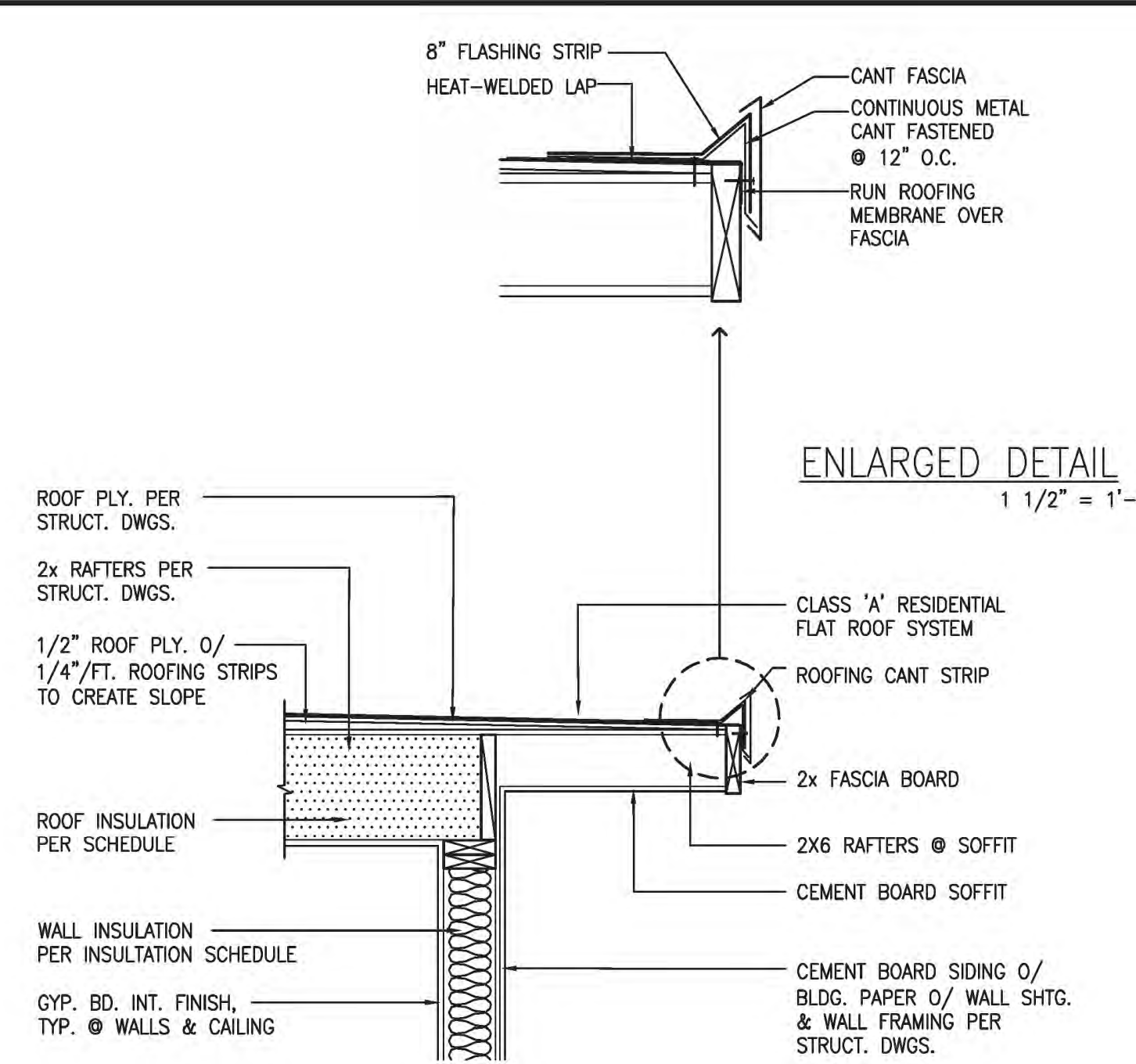
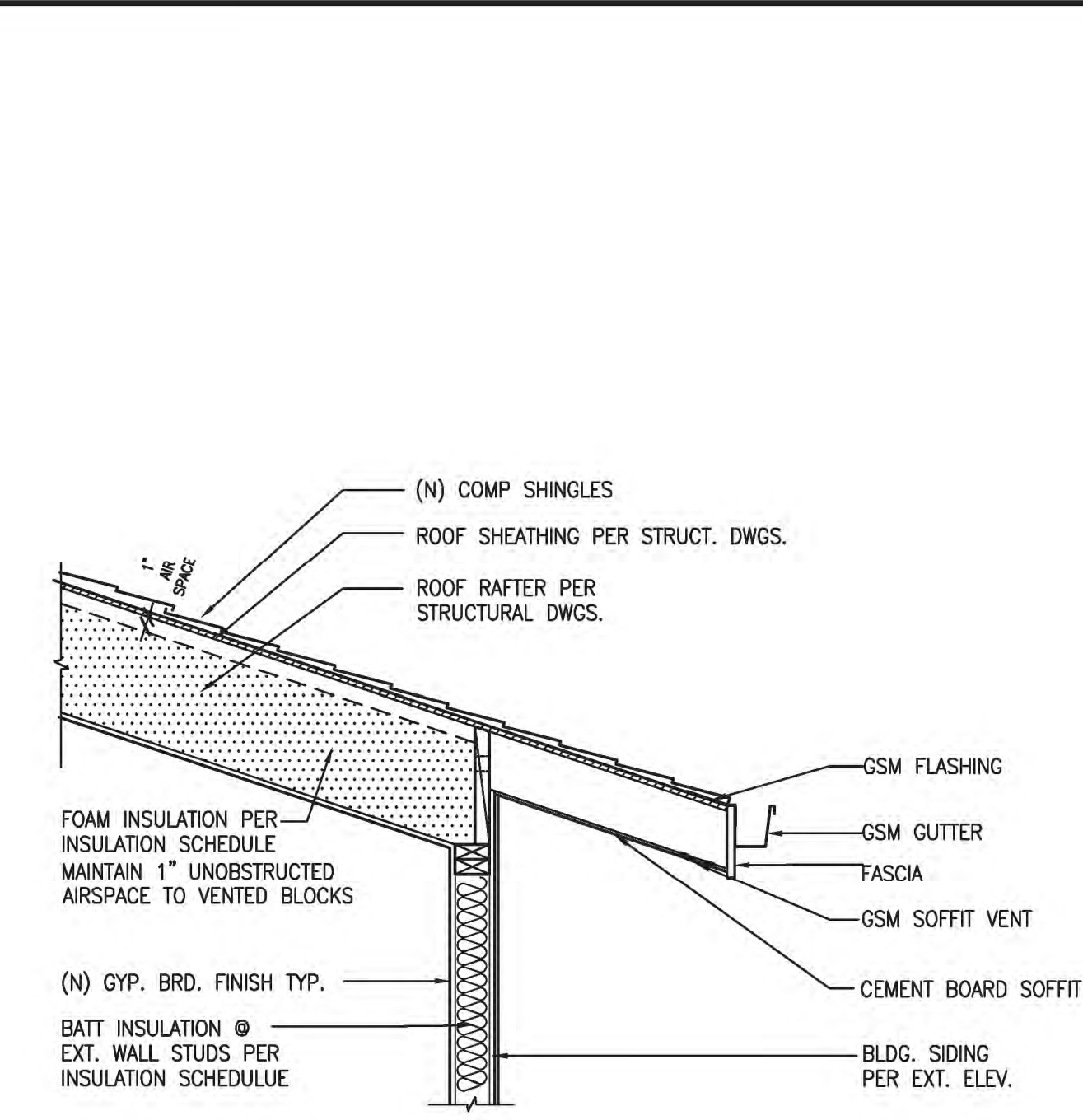


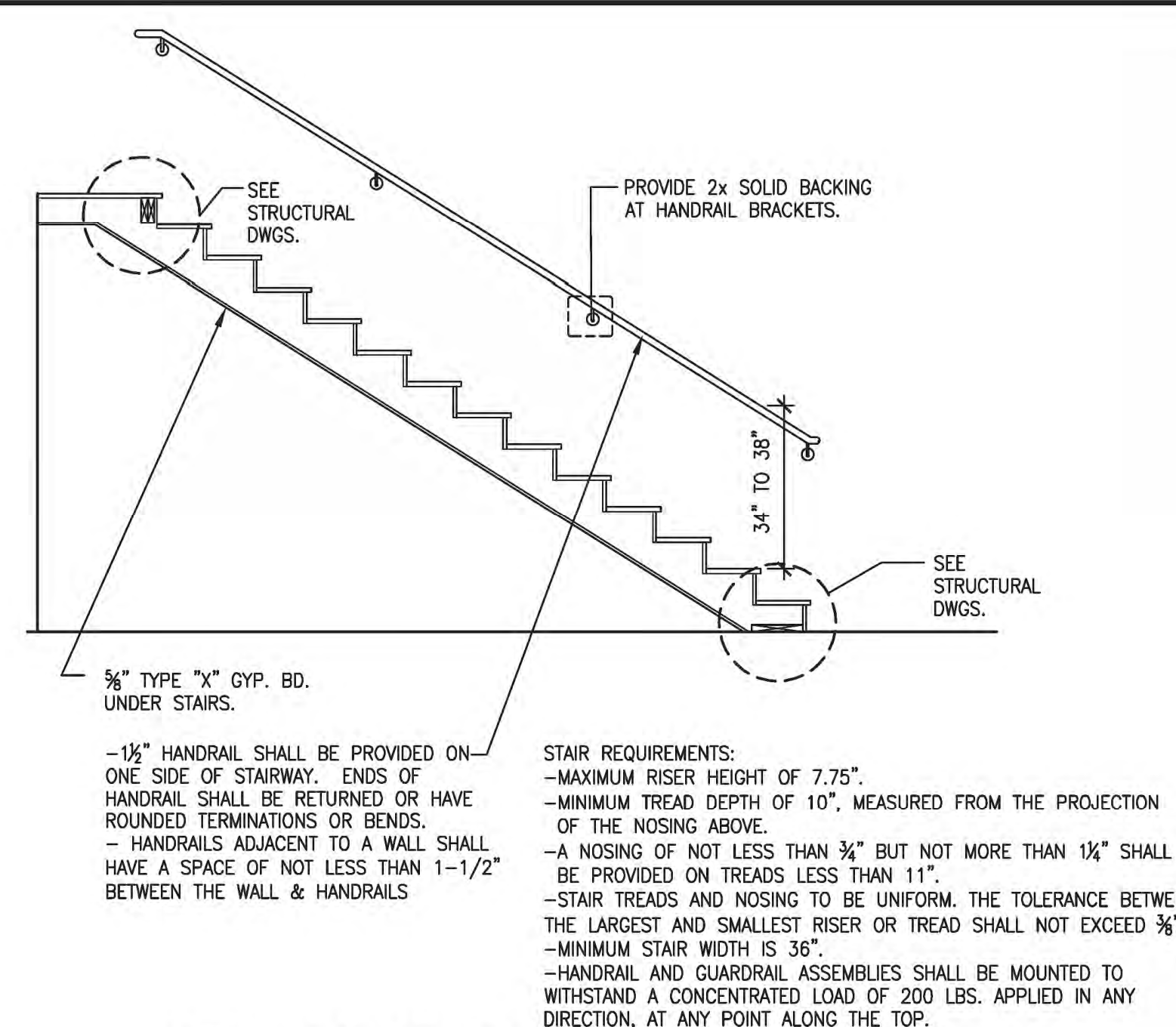
**6 ROOF PLAN**  
SCALE: 1/8" = 1'-0"



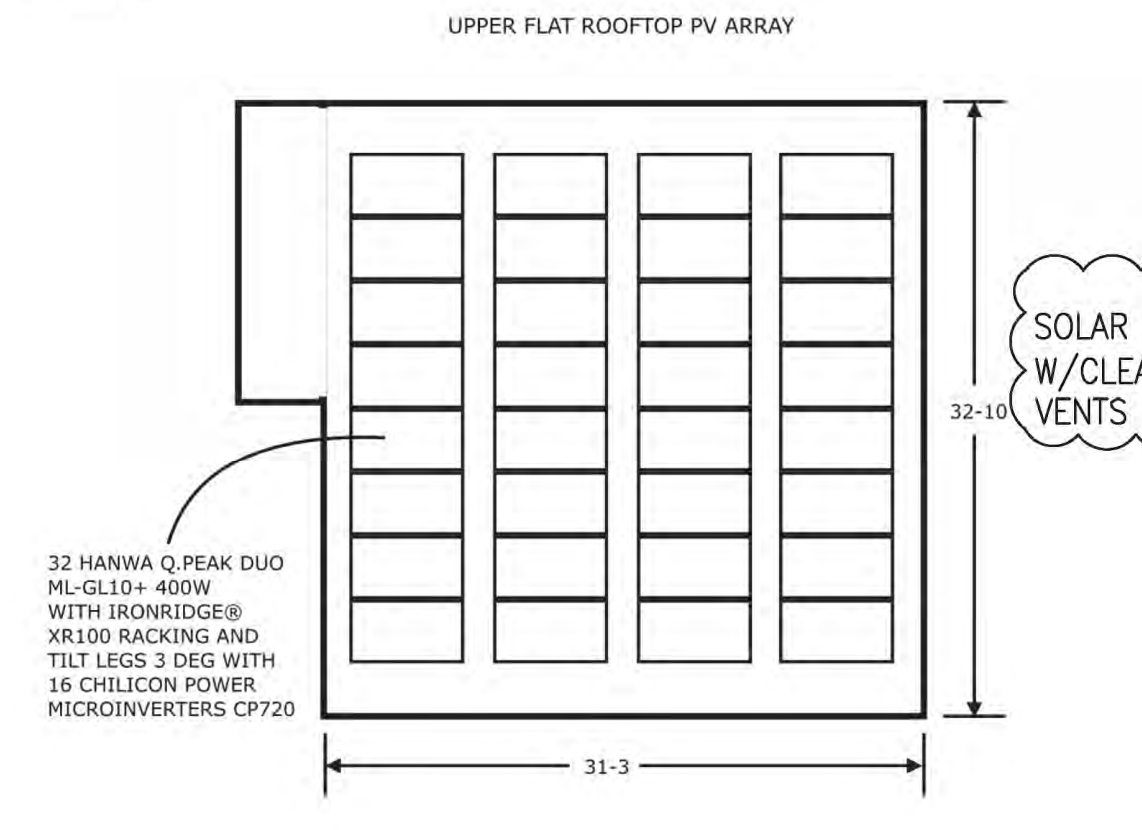
**5 ROOF DETAIL**  
SCALE: 3/4" = 1'-0"



**4 EAVE DETAIL**  
SCALE: 1/8" = 1'-0"



**3 STAIR DETAIL**  
SCALE: 3/8" = 1'-0"

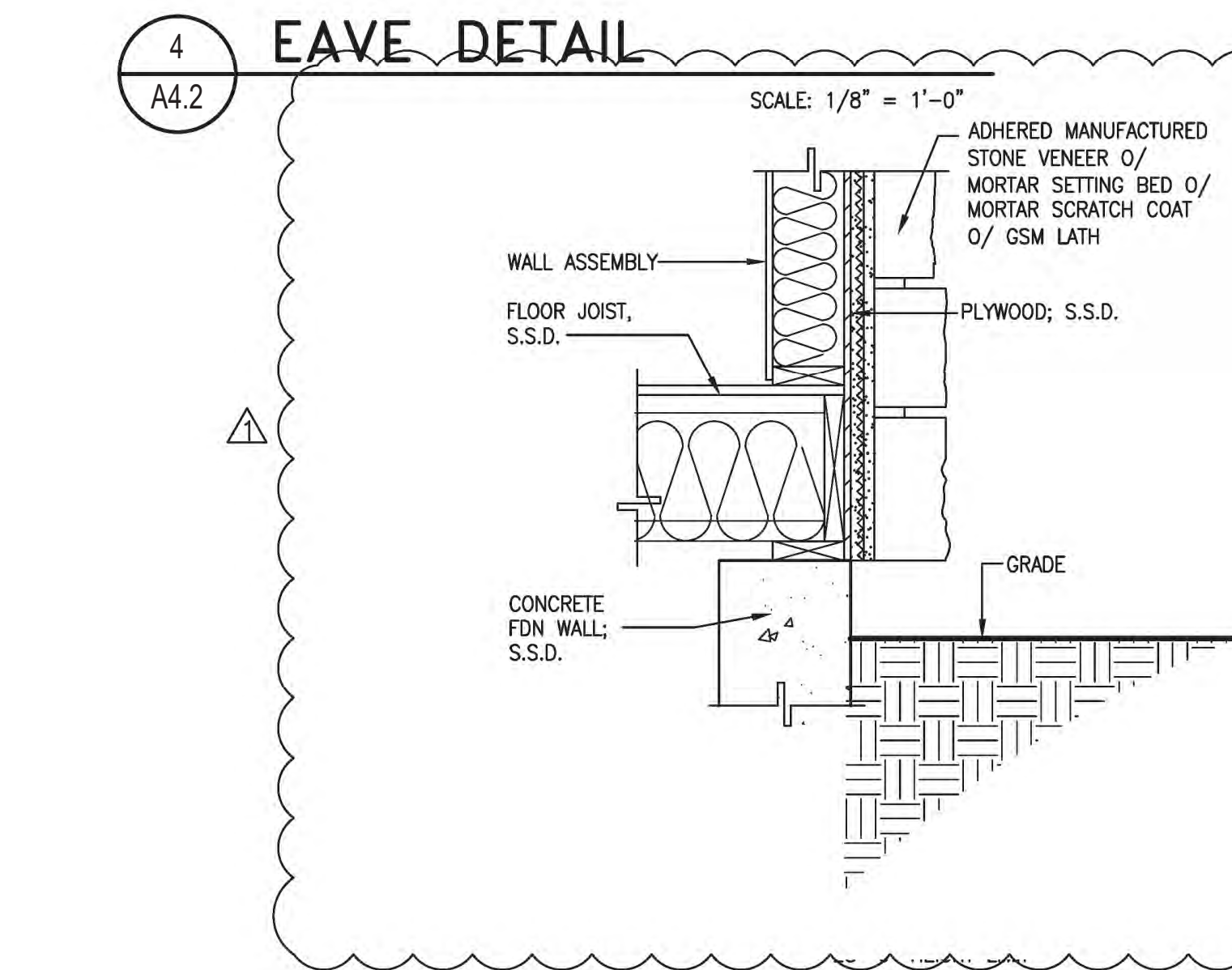


**7 ROOF TOP SOLAR PANELS**  
SCALE: N.T.S.

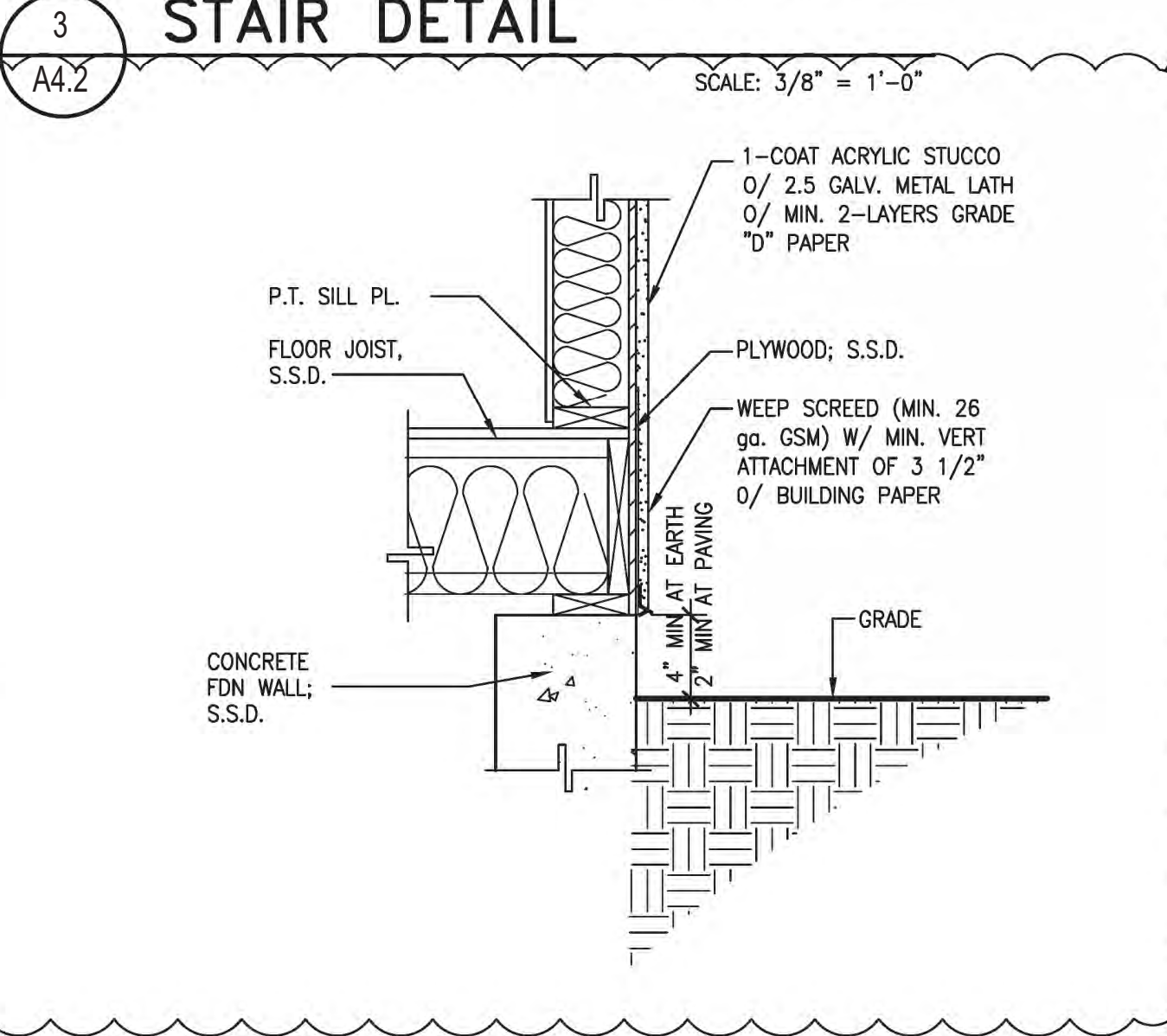
SOLAR PV MODULES SHALL NOT INTERFERE W/CLEARANCE OF ANY PLUMBING OR MECHANICAL VENTS

**INSULATION SCHEDULE**

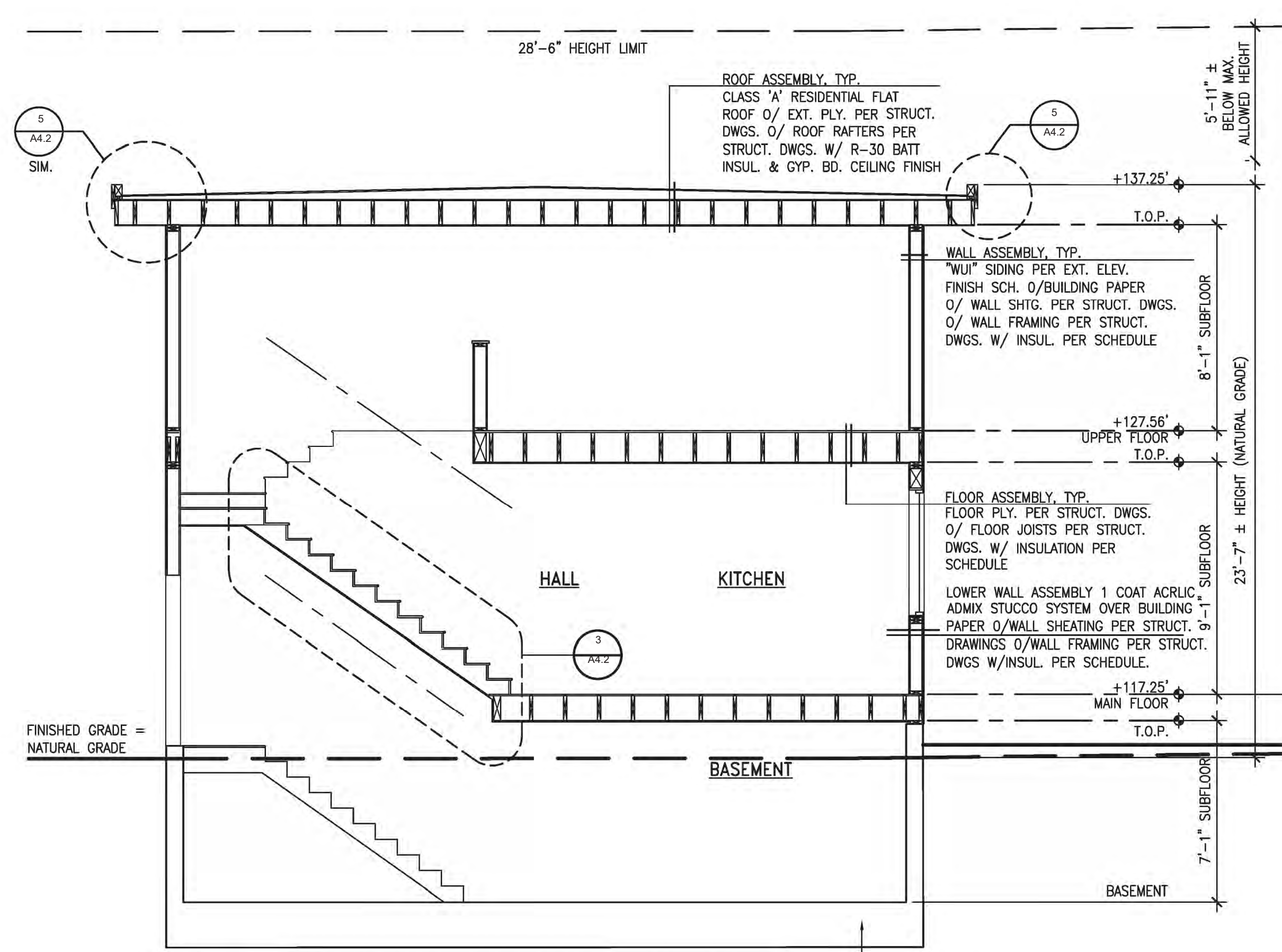
ROOF INSULATION	
RAFTERS	- R-38 SPRAY FOAM
WALL INSULATION	
2X4 WALLS	- R-15 BATT
2X6 WALLS	- R-21 BATT
FLOOR INSULATION	
FLOOR O/ CRAWL SPACE	- R-19 BATT



**9 STONE VENER DETAIL**  
SCALE: 1" = 1'-0"



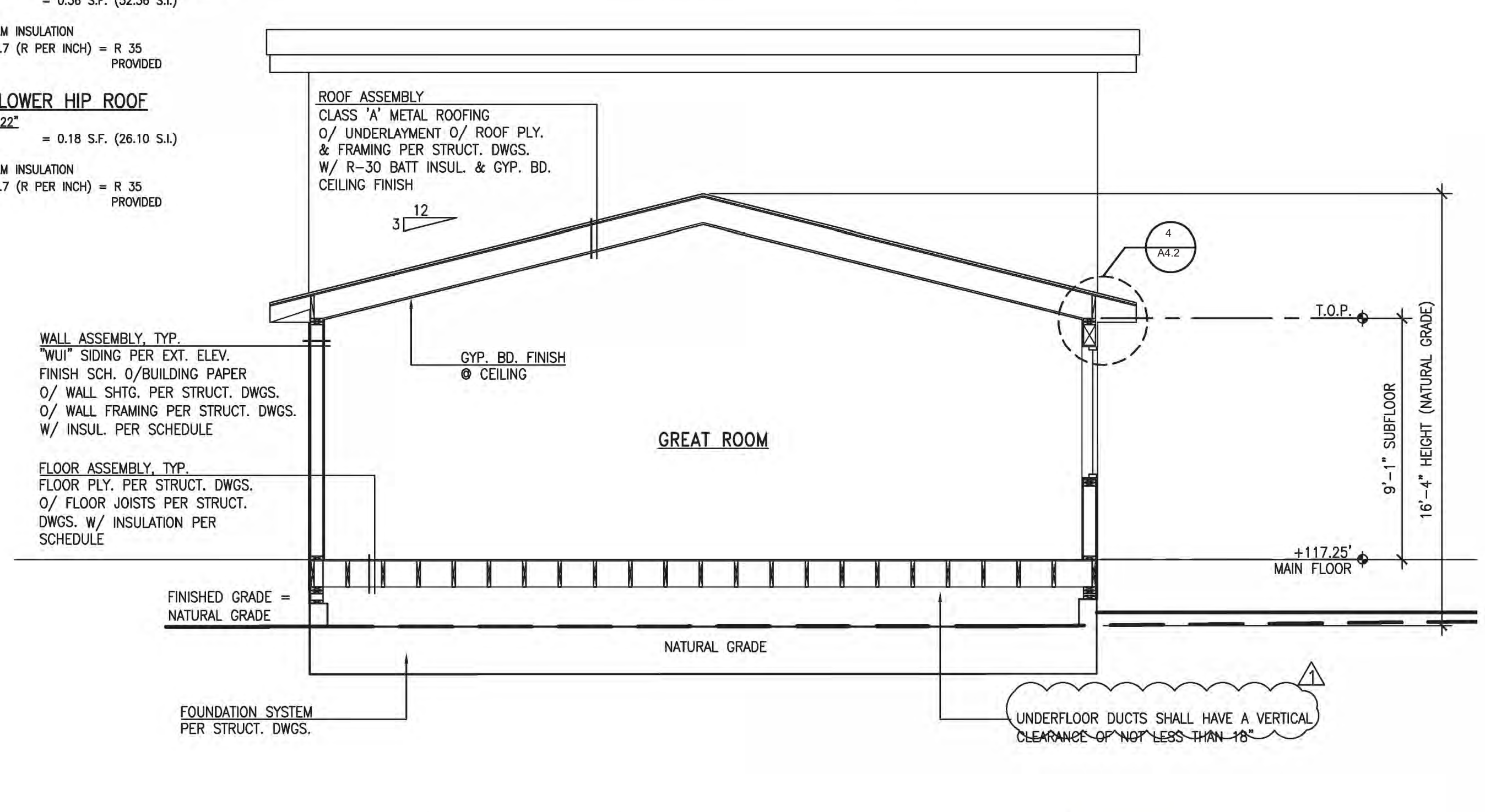
**8 WEEP SCREED**  
SCALE: 1" = 1'-0"



**2 BUILDING SECTION C-C**  
SCALE: 1/4" = 1'-0"

**ATTIC VENTING**  
MAIN RESIDENCE UPPER ROOF  
28'-9" RAFTER LENGTH x 22"  
150 = 0.36 S.F. (52.36 S.I.)  
USE OPEN CELL SPRAY FOAM INSULATION  
9-1/2" RAFTER DEPTH x 3.7 (R PER INCH) = R 35 PROVIDED

**MAIN RESIDENCE LOWER HIP ROOF**  
14'-10" RAFTER LENGTH x 22"  
150 = 0.18 S.F. (26.10 S.I.)  
USE OPEN CELL SPRAY FOAM INSULATION  
9-1/2" RAFTER DEPTH x 3.7 (R PER INCH) = R 35 PROVIDED



**1 BUILDING SECTION B-B**  
SCALE: 1/4" = 1'-0"

REVIEWED FOR CODE COMPLIANCE BY COASTLAND CIVIL ENGINEERING, INC. IN ACCORDANCE WITH CBC 9107.3.1 AS AMENDED BY THE LOCAL AGENCY.

**ARCHITECTS**  
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**NEW RESIDENCE AND ADU**  
79 WOOD LANE  
FAIRFAX, CA 94930  
APN: 002-062-03  
FOR: COBY FRIEDMAN

**BUILDING SECTIONS**

Revisions	03-17-2022
PERMIT SUBMITTAL	04-06-2022
REVISED PERMIT SUBMITTAL	06-23-2022
PLAN CHECK COMMENTS	

Date: 06-20-2022  
Scale: As Noted  
Drawn: LSK  
Job #: 19049.00  
Prototype: DIVINE

**A4.2**

**STRUCTURAL NOTES**

**GENERAL**

1. THESE NOTES APPLY TO ALL DRAWINGS AND GOVERN UNLESS OTHERWISE NOTED OR SPECIFIED. ALL WORK SHALL BE IN CONFORMANCE WITH ALL APPLICABLE CODES AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.

APPLICABLE CODES INCLUDE:  
 THE 2019 EDITION OF THE CALIFORNIA BUILDING CODE (CBC)  
 CALIFORNIA RESIDENTIAL CODE (CRC)  
 CALIFORNIA PLUMBING CODE (CPC)  
 CALIFORNIA ELECTRICAL CODE  
 CALIFORNIA MECHANICAL CODE (CMC)  
 CALIFORNIA GREEN BUILDING STANDARDS CODE  
 CALIFORNIA ENERGY CODE  
 CALIFORNIA FIRE CODE (CFC)

2. VERIFY ALL EXISTING CONDITIONS AND PROPOSED DIMENSIONS AT THE SUBJECT SITE. COMPARE STRUCTURAL DRAWINGS WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS BEFORE COMMENCING WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO COMMENCING ANY WORK. DO NOT PROCEED WITH CONSTRUCTION IF DISCREPANCIES ARE DETECTED UNTIL THEY ARE RESOLVED. DO NOT SCALE DRAWINGS.

3. UNLESS OTHERWISE SHOWN OR NOTED ALL TYPICAL DETAILS SHALL BE USED WHERE APPLICABLE. ALL DETAILS SHALL BE CONSIDERED TYPICAL AT SIMILAR CONDITIONS.

4. THE CONTRACTOR AND SPECIAL INSPECTOR ARE ENCOURAGED TO CONTACT THE ENGINEER REGARDING ANY QUESTIONS OF INTERPRETATION OF THESE SPECIFICATIONS AND DRAWINGS.

5. SAFETY MEASURES: AT ALL TIMES, THE CONTRACTOR SHALL WORK IN COMPLIANCE WITH CAL/OSHA-TITLE 8 SAFETY REGULATIONS AND SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF PEOPLE AND PROPERTY, AND FOR ALL NECESSARY INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS.

6. SHORING AND BRACING OF THE SOIL AND THE EXISTING AND NEW STRUCTURES SHALL BE INSTALLED WHERE NECESSARY TO ADEQUATELY SUPPORT THE IMPOSED VERTICAL AND LATERAL LOADS, AND SHALL BE MAINTAINED UNTIL THE NEW STRUCTURE CAN SUPPORT THE ANTICIPATED LOADS. THE ENGINEER'S JOB SITE VISITS ARE NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE TEMPORARY SHORING AND/OR CONTRACTOR'S SAFETY MEASURES.

7. ANY OPENING, HOLES, CUTS OR DISCONTINUITIES NOT SHOWN ON THE STRUCTURAL DRAWINGS AND EXTENDING INTO OR THROUGH STRUCTURAL ELEMENTS REQUIRE THE PRIOR APPROVAL OF THE ENGINEER.

8. SURFACE GRADES ADJACENT TO THE FOUNDATION SHALL SLOPE AWAY FROM BUILDING AT A MIN OF 1/4" FOR PERVIOUS SURFACES OR 2% FOR IMPERVIOUS SURFACES FOR MIN 10 FEET.

**SPECIAL INSPECTIONS AND CONSTRUCTION OBSERVATIONS**

1. TESTS AND SPECIAL INSPECTIONS SHALL BE PROVIDED PER REQUIREMENTS OF THE 2019 CALIFORNIA BUILDING CODE CHAPTER 17.

2. THE FOLLOWING ITEMS SHALL BE INSPECTED AND/OR TESTED BY DAC ASSOCIATES INC. OR A TESTING LAB IN ACCORDANCE WITH CHAPTER 17 OF THE 2019 CALIFORNIA BUILDING CODE. THE CONTRACTOR SHALL NOTIFY THE INSPECTOR AT LEAST 72 HOURS PRIOR TO TIME OF INSPECTION.  
 a. FOR CONCRETE WITH STRENGTH EQUAL OR MORE THAN 3,000PSI, PLACEMENT, SAMPLING & TESTING FOR STRENGTH (EXCEPT FOR CONTINUOUS FOOTING & SLAB-ON-GRADE)

3. THE FOLLOWING ITEMS SHALL BE INSPECTED BY THE ENGINEER OF RECORD (DAC ASSOCIATES, INC.). THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS PRIOR TO TIME OF INSPECTION.  
 a. FOUNDATION, PAVEMENT, AND SLAB-ON-GRADE SUBGRADES  
 b. PLACEMENT OF REINFORCING STEEL AND CAST-IN-PLACE ANCHORAGES  
 c. HOLD-DOWNS AND ANCHOR BOLTS  
 d. STEEL WELDING  
 e. SHEARWALLS, DIAPHRAGMS, ROUGH FRAMING AND FRAMING HARDWARE  
 f. SOIL ENGINEER TO OBSERVE AND APPROVE IN WRITING PLACEMENT OF GEOTECHNICAL DRAINAGE  
 g. SOIL ENGINEER TO OBSERVE AND APPROVE IN WRITING BACKFILL OPERATIONS

4. FOUNDATION EXCAVATIONS AND SLAB-ON-GRADE SUBGRADES SHALL BE OBSERVED AND APPROVED IN WRITING BY THE SOIL ENGINEER (HERZOG GEOTECHNICAL CONSULTING ENGINEERS) PRIOR TO PLACEMENT OF FORMS OR REINFORCING STEEL. THE CONTRACTOR SHALL NOTIFY THE SOIL ENGINEER AT LEAST 72 HOURS BEFORE EXCAVATION/DRILLING IS SCHEDULED TO BEGIN.

5. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AND ENSURING THAT ALL REQUIRED TESTING & INSPECTION IS PERFORMED TO THE SATISFACTION OF THE INSPECTOR.

**DESIGN BASIS AND CRITERIA**

1. DESIGN CONFORMS TO THE 2019 CBC AND ALL APPLICABLE LOCAL ORDINANCES.

DESIGN VERTICAL LOAD	DL (PSF)	LL (PSF)
a. ROOF	23	20
b. RES. FLOORS	20	40
c. DECK/BALCONY	15	60
d. GARAGE/PARKING	63	40 (OR 3000 LB CONCENTRATED)

3. DESIGN LATERAL LOAD  
 e. WIND: 110 MPH BASIC WIND SPEED, EXPOSURE C  
 f. SEISMIC: RISK CATEGORY II, SEISMIC DESIGN CATEGORY D,  
 $S_s = 1.6g$ ,  $S_1 = 0.63g$ ,  $S_{ps} = 1.07g$ ,  $S_p = 0.63g$   
 $R = 6.5$ ,  $I = 1.0$ ,  $C_s = S_{ps}/(R/I)$ , BASE SHEAR,  $V = C_s * W$

4. ALL STRUCTURES SHOWN ON THESE DRAWINGS ARE BASED UPON ARCHITECTURAL PLANS FOR "NEW RESIDENCE & ADU, 79 WOOD LANE, FAIRFAX, CA" PREPARED BY FREDRIC C. DIVINE ASSOCIATES, DATED 04-06-2022.

**CONCRETE**

1. CONCRETE CEMENT SHALL CONFORM TO THE LATEST ASTM C-150 & C-595, AND SHALL BE TYPE II. TYPE I CEMENT MAY BE USED IN AREAS NOT IN CONTACT WITH EARTH. MINIMUM 6 SAKCS/CU.YD. OF CEMENT. FLY ASH SHALL NOT COMPOSE MORE THAN 25% OF THE CEMENTITIOUS MATERIAL. AGGREGATE SHALL BE FREE OF ALKALI REACTIVITY.

2. WATER/CEMENT RATIO SHALL NOT EXCEED 0.45. ACID SOLUBLE CHLORIDE-FREE ADMIXTURES AND PLASTICIZERS FOR WORKABILITY MAY BE USED IF APPROVED BY THE TESTING LABORATORY AND ENGINEER. BECAUSE EXCESS WATER REDUCES CONCRETE STRENGTH, ADDING WATER AT THE SITE IS DISCOURAGED AND SHALL NOT EXCEED ONE GALLON PER CUBIC YARD.

3. REINFORCE ALL STRUCTURAL CONCRETE. CONCRETE CONSTRUCTION TOLERANCES SHALL COMPLY WITH ACI 117. INSTALL ALL INSERTS, BOLTS, ANCHORS, AND REINFORCING BARS AND SECURELY THE PRIOR TO PLACING CONCRETE.

4. CONCRETE SHALL BE AS FOLLOWS (UNLESS OTHERWISE NOTED):

LOCATION	28 DAYS STRENGTH	SLUMP	AGGREGATE (ASTM C33)
SLAB ON GRADE	3000 PSI	4"	HR-LS, 1" MAX
FOOTINGS/ GRADE BEAMS/ CONCRETE WALLS	3000 PSI	4"	HR, 1" MAX
DRILLED PIERS	3000 PSI	6"	HR, 3/4" MAX

NOTE: STRUCTURAL DESIGN OF CONTINUOUS FOOTING AND SLAB-ON-GRADE CONCRETE BASED ON 2,500 PSI COMPRESSIVE STRENGTH. THE SPECIFIED STRENGTH ABOVE ARE USED FOR BETTER QUALITY PER CRITERIA ONLY. CONCRETE SPECIAL INSPECTION FOR CONTINUOUS FOOTING AND SLAB-ON-GRADE IS NOT REQUIRED.

5. CONCRETE SHALL BE PLACED IN A CONTINUOUS OPERATION BETWEEN PREDETERMINED AND PREAPPROVED CONSTRUCTION JOINTS.

6. CONCRETE SHALL BE CONTINUOUSLY CURED FOR 7 DAYS AFTER PLACEMENT IN ANY APPROVED MANNER. FOOTINGS ARE EXCEPTED FROM THIS REQUIREMENT.

7. CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL, DRAWINGS LOCATING AND DETAILING ALL PROPOSED CONSTRUCTION/CONTROL JOINTS IN CONCRETE PRIOR TO COMMENCING WORK. CONSTRUCTION JOINT SHALL BE ROUGHENED, EXPOSING CLEAN AGGREGATE TO 1/2" DEPTH SOLIDLY EMBEDDED IN MORTAR MATRIX, AND SHALL INCLUDE SHEAR KEYS AND DOWELS AS REQUIRED BY THE ENGINEER.

8. THE LOCATION AND PROTECTION OF EXISTING UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF UTILITY PIPES RUN THROUGH, OR WITHIN 24" BELOW, ANY NEW CONCRETE CONSTRUCTION. THE ENGINEER WILL PROVIDE THE CONTRACTOR WITH DESIGN DETAILS UNDER SUCH CIRCUMSTANCES.

9. PATCHING OF CONCRETE: ALL INSERTS HOLES, AND OTHER IMPERFECTIONS ON THE SURFACE OF THE CONCRETE SHALL BE FILLED WITH GROUT, BRUSHED, AND SACKED TO A UNIFORM FINISH. ALL HOLES THROUGH TO THE OUTSIDE OF THE BUILDING MUST BE MADE WATERTIGHT.

10. CHAMFER ALL CORNERS 3/4", EXCEPT TOP EDGES OF SLABS AND BEAMS, UNLESS OTHERWISE NOTED.

11. ALL CONCRETE SHALL BE PLACED ON COMPETENT SUBGRADE, AS DETERMINED BY THE ENGINEER AT THE TIME OF CONSTRUCTION.

12. CONCRETE FLOOR SLAB-ON-GRADE SHALL HAVE A MINIMUM THICKNESS OF 4" UNLESS OTHERWISE NOTED.

13. ALL SLAB-ON-GRADE SHALL HAVE CONTROL JOINTS (WEAKENED PLANE JOINT) PER TYPICAL DETAIL TO CREATE APPROXIMATELY 20-FOOT SQUARES, UNLESS OTHERWISE NOTED ON PLANS.

**REINFORCING STEEL**

1. ALL REINFORCING STEEL BARS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR REINFORCED BILLET-STEEL CONCRETE REINFORCEMENT, ASTM A615 GRADE 60 KSI EXCEPT FOR GRADE 40 KSI FOR #3 STIRRUP/TIE, UNLESS OTHERWISE NOTED.

2. LAP SLICE ALL BARS A MINIMUM OF 36 BAR DIA OR 18" MIN, (UNLESS OTHERWISE NOTED) LAP HORIZ REBAR AT CORNERS AND INTERSECTIONS IN FOOTINGS AND WALLS WITH CORNER BARS OR OTHER METHODS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER.

3. WIRE MESH SHALL CONFIRM WITH ASTM A185-64.

4. UNLESS OTHERWISE NOTED, MAINTAIN COVERAGE TO FACE OF REINFORCING BARS AS FOLLOWS:

LOCATION	MINIMUM CLEAR COVER
CAST AGAINST EARTH: EXPOSED TO EARTH OR WEATHER; EXTERIOR SURFACES FOR BEAMS & COLUMN	3" 2" (1 1/2" FOR #5 & SMALLER) 1 1/2"

**FOUNDATIONS AND RETAINING WALLS**

1. THE FOUNDATION AND RETAINING WALLS DESIGN IS BASED ON RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATION REPORT TITLED "GEOTECHNICAL REPORT UPDATE," PREPARED BY HERZOG GEOTECHNICAL CONSULTING ENGINEERS, DATED 11-15-2021. A COPY OF THE REPORT SHALL BE OBTAINED FROM THE SOIL ENGINEER'S OFFICE. THE REPORT IS PART OF THE CONSTRUCTION DOCUMENTS, AND ITS RECOMMENDATIONS ARE TO BE FOLLOWED DURING CONSTRUCTION.

2. DESIGN CRITERIA  
 a. ASSUMED DEPTH TO COMPETENT SUBGRADE = 44.5 FEET  
 b. ALLOWABLE BEARING PRESSURE (DL+LL) = 1000 PSF FOR MAT SLAB  
 c. COEFFICIENT OF FRICTION = 0.3  
 d. ALLOWABLE PASSIVE PRESSURE FOR MAT SLAB = 150 PCF (EQUIVALENT FLUID PRESSURE)  
 e. ALLOWABLE PASSIVE PRESSURE FOR RETAINING WALLS = 60 PCF FOR LEVEL BACKFILL WITH BACK-DRAINAGE (ADD 2 FT BACKFILL FOR VEHICULAR SURCHARGE) (12H SEISMIC)

3. ALL FOUNDATION AND RETAINING WALL WORK SHALL COMPLY WITH 2019 CBC CHAPTER 18.

4. WATERPROOF MEMBRANE SHALL BE 10MIL MIN THICK; 2" MIN OVERLAP & SECURED W/ TAPE AT ALL EDGES PER MANUFACTURER'S RECOMMENDATION.

5. CONTRACTOR SHALL USE APPROVED DEVICES AND/OR SERVICES TO SCAN FOR UNDERGROUND UTILITIES PRIOR TO START OF EXCAVATION OR GRADING.

6. CONTRACTOR SHALL AVOID EXCAVATION BELOW BOTTOM OF FOOTING AND REMOVING ANY SOIL WHICH MAY SERVE FOR LATERAL RESISTANCE FOR ADJACENT FOOTINGS, UNLESS OTHERWISE NOTED.

7. EXTERIOR FOOTINGS TO BE A MINIMUM OF 18" BELOW FINISHED GRADE (UNLESS OTHERWISE NOTED) BEARING ON NATIVE UNDISTURBED COMPETENT SOIL OR ENGINEERED COMPACTED FILLS WITH 95% RELATIVE COMPACTION (ASTM D1557), APPROVED BY SOIL ENGINEER IN WRITING.

8. DO NOT ALLOW WATER TO STAND IN EXCAVATED HOLES. IF BOTTOMS OF HOLE BECOME SOFTENED DUE TO RAIN OR OTHER WATER BEFORE CONCRETE IS CAST, EXCAVATE SOFTENED MATERIAL AND REPLACE WITH PROPERLY COMPACTED BACKFILL OR CONCRETE AT NO COST TO THE OWNER.

**EQUIPMENT, PIPE, AND DUCT SUPPORT**

1. THE CONTRACTOR IS RESPONSIBLE FOR THE VERTICAL AND LATERAL SUPPORT OF ALL HVAC AND OTHER EQUIPMENT. SHOP DRAWINGS SHALL BE SUBMITTED FOR THE SUPPORT OF ALL HVAC EQUIPMENT OVER 400 POUNDS, STAMPED AND SIGNED BY A CALIFORNIA-LICENSED CIVIL OR STRUCTURAL ENGINEER. EQUIPMENT AND ANCHORAGE SHALL BE DESIGNED TO RESIST LATERAL SEISMIC FORCES PER 2019 CBC SECTION 1632.2. LATERAL SEISMIC DESIGN FORCES ON ALL LIFE SAFETY EQUIPMENT SHALL BE INCREASED BY A FACTOR OF 1.50.  
 2. CONDUITS, PIPES AND DUCTS SHALL BE BRACED TO RESIST SEISMIC HAZARD B PER THE CURRENT EDITION OF "SMACNA SEISMIC RESTRAINT MANUAL: GUIDELINES FOR MECHANICAL SYSTEMS", EXCEPT THAT THE COMPONENTS OF LIFE SAFETY SYSTEMS SHALL BE BRACED TO RESIST SEISMIC HAZARD LEVEL A.

**ROUGH CARPENTRY**

1. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, NAILING SHALL CONFORM TO THE 2019 CBC, TABLE 2304.9.1. UNLESS OTHERWISE NOTED ON THESE DRAWINGS, ALL NAILS SHALL BE COMMON NAILS (AS OPPOSED TO BOX, SINKER OR COOLER NAILS).

2. SILLS ON CONCRETE SHALL BE PRESSURE TREATED DOUGLAS FIR. SILLS SHALL BE FASTENED TO THE CONCRETE WITH A MINIMUM OF TWO FASTENERS PER PIECE, SPACED NOT MORE THAN 4 FEET APART AND A FASTENER LOCATED NOT MORE THAN 12 INCHES OR SEVEN BOLT DIAMETERS AND NOT LESS THAN 5 INCHES FROM EACH END OF PIECE. USE HOT-DIPPED GALVANIZED FASTENERS WITH PRESSURE TREATED WOOD.

3. FASTEN ALL SILL PLATES AT NON-STRUCTURAL WALLS TO NON-PRESTRESSED CONCRETE SLABS WITH 0.177" DIAMETER POWER DRIVEN FASTENERS AT 16" ON CENTER, WITH 1 1/2" MINIMUM CONCRETE EMBEDMENT, UNLESS OTHERWISE NOTED ON THE DRAWINGS. FASTEN ALL SILL PLATES AT NON-STRUCTURAL WALLS TO PRESTRESSED CONCRETE SLABS WITH 0.145" DIAMETER POWER EMBEDMENT DRIVEN FASTENERS AT 16" ON CENTERS, WITH 3/4" MINIMUM AND 1" MAXIMUM CONCRETE EMBEDMENT, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

4. ALL ANCHOR BOLTS (AB) SHALL BE ASTM A307. ALL ANCHOR BOLTS SHALL HAVE FLAT WASHERS MINIMUM 3"x3" SQUARE BY 0.229" THICK. ANCHOR BOLTS MUST BE SECURELY WIRDED IN PLACE AND ALIGNED IN A TRUE STRAIGHT LINE PRIOR TO THE CONCRETE PLACEMENT. ANCHOR BOLTS AND OTHER EMBEDDED STRUCTURAL CONNECTIONS MAY NOT BE "WET SET".

5. LAG SCREWS: PRE-DRILL LEAD HOLES WITH 1/2 TO 3/8 OF SHANK DIAMETER FOR THREADED PORTION OF LAG SCREW, AND FULL DIAMETER FOR THE UNTHREADED SHANK PORTION. LAG SCREWS SHALL BE TORQUED, AND NEVER HAMMERED, INTO POSITION. LUBRICATE THREADS WITH SOAP OR OTHER WOOD-COMPATIBLE LUBRICANT.

6. ALL MACHINE BOLTS (M.B.) SHALL BE ASTM A307 GRADE A, INSTALLED THROUGH HOLES 1/4" LARGER THAN DIAMETER OF BOLT. RE-TIGHTEN ALL BOLTS PRIOR TO CLOSING IN WALLS.

7. USE HOT-DIPPED GALVANIZED NAILS, BOLTS, AND HARDWARE WHERE EXPOSED TO WEATHER AND FOR WHEN IN CONTACT WITH PRESSURE TREATED WOOD.

8. PLACE JOISTS WITH CROWN UP. ADD ONE ADDITIONAL JOIST UNDER ALL PARALLEL PARTITIONS.

9. BLOCK ALL JOISTS AT SUPPORTS AND UNDER ALL PARTITIONS WITH MINIMUM 2X SOLID BLOCKING. BLOCK AND BRIDGE JOISTS AT 10 FOOT AND FLOOR JOISTS AT 8 FOOT ON CENTER WHERE CEILING ASSEMBLY IS NOT ATTACHED DIRECTLY TO BOTTOM OF JOISTS.

10. ALL TIMBER FASTENERS NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE SIMPSON COMPANY'S STANDARD FASTENERS OR APPROVED EQUAL.

11. ALL WOOD AND WOOD PRODUCTS IN CONTACT WITH CONCRETE OR MASONRY OR EXPOSED TO WEATHER SHALL BE PRESSURE-TREATED. SPECIES AND GRADE FOR PRESSURE TREATED PRODUCTS SHALL MATCH THAT SPECIFIED FOR UNTREATED SIMILAR LUMBER OR WOOD PRODUCTS (I.e. PRESSURE-TREATED HEM-FIR MAY NOT BE SUBSTITUTED FOR PRESSURE-TREATED DOUGLAS-FIR), UNLESS OTHERWISE NOTED ON THE DRAWINGS.

12. RE-TIGHTEN ALL BOLTS BEFORE CLOSING IN FRAMING.

13. AT THE TIME OF INSTALLATION, ALL FRAMING LUMBER SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19%.

14. ALL TJI, MICRO-LAM (LVL), PARALAM (PSL) ARE MADE BY MEYERHAUSER. THE MANUFACTURER'S GUIDELINES AND RECOMMENDATIONS SHALL BE FOLLOWED IN HANDLING AND INSTALLATION OF ALL PRODUCTS.

15. TIMBER RIVETS: SHALL BE INSTALLED WITH LONG EDGE PARALLEL TO GRAIN. TIMBER RIVETS AT THE PERIMETER OF THE GROUP SHALL BE DRIVEN FIRST. SUCCESSIVE TIMBER RIVETS SHALL BE DRIVEN IN A SPIRAL PATTERN FROM THE OUTSIDE TO THE CENTER OF THE GROUP.

16. SIMPSON STRONG WALL SHEAR WALL MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER INSTRUCTIONS. MANUFACTURER GUIDELINES AND RECOMMENDATIONS SHALL BE FOLLOWED AT ALL TIMES DURING HANDLING AND INSTALLATION OF ALL PRODUCTS.

**FRAMING LUMBER**

1. ALL FRAMING LUMBER SHALL BE DOUGLAS FIR GRADED PER WCLJB GRADING RULES NO. 16 LUMBER MAY BE SURFACE GREEN EXCEPT AS NOTED BELOW.

2. ALL POSTS, BEAMS, HEADERS SHALL BE #1 OR BETTER.

3. ALL ROOF JOISTS SHALL BE #1 OR BETTER.

4. ALL FLOOR JOISTS SHALL BE #1 OR BETTER, SURFACE DRY.

5. ALL STUDS SHALL BE STUD GRADE OR BETTER.

6. ALL PLATES AND MISCELLANEOUS LUMBER SHALL BE STANDARD GRADE OR BETTER.

7. ALL WOOD AND WOOD PRODUCTS IN CONTACT WITH CONCRETE OR MASONRY OR EXPOSED TO WEATHER SHALL BE PRESSURE-TREATED. SPECIES AND GRADE FOR PRESSURE TREATED PRODUCTS SHALL MATCH THAT SPECIFIED FOR UNTREATED SIMILAR LUMBER OR WOOD PRODUCTS (I.e. PRESSURE-TREATED HEM-FIR MAY NOT BE SUBSTITUTED FOR PRESSURE-TREATED DOUGLAS-FIR), UNLESS OTHERWISE NOTED ON THE DRAWINGS.

**PLYWOOD**

1. EACH PLYWOOD SHEET OR WOOD STRUCTURAL PANEL SHALL BE IDENTIFIED WITH THE APPROPRIATE GRADE AND TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION AND SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE U.S. PRODUCT STANDARD PS 1 OR PS 2. WOOD STRUCTURAL PANELS (SUCH AS ORIENTED STRAND BOARD) OF EQUAL THICKNESS AND RATING, AND MEETING THE REQUIREMENTS OF APA PS 2, MAY BE SUBSTITUTED FOR PLYWOOD.

2. PLYWOOD SHEETS AT FLOORS AND ROOFS SHALL BE LAID WITH FACE GRAIN PERPENDICULAR TO JOISTS AND RAFTERS. BLOCK EDGES WHERE NOTED ON THE DRAWINGS. ALL CUT PANELS SHALL BE EQUAL OR GREATER THAN 24"x48". APPLY A CONTINUOUS BEAD OF GLUE TO ALL FLOOR JOISTS BEFORE SETTING FLOOR PLYWOOD.

3. PLYWOOD SHEETS ON WALLS SHALL BE LAID WITH LONG DIMENSION VERTICAL. ALL CUT PANELS IN SHEAR WALLS SHALL BE EQUAL OR GREATER THAN 16" IN BOTH DIRECTIONS. BLOCK AND NAIL ALL EDGES. GLUE ADHESIVE SHALL NOT BE APPLIED BETWEEN STUDS AND WALL PLYWOOD.

4. ROOF PLYWOOD SHALL BE MINIMUM 1/2", 2% EXPOSURE 1, PROVIDE PLYCLIPS BETWEEN RAFTERS WHERE EDGES ARE NOT BLOCKED. U.O.N.

5. FLOOR PLYWOOD SHALL BE MINIMUM 3/4", 2% EXPOSURE 1. U.O.N.

6. WALL PLYWOOD SHALL BE MINIMUM 1/2", 2% EXPOSURE 1. U.O.N.

**STRUCTURAL STEEL AND MISCELLANEOUS IRON**

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" (AS REVISED BY THE PROJECT SPECIFICATIONS).

2. STEEL SHAPES AND MISCELLANEOUS STEEL SHALL CONFORM TO THE FOLLOWING:  
 A. WIDE FLANGES (W) - ASTM 992, GR 50  
 B. HOLLOW STRUCTURAL SECTIONS (HSS)  
 \*SQUARE OR RECTANGULAR - ASTM A500 GR B (Fy = 46 ksi)  
 \*ROUND - ASTM A500 GR B (Fy = 42 ksi)  
 C. PLATES AND BARS - A36  
 \*EXCEPT FOR MOMENT FRAME CONNECTIONS (I.E. CONTINUITY, DOUBLER, SPLICE, ETC) WHICH SHALL BE ASTM A572 GR 50  
 D. PIPE - ASTM A53 GR B  
 E. MISCELLANEOUS SHAPES (I.E. CHANNELS, ANGLES, ETC) - ASTM A36

3. ALL BOLTS FOR STEEL TO STEEL CONNECTIONS SHALL CONFORM TO ASTM A325N-SQ, UNLESS OTHERWISE NOTED. BOLTS SHALL BE FULLY PRE-TENSIONED TO SATISFY SLIP-CRITICAL REQUIREMENTS WITH A CLASS-A FAYING SURFACE. FULL PRE-TENSIONING SHALL BE ATTAINED BY "TURN-OF-THE-NUT" OR OTHER METHOD APPROVED BY THE STRUCTURAL ENGINEER.

4. ANCHOR RODS:  
 TYPICAL: ASTM F1554 GR 36 W/ ASTM A563 HEAVY HEX NUTS  
 WELDABLE: ASTM F1554 GR 55 S1 W/ ASTM A563 HEAVY HEX NUTS  
 HIGH STRENGTH: ASTM F1554 GR 105 W/ ASTM A563 GR DH HEAVY HEX NUTS

**PROJECT DESCRIPTION**

NEW RESIDENCE, NEW GARAGE, AND NEW ADU.

**PROJECT DIRECTORY**

OWNER: COBY FRIEDMAN  
 79 WOOD LANE  
 FAIRFAX, CA 94930  
 COBY@CFCONTRACTING.COM  
 415-310-5442

ARCHITECT: FREDRIC DIVINE ARCHITECTS  
 1924 4TH STREET  
 SAN RAFAEL, CA 94901  
 LAURA@FDIVINEARCHITECTS.COM  
 415-457-0220

STRUCTURAL/CIVIL ENGINEER: DAC ASSOCIATES, INC.  
 7 MOUNT LASSEN DRIVE  
 SUITE A-129  
 SAN RAFAEL, CA 94903  
 DARIUS@DACASSOCIATES.NET  
 415-499-1919

**ADHESIVE ANCHOR**  
 1. INSTALLATION OF ADHESIVE, ANCHORS AND DOWELS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THESE NOTES. WHERE REQUIREMENTS OF THE MANUFACTURER OR THESE NOTES CONFLICT THE MORE RESTRICTIVE PROVISIONS GOVERN.  
 2. ADHESIVE SYSTEMS  
 A. THE FOLLOWING ADHESIVE ANCHOR SYSTEMS ARE ACCEPTABLE FOR USE IN CONCRETE:  
 SIMPSON STRONG-TIE CO. INC.: SET-XP (ESR-2508)  
 HILTI, INC.: HILTI HIT HY-200  
 3. ADHESIVE CONNECTIONS SHALL HAVE SPECIAL INSPECTION PER CBC SECTION 1704 UNLESS OTHERWISE NOTED.

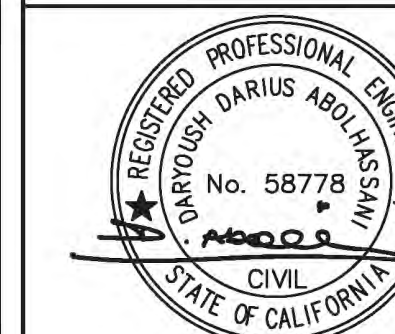
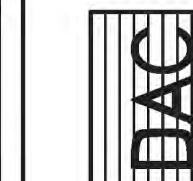
**SHEET INDEX**

S-1.0	STRUCTURAL GENERAL NOTES & COVER
S-1.1	STRUCTURAL TYPICAL DETAILS
S-1.2	STRUCTURAL TYPICAL DETAILS CONTINUED
S-1.3	STRUCTURAL TYPICAL DETAILS CONTINUED
S-2.0	FOUNDATION PLAN
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S-3.2	MEYERHAEUSER TYPICAL DETAILS
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S-3.4	STRUCTURAL DETAILS



REVISIONS		BY
1	2022-06-21	DL

**Darius Abolhassani Consultant & Associates, Inc.**  
 Consulting Engineering & Construction Support  
 7 Mt. Lassen Drive, Suite A-129, San Rafael, CA 94903  
 Phone: (415)499-1919 Email: darius@dacassociates.net



**NEW RESIDENCE & ADU**  
 79 WOOD LANE  
 FAIRFAX, CA 94930  
 PROJECT APN 002-062-03

**STRUCTURAL GENERAL NOTES**

DATE: 2022-04-08

SCALE: AS SHOWN

DRAWN BY: DL

JOB NUMBER: 1477-0822 S

SHEET 1  
**S-1.0**  
 OF 12 SHEET

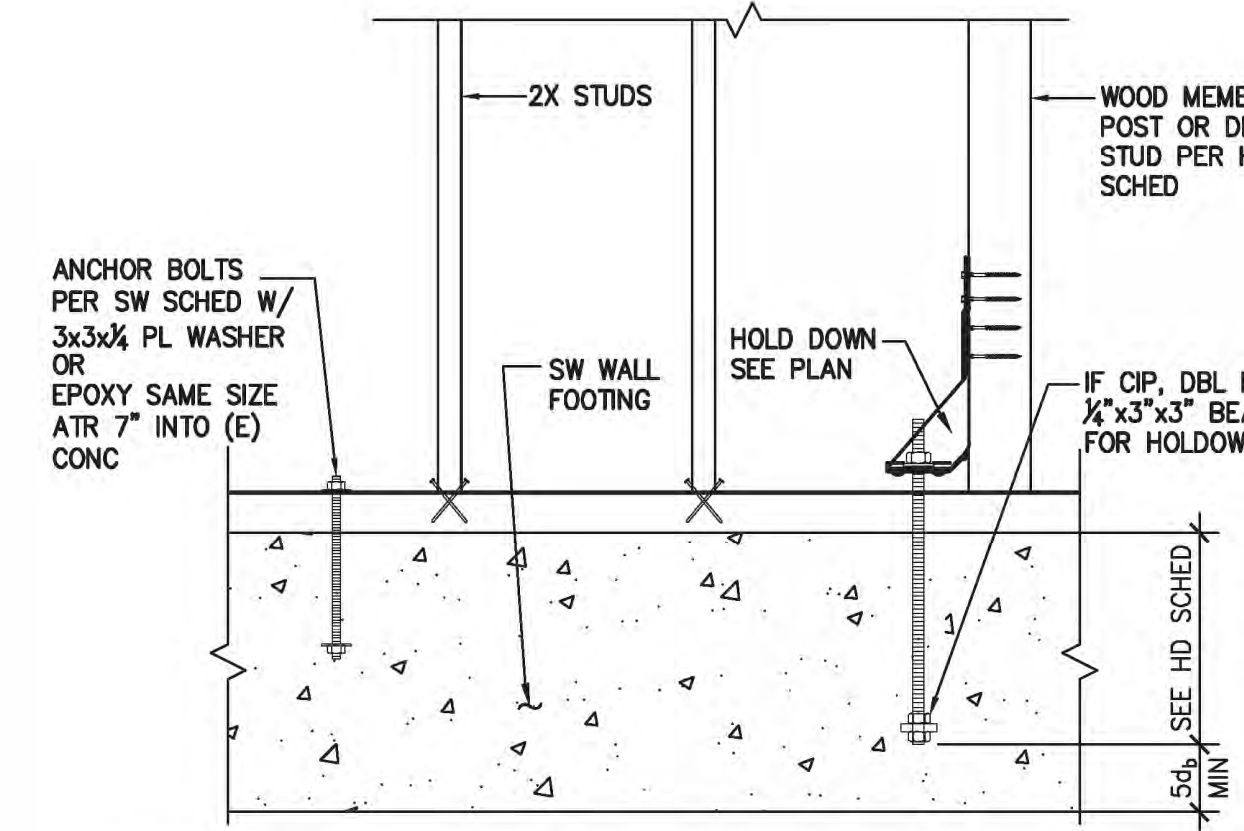




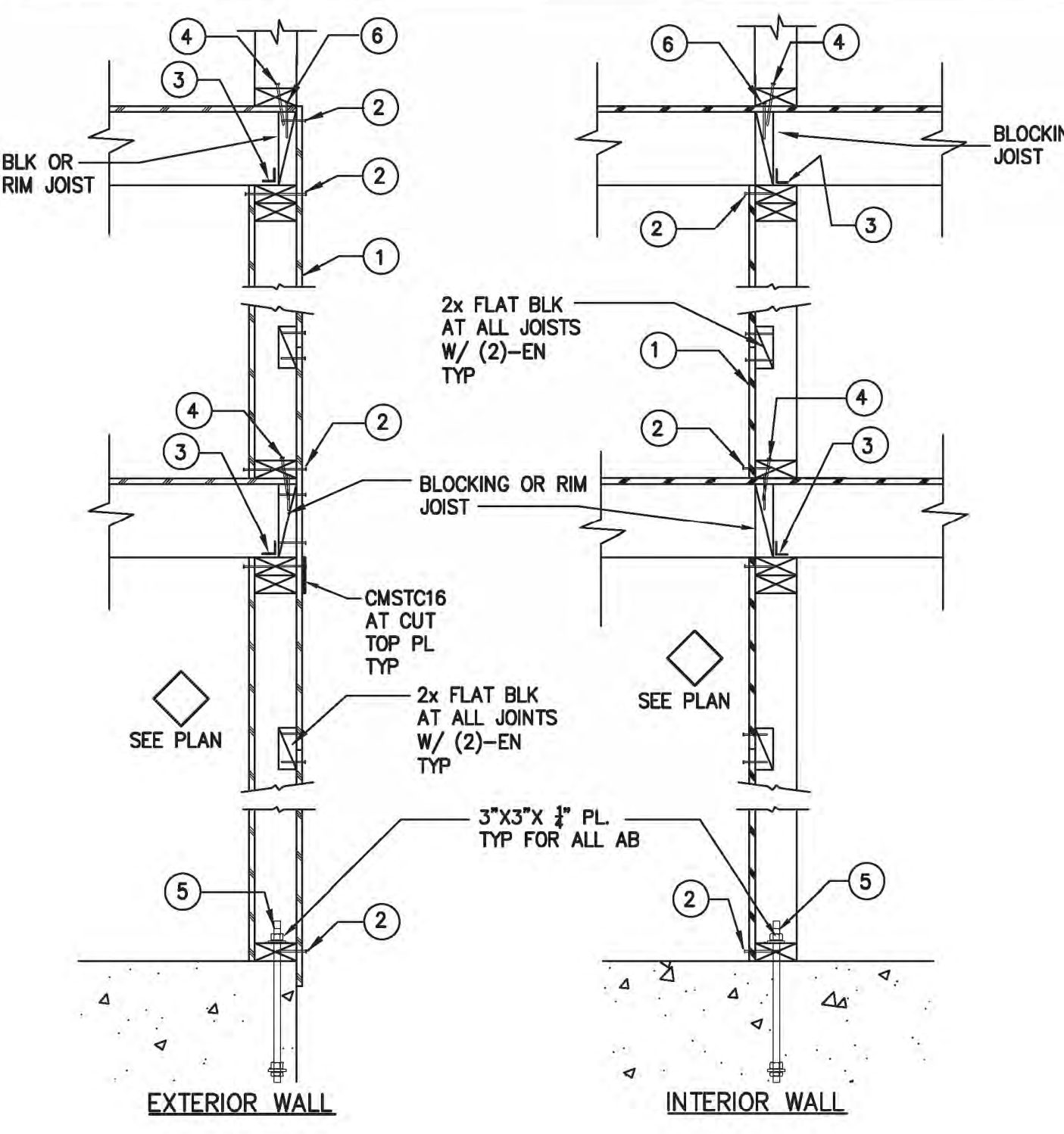
SHEAR WALL SCHEDULE							
MARK	SHEATHING	EDGE NAIL (EN) FIELD NAIL (FN)	FRAMING CLIPS	SOLE PL NAILS	ANCHOR BOLTS	FL/ROOF EDGE NAIL	
1.4	1/2" STRUCTURAL 1	10d @ 4" O.C. 10d @ 12" O.C.	A35 @ 12" O.C.	20d @ 4" O.C. OR SDS 1/4" x 5 @ 6"	5/8" @ 32" O.C. W/8" EMBED.	SEE DIAPHRAGM SCHED	
1.3	1/2" STRUCTURAL 1	10d @ 3" O.C. 10d @ 12" O.C.	A35 @ 6" O.C.	20d @ 3" O.C. OR SDS 1/4" x 5 @ 6" O.C.	5/8" @ 32" O.C. W/8" EMBED.	SEE DIAPHRAGM SCHED	
1.2	1/2" STRUCTURAL 1	10d @ 2" O.C. 10d @ 12" O.C.	A35 @ 6" O.C.	SDS 1/4" x 5 @ 6"	5/8" @ 16" O.C. W/8" EMBED.	SEE DIAPHRAGM SCHED	
1.22	2-SIDED 1/2" STRUCTURAL 1	10d @ 2" O.C. 10d @ 12" O.C.	A35 @ 4" O.C.	SDS 1/4" x 5 @ 3" O.C.	5/8" @ 6" O.C. W/8" EMBED.	SEE DIAPHRAGM SCHED	
C	SIMPSON STRONG WALL	SEE MANUFACTURER'S SPECIFICATIONS				XXXX LB	

**NOTES:**

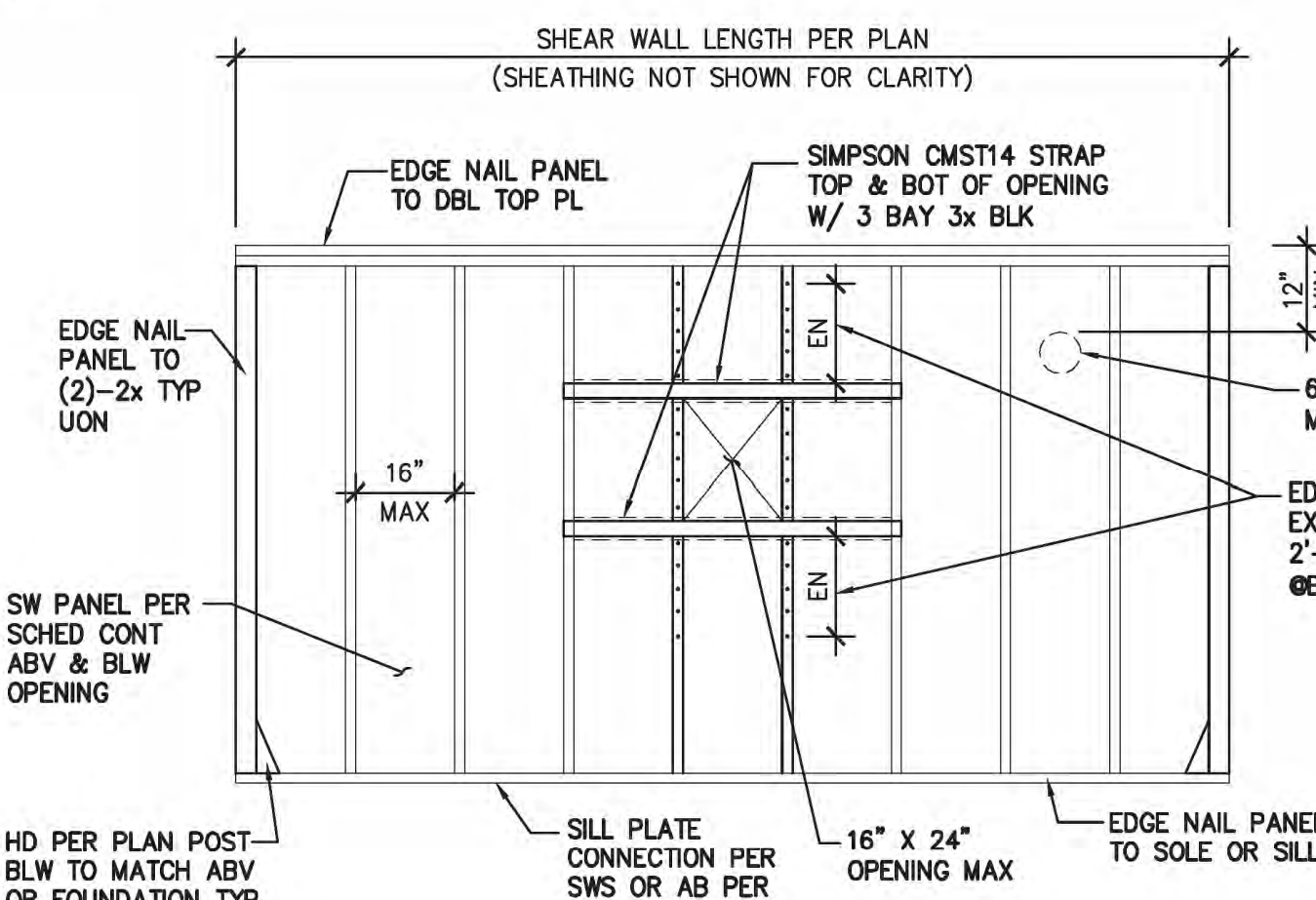
- SEE STRUCTURAL PLANS FOR SHEAR WALL TYPE, HOLDOWN, AND LOCATION
- ALL INFORMATION IN THE ABOVE SCHEDULE RELATES TO THE ITEMS SHOWN IN THE ACCOMPANYING WALL SECTIONS. ALL PARTS REQUIRED FOR EACH SHEAR WALL TYPE OCCUR IN THE WALLS BETWEEN THE LEVEL REPRESENTED BY THE FRAMING PLAN AND THE LEVEL ABOVE.
- EXAMPLE: (A SHEARWALL SHOWN ON THE SECOND FLOOR FRAMING PLAN WITH A MARK  $\diamond$  NEXT TO IT, SHALL HAVE ALL THE PARTS REQUIRED FOR A TYPE  $\diamond$  WALL INSTALLED IN THE WALL BETWEEN THE SECOND AND THIRD FLOORS OR SECOND FLOOR AND ROOF).
- WHERE THE SHEAR WALL SPECIFIED ON ONE SIDE OF THE WALL ONLY, PLACE SHEATHING ON SIDE OF WALL WHERE SYMBOL  $\diamond$  IS SHOWN ON PLAN
- WHERE THE SHEAR WALL SPECIFIED ON BOTH SIDES OF THE WALL, JOINTS AND SILL PL NAILING SHALL BE STAGGERED IN ALL CASES. PANELS JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS.
- AT SHEAR WALLS WITH CODE VALUES EXCEEDING 350 PLF, PROVIDE 3x SILL PL. AND 3x STUD (OR DBL 2x STUDS JOINED TOGETHER WITH SDS SCREWS @ 6" O.C. MAX.) AT FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS. EDGE NAILING ON ABUTTING PANELS SHALL BE STAGGERED.
- AT SHEAR WALLS WITH 2" O.C. EDGE NAILING, PROVIDE 3x SILL PL. AND 3x STUD AT FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS. EDGE NAILING ON ABUTTING PANELS SHALL BE STAGGERED.



HOLDOWN/TIEDOWN SCHEDULE						
HOLDOWN	ANCHOR DIA 'd <sub>a</sub> '	UPLIFT (LB)	MIN EMBEDMENT IN		FLR TO FLR OPTION	MIN WOOD MEMBER
			NEW	EXISTING		
HDU2	3/8"	3,075	SB $\frac{3}{8}$ "x24/SSTB24 OR ATR EMBED 14"	8"	MSTC40 (FLR<16")	2-2x OR 4x #1
HDU4	3/8"	4,565	SB $\frac{3}{8}$ "x24/SSTB28 OR ATR EMBED 18"	10"	MSTC52 (FLR<16")	2-2x OR 4x #1
HDU5	3/8"	5,645	SB $\frac{3}{8}$ "x24 OR ATR EMBED 20"	12"	MSTC66 (FLR<18")	2-2x OR 4x #1
HDU8	3/8"	7,870	SB $\frac{3}{8}$ "x24 OR ATR EMBED 20"	14"	N/A	3-2x OR 6x #1
HDU11-A	1"	9,335	SB1x30 OR ATR EMBED 24"	16"	N/A	4x6 SS
HDU11-B	1"	11,175	SB1x30 OR ATR EMBED 24"	18"	N/A	4x8 SS

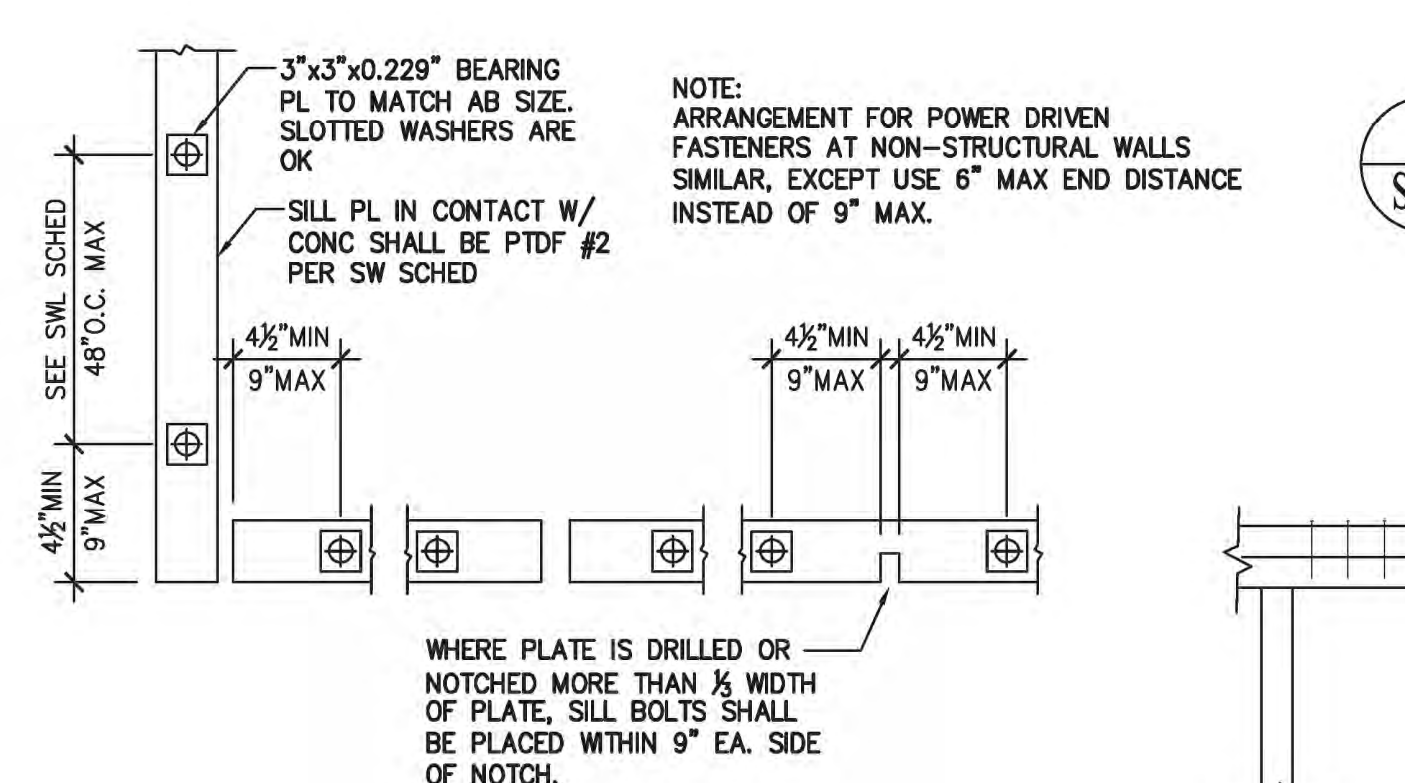


2 (TYP) HOLDOWN/TIEDOWN SCHEDULE

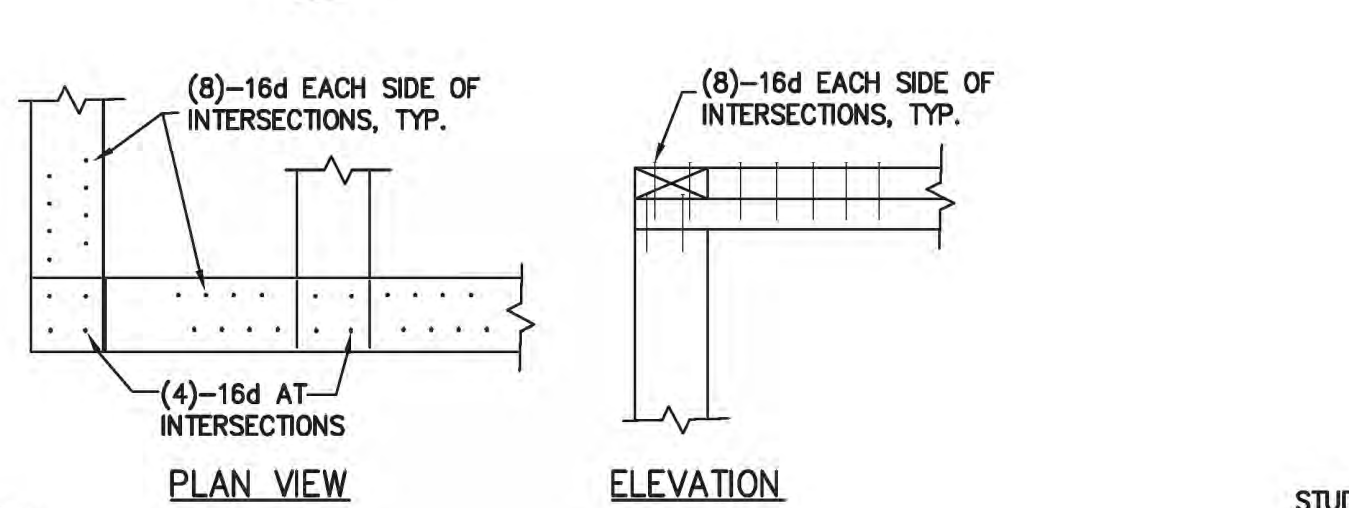


4 (TYP) SW WITH OPENING < 16" x 24"

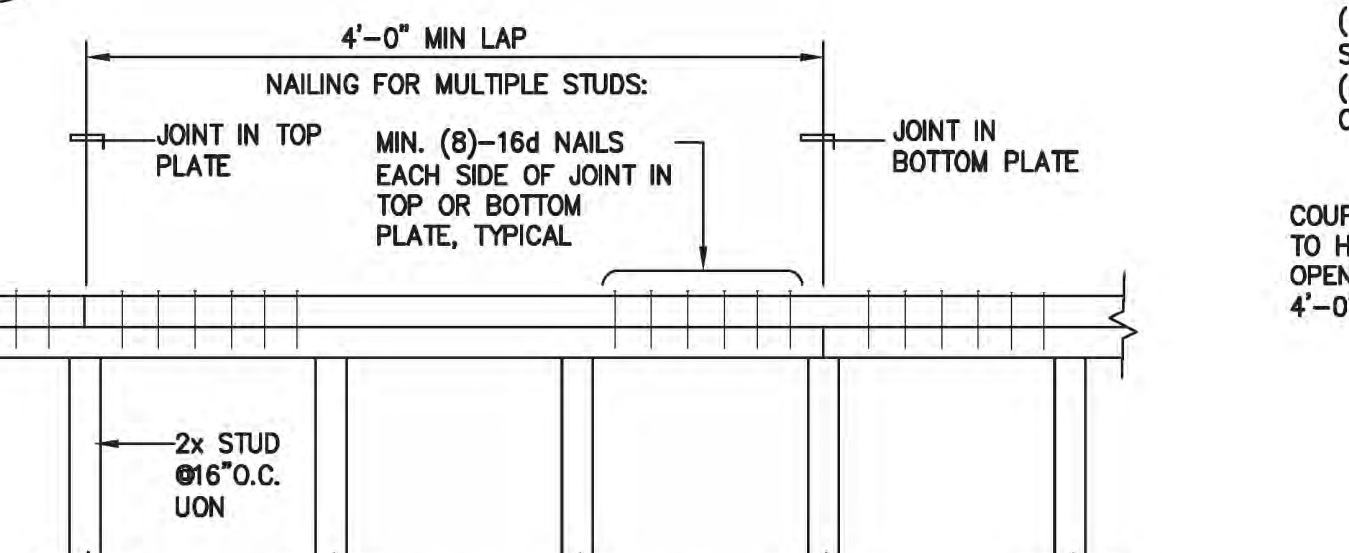
1 (TYP) WALL SECTIONS



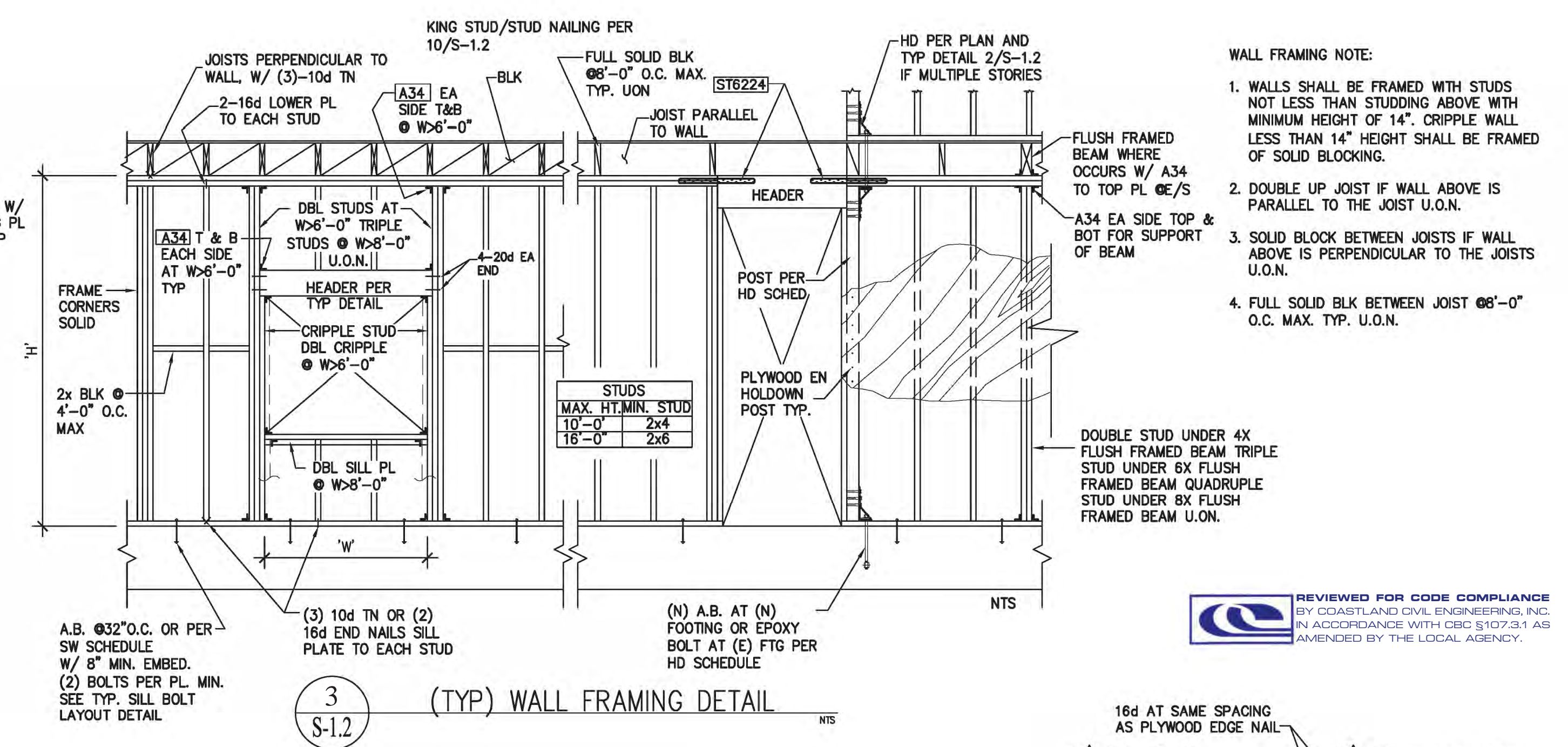
7 (TYP) SILL ANCHOR BOLT LAYOUT



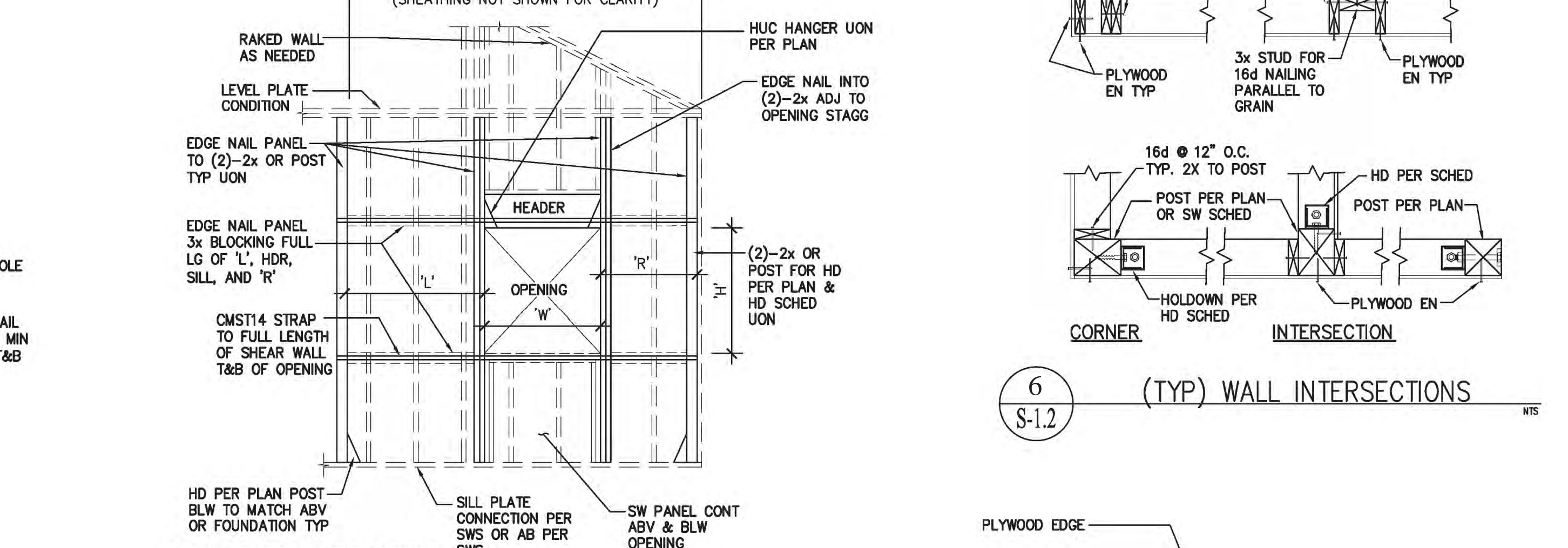
8 (TYP) TOP PLATE INTERSECTION



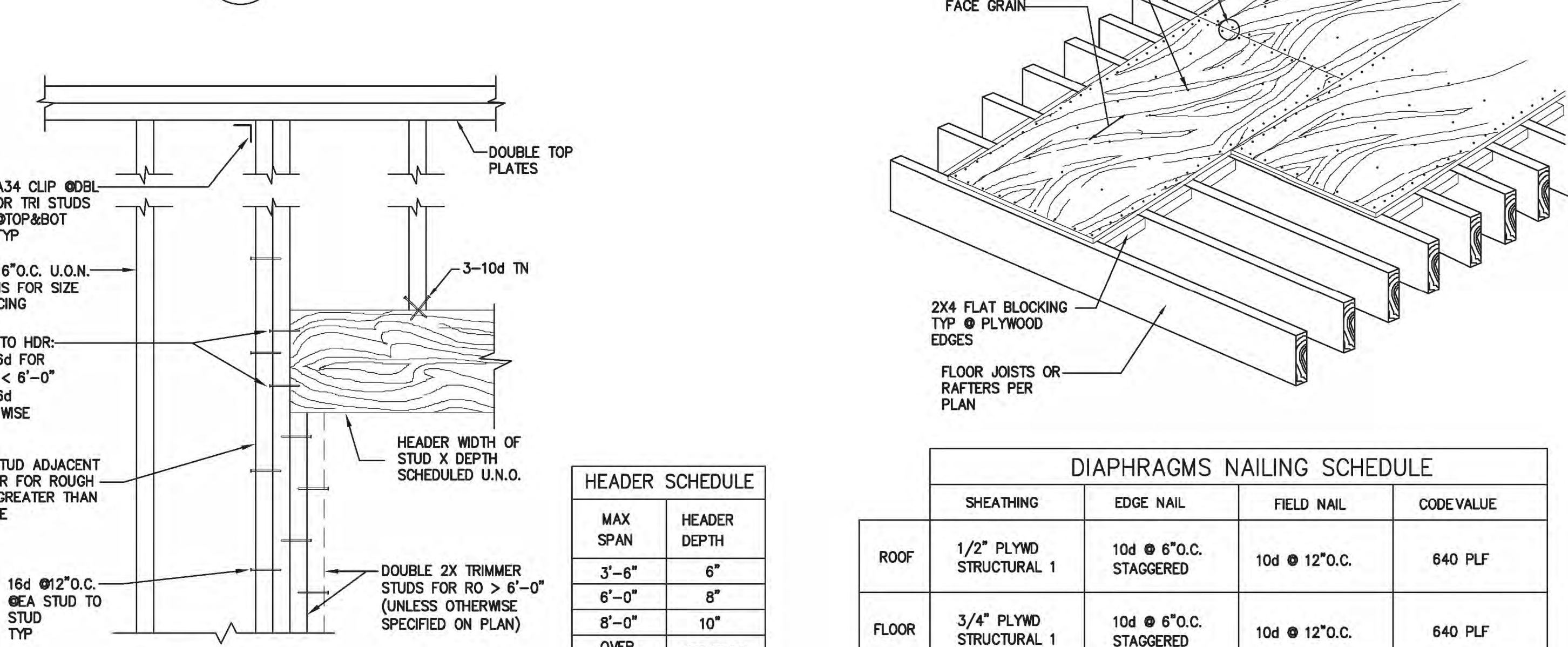
9 (TYP) NAILED TOP PLATE SPLICE



3 (TYP) WALL FRAMING DETAIL



5 (TYP) SW WITH LARGE OPENING

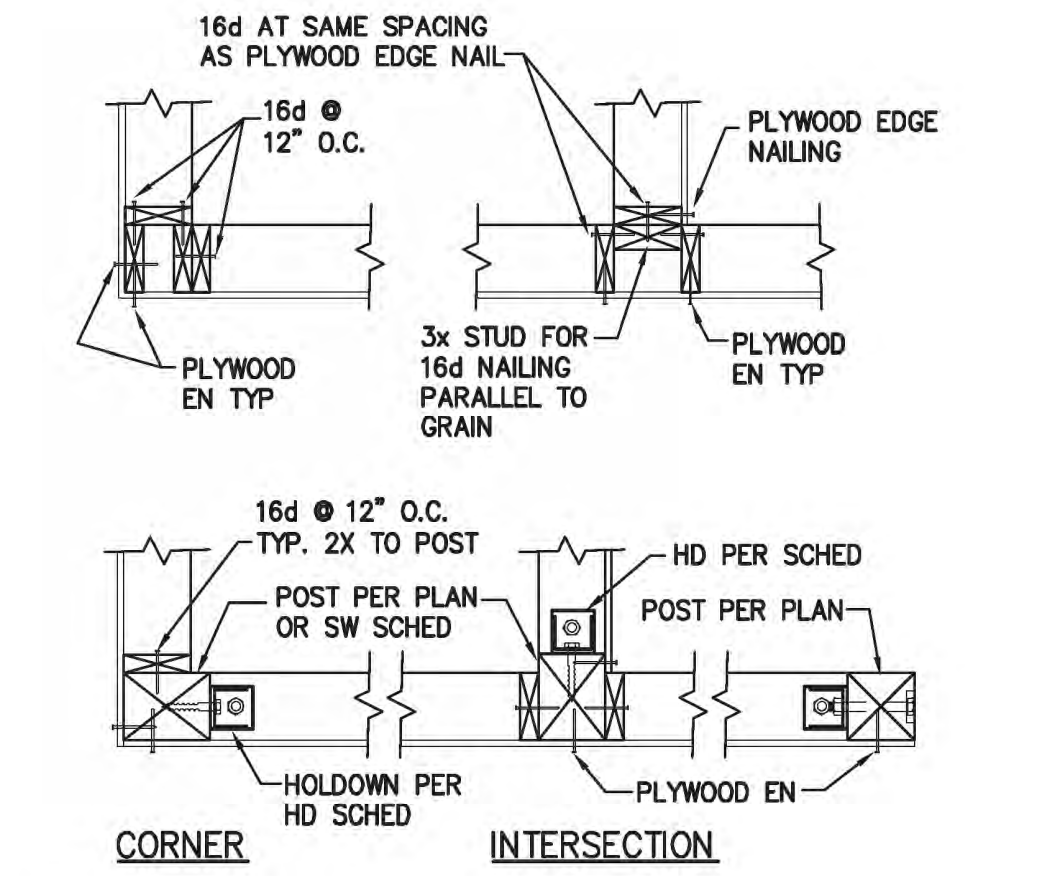


10 (TYP) SINGLE OPENING FRAMING W/ HEADER

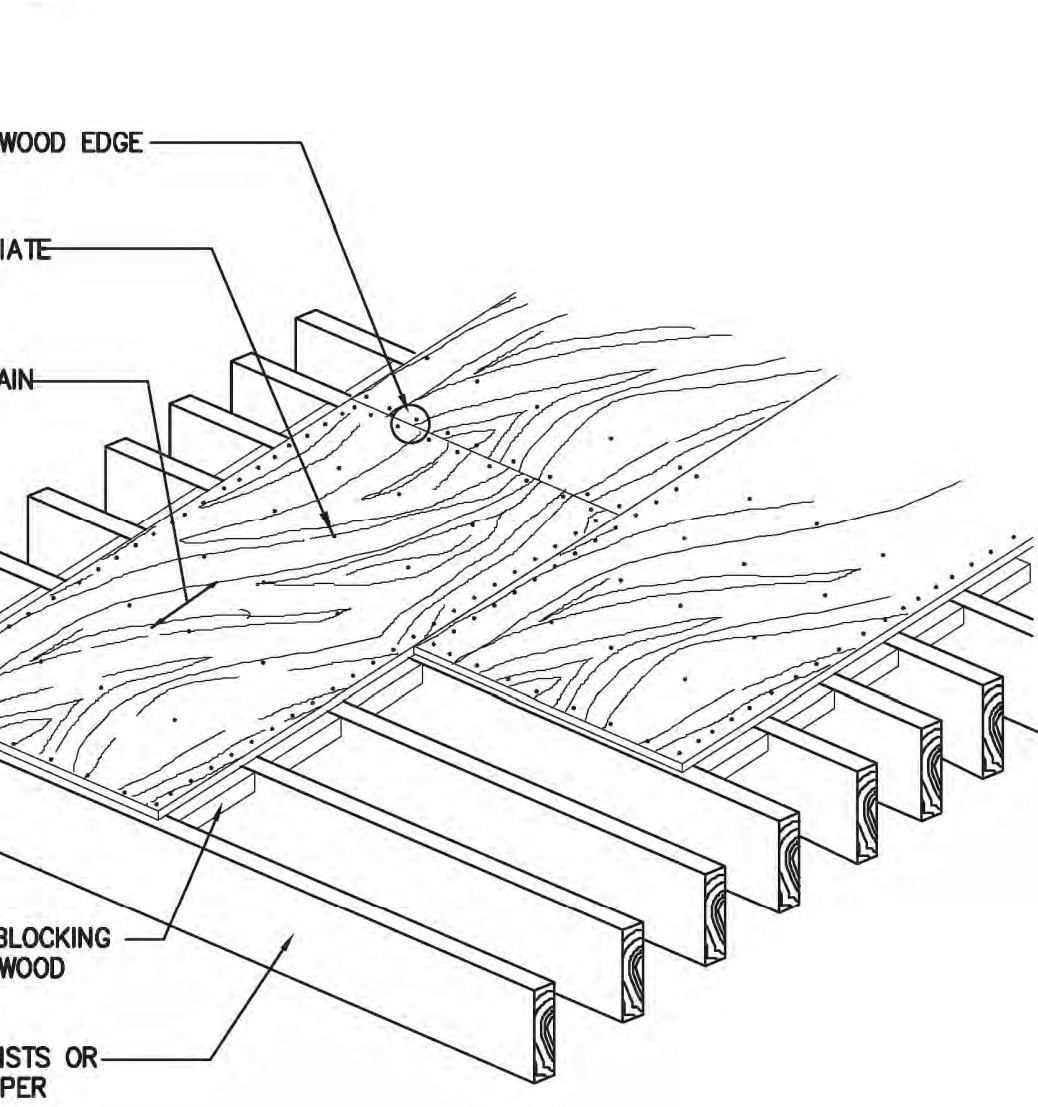
**WALL FRAMING NOTE:**

- WALLS SHALL BE FRAMED WITH STUDS NOT LESS THAN STUDDING ABOVE WITH MINIMUM HEIGHT OF 14". CRIPPLE WALL LESS THAN 14" HEIGHT SHALL BE FRAMED OF SOLID BLOCKING.
- DOUBLE UP JOIST IF WALL ABOVE IS PARALLEL TO THE JOIST U.O.N.
- SOLID BLOCK BETWEEN JOISTS IF WALL ABOVE IS PERPENDICULAR TO THE JOISTS U.O.N.
- FULL SOLID BLK BETWEEN JOIST @ 6'-0" O.C. MAX. TYP. U.O.N.

REVIEWED FOR CODE COMPLIANCE BY COASTLAND CIVIL ENGINEERING, INC. IN ACCORDANCE WITH CBC §107.3.1 AS AMENDED BY THE LOCAL AGENCY.



6 (TYP) WALL INTERSECTIONS



11 (TYP) DIAPHRAGM NAILING DETAIL

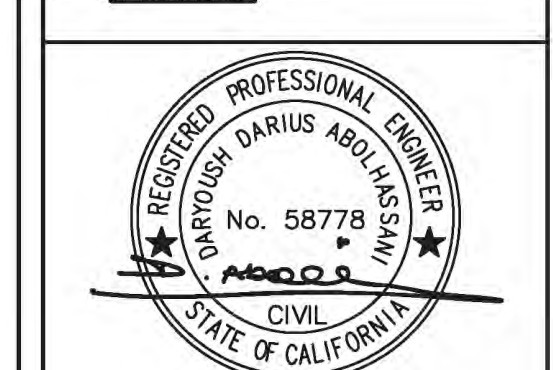
HEADER SCHEDULE	
MAX SPAN	HEADER DEPTH
3'-6"	6"
6'-0"	8"
8'-0"	10"
OVER 8'-0"	SEE PLAN

DIAPHRAGMS NAILING SCHEDULE			
	SHEATHING	EDGE NAIL	FIELD NAIL
ROOF	1/2" PLYWD STRUCTURAL 1	10d @ 6" O.C. STAGGERED	10d @ 12" O.C.
FLOOR	3/4" PLYWD STRUCTURAL 1	10d @ 6" O.C. STAGGERED	10d @ 12" O.C.

REVISIONS		BY
1	2022-06-21	DL

**Darius Abolhassani Consultant & Associates, Inc.**  
 Consulting Engineering & Construction Support

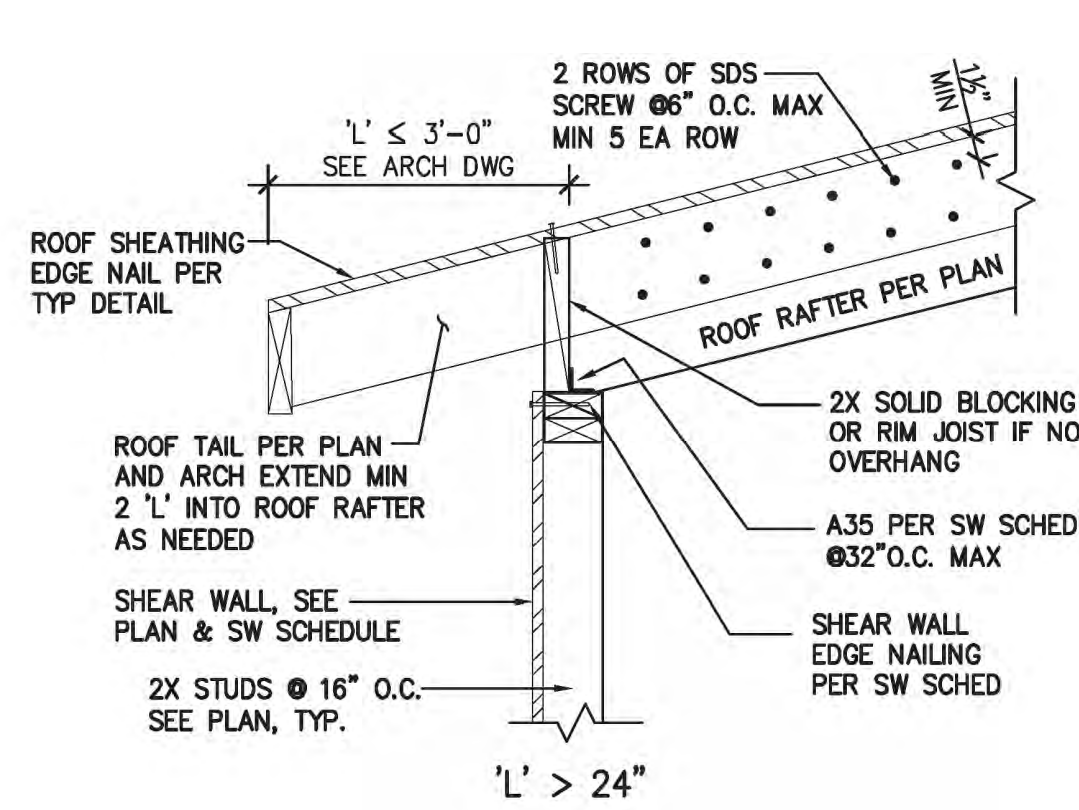
7 Mt. Lassen Drive, Suite A-129, San Rafael, CA 94903  
 Phone: (415)499-1919 Email: darius@dacassociates.net



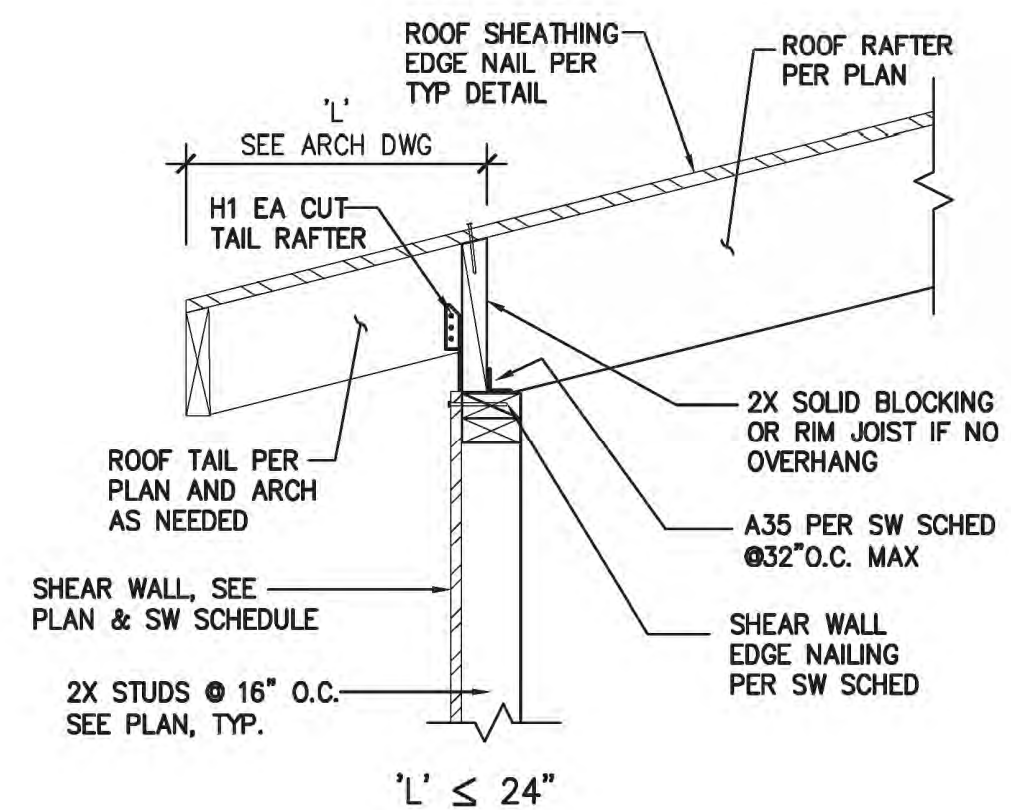
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 FAIRFAX, CA 94930  
 PROJECT APN 002-062-03

STRUCTURAL TYPICAL DETAILS CONTINUED

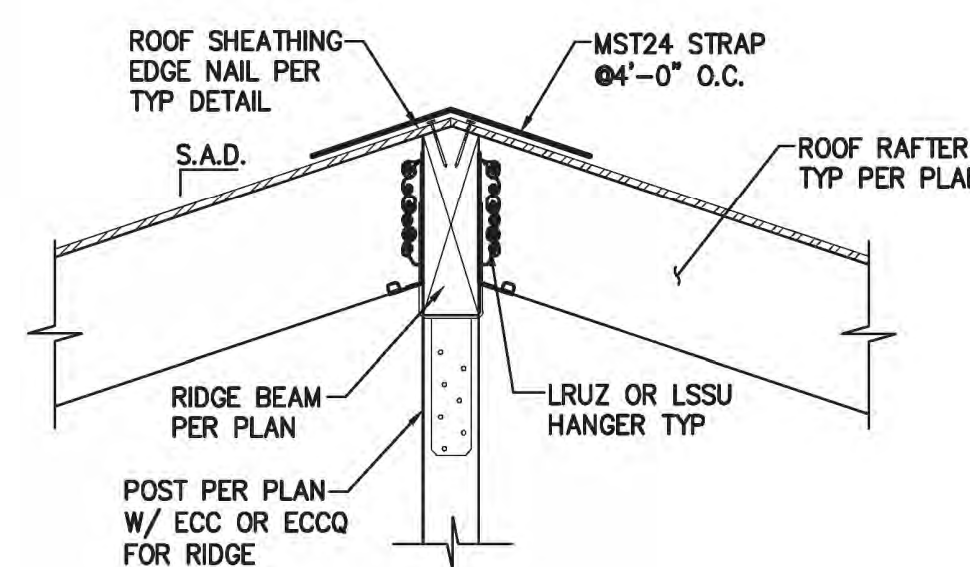
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 SCALE: AS SHOWN  
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 JOB NUMBER: 1477-0822 S  
 SHEET 3  
**S-1.2**  
 OF 12 SHEET



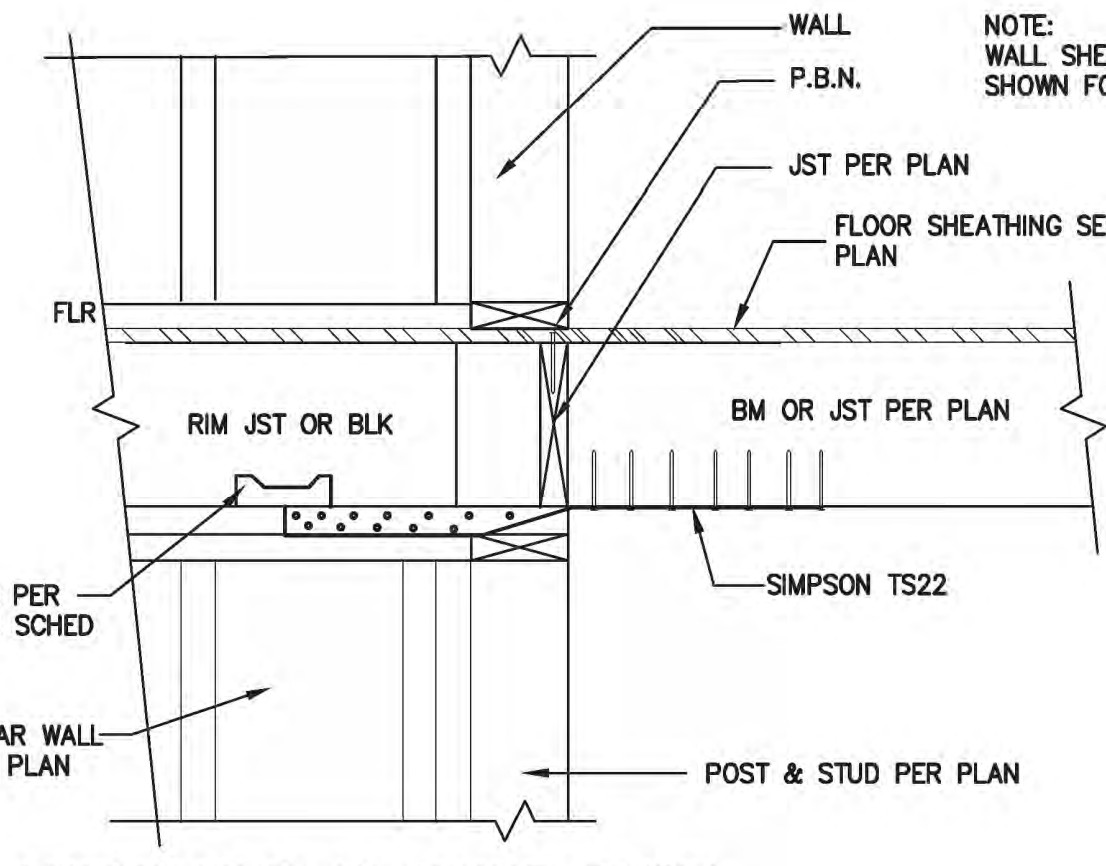
1 (TYP) ROOF TO WALL CONNECTION  
S-1.3 NTS



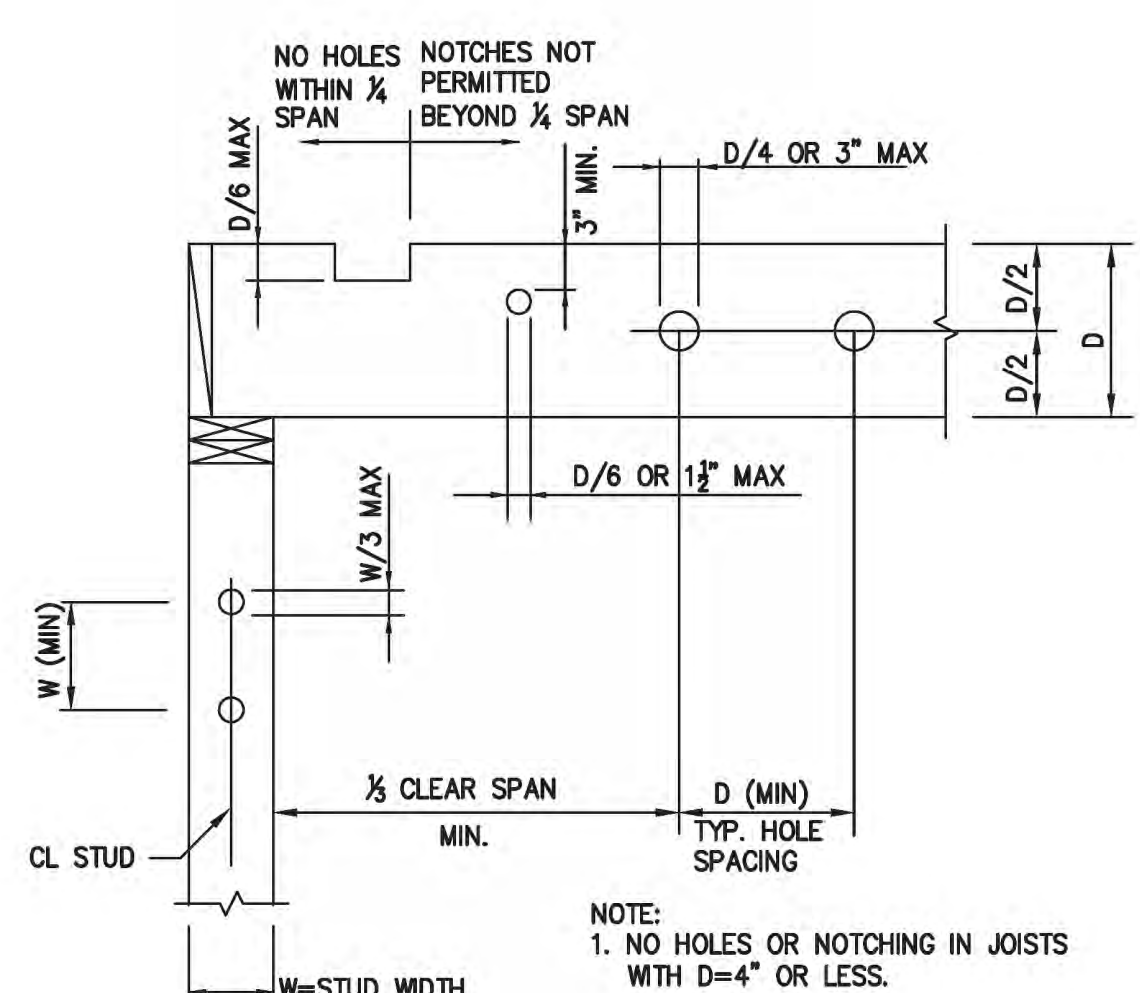
2 (TYP) RAFTER AND RIDGE  
S-1.3 NTS



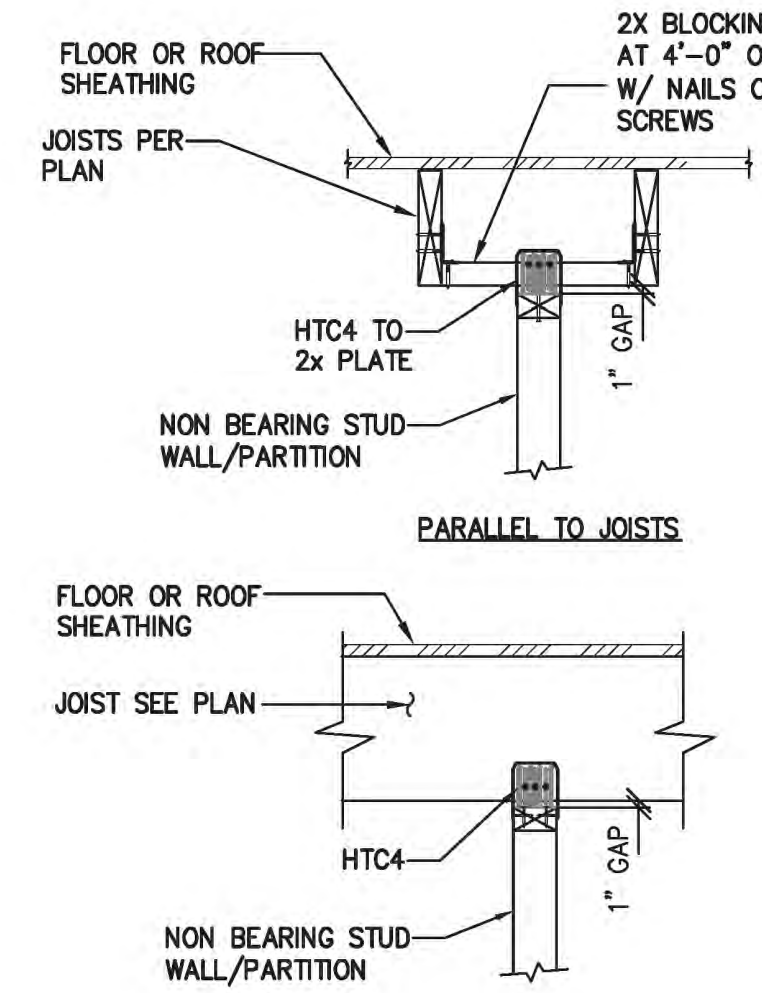
3 (TYP) LATERAL FORCE COLLECTOR - DRAG STRUT  
S-1.3 NTS



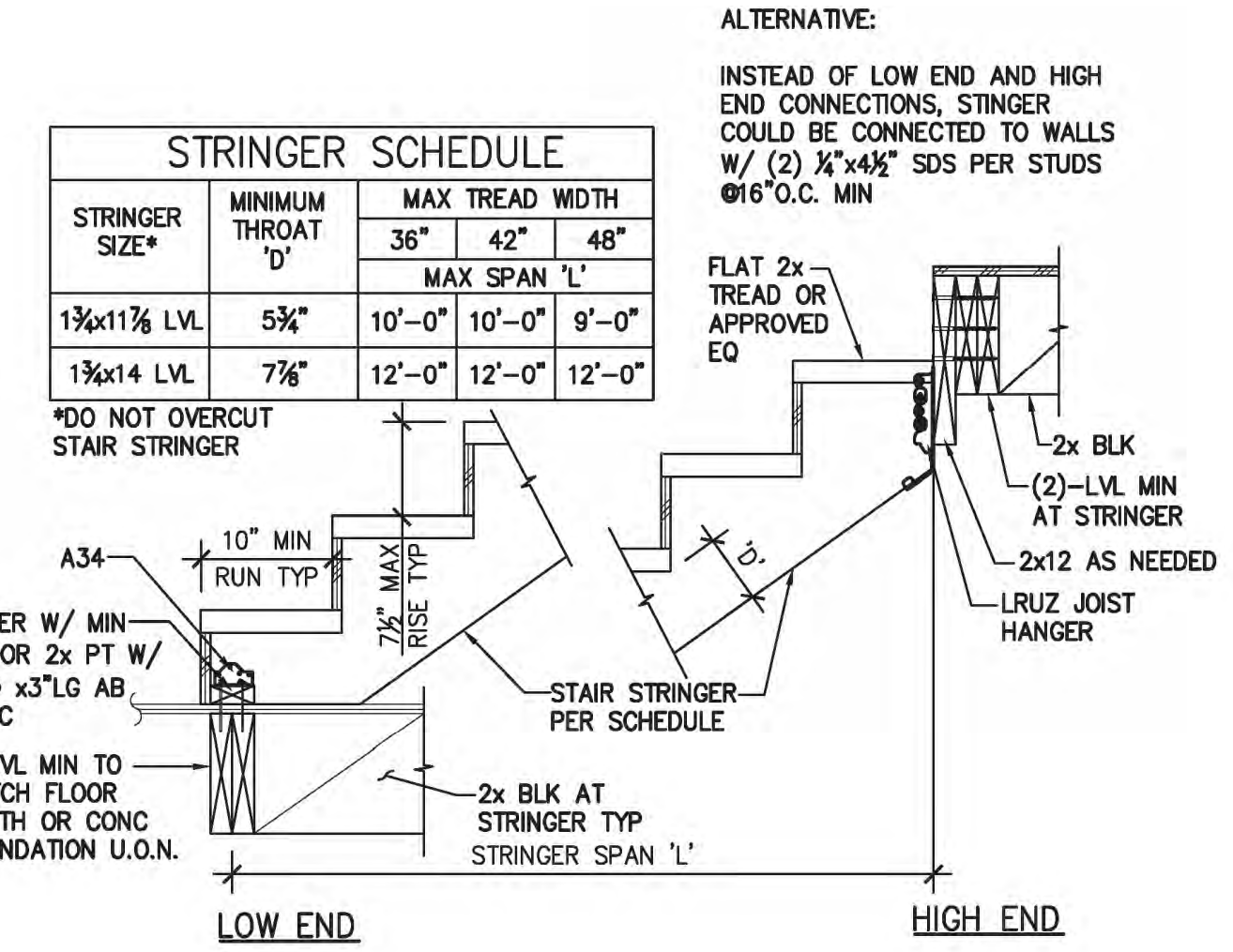
4 (TYP) FLOOR/ROOF OPENING FRAMING  
S-1.3 NTS



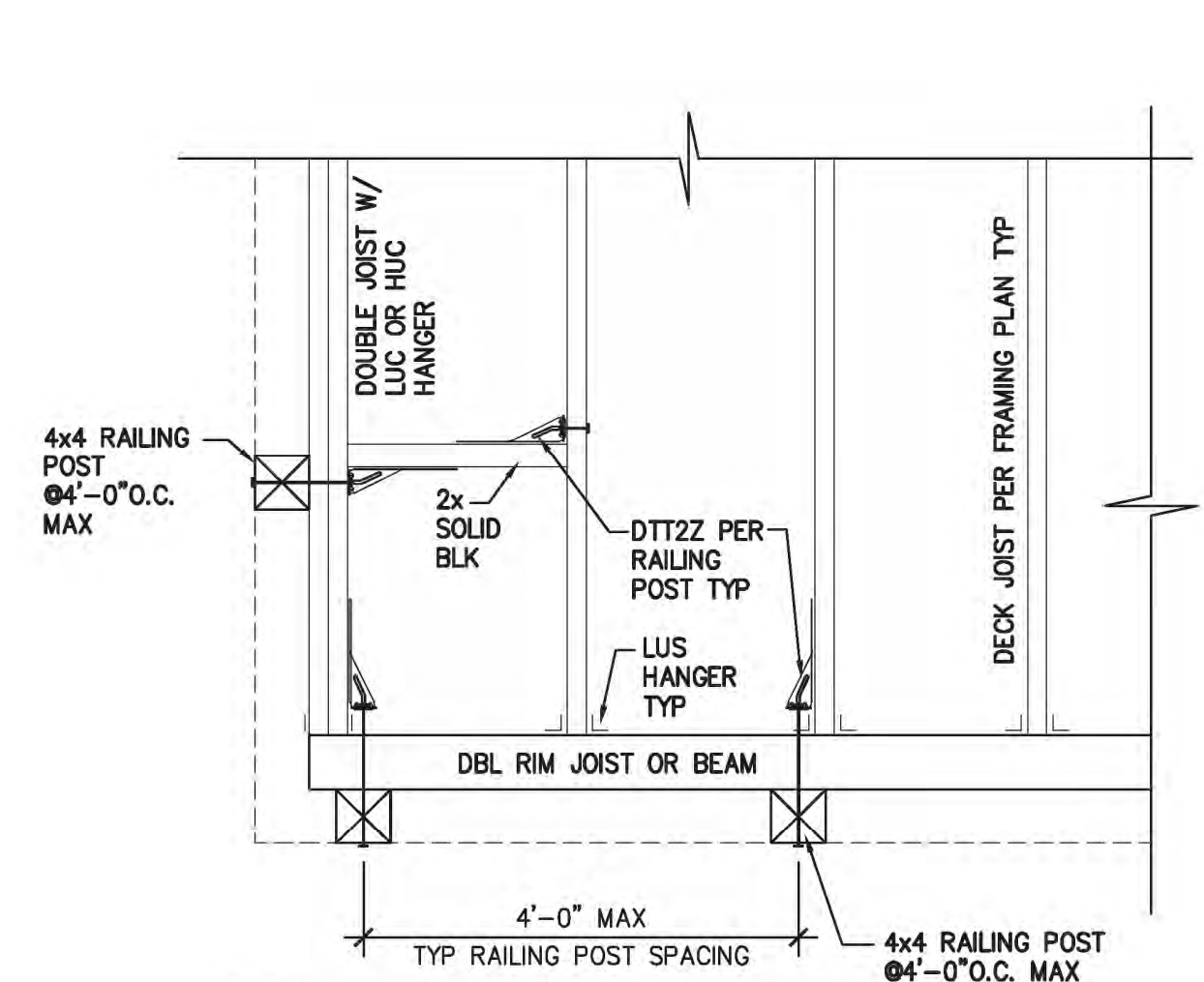
5 (TYP) ALLOWABLE HOLES AND NOTCHES IN JOISTS AND STUDS  
S-1.3 NTS



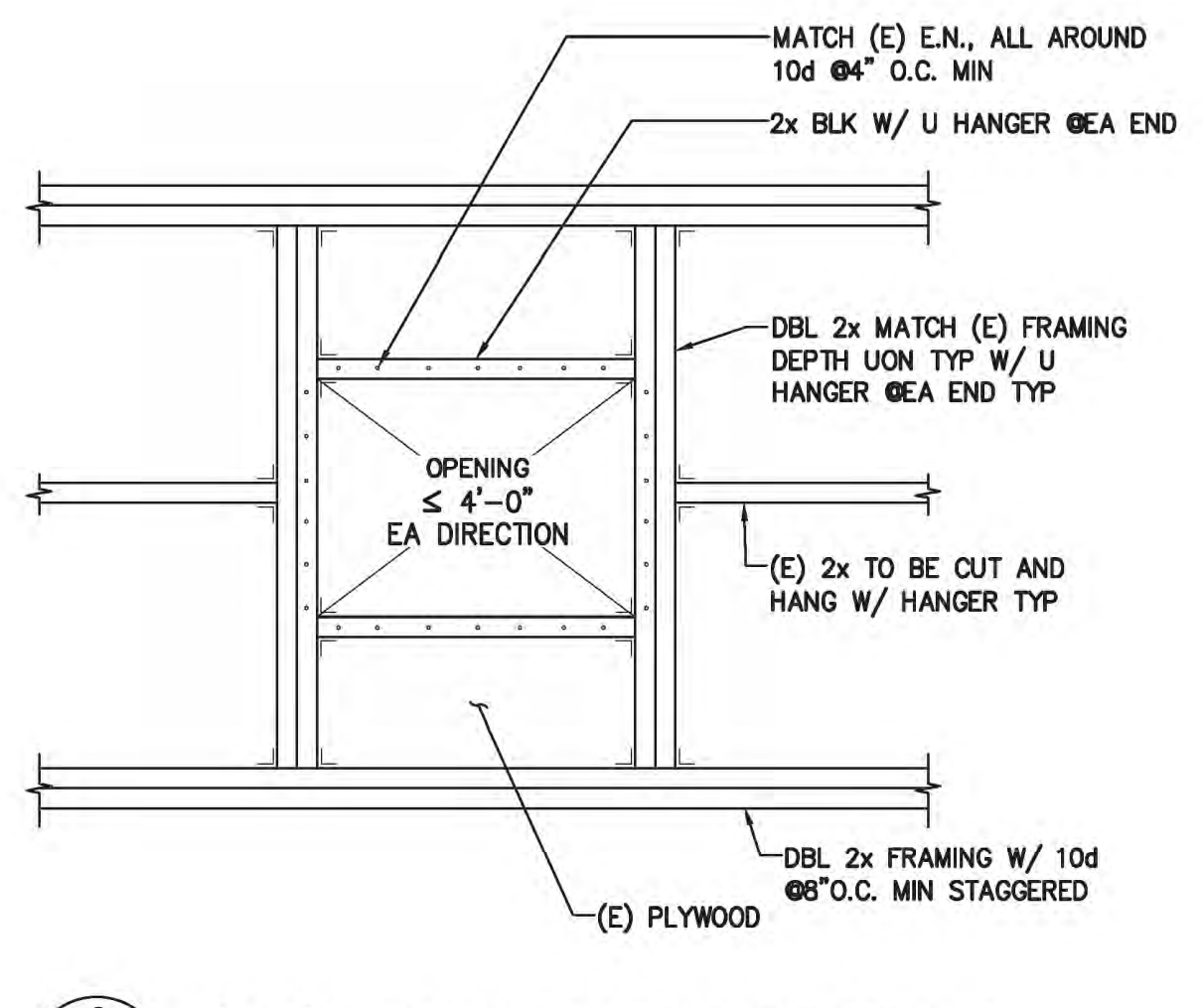
6 (TYP) NON BEARING PARTITION WALL  
S-1.3 NTS



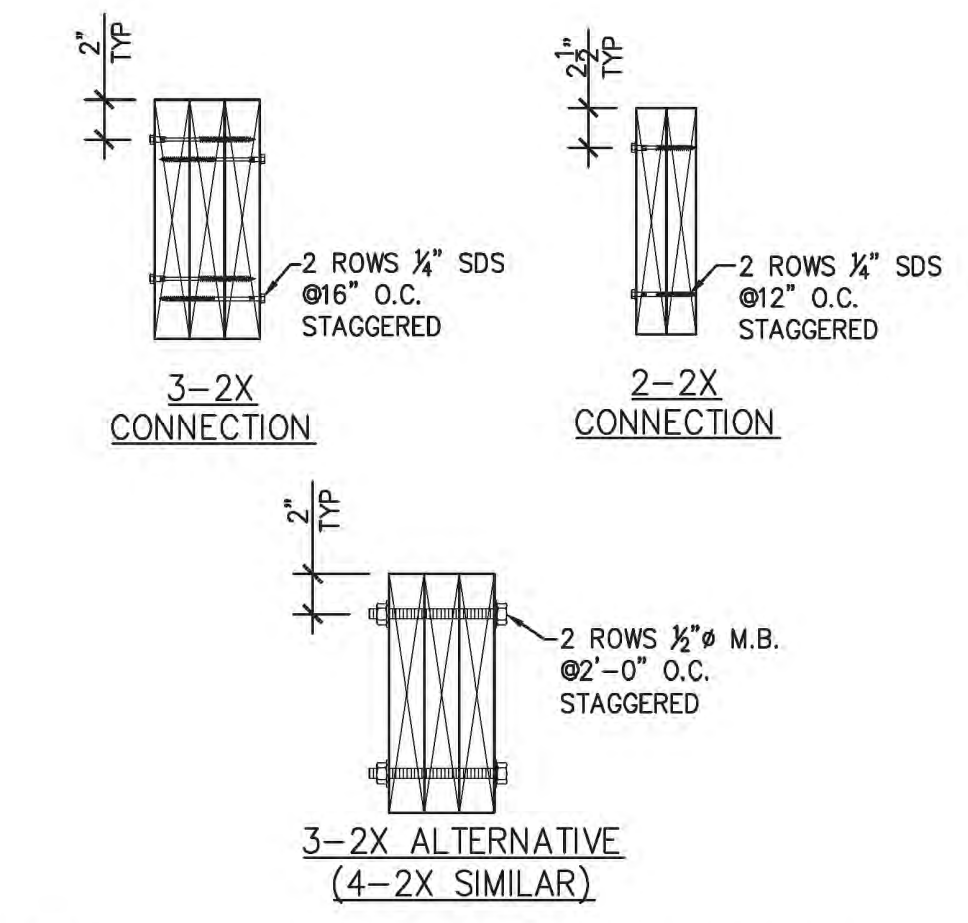
11 (TYP) INTERIOR STAIR FRAMING  
S-1.3 NTS



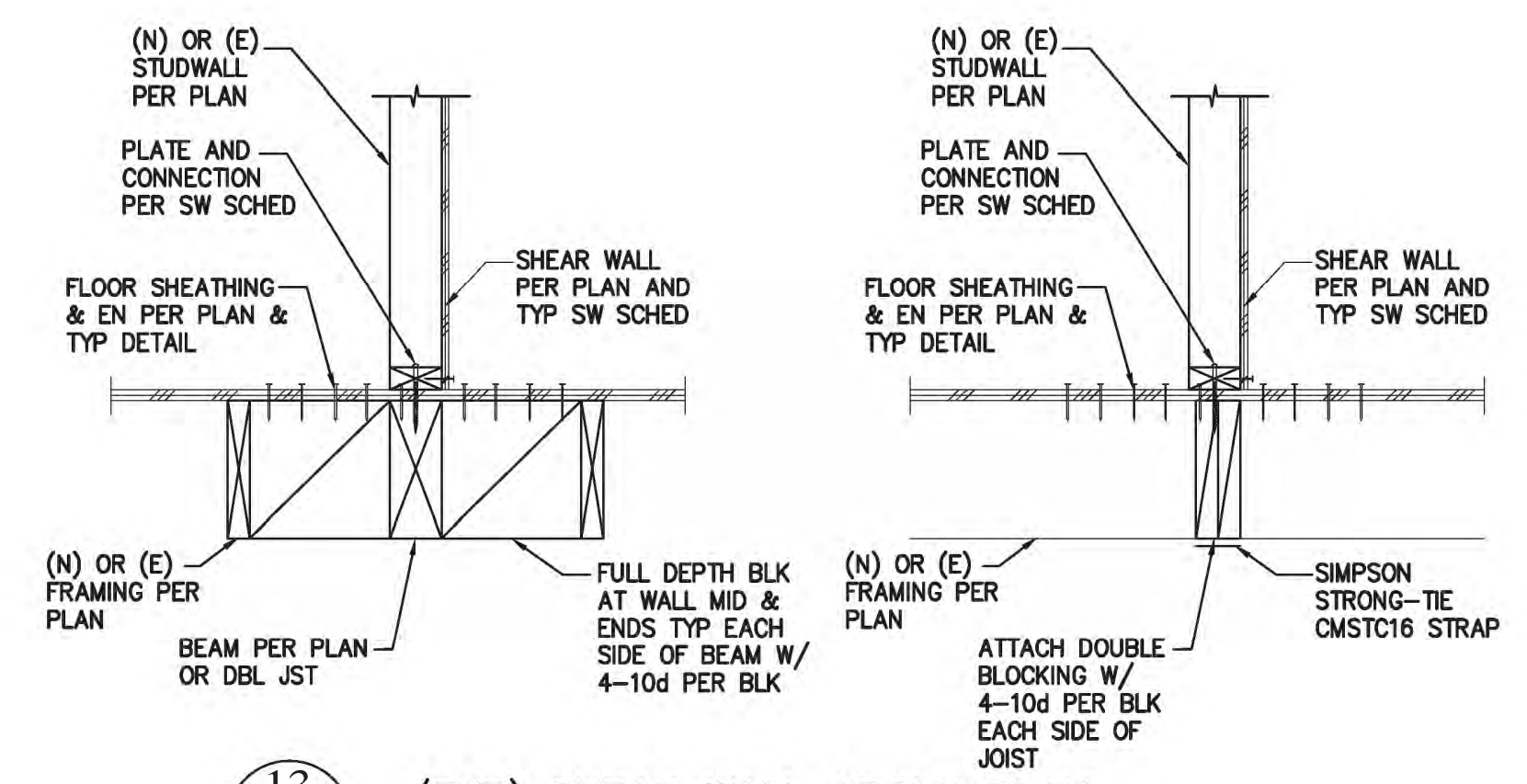
8 (TYP) DECK JOIST AND RAILING POST PLAN  
S-1.3 NTS



9 (TYP) OPENING IN EXISTING FRAMED ROOF  
S-1.3 NTS



12 (TYP) BUILT-UP BEAM/JOIST  
S-1.3 NTS



13 (TYP) SHEAR WALL ABOVE BEAM  
S-1.3 NTS

REVISIONS	BY
1	DL
2022-06-21	DL

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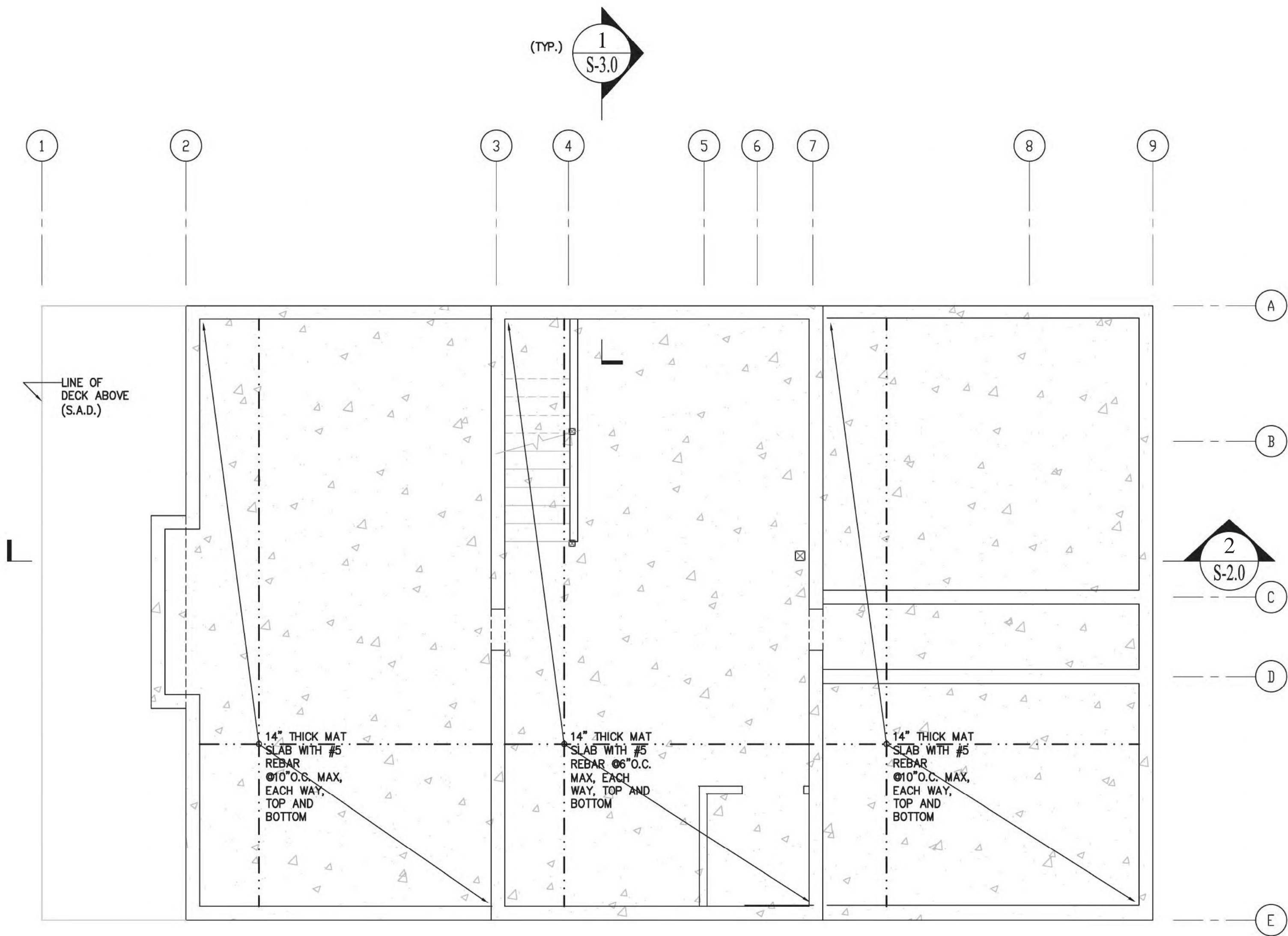
**NEW RESIDENCE & ADU**  
79 WOOD LANE  
FAIRFAX, CA 94930  
PROJECT APN 002-062-03

STRUCTURAL TYPICAL DETAILS CONTINUED

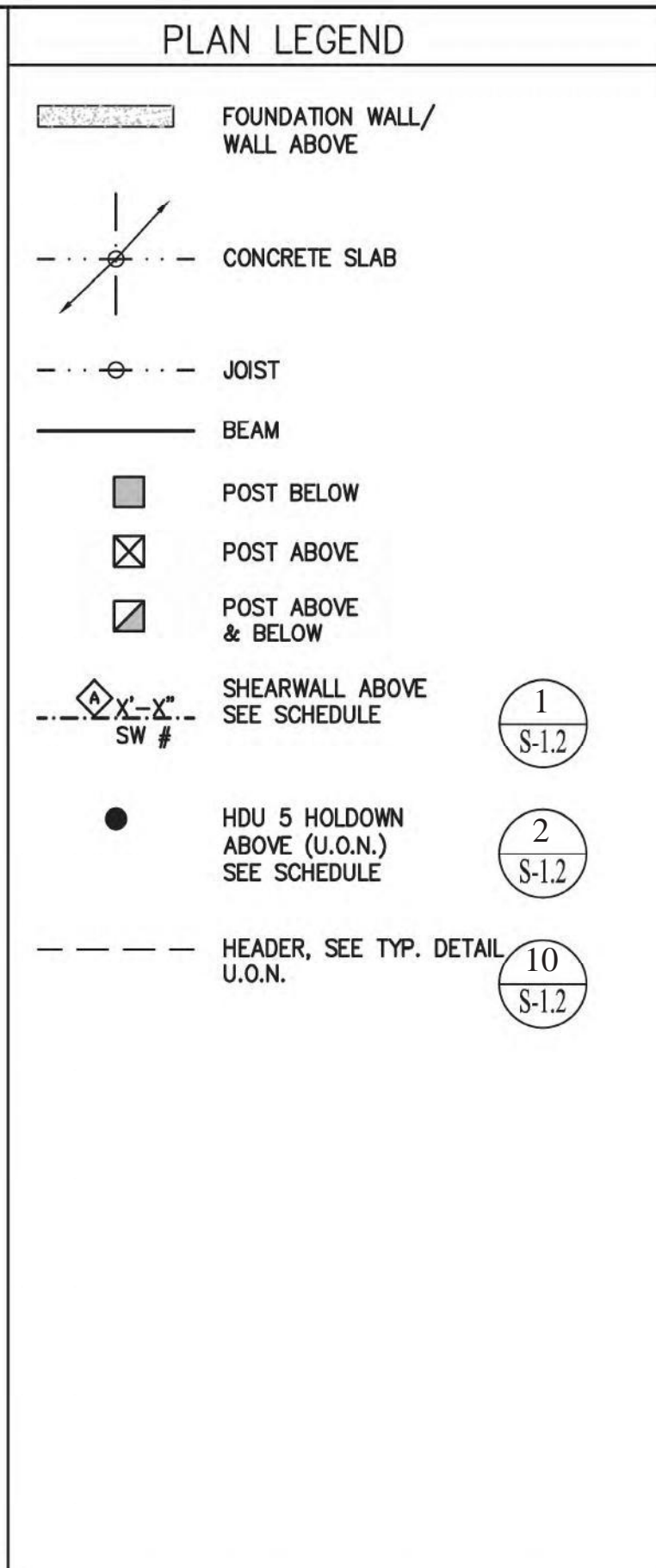
DATE: 2022-04-08  
SCALE: AS SHOWN  
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JOB NUMBER: 1477-0822 S

SHEET 4  
**S-1.3**  
OF 12 SHEET





ABBREVIATIONS		ABBREVIATIONS	
&	AND	HR	HARDROCK
L	ANGLE	HT	HEIGHT
●	AT	ID	INSIDE DIAMETER
ACI	AMERICAN CONCRETE INSTITUTE	INT	INTERIOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	JT	JOINT
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS	JST	JOIST
AWS	AMERICAN WELDING SOCIETY	LG	LONG
AB	ANCHOR BOLT	LS	LOW SHRINKAGE
ABV	ABOVE	MATL	MATERIAL
ADD'L	ADDITIONAL	MAX	MAXIMUM
AGGR	AGGREGATE	MB	MACHINE BOLT
ALT	ALTERNATE	MECH	MECHANICAL
APPROX	APPROXIMATE	MFR	MANUFACTURER
ARCH	ARCHITECT, ARCHITECTURAL	MIN	MINIMUM
ATR	ALL-THREAD ROD	MISC	MISCELLANEOUS
B.E.	BOTH ENDS	(N)	NEW
B.S.	BOTH SIDES	N/A	NOT APPLICABLE
B.W.	BOTH WAYS	NSG	NON-SHRINK GROUT
BETW	BETWEEN	NTS	NOT TO SCALE
BLD'G	BUILDING	NO.#	NUMBER
BLW	BELOW	O/	OVER
BM	BEAM	O.C.	ON CENTERS
BLK	BLOCKING	OD	OUTSIDE DIAMETER
BOT	BOTTOM	OPNG	OPENING
C.C.	CENTER TO CENTER	OPP	OPPOSITE
CBC	CALIFORNIA BUILDING CODE	PL	PLATE
CL	CENTERLINE	PLYWD	PLYWOOD
CLR	CLEAR	PT	PRESSURE TREATED
C-I-P	CAST-IN-PLACE	REF	REFERENCE/REFER
CO	DRAINAGE CLEAN OUT	REF	REFERENCE/REFER
COL	COLUMN	REINF	REINFORCEMENT
CONC	CONCRETE	REQ	REQUIREMENTS
CONN	CONNECTION	REQ'D	REQUIRED
CONST	CONSTRUCTION	RM	ROOM
CONT	CONTINUOUS	RW	RETAINING WALL
		RO	ROUGH OPENING
DBL	DOUBLE	S.A.D.	SEE ARCHITECTURAL DRAWINGS
DBLR	DOUBLER	S-O-G	SLAB-ON-GRADE
DET	DETAIL	SCHED	SCHEDULE
DF	DOUGLAS FIR	SHT	SHEET
DN	DOWN	SIM	SIMILAR
DIA.Ø	DIAMETER	STAGG	STAGGER, STAGGERED
DIAG	DIAGONAL	STD	STANDARD
DIM	DIMENSION	STIFF	STIFFENER
DL	DEVELOPMENT	STRR	STIRRUP
DWG	DRAWING	STL	STEEL
(E)	EXISTING	SW	SHEAR WALL
EA	EACH	SWS	SHEAR WALL SCHEDULE
EF	EACH FACE		
EL	END LENGTH	T&B	TOP AND BOTTOM
EMBED	EMBEDMENT	THK	THICK, THICKNESS
EN	EDGE NAILING	THRD	THREAD, THREADED
ENGR	ENGINEER, ENGINEERED	TYP	TYPICAL
EQ	EQUAL/EQUIVALENT	U.O.N.	UNLESS OTHERWISE NOTED
EW	EACH WAY		
EXT	EXTERIOR	VB	VAPOR BARRIER
FDN	FOUNDATION	V.F.	VERTICAL VERIFY IN FIELD
FLR	FLOOR	W/	WITH
FN	FIELD NAILING	W/O	WITHOUT
FTG	FOOTING	WA	WEDGE ANCHOR
		WD	WOOD
GA	GAGE, GAUGE	WF	WIDE FLANGE
GALV	GALVANIZED	WLD	WELDED
GB	GRADE BEAM		
HD	HOLDOWN		
HGR	HANGER		
HORI	HORIZONTAL		



### PLAN NOTES

- AT SHEAR WALLS WITH CODE VALUES EXCEEDING 350 PLF, PROVIDE 3x SILL PL. AND 3x STUD (OR DBL 2x STUDS JOINED TOGETHER WITH SDS SCREWS @6" O.C. MAX.) AT FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS. EDGE NAILING ON ABUTTING PANELS SHALL BE STAGGERED. SEE SHEARWALL SCHEDULE.
- AT SHEAR WALLS WITH 2" O.C. EDGE NAILING, PROVIDE 3x SILL PL. AND 3x STUD AT FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS. EDGE NAILING ON ABUTTING PANELS SHALL BE STAGGERED. SEE SHEARWALL SCHEDULE.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY SHORING AS NEEDED.

REVISIONS	BY
1	DL
2022-06-21	

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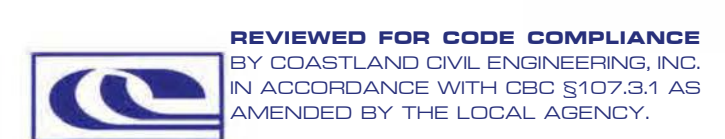


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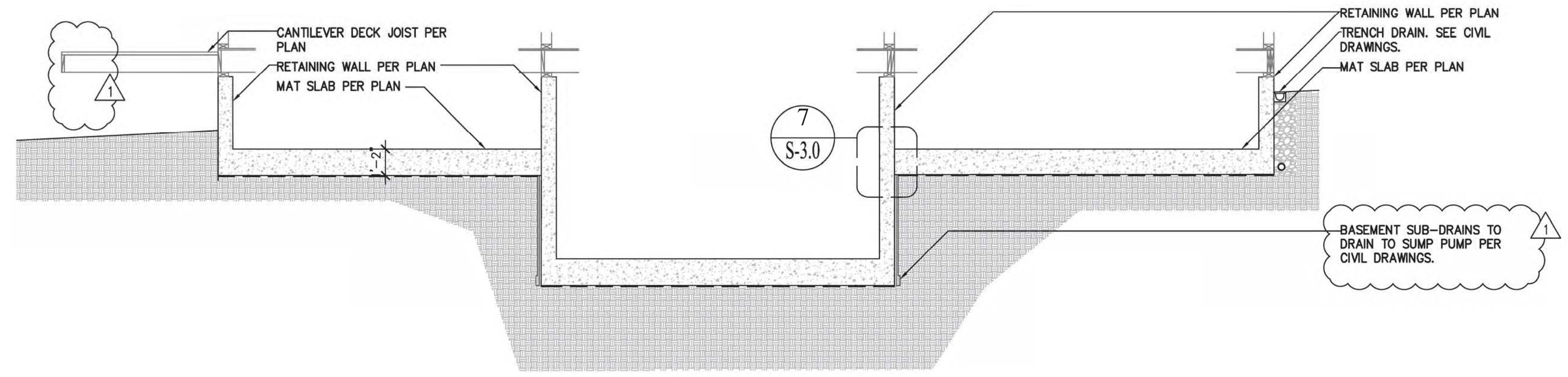
FOUNDATION PLAN

DATE: 2022-04-08  
 SCALE: AS SHOWN  
 DRAWN BY: DL  
 JOB NUMBER: 1477-0822 S

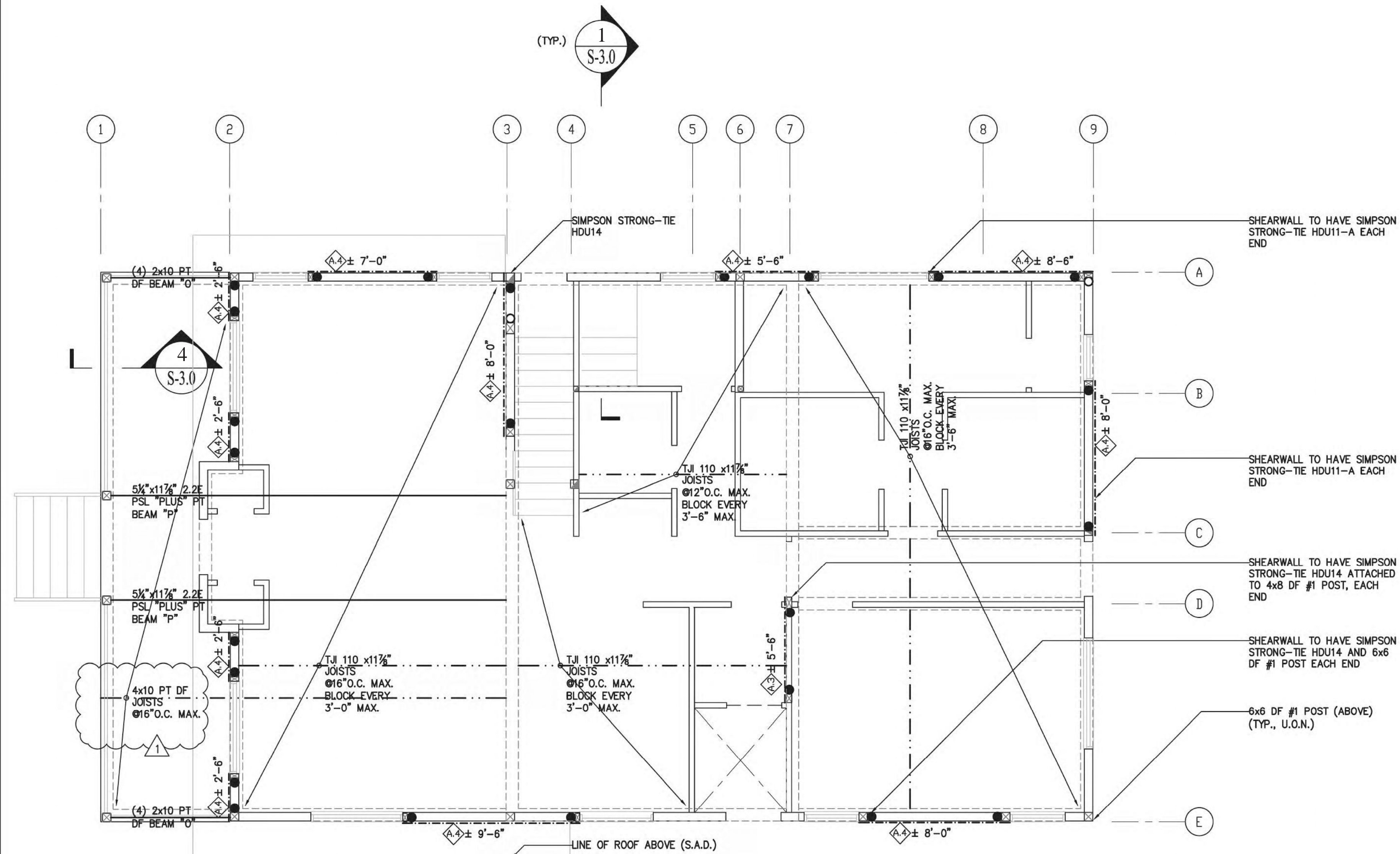
SHEET 5  
**S-2.0**  
 OF 12 SHEET



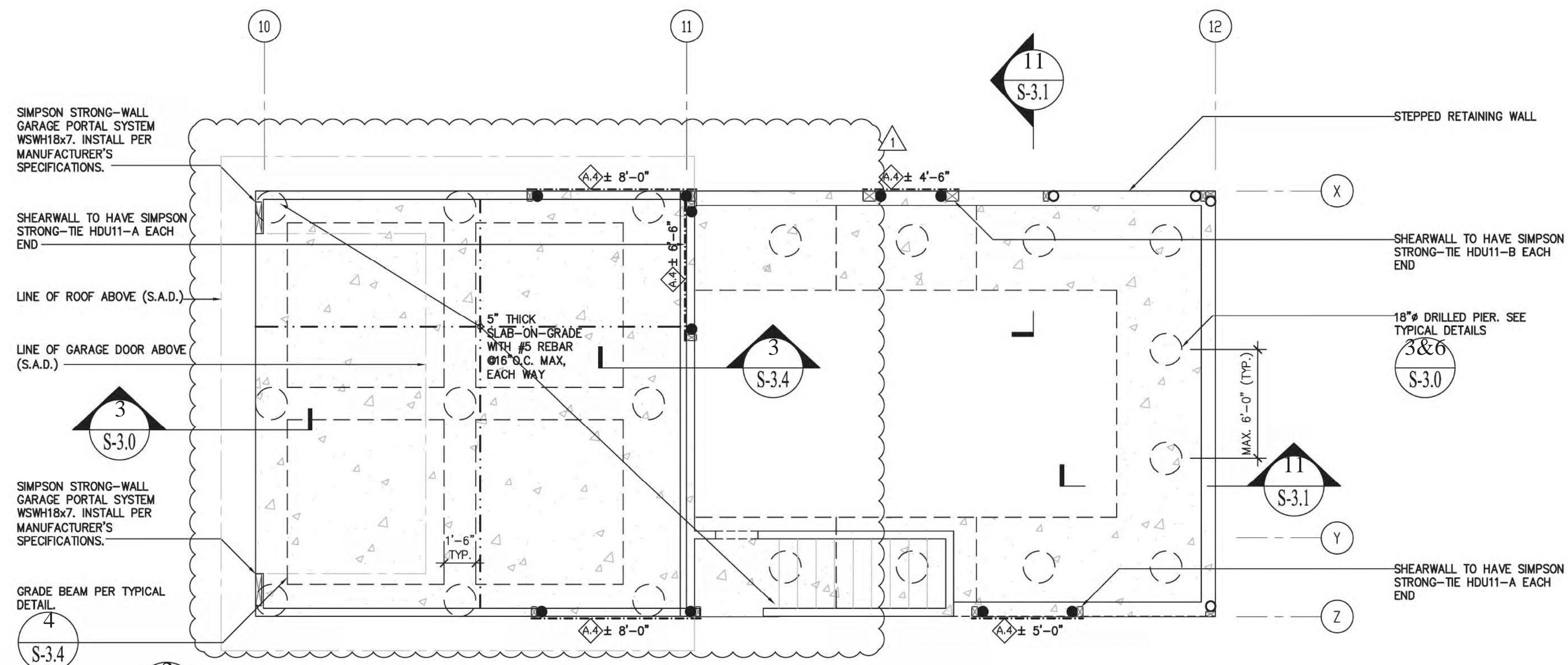
1 FOUNDATION PLAN: RESIDENCE SCALE: 1/4" = 1'-0"



2 SECTION THROUGH FOUNDATION: RESIDENCE SCALE: 1/4" = 1'-0"



1  
S-2.1  
MAIN FLOOR FRAMING PLAN: RESIDENCE  
SCALE: 1/4" = 1'-0"



2  
S-2.1  
FOUNDATION PLAN: ADU/GARAGE  
SCALE: 1/4" = 1'-0"

PLAN LEGEND	
	FOUNDATION WALL/ WALL BELOW
	WALL ABOVE
	CONCRETE SLAB
	JOIST
	BEAM
	POST BELOW
	POST ABOVE
	POST ABOVE & BELOW
	SHEARWALL ABOVE SEE SCHEDULE
	HDU 5 HOLDOWN ABOVE (U.O.N.) SEE SCHEDULE
	HEADER, SEE TYP. DETAIL U.O.N.

- PLAN NOTES**
1. AT SHEAR WALLS WITH CODE VALUES EXCEEDING 350 PLF, PROVIDE 3x SILL PL. AND 3x STUD (OR DBL 2x STUDS JOINED TOGETHER WITH SDS SCREWS @6" O.C. MAX.) AT FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS. EDGE NAILING ON ABUTTING PANELS SHALL BE STAGGERED. SEE SHEARWALL SCHEDULE.
  2. AT SHEAR WALLS WITH 2" O.C. EDGE NAILING, PROVIDE 3x SILL PL. AND 3x STUD AT FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS. EDGE NAILING ON ABUTTING PANELS SHALL BE STAGGERED. SEE SHEARWALL SCHEDULE.
  3. THE CONTRACTOR SHALL PROVIDE TEMPORARY SHORING AS NEEDED.

REVISIONS	BY
1	DL
2022-06-21	

**Darius Abolhassani Consultant & Associates, Inc.**  
 Consulting Engineering & Construction Support  
 7 Mt. Lassen Drive, Suite A-129, San Rafael, CA 94903  
 Phone: (415)499-1919 Email: darius@dacassociates.net



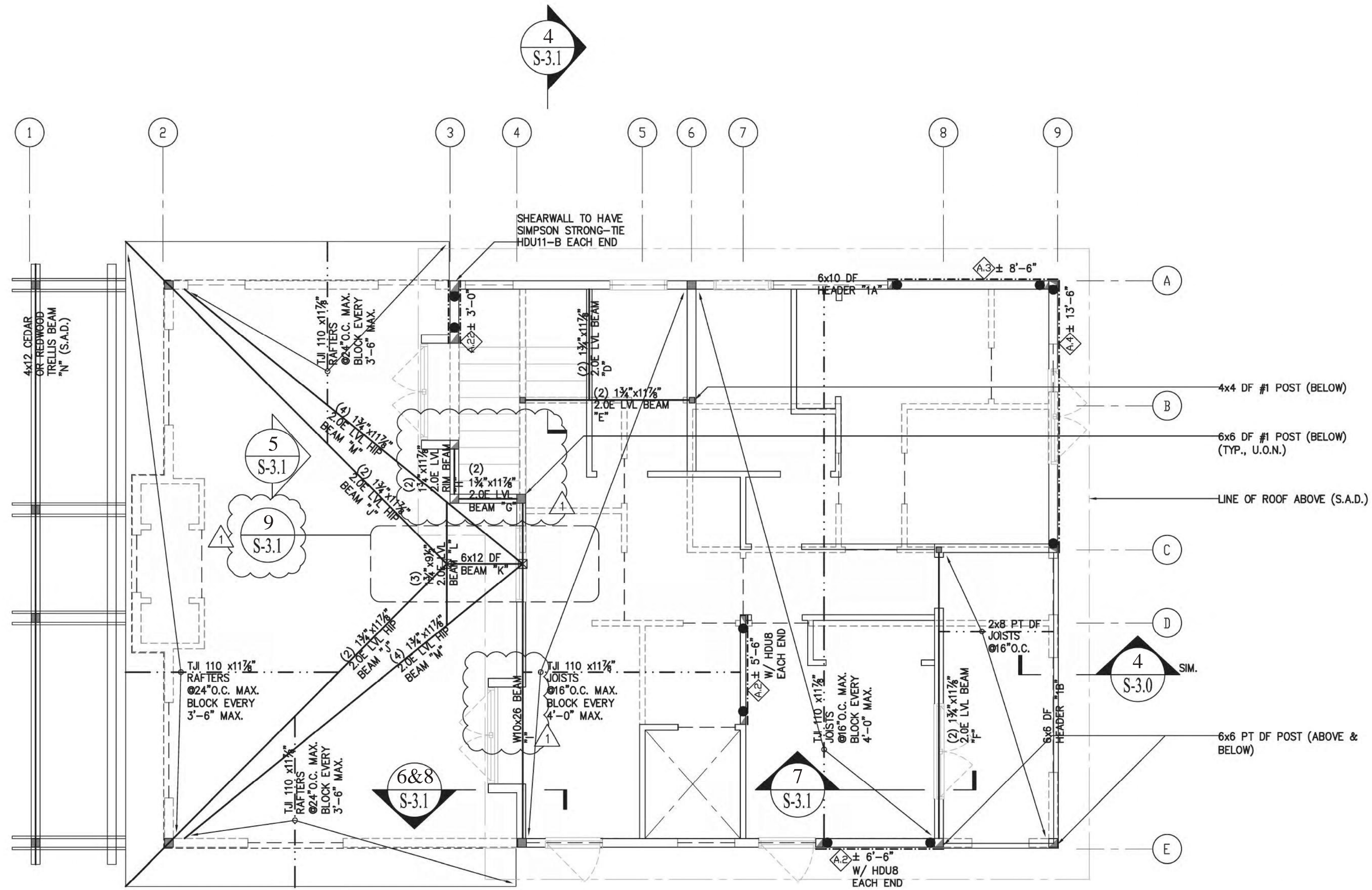
**NEW RESIDENCE & ADU**  
 79 WOOD LANE  
 FAIRFAX, CA 94930  
 PROJECT APN 002-062-03

MAIN FLOOR FRAMING PLAN

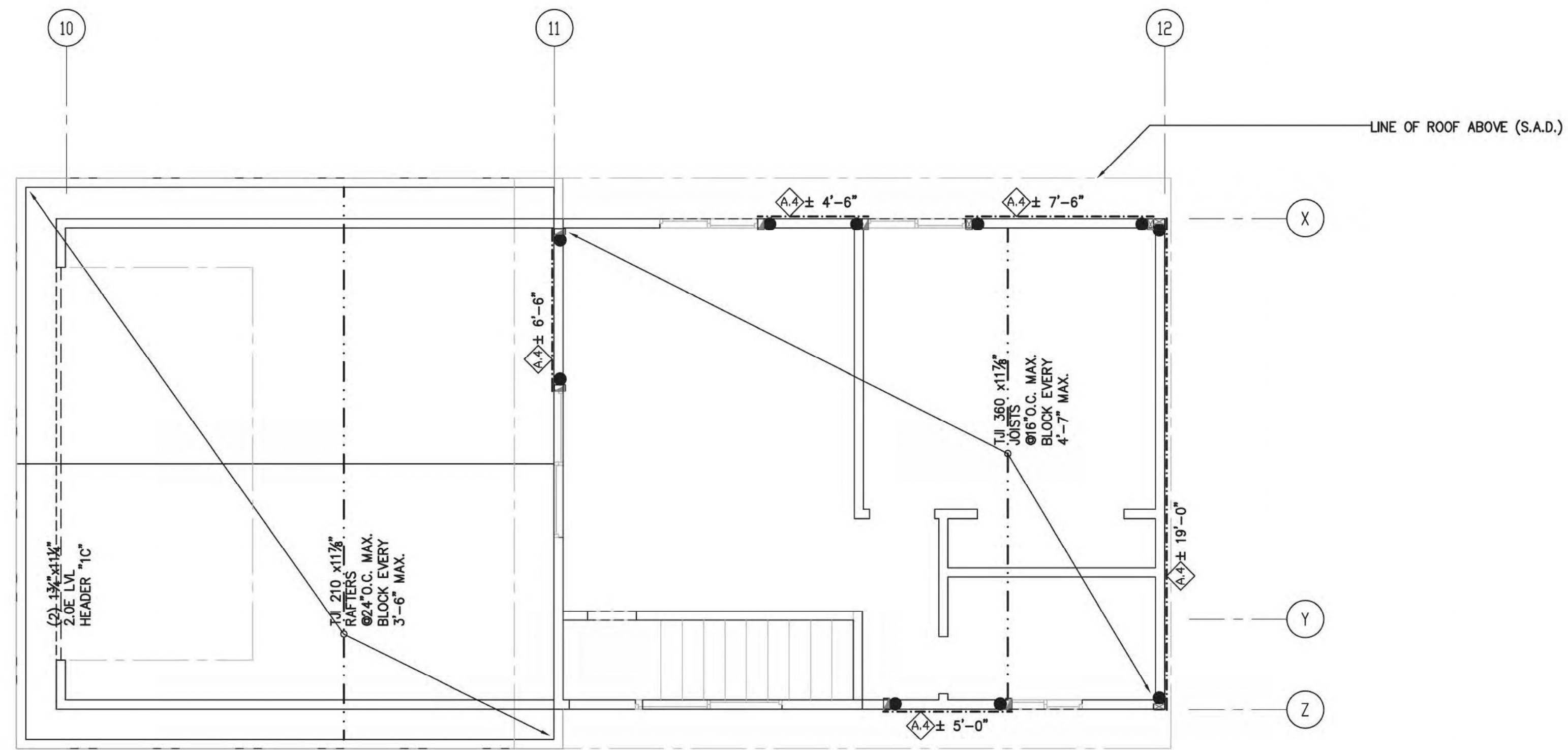
DATE: 2022-04-08  
 SCALE: AS SHOWN  
 DRAWN BY: DL  
 JOB NUMBER: 1477-0822 S

SHEET 6  
**S-2.1**  
 OF 12 SHEET





1  
S-2.2  
UPPER FLOOR FRAMING PLAN: RESIDENCE  
SCALE: 1/4" = 1'-0"



2  
S-2.2  
UPPER FLOOR FRAMING PLAN: ADU/GARAGE  
SCALE: 1/4" = 1'-0"

PLAN LEGEND	
	FOUNDATION WALL/ WALL BELOW
	WALL ABOVE
	CONCRETE SLAB
	JOIST
	BEAM
	POST BELOW
	POST ABOVE
	POST ABOVE & BELOW
	SHEARWALL ABOVE SEE SCHEDULE
	HDU 5 HOLDDOWN ABOVE (U.O.N.) SEE SCHEDULE
	HEADER, SEE TYP. DETAIL U.O.N.
	1 S-1.2
	2 S-1.2
	10 S-1.2

- PLAN NOTES**
- AT SHEAR WALLS WITH CODE VALUES EXCEEDING 350 PLF, PROVIDE 3x SILL PL. AND 3x STUD (OR DBL 2x STUDS JOINED TOGETHER WITH SDS SCREWS @6" O.C. MAX.) AT FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS. EDGE NAILING ON ABUTTING PANELS SHALL BE STAGGERED. SEE SHEARWALL SCHEDULE.
  - AT SHEAR WALLS WITH 2" O.C. EDGE NAILING, PROVIDE 3x SILL PL. AND 3x STUD AT FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS. EDGE NAILING ON ABUTTING PANELS SHALL BE STAGGERED. SEE SHEARWALL SCHEDULE.
  - THE CONTRACTOR SHALL PROVIDE TEMPORARY SHORING AS NEEDED.

REVISIONS	BY
1	DL
2022-06-21	

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**NEW RESIDENCE & ADU**  
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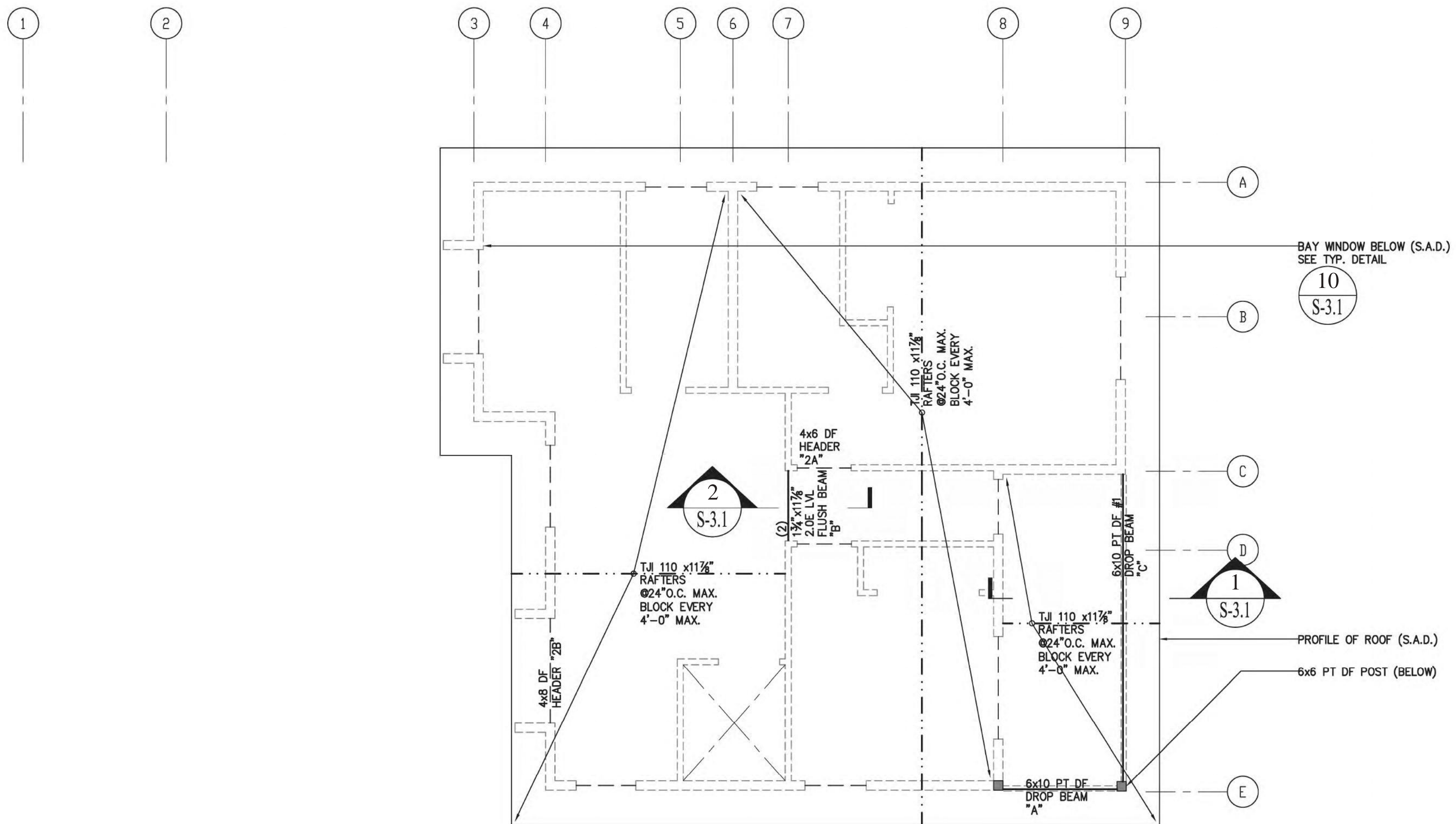
UPPER FLOOR  
 FRAMING PLAN

DATE: 2022-04-08  
 SCALE: AS SHOWN  
 DRAWN BY: DL  
 JOB NUMBER: 1477-0822 S

SHEET 7  
**S-2.2**  
 OF 12 SHEET







PLAN LEGEND

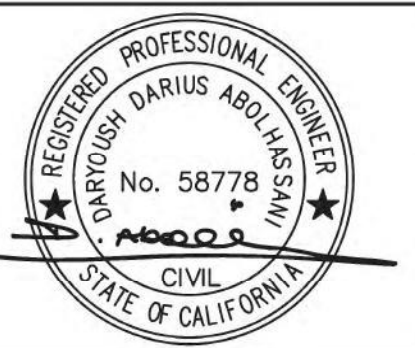
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	WALL ABOVE	
	CONCRETE SLAB	
	JOIST	
	BEAM	
	POST BELOW	
	POST ABOVE	
	POST ABOVE & BELOW	
	SHEARWALL ABOVE SEE SCHEDULE	1 S-1.2
	HDU 5 HOLDOWN ABOVE (U.O.N.) SEE SCHEDULE	2 S-1.2
	HEADER, SEE TYP. DETAIL U.O.N.	10 S-1.2

PLAN NOTES

1. AT SHEAR WALLS WITH CODE VALUES EXCEEDING 350 PLF, PROVIDE 3x SILL PL. AND 3x STUD (OR DBL 2x STUDS JOINED TOGETHER WITH SDS SCREWS @6\"/>

REVISIONS	BY
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**NEW RESIDENCE & ADU**  
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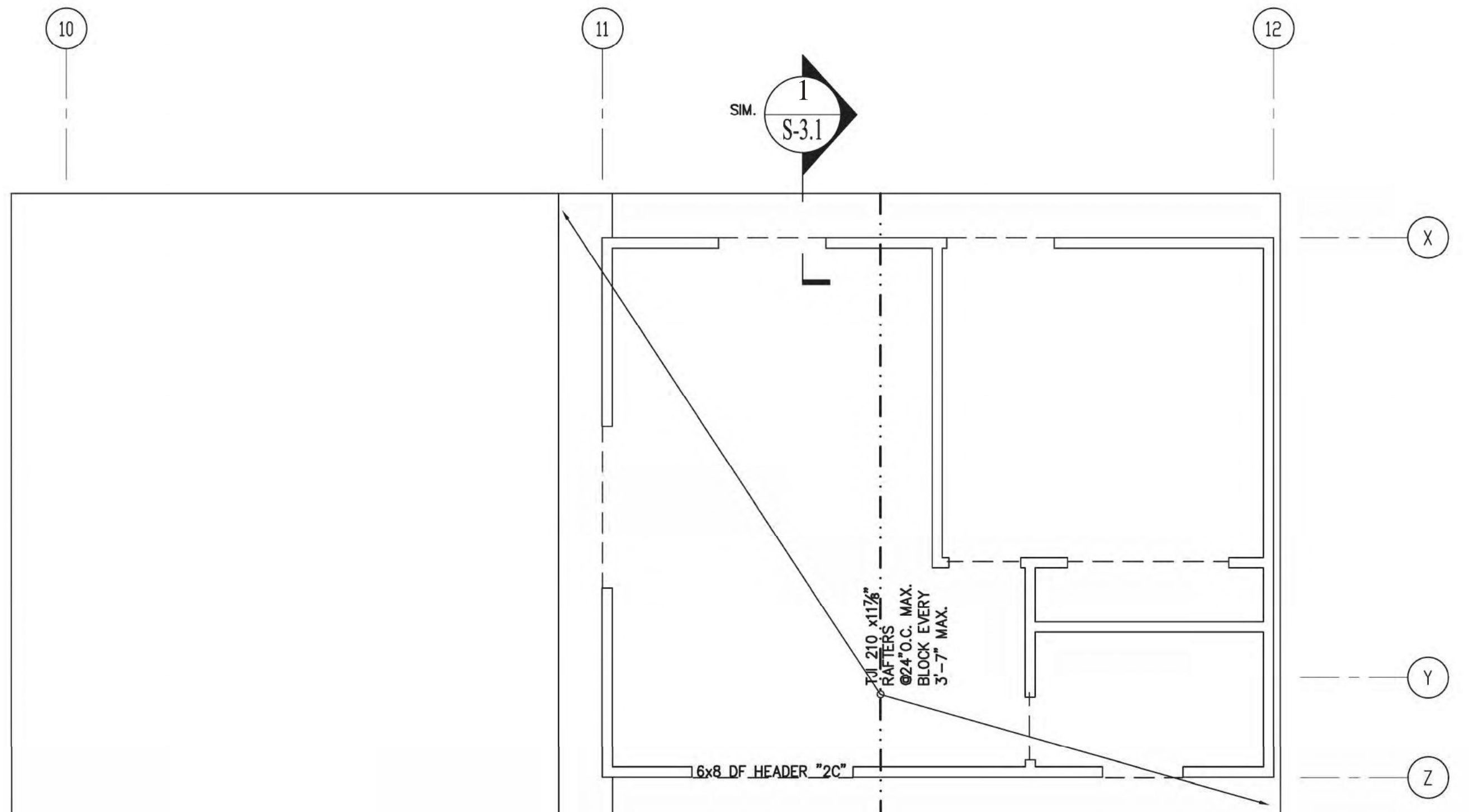
ROOF FRAMING PLAN

DATE:	2022-04-08
SCALE:	AS SHOWN
DRAWN BY:	DL
JOB NUMBER:	1477-0822 S

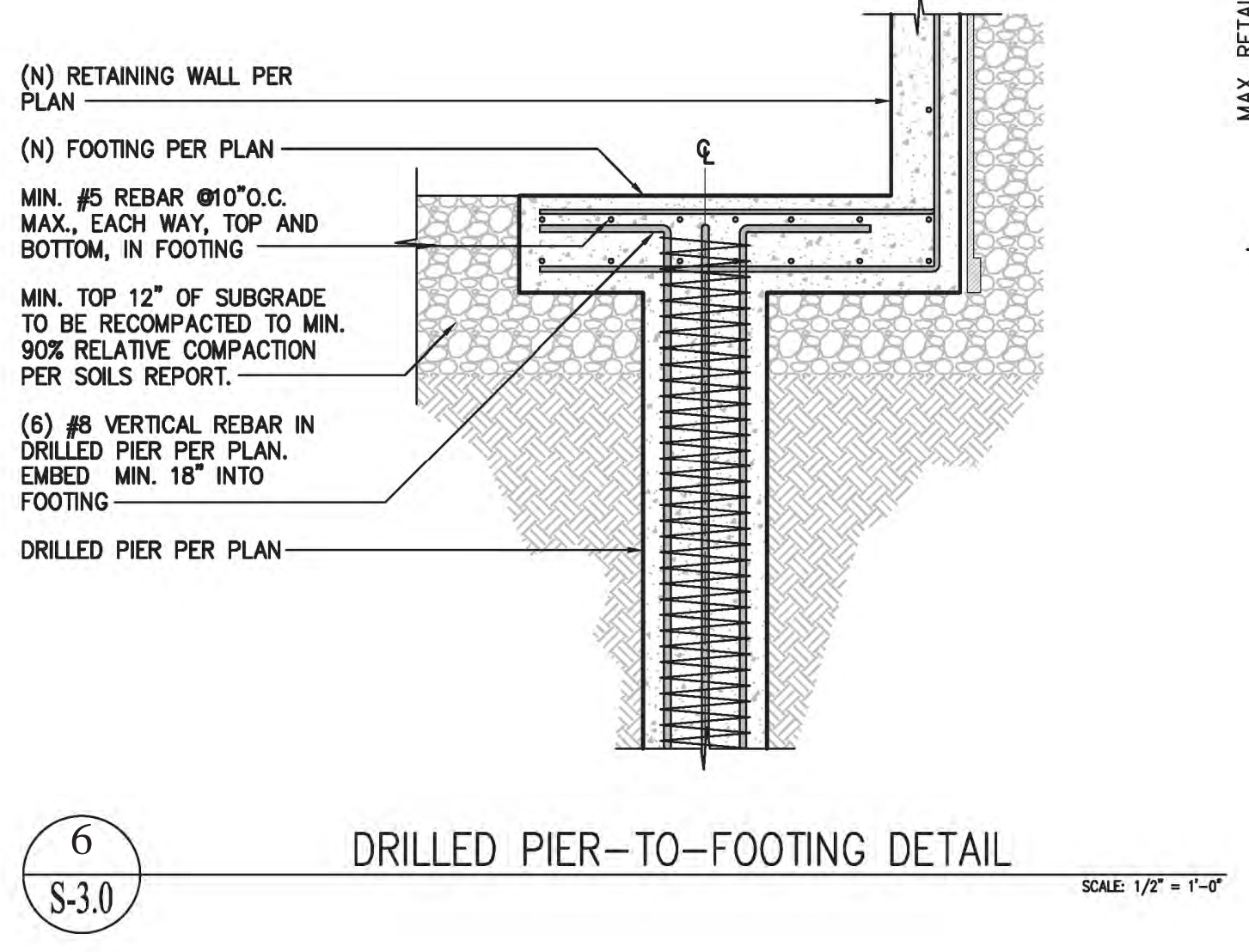
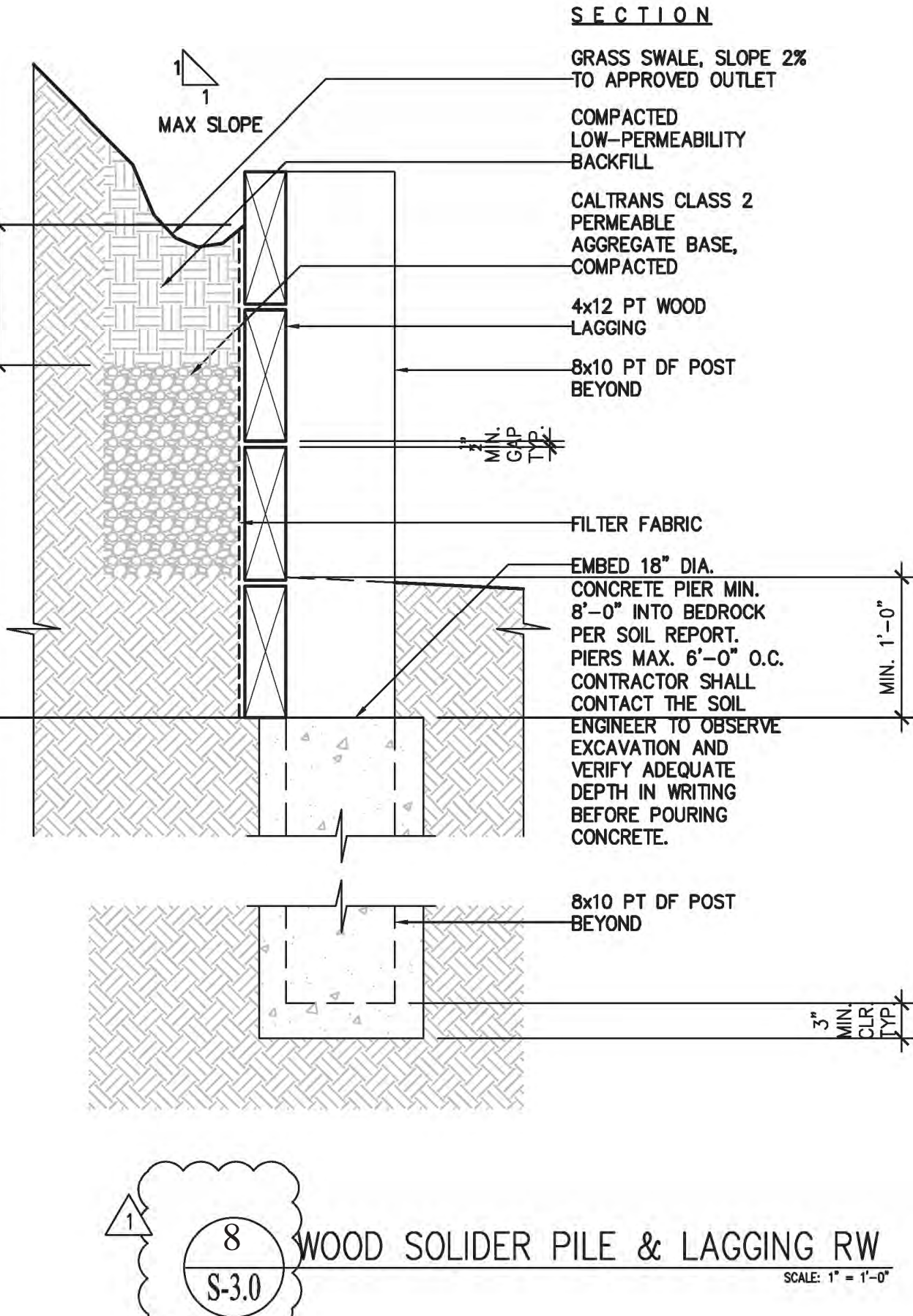
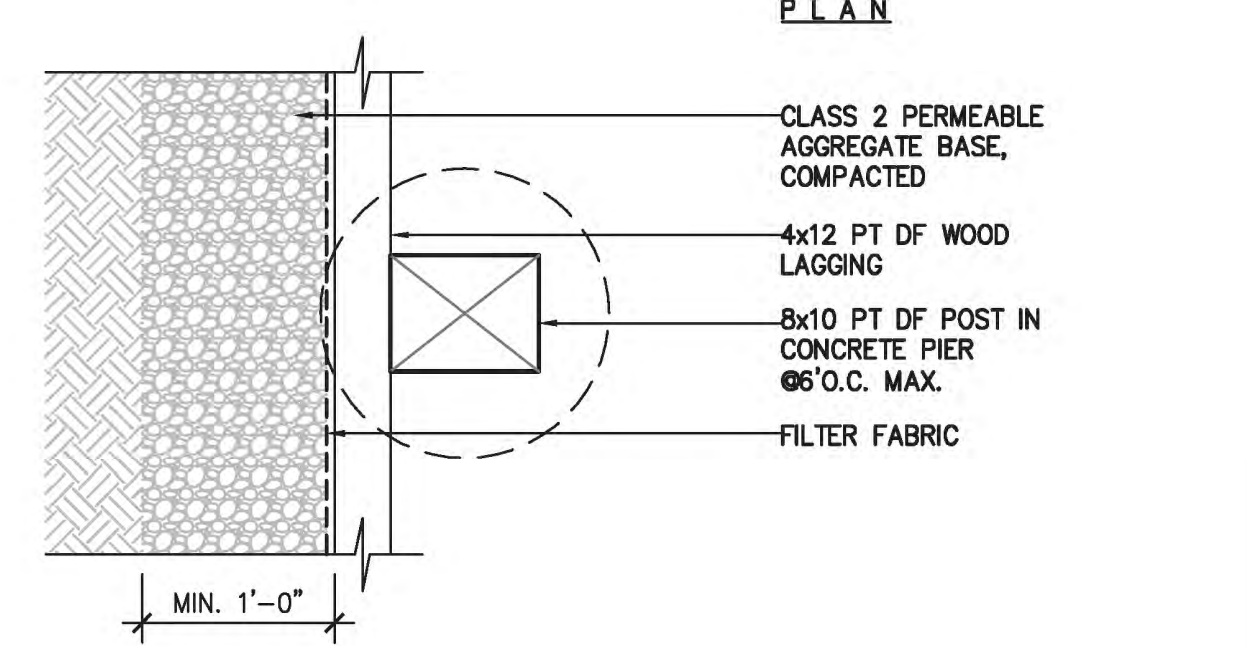
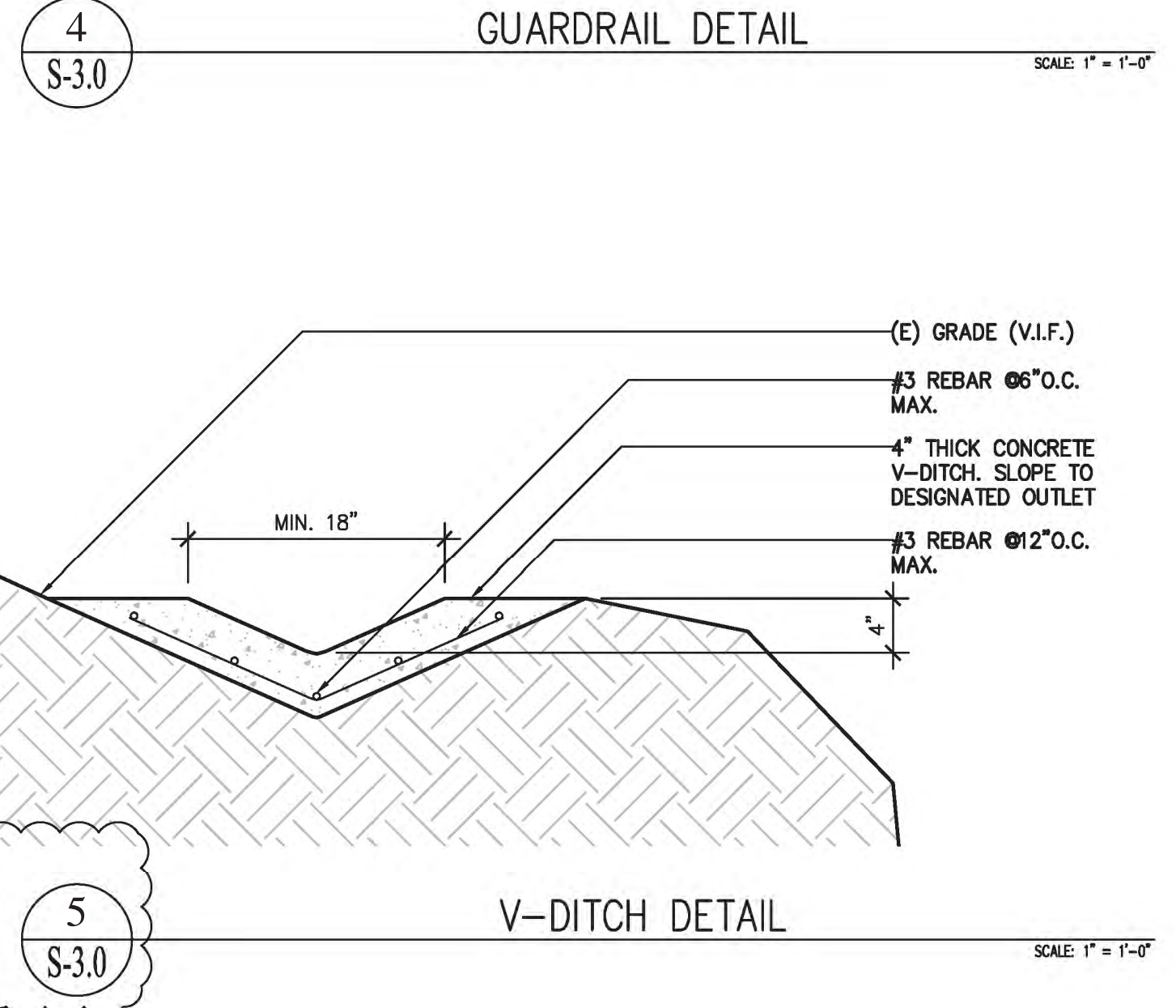
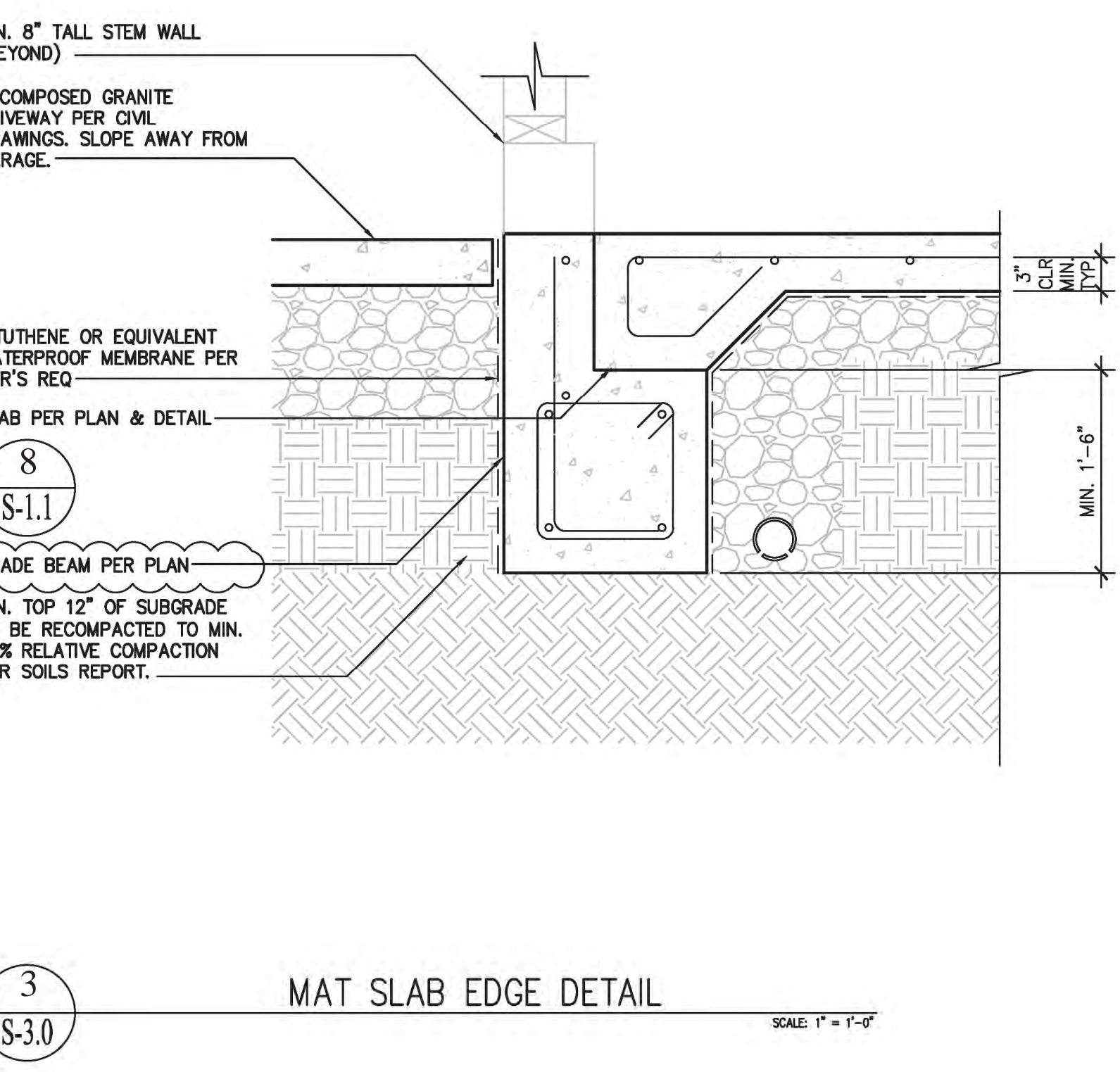
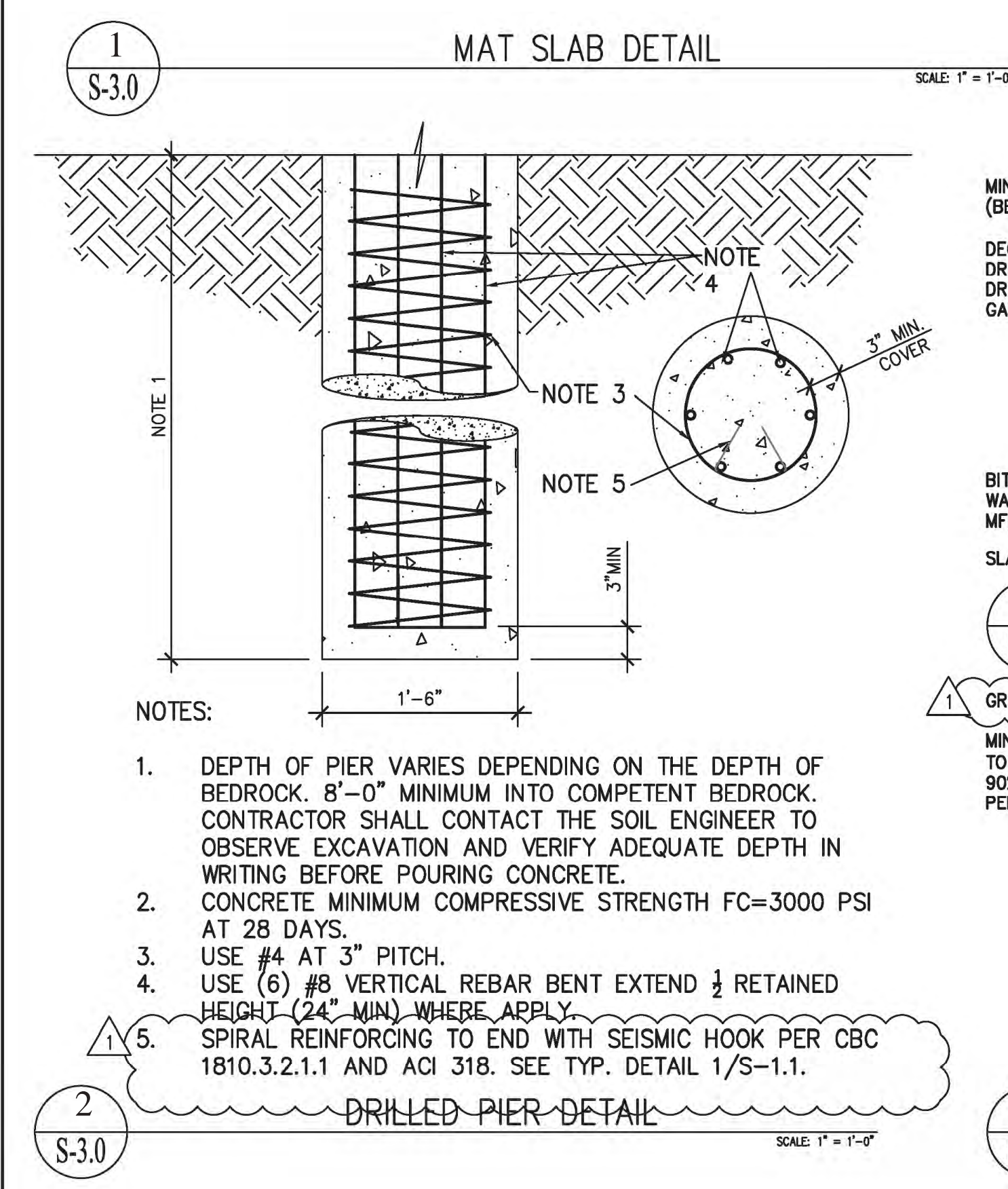
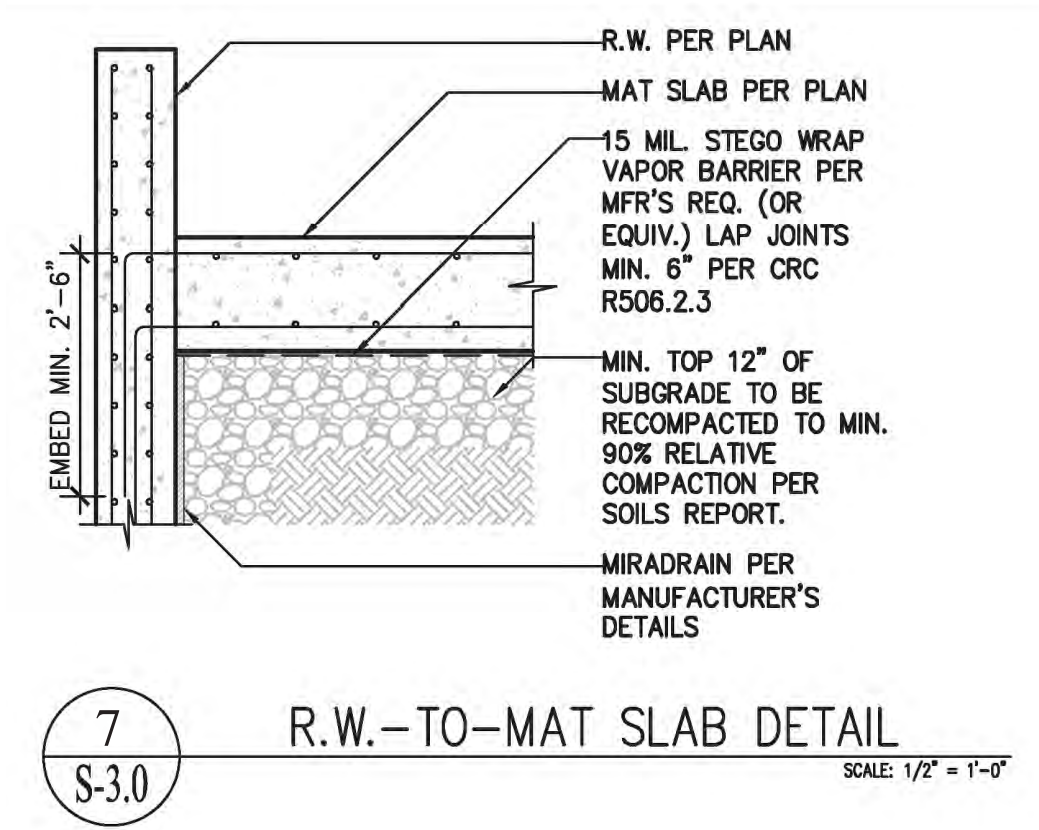
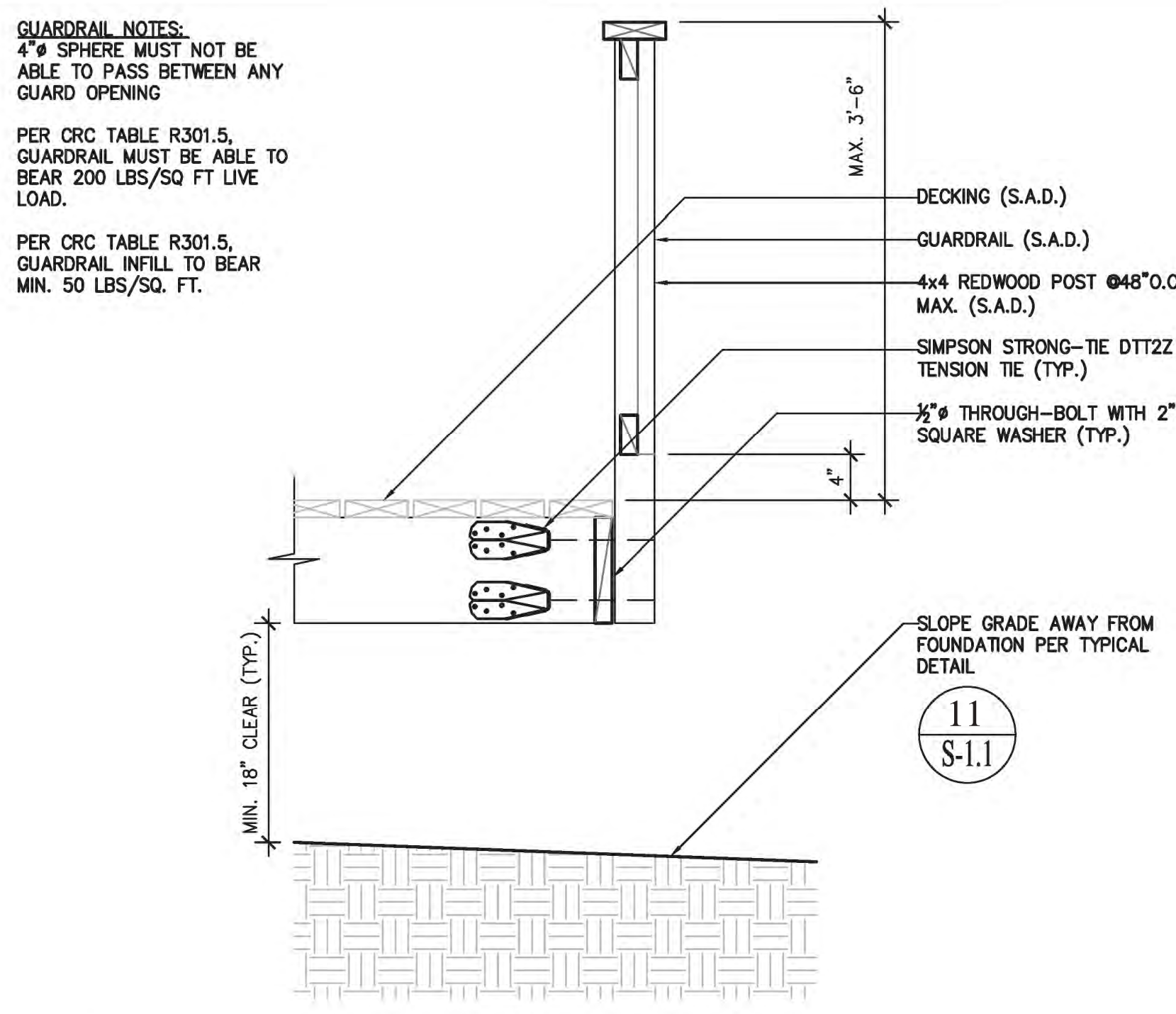
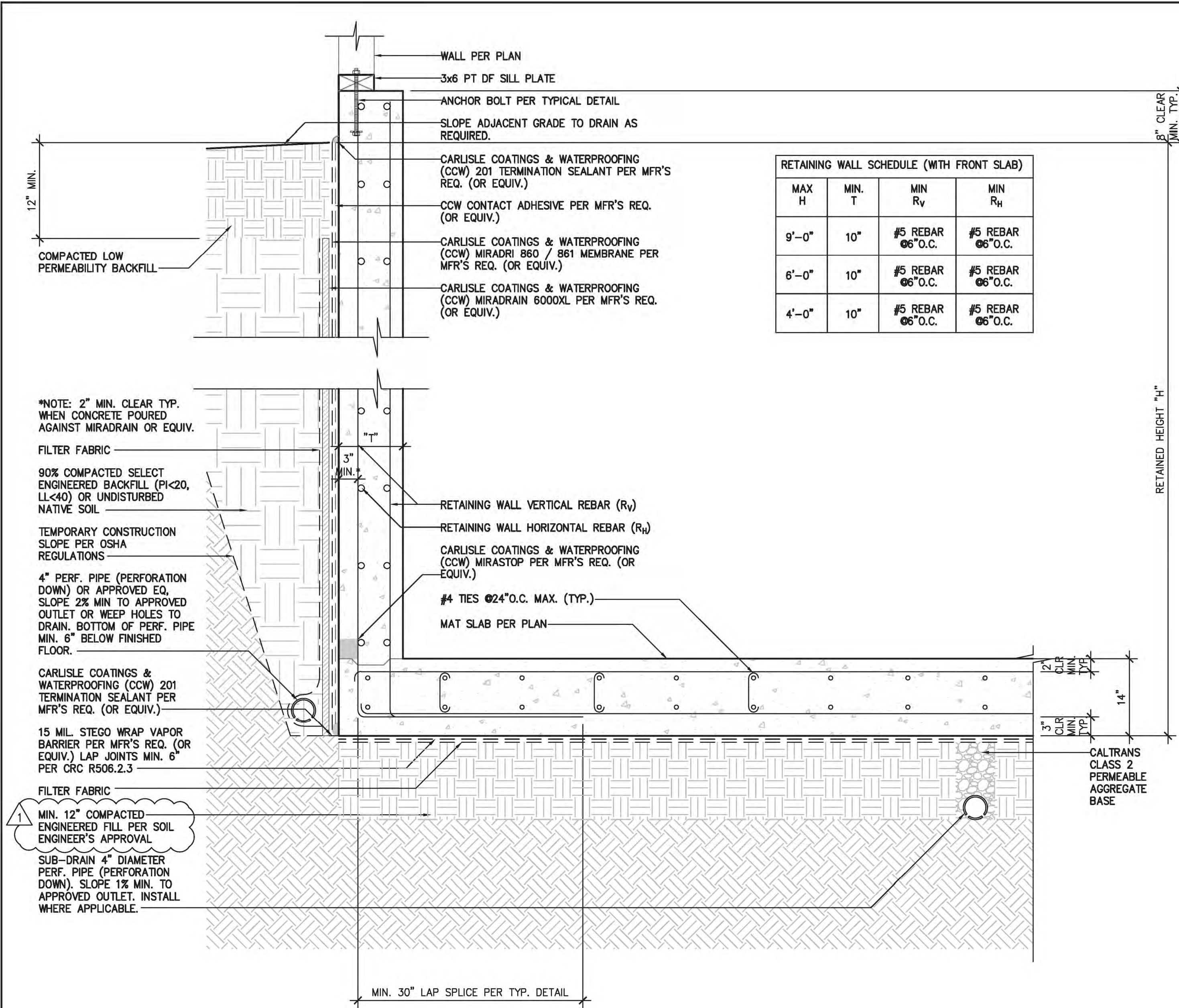
SHEET 8  
**S-2.3**  
 OF 12 SHEET



1  
S-2.3  
ROOF FRAMING PLAN: RESIDENCE  
SCALE: 1/4" = 1'-0"



2  
S-2.3  
ROOF FRAMING PLAN: ADU/GARAGE  
SCALE: 1/4" = 1'-0"



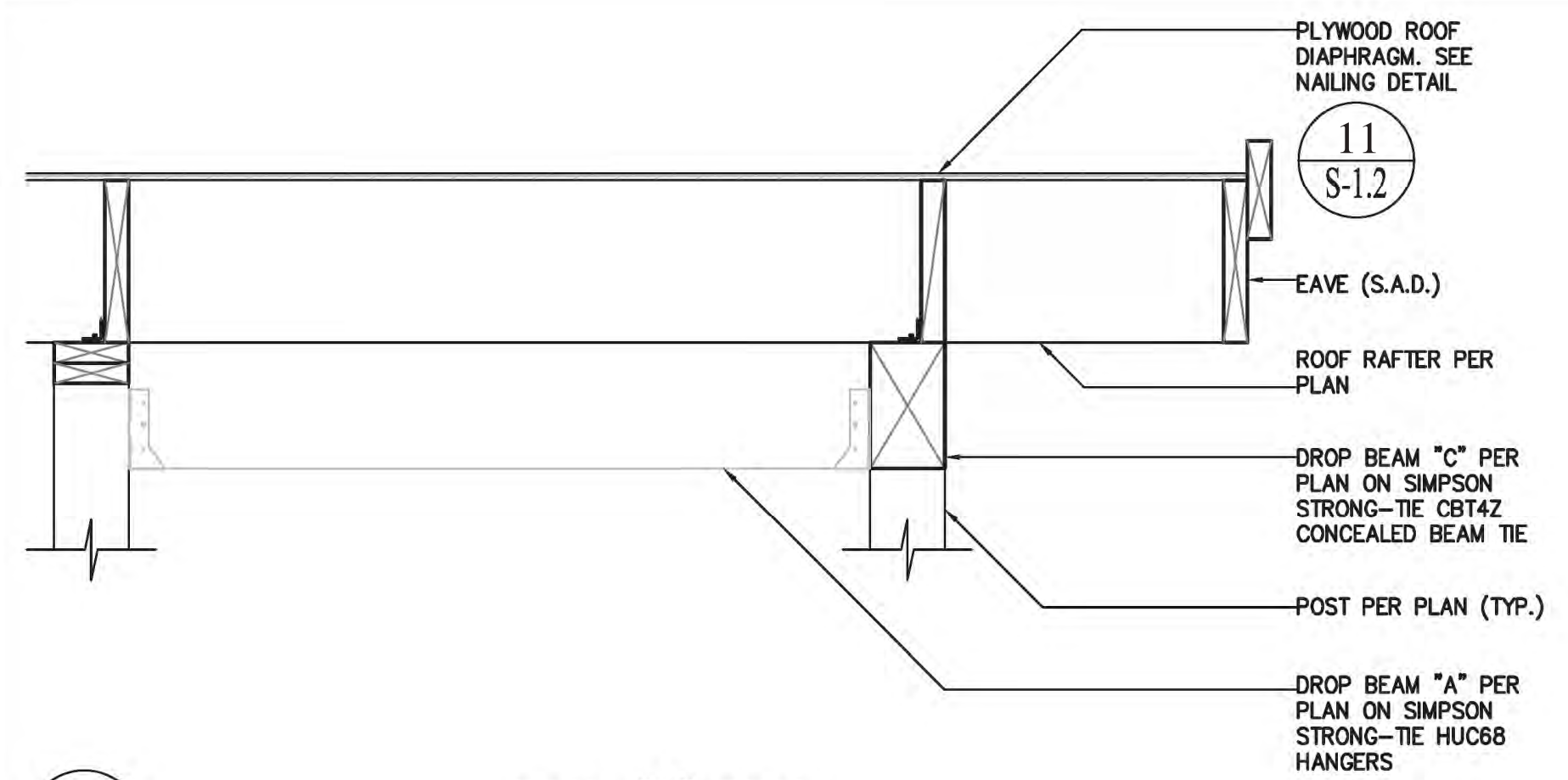
REVISIONS	BY
1	DL

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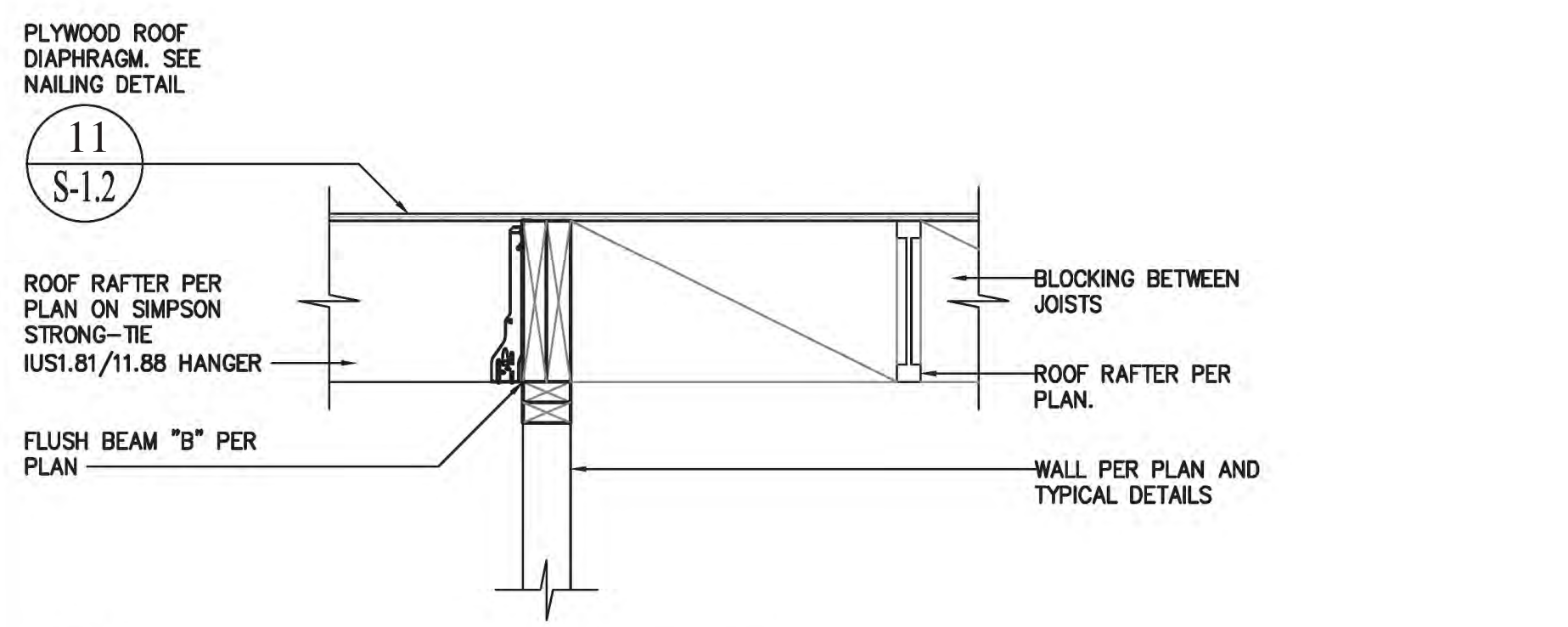


**NEW RESIDENCE & ADU**  
 79 WOOD LANE  
 FAIRFAX, CA 94930  
 PROJECT APN 002-062-03

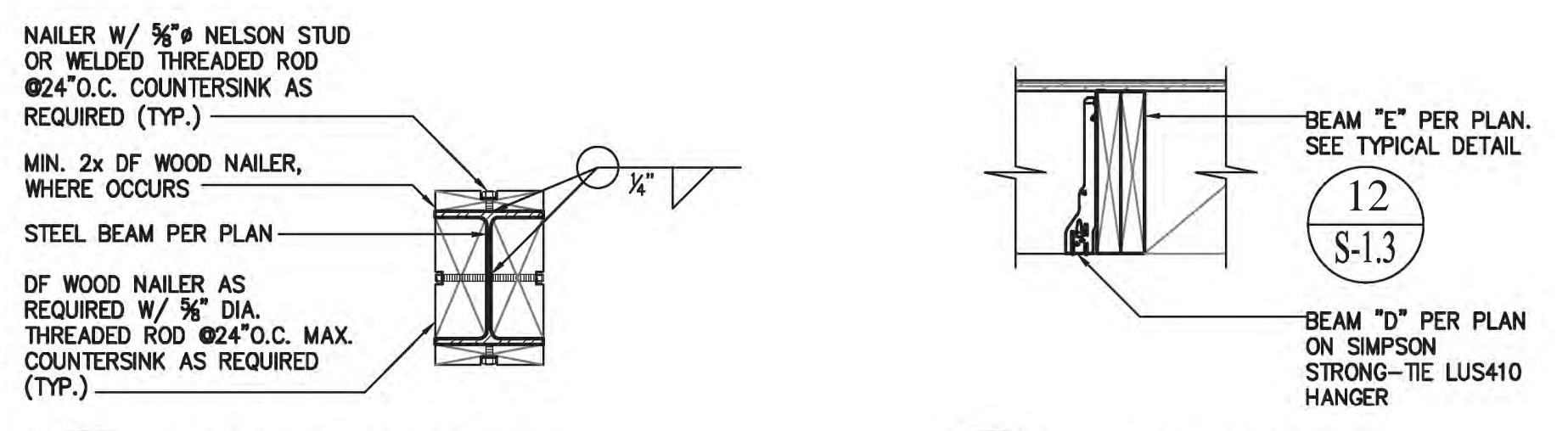
STRUCTURAL DETAILS	
DATE:	2022-04-08
SCALE:	AS SHOWN
DRAWN BY:	DL
JOB NUMBER:	1477-0822 S
SHEET	9
<b>S-3.0</b>	
OF	12 SHEET



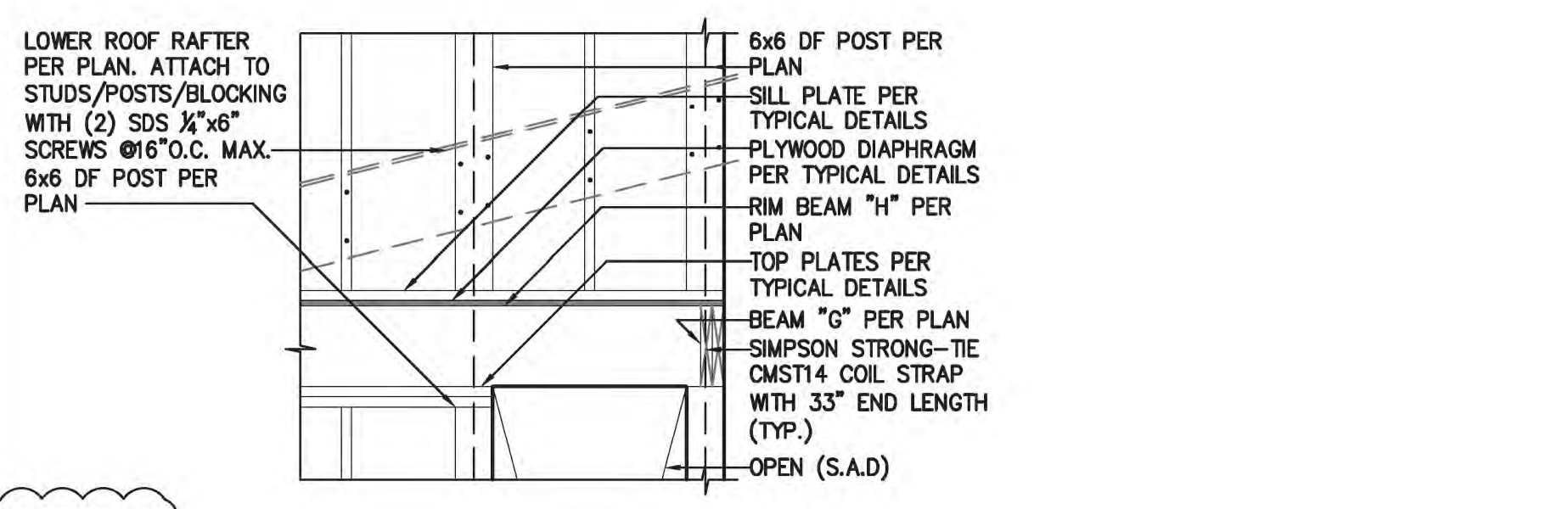
1 S-3.1 BEAM "C" DETAIL SCALE: 1" = 1'-0"



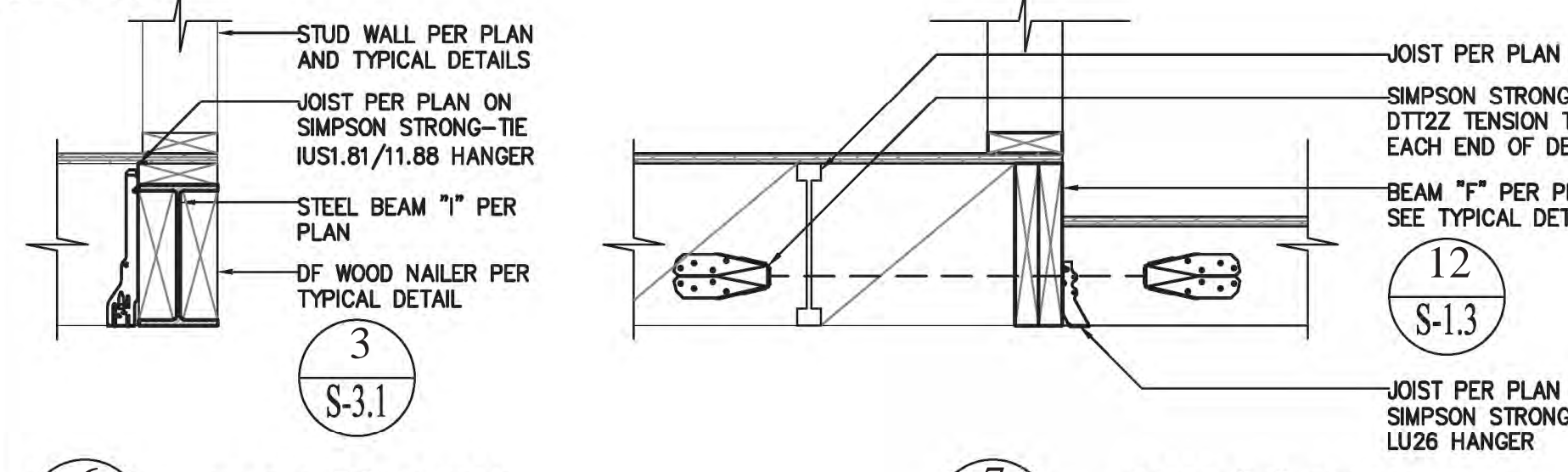
2 S-3.1 BEAM "B" DETAIL SCALE: 1" = 1'-0"



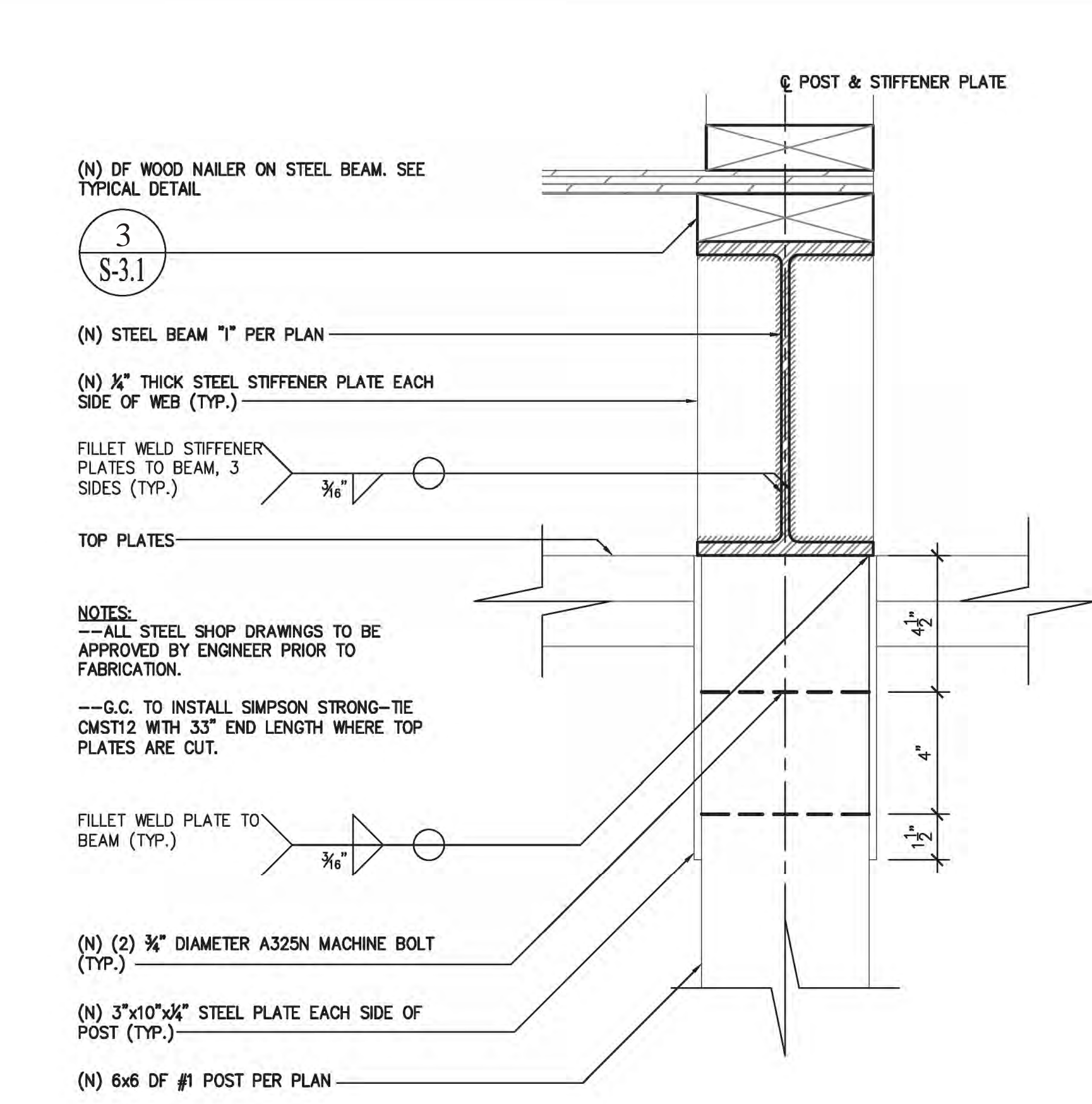
3 S-3.1 WOOD NAILER DETAIL SCALE: 1" = 1'-0"



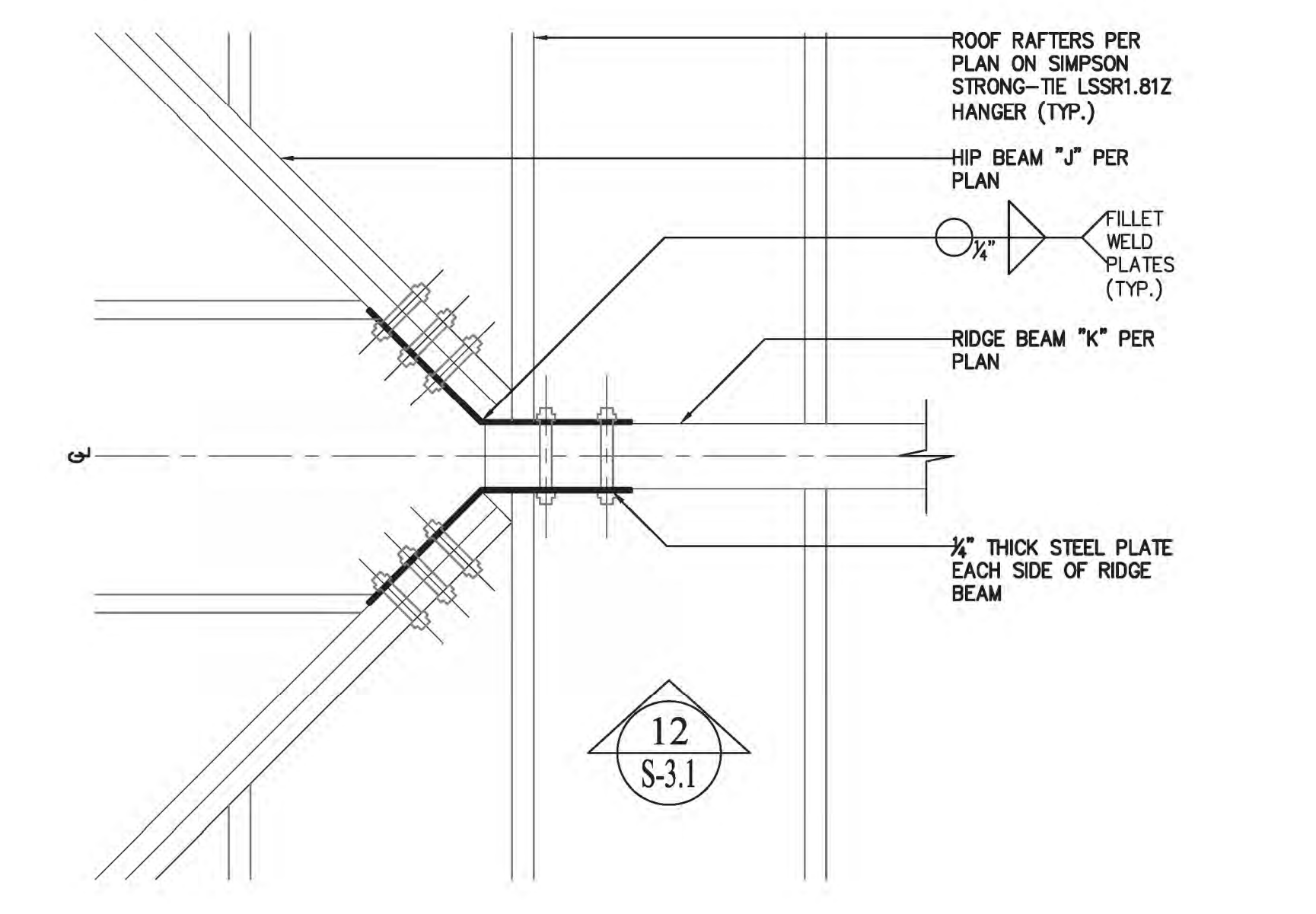
5 S-3.1 BEAM "H" DETAIL SCALE: 1" = 1'-0"



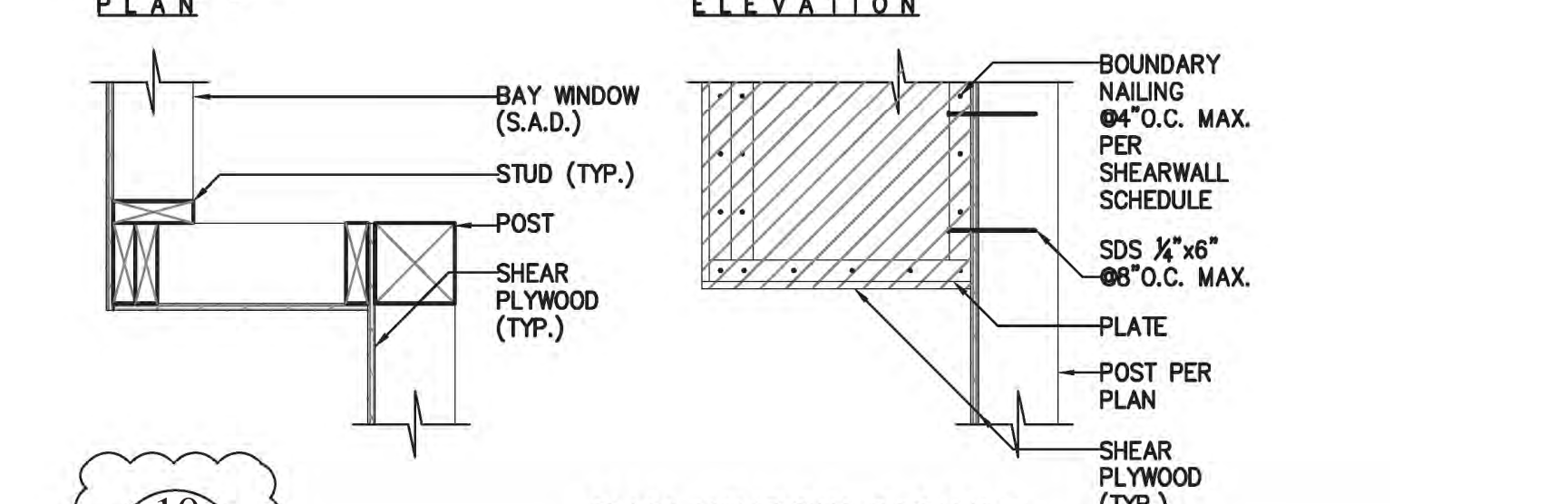
6 S-3.1 BEAM "I" DETAIL SCALE: 1" = 1'-0"



8 S-3.1 BEAM "I" DETAIL SCALE: 1" = 1'-0"

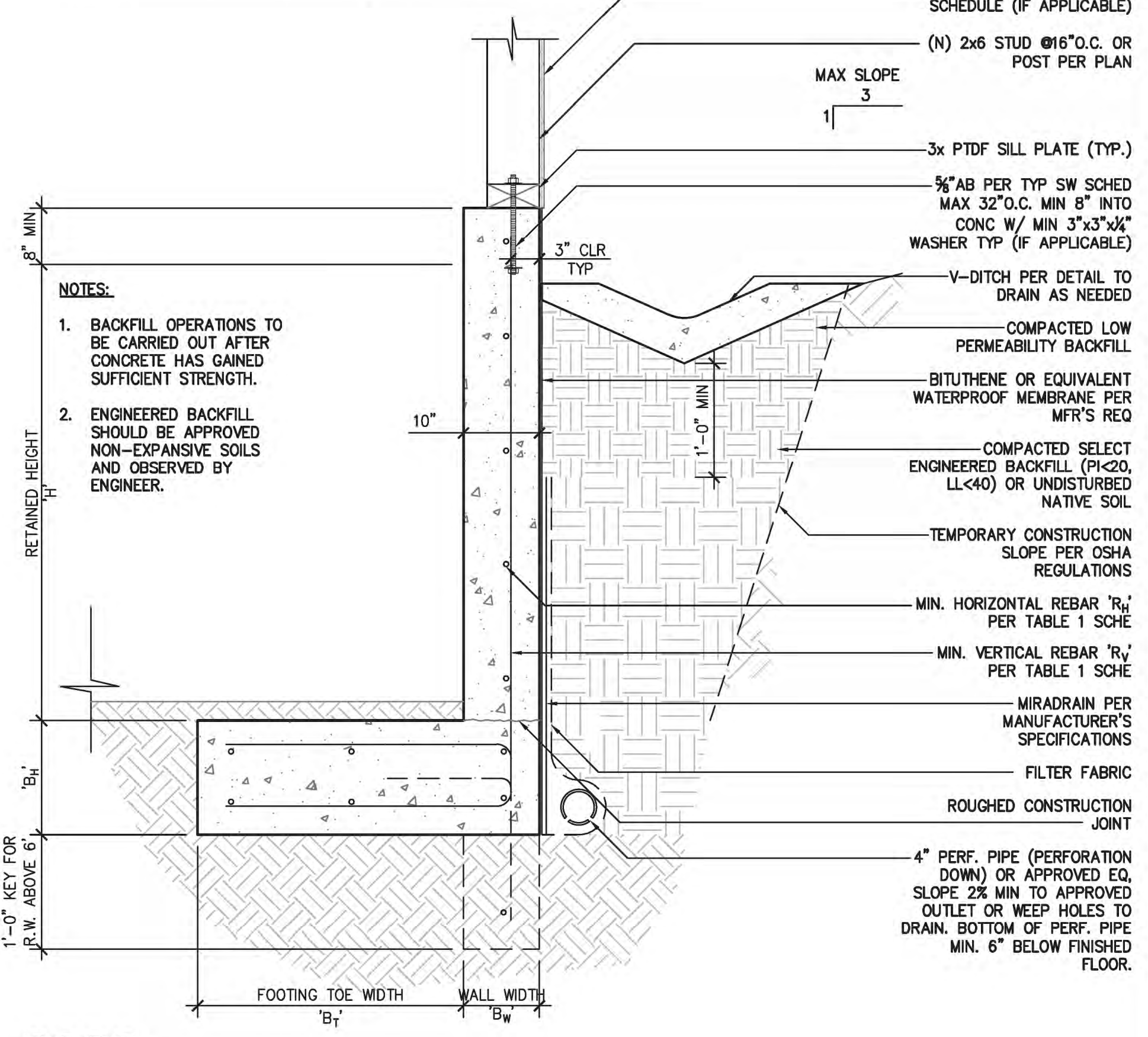


9 S-3.1 ENLARGED PLAN AT LOWER ROOF HIP BEAMS SCALE: 1" = 1'-0"

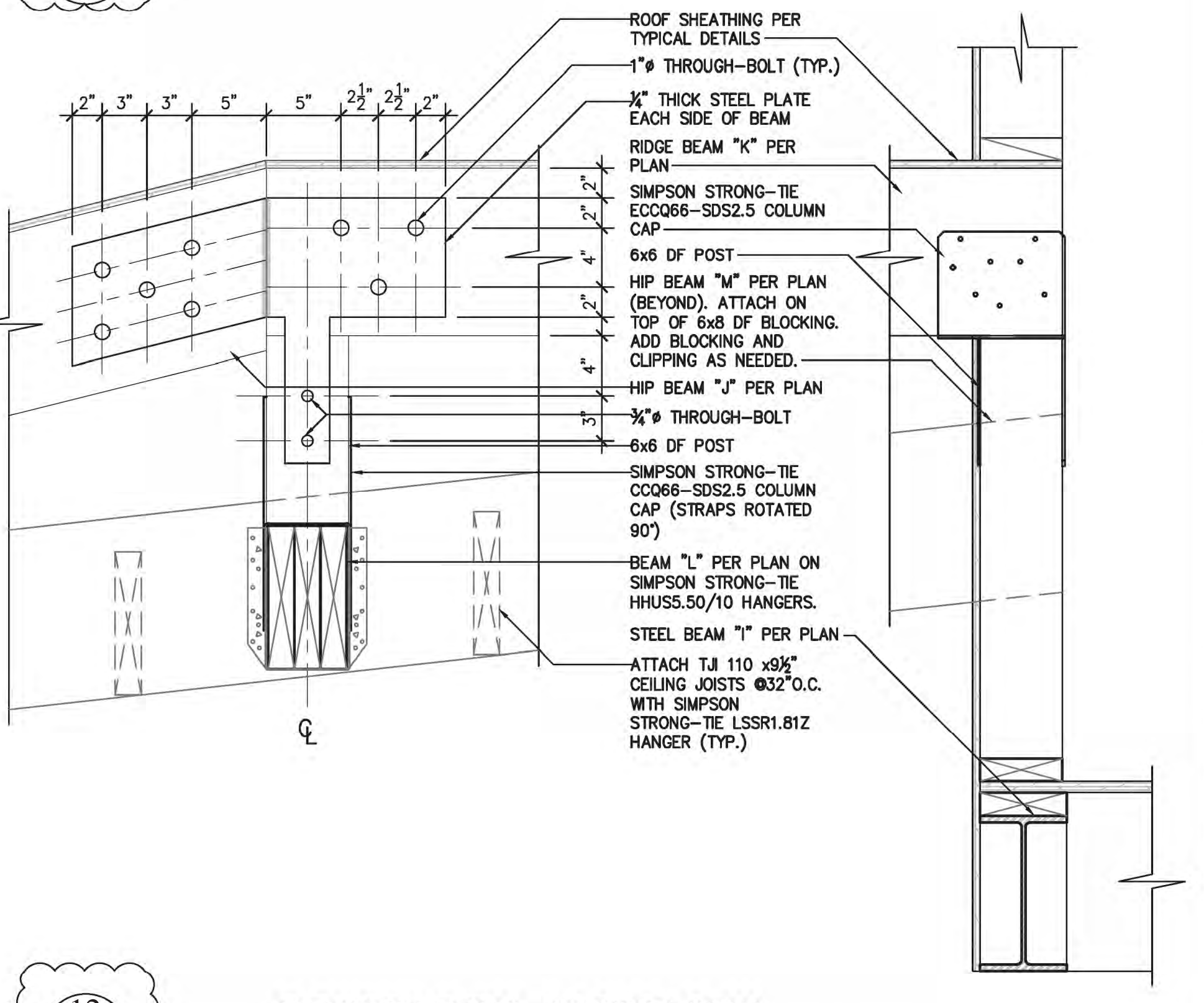


10 S-3.1 BAY WINDOW DETAILS SCALE: 1" = 1'-0"

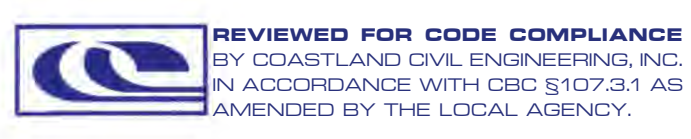
TABLE 1 - L FOOTING RETAINING WALL SCHEDULE					
MAX H	MIN B <sub>w</sub>	MIN B <sub>t</sub>	MIN B <sub>h</sub>	MIN R <sub>v</sub>	MIN R <sub>h</sub>
10'-0"	10"	4'-6"	14"	#6 REBAR @10" O.C.	#5 REBAR @16" O.C.
8'-0"	10"	4'-6"	14"	#6 REBAR @16" O.C.	#5 REBAR @16" O.C.
6'-0"	10"	4'-6"	14"	#5 REBAR @16" O.C.	#5 REBAR @16" O.C.
4'-0"	10"	4'-6"	14"	#5 REBAR @16" O.C.	#5 REBAR @16" O.C.



11 S-3.1 RETAINING WALL DETAIL SCALE: 1" = 1'-0"



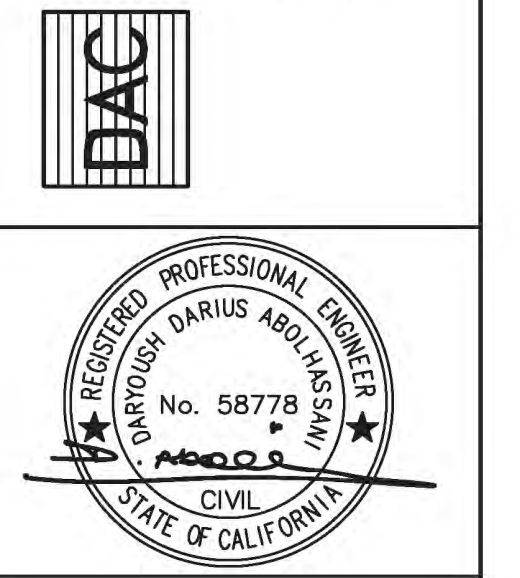
12 S-3.1 ELEVATION DETAIL AT RIDGE BEAM SCALE: 1-1/2" = 1'-0"



REVISIONS	BY
1	DL

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**NEW RESIDENCE & ADU**  
 79 WOOD LANE  
 FAIRFAX, CA 94930  
 PROJECT APN 002-062-03

STRUCTURAL DETAILS

DATE: 2022-04-08

SCALE: AS SHOWN

DRAWN BY: DL

JOB NUMBER: 1477-0822 S

SHEET 10  
**S-3.1**  
 OF 12 SHEET

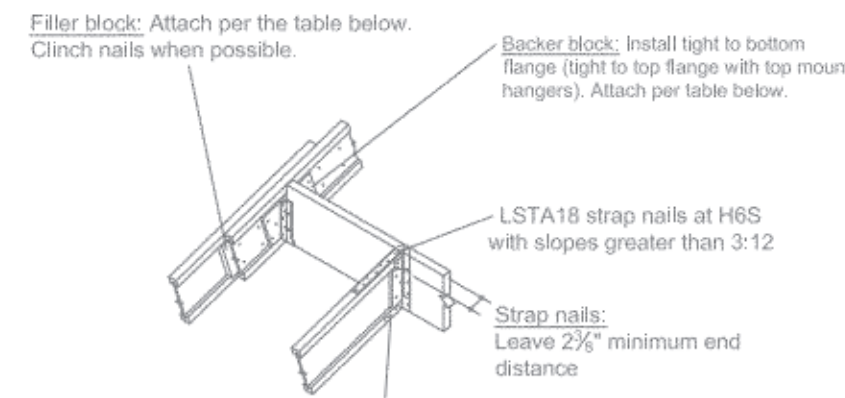
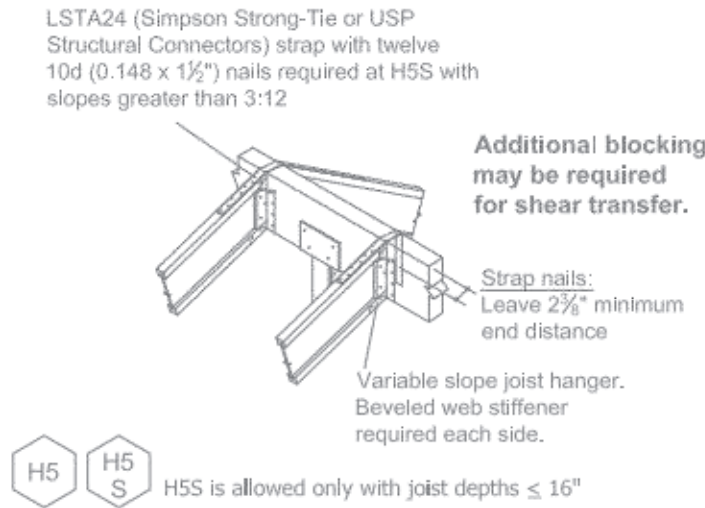
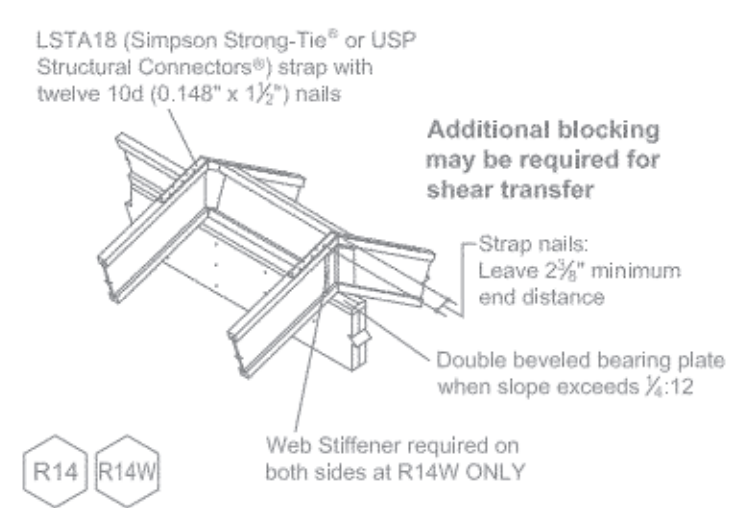
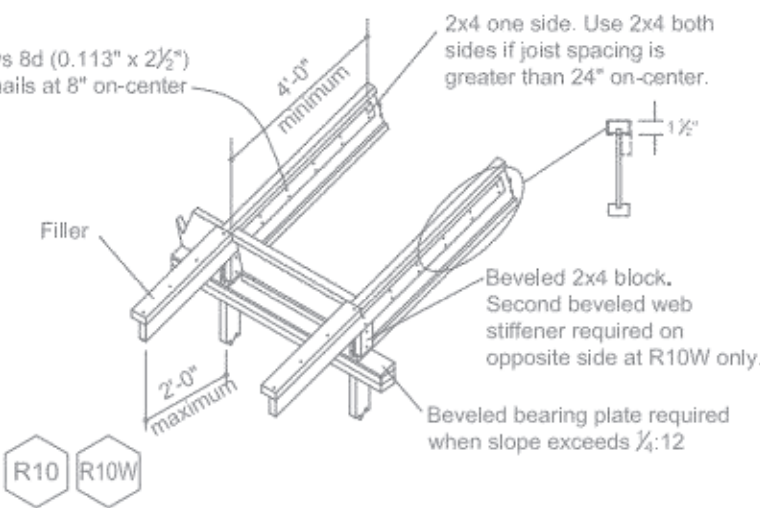
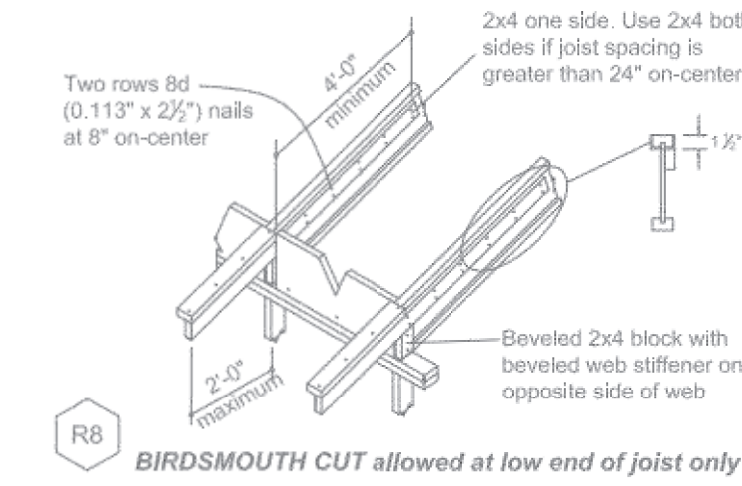
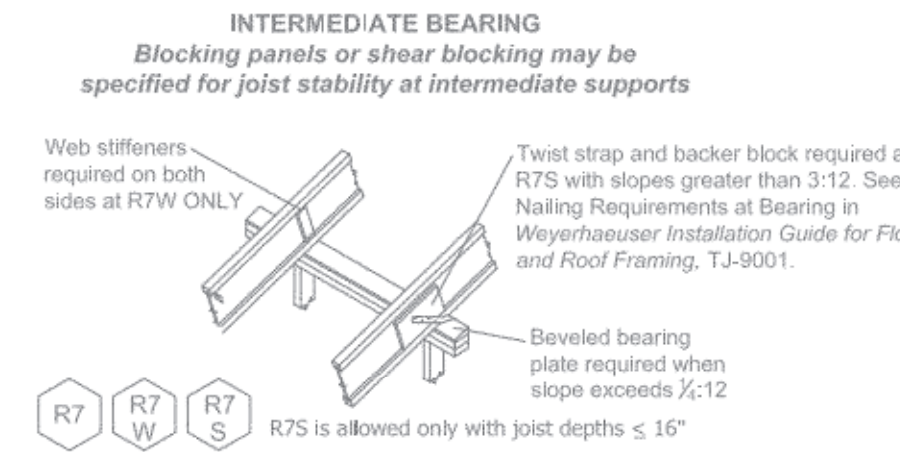
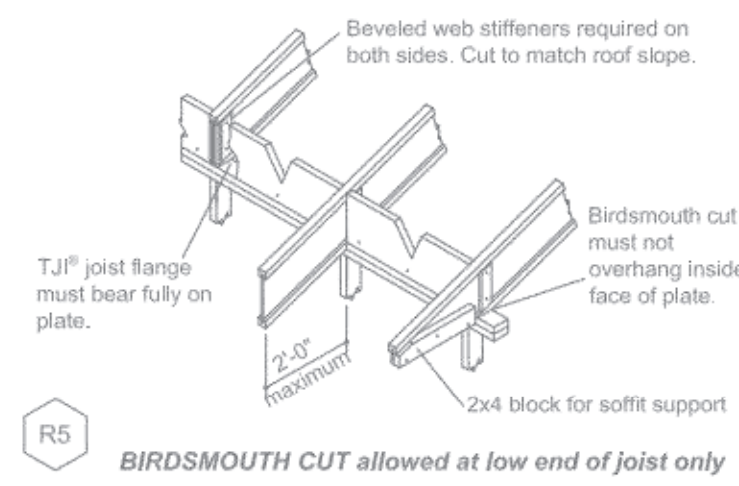
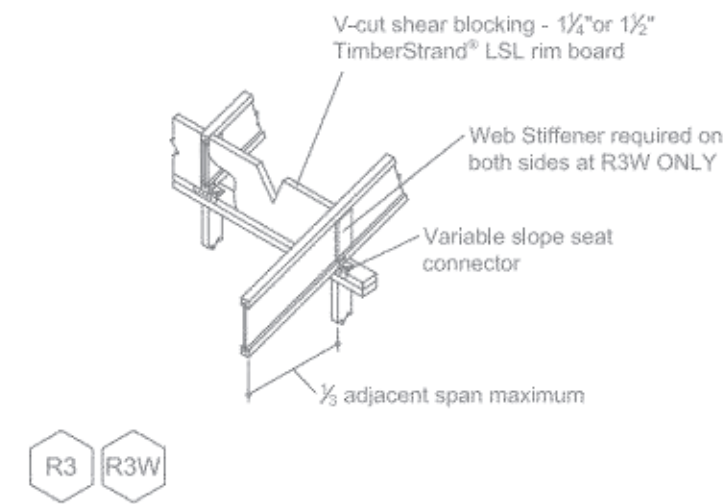
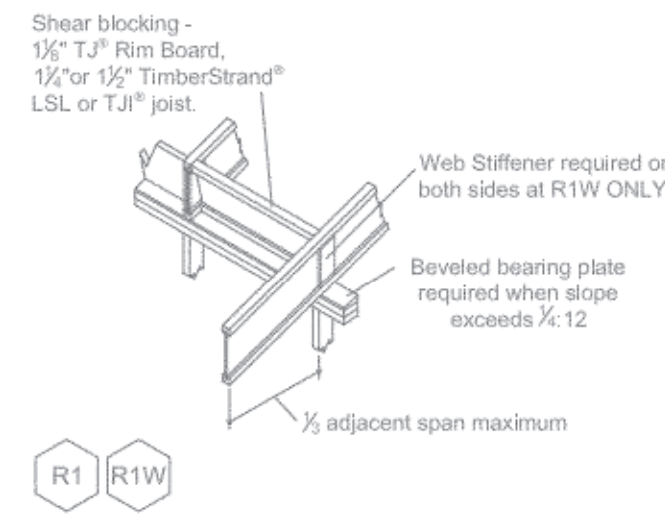




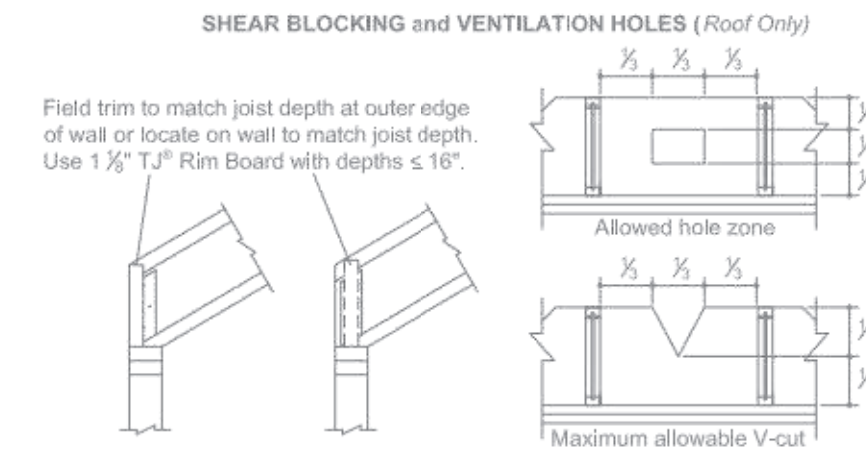
**ROOF DETAILS**

**General Notes**  
 Unless otherwise noted, all details are valid to a maximum slope of 12:12. Joists >16" have a maximum slope of 3:12.  
 Web stiffeners are required with all 22" and 24" joists and when the sides of the hanger do not laterally support at least 1/2" of the TJI® joist top flange. Also see framing plan.

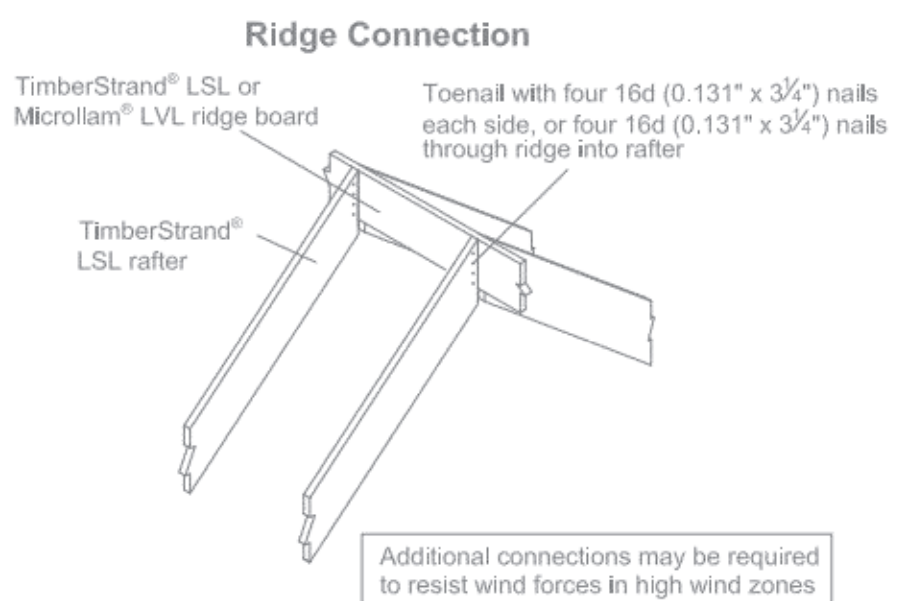
SEE MANUFACTURER'S DETAILS FOR INSTALLATION.



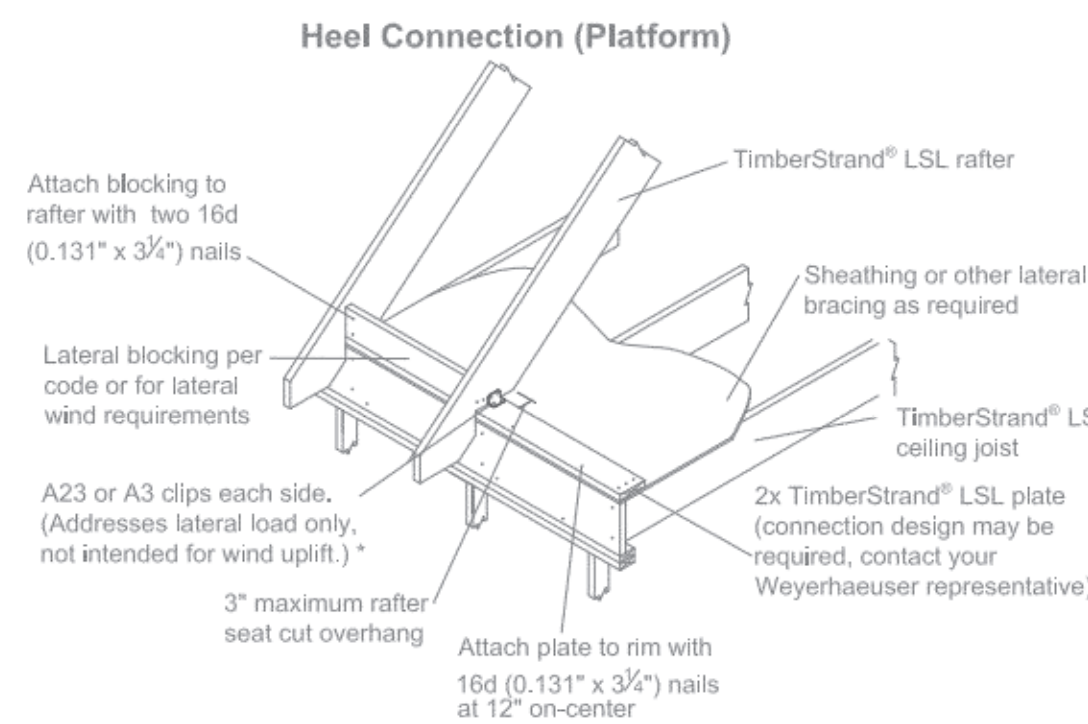
TJI® Depth, D	TJI® Flange Width	Block Type	Size	Nail Quantity
8 1/2" <Ds ≤ 16"	less than 3 1/2"	Filter	10d(0.128" x 3")	10
		Backer	10d(0.128" x 3")	10
16" <Ds ≤ 20"	less than 3 1/2"	Filter	16d(0.135" x 3 1/2")	10 - each side
		Backer	10d(0.128" x 3")	10
20" <Ds ≤ 24"	3 1/2"	Filter	10d(0.128" x 3")	15 - each side
		Backer	10d(0.128" x 3")	15



**ROOF FRAMING DETAILS**

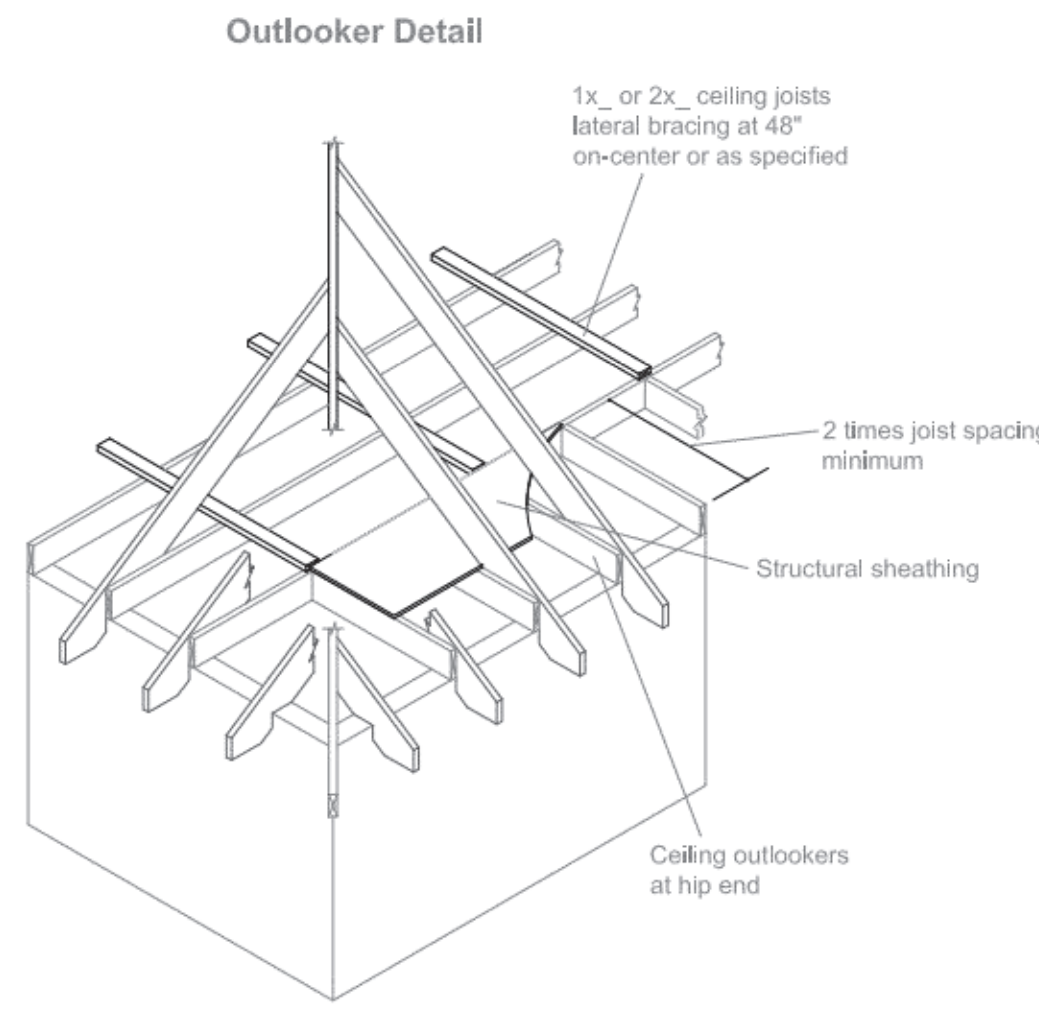


Rafter Size	4:12 to 9:12	10:12 to 11:12	12:12
2x6	2x8	2x10	2x10
2x8	2x10	2x12	2x12
2x10	14"	14"	14"
2x12	14"	16"	16"



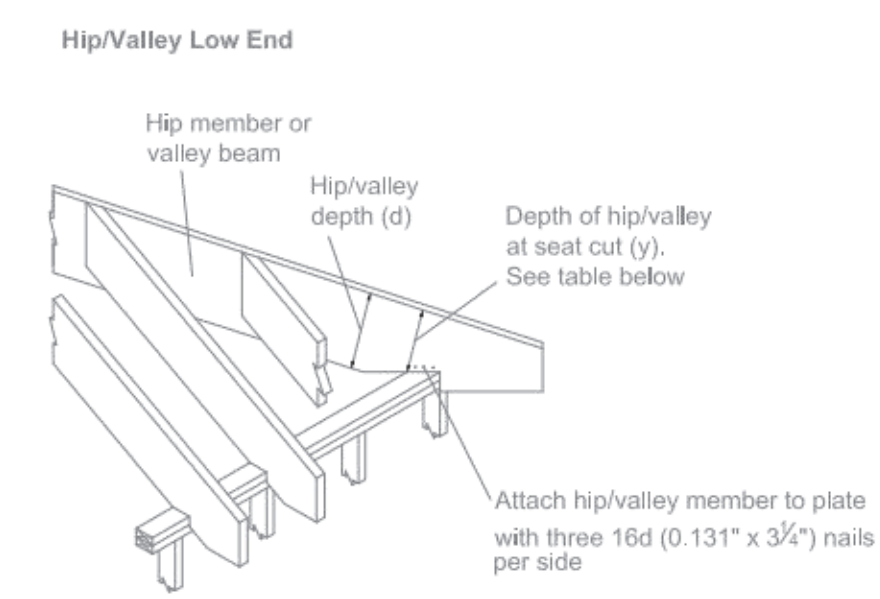
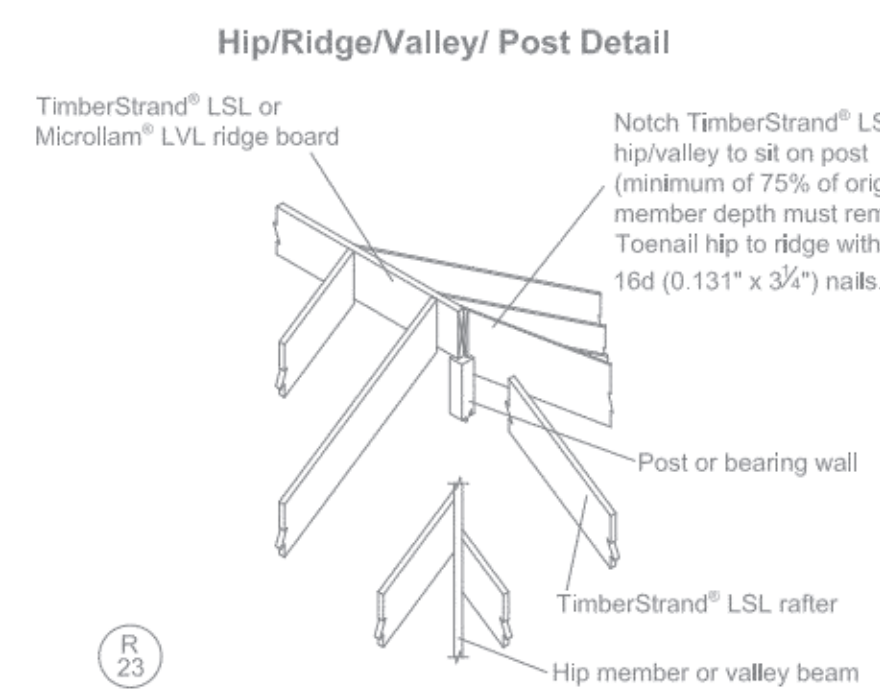
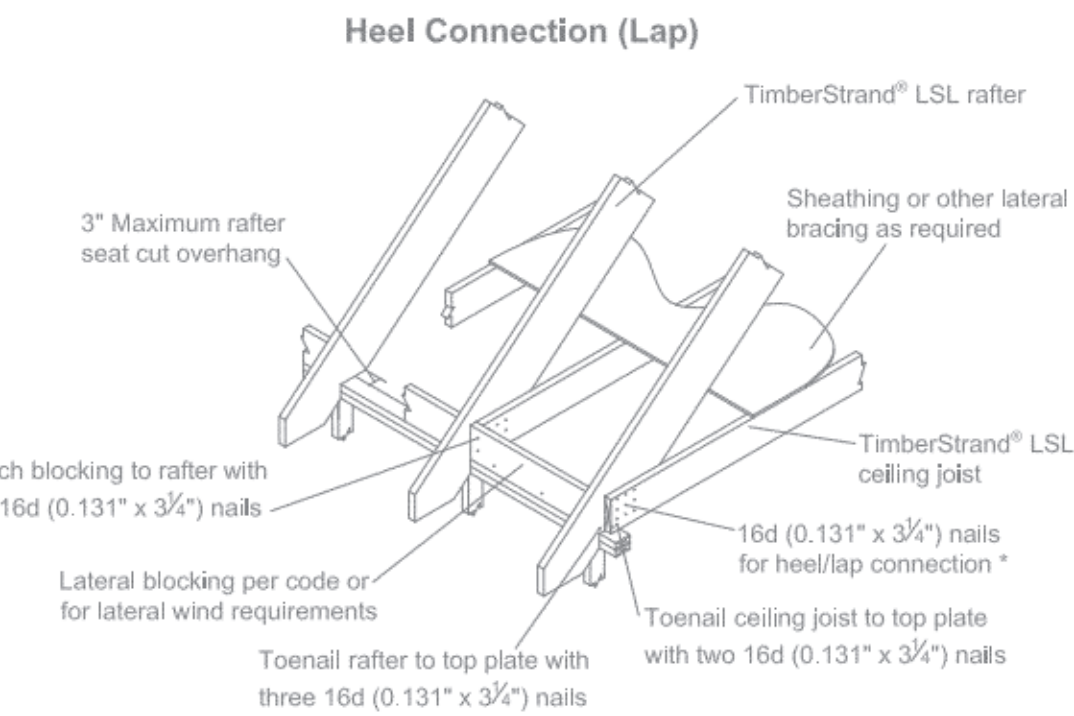
Hanger Type	Clip	Nailing
Simpson Strong Tie®	A23	10d x 1 1/2"
USP Structural Connectors®	A3	10d x 1 1/2"

**Rafter Connection for Thrust:**  
 • For lap connection nail quantity requirements, see Rafter Span and Heel Connection Tables in *Weyerhaeuser Roof System Design Guide*, TJ-9005.  
 - If fewer than 8 nails are required, use only one A23 or A3 clip, each side.  
 - If 8-15 nails required, use two A23 or A3 clips, each side.



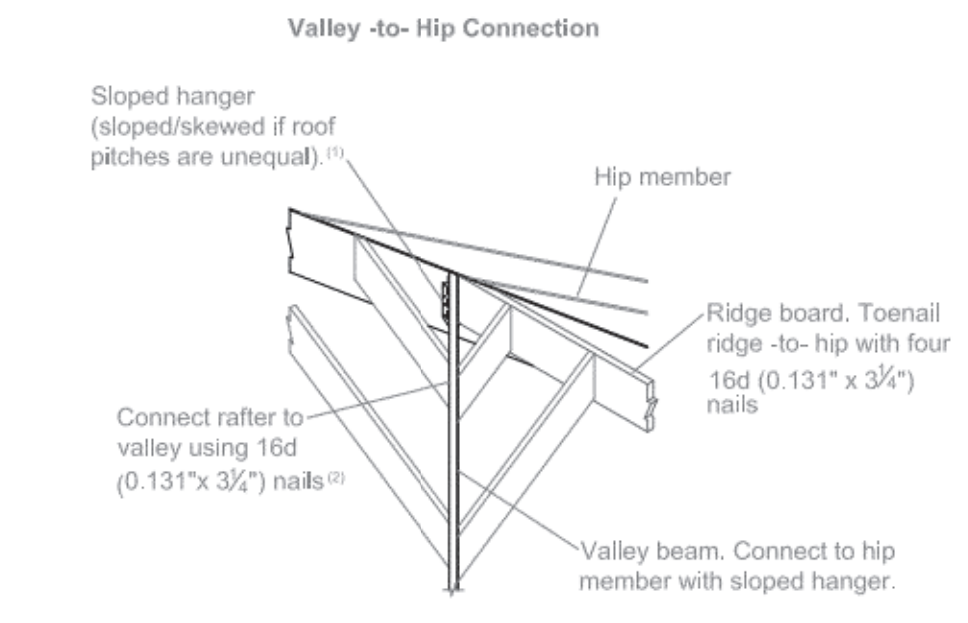
Rafter On-Center Spacing	Rafter Span	Roof Snow Load		
		30 LL + 15 DL / 50 LL + 15 DL	80 LL + 15 DL	Number of 16d (0.131" x 3/4") nails required
16"	6'	5	5	5
	12'	5	6	8
	18'	6	9	12
	24'	8	12	*
24"	6'	5	5	7
	12'	6	8	11
	18'	9	13	*
	24'	12	*	*

\* Contact your Weyerhaeuser representative for additional connection information.



Member Type	Minimum Percentage of Original Hip/Valley Depth Required
TimberStrand® LSL	30%
Microlam® LVL	50%
Hip Member	60%
Valley Beam	90%

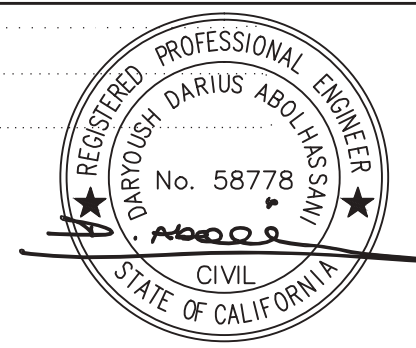
Calculate percentage as y/d x 100



Contact your Weyerhaeuser representative for sizing of a hip or valley with a point load.  
 \* See Framing Connectors in *Weyerhaeuser Roof System Design Guide*, TJ-9005 for hanger capacities.  
 \* See Rafter -to- Valley Connection table in Detail R26 above.

REVISIONS	BY
1	DL
2022-06-21	DL

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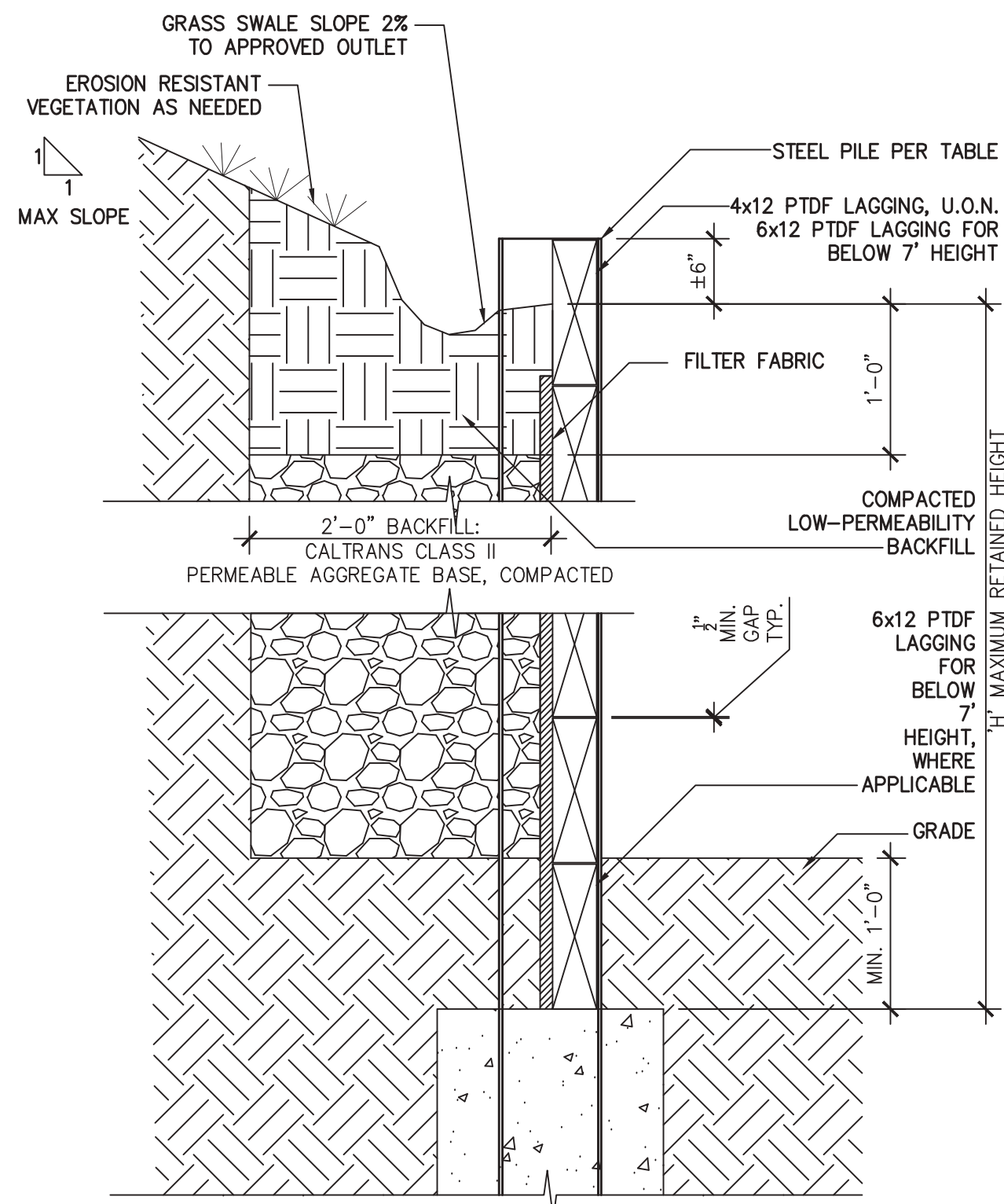
**NEW RESIDENCE & ADU**  
 79 WOOD LANE  
 FAIRFAX, CA 94930  
 PROJECT APN 002-062-03

WEYERHAEUSER  
 TYPICAL DETAILS

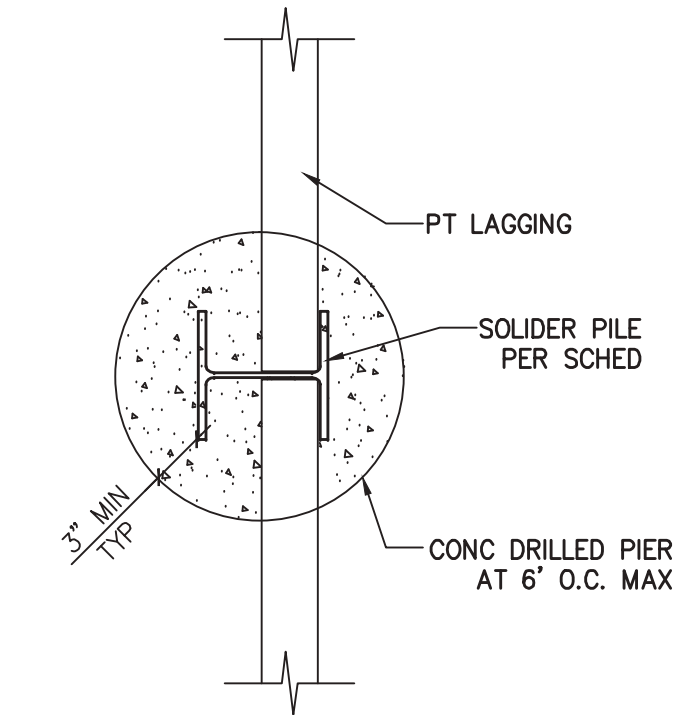
DATE: 2022-04-08  
 SCALE: AS SHOWN  
 DRAWN BY: DL  
 JOB NUMBER: 1477-0822 S

SHEET 12  
**S-3.3**  
 OF 12 SHEET



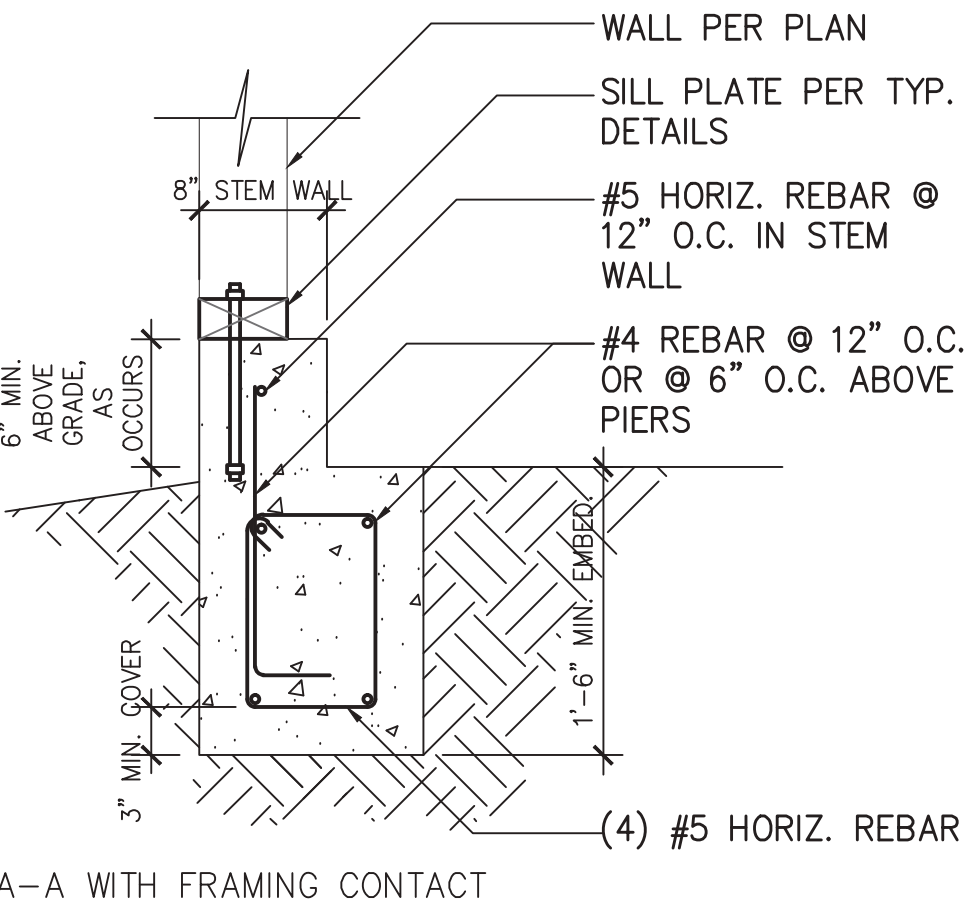


DEPTH INTO BEDROCK 'D'	DRILLED PIER DIA	SOLDER PILE	MAX RETAINED HEIGHT 'H'	MIN. OVERALL PIER DEPTH
10'-0"	18"	WBX21	6'-0"	16'-0"
8'-0"	18"	WBX10	4'-0"	14'-0"



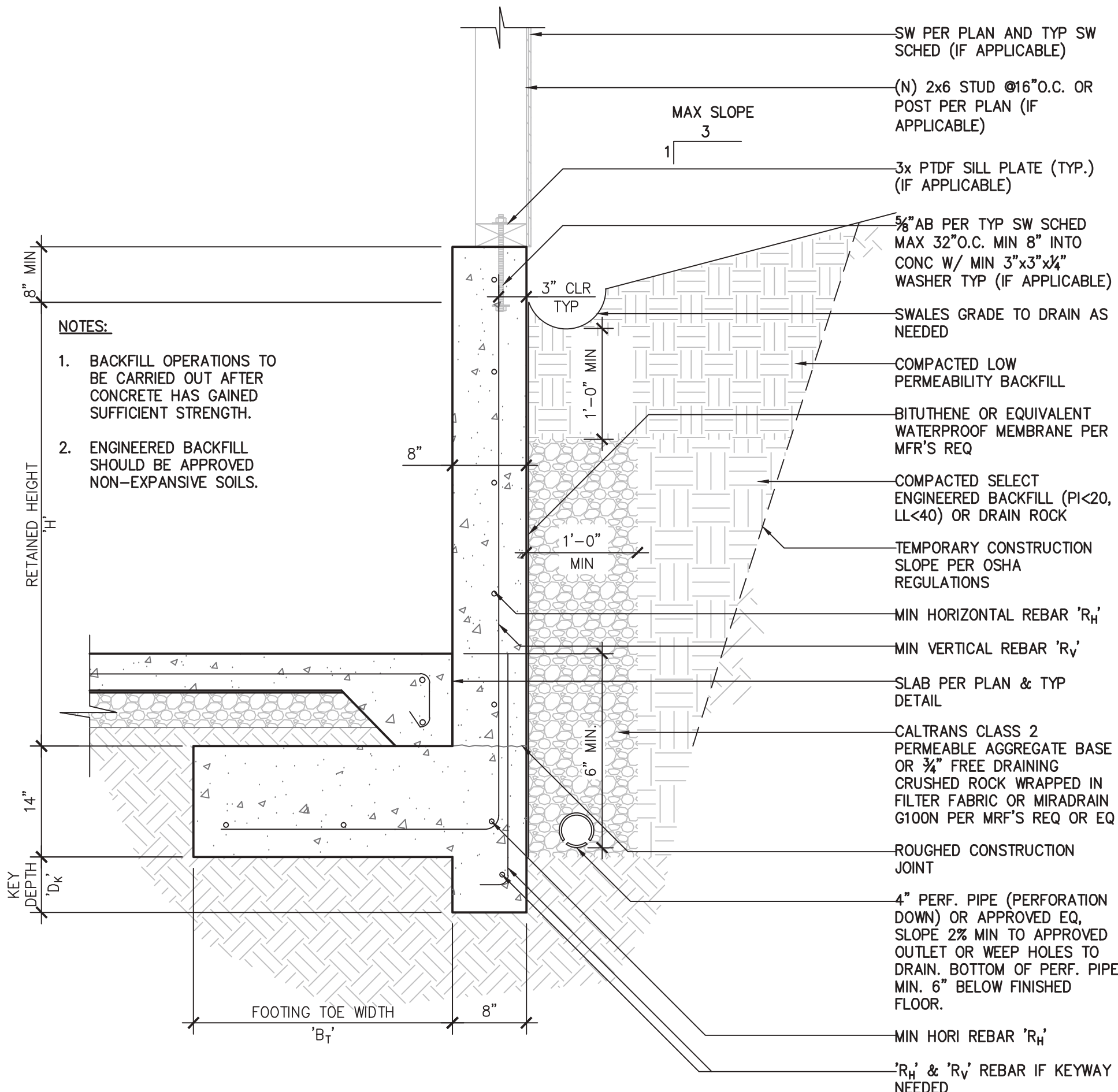
- NOTES:
1. ALL EXPOSED STEEL SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH TWO COATS OF BITUMINOUS EPOXY PAINT.
  2. NAILS/METAL FASTENERS SHALL BE HOP DIPPED GALVANIZED OR STAINLESS STEEL, OR OTHER APPROVED ACCEPTABLE CORROSION RESISTANT MATERIAL.

3 S-3.4 RW DETAIL SCALE: 1" = 1'-0"

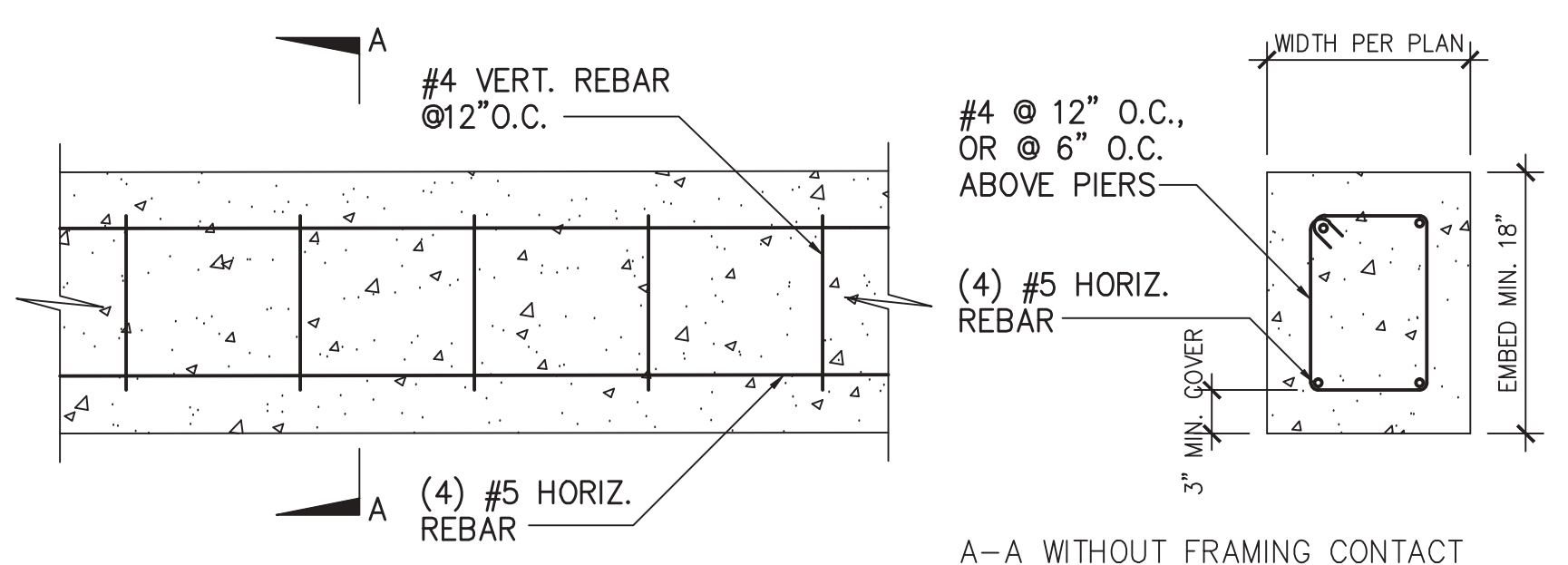


4 S-3.4 GRADE BEAM DETAILS SCALE: 1" = 1'-0"

MAX H	MIN T	MIN B	MIN D <sub>c</sub>	MIN R <sub>v</sub>	MIN R <sub>h</sub>
6'-0"	8"	4'-6"	N.A.	#5 REBAR @16" O.C.	#5 REBAR @16" O.C.
UP TO 3'-0"	8"	4'-6"	N.A.	#5 REBAR @16" O.C.	#5 REBAR @16" O.C.

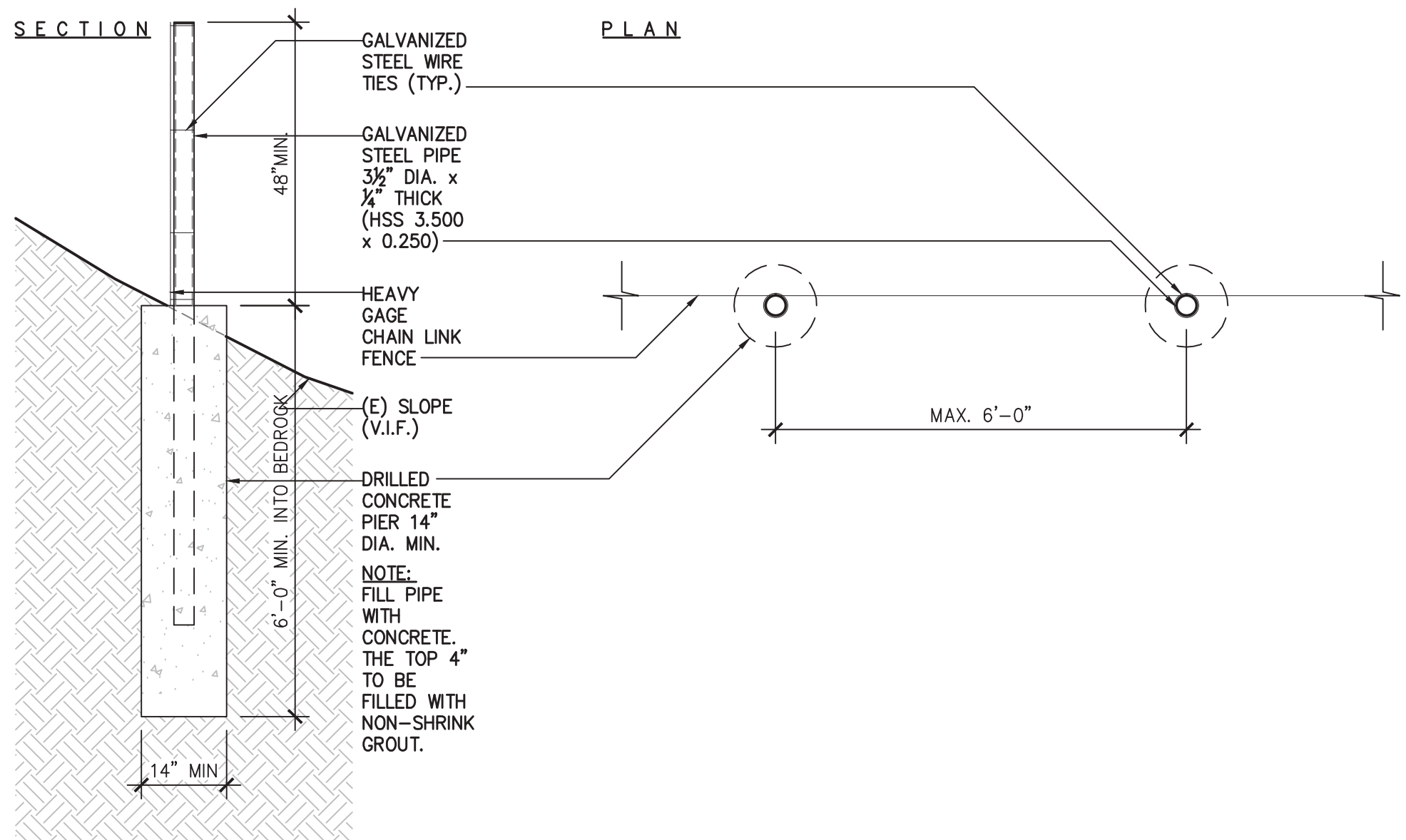


- NOTES:
1. BACKFILL OPERATIONS TO BE CARRIED OUT AFTER CONCRETE HAS GAINED SUFFICIENT STRENGTH.
  2. ENGINEERED BACKFILL SHOULD BE APPROVED NON-EXPANSIVE SOILS.



- NOTES:
1. DEPTH OF PIER VARIES DEPENDING ON THE DEPTH OF BEDROCK. 8'-0" MINIMUM INTO BEDROCK, U.O.N.; CONTRACTOR SHALL CONTACT THE SOIL ENGINEER TO OBSERVE EXCAVATION AND VERIFY ADEQUATE DEPTH IN WRITING BEFORE POURING CONCRETE. CONCRETE MINIMUM COMPRESSIVE STRENGTH FC=3000 PSI AT 28 DAYS.
  2. MAX. 6'-0" BETWEEN PIERS.

1 S-3.4 STEEL SOLDIER PILE & LAGGING RW DETAIL SCALE: 1" = 1'-0"



2 S-3.4 DEBRIS FENCE DETAIL SCALE: 1/2" = 1'-0"

REVISIONS	BY
1	DL

**Darius Abolhassani Consultant & Associates, Inc.**  
 Consulting Engineering & Construction Support  
 7 Mt. Lassen Drive, Suite A-129, San Rafael, CA 94903  
 Phone: (415)499-1919 Email: darius@dacassociates.net



**NEW RESIDENCE & ADU**  
 79 WOOD LANE  
 FAIRFAX, CA 94930  
 PROJECT APN 002-062-03

STRUCTURAL DETAILS

DATE: 2022-04-08  
 SCALE: AS SHOWN  
 DRAWN BY: DL  
 JOB NUMBER: 1477-0822 S

SHEET 13  
**S-3.4**  
 OF 12 SHEET



CERTIFICATE OF COMPLIANCE
Project Name: 79 Wood Ln
Calculation Date/Time: 2022-03-09T11:33:58-08:00
Input File Name: Friedman New Residence + ADU - 79 Wood Ln - plans.rbd19x

Table with 22 rows and 4 columns: GENERAL INFORMATION. Includes Project Name, Run Title, City, Zip code, Climate Zone, Building Type, Project Scope, Addition Cond. Floor Area, Existing Cond. Floor Area, Total Cond. Floor Area, ADU Bedroom Count, and Is Natural Gas Available?

Table with 3 rows and 2 columns: COMPLIANCE RESULTS. Includes Building Complies with Computer Performance, This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider, and This building incorporates one or more Special Features shown below.

Registration Number: 422-P010034238A-000-000-0000000-0000
Registration Date/Time: 03/11/2022 14:39
HERS Provider: CHEERS
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CERTIFICATE OF COMPLIANCE
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Table with 4 columns: ENERGY DESIGN RATING. Includes Energy Design Ratings (Efficiency\* (EDR), Total\* (EDR)) and Compliance Margins (Efficiency\* (EDR), Total\* (EDR)).

RESULT: COMPLIES
1: Efficiency EDR Includes improvements to the building envelope and more efficient equipment
2: Total EDR includes efficiency and demand response measures such as photovoltaic (PV) systems and batteries
3: Building complies when efficiency and total compliance margins are greater than or equal to zero

Table with 5 columns: ENERGY USE SUMMARY. Includes Energy Use (KTDV/t²-yr), Standard Design, Proposed Design, Compliance Margin, and Percent Improvement for Space Heating, Space Cooling, IAQ Ventilation, Water Heating, Self Utilization/Flexibility Credit, and Compliance Energy Total.

Table with 12 columns: REQUIRED PV SYSTEMS - SIMPLIFIED. Includes DC System Size (kWdc), Exception, Module Type, Array Type, Power Electronics, CFI, Azimuth (deg), Tilt Input, Array Angle (deg), Tilt: (x in 12), Inverter Eff. (%), and Annual Solar Access (%).

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Calculation Date/Time: 2022-03-09T11:33:58-08:00
Input File Name: Friedman New Residence + ADU - 79 Wood Ln - plans.rbd19x

REQUIRED SPECIAL FEATURES
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.

HERS FEATURE SUMMARY
The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry

- Quality insulation installation (QII)
Indoor air quality ventilation
Cooling System Verifications:
Minimum Airflow
Verified EER
Verified SEER
Verified Refrigerant Charge
Airflow in habitable rooms (SC3.1.4.1.7)
Fan Efficacy Watts/CFM
Heating System Verifications:
Verified HSPF
Verified heat pump rated heating capacity
Wall-mounted thermostat in zones greater than 150 ft2 (SC3.4.5)
Ductless indoor units located entirely in conditioned space (SC3.1.4.1.8)
HVAC Distribution System Verifications:
Duct leakage testing
Domestic Hot Water System Verifications:
None

Table with 7 columns: BUILDING - FEATURES INFORMATION. Includes Project Name, Conditioned Floor Area (ft²), Number of Dwelling Units, Number of Bedrooms, Number of Zones, Number of Ventilation Cooling Systems, and Number of Water Heating Systems.

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Input File Name: Friedman New Residence + ADU - 79 Wood Ln - plans.rbd19x

Table with 7 columns: ZONE INFORMATION. Includes Zone Name, Zone Type, HVAC System Name, Zone Floor Area (ft²), Avg. Ceiling Height, Water Heating System 1, and Water Heating System 2.

Table with 8 columns: OPAQUE SURFACES. Includes Name, Zone, Construction, Azimuth, Orientation, Gross Area (ft²), Window and Door Area (ft²), and Tilt (deg).

Registration Number: 422-P010034238A-000-000-0000000-0000
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Input File Name: Friedman New Residence + ADU - 79 Wood Ln - plans.rbd19x

Table with 8 columns: OPAQUE SURFACES - CATHEDRAL CEILINGS. Includes Name, Zone, Construction, Azimuth, Orientation, Area (ft²), Skylight Area (ft²), Roof Rise (x in 12), Roof Reflectance, Roof Emittance, and Cool Roof.

Table with 11 columns: OPAQUE SURFACES - CATHEDRAL CEILINGS. Includes Name, Zone, Construction, Azimuth, Orientation, Area (ft²), Skylight Area (ft²), Roof Rise (x in 12), Roof Reflectance, Roof Emittance, and Cool Roof.

Registration Number: 422-P010034238A-000-000-0000000-0000
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Project Name: 79 Wood Ln
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Input File Name: Friedman New Residence + ADU - 79 Wood Ln - plans.rbd19x

Table with 8 columns: ATTIC. Includes Name, Construction, Type, Roof Rise (x in 12), Roof Reflectance, Roof Emittance, Radiant Barrier, and Cool Roof.

Table with 14 columns: FENESTRATION / GLAZING. Includes Name, Type, Surface, Orientation, Azimuth, Width (ft), Height (ft), Mult., Area (ft²), U-factor, U-factor Source, SHGC, SHGC Source, and Exterior Shading.

Table with 4 columns: OPAQUE DOORS. Includes Name, Side of Building, Area (ft²), and U-factor.

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Phone: (415) 457-0220 Fax: (415) 454-9581



NEW RESIDENCE AND ADU
79 WOOD LANE
FAIRFAX, CA 94930
APN: 002-062-03
FOR: COBY FRIEDMAN

TITLE 24 COMPLIANCE

Table with 2 columns: Revisions. Includes Revision number and Description.

Date: 03-17-2022
Scale: As Noted
Drawn: LSK/ MP/ JK
Job #: 19049.00
Prototype: DIVINE



T24-1

CERTIFICATE OF COMPLIANCE
Project Name: 79 Wood Ln
Calculation Description: Title 24 Analysis
Calculation Date/Time: 2022-03-09T11:33:58-08:00
Input File Name: Friedman New Residence + ADU - 79 Wood Ln - plans.rbd19x

Table with 8 columns: 01-08. Headers: Name, Zone, Area (ft²), Perimeter (ft), Edge Insul. R-value and Depth, Edge Insul. R-value and Depth, Carpeted Fraction, Heated. Rows: Covered Slab, Slab-on-Grade.

Table with 8 columns: 01-08. Headers: Construction Name, Surface Type, Construction Type, Framing, Total Cavity R-value, Interior / Exterior Continuous R-value, U-factor, Assembly Layers. Rows: R-0 Wall, R-21 Wall, R-15 Wall, R-0 Roof Cathedral, R-35 Roof Cathedral.

Registration Number: 422-P010034238A-000-000-0000000-0000
Registration Date/Time: 03/11/2022 14:39
HERS Provider: CHEERS
Report Version: 2019.2.000
Schema Version: rev 20200901

CERTIFICATE OF COMPLIANCE
Project Name: 79 Wood Ln
Calculation Description: Title 24 Analysis
Calculation Date/Time: 2022-03-09T11:33:58-08:00
Input File Name: Friedman New Residence + ADU - 79 Wood Ln - plans.rbd19x

Table with 11 columns: 01-11. Headers: Name, System Type, Heating Unit Name, Cooling Unit Name, Fan Name, Distribution Name, Required Thermostat Type, Status, Verified Condition, Heating Equipment Count, Cooling Equipment Count. Rows: Res HVAC1, Res HVAC2.

Table with 11 columns: 01-11. Headers: Name, System Type, Number of Units, Heating (HSPF/COP, Cap 47, Cap 17, SEER, EER/CEER), Cooling, Zonally Controlled, Compressor Type, HERS Verification. Rows: Heat Pump System 1, Heat Pump System 2.

Table with 9 columns: 01-09. Headers: Name, Verified Airflow, Airflow Target, Verified EER, Verified SEER, Verified Refrigerant Charge, Verified HSPF, Verified Heating Cap 47, Verified Heating Cap 17. Rows: Heat Pump System 1-hers-htpump, Heat Pump System 2-hers-htpump.

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Table with 8 columns: 01-08. Headers: Construction Name, Surface Type, Construction Type, Framing, Total Cavity R-value, Interior / Exterior Continuous R-value, U-factor, Assembly Layers. Rows: R-13 Wall, Attic Roof/Main Floor Zone, R-19 Floor Crawspace, R-38 Roof Attic, R-0 Floor No Crawspace, 8 Concrete Wall.

Table with 4 columns: 01-04. Headers: Quality Insulation Installation (QII), High R-value Spray Foam Insulation, Building Envelope Air Leakage, CFM50. Rows: Required, Not Required, Not Required, n/a.

Registration Number: 422-P010034238A-000-000-0000000-0000
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CERTIFICATE OF COMPLIANCE
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Input File Name: Friedman New Residence + ADU - 79 Wood Ln - plans.rbd19x

Table with 10 columns: 01-10. Headers: Name, Certified Low-Static VCHP System, Airflow to Habitable Rooms, Ductless Units in Conditioned Space, Wall Mount Thermostat, Air Filter Sizing & Pressure Drop Rating, Low Leakage Ducts in Conditioned Space, Minimum Airflow per RA3.3 and SC3.3.3.4.1, Certified non-continuous Fan, Indoor Fan not Running Continuously. Rows: Heat Pump System 2.

Table with 12 columns: 01-12. Headers: Name, Type, Design Type, Supply, Return, Supply, Return, Surface Area, Bypass Duct, Duct Leakage, HERS Verification. Rows: Air Distribution System 1.

Table with 9 columns: 01-09. Headers: Name, Duct Leakage Verification, Duct Leakage Target (%), Verified Duct Location, Verified Duct Design, Buried Ducts, Deeply Buried Ducts, Low-leakage Air Handler, Low Leakage Ducts Entirely in Conditioned Space. Rows: Air Distribution System 1-hers-dist.

Table with 4 columns: 01-04. Headers: Name, Type, Fan Power (Watts/CFM), Name. Rows: HVAC Fan 1, HVAC Fan.

Registration Number: 422-P010034238A-000-000-0000000-0000
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Report Version: 2019.2.000
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Input File Name: Friedman New Residence + ADU - 79 Wood Ln - plans.rbd19x

Table with 7 columns: 01-07. Headers: Name, System Type, Distribution Type, Water Heater Name (#), Solar Heating System, Compact Distribution, HERS Verification. Rows: DHW Sys 1, DHW Sys 3.

Table with 12 columns: 01-12. Headers: Name, Heating Element Type, Tank Type, # of Units, Tank Vol. (gal), Energy Factor or Efficiency, Input Rating or Pilot, Tank Insulation R-value (Int/Ext), Standby Loss or Recovery Eff, 1st Hr. Rating or Flow Rate, NEEA Heat Pump Brand or Model, Tank Location or Ambient Condition. Rows: DHW Heater 1, DHW Heater 3.

Table with 8 columns: 01-08. Headers: Name, Pipe Insulation, Parallel Piping, Compact Distribution, Compact Distribution Type, Recirculation Control, Central DHW Distribution, Shower Drain Water Heat Recovery. Rows: DHW Sys 1 - 1/1, DHW Sys 3 - 1/1.

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Input File Name: Friedman New Residence + ADU - 79 Wood Ln - plans.rbd19x

Table with 3 columns: 01, 02, 03. Headers: Name, Verified Fan Watt Draw, Required Fan Efficacy (Watts/CFM). Rows: HVAC Fan 1-hers-fan.

Table with 7 columns: 01-07. Headers: Dwelling Unit, IAQ CFM, IAQ Watts/CFM, IAQ Fan Type, IAQ Recovery Effectiveness - SRE, IAQ Recovery Effectiveness - ASRE, HERS Verification. Rows: SFam IAQVentRpt, SFam ADU IAQVentRpt.

Registration Number: 422-P010034238A-000-000-0000000-0000
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HERS Provider: CHEERS
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Calculation Date/Time: 2022-03-09T11:33:58-08:00
Input File Name: Friedman New Residence + ADU - 79 Wood Ln - plans.rbd19x

Documentation Author's Declaration Statement. I certify that this Certificate of Compliance documentation is accurate and complete. Documentation Author Signature: S. Romer, Energy Calc Co., 45 Mitchell Blvd #16, San Rafael, CA 94903.

Responsible Person's Declaration Statement. I certify the following under penalty of perjury, under the laws of the State of California: 1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance. 2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. 3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. Responsible Designer Signature: Laura Kehrlein, Fredric Divine Architects, 1924 Fourth Street, San Rafael, CA 94901.

Digitally signed by Carol Home Energy Efficiency Rating System Services, Inc. (CHEERS). This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

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NEW RESIDENCE AND ADU
79 WOOD LANE
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APN: 002-062-03
FOR: COBY FRIEDMAN

TITLE 24 COMPLIANCE

Revisions PERMIT SUBMITTAL table with columns for revision number, date, and description.

Date: 03-17-2022
Scale: As Noted
Drawn: LSK/ MP/ JK
Job #: 19049.00
Prototype: DIVINE

T24-2





RESIDENTIAL GREEN BUILDING STANDARDS

- 1. STORM WATER DRAINAGE/RETENTION DURING CONSTRUCTION: PROJECTS WHICH DISTURB LESS THAN ONE ACRE OF SOIL SHALL MANAGE STORM WATER DRAINAGE DURING CONSTRUCTION BY ONE OF THE FOLLOWING: (A) RETENTION BASINS; (B) WHERE STORM WATER IS CONVEYED TO A PUBLIC DRAINAGE SYSTEM, WATER SHALL BE FILTERED BY USE OF A BARRIER SYSTEM, WATTLE, OR OTHER APPROVED SYSTEM. CGC §4.106.2.
2. SITE GRADING OR DRAINAGE SYSTEM WILL MANAGE ALL SURFACE WATER FLOWS TO KEEP WATER FROM ENTERING BUILDINGS (SWALES, WATER COLLECTION, FRENCH DRAINS, ETC.). CGC §4.106.3.
3. BUILDING MEETS OR EXCEEDS THE REQUIREMENTS OF THE CA BUILDING ENERGY EFFICIENCY STANDARDS. SEE SHEETS T24-1 AND T24-2 FOR DOCUMENTS.
4. INDOOR WATER USE - VERIFY WATER CONSERVING FIXTURES ARE USED (WATER CLOSETS SHALL USE NO MORE THAN 1.28 gpf; KITCHEN FAUCETS MAY NOT EXCEED 1.8 gpm @ 60 psi; LAVATORIES MAY NOT EXCEED 1.5 gpm @ 60 psi, AND NO LESS THAN 0.8 gpm @ 20 psi; SHOWERHEADS MAY NOT EXCEED 1.8 gpm @ 80 psi. CPC §403, §408. CGC §4.303.1.
5. PLUMBING FIXTURES AND FITTINGS REQUIRED IN CGC §4.303.1 SHALL BE INSTALLED IN ACCORDANCE WITH THE CA PLUMBING CODE, AND SHALL MEET THE APPLICABLE REFERENCED STANDARDS.
6. ANNULAR SPACES AROUND PIPES, ELECTRICAL CABLES, CONDUITS, OR OTHER OPENINGS IN PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY OR SIMILAR METHOD ACCEPTABLE TO THE ENFORCING AGENCY.
7. RECYCLING: RECYCLE AND/ OR SALVAGE FOR A REUSE A MINIMUM OF 65% OF NONHAZARDOUS CONSTRUCTION AND DEMOLITION WASTE IN ACCORDANCE WITH THE REPORTING STANDARDS OUTLINED BY ZERO WASTE MARIN. ANY MIXED RECYCLABLES THAT ARE SENT TO A MIXED-WASTE RECYCLING FACILITY SHALL INCLUDE A QUALIFIED THIRD PARTY VERIFIED FACILITY AVERAGE DIVERSION RATE. CAL Green §44.408.1.
8. OPERATION AND MAINTENANCE MANUAL: THE BUILDER IS TO PROVIDE AN OPERATION MANUAL (CONTAINING INFORMATION FOR MAINTAINING APPLIANCES, ETC.) FOR THE OWNER AT THE TIME OF FINAL INSPECTION. CPC §4.410.1.
9. DUCT OPENINGS AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED DURING CONSTRUCTION.
10. ADHESIVES, SEALANTS AND CAULKS SHALL BE COMPLIANT WITH VOC AND OTHER TOXIC COMPOUND LIMITS.
11. PAINTS, STAINS AND COATINGS, SHALL BE COMPLIANT WITH VOC LIMITS.
12. AEROSOL PAINTS AND OTHER COATINGS SHALL BE COMPLIANT WITH PRODUCT WEIGHTED MIR LIMITS FOR ROC AND OTHER TOXIC COMPOUNDS.
13. DOCUMENTATION SHALL BE PROVIDED TO VERIFY THAT COMPLIANT VOC LIMIT FINISH MATERIALS HAVE BEEN USED.
14. CARPET AND CARPET SYSTEMS SHALL BE COMPLIANT WITH VOC LIMITS.
15. 80% OF FLOOR AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH THE VOC EMISSION LIMITS ESTABLISHED IN CGC §4.504.4. TIER 1: 90% OF RESILIENT FLOORING FLOOR AREA SHALL COMPLY WITH VOC EMISSION LIMITS TIER 2: 100% OF RESILIENT FLOORING FLOOR AREA SHALL COMPLY WITH VOC EMISSION LIMITS
16. PARTICLEBOARD, MEDIUM DENSITY FIBERBOARD (MDF) AND HARDWOOD PLYWOOD USED IN INTERIOR FINISH SYSTEMS SHALL COMPLY WITH LOW FORMALDEHYDE EMISSION STANDARDS.
17. CONCRETE SLAB ON GRADE FOUNDATIONS SHALL BE PROVIDED WITH A VAPOR RETARDANT AND CAPILLARY BREAK PER CGC §4.505.2.1. MOISTURE CONTENT OF WOOD SHALL NOT EXCEED 19% BEFORE IT IS ENCLOSED IN CONSTRUCTION. THE MOISTURE CONTENT NEEDS TO BE CERTIFIED BY 1 OF 3 METHODS SPECIFIED IN CGC §4.505.3. BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHOULD NOT BE USED IN CONSTRUCTION. THE MOISTURE CONTENT MUST BE DETERMINED BY THE CONTRACTOR BY ONE OF THE METHODS LISTED IN CGC §4.505.3.
18. MOISTURE CONTENT OF BUILDING MATERIALS USED IN WALL AND FLOOR FRAMING IS CHECKED BEFORE ENCLOSURE.
19. EACH ENERGY STAR BATHROOM FANS (WITH TUB OR SHOWER) MUST BE MECHANICALLY VENTILATED WITH A HUMIDITY CONTROLLED ENERGY STAR COMPLIANT EXHAUST FAN VENTED DIRECTLY TO THE OUTSIDE, UNLESS OTHERWISE A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM. HUMIDITY CONTROLS SHALL HAVE MANUAL OR AUTOMATIC MEANS OF ADJUSTMENT, CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY OF <= 50% TO A MAXIMUM OF 80%.
20. DUCT SYSTEMS ARE SIZED AND DESIGNED AND EQUIPMENT IS SELECTED USING THE FOLLOWING METHODS:
o. ESTABLISH HEAT LOSS AND HEAT GAIN VALUES ACCORDING TO ANSI/ACCA 2 MANUAL J-2011 OR EQUIVALENT.
b. SIZE DUCT SYSTEMS ACCORDING TO ANSI/ACCA 1 MANUAL D-2014 OR EQUIVALENT.
c. SELECT HEATING AND COOLING EQUIPMENT ACCORDING TO ANSI/ACCA 3 MANUAL S-2014 OR EQUIVALENT.
21. HVAC SYSTEM INSTALLERS ARE TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF HVAC SYSTEMS.
22. PRIOR TO FINAL INSPECTION, THE LICENSED CONTRACTOR, ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE OF THE OVERALL CONSTRUCTION MUST PROVIDE BUILDING DEPARTMENT OFFICIAL WRITTEN VERIFICATION THAT ALL APPLICABLE PROVISIONS FROM THE GREEN BUILDING STANDARDS CODE HAVE BEEN IMPLEMENTED AS PART OF CONSTRUCTION PER CGC §102.3.
23. COMPLY WITH LOCAL WATER EFFICIENT LANDSCAPE ORDINANCE.
24. INSTALL ENERGY STAR APPLIANCES.

- 25. REDUCTION IN CEMENT USE- CEMENT USED IN FOUNDATION DESIGN SHALL BE REDUCED TO NOT LESS THAN 20% FOR TIER 1 COMPLIANCE AND 25% FOR TIER 2 COMPLIANCE. PRODUCTS COMMONLY USED TO REPLACE CEMENT IN CONCRETE MIX DESIGN INCLUDE, BUT ARE NOT LIMITED TO: FLY ASH, SLAG, SILICA FUME, RICE HULL ASH.
26. RECYCLED CONTENT- USE MATERIALS, EQUIVALENT IN PERFORMANCE TO VIRGIN MATERIALS WITH A TOTAL (COMBINED) RECYCLED CONTENT VALUE (RCV) OF: TIER 1: NOT LESS THAN 10% OF TOTAL MATERIAL COST. TIER 2: NOT LESS THAN 15% OF TOTAL MATERIAL COST.
27. MATERIAL PROTECTION- PROTECT BUILDING MATERIALS DELIVERED TO THE CONSTRUCTION SITE FROM RAIN AND OTHER SOURCES OF MOISTURE.
28. MATERIAL PROTECTION- PROTECT BUILDING MATERIALS DELIVERED TO THE CONSTRUCTION SITE FROM RAIN AND OTHER SOURCES OF MOISTURE.
29. THERMAL INSULATION- INSTALLED THERMAL INSULATION SHALL COMPLY WITH VOC LIMITS.

MARIN COUNTY 2019 CALGREEN CHECKLIST Tier 1 Standards for Residential New Construction

- A4.103.2 Site Selection (ELECTIVE)- Community connectivity
Plan sheet reference (if applicable):
A4.104 Site Preservation (ELECTIVE)- Supervision and education
Plan sheet reference (if applicable):
A4.105.1 Deconstruction and Reuse of Existing Materials (ELECTIVE)- General
Plan sheet reference (if applicable):
A4.105.2 Deconstruction and Reuse of Existing Materials (ELECTIVE)- Reuse of materials
Plan sheet reference (if applicable):
A4.106.6 Site Development (ELECTIVE)- Vegetated roof
Plan sheet reference (if applicable):
A4.106.7 Site Development (ELECTIVE)- Reduction of heat island effect for nonroof areas
Plan sheet reference (if applicable):
A4.106.9 Site Development (ELECTIVE)- Bicycle parking
Plan sheet reference (if applicable):
A4.106.10 Site Development (ELECTIVE)- Light pollution reduction
Plan sheet reference (if applicable): Dark Sky compliant lighting, see note on exterior finish schedule sheet A3.1.
A4.306.1 Innovative Concepts and Local Environmental Conditions (ELECTIVE)
Plan sheet reference (if applicable):
DIVISION 4.2 ENERGY EFFICIENCY
Note: All measures are mandatory unless not in project scope (Select Completed or Not Applicable [N/A])
4.201.1 (MANDATORY) Building meets or exceeds the requirements of the California Building Energy Efficiency Standards, and complies with one of the energy efficiency and electrification compliance options outlined in the Marin County Building Code, Chapter 19.04, Subchapter 2.
Link: Marin County Building Code, Chapter 19.04, Subchapter 2
Completed N/A
Plan sheet reference (if applicable): See Energy Report and sheets T24-1, T24-2, T24-3.
A4.203.1.1 (MANDATORY) Total Energy Design Rating (Total EDR) and Energy Efficiency Design Rating (Efficiency EDR) for the Proposed Design Building is included in the Certificate of Compliance Documentation
Completed N/A
Plan sheet reference (if applicable): See Energy Report and sheets T24-1, T24-2, T24-3.

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MARIN COUNTY 2019 CALGREEN CHECKLIST Tier 1 Standards for Residential New Construction

This checklist is effective January 1, 2020, for newly constructed hotels, motels, lodging houses, dwellings, dormitories, condominiums, shelters, congrega residences, employee housing, factory-built housing and other types of dwellings containing sleeping accommodations with or without a common toilet or cooking facilities including accessory buildings, facilities and uses thereto. Existing site and landscaping improvements that are not otherwise disturbed are not subject to CALGreen.

Submit this checklist with your plans to demonstrate compliance with the green building ordinance. This checklist includes modifications specific to Marin County. For more information on the County's Green Building requirements, please visit www.marinegreenbuilding.org

For more information on CALGreen and complete measure language, see Chapters 4 and Appendix 4 here: https://codes.iccsafe.org/content/CAGBSC2019/table-of-contents

PROJECT DETAILS
79 Wood Lane, Fairfax CA 002-062-03
Project Address APN
Laura Kehrlein, Architect
Applicant Name (Please Print)

PROJECT VERIFICATION
The Green Building Rater, listed below, has reviewed the plans and certifies that the mandatory and elective measures listed above are hereby incorporated into the project plans and will be implemented into the project in accordance with the requirements set forth in the 2019 California Green Building Standards Code as amended by the County of Marin.
Signature Date
Laura Kehrlein 03-22-2022
Name (Please Print)
LEED AP 10754075
Green Building Certification 1 and License Number

1 CALGreen Special Inspector, LEED AP, or Green Point Rater are acceptable certifications
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MARIN COUNTY 2019 CALGREEN CHECKLIST Tier 1 Standards for Residential New Construction

A4.203.1.3.1 (MANDATORY) Buildings complying with the first level of advanced energy efficiency shall have additional integrated efficiency and onsite renewable energy generation to achieve a Total EDR margin as specified in Marin County Building Code, Chapter 19.04, Subchapter 2, or lower as calculated by Title 24, Part 6 Compliance Software approved by the Energy Commission. This Total EDR is in addition to meeting the Efficiency EDR.
Link: Marin County Building Code, Chapter 19.04, Subchapter 2
Completed N/A
Plan sheet reference (if applicable): See Energy Report and sheets T24-1, T24-2, T24-3.

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION

Note: All measures are mandatory unless not in project scope (Select Completed or Not Applicable [N/A])
A minimum of TWO elective measures must be completed/selected.

- 4.303.1 (MANDATORY) Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) installed in residential buildings shall comply with the prescriptive requirements of Sections 4.303.1.1 through 4.303.1.4.4.
Completed N/A
Plan sheet reference (if applicable): See Floor Plan keynotes #5, #6, #7 on slts A2.1, A2.2
4.303.1.4.3 (MANDATORY) Metering faucets in residential buildings shall not deliver more than 0.2 gallons per cycle.
Completed N/A
Plan sheet reference (if applicable):
4.303.2 (MANDATORY) Plumbing fixtures and fittings required in Section 4.303.1 shall be installed in accordance with the California Plumbing Code and shall meet the applicable referenced standards.
Completed N/A
Plan sheet reference (if applicable): Green Building Note #5.
4.304.1 (MANDATORY) Residential developments shall comply with local water efficient landscape ordinance or the current California Department of Water Resources Model Water Efficient Landscape Ordinance (MWEL0), whichever is more stringent.
Completed N/A
Plan sheet reference (if applicable): Green Building Note #23.
4.305.1 (MANDATORY) Newly constructed residential developments, where disinfected tertiary recycled water is available from a municipal source to a construction site, may be required to have recycled water supply systems installed, allowing the use of recycled water for residential landscape irrigation systems.
Completed N/A
Plan sheet reference (if applicable):
A4.303.2 Indoor Water Use (ELECTIVE) - Alternate water sources for nonpotable applications
Plan sheet reference (if applicable):
A4.303.3 Indoor Water Use (ELECTIVE) - Appliances
Plan sheet reference (if applicable): See Floor Plan keynote #1and Green Building Note #24.
A4.303.4 Indoor Water Use (ELECTIVE)- Nonwater urinals and waterless toilets
Plan sheet reference (if applicable):

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MARIN COUNTY 2019 CALGREEN CHECKLIST Tier 1 Standards for Residential New Construction

DIVISION 4.1 PLANNING AND DESIGN

Note: All measures are mandatory unless not in project scope (Select Completed or Not Applicable [N/A])
A minimum of TWO elective measures must be completed/selected.

- 4.106.2 (MANDATORY) A plan is developed and implemented to manage stormwater runoff from the construction activities through compliance with the County of Marin's stormwater management ordinance.
Link: County of Marin's stormwater management ordinance
Completed N/A
Plan sheet reference (if applicable): Civil Site Plan Drawing 1
4.106.3 (MANDATORY) Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings.
Completed N/A
Plan sheet reference (if applicable): Civil Site Plan Drawing 1
A4.106.2.3 (MANDATORY) Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion.
Completed N/A
Plan sheet reference (if applicable): Civil Notes and Details Drawing 2
A4.106.4 (MANDATORY) Permeable paving is utilized for not less than 20 percent of the total parking, walking, or patio surfaces.
Completed N/A
Plan sheet reference (if applicable): Arch Site Plan 1/A1, Civil Site Plan Drawing 1
A4.106.5 (MANDATORY) Roofing materials shall have a minimum 3-year aged solar reflectance and thermal emittance or a minimum Solar Reflectance Index (SRI) equal to or greater than the values specified in Tables A4.106.5.1(3).
In Marin County, this measure applies only to high-rise residential buildings, hotels, and motels with a roof slope >2:12.
Completed N/A
Plan sheet reference (if applicable):
A4.106.8.1 (MANDATORY) For one- and two-family dwellings and townhouses with attached private garages, install a dedicated 208/240-volt branch circuit, including an overcurrent protective device rated at 40 amperes minimum per dwelling unit for future EV charging, as required in the Marin County Building Code, Chapter 19.04, Subchapter 2.
Link: Marin County Building Code, Chapter 19.04, Subchapter 2
Completed N/A
Plan sheet reference (if applicable): See Floor Plan keynote #23 on sheet A2.2
A4.106.8.2 (MANDATORY) For multi-family dwellings and new hotels/motels, provide capability for future electrical vehicle charging as specified in the Marin County Building Code, Chapter 19.04, Subchapter 2.
Link: Marin County Building Code, Chapter 19.04, Subchapter 2
Completed N/A
Plan sheet reference (if applicable):
A4.103.1 Site Selection (ELECTIVE) - Selection
Plan sheet reference (if applicable): Infill site development

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MARIN COUNTY 2019 CALGREEN CHECKLIST Tier 1 Standards for Residential New Construction

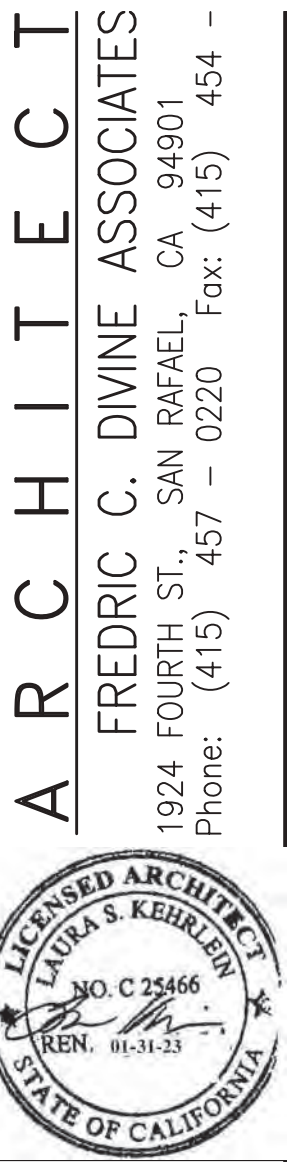
- A4.303.5 Indoor Water Use (ELECTIVE) - Hot water recirculation systems
Plan sheet reference (if applicable):
A4.304.1 Outdoor Water Use (ELECTIVE) - Rainwater catchment systems
Plan sheet reference (if applicable):
A4.304.2 Outdoor Water Use (ELECTIVE) - Potable water elimination
Plan sheet reference (if applicable):
A4.304.3 Outdoor Water Use (ELECTIVE) - Landscape water meters
Plan sheet reference (if applicable):
A4.305.1 Water Reuse Systems (ELECTIVE) - Graywater
Plan sheet reference (if applicable): Laundry graywater system detail 3/A2.1
A4.305.2 Water Reuse Systems (ELECTIVE) - Recycled water piping
Plan sheet reference (if applicable):
A4.305.3 Water Reuse Systems (ELECTIVE) - Recycled water for landscape irrigation
Plan sheet reference (if applicable):
A4.306.1 Innovative Concepts and Local Environmental Conditions (ELECTIVE)
Plan sheet reference (if applicable):

DIVISION 4.4 MATERIAL CONSERVATION & RESOURCE EFFICIENCY

Note: All measures are mandatory unless not in project scope (Select Completed or Not Applicable [N/A])
A minimum of TWO elective measures must be completed/selected.

- A4.403.2 (MANDATORY) Cement use in foundation mix design is reduced as directed by Marin County Ordinance 3717.
Link: Marin County Ordinance 3717
Completed N/A
Plan sheet reference (if applicable): Green Building Note #25.
A4.405.3 (MANDATORY) Postconsumer or preconsumer recycled content value (RCV) materials are used on the project, not less than a 10 percent recycled content value.
Completed N/A
Plan sheet reference (if applicable): Green Building Note #26.
4.406.1 (MANDATORY) Annular spaces around pipes, electric cables, conduits, or other openings in plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or similar method acceptable to the enforcing agency.
Completed N/A
Plan sheet reference (if applicable): Green Building Note #6.

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NEW RESIDENCE AND ADU
79 WOOD LANE
FAIRFAX, CA 94930
APN: 002-062-03
FOR: COBY FRIEDMAN

2019 CALGREEN CHECKLIST

03-17-2022
04-06-2022

Revisions
PERMIT SUBMITTAL
REVISED PERMIT SUBMITTAL

Date: 04-06-2022

Scale: As Noted

Drawn: LSK

Job #: 19049.00

Prototype: DIVINE

GB1

### RESIDENTIAL GREEN BUILDING STANDARDS

- STORM WATER DRAINAGE/RETENTION DURING CONSTRUCTION: PROJECTS WHICH DISTURB LESS THAN ONE ACRE OF SOIL SHALL MANAGE STORM WATER DRAINAGE DURING CONSTRUCTION BY ONE OF THE FOLLOWING: (A) RETENTION BASINS; (B) WHERE STORM WATER IS CONVEYED TO A PUBLIC DRAINAGE SYSTEM, WATER SHALL BE FILTERED BY USE OF A BARRIER SYSTEM, WATTLE, OR OTHER APPROVED SYSTEM. CGC §4.106.2.
- SITE GRADING OR DRAINAGE SYSTEM WILL MANAGE ALL SURFACE WATER FLOWS TO KEEP WATER FROM ENTERING BUILDINGS (SWALES, WATER COLLECTION, FRENCH DRAINS, ETC.). CGC §4.106.3.
- BUILDING MEETS OR EXCEEDS THE REQUIREMENTS OF THE CA BUILDING ENERGY EFFICIENCY STANDARDS. SEE SHEETS T24-1 AND T24-2 FOR DOCUMENTS.
- INDOOR WATER USE – VERIFY WATER CONSERVING FIXTURES ARE USED (WATER CLOSETS SHALL USE NO MORE THAN 1.28 gpf; KITCHEN FAUCETS MAY NOT EXCEED 1.8 gpm @ 60 psi; LAVATORIES MAY NOT EXCEED 1.5 gpm @ 60 psi, AND NO LESS THAN 0.8 gpm @ 20 psi; SHOWERHEADS MAY NOT EXCEED 1.8 gpm @ 80 psi. CPC §403, §408. CGC §4.303.1.
- PLUMBING FIXTURES AND FITTINGS REQUIRED IN CGC §4.303.1 SHALL BE INSTALLED IN ACCORDANCE WITH THE CA PLUMBING CODE, AND SHALL MEET THE APPLICABLE REFERENCED STANDARDS.
- ANNULAR SPACES AROUND PIPES, ELECTRICAL CABLES, CONDUITS, OR OTHER OPENINGS IN PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY OR SIMILAR METHOD ACCEPTABLE TO THE ENFORCING AGENCY.
- RECYCLING: RECYCLE AND/ OR SALVAGE FOR A REUSE A MINIMUM OF 65% OF NONHAZARDOUS CONSTRUCTION AND DEMOLITION WASTE IN ACCORDANCE WITH THE REPORTING STANDARDS OUTLINED BY ZERO WASTE MARIN. ANY MIXED RECYCLABLES THAT ARE SENT TO A MIXED-WASTE RECYCLING FACILITY SHALL INCLUDE A QUALIFIED THIRD PARTY VERIFIED FACILITY AVERAGE DIVERSION RATE. CAL Green §4.408.1.
- OPERATION AND MAINTENANCE MANUAL: THE BUILDER IS TO PROVIDE AN OPERATION MANUAL (CONTAINING INFORMATION FOR MAINTAINING APPLIANCES, ETC.) FOR THE OWNER AT THE TIME OF FINAL INSPECTION. CPC §4.410.1.
- DUCT OPENINGS AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED DURING CONSTRUCTION.
- ADHESIVES, SEALANTS AND CAULKS SHALL BE COMPLIANT WITH VOC AND OTHER TOXIC COMPOUND LIMITS.
- PAINTS, STAINS AND COATINGS, SHALL BE COMPLIANT WITH VOC LIMITS.
- AEROSOL PAINTS AND OTHER COATINGS SHALL BE COMPLIANT WITH PRODUCT WEIGHTED MIR LIMITS FOR ROC AND OTHER TOXIC COMPOUNDS.
- DOCUMENTATION SHALL BE PROVIDED TO VERIFY THAT COMPLIANT VOC LIMIT FINISH MATERIALS HAVE BEEN USED.
- CARPET AND CARPET SYSTEMS SHALL BE COMPLIANT WITH VOC LIMITS.
- 80% OF FLOOR AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH THE VOC EMISSION LIMITS ESTABLISHED IN CGC §4.504.4.  
TIER 1: 90% OF RESILIENT FLOORING FLOOR AREA SHALL COMPLY WITH VOC EMISSION LIMITS  
TIER 2: 100% OF RESILIENT FLOORING FLOOR AREA SHALL COMPLY WITH VOC EMISSION LIMITS
- PARTICLEBOARD, MEDIUM DENSITY FIBERBOARD (MDF) AND HARDWOOD PLYWOOD USED IN INTERIOR FINISH SYSTEMS SHALL COMPLY WITH LOW FORMALDEHYDE EMISSION STANDARDS.
- CONCRETE SLAB ON GRADE FOUNDATIONS SHALL BE PROVIDED WITH A VAPOR RETARDANT AND CAPILLARY BREAK PER CGC §4.505.2.1. MOISTURE CONTENT OF WOOD SHALL NOT EXCEED 19% BEFORE IT IS ENCLOSED IN CONSTRUCTION. THE MOISTURE CONTENT NEEDS TO BE CERTIFIED BY 1 OF 3 METHODS SPECIFIED IN CGC §4.505.3. BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHOULD NOT BE USED IN CONSTRUCTION. THE MOISTURE CONTENT MUST BE DETERMINED BY THE CONTRACTOR BY ONE OF THE METHODS LISTED IN CGC §4.505.3.
- MOISTURE CONTENT OF BUILDING MATERIALS USED IN WALL AND FLOOR FRAMING IS CHECKED BEFORE ENCLOSURE.
- EACH ENERGY STAR BATHROOM FANS (WITH TUB OR SHOWER) MUST BE MECHANICALLY VENTILATED WITH A HUMIDITY CONTROLLED ENERGY STAR COMPLIANT EXHAUST FAN VENTED DIRECTLY TO THE OUTSIDE, UNLESS OTHERWISE A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM. HUMIDITY CONTROLS SHALL HAVE MANUAL OR AUTOMATIC MEANS OF ADJUSTMENT, CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY OF ≤ 50% TO A MAXIMUM OF 80%.
- DUCT SYSTEMS ARE SIZED AND DESIGNED AND EQUIPMENT IS SELECTED USING THE FOLLOWING METHODS.
  - ESTABLISH HEAT LOSS AND HEAT GAIN VALUES ACCORDING TO ANSI/ACCA 2 MANUAL J-2011 OR EQUIVALENT.
  - SIZE DUCT SYSTEMS ACCORDING TO ANSI/ACCA 1 MANUAL D-2014 OR EQUIVALENT.
  - SELECT HEATING AND COOLING EQUIPMENT ACCORDING TO ANSI/ACCA 3 MANUAL S-2014 OR EQUIVALENT.
- HVAC SYSTEM INSTALLERS ARE TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF HVAC SYSTEMS.
- PRIOR TO FINAL INSPECTION, THE LICENSED CONTRACTOR, ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE OF THE OVERALL CONSTRUCTION MUST PROVIDE BUILDING DEPARTMENT OFFICIAL WRITTEN VERIFICATION THAT ALL APPLICABLE PROVISIONS FROM THE GREEN BUILDING STANDARDS CODE HAVE BEEN IMPLEMENTED AS PART OF CONSTRUCTION PER CGC §102.3.
- COMPLY WITH LOCAL WATER EFFICIENT LANDSCAPE ORDINANCE.
- INSTALL ENERGY STAR APPLIANCES.
- REDUCTION IN CEMENT USE- CEMENT USED IN FOUNDATION DESIGN SHALL BE REDUCED TO NOT LESS THAN 20% FOR TIER 1 COMPLIANCE AND 25% FOR TIER 2 COMPLIANCE. PRODUCTS COMMONLY USED TO REPLACE CEMENT IN CONCRETE MIX DESIGN INCLUDE, BUT ARE NOT LIMITED TO: FLY ASH, SLAG, SILICA FUME, RICE HULL ASH.
- RECYCLED CONTENT- USE MATERIALS, EQUIVALENT IN PERFORMANCE TO VIRGIN MATERIALS WITH A TOTAL (COMBINED) RECYCLED CONTENT VALUE (RCV) OF:
  - NOT LESS THAN 10% OF TOTAL MATERIAL COST.
  - NOT LESS THAN 15% OF TOTAL MATERIAL COST.

- MATERIAL PROTECTION- PROTECT BUILDING MATERIALS DELIVERED TO THE CONSTRUCTION SITE FROM RAIN AND OTHER SOURCES OF MOISTURE.
- MATERIAL PROTECTION- PROTECT BUILDING MATERIALS DELIVERED TO THE CONSTRUCTION SITE FROM RAIN AND OTHER SOURCES OF MOISTURE.
- THERMAL INSULATION- INSTALLED THERMAL INSULATION SHALL COMPLY WITH VOC LIMITS.

### MARIN COUNTY 2019 CALGREEN CHECKLIST Tier 1 Standards for Residential New Construction

- 4.408.1 (MANDATORY)** Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with the reporting standards outlined by Zero Waste Marin.  
[Link: Zero Waste Marin](#)  
Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #7.
- A4.408.1 (MANDATORY)** Construction waste generated at the site is diverted to recycle or salvage in compliance with at least a 65 percent reduction. Any mixed recyclables that are sent to mixed-waste recycling facilities shall include a qualified third party verified facility average diversion rate. Verification of diversion rates shall meet minimum certification eligibility guidelines, acceptable to the local enforcing agency.  
Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #7.
- 4.410.1 (MANDATORY)** An operation and maintenance manual shall be provided to the building occupant or owner.  
Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #8.
- 4.410.2 (MANDATORY)** Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible areas that serve all buildings on the site and is identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance if more restrictive.  
Completed  N/A  *Plan sheet reference (if applicable):* \_\_\_\_\_
- A4.403.1 Foundation Systems (ELECTIVE)** - Frost protected foundation systems   
*Plan sheet reference (if applicable):* \_\_\_\_\_
- A4.404.1 Efficient Framing Techniques (ELECTIVE)** - Lumber size   
*Plan sheet reference (if applicable):* \_\_\_\_\_
- A4.404.2 Efficient Framing Techniques (ELECTIVE)** - Dimensions and layouts   
*Plan sheet reference (if applicable):* \_\_\_\_\_
- A4.404.3 Efficient Framing Techniques (ELECTIVE)** - Building systems   
*Plan sheet reference (if applicable):* \_\_\_\_\_
- A4.404.4 Efficient Framing Techniques (ELECTIVE)** - Pre-cut materials and details   
*Plan sheet reference (if applicable):* \_\_\_\_\_
- A4.405.1 Material Sources (ELECTIVE)** - Prefinished building materials   
*Plan sheet reference (if applicable):* \_\_\_\_\_
- A4.405.2 Material Sources (ELECTIVE)** - Concrete floors   
*Plan sheet reference (if applicable):* \_\_\_\_\_
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### MARIN COUNTY 2019 CALGREEN CHECKLIST Tier 1 Standards for Residential New Construction

- 4.504.2.1 (MANDATORY)** Adhesives, sealants and caulks shall be compliant with VOC and other toxic compound limits.  
Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #10.
- 4.504.2.2 (MANDATORY)** Paints, stains and other coatings shall be compliant with VOC limits.  
Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #11.
- 4.504.2.3 (MANDATORY)** Aerosol paints and coatings shall be compliant with product weighted MIR Limits for ROC and other toxic compounds.  
Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #12.
- 4.504.2.4 (MANDATORY)** Documentation shall be provided to verify that compliant VOC limit finish materials have been used.  
Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #13.
- 4.504.3 (MANDATORY)** Carpet and carpe: systems shall be compliant with VOC limits.  
Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #14.
- 4.504.4 (MANDATORY)** 80 percent of floor area receiving resilient flooring shall comply with specified VOC criteria.  
Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #15.
- 4.504.5 (MANDATORY)** Particleboard, medium density fiberboard (MDF), and hardwood plywood used in interior finish systems shall comply with low formaldehyde emission standards.  
Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #16.
- A4.504.2 (MANDATORY)** Install VOC compliant resilient flooring systems. Ninety (90) percent of floor area receiving resilient flooring shall comply with the VOC-emission limits established in section A4.504.2.  
Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #15.
- A4.504.3 (MANDATORY)** Thermal insulation installed in the building shall install thermal insulation in compliance with VOC limits.  
Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #29.
- 4.505.2 (MANDATORY)** Vapor retarder and capillary break is installed at slab on grade foundations.  
Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #17.
- 4.505.3 (MANDATORY)** Moisture content of building materials used in wall and floor framing is checked before enclosure.  
Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #18.
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### MARIN COUNTY 2019 CALGREEN CHECKLIST Tier 1 Standards for Residential New Construction

- A4.405.4 Material Sources (ELECTIVE)** - Use of building materials from rapidly renewable sources   
*Plan sheet reference (if applicable):* \_\_\_\_\_
- A4.407.1 Water Resistance and Moisture Management (ELECTIVE)** - Drainage around foundations   
*Plan sheet reference (if applicable):* See detail 3/A4.1
- A4.407.2 Water Resistance and Moisture Management (ELECTIVE)** -Roof drainage   
*Plan sheet reference (if applicable):* Civil Site Plan Drawing 1
- A4.407.3 Water Resistance and Moisture Management (ELECTIVE)** - Flashing details   
*Plan sheet reference (if applicable):* \_\_\_\_\_
- A4.407.4 Water Resistance and Moisture Management (ELECTIVE)** - Material protection   
*Plan sheet reference (if applicable):* Green Building Note #27.
- A4.407.6 Water Resistance and Moisture Management (ELECTIVE)** - Door protection   
*Plan sheet reference (if applicable):* \_\_\_\_\_
- A4.407.7 Water Resistance and Moisture Management (ELECTIVE)** - Roof overhangs   
*Plan sheet reference (if applicable):* \_\_\_\_\_
- A4.411.1 Innovative Concepts and Local Environmental Conditions (ELECTIVE)**   
*Plan sheet reference (if applicable):* \_\_\_\_\_
- DIVISION 4.5 ENVIRONMENTAL QUALITY**  
*Note: All measures are mandatory unless not in project scope (Select Completed or Not Applicable [N/A])*  
*A minimum of ONE elective measure must be completed/selected.*
- 4.503.1 (MANDATORY)** Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with the U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances including the County of Marin Municipal Code (Wood-Burning Devices).  
[Link: County of Marin Municipal Code \(Wood-Burning Devices\)](#)  
Completed  N/A  *Plan sheet reference (if applicable):* No gas fireplace.
- 4.504.1 (MANDATORY)** Duct openings and other related air distribution component openings shall be covered during construction.  
Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #9.
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### MARIN COUNTY 2019 CALGREEN CHECKLIST Tier 1 Standards for Residential New Construction

- 4.506.1 (MANDATORY)** Each bathroom shall be provided with the following:
- ENERGY STAR fans ducted to terminate outside the building.
  - Fans must be controlled by a humidity control (Separate or built-in); OR functioning as a component of a whole-house ventilation system.
  - Humidity controls with manual or automatic means of adjustment, capable of adjustment between a relative humidity range of ≤ 50 percent to a maximum of 80 percent.
- Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #19.
- 4.507.2 (MANDATORY)** Duct systems are sized, designed, and equipment is selected using the following methods:
- Establish heat loss and heat gain values according to ANSI/ACCA 2 Manual J-2016 or equivalent.
  - Size duct systems according to ANSI/ACCA 1 Manual D - 2016 or equivalent.
  - Select heating and cooling equipment according to ANSI/ACCA 3 Manual S-2014 or equivalent.
- Completed  N/A  *Plan sheet reference (if applicable):* Green Building Note #20.
- A5.504.1. Pollutant Control (ELECTIVE)** - Compliance with formaldehyde limits   
*Plan sheet reference (if applicable):* \_\_\_\_\_
- A5.506.2 Indoor Air Quality and Exhaust (ELECTIVE)** - Construction filter   
*Plan sheet reference (if applicable):* \_\_\_\_\_
- A5.506.3 Indoor Air Quality and Exhaust (ELECTIVE)** - Direct-vent appliances   
*Plan sheet reference (if applicable):* \_\_\_\_\_
- A5.509.1 Innovative Concepts and Local Environmental Conditions (ELECTIVE)**   
*Plan sheet reference (if applicable):* \_\_\_\_\_
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NEW RESIDENCE AND ADU

2019 CALGREEN CHECKLIST

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GB2