

THE PINE SHED - ADU 650



VICINITY MAP

SITE NOTES

NOT FOR CONSTRUCTION

DRAWING INDEX

A0.0	TITLE SHEET
A0.1	GENERAL NOTES
A0.2	STRUCTURAL NOTES
A0.3	UTILITY NOTES
A0.4	CALGREEN CHECKLIST
A0.5	CALGREEN CHECKLIST
A1.0	FLOOR & ROOF PLANS
A1.1	CEILING AND ELECTRICAL PLAN
A2.0	STRUCTURAL PLANS - 50 LB
A2.1	STRUCTURAL PLANS - 70 LB
A3.0	ELEVATIONS / SECTIONS
A1.0M	FLOOR & ROOF PLANS - MIRRORED
A1.1M	CEILING AND ELECTRICAL PLAN - MIRRORED
A2.0M	STRUCTURAL PLANS - 50 LB - MIRRORED
A2.1M	STRUCTURAL PLANS - 70 LB - MIRRORED
A3.0M	ELEVATIONS / SECTIONS - MIRRORED
A4.0	TYP FOUNDATION DETAILS
A4.1	TYP FRAMING DETAILS
A4.2	STRUCTURAL DETAILS
A5.0	ARCHITECTURAL DETAILS
A5.1	ARCHITECTURAL DETAILS

PROJECT SCOPE

NEW 1 BEDROOM, 1 BATHROOM ACCESSORY DWELLING UNIT
 SITE ADDRESS:

AREA CALCULATION

NEW CONDITIONED FLOOR AREA: 650 SF

DESIGN CRITERIA

DESIGN CRITERIA:

CODES AND STANDARDS:

2022 CALIFORNIA RESIDENTIAL BUILDING CODE (CBC), BASED ON THE 2021 EDITION OF THE INTERNATIONAL RESIDENTIAL CODE (2021 IRC), ASCE 7-16 AND THE 2018 EDITION OF THE NATIONAL DESIGN SPECIFICATIONS (NDS) FOR WOOD CONSTRUCTION.

- 2022 CALIFORNIA PLUMBING CODE (CPC)
- 2022 CALIFORNIA ELECTRICAL CODE (CEC)
- 2022 CALIFORNIA MECHANICAL CODE (CMC)
- 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGBC)
- 2022 CALIFORNIA FIRE CODE (CFC)
- 2022 CALIFORNIA ENERGY CODE (CEC)

OCCUPANCY: SINGLE FAMILY RESIDENCE - R-3

TYPE OF CONSTRUCTION: V

WILDLAND URBAN INTERFACE: YES

STORIES: ONE

DESIGN DATA:

- OPTION 1:
- ROOF SNOW LOAD = 50 PSF
 - ROOF DEAD LOAD = 20 PSF
 - EXTERIOR WALL DEAD LOAD = 8-15 PSF
- OPTION 2:
- ROOF SNOW LOAD = 70 PSF
 - ROOF DEAD LOAD = 20 PSF
 - EXTERIOR WALL DEAD LOAD = 8-15 PSF
2. SEISMIC DESIGN CATEGORY - D2
 3. WIND SPEED - 95 MPH EXPOSURE "C"
 4. SOILS: ALLOWABLE SOIL BEARING PRESSURE = 1,500 PSF

SEPARATE PERMITS

1. FIRE SPRINKLERS.



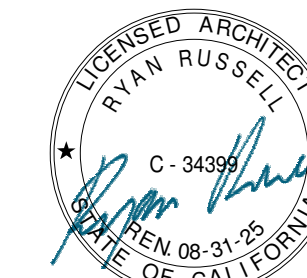
RAD STUDIO
MODERN ARCHITECTURE

P. 530.653.0777
W: WWW.RADSTUDIO.DESIGN

// AGENCY



// SEAL



// ISSUED

REVISION #	DATE	DESCRIPTION

// COPYRIGHTS

COPYRIGHT 2023
 RAD STUDIO RETAINS ALL RIGHTS TO PROPRIETARY INFORMATION, INCLUDING, WITHOUT LIMITATION, METHODOLOGIES AND METHODS OF ANALYSIS, IDEAS, CONCEPTS, ARRANGEMENTS, PLANS, EXPRESSIONS, KNOW HOW, METHODS, TECHNIQUES, SKILLS, KNOWLEDGE, AND EXPERIENCE POSSESSED BY RAD STUDIO PRIOR TO, OR ACQUIRED DURING THE DEVELOPMENT OF THIS PROJECT AND SHALL NOT BE RESTRICTED IN ANY WAY WITH RESPECT THERETO.

STIPULATION FOR REUSE
 THE DRAWING WAS PREPARED IN CONTRACT WITH SHASTA COUNTY FOR DISTRIBUTION AND USE BY THE RESIDENTS OF SHASTA COUNTY WITH A SNOW LOAD OF 70 PSF OR LESS. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS OR ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON PROJECTS OUTSIDE OF SHASTA COUNTY AND WITHOUT THE PERMISSION OF THE SHASTA COUNTY BUILDING DEPARTMENT IS NOT AUTHORIZED AND IS CONTRARY TO THE LAW.

// PROJECT

NO.

THE PINE SHED 650

// CLIENT

// MANAGEMENT

PROJECT NO: _____
 DRAWN BY: _____ Author
 CHECKED BY: _____ Checker
 ISSUE DATE: 9/14/2023 1:12:29 PM
 COPYRIGHT: RAD STUDIO 2019

// SHEET TITLE

TITLE SHEET

// SHEET NO.

A0.0

WILDLAND URBAN INTERFACE

RESIDENCE SHALL COMPLY WITH NEW CONSTRUCTION REQUIREMENTS FOR THE FOLLOWING CHAPTERS OF THE 2022 CALIFORNIA BUILDING CODE:

- CHAPTER 7A MATERIALS AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE
- CHAPTER 15 ROOF ASSEMBLIES AND ROOFTOP STRUCTURES.

NOTE

- PRIOR TO RECEIVING PERMIT FINAL APPROVAL, THE PROPERTY SHALL BE IN COMPLIANCE WITH THE VEGETATION MANAGEMENT REQUIREMENTS PRESCRIBED IN CALIFORNIA FIRE CODE SECTION 4906, INCLUDING CALIFORNIA PUBLIC RESOURCES CODE 4921 OR CALIFORNIA GOVERNMENT CODE SECTION 51182.

ROOFS

- FIRE SPRINKLERS SHALL BE PROVIDED - UNLESS THIS IS AN ADU AND PRIMARY RESIDENCE ON PROPERTY DOES NOT HAVE FIRE SPRINKLERS.
- WHERE THE ROOF COVERING ALLOWS SPACE BETWEEN THE ROOF COVERINGS AND ROOF DECKING THE SPACES SHALL BE CONSTRUCTED TO PREVENT THE INTRUSION OF FLAMES AND EMBERS.
- ROOF VALLEY FLASHINGS WHERE PROVIDED SHALL NOT BE LESS THEN 0.019 in. (NO. 26 GA. GALV. CORROSION- RESISTANT SHEET MET. OVER A MIN. 36" WIDE UNDERLAYMENT CONSISTING OF ONE LAYER OF 72 POUND MINERAL-SURFACED NONPERFORATED CAP SHEET COMPLYING WITH ASTM D3909 RUNNING THE FULL LENGTH OF THE VALLEY INSTALLED OVER THE DECKING.
- ROOF GUTTERS SHALL BE PROVIDED WITH THE MEANS TO PREVENT ACCUMULATION OF LEAVES AND DEBRIS IN THE GUTTER AND BE OF NON-COMBUSTIBLE MATERIAL.
- EAVE OR CORNICE VENTS SHALL NOT BE INSTALLED UNLESS THEY ARE RATED AND APPROVED TO RESIST THE INTRUSION OF FLAME AND BURNING EMBERS INTO THE ATTIC AREA OF THE BUILDING.
- EAVES AND SOFFITS SHALL BE PROTECTED BY IGNITION-RESISTANT MATERIALS OR NONCOMBUSTIBLE ON THE UNDERSIDE.
- GABLE END AND OTHER ROOF MOUNTED VENTS SHALL HAVE 1/8" MAX OPENINGS AND LOUVERED OR BE SCREENED WITH NON-COMBUSTIBLE WIRE MESH W/ 1/8" MAX. OPENINGS AND BE LOUVERED.
- ROOFS SHALL HAVE A ROOFING ASSEMBLY INSTALLED IN ACCORDANCE WITH ITS LISTING AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. ROOFS
- VENTING SHALL NOT BE LOCATED ON THE DOWNHILL SIDE OF THE STRUCTURE AND BE RELATION TO DOWNHILL VENTING. WHEN ATTIC AND UNDERFLOOR VENTS ARE NECESSARY ON BUILDINGS, THEY SHALL BE LOUVERED AND SCREENED WITH 1/4"-INCH METAL MESH TO PREVENT ENTRY OF SPARKS OR BURNING EMBERS. TURBINE ATTIC VENTS SHALL BE EQUIPPED TO ALLOW ONE WAY DIRECTION ONLY

WALLS

- EXTERIOR WALLS SHALL BE APPROVED NONCOMBUSTIBLE IGNITION-RESISTANT MATERIAL EXTENDING FROM THE TOP OF THE FOUNDATION TO THE ROOF AND TERMINATE AT A 2" NOMINAL SOLID WOOD BLOCKING BETWEEN ROOF FRAMING AT ALL ROOF OVERHANGS, OR AT THE ENCLOSED EAVE.
- ACCEPTABLE WOOD SIDING SHALL MEET THE FOLLOWING STANDARDS: SOLID-SAWN "WOOD" SIDING WITH NO THROUGH HOLES OR LOOSE KNOTS, INSTALLED OVER STRUCTURAL PLYWOOD OR ORIENTED STRAND BOARD (OSB) WITH A 7/16" MINIMUM THICKNESS AND COMPLYING WITH VOLUNTARY PRODUCT STANDARD PS1 OR VOLUNTARY PRODUCT STANDARD PS2, WITH THE FOLLOWING INTERLOCKING DESIGNS WHEN INSTALLED IN ACCORDANCE WITH INDUSTRIAL TECHNICAL GUIDE. REFER TO MANUFACTURER'S INSTALLATIONS FOR DETAILS. 1. TONGUED & GROOVED, SHIPLAP, CHANNEL SHIPLAP, SHIPLAP, LOG CABIN; WHEN APPLIED IN A HORIZONTAL ORIENTATION WITH MINIMUM NOMINAL 6" WIDE AND NOMINAL 1" THICK BOARDS MADE OF WOOD SPECIES "REDWOOD", "WESTERN RED CEDAR", "INCENSE CEDAR", "PORT ORFORD CEDAR", "ALASKA YELLOW CEDAR", "POINDESSA PINE", "DOUGLAS FIR", "WHITE FIR", AND "WESTERN SPRUCE".
- OR OTHER WOOD SPECIES HAVING A FLAME SPREAD RATING NOT GREATER THAN 150 (CLASS C) WHEN TESTED IN ACCORDANCE WITH ASTM E84.3. R337.7.3.1. EXTERIOR WALL COVERINGS SHALL EXTEND FROM THE TOP OF THE FOUNDATION TO THE ROOF, AND TERMINATE AT 2-INCH NOMINAL SOLID WOOD BLOCKING BETWEEN RAFTERS AT ALL ROOF OVERHANGS, OR IN THE CASE OF ENCLOSED EAVES, TERMINATE AT THE ENCLOSURE.

WINDOWS & DOORS

- EXTERIOR WINDOWS, WINDOW WALLS, GLAZED DOORS, AND GLAZED OPENINGS WITH EXTERIOR DOORS SHALL BE INSULATED GLASS UNITS WITH A MIN. OF 1 TEMP. PANE, EITHER IN OR OUT, OR GLASS BLOCKS, OR HAVE A FIRE RESISTANT RATION OF NOT LESS THAN 20 MIN., OR AS APPROVED BY THE CITY OF REDDING BUILDING OR FIRE DIVISION. GLAZING FRAMES MADE OF VINYL MATERIALS SHALL HAVE A WELDED CORNER, METAL REINFORCED IN THE INTERLOCK AREA AND DISPLAY ANSJ/AAMM/NWWD.
- EXTERIOR DOORS SHALL BE OF APPROVED NON-COMBUSTIBLE CONSTRUCTION, OR SOLID CORE HAVING STYLES AND RAILS NOT LESS THAN 13/8" THICK WITH INTERIOR FIELD PANEL THICKNESS NO LESS THAN 1 1/4" THICK, OR HAVE A 20 MIN. FIRE-RESISTIVE RATING WHEN TESTED ACCORDING TO ASTM E 2074.
- GARAGE DOOR TO BE NONCOMBUSTIBLE OR EXTERIOR FIRE TREATED WOOD.

PROJECTIONS & DECKS

- ANY PROJECTION INCLUDING, BUT NOT LIMITED TO EAVES, BALCONIES, AND PATIO COVERINGS SHALL BE ENCLOSED ON THE EXTERIOR SIDES AND/ OR UNDERSIDE WITH MATERIALS APPROVED FOR 1-HR FIRE-RESISTIVE CONSTRUCTION TO PREVENT HEAT FROM EXTERIOR FIRES FROM BEING TRAPPED UNDERNEATH THE PROJECTION.
- DECKINGS SURFACES, STAIR TREADS, RISERS, & LANDINGS OF DECKS, PORCHES, AND BALCONIES WHERE ANY SUCH PROTION OF SUCH SURFACE IS WITHIN 10 FEET OF THE PRIMARY STRUCTURE SHALL BE CONSTRUCTED OF IGNITION RESISTANT MATERIALS AND PASS REQUIRED PERFORMANCE TESTS OR SHALL BE CONSTRUCTED WITH HEAVY TIMBER, EXTERIOR FIRE RETARDANT TREATED WOOD OR APPROVED NON COMBUSTIBLE MATERIAL, 1
- THE UNDERSIDE OF CANTILEVERED AND OVERHANGING APPENDAGES AND FLOOR PROJECTIONS SHALL MAINTAIN IGNITION RESISTANT INTEGRITY OF EXTERIOR WALLS
- STRUCTURES CONSTRUCTED IN SUCH A MANNER THAT THEY ARE SUSPENDED ON PIERS OR PILINGS OVER HILLSIDES SHALL BE OF NONCOMBUSTIBLE CONSTRUCTION, BUILDINGS SHALL HAVE UNDERFLOOR AREAS ENCLOSED TO THE GARAGE, UNLESS ALL EXPOSED FLOORS, STRUCTURAL COLUMNS, BEAMS AND SUPPORTING WALLS ARE PROTECTED AS REQUIRED WITH EXTERIOR IGNITION-RESISTANT MATERIAL CONSTRUCTION OR BE HEAVY TIMBER AS TO PREVENT THE UNDERSIDE OF THE STRUCTURE FROM BEING SUBJECT TO HEAT OR FLAME FROM THE HILLSIDE BELOW.

EXTERIOR FACING NOTES

NOTE: ALL EXTERIOR FACING NOTES LISTED BELOW ARE REFERENCE TO THE CALIFORNIA RESIDENTIAL CODE ONLY, AND MAY NOT APPLY TO OTHER AREAS THE STRUCTURE MAY BE BUILT. VERIFY EXTERIOR FACING ASSEMBLIES AND REQUIREMENTS WITH LOCAL CODES AND ORDINANCES.

R703.1.1 WATER RESISTANCE:

THE EXTERIOR WALL ENVELOPE SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT PREVENTS THE ACCUMULATION OF WATER WITHIN THE WALL ASSEMBLY BY PROVIDING A WATER-RESISTANT BARRIER BEHIND THE EXTERIOR VENER AS REQUIRED BY SECTION R703.2 AND A MEANS OF DRAINING TO THE EXTERIOR WATER THAT ENTERS THE ASSEMBLY. PROTECTION AGAINST CONDENSATION IN THE EXTERIOR WALL ASSEMBLY SHALL BE PROVIDED IN ACCORDANCE WITH THE CALIFORNIA ENERGY CODE.

R703.2 WATER-RESISTIVE BARRIER:

ONE LAYER OF NO. 15 ASPHALT FELT, FREE FROM HOLES AND BREAKS, COMPLYING WITH ASTM D226 FOR TYPE 1 FELT OR OTHER APPROVED WATER-RESISTIVE BARRIER SHALL BE APPLIED OVER STUDS OR SHEATHING OF ALL EXTERIOR WALLS. SUCH FELT OR MATERIAL SHALL BE APPLIED HORIZONTALLY, WITH THE UPPER LAYER LAPPED OVER THE LOWER LAYER NOT LESS THAN 2 INCHES (51 MM), WHERE JOINTS OCCUR, FELT SHALL BE LAPPED NOT LESS THAN 6 INCHES (152 MM). THE FELT OR OTHER APPROVED MATERIAL SHALL BE CONTINUOUS TO THE TOP OF WALLS AND TERMINATED AT PENETRATIONS AND BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE AS DESCRIBED IN SECTION R703.1. THE WATER-RESISTIVE BARRIER IS NOT REQUIRED FOR DETACHED ACCESSORY BUILDINGS.

R703.3 NOMINAL THICKNESS AND ATTACHMENTS:

THE NOMINAL THICKNESS AND ATTACHMENT OF EXTERIOR WALL COVERINGS SHALL BE IN ACCORDANCE WITH TABLE R703.3(1). THE WALL COVERING MATERIAL REQUIREMENTS OF THIS SECTION, AND THE WALL COVERING MANUFACTURER'S INSTALLATION INSTRUCTIONS. CLADDING ATTACHMENT OVER FOAM SHEATHING SHALL COMPLY WITH THE ADDITIONAL REQUIREMENTS AND LIMITATIONS OF SECTIONS R703.19 THROUGH R703.17. NOMINAL MATERIAL THICKNESSES IN TABLE R703.3(1) ARE BASED ON A MAXIMUM STUD SPACING OF 16 INCHES (406 MM) ON CENTER, WHERE SPECIFIED BY THE SIDING MANUFACTURER'S INSTRUCTIONS AND SUPPORTED BY A TEST REPORT OR OTHER DOCUMENTATION, ATTACHMENT TO STUDS WITH GREATER SPACING IS PERMITTED. FASTENERS FOR EXTERIOR WALL COVERINGS ATTACHED TO WOOD FRAMING SHALL BE IN ACCORDANCE WITH SECTION R703.3.2 AND TABLE R703.3(1). EXTERIOR WALL COVERINGS SHALL BE ATTACHED TO COLD-FORMED STEEL LIGHT FRAME CONSTRUCTION IN ACCORDANCE WITH THE CLADDING MANUFACTURER'S INSTALLATION INSTRUCTIONS, THE REQUIREMENTS OF TABLE R703.3(1) USING SCREW FASTENERS SUBSTITUTED FOR THE NAILS SPECIFIED IN ACCORDANCE WITH TABLE R703.3(2), OR AN APPROVED DESIGN.

R703.5.1 VERTICAL WOOD SIDING:

WOOD SIDING APPLIED VERTICALLY SHALL BE NAILED TO HORIZONTAL NAILING STRIPS OR BLOCKING SET NOT MORE THAN 24 INCHES (610 MM) ON CENTER.

R703.5.2 PANEL SIDING:

3/8-INCH (9.5 MM) WOOD STRUCTURAL PANEL SIDING SHALL NOT BE APPLIED DIRECTLY TO STUDS SPACED MORE THAN 16 INCHES (406 MM) ON CENTER WHERE LONG DIMENSION IS PARALLEL TO STUDS. WOOD STRUCTURAL PANEL SIDING 7/16 INCH (11.1 MM) OR THINNER SHALL NOT BE APPLIED DIRECTLY TO STUDS SPACED MORE THAN 24 INCHES (610 MM) ON CENTER. THE STUD SPACING SHALL NOT EXCEED THE PANEL SPAN RATING PROVIDED BY THE MANUFACTURER UNLESS THE PANELS ARE INSTALLED WITH THE FACE GRAIN PERPENDICULAR TO THE STUDS OR OVER SHEATHING APPROVED FOR THAT STUD SPACING. JOINTS IN WOOD, HARDBOARD OR WOOD STRUCTURAL PANEL SIDING SHALL BE MADE AS FOLLOWS (NOTHING OTHERWISE APPROVED): VERTICAL JOINTS IN PANEL SIDING SHALL OCCUR OVER FRAMING MEMBERS, UNLESS WOOD OR WOOD STRUCTURAL PANEL SHEATHING IS USED, AND SHALL BE SHIPLAPPED OR COVERED WITH A BATTEN. HORIZONTAL JOINTS IN PANEL SIDING SHALL BE LAPPED NOT LESS THAN 1 INCH (25 MM) OR SHALL BE SHIPLAPPED OR FLASHED WITH Z-FLASHING AND OCCUR OVER SOLID BLOCKING, WOOD OR WOOD STRUCTURAL PANEL SHEATHING.

R703.5.3 HORIZONTAL WOOD SIDING:

HORIZONTAL LAP SIDING SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE THERE ARE NO RECOMMENDATIONS THE SIDING SHALL BE LAPPED NOT LESS THAN 1 INCH (25 MM), OR 1/2 INCH (12.7 MM) IF RABBETED, AND SHALL HAVE THE ENDS CALKED, COVERED WITH A BATTEN OR SEALED AND INSTALLED OVER A STRIP OF FLASHING.

R703.7.2 PLASTER

PLASTERING WITH PORTLAND CEMENT PLASTER SHALL BE NOT LESS THAN THREE COATS WHERE APPLIED OVER METAL LATH OR WIRE LATH AND SHALL BE NOT LESS THAN TWO COATS WHERE APPLIED OVER MASONRY, CONCRETE, PRESSURE-PRESERVATIVE-TREATED WOOD, OR DECAY-RESISTANT WOOD AS SPECIFIED IN SECTION R317.1 OR GYPSUM BACKING. IF THE PLASTER SURFACE IS COMPLETELY COVERED BY VENEER OR OTHER FACING MATERIAL OR IS COMPLETELY CONCEALED, PLASTER APPLICATION NEED BE ONLY TWO COATS, PROVIDED THE TOTAL THICKNESS IS AS SET FORTH IN TABLE R702.1(1).

ON WOOD-FRAME CONSTRUCTION WITH AN ON-GRADE FLOOR SLAB SYSTEM, EXTERIOR PLASTER SHALL BE APPLIED TO COVER, BUT NOT EXTEND BELOW, LATH, PAPER AND SCREED.

THE PROPORTION OF AGGREGATE TO CEMENTITIOUS MATERIALS SHALL BE AS SET FORTH IN TABLE R702.1(3).

R703.7.2.1 WEEP SCREEDS

A MINIMUM 0.019-INCH (0.5 MM) (NO. 26 GALVANIZED SHEET GAGE), CORROSION-RESISTANT WEEP SCREED OR PLASTIC WEEP SCREED, WITH A MINIMUM VERTICAL ATTACHMENT FLANGE OF 3/12 INCHES (89 MM) SHALL BE PROVIDED AT OR BELOW THE FOUNDATION PLATE LINE ON EXTERIOR STUD WALLS IN ACCORDANCE WITH ASTM C926. THE WEEP SCREED SHALL BE PLACED NOT LESS THAN 4 INCHES (102 MM) ABOVE THE EARTH OR 2 INCHES (51 MM) ABOVE PAVED AREAS AND SHALL BE OF A TYPE THAT WILL ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING. THE WEATHER-RESISTANT BARRIER SHALL LAP THE ATTACHMENT FLANGE. THE EXTERIOR LATH SHALL COVER AND TERMINATE ON THE ATTACHMENT FLANGE OF THE WEEP SCREED.

R703.7.3 WATER-RESISTIVE BARRIERS

WATER-RESISTIVE BARRIERS SHALL BE INSTALLED AS REQUIRED IN SECTION R703.2 AND, WHERE APPLIED OVER WOOD-BASED SHEATHING, SHALL INCLUDE A WATER-RESISTIVE VAPOR-PERMEABLE BARRIER WITH A PERFORMANCE AT LEAST EQUIVALENT TO TWO LAYERS OF GRADE D PAPER. THE INDIVIDUAL LAYERS SHALL BE INSTALLED INDEPENDENTLY SUCH THAT EACH LAYER PROVIDES A SEPARATE CONTINUOUS PLANE AND ANY FLASHING (INSTALLED IN ACCORDANCE WITH SECTION R703.4) INTENDED TO DRAIN TO THE WATER-RESISTIVE BARRIER IS DIRECTED BETWEEN THE LAYERS.

EXCEPTION: WHERE THE WATER-RESISTIVE BARRIER THAT IS APPLIED OVER WOOD-BASED SHEATHING HAS A WATER RESISTANCE EQUAL TO OR GREATER THAN THAT OF 60-MINUTE GRADE D PAPER AND IS SEPARATED FROM THE STUCCO BY AN INTERVENING, SUBSTANTIALLY NONWATER-ABSORBING LAYER OR DESIGNED DRAINAGE SPACE.

ROOF FLASHING NOTES

- ROOFING ASSEMBLY IS TO BE CLASS 'A'.
- ALL ROOF OVERHANGS TO BE 2'-0" UNLESS NOTED OTHERWISE.
- PROVIDE CONTINUOUS GUTTER WHERE OCCURS, WITH DOWNSPOUTS AS NOTED.
- FLASHINGS SHALL BE INSTALLED AT WALL AND ROOF INTERSECTIONS, WHEREVER THERE IS A CHANGE IN ROOF SLOPE OR DIRECTION AND AROUND ROOF OPENINGS. WHERE FLASHING IS OF METAL, THE METAL SHALL BE CORROSION RESISTANT WITH A THICKNESS OF NOT LESS THAN 0.019 INCH (0.5 MM) (NO. 26 GALVANIZED SHEET). R903.2.1
- FOR ROOF SLOPES OF FOUR UNITS VERTICAL IN 12 UNITS HORIZONTAL (33-PERCENT SLOPE) OR GREATER, UNDERLAYMENT SHALL BE ONE LAYER APPLIED IN THE FOLLOWING MANNER. UNDERLAYMENT SHALL BE APPLIED SHINGLE FASHION, PARALLEL TO AND STARTING FROM THE EAVE AND LAPPED 2 INCHES (51 MM), FASTENED SUFFICIENTLY TO HOLD IN PLACE. DISTORTIONS IN THE UNDERLAYMENT SHALL NOT INTERFERE WITH THE ABILITY OF THE ROOF MATERIAL TO SEAL. END LAPS SHALL BE OFFSET BY 6 FEET (1829 MM), DESIGNER SHALL SPECIFY UNDERLAYMENT FOR ROOF SLOPES LESS THAN 4:12
- A TURN OUT OR KICK OUT FLASHING SHALL BE INSTALLED TO DIVERT THE WATER AWAY FROM WHERE THE EAVE OF A SLOPED ROOF INTERSECTS A VERTICAL SIDEWALL R903.2.1
- ROOF DECK'S SHALL BE COVERED WITH APPROVED ROOF COVERINGS SECURED TO THE BUILDING OR STRUCTURE IN ACCORDANCE WITH THE PROVISIONS OF THIS CHAPTER. ROOF ASSEMBLIES SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THIS CODE AND THE APPROVED MANUFACTURER'S INSTRUCTIONS SUCH THAT THE ROOF ASSEMBLY SHALL SERVE TO PROTECT THE BUILDING OR STRUCTURE. R903.2
- FLASHINGS SHALL BE INSTALLED IN A MANNER THAT PREVENTS MOISTURE FROM ENTERING THE WALL AND ROOF THROUGH JOINTS IN COPINGS, THROUGH MOISTURE PERMEABLE MATERIALS AND AT INTERSECTIONS WITH PARAPET WALLS AND OTHER PENETRATIONS THROUGH THE ROOF PLANE. R903.2
- FLASHINGS SHALL BE INSTALLED AT WALL AND ROOF INTERSECTIONS, WHEREVER THERE IS A CHANGE IN ROOF SLOPE OR DIRECTION AND AROUND ROOF OPENINGS. A FLASHING SHALL BE INSTALLED TO DIVERT THE WATER AWAY FROM WHERE THE EAVE OF A SLOPED ROOF INTERSECTS A VERTICAL SIDEWALL WHERE FLASHING IS OF METAL, THE METAL SHALL BE CORROSION RESISTANT WITH A THICKNESS OF NOT LESS THAN 0.019 INCH (0.5 MM) (NO. 26 GALVANIZED SHEET). R903.2.1
- ROOF COVERINGS SHALL BE APPLIED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THIS SECTION AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. UNLESS OTHERWISE SPECIFIED IN THIS SECTION, ROOF COVERINGS SHALL BE INSTALLED TO REST THE COMPONENT AND CLADDING MATERIALS ON THE UNDERLYING SUPPORT. ADJUST FOR HEIGHT AND EXPOSURE IN ACCORDANCE WITH TABLE R301.2(3).

11. UNDERLAYMENT FOR ASPHALT SHIN-GLS, CLAY AND CONCRETE TILE, METAL ROOF SHINGLES, MINERAL-SURFACED ROLL ROOFING, SLATE AND SLATE-TYPE SHINGLES, WOOD SHINGLES, WOOD SHAKES AND METAL ROOF PANELS SHALL CONFORM TO THE APPLICABLE STANDARDS LISTED IN THIS CHAPTER. UNDERLAYMENT MATERIALS REQUIRED TO COMPLY WITH ASTM D226, D1970, D4869 AND D6757 SHALL BEAR A LABEL INDICATING COMPLIANCE TO THE STANDARD DESIGNATION AND, IF APPLICABLE, TYPE CLASSIFICATION INDICATED IN TABLE R905.1.1(1). UNDERLAYMENT SHALL BE ATTACHED IN ACCORDANCE WITH TABLE R905.1.1(2). UNDERLAYMENT SHALL BE ATTACHED IN ACCORDANCE WITH TABLE R905.1.1(3). R905.1.1

12. ASPHALT SHINGLES SHALL COMPLY WITH ASTM D4642. R905.2.4 SHALL BE FASTENED TO SOLIDLY SHEATHED DECKS. THE INSTALLATION OF ASPHALT SHINGLES SHALL COMPLY WITH THE PROVISIONS OF SECTION 905.2.

13. FASTENERS FOR ASPHALT SHINGLES SHALL BE GALVANIZED STEEL, STAINLESS STEEL, ALUMINUM OR COPPER ROOFING NAILS, MINIMUM 12-GAGE (0.105 INCH (3 MM)) SHANK WITH A MINIMUM 3/8-INCH-DIAMETER (9.5 MM) HEAD, COMPLYING WITH ASTM F1667, OF A LENGTH TO PENETRATE THROUGH THE ROOFING MATERIALS AND NOT LESS THAN 3/4 INCH (19.1 MM) INTO THE ROOF SHEATHING. WHERE THE ROOF SHEATHING IS LESS THAN 3/4 INCH (19.1 MM) THICK, THE FASTENERS SHALL PENETRATE THROUGH THE SHEATHING. R905.2.5

14. ASPHALT SHINGLES SHALL HAVE THE MINIMUM NUMBER OF FASTENERS REQUIRED BY THE MANUFACTURER, BUT NOT LESS THAN FOUR FASTENERS PER STRIP SHINGLE OR TWO FASTENERS PER INDIVIDUAL SHINGLE. R905.2.6

15. BASE AND CAP FLASHING SHALL BE INSTALLED IN ACCORDANCE WITH MANU-FACTURER'S INSTRUCTIONS. BASE FLASHING SHALL BE OF EITHER CORROSION-RESISTANT METAL OF MINIMUM NOMINAL 0.019-INCH (0.5 MM) THICKNESS OR MINERAL-SURFACED ROLL ROOFING WEIGHING NOT LESS THAN 77 POUNDS PER 100 SQUARE FEET (4 KG/M2). CAP FLASHING SHALL BE CORROSION-RESISTANT METAL OF MINIMUM NOMINAL 0.019-INCH (0.5 MM) THICKNESS.

16. VALLEY LININGS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS BEFORE APPLYING SHINGLES. OTHER VALLEY LININGS PERMITTED PER R905.2.8.2

17. BASE FLASHING AGAINST A VERTICAL SIDEWALL SHALL BE CONTINUOUS OR STEP FLASHING AND SHALL BE NOT LESS THAN 4 INCHES (102 MM) IN HEIGHT AND 4 INCHES (102 MM) IN WIDTH AND SHALL DIRECT WATER AWAY FROM THE VERTICAL SIDEWALL ONTO THE ROOF OR INTO THE GUTTER. FOR SIDING, VENEER, PLASTER OR AHRED VENEER INSTALL FLASHING AND COUNTERFLASHING PER R905.2.8.

18. FLASHING AGAINST A VERTICAL FRONT WALL, AS WELL AS SOIL STACK, VENT PIPE AND CHIMNEY FLASHING, SHALL BE APPLIED IN ACCORDANCE WITH THE ASPHALT SHINGLE MANUFACTURER'S PRINTED INSTRUCTIONS.

19. A DRIP EDGE SHALL BE PROVIDED AT EAVES AND RAKE EDGES OF SHINGLE ROOFS. ADJACENT SEGMENTS OF DRIP EDGE SHALL OVERLAP NOT LESS THAN 2 INCHES (51MM). DRIP EDGES SHALL EXTEND NOT LESS THAN 1/4 INCH (6.4 BELOW THE ROOF SHEATHING AND EXTEND UP BACK ONTO THE ROOF DECK NOT LESS THAN 2 INCHES (51 MM). DRIP EDGES SHALL BE MECHANICALLY FASTENED TO THE ROOF DECK AT NOT MORE THAN 12 INCHES (305 MM) O.C. WITH FASTENERS AS SPECIFIED IN SECTION R905.2.5. UNDERLAYMENT SHALL BE INSTALLED OVER THE DRIP EDGE ALONG EAVES AND UNDER THE DRIP EDGE ALONG RAKE EDGES. R905.2.8.5

DUCT SYSTEM SPECIES BURIED DUCTS

20. SEE ENGINEERING GENERAL NOTES FOR ROOF STRUCTURAL INFORMATION.

21. REFER TO WILDLAND URBAN INTERFACE NOTES.

FINISH SUGGESTIONS

- DRIVEWAYS AND PATIOS:** CONCRETE WITH SALT ROCK FINISH, SCORE LINES AT 2'-0" SQUARE.
- ROOF:**
 - ALTERNATIVE BID 1: STANDING SEAM METAL ROOF - CHARCOAL
 - ALTERNATIVE BID 2: PVC MEMBRANE ROOF - COOL ROOF - WHITE FASCIA - PER ELEVATIONS AND DETAILS - PAINT
 - CAP FLASHING (IF APPLIES): PAINT
 - GUTTER: 5" SQUARE, U.N.O. - PAINT TO MATCH FASCIA
 - DOWNSPOUTS: ROUND, GALVANIZED
- WINDOWS & DOORS:** FIBERGLASS - BLACK FRAMES
- INTERIOR FINISHES:**

WALLS:
1/2" GYPSUM BOARD, IMPERFECT SMOOTH FINISH TEXTURE

CEILING:
PRIMARY: 1/2" GYPSUM BOARD, IMPERFECT SMOOTH FINISH TEXTURE
ACCENT: TONGUE & GROOVE CEDAR PLANK PER PLANS

8. BASE: 5 1/4" SQUARE EDGE, PAINT

PAINTS, SEALANTS & FINISHES

- PROTECT FOAM PLASTIC INSULATION IN ATTIC OR CRAWL SPACE WITH THERMAL BARRIER OR SPECIFY INSULATION NOT REQUIRING PROTECTION
- FLAME SPREAD AND SMOKE DEVELOPED INDEX FOR INSULATION SHALL BE IN ACCORDANCE WITH SECTIONS R302.10.1 THROUGH R302.10.5.
- WALL AND CEILING FINISHES SHALL HAVE A FLAME SPREAD INDEX OF NOT GREATER THAN 200.FLAME SPREAD INDEX REQUIREMENTS FOR FINISHES SHALL NOT APPLY TO TRIM DEFINED AS PICTURE MOLDS, CHAIR RAILS, BASEBOARDS AND HANDRAILS; TO DOORS AND WINDOWS OR THEIR FRAMES; OR TO MATERIALS THAT ARE LESS THAN 1/28 INCH (0.91 MM) IN THICKNESS CEMENTED TO THE SURFACE OF WALLS OR CEILINGS IF THESE MATERIALS EXHIBIT FLAME SPREAD INDEX VALUES NO GREATER THAN THOSE OF PAPER OF THIS THICKNESS CEMENTED TO A NONCOMBUSTIBLE BACKING.
- WALL AND CEILING FINISHES SHALL HAVE A SMOKE-DEVELOPED INDEX OF NOT GREATER THAN 450.
- ADHESIVES, SEALANTS AND CALIKS SHALL BE COMPLIANT WITH VOC AND OTHER TOXIC COMPOUND LIMITS. (GBC SECTION 4.504.2.1). PAINTS, STAINS, AND OTHER COATINGS SHALL BE COMPLIANT WITH VOC LIMITS. (GBC SECTION 4.504.2.2)
- AEROSOL PAINTS AND COATING SHALL BE COMPLIANT WITH PRODUCT WEIGHTED AIR LIMITS FOR ROC AND OTHER TOXIC COMPOUNDS. (GBC SECTION 4.504.2.3)
- CARPET AND CARPET SYSTEMS SHALL BE COMPLIANT WITH VOC LIMITS. (GBC SECTION 4.504.3)
- PARTICLEBOARD, MEDIUM DENSITY FIBERBOARD (MDF) AND HARDWOOD PLYWOOD USED IN INTERIOR FINISH SYSTEMS SHALL COMPLY WITH LOW FORMALDEHYDE EMISSION STANDARDS. (GBC SECTION 4.504.5)
- BATHTUB & SHOWER COMPARTMENTS SHALL HAVE A NONABSORBENT SURFACE EXTENDING 72" ABOVE THE FLOOR INSTALLED OVER A MOISTURE RESISTANT UNDERLAYMENT (GLASS MAT GYPSUM BACKER OR FIBER CEMENT. CRC R307.2.8 AND R702.3.8

GENERAL NOTES

- SUBCONTRACTORS SHALL BE RESPONSIBLE FOR COORDINATION OF THEIR WORK WITH THE WORK OF OTHERS. SUBCONTRACTORS SHALL VERIFY THAT ANY WORK RELATED TO THEM, WHICH MUST BE PROVIDED BY OTHERS, HAS BEEN COMPLETED AND IS ADEQUATE PRIOR TO COMMENCING THEIR WORK.
- THESE DRAWINGS AND SPECIFICATIONS ARE DIVIDED INTO SECTIONS FOR CONVENIENCE ONLY. CONTRACTORS, SUBCONTRACTORS AND MATERIAL SUPPLIERS SHALL REFER TO ALL RELEVANT SECTIONS IN THESE DRAWINGS AND SPECIFICATIONS AND SHALL BE RESPONSIBLE FOR ALL ASPECTS OF THE WORK REGARDLESS OF WHERE THE INFORMATION OCCURS IN THE DRAWINGS.

- ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS AND DETAILS. DIMENSIONS AND TO FACE OF STUDS OR SLAB UNLESS NOTED OTHERWISE ON DRAWINGS. DO NOT SCALE DRAWINGS. DIMENSIONS NOTED AS "CLEAR" (CLR) ARE TAKEN TO THE FACE OF FINISH MATERIALS. THE CONTRACTOR SHALL VERIFY DIMENSIONS OF PREFABRICATED AND MANUFACTURED ITEMS AND COORDINATE ROUGH OPENINGS ACCORDINGLY.

- ALL CONSTRUCTION SHALL BE IN STRICT CONFORMANCE WITH MANUFACTURER'S LATEST PUBLISHED SPECIFICATIONS AND INSTRUCTIONS. ALL DISCREPANCIES BETWEEN THESE SPECIFICATIONS AND INSTRUCTIONS AND THE CONTRACT DOCUMENTS PREPARED BY THE ARCHITECT AND CONSULTANTS, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING PRIOR TO COMMENCING WORK.

- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON THESE PLANS, EXISTING UTILITY LOCATIONS, AND EXISTING CONDITIONS AFFECTED BY THE CONTRACT PRIOR TO STARTING CONSTRUCTION. ANY DISCREPANCIES OR INCONSISTENCIES FOUND SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION BEFORE WORK PROCEEDS.

- STRUCTURAL SUPPORT AND/OR REINFORCEMENT IN STUD WALLS SHALL BE PROVIDED AT ALL WALL-WOOD CONTACT CASEWORK, CABINETS, SHELVING, EQUIPMENT ETC., BY GENERAL CONTRACTOR.

FINISH NOTES

- THE MAXIMUM FLAME SPREAD CLASS OF FINISH MATERIALS USED ON INTERIOR WALLS AND CEILINGS SHALL NOT EXCEED CLASS B FOR EXIT WAYS AND CLASS C FOR ROOMS OR AREAS PER TABLE R03.5 CBC.
- IN ALL OCCUPANCIES, QUANTITIES OF FLAMMABLE AND COMBUSTIBLE LIQUIDS IN EXCESS OF 10 GAL. USED FOR MAINTENANCE PURPOSES AND THE OPERATION OF EQUIPMENT SHALL BE STORED IN LIQUID STORAGE CABINETS IN ACCORDANCE WITH THE CALIFORNIA FIRE CODE.
- GYP. BD. TEXTURE TO BE IMPERFECT SMOOTH. FINISH CONTRACTOR SHALL PROVIDE SAMPLE BOARDS PRIOR TO INSTALL.
- PREPARE EXPOSED CONCRETE FLOOR WITH BUFFER USING FINE GRIT SAND PAPER WITH CEMENTITIOUS CLEAR SEALER, "SCOFIELD CURESEAL" CLEAR SEMI-GLOSS FINISH AND RHINO GRIT ADDED FOR SLIP RESISTANCE.
- CONCRETE SLAB TO BE SEALED PRIOR TO INSTALLATION OF FLOORING MATERIALS. VERIFY REQUIRED/ACCEPTABLE MOISTURE TOLERANCES WITH MANUFACTURER'S WRITTEN INSTRUCTIONS PRIOR TO SEALING CONCRETE.
- ALL INTERIOR FINISHES SHALL COMPLY WITH CBC SECTION R308.4.
- WALLS TO "EGGSHELL" FINISH, U.O.N.
- DOORS, WOOD TRIM, CHAIR RAIL, & BASE TO BE "SEMI-GLOSS" FINISH, U.O.N.
- CEILINGS TO BE "FLAT" FINISH, U.O.N.
- DOOR VISION PANEL FRAME TO BE PAINTED THE SAME AS DOOR FRAME/CASING.
- ALL FINISHES & MATERIALS LISTED IN THE FINISH NOTES OR ANYWHERE IN THIS DRAWING SET ARE SUGGESTIONS AND RECOMMENDATIONS ONLY, AND ARE AT THE DISCRETION OF THE OWNER. REFER TO THIS STRUCTURE IN THE PLANS.

TITLE 24 REQUIREMENTS

- EXTERIOR DOORS AND DOORS LEADING TO GARAGE SHALL HAVE SINGLE CYLINDER DEADBOLT. GLASS SLIDING DOORS SHALL BE SUPPLEMENTED WITH AN AUXILIARY DOOR LOCK. ACCESSIBLE WINDOWS SHALL BE SECURABLE FROM THE INSIDE WITH AN AUXILIARY LOCKING DEVICE PER REDDING MUNICIPAL CODE SECTION 16.14.100.
- DOORS OTHER THAN THE REQUIRED EGRESS DOOR SHALL BE PROVIDED WITH LANDINGS OR FLOORS NOT MORE THAN 7-3/4 INCHES (196 MM) BELOW THE TOP OF THE THRESHOLD. EXCEPTION: A LANDING IS NOT REQUIRED WHERE A STAIRWAY OF TWO OR FEWER RISERS IS PROVIDED ON THE EXTERIOR SIDE OF THE DOOR, PROVIDED THE DOOR DOES NOT SWING OVER THE STAIRWAY. R311.3.2

AGING IN PLACE

SECTION R327 AGING-IN-PLACE DESIGN AND FALL PREVENTION

R327.1 AGING-IN-PLACE DESIGN AND FALL PREVENTION
NEWLY CONSTRUCTED DWELLINGS SUBJECT TO THE REQUIREMENTS OF THIS CODE SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH SECTIONS R327.1.1 THROUGH R327.1.4.

R327.1.1 REINFORCEMENT FOR GRAB BARS

AT LEAST ONE BATHROOM ON THE ENTRY LEVEL SHALL BE PROVIDED WITH REINFORCEMENT INSTALLED IN ACCORDANCE WITH THIS SECTION. WHERE THERE IS TO BE A BATHROOM ON THE ENTRY LEVEL, AT LEAST ONE BATHROOM ON THE SECOND OR THIRD FLOOR OF THE DWELLING SHALL COMPLY WITH THIS SECTION. REINFORCEMENT SHALL BE SOLID LUMBER OR OTHER CONSTRUCTION MATERIALS APPROVED BY THE ENFORCING AGENCY.

- REINFORCEMENT SHALL NOT BE LESS THAN 2 BY 8 INCH (51 MM BY 203 MM) NOMINAL LUMBER, [11/2 INCH BY 71/4 INCH (38 MM BY 184 MM) ACTUAL DIMENSION] OR OTHER CONSTRUCTION MATERIAL PROVIDING EQUAL HEIGHT AND LOAD CAPACITY. REINFORCEMENT SHALL BE LOCATED BETWEEN 32 INCHES (812.8 MM) AND 39 1/4 INCHES (997 MM) ABOVE THE FINISHED FLOOR FLUSH WITH THE WALL FRAMING. WATER CLOSET REINFORCEMENT SHALL BE INSTALLED ON BOTH SIDE WALLS OF THE FIXTURE, OR ONE SIDE WALL AND THE BACK WALL.
- SHOWER REINFORCEMENT SHALL BE CONTINUOUS WHERE WALL FRAMING IS PROVIDED.
- BATHTUB AND COMBINATION BATHTUB/SHOWER REINFORCEMENT SHALL BE CONTINUOUS ON EACH END OF THE BATHTUB AND THE BACK WALL. ADDITIONALLY, BACK WALL REINFORCEMENT FOR A LOWER GRAB BAR SHALL BE PROVIDED WITH THE BOTTOM EDGE LOCATED NO MORE THAN 6 INCHES (152.4 MM) ABOVE THE BATHTUB RIM.

- EXCEPTIONS:**
- WHERE THE WATER CLOSET IS NOT PLACED ADJACENT TO A SIDE WALL CAPABLE OF ACCOMMODATING A GRAB BAR, THE BATHROOM SHALL HAVE PROVISIONS FOR INSTALLATION OF THE BATHROOM WATER FOLDOWAY OR SIMILAR ALTERNATE GRAB BAR REINFORCEMENTS APPROVED BY THE ENFORCING AGENCY.
 - REINFORCEMENT SHALL NOT BE REQUIRED IN WALL FRAMING FOR PREFABRICATED SHOWER ENCLOSURES AND BATHTUB WALL PANELS WITH INTEGRAL FACTORY-INSTALLED GRAB BARS OR WHEN FACTORY-INSTALLED REINFORCEMENT FOR GRAB BARS IS PROVIDED.
 - SHOWER ENCLOSURES THAT DO NOT PERMIT INSTALLATION OF REINFORCEMENT AND/OR GRAB BARS SHALL BE PERMITTED, PROVIDED REINFORCEMENT FOR BATHROOM-MOUNTED GRAB BARS OR AN ALTERNATE METHOD IS APPROVED BY THE ENFORCING AGENCY.
 - BATHTUBS WITH NO SURROUNDING WALLS, OR WHERE WALL PANELS DO NOT PERMIT THE INSTALLATION OF REINFORCEMENT SHALL BE PERMITTED, PROVIDED REINFORCEMENT FOR INSTALLATION OF FLOOR-ACOUNTED GRAB BARS ADJACENT TO THE BATHTUB OR AN ALTERNATE METHOD IS APPROVED BY THE ENFORCING AGENCY.
 - REINFORCEMENT OF FLOORS SHALL NOT BE REQUIRED FOR BATHTUBS AND WATER CLOSETS INSTALLED ON CONCRETE SLAB FLOORS.

R327.1.2 ELECTRICAL RECEPTACLE OUTLET, SWITCH AND CONTROL HEIGHTS

ELECTRICAL RECEPTACLE OUTLETS, SWITCHES AND CONTROLS (INCLUDING CONTROLS FOR HEATING, VENTILATION AND AIR CONDITIONING) INTENDED TO BE USED BY OCCUPANTS SHALL BE LOCATED NO MORE THAN 48 INCHES (1219.2 MM) MEASURED FROM THE TOP OF THE OUTLET BOX AND NOT LESS THAN 15 INCHES (381 MM) MEASURED FROM THE BOTTOM OF THE OUTLET BOX ABOVE THE FINISH FLOOR.

EXCEPTIONS:
DEDICATED RECEPTACLE OUTLETS; FLOOR RECEPTACLE OUTLETS, CONTROLS MOUNTED ON CEILING FANS AND CEILING LIGHTS; AND CONTROLS LOCATED ON APPLIANCES.
RECEPTACLE OUTLETS REQUIRED BY THE CALIFORNIA ELECTRICAL CODE ON A WALL SPACE WHERE THE DISTANCE BETWEEN THE FINISHED FLOOR AND A BUILT-IN FEATURE ABOVE THE FINISH FLOOR, SUCH AS A WINDOW, IS LESS THAN 15 INCHES (381 MM).

R327.1.3 INTERIOR DOORS
EFFECTIVE JULY 1, 2024, AT LEAST ONE BATHROOM AND ONE BEDROOM ON THE ENTRY LEVEL SHALL PROVIDE A DOORWAY WITH A NET CLEAR OPENING OF NOT LESS THAN 32 INCHES, MEASURED WITH THE DOOR POSITIONED AT AN ANGLE OF 90 DEGREES FROM THE CLOSED POSITION. IN THE CASE OF A TWO-, OR THREE-STORY SINGLE FAMILY DWELLING, THE SECOND OR THIRD FLOOR OF THE DWELLING IF A BATHROOM OR BEDROOM IS NOT LOCATED ON THE ENTRY LEVEL.

R327.1.4 DOORBELL BUTTONS

DOORBELL BUTTONS OR CONTROLS, WHEN INSTALLED, SHALL NOT EXCEED 48 INCHES (121

IF THIS SHEET IS NOT 30"x42", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

0, 1/4", 1/2", 1"

G:\Shared drives\RAD Projects\2023\2023-07 ADU RFP Shasta County\ADU 650_CDS.rvt 9/14/2023 10:21:16 AM

MECHANICAL NOTES

- 1. FUEL BURNING APPLIANCES, INSTALLATION, TESTING, AND REPAIR PER 2022 CALIFORNIA MECHANICAL CODE (CMC)...
- 2. GAS FIREPLACES SHALL BE LISTED AND INSTALLED IN ACCORDANCE WITH LISTING & MANUF. INSTALLATION INSTRUCTIONS...
- 3. DUCT AND VENT OPENINGS SHALL BE COVERED DURING CONSTRUCTION. (GBC SECTION 4.504.1)
- 4. WHOLE HOUSE EXHAUST FANS SHALL HAVE INSULATED LOUVERS OR COVERS WHICH CLOSE WHEN THE FAN IS OFF...
- 5. HVAC SYSTEM INSTALLERS ARE TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF HVAC SYSTEMS. (GBC SECTION 702.1)
- 6. BATHROOMS ARE TO BE MECHANICALLY VENTILATED PER CMC TABLE 4-4. MIN. 20 CFM FOR CONTINUOUS OPERATION OF 50 CFM FOR INTERMITTENT. CRC R303.3
- 7. EQUIPMENT AND APPLIANCES SHALL BE ACCESSIBLE FOR INSPECTION, SERVICE, REPAIR, AND REPLACEMENT WITHOUT REMOVING PERMANENT CONSTRUCTION. NOT LESS THAN 30" IN DEPTH, WIDTH, AND HEIGHT OF WORKING SPACE SHALL BE PROVIDED
- 8. DRYER VENT REQUIREMENTS: - DRYER MOISTURE EXHAUST DUCTS VENT SHALL NOT EXCEED 14' MAX DISTANCE WITH 2 90 DEGREE ELBOWS...

MECHANICAL VENTILATION

Table with columns: LOCATION, LABEL, MODEL, CFM, CFM @ .25" SP, SONES RATING, DUCT SIZE MIN. MAX. "W" "L", DUCT TYPE. Rows include BATH 2, 3, 4; KITCHEN; M. BATH; UTILITY.

MECHANICAL VENTILATION (continued)

- 1. DEDUCT 15' OF ALLOWABLE DUCT LENGTH FOR EACH TURN, ELBOW OR FITTING.
- 2. ALLOWABLE DUCT LENGTH ASSUMES FLEX DUCT TYPE. SEE TABLE 7.1 PRESCRIPTIVE DUCT REQUIREMENTS FOR ANY MODIFICATIONS OPTIONS FOR SMOOTH DUCT.
- 3. KITCHEN HOOD TO HAVE 100 CFM MIN. AIRFLOW.
- 4. KITCHEN HOODS WHICH HAVE GREATER THAN 125 CFM REQUIRE AIRFLOW TESTING MEASURING CFM OF INSTALLED FAN AND DUCT.
- 5. MECHANICAL DAMPER TO BE INSTALLED TO PROVIDE CONTINUOUS FLOW OF OUTSIDE AIR INTO CONDITIONED SPACE.
- MIN. WBV FAN SIZE = REFER TO ENERGY CALCULATIONS.

MECHANICAL VENTILATION

Table with columns: DUCT TYPE, FLEX DUCT, SMOOTH DUCT. Rows include FAN RATING (cfm at .25 in w.g.) and DIAMETER (in.).

PRESCRIPTIVE DUCT SIZING REQ.

Table with columns: DUCT TYPE, FLEX DUCT, SMOOTH DUCT. Rows include FAN RATING (cfm at .25 in w.g.) and DIAMETER (in.).

THIS TABLE ASSUMES NO ELBOWS. DEDUCT 15 FT. OF ALLOWABLE DUCT LENGTH FOR EACH TURN, ELBOW, OR FITTING. INTERPOLATION AND EXTRAPOLATION IN TABLE 7.1 IS NOT ALLOWED. FOR FAN RATING VALUES NOT LISTED, USE THE NEXT HIGHER VALUE.

PLUMBING NOTES

- 1. INDOOR FIXTURES SHALL NOT EXCEED THE MAXIMUM FLOWS (GBC SECTION 4.303.1); FIXTURE TYPE AND MAXIMUM FLOW. SEE CALGIREN CHECKLIST SHEETS.
- 2. THE COMBINED FLOW RATE OF MULTIPLE SHOWERHEADS IN ONE SHOWER SHALL NOT EXCEED 2.0 GPM @ 80PSI OR A VALVE SHALL BE INSTALLED WHICH ALLOWS OPERATION OF ONLY ONE SHOWER HEAD AT A TIME. (GBC SECTION 4.303.2)
- 3. AUTOMATIC IRRIGATION SYSTEMS CONTROLLERS INSTALLED AT THE TIME OF FINAL INSPECTION SHALL BE PROVIDED WITH INTEGRAL RAIN SENSORS OR SOIL MOISTURE SENSORS THAT ADJUST IRRIGATION IN RESPONSE TO CHANGES IN PLANTS NEEDS AS WEATHER CONDITIONS CHANGE. (GBC SECTION 4.303.1.3.2)
- 4. ALL WATER PIPES INSTALLED IN THE EXTERIOR WALL SHALL BE LOCATED ON THE CONDITIONED SIDE OF THE WALL ADJACENT TO THE INTERIOR FINISH.
- 5. PREVENT BACKFLOW FROM IRRIGATION PIPING PER CPC SECTION 603.3
- 6. PLUMBING WALLS TO BE 2x6 AND MUST MEET CRC SECTIONS R602.6 FOR NOTCHING AND BORING.
- 7. SHOWER AND TUB / SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE TYPE.
- 8. WATER CLOSET TO HAVE A MINIMUM 30" WIDE CLEAR SPACE, WITH 24" CLEAR SPACE IN FRONT PER CPC SECTION 407.6
- 9. BATHROOMS ARE TO BE MECHANICALLY VENTILATED PER CMC TABLE 4-4. MIN. 25 CFM FOR CONTINUOUS OPERATION OF 50 CFM FOR INTERMITTENT. CRC SECTION R303.3.
- 10. GAS VENTS, TYPE, TERMINATION PER CPC 510.6.
- 11. WATER HEATER TO HAVE A FIRST HOUR RATING PER CPC TABLE 501.1, IF WATER HEATER IS PROVIDED.
- 12. ALL APPLIANCES, FIXTURES AND EQUIPMENT TO BE INSTALLED AS PER 2013 CPC CODE AND MANUFACTURER'S SPECIFICATIONS.
- 13. IF WATER HEATER IS INSTALLED, PROVIDE SEISMIC BRACING STRAPS FOR TANK WATER HEATER. STRAPS TO BE LOCATED WITHIN THE UPPER AND LOWER ONE-THIRD OF ITS VERTICAL DIMENSION, THE LOWER STRAP ALSO LOCATED TO MAINTAIN A MIN. OF 4" ABOVE CONTROLS.
- 14. INSULATE PIPES IN ANY UNCONDITIONED AREAS.
- 15. ALL HOSE BIBBS SHALL BE FROST-FREE.
- 16. ALL DOMESTIC HOT WATER PIPES THAT ARE BURIED BELOW GRADE MUST BE INSTALLED IN A WATERPROOF AND NON-CRUSHABLE CASING OR SLEEVE.

ELECTRICAL NOTES

- ELECTRICAL NOTES:
- 1. 210.8 GROUND FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL SHALL BE PROVIDED AS REQUIRED IN 210.8(A) THROUGH (D). THE GROUND FAULT GFI SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION. APPLICABLE REQUIRED GROUND FAULT INTERRUPTER RECEPTACLE CIRCUITS PER CEC ARTICLE 210.8: A. OUTDOORS B. GARAGES, ACCESSORY STORAGE OR SIM. BUILDINGS C. ALL BATHROOM COUNTER TOP RECEPTACLES, ALL RECEPTACLES WITHIN 6' OF A TUB OR SHOWER D. ALL RECEPTACLES AT KITCHEN COUNTER TOPS. ALL RECEPTACLES WITHIN 6' OF THE EDGE OF A SINK. E. CRAWL SPACES F. LAUNDRY/UTILITY ROOM G. DISHWASHERS
- 2. BRANCH CIRCUITS FOR LIGHTING AND FOR APPLIANCES SHALL BE PROVIDED TO SUPPLY THE LOADS CALCULATED IN ACCORDANCE WITH 220.10 IN ADDITION BRANCH CIRCUITS SHALL BE PROVIDED FOR SPECIFIC LOADS NOT COVERED BY 220.10 WHERE THERE IS A LOAD SOMEWHERE IN THIS CODE AND FOR DWELLING UNIT LOADS A SPECIFIED IN 210.11(C)
- 3. IN ADDITION TO THE NUMBER OF BRANCH CIRCUITS REQUIRED BY OTHER PARTS OF SECTION 210, TWO OR MORE 20-AMPERE SMALL APPLIANCE BRANCH CIRCUITS SHALL BE PROVIDED FOR ALL RECEPTACLE OUTLETS SPECIFIED BY 210.52(B). AT LEAST ONE ADDITIONAL 20-AMP CIRCUIT SHALL BE PROVIDED TO SUPPLY THE LAUNDRY OUTLETS REQUIRED BY 210.52(F). AT LEAST ONE 120 VOLT, 20 AMPERE CIRCUIT SHALL BE PROVIDED TO SUPPLY BATHROOM OUTLETS. THESE CIRCUIT SHALL HAVE NO OTHER OUTLETS.
- 4. IN EA. ATTACHED GARAGE AND EA. DETACHED GARAGE RECEPTACLE OUTLETS MUST HAVE A SEPARATE BRANCH CIRCUIT WITH AT LEAST ONE RECEPTACLE FOR EACH CAR PARKING SPACE. 210.50(I)
- 5. OUTDOOR WEATHER PROOF 15 OR 20 AMP, 125 OR 250 VOLT RECEPTACLES MUST BE LISTED AS WEATHER-RESISTANT TYPE WHEN THE PLUG IS INSERTED. 406.8 (B)
- 6. ARC-FAULT CIRCUIT-INTERRUPTER PROTECTION PER 210.12 SHALL BE PROVIDED AS REQUIRED IN 210.12(A)(B) AND (C). THE ARC FAULT DEVICE SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION. ALL 120-VOLT, SINGLE PHASE, 15 AND 20 AMPERE BRANCH CIRCUITS SUPPLY OUTLETS OR DEVICES INSTALLED IN KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DEN'S, BEDROOMS, SUNROOMS, REC ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY MEANS DESCRIBED IN 210.12(A)(1)-(6).
- 7. THE MAXIMUM LENGTH OF THE BRANCH CIRCUIT TO THE AFCI IS 50' FOR 14 AWG CONDUCTORS OR 70' FOR 12 AWG CONDUCTOR CEC 210.12
- 8. GROUND FAULT PROTECTION OF BRANCH CIRCUIT(S) 1000 AMPS OR MORE AND OVER 150V TO GROUND IS REQUIRED 210.13
- 9. AN OUTLET INSTALLED FOR THE PURPOSE OF CHARGING ELECTRIC VEHICLES SHALL BE SUPPLIED BY A SEPARATE BRANCH CIRCUIT. THIS CIRCUIT SHALL HAVE NO OTHER OUTLETS.
- 10. BRANCH CIRCUIT CONDUCTORS MIN. AMPACITY AND SIZE PER 210.19(A) & (B), 210.19 (A) (1) GENERAL, BRANCH CIRCUIT CONDUCTORS SHALL HAVE AN AMPACITY NOT LESS THAN THE MAXIMUM LOAD TO BE SERVED. CONDUCTORS SHALL BE SIZED TO CARRY NOT LESS THAN THE LARGER OF 210.19(A)(1)(a) OR (b).
- 11. OVERCURRENT PROTECTION PER 210.20 BRANCH-CIRCUIT CONDUCTORS AND EQUIPMENT SHALL BE PROTECTED BY OVERCURRENT PROTECTIVE DEVICES THAT HAVE A RATING OR SETTING THAT COMPLIES WITH 210.20(A)-(D)
- 12. OUTLET DEVICES SHALL HAVE AN AMPERE RATING THAT IS NOT LESS THAN THE LOAD TO BE SERVED AND SHALL COMPLY WITH 210.21(A) & (B).
- 13. AN INDIVIDUAL BRANCH CIRCUIT SHALL BE PERMITTED TO SUPPLY ANY LOAD FOR WHICH IT IS RATED, BUT IN NO CASE SHALL THE LOAD EXCEED THE BRANCH-CIRCUIT AMPERE RATING. 210.22 MULTIPLE-OUTLET PERMISSIBLE LOADS PER 210.23
- 14. RECEPTACLE OUTLETS PER 210.52 (1) SPACING, RECEPTACLES SHALL BE INSTALLED SUCH THAT NO POINT MEASURED HORIZONTALLY ALONG THE FLOOR LINE OF ANY WALL SPACE IS MORE THAN 6' FROM AN OUTLET.
- 15. KITCHEN RECEPTACLES PER 210.52 (3)(C)(1) A RECEPTACLE OUTLET SHALL BE INSTALLED AT EA. WALL COUNTERTOP SPACE THAT IS 12" OR WIDER. (3)(C)(2) AT LEAST ONE RECEPTACLE SHALL BE INSTALLED AT EACH ISLAND COUNTERTOP SPACE WITH A DIMENSION OF 24" OR GREATER AND A SHORT DIMENSION OF 12" OR GREATER. (3)(C)(3) AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED AT EA. PENINSULAR COUNTERTOP SPACE WITH A LONG DIMENSION OF 24" OR GREATER AND A SHORT DIMENSION OF 12" OR GREATER
- 16. BATHROOMS TO HAVE AT LEAST ONE RECEPTACLE OUTLET INSTALLED IN WITHIN 3 FEET OF THE OUTSIDE EDGE OF EACH BASIN ADJACENT TO THE BASIN OR BASIN COUNTERTOP 210.52 (5)(D)
- 17. OUTDOOR RECEPTACLE OUTLETS SHALL BE INSTALLED IN ACCORDANCE WITH 210.52(E)(1)-(E)(3) AT LEAST ONE RECEPTACLE READILY ACCESSIBLE FROM GRADE AND NOT MORE THAN 6 1/2' ABOVE GRADE LEVEL SHALL BE INSTALLED IN THE FRONT AND BACK OF THE DWELLING.
- 18. PROVIDE AN OUTDOOR WEATHER PROOF GFI RECEPTACLE WITHIN 25' OF EXTERIOR MECHANICAL EQUIPMENT PER CEC 210-63.
- 19. PROVIDE DISCONNECT WITHIN SIGHT OF AIR CONDITIONING EQUIPMENT PER CEC 440-14. PROVIDE 30" WIDE X 36" DEEP WORKING CLEARANCE AT AC DISCONNECT PER CEC210-12.(b)
- 20. SMOKE DETECTORS REQUIRED IN ALL BEDROOMS, HALLWAYS LEADING TO BEDROOMS AND VAULTED CEILINGS MORE THAN 24" HIGHER THAN HALLWAY PER CRC R314. SMOKE DETECTORS SHALL BE 3 FEET MINIMUM FROM ANY AIR CURRENT SOURCE, INCLUDING SUPPLY/RETURN DUCT TERMINATIONS AND CEILING FANS.
- 21. SMOKE DETECTORS SHALL BE HARD WIRED, INTERCONNECTED, W/ BATTERY BACKUP, & AUDIBLE IN ALL BEDROOMS PER CRC R314
- 22. AN APPROVED CARBON MONOXIDE ALARM SHALL BE INSTALLED IN DWELLING UNITS AND IN SLEEPING UNITS WITHIN WHICH FUEL-BURNING APPLIANCES ARE INSTALLED AND IN DWELLING UNITS THAT HAVE ATTACHED GARAGES. PER CRC SECTION R315.
- 23. CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM ELECTRICAL MAIN & SHALL BE EQUIPPED WITH BATTERY BACKUP.
- 24. PROVIDE LIGHT & PLUG IN ATTIC TO ACCESS AND SERVICE MECHANICAL EQUIPMENT. LIGHT MUST BE FLOURESCENT OR HAVE A DIMMER SWITCH.
- 25. VENTILATION SYSTEM CONTROLS SHALL BE LABELED "TO MAINTAIN MIN. LEVELS OF OUTSIDE AIR VENTILATION REQUIRED FOR GC. CALL THE FAN SHOULD BE ON AT ALL TIMES WHEN THE BUILDING IS OCCUPIED UNLESS THERE IS SEVERE OUTDOOR CONTAMINATION" AND HOME OWNER SHALL BE PROVIDED WITH WITH INSTRUCTIONS ON HOW TO OPERATE THE SYSTEM.
- 26. NEWLY CONSTRUCTED ONE AND TWO FAMILY DWELLINGS WITH AN ATTACHED PRIVATE GARAGE(S) SHALL COMPLY WITH ELECTRIC VEHICLE CHARGING INFRASTRUCTURE REQUIREMENTS IN ACCORDANCE WITH THE CGCB, CHAPTER 4, DIVISION 4.1.
- 27. ALL 125 VOLT, 15 & 20 AMP RECEPTACLES INSTALLED IN A RESIDENCE OR ACCESSORY STRUCTURE SHALL BE LISTED AS TANKER RESISTANT RECEPTACLES. NO EXCEPTIONS FOR RECEPTACLES ON CEILING, ABOVE COUNTERS, OR BEHIND APPLIANCES. CEC 406.11

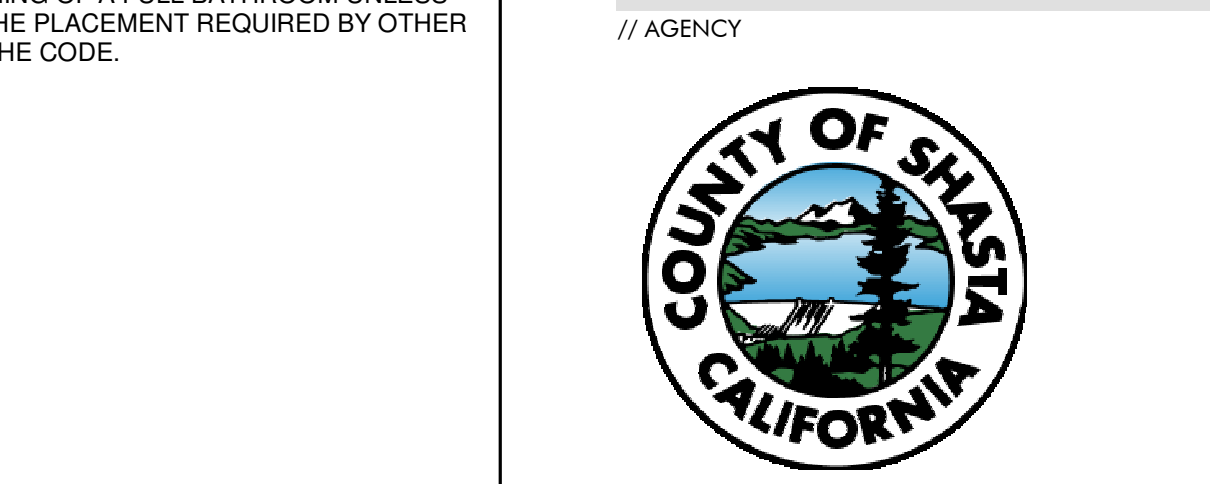
ELECTRICAL NOTES

- 28. ALL LIGHT FIXTURES IN HIGH MOISTURE AREAS SHALL BE VAPORPROOF LIGHTING, TO REDUCE PERMANENT FAILURE
- 29. AT FIRE SEPARATION WALLS, STEEL ELECTRICAL BOXES SHALL NOT EXCEED 16 SQUARE INCHES, AND SHALL NOT EXCEED 100 SQUARE INCHES PER 100 SQUARE FEET OF WALL, AND SHALL BE SEPARATED BY A MINIMUM HORIZONTAL DISTANCE OF 24 INCHES WHEN ON OPPOSITE SIDES OF THE WALL.
- 30. ALL ELECTRICAL BOXES SHALL BE PLASTIC NAIL ON TYPE. IF THE CONTRACTOR CHOOSES TO USE METAL BOXES FOR A SPECIFIC LOCATION, THE BOX SHALL BE GROUNDED IN COMPLIANCE WITH THE C.E.C. THE NUMBER OF BLANK ELECTRICAL BOXES MORE THAN 5 FEET ABOVE FINISH FLOOR SHALL NOT BE GREATER THAN THE NUMBER OF BEDROOMS. THESE ELECTRICAL BOXES MUST BE SERVED BY A DIMMER, VACANCY SENSOR, OR FAN SPEED CONTROL.
- 31. FOR FIRE RATED ASSEMBLIES THE ELECTRICAL BOXES SHALL MEET THE RATING OF THE WALL. PROVIDE 3M FIRE BARRIER MOLDABLE PUTTY PADS, 2 HR RATING, GASKET & CAULK PENETRATIONS AIRTIGHT. STEEL ELECTRICAL BOXES IN FIRE RATED ASSEMBLIES SHALL NOT EXCEED 16 SQUARE INCHES, AND SHALL NOT EXCEED 100 SQUARE INCHES PER 100 SQUARE FOOT OF WALL, AND SHALL BE SEPARATED BY A MINIMUM HORIZONTAL DISTANCE OF 24 INCHES WHEN ON OPPOSITE SIDES OF THE WALL.
- 32. SMOKE DETECTORS SHALL BE A MINIMUM OF 3 FEET FROM ANY AIR CURRENT SOURCE, INCLUDING SUPPLY/RETURN DECT TERMINATIONS & CEILING FANS. DRYER MOISTURE EXHAUST DUCTS TO NOT EXCEED A TOTAL COMBINED HORIZONTAL AND VERTICAL LENGTH OF 14 FEET, INCLUDING TWO 90 DEGREE ELBOWS. TWO FEET SHALL BE DEDUCTED FOR EACH 90 DEGREE ELBOW IN EXCESS OF TWO. FAN-ASSISTED DRYER VENT TO MAINTAIN CODE REQUIREMENTS. NO FASTENERS SHALL PENETRATE INTO DRYER VENT DUCT.

INSTALLATION NOTES:

- 1. SMOKE ALARMS SHALL BE INSTALLED A MIN. OF 20' HORIZONTAL DISTANCE FROM A PERMANENTLY INSTALLED COOKING APPLIANCE. EXCEPTION: IONIZATION SMOKE ALARMS WITH AN ALARM SILENCING SWITCH OR PHOTOELECTRIC ALARMS SHALL BE PERMITTED 10' OR GREATER FROM COOKING APPLIANCES.
- 2. SMOKE ALARMS SHALL BE INSTALLED NOT LESS THAN A 3 FOOT HORIZONTAL DISTANCE FROM THE DOOR OR OPENING OF A FULL BATHROOM UNLESS IT PREVENTS THE PLACEMENT REQUIRED BY OTHER SECTIONS OF THE CODE.

RAD STUDIO MODERN ARCHITECTURE P. 530.653.0777 W: WWW.RADSTUDIO.DESIGN



Professional seal for Ryan Russett, Licensed Architect, No. C-34598, State of California, expires 08-31-2025.

Table with columns: REVISION #, DATE, DESCRIPTION. Includes a row for 'ISSUED'.

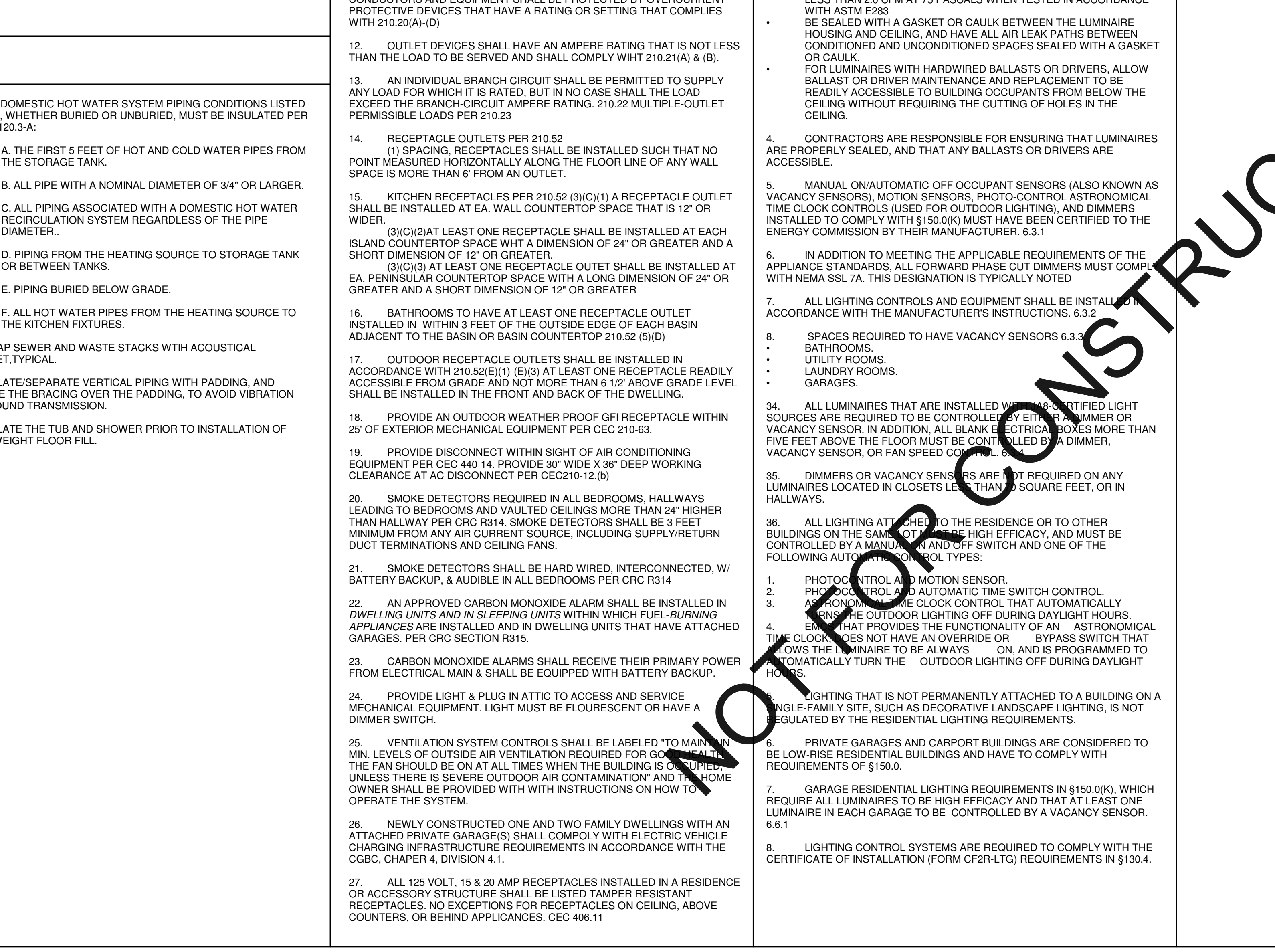
STIPULATION FOR REUSE THE DRAWING WAS PREPARED IN CONTRACT WITH SHASTA COUNTY FOR DISTRIBUTION AND USE BY THE RESIDENTS OF SHASTA COUNTY WITH A SNOW LOAD OF 70 PSF OR LESS. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS OR ENGINEERS.

PROJECT NO. THE PINE SHED 650

CHECKED BY: Author CHECKED BY: Checker ISSUE DATE: 9/14/2023 10:21:16 AM COPYRIGHT: RAD STUDIO 2019

SHEET TITLE UTILITIES NOTES

SHEET NO. A0.3



2022 CALIFORNIA GREEN BUILDING STANDARDS CODE RESIDENTIAL MANDATORY MEASURES, SHEET 1



P: 530.653.0777
W: WWW.RADSTUDIO.DESIGN

// AGENCY



// SEAL



// ISSUED

REVISION #	DATE	DESCRIPTION
------------	------	-------------

// COPYRIGHTS

COPYRIGHT 2023
RAD STUDIO RETAINS ALL RIGHTS TO PROPRIETARY INFORMATION, INCLUDING, WITHOUT LIMITATION, METHODOLOGIES AND METHODS OF ANALYSIS, IDEAS, CONCEPTS, ARRANGEMENTS, PLANS, EXPRESSIONS, KNOW HOW, METHODS, TECHNIQUES, SKILLS, KNOWLEDGE, AND EXPERIENCE POSSESSED BY RAD STUDIO PRIOR TO, OR ACQUIRED DURING THE DEVELOPMENT OF THIS PROJECT AND SHALL NOT BE RESTRICTED IN ANY WAY WITH RESPECT THERETO.

STIPULATION FOR REUSE
THE DRAWING WAS PREPARED IN CONTRACT WITH SHASTA COUNTY FOR DISTRIBUTION AND USE BY THE RESIDENTS OF SHASTA COUNTY WITH A SNOW LOAD OF 70 PSF OR LESS. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS OR ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON PROJECTS OUTSIDE OF SHASTA COUNTY AND WITHOUT THE PERMISSION OF THE SHASTA COUNTY BUILDING DEPARTMENT IS NOT AUTHORIZED AND IS CONTRARY TO THE LAW.

// PROJECT NO.

THE PINE SHED 650

// CLIENT

// MANAGEMENT

PROJECT NO:
DRAWN BY: _____ Author
CHECKED BY: _____ Checker
ISSUE DATE: 9/14/2023 10:21:17 AM
COPYRIGHT: RAD STUDIO 2019

// SHEET TITLE

CALGREEN NOTES

// SHEET NO.

A0.4

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE

4.406.1 RODENT PROOFING. Annular spaces around pipes, electric cables, conduits or other openings in sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

4.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65 percent of the non-hazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent local construction and demolition waste management ordinance.

Exceptions:

- Excavated soil and land-clearing debris.
- Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite.
- The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.

4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN. Submit a construction waste management plan in conformance with Items 1 through 5. The construction waste management plan shall be updated as necessary and shall be available during construction for examination by the enforcing agency.

- Identify the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale.
- Specify if construction and demolition waste materials will be sorted on-site (source separated) or bulk mixed (single stream).
- Identify diversion facilities where the construction and demolition waste material collected will be taken.
- Identify construction methods employed to reduce the amount of construction and demolition waste generated.
- Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

4.408.3 WASTE MANAGEMENT COMPANY. Utilize a waste management company, approved by the enforcing agency, which can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with Section 4.408.1.

Note: The owner or contractor may make the determination if the construction and demolition waste materials will be diverted by a waste management company.

4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR]. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 3.4 lbs./sq.ft. of the building area shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

4.408.4.1 WASTE STREAM REDUCTION ALTERNATIVE. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 2 pounds per square foot of the building area, shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

4.408.5 DOCUMENTATION. Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 4.408.2, items 1 through 5, Section 4.408.3 or Section 4.408.4.

Notes:

- Sample forms found in "A Guide to the California Green Building Standards Code (Residential)" located at www.hcd.ca.gov/CALGreen.html may be used to assist in documenting compliance with this section.
- Mixed construction and demolition debris (C & D) processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

4.410 BUILDING MAINTENANCE AND OPERATION

4.410.1 OPERATION AND MAINTENANCE MANUAL. At the time of final inspection a manual, compact disc, web-based reference or other media acceptable to the enforcing agency which includes all of the following shall be placed in the building:

- Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.
- Operation and maintenance instructions for the following:
 - Equipment and appliances, including heating, cooling and systems, HVAC systems, photovoltaic systems, electric vehicle chargers, water-heating systems and other major appliances and equipment.
 - Roof and yard drainage, including gutters and downspouts.
 - Space conditioning systems, including condensers and air filters.
 - Landscape irrigation system.
 - Water reuse system.
- Information from local utility, water and waste recovery providers on methods to further reduce resource consumption, including rebate programs and locations.
- Public transportation and carpool options available in the area.
- Educational material on the relative impacts of an interior relative humidity between 30-60 percent and what methods an occupant may use to maintain the relative humidity level in that range.
- Information about water conserving landscape and irrigation design and controllers which conserve water.
- Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away.
- Information on required routine maintenance measures, including, but not limited to, caulking, painting, greasing around the building, etc.
- Information about state solar energy and incentive programs available.
- Photopy will special inspections verifications required by the enforcing agency or this code.

4.410.2 RECYCLING BY OCCUPANTS. Where 5 or more multifamily dwelling units are constructed on a building site, projects shall provide a readily accessible area(s) that serves all buildings on the site and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastic, organic waste, and metals, or meet a locally enacted local recycling ordinance, if more restrictive.

Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code Section 42649.82 (a)(2)(A) et seq. are not required to comply with the organic waste portion of this section.

DIVISION 4.5 ENVIRONMENTAL QUALITY

SECTION 4.501 GENERAL

4.501.1 Scope. The provisions of this chapter shall outline means of reducing the quality of air contaminants that are odorous, irritating and/or harmful to the comfort and well being of a building's installers, occupants and neighbors.

SECTION 4.502 DEFINITIONS

5.102.1 DEFINITIONS
The following terms are defined in Chapter 2 (*and are included here for reference*)

AGRIFIBER PRODUCTS. Agrifiber products include wheatboard, straw-board, panel substrates and door cores, not including furniture, fixtures and equipment (FF&E) not considered base building elements.

COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardwood, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, prefabricated wood joists or finger-jointed lumber, all as specified in California Code of regulations (CCR), title 17, Section 93120.1.

DIRECT-VENT APPLIANCE. A fuel-burning appliance with a sealed combustion system that draws all air for combustion from the outside atmosphere and discharges all flue gases to the outside atmosphere.

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION

4.303 INDOOR WATER USE

4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the sections 4.303.1.1, 4.303.1.2, 4.303.1.3, and 4.303.4.4.

Note: All noncompliant plumbing fixtures in any residential real property shall be replaced with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy, or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

4.303.1.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

4.303.1.2 Urinals. The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush.

4.303.1.3 Showerheads.

4.303.1.3.1 Single Showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

4.303.1.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to only allow one shower outlet to be in operation at a time.

Note: A hand-held shower shall be considered a showerhead.

4.303.1.4 Faucets.

4.303.1.4.1 Residential Lavatory Faucets. The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons per minute at 60 psi. The maximum flow rate of residential lavatory faucets shall not be less than 0.8 gallons per minute at 20 psi.

4.303.1.4.2 Lavatory Faucets in Common and Public Use Areas. The maximum flow rate of lavatory faucets installed in common and public use areas (outside of dwellings or sleeping units) in residential buildings shall not exceed 0.5 gallons per minute at 60 psi.

4.303.1.4.3 Metering Faucets. Metering faucets when installed in residential buildings shall not deliver more than 0.2 gallons per cycle.

4.303.1.4.4 Kitchen Faucets. The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallon per minute at 60 psi.

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

4.303.2 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code*.

NOTE: THIS TABLE COMPILES THE DATA IN SECTION 4.303.1, AND IS INCLUDED AS A CONVENIENCE FOR THE USER.

TABLE - MAXIMUM FIXTURE WATER USE	
FIXTURE TYPE	FLOW RATE
SHOWER HEADS (RESIDENTIAL)	1.8 GMP @ 80 PSI
LAVATORY FAUCETS (RESIDENTIAL)	MAX. 1.2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 PSI
LAVATORY FAUCETS IN COMMON & PUBLIC USE AREAS	0.5 GPM @ 60 PSI
KITCHEN FAUCETS	1.8 GPM @ 60 PSI
METERING FAUCETS	0.2 GAL/CYCLE
WATER CLOSET	1.28 GAL/FLUSH
URINALS	0.125 GAL/FLUSH

4.304 OUTDOOR WATER USE

4.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Residential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

NOTES:

- The Model Water Efficient Landscape Ordinance (MWELO) is located in the *California Code Regulations*, Title 23, Chapter 2.7, Division 2. MWELO and supporting documents, including water budget calculator, are available at: <https://www.water.ca.gov/>

4.106.4.2.1.1 Electric Vehicle Charging Stations (EVCS) When EV chargers are installed, EV spaces required by Section 4.106.2.2, Item 3, shall comply with at least one of the following options:

- The EV space shall be located adjacent to an accessible parking space meeting the requirements of the *California Building Code*, Chapter 11A, to allow use of the EV charger from the accessible parking space.
- The EV space shall be located on an accessible route, as defined in the *California Building Code*, Chapter 2, to the building.

Exception: Electric vehicle charging stations designed and constructed in compliance with the *California Building Code*, Chapter 11B, are not required to comply with Section 4.106.4.2.1.1 and Section 4.106.4.2.2, Item 3.

Note: Electric Vehicle charging stations serving public housing are required to comply with the *California Building Code*, Chapter 11B.

4.106.4.2.2 Electric vehicle charging space (EV space) dimensions. The EV space shall be designed to comply with the following:

- The minimum length of each EV space shall be 18 feet (5486 mm).
 - The minimum width of each EV space shall be 9 feet (2743 mm).
 - One in every 25 EV spaces, but not less than one EV space, shall have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet (3658 mm).
- a. Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction.

4.106.4.2.3 Single EV space required. Install a listed raceway capable of accommodating a 208/240-volt dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close proximity to the proposed location of the EV space. Construction documents shall identify the raceway termination point. The service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.

4.106.4.2.4 Multiple EV spaces required. Construction documents shall indicate the raceway termination point and proposed location of future EV spaces and EV chargers. Construction documents shall also provide information on ampere of future EVSE, raceway method(s), wiring schematics and electrical load calculations to verify that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at the full rated ampere of the EVSE. Plan design shall be based upon a 40-ampere minimum branch circuit. Required raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.

4.106.4.2.5 Identification. The service panel or subpanel circuit directory shall identify the overcurrent protective device(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the *California Electrical Code*.

4.106.4.3 New hotels and motels. All newly constructed hotels and motels shall provide EV spaces capable of supporting future installation of EVSE. The construction documents shall identify the location of the EV spaces.

Notes:

- Construction documents are intended to demonstrate the project's capability and capacity or facilitating future EV charging.
- There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

4.106.4.3.1 Number of required EV spaces. The number of required EV spaces shall be based on the total number of parking spaces provided for all types of parking facilities in accordance with Table 4.106.4.3.1. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

TABLE 4.106.4.3.1	
TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED EV SPACES
0-9	0
10-25	1
26-50	2
51-75	4
76-100	5
101-150	7
151-200	10
201 and over	6 percent of total

4.106.4.3.2 Electric vehicle charging space (EV space) dimensions. The EV spaces shall be designed to comply with the following:

- The minimum length of each EV space shall be 18 feet (5486mm).
- The minimum width of each EV space shall be 9 feet (2743mm).

4.106.4.3.3 Single EV space required. When a single EV space is required, the EV space shall be designed in accordance with Section 4.106.4.2.3.

4.106.4.3.4 Multiple EV spaces required. When multiple EV spaces are required, the EV spaces shall be designed in accordance with Section 4.106.4.2.4.

4.106.4.3.5 Identification. The service panels or sub-panels shall be identified in accordance with Section 4.106.4.2.5.

4.106.4.3.6 Accessible EV spaces. In addition to the requirements in Section 4.106.4.3, EV spaces for hotels/motels and all EVSE, when installed, shall comply with the accessibility provisions for the EV charging stations in the *California Building Code*, Chapter 11B.

DIVISION 4.2 ENERGY EFFICIENCY

4.201 GENERAL

4.201.1 SCOPE. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards.

CHAPTER 3 GREEN BUILDING

SECTION 301 GENERAL

301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 1101.7.

301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or alteration.

Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

301.2 LOW-RISE AND HIGH-RISE RESIDENTIAL BUILDINGS. [HCD] The provisions of individual sections of CALGreen may apply to either low-rise residential buildings high-rise residential buildings, or both. Individual sections will be designated by banners to indicate where the section applies specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and high-rise buildings, no banner will be used.

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHFD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 4 RESIDENTIAL MANDATORY MEASURES

DIVISION 4.1 PLANNING AND DESIGN

SECTION 4.102 DEFINITIONS

4.102.1 DEFINITIONS

The following terms are defined in Chapter 2 (*and are included here for reference*)

FRENCH DRAIN. A trench, hole or other depressed area loosely filled with rock, gravel, fragments of brick or similar pervious material used to collect or channel drainage or runoff water.

WATTLES. Wattles are used to reduce sediment in runoff. Wattles are often constructed of natural plant materials such as hay, straw or similar material shaped in the form of tubes and placed on a downflow slope. Wattles are also used for perimeter and inlet controls.

4.106 SITE DEVELOPMENT

4.106.1 GENERAL. Preservation and use of available natural resources shall be accomplished through evaluation and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes, management of storm water drainage and erosion controls shall comply with this section.

4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. Projects which disturb less than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre or more, shall manage storm water drainage during construction. In order to manage storm water drainage during construction, one or more of the following measures shall be implemented to prevent flooding of adjacent property, prevent erosion and retain soil runoff on the site:

- Retention basins of sufficient size shall be utilized to retain storm water on the site.
- Where storm water is conveyed to a public drainage system, collection point, gutter or similar disposal method, water shall be filtered by use of a barrier system, wattle or other method approve by the enforcing agency.
- Compliance with a lawfully enacted storm water management ordinance.

Note: Refer to the State Water Resources Control Board for projects which disturb one acre or more of soil, or are part of a larger common plan of development which in total disturbs one acre or more of soil.

(Website: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html)

4.106.3 GRADING AND PAVING. Construction plans shall indicate how the site grading or drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

- Swales
- Water collection and disposal systems
- French drains
- Water retention gardens
- Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1, 4.106.4.2, or 4.106.4.3 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the *California Electrical Code*, Article 625.

Exceptions:

- On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
 - Where there is no commercial power supply.
 - Where there is evidence substantiating that meeting the requirements will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost to the homeowner or the developer by more than \$400.00 per dwelling unit.
- Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.

4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages. For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.

4.106.4.1.1 Identification. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".

4.106.4.2 New multifamily dwellings. If residential parking is available, ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

Notes:

- Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.
- There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

4.106.4.2.1 Electric vehicle charging space (EV space) locations. Construction documents shall indicate the location of proposed EV spaces. Where common use parking is provided at least one EV space shall be located in the common use parking area and shall be available for use by all residents.

0 1/4" = 12'

IF THIS SHEET IS NOT 30"x42", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

G:\Shared drives\RAD Projects\2023\23-07 ADU RFP Shasta County\ADU 650_CDS.rvt

9/14/2023 10:21:17 AM

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE RESIDENTIAL MANDATORY MEASURES, SHEET 2

0 1/4" = 12" SCALE ACCORDINGLY

9/14/2023 10:21:18 AM G:\Shared\drives\RAD Projects\2023\23-07 ADU RFP Shasta County\ADU 650_CDS.rvt

Y/N/A RESPON. PARTY YES NOT APPLICABLE RESPONSIBLE PARTY (i.e. ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)



P: 530.653.0777
W: WWW.RADSTUDIO.DESIGN

// AGENCY



// SEAL



// ISSUED

REVISION #	DATE	DESCRIPTION

// COPYRIGHTS

COPYRIGHT 2023
RAD STUDIO RETAINS ALL RIGHTS TO PROPRIETARY INFORMATION, INCLUDING, WITHOUT LIMITATION, METHODOLOGIES AND METHODS OF ANALYSIS, IDEAS, CONCEPTS, ARRANGEMENTS, PLANS, EXPRESSIONS, KNOW HOW, METHODS, TECHNIQUES, SKILLS, KNOWLEDGE, AND EXPERIENCE POSSESSED BY RAD STUDIO PRIOR TO, OR ACQUIRED DURING THE DEVELOPMENT OF THIS PROJECT AND SHALL NOT BE RESTRICTED IN ANY WAY WITH RESPECT THERETO.

STIPULATION FOR REUSE
THE DRAWING WAS PREPARED IN CONTRACT WITH SHASTA COUNTY FOR DISTRIBUTION AND USE BY THE RESIDENTS OF SHASTA COUNTY WITH A SNOW LOAD OF 70 PSF OR LESS. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS OR ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON PROJECTS OUTSIDE OF SHASTA COUNTY AND WITHOUT THE PERMISSION OF THE SHASTA COUNTY BUILDING DEPARTMENT IS NOT AUTHORIZED AND IS CONTRARY TO THE LAW.

// PROJECT NO.

THE PINE SHED 650

// CLIENT

// MANAGEMENT

PROJECT NO: _____
DRAWN BY: _____ Author
CHECKED BY: _____ Checker
ISSUE DATE: 9/14/2023 10:21:18 AM
COPYRIGHT: RAD STUDIO 2019

// SHEET TITLE

CALGREEN NOTES

// SHEET NO.

A0.5

NOT FOR CONSTRUCTION

Y/N/A RESPON. PARTY

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundredths of a gram (g O₃/g ROG).
Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR, Title 17, Sections 94700 and 94701.

MOISTURE CONTENT. The weight of the water in wood expressed in percentage of the weight of the oven-dry wood.

PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).
Note: PWMIR is calculated according to equations found in CCR, Title 17, Section 94521 (a).

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

VOC. A volatile organic compound (VOC) broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(b).

4.503 FIREPLACES
4.503.1 GENERAL. Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with 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.

4.504 POLLUTANT CONTROL
4.504.1 COVERING OF DUCT OPENINGS & PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. At the time of rough installation, during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of water, dust or debris which may enter the system.

4.504.2 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with this section.

4.504.2.1 Adhesives, Sealants and Caulks. Adhesives, sealant and caulks used on the project shall meet the requirements of the following standards unless more stringent local or regional air pollution or air quality management district rules apply:

- Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable or SCAQMD Rule 1166 VOC limits, as shown in Table 4.504.1 or 4.504.2, as applicable. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products, as specified in Subsection 2 below.
- Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than 1 pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of California Code of Regulations, Title 17, commencing with section 94507.

4.504.2.2 Paints and Coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Suggested Control Measure, as shown in Table 4.504.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 4.504.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 California Air Resources Board, Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 4.504.3 shall apply.

4.504.2.3 Aerosol Paints and Coatings. Aerosol paints and coatings shall meet the Product-weighted MIR limits for ROC in Section 94522(a)(2) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(e)(1) and (f)(1) of California Code of Regulations, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8, Rule 49.

4.504.2.4 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:

- Manufacturer's product specification.
- Field verification of on-site product containers.

TABLE 4.504.2 - SEALANT VOC LIMIT
(Less Water and Less Exempt Compounds in Grams per Liter)

SEALANTS	VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NON-POROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

TABLE 4.504.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS 2,3

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	VOC LIMIT
FLAT COATINGS	50
NON-FLAT COATINGS	100
NONFLAT-HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINIUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FALX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS 1	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340
1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS	
2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.	
3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.	

Y/N/A RESPON. PARTY

TABLE 4.504.5 - FORMALDEHYDE LIMITS
MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD 2	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIF. AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIF. CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.
2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16" (8 MM).

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)
4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the testing and product requirements of at least one of the following:

- Carpet and Rug Institute's Green Label Plus Program.
- California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers" Version 1.1, February 2010 (also known as Specification 01350).
- NSF/ANSI 140 at the Gold level.
- Scientific Certifications Systems Indoor AdvantageTM Gold.

4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute's Green Label program.

4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1.

4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed, at least 80% of floor area receiving resilient flooring shall comply with one or more of the following:

- Products compliant with the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350), certified as a CHFS Low-Emitting Material in the Collaborative for High Performance Schools (CHPS) High Performance Products Database.
- Products certified under UL GREENGUARD Gold (formerly the Greenguard Children & Schools program).
- Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program.
- Meet the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350).

4.504.5 COMPOSITE WOOD PRODUCTS. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.), by or before the dates specified in those sections, as shown in Table 4.504.5.

4.504.5.1 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

- Product certifications and specifications.
- Chain of custody certifications.
- Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).
- Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269, European 636 35 standards, and Canadian CSA 0121, CSA 0151, CSA 0153 and CSA 0325 standards.
- Other methods acceptable to the enforcing agency.

4.505 INTERIOR MOISTURE CONTROL
4.505.1 General. Buildings shall meet or exceed the provisions of the California Building Standards Code.

4.505.2 CONCRETE SLAB FOUNDATIONS. Concrete slab foundations required to have a vapor retarder by California Building Code, Chapter 19, or concrete slab-on-ground floors required to have a vapor retarder by the California Residential Code, Chapter 5, shall also comply with this section.

4.505.2.1 Capillary break. A capillary break shall be installed in compliance with at least one of the following:

- A 4-inch (101.6 mm) thick base of 1/2-inch (12.7mm) or larger clean aggregate shall be provided with a vapor barrier in direct contact with concrete and a concrete mix design, which will address bleeding, shrinkage, and curling, shall be used. For additional information, see American Concrete Institute, ACI 302.2R-06.
- Other equivalent methods approved by the enforcing agency.
- A slab design specified by a licensed design professional.

4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS. Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content. Moisture content shall be verified in compliance with the following:

- Moisture content shall be determined with either a probe-type or contact-type moisture meter. Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements found in Section 101.8 of this code.
- Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end of each piece verified.
- At least three random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing.

Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.

4.506 INDOOR AIR QUALITY AND EXHAUST
4.506.1 Bathroom exhaust fans. Each bathroom shall be mechanically ventilated and shall comply with the following:

- Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.
- Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control.
 - Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may use manual or automatic means of adjustment.
 - A humidity control may be a separate component to the ventilation and is not required to be integral (i.e., built-in).

Notes:

- For the purposes of this section, a bathroom is a room which contains a bathtub, shower or tub/shower combination.
- Lighting integral to bathroom exhaust fans shall comply with the California Energy Code.

4.507 ENVIRONMENTAL COMFORT
4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN. Heating and air conditioning systems shall be sized, designed and have their equipment selected using the following methods:

- The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J - 2011 (Residential Load Calculation), ASHRAE handbooks or other equivalent design software or methods.
- Duct systems are sized according to ANSI/ACCA 1 Manual D - 2014 (Residential Duct Systems), ASHRAE handbooks or other equivalent design software or methods.
- Select heating and cooling equipment according to ANSI/ACCA 3 Manual S - 2014 (Residential Equipment Selection), or other equivalent design software or methods.

Exception: Use of alternate design temperatures necessary to ensure the system functions are acceptable.



P. 530.653.0777
W. WWW.RADSTUDIO.DESIGN

// AGENCY



// SEAL



// ISSUED

REVISION #	DATE	DESCRIPTION

// COPYRIGHTS

COPYRIGHT 2023
RAD STUDIO RETAINS ALL RIGHTS TO PROPRIETARY INFORMATION, INCLUDING, WITHOUT LIMITATION, IDEAS, CONCEPTS, ARRANGEMENTS, PLANS, EXPRESSIONS, KNOW HOW, METHODS, TECHNIQUES, SKILLS, KNOWLEDGE, AND EXPERIENCE POSSESSED BY RAD STUDIO PRIOR TO, OR ACQUIRED DURING THE DEVELOPMENT OF THIS PROJECT AND SHALL NOT BE RESTRICTED IN ANY WAY WITH RESPECT THERETO.

STIPULATION FOR REUSE
THE DRAWING WAS PREPARED IN CONTRACT WITH SHASTA COUNTY FOR DISTRIBUTION AND USE BY THE RESIDENTS OF SHASTA COUNTY WITH A SNOW LOAD OF 70 PSF OR LESS. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS OR ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON PROJECTS OUTSIDE OF SHASTA COUNTY AND WITHOUT THE PERMISSION OF THE SHASTA COUNTY BUILDING DEPARTMENT IS NOT AUTHORIZED AND IS CONTRARY TO THE LAW.

// PROJECT NO.

THE PINE SHED 650

// CLIENT

// MANAGEMENT

PROJECT NO: _____
DRAWN BY: _____ RBR
CHECKED BY: _____ Checker
ISSUE DATE: 9/14/2023 10:21:20 AM
COPYRIGHT: RAD STUDIO 2019

// SHEET TITLE

FLOOR & ROOF PLANS

// SHEET NO.

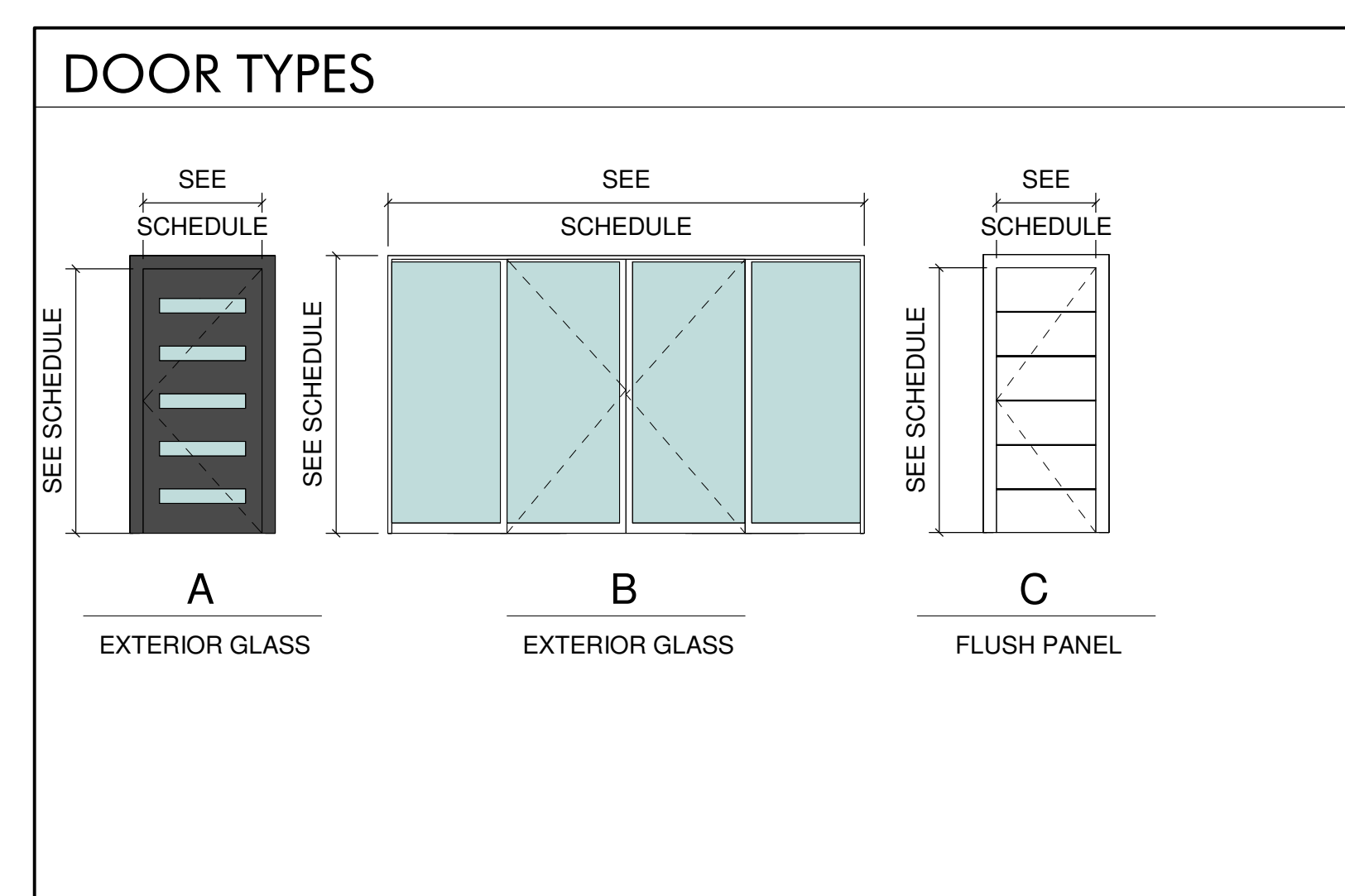
A1.0

WINDOW SCHEDULE

TYPE MARK	ROUGH OPENING WIDTH	ROUGH OPENING HEIGHT	TYPE	MATERIAL	FINISH	QTY.	COMMENTS
A	3' - 0"	1' - 6"	Fixed1	FIBERGLASS	BLACK	1	
B	3' - 0"	1' - 6"	Window-Awning-Single	FIBERGLASS	BLACK	3	
C.1	3' - 0"	2' - 6"	Single Hung	FIBERGLASS	BLACK	2	EGRESS
C.2	3' - 0"	4' - 0"	Fixed1	FIBERGLASS	BLACK	2	
D	8' - 0"	1' - 6"	Fixed1	FIBERGLASS	BLACK	3	
E	6' - 0"	1' - 6"	Fixed1	FIBERGLASS	BLACK	1	

DOOR SCHEDULE

TYPE MARK	WIDTH	HEIGHT	TYPE	COMMENTS
1	3' - 0"	6' - 8"	A	
2	16' - 0"	6' - 8"	B	
3	2' - 10"	6' - 8"	C	
4	2' - 10"	6' - 8"	C	
5	5' - 0"	6' - 8"	C	



ATTIC VENT CALCS:

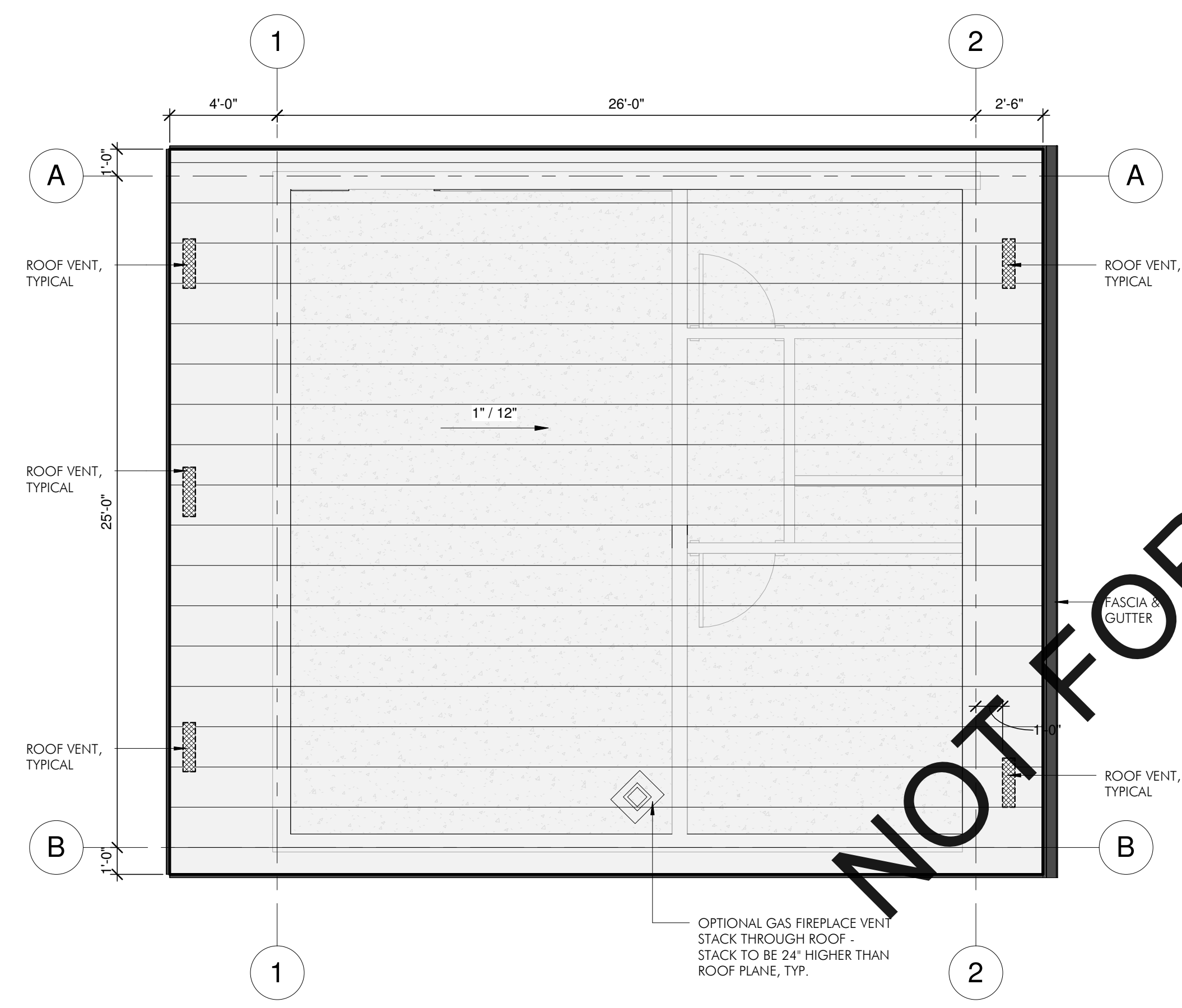
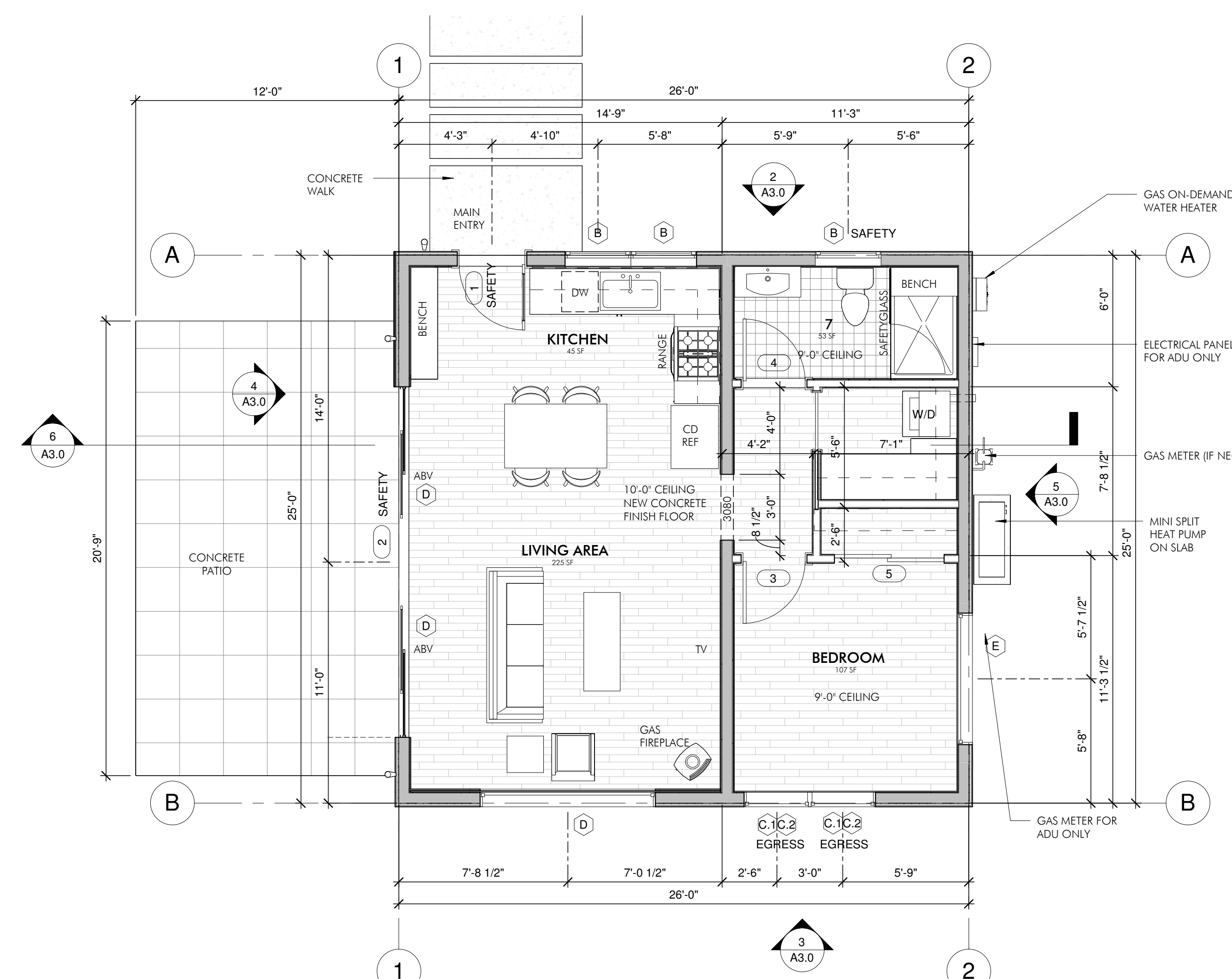
LOCATION	ROOF SF	1 / 300 VENTED AREA REQD. HIGH & LOW	60% LOW VENTS REQD	40% HIGH VENTS REQD	NO. OF LOW VENT'G REQ'D	NO. OF HIGH VENT'G REQ'D
ROOF TOTAL	650 SF	312 SQ. IN.	188 SQ. IN.	124 SQ. IN.	3 VENTS	2 VENTS

THE MIN. NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED THAT NOT LESS THAN 40% AND NOT MORE THAN 50% OF THE REQUIRED VENTILATION AREA IS PROVIDED BY VENT LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTS SHALL BE LOCATED NOT MORE THAN THREE FEET BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. NOT LESS THAN 1" SPACE SHALL BE PROVIDED BETWEEN THE INSULATION AND THE ROOF SHEATHING AND AT THE LOCATION OF THE VENT

VENTING SUMMARY (WILDLAND APPROVED):
(650 SQ. FT.) x (1/44 SQ. IN.) = 93,600 SQ. IN.
(93,600 SQ. IN.) / (300 HIGH / LOW) = **312 SQ. IN. VENT AREA**

HIGH: (124 SQ. IN.)
VENTS: VULCAN VENT VE5522S: 75 SQ. IN. NFVA - (124 SQ. IN. / 75 SQ. IN.) NFVA = **2 VENTS REQUIRED, 2 PROVIDED**

LOW: (188 SQ. IN.)
VENTS: VULCAN VENT VE5522S: 75 SQ. IN. NFVA - (188 SQ. IN. / 75 SQ. IN.) NFVA = **3 VENTS REQUIRED, 3 PROVIDED**



3 ROOF PLAN - PINE SHED FLAT
1/4" = 1'-0"

WALL TYPE LEGEND

- (E) WALLS
- NEW 2X4 WALLS
- NEW 2X6 WALLS

ROOF TYPE LEGEND

- METAL ROOF - STANDING SEAM (ALT BID: PVC MEMBRANE ROOF)

ROOF VENTILATION NOTES

- ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES FORMED WHERE CEILING ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. VENTILATING OPENINGS SHALL HAVE A LEAST DIMENSION OF 1/16 INCH (1.6 MM) MINIMUM AND 1/4 INCH (6.4 MM) MAXIMUM. R806.1
- WHERE EAVE VENTS ARE INSTALLED, INSULATION SHALL NOT BLOCK THE FREE FLOW OF AIR. NOT LESS THAN A 1-INCH (25 MM) SPACE SHALL BE PROVIDED BETWEEN THE INSULATION AND THE ROOF SHEATHING AND AT THE LOCATION OF THE VENT. R806.3
- BUILDINGS WITH COMBUSTIBLE CEILING OR ROOF CONSTRUCTION SHALL HAVE AN ATTIC ACCESS OPENING TO ATTIC AREAS THAT HAVE A VERTICAL HEIGHT OF 30 INCHES (762 MM) OR GREATER OVER AN AREA OF NOT LESS THAN 30 SQUARE FEET (2.8 M2). THE VERTICAL HEIGHT SHALL BE MEASURED FROM THE TOP OF THE CEILING FRAMING MEMBERS TO THE UNDERSIDE OF THE ROOF FRAMING MEMBERS. THE ROUGH-FRAMED OPENING SHALL BE NOT LESS THAN 22 INCHES BY 30 INCHES (559 MM BY 762 MM) AND SHALL BE LOCATED IN A HALLWAY OR OTHER READILY-ACCESSIBLE LOCATION.

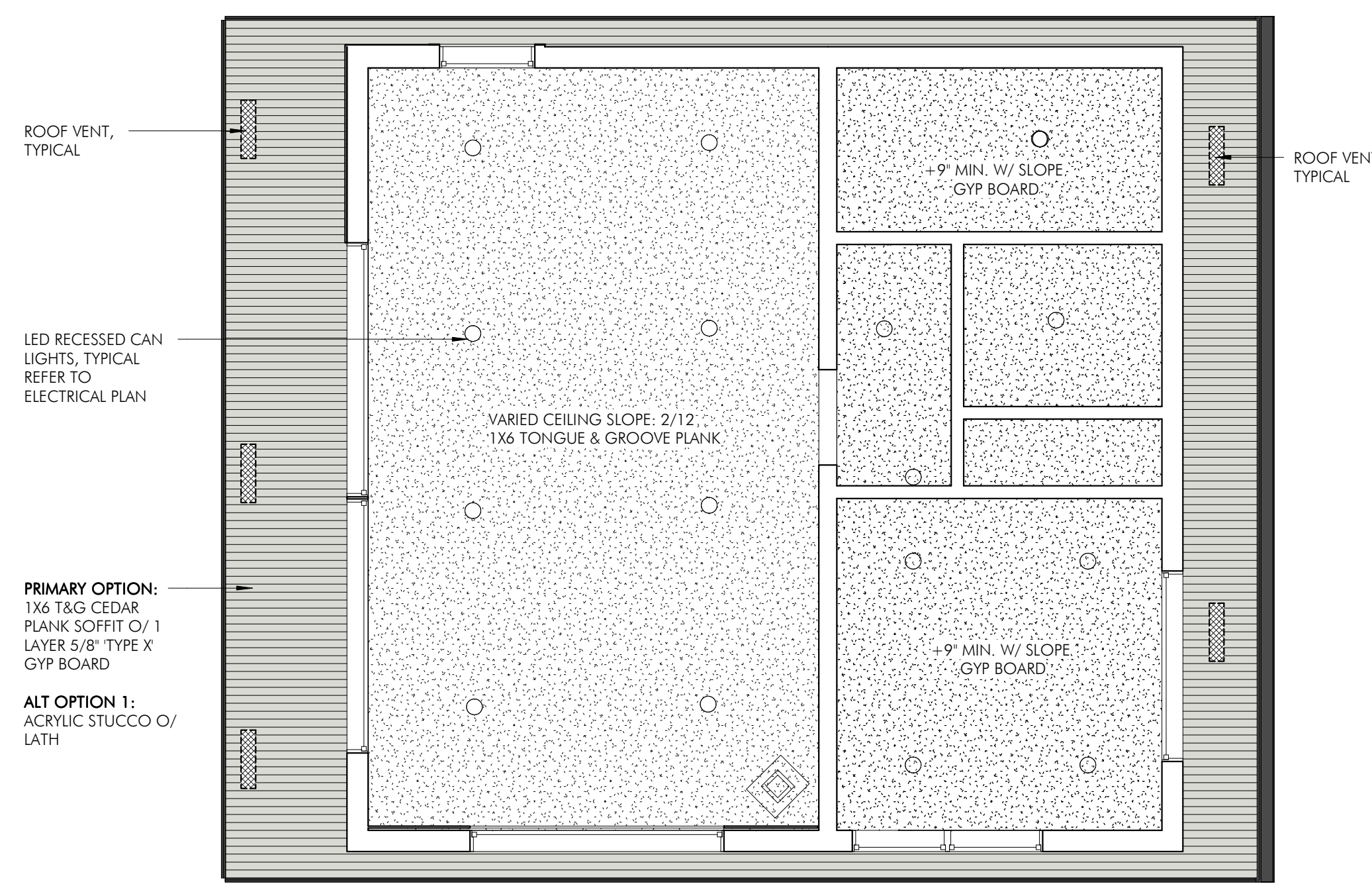
NOT FOR CONSTRUCTION

0 1/4" = 1/2" 1" 2"

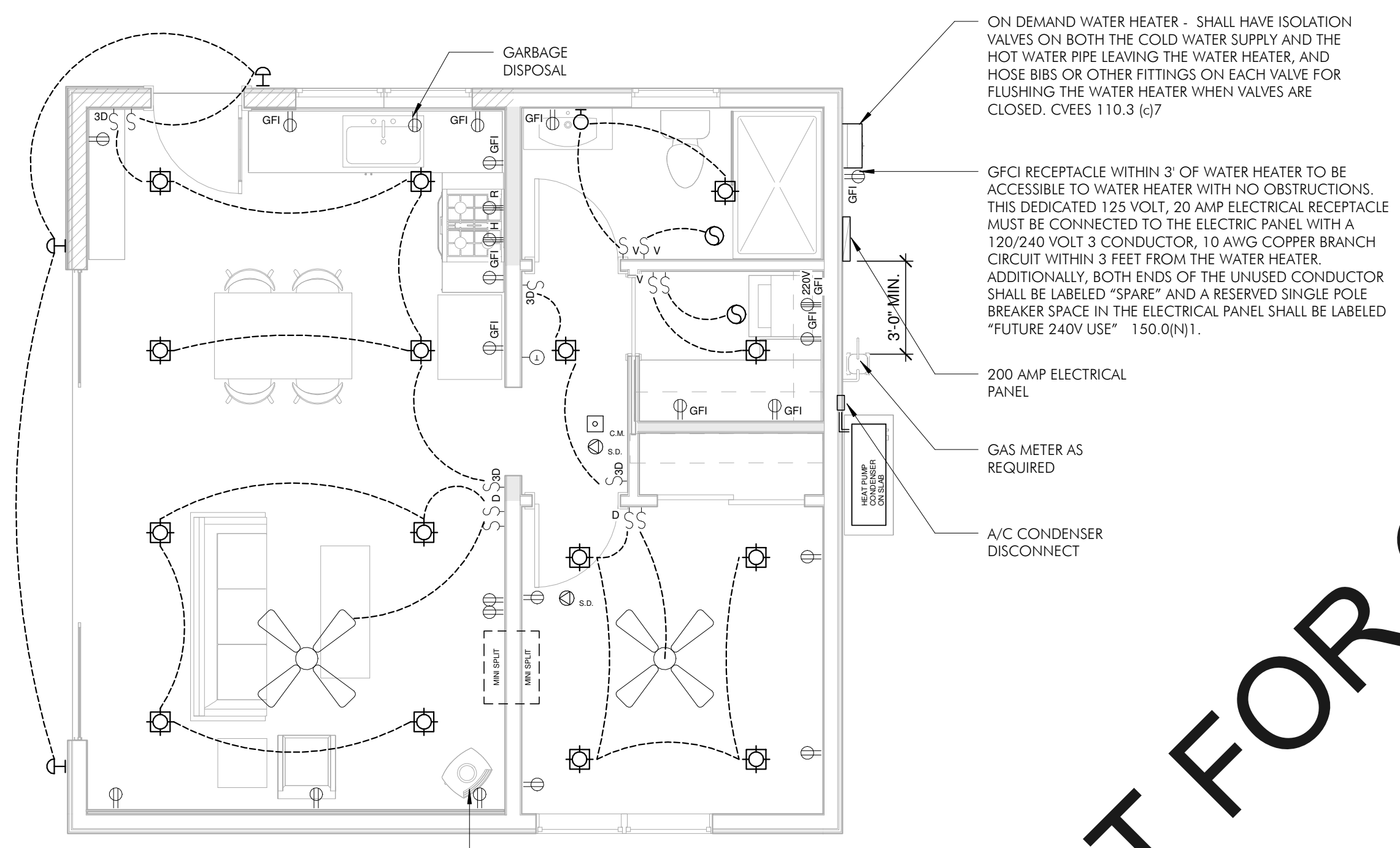
IF THIS SHEET IS NOT 30"x42", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

G:\Shared drives\RAD Projects\2023\23-07 ADU RFP Shasta County\ADU 650_CDS.rvt

9/14/2023 10:21:32 AM



1 CEILING PLAN
1/4" = 1'-0"



2 ELECTRICAL & UTILITY PLAN - PINE SHED
1/4" = 1'-0"

ELECTRICAL LEGEND

- NOTE: ALL LIGHTS TO BE HIGH EFFICACY AND ALL UTILITIES TO BE TAMPER RESISTANT AND HAVE ARC FAULT PROTECTION.
- Ⓢ SINGLE POLE WALL SWITCH, +48" U.N.O.
 - Ⓢ THREE WAY WALL SWITCH, +48" U.N.O.
 - Ⓢ FOUR WAY WALL SWITCH, +48" U.N.O.
 - Ⓢ DIMMER WALL SWITCH, +48" U.N.O.
 - Ⓢ VACANCY SENSOR WALL SWITCH (MANUAL ON/AUTO & MANUAL-OFF)
 - Ⓢ ASTRONOMICAL TIME CLOCK CONTROL
 - Ⓢ SMART THERMOSTAT BY 'NEST' BRAND
 - Ⓢ HIGH EFFICACY UNDER CABINET FIXTURE
 - Ⓢ HIGH EFFICACY CEILING FIXTURE, SURFACE MOUNTED 1X4 LED
 - Ⓢ HIGH EFFICACY CEILING FIXTURE, SURFACE MOUNTED
 - Ⓢ HIGH EFFICACY CEILING FIXTURE, RECESSED DOWNLIGHT (LED)
 - Ⓢ HIGH EFFICACY CEILING FIXTURE, RECESSED 4" GIMBAL (LED)
 - Ⓢ HIGH EFFICACY CEILING FIXTURE, PENDANT
 - Ⓢ HIGH EFFICACY DIRECTIONAL SPOT LIGHT
 - Ⓢ HIGH EFFICACY WALL FIXTURE, SURFACE MOUNTED
 - Ⓢ HIGH EFFICACY OUTDOOR WALL FIXTURE, SURFACE MOUNTED
 - Ⓢ CEILING EXHAUST FAN TO OUTSIDE AIR, RECESSED, 50 CFM. - PROVIDE HUMIDISTAT IN BATHROOM
 - Ⓢ DUPLEX OUTLET, 120V, +12" U.N.O.
 - Ⓢ FOURPLEX OUTLET, 120V, +12" U.N.O.
 - Ⓢ WEATHER PROOF DUPLEX OUTLET W/ G.F.I., 120V, +12" U.N.O.
 - Ⓢ WEATHER PROOF DUPLEX OUTLET W/ G.F.I., 120V, LOCATED IN EAVE / SOFFIT
 - Ⓢ DUPLEX OUTLET W/ GROUND FAULT CIRCUIT-INTERRUPTER, 120V, +12" U.N.O.
 - Ⓢ FOURPLEX FLOOROUTLET, 120V
 - Ⓢ AUTO CHARGER OUTLET
 - Ⓢ 220V OUTLET, +12" U.N.O.
 - Ⓢ SMOKE DETECTOR (DIRECT WIRED - 110v W/ BATTERY BACK-UP)
 - Ⓢ CARBON MONOXIDE DETECTOR
 - Ⓢ CABLE TELEVISION JACK
 - Ⓢ TELEPHONE JACK
 - Ⓢ CEILING FAN, U.O.N. - 3 SPEED W/ REVERSE 7" MINIMUM HEADROOM, TYP. & BOXES PER NEC 4-22-18.

NOT FOR CONSTRUCTION



P. 530.653.0777
W. WWW.RADSTUDIO.DESIGN

// AGENCY



// SEAL



// ISSUED

REVISION #	DATE	DESCRIPTION

// COPYRIGHTS

COPYRIGHT 2023
RAD STUDIO RETAINS ALL RIGHTS TO PROPRIETARY INFORMATION, INCLUDING, WITHOUT LIMITATION, METHODOLOGIES AND METHODS OF ANALYSIS, IDEAS, CONCEPTS, ARRANGEMENTS, PLANS, EXPRESSIONS, KNOW HOW, METHODS, TECHNIQUES, SKILLS, KNOWLEDGE, AND EXPERIENCE POSSESSED BY RAD STUDIO PRIOR TO, OR ACQUIRED DURING THE DEVELOPMENT OF THIS PROJECT AND SHALL NOT BE RESTRICTED IN ANY WAY WITH RESPECT THERETO.

STIPULATION FOR REUSE
THE DRAWING WAS PREPARED IN CONTRACT WITH SHASTA COUNTY FOR DISTRIBUTION AND USE BY THE RESIDENTS OF SHASTA COUNTY WITH A SNOW LOAD OF 70 PSF OR LESS. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS OR ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON PROJECTS OUTSIDE OF SHASTA COUNTY AND WITHOUT THE PERMISSION OF THE SHASTA COUNTY BUILDING DEPARTMENT IS NOT AUTHORIZED AND IS CONTRARY TO THE LAW.

// PROJECT

THE PINE SHED 650

// CLIENT

// MANAGEMENT

PROJECT NO: _____
DRAWN BY: _____ RBR
CHECKED BY: _____ Checker
ISSUE DATE: 9/14/2023 10:21:32 AM
COPYRIGHT: RAD STUDIO 2019

// SHEET TITLE

CEILING AND ELECTRICAL PLAN

// SHEET NO.

A1.1



P. 530.653.0777
W. WWW.RADSTUDIO.DESIGN

// AGENCY



// SEAL



// ISSUED

REVISION #	DATE	DESCRIPTION

// COPYRIGHTS

COPYRIGHT 2023
RAD STUDIO RETAINS ALL RIGHTS TO PROPRIETARY INFORMATION, INCLUDING, WITHOUT LIMITATION, METHODOLOGIES AND METHODS OF ANALYSIS, IDEAS, CONCEPTS, ARRANGEMENTS, PLANS, EXPRESSIONS, KNOW HOW, METHODS, TECHNIQUES, SKILLS, KNOWLEDGE, AND EXPERIENCE POSSESSED BY RAD STUDIO PRIOR TO, OR ACQUIRED DURING THE DEVELOPMENT OF THIS PROJECT AND SHALL NOT BE RESTRICTED IN ANY WAY WITH RESPECT THERETO.

STIPULATION FOR REUSE
THE DRAWING WAS PREPARED IN CONTRACT WITH SHASTA COUNTY FOR DISTRIBUTION AND USE BY THE RESIDENTS OF SHASTA COUNTY WITH A SNOW LOAD OF 70 PSF OR LESS. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS OR ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON PROJECTS OUTSIDE OF SHASTA COUNTY AND WITHOUT THE PERMISSION OF THE SHASTA COUNTY BUILDING DEPARTMENT IS NOT AUTHORIZED AND IS CONTRARY TO THE LAW.

// PROJECT

NO.

THE PINE SHED 650

// CLIENT

// MANAGEMENT

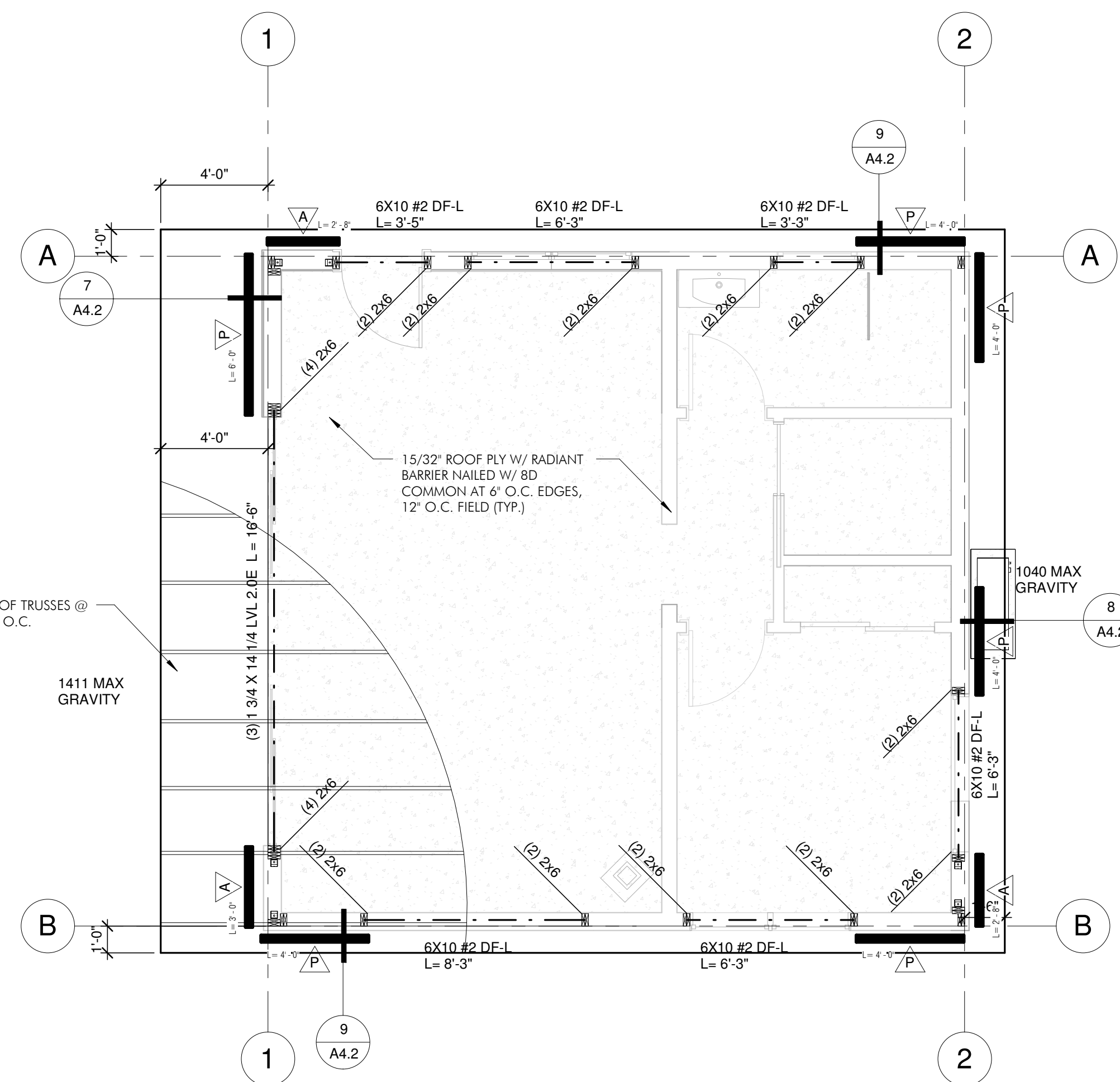
PROJECT NO: _____ Author
DRAWN BY: _____
CHECKED BY: _____ Checker
ISSUE DATE: 9/14/2023 10:21:21 AM
COPYRIGHT: RAD STUDIO 2019

// SHEET TITLE

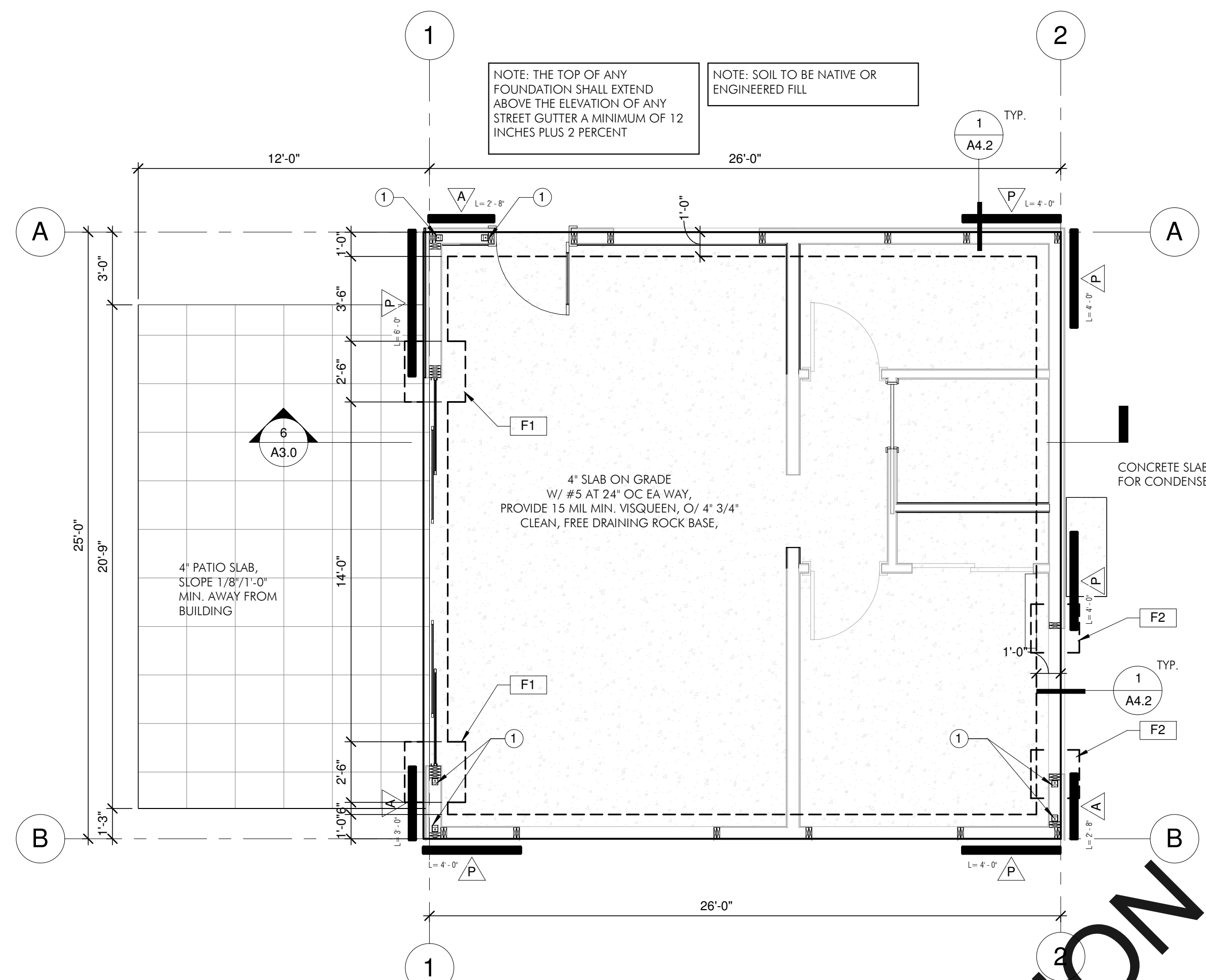
STRUCTURAL PLANS 50 LB

// SHEET NO.

A2.0



3 ROOF FRAMING PLAN - 50 LB
1/4" = 1'-0"



2 FOUNDATION PLAN - 50 LB
1/4" = 1'-0"

SPREAD FOOTING SCHEDULE

TYPE	SIZE & REINFORCEMENT
F1	26" SQUARE X 12" DEEP, REINFORCED W/ 2 - #4'S EACH WAY. SET BOTTOM OF SPREAD FOOTING AT SAME ELEVATION AS BOTTOM OF ADJACENT CONTINUOUS STRIP FOOTING.
F2	18" SQUARE X 12" DEEP, REINFORCED W/ 2 - #4'S EACH WAY. SET BOTTOM OF SPREAD FOOTING AT SAME ELEVATION AS BOTTOM OF ADJACENT CONTINUOUS STRIP FOOTING.

HOLDOWN KEYNOTES

KEYNOTE	DESCRIPTION
1	DOUBLE 2 X 6 #2 DF-L KING POST W/ HTT4 HOLDOWN AT BOTTOM OF KING POST. PLACE HTT4 ON TOP OF SILL PLATE. AT 2-POUR INSTALLATION, INSTALL SSB20 ANCHOR BOLT IN FOUNDATION STEM WALL. SEE STRUCTURAL DETAILS.
2	DOUBLE 2 X 6 #2 DF-L KING POST W/ HTT4 HOLDOWN AT BOTTOM OF KING POST. PLACE HTT4 ON TOP OF SILL PLATE. INSTALL SB 5/8 X 24 ANCHOR BOLT IN FOUNDATION STEM WALL. SEE STRUCTURAL DETAILS.

NOTE: SEE STRUCTURAL DETAILS SHEETS A4.0/A4.1 FOR ADDITIONAL INFORMATION

BRACED WALL SCHEDULE

TYPE	SHEATHING	SHEAR TRANSFER CLIP
F	WOOD STRUCTURAL PANEL 3/8" CDX PLY OR OSB W/ 8d @ 6" O.C. EDGES, 12" O.C. FIELD - (1) RBC PER BLOCK	(1) LS50 PER PANEL BLOCK
A	ALTERNATE BRACED WALL 3/8" CDX PLY OR OSB W/ 8d @ 4" O.C. EDGES, 12" O.C. FIELD - (1) RBC PER BLOCK - 2'-8" MIN. WIDTH.	(1) LS50 PER PANEL BLOCK

- BRACED WALL SCHEDULE FOOTNOTES:**
- 8d PLYWOOD NAILS SHALL BE COMMON WIRE NAILS (LENGTH = 2 1/2", DIAMETER = 0.131"), WITH 1 1/2" MIN. PENETRATION INTO FRAMING MEMBERS. NAIL HEADS SHALL NOT PENETRATE OUTER PLYWOOD LAMINATION.
 - ALL OTHER NAILING PER REQUIREMENT PER FASTENER SCHEDULE TABLE 602.3(1) & 602.3(2)
 - EDGE NAIL FULL HEIGHT ALL POSTS/ OR STUDS WITH HOLDDOWNS AND STRIPS, AND ALL OTHER POSTS WITHIN THE LIMITS OF BRACEWALL LAYOUT.
 - ALL UNSUPPORTED HORIZONTAL PLYWOOD EDGES SHALL BE BLOCKED WITH 2x BLOCKING.
 - ALL FOUNDATION SILL PLATES SHALL NOT BE LESS THAN 2x THE MINIMUM MEMBER. ADDITIONALLY, ALL FOUNDATION SILL PLATES SHALL BE PRESSURE-TREATED DOUBLAS-FIR. USE HOT DIPPED GALVANNEED PLYWOOD NAILS (LENGTH= 2 1/2" DIAMETER=0.131") TO ATTACH SHEATHING TO FOUNDATION SILL PLATES.
 - ALL ANCHOR BOLT WASHERS SHALL BE A MIN. OF 3" SQ. x 0.228" THICK PLATE STEEL OVER THE FULL LENGTH OF BRACEWALL LINES. SILL PLATE WASHER EDGE TO BE 1/2" MAX FROM THE FACE OF WALL SHEATHING. OFFSET ANCHOR BOLT OR PROVIDE 4.5"x3" WASHER @ 6" WALLS.
 - HOLDOWN ANCHORS AND ANCHOR BOLTS SHALL BE ACCURATELY POSITIONED PRIOR TO POURING CONCRETE. ALL HARDWARE SHALL BE INSTALL PER THE MANUFACTURERS RECOMMENDATIONS.
 - THE SYMBOL DESIGNATED AS "L=" ON THE PLANS REPRESENTS THE LENGTH OF THE SPECIFIED BRACEWALL PANEL.

CONVENTIONAL FASTENING SCHEDULE

ROOF			
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER & TYPE OF FASTENER	SPACING & LOCATION
1	BLOCKING BETWEEN BRACING STUDS OR RAFTERS TO TOP PLATE	4-8D BOX (2 1/2" x 0.113"); OR 3-8D COMMON (2 1/2" x 0.131"); OR 3-10D BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS	TOE NAIL
6	RAFTER OR ROOF TRUSS TO PLATE	3-16D BOX NAILS (3 1/2" x 0.135"); OR 3-10D COMMON NAILS (3" x 0.148"); OR 4-10D BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS	2 TOE NAILS ON ONE SIDE & 1 TOE NAIL ON OPPOSITE SIDE OF EACH RAFTER OR TRUSS I
8	STUD TO STUD (NOT AT BRACED WALL PANELS)	16D COMMON (3 1/2" x 0.162")	24" O.C. FACE NAIL
		10D BOX (3" x 0.128"); OR 3" x 0.131" NAIL	16" O.C. FACE NAIL
	STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16D BOX (3 1/2" x 0.135"); OR 3" x 0.131" NAILS	12" O.C. FACE NAIL
		16D COMMON (3 1/2" x 0.162")	16" O.C. FACE NAIL
WALL			
11	CONTINUOUS HEADER TO STUD	5-8D BOX (2 1/2" x 0.113"); OR 4-8D COMMON (2 1/2" x 0.131"); OR 4-10D BOX (3" x 0.128")	TOE NAIL
13	DOUBLE TOP PLATE SPLICE SDCS D0, D1, OR D2; AND BRACED WALL LINE SPACING ≥ 25'	12-16D (3 1/2" x 0.135")	FACE NAIL ON EACH SIDE OF END JOINT (MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)
16	TOP OR BOTTOM PLATE TO STUD	3-16D BOX (3 1/2" x 0.135"); OR 2-16D COMMON (3 1/2" x 0.162"); OR 3-10D BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS	END NAIL
17	TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	3-10D BOX (3" x 0.128"); OR 2-16D COMMON (3 1/2" x 0.162"); OR 3-3" x 0.131" NAILS	FACE NAIL

IF THIS SHEET IS NOT 30"x42", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

G:\Shared drives\RAD Projects\2023\23-07 ADU RFP Shasta County\ADU 650_CDS.rvt

9/14/2023 10:21:33 AM



P. 530.653.0777
W. WWW.RADSTUDIO.DESIGN

// AGENCY



// SEAL



// ISSUED

REVISION #	DATE	DESCRIPTION

// COPYRIGHTS

COPYRIGHT 2023
RAD STUDIO RETAINS ALL RIGHTS TO PROPRIETARY INFORMATION, INCLUDING, WITHOUT LIMITATION, METHODOLOGIES AND METHODS OF ANALYSIS, IDEAS, CONCEPTS, ARRANGEMENTS, PLANS, EXPRESSIONS, KNOW HOW, METHODS, TECHNIQUES, SKILLS, KNOWLEDGE, AND EXPERIENCE POSSESSED BY RAD STUDIO PRIOR TO, OR ACQUIRED DURING THE DEVELOPMENT OF THIS PROJECT AND SHALL NOT BE RESTRICTED IN ANY WAY WITH RESPECT THERETO.

STIPULATION FOR REUSE
THE DRAWING WAS PREPARED IN CONTRACT WITH SHASTA COUNTY FOR DISTRIBUTION AND USE BY THE RESIDENTS OF SHASTA COUNTY WITH A SNOW LOAD OF 70 PSF OR LESS. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS OR ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON PROJECTS OUTSIDE OF SHASTA COUNTY AND WITHOUT THE PERMISSION OF THE SHASTA COUNTY BUILDING DEPARTMENT IS NOT AUTHORIZED AND IS CONTRARY TO THE LAW.

// PROJECT

NO. _____
THE PINE SHED 650

// CLIENT

// MANAGEMENT

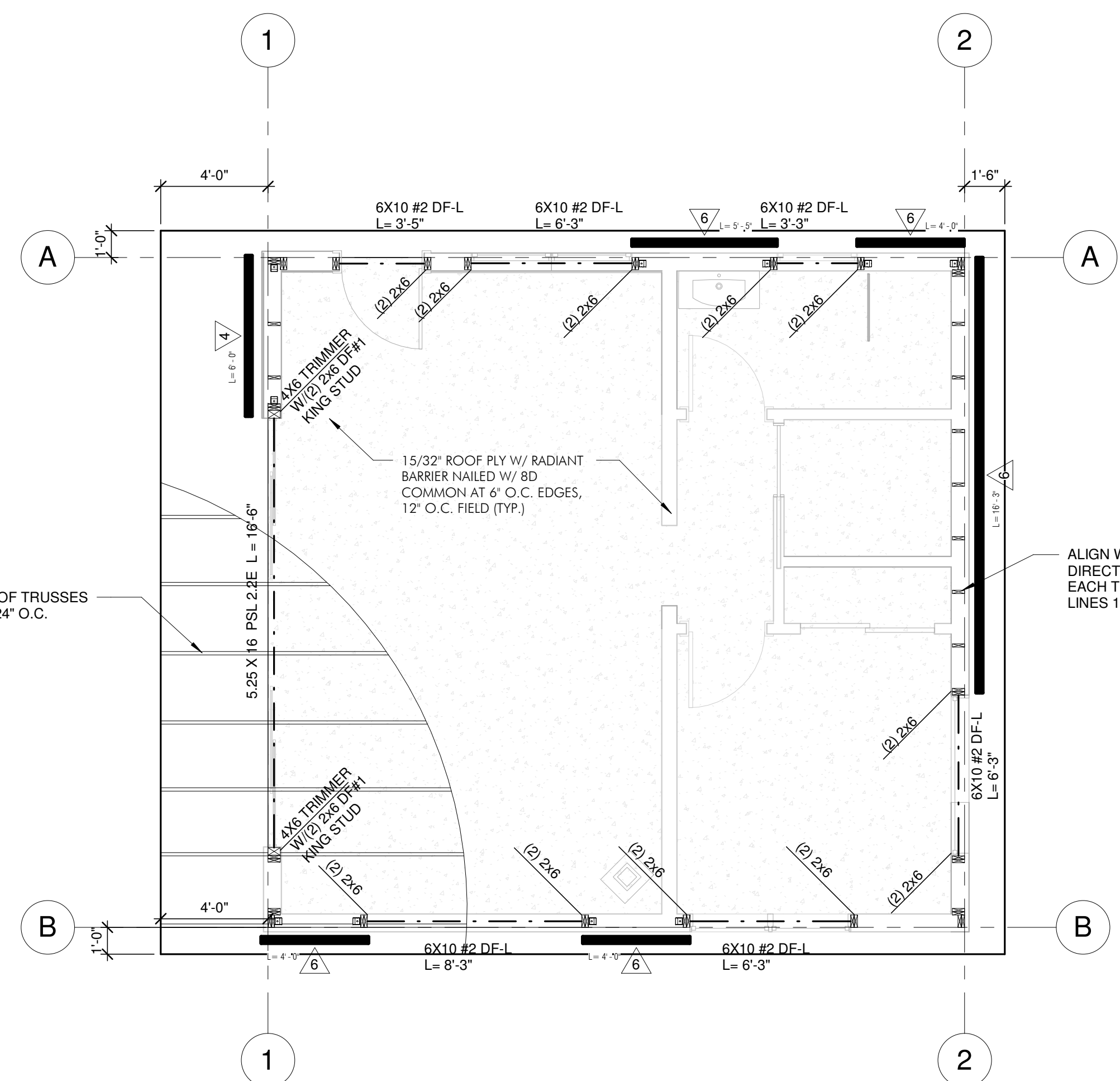
PROJECT NO: _____
DRAWN BY: _____ Author
CHECKED BY: _____ Checker
ISSUE DATE: 9/14/2023 10:21:33 AM
COPYRIGHT: RAD STUDIO 2019

// SHEET TITLE

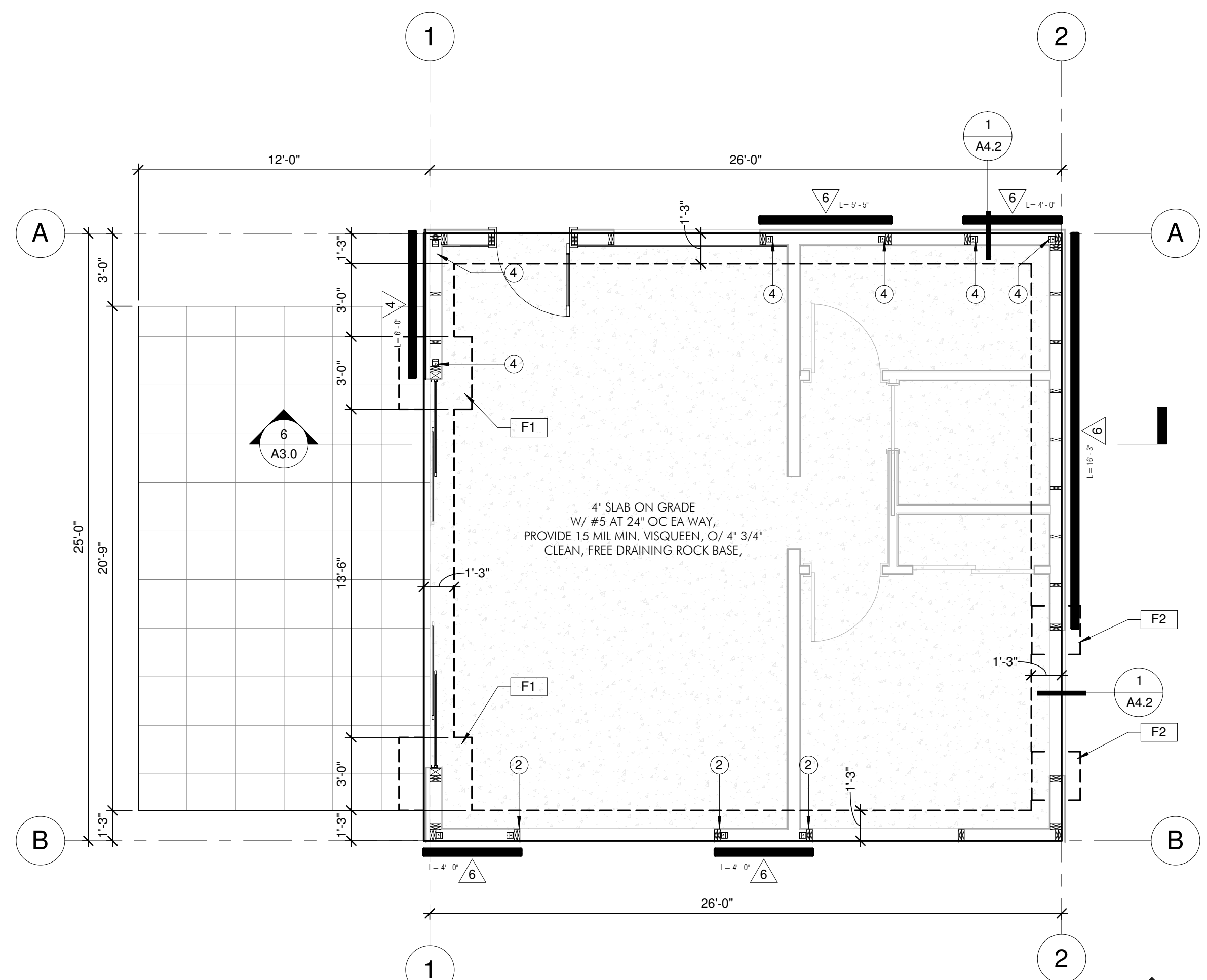
STRUCTURAL PLANS 70 LB

// SHEET NO.

A2.1



3 ROOF FRAMING PLAN - 70 LB
1/4" = 1'-0"



2 FOUNDATION PLAN - 70 LB
1/4" = 1'-0"

SPREAD FOOTING SCHEDULE

TYPE	SIZE & REINFORCEMENT
F1	42" SQUARE X 12" DEEP, REINFORCED W/ 3 - #4'S EACH WAY, TOP & BOTTOM SET BOTTOM OF SPREAD FOOTING AT SAME ELEVATION AS BOTTOM OF ADJACENT CONTINUOUS STRIP FOOTING.
F2	24" SQUARE X 12" DEEP, REINFORCED W/ 2 - #4'S EACH WAY, TOP & BOTTOM SET BOTTOM OF SPREAD FOOTING AT SAME ELEVATION AS BOTTOM OF ADJACENT CONTINUOUS STRIP FOOTING.

HOLDOWN KEYNOTES

KEYNOTE	DESCRIPTION
2	DOUBLE 2 X 6 #2 DF-L KING POST W/ HDU2 HOLDOWN AT BOTTOM OF KING POST. PLACE HTT4 ON TOP OF SILL PLATE. AT 2-POUR INSTALLATION, INSTALL SSTB20 ANCHOR BOLT IN FOUNDATION STEM WALL. SEE STRUCTURAL DETAILS.
4	DOUBLE 2 X 6 #2 DF-L KING POST W/ HDU4 HOLDOWN AT BOTTOM OF KING POST. PLACE HTT4 ON TOP OF SILL PLATE. INSTALL SB 5/8 X 24 ANCHOR BOLT IN FOUNDATION STEM WALL. SEE STRUCTURAL DETAILS.

NOTE: SEE STRUCTURAL DETAILS SHEETS A4.0/A4.1 FOR ADDITIONAL INFORMATION

STRUCTURAL NOTES

G1. REFER TO SHEET S0.1 & S1.1 FOR TYPICAL NOTES AND DETAILS.
G2. SITE PREPARATION AND BUILDING PAD CONSTRUCTION SHALL BE IN ACCORDANCE WITH FOUNDATION NOTES ON SHEET S0.1.
G3. STRUCTURAL WALL STUDS, INCLUDING BEARING WALLS AND EXTERIOR WALLS, SHALL BE 2X6 @ 16" OC, UNO.
G4. SEE SHEAR WALL SCHEDULE 4(S)1.4.
G5. VERIFY ALL SLAB DIMENSIONS, INCLUDING DEPRESSIONS, CURBS AND PADS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
G6. ELEVATIONS SHOWN ON STRUCTURAL DRAWINGS ARE RELATIVE THE TOP OF SLAB-ON-GRADE ELEVATION OF 0'-0". COORDINATE ALL ELEVATIONS WITH ARCHITECTURAL AND CIVIL DRAWINGS. VERIFY PAD ELEVATION W/ FLOOD CERTIFICATION PRIOR TO CONSTRUCTION.

ROOF FRAMING NOTES

R1. REFER TO SHEETS S0.1 FOR TYPICAL NOTES AND DETAILS.
R2. ROOF SHEATHING TO BE 15/32" APA RATED SHEATHING EXPOSURE 1. FASTEN WITH 10d @ 6" OC EDGES & 10d @ 12" OC FIELD UNO. BLOCKING NOT REQ'D UNLESS NOTED ON PLAN. NO PANELS LESS THAN 24" WIDE SHALL BE USED.
R3. VERIFY ALL OPENING DIMENSIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. MECHANICAL UNIT LOCATIONS AND WEIGHTS TO MATCH MECHANICAL DRAWINGS. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OTHERWISE.
R4. STRUCTURAL WALL STUDS, INCLUDING BEARING WALLS AND EXTERIOR WALLS, SHALL BE 2X6 @ 16" OC, UNO.

SHEAR WALL SCHEDULE

MARK	SHEATHING	NAILING (EN)	SILL/SHEAR TRANSFER NAILING	SHEAR TRANSFER CLIP	ANCHOR BOLTING	SW CAPACITY (PIF)
6	15/32" SHTG	10d @ 6" OC	2-16d @ 6" OC	(S) A35 @ 16" OC	3/8" @ 48" OC	310
4	15/32" SHTG	10d @ 4" OC	2-16d @ 5" OC	(S) A35 @ 12" OC	3/8" @ 32" OC	460

- ALL NAILS SHALL BE COMMON OR GALVANIZED BOX, GALVANIZED BOX NAILS SHALL BE HOT DIPPED OR TUMBLED.
- PLYWOOD AND OSB SHALL BE TYPE CDX GRADE OR BETTER (EXCEPT WHERE STRUCTURAL 1 GRADE IS NOTED).
- SHEARWALLS THAT REQUIRE 3x FRAMING SHALL BE USE 3x (MIN) @ PANEL EDGES AND NAILING SHALL BE STAGGERED.
- ALL AB MUST BE INSTALLED W/ 3x3x1/2" GALVANIZED PLATE WASHERS PER THE GOVERNING CBC.
- PREDRILL SILL CONNECTIONS WHERE NEEDED TO AVOID WOOD SPLITTING. USE DRILL BIT SIZE = 0.75 x NAIL (OR SCREW) DIAMETER.
- ALL DOUBLE SIDED WALLS REQUIRED 3x SILL, MIN
- ALL FASTENERS THAT ARE INSTALLED INTO PT LUMBER ARE TO BE HOT DIPPED GALVANIZED.
- INSTALL DBL 2x POST MIN @ END OF SHEARWALL, IF 3x FRAMING MEMBERS ARE REQUIRED USE 4x POST MIN
- STR 1 = STRUCTURAL 1 GRADE PLYWOOD ON BOTH FACES OF A SHEARWALL AND NAIL SPACING IS LESS THAN 6" OC. ALL THE FOLLOWING REQUIREMENTS SHALL BE MET:
 - USE 3x MAX SILLS & 3x TOP PLATES.
 - THE VERTICAL SHEAR PANEL JOINTS ON OPPOSITE FACES SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS, UNLESS SUCH FRAMING SUCH FRAMING MEMBERS ARE 4x OR THICKER.
- INSTALL 4x RIM/BLOCKING MIN BELOW ALL DOUBLE SOLVED SHEARWALL.

SHEAR WALL NOTES

- All exterior walls to be shear wall Type 6 UNO on plans.
- Shear wall lengths, where noted, are minimum. Where length not indicated, Shear Wall to be full length of wall.
- Edge nail wall sheathing to studs or posts with holdowns.
- Wall sheathing to be 15/32" APA rated Sheathing (24/0) Exp 1 with 16d @ 12" OC field UNO.
- Block all unsupported edges with 2x material UNO.
- All nails to be common wire. Stagger nails where 2 rows are required.
- Use 20d sinker nails in lieu of 16d nails at 3x sill plates.
- Portions of interior wall surfaces adjacent to specified shear walls shall be sheathed for full length per Shear Wall Type 6 or with gypsum board of same thickness to provide an even wall surface for finish materials.
- Anchor bolts to have 0.229" thick x 3" square plate washer at foundation sill plates. The edge of the plate washer shall extend to within 1/2" of the sheathed edge of the sill plate. A diagonal slot is permitted on the plate washer. The slot shall be 3/16" greater than the bolt diameter and no more than 1 1/4" in length. A standard cut washer shall be used between the plate and the nut.
- No openings are allowed in Shear Walls unless shown on the Structural plans. Coordinate any openings not shown with the Structural Engineer.
- Nails used at pressure treated sill plates shall be hot dipped galvanized.
- Provide a double stud where 10d common nails have a span tighter than 4" oc.

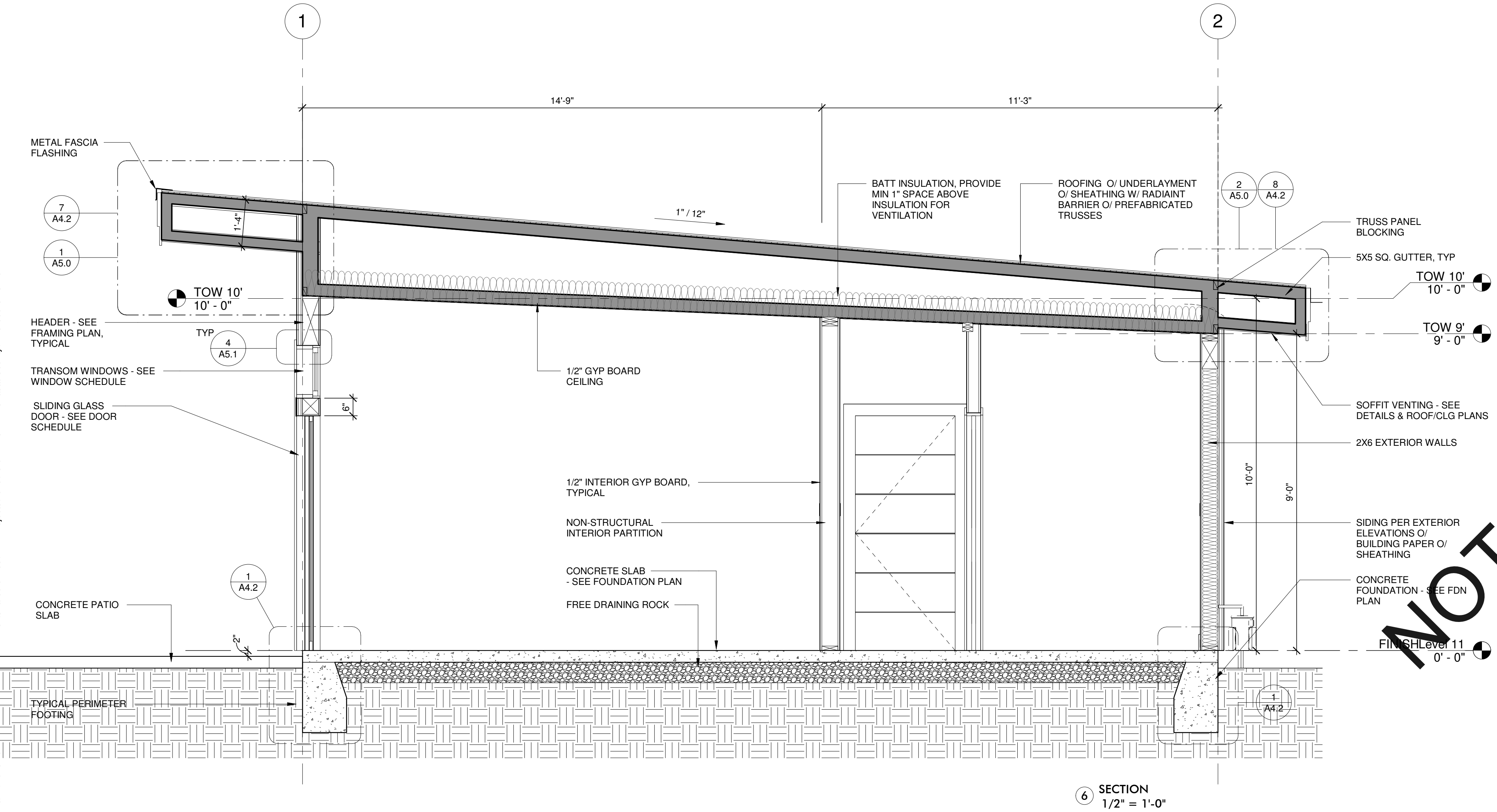
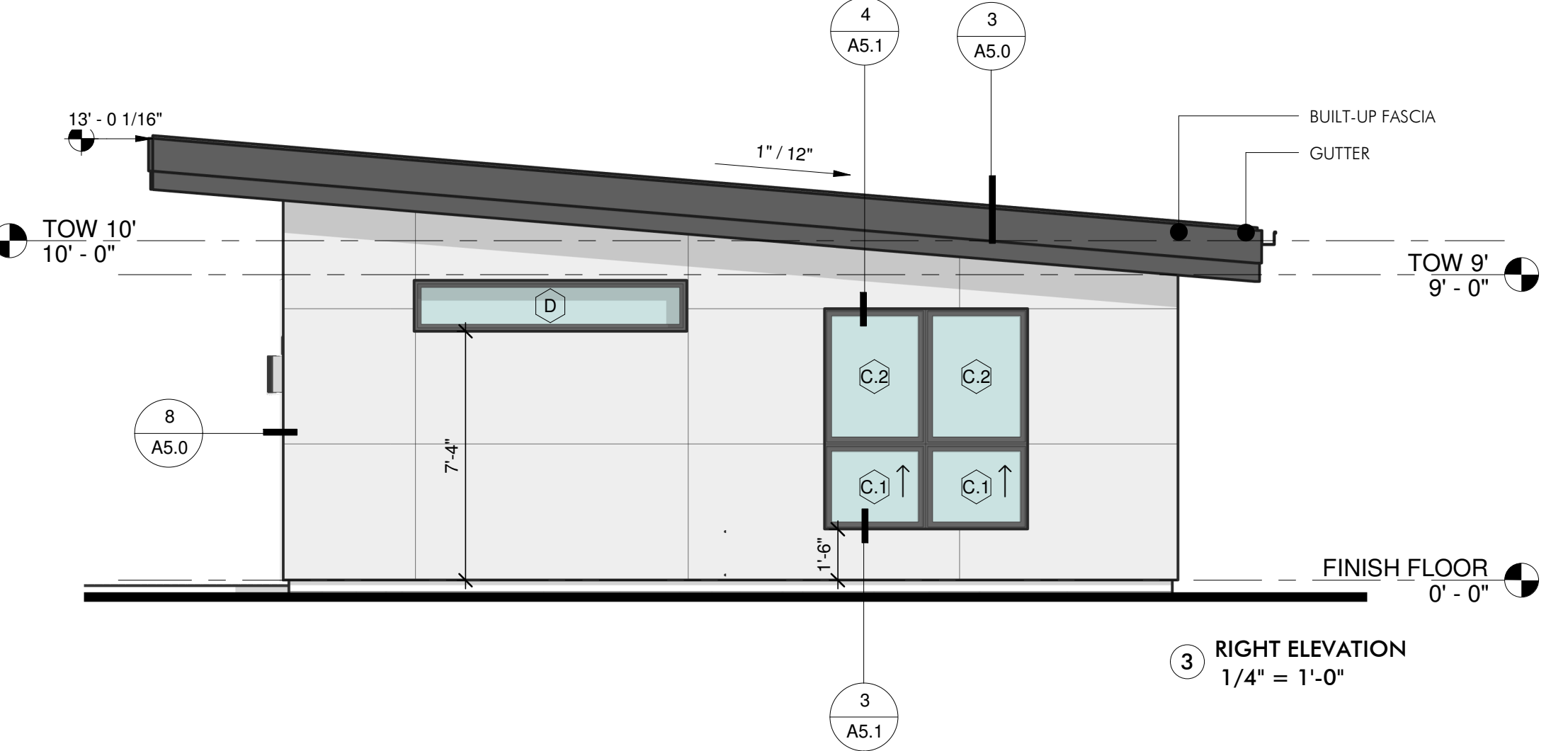
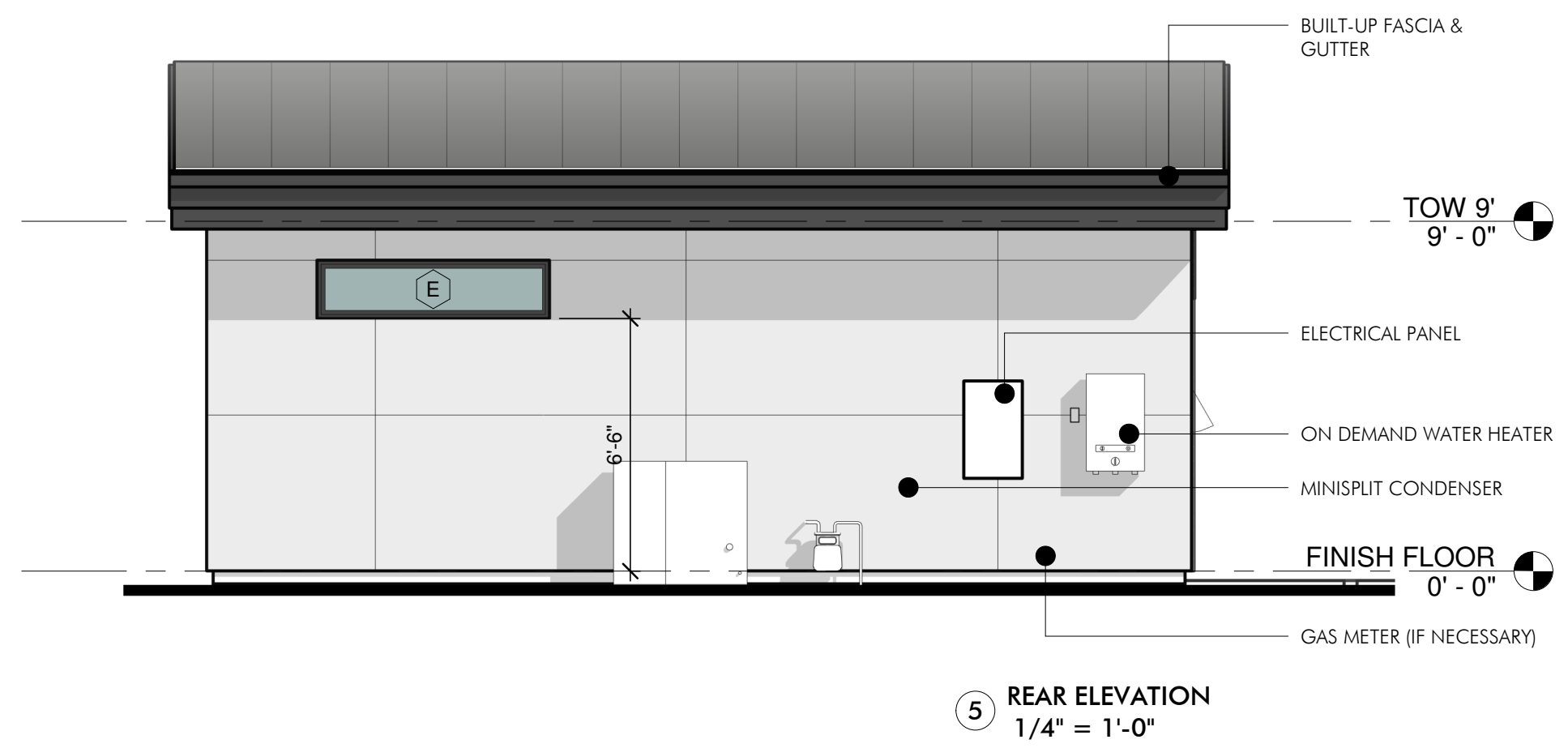
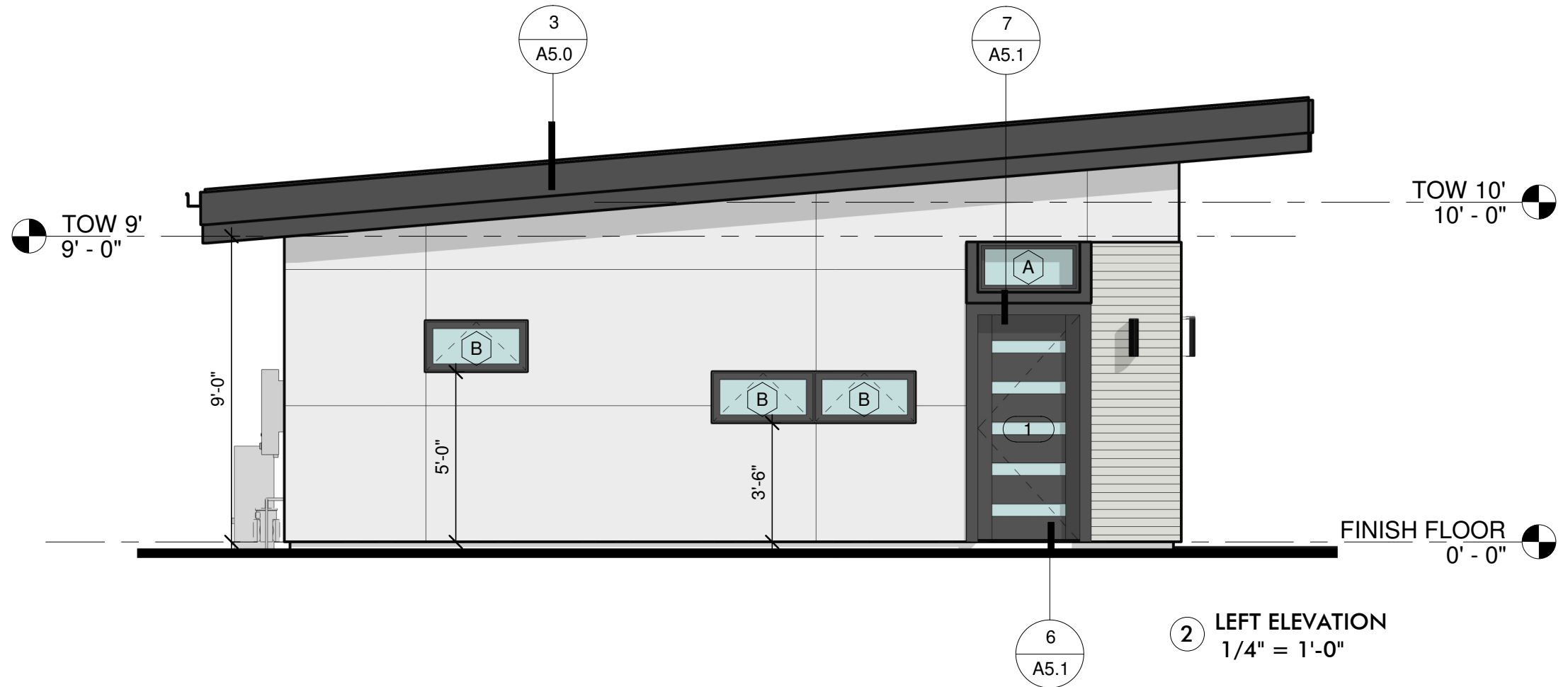
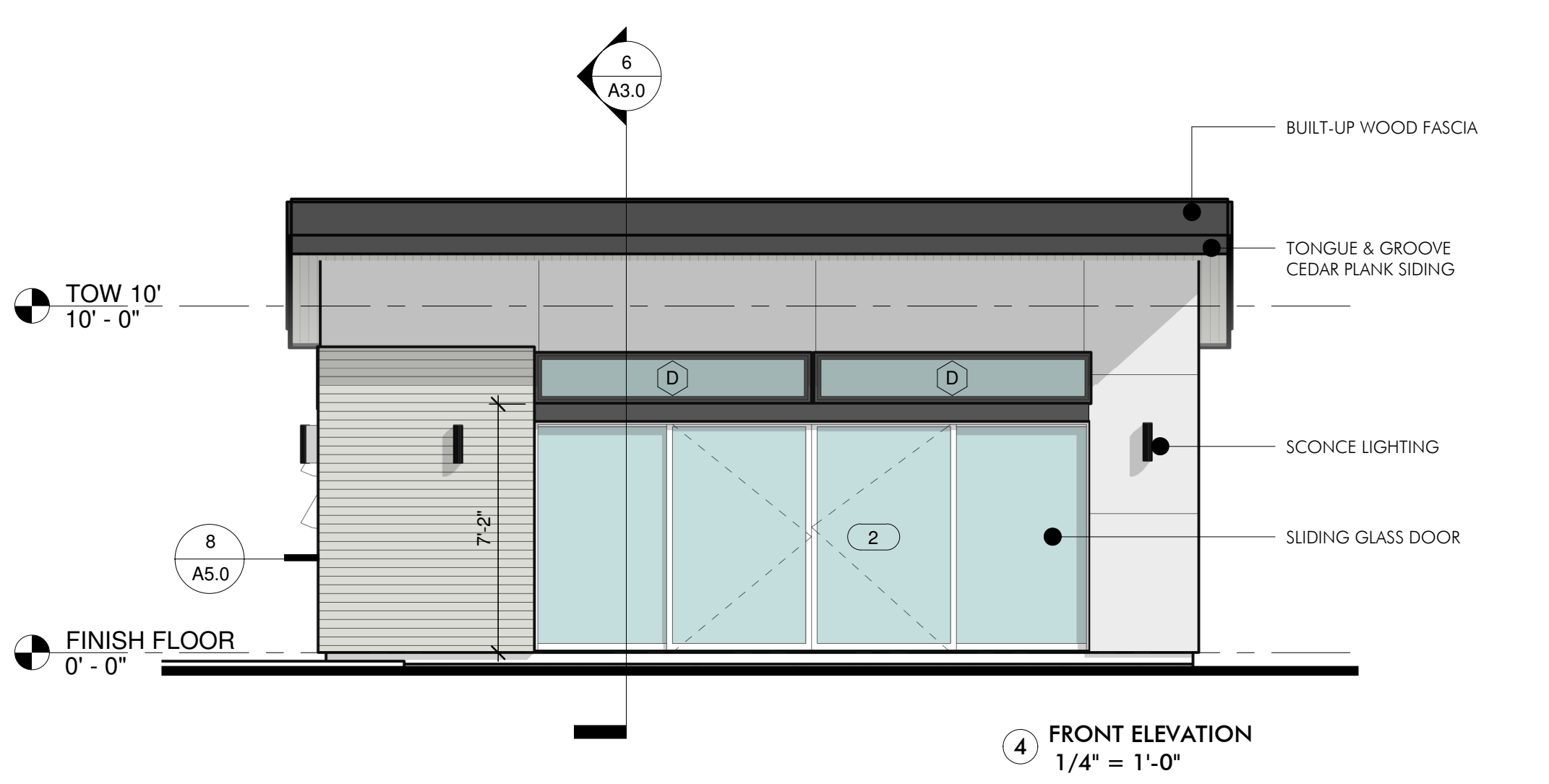
CONVENTIONAL FASTENING SCHEDULE

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER & TYPE OF FASTENER	SPACING & LOCATION
1	BLOCKING BETWEEN CEILING JOISTS OR RAFTERS TO TOP PLATE	4-8D BOX (2 1/2" x 0.131"); OR 3-8D COMMON (2 1/2" x 0.128"); OR 3-10D COMMON (3" x 0.128"); OR 3-3" x 0.131" NAILS	TOE NAIL
6	RAFTER OR ROOF TRUSS TO PLATE	3-16D COMMON (3 1/2" x 0.135"); OR 3-10D COMMON NAILS (3" x 0.148"); OR 4-10D BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS	2 TOE NAILS ON ONE SIDE & 1 TOE NAIL ON OPPOSITE SIDE OF EACH RAFTER OR TRUSS I
8	STUD TO STUD (NOT AT BRACED WALL PANELS)	16D COMMON (3 1/2" x 0.162"); OR 10D BOX (3" x 0.128"); OR 3" x 0.131" NAIL	24" O.C. FACE NAIL 16" O.C. FACE NAIL
9	STUD TO STUD AND BRACING STUD AT INTERSECTING WALL CORNER (AT BRACED WALL PANELS)	16D BOX (3 1/2" x 0.135"); OR 3" x 0.131" NAILS 16D COMMON (3 1/2" x 0.162")	12" O.C. FACE NAIL 16" O.C. FACE NAIL
11	CONTINUOUS HEADER TO STUD	5-8D BOX (2 1/2" x 0.113"); OR 4-8D COMMON (2 1/2" x 0.131"); OR 4-10D BOX (3" x 0.128")	TOE NAIL
13	DOUBLE TOP PLATE SPLICE SDOS (D0, D1, OR D2; AND BRACED WALL LINE SPACING ≥ 25')	12-16D (3 1/2" x 0.135')	FACE NAIL ON EACH SIDE OF END JOINT (MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)
16	TOP OR BOTTOM PLATE TO STUD	3-16D BOX (3 1/2" x 0.135"); OR 2-16D COMMON (3 1/2" x 0.162"); OR 3-10D BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS	END NAIL
17	TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	3-10D BOX (3" x 0.128"); OR 2-16D COMMON (3 1/2" x 0.162"); OR 3-3" x 0.131" NAILS	FACE NAIL

NOT FOR CONSTRUCTION

IF THIS SHEET IS NOT 30"x42", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

9/14/2023 10:28:12 AM G:\Shared drives\RAD Projects\2023\23-07 ADU RFP Shasta County\ADU 650_CDS.rvt



MATERIALS LEGEND

- ACCENT SIDING**
- ALT 1: CLASS 'A' COMPOSITE BAMBOO SIDING 'DASSO-XTR', OR EQUAL O/ 1 LAYER 5/8" TYPE X GYP BOARD
 - ALT 2: 1X6 TONGUE & GROOVE CEDAR PLANK O/ 1 LAYER 5/8" TYPE X GYP BOARD
- BODY SIDING**
- OPTION 1 (SHOWN IN ELEVATIONS): HARDI FIBER CEMENT 'REVEAL' PANEL SYSTEM
 - OPTION 2: HARDI-PLANK 6" SHIPLAP SIDING
 - OPTION 3: 2-COAT SAND FINISH ACRYLIC STUCCO O/ 1" RIGID FOAM
 - OPTION 4: CORRUGATED/RIBBED VERTICAL METAL PANEL SIDING

ELEVATION NOTES

- ANY STUCCO SIDING TO BE LA HABRA FASTWALL PER ESR-2564 OVER R-TECH FOAM W/ WEEP SCREED, INSTALLED PER ESR-1788. (PROTECT PER SEC R316)
 - WEEP SCREED TO BE MIN. NO. 26 GALVANIZED SHEET GAGE WITH 3/2" FLANGE AT OR BELOW FOUNDATION PLATE LINE. SCREE SHALL BE PLACED A MIN. OF 4" ABOVE EARTH OR 2" ABOVE CONCRETE, ALLOWING TRAPPED WATER TO DRAIN TO THE EXTERIOR, LAP PAPER OVER ATTACHMENT FLANGE. FASTEN TO STUD WALLS IN ACCORDANCE W/ ASTM C 926. PER IRC 703.6.2.1
 - WATER-RESISTIVE BARRIER AT WOOD SHEATHING TO BE MIN. OF 2 LAYERS OF GRADE D PAPER. CRC 703.6.3
 - END GUTTER MIN. 1' BEFORE INTERSECTING FINISHED STUCCO WALL.
 - WATER-RESISTIVE BARRIER AT WOOD SHEATHING TO BE MIN. OF 2 LAYERS OF GRADE D PAPER. CRC 703.6.3
- SEE FIRE RESISTIVE CONSTRUCTION NOTES - GENERAL NOTES SH1

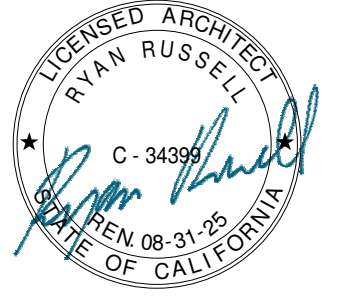


P. 530.653.0777
W. WWW.RADSTUDIO.DESIGN

// AGENCY



// SEAL



// ISSUED

REVISION #	DATE	DESCRIPTION

// COPYRIGHTS

COPYRIGHT 2023
RAD STUDIO RETAINS ALL RIGHTS TO PROPRIETARY INFORMATION, INCLUDING, WITHOUT LIMITATION, METHODOLOGIES AND METHODS OF ANALYSIS, IDEAS, CONCEPTS, ARRANGEMENTS, PLANS, EXPRESSIONS, KNOW HOW, METHODS, TECHNIQUES, SKILLS, KNOWLEDGE, AND EXPERIENCE POSSESSED BY RAD STUDIO PRIOR TO, OR ACQUIRED DURING THE DEVELOPMENT OF THIS PROJECT AND SHALL NOT BE RESTRICTED IN ANY WAY WITH RESPECT THERETO.

STIPULATION FOR REUSE
THE DRAWING WAS PREPARED IN CONTRACT WITH SHASTA COUNTY FOR DISTRIBUTION AND USE BY THE RESIDENTS OF SHASTA COUNTY WITH A SNOW LOAD OF 70 PSF OR LESS. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS OR ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON PROJECTS OUTSIDE OF SHASTA COUNTY AND WITHOUT THE PERMISSION OF THE SHASTA COUNTY BUILDING DEPARTMENT IS NOT AUTHORIZED AND IS CONTRARY TO THE LAW.

// PROJECT

THE PINE SHED 650

// CLIENT

// MANAGEMENT

PROJECT NO: _____
DRAWN BY: _____ Author
CHECKED BY: _____ Checker
ISSUE DATE: 9/14/2023 10:21:24 AM
COPYRIGHT: RAD STUDIO 2019

// SHEET TITLE

ELEVATIONS / SECTIONS

// SHEET NO.

A3.0

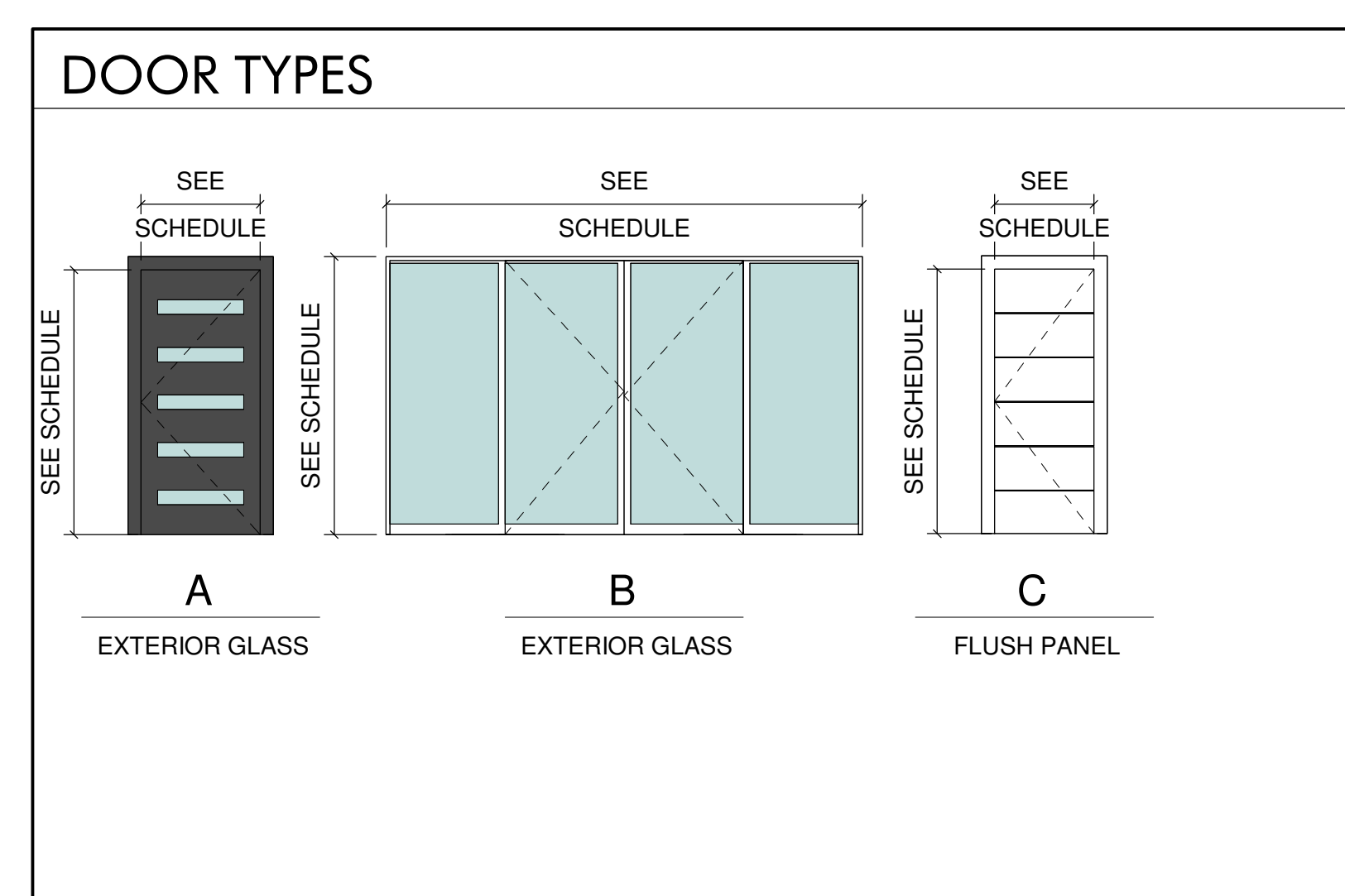
NOT FOR CONSTRUCTION

WINDOW SCHEDULE

TYPE MARK	ROUGH OPENING WIDTH	ROUGH OPENING HEIGHT	TYPE	MATERIAL	FINISH	QTY.	COMMENTS
A	3' - 0"	1' - 6"	Fixed1	FIBERGLASS	BLACK	1	
B	3' - 0"	1' - 6"	Window-Awning-Single	FIBERGLASS	BLACK	3	
C.1	3' - 0"	2' - 6"	Single Hung	FIBERGLASS	BLACK	2	EGRESS
C.2	3' - 0"	4' - 0"	Fixed1	FIBERGLASS	BLACK	2	
D	8' - 0"	1' - 6"	Fixed1	FIBERGLASS	BLACK	3	
E	6' - 0"	1' - 6"	Fixed1	FIBERGLASS	BLACK	1	

DOOR SCHEDULE

TYPE MARK	WIDTH	HEIGHT	TYPE	COMMENTS
1	3' - 0"	6' - 8"	A	
2	16' - 0"	6' - 8"	B	
3	2' - 10"	6' - 8"	C	
4	2' - 10"	6' - 8"	C	
5	5' - 0"	6' - 8"	C	



ATTIC VENT CALCS:

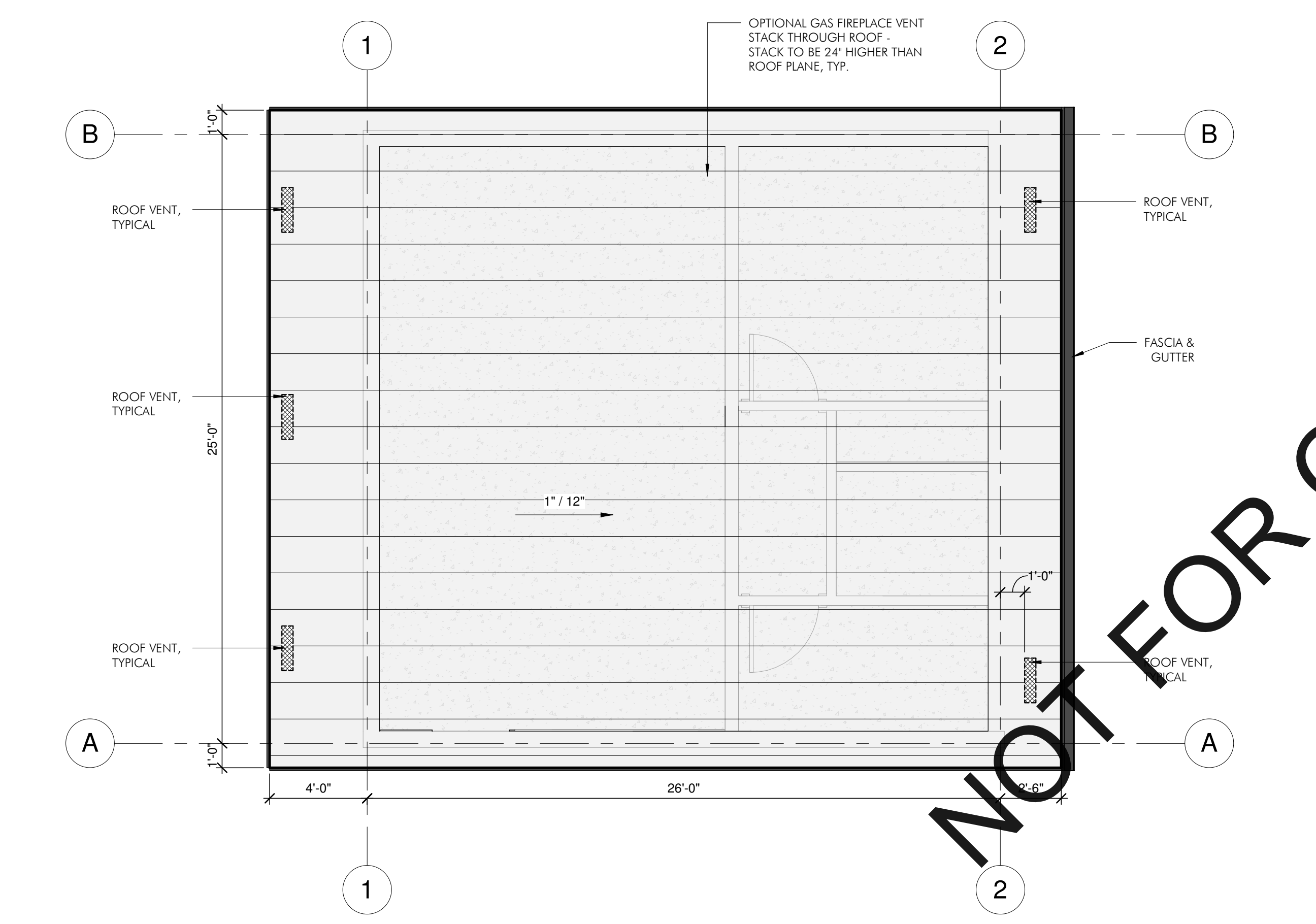
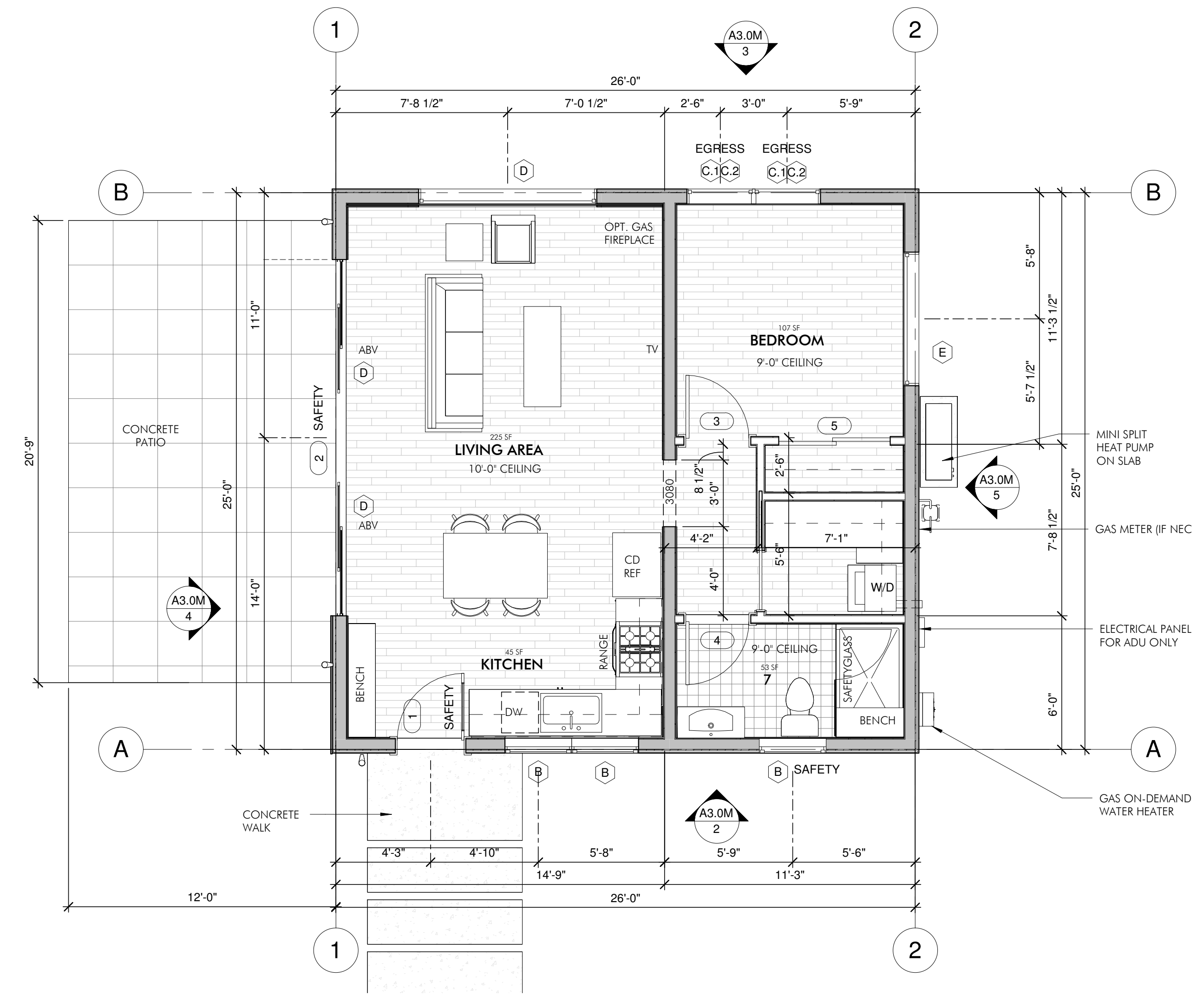
LOCATION	ROOF SF	1 / 300 VENTED AREA REQD. HIGH & LOW	60% LOW VENTS REQD	40% HIGH VENTS REQD	NO. OF LOW VENT'G REQD	NO. OF HIGH VENT'G REQD
ROOF TOTAL	650 SF	312 SQ. IN.	188 SQ. IN.	124 SQ. IN.	3 VENTS	2 VENTS

THE MIN. NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED THAT NOT LESS THAN 40% AND NOT MORE THAN 50% OF THE REQUIRED VENTILATION AREA IS PROVIDED BY VENT LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTS SHALL BE LOCATED NOT MORE THAN THREE FEET BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. NOT LESS THAN 1" SPACE SHALL BE PROVIDED BETWEEN THE INSULATION AND THE ROOF SHEATHING AND AT THE LOCATION OF THE VENT

VENTING SUMMARY (WILDLAND APPROVED):
 (650 SQ. FT.) x (1/300) = 93,600 SQ. IN.
 (93,600 SQ. IN.) / (300 HIGH / LOW) = **312 SQ. IN. VENT AREA**

HIGH: (124 SQ. IN.)
VENTS: VULCAN VENT VE55225: 75 SQ. IN. NFVA - (124 SQ. IN. / 75 SQ. IN.) NFVA = **2 VENTS REQUIRED, 2 PROVIDED**

LOW: (188 SQ. IN.)
VENTS: VULCAN VENT VE55225: 75 SQ. IN. NFVA - (188 SQ. IN. / 75 SQ. IN.) NFVA = **3 VENTS REQUIRED, 3 PROVIDED**



3 ROOF PLAN - PINE SHED FLAT
1/4" = 1'-0"

WALL TYPE LEGEND

- (E) WALLS
- NEW 2X4 WALLS
- NEW 2X6 WALLS

ROOF TYPE LEGEND

- METAL ROOF - STANDING SEAM (ALT BID: PVC MEMBRANE ROOF)

ROOF VENTILATION NOTES

- ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES FORMED WHERE CEILING ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. VENTILATION OPENINGS SHALL HAVE A LEAST DIMENSION OF 1 1/16 INCH (1.6 MM) MINIMUM AND 1/4 INCH (6.4 MM) MAXIMUM. R806.1
- WHERE EAVE VENTS ARE INSTALLED, INSULATION SHALL NOT BLOCK THE FREE FLOW OF AIR. NOT LESS THAN A 1-INCH (25 MM) SPACE SHALL BE PROVIDED BETWEEN THE INSULATION AND THE ROOF SHEATHING AND AT THE LOCATION OF THE VENT. R806.3
- BUILDINGS WITH COMBUSTIBLE CEILING OR ROOF CONSTRUCTION SHALL HAVE AN ATTIC ACCESS OPENING TO ATTIC AREAS THAT HAVE A VERTICAL HEIGHT OF 30 INCHES (762 MM) OR GREATER OVER AN AREA OF NOT LESS THAN 30 SQUARE FEET (2.8 M2). THE VERTICAL HEIGHT SHALL BE MEASURED FROM THE TOP OF THE CEILING FRAMING MEMBERS TO THE UNDERSIDE OF THE ROOF FRAMING MEMBERS. THE ROUGH-FRAMED OPENING SHALL BE NOT LESS THAN 22 INCHES BY 30 INCHES (559 MM BY 762 MM) AND SHALL BE LOCATED IN A HALLWAY OR OTHER READILY-ACCESSIBLE LOCATION.



PREDESIGNED PLAN SETS BY RAD STUDIO
 COPYRIGHT RAD STUDIO, 2022
 P: 530.653.0777
 W: WWW.RADSTUDIO.DESIGN

// CONSULTANT



// SEAL



// ISSUED

REVISION #	DATE	DESCRIPTION

// AGENCY APPROVALS

// PROJECT NO. _____

THE PINE SHED 650

// CLIENT

// MANAGEMENT

PROJECT NO: _____
 DRAWN BY: _____ RBR
 CHECKED BY: _____ Checker
 ISSUE DATE: 9/14/2023 10:18:34 AM
 COPYRIGHT: RAD STUDIO 2019

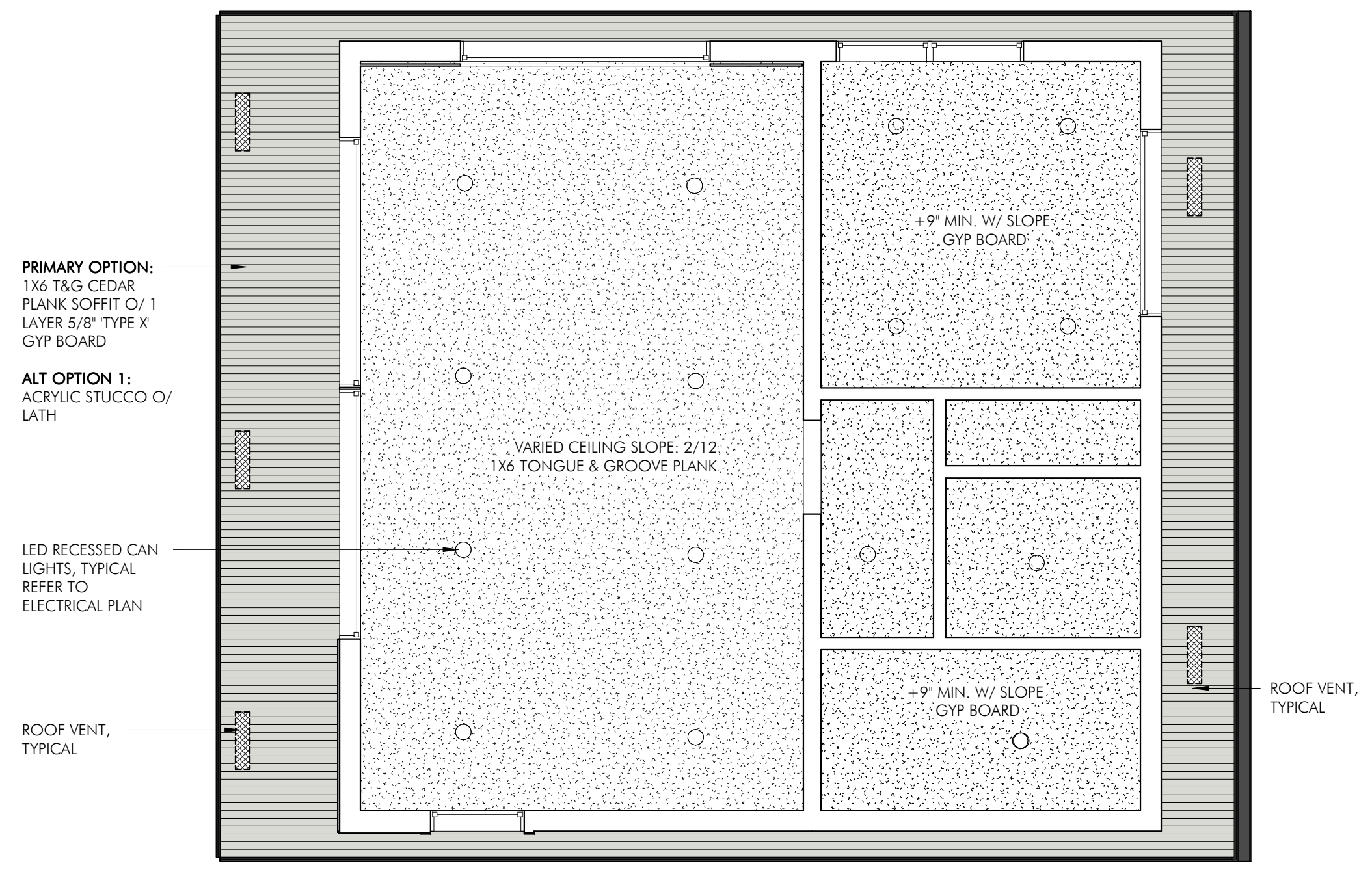
// SHEET TITLE

FLOOR & ROOF PLANS
 - MIRRORED

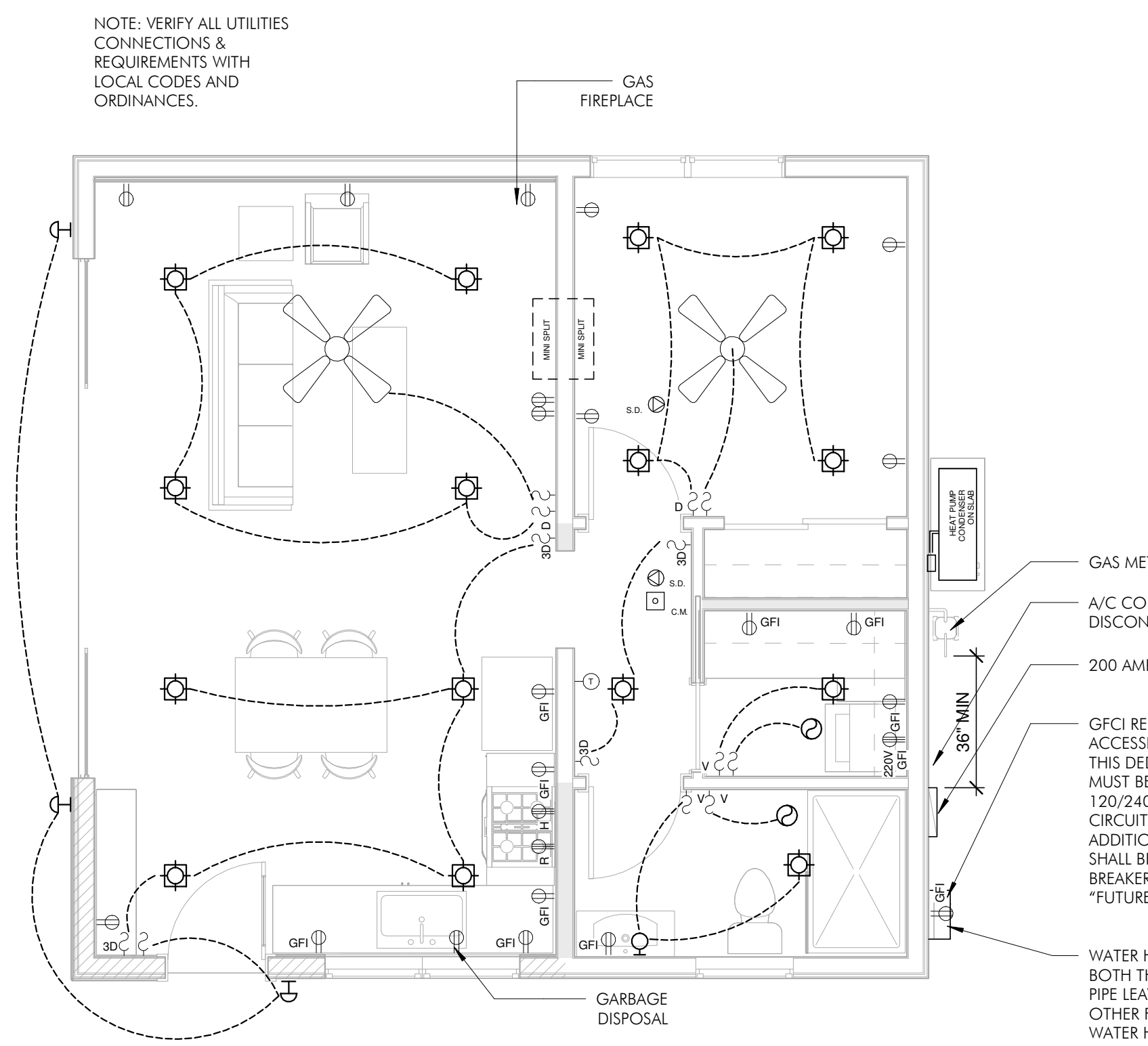
// SHEET NO.

A1.0M

NOT FOR CONSTRUCTION



1 CEILING PLAN
1/4" = 1'-0"



2 ELECTRICAL & UTILITY PLAN - PINE SHED
1/4" = 1'-0"

ELECTRICAL LEGEND

- NOTE: ALL LIGHTS TO BE HIGH EFFICACY AND ALL OUTLETS TO BE TAMPER RESISTANT AND HAVE ARC FAULT PROTECTION.
- Ⓢ SINGLE POLE WALL SWITCH, +48" U.N.O.
 - Ⓢ THREE WAY WALL SWITCH, +48" U.N.O.
 - Ⓢ FOUR WAY WALL SWITCH, +48" U.N.O.
 - Ⓢ DIMMER WALL SWITCH, +48" U.N.O.
 - Ⓢ VACANCY SENSOR WALL SWITCH (MANUAL ON/AUTO & MANUAL-OFF)
 - Ⓢ ASTRONOMICAL TIME CLOCK CONTROL
 - Ⓢ SMART THERMOSTAT BY NEST BRAND
 - Ⓢ HIGH EFFICACY UNDER CABINET FIXTURE
 - Ⓢ HIGH EFFICACY CEILING FIXTURE, SURFACE MOUNTED 1X4 LED
 - Ⓢ HIGH EFFICACY CEILING FIXTURE, SURFACE MOUNTED
 - Ⓢ HIGH EFFICACY CEILING FIXTURE, RECESSED DOWNLIGHT (LED)
 - Ⓢ HIGH EFFICACY CEILING FIXTURE, RECESSED 4" GIMBAL (LED)
 - Ⓢ HIGH EFFICACY CEILING FIXTURE, PENDANT
 - Ⓢ HIGH EFFICACY DIRECTIONAL SPOT LIGHT
 - Ⓢ HIGH EFFICACY WALL FIXTURE, SURFACE MOUNTED
 - Ⓢ HIGH EFFICACY OUTDOOR WALL FIXTURE, SURFACE MOUNTED
 - Ⓢ CEILING EXHAUST FAN TO OUTSIDE AIR, RECESSED, 50 CFM. - PROVIDE HUMIDISTAT IN BATHROOM
 - Ⓢ DUPLEX OUTLET, 120V, +12" U.N.O.
 - Ⓢ FOURPLEX OUTLET, 120V, +12" U.N.O.
 - Ⓢ WEATHER PROOF DUPLEX OUTLET W/ G.F.I., 120V, +12" U.N.O.
 - Ⓢ WEATHER PROOF DUPLEX OUTLET W/ G.F.I., 120V, LOCATED IN EAVE / SOFFIT
 - Ⓢ DUPLEX OUTLET W/ GROUND FAULT CIRCUIT-INTERRUPTER, 120V, +12" U.N.O.
 - Ⓢ FOURPLEX FLOOROUTLET, 120V
 - Ⓢ AUTO CHARGER OUTLET
 - Ⓢ 220V OUTLET, +12" U.N.O.
 - Ⓢ SMOKE DETECTOR (DIRECT WIRED - 110v W/ BATTERY BACK-UP)
 - Ⓢ CARBON MONOXIDE DETECTOR
 - Ⓢ CABLE TELEVISION JACK
 - Ⓢ TELEPHONE JACK
 - Ⓢ CEILING FAN, U.O.N. - 3 SPEED W/ REVERSE 7" MINIMUM HEADROOM, TYP. & BOXES PER NEC 4-22-18.



PREDESIGNED PLAN SETS BY RAD STUDIO
COPYRIGHT RAD STUDIO, 2022
P: 530.653.0777
W: WWW.RADSTUDIO.DESIGN

// CONSULTANT



// SEAL



// ISSUED

REVISION #	DATE	DESCRIPTION

// AGENCY APPROVALS

// PROJECT

NO. _____

THE PINE SHED 650

// CLIENT

// MANAGEMENT

PROJECT NO: _____
DRAWN BY: _____ RBR
CHECKED BY: _____ Checker
ISSUE DATE: 9/14/2023 10:18:38 AM
COPYRIGHT: RAD STUDIO 2019

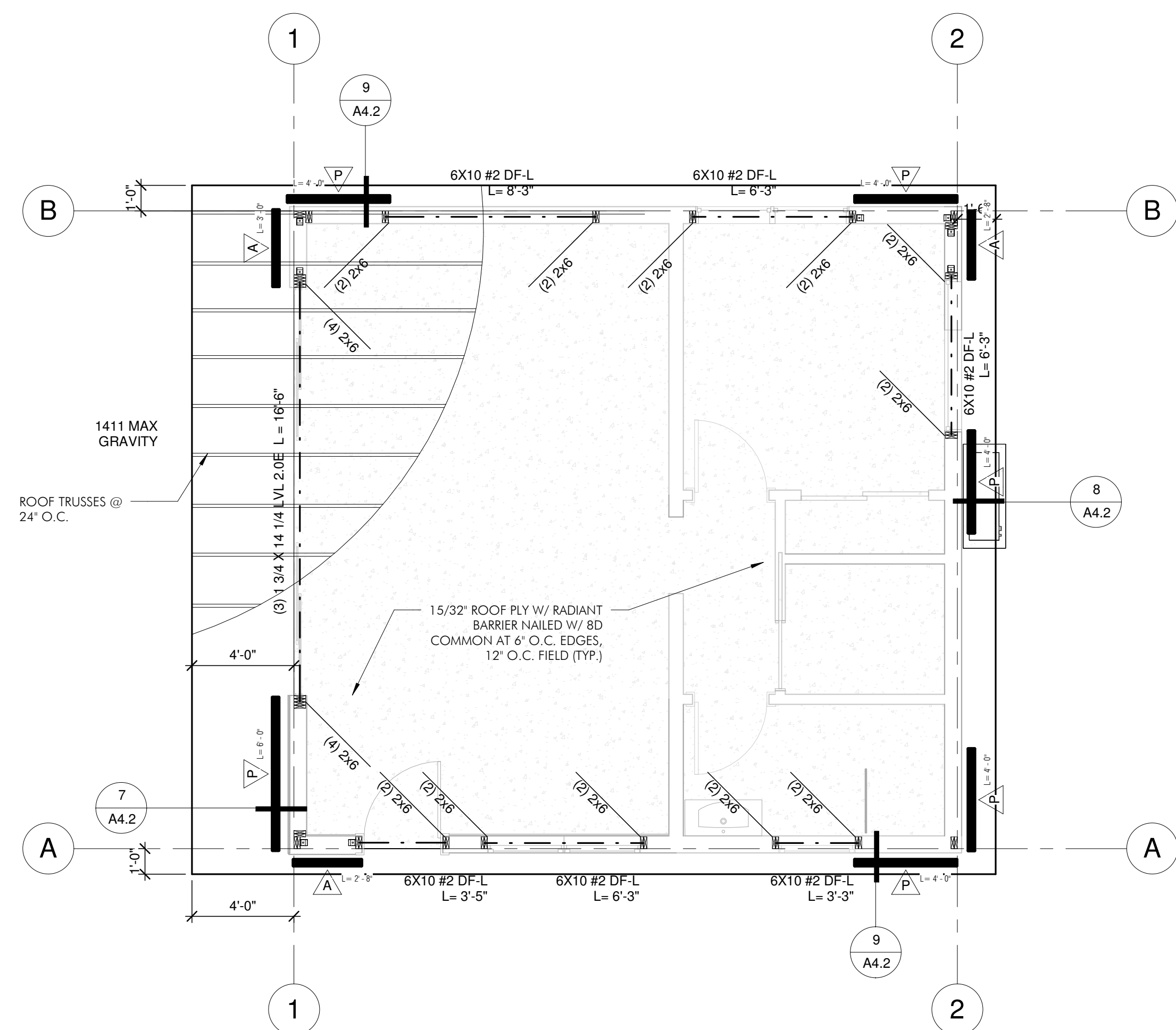
// SHEET TITLE

CEILING AND ELECTRICAL PLAN - MIRRORED

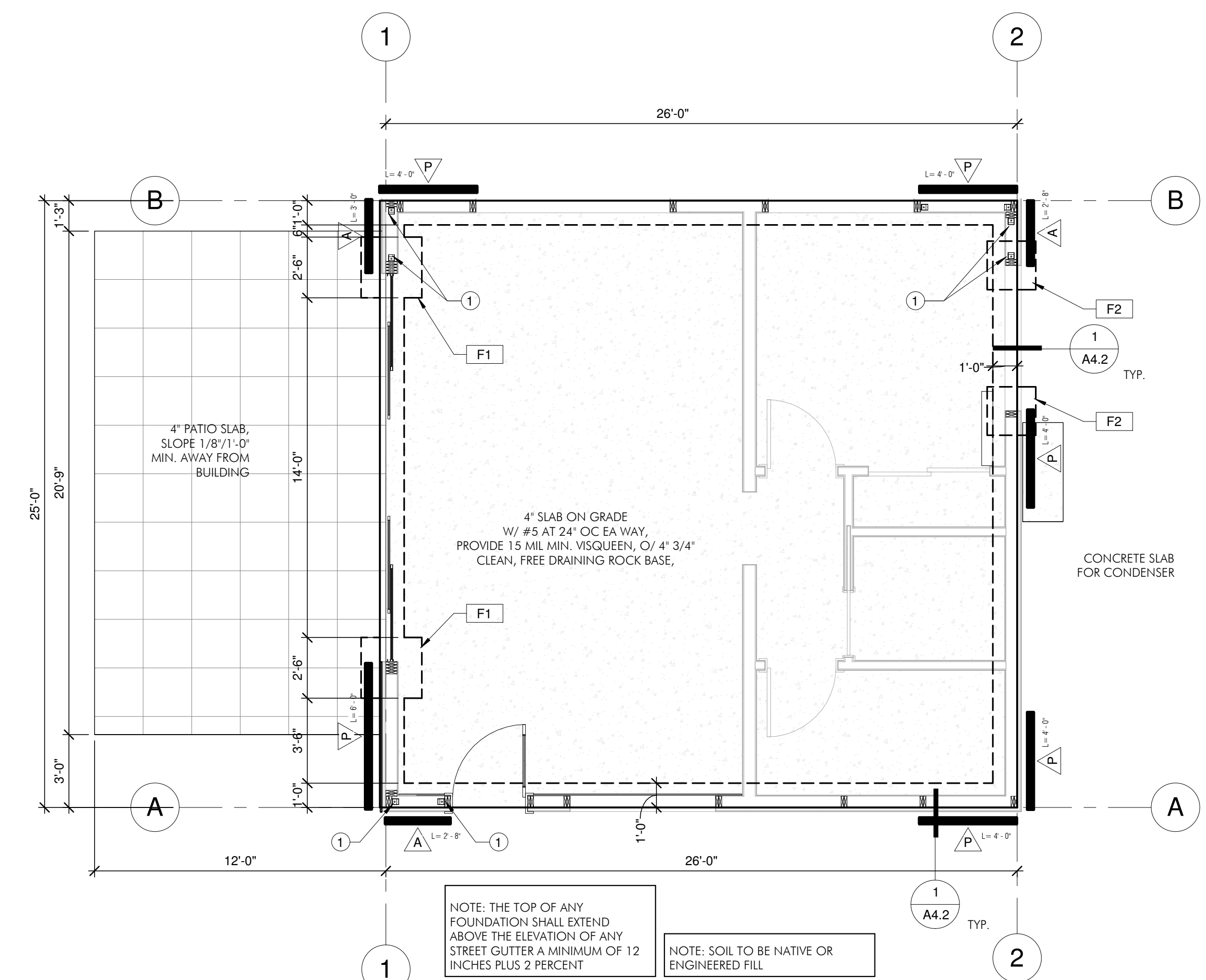
// SHEET NO.

A1.1M

NOT FOR CONSTRUCTION



3 ROOF FRAMING PLAN - 50 LB
1/4" = 1'-0"



2 FOUNDATION PLAN - 50 LB
1/4" = 1'-0"

SPREAD FOOTING SCHEDULE

TYPE	SIZE & REINFORCEMENT
F1	26" SQUARE X 12" DEEP, REINFORCED W/ 2 - #4'S EACH WAY. SET BOTTOM OF SPREAD FOOTING AT SAME ELEVATION AS BOTTOM OF ADJACENT CONTINUOUS STRIP FOOTING.
F2	18" SQUARE X 12" DEEP, REINFORCED W/ 2 - #4'S EACH WAY. SET BOTTOM OF SPREAD FOOTING AT SAME ELEVATION AS BOTTOM OF ADJACENT CONTINUOUS STRIP FOOTING.

HOLDOWN KEYNOTES

KEYNOTE	DESCRIPTION
1	DOUBLE 2 X 6 #2 DF-L KING POST W/ HTT4 HOLDOWN AT BOTTOM OF KING POST. PLACE HTT4 ON TOP OF SILL PLATE. AT 2-POUR INSTALLATION, INSTALL SSTB20 ANCHOR BOLT IN FOUNDATION STEM WALL. SEE STRUCTURAL DETAILS.
2	DOUBLE 2 X 6 #2 DF-L KING POST W/ HTT4 HOLDOWN AT BOTTOM OF KING POST. PLACE HTT4 ON TOP OF SILL PLATE. INSTALL SB 5/8 X 24 ANCHOR BOLT IN FOUNDATION STEM WALL. SEE STRUCTURAL DETAILS.

NOTE: SEE STRUCTURAL DETAILS SHEETS A4.0/A4.1 FOR ADDITIONAL INFORMATION

BRACED WALL SCHEDULE

TYPE	SHEATHING	SHEAR TRANSFER CLIP
▽	WOOD STRUCTURAL PANEL 3/8" CDX PLY OR OSB W/ 8d @ 6" O.C. EDGES, 12" O.C. FIELD - (1) RBC PER BLOCK	(1) LSS0 PER PANEL BLOCK
▽	ALTERNATE BRACED WALL 3/8" CDX PLY OR OSB W/ 8d @ 4" O.C. EDGES, 12" O.C. FIELD - (1) RBC PER BLOCK - 2'-8" MIN. WIDTH.	(1) LSS0 PER PANEL BLOCK

BRACED WALL SCHEDULE FOOTNOTES:

- 8d PLYWOOD NAILS SHALL BE COMMON WIRE NAILS (LENGTH = 2 1/2", DIAMETER = 0.131"), WITH 1 1/2" MIN. PENETRATION INTO FRAMING MEMBERS. NAIL HEADS SHALL NOT PENETRATE OUTER PLYWOOD LAMINATION.
- ALL OTHER NAILING PER REQUIREMENT PER FASTENER SCHEDULE TABLE 602.3(1) & 602.3(2)
- EDGE NAIL FULL HEIGHT ALL POSTS/ OR STUDS WITH HOLDDOWNS AND STRIPS AND ALL OTHER POSTS WITHIN THE LIMITS OF BRACEWALL LENGTH.
- ALL UNSUPPORTED HORIZONTAL PLYWOOD EDGES SHALL BE BLOCKED WITH 2x BLOCKING.
- ALL FOUNDATION SILL PLATES SHALL NOT BE LESS THAN 2x MINIMUM ORIGINAL MEMBER. ADDITIONALLY, ALL FOUNDATION SILL PLATES SHALL BE PRESSURE-TREATED DOUBLAS-FIR. USE HOT DIPPED GALVANIZED COMMON NAILS (LENGTH= 2 1/2" DIAMETER=0.131") TO ATTACH SHEAR CLIP TO FOUNDATION SILL PLATES.
- ALL ANCHOR BOLT WASHERS SHALL BE A MIN. OF 3" SQ. x 0.229" THICK PLATE STEEL OVER THE FULL LENGTH OF BRACEWALL LINES. SILL PLATE WASHER EDGE TO BE 1/2" MAX FROM THE FACE OF WALL SHEATHING. OFFSET ANCHOR BOLT OR PROVIDE 4.5"x3" WASHER @ 6" WALLS.
- HOLDOWN ANCHORS AND ANCHOR BOLTS SHALL BE ACCURATELY POSITIONED PRIOR TO POURING CONCRETE. ALL HARDWARE SHALL BE INSTALLED PER THE MANUFACTURERS RECOMMENDATIONS.
- THE SYMBOL DESIGNATED AS "L=" ON THE PLANS REPRESENTS THE LENGTH OF THE SPECIFIED BRACEWALL PANEL.

CONVENTIONAL FASTENING SCHEDULE

ROOF			
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER & TYPE OF FASTENER	SPACING & LOCATION
1	BLOCKING BETWEEN CEILING JOISTS OR RAFTERS TO TOP PLATE	4-8D BOX (2 1/2" x 0.113") OR 3-8D COMMON (2 1/2" x 0.131"); OR 3-10D BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS	TOE NAIL
6	RAFTER OR ROOF TRUSS TO PLATE	3-16D BOX NAILS (3 1/2" x 0.135"); OR 3-10D COMMON NAILS (3" x 0.148"); OR 4-10D BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS	2 TOE NAILS ON ONE SIDE & 1 TOE NAIL ON OPPOSITE SIDE OF EACH RAFTER OR TRUSS I
8	STUD TO STUD (NOT AT BRACED WALL PANELS)	16D COMMON (3 1/2" x 0.162") 10D BOX (3" x 0.128"); OR 3" x 0.131" NAIL	24" O.C. FACE NAIL 16" O.C. FACE NAIL
	STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16D BOX (3 1/2" x 0.135"); OR 3" x 0.131" NAILS 16D COMMON (3 1/2" x 0.162")	12" O.C. FACE NAIL 16" O.C. FACE NAIL
WALL			
11	CONTINUOUS HEADER TO STUD	5-8D BOX (2 1/2" x 0.113"); OR 4-8D COMMON (2 1/2" x 0.131"); OR 4-10D BOX (3" x 0.128")	TOE NAIL
13	DOUBLE TOP PLATE SPLICE SDCS D0, D1, OR D2; AND BRACED WALL LINE SPACING ≥ 25'	12-16D (3 1/2" x 0.135")	FACE NAIL ON EACH SIDE OF END JOINT (MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)
16	TOP OR BOTTOM PLATE TO STUD	3-16D BOX (3 1/2" x 0.135"); OR 2-16D COMMON (3 1/2" x 0.162"); OR 3-10D BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS	END NAIL
17	TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	3-10D BOX (3" x 0.128"); OR 2-16D COMMON (3 1/2" x 0.162"); OR 3-3" x 0.131" NAILS	FACE NAIL

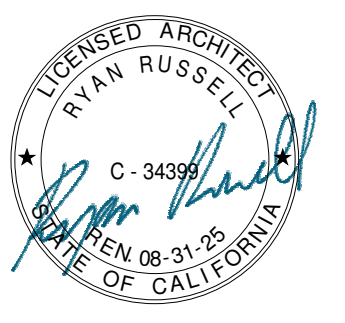


PREDESIGNED PLAN SETS BY RAD STUDIO
COPYRIGHT RAD STUDIO, 2022
P: 530.653.0777
W: WWW.RADSTUDIO.DESIGN

// CONSULTANT



// SEAL



// ISSUED

REVISION #	DATE	DESCRIPTION

// AGENCY APPROVALS

// PROJECT NO. _____

THE PINE SHED 650

// CLIENT

// MANAGEMENT

PROJECT NO: _____ Author
DRAWN BY: _____ Checker
CHECKED BY: _____
ISSUE DATE: 9/14/2023 10:18:35 AM
COPYRIGHT: RAD STUDIO 2019

// SHEET TITLE

STRUCTURAL PLANS 50 LB - MIRRORED

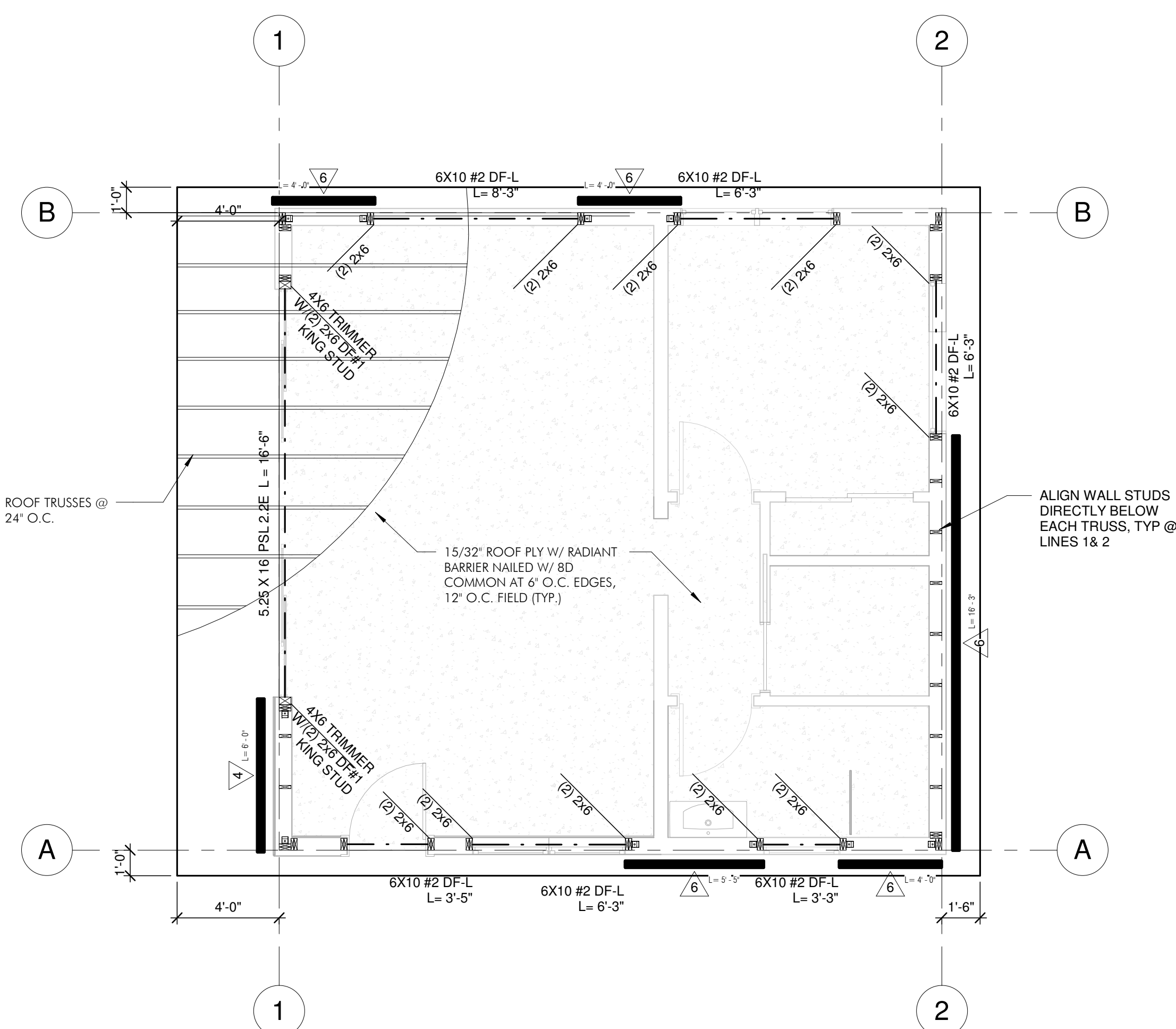
// SHEET NO.

A2.0M

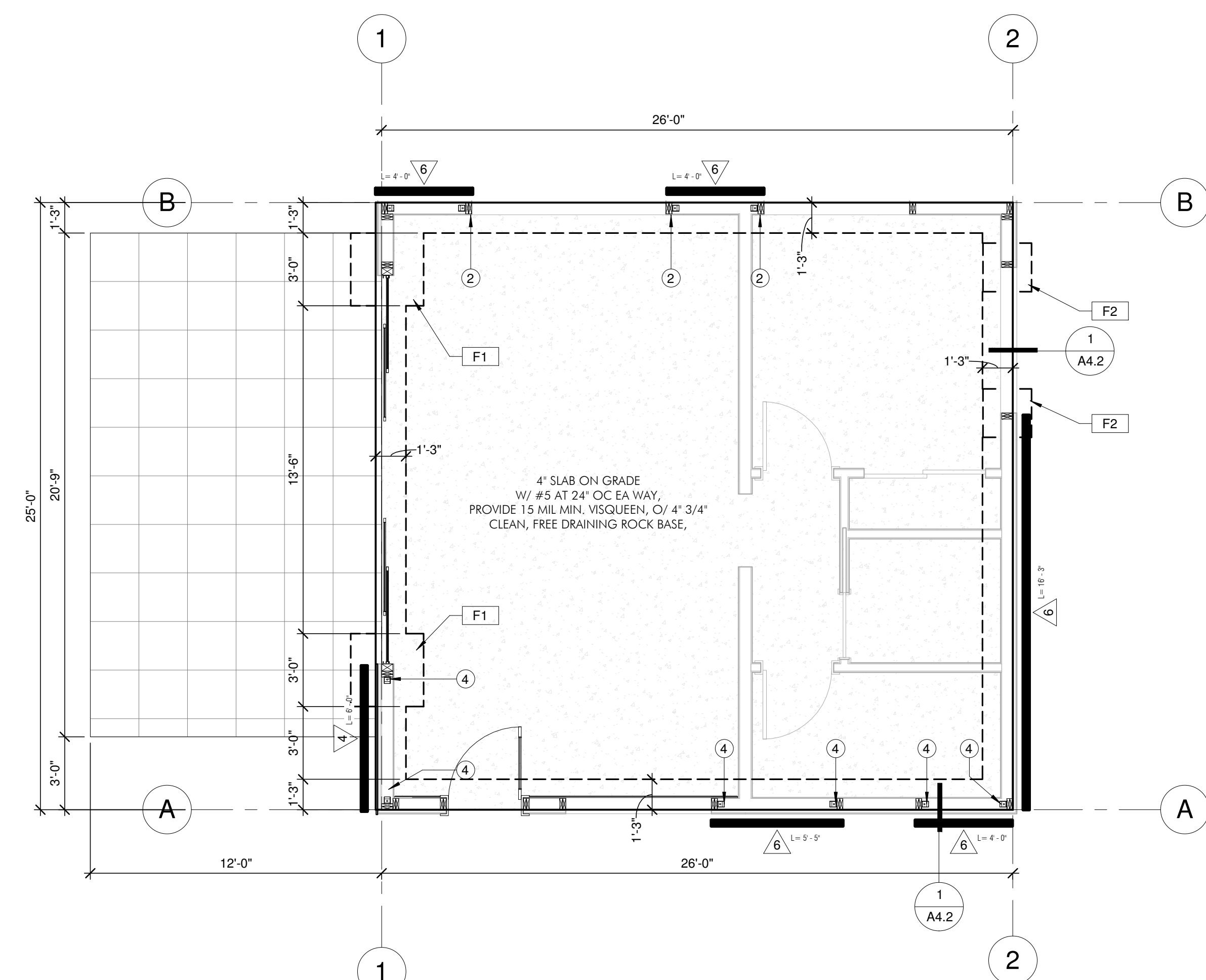
IF THIS SHEET IS NOT 30"x42", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

G:\Shared drives\RAD Projects\2023\23-07 ADU RFP Shasta County\ADU 650 CDS MIRROR\01

9/14/2023 10:18:39 AM



3 ROOF FRAMING PLAN - 70 LB
1/4" = 1'-0"



2 FOUNDATION PLAN - 70 LB
1/4" = 1'-0"

SPREAD FOOTING SCHEDULE

TYPE	SIZE & REINFORCEMENT
F1	42" SQUARE X 12" DEEP, REINFORCED W/ 3 - #4'S EACH WAY, TOP & BOTTOM SET BOTTOM OF SPREAD FOOTING AT SAME ELEVATION AS BOTTOM OF ADJACENT CONTINUOUS STRIP FOOTING.
F2	24" SQUARE X 12" DEEP, REINFORCED W/ 2 - #4'S EACH WAY, TOP & BOTTOM SET BOTTOM OF SPREAD FOOTING AT SAME ELEVATION AS BOTTOM OF ADJACENT CONTINUOUS STRIP FOOTING.

HOLDOWN KEYNOTES

KEYNOTE	DESCRIPTION
2	DOUBLE 2 X 6 #2 DF-L KING POST W/ HDU2 HOLDOWN AT BOTTOM OF KING POST. PLACE HTT4 ON TOP OF SILL PLATE. AT 2-POUR INSTALLATION, INSTALL SSTB20 ANCHOR BOLT IN FOUNDATION STEM WALL. SEE STRUCTURAL DETAILS.
4	DOUBLE 2 X 6 #2 DF-L KING POST W/ HDU4 HOLDOWN AT BOTTOM OF KING POST. PLACE HTT4 ON TOP OF SILL PLATE. INSTALL SB 5/8 X 24 ANCHOR BOLT IN FOUNDATION STEM WALL. SEE STRUCTURAL DETAILS.

NOTE: SEE STRUCTURAL DETAILS SHEETS A4.0/A4.1 FOR ADDITIONAL INFORMATION

STRUCTURAL NOTES

- G1. REFER TO SHEET S0.1 & S1.1 FOR TYPICAL NOTES AND DETAILS.
- G2. SITE PREPARATION AND BUILDING PAD CONSTRUCTION SHALL BE IN ACCORDANCE WITH FOUNDATION NOTES ON SHEET S0.1.
- G3. STRUCTURAL WALL STUDS, INCLUDING BEARING WALLS AND EXTERIOR WALLS, SHALL BE 2X6 @ 16" OC, UNO.
- G4. SEE SHEAR WALL SCHEDULE 4/S1.4.
- G5. VERIFY ALL SLAB DIMENSIONS, INCLUDING DEPRESSIONS, CURBS AND PADS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- G6. ELEVATIONS SHOWN ON STRUCTURAL DRAWINGS ARE RELATIVE TO THE TOP OF SLAB-ON-GRADE ELEVATION OF 0'-0". COORDINATE ALL ELEVATIONS WITH ARCHITECTURAL AND CIVIL DRAWINGS. VERIFY PAD ELEVATION W/ FLOOD CERTIFICATION PRIOR TO CONSTRUCTION.

ROOF FRAMING NOTES

- R1. REFER TO SHEETS S0.1 FOR TYPICAL NOTES AND DETAILS.
- R2. ROOF SHEATHING TO BE 15/32" APA RATED SHEATHING EXPOSURE 1. FASTEN WITH 10d @ 6" OC EDGES & 10d @ 12" OC FIELD UNO. BLOCKING NOT REQ'D UNLESS NOTED ON PLAN. NO PANELS LESS THAN 24" WIDE SHALL BE USED.
- R3. VERIFY ALL OPENING DIMENSIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. MECHANICAL UNIT LOCATIONS AND WEIGHTS TO MATCH MECHANICAL DRAWINGS. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OTHERWISE.
- R4. STRUCTURAL WALL STUDS, INCLUDING BEARING WALLS AND EXTERIOR WALLS, SHALL BE 2X6 @ 16" OC, UNO.

SHEAR WALL SCHEDULE

MARK	SHEATHING	NAILING (EN)	SILL/SHEAR TRANSFER NAILING	SHEAR TRANSFER CLIP	ANCHOR BOLTING	SW CAPACITY (PIF)
6	15/32" SHTG	10d @ 6" OC	2-16d @ 6" OC	(S) A35 @ 16" OC	3/8" @ 48" OC	310
4	15/32" SHTG	10d @ 4" OC	2-16d @ 5" OC	(S) A35 @ 12" OC	3/8" @ 32" OC	460

1. ALL NAILS SHALL BE COMMON OR GALVANIZED BOX, GALVANIZED BOX NAILS SHALL BE HOT DIPPED OR TUMBLED.
2. PLYWOOD AND OSB SHALL BE TYPE CDX GRADE OR BETTER (EXCEPT WHERE STRUCTURAL 1 GRADE IS NOTED).
3. SHEARWALLS THAT REQUIRE 3x FRAMING SHALL BE USE 3x (MIN) @ PANEL EDGES AND NAILING SHALL BE STAGGERED.
4. ALL AB MUST BE INSTALLED W/ 3x3x1/2" GALVANIZED PLATE WASHERS PER THE GOVERNING CBC.
5. PREDRILL SILL CONNECTIONS WHERE NEEDED TO AVOID WOOD SPLITTING. USE DRILL BIT SIZE = 0.75 x NAIL (OR SCREW) DIAMETER.
6. ALL DOUBLE SIDED WALLS REQUIRED 3x SILL, MIN
7. ALL FASTENERS THAT ARE INSTALLED INTO PT LUMBER ARE TO BE HOT DIPPED GALVANIZED.
8. INSTALL DBL 2x POST MIN @ END OF SHEARWALL, IF 3x FRAMING MEMBERS ARE REQUIRED USE 4x POST MIN
9. STR 1 = STRUCTURAL 1 GRADE PLYWOOD ON BOTH FACES OF A SHEARWALL AND NAIL SPACING IS LESS THAN 6" OC. ALL THE FOLLOWING REQUIREMENTS SHALL BE MET:
 1. USE 3x MAX SILLS & 3x TOP PLATES.
 2. THE VERTICAL SHEAR PANEL JOINTS ON OPPOSITE FACES SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS, UNLESS SUCH FRAMING SUCH FRAMING MEMBERS ARE 4x OR THICKER.
11. INSTALL 4x RIM/BLOCKING MIN BELOW ALL DOUBLE SOLVED SHEARWALL.

SHEAR WALL NOTES

- S1. All exterior walls to be shear wall Type 6 UNO on plans.
- S2. Shear wall lengths, where noted, are minimum. Where length not indicated, Shear Wall to be full length of wall.
- S3. Edge nail wall sheathing to studs or posts with holdowns.
- S4. Wall sheathing to be 15/32" APA rated Sheathing (24/0) Exp 1 with 16d @ 12" OC field UNO.
- S5. Block all unsupported edges with 2x material UNO.
- S6. All nails to be common wire. Stagger nails where 2 rows are required.
- S7. Use 20d sinker nails in lieu of 16d nails at 3x sill plates.
- S8. Portions of interior wall surfaces adjacent to specified shear walls shall be sheathed for full length per Shear Wall Type 6 or with gypsum board of same thickness to provide an even wall surface for finish materials.
- S9. Anchor bolts to have 0.229" thick x 3" square plate washer at foundation sill plates. The edge of the plate washer shall extend to within 1/2" of the sheathed edge of the sill plate. A diagonal slot is permitted on the plate washer. The slot shall be 3/16" greater than the bolt diameter and no more than 1 1/4" in length. A standard cut washer shall be used between the plate and the nut.
- S10. No openings are allowed in Shear Walls unless shown on the Structural plans. Coordinate any openings not shown with the Structural Engineer.
- S11. Nails used at pressure treated sill plates shall be hot dipped galvanized.
- S12. Provide a double stud where 10d common nails have a span tighter than 4" oc.

CONVENTIONAL FASTENING SCHEDULE

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER & TYPE OF FASTENER	SPACING & LOCATION
1	BLOCKING BETWEEN CEILING JOISTS OR RAFTERS TO TOP PLATE	4-8D BOX (2 1/2" x 0.131"); OR 3-8D COMMON (2 1/2" x 0.128"); OR 3-10D BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS	TOE NAIL
6	RAFTER OR ROOF TRUSS TO PLATE	3-16D COMMON (3 1/2" x 0.135"); OR 3-10D COMMON NAILS (3" x 0.148"); OR 4-10D BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS	2 TOE NAILS ON ONE SIDE & 1 TOE NAIL ON OPPOSITE SIDE OF EACH RAFTER OR TRUSS I
8	STUD TO STUD (NOT AT BRACED WALL PANELS)	16D COMMON (3 1/2" x 0.162"); OR 10D BOX (3" x 0.128"); OR 3" x 0.131" NAIL	24" O.C. FACE NAIL 16" O.C. FACE NAIL
9	STUD TO STUD AND BRACING STUD AT INTERSECTING WALL CORNER (AT BRACED WALL PANELS)	16D BOX (3 1/2" x 0.135"); OR 3" x 0.131" NAILS 16D COMMON (3 1/2" x 0.162")	12" O.C. FACE NAIL 16" O.C. FACE NAIL
11	CONTINUOUS HEADER TO STUD	5-8D BOX (2 1/2" x 0.113"); OR 4-8D COMMON (2 1/2" x 0.131"); OR 4-10D BOX (3" x 0.128")	TOE NAIL
13	DOUBLE TOP PLATE SPLICE SDCS (D0, D1, OR D2, AND BRACED WALL LINE SPACING ≥ 25')	12-16D (3 1/2" x 0.135")	FACE NAIL ON EACH SIDE OF END JOINT (MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)
16	TOP OR BOTTOM PLATE TO STUD	3-16D BOX (3 1/2" x 0.135"); OR 2-16D COMMON (3 1/2" x 0.162"); OR 3-10D BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS	END NAIL
17	TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	3-10D BOX (3" x 0.128"); OR 2-16D COMMON (3 1/2" x 0.162"); OR 3-3" x 0.131" NAILS	FACE NAIL



PREDESIGNED PLAN SETS BY RAD STUDIO
COPYRIGHT RAD STUDIO, 2022
P: 530.653.0777
W: WWW.RADSTUDIO.DESIGN

// CONSULTANT



// SEAL



// ISSUED

REVISION #	DATE	DESCRIPTION

// AGENCY APPROVALS

// PROJECT

NO. _____
THE PINE SHED 650

// CLIENT

// MANAGEMENT

PROJECT NO: _____ Author
DRAWN BY: _____ Checker
CHECKED BY: _____
ISSUE DATE: 9/14/2023 10:18:39 AM
COPYRIGHT: RAD STUDIO 2019

// SHEET TITLE

STRUCTURAL PLANS 70 LB - MIRRORED

// SHEET NO.

A2.1M

NOT FOR CONSTRUCTION

0 1/4" = 1'-0"

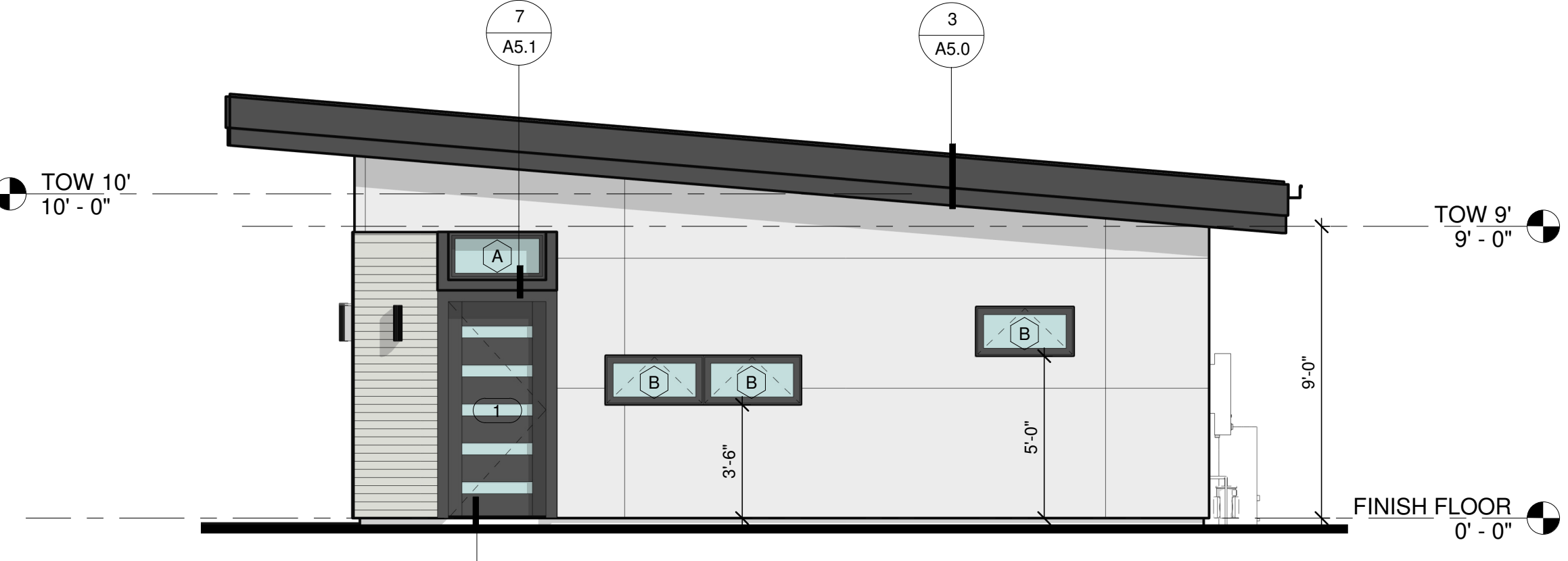
IF THIS SHEET IS NOT 30"x42", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

G:\Shared drives\RAD Projects\2023\23-07 ADU RFP Shasta County\ADU 650 CDS MIRRORRED.rvt

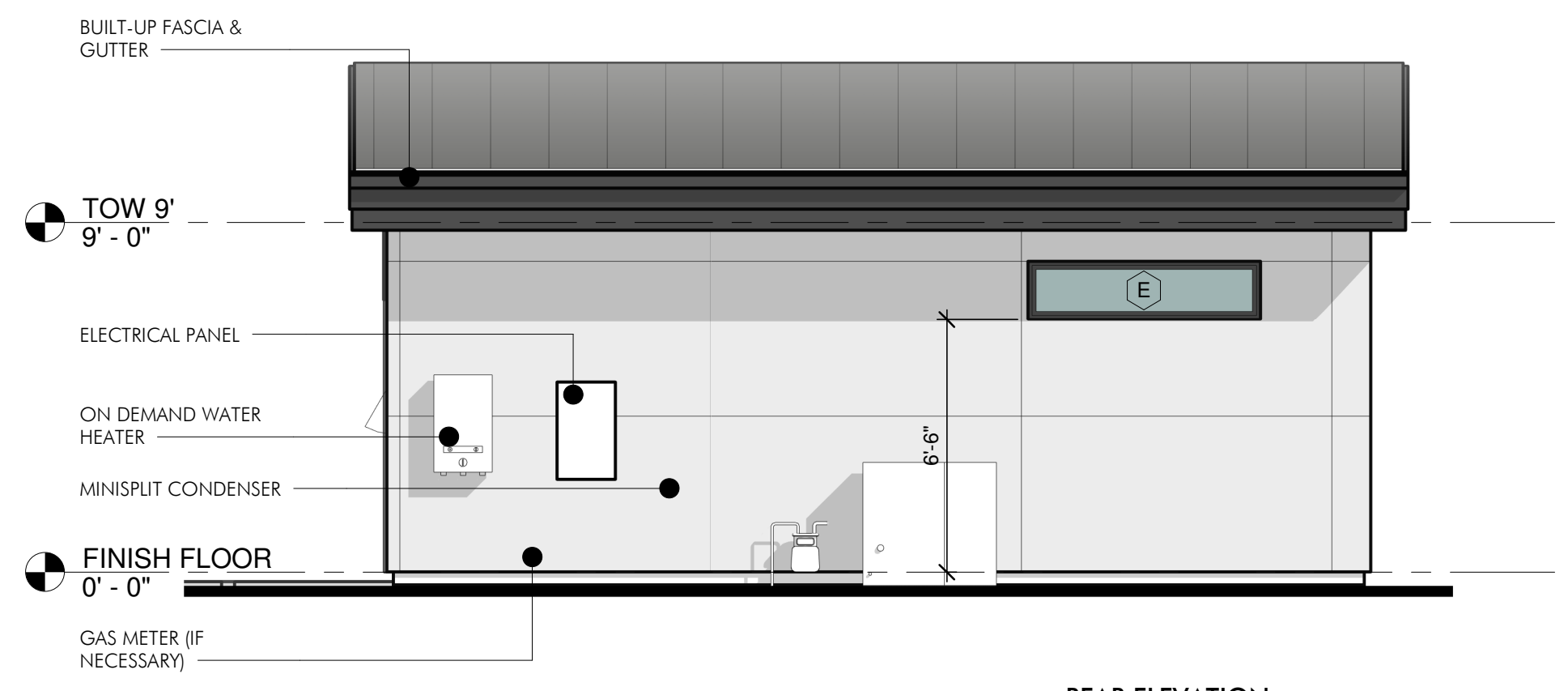
9/14/2023 10:18:37 AM



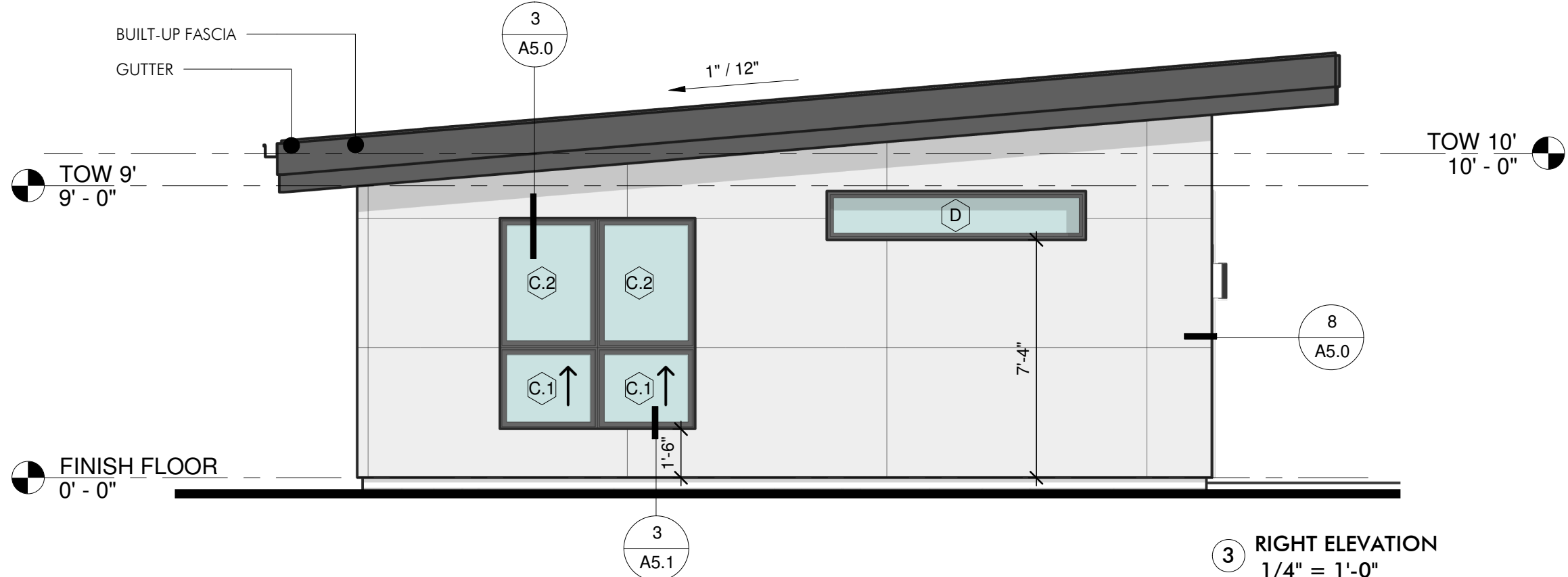
4 FRONT ELEVATION
1/4" = 1'-0"



2 LEFT ELEVATION
1/4" = 1'-0"



5 REAR ELEVATION
1/4" = 1'-0"



3 RIGHT ELEVATION
1/4" = 1'-0"

MATERIALS LEGEND

- ACCENT SIDING**
- ALT. 2: 1x6 TONGUE & GROOVE CEDAR PLANK O/ 1 LAYER 5/8" TYPE X GYP BOARD
 - ALT. 1: CLASS 'A' COMPOSITE BAMBOO SIDING "DASSO-XTR." OR EQUAL O/ 1 LAYER 5/8" TYPE X GYP BOARD
- BODY SIDING**
- OPTION 1 (SHOWN IN ELEVATIONS): HARDI-FIBER CEMENT "REVEAL" PANEL SYSTEM
 - OPTION 2: HARDI-PLANK 6" SHIPLAP SIDING
 - OPTION 3: 2-COAT SAND FINISH ACRYLIC STUCCO O/ 1" RIGID FOAM
 - OPTION 4: CORRUGATED/RIBBED VERTICAL METAL PANEL SIDING

ELEVATION NOTES

- ANY STUCCO SIDING TO BE LA HABRA FASTWALL PER ESR-2564 OVER R-TECH FOAM W/ WEEP SCREED, INSTALLED PER ESR-1788. (PROTECT PER SEC R316)
 - WEEP SCREED TO BE MIN. NO. 26 GALVANIZED SHEET GAGE WITH 31/2" FLANGE AT OR BELOW FOUNDATION PLATE LINE. SCREE SHALL BE PLACED A MIN. OF 4" ABOVE EARTH OR 2" ABOVE CONCRETE, ALLOWING TRAPPED WATER TO DRAIN TO THE EXTERIOR, LAP PAPER OVER ATTACHMENT FLANGE. FASTEN TO STUD WALLS IN ACCORDANCE W/ ASTM C 926. PER IRC 703.6.2.1
 - WATER-RESISTIVE BARRIER AT WOOD SHEATHING TO BE MIN. OF 2 LAYERS OF GRADE D PAPER. CRC 703.6.3
 - END GUTTER MIN. 1' BEFORE INTERSECTING FINISHED STUCCO WALL.
 - WATER-RESISTIVE BARRIER AT WOOD SHEATHING TO BE MIN. OF 2 LAYERS OF GRADE D PAPER. CRC 703.6.3
- SEE FIRE RESISTIVE CONSTRUCTION NOTES - GENERAL NOTES SH1

NOT FOR CONSTRUCTION



PREDESIGNED PLAN SETS BY RAD STUDIO
COPYRIGHT RAD STUDIO, 2022
P: 530.653.0777
W: WWW.RADSTUDIO.DESIGN

// CONSULTANT



// SEAL



// ISSUED

REVISION #	DATE	DESCRIPTION

// AGENCY APPROVALS

// PROJECT NO. _____

THE PINE SHED 650

// CLIENT

// MANAGEMENT

PROJECT NO: _____
DRAWN BY: _____ Author
CHECKED BY: _____ Checker
ISSUE DATE: 9/14/2023 10:18:37 AM
COPYRIGHT: RAD STUDIO 2019

// SHEET TITLE

ELEVATIONS -
MIRRORED

// SHEET NO.

A3.0M

IF THIS SHEET IS NOT 30"x42", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

G:\Shared drives\RAD Projects\2023\23-07 ADU RFP Shasta County\ADU 650_CDS.rvt

9/14/2023 10:21:26 AM



P. 530.653.0777
W. WWW.RADSTUDIO.DESIGN

// AGENCY



// SEAL



// ISSUED

REVISION #	DATE	DESCRIPTION

// COPYRIGHTS

COPYRIGHT 2023
RAD STUDIO RETAINS ALL RIGHTS TO PROPRIETARY INFORMATION, INCLUDING, WITHOUT LIMITATION, METHODOLOGIES AND METHODS OF ANALYSIS, IDEAS, CONCEPTS, ARRANGEMENTS, PLANS, EXPRESSIONS, KNOW HOW, METHODS, TECHNIQUES, SKILLS, KNOWLEDGE, AND EXPERIENCE POSSESSED BY RAD STUDIO PRIOR TO, OR ACQUIRED DURING THE DEVELOPMENT OF THIS PROJECT AND SHALL NOT BE RESTRICTED IN ANY WAY WITH RESPECT THERETO.

STIPULATION FOR REUSE
THE DRAWING WAS PREPARED IN CONTRACT WITH SHASTA COUNTY FOR DISTRIBUTION AND USE BY THE RESIDENTS OF SHASTA COUNTY WITH A SNOW LOAD OF 70 PSF OR LESS. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS OR ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON PROJECTS OUTSIDE OF SHASTA COUNTY AND WITHOUT THE PERMISSION OF THE SHASTA COUNTY BUILDING DEPARTMENT IS NOT AUTHORIZED AND IS CONTRARY TO THE LAW.

// PROJECT NO.

THE PINE SHED 650

// CLIENT

// MANAGEMENT

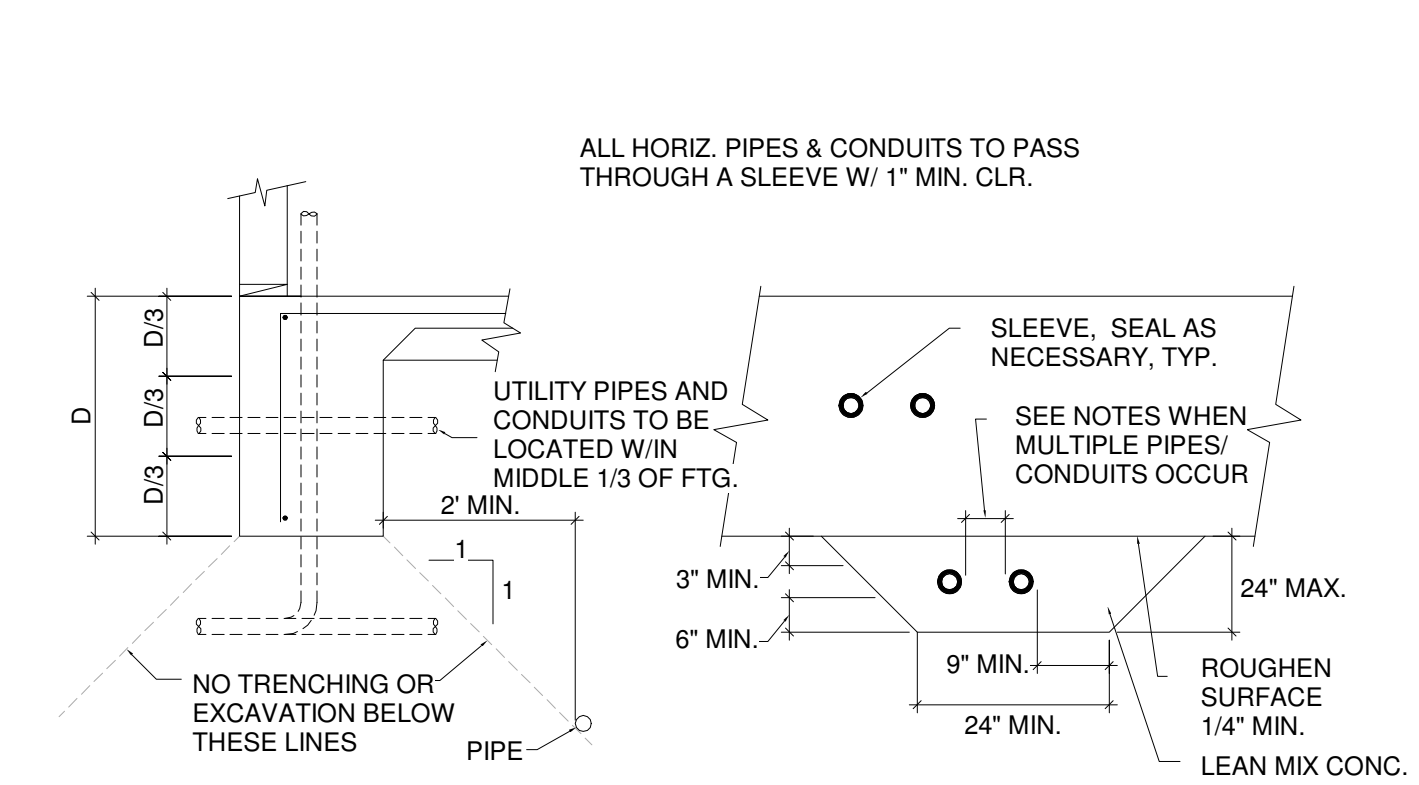
PROJECT NO: _____
DRAWN BY: _____ DH
CHECKED BY: _____ Checker
ISSUE DATE: 9/14/2023 10:21:26 AM
COPYRIGHT: RAD STUDIO 2019

// SHEET TITLE

FOUNDATION TYPICAL DETAILS

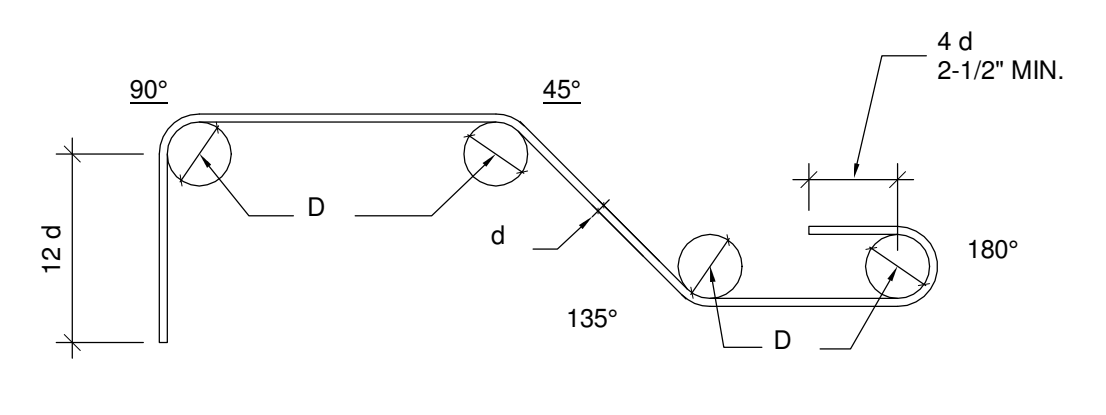
// SHEET NO.

A4.0

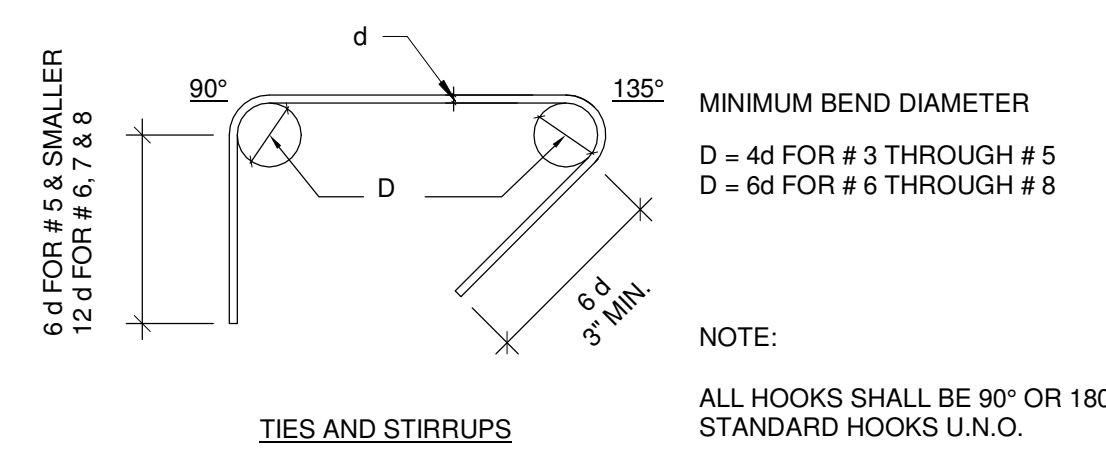


3 PIPING AND CONDUIT PENETRATIONS AT FOOTINGS
1/2" = 1'-0"

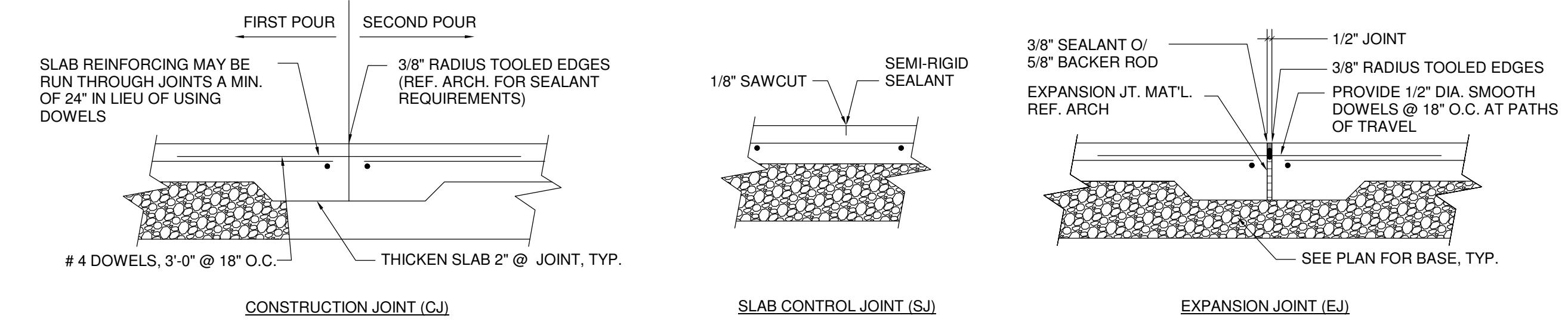
- NOTES:
- ALL VERTICAL PIPES AND CONDUITS TO BE WRAPPED W/ 30# FELT OR OTHER APPROVED MAT'L'S. AS REQ'D TO PREVENT BOND AND ALLOW FOR THERMAL EXPANSION AND CONTRACTION
 - VERTICAL PIPES AND CONDUITS MAY BE PLACED IN CONTINUOUS FTGS. PROVIDED THEY ARE NO LARGER THAN 1/6 OF THE FTG. WIDTH AND THEY OCCUR WITHIN THE MIDDLE 1/2 OF THE FTG. WIDTH. REBAR MAY NOT BE INTERRUPTED, CUT OR DISPLACED BY PIPING AND/OR CONDUITS
 - EXTEND/STEPDOWN FOOTING DOWNWARD IF PIPING AND/OR CONDUITS OCCUR IN THE LOWER 1/3 OF FTG. DEPTH
 - PIPING OR CONDUITS IN PLACE PRIOR TO PLACEMENT OF CONCRETE SHALL BE WRAPPED W/ 1" STYROFOAM INSULATION OR OTHER APPROVED MATERIALS IN LIEU OF PROVIDING A SLEEVE
 - MULTIPLE PIPES/CONDUITS SHALL BE SPACED A MIN. OF 4 DIAMETERS O.C. W/ A MIN. OF 9" OF CONC. BETWEEN THEM. (DIAMETER FOR THIS PURPOSE IS THE DIAMETER OF THE ENTIRE OPENING THROUGH THE FOOTING.)
 - PIPES AND CONDUITS PLACED PERPENDICULAR TO FOOTINGS AND EXCEEDING 2'-0" BELOW THE BOTTOM OF FOOTINGS MAY NOT REQUIRE LEAN MIX CONCRETE ENCASEMENT SUBJECT TO THE WRITTEN ACCEPTANCE OF THE SOILS ENGINEER.
 - LEAN MIX CONCRETE FILL SHALL BE PLACED BEFORE FTGS. ARE CAST. (A MONOLITHIC FOOTING IS ALSO ACCEPTABLE.)
 - NO PIPING AND/OR CONDUITS SHALL BE PLACED BELOW SPREAD FTGS. OR WITHIN A 1 TO 1 BEARING ZONE AROUND FOOTINGS
 - PIPING AND CONDUIT MAY NOT BE PLACED PARALLEL TO AND WITHIN FTGS. NON CONFORMING CONDITIONS ARE TO BE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER ON A CASE BY CASE BASIS.



1 STD. HOOKS & BENDS
1" = 1'-0"



1 TIES AND STIRRUPS
1" = 1'-0"



- NOTES:
- CONSTRUCTION JOINTS AND CONTROL JOINTS SHALL BE USED TO DIVIDE SLAB INTO AREAS NOT EXCEEDING 225 SQ. FT.
 - SLAB AREAS SHALL BE WITHOUT REENTRANT CORNERS.
 - WIDTH TO LENGTH RATIOS SHALL NOT EXCEED 1-1/2 TO 1
 - JOINT SPACING SHALL NOT EXCEED 15' IN EITHER DIRECTION.
 - CONTRACTOR SHALL SUBMIT LAYOUT PLAN SHOWING PROPOSED CONTROL AND CONSTRUCTION JOINT LOCATIONS TO ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO POURING SLAB.
 - SEMI-RIGID SEALANT TO BE EUCLID EUCC #700 OR APPROVED EQUAL

4 SLAB JOINTS
1" = 1'-0"

SCREWED/BOLTED HOLDOWN SCHEDULE			
ANCHOR	POST CONNECTORS	ANCHOR	MIN. POST
HDU2 OR STHD10*	(6) SDS25212 SCREWS	SSTB24	(2) 2 X
HDU4 OR STHD14*	(10) SDS25212 SCREWS	SB5/8 X 24	(2) 2 X
HDU5	(14) SDS25212 SCREWS	SSTB24	(2) 2 X
HDU8	(20) SDS25212 SCREWS	SB7/8 X 24	(2) 2 X
HDU11	(30) SDS25212 SCREWS	PAB8	6 X 6
HDU14	(36) SDS25212 SCREWS	PAB8	6 X 6
HDU19	(5) 1" DIA. A307 BOLTS	PAB9	6 X 6

- RE-TIGHTEN ALL BOLTS PRIOR TO SHEARWALL CLOSE-IN
 - DOUBLE 2 X HOLDOWN POSTS SHALL BE SISTERED TOGETHER PER SILL NAILING REQUIREMENTS FOR SHEARWALL TYPE.
 - HD ANCHORS ARE IN ADDITION TO SILL BOLTS.
- * CONTRACTOR'S OPTION TO SUBSTITUTE STHD TYPE HOLDOWNS:

5 FOUNDATION HOLDOWN NOTES
12" = 1'-0"

STRAP HOLDOWN SCHEDULE			
STRAP	FASTENERS EACH END	END LENGTH	MIN. POST
CMST12	(37) 16D	33"	4 X 8
CMST14	(28) 16D	26"	4 X 6
CMSTC16	(25) 16D	20"	4 X 4
(2) CS14	(15) 8D EACH STRAP	16"	4 X 4
(2) CS16	(11) 8D EACH STRAP	13"	4 X 4
CS14	(15) 8D	16"	(2) 2 X
CS16	(11) 8D	13"	(2) 2 X
STHD10	(20) 16D SINKERS	24-5/8"	(2) 2 X
STHD14	(30) 16D SINKERS	26-1/8"	(2) 2 X

- FILL ALL NAIL HOLES PER MANUFACTURER'S REQUIREMENTS
- PLACE STRAPS OVER WALL SHEATHING
- STRAPS MUST BE INSTALLED FLAT TO THE FACE OF THE POST WITH NO BENDS
- LOADS INCLUDE A 60% LOAD DURATION INCREASE ON THE FASTENERS FOR WIND OR SEISMIC LOADING
- PRE-DRILL HOLES WHEN NECESSARY TO PREVENT WOOD SPLITTING
- WHEN NAILING OVER SHEATHING NAILS MUST BE 2 1/2" LONG. MIN.

REINFORCEMENT LAP SPlice SCHEDULE

CONCRETE STRENGTH, f _c = 3000 PSI										
SPlice CLASS	LOCATION OF REINFORCEMENT	#3	#4	#5	#6	#7	#8	#9	#10	#11
B	TOP	19	37	47	56	81	93	105	118	131
	OTHER	15	29	36	43	63	72	81	91	101

CONCRETE STRENGTH, f _c = 3500 PSI										
SPlice CLASS	LOCATION OF REINFORCEMENT	#3	#4	#5	#6	#7	#8	#9	#10	#11
B	TOP	18	35	43	52	75	86	97	109	121
	OTHER	14	27	33	40	58	66	75	84	93

CONCRETE STRENGTH, f _c = 4000 PSI										
SPlice CLASS	LOCATION OF REINFORCEMENT	#3	#4	#5	#6	#7	#8	#9	#10	#11
B	TOP	17	32	40	48	70	80	91	102	113
	OTHER	13	25	31	37	55	62	70	79	87

CONCRETE STRENGTH, f _c = 5000 PSI										
SPlice CLASS	LOCATION OF REINFORCEMENT	#3	#4	#5	#6	#7	#8	#9	#10	#11
B	TOP	15	29	36	43	63	72	81	91	101
	OTHER	11	22	28	33	49	55	63	70	78

- NOTES:
- SCHEDULE APPLIES TO #4 BARS AND LARGER IN NORMAL WEIGHT CONCRETE W/ UNCOATED GRADE 60 REINFORCING STEEL.
 - VALUES FOR #3 BARS ARE BASED ON GRADE 40 REINFORCING STEEL.
 - TOP REINFORCEMENT IS DEFINED AS HORIZONTAL REINFORCEMENT LOCATED SUCH THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE SPlice.
 - LAP LENGTHS SHALL BE MULTIPLIED BY 1.30 WHEN LIGHTWEIGHT CONCRETE IS USED.
 - MULTIPLY LAP LENGTHS BY 1.1 WHERE CLEAR SPACING OF BARS BEING SPliced IS LESS THAN 2 BAR DIAMETERS OR WHERE COVER OF BARS BEING SPliced IS LESS THAN 1 BAR DIAMETER, U.N.O.
 - MULTIPLY LAP LENGTHS BY 2.00 WHERE NOTES 4 AND 5 OCCUR TOGETHER, U.N.O.
 - MULTIPLY LAP LENGTHS BY 1.30 WHEN CLASS A SPlices ARE CALLED FOR IN DETAILS.

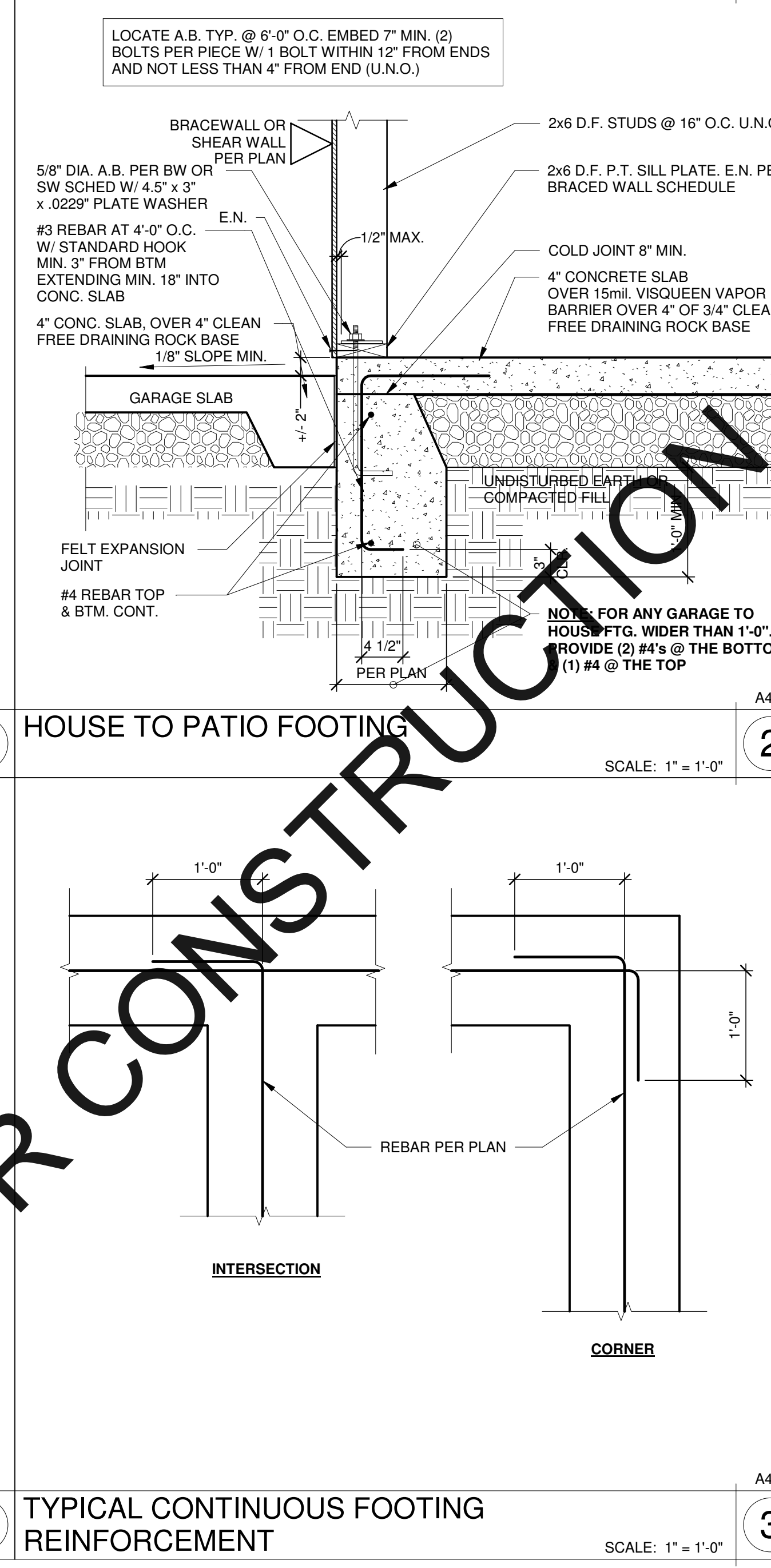
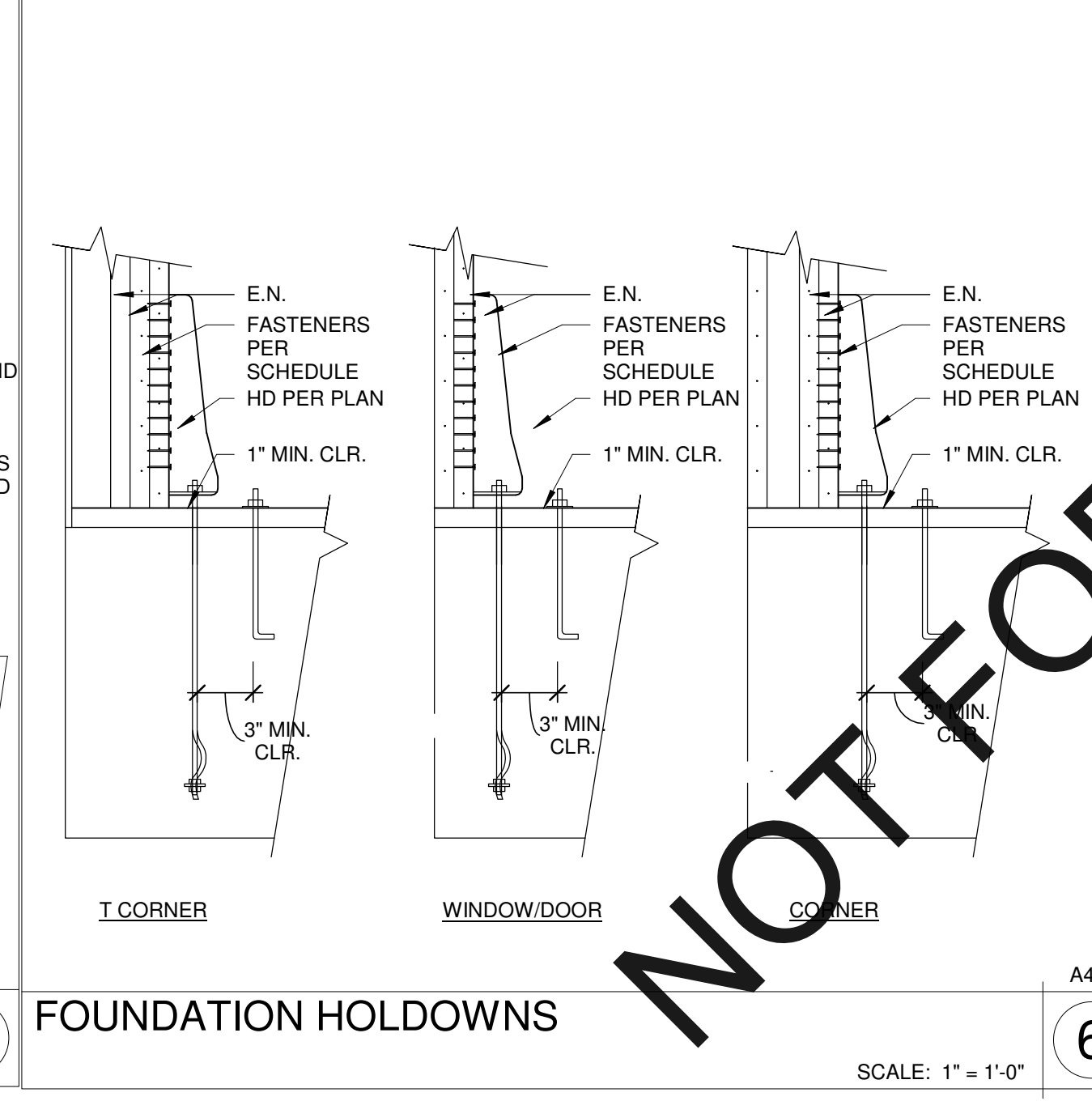
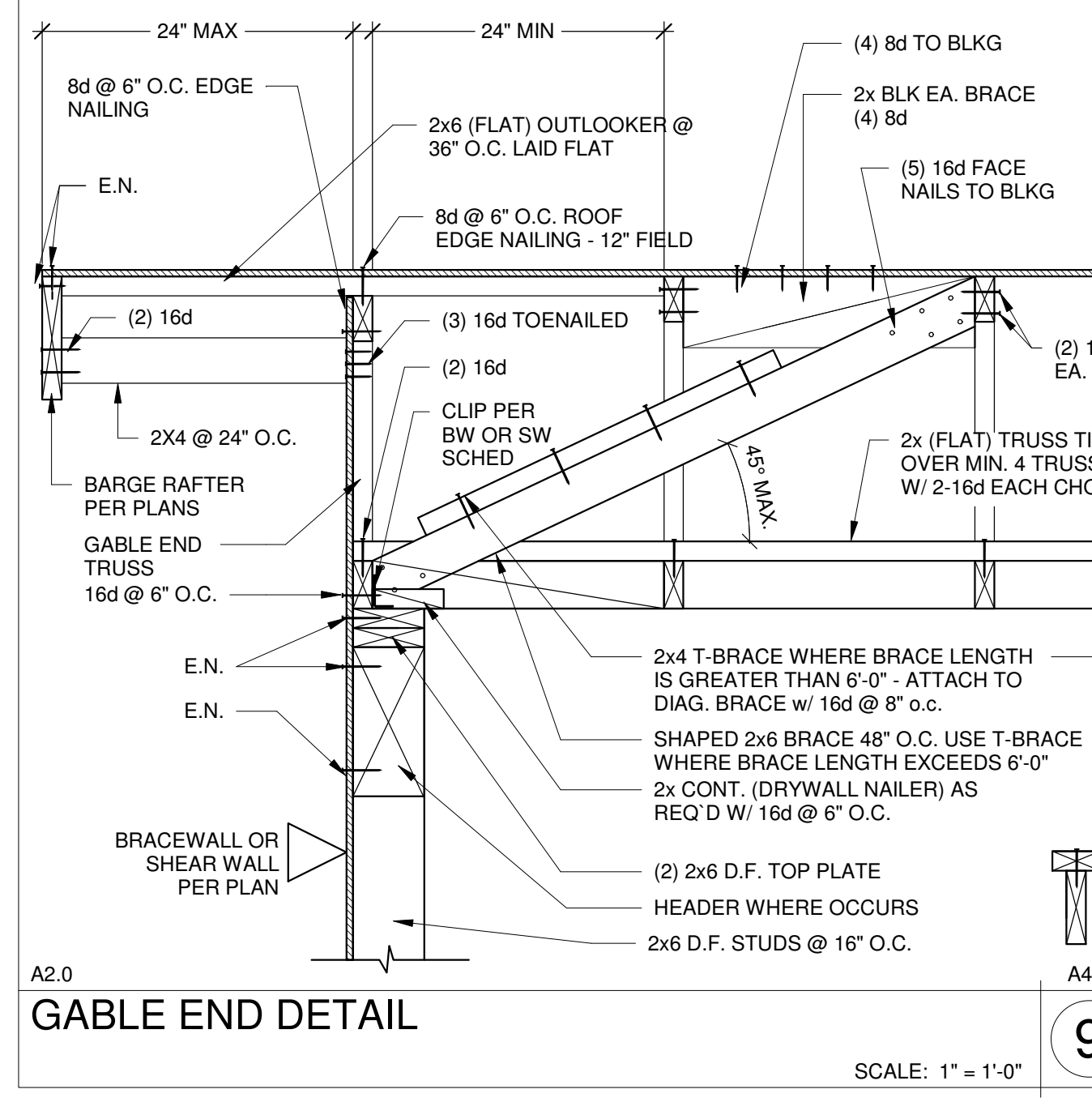
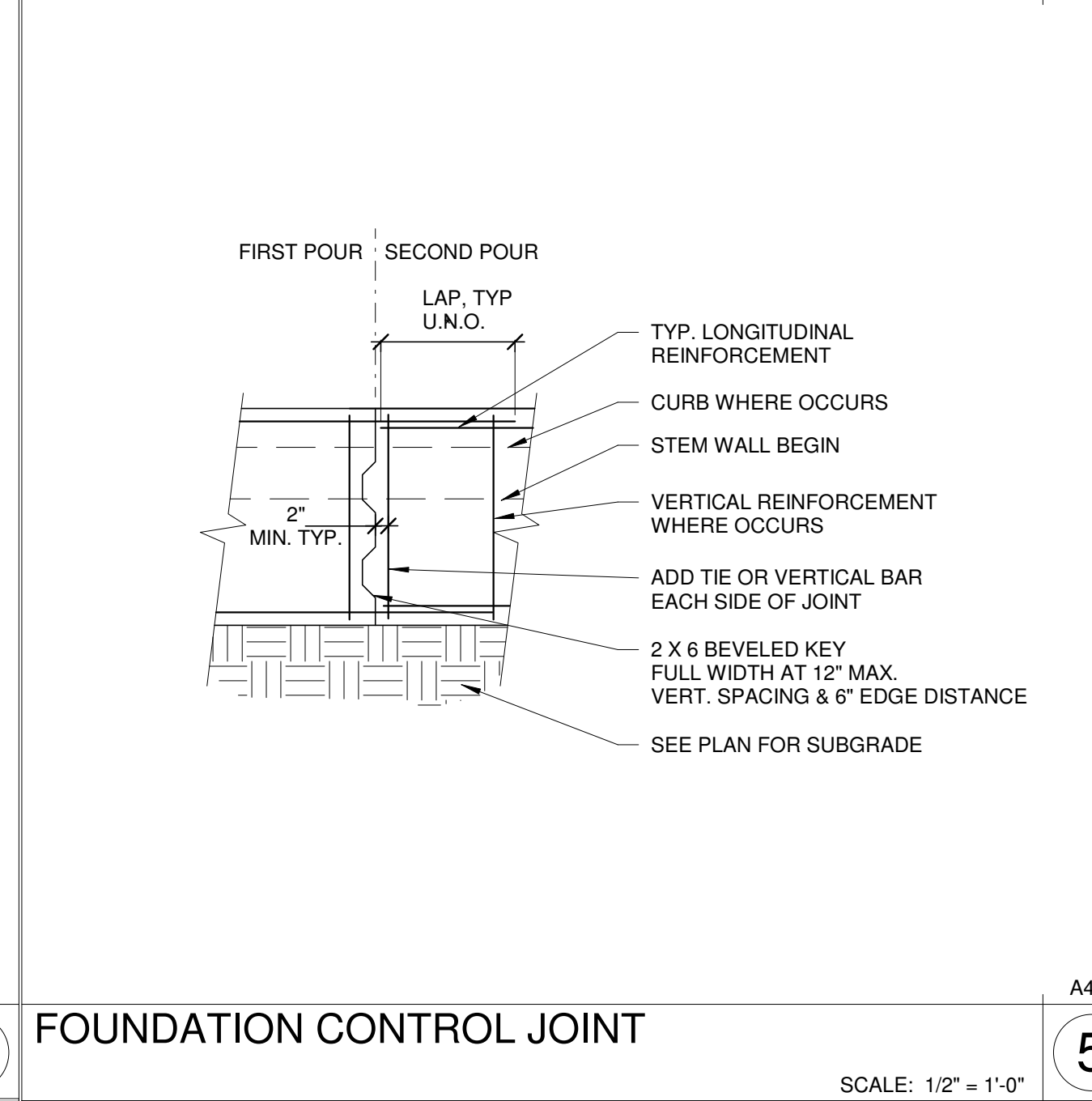
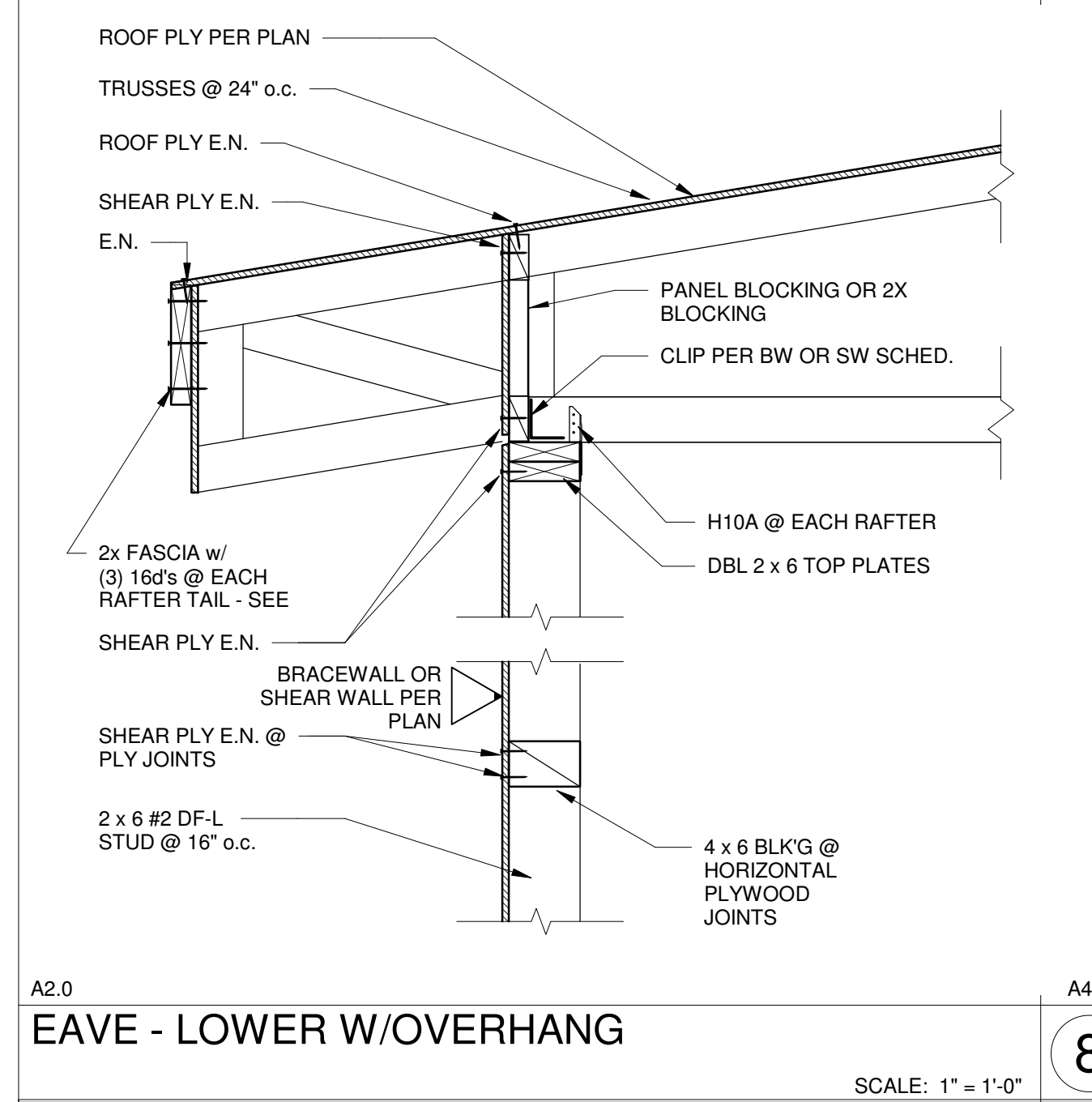
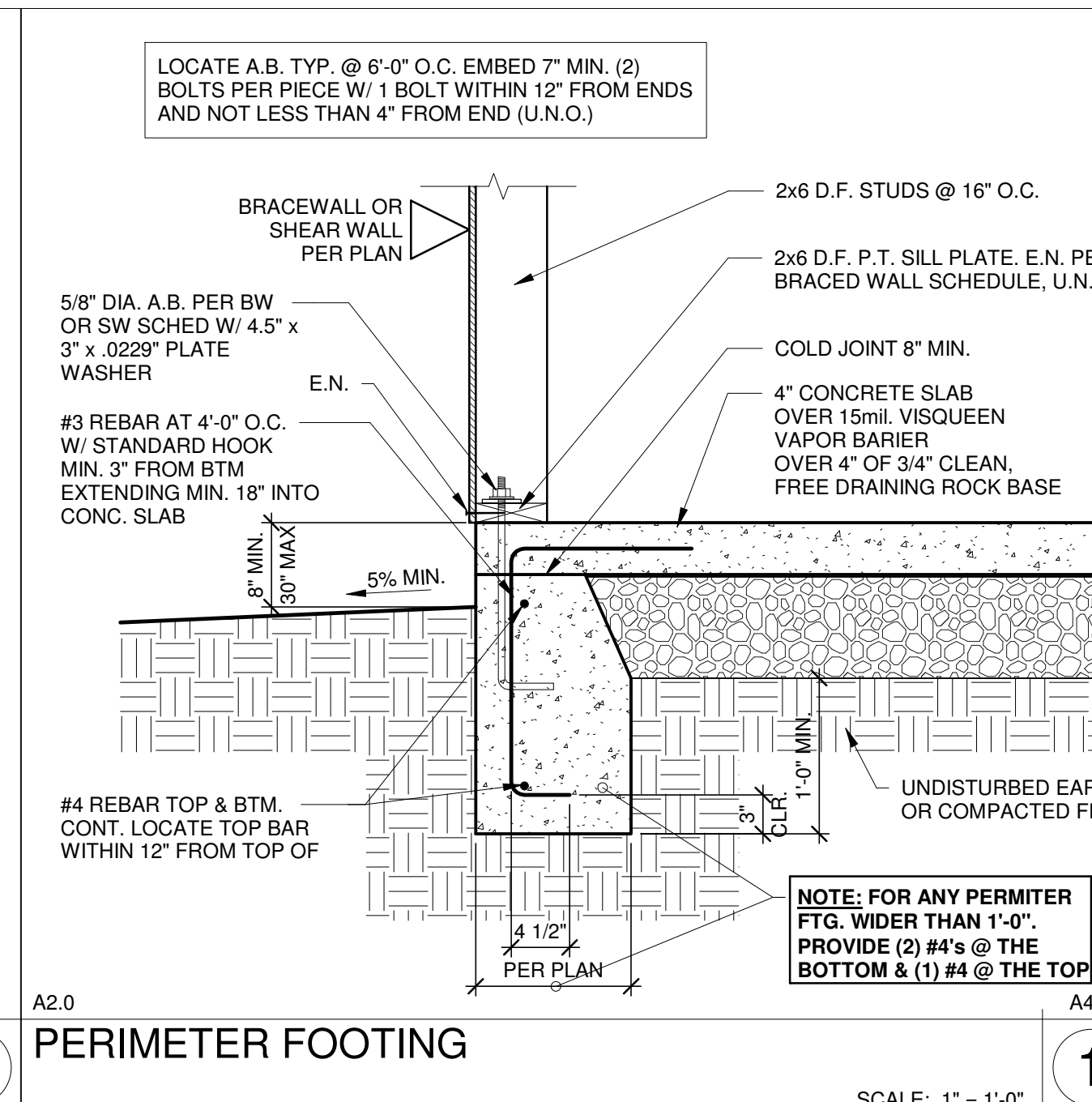
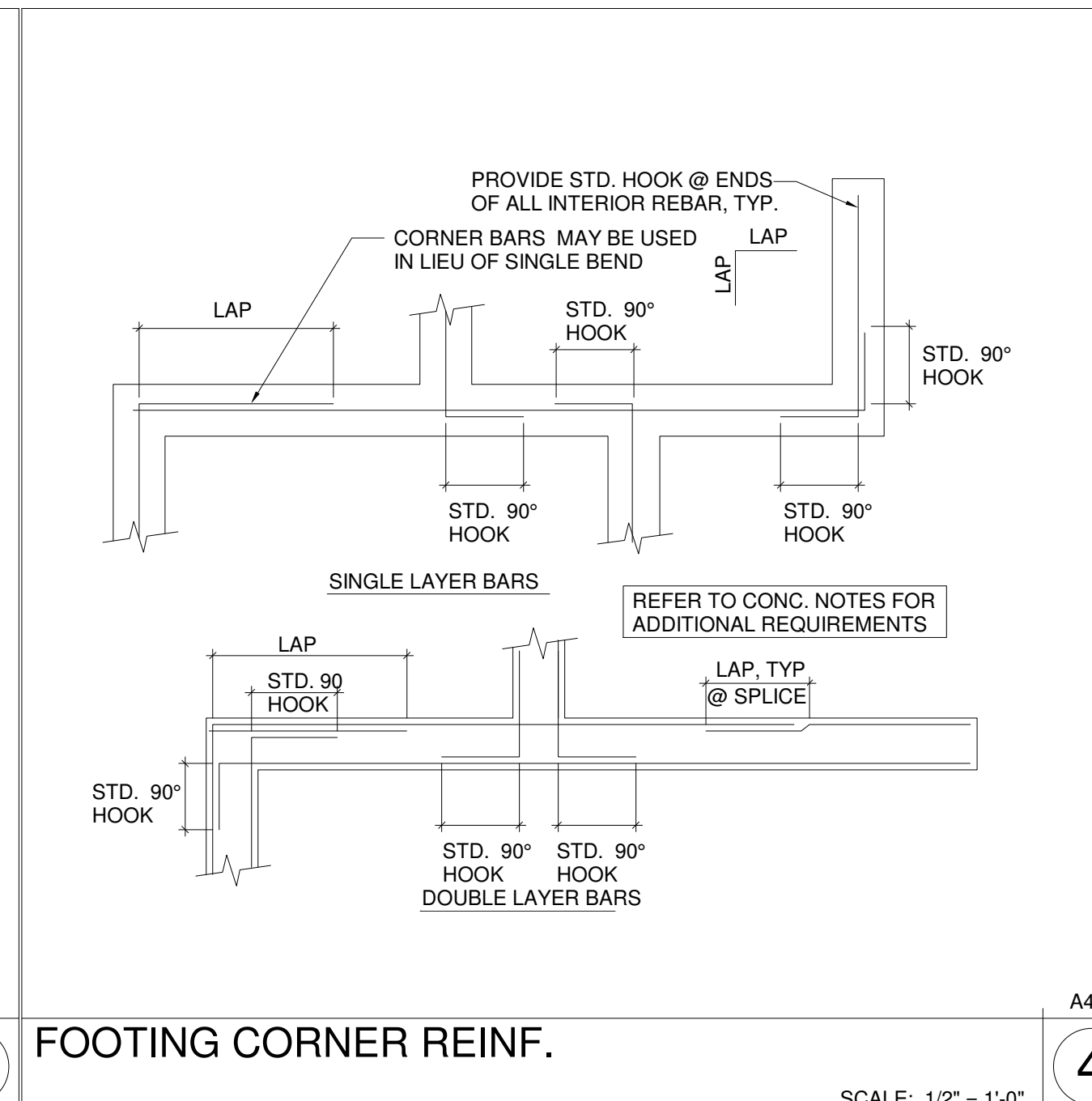
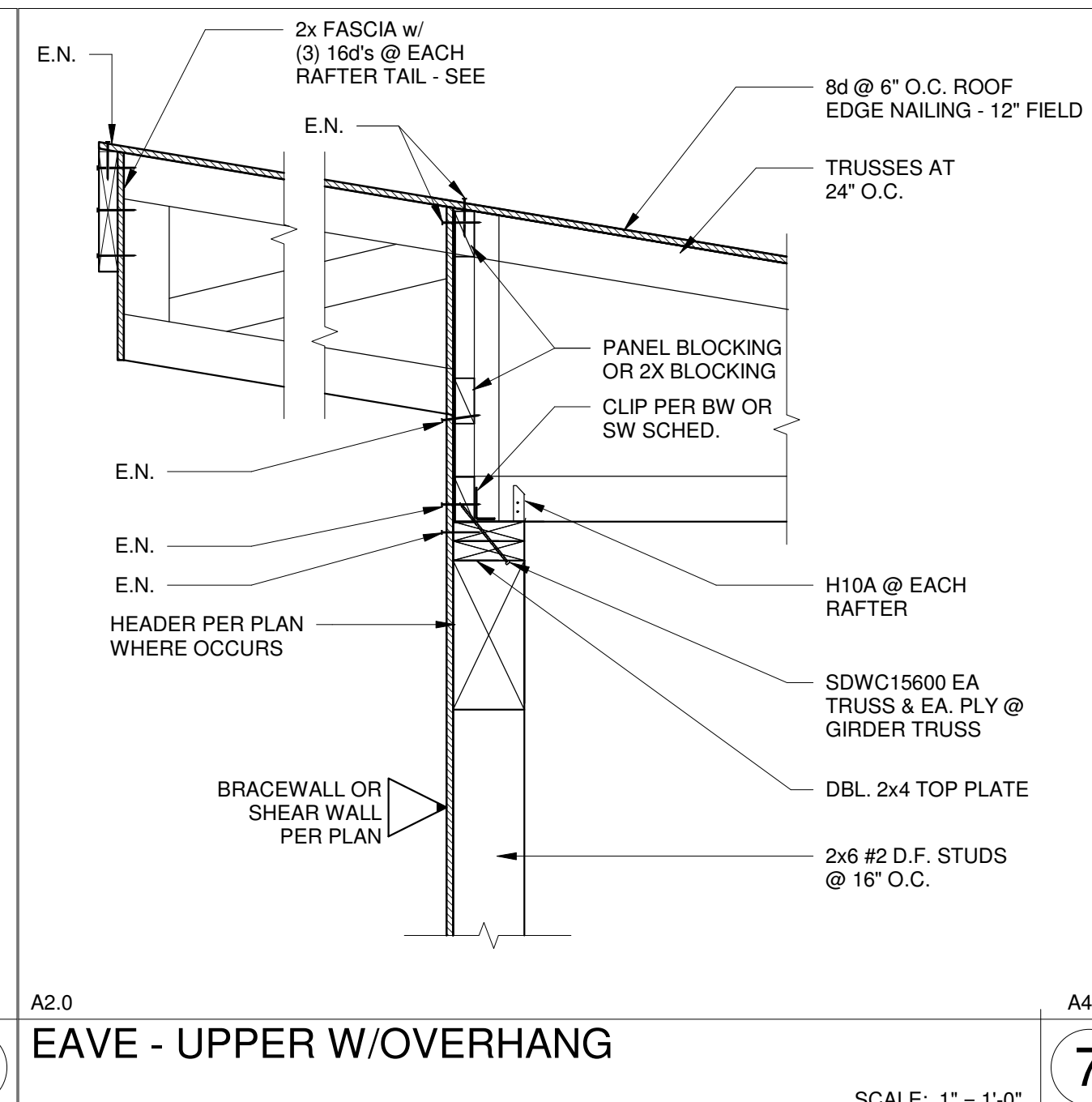
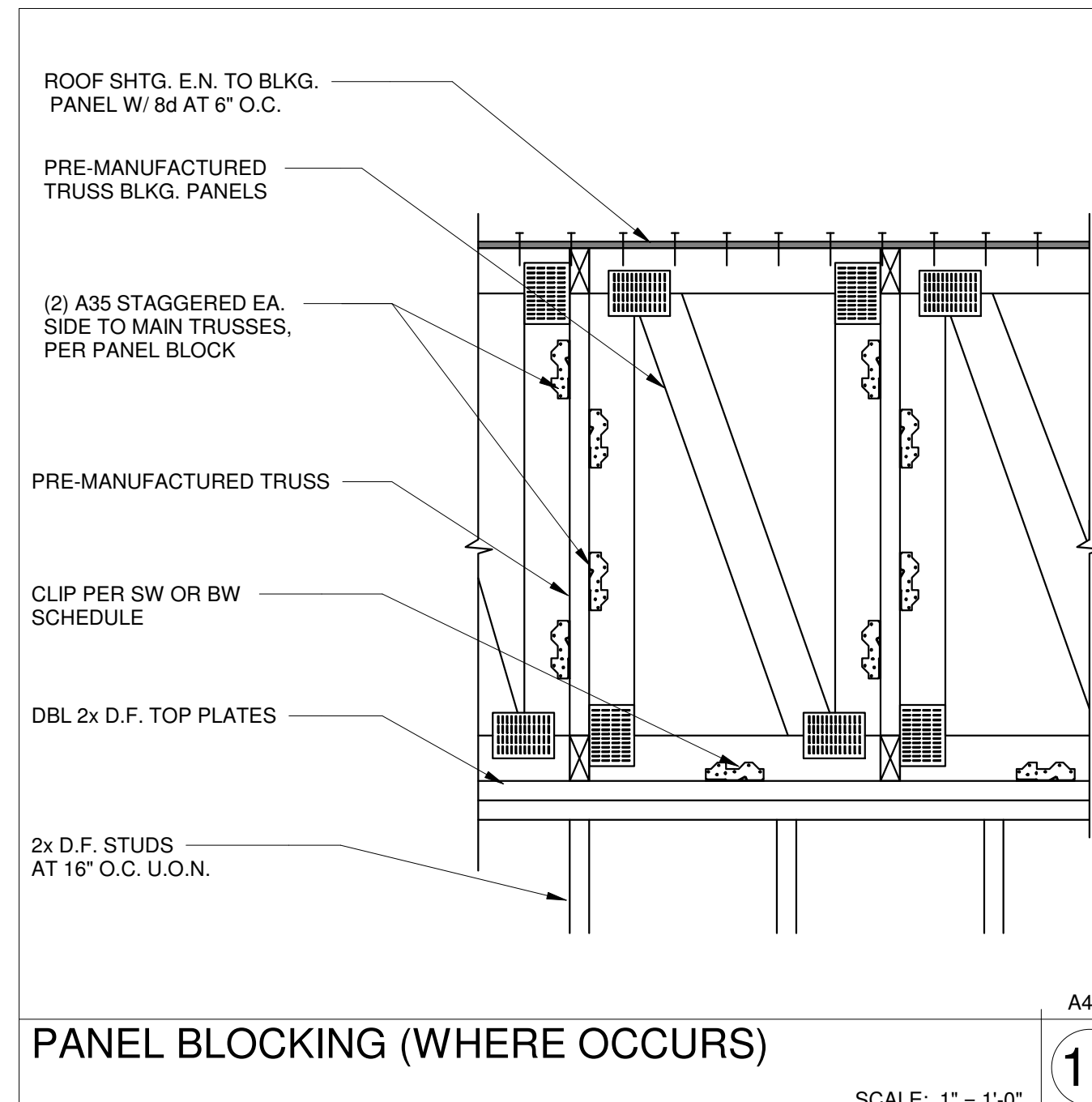
REINFORCEMENT LAP SPlice SCHEDULE
12" = 1'-0"

NOT FOR CONSTRUCTION

IF THIS SHEET IS NOT 30"x42", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

G:\Shared drives\RAD Projects\2023\23-07 ADU RFP Shasta County\ADU 650_CDS.rvt

9/14/2023 10:21:27 AM



P. 530.653.0777 W. WWW.RADSTUDIO.DESIGN



REVISION #	DATE	DESCRIPTION

// AGENCY

// SEAL

// ISSUED

// COPYRIGHTS

COPYRIGHT 2023
 RAD STUDIO RETAINS ALL RIGHTS TO PROPRIETARY INFORMATION, INCLUDING, WITHOUT LIMITATION, METHODOLOGIES AND METHODS OF ANALYSIS, IDEAS, CONCEPTS, ARRANGEMENTS, PLANS, EXPRESSIONS, KNOW HOW, METHODS, TECHNIQUES, SKILLS, KNOWLEDGE, AND EXPERIENCE POSSESSED BY RAD STUDIO PRIOR TO, OR ACQUIRED DURING THE DEVELOPMENT OF THIS PROJECT AND SHALL NOT BE RESTRICTED IN ANY WAY WITH RESPECT THERETO.

STIPULATION FOR REUSE
 THE DRAWING WAS PREPARED IN CONTRACT WITH SHASTA COUNTY FOR DISTRIBUTION AND USE BY THE RESIDENTS OF SHASTA COUNTY WITH A SNOW LOAD OF 70 PSF OR LESS. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS OR ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON PROJECTS OUTSIDE OF SHASTA COUNTY AND WITHOUT THE PERMISSION OF THE SHASTA COUNTY BUILDING DEPARTMENT IS NOT AUTHORIZED AND IS CONTRARY TO THE LAW.

// PROJECT NO.

THE PINE SHED 650

// CLIENT

// MANAGEMENT

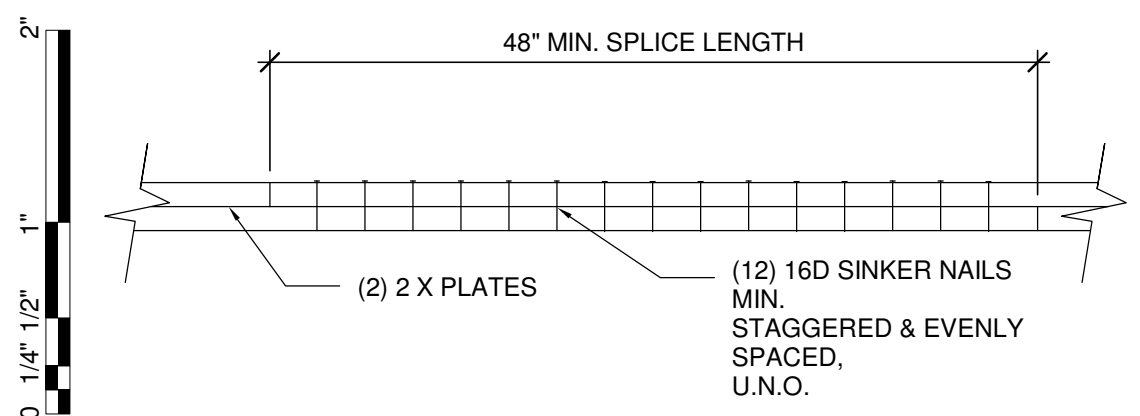
PROJECT NO: _____
 DRAWN BY: _____ MB
 CHECKED BY: _____ Checker
 ISSUE DATE: 9/14/2023 10:21:27 AM
 COPYRIGHT: RAD STUDIO 2019

// SHEET TITLE

STRUCTURAL DETAILS

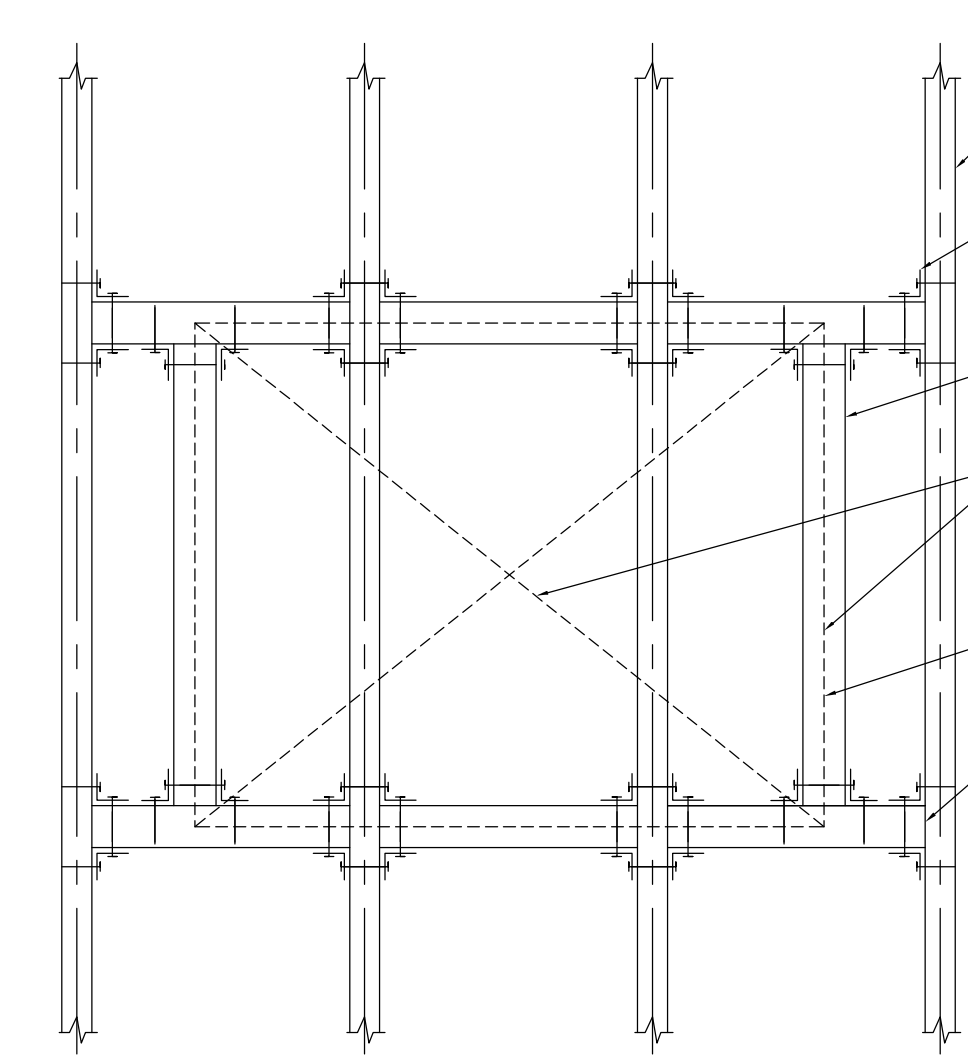
// SHEET NO.

A4.2

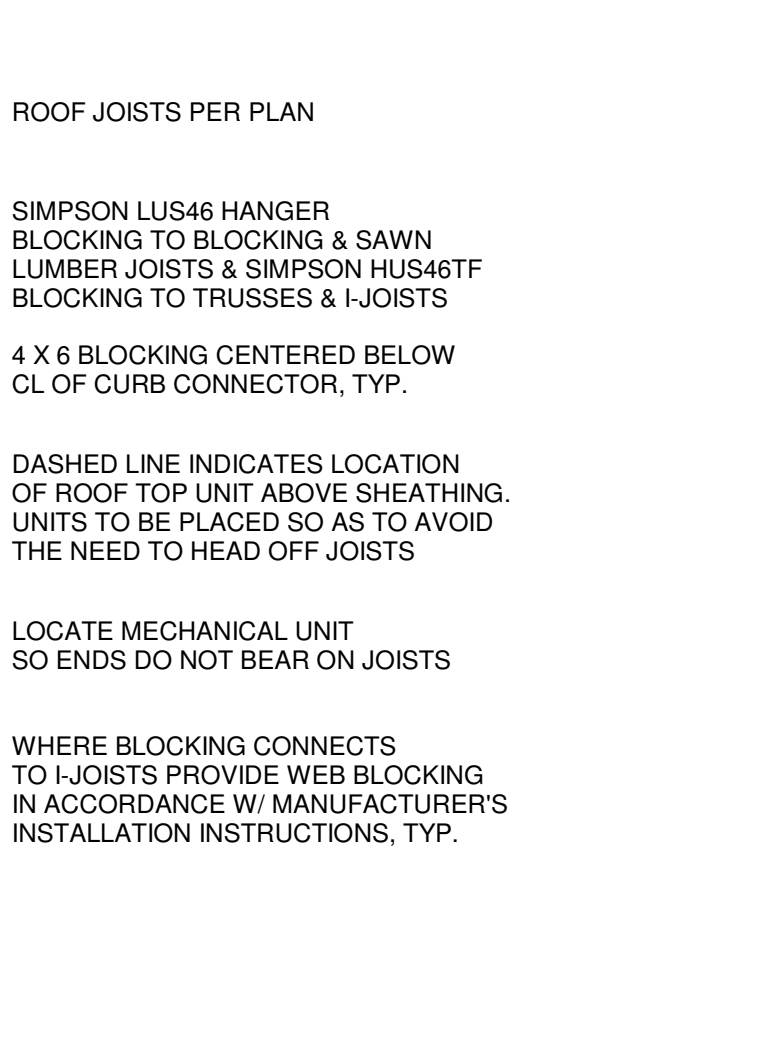


- 1) PRE-DRILL CORNERS OF NOTCHES TO AVOID OVER CUTTING.
 2) NOTCHES NOT PERMITTED IN MIDDLE THIRD OF SPAN.
 3) HOLES NOT PERMITTED IN OUTER THIRDS OF SPAN.
 4) NOTCHES IN THE BOTTOM OF JOIST NOT PERMITTED UNLESS SPECIFICALLY NOTED ON DRAWINGS.
 5) APPLIES TO SAWN LUMBER ONLY. NOTCHING OR DRILLING NOT PERMITTED IN OTHER TYPES OF MEMBERS UNLESS SPECIFICALLY NOTED ON DRAWINGS.

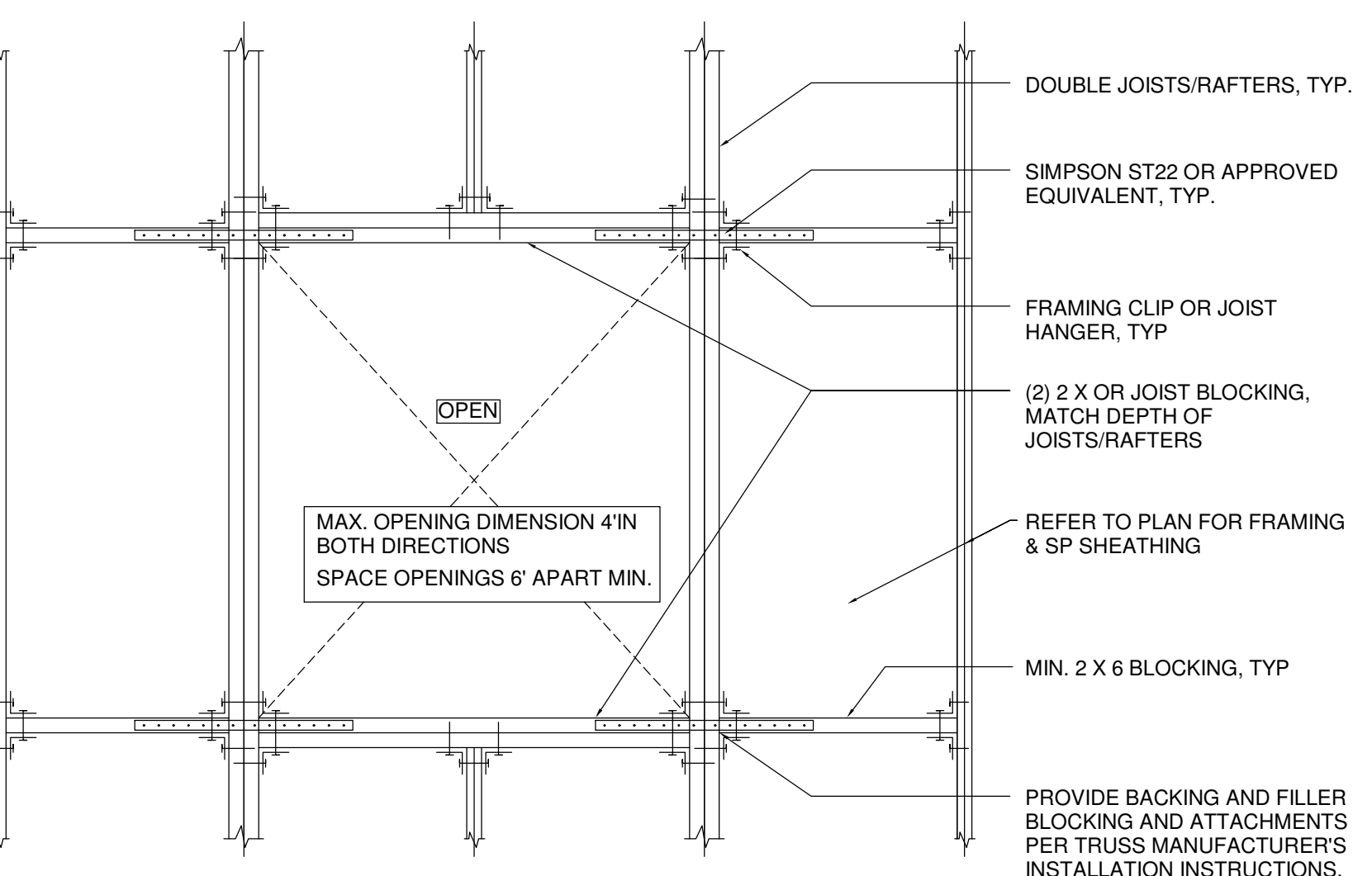
9 TOP PLATE SPLICE
1" = 1'-0"



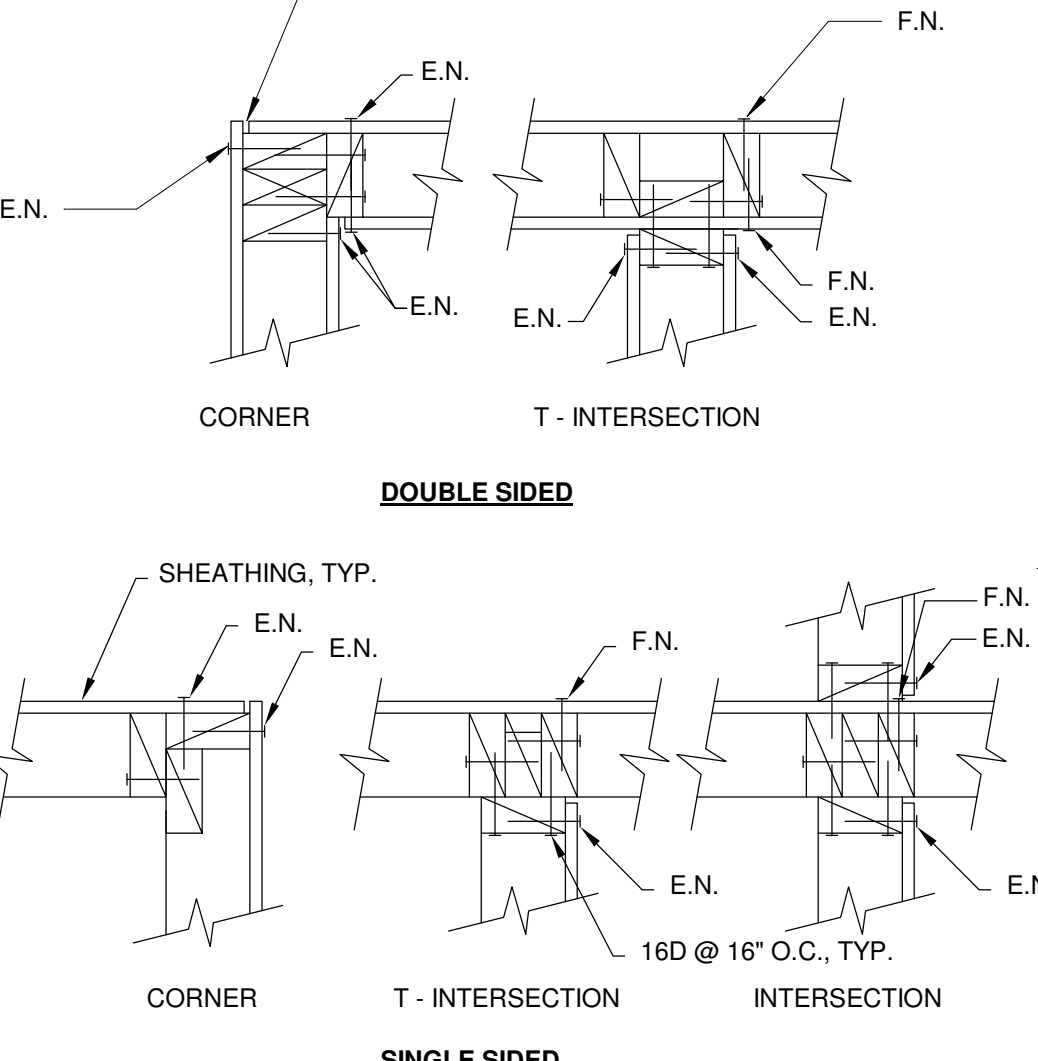
6 MECHANICAL UNIT SUPPORT
3/4" = 1'-0"



4 OPENINGS IN FRAMING
3/4" = 1'-0"



1 CORNER FRAMING
1 1/2" = 1'-0"



1 CORNER FRAMING
1 1/2" = 1'-0"

IF THIS SHEET IS NOT 30"x42", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

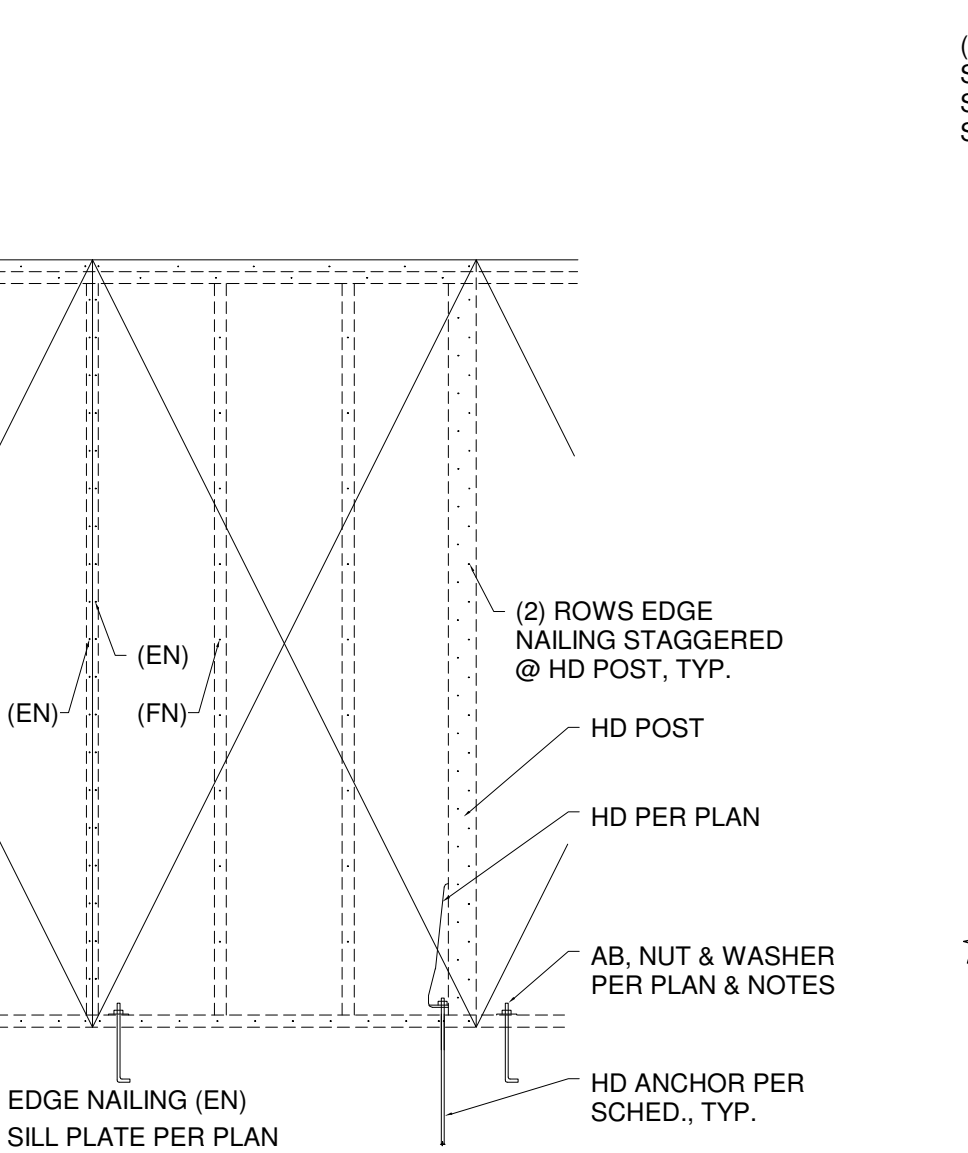
NOTCHING		
W	X-B/NB	MAX. DEPTH
3.5	X-B	7/8"
3.5	NB	1 3/8"
5.5	X-B	1 3/8"
5.5	NB	2 3/16"
W	X-B	0.25W
W	NB	0.40W

X-B = EXTERIOR AND/OR BEARING
 NB = NON-BEARING

DRILLED HOLES		
W	B/NB	MAX. DIA.
3.5	B	1 3/8"
3.5	NB	2 1/16"
5.5	B	2 3/16"
5.5	NB	3 1/4"
W	B	0.4W
W	NB	0.6W

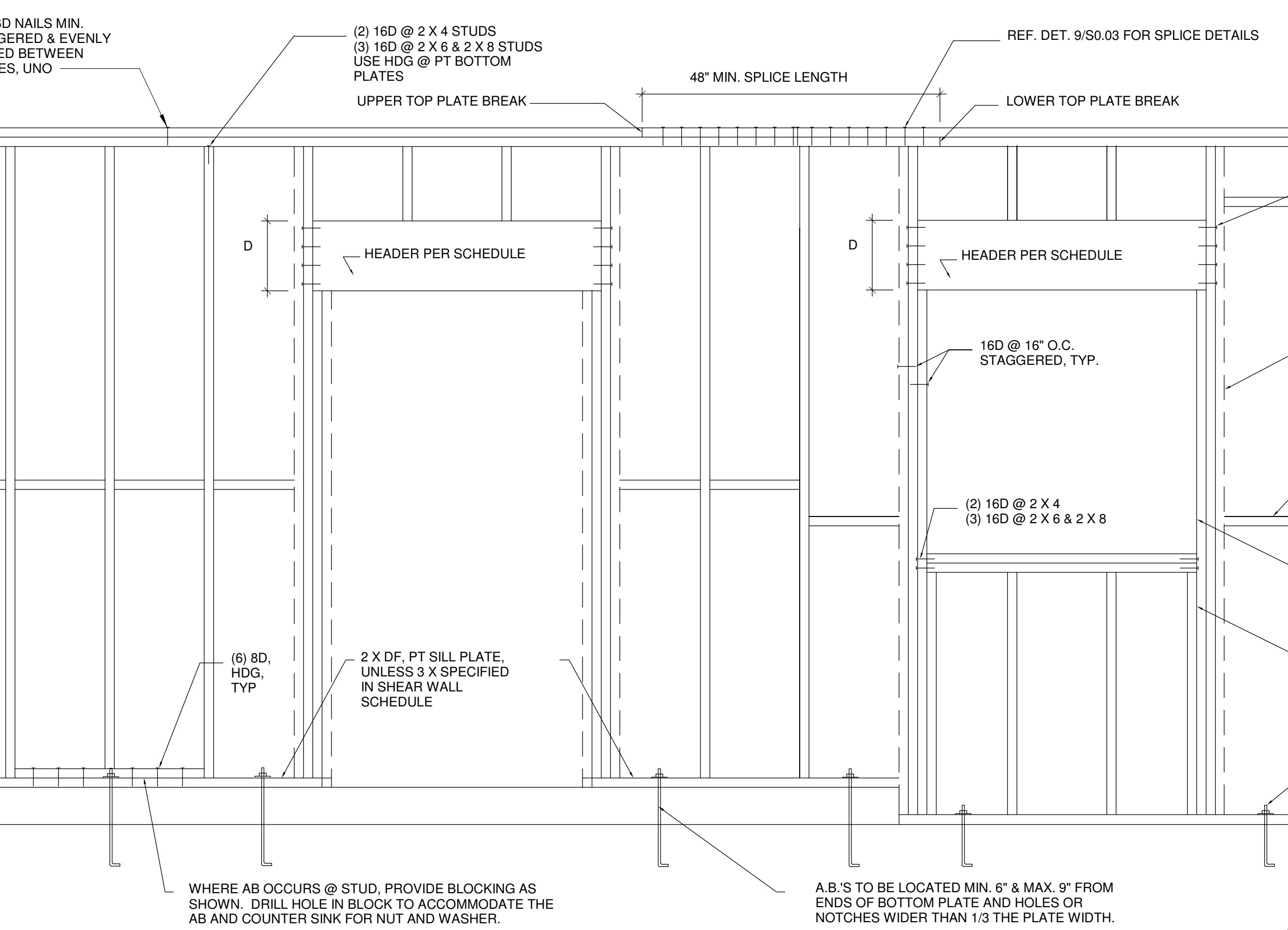
B = BEARING
 NB = NON-BEARING

11 NOTCHING STUDS
1 1/2" = 1'-0"



- 1) REFER TO PLAN FOR SHEATHING THICKNESS AND TYPE AND NAIL SIZE AND SPACING
 2) EDGE NAILING (EN) SHALL BE MIN. 8D @ 6" O.C., UNO, FIELD NAILING (FN) SHALL BE MIN. 12" O.C., UNO.
 3) MINIMUM PANEL WIDTH IS 12".
 4) PROVIDE EDGE NAILING AT ALL PANEL EDGES, SILL AND TOP PLATES, BLOCKING AND POSTS.
 5) PROVIDE BLOCKING AND EDGE NAILING AT UNSUPPORTED EDGES.
 6) REFER TO SHEAR WALL SCHEDULE FOR 3 X FRAMING AND BLOCKING REQUIREMENTS.
 7) NAILS IN PRESSURE TREATED LUMBER SHALL BE EITHER HOT DIPPED GALVANIZED OR STAINLESS STEEL.
 8) ALL MATERIALS SHALL BE LESS THAN 19% MOISTURE CONTENT.
 9) REFER TO DETAIL 8 THIS SHEET FOR EDGE NAIL SPACING AT PANEL EDGES.

7 SHEAR WALL NAILING
1/2" = 1'-0"



2 TYPICAL WALL FRAMING
3/4" = 1'-0"

HEADER SCHEDULE	
OPENING WIDTH	HEADER SIZE (D)
<= 4' 0"	8"
> 4' 0" TO 6' 0"	10"
> 6' 0" TO 8' 0"	12"
> 8' 0"	SEE PLAN

- NOTES:
 1. HEADERS SIZES ARE TYP., UNO.
 2. HEADER WIDTH TO MATCH STUD.
 3. REFER TO SHEAR WALL SCHEDULE AND DETAIL 15 FOR SHEAR WALL NAILING, NOTES AND DETAILS.
 4. REFER TO PLAN AND DETAILS 2 & 4 FOR HOLDOWN POST AND ANCHOR LOCATIONS, NOTES AND DETAILS.

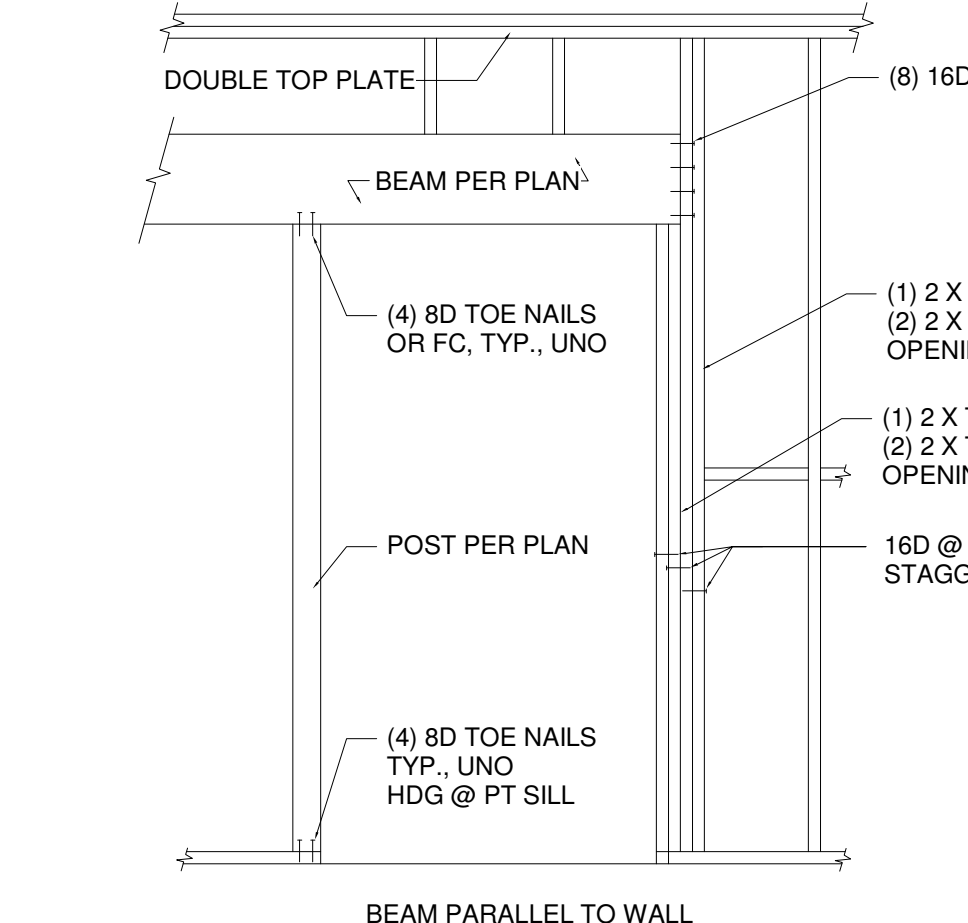
1 CORNER FRAMING
1 1/2" = 1'-0"

12 SHEATHING JOINT
1" = 1'-0"

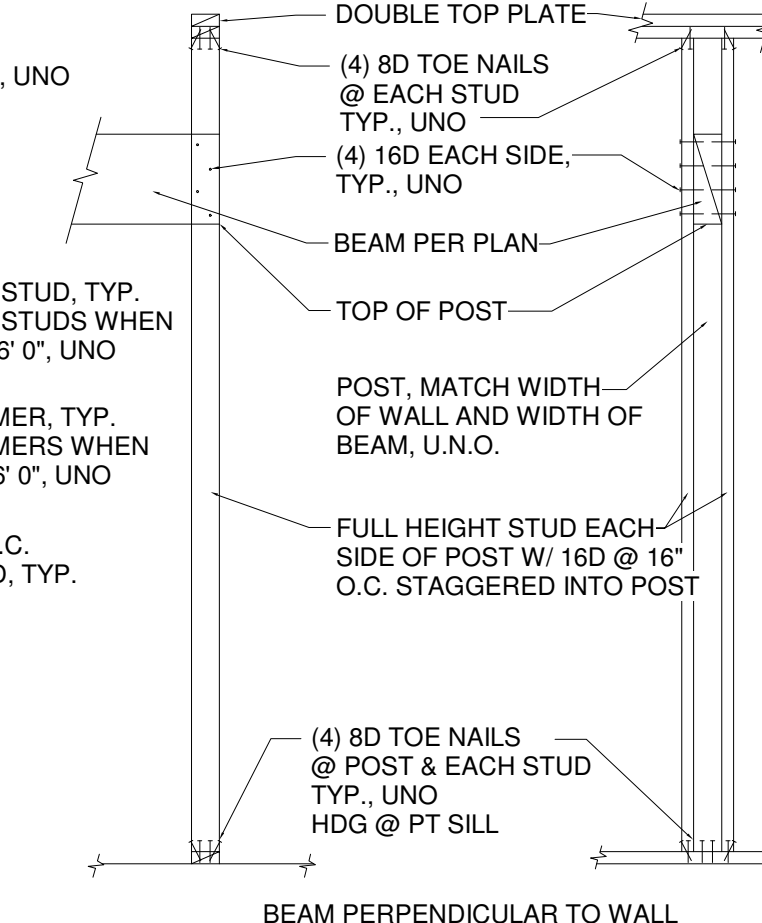
NAIL SIZES		
PENNYWEIGHT	LENGTH (IN.)	DIAMETER (IN.)
6D COMMON	2	0.113
8D COMMON	2-1/2"	0.131
10D COMMON	3"	0.148
12D COMMON	3-1/4"	0.148
16D COMMON	3-1/2"	0.162
6D BOX	2	0.099
8D BOX	2-1/2"	0.113
10D BOX	3"	0.128
12D BOX	3-1/4"	0.128
16D BOX	3-1/2"	0.135
7D SINKER	2-1/8"	0.099
8D SINKER	2-3/8"	0.113
10D SINKER	2-7/8"	0.120
12D SINKER	3-1/8"	0.135
16D SINKER	3-1/4"	0.148

1) ALL NAILS SHALL BE COMMON, U.N.O.
 2) ALL NAILS SHALL MEET THE MINIMUM DIMENSIONS NOTED ABOVE.

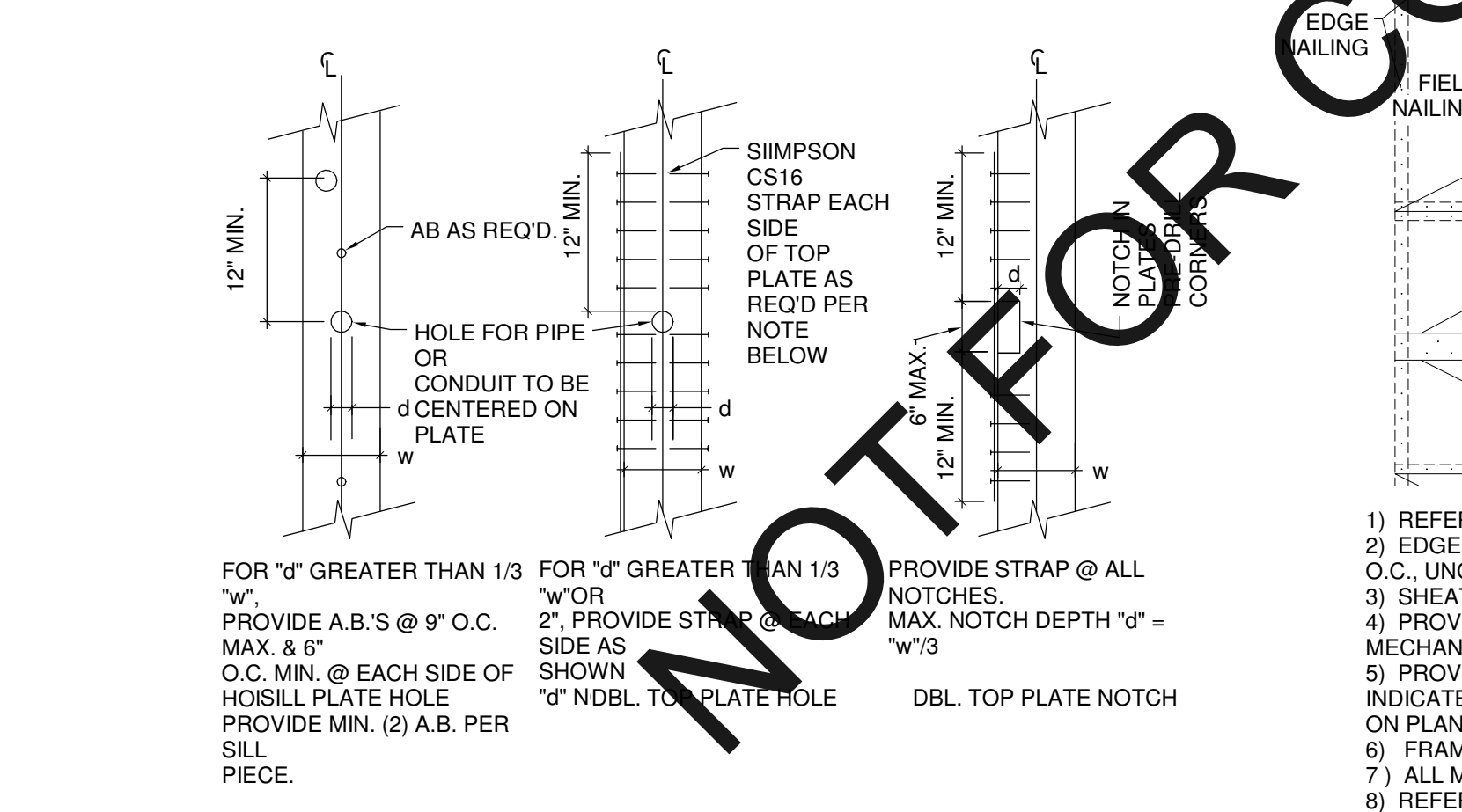
13 NAIL SCHEDULE
12" = 1'-0"



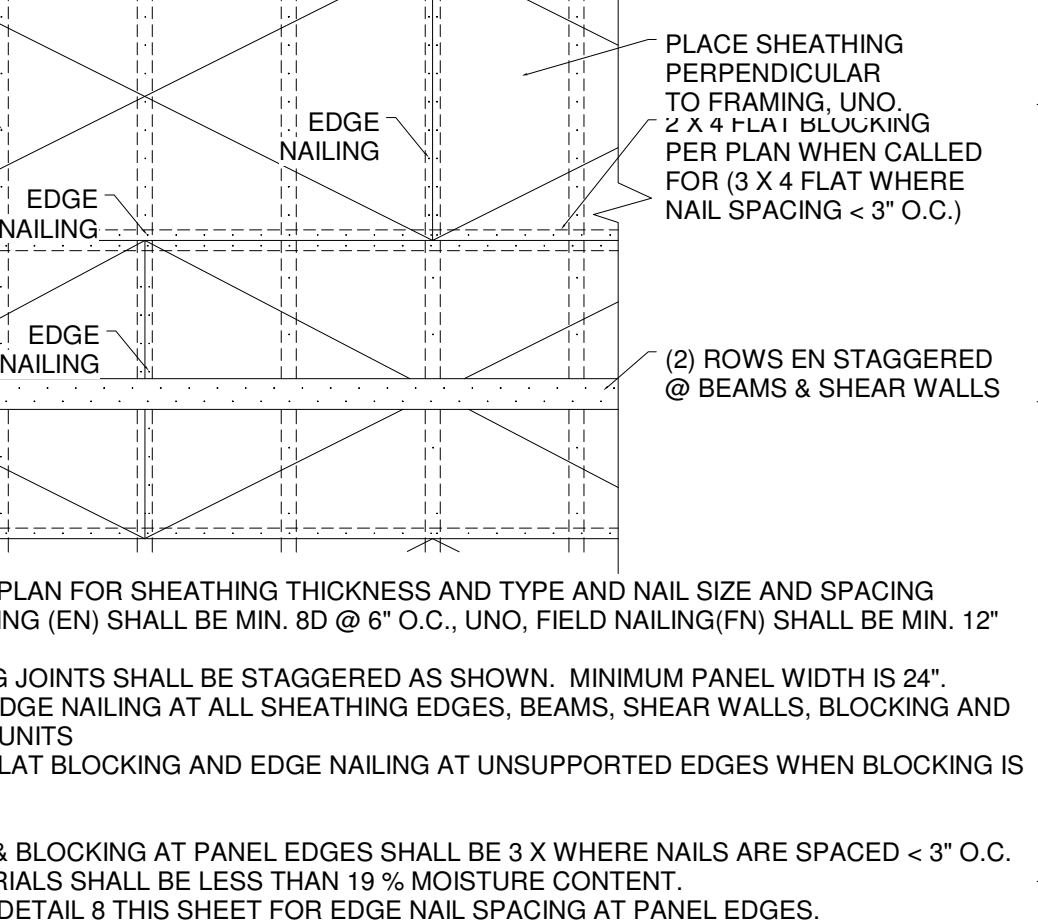
8 POST AND BEAM CONNECTIONS
1/2" = 1'-0"



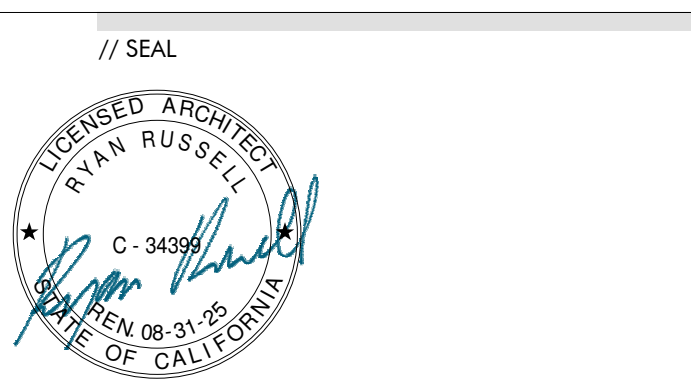
5 TOP PLATE PEN.
1" = 1'-0"



3 DIAPHRAGM NAILING
3/8" = 1'-0"



3 DIAPHRAGM NAILING
3/8" = 1'-0"



REVISION #	DATE	DESCRIPTION

11/2023 10:21:30 AM
 6: Shared drives/RAD Projects/2023/23-07 ADU RFP Shasta County/ADU 650_CDS.rvt

11/2023 10:21:30 AM
 6: Shared drives/RAD Projects/2023/23-07 ADU RFP Shasta County/ADU 650_CDS.rvt

11/2023 10:21:30 AM
 6: Shared drives/RAD Projects/2023/23-07 ADU RFP Shasta County/ADU 650_CDS.rvt

11/2023 10:21:30 AM
 6: Shared drives/RAD Projects/2023/23-07 ADU RFP Shasta County/ADU 650_CDS.rvt

11/2023 10:21:30 AM
 6: Shared drives/RAD Projects/2023/23-07 ADU RFP Shasta County/ADU 650_CDS.rvt

11/2023 10:21:30 AM
 6: Shared drives/RAD Projects/2023/23-07 ADU RFP Shasta County/ADU 650_CDS.rvt

11/2023 10:21:30 AM
 6: Shared drives/RAD Projects/2023/23-07 ADU RFP Shasta County/ADU 650_CDS.rvt

11/2023 10:21:30 AM
 6: Shared drives/RAD Projects/2023/23-07 ADU RFP Shasta County/ADU 650_CDS.rvt

11/2023 10:21:30 AM
 6: Shared drives/RAD Projects/2023/23-07 ADU RFP Shasta County/ADU 650_CDS.rvt

11/2023 10:21:30 AM
 6: Shared drives/RAD Projects/2023/23-07 ADU RFP Shasta County/ADU 650_CDS.rvt

11/2023 10:21:30 AM
 6: Shared drives/RAD Projects/2023/23-07 ADU RFP Shasta County/ADU 650_CDS.rvt

NOT FOR CONSTRUCTION

11/2023 10:21:30 AM
 6: Shared drives/RAD Projects/2023/23-07 ADU RFP Shasta County/ADU 650_CDS.rvt

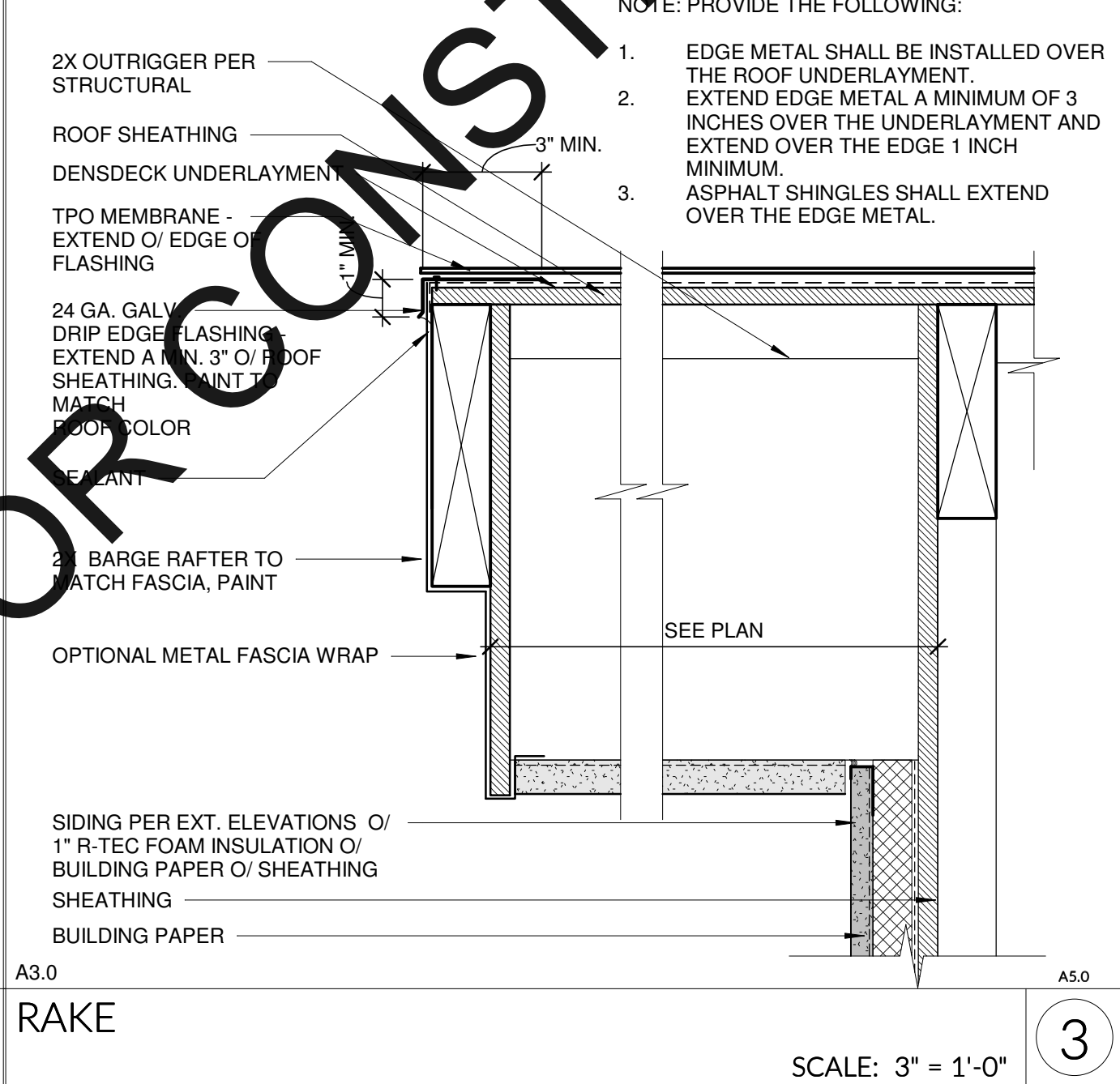
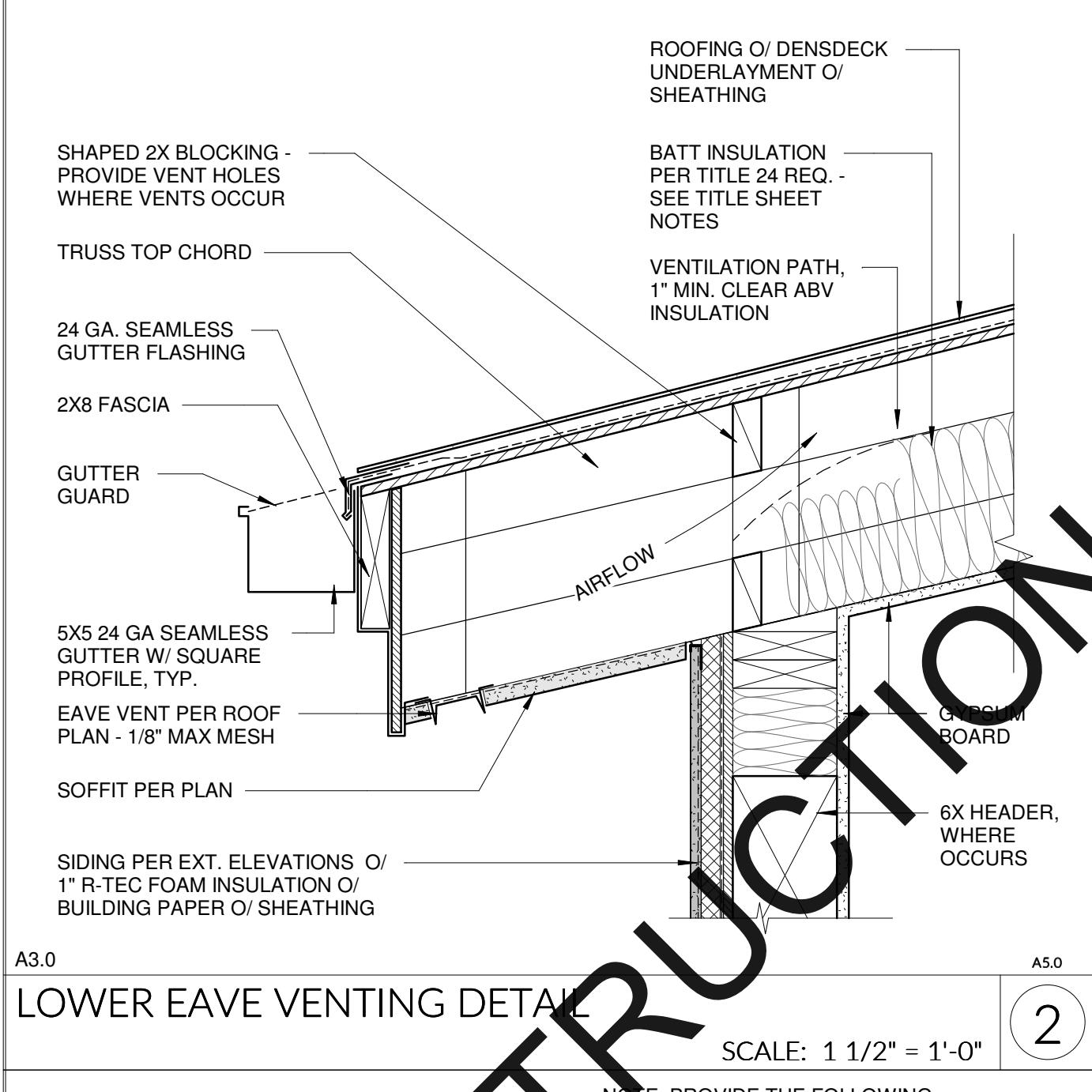
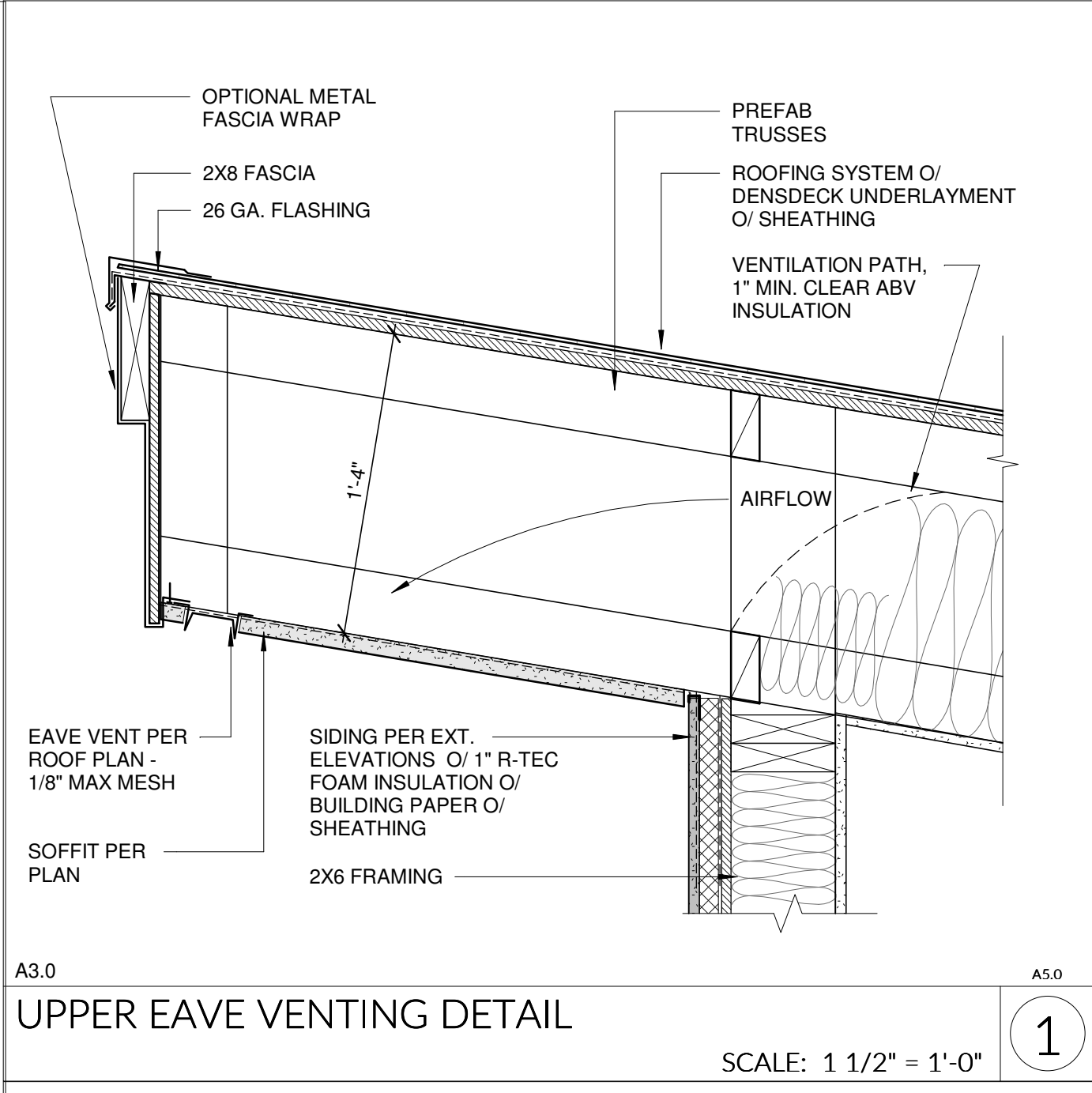
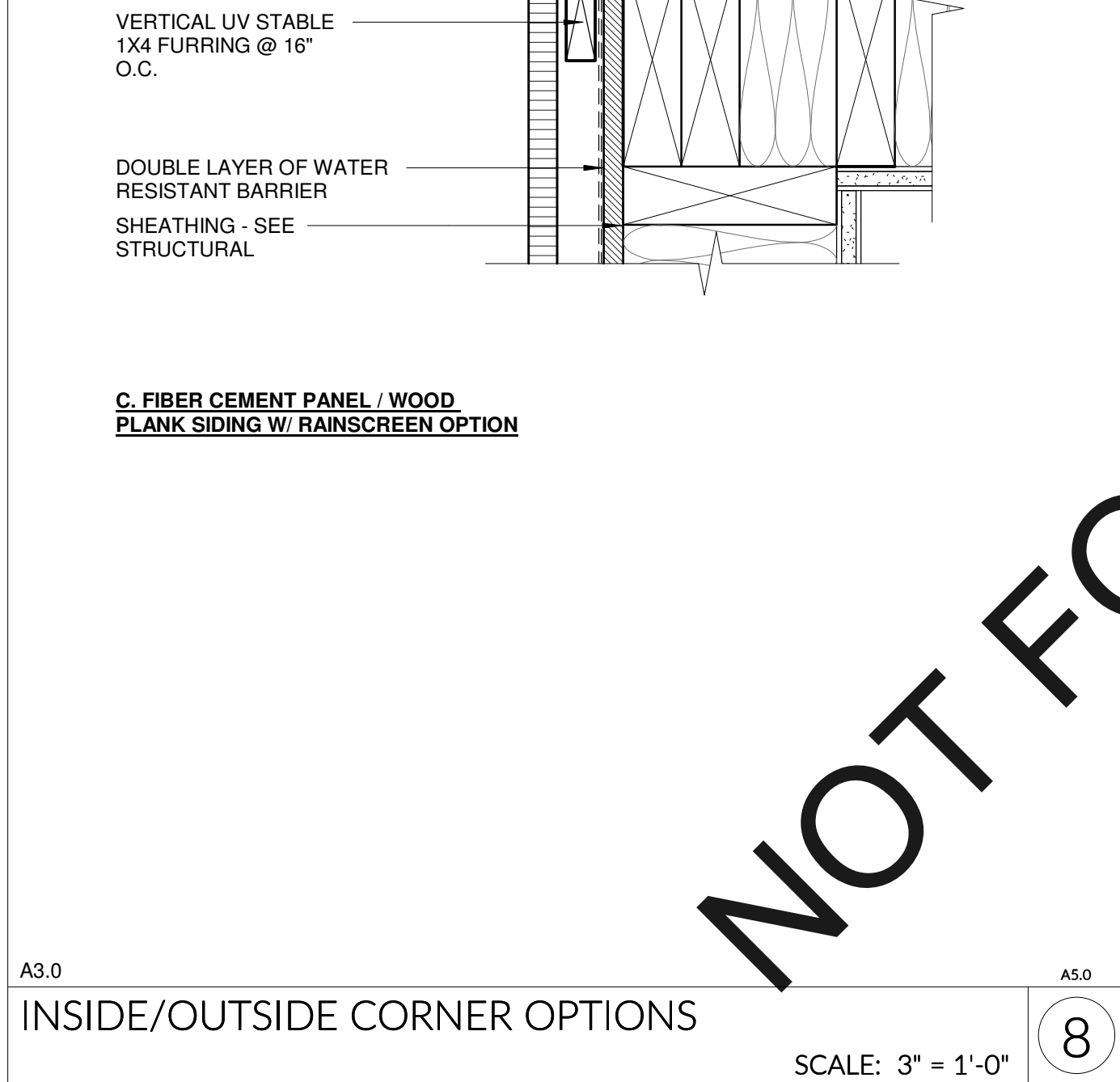
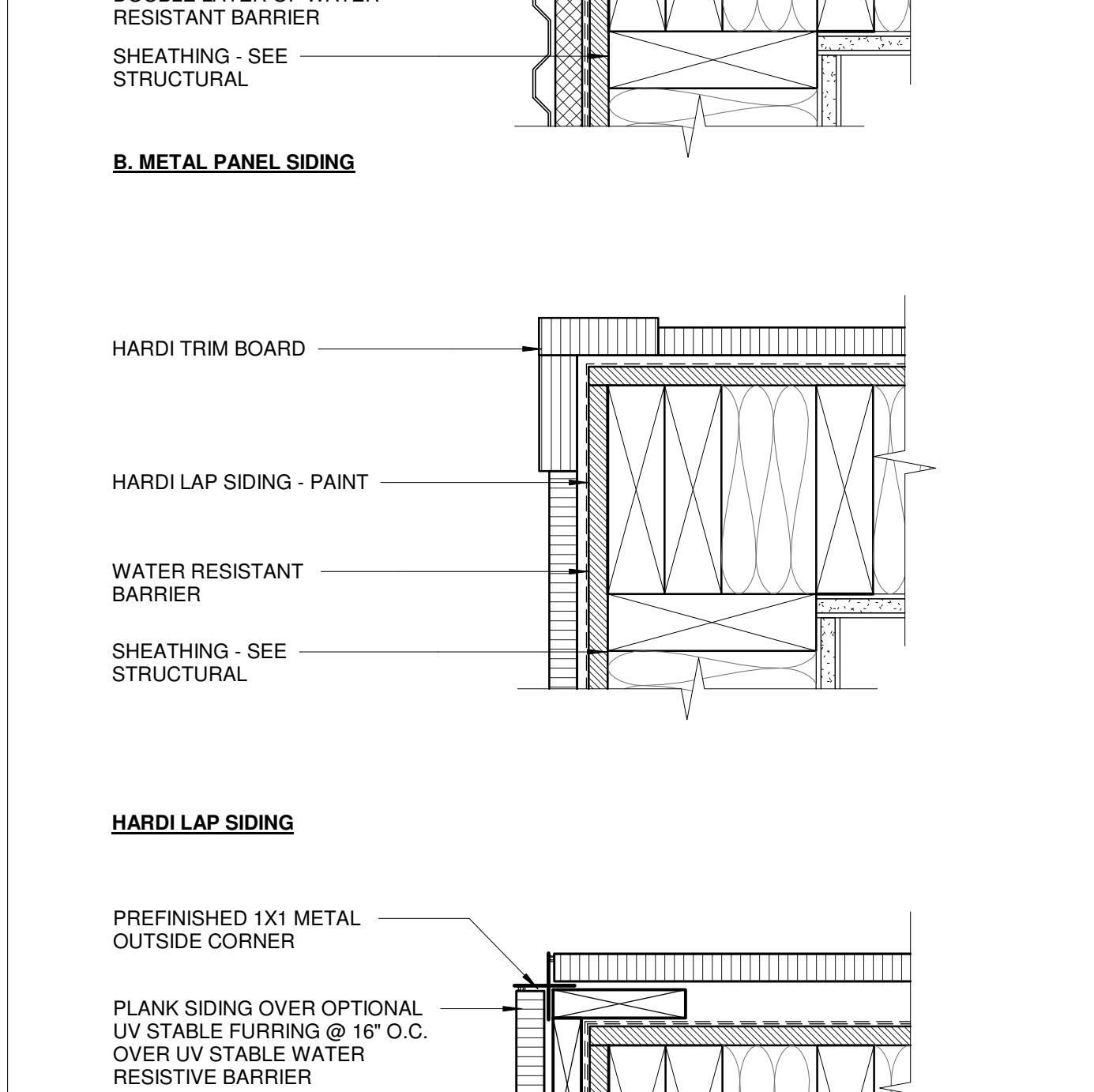
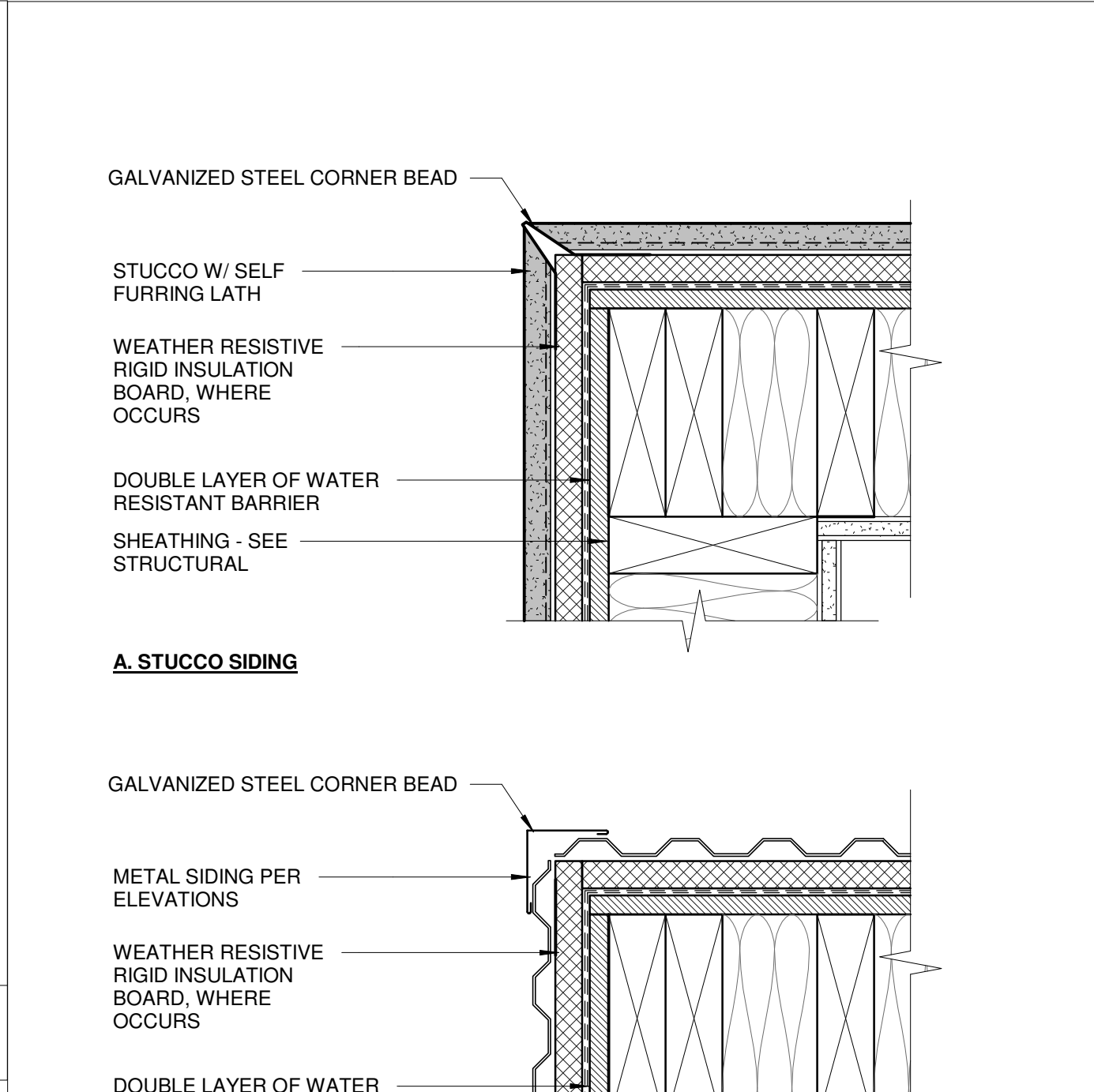
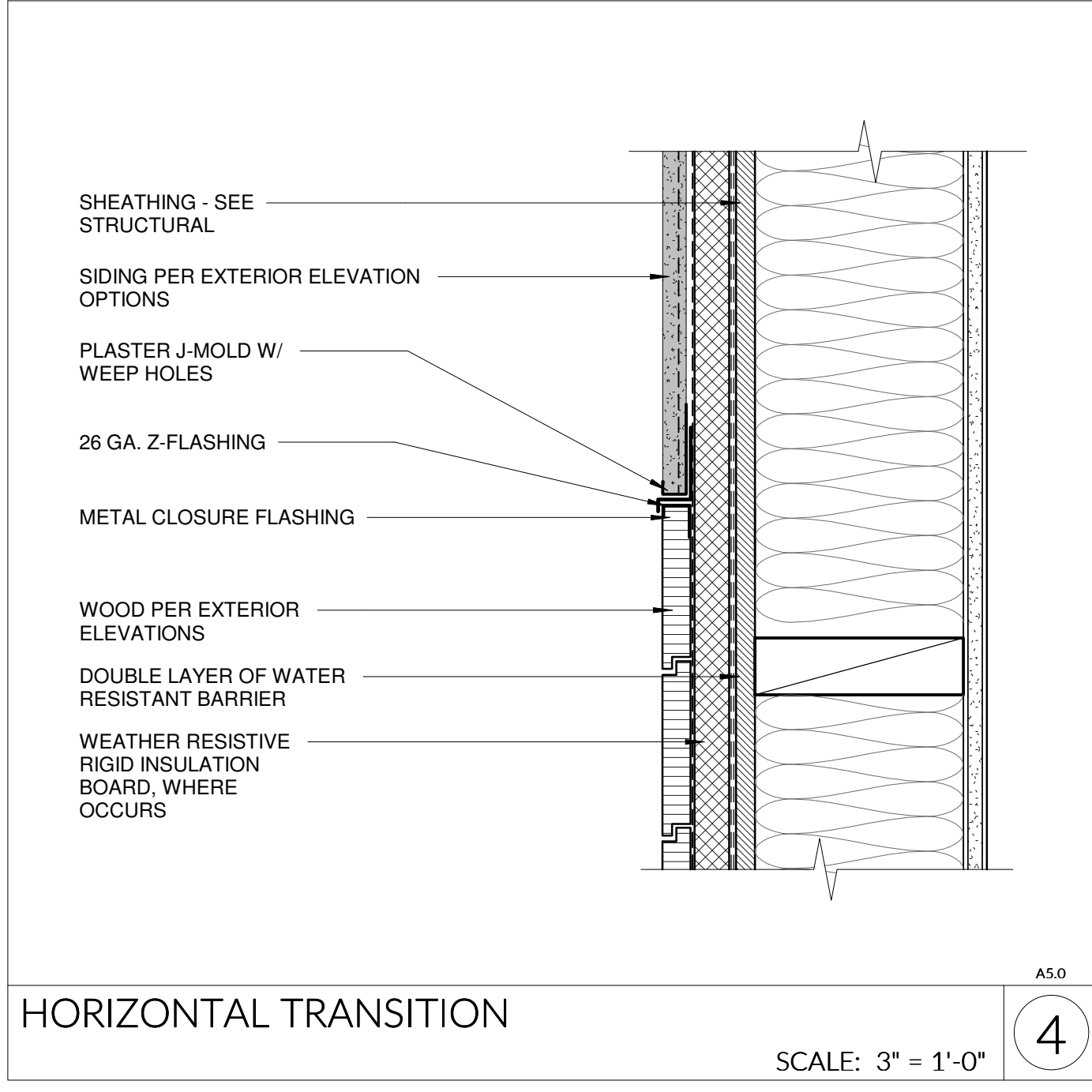
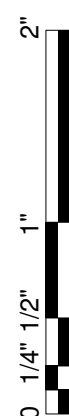
11/2023 10:21:30 AM
 6: Shared drives/RAD Projects/2023/23-07 ADU RFP Shasta County/ADU 650_CDS.rvt

11/2023 10:21:30 AM
 6: Shared drives/RAD Projects/2023/23-07 ADU RFP Shasta County/ADU 650_CDS.rvt

IF THIS SHEET IS NOT 30"x42", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

G:\Shared drives\RAD Projects\2023\23-07 ADU RFP Shasta County\ADU 650_CDS.rvt

9/14/2023 10:21:31 AM

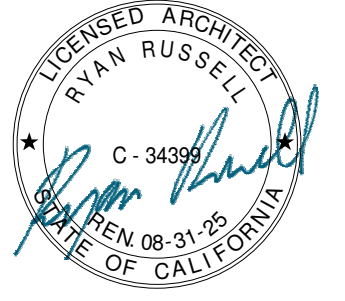


P. 530.653.0777
W. WWW.RADSTUDIO.DESIGN

// AGENCY



// SEAL



// ISSUED

REVISION #	DATE	DESCRIPTION

// COPYRIGHTS

COPYRIGHT 2023
RAD STUDIO RETAINS ALL RIGHTS TO PROPRIETARY INFORMATION, INCLUDING, WITHOUT LIMITATION, METHODOLOGIES AND METHODS OF ANALYSIS, IDEAS, CONCEPTS, ARRANGEMENTS, PLANS, EXPRESSIONS, KNOW HOW, METHODS, TECHNIQUES, SKILLS, KNOWLEDGE, AND EXPERIENCE POSSESSED BY RAD STUDIO PRIOR TO, OR ACQUIRED DURING THE DEVELOPMENT OF THIS PROJECT AND SHALL NOT BE RESTRICTED IN ANY WAY WITH RESPECT THERETO.

STIPULATION FOR REUSE
THE DRAWING WAS PREPARED IN CONTRACT WITH SHASTA COUNTY FOR DISTRIBUTION AND USE BY THE RESIDENTS OF SHASTA COUNTY WITH A SNOW LOAD OF 70 PSF OR LESS. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS OR ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON PROJECTS OUTSIDE OF SHASTA COUNTY AND WITHOUT THE PERMISSION OF THE SHASTA COUNTY BUILDING DEPARTMENT IS NOT AUTHORIZED AND IS CONTRARY TO THE LAW.

// PROJECT

THE PINE SHED 650

// CLIENT

// MANAGEMENT

PROJECT NO: _____
DRAWN BY: _____ Author
CHECKED BY: _____ Checker
ISSUE DATE: 9/14/2023 10:21:31 AM
COPYRIGHT: RAD STUDIO 2019

// SHEET TITLE

ARCHITECTURAL DETAILS

// SHEET NO.

A5.0

NOT FOR CONSTRUCTION

IF THIS SHEET IS NOT 30"x42", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

G:\Shared drives\RAD Projects\2023\23-07 ADU RFP Shasta County\ADU 650_CDS.rvt

9/14/2023 10:21:32 AM



P: 530.653.0777
W: WWW.RADSTUDIO.DESIGN

// AGENCY



// SEAL



// ISSUED

REVISION #	DATE	DESCRIPTION

// COPYRIGHTS

COPYRIGHT 2023
RAD STUDIO RETAINS ALL RIGHTS TO PROPRIETARY INFORMATION, INCLUDING, WITHOUT LIMITATION, METHODOLOGIES AND METHODS OF ANALYSIS, IDEAS, CONCEPTS, ARRANGEMENTS, PLANS, EXPRESSIONS, KNOW HOW, METHODS, TECHNIQUES, SKILLS, KNOWLEDGE, AND EXPERIENCE POSSESSED BY RAD STUDIO PRIOR TO, OR ACQUIRED DURING THE DEVELOPMENT OF THIS PROJECT AND SHALL NOT BE RESTRICTED IN ANY WAY WITH RESPECT THERETO.

STIPULATION FOR REUSE
THE DRAWING WAS PREPARED IN CONTRACT WITH SHASTA COUNTY FOR DISTRIBUTION AND USE BY THE RESIDENTS OF SHASTA COUNTY WITH A SNOW LOAD OF 70 PSF OR LESS. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS OR ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON PROJECTS OUTSIDE OF SHASTA COUNTY AND WITHOUT THE PERMISSION OF THE SHASTA COUNTY BUILDING DEPARTMENT IS NOT AUTHORIZED AND IS CONTRARY TO THE LAW.

// PROJECT NO.

THE PINE SHED 650

// CLIENT

// MANAGEMENT

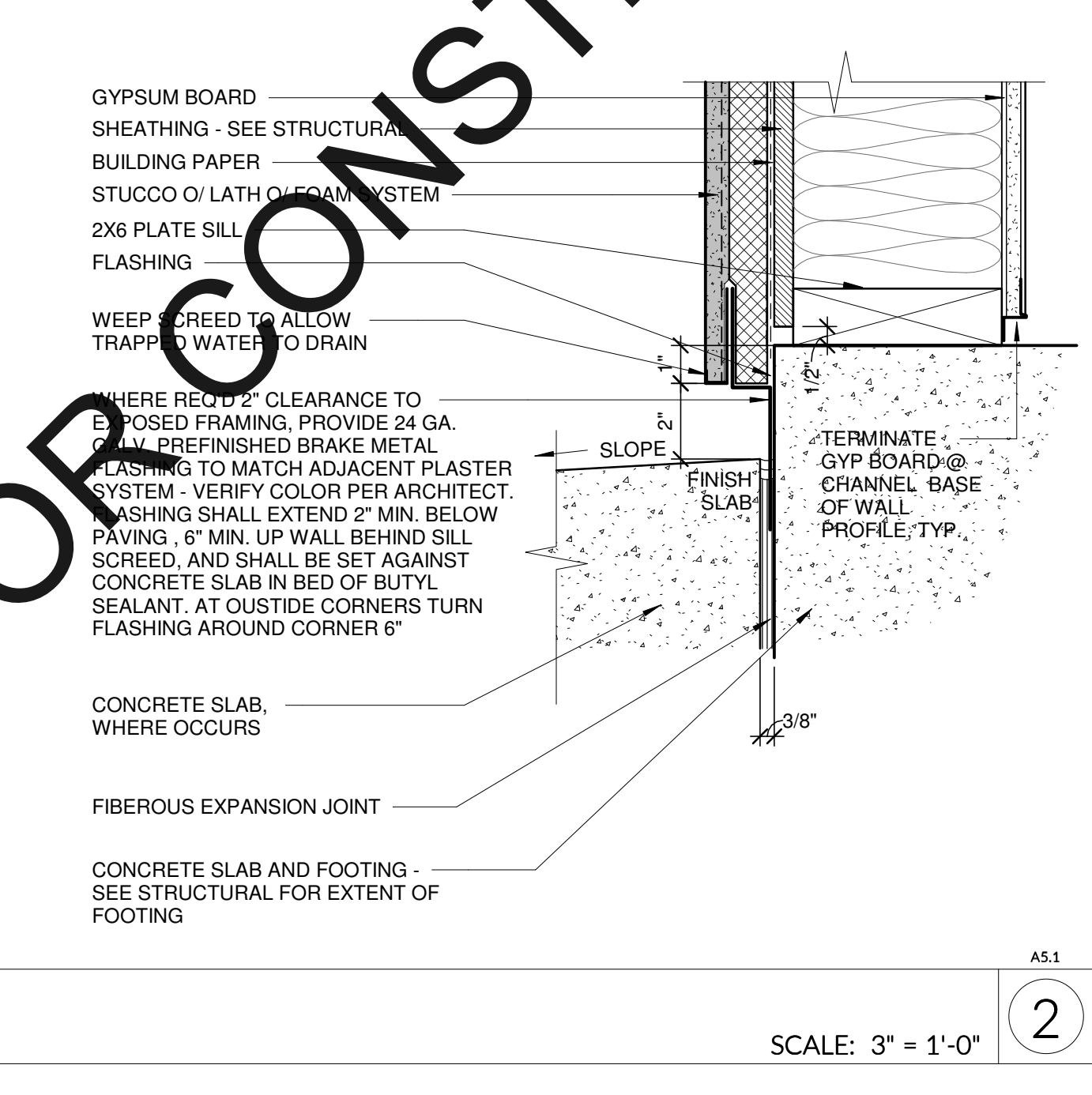
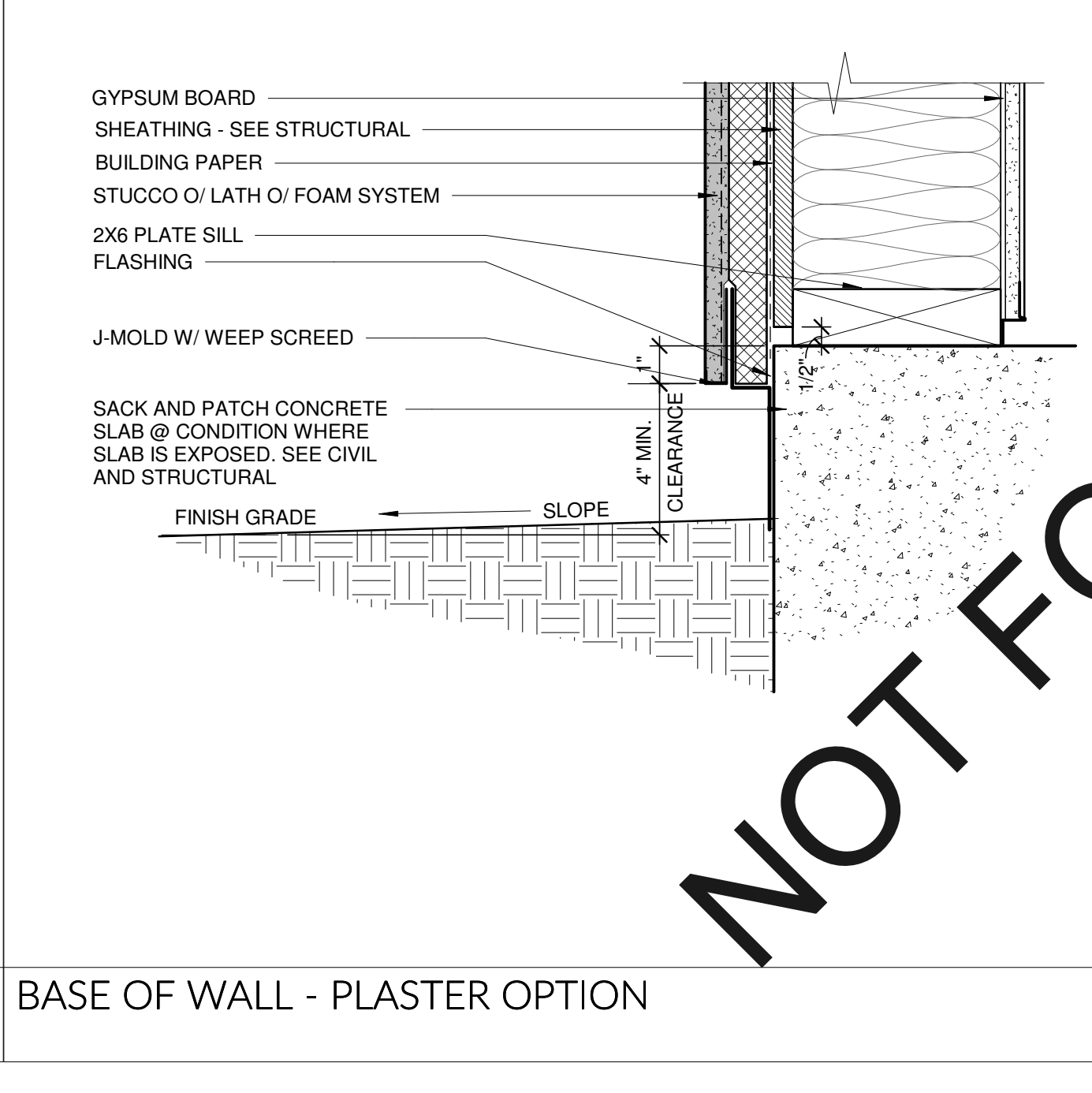
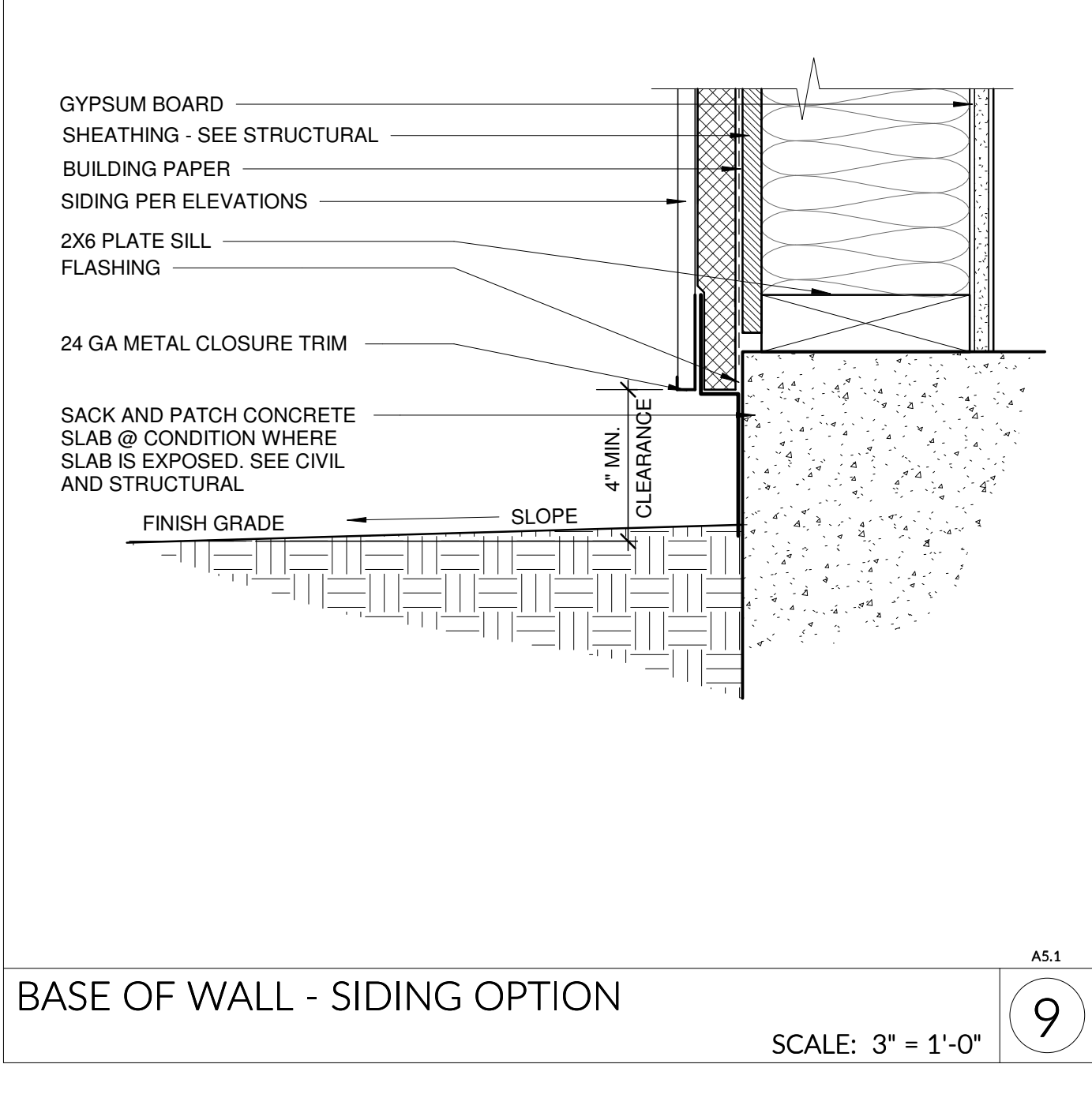
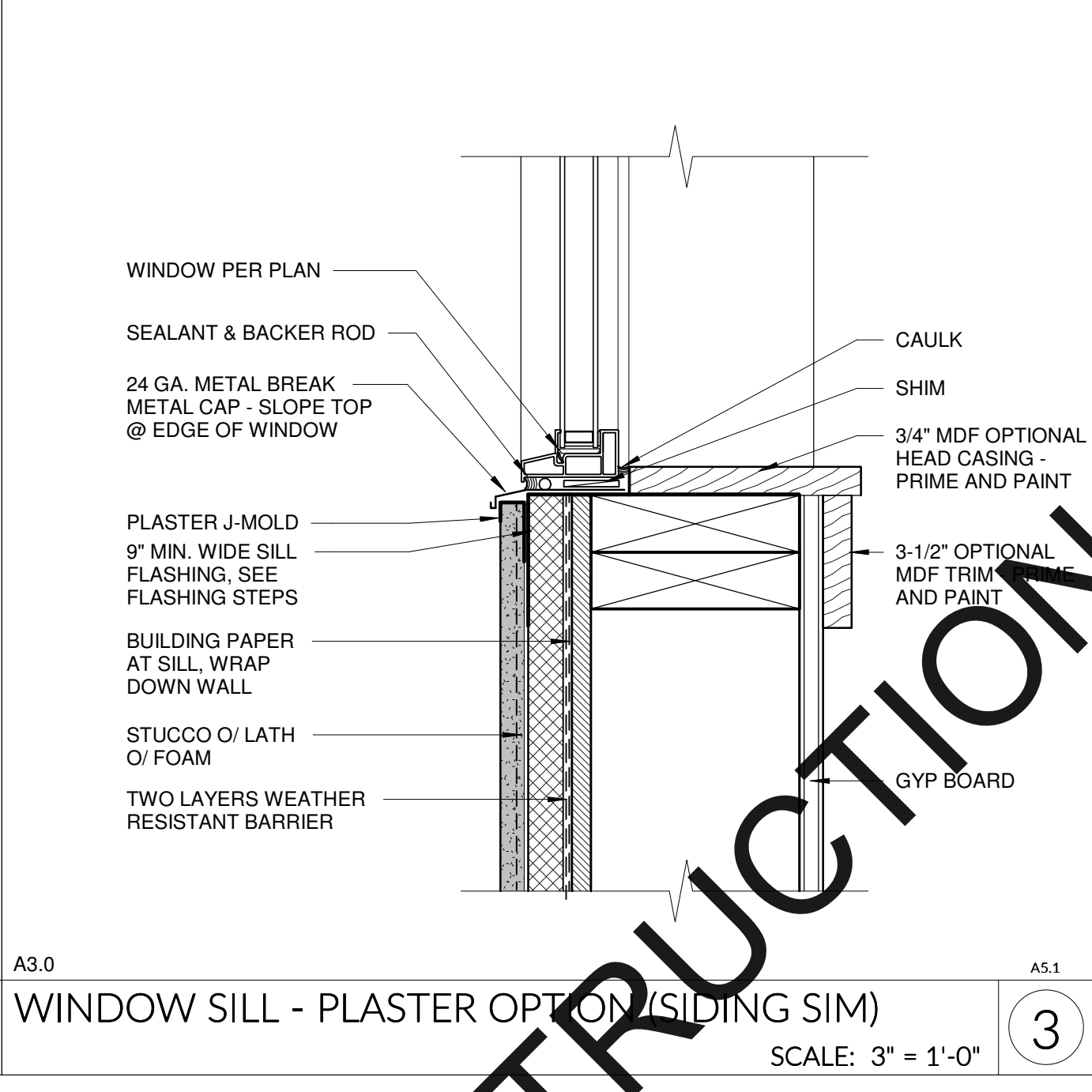
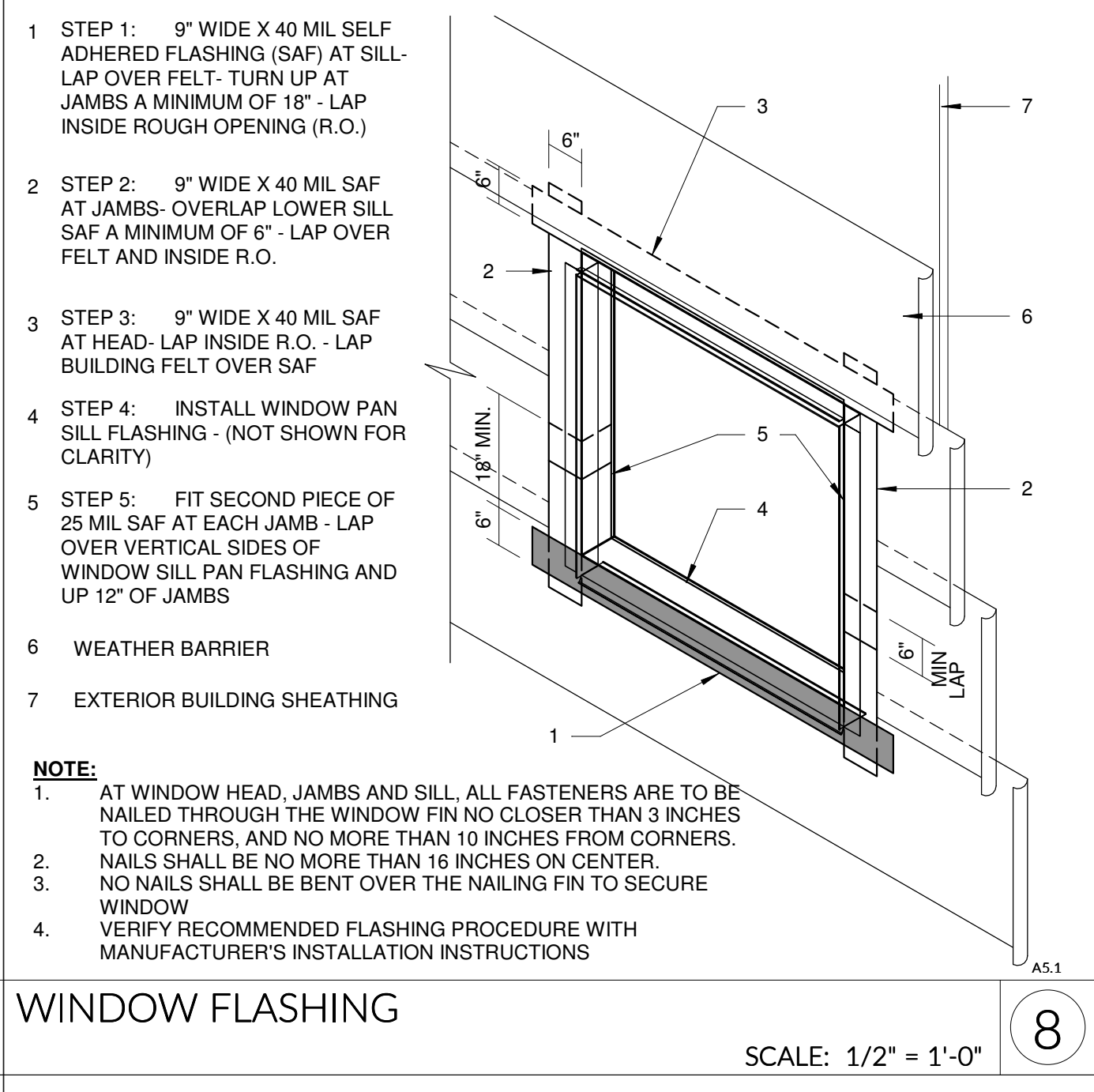
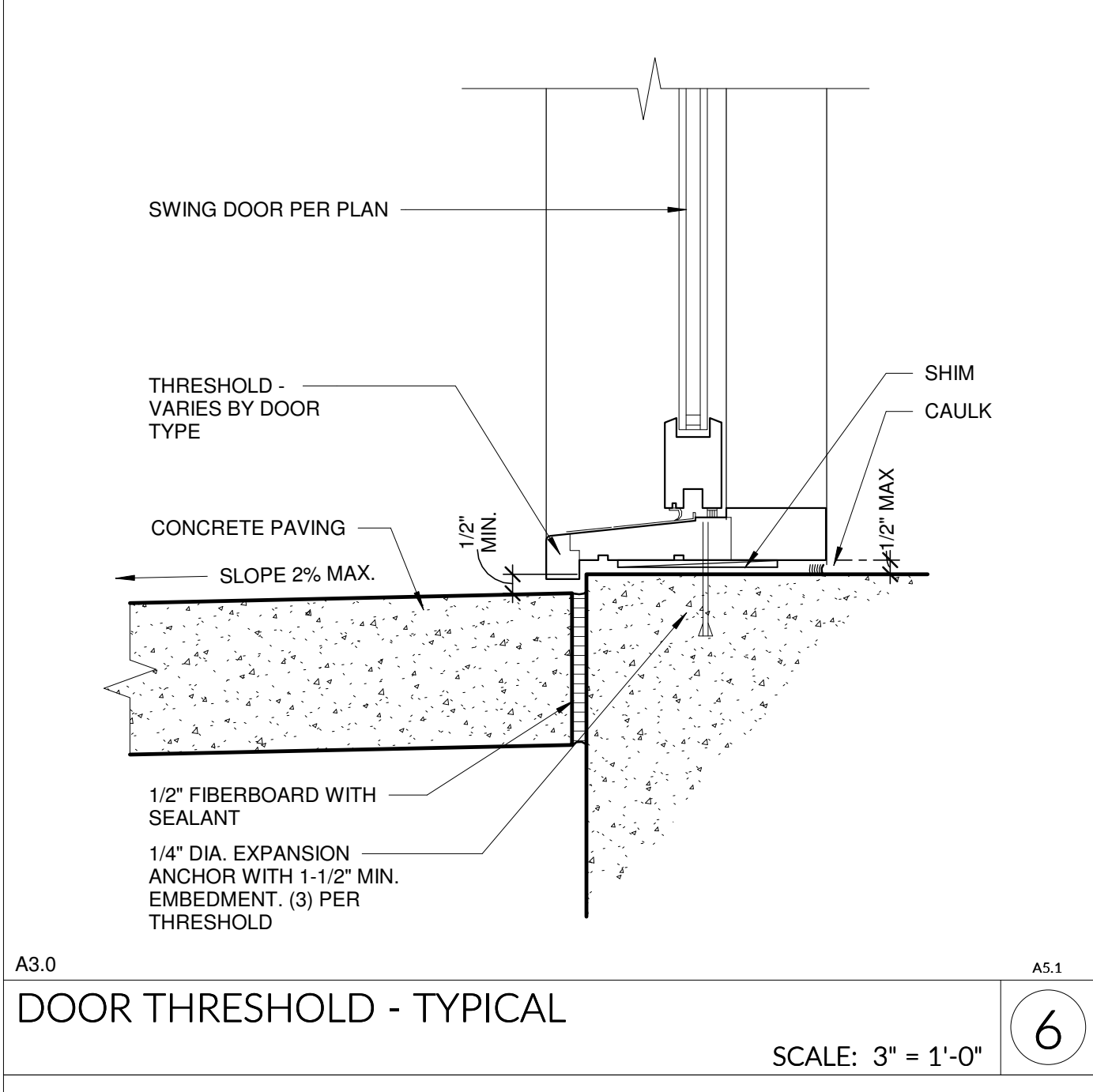
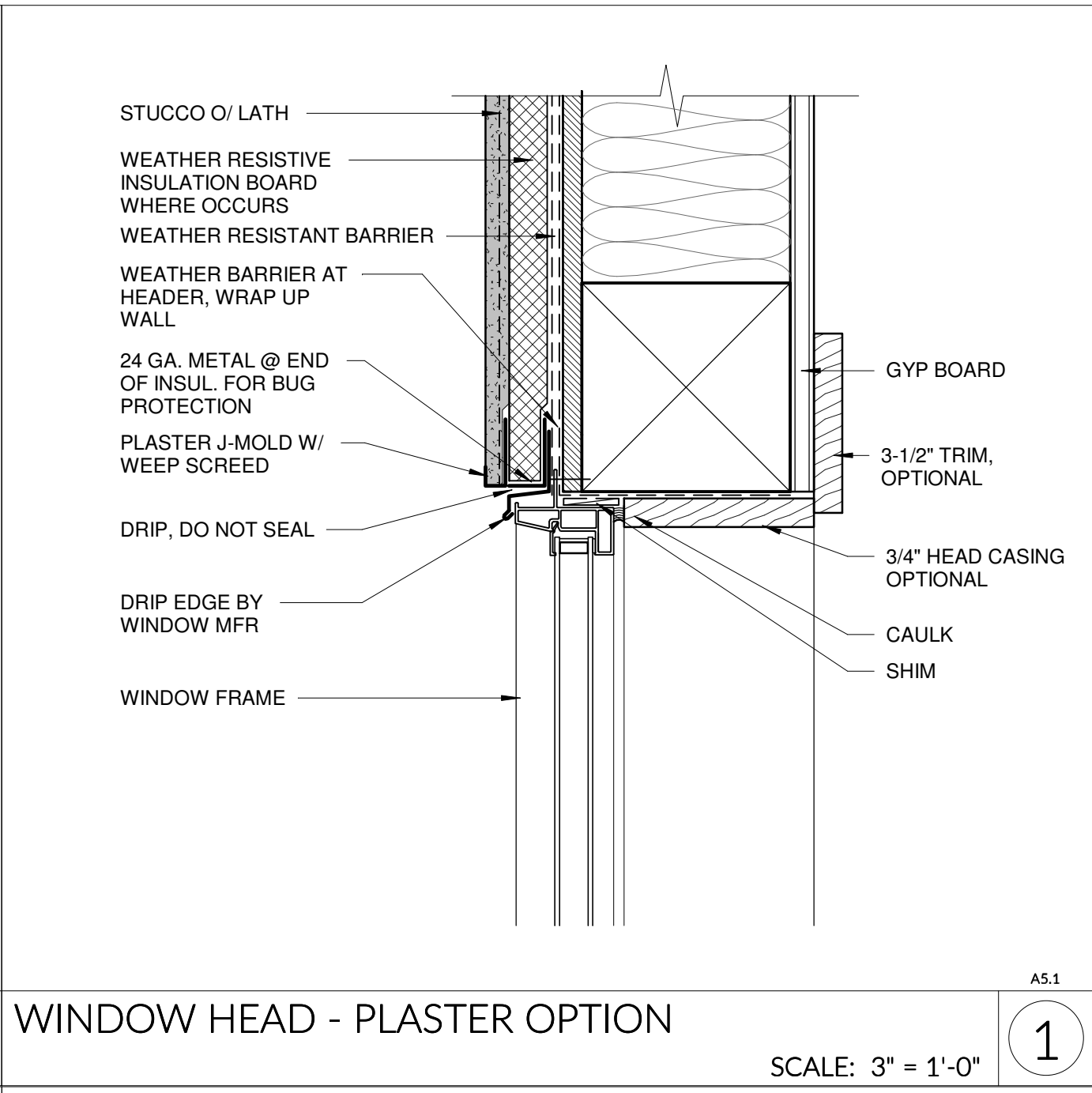
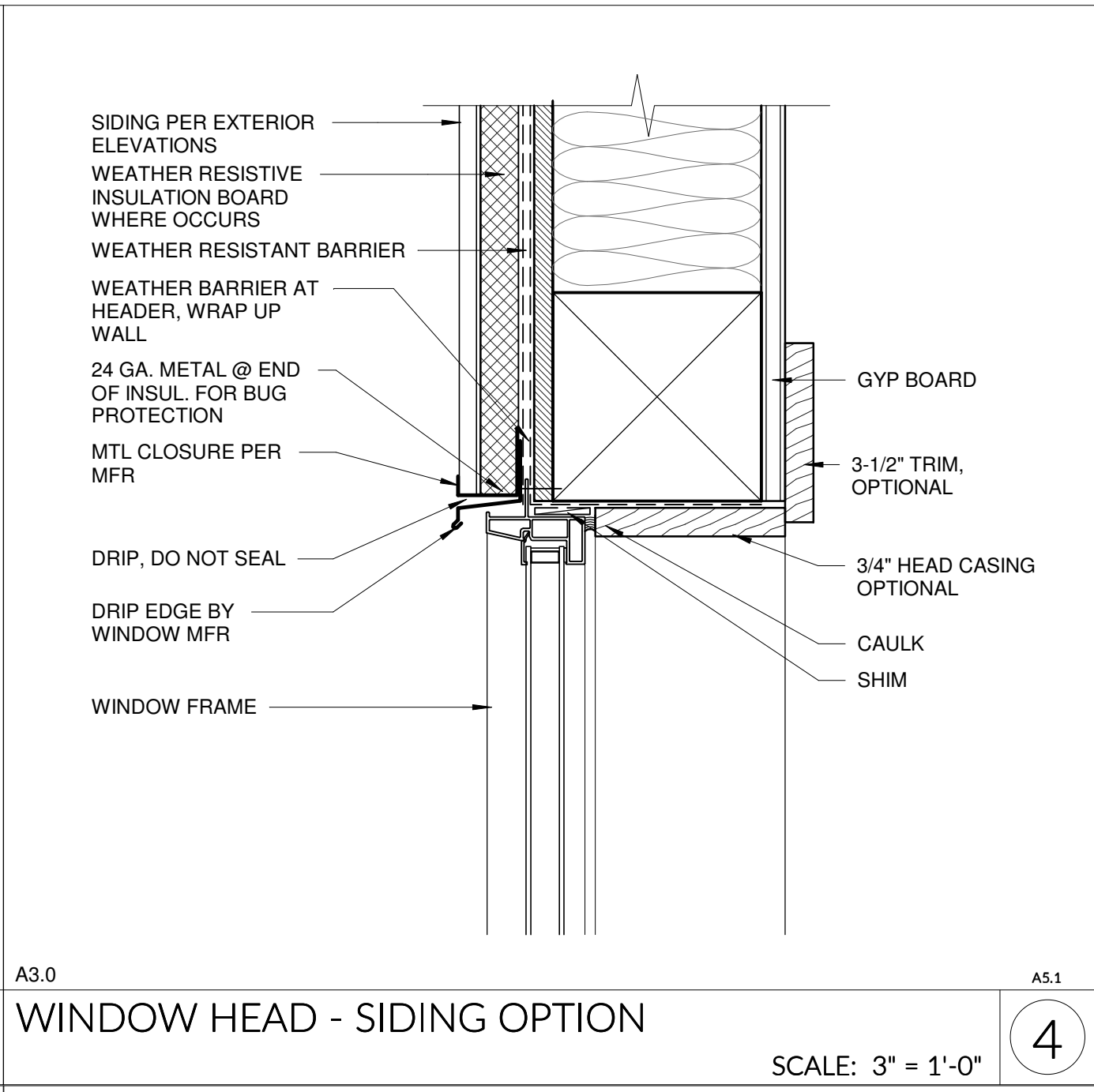
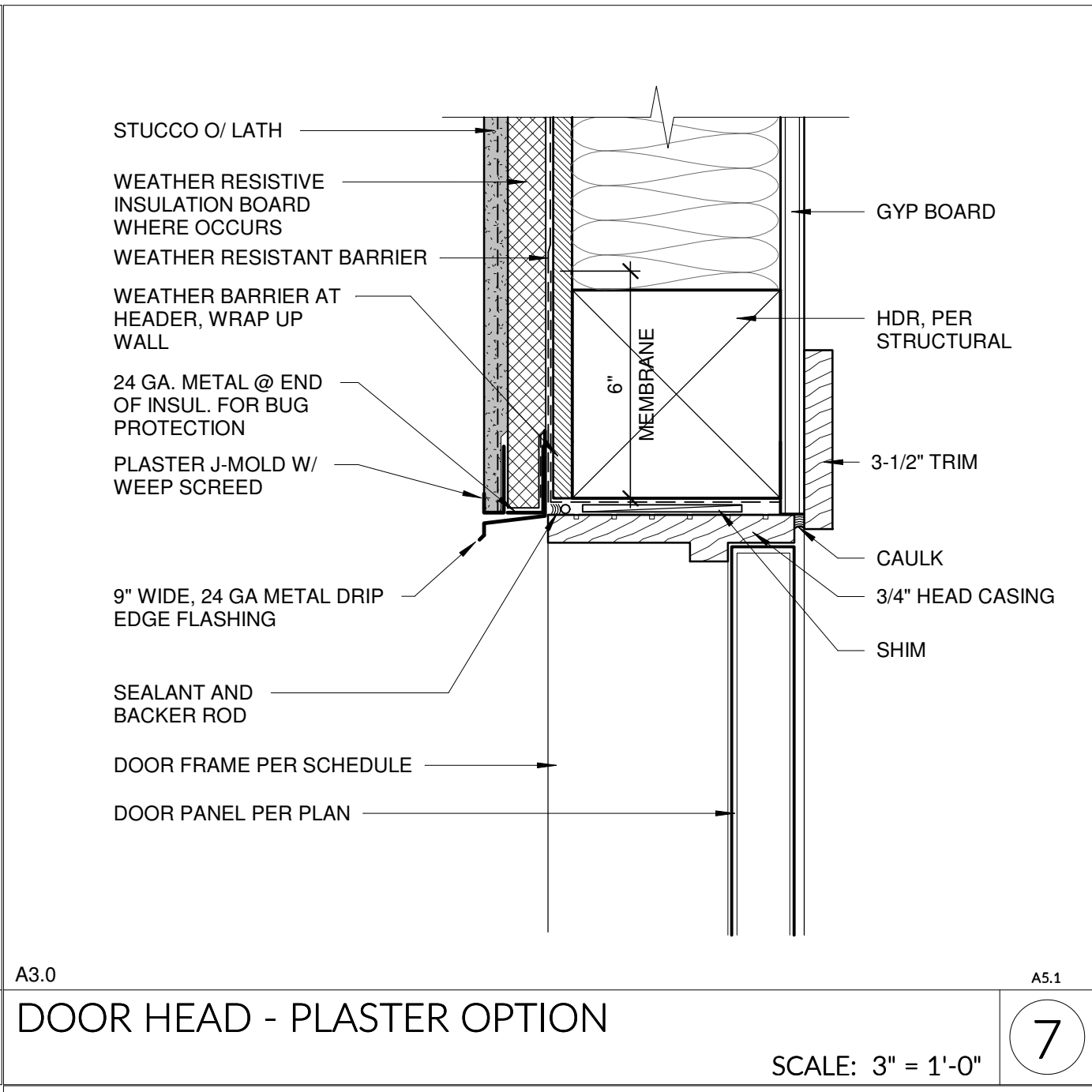
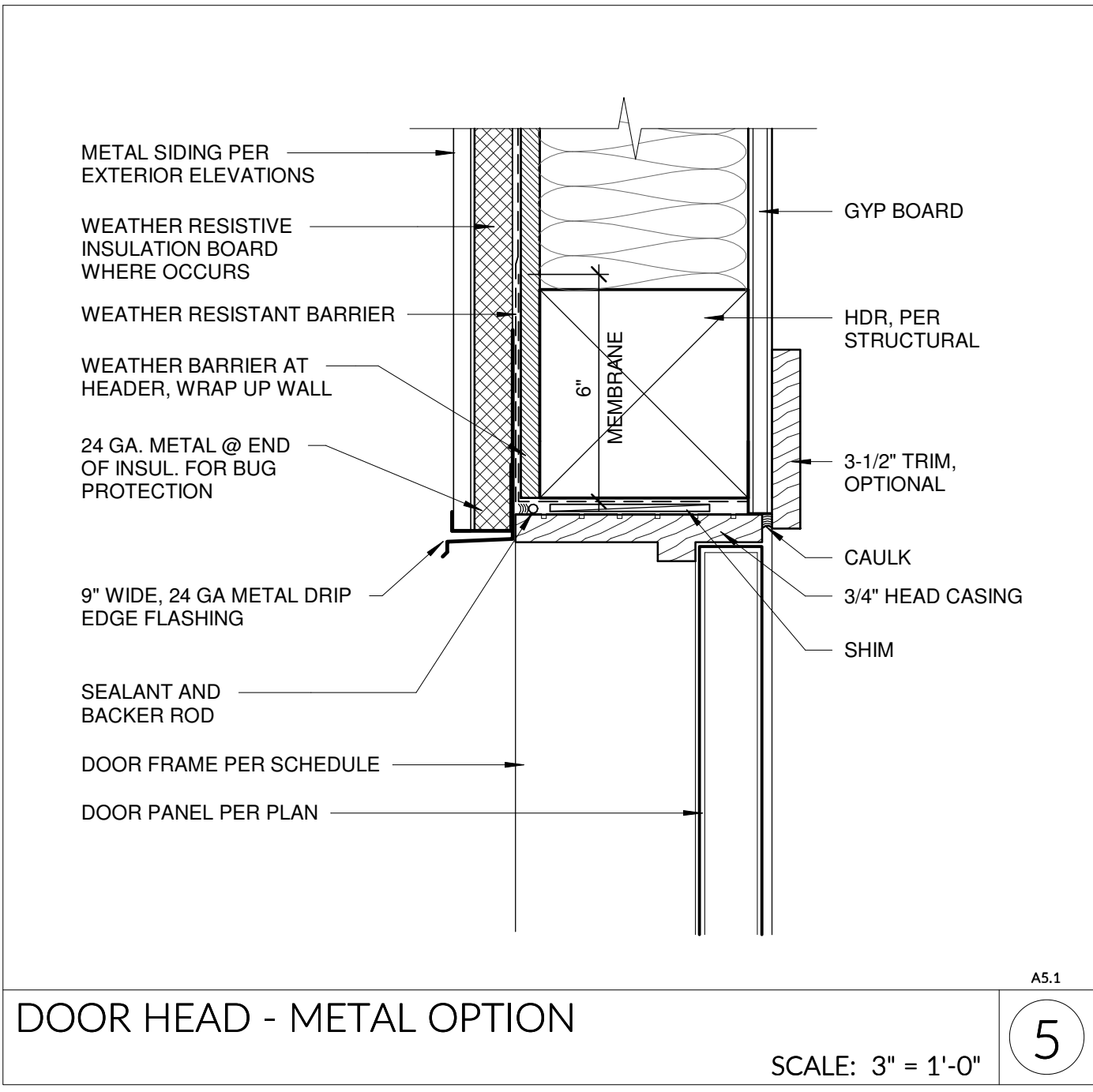
PROJECT NO: _____
DRAWN BY: _____ Author
CHECKED BY: _____ Checker
ISSUE DATE: 9/14/2023 10:21:32 AM
COPYRIGHT: RAD STUDIO 2019

// SHEET TITLE

ARCHITECTURAL DETAILS

// SHEET NO.

A5.1



NOT FOR CONSTRUCTION

BASE OF WALL - SIDING OPTION SCALE: 3" = 1'-0" 9

BASE OF WALL - PLASTER OPTION SCALE: 3" = 1'-0" 2

WINDOW SILL - PLASTER OPTION (SIDING SIM) SCALE: 3" = 1'-0" 3

DOOR THRESHOLD - TYPICAL SCALE: 3" = 1'-0" 6

DOOR HEAD - PLASTER OPTION SCALE: 3" = 1'-0" 7

WINDOW HEAD - SIDING OPTION SCALE: 3" = 1'-0" 4

WINDOW HEAD - PLASTER OPTION SCALE: 3" = 1'-0" 1

DOOR HEAD - METAL OPTION SCALE: 3" = 1'-0" 5