELE: 336-648-8590

ISSUE DATE: MAY 10, 2024



NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDAR YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

 <p>5/10/24</p> <p>THESE DRAWINGS HAVE BEEN DESIGNED ACCORDING TO THE 2015 IBC</p>	 <p>5/10/24</p> <p>DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 NC BUILDING CODE (2015 IBC)</p>				
 <p>5/10/24</p> <p>THESE DRAWINGS HAVE BEEN DESIGNED ACCORDING TO THE 2015 IBC</p>	  <p>5/10/24</p> <p>DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2021 SC BUILDING CODE (2021 IBC)</p>				
 <p>5/10/24</p> <p>THESE DRAWINGS HAVE BEEN DESIGNED ACCORDING TO THE 2018 IBC</p>	 <p>5/10/24</p> <p>DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 IBC</p>				
 <p>5/10/24</p> <p>DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2021 IBC</p>					
 <p>TAYLOR & VIOLA STRUCTURAL ENGINEERS P.O.B. 245 • HICKORY, NORTH CAROLINA TELE: 336-648-6331 FAX: 336-648-6331 WWW.TAYLORVIOLA.COM</p> <p>JCMT Associates, PLLC 211 Stone Drive, Pilot Mountain, NC 27041 Telephone: (336) 399-6277</p> <p>V2.0</p>	<p>RHINO METAL STRUCTURES</p> <p>006 NM-467 PORTALES, NM 88130 TELE: 336-648-0590</p> <table border="1"> <tr> <td>DRAWN BY: BKS</td> <td>PROJECT NO: 24-513</td> </tr> <tr> <td>DATE: 2024.05.10</td> <td>SHEET NO: S1</td> </tr> </table>	DRAWN BY: BKS	PROJECT NO: 24-513	DATE: 2024.05.10	SHEET NO: S1
DRAWN BY: BKS	PROJECT NO: 24-513				
DATE: 2024.05.10	SHEET NO: S1				

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDAR YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

SHEET INDEX	
SHEET NUMBER	SHEET TITLE
S0	SEALED COVER SHEET
S1	P.E. SEALS SHEET
S2	DRAWING INDEX
S3	GENERAL NOTES AND SPECIFICATIONS
S4	SIDE AND END ELEVATIONS
S5	TYPICAL RAFTER / COLUMN FRAME SECTIONS (<16'H / >21' TO <24'W)
S5A	TYPICAL RAFTER / COLUMN FRAME SECTIONS (<16'H / >21' TO <24'W / 3' SOFFIT)
S5B	TYPICAL RAFTER / COLUMN FRAME SECTIONS (<16'H / >21' TO <24'W / 6:12 PITCH)
S5C	TYPICAL RAFTER / COLUMN FRAME SECTIONS (<16'H / >21' TO <24'W / 6:12 PITCH / 3' SOFFIT)
S5D	TYPICAL RAFTER / COLUMN FRAME SECTIONS (<16'H / >25' TO <30'W)
S5E	TYPICAL RAFTER / COLUMN FRAME SECTIONS (<16'H / >25' TO <30'W / 3' SOFFIT)
S5F	TYPICAL RAFTER / COLUMN FRAME SECTIONS (<16'H / >25' TO <30'W / 6:12 PITCH)
S5G	TYPICAL RAFTER / COLUMN FRAME SECTIONS (<16'H / >25' TO <30'W / 6:12 PITCH / 3' SOFFIT)
S5H	TYPICAL FRAME SECTIONS
S6	BOX EAVE / SINGLE COLUMN SECTION (<14'H)
S6A	BOX EAVE / SINGLE COLUMN SECTION (<14'H / 3' SOFFIT)
S6B	BOX EAVE / SINGLE COLUMN SECTION (<14'H / 6:12 PITCH)
S6C	BOX EAVE / SINGLE COLUMN SECTION (<14'H / 6:12 PITCH / 3' SOFFIT)
S6D	BOX EAVE / DOUBLE COLUMN SECTION (<16'H)
S6E	BOX EAVE / DOUBLE COLUMN SECTION (<16'H / 3' SOFFIT)
S6F	BOX EAVE / DOUBLE COLUMN SECTION (<16'H / 6:12 PITCH)
S6G	BOX EAVE / DOUBLE COLUMN SECTION (<16'H / 6:12 PITCH / 3' SOFFIT)
S7	BASE RAIL ANCHORAGE / SINGLE COLUMN
S7A	BASE RAIL ANCHORAGE / SINGLE COLUMN (NO SLAB)
S7B	BASE RAIL ANCHORAGE / SINGLE COLUMN (NO SIDING SHELF)
S7C	BASE RAIL ANCHORAGE / SINGLE COLUMN (NO SLAB / NO SIDING SHELF)
S7D	BASE RAIL ANCHORAGE / SINGLE COLUMN (CLIP ANGLE ATTACHMENT OPTION)
S7E	BASE RAIL ANCHORAGE / DOUBLE COLUMN
S7F	BASE RAIL ANCHORAGE / DOUBLE COLUMN (NO SLAB)
S7G	BASE RAIL ANCHORAGE / DOUBLE COLUMN (NO SIDING SHELF)
S7H	BASE RAIL ANCHORAGE / DOUBLE COLUMN (NO SLAB / NO SIDING SHELF)
S8	(SOIL) BASE RAIL ANCHORAGE
S8A	(ASPHALT) BASE RAIL ANCHORAGE
S9	TYPICAL BOX EAVE / END WALL FRAMING AND OPENINGS
S9A	TYPICAL BOX EAVE / SIDE WALL FRAMING AND OPENINGS
S10	CONNECTION DETAILS
S11	CONNECTION DETAILS
S12	CONNECTION DETAILS
S13	CONNECTION DETAILS
S14	BOX EAVE RAFTER / SINGLE & DOUBLE RAFTER LEAN-TO OPTIONS
S14A	VOID
S14B	LEAN-TO HIP OPTIONS
S15	LEAN-TO CONNECTION DETAILS / SINGLE COLUMN
S15A	LEAN-TO CONNECTION DETAILS / DOUBLE COLUMN
S15B	VOID
S15C	VOID
S15D	LEAN-TO / MAIN FRAME CONNECTION DETAILS
S15E	VOID
S15F	LEAN-TO / MAIN FRAME CONNECTION DETAILS
S15G	VOID
S15H	END WALL COLUMN / HIP RAFTER CONNECTION DETAIL
S15J	VOID
S16	VERTICAL ROOF / SIDING OPTION
S16A	VERTICAL ROOF / SIDING OPTION
S16B	VERTICAL ROOF / SIDING OPTION
S17	SIDE WALL HEADER OPTIONS
S17A	END WALL HEADER OPTIONS

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDAR YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

DESIGN LOADS:

IMPORTANCE FACTORS	WIND	(1w)	1.00
	SNOW	(1s)	1.00
	SEISMIC	(1e)	1.00
DEAD LOADS	ROOF	13	P.S.F.
	ROOF COLLATERAL	0	P.S.F.
LIVE LOADS	ROOF	20	P.S.F.
GROUND SNOW LOAD:		VARIES - SEE NOTES 30 P.S.F. MIN.	
WIND LOAD:	BASIC WIND SPEED	V 145	M.P.H. (ASCE 7-16) *DRIFT LOAD HAS NOT BEEN CALCULATED
	EXPOSURE CATEGORY	A/B/C	

SEISMIC DESIGN CATEGORY ☒ A ☒ B ☒ C ☐ D

PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:

OCCUPANCY CATEGORY ISPECTRAL RESPONSE ACCELERATION S_s VARIES BASED ON SITE %g S_1 VARIES BASED ON SITE %gSITE CLASSIFICATION D ☐ FIELD TEST ☒ PRESUMPTIVE ☐ HISTORICAL DATA

BASIC STRUCTURAL SYSTEM (CHECK ONE)

<input type="checkbox"/> BEARING WALL	<input type="checkbox"/> DUAL W/ SPECTRAL MOMENT FRAME
<input checked="" type="checkbox"/> BUILDING FRAME	<input type="checkbox"/> DUAL W/ INTERMEDIATE R/C OR SPECIAL STEEL
<input type="checkbox"/> MOMENT FRAME	<input type="checkbox"/> INVERTED PENDULUM

ANALYSIS PROCEDURE ☐ SIMPLIFIED ☒ EQUIVALENT LATERAL FORCE ☐ MODALLATERAL DESIGN CONTROL? ☐ EARTHQUAKE ☒ WIND

SOIL BEARING CAPACITIES:

PRESUMPTIVE BEARING CAPACITIES: 1,500 P.S.F.

GENERAL NOTES:

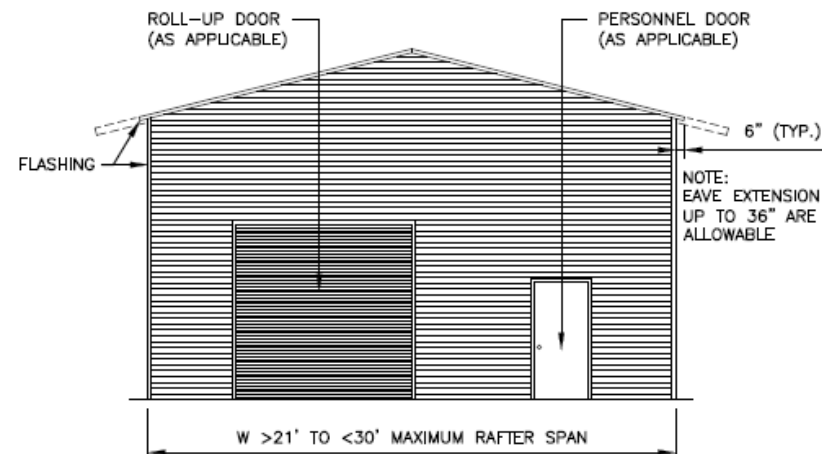
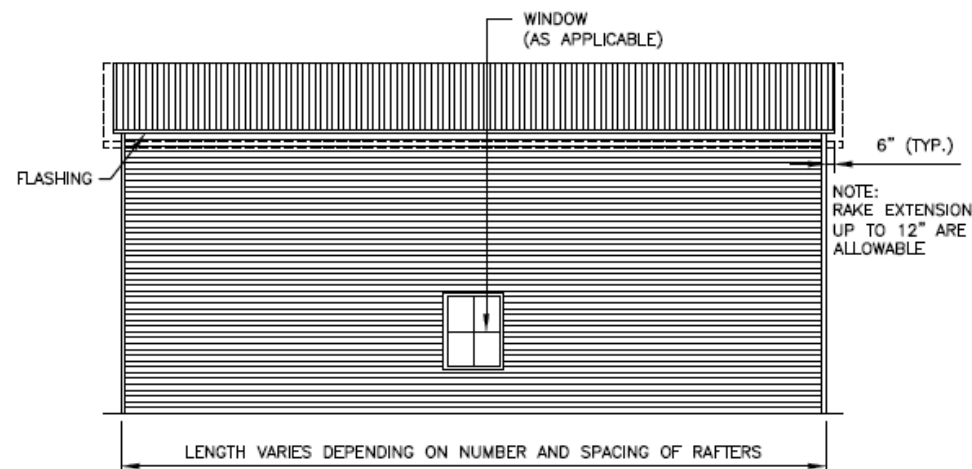
1. MAX FRAME SPACING SHALL BE 60"oc UNLESS NOTED OTHERWISE.
2. MAX. END-WALL COLUMN SPACING SHALL BE 60"oc UNLESS NOTED OTHERWISE.
3. TUBE MATERIAL SHALL BE 2-1/2" x 2-1/2" x 14 GA. 50 KSI MIN. UNLESS NOTED OTHERWISE.
4. ALL FASTENERS SHALL BE #12 SELF TAPPING AT 9"o.c. UNLESS NOTED OTHERWISE.
5. 1,500 P.S.F. ASSUMED BEARING CAPACITY UNLESS NOTED OTHERWISE.

TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O. BOX 2516 - HICKORY, NORTH CAROLINA
TEL: 822-322-4331 FAX: 822-322-1001
WWW.TAYLORVIOLA.COM

JCMT Associates, PLLC

211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

**RHINO METAL
STRUCTURES**

006 NM-467
PORTALES, NM 88130
TELE: 336-648-0590DRAWN BY:
BKSPROJECT NO:
24-513DATE:
2024.05.10SHEET NO:
S3BOX EVE FRAME RAFTER STURCTURETYPICAL END ELEVATIONTYPICAL SIDE ELEVATION

TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O. BOX 2516 - HICKORY, NORTH CAROLINA
TEL: 822-322-4331 FAX: 822-322-1001
WWW.TAYLORVIOLA.COM

JCMT Associates, PLLC

211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

**RHINO METAL
STRUCTURES**

006 NM-467
PORTALES, NM 88130
TELE: 336-648-0590DRAWN BY:
BKSPROJECT NO:
24-513DATE:
2024.05.10SHEET NO:
S4

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDER YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDER YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

DESIGN LOADS:

IMPORTANCE FACTORS

WIND	(1w)	<u>1.00</u>
SNOW	(1s)	<u>1.00</u>
SEISMIC	(1e)	<u>1.00</u>

DEAD LOADS

ROOF	<u>13</u>	P.S.F.
ROOF COLLATERAL	<u>0</u>	P.S.F.

LIVE LOADS

ROOF	<u>20</u>	P.S.F.
------	-----------	--------

GROUND SNOW LOAD:

VARIES — SEE NOTES
30 P.S.F. MIN.

WIND LOAD:

BASIC WIND SPEED	<u>V 145</u>	M.P.H.	(ASCE 7-16)	• DRIFT LOAD HAS NOT BEEN CALCULATED
EXPOSURE CATAGORY	<u>A/B/C</u>			

SEISMIC DESIGN CATAGORY

☒ A ☒ B ☒ C ☐ D

PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:

OCCUPANCY CATEGORY I

SPECTRAL RESPONSE ACCELERATION

Ss VARIES BASED ON SITE %g

S1 VARIES BASED ON SITE %g

SITE CLASSIFICATION D

☐ FIELD TEST

☒ PRESUMPTIVE

☐ HISTORICAL DATA

BASIC STRUCTURAL SYSTEM (CHECK ONE)

<input type="checkbox"/> BEARING WALL	<input type="checkbox"/> DUAL W/ SPECTRAL MOMENT FRAME
<input checked="" type="checkbox"/> BUILDING FRAME	<input type="checkbox"/> DUAL W/ INTERMEDIATE R/C OR SPECIAL STEEL
<input type="checkbox"/> MOMENT FRAME	<input type="checkbox"/> INVERTED PENDULUM

ANALYSIS PROCEDURE ☐ SIMPLIFIED ☒ EQUIVALANT LATERAL FORCE ☐ MODAL

LATERAL DESIGN CONTROL? ☐ EARTHQUAKE ☒ WIND

SOIL BEARING CAPACITIES:

PRESUMPTIVE BEARING CAPACITIES: 1,500 P.S.F.

GENERAL NOTES:

1. MAX FRAME SPACING SHALL BE 60"oc UNLESS NOTED OTHERWISE.
2. MAX. END-WALL COLUMN SPACING SHALL BE 60"oc UNLESS NOTED OTHERWISE.
3. TUBE MATERIAL SHALL BE 2-1/2" x 2-1/2" x 14 GA. 50 KSI MIN. UNLESS NOTED OTHERWISE.
4. ALL FASTENERS SHALL BE #12 SELF TAPPING AT 9"o.c. UNLESS NOTED OTHERWISE.
5. 1,500 P.S.F. ASSUMED BEARING CAPACITY UNLESS NOTED OTHERWISE.



TAYLOR & VIOLA
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

JCMT Associates, PLLC

V2.0

RHINO METAL
STRUCTURES

006 NM-467
PORTALES, NM 88130
TELE: 336-648-8590

DRAWN BY:
BKS

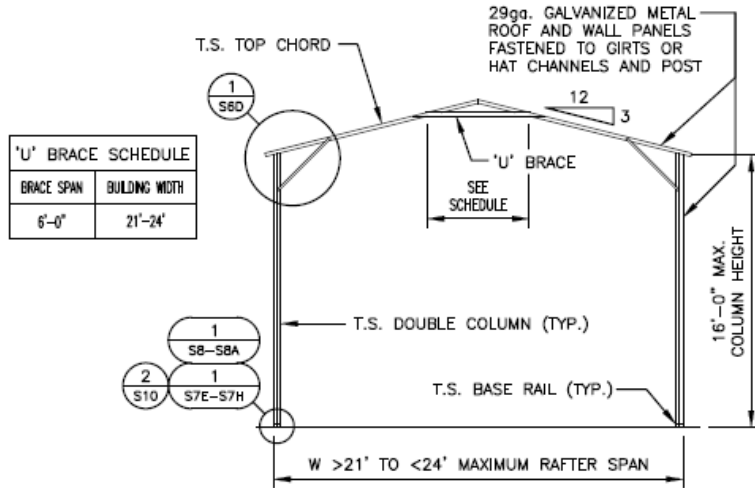
DATE:
2024.05.10

PROJECT NO:
24-513

SHEET NO:
S3

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDER YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

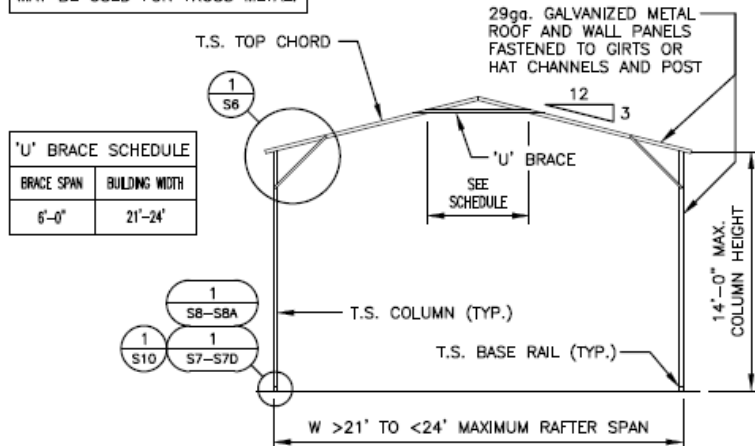
>21' TO <24'



'U' BRACE SCHEDULE	
BRACE SPAN	BUILDING WIDTH
6'-0"	21'-24'

TYPICAL RAFTER / COLUMN FRAME SECTION

NOTE:
H.S.S. 2-1/2"x2-1/2"x14ga. OR
2-1/4"x2-1/4"x14ga. MATERIAL
MAY BE USED FOR TRUSS METAL.



'U' BRACE SCHEDULE	
BRACE SPAN	BUILDING WIDTH
6'-0"	21'-24'

TYPICAL RAFTER / COLUMN FRAME SECTION

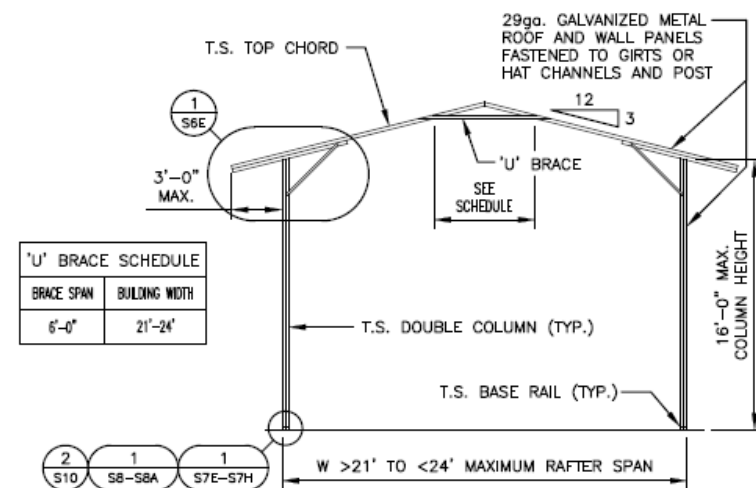
TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O. BOX 258 HOGENT NORTH CAROLINA
TELE 336-333-4331 FAX 336-333-1001
WWW.TAYLORVOLA.COM
JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

**RHINO METAL
STRUCTURES**
006 NM-467
PORTALES, NM 88130
TELE: 336-640-0590

DRAWN BY:
BKS
PROJECT NO:
24-513
DATE:
2024.05.10
SHEET NO:
S5

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDER YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

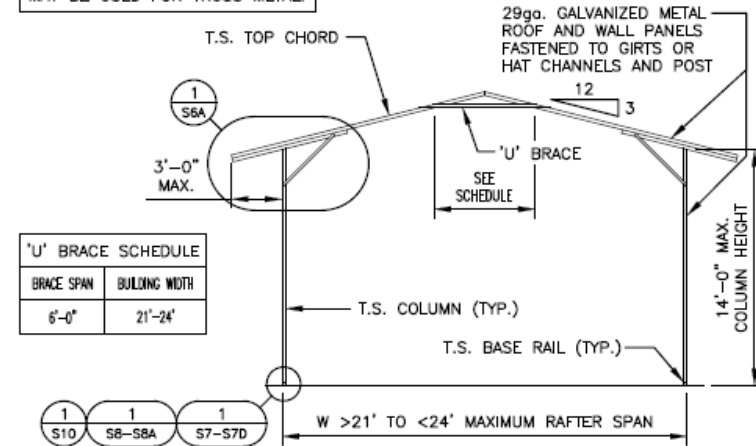
>21' TO <24' (3' SOFFIT)



'U' BRACE SCHEDULE	
BRACE SPAN	BUILDING WIDTH
6'-0"	21'-24'

TYPICAL RAFTER / COLUMN FRAME SECTION

NOTE:
H.S.S. 2-1/2"x2-1/2"x14ga. OR
2-1/4"x2-1/4"x14ga. MATERIAL
MAY BE USED FOR TRUSS METAL.



'U' BRACE SCHEDULE	
BRACE SPAN	BUILDING WIDTH
6'-0"	21'-24'

TYPICAL RAFTER / COLUMN FRAME SECTION

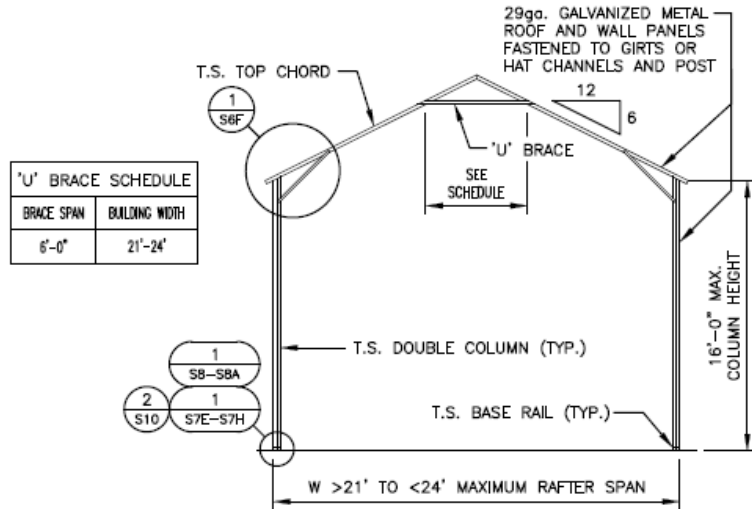
TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O. BOX 258 HOGENT NORTH CAROLINA
TELE 336-333-4331 FAX 336-333-1001
WWW.TAYLORVOLA.COM
JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

**RHINO METAL
STRUCTURES**
006 NM-467
PORTALES, NM 88130
TELE: 336-640-0590

DRAWN BY:
BKS
PROJECT NO:
24-513
DATE:
2024.05.10
SHEET NO:
S5A

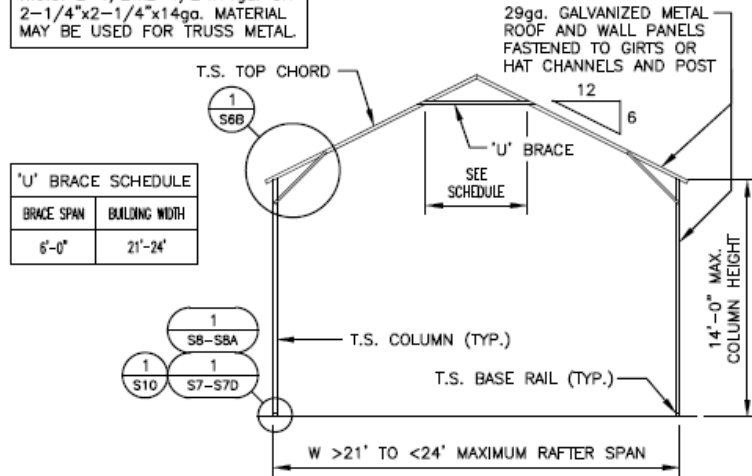
NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDER YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

>21' TO <24' WIDE (6:12 PITCH)



TYPICAL RAFTER / COLUMN FRAME SECTION

NOTE:
H.S.S. 2-1/2"x2-1/2"x14ga. OR
2-1/4"x2-1/4"x14ga. MATERIAL
MAY BE USED FOR TRUSS METAL.



TYPICAL RAFTER / COLUMN FRAME SECTION

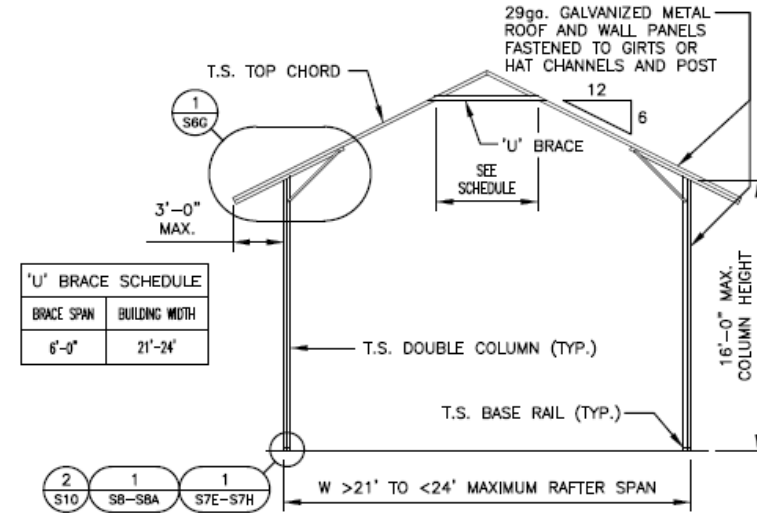
TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O.B. 2616 HODRI NORTH CAROLINA
TEL: 800-332-6331 FAX: 800-332-1001
WWW.TAYLORVIOLA.COM
JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

**RHINO METAL
STRUCTURES**
006 NM-467
PORTALES, NM 88130
TELE: 336-648-0590

DRAWN BY:
BKS
PROJECT NO:
24-513
DATE:
2024.05.10
SHEET NO:
S5B

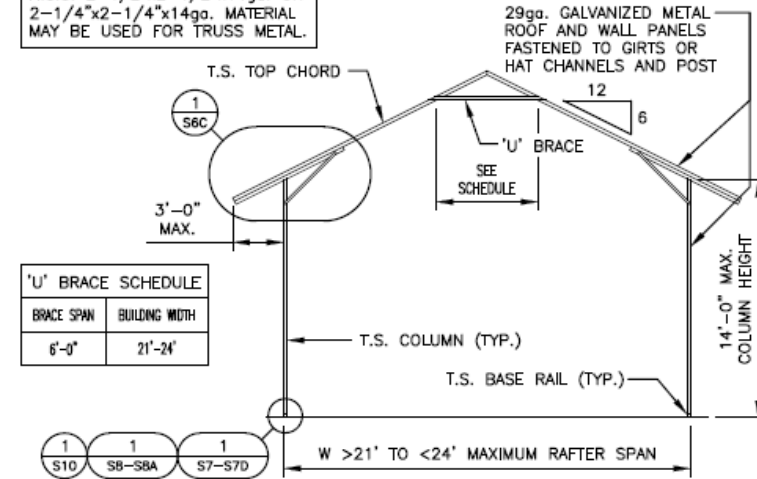
NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDER YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

>21' TO <24' WIDE (6:12 PITCH / 3' SOFFIT)



TYPICAL RAFTER / COLUMN FRAME SECTION

NOTE:
H.S.S. 2-1/2"x2-1/2"x14ga. OR
2-1/4"x2-1/4"x14ga. MATERIAL
MAY BE USED FOR TRUSS METAL.



TYPICAL RAFTER / COLUMN FRAME SECTION

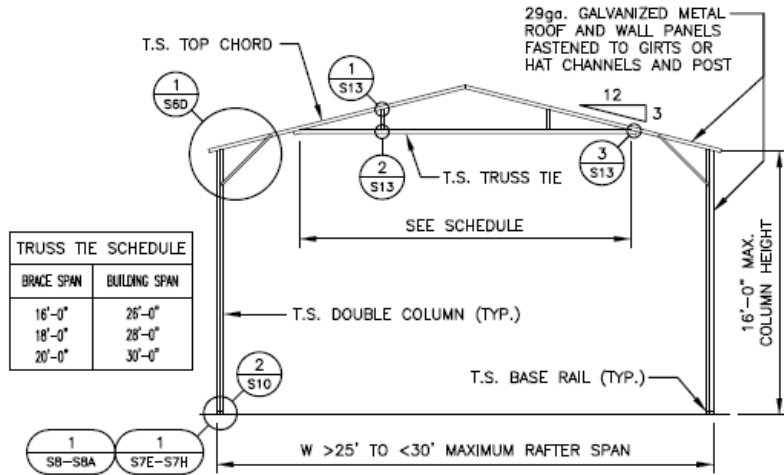
TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O.B. 2616 HODRI NORTH CAROLINA
TEL: 800-332-6331 FAX: 800-332-1001
WWW.TAYLORVIOLA.COM
JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

**RHINO METAL
STRUCTURES**
006 NM-467
PORTALES, NM 88130
TELE: 336-648-0590

DRAWN BY:
BKS
PROJECT NO:
24-513
DATE:
2024.05.10
SHEET NO:
S5C

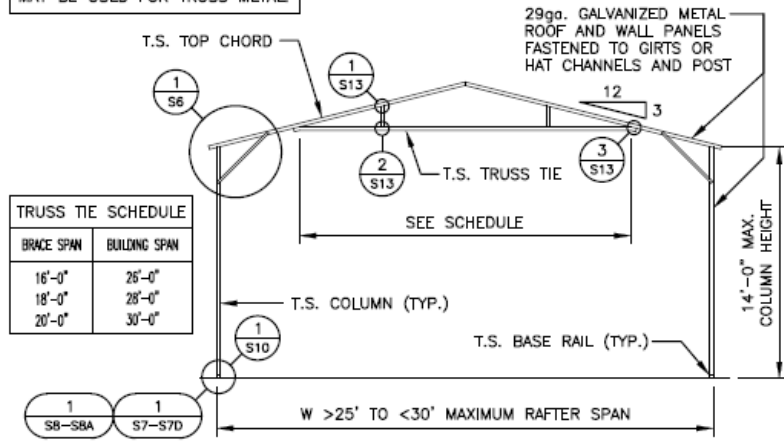
NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDER YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

>25' TO <30'



TYPICAL RAFTER / COLUMN FRAME SECTION

NOTE:
H.S.S. 2-1/2"x2-1/2"x14ga. OR
2-1/4"x2-1/4"x14ga. MATERIAL
MAY BE USED FOR TRUSS METAL.



TYPICAL RAFTER / COLUMN FRAME SECTION

TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O.B. 2616 HODORY NORTH CAROLINA
TEL: 622-322-4331 FAX: 622-322-1001
WWW.TAYLORVIOLA.COM

JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

**RHINO METAL
STRUCTURES**

006 NM-467
PORTALES, NM 88130
TELE: 336-640-8590

DRAWN BY:
BKS

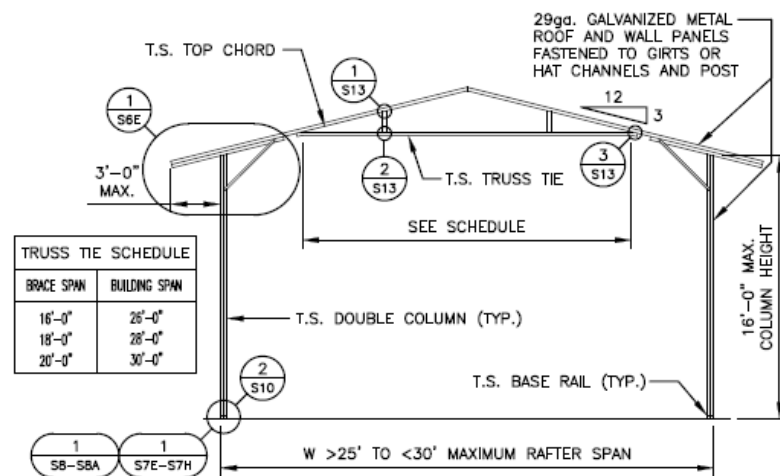
DATE:
2024.05.10

PROJECT NO:
24-513

SHEET NO:
S50

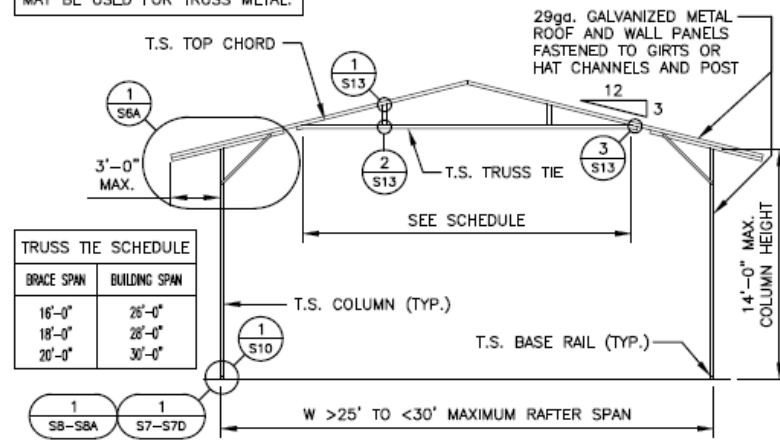
NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDAR YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

>25' TO <30' (3' SOFFIT)



TYPICAL RAFTER / COLUMN FRAME SECTION

NOTE:
H.S.S. 2-1/2"x2-1/2"x14ga. OR
2-1/4"x2-1/4"x14ga. MATERIAL
MAY BE USED FOR TRUSS METAL.



TYPICAL RAFTER / COLUMN FRAME SECTION

TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O.B. 2616 HODORY NORTH CAROLINA
TEL: 622-322-4331 FAX: 622-322-1001
WWW.TAYLORVIOLA.COM

JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

**RHINO METAL
STRUCTURES**

006 NM-467
PORTALES, NM 88130
TELE: 336-640-8590

DRAWN BY:
BKS

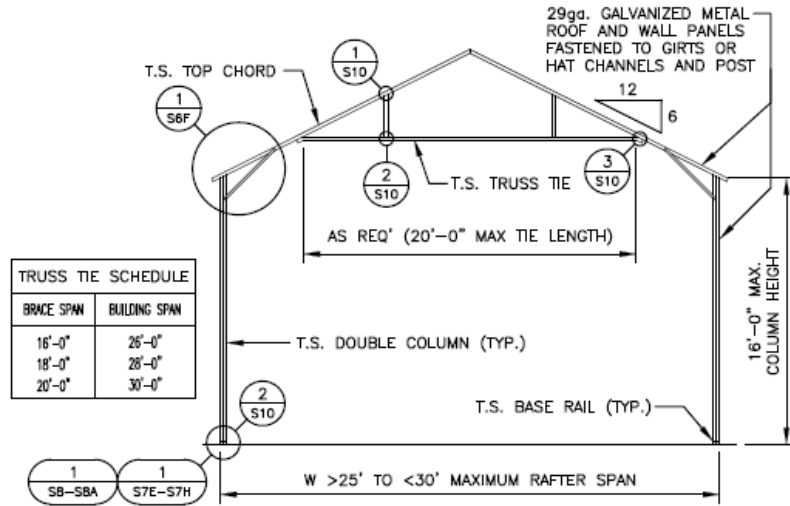
DATE:
2024.05.10

PROJECT NO:
24-513

SHEET NO:
S51

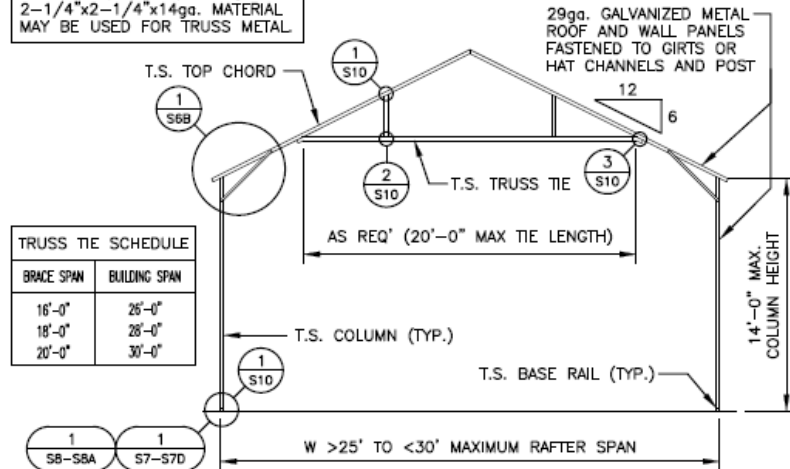
NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDAR YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

>25' TO <30' (6:12 PITCH)



TYPICAL RAFTER / COLUMN FRAME SECTION

NOTE:
H.S.S. 2-1/2"x2-1/2"x14ga. OR
2-1/4"x2-1/4"x14ga. MATERIAL
MAY BE USED FOR TRUSS METAL.



TYPICAL RAFTER / COLUMN FRAME SECTION

TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O. BOX 218 HICKORY, NORTH CAROLINA
TELE: 800-335-4339 FAX: 800-322-001
WWW.TAYLORVIOLA.COM

JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

**RHINO METAL
STRUCTURES**

006 NM-467
PORTALES, NM 88130
TELE: 336-648-8590

DRAWN BY:
BKS

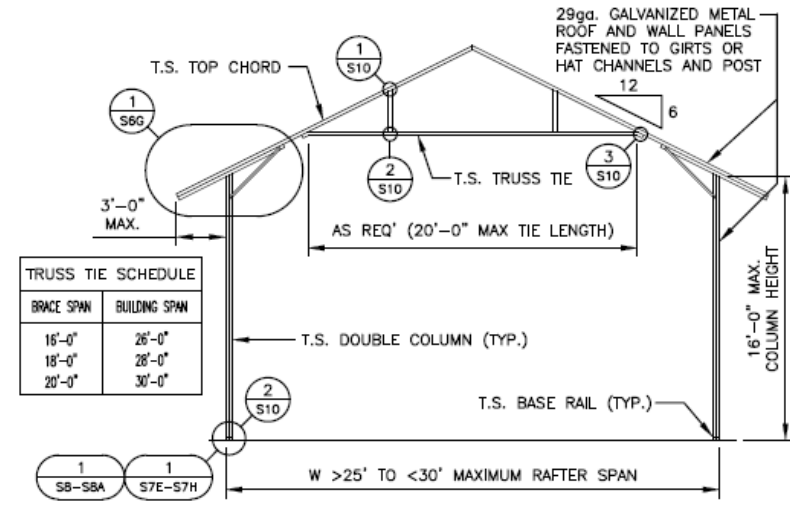
PROJECT NO:
24-513

DATE:
2024.05.10

SHEET NO:
S5F

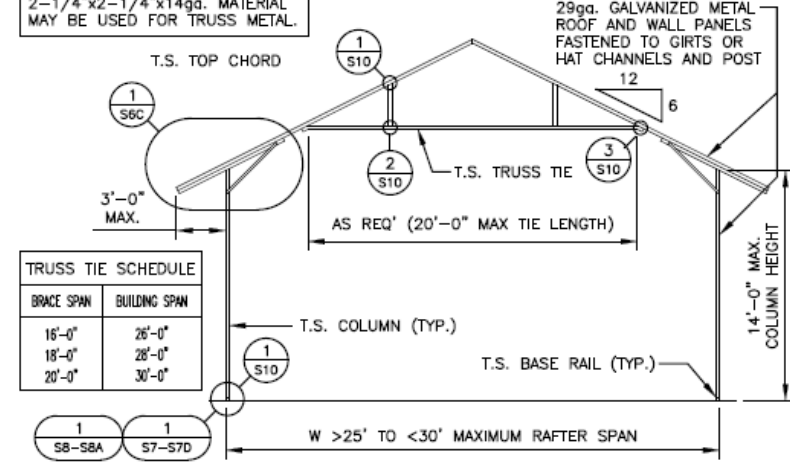
NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDER YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

>25' TO <30' (6:12 PITCH / 3' SOFFIT)



TYPICAL RAFTER / COLUMN FRAME SECTION

NOTE:
H.S.S. 2-1/2"x2-1/2"x14ga. OR
2-1/4"x2-1/4"x14ga. MATERIAL
MAY BE USED FOR TRUSS METAL.



TYPICAL RAFTER / COLUMN FRAME SECTION

TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O. BOX 218 HICKORY, NORTH CAROLINA
TELE: 800-335-4339 FAX: 800-322-001
WWW.TAYLORVIOLA.COM

JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

**RHINO METAL
STRUCTURES**

006 NM-467
PORTALES, NM 88130
TELE: 336-648-8590

DRAWN BY:
BKS

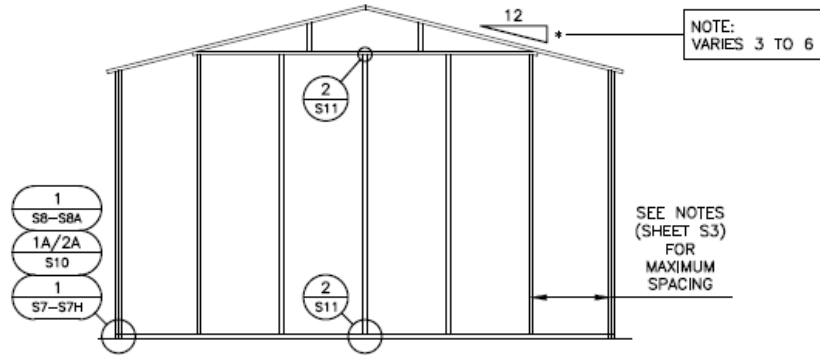
PROJECT NO:
24-513

DATE:
2024.05.10

SHEET NO:
S5G

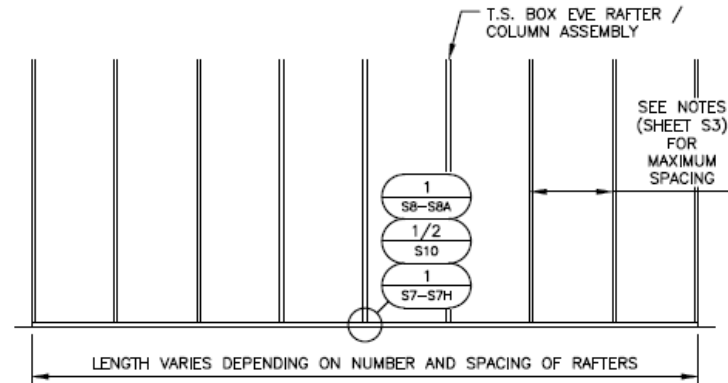
NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDER YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

(TYPICAL) FRAME SECTIONS



TYPICAL BOX EVE RAFTER / END WALL COLUMN FRAME SECTION

NOTE:
H.S.S. 2-1/2"x2-1/2"x14ga. OR
2-1/4"x2-1/4"x14ga. MATERIAL
MAY BE USED FOR TRUSS METAL.



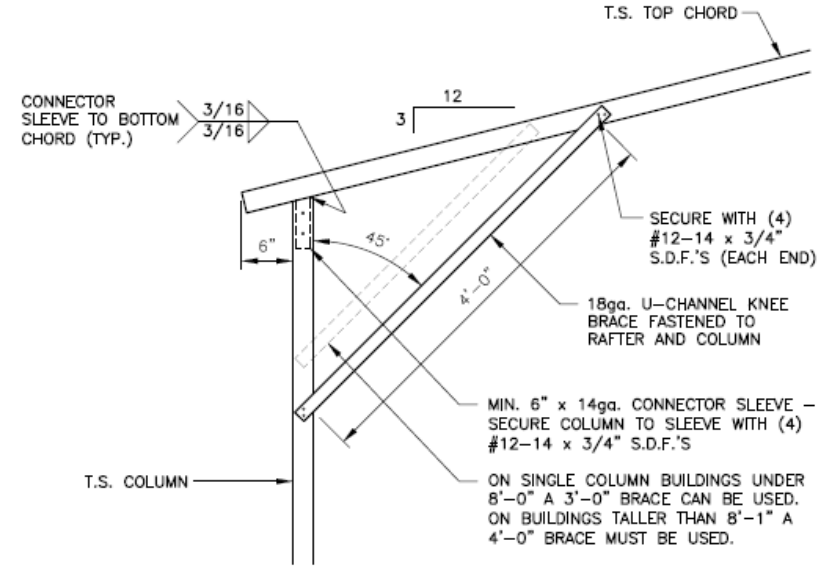
TYPICAL RAFTER / SIDE COLUMN FRAME SECTION

TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O. BOX 2616 HICKORY, NORTH CAROLINA
TELE: 800-320-6991 FAX: 800-320-1001
WWW.TAYLORVIOLA.COM
JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-4277

**RHINO METAL
STRUCTURES**
006 NM-467
PORTALES, NM 88130
TELE: 336-648-0590

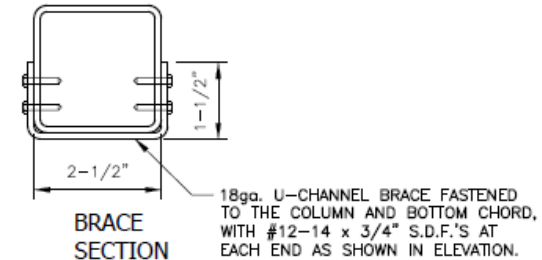
DRAWN BY: BKS
PROJECT NO: 24-513
DATE: 2024.05.10
SHEET NO: **S5H**

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDER YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.



BOX EVE / CORNER POST CONNECTION DETAIL
FOR HEIGHTS <14'-0"

1
S6 SCALE: 3/4" = 1'-0"



BRACE
SECTION

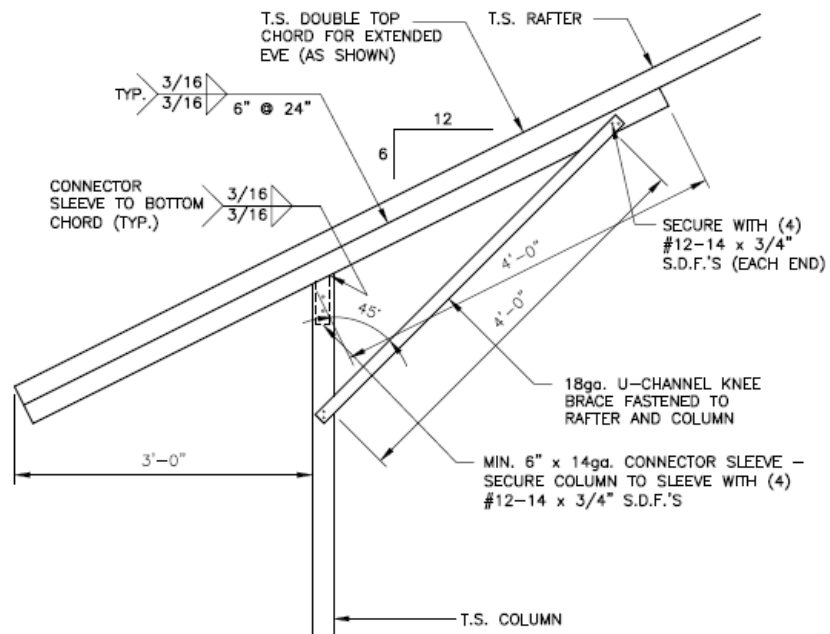
TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O. BOX 2616 HICKORY, NORTH CAROLINA
TELE: 800-320-6991 FAX: 800-320-1001
WWW.TAYLORVIOLA.COM
JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-4277

**RHINO METAL
STRUCTURES**
006 NM-467
PORTALES, NM 88130
TELE: 336-648-0590

DRAWN BY: BKS
PROJECT NO: 24-513
DATE: 2024.05.10
SHEET NO: **S6**

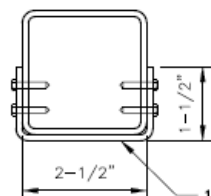
NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDER YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.





BOX EAVE / CORNER POST CONNECTION DETAIL
FOR HEIGHTS <14'-0" (6:12 PITCH / 3' SOFFIT)

1
S6C SCALE: 3/4" = 1'-0"



BRACE
SECTION

18ga. U-CHANNEL BRACE FASTENED
TO THE COLUMN AND BOTTOM CHORD,
WITH #12-14 x 3/4" S.D.F.'S AT
EACH END AS SHOWN IN ELEVATION.

TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O. BOX 2616 HICKORY, NORTH CAROLINA
TEL: 800-302-4391 FAX: 800-302-1001
WWW.TAYLORVOLA.COM

JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

**RHINO METAL
STRUCTURES**

006 NM-467
PORTALES, NM 88130
TELE: 336-648-0590

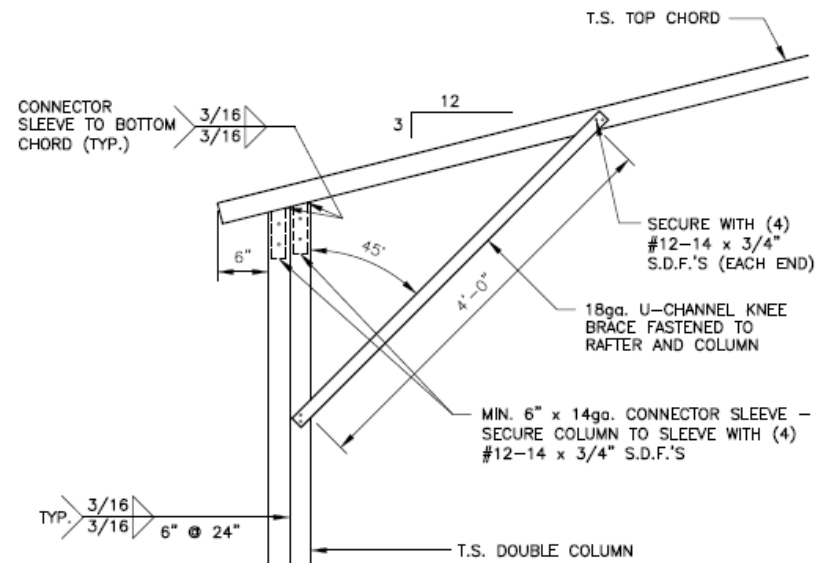
DRAWN BY:
BKS

PROJECT NO:
24-513

DATE:
2024.05.10

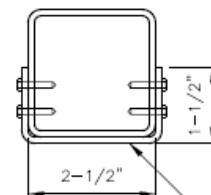
SHEET NO:
S6C

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDAR YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.



BOX EAVE / CORNER POST CONNECTION DETAIL
FOR HEIGHTS >14'-1" TO <16'-0"

1
S6D SCALE: 3/4" = 1'-0"



BRACE
SECTION

18ga. U-CHANNEL BRACE FASTENED
TO THE COLUMN AND BOTTOM CHORD,
WITH #12-14 x 3/4" S.D.F.'S AT
EACH END AS SHOWN IN ELEVATION.

TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O. BOX 2616 HICKORY, NORTH CAROLINA
TEL: 800-302-4391 FAX: 800-302-1001
WWW.TAYLORVOLA.COM

JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

**RHINO METAL
STRUCTURES**

006 NM-467
PORTALES, NM 88130
TELE: 336-648-0590

DRAWN BY:
BKS

PROJECT NO:
24-513

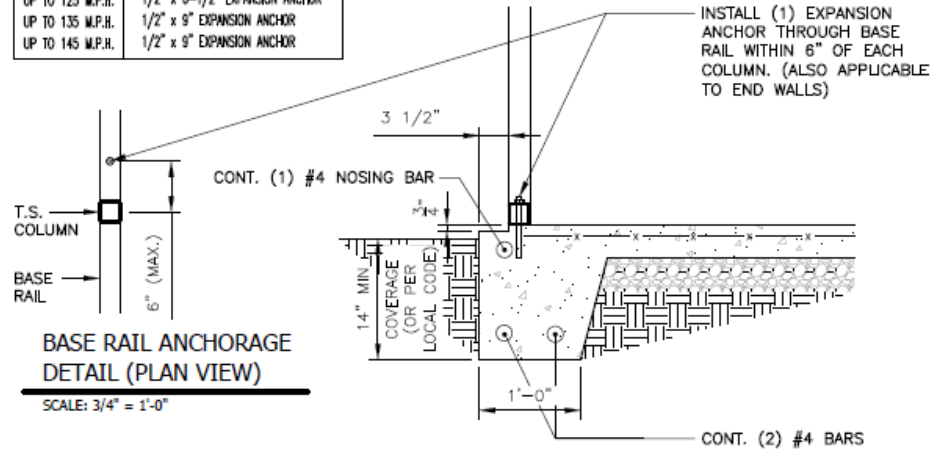
DATE:
2024.05.10

SHEET NO:
S6D

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDAR YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

CONCRETE BASE RAIL ANCHORAGE

ANCHORAGE BOLT SCHEDULE	
WIND SPEED	BOLT SIZE
UP TO 115 M.P.H.	1/2" x 6-1/2" EXPANSION ANCHOR
UP TO 125 M.P.H.	1/2" x 6-1/2" EXPANSION ANCHOR
UP TO 135 M.P.H.	1/2" x 9" EXPANSION ANCHOR
UP TO 145 M.P.H.	1/2" x 9" EXPANSION ANCHOR



1
S7 BASE RAIL ANCHORAGE DETAIL
SCALE: 3/4" = 1'-0"

GENERAL NOTES:

ALL CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 2,000 P.S.F.

CONCRETE:
CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3,000 P.S.I. 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 AND 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 MAT BE BENT IN THE SHOP OF 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.

TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O. BOX 4331 HICKORY, NORTH CAROLINA
TELE: 336-399-4331 FAX: 336-399-4331
WWW.TAYLORVIOLA.COM
JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

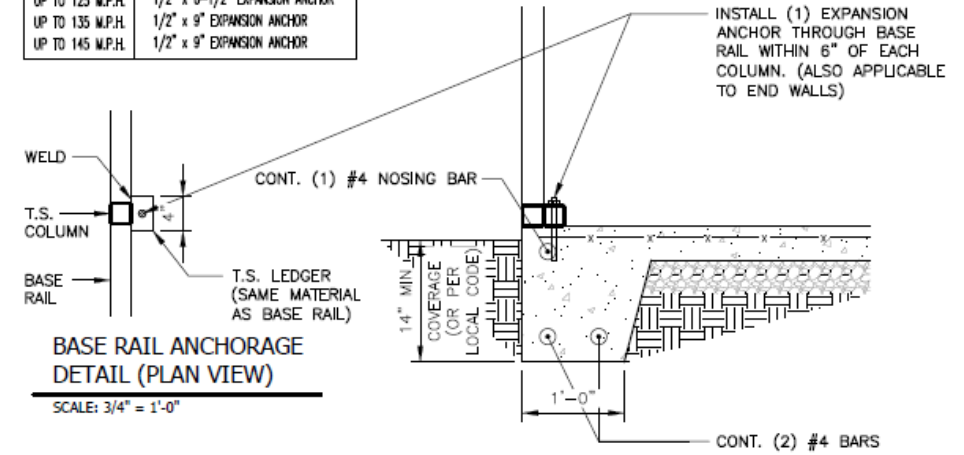
**RHINO METAL
STRUCTURES**
006 NM-467
PORTALES, NM 88130
TELE: 336-648-8590

DRAWN BY: BKS
PROJECT NO: 24-513
DATE: 2024.05.10
SHEET NO: S7

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDER YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

CONCRETE BASE RAIL ANCHORAGE (LEAN-TO / NO LEDGE)

ANCHORAGE BOLT SCHEDULE	
WIND SPEED	BOLT SIZE
UP TO 115 M.P.H.	1/2" x 6-1/2" EXPANSION ANCHOR
UP TO 125 M.P.H.	1/2" x 6-1/2" EXPANSION ANCHOR
UP TO 135 M.P.H.	1/2" x 9" EXPANSION ANCHOR
UP TO 145 M.P.H.	1/2" x 9" EXPANSION ANCHOR



1
S7B BASE RAIL ANCHORAGE DETAIL
SCALE: 3/4" = 1'-0"

GENERAL NOTES:

ALL CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 2,000 P.S.F.

CONCRETE:
CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3,000 P.S.I. 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 AND 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 MAT BE BENT IN THE SHOP OF 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.

TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O. BOX 4331 HICKORY, NORTH CAROLINA
TELE: 336-399-4331 FAX: 336-399-4331
WWW.TAYLORVIOLA.COM
JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

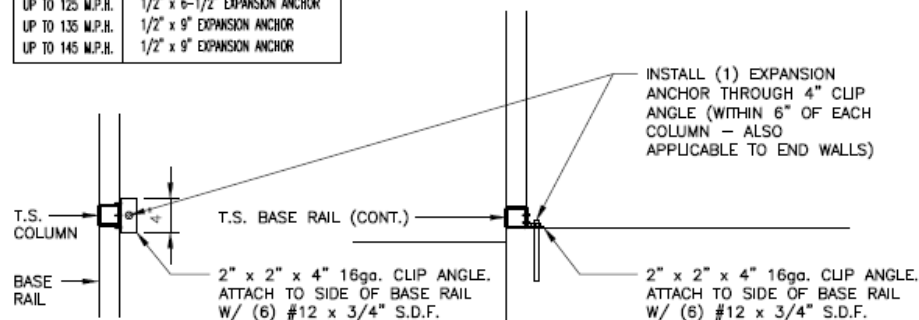
**RHINO METAL
STRUCTURES**
006 NM-467
PORTALES, NM 88130
TELE: 336-648-8590

DRAWN BY: BKS
PROJECT NO: 24-513
DATE: 2024.05.10
SHEET NO: S7B

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDER YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

CONCRETE BASE RAIL ANCHORAGE (CLIP ANGLE ATTACHMENT OPTION)

ANCHORAGE BOLT SCHEDULE	
WIND SPEED	BOLT SIZE
UP TO 115 M.P.H.	1/2" x 6-1/2" EXPANSION ANCHOR
UP TO 125 M.P.H.	1/2" x 6-1/2" EXPANSION ANCHOR
UP TO 135 M.P.H.	1/2" x 9" EXPANSION ANCHOR
UP TO 145 M.P.H.	1/2" x 9" EXPANSION ANCHOR



BASE RAIL ANCHORAGE
DETAIL (PLAN VIEW)

SCALE: 3/4" = 1'-0"

BASE RAIL ANCHORAGE DETAIL
(CLIP ANGLE ATTACHMENT OPTION)



SCALE: 3/4" = 1'-0"

TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O. BOX 2618 HICKORY, NORTH CAROLINA
TELE: 828-322-4331 FAX: 828-322-1001
WWW.TAYLORVIOLA.COM

JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

V2.0

**RHINO METAL
STRUCTURES**

006 NM-467
PORTALES, NM 88130
TELE: 336-648-0590

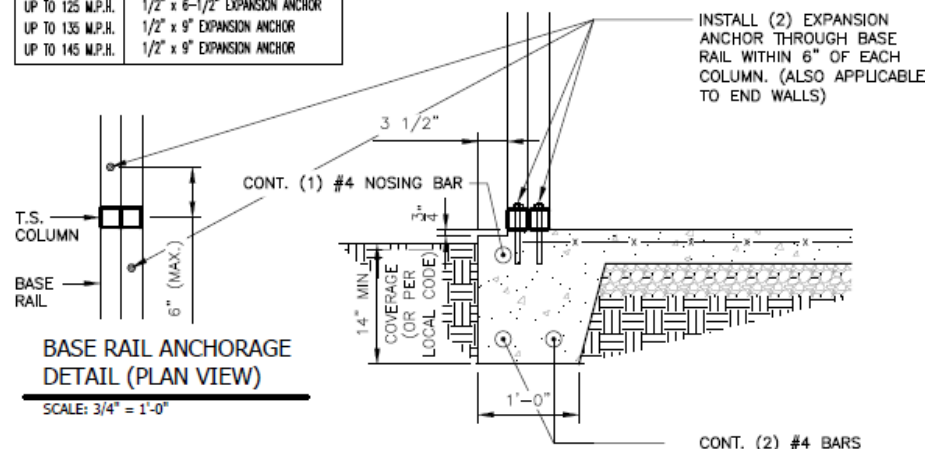
DRAWN BY:
BKS PROJECT NO:
24-513

DATE:
2024.05.10 SHEET NO:
S7D

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDER YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

CONCRETE BASE RAIL ANCHORAGE

ANCHORAGE BOLT SCHEDULE	
WIND SPEED	BOLT SIZE
UP TO 115 M.P.H.	1/2" x 6-1/2" EXPANSION ANCHOR
UP TO 125 M.P.H.	1/2" x 6-1/2" EXPANSION ANCHOR
UP TO 135 M.P.H.	1/2" x 9" EXPANSION ANCHOR
UP TO 145 M.P.H.	1/2" x 9" EXPANSION ANCHOR



BASE RAIL ANCHORAGE
DETAIL (PLAN VIEW)

SCALE: 3/4" = 1'-0"

BASE RAIL ANCHORAGE DETAIL



SCALE: 3/4" = 1'-0"

GENERAL NOTES:

ALL CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 2,000 P.S.F.

CONCRETE:
CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3,000 P.S.I. 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 AND 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 MAT BE BENT IN THE SHOP OF 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.

TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O. BOX 2618 HICKORY, NORTH CAROLINA
TELE: 828-322-4331 FAX: 828-322-1001
WWW.TAYLORVIOLA.COM

JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

V2.0

**RHINO METAL
STRUCTURES**

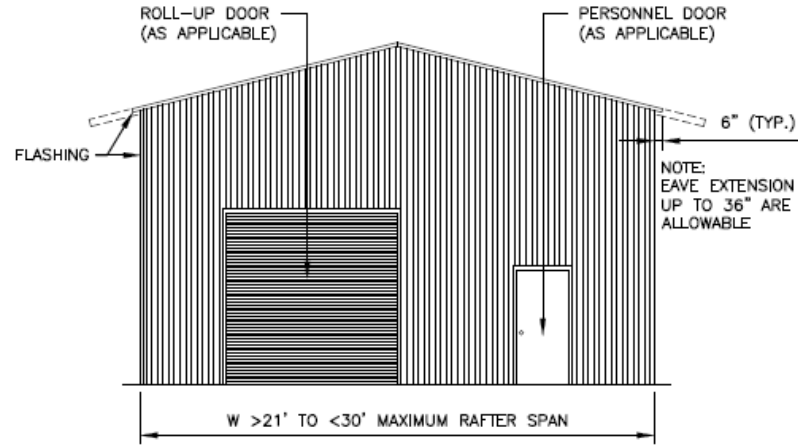
006 NM-467
PORTALES, NM 88130
TELE: 336-648-0590

DRAWN BY:
BKS PROJECT NO:
24-513

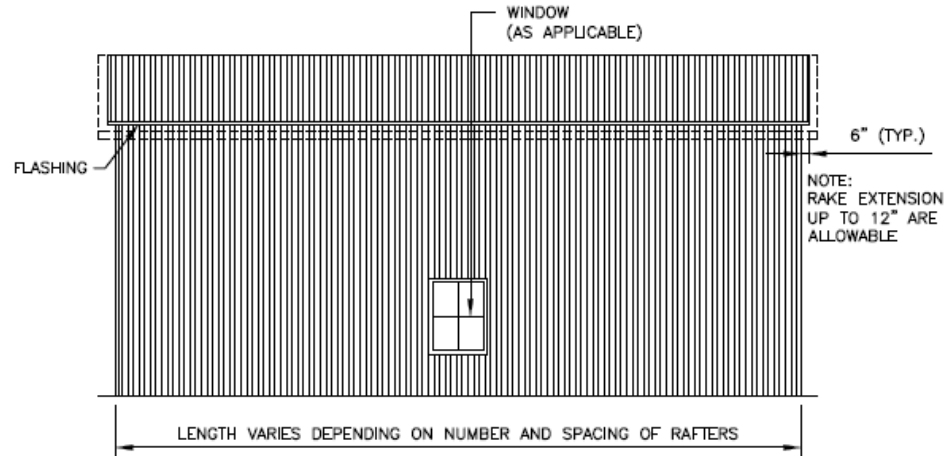
DATE:
2024.05.10 SHEET NO:
S7E

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDER YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

VERTICAL ROOF / SIDING OPTION



TYPICAL END ELEVATION



TYPICAL SIDE ELEVATION

TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O.B. 216 HODORY NORTH CAROLINA
TELE: 822-322-4331 FAX: 822-322-1001
WWW.TAYLORVIOLA.COM

JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

**RHINO METAL
STRUCTURES**

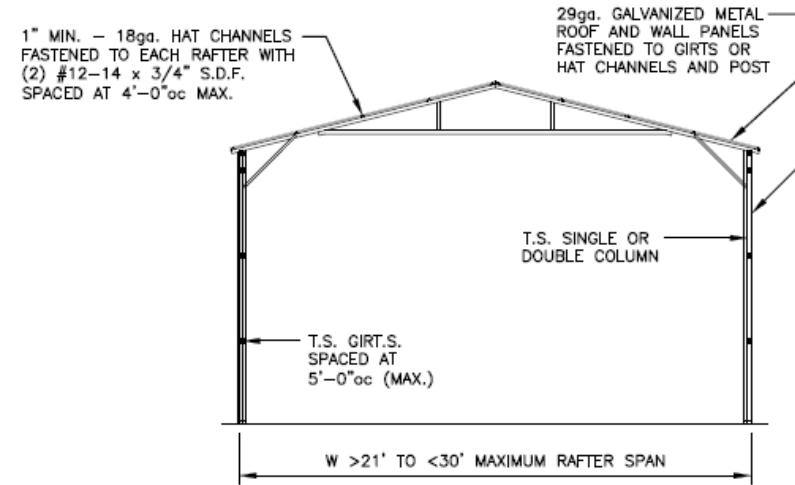
006 NM-467
PORTALES, NM 88130
TELE: 336-648-0590

DRAWN BY:
BKS
DATE:
2024.05.10

PROJECT NO:
24-513
SHEET NO:
S16

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDAR YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

VERTICAL ROOF / SIDING OPTION



TYPICAL SECTION VERTICAL ROOF / SIDING OPTION

TAYLOR & VIOLA
STRUCTURAL ENGINEERS
P.O.B. 216 HODORY NORTH CAROLINA
TELE: 822-322-4331 FAX: 822-322-1001
WWW.TAYLORVIOLA.COM

JCMT Associates, PLLC
211 Stone Drive, Pilot Mountain, NC 27041
Telephone: (336) 399-6277

**RHINO METAL
STRUCTURES**

006 NM-467
PORTALES, NM 88130
TELE: 336-648-0590

DRAWN BY:
BKS
DATE:
2024.05.10

PROJECT NO:
24-513
SHEET NO:
S16A

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDAR YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.