

"Quality & Service are our #1 Priority"

STRUCTURAL PLANS

Structure Size: _	30'x49'x12'
Customer: Jaime	Phelps
Address: 3483 US	3 401 S Lillington NC 27546

Prepared For:

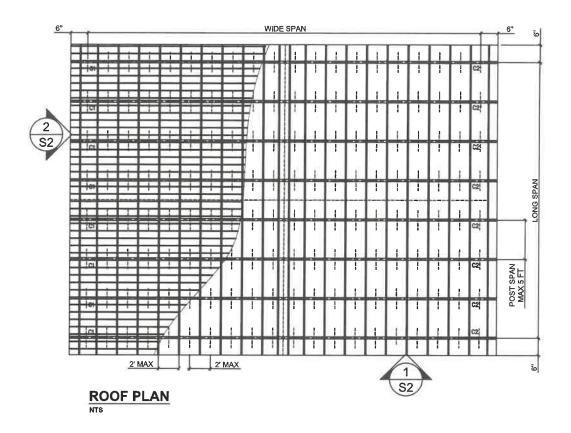
SUPERIOR METAL STRUCTURES & CONCRETE, LLC

Prepared By:



250 SHIPWASH DR, GARNER, NC 27529

THESE STRUCTURAL ENGINEERED PLANS ARE TO BE INCLUDED IN YOUR PERMIT APPLICATION AND STRUCTURE IS TO BE BUILT BY SUPERIOR METAL STRUCTURES & CONCRETE, LLC



GENERAL NOTES

ALL STRUCTURAL STEEL WORK SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH NOTES AND DETAILS ON THESE DRAWINGS; DETAILING, FABRICATION, AND ERECTION OF STRUCTURAL CONFORM IN ACCORDANCE WITH THE VIRGINIA BUILDING CODE 2021, INTERNATIONAL BUILDING CODE (IBC) 2021, AND NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS 2016 (REAFFIRMED 2020).

ALLOWABLE SOIL PRESSURE 2000 PSF

- WELDED WIRE FABRIC SHALL BE NEW BILLET STEEL, COLD DRAWN CONFORMING A815 AND SHALL BE SUPPLIED IN SHEET **FORM**
- ALL WELDING SHALL BE ACCOMPLISHED USING E-70XX LOW-HYDROGEN ELECTRODES AND AWS CERTIFIED WELDERS IN 4) COMPLIANCE WITH CURRENT AWS STANDARDS.

ALL WELDS SHALL BE COATED WITH GALVANIZE PRIMER & PAINT AFTER WELDING

THE CONTRACTOR SHALL COORDINATE AND VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION AND ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD.

GALVANIZED STRUCTURAL TUBING STEEL SHALL CONFORM TO ASTM A123 AND/OR A153

THE MINIMUM YIELD STRENGTH OF THE TUBE STEEL SHALL BE (Fy. 55,000 PSI)

THE MINIMUM YIELD STRENGTH OF METAL DECK SHALL BE (Fy. 80,000 PSI)

- 10) THE TUBE STEEL FOR COLUMNS SHALL BE 2 1/4" SQUARE GAUGE 14 FOR COLUMNS UP TO 10 FT TALL AND GAUGE 12 FOR 12' AND ABOVE, TYPICAL UNLESS NOTED OTHERWISE.
- AT 150 MPH THE STRUCTURE SHALL BE BUILD WITH DOUBLE COLUMN SUPPORT, TYPICAL UNLESS NOTED OTHERWISE.

ALL TUBE STEEL CONNECTIONS SHALL BE BEARING TYPE USING #12X14X3/4" SELF DRILLING METAL SCREWS

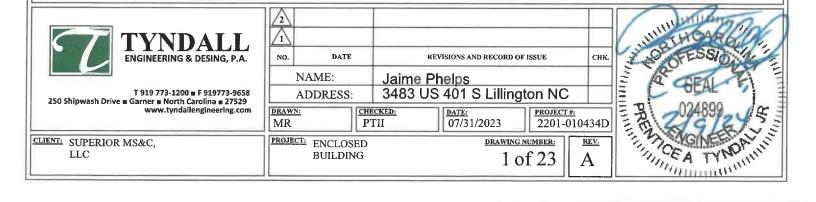
13) DECKING SHALL BE GALVANIZED STEEL SHEET METAL STANDARD GA 29 FASTENED WITH (2) \$12X14X3/4" SELF DRILLING METAL SCREWS WITH NEOPRENE WASHER, FOR RAFTER, HAT CHANNEL AND POST CONNECTION

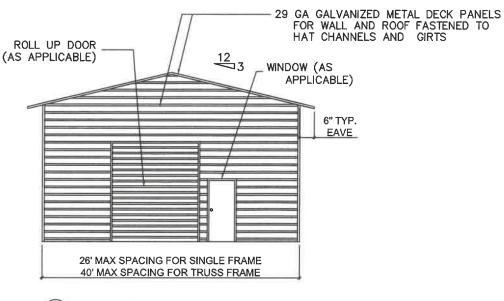
14) THE CONCRETE DECK SHALL BE 3000 PSI CAPACITY AT 28 DAYS, AND THE SURFACE MUST BE LEVEL.CONTRACTOR RESPONSIBLE FOR MEETING THIS REQUIREMENT

15) BASE RAIL ANCHORAGE TO CONCRETE SHALL BE BEARING 1/2"

■ WEDGE ANCHORS ASTM A325 OR SIMILAR HIGH STRENGTH

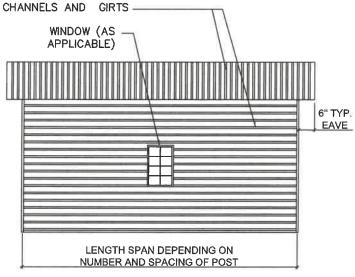
BOLTS, UNLESS INDICATED OTHERWISE ON THE DRAWINGS





1 TYPICAL ELEVATION

29 GA GALVANIZED METAL DECK PANELS FOR WALL AND ROOF FASTENED TO HAT CHANNELS AND CIRTS



2 TYPICAL SIDE ELEVATION

ELEVATION PLAN



T 919 773-1200 ≡ F 919773-9658 250 Shipwash Drive ≡ Garner ≡ North Carolina ≡ 27529 www.tyndallengineering.com

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CLIENT: SUPERIOR MS&C,

PROJECT: ENCLOSED BUILDING

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2018 APPENDIX B

BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

STRUCTURAL DESIGN
DESIGN LOADS:
IMPORTANCE FACTORS: WIND (Iw) 1.00 SNOW (Is) 1.00 SEISMIC (Ie) 1.00
DEAD LOADS: ROOF 10 PSF
CROUND SNOW LOAD: 20 PSF GROUND LOAD: BASIC WIND SPEED 150 mph (ASCE 7-16) *DRIFT LOAD HAS NOT BEEN CALCULATE EXPOSURE CATEGORY B
SEISMIC DESIGN CATEGORY: B
PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:
OCCUPANCY CATEGORY1
SPECTRAL RESPONSE ACCELERATION Ss 20.0 %g S1 8.2 %g
SITE CLASSIFICATIOND FIELD TEST PRESUMPTIVE HISTORICAL DATA
BASIC STRUCTURAL SYSTEM (CHECK ONE)
BEARING WALL DUAL W/ SPECTRAL MOMENT FRAME
X BUILDING FRAME DUAL W/ INTERMEDIATE R/C OR SPECIAL STEEL
MOMENT FRAME INVERTED PENDULUM
ANALYSIS PROCEDURE SIMPLIFIED X EQUIVALENT LATERAL FORCE MODAL
LATERAL DESIGN CONTROL EARTHQUAKE X WIND
SOIL BEARING CAPACITIES:
PRESUMPTIVE BEARING CAPACITIES: 2,000 PSF

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GENERAL NOTES: SEE PAGE 1

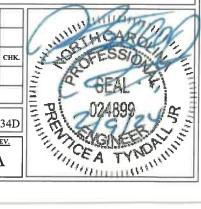
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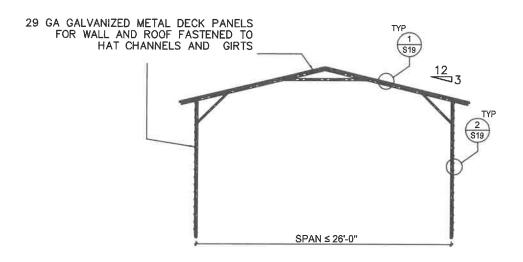
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CLIENT: SUPERIOR MS&C,

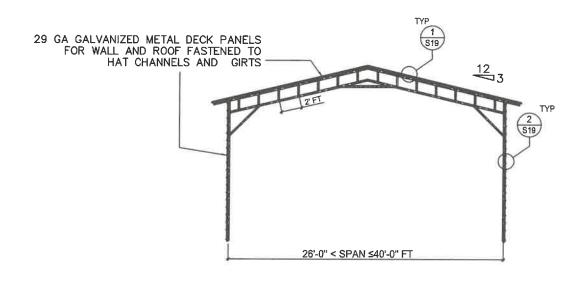
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1 TYPICAL SINGLE FRAME SECTION





ELEVATION PLAN

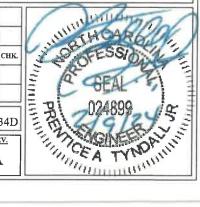


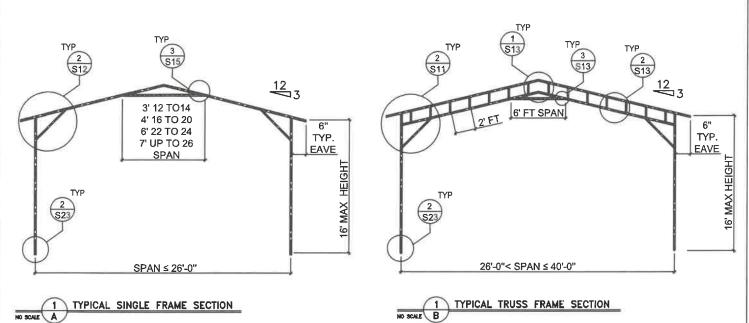
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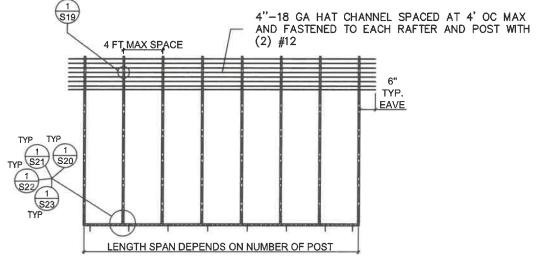




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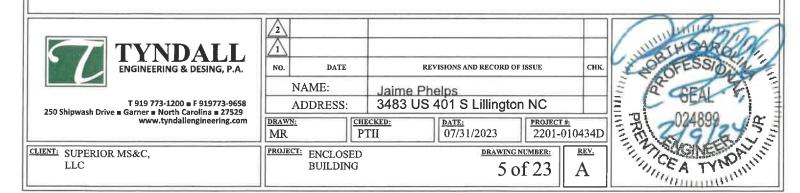
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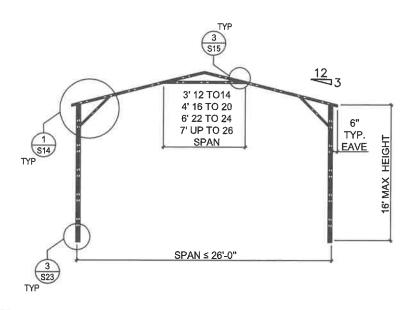
4"-18 GA HAT CHANNEL SPACED AT 4' OF AND FASTENED TO EACH RAFTER AND POS



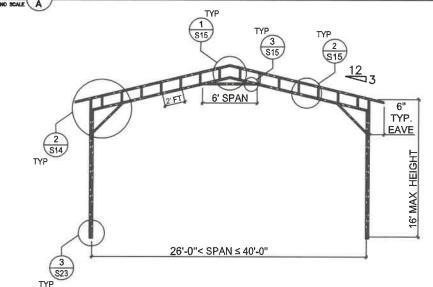
2 TYPICAL SIDE SINGLE FRAME SECTION

ELEVATION PLAN





1 TYPICAL SINGLE FRAME DOUBLE SECTION FOR WIND SPEED 105<TO≤150 MPH



1 TYPICAL TRUSS FRAME DOUBLE SECTION FOR WIND SPEED 105<TO≤150 MPH

ELEVATION PLAN



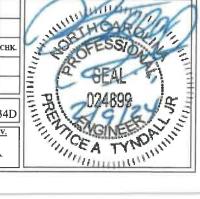
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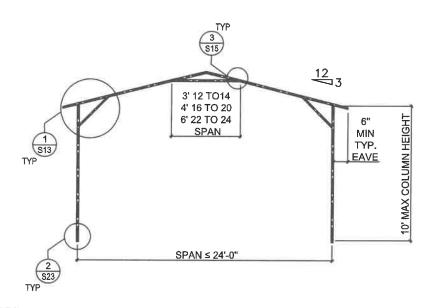
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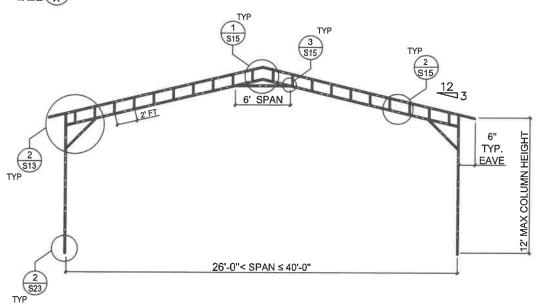
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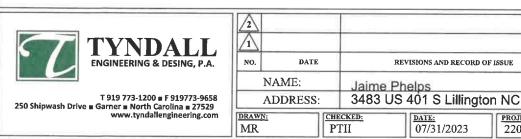


1 TYPICAL SINGLE FRAME SINGLE SECTION FOR WIND SPEED UP TO 130 MPH



1 TYPICAL TRUSS FRAME SINGLE SECTION FOR WIND SPEED 130 MPH TO 150 MPH

ELEVATION PLAN

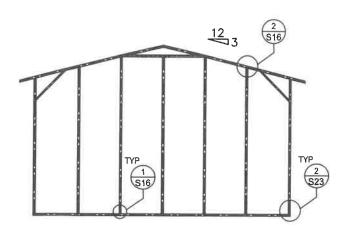


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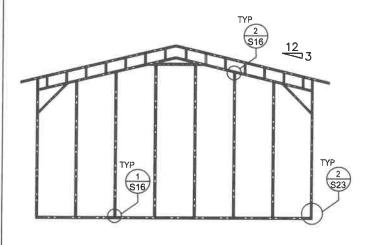
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1 TYPICAL SINGLE FRAME ELEVATION

1 FRAME ELEVATION W/ GARAGE DOOR, DOOR AND WINDOW FRAME



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TYPICAL TRUSS FRAME ELEVATION

2 FRAME ELEVATION W/ GARAGE DOOR, DOOR AND WINDOW FRAME

ELEVATION PLAN

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T 919 773-1200

F 919773-9658
250 Shipwash Drive
Garner
North Carolina
27529

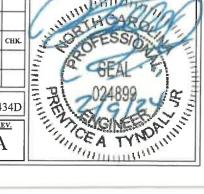
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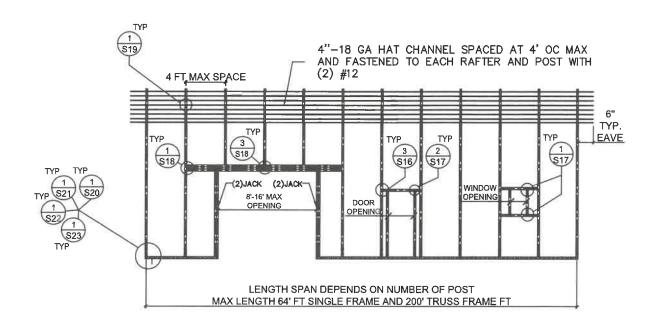
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1 FRAME SIDE ELEVATION W/ GARAGE DOOR, DOOR AND WINDOW FRAME

ELEVATION PLAN

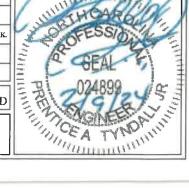


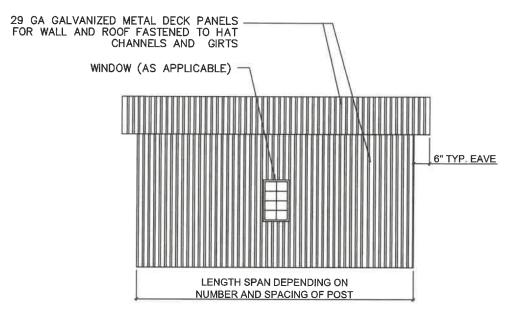
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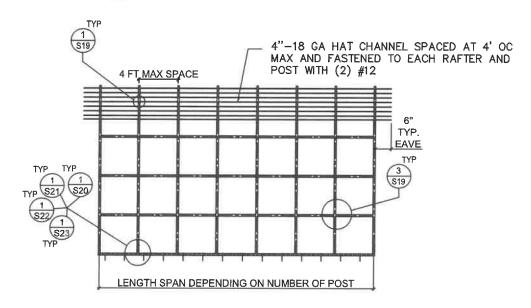
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1 TYPICAL SIDE ELEVATION FOR VERTICAL PANEL DECK



NO SOULE TYPICAL SIDE ELEVATION FOR VERTICAL METAL PANEL DECK

ELEVATION PLAN



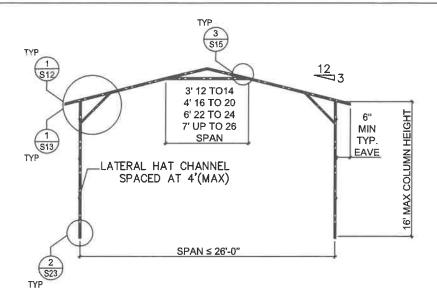
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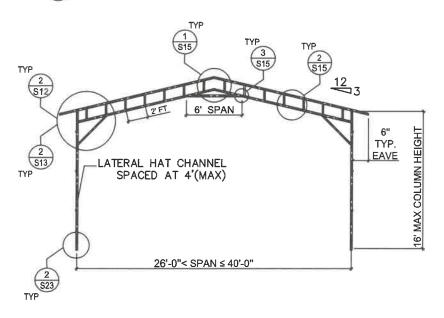
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1 TYPICAL SINGLE FRAME SECTION FOR VERTICAL PANEL DECK



1 TYPICAL TRUSS FRAME SECTION FOR VERTICAL PANEL DECK

ELEVATION PLAN



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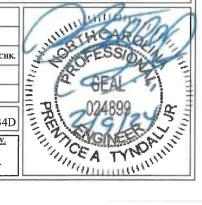
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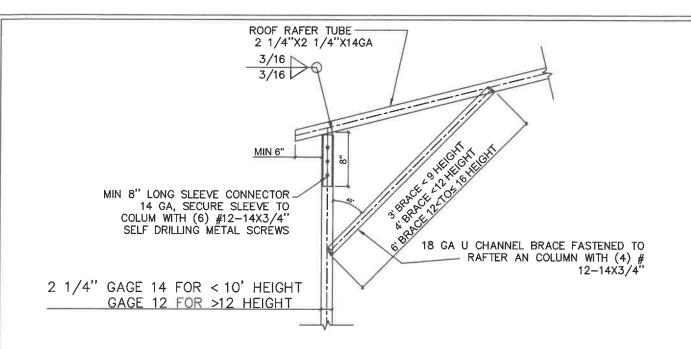
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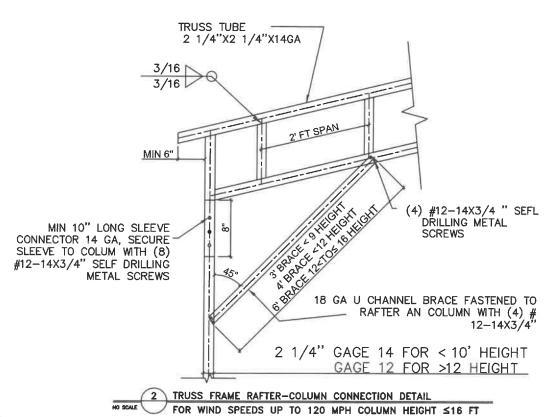
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1 SINGLE FRAME RAFTER-COLUMN CONNECTION DETAIL

FOR WIND SPEEDS UP TO 120 MPH COLUMN HEIGHT ≤16 FT



DETAILS

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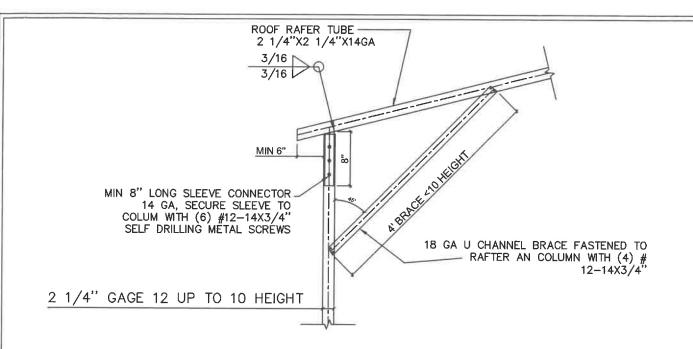
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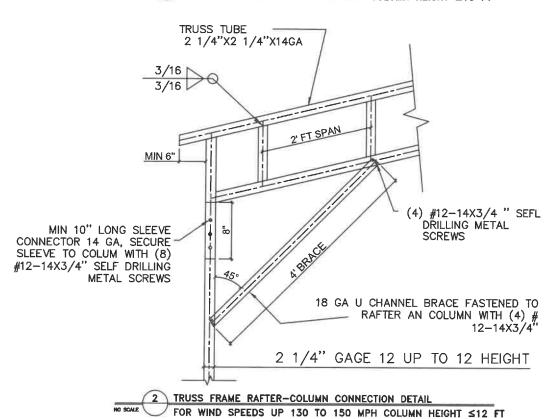
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1 SINGLE FRAME RAFTER-COLUMN CONNECTION DETAIL

1 FOR WIND SPEEDS UP TO 130 MPH COLUMN HEIGHT ≤10 FT



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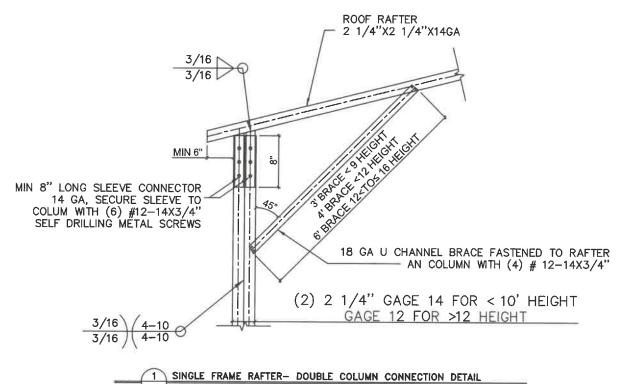
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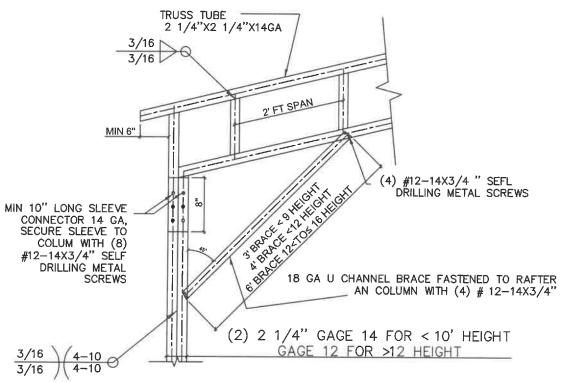
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FOR WIND SPEEDS 130 TO 150 MPH COLUMN HEIGHT UP TO 16 FT



DETAILS

TRUSS FRAME RAFTER-DOUBLE COLUMN CONNECTION DETAIL FOR WIND SPEEDS 130 TO 150 MPH COLUMN HEIGHT UP TO 16 FT



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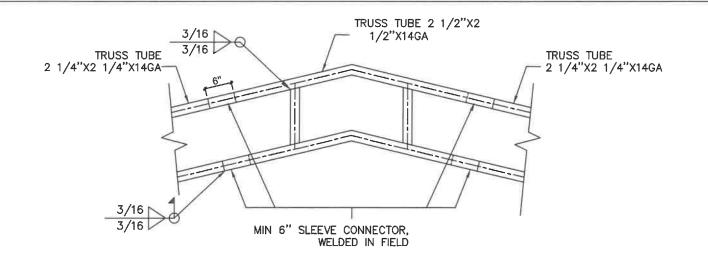
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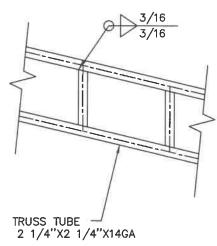
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TRUSS-TRUSS CONNECTION DETAIL



TRUSS WELD DETAIL

TUBE 2 1/4"X2 1/4"X14GA 3/16 3/16

TUBE 2 1/4"X2 1/4"X14GA FOR TRUSS FRAME AND U CHANNEL 18 GA FOR SINGLE FRAME

DETAILS

SINGLE FRAME WELD DETAIL



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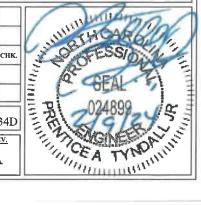
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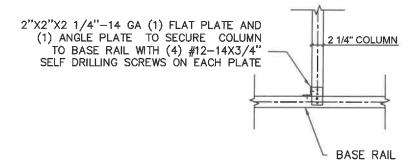
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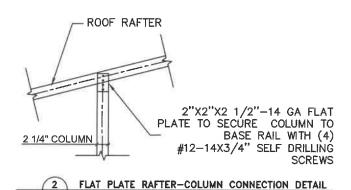
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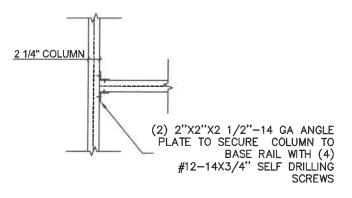
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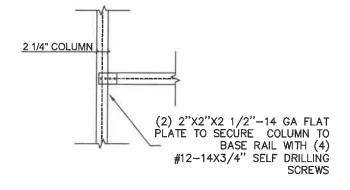




1 FLAT PLATE CONNECTION COLUMN TO BASE RAIL









3 FLAT PLATE HEADER-COLUMN CONNECTION DETAIL

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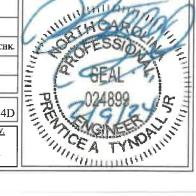


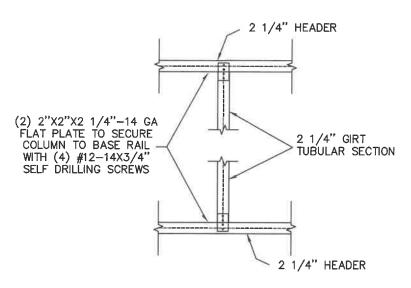
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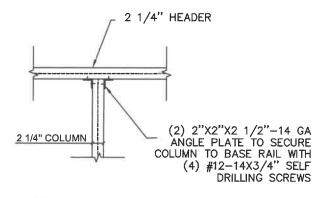
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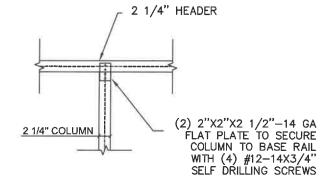
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1 FLAT PLATE HEADER CONNECTION FOR WINDOW DETAIL





2 ANGLE PLATE DOOR COLUMN-HEADER CONNECTION DETAIL

2 FLAT PLATE DOOR COLUMN-HEADER CONNECTION DETAIL

DETAILS

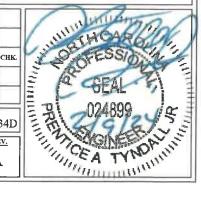


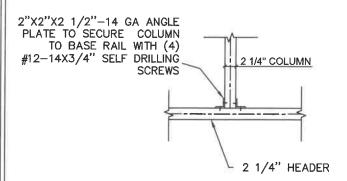
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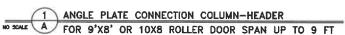
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NA	ME:	Jaime Phelps	
AD	DRESS:	3483 US 401 S Lillington NC	

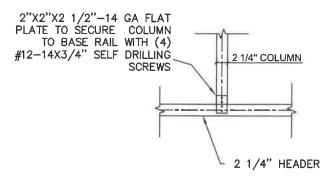
CLIENT: SUPERIOR MS&C, LLC PROJECT: ENCLOSED BUILDING

07/31/2023 | 2201-010434D | DRAWING NUMBER: REV. A









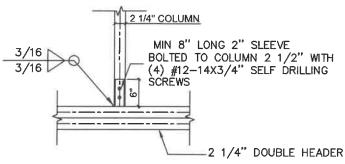
FLAT PLATE CONNECTION COLUMN-HEADER FOR 9'X8' OR 10X8 ROLLER DOOR SPAN UP TO 9 FT

2 1/4" COLUMN

MIN 8" LONG 2" SLEEVE

BOLTED TO COLUMN 2 1/2" WITH (4) #12-14X3/4" SELF DRILLING SCREWS

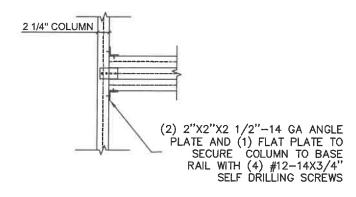
2 1/4" TRIPLE



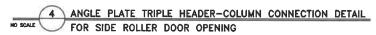


3/16

3/16



DETAILS



07/31/2023



250 Shipwash Drive
Garner
North Carolina
27529

www.tyndallengineering.com

/2			
NO.	DATE	REVISIONS AND RECORD OF ISSUE	СНК
N	AME:	Jaime Phelps	
AI	DDRESS:	3483 US 401 S Lillington NC	

CLIENT: SUPERIOR MS&C, LLC

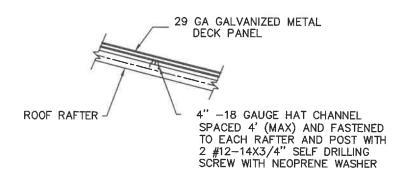
PROJECT: ENCLOSED BUILDING

MR

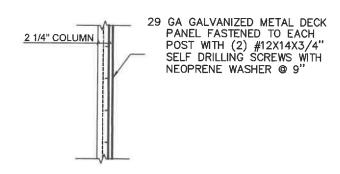
DRAWING NUMBER: 18 of 23

REV.

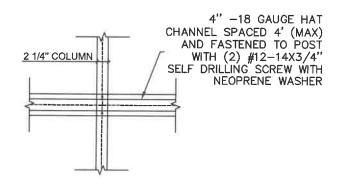




1 SINGLE FRAME RAFTER-COLUMN CONNECTION DETAIL



NO SCALE 2 DECKING-COLUMN CONNECTION



HAT-COLUMN CONNECTION DETAIL FOR VERTICAL DECKING



T 919 773-1200 = F 919773-9658 250 Shipwash Drive = Garner = North Carolina = 27529 www.tyndallengineering.com

2					
NO.	DATE		REVISIONS AND RECORD	OF ISSUE	снк.
N	IAME:	Jaime	Phelps		
A	DDRESS:	3483	US 401 S Lilling	ton NC	
DRAWN:		CHECKED: PTII	DATE: 07/31/2023	PROJECT #: 2201-010	434D

CLIENT: SUPERIOR MS&C, LLC

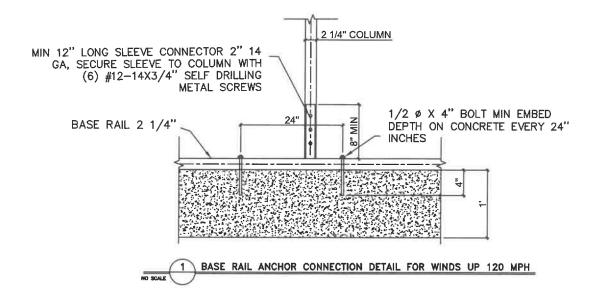
PROJECT: ENCLOSED BUILDING

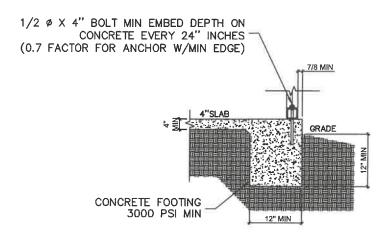
DRAWING NUMBER: 19 of 23

REV.

Α

SEAL 024899 STAINING OF A TYMORITING





BASE RAIL ANCHOR LATERAL VIEW FOR WINDS UP 120 MPH

DETAILS



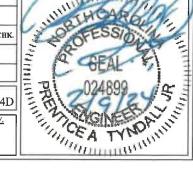
T 919 773-1200 m F 919773-9658 250 Shipwash Drive m Garner m North Carolina m 27529 www.tyndallengineering.com

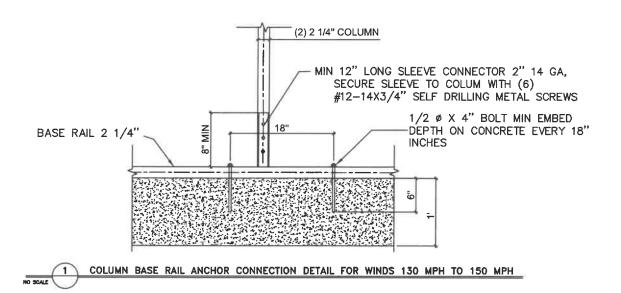
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NO.	DATE	REVISIONS AND RECORD OF ISSUE	снк.
	NAME:	Jaime Phelps	
	ADDRESS:	3483 US 401 S Lillington NC	
DRAWN MR	- 111-	DATE: PROJECT: 2201-0	#: 10434D

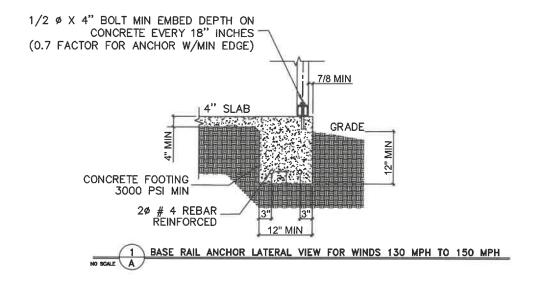
CLIENT: SUPERIOR MS&C, LLC

PROJECT: ENCLOSED BUILDING

DRAWING NUMBER: 20 of 23







DETAILS

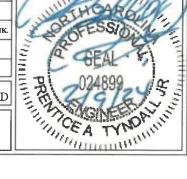


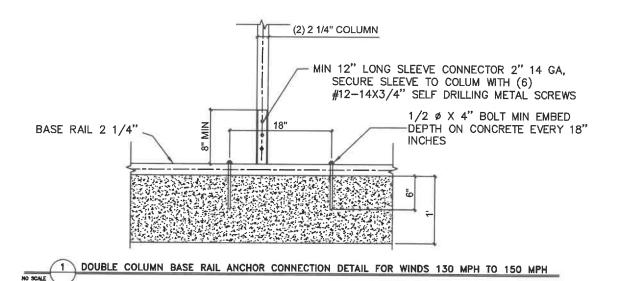
2			
NO.	DATE	REVISIONS AND RECORD OF ISSUE	сик.
NAME:		Jaime Phelps	
	ADDRESS:	3483 US 401 S Lillington NC	
DRAW MR	_	DATE: 07/31/2023 PROJECT #: 2201-010	434D

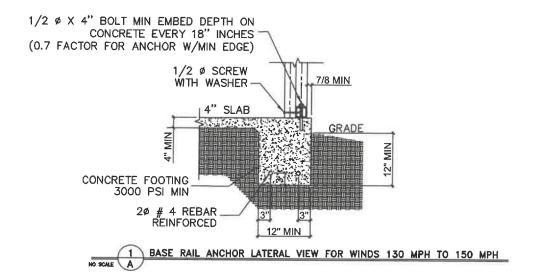
CLIENT: SUPERIOR MS&C, LLC PROJECT: ENCLOSED BUILDING

21 of 23

REV.







DETAILS



T 919 773-1200 **a** F 919773-9658 250 Shipwash Drive **a** Garner **a** North Carolina **a** 27529 www.tyndallengineering.com

2			
NO.	DATE	REVISIONS AND RECORD OF ISSUE	СНК.
NAME:		Jaime Phelps	
	ADDRESS:	3483 US 401 S Lillington NC	
DRAWN MR		DATE: 07/31/2023 PROJECT #: 2201-01	0434D

PROJECT: ENCLOSED BUILDING

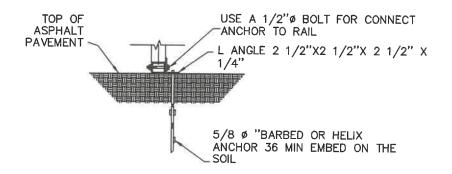
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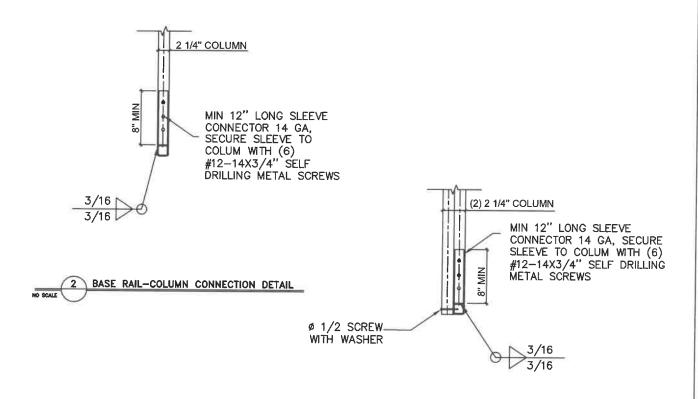
Α



CLIENT: SUPERIOR MS&C, LLC



BASE RAIL ANCHORAGE WITH BARBED OR HELIX ANCHOR







2					T
NO.	DATE		REVISIONS AND RECORD OF ISSUE		снк.
	NAME:	Jaime	Phelps		
ADDRESS:		3483 L	IS 401 S Lillingto	n NC	
drawn MR	<u>i:</u>	CHECKED: PTII	DATE: 07/31/2023	PROJECT #: 2201-010-	434D

CLIENT: SUPERIOR MS&C, LLC

PROJECT: ENCLOSED BUILDING

2201-010434D DRAWING NUMBER: 23 of 23

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