

ST. ANDREWS EPISCOPAL CHURCH MOREHEAD CITY, NORTH CAROLINA



- Architectural Design
- Planning
- Interiors

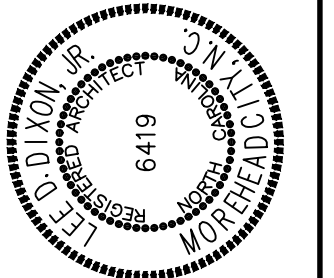
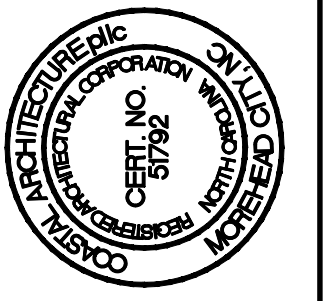


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ST. ANDREWS
EPISCOPAL CHURCH
MOREHEAD CITY, NORTH CAROLINA



DRAWING LIST

CS-1	COVER SHEET
S1.1	GENERAL NOTES AND FRAMING LAYOUT
S1.2	HORIZONTAL BRACE SECTION
S2.1	GENERAL NOTES AND DETAILS

COVER SHEET

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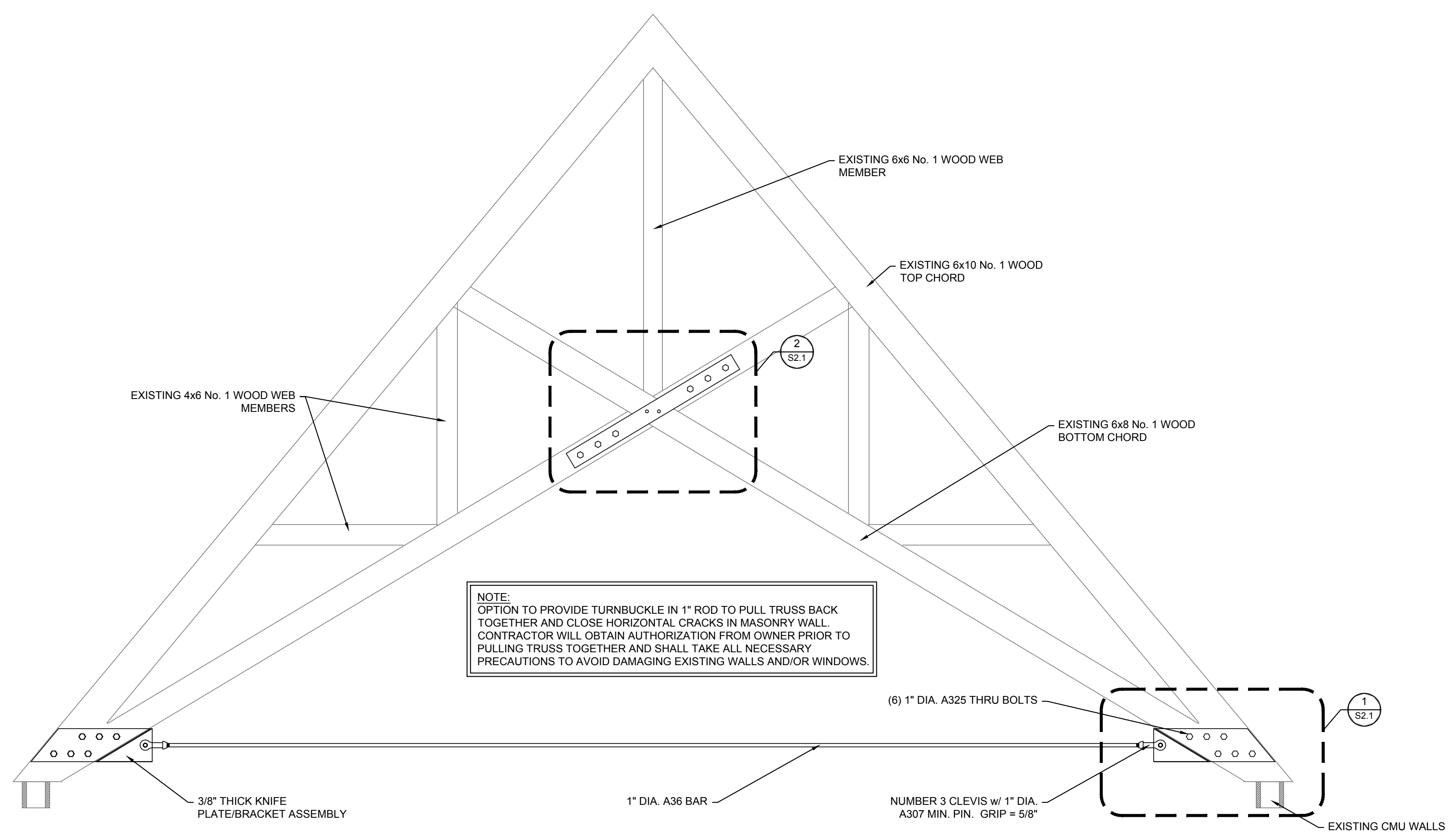
ISSUED: 4/9/18
DWG BY: LSA
CKD BY: LDD

REVISIONS

SHEET NO.
CS-1
OF

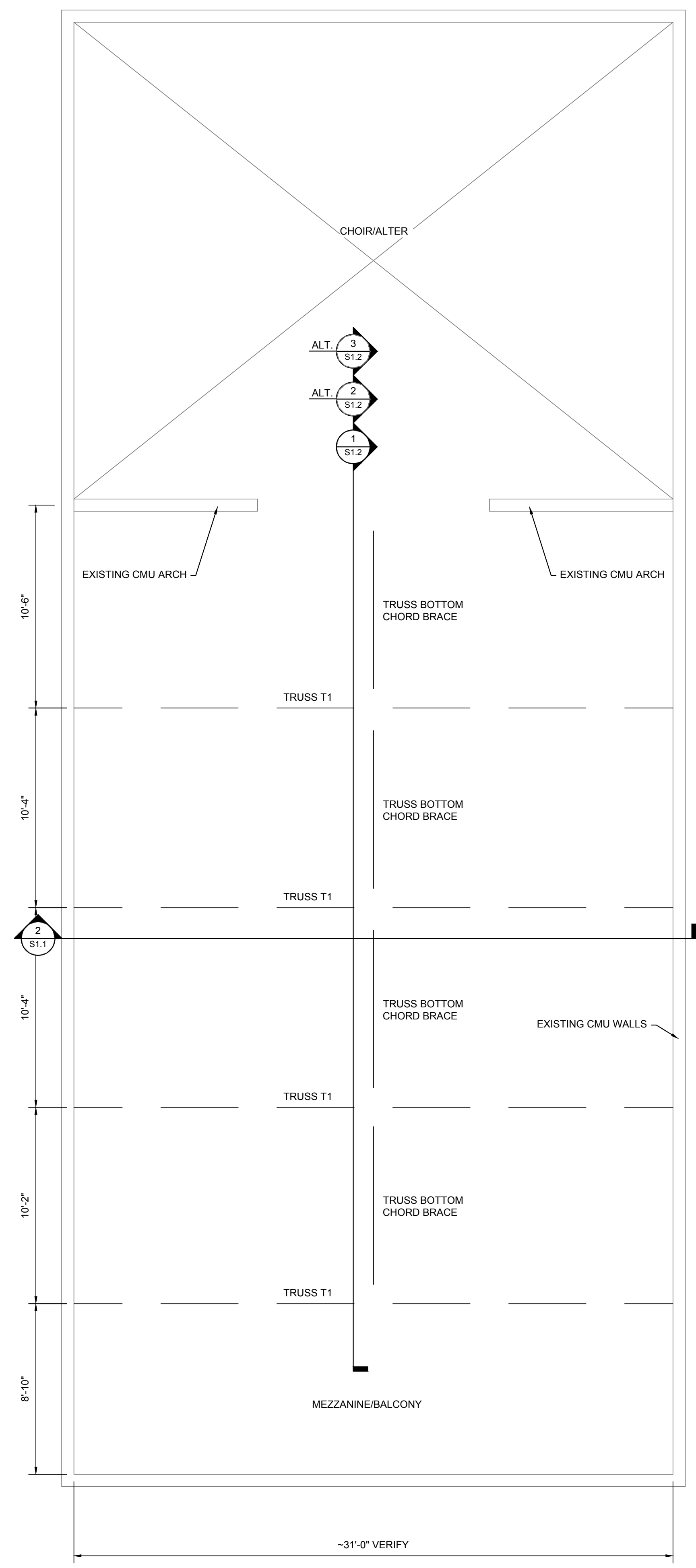


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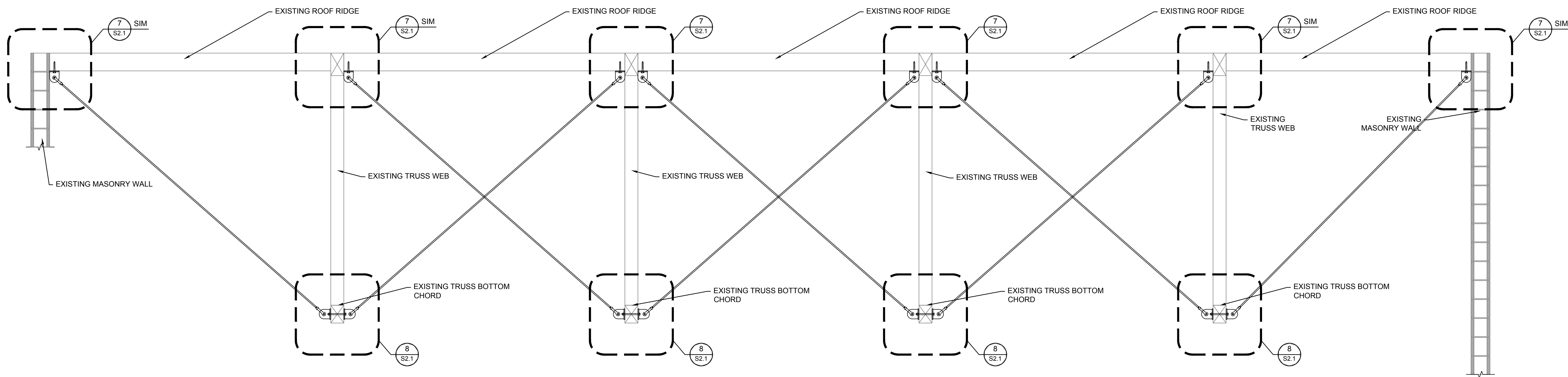


NOTE:
OPTION TO PROVIDE TURNBUCKLE IN 1" ROD TO PULL TRUSS BACK TOGETHER AND CLOSE HORIZONTAL CRACKS IN MASONRY WALL. CONTRACTOR WILL OBTAIN AUTHORIZATION FROM OWNER PRIOR TO PULLING TRUSS TOGETHER AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGING EXISTING WALLS AND/OR WINDOWS.

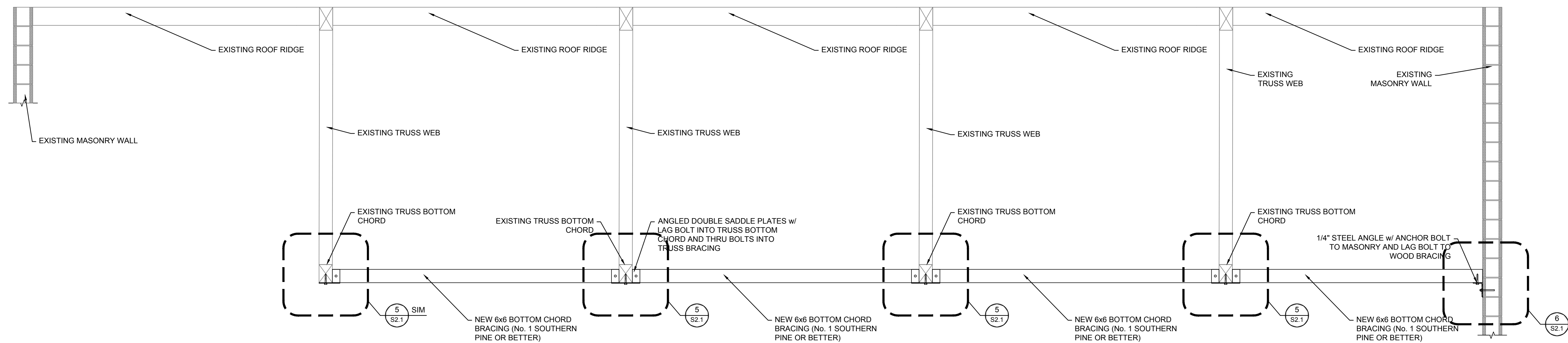
2 T1 TRUSS PROFILE
SCALE: 1/2" = 1'-0"



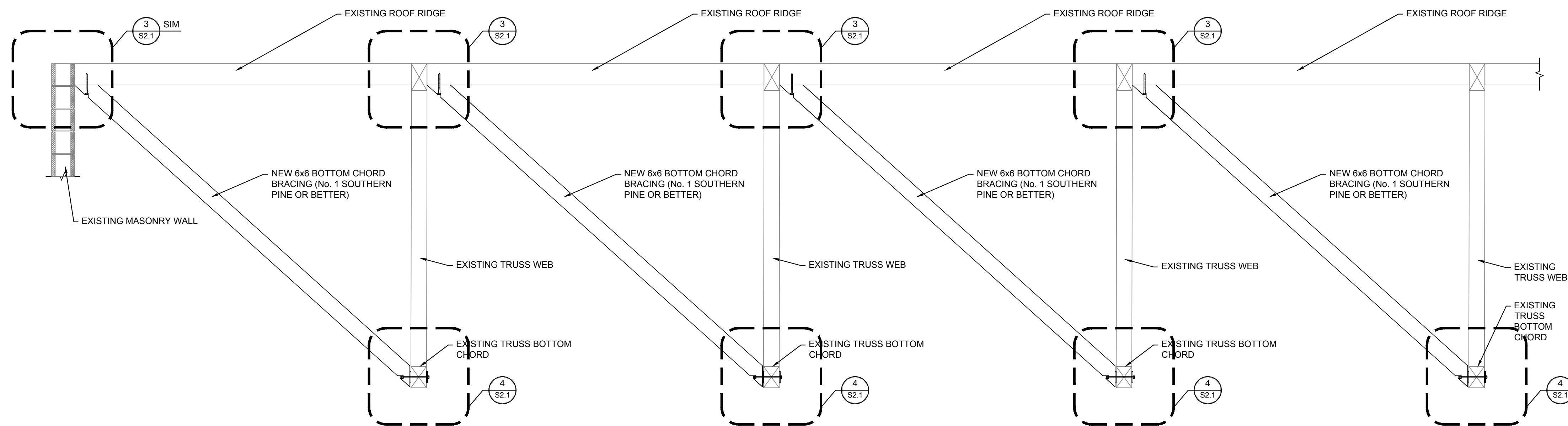
1 SANCTUARY LAYOUT
SCALE: 1/4" = 1'-0"



1 **DIAGONAL ROD BRACING SECTION**
SCALE: 1/2" = 1'-0"



2 **ALTERNATE 1: HORIZONTAL BRACING SECTION**
NOTE: SECTION IS AN ALTERNATE TO BRACING DETAIL 1/S1.2.
SCALE: 1/2" = 1'-0"



3 **ALTERNATE 2: DIAGONAL BRACING SECTION**
NOTE: SECTION IS AN ALTERNATE TO BRACING DETAIL 1/S1.2.
SCALE: 1/2" = 1'-0"

STRUCTURAL NOTES

- GENERAL NOTES:**
1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR SLEEVES, DEPRESSIONS AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
 2. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD AND WITH ALL OTHER DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
 3. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING (AND ACCOMPANYING FOOTINGS), GUYS OR TIEDOWNS.
 4. ADDITIONAL OBSERVATIONS AS A RESULT OF REJECTION OF WORK COMPLETED AND/OR ADDITIONAL OBSERVATIONS DUE TO DEFICIENCIES IN WORK OBSERVED WILL BE AT THE EXPENSE OF THE CONTRACTOR.
 5. ALL STRUCTURAL SHOP DRAWINGS TO BE REVIEWED BY JOB SUPERINTENDENT IN ADDITION TO ALL PERSONNEL DEEMED NECESSARY BY CONTRACTOR PRIOR TO SUBMITTAL TO ENGINEER FOR APPROVAL.
 6. ALL SHOP DRAWING RESUBMITTALS SHALL INCLUDE A WRITTEN DETAILED LIST OF LOCATIONS AND DESCRIPTIONS OF ALL CHANGES MADE FROM PREVIOUS SUBMITTAL. LIST SHALL BE SPECIFIC AND GENERAL NOTES SUCH AS "DIMENSIONS CORRECTED" ARE NOT ACCEPTABLE.

- DESIGN CODES:**
- 2012 NORTH CAROLINA STATE BUILDING CODE.
 AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, ALLOWABLE STRESS DESIGN.
 2005 NATIONAL DESIGN SPECIFICATIONS (NDS) FOR WOOD CONSTRUCTION

DESIGN LOADS:

THE STRUCTURAL SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED WITH THE FOLLOWING SUPERIMPOSED LOADINGS:

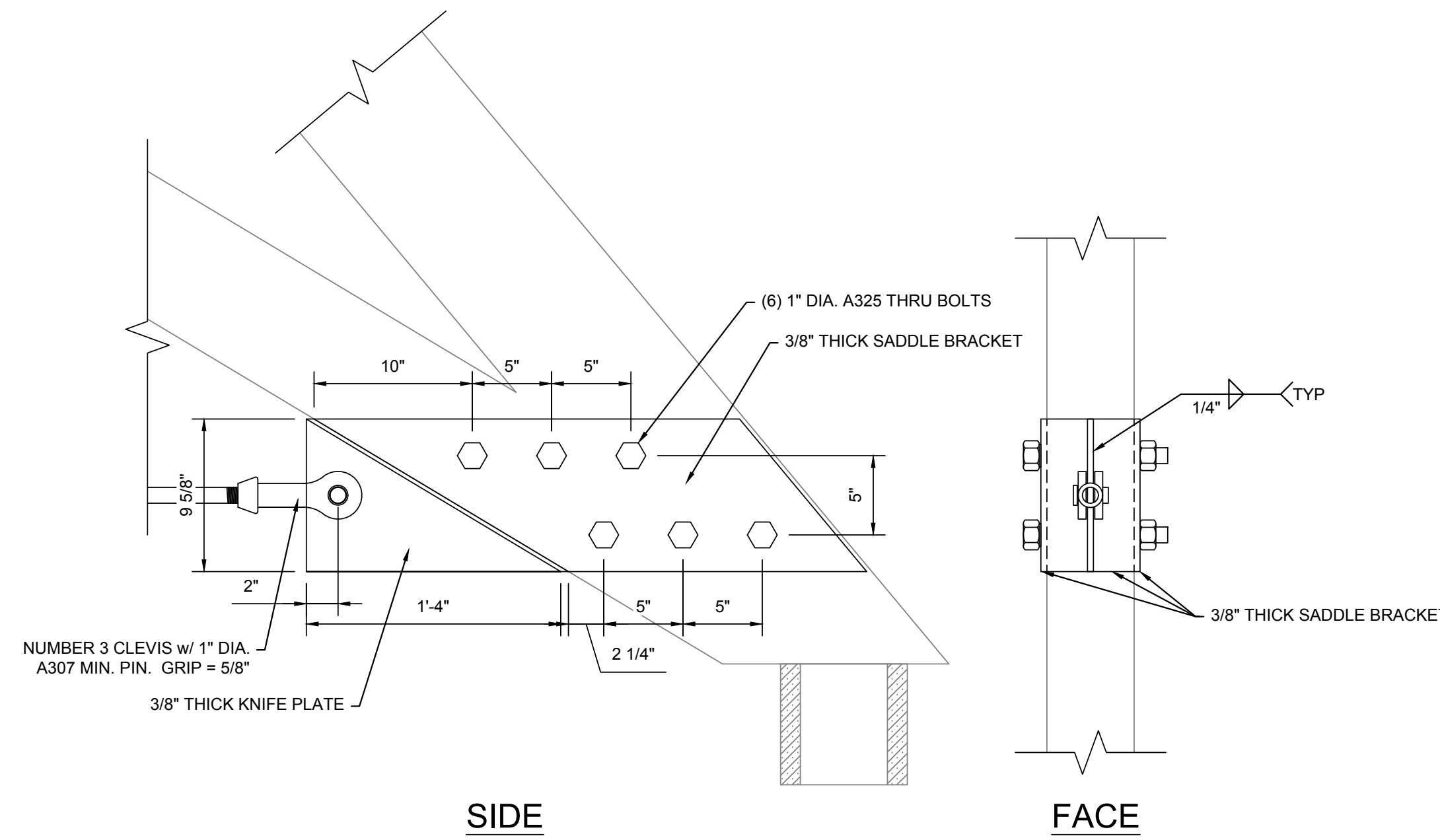
GROUND SNOW LOAD	P _g = 10 psf
DESIGN ROOF SNOW LOAD	P _f = 5 psf
SNOW EXPOSURE FACTOR	C _e = 1.0
SNOW LOAD IMPORTANCE FACTOR	I _s = 1.1
THERMAL FACTOR	C _t = 1.0
ROOF LIVE LOAD	L = 20 psf

WIND:	
BASIC WIND SPEED (3 SEC GUST)	132 mph
EXPOSURE CATEGORY	C
IMPORTANCE FACTOR	1.15
WIND BASE SHEARS	V _w = 17.7k V _y = 50.6k

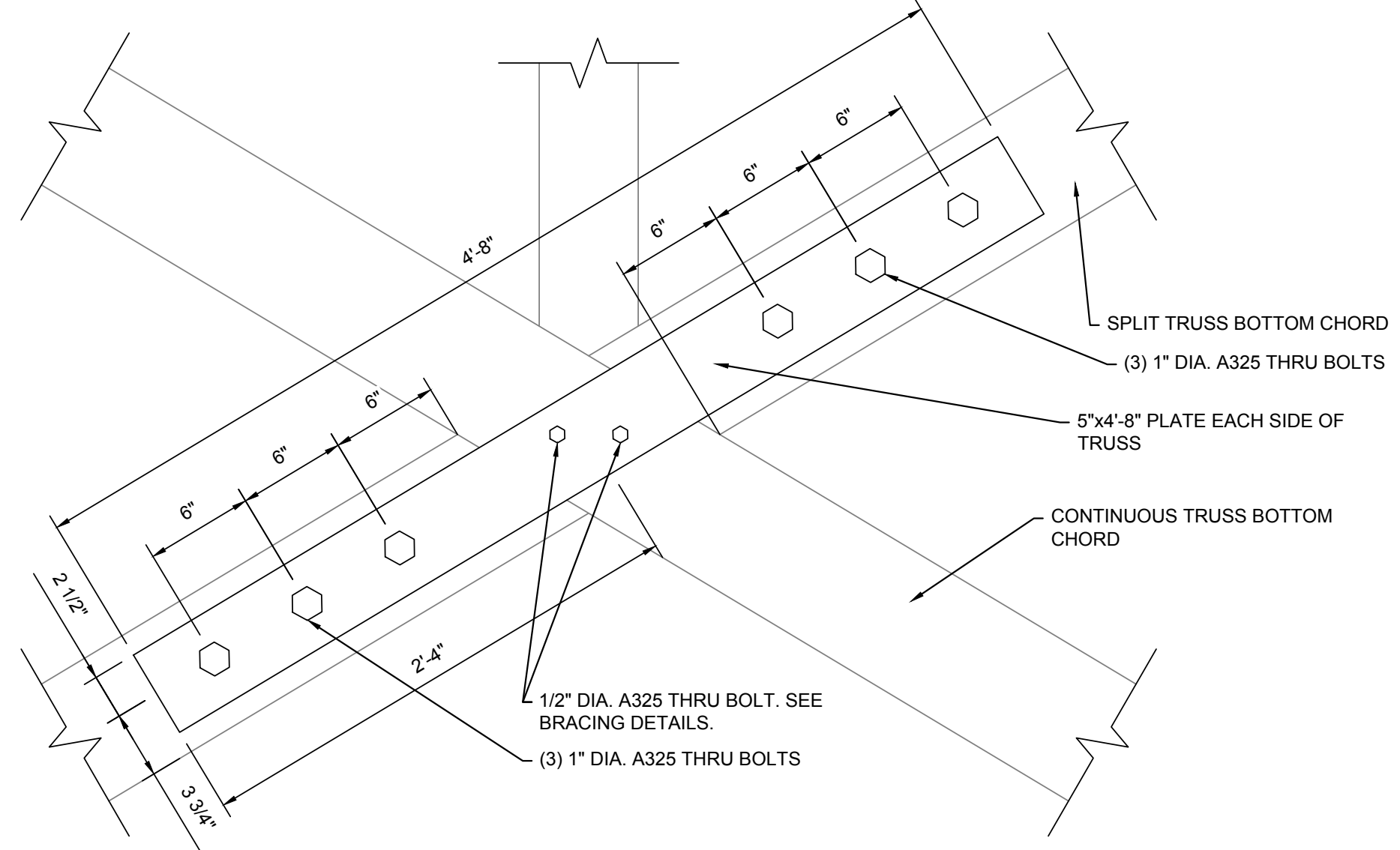
- STRUCTURAL STEEL:**
1. STEEL SHALL CONFORM TO ASTM A992 (F_y=50 ksi) FOR ALL W-SHAPES, AND ASTM A36 (F_y=36 ksi) FOR ALL OTHER MISCELLANEOUS SHAPES AND PLATES. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B (F_y=46 ksi). STRUCTURAL PIPE SHALL CONFORM TO ASTM A53, GRADE B, TYPE "E" OR "S" (F_y=42 ksi).
 2. STEEL SHALL CONFORM TO THE LATEST EDITION OF "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC (AISC).
 3. ALL STRUCTURAL STEEL EXPOSED TO EXTERIOR SHALL BE HOT-DIPPED GALVANIZED.
 4. ALL SHOP CONNECTIONS TO BE WELDED (UTILIZING E70XX ELECTRODES) AND FIELD CONNECTIONS TO BE BOLTED. UNLESS OTHERWISE NOTED, STEEL TO RECEIVE ONE SHOP COAT AND ONE FIELD TOUCH UP COAT OF APPROVED PAINT, EXCEPT WHERE GALVANIZED IS INDICATED ON THE DRAWINGS.
 5. WELDS FOR ALL EXPOSED STRUCTURAL STEEL SHALL BE GROUND SMOOTH UNLESS NOTED OTHERWISE.
 6. ALL BOLTED CONNECTIONS SHALL CONSIST OF 3/4" DIAMETER (MIN.) ASTM A325 HIGH STRENGTH BOLTS, UNLESS NOTED OTHERWISE. BEAM CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR TO SUPPORT AN END REACTION OF W_uL KIPS IN ACCORDANCE WITH PART 2 - "BEAM AND GIRDER DESIGN" OF THE MANUAL OF STEEL CONSTRUCTION (9th EDITION), BUT CONNECTIONS SHALL NOT HAVE LESS THAN 2 ROWS OF BOLTS. SEE ALSO DOUBLE ANGLE AND SHEAR TAB CONNECTION SCHEDULE(S) WHERE APPLICABLE.

- WOOD:**
1. STRUCTURAL & WOOD COMPONENTS HAVE BEEN DESIGNED AS SOUTHERN YELLOW PINE (SYP) OR HEM-FIR (HF) NO. 1 OR BETTER AND SHALL HAVE THE FOLLOWING MINIMUM ALLOWABLE FIBER STRESSES AND PROPERTIES:
- | | |
|---------------------------|---------------|
| MODULUS OF ELASTICITY (E) | 1,500,000 PSI |
| BENDING (F _b) | 1350 PSI |
| SHEAR (F _v) | 165 PSI |
2. WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PROTECTED OR PRESSURE TREATED IN ACCORDANCE WITH AITC-109.
 3. MEMBER SIZES SHOWN ARE NOMINAL UNLESS NOTED OTHERWISE.
 4. BOLTS IN WOOD ARE MACHINE BOLTS, UNLESS OTHERWISE NOTED. MACHINE BOLTS SHALL HAVE A SHANK DIAMETER WITHIN 1/16" OF THAT SPECIFIED. BOLTS ARE ASTM 307 STEEL. BOLT HOLES IN WOOD SHALL BE 1/32" OVERSIZE. WHERE STEEL IS CONNECTED TO WOOD, HOLES IN STEEL SHALL BE 1/16" OVERSIZE. PROVIDE STANDARD CUT WASHERS UNDER HEAD AND NUT WHERE BEARING IS AGAINST WOOD. WHERE STEEL SIDE PLATES ARE USED FOR CONNECTION, THE PLATE SHALL BE USED AS A TEMPLATE.
 5. ALL WOOD ELEMENTS SHALL BE ATTACHED PER THE FASTENING SCHEDULE OF THE 2012 NCSBC (TABLE 2304.9.1) UNLESS OTHERWISE NOTED.
 6. SEE ARCHITECTURAL DRAWINGS FOR WEATHER PROTECTION OF ALL EXPOSED WOOD MEMBERS.

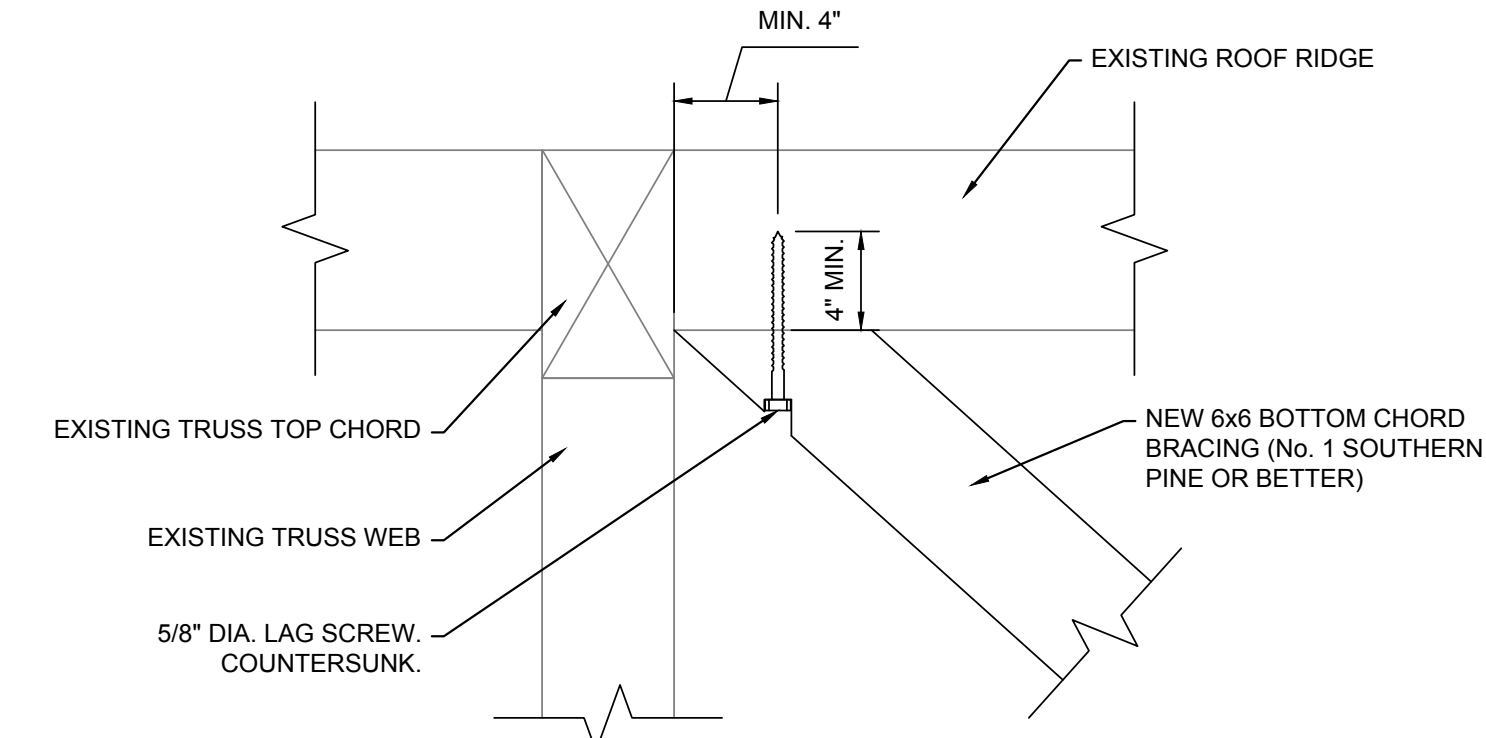
- WOOD FRAMING CONNECTORS:**
1. CONNECTOR MODEL NUMBERS SHOWN ARE "Strong-Tie" CONNECTORS AS MANUFACTURED BY "SIMPSON Strong-Tie Co.", 1450 DOOLITTLE DR., PO BOX 1568, SAN LEANDRO, CA 94577. SUBSTITUTIONS ARE ACCEPTABLE ONLY WITH THE APPROVAL OF THE STRUCTURAL ENGINEER.
 2. ALL CONNECTORS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM-A653. CONNECTORS IN CONTACT WITH PRESSURE TREATED MATERIALS SHALL HAVE G-185 COATING. CONNECTORS NOT IN CONTACT WITH TREATED MATERIALS SHALL HAVE STANDARD G-60 COATING.



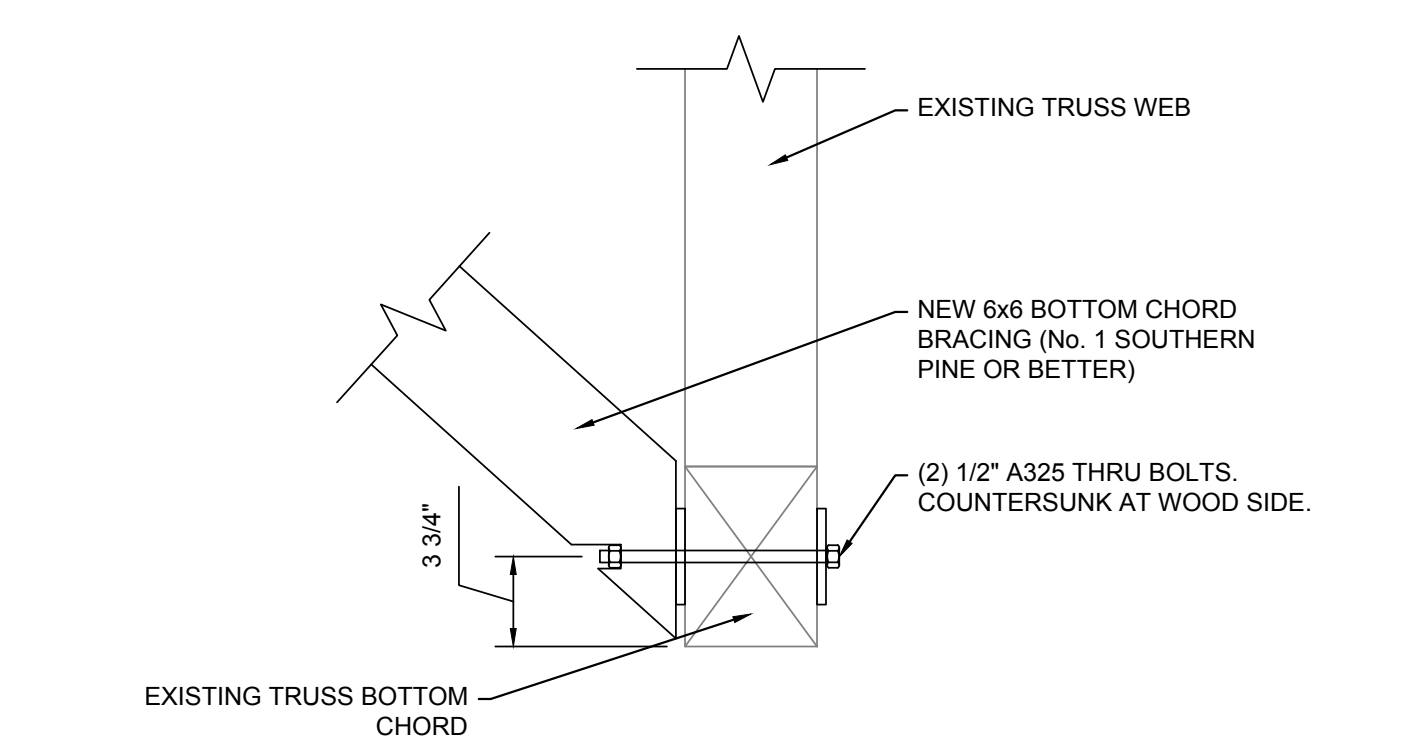
1 TENSION ROD ANCHORAGE
SCALE: 1-1/2" = 1'-0"



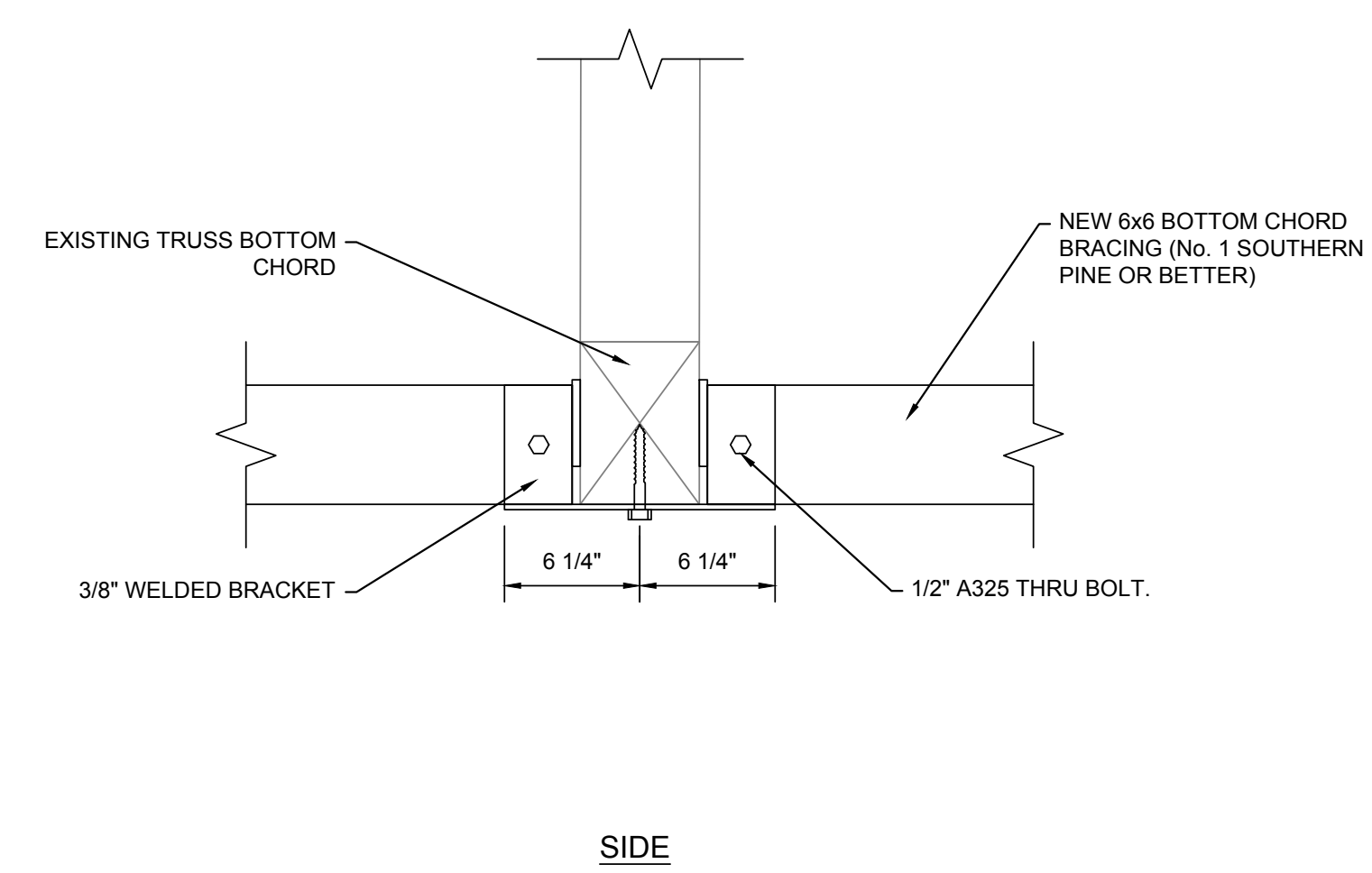
2 SPLIT BOTTOM CHORD REINFORCEMENT
SCALE: 1-1/2" = 1'-0"



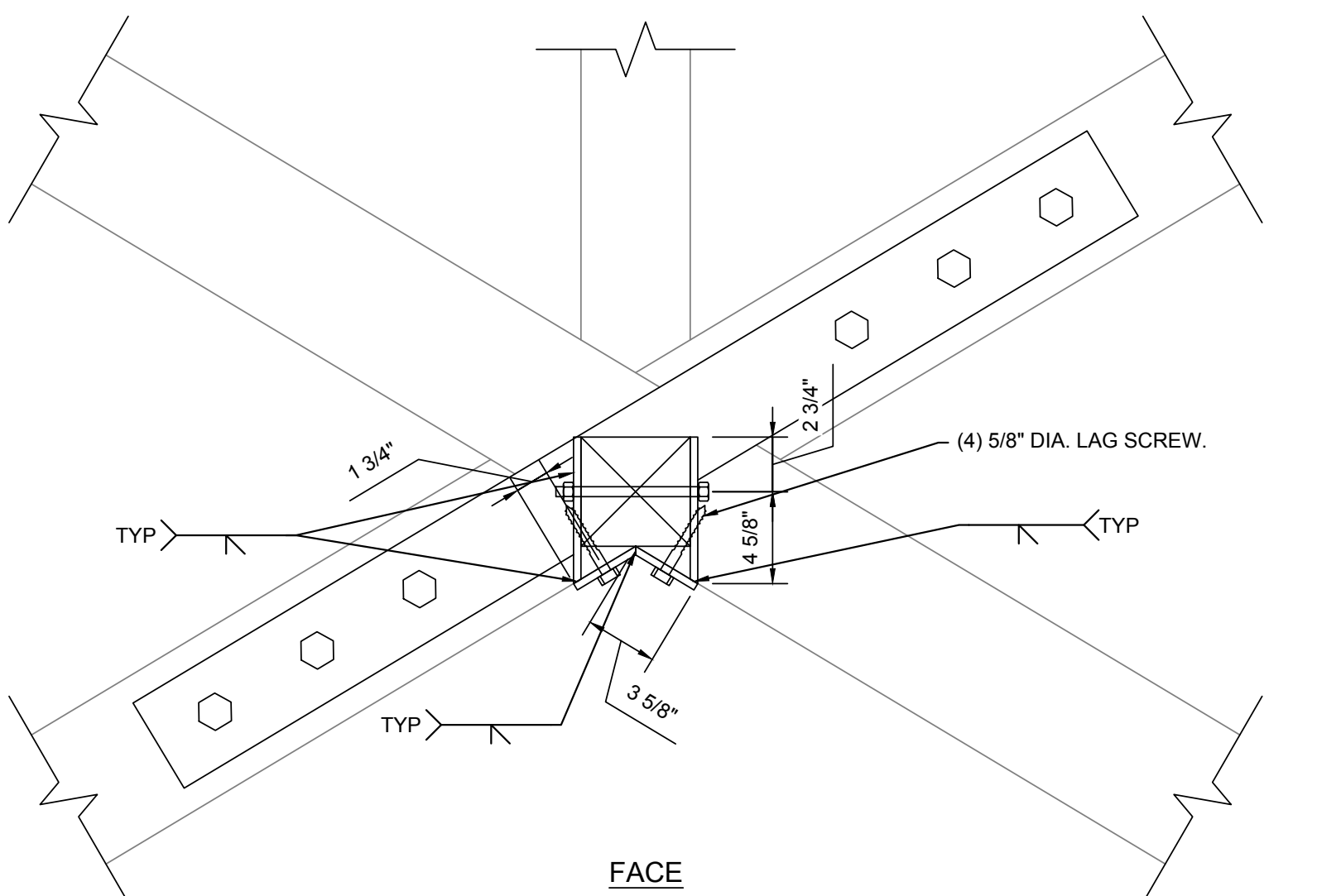
3 DIAGONAL BRACE ROOF RIDGE CONNECTION
SCALE: 1-1/2" = 1'-0"



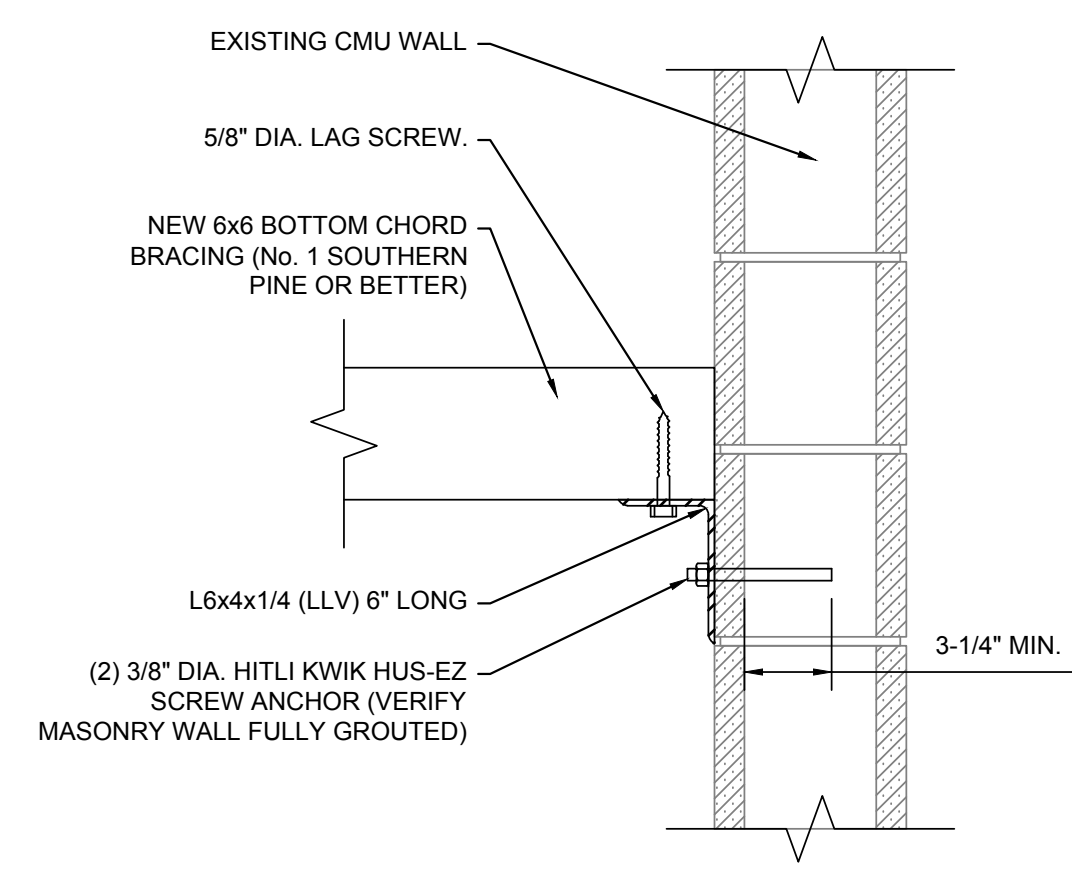
4 DIAGONAL BRACE BOTTOM CHORD CONNECTION
SCALE: 1-1/2" = 1'-0"



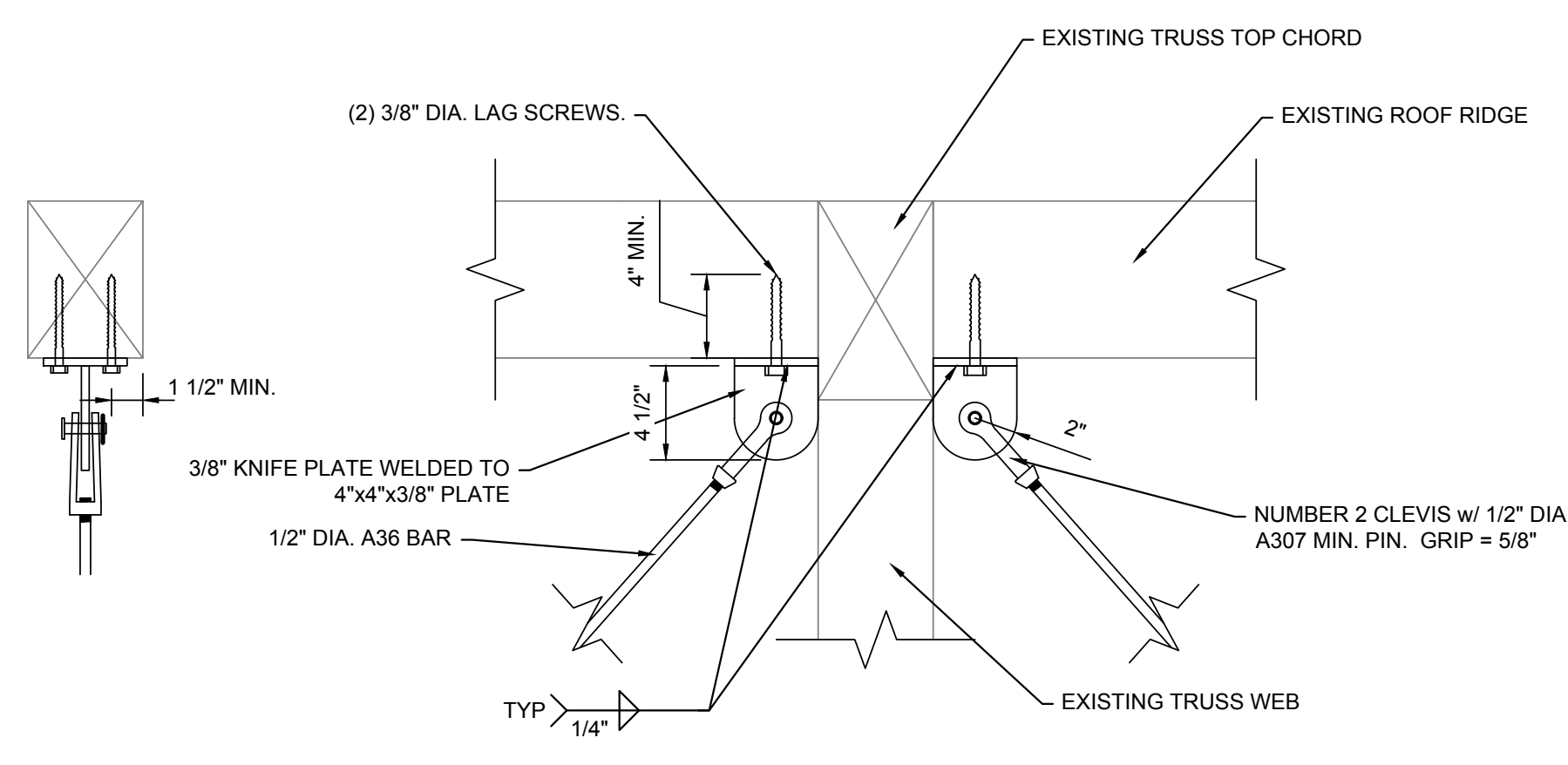
5 HORIZONTAL BRACE BOTTOM CHORD CONNECTION
SCALE: 1-1/2" = 1'-0"



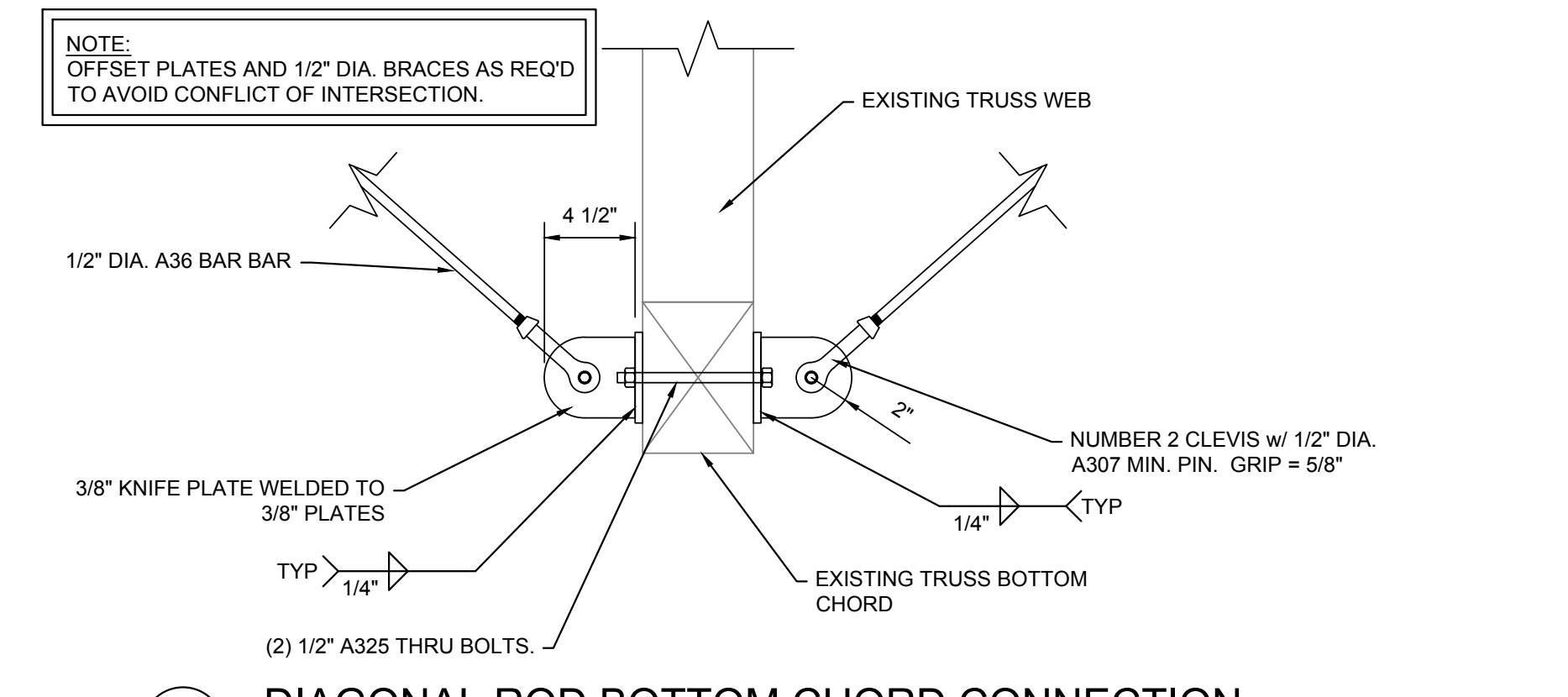
6 DIAGONAL BRACE BOTTOM CHORD CONNECTION
SCALE: 1-1/2" = 1'-0"



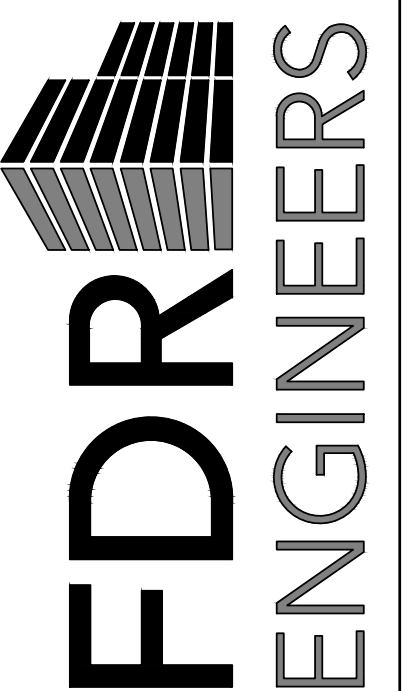
7 HORIZONTAL BRACE CONNECTION TO CMU
SCALE: 1-1/2" = 1'-0"



8 DIAGONAL ROD ROOF RIDGE CONNECTION
SCALE: 1-1/2" = 1'-0"



9 DIAGONAL ROD BOTTOM CHORD CONNECTION
SCALE: 1-1/2" = 1'-0"



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Project Name

Sheet Title

DESIGNED BY:	KJK	
DRAWN BY:	KJK	
APPROVED BY:	JMF	
PROJECT #:	17-201	
DATE:	03/27/2018	
No.	Revision	Date

Sheet
S2.1

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