

APPLICABLE CODES, REGULATIONS, & STANDARDS

- A. THE 2023 FLORIDA BUILDING CODE, 8TH EDITION
- B. ASCE/SEI 7-22: MINIMUM DESIGN LOADS ON BUILDINGS AND OTHER STRUCTURES
- C. ACI 318-19: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- D. AISC STEEL CONSTRUCTION MANUAL (15TH EDITION)
- E. AWS D1.1: STRUCTURAL WELDING

1. THESE PLANS BELONG EXCLUSIVELY TO THE STRUCTURE, INCLUDING MAIN WIND FORCE RESISTING SYSTEM (MWFRS), COMPONENTS AND CLADDING (C&C), AND BASE RAIL ANCHORAGE. OTHER DESIGN ISSUES, INCLUDING BUT NOT LIMITED TO PROPERTY SET-BACKS, ELECTRICAL, PLUMBING, INGRESS/EGRESS, FINISH FLOOR SLOPES AND ELEVATIONS, OR OTHER LOCAL ZONING REQUIREMENTS ARE THE LIABILITY OF OTHERS.

2. THESE STRUCTURES ARE ENGINEERED AS CAPABLE OF SUPPORTING DEAD LOAD OF THE STRUCTURE AND LIVE AND WIND LOADS. UPGRADES NOT SPECIFICALLY ADDRESSED HEREIN, SUCH AS WINDOWS, DOORS, OR ANOTHER COMPONENT NOT LISTED IN THE BUILDING CODE APPROVED PRODUCT LIST, AND NOT PROVIDED AND INSTALLED BY THE CONTRACTOR, WHICH CAUSE ADDITIONAL LOADS ON THE STRUCTURE SHALL BE AT THE OWNER'S RISK. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR FAILURE OR STRUCTURAL DAMAGE DUE TO THE EXTRA LOAD.

3. ALL STEEL TUBING SHALL BE 50 KSI GALVANIZED STEEL. ALL FASTENERS SHALL BE ZINC COATED HARDWARE.

4. FOR VERTICAL PANELS, 26 GAUGE METAL PANELS SHALL BE FASTENED TO 18 GAUGE HAT CHANNELS (UNLESS OTHERWISE NOTED).

5. WIND FORCES GOVERN OVER SEISMIC FORCES.

DESIGN DATA	
DESIGN CRITERIA : RISK CATEGORY : OCCUPANCY CLASSIFICATION : CONSTRUCTION TYPE : DEFLECTION LIMIT =	ASCE/SEI 7 II R-3 II-B L/240
ULTIMATE DESIGN WIND SPEED (MPH) VULT = NOMINAL DESIGN WIND SPEED (MPH) VASD =	120 93
EXPOSURE CATEGORY : MEAN BUILDING HEIGHT (FT) = MINIMUM BUILDING PLAN DIMENSION (FT) =	C 15.25 35.00
END ZONE DIMENSION (FT) a = ROOF STYLE : ROOF PITCH (IN 12) :	3.50 GABLE 6.375
ENCLOSURE CLASSIFICATION : DEAD LOAD (DUE TO SELF-WEIGHT) = ROOF LIVE LOAD = GROUND SNOW LOAD =	PARTIALLY ENCLOSED 5 PSF 12 PSF 4 PSF
ADJUSTED C & C WIND PRESSURES (ASD) (PSF)	
EFFECTIVE WIND AREA FOR ROOF (SQ. FT) :	102.08
ZONE 1' (POSITIVE) = ZONE 1' (NEGATIVE) = ZONE 1' (OVERHANG) = ZONE 1 (POSITIVE) = ZONE 1 (NEGATIVE) = ZONE 1 (OVERHANG) = ZONE 2 (POSITIVE) = ZONE 2 (NEGATIVE) = ZONE 2 (OVERHANG) = ZONE 3 (POSITIVE) = ZONE 3 (NEGATIVE) = ZONE 3 (OVERHANG) =	NA NA NA 18.3 -21.7 -34.9 18.3 -28.5 -41.7 18.3 -30.3 -43.5
EFFECTIVE WIND AREA FOR WALLS (SQ. FT) :	50.00
ZONE 4 (POSITIVE) = ZONE 4 (NEGATIVE) = ZONE 5 (POSITIVE) = ZONE 5 (NEGATIVE) =	22.9 -24.5 22.9 -27.4

CONTRACTOR TO PROVIDE BUILDING CODE APPROVED PRODUCTS
TO MEET OR EXCEED THE DESIGN PRESSURES AS TABULATED.

ADJUSTED C & C WIND PRESSURES (ASD) (PSF) FOR OPENINGS	
SWING DOOR	
EFFECTIVE WIND AREA (SQ. FT) =	20.00
ZONE 4 (POSITIVE) =	24.1
ZONE 4 (NEGATIVE) =	-25.7
ZONE 5 (POSITIVE) =	24.1
ZONE 5 (NEGATIVE) =	-29.6
WINDOW	
EFFECTIVE WIND AREA (SQ. FT) =	6.00
ZONE 4 (POSITIVE) =	24.9
ZONE 4 (NEGATIVE) =	-26.5
ZONE 5 (POSITIVE) =	24.9
ZONE 5 (NEGATIVE) =	-31.3

SHEET NO.	DRAWING INDEX
S/01	GENERAL NOTES
S/02	PLAN/ELEVATIONS
S/03	FOUNDATION PLAN
S/04	DETAILS

PROPOSED METAL BUILDING FOUNDATION & SHELL
STRUCTURAL DESIGN ONLY. ALL OTHER REQUIRED
PERMITS TO BUILD OUT TO A HABITABLE LIVING SPACE
ARE TO BE BY OTHERS/ PER SEPERATE CERTIFICATE.
INCLUDING BUT NOT LIMITED TO, ELECTRICAL,
PLUMBING, ENERGY CALCS., ETC. FOR MORE
INFORMATION VISIT:
<https://gundersonengineering.com/order> OR SCAN
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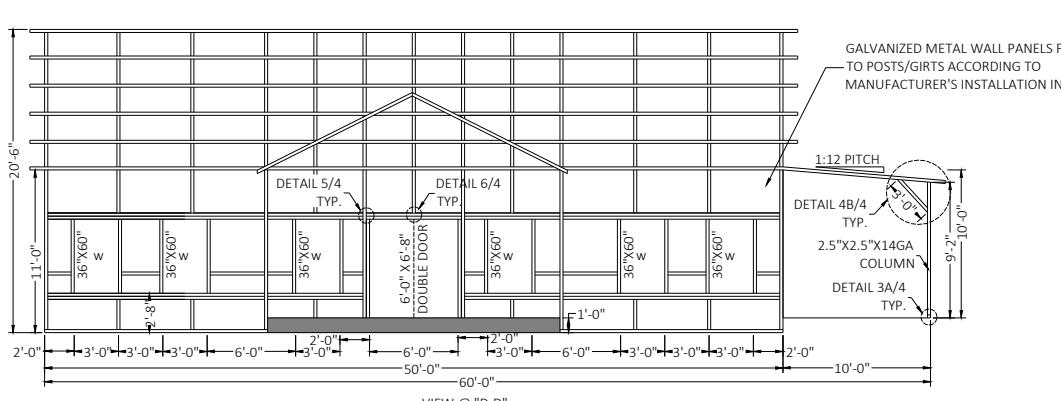
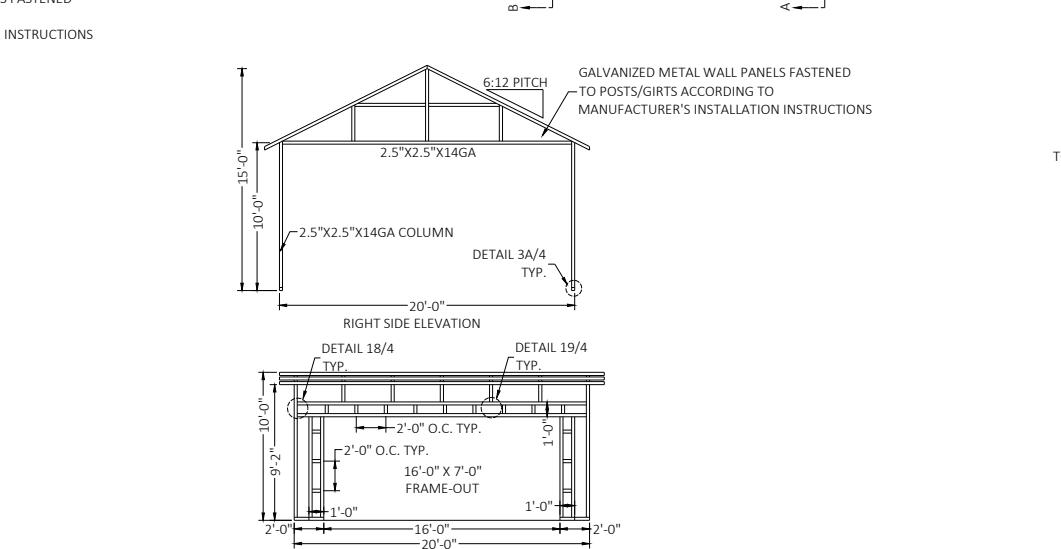
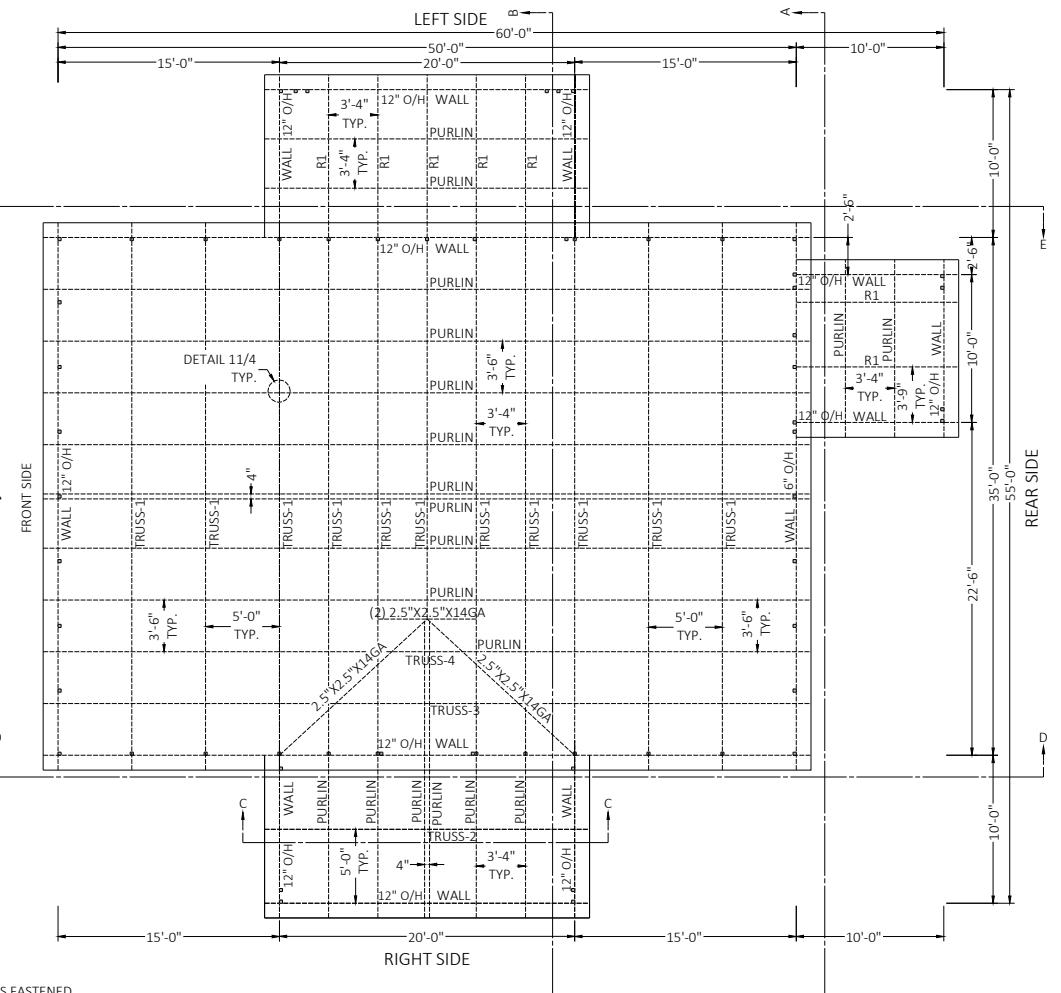
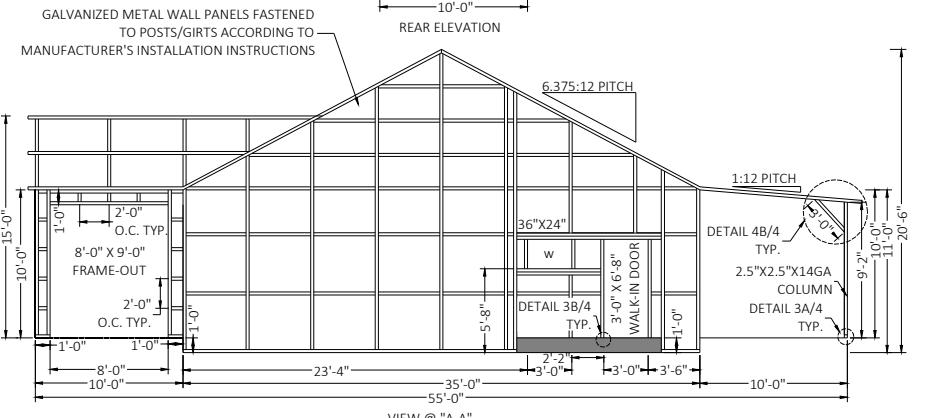
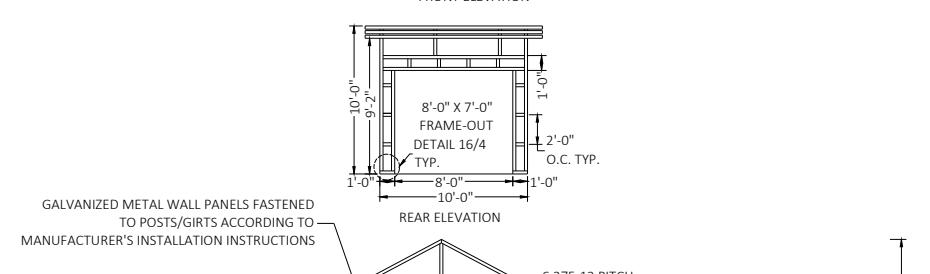
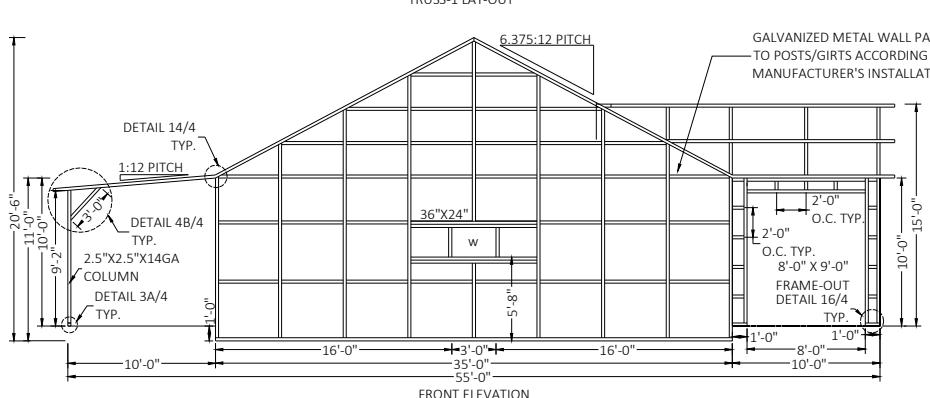
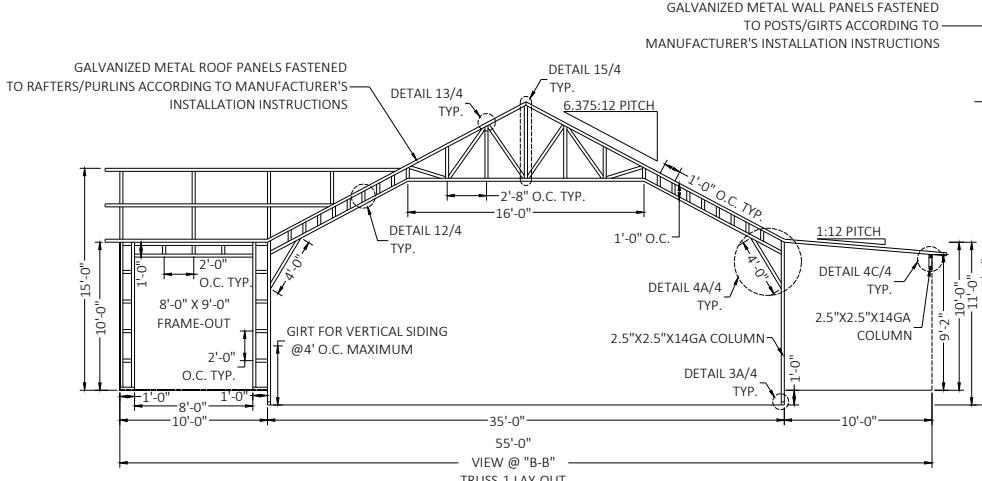
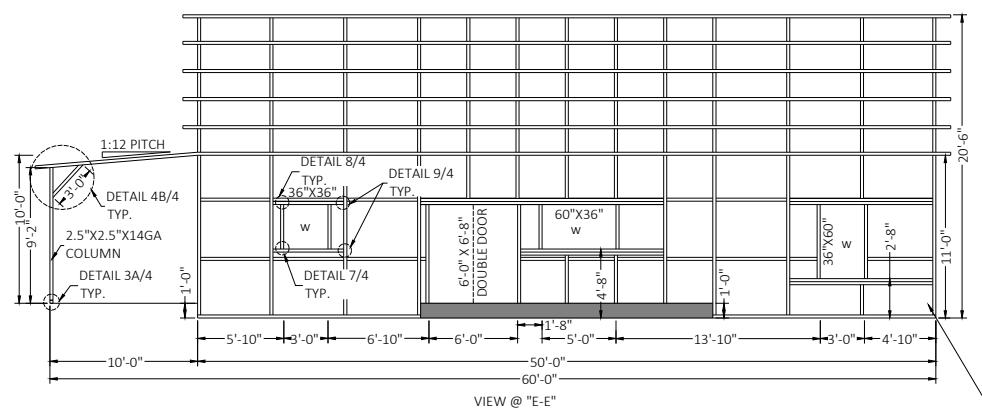
CA CERT. #30782

PROJECT NO. 2533060

CONTRACTOR:
BEST METAL BUILDINGS LLC
484 NW TURNER AVE
LAKE CITY, FL 32055
PROJECT ADDRESS:
RIVERA
PID# 01-6S-16-03761-173 TBD
SW MEADOW LANDS DR
LAKE CITY FL 32024

DESIGN DATE: 12/16/2025
REVISION 1: DATE
REVISION 2: DATE
DRAWN BY: SH
SCALE: NTS

01



This item has been digitally signed and sealed by Richard E. Walker, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

SCOPE OF WORK:
PROPOSED METAL BUILDING FOUNDATION & EXTERNAL SHELL
STRUCTURAL DESIGN ONLY. ALL OTHER REQUIRED PERMITS TO BUILD
OUT TO A HABITABLE LIVING SPACE ARE TO BE BY OTHERS, INCLUDING
BUT NOT LIMITED TO, ELECTRICAL, PLUMBING, ENERGY CALCULATIONS,
ETC.

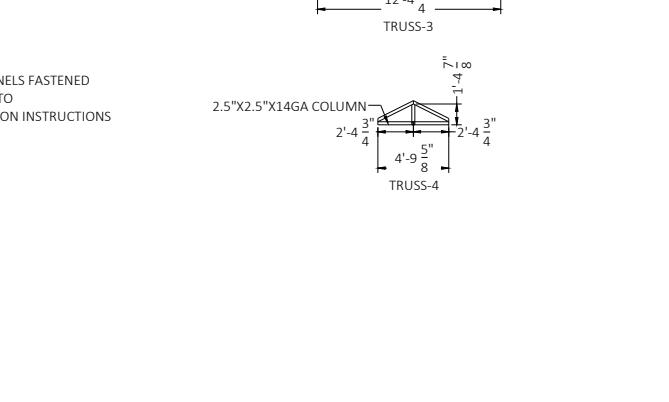
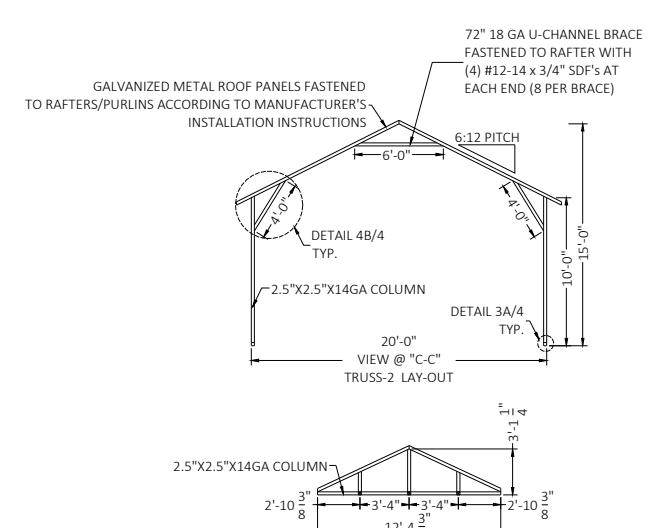
FRAMING NOTES:

1. ALL FRAME MEMBERS ARE 2.5"X2.5"X14 GA TS U.N.O.
2. MAX. RAFTER SPACING = 5'-0"
3. MAX. PURLIN SPACING = 4'-0"
4. U-BRACE = 2.5"X2"X18 GA CHANNEL
5. PURLIN = 1.5" X 18GA HAT CHANNEL
6. KNEE BRACE = 2.5"X2"X18GA CHANNEL
7. GIRT = 1.5" X 18GA HAT CHANNEL

□ = 2.5"X2.5"X14GA COLUMN
■ = (2) 2.5"X2.5"X14GA COLUMN

SIDE GIRT NOTE:

CUT GIRTS AS NECESSARY FOR WINDOW AND DOOR
OPENINGS. ROLL-UP AND SWINGING DOORS REQUIRE A
SECTION OF GIRT ACROSS THE TOP OF OPENING.
WINDOWS REQUIRE A SECTION OF GIRT TOP AND BOTTOM.



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02

GENERAL NOTES

CONCRETE MONOLITHIC SLAB DESIGN IS BASED ON A MINIMUM SOIL BEARING CAPACITY OF 2500 PSF.

CONCRETE:

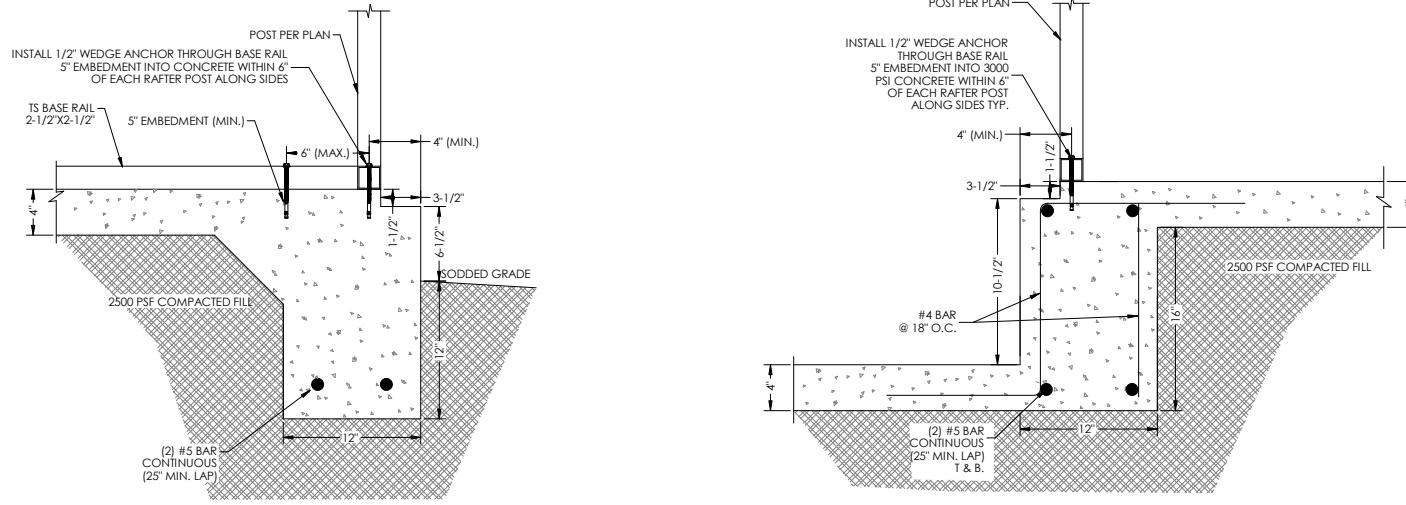
1. CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
2. ALL OPEN AREAS OF CONCRETE OUTSIDE OF THE PROPOSED STRUCTURE SHALL BE DESIGNED TO SLOPE AWAY FROM THE STRUCTURE.
3. CONCRETE SLAB FOR GARAGES/CARPORTS (PARKING OF AUTOMOBILES OR OTHER VEHICLES) SHALL BE SLOPED TOWARD THE DRAIN LINE OR THE MAIN VEHICLE ENTRY DOORWAY WITH A MINIMUM PITCH OF 1/4 INCH PER FOOT TO ENSURE PROPER DRAINAGE.
4. WHERE CONCRETE SPECIFICATIONS ARE REQUIRED, BY ONE OR MORE REGULATORY AGENCY, THE FOLLOWING SPECIFICATIONS ARE APPLICABLE:
 - a. CONCRETE SHALL CONFORM TO ASTM C94 FOR THE FOLLOWING COMPONENTS:
 - i. PORTLAND CEMENT TYPE 1 - ASTM C 150
 - ii. AGGREGATES - LARGE AGGREGATE 3/4 MAX. - ASTM C 33
 - iii. AIR ENTRAINING +/- 1% - ASTM C 260
 - iv. WATER REDUCING AGENT - ASTM C 494
 - v. CLEAN POTABLE WATER
 - vi. OTHER ADMIXTURES NOT PERMITTED
 - b. CONCRETE SLUMP AT DISCHARGE CHUTE NOT LESS THAN 3" OR MORE THAN 5". WATER ADDED AFTER BATCHING IS NOT PERMITTED.
 - c. PREPARE & PLACE CONCRETE PER AMERICAN CONCRETE INSTITUTE MANUAL OF STANDARD PRACTICE, PART 1, 2, & 3 INCLUDING HOT WEATHER RECOMMENDATIONS.
 - d. MOIST CURE OR POLYETHYLENE CURING PERMITTED.
 - e. PRIOR TO PLACING CONCRETE, TREAT THE ENTIRE SUBSURFACE AREA FOR TERMITES IN COMPLIANCE WITH THE BUILDING CODE (FOR RISK CATEGORY II, III, & IV STRUCTURES ONLY).
 - f. CONCRETE SLAB SHALL BE PLACED OVER A MIN. 6 MIL POLYETHYLENE VAPOR BARRIER (SLAB ONLY).

REINFORCING STEEL:

1. THE REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. THE SLAB REINFORCEMENT SHALL BE WELDED WIRE FABRIC MEETING ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT.
2. REINFORCEMENT MAY BE BENT IN THE FIELD OR SHOP AS LONG AS:
 - a. IT IS BENT COLD;
 - b. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT;
 - c. THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN SIX-BAR DIAMETERS.
3. FOR FOUNDATIONS, MINIMUM CONCRETE COVER OVER REINFORCING BARS SHALL BE PER ACI-318: 3 INCHES WHERE THE CONCRETE IS POURED AGAINST AND TEMPORARY IN CONTACT WITH THE EARTH OR UNPROTECTED FROM THE EARTH OR WEATHER, OTHERWISE 1-1/2 INCHES.

FROST PROTECTION:

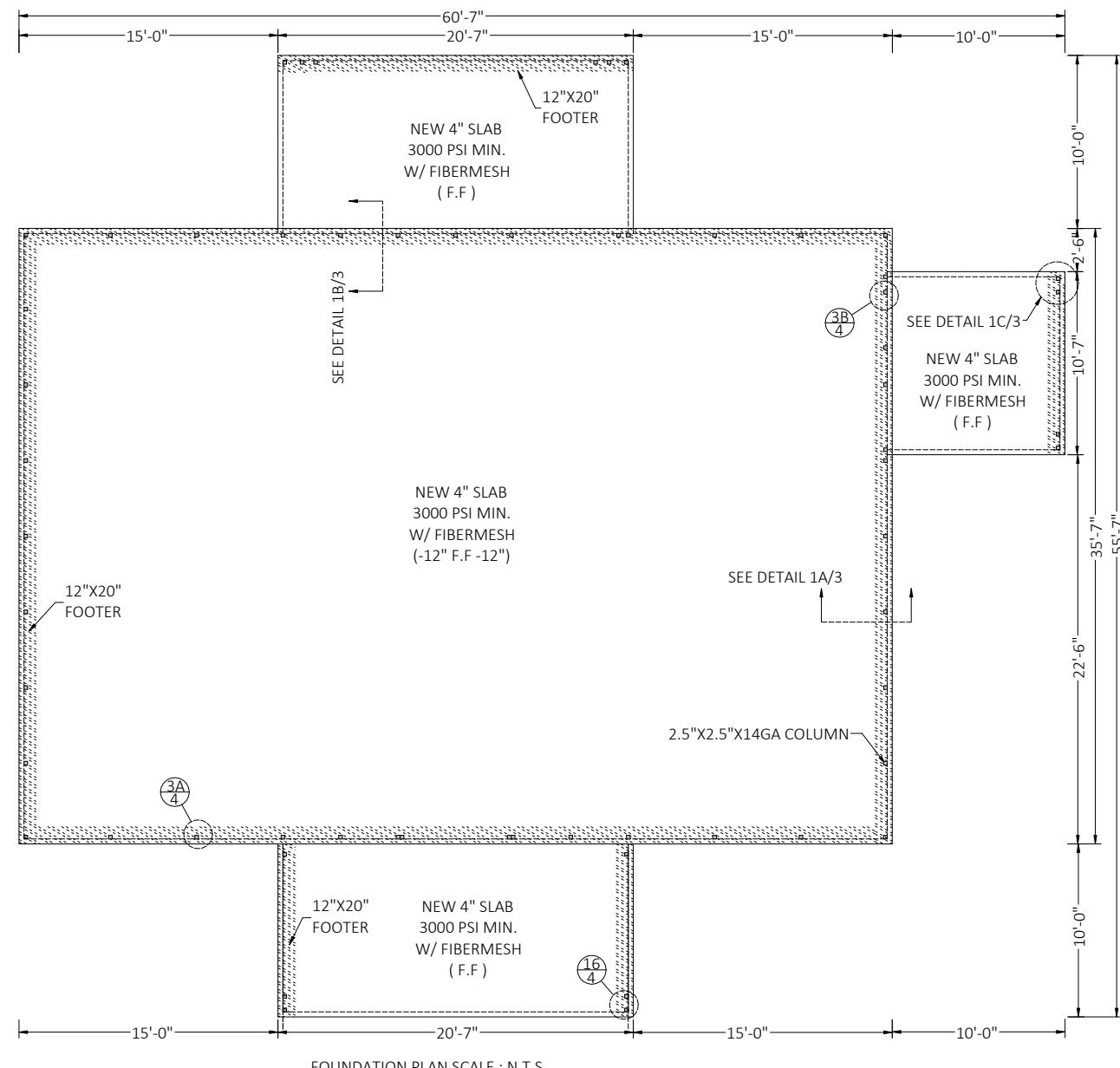
1. FOUNDATION SHALL BE PROTECTED AGAINST FROST USING RIGID FOAM INSULATION (EPS OR EQUIVALENT). FOR NO FROST PROTECTION OPTION, COORDINATE WITH LOCAL BUILDING CODE AND/OR BUILDING OFFICIAL REGARDING REQUIRED FOOTING DEPTH BASED ON FROST LINE DEPTH.



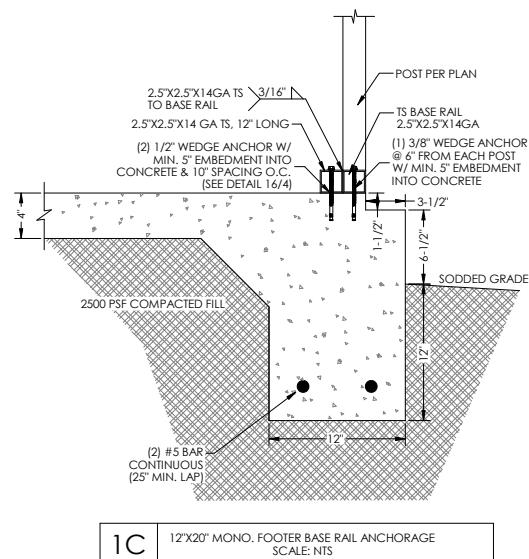
1A 12'x20' MONO. FOOTER BASE RAIL ANCHORAGE SCALE: NTS

1B 12'x20' MONO. FOOTER BASE RAIL ANCHORAGE SCALE: NTS

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1D CONTROL JOINT DETAIL SCALE: NTS



1C 12'x20' MONO. FOOTER BASE RAIL ANCHORAGE SCALE: NTS

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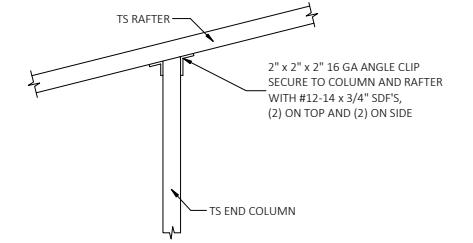
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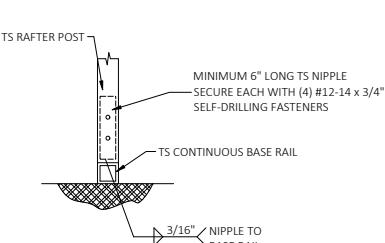
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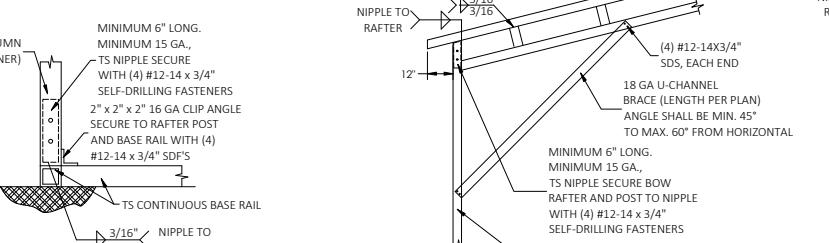
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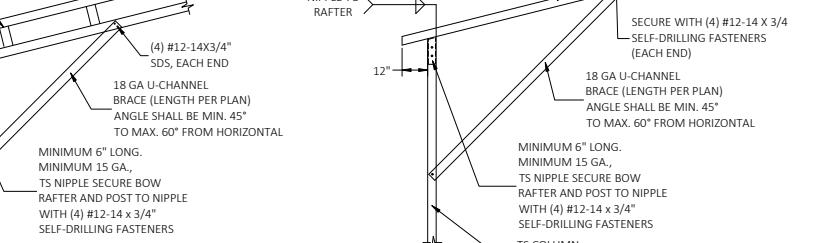
2 END POST/RAFTER CONNECTION DETAIL SCALE: NTS



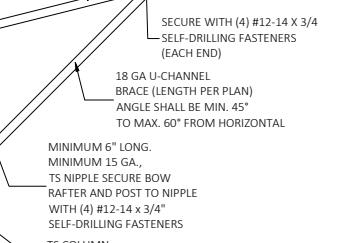
3A RAFTER POST/BASE RAIL CONNECTION DETAIL SCALE: NTS



3B END POST/BASE RAIL CONNECTION DETAIL SCALE: NTS

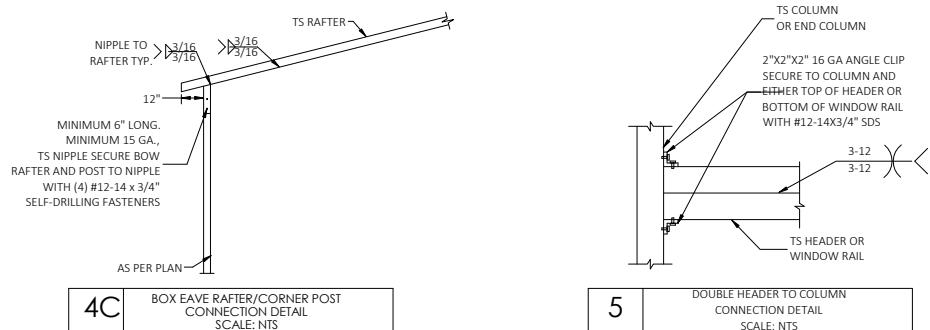


4A BOX EAVE RAFTER/BOX EAVE RAFTER CONNECTION DETAIL SCALE: NTS

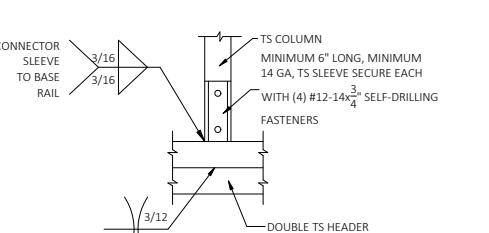


4B BOX EAVE RAFTER/BOX EAVE RAFTER CONNECTION DETAIL SCALE: NTS

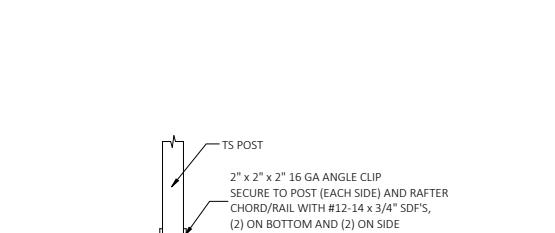
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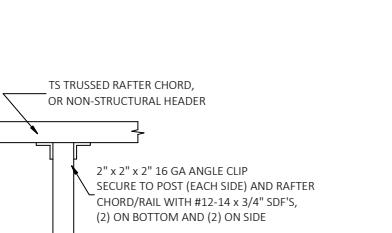
4C BOX EAVE RAFTER/BOX EAVE RAFTER CONNECTION DETAIL SCALE: NTS



5 DOUBLE HEADER TO COLUMN CONNECTION DETAIL SCALE: NTS



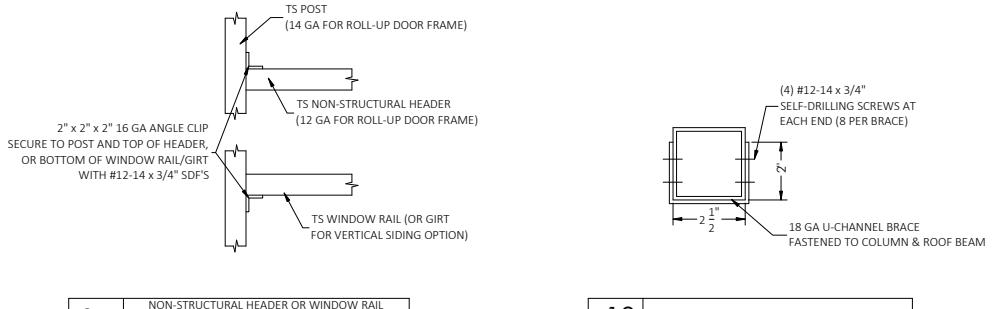
6 COLUMN/DIDOUBLE HEADER CONNECTION DETAIL SCALE: NTS



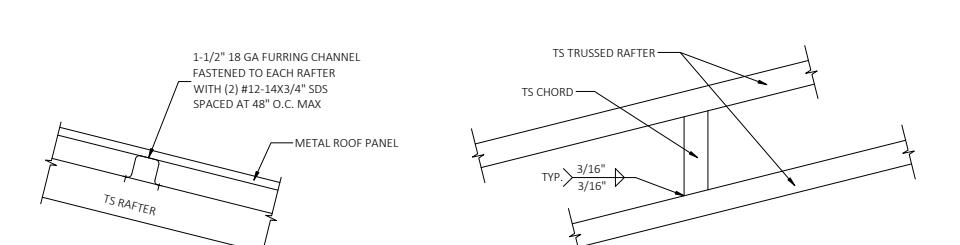
7 POST TO NON-STRUCTURAL HEADER, BASE, RAIL OR WINDOW RAIL CONNECTION DETAIL SCALE: NTS



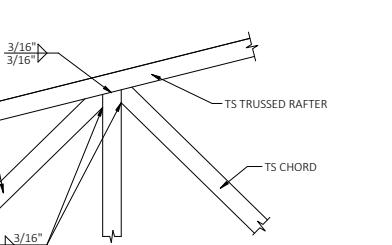
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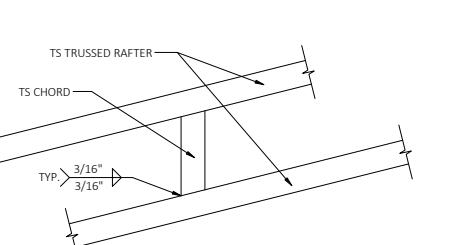
9 NON-STRUCTURAL HEADER OR WINDOW RAIL TO POST CONNECTION DETAIL SCALE: NTS



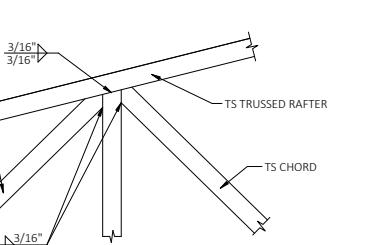
10 BRACE SECTION SCALE: NTS



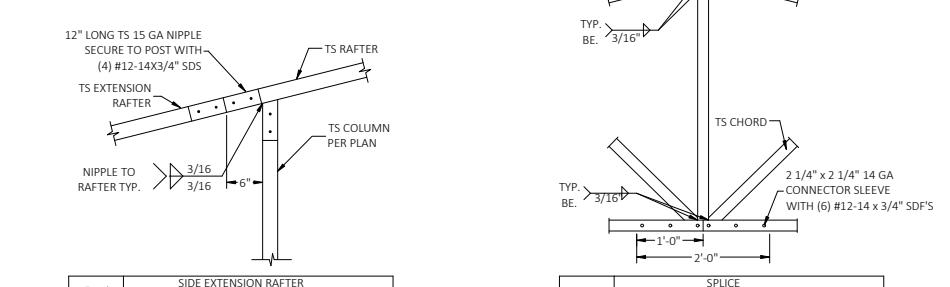
11 PANEL ATTACHMENT (ALTERNATE FOR VERTICAL ROOF PANELS) SCALE: NTS



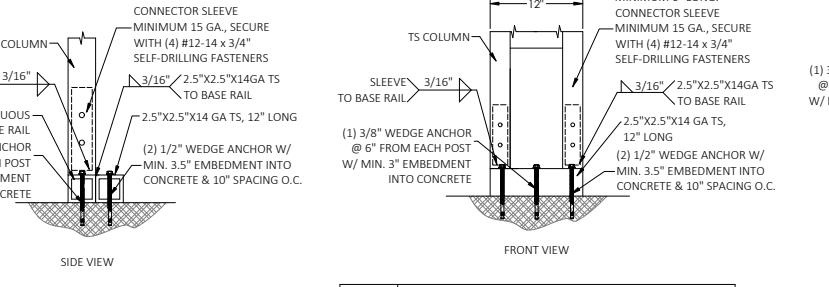
12 CHORD/RAFTER CONNECTION DETAIL SCALE: NTS



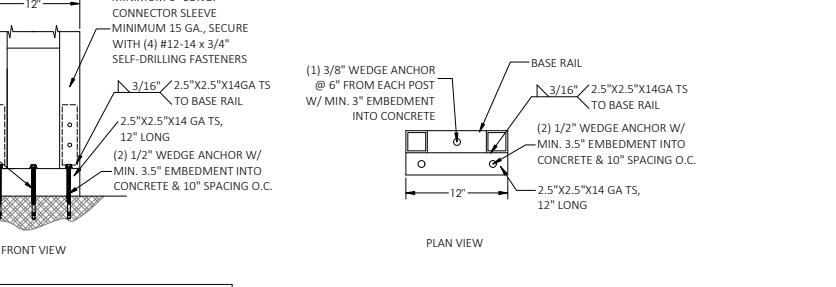
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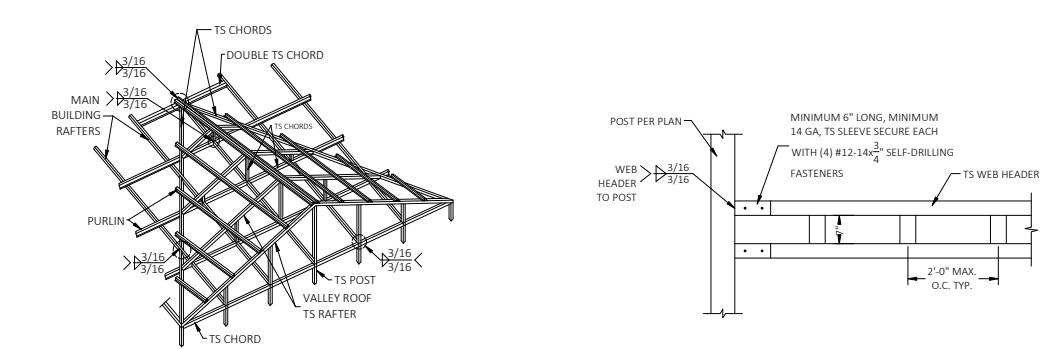
14 SIDE EXTENSION RAFTER/COLUMN CONNECTION DETAIL SCALE: NTS



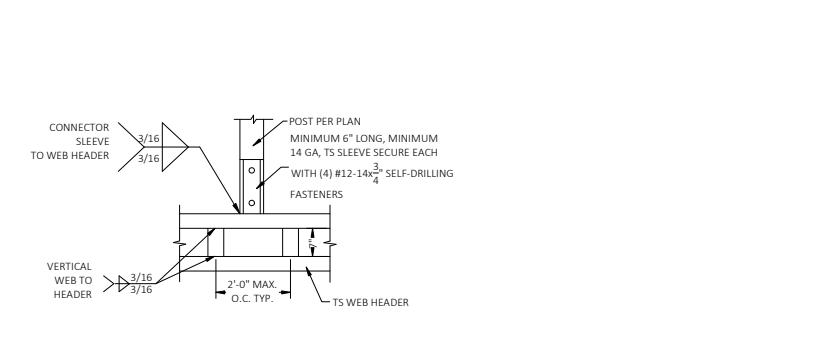
15 SPLICE CONNECTION DETAIL SCALE: NTS



16 POST/BASE RAIL CONNECTION DETAIL SCALE: NTS



17 VALLEY FRAMING CONNECTION DETAIL SCALE: NTS



18 WEB HEADER TO COLUMN CONNECTION DETAIL SCALE: NTS



19 COLUMN/WEB HEADER CONNECTION DETAIL SCALE: NTS

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