

STRUCTURAL ROOF PLAN
3/16"=1'-0"

PLAN NOTES:

- REMOVE EXISTING 2x10 HIPS AND CUT BACK EXISTING RAFTERS AS REQUIRED TO INSTALL NEW LVL. CONNECT RAFTERS TO NEW LVL WITH SIMPSON STRONG-TIE LSSJ28 JACK HANGERS FOR FRAMING MEMBERS SHORTER THAN 8'-0" LONG. SUPPORT WITH SIMPSON STRONG-TIE SUR/L26 FOR FRAMING MEMBERS 8'-0" AND LONGER.

GENERAL NOTES

- DIMENSIONS INDICATED ON THE DRAWINGS AND OTHER EXISTING CONDITIONS INFORMATION ARE TAKEN FROM THE MITT CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO PERFORMING AFFECTED AREAS OF THE WORK.
- IT IS INTENDED FOR THE LIBRARY TO REMAIN OPERATIONAL THROUGHOUT THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL COORDINATE ALL ACTIVITIES WITH THE OWNER'S REPRESENTATIVE. ACCESS TO THE ATTIC FROM BELOW IS LIMITED TO PERSONNEL AS PERMITTED. IT IS INTENDED THAT AREAS OF ROOF DECK WILL BE REMOVED FOR ALL MATERIALS AND EQUIPMENT ACCESS. THE CONTRACTOR SHALL PROVIDE ADDITIONAL DECKING AS REQUIRED TO WORK FROM THE ATTIC FRAMING, MATERIAL STORAGE AND WORKERS' OPERATIONS SHALL BE DONE IN A MANNER THAT AVOIDS OVERLOADING AND EXCESSIVE DEFLECTIONS TO EXISTING CEILING CONSTRUCTION.
- ANY ROOF OPENINGS SHALL BE CLOSED AT THE END OF EACH WORKING DAY. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL INTERIOR FINISHES FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS AND WEATHER EXPOSURE. ANY DAMAGE THAT OCCURS DURING THE CONSTRUCTION PERIOD THAT IS ATTRIBUTED TO THE CONTRACTOR'S OPERATIONS OR FROM INSUFFICIENT WEATHER PROTECTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- WHERE NEW STEEL BEAMS ARE SPECIFIED, IT WILL BE NECESSARY TO CUT EXISTING STUDS THAT SUPPORT ROOF FRAMING. PROVIDE TEMPORARY SUPPORTS FOR EXISTING ROOF FRAMING BEFORE CUTTING EXISTING LOAD-BEARING STUDS. MAINTAIN TEMPORARY SUPPORTS IN PLACE UNTIL NEW STEEL FRAMING IS SECURED AND STUDS ARE FULLY SUPPORTED.

DESIGN NOTES


- ROOF REINFORCEMENTS ARE DESIGNED FOR COMPLIANCE WITH THE SNOW LOAD PROVISIONS OF THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE AND THE 2010 EDITION OF 'MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES' BY THE AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE7-10). SNOW LOADS UTILIZED ARE BASED ON THE FOLLOWING CRITERIA:
 A. GROUND SNOW LOAD $P_g = 60$ PSF.
 B. FLAT ROOF SNOW LOAD $P_f = 46.2$ PSF.
 C. SNOW EXPOSURE FACTOR $C_e = 1.0$.
 D. SNOW IMPORTANCE FACTOR $I_s = 1.0$.
 E. THERMAL FACTOR $C_t = 1.1$.
 F. UNBALANCED SNOW LOADS IN ACCORDANCE WITH ASCE7-10.

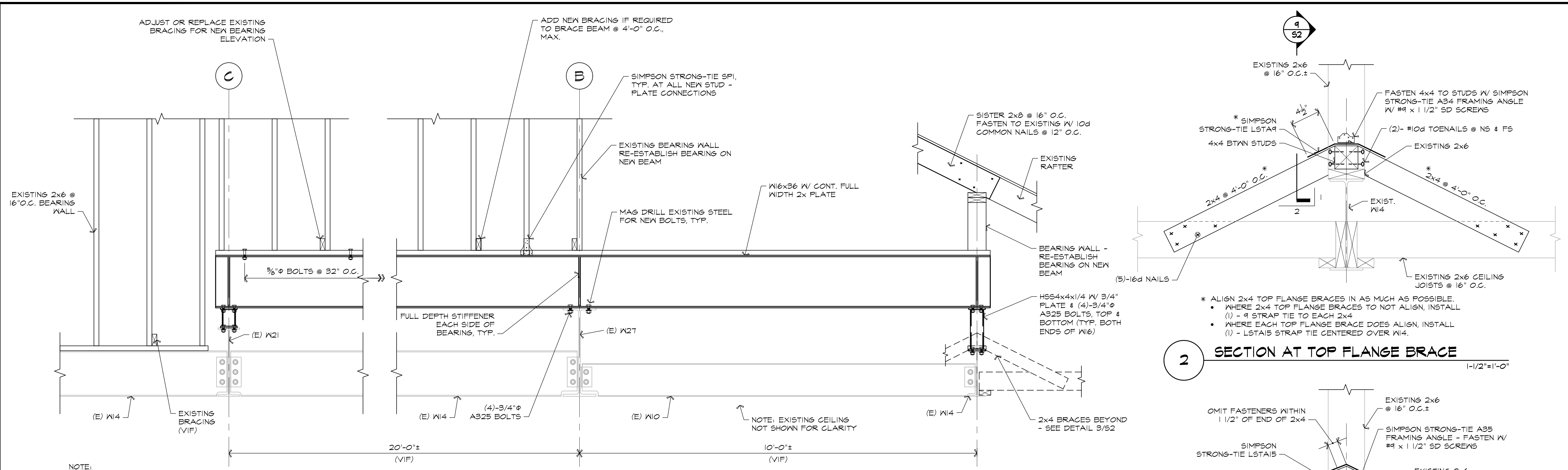
WOOD FRAMING NOTES

- REMOVE EXISTING 5/8" PLYWOOD ROOF DECK AS REQUIRED TO INSTALL REINFORCEMENTS. REMOVE WHOLE PANELS TO PERMIT WHOLE PANEL REPLACEMENT. REPLACEMENT ROOF DECK SHALL BE NEW PANELS AS FOLLOWS:
 A. APA RATED SHEATHING 5/8" THICK PANELS TO MATCH EXISTING ADJACENT PANELS.
 B. MINIMUM SPAN RATING 40/20.
 C. EXPOSURE 1 OR EXPOSURE 2.
- LAY OUT REPLACEMENT PANELS WITH THE LONG DIMENSION ACROSS SUPPORTS AND WITH SHORT ENDS POSITIONED OVER A SUPPORT. FASTEN TO SUPPORTS WITH 10D NAILS. SPACE NAILS AT 6" ON CENTER AT SUPPORTED PANEL EDGES AND AT 12" ON CENTER AT INTERMEDIATE SUPPORTS.
- PROVIDE FASTENERS FOR CONNECTING WOOD FRAMING AS INDICATED. WHERE NOT INDICATED, COMPLY WITH TABLE 2304.10.1 IN THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE.
- PROPRIETARY WOOD CONNECTORS ARE IDENTIFIED AS PRODUCTS FROM SIMPSON STRONG-TIE. SUBSTITUTIONS REQUIRE APPROVAL. SUBMIT REQUESTED SUBSTITUTIONS WITH ALL PRODUCT DATA REQUIRED FOR STRUCTURAL EVALUATION. ALLOW 2 WEEKS FOR REVIEW.
- WHERE PROPRIETARY CONNECTORS ARE SPECIFIED, INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. USE ALL SPECIFIED FASTENERS WITHOUT SUBSTITUTION UNLESS OTHERWISE NOTED ON THE DRAWINGS. WHERE MORE THAN ONE FASTENER SPECIFICATION EXISTS, INSTALL THE MAXIMUM FASTENING.
- NAILS SHALL COMPLY WITH ASTM F1667. PROVIDE NAILS OF THE FOLLOWING MINIMUM DIMENSIONS:
 A. $2d = 2-3/8"$ LONG X 0.113" DIAMETER
 B. $10d = 2-1/8"$ LONG X 0.12" DIAMETER
 C. AT ROOF DECK NAILING, USE $10d = 3"$ LONG X 0.148" DIAMETER.
 D. $16d = 3-1/4"$ LONG X 0.148" DIAMETER.
- INSTALL TOENAILS AT AN ANGLE 30 DEGREES FROM THE AXIS OF THE SUPPORTED MEMBER. INSTALL WITH THE TIP LOCATED AT A DISTANCE OF 1/3 OF THE NAIL LENGTH FROM THE END OF THE SUPPORTED MEMBER.
- LAG SCREWS SHALL COMPLY WITH ANSI/ASME B18.2.1. FOR 1/2" DIAMETER LAG SCREWS, THE MAXIMUM PILOT HOLE FOR THE THREADED PORTION OF THE SCREW SHALL BE 5/8".
- EXISTING CONDITIONS REQUIRE 2x6 STUDS TO ALIGN WITH RAFTERS. IT WILL BE REQUIRED TO INSTALL ADDITIONAL STUDS WHERE THAT DOES NOT OCCUR.
- NEW LUMBER UTILIZED FOR REINFORCEMENTS SHALL BE #2 GRADE OR BETTER OF SPRUCE-PINE-FIR GRADED BY NLGA.
- LVL DESIGNATES LAMINATED VENEER LUMBER. PROVIDE PRODUCTS FROM ONE OF THE FOLLOWING SUPPLIERS:
 A. VERSA-LAM 2.0 3100 FROM BOISE CASCADE.
 B. MICROLLAM FROM TRUS JOIST WEYERHAEUSER.
 C. CP-LAM FROM COASTAL PRODUCTS.

STEEL FRAMING NOTES

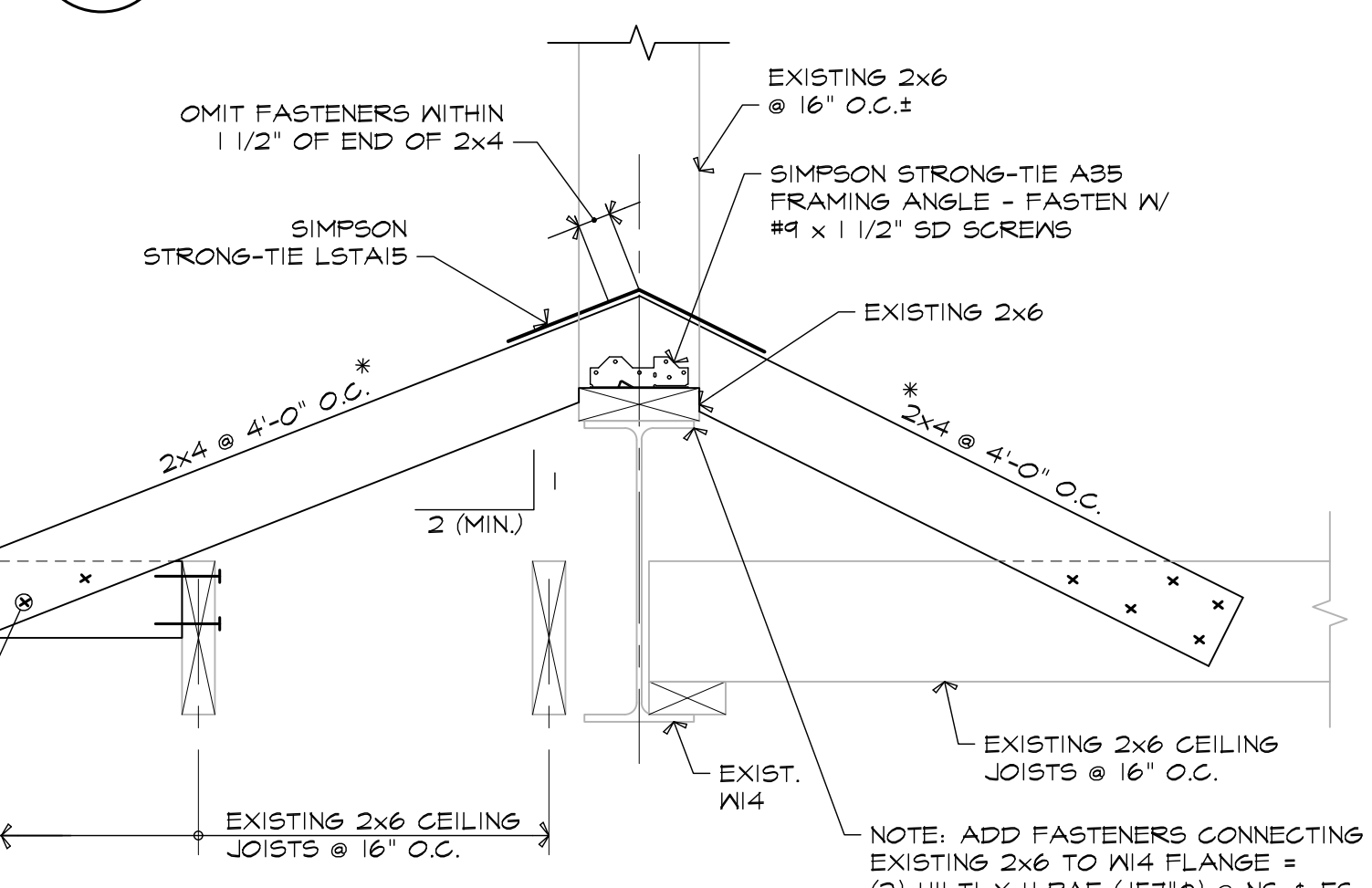
- ALL STEEL WORK SHALL CONFORM TO THE 14TH EDITION OF THE SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, ANSI/AISC 360-10.
- ALL WELDING SHALL BE DONE BY A WELDER CERTIFIED BY THE AMERICAN WELDING SOCIETY FOR THE WELDING PROCEDURE AND POSITIONS UTILIZED.
- ALL WELDING SHALL BE IN COMPLIANCE WITH AWS D11.1 STRUCTURAL WELDING - STEEL BY THE AMERICAN WELDING SOCIETY, LATEST EDITION.
- NO FIELD WELDING IS PERMITTED IN THE ATTIC.
- BOLTS USED TO CONNECT STEEL FRAMING MEMBERS SHALL BE IN COMPLIANCE WITH THE 2009 EDITION OF THE SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS.
- BOLTS USED TO CONNECT STEEL FRAMING MEMBERS SHALL BE ASTM A325 BOLTS. INSTALL TO SNUG-TIGHT CONDITION UNLESS OTHERWISE INDICATED.
- STRUCTURAL STEEL WIDE FLANGE SHAPES SHALL BE ASTM A992.
- STRUCTURAL STEEL ANGLES AND PLATES SHALL BE ASTM A36.
- STEEL HOLLOW STRUCTURAL SECTIONS SHALL BE ASTM A500, GRADE B.
- SUBMIT SHOP DRAWINGS DELINEATING ALL FRAMING AND CONNECTIONS. ALLOW TWO WEEKS FOR REVIEW.

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| DRAWN BY: SAM CHECKED BY: MAC ISSUE DATE: 9-11-19 PROJ. NO.: 2019115 | REVISION DATE NO. | Structural Improvements & Reroofing at: Quick / Platz Hall Maine Maritime Academy Castine, Maine | STRUCTURAL ROOF PLAN AND NOTES |
|  | | Lincoln/Haney Engineering Associates, Inc. 6 Federal Street Brunswick, Maine 04011 Phone: 207-729-1061 Fax: 207-729-2941 | |
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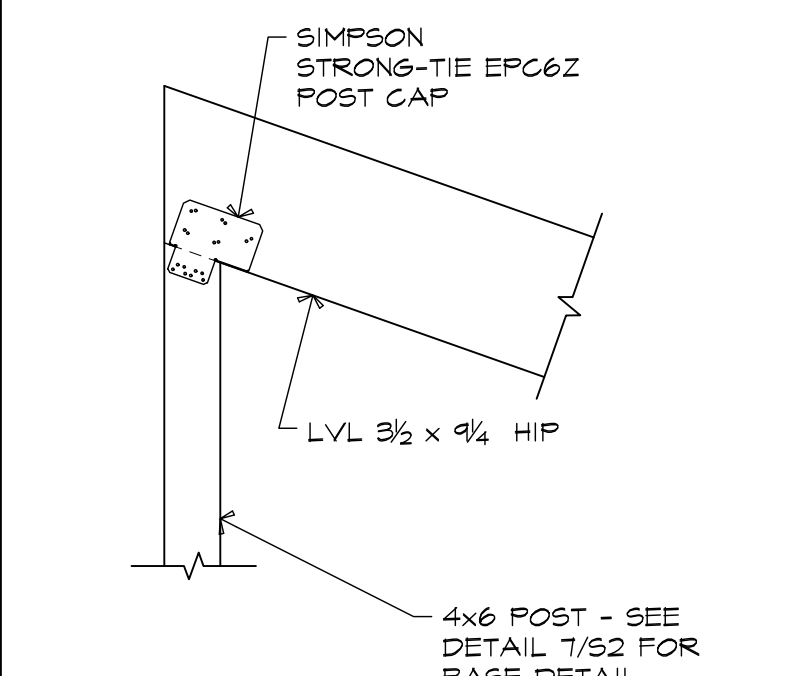
1 SECTION

2 SECTION AT TOP FLANGE BRACE

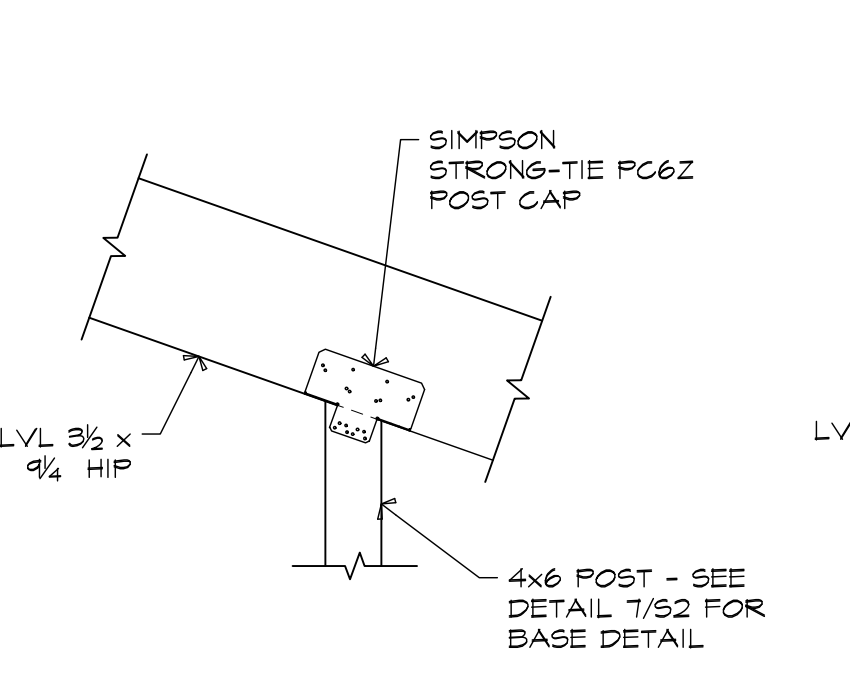


3 SECTION AT TOP FLANGE BRACE

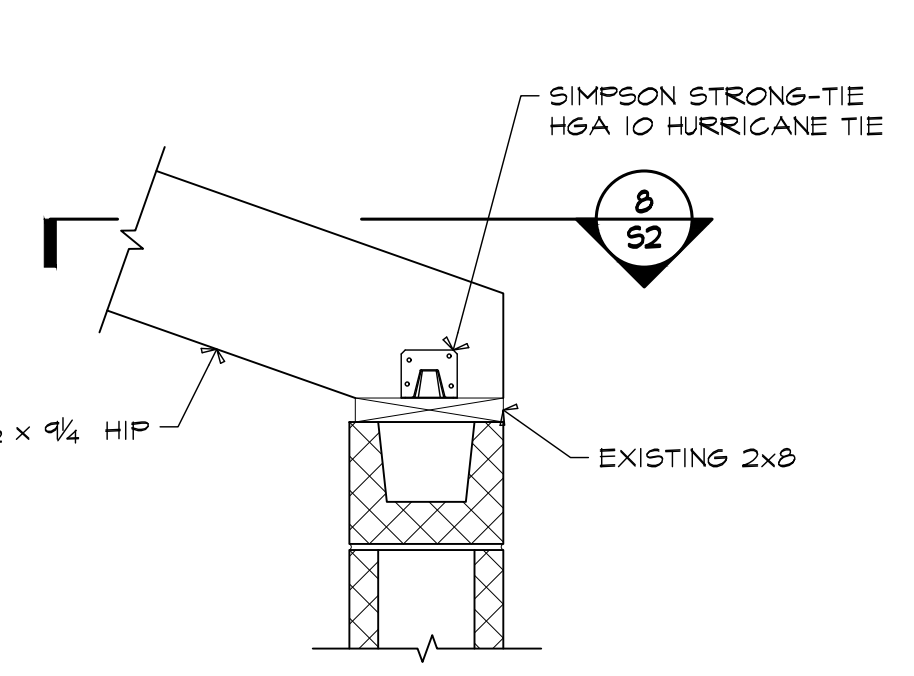
NOTE: PROVIDE TEMPORARY SUPPORT FOR EXISTING ROOF FRAMING AS REQUIRED TO CUT EXISTING STUDS AND INSTALL NEW W16 BEAM.



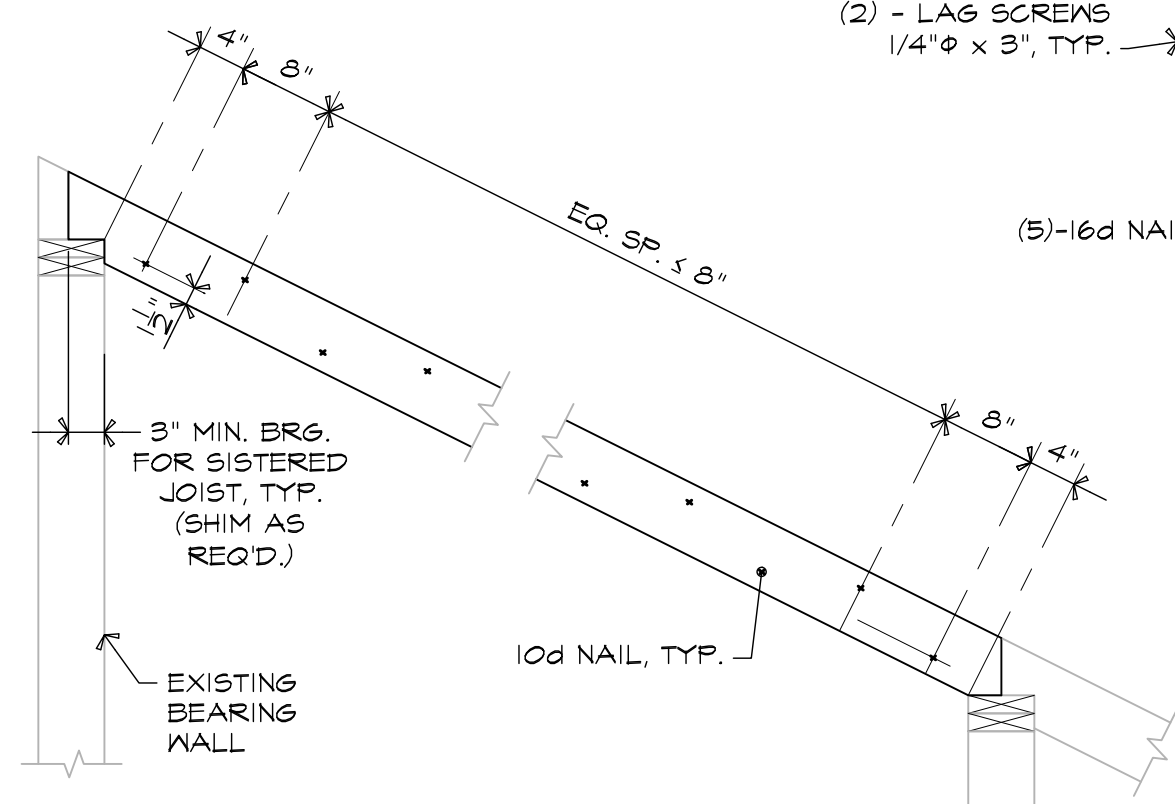
4 SECTION



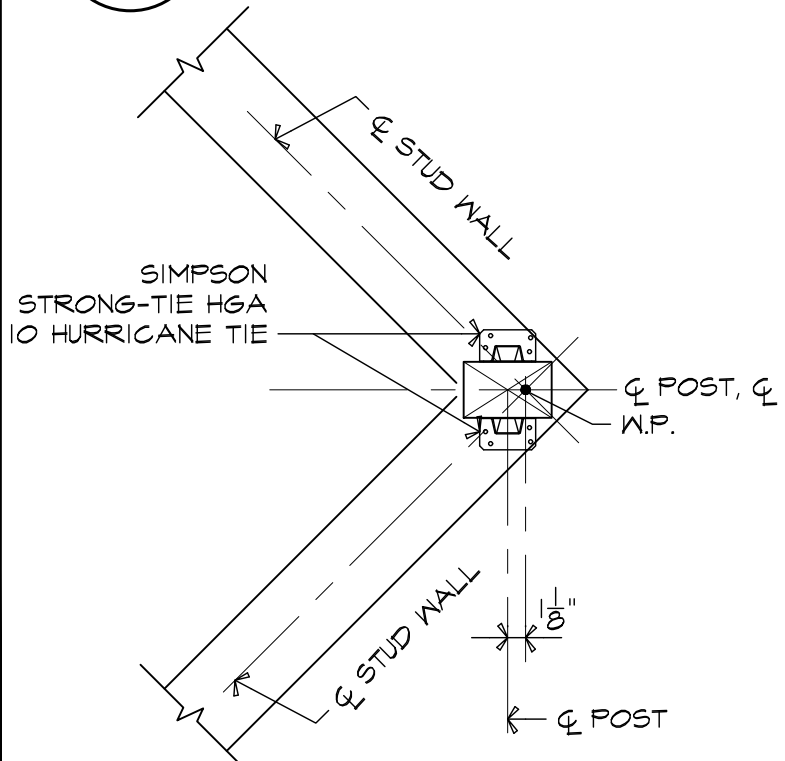
5 SECTION



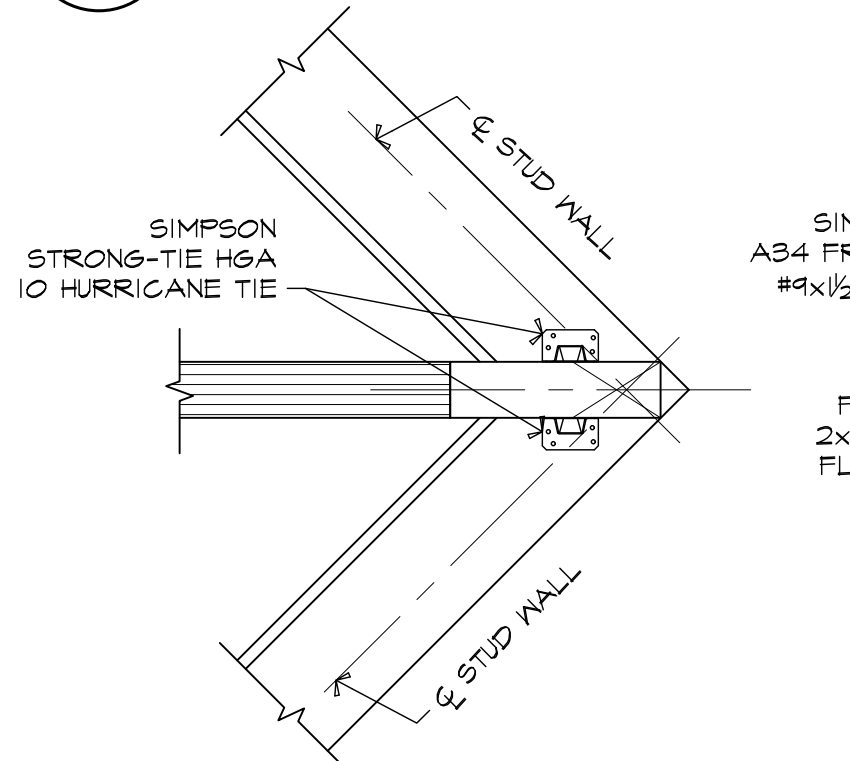
6 SECTION



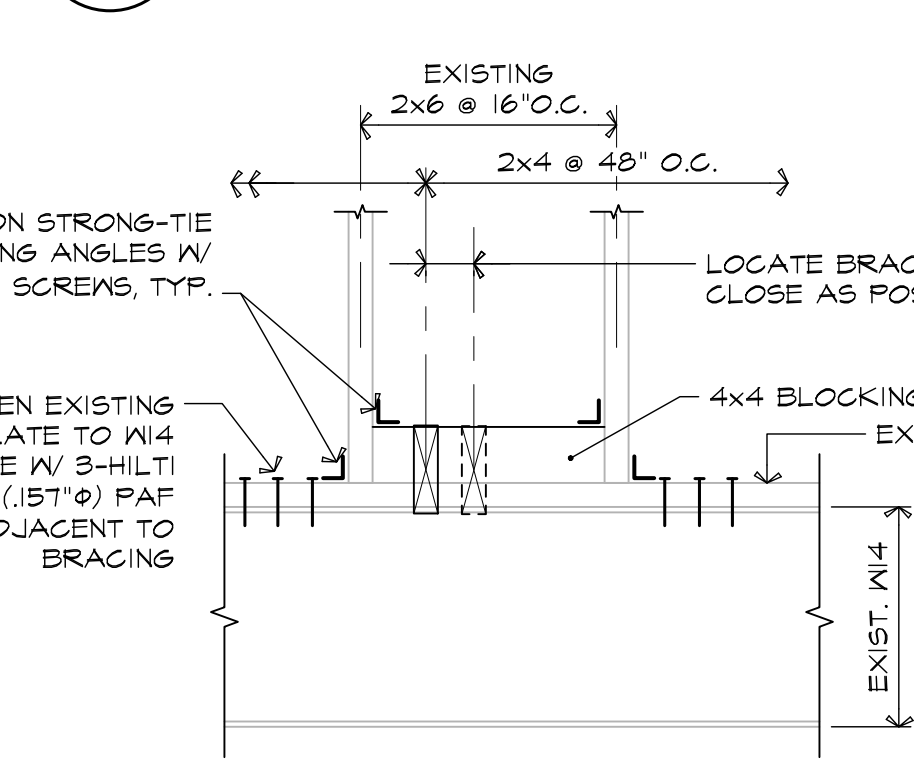
10 TYPICAL 2x8 SISTER DETAIL



7 SECTION

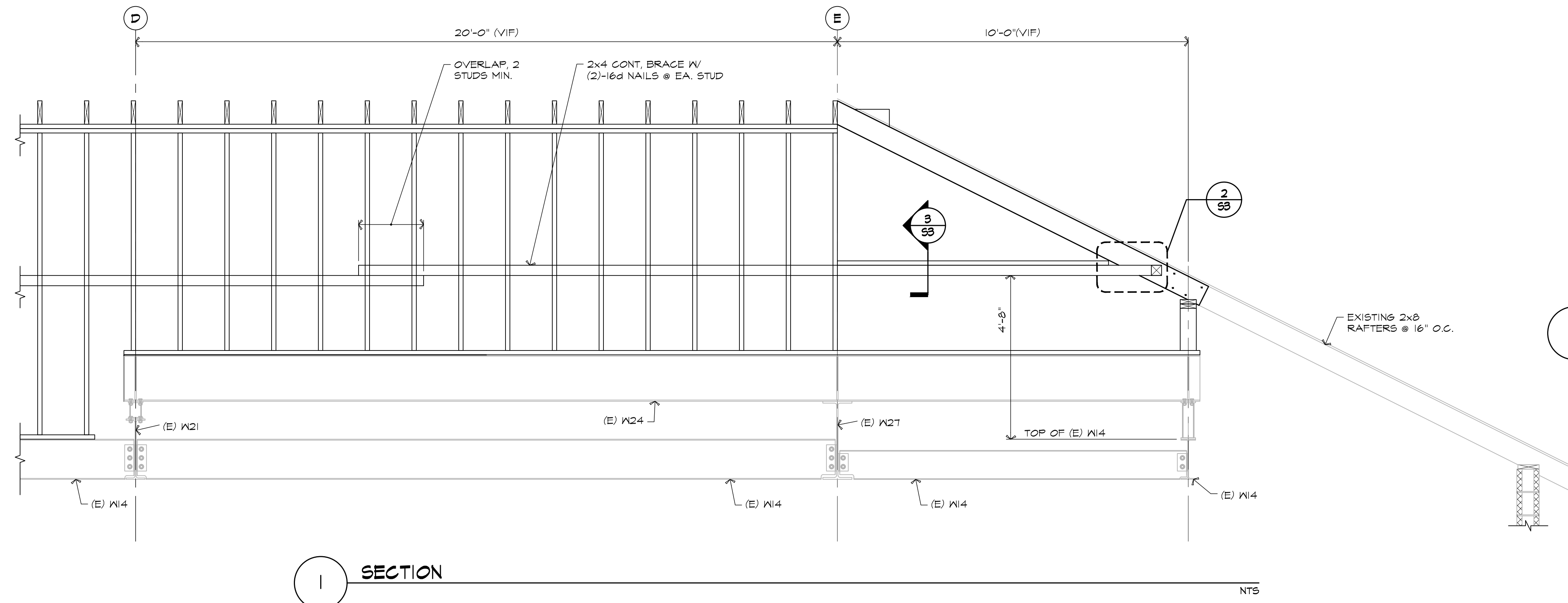


8 SECTION

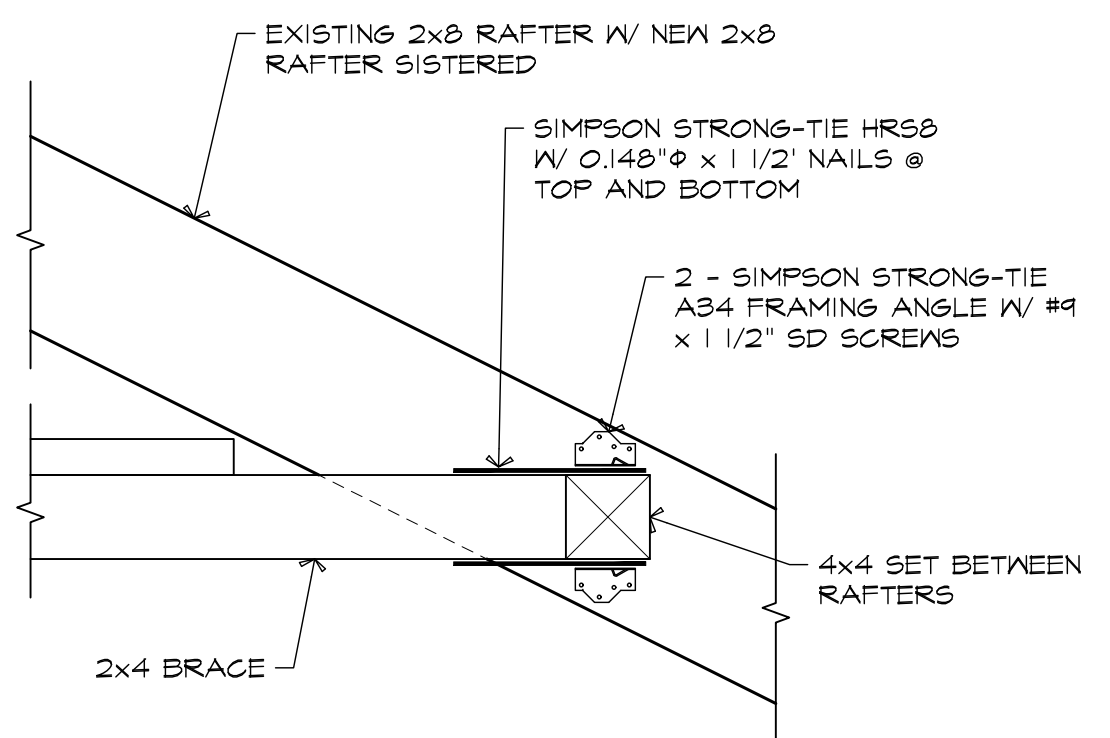


9 SECTION

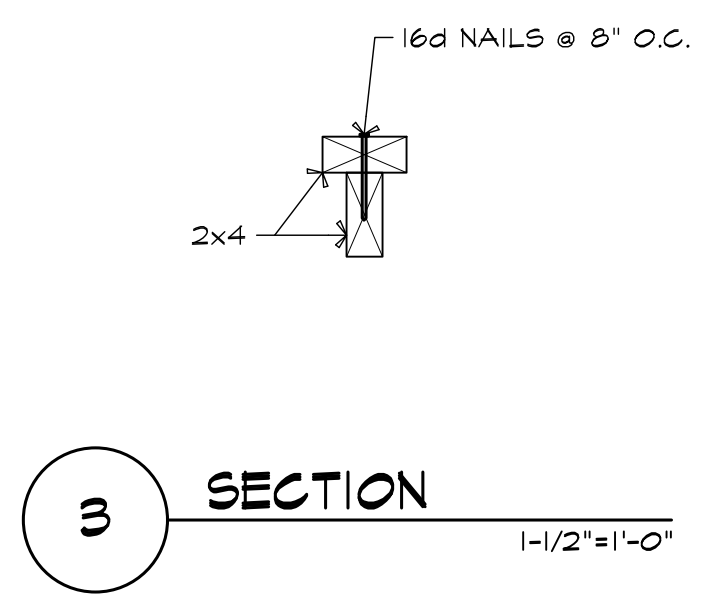
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| DRAWN BY | SAM |
| CHECKED BY | M/AC |
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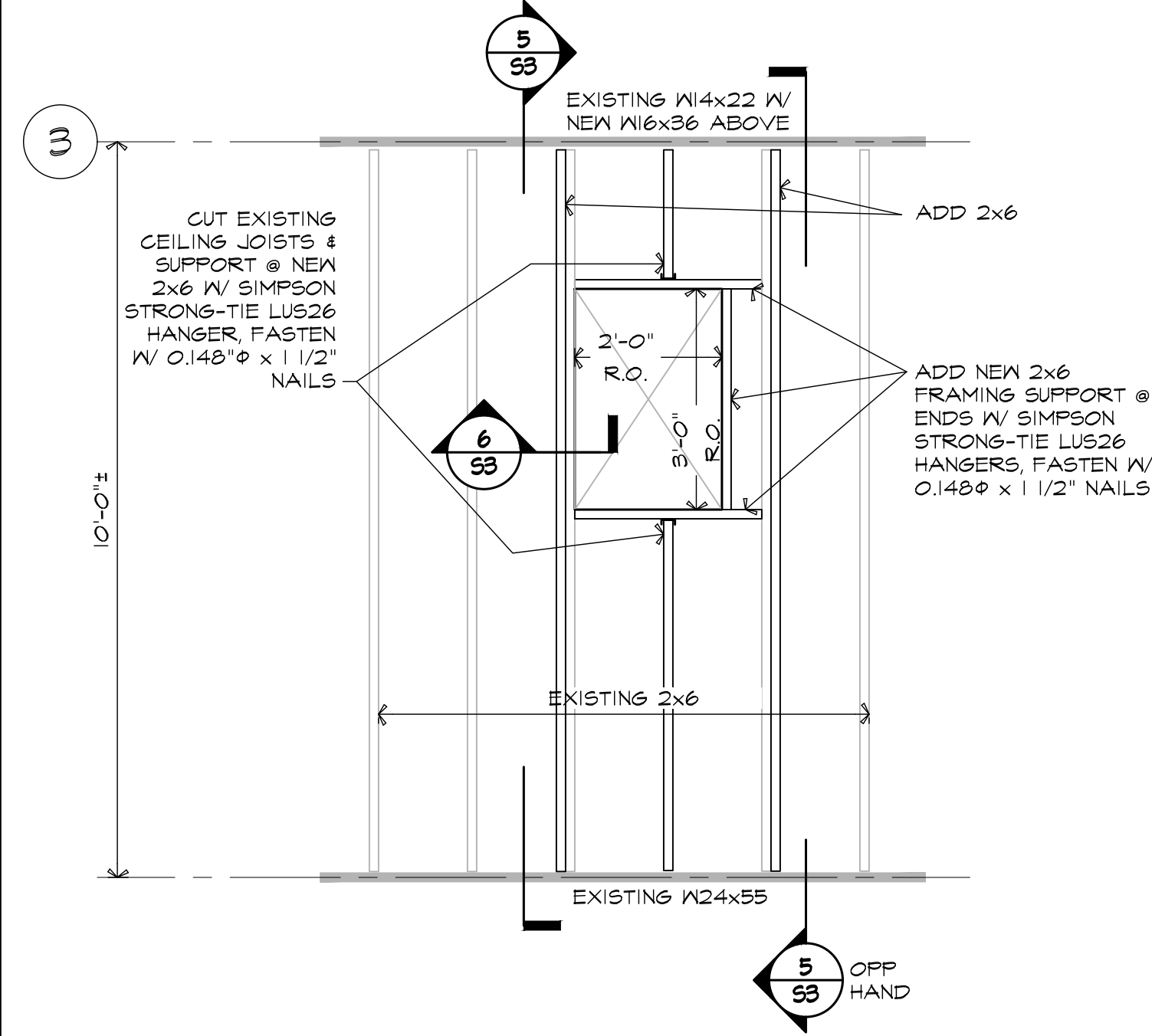
1 SECTION



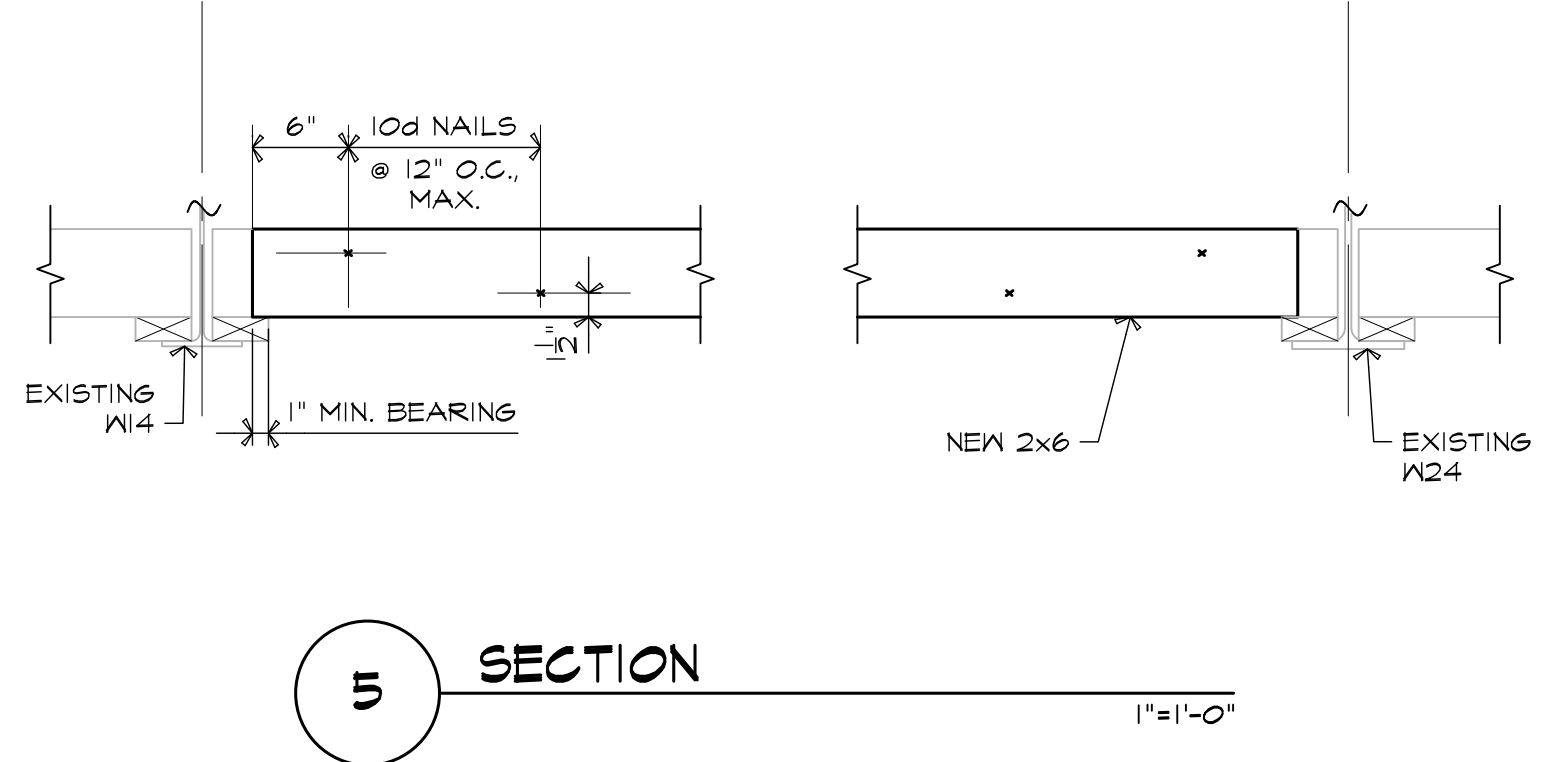
2 DETAIL 1-1/2"=1'-0"



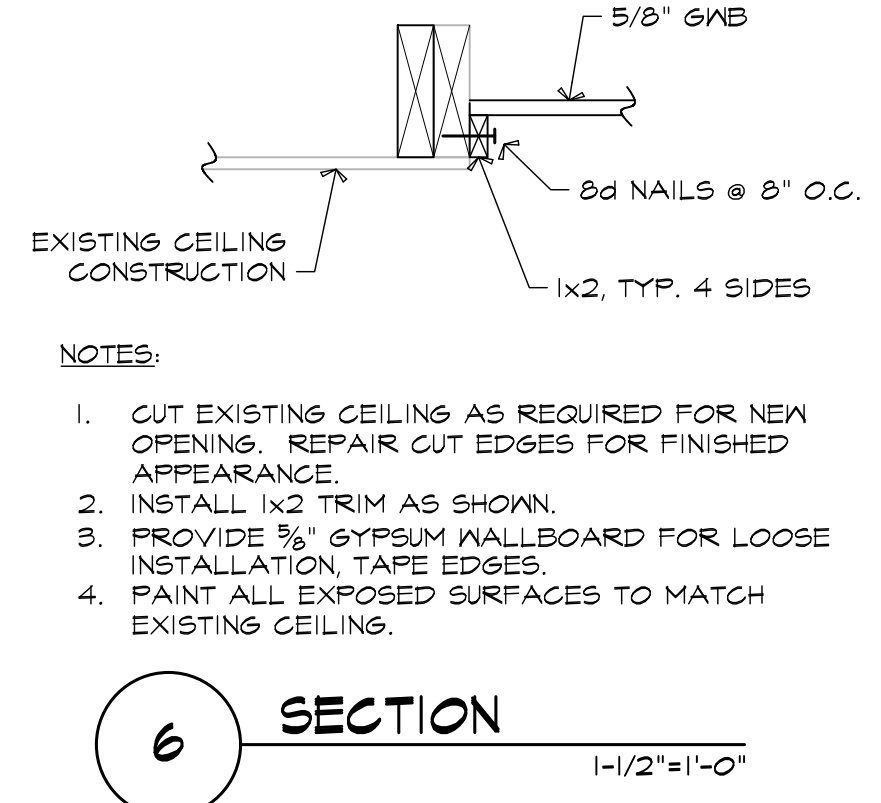
3 SECTION 1-1/2"=1'-0"



4 DETAIL AT ACCESS OPENING 1/2"=1'-0"



5 SECTION 1"=1'-0"



6 SECTION 1-1/2"=1'-0"

- NOTES:
- CUT EXISTING CEILING AS REQUIRED FOR NEW OPENING. REPAIR CUT EDGES FOR FINISHED APPEARANCE.
 - INSTALL 1x2 TRIM AS SHOWN.
 - PROVIDE 3/8" GYPSUM WALLBOARD FOR LOOSE INSTALLATION. TAPE EDGES.
 - PAINT ALL EXPOSED SURFACES TO MATCH EXISTING CEILING.

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