

A NEW ACCESSORY DWELLING UNIT PROJECT FOR:

## SACRAMENTO COUNTY PERMIT READY ADU (ACCESSORY DWELLING UNIT) PLANS MODEL A1 **LAUREL**

SCOPE OF WORK:

CONSTRUCT NEW 460 S.F. ACCESSORY DWELLING UNIT.

- SLAB ON GRADE FOUNDATION
- 2X6 EXTERIOR WALLS W/ STUCCO OR FIBER CEMENT LAP SIDING EXTERIOR FINISH
- STICK FRAMED ROOF WITH STANDING SEAM METAL ROOFING
- VINYL WINDOWS
- HYBRID ELECTRIC WATER HEATER

UTILITY NOTES:

- NO GAS TO BE INSTALLED IN ADU
- PROPOSED ADU TO TIE INTO (E) MAIN WATER LINE
- PROPOSED ADU TO TIE INTO (E) S.F.R. SEWER SERVICE. NOTE: SEWER TIE-IN MUST BE OUTSIDE OF ADU FOOTPRINT.
- ELECTRICAL SERVICE TO TIE INTO (E) S.F.R. OR CUSTOMER TO COORDINATE W/ UTILITY COMPANY TO OBTAIN (N) ELECTRICAL SERVICE AND METER

PROJECT SPECIFIC NOTES:

- MODIFICATIONS TO THIS PLAN SET ARE NOT ALLOWED; THESE PLANS MAY BE USED ONLY FOR CONSTRUCTION ON LOTS WITHIN THE UNINCORPORATED COUNTY OF SACRAMENTO AND ONLY IF PROPERTY OWNER EXECUTES A HOLD HARMLESS AGREEMENT TO THE SATISFACTION OF THE COUNTY OF SACRAMENTO.

DEFERRED SUBMITTALS:

- FIRE SPRINKLERS (AS NEEDED)

SITE PLAN REQUIREMENTS:

NOTE: APPLICANT IS REQUIRED TO PROVIDE A SITE PLAN (INCLUDING ALL EXISTING AND PROPOSED STRUCTURES, SIZES, LOCATIONS, USES, PLANNING DEPT SETBACKS AND ANY PUBLIC UTILITY EASEMENT(S) LOCATIONS, MAIN DWELLING ELECTRICAL PANEL LOCATION FOR A.D.U. SUB-PANEL SITUATIONS, SEWER LINE SIZE AND LOCATION ON SITE WITH CONNECTION LOCATION OF PRIMARY DWELLING SEWER MAIN, WATER SUPPLY LINE SIZE, LOCATION AND CONNECTION) AND INCORPORATE IT INTO THIS PLAN SET PRIOR TO SUBMITTING PLANS

- SEE ELEVATION SHEETS FOR ADDITIONAL INFORMATION/REQUIREMENTS TO PROVIDE DWELLING ADDRESS PER 2022 CRC R319

FIRE SPRINKLER REQUIREMENTS:

PER R313.2 AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL NOT BE REQUIRED IN ACCESSORY DWELLING UNITS, PROVIDED ALL OF THE FOLLOWING ARE MET:

- THE UNIT MEETS THE DEFINITION OF AN ACCESSORY DWELLING UNIT AS DEFINED IN THE GOVERNMENT CODE SECTION 65852.2.
- THE EXISTING PRIMARY RESIDENCE DOES NOT HAVE AUTOMATIC FIRE SPRINKLERS.
- THE ACCESSORY DETACHED DWELLING UNIT DOES NOT EXCEED 1,200 SQUARE FEET IN SIZE.
- THE UNIT IS ON THE SAME LOT AS THE PRIMARY RESIDENCE.

FINAL DETERMINATION OF FIRE SPRINKLER REQUIREMENT WILL BE MADE BY LOCAL FIRE JURISDICTION.

SHEET INDEX:

Sheet Number	Sheet Name
A-0.0	TITLE SHEET
A-0.1	CALGREEN CHECKLIST
A-0.2	CALGREEN CHECKLIST (CONT)
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A-1.1	POWER PLAN
A-2.0	ROOF PLAN AND EXTERIOR ELEVATIONS
A-3.0	STUCCO SECTION DETAILS
A-3.1	STUCCO PLAN DETAILS
A-3.2	LAP SIDING SECTION DETAILS
A-3.3	LAP SIDING PLAN DETAILS
A-3.4	AWNING DETAILS
A-3.5	FIRE DETAILS
S1.0	FOUNDATION, SHEARWALL, AND RPPF FRAMING PLANS
SD1	STRUCTURAL DETAILS
SD2	STRUCTURAL DETAILS
SN1	STRUCTURAL NOTES & SPECIFICATIONS
T24-1	2022 TITLE 24 PART 6 ENERGY CODE
T24-2	2022 TITLE 24 PART 6 ENERGY CODE
T24-3	2022 TITLE 24 PART 6 ENERGY CODE
T24-4	2022 TITLE 24 PART 6 ENERGY CODE

PROJECT DATA:

CUSTOMER ADDRESS: \_\_\_\_\_

APN: \_\_\_\_\_

JURISDICTION: SACRAMENTO COUNTY

S.F. OF PROPOSED ADU: 460 S.F.

FOUNDATION: SLAB ON GRADE

OCCUPANCY: R-3

CONSTRUCTION: TYPE V-B

CODES: 2022 CALIFORNIA RESIDENTIAL BUILDING CODE  
2022 CALIFORNIA ELECTRICAL CODE  
2022 CALIFORNIA MECHANICAL CODE  
2022 CALIFORNIA PLUMBING CODE  
2022 CALIFORNIA ENERGY CODE  
2022 CALIFORNIA GREEN BUILDING CODE

PROJECT CONTACTS:

OWNER/CONTRACTOR: ADDRESS AND CONTACT INFORMATION \_\_\_\_\_

ARCHITECT: LAURA MILLER DESIGN  
CONTACT: LAURA MILLER  
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EL DORADO HILLS, CA 95762  
916.607.3321

STRUCTURAL ENGINEER: WCD ASSOCIATES  
CONTACT: WESLEY CULLUMBER  
6930 DESTINY DRIVE, STE 300  
ROCKLIN, CA 95677

GENERAL NOTES:

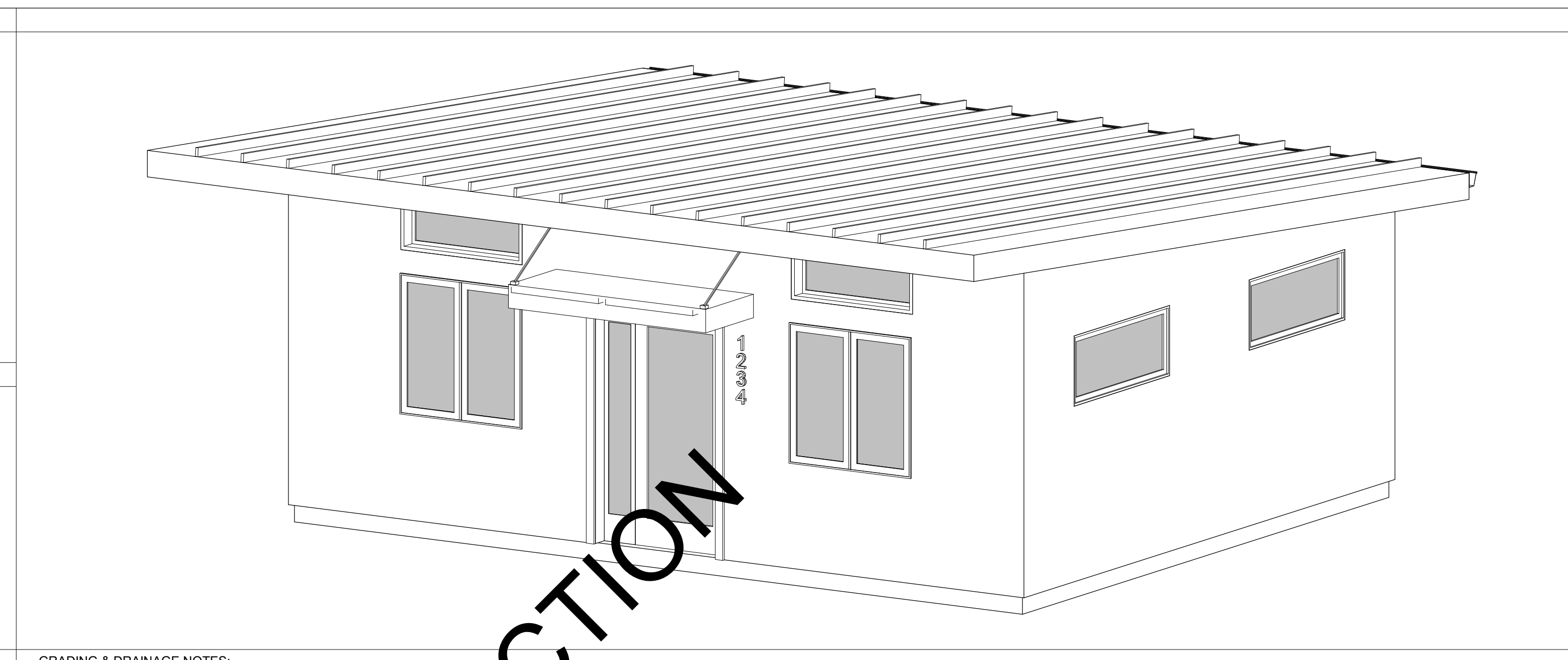
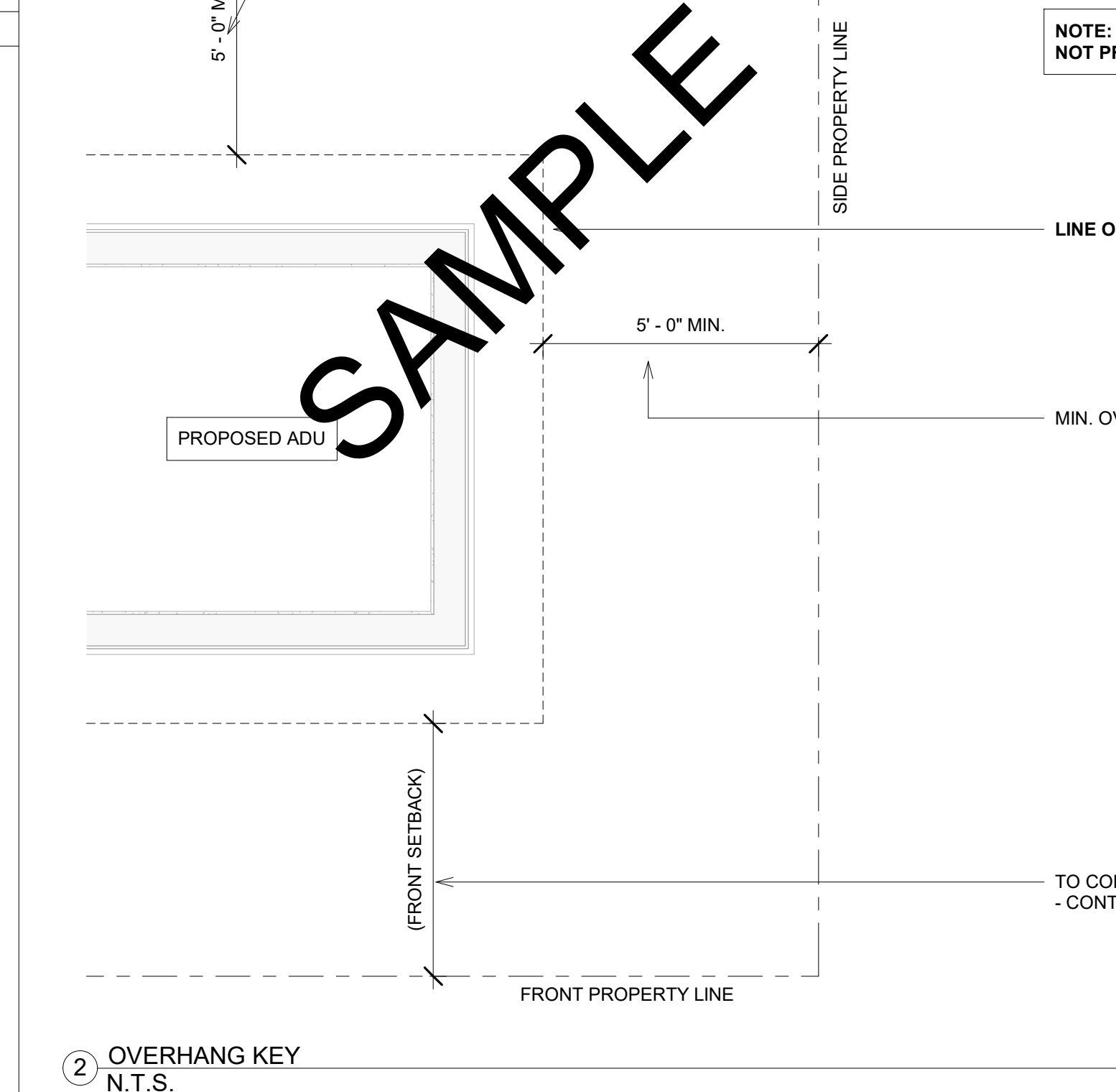
- THE INFORMATION ON THIS SET OF CONSTRUCTION DOCUMENTS IS RELATED TO THE BASIC DESIGN INTENT OF THE PROJECT. THEY ARE INTENDED AS A CONSTRUCTION AID, NOT A SUBSTITUTE FOR GENERALLY ACCEPTED GOOD BUILDING PRACTICES AND COMPLIANCE WITH CURRENT CALIFORNIA STATE BUILDING CODES. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING STANDARD CONSTRUCTION DETAILS AND PROCEDURES TO ENSURE A PROFESSIONALLY FINISHED, STRUCTURALLY SOUND, AND WEATHERPROOF COMPLETED PROJECT.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL WORK AND CONSTRUCTION MEETS ALL CURRENT FEDERAL, STATE, COUNTY, AND LOCAL CODES, ORDINANCES, REGULATIONS, ETC. THESE CODES ARE TO BE CONSIDERED PART OF THE SPECIFICATIONS FOR THIS BUILDING AND SHOULD BE ADHERED TO EVEN IF THEY ARE IN VARIANCE OF THE PLAN.
- DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE DRAWING (DO NOT SCALE DRAWING.)
- THE ARCHITECT HAS NOT BEEN ENGAGED FOR CONSTANT CONSTRUCTION SUPERVISION AND ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION COORDINATING WITH THESE PLANS, NOR RESPONSIBILITY FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCE, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THERE ARE NO WARRANTIES FOR A SPECIFIC USE EXPRESSED OR IMPLIED IN THE USE OF THESE PLANS.

ROOF OVERHANG REQUIREMENTS:

FIREBLOCKING NOTES:

- FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAMED CONSTRUCTION IN THE FOLLOWING LOCATIONS:
- IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL ROWS OF STUDS OR STUDS/RED STUDS, AS FOLLOWS:
  1. VERTICALLY AT THE CEILING AND FLOOR LEVELS.
  2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET (3048 MM).
- AT INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILING AND COVE CEILING.
- IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN. ENCLOSED SPACE UNDER STAIRS SHALL COMPLY WITH SECTION R302.7.
- AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES AND WIRES AT CEILING AND FLOOR LEVEL, WITH AN APPLIED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION.
- FIREBLOCKING MATERIALS SHALL COMPLY WITH R302.11.1

NOTE: \*SEE SHEET A-3.5 FOR FIRE SEPARATION (TO REAL AND ASSUMED PROPERTY LINES) REQUIREMENTS TABLE R302.1(1) AND R302.1(2) BETWEEN A.D.U. AND DWELLING / OR PROPERTY LINES.



GRADING & DRAINAGE NOTES:

- GRADE SHALL FALL A MINIMUM OF 6" IN THE FIRST 10 FEET AWAY FROM NEW FOUNDATION WALLS WHERE THERE IS NO PAVING PER CRC 401.3. WHERE DISTANCE IS LESS THAN 10' WATER SHALL SLOPE AWAY FROM FOUNDATION
- IMPERVIOUS SURFACES WITHIN 10 FEET OF THE BUILDING FOUNDATION SHALL BE SLOPED A MINIMUM OF 2 PERCENT AWAY FROM THE BUILDING.

OVERHANG KEY  
N.T.S.

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SACRAMENTO COUNTY  
PERMIT READY ADU (ACCESSORY DWELLING UNIT) PLANS  
MODEL A1

No.	Date	Description

Sheet Name:  
TITLE SHEET

Scale:  
N.T.S.  
Date:  
MAR 2024  
Drawn By:  
LM  
Approved By:

Sheet Number:  
**A-0.0**

4/4/2024 1:00:09 PM



2022 CALIFORNIA GREEN BUILDING STANDARDS CODE RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

RESPONDENT PARTY YES NOT APPLICABLE RESPONSIBLE PARTY (i.e. ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

LAURA MILLER DESIGN logo and contact information

Response grid with columns for 'RESPONDENT PARTY' and 'YES'/'NOT APPLICABLE'/'RESPONSIBLE PARTY'.

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.

301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings...

The mandatory provision of Section 4.106.4.2 may apply to additions or alterations of existing parking facilities or the addition of new parking facilities serving existing multifamily buildings.

Note: Repairs including, but not limited to, resurfacing, restriping and repairing or maintaining existing lighting fixtures are not considered alterations for the purpose of this section.

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.

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.

EXCEPTIONS: 1. [HCD] Accessory structures and accessory occupancies serving residential buildings shall comply with Chapter 4 and Appendix A4, as applicable.

DIVISION 4.1 PLANNING AND DESIGN ABBREVIATION DEFINITIONS: HCD Department of Housing and Community Development BSC California Building Standards Commission

CHAPTER 4 RESIDENTIAL MANDATORY MEASURES 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 porous 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.

4.106 SITE DEVELOPMENT 4.106.1 GENERAL. Preservation and use of available natural resources shall be accomplished through evaluation and assessment to minimize negative effects on the site and adjacent areas.

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.

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.

4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1 or 4.106.4.2 to facilitate future installation and use of EV chargers.

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.

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".

4.106.4.2 New multifamily dwellings, hotels and motels and new residential parking facilities. When the number of spaces for new multifamily dwellings, hotels and motels shall meet the requirements of Sections 4.106.4.2.1 and 4.106.4.2.2.

4.106.4.2.1 Multifamily development projects with less than 20 dwelling units; and hotels and motels with less than 20 sleeping units or guest rooms. The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1.EV Capable. 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 Level 2 EVSE.

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

EXCEPTIONS: 1. When EV chargers (Level 2 EVSE) are installed in a number equal to or greater than the required number of EV capable spaces.

2. When EV chargers (Level 2 EVSE) are installed in a number less than the required number of EV capable spaces, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed.

Notes: a. Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

4.106.4.2.2 Multifamily development projects with 20 or more dwelling units, hotels and motels with 20 or more sleeping units or guest rooms. The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1.EV Capable. 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 Level 2 EVSE.

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

EXCEPTION: When EV chargers (Level 2 EVSE) are installed in a number greater than five (5) percent of parking spaces required by Section 4.106.4.2.2, Item 3, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed over the five (5) percent required.

Notes: a. Construction documents shall show locations of future EV spaces. b. There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

3.EV Chargers. Five (5) percent of the total number of parking spaces shall be equipped with Level 2 EVSE. Where common use parking is provided, at least one EV charger shall be located in the common use parking area and shall be available for use by residents or guests.

4.106.4.2.2.1 Electric vehicle charging stations (EVCS). Electric vehicle charging stations required by Section 4.106.4.2.2, Item 3, shall comply with Section 4.106.4.2.2.1.1 and Section 4.106.4.2.2.1.2, Item 3.

4.106.4.2.3 Accessible EV spaces. In addition to the requirements in Sections 4.106.4.2.2.1.1 and 4.106.4.2.2.1.2, all EVSE, when installed, shall comply with the accessibility provisions for EV chargers in the California Building Code, Chapter 11B, EV ready spaces and EVCS in multifamily developments shall comply with California Building Code, Chapter 11B, Section 1109A.

EXCEPTION: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space at the time of original construction in accordance with the California Electrical Code.

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

4.106.4.2.5 Electric Vehicle Ready Space Signage. Electric vehicle ready spaces shall be identified by signage or pavement markings, in compliance with Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing multifamily buildings. When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, ten (10) percent of the total number of parking spaces added or altered shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE.

Notes: 1. Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging. 2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

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.

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION 4.303 INDOOR WATER USE 4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures and fittings (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.

4.303.1.1 Single Showerheads. 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 Tank-type Toilets.

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 urinals shall not exceed 0.5 gallons per flush.

4.303.1.3.1 Single Showerheads. 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 Tank-type Toilets.

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 minimum 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 gallons per minute at 60 psi.

4.303.2 Submeters for multifamily buildings and dwelling units in mixed-used residential/commercial buildings. Submeters shall be installed to measure water usage of individual residential dwelling units in accordance with the California Plumbing Code.

4.303.3 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 4.303.1 of the California Plumbing Code.

TABLE H-2 STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY VALVES MANUFACTURED ON OR AFTER JANUARY 28, 2019

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: 1. 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/

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY 4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE 4.406.1 RODENT PROOFING. Annual spaces around pipes, electric cables, conduits or other openings in soffit/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: 1. Excavated soil and land-clearing debris. 2. 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.

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.

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.

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.

4.408.5 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.

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:

- 1. Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure. 2. Operation and maintenance instructions for the following: a. Equipment and appliances, including water-saving devices and systems, HVAC systems, photovoltaic systems, electric vehicle chargers, water-heating systems and other major appliances and equipment.

4.410.2 RECYCLING BY OCCUPANTS. Where 6 or more multifamily dwelling units are constructed on a building site, provide readily accessible area(s) that serves all buildings on the site and is identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals, or meet a 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)

AGRI-FIBER PRODUCTS. Agrifiber products include wheatboard, strawboard, panel substrates and door cores, not including furniture, fixtures and equipment (FFFE) 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 hardboard, 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 9320.1.

DIRT-CENT 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.

DISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.

SACRAMENTO COUNTY PERMIT READY ADU (ACCESSORY DWELLING UNIT) PLANS MODEL A1

Table with columns: No., Date, Description



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).
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.
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.
4.503 FIREPLACES
4.503.1 GENERAL. Any installed gas fireplace shall be a direct-vent sealed-combustion type.
4.504 POLLUTANT CONTROL
4.504.1 COVERING OF DUCT OPENINGS & PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION.
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.
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.
4.504.2.3 Aerosol Paints and Coatings. Aerosol paints and coatings shall meet the Product-weighted MIR Limits for ROG 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 4b.
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:
1. Manufacturer's product specification.
2. Field verification of on-site product containers.

TABLE 4.504.1 - ADHESIVE VOC LIMIT (Less Water and Less Exempt Compounds in Grams per Liter)
Table with columns for Architectural Applications and VOC Limit. Includes categories like Indoor Carpet Adhesives, PVC Welding, and Substrate Specific Applications.

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.
2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 116B.

TABLE 4.504.2 - SEALANT VOC LIMIT (Less Water and Less Exempt Compounds in Grams per Liter)
Table with columns for Sealants and VOC Limit. Includes categories like Architectural, Marine Deck, Nonmembrane Roof, Roadway, Single-Ply Roof Membrane, and Sealant Primers.
TABLE 4.504.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS (Less Water and Less Exempt Compounds in Grams per Liter of Coating)
Table with columns for Coating Category and VOC Limit. Includes categories like Flat Coatings, Non-Flat Coatings, Specialty Coatings, and High Temperature Coatings.

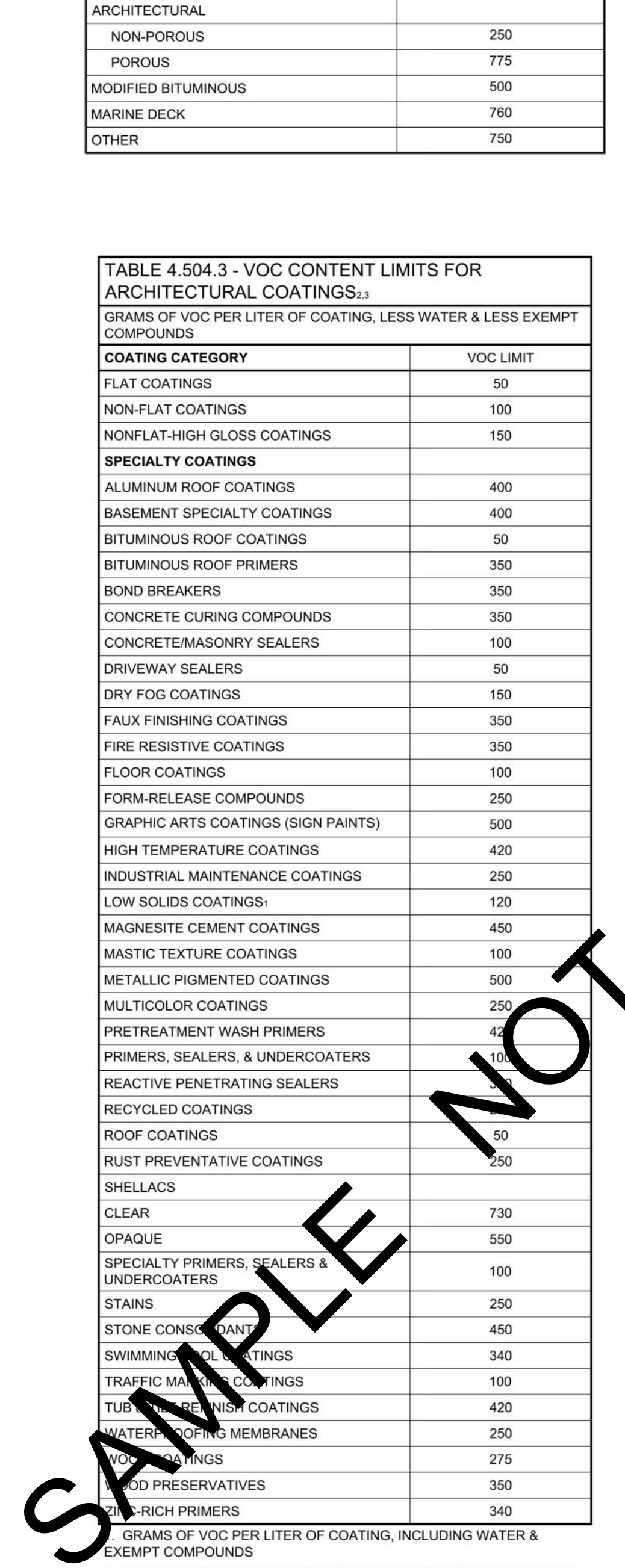


TABLE 4.504.5 - FORMALDEHYDE LIMITS: MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION
Table with columns for Product and Current Limit. Includes categories like Hardwood Plywood Veneer Core, Hardwood Plywood Composite Core, Particle Board, Medium Density Fiberboard, and Thin Medium Density Fiberboard.
DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)
4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the requirements of 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 1.2, January 2017 (Emission Testing Method for California Specification 01350).
4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of 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 1.2, January 2017 (Emission Testing Method for California Specification 01350).
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 meet the requirements of 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 1.2, January 2017 (Emission Testing Method for California 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 or Toxic Control Measure for Composite Wood (17 CCR 93129 et seq.), by or before the dates specified in those sections, as shown in Table 4.504.5.
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:
1. 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.
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.
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:
1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.
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:
1. 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.

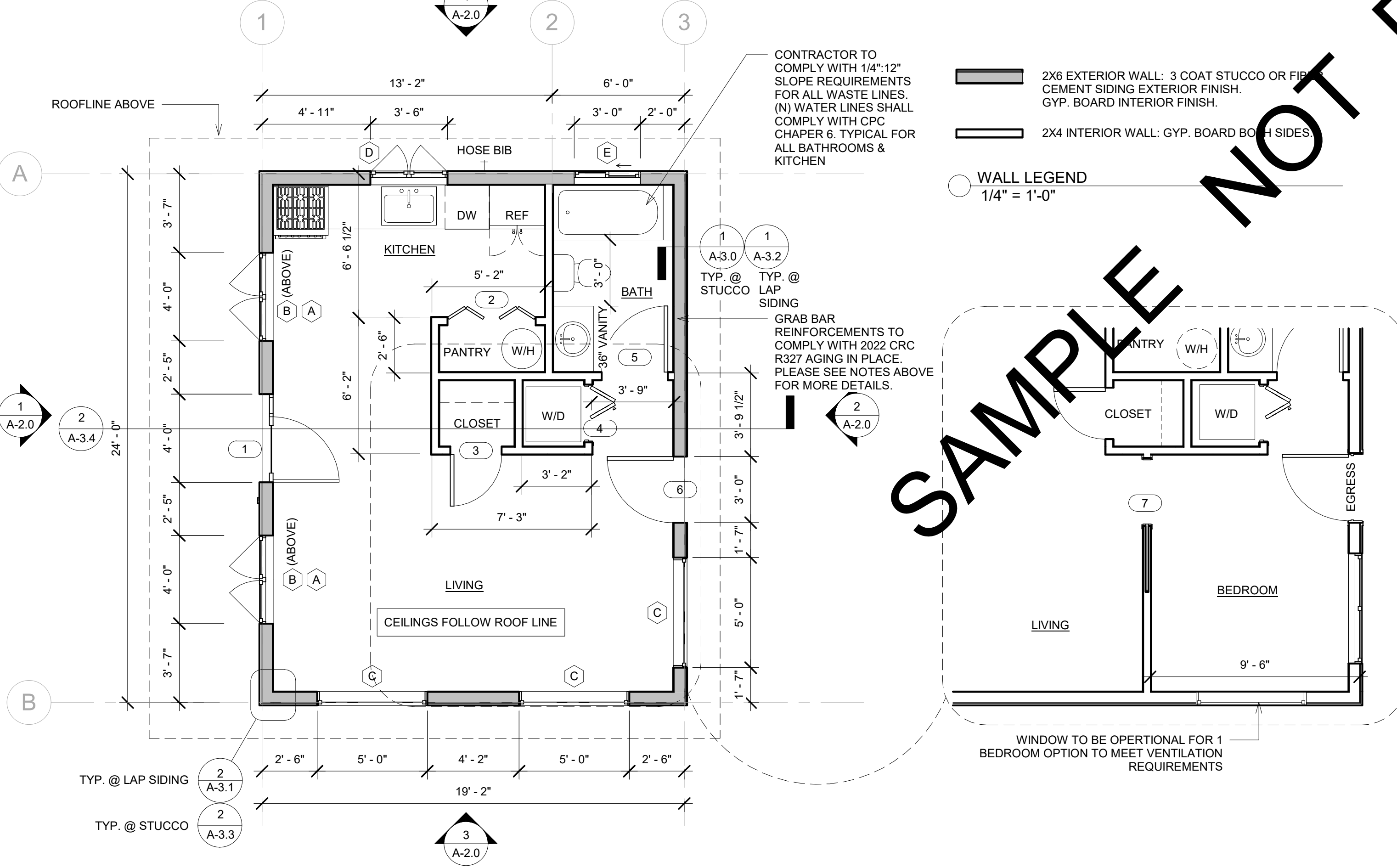
CHAPTER 7 INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS
702 QUALIFICATIONS
702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program.
702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code.
703 VERIFICATIONS
703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance.

AGING IN PLACE DESIGN AND FALL PROTECTION (2022 CRC R327):

1. INTERIOR DOORS
  - 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; OR, IN THE CASE OF A TWO- OR THREE-STORY SINGLE FAMILY DWELLING, ON THE SECOND OR THIRD FLOOR OF THE DWELLING IF A BATHROOM OR BEDROOM IS NOT LOCATED ON THE ENTRY LEVEL, PER 2022 CRC R327.1.3
2. DOORBELL BUTTONS
  - DOORBELL BUTTONS OR CONTROLS, WHEN INSTALLED, SHALL NOT EXCEED 48 INCHES ABOVE EXTERIOR FLOOR OR LANDING, MEASURED FROM THE TOP OF THE DOORBELL BUTTON ASSEMBLY. WHERE DOORBELL BUTTONS INTEGRATED WITH OTHER FEATURES ARE REQUIRED TO BE INSTALLED ABOVE 48 INCHES MEASURED FROM THE EXTERIOR FLOOR OR LANDING, A STANDARD DOORBELL BUTTON OR CONTROL SHALL ALSO BE PROVIDED AT A HEIGHT NO EXCEEDING 48 INCHES ABOVE EXTERIOR FLOOR OR LANDING, MEASURED FROM THE TOP OF THE DOORBELL BUTTON OR CONTROL, PER 2022 CRC R327.1.4
3. ELECTRICAL RECEPTACLE OUTLET, SWITCH, AND CONTROL HEIGHTS
  - ALL ELECTRICAL RECEPTACLE OUTLET, SWITCH AND CONTROL HEIGHTS TO BE LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF THE OUTLET BOX AND NOT LESS THAN 15 INCHES ABOVE THE FINISH FLOOR, PER 2022 CRC R327.1.2
4. 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 NO BATHROOM ON THE ENTRY LEVEL, AT LEAST ONE BATHROOM ON THE SECOND OR THIRD FLOOR OF THE DWELLING SHALL COMPLY WITH THIS SECTION.

- A. REINFORCEMENT SHALL BE SOLID LUMBER OR OTHER CONSTRUCTION MATERIALS APPROVED BY THE ENFORCING AGENCY.
- B. REINFORCEMENT SHALL NOT BE LESS THAN 2 BY 8 INCH NOMINAL LUMBER OR OTHER CONSTRUCTION MATERIAL PROVIDING EQUAL HEIGHT AND LOAD CAPACITY. REINFORCEMENT SHALL BE LOCATED BETWEEN 32 INCHES AND 39 1/4 INCHES ABOVE THE FINISHED FLOOR FLUSH WITH THE WALL FRAMING.
- C. WATER CLOSET REINFORCEMENT SHALL BE INSTALLED ON BOTH SIDE WALLS OF THE FIXTURE OR ONE SIDE WALL AND THE BACK WALL.
- D. SHOWER REINFORCEMENT SHALL BE CONTINUOUS WHERE WALL FRAMING IS PROVIDED.
- E. 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 ABOVE THE BATHTUB RIM

NOTE: ALL DIMENSIONS TO FACE OF STUD U.N.O.



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

2 1 BEDROOM FLOOR PLAN OPTION  
1/4" = 1'-0"

SAMPLE NOT FOR CONSTRUCTION

Door Schedule							
Mark	Width	Height	Location	Description	Application	Hardware	Glazing
1	3' - 0"	6' - 8"	ENTRY	ENTRY DOOR W/ 12" SIDELITE	EXTERIOR	ENTRY	TEMPERED
2	4' - 0"	7' - 0"	PANTRY	BI-FOLD	INTERIOR		
3	2' - 4"	6' - 8"	CLOSET		INTERIOR		
4	2' - 6"	6' - 8"	LAUNDRY	BI-FOLD (LOUVERED)	INTERIOR		
5	3' - 0"	6' - 8"	BATHROOM		INTERIOR	PRIVACY	
6	3' - 0"	6' - 8"	REAR ENTRY		EXTERIOR	ENTRY	TEMPERED
7	3' - 0"	6' - 8"	OPTIONAL BEDROOM	POCKET	INTERIOR	PRIVACY	

Window Schedule					
Type Mark	Count	Width	Height	Sill Height	Operation
A	2	4' - 0"	4' - 0"	3' - 0"	CASEMENT
B	1	4' - 0"	1' - 6"	7' - 8"	FIXED
C	3	5' - 0"	2' - 0"	5' - 0"	FIXED
D	1	3' - 6"	3' - 6"	3' - 6"	CASEMENT
E	1	3' - 0"	1' - 6"	5' - 6"	SLIDING

- WASHER/DRYER CLOSET DOOR NOTE: A MINIMUM OF ONE SQUARE INCH OF OPENING SHALL BE PROVIDED PER 1,000 BTU'S OF EQUIPMENT INPUT. A MINIMUM OF ONE 100 S.I. OPENING WITHIN 12 INCHES OF THE FLOOR AND WITHIN 12 INCHES FROM THE TOP OF THE DOOR SHALL BE PROVIDED. (CMC 701.5)

EXTERIOR DOOR NOTES:

- ENTRY/EXIT DOOR MUST OPEN OVER A LANDING NOT MORE THAN 1.5" BELOW THE THRESHOLD (CRC311.3.1)
- THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EACH EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE DOOR SERVED.
- EVERY LANDING SHALL HAVE A MIN. DIMENSION OF 36 INCHES MEASURED IN THE DIRECTION OF TRAVEL (CRC311.3)

WINDOW NOTES:

- ALL WINDOWS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS, INCLUDING FLASHING
- WINDOWS IN BEDROOMS SHALL MEET ALL OF THE FOLLOWING EMERGENCY ESCAPE AND RESCUE REQUIREMENTS (CRC310.1):  
 MIN 5.7 S.F. OF OPENABLE AREA (5.0 S.F. FOR GRADE LEVEL BEDROOMS)  
 MIN 20" CLEAR WIDTH AND 24" CLEAR HEIGHT WHEN OPEN  
 MAX SILL HEIGHT OF 44" FROM FINISHED FLOOR TO BOTTOM OF THE CLEAR OPENING

BATH & KITCHEN NOTES:

- PROVIDE AN APPROVED DISHWASHER AIR GAP FITTING AS PER CPC 807.4
- MAX FLOW RATE OF KITCHEN FAUCETS SHALL NOT EXCEED 1.8 GALLONS PER MIN AT 60 PSI (CAL GREEN 4.303.1.4.4)
- WHERE A FIXTURE COMES IN CONTACT WITH THE WALL OR FLOOR, THE JOINT BETWEEN THE FIXTURE AND THE WALL OR FLOOR SHALL BE MADE WATER TIGHT AS PER CPC 402.2
- THE INSTALLATION OF A LISTED COOKING APPLIANCE OR MICROWAVE OVEN OVER A LISTED COOKING APPLIANCE SHALL CONFORM TO THE CONDITIONS OF THE UPPER APPLIANCE'S LISTING AND THE MANUF. INSTALLATION INSTRUCTIONS.
- FIXTURES SHALL BE SPACED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE.
- NO WATER CLOSET OR BIDET SHALL BE SET CLOSER THAN 15 INCHES FROM ITS CENTER TO A SIDE WALL OR OBSTRUCTION NOR CLOSER THAN 30 INCHES CENTER TO CENTER TO A SIMILAR FIXTURE. THE CLEAR SPACE IN FRONT OF A WATER CLOSET, LAVATORY, OR BIDET SHALL BE NOT LESS THAN 24 INCHES.
- BATHTUB AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FURNISHED WITH A NONABSORBENT SURFACE. SUCH SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FT ABOVE THE FLOOR (CRC 307.2).

WATER HEATER NOTES:

- MANUFACTURE'S INSTALLATION INSTRUCTIONS FOR THE WATER HEATER AND ALL OTHER LISTED APPLIANCES SHALL BE AVAILABLE TO THE FIELD INSPECTOR AT THE TIME OF INSPECTIONS PER 2022 CRC SEC. R106.
- PER CF1R: NEEA RATED WATER HEATER HEAT PUMP MODEL, RHEEM PROPH 40T2R H37515

WINDOW INFORMATION:

FRAME: VINYL  
 U VALUE: .29  
 SHGC: .21  
 ENERGY STAR CERTIFIED: YES  
 LOW E GLASS: YES

LIGHT & VENTILATION CALCULATIONS

- ALL HABITABLE ROOMS ARE REQUIRED TO HAVE NATURAL LIGHT SIZED TO A MIN. OF 8% OF THE FLOOR AREA AND VENTILATION SIZED TO A MIN OF 4% OF THE FLOOR AREA.

STUDIO:  
 460 S.F. X .08 = 36.8 S.F. NATURAL LIGHT AREA REQ'D ; 94.65 S.F. PROVIDED  
 460 S.F. X .04 = 18.4 S.F. VENTILATION AREA REQ'D ; 46.5 S.F. PROVIDED

OPTIONAL BEDROOM 1:  
 108 S.F. X .08 = 8.64 S.F. NATURAL LIGHT AREA REQ'D ; 20 S.F. PROVIDED  
 108 S.F. X .04 = 4.32 S.F. VENTILATION AREA REQ'D ; 5 S.F. PROVIDED VIA OPERATIONAL WINDOW

No.	Date	Description

Sheet Name:  
FLOOR PLAN

Scale:  
1/4" = 1'-0"

Date:  
MAR 2024

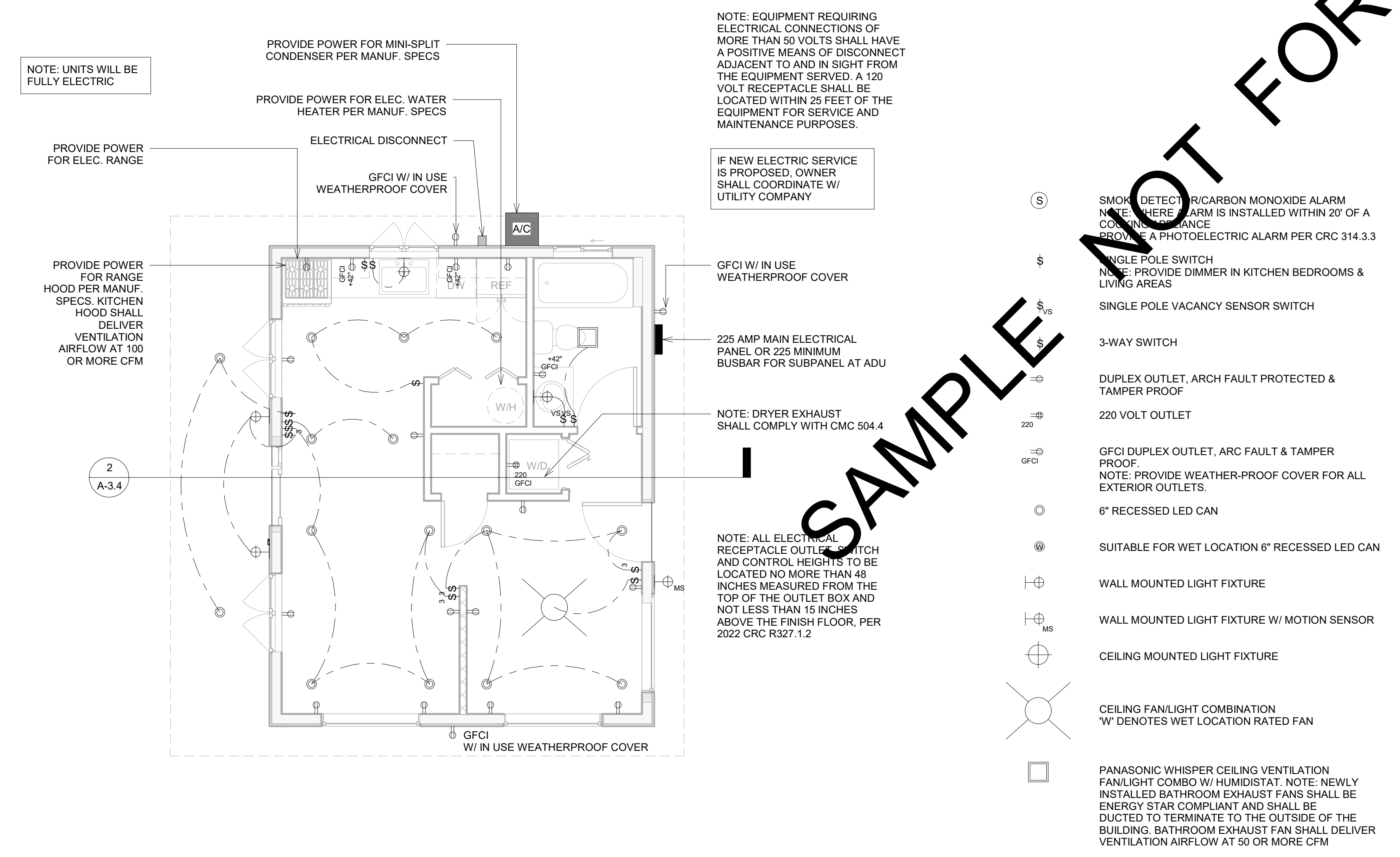
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- ELECTRICAL NOTES:**
1. PROVIDE 2 OR MORE 20-AMP SMALL APPLIANCE BRANCH CIRCUITS TO SERVE ALL COUNTERTOP, WALL AND FLOOR RECEPTACLES IN THE KITCHEN, PANTRY, BREAKFAST ROOM, DINING ROOM, OR SIMILAR AREAS. RECEPTACLE OUTLETS SHALL BE INSTALLED AT EACH WALL, ISLAND, AND PENINSULA COUNTER SPACE IN KITCHENS AND DINING ROOMS. SUCH CIRCUITS SHALL HAVE NO OTHER OUTLETS.
  2. PROVIDE GFCI PROTECTION TO ALL 125 VOLT, 15 AND 20 AMP RECEPTACLES SERVING COUNTERTOP SURFACES IN KITCHENS, WITHIN 6 FEET OF LAUNDRY, UTILITY AND WET BAR SINKS, IN BATHROOMS, GARAGES AND ACCESSORY BUILDINGS, CRAWL SPACES, UNFINISHED BASEMENTS AND BATHOUSES.
  3. RECEPTACLE OUTLETS SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN 6 FEET MEASURED HORIZONTALLY, FROM AN OUTLET IN THAT SPACE. RECEPTACLE OUTLETS ARE REQUIRED IN WALLS 2 FEET OR GREATER, HALLWAYS OF 10 FEET OR MORE IN LENGTH SHALL HAVE AT LEAST ONE RECEPTACLE OUTLET.
  4. NEW 120-VOLT, SINGLE PHASE, 15- AND 20 AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS OR DEVICES INSTALLED IN DWELLING UNIT KITCHEN, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER (AFCI), COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT. REFERENCE CEC ART. 210.12(A).
  5. DWELLINGS WITH DIRECT GRADE LEVEL ACCESS SHALL HAVE AT LEAST ONE RECEPTACLE OUTLET WITHIN 6.5 FEET OF GRADE LEVEL AT THE FRONT AND BACK OF THE DWELLING. ALL 125 VOLT, 15 AND 20 AMP, RECEPTACLES INSTALLED OUTDOORS SHALL BE GFCI PROTECTED. RECEPTACLES INSTALLED OUTDOORS IN AN EXTERIOR WET LOCATION SHALL HAVE AN ENCLOSURE THAT IS WEATHERPROOF WHETHER OR NOT THE ATTACHMENT PLUG CAP IS INSERTED.
  6. AT LEAST ONE WALL SWITCH-CONTROLLED LIGHTING OUTLET SHALL BE INSTALLED IN EVERY HABITABLE ROOM, IN BATHROOM, HALLWAYS, STAIRWAYS, ATTACHED GARAGES, DETACHED GARAGES WITH ELECTRIC POWER, AND AT OUTDOOR ENTRANCES OR EXITS.
  7. LOCATION AND INSTALLATION REQUIREMENTS FOR LUMINARIES SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE 2022 CALIFORNIA ELECTRICAL CODE ARTICLE 410. FIXTURES SHALL BE SECURELY SUPPORTED.
  8. A FIXTURE THAT WEIGHS MORE THAN 6 POUNDS OR EXCEEDS 16 INCHES IN ANY DIMENSION SHALL NOT BE SUPPORTED BY THE SCREW SHELL OF A LAMP HOLDER.
  9. OUTLET BOXES OR OUTLET BOX SYSTEMS USED AS THE SOLE SUPPORT OF A CEILING-SUSPENDED FAN SHALL BE LISTED AND MARKED BY THE MANUF. AS SUITABLE FOR THIS PURPOSE. THE REQUIRED MARKING SHALL INCLUDE THE MAX. WEIGHT TO BE SUPPORTED FOR CEILING FANS THAT WEIGH MORE THAN 35 LBS.
  10. TYPE NM AND NMS CABLES SHALL NOT BE PERMITTED IN WET OR DAMP LOCATIONS.
  11. FLEXIBLE METAL CONDUIT (FMC) IS NOT PERMITTED IN A WET LOCATION.
  12. LUMINAIRES INSTALLED IN WET OR DAMP LOCATIONS SHALL BE INSTALLED SUCH THAT WATER CANNOT ENTER OR ACCUMULATE IN WIRING COMPARTMENTS, LAMP HOLDERS, OR OTHER ELECTRICAL PARTS. ALL LUMINAIRES INSTALLED IN WET LOCATIONS SHALL BE MARKED "SUITABLE FOR WET LOCATIONS." ALL LUMINAIRES INSTALLED IN DAMP LOCATIONS SHALL BE MARKED "SUITABLE FOR WET LOCATIONS" OR "SUITABLE FOR DAMP LOCATIONS."
  13. ALL 15 AND 20 AMPERE, 120 AND 125 VOLT EXTERIOR RECEPTACLES SHALL BE PROTECTED BY AN "IN-USE" WEATHERPROOF COVER.
  14. BATHROOM RECEPTACLES WILL BE SUPPLIED BY AT LEAST ONE 20 AMP BRANCH CIRCUITS.
  15. ALL NEW NON-LOCKING-TYPE 125-VOLT, 15 AND 20-AMPERE RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES
  16. COUNTERTOP RECEPTACLES IN THE KITCHEN, NOOK PANTRIES, DINING ROOMS AND SIMILAR AREAS SHALL BE SPACED SUCH THAT ANY POINT ALONG THE WALL AT THE COUNTER LEVEL IS NOT MORE THAN 2 FEET FROM A RECEPTACLE. ANY COUNTER SPACE MORE THAN 12" WIDE SHALL BE PROVIDED WITH A RECEPTACLE. PENINSULA OR ISLAND COUNTERS ARE TO BE PROVIDED WITH AT LEAST ONE RECEPTACLE. WHERE A RANGE, COUNTER TOP COOKING UNIT, OR SINK IS INSTALLED IN THE ISLAND WITH LESS THAN 12" OF COUNTER SPACE BEHIND THE FIXTURES, THE ISLAND OR PENINSULAR IS CONSIDERED AS TWO COUNTER SPACES. THESE RECEPTACLES ARE TO BE LOCATED NO MORE THAN 12" BELOW THE COUNTERTOP WHERE THE COUNTERTOP DOES NOT EXTEND MORE THAN 6" BEYOND ITS SUPPORT BASE. COUNTERTOP INTERRUPTED BY RANGES, SINKS, OR OTHER APPLIANCES SHALL BE CONSIDERED SEPARATE COUNTERS.
  17. GFCI PROTECTION IS REQUIRED FOR ALL 15A AND 20A, 125V RECEPTACLES INSTALLED IN THE FOLLOWING LOCATIONS PER 2019 CEC ART 210.8(A)
    - SINKS - GFCI PROTECTION IS REQUIRED WITHIN AN ARC MEASUREMENT OF 6FT. FROM THE OUTSIDE EDGE OF A SINK
    - BATH TUBS OR SHOWER STALLS - GFCI PROTECTION IS REQUIRED FOR RECEPTACLES LOCATED WITHIN 6FT. OF THE OUTSIDE EDGE OF A BATHTUB OR SHOWER STALL.
    - LAUNDRY AREAS - RECEPTACLES INSTALLED IN LAUNDRY AREAS OF A DWELLING UNIT SHALL BE GFCI PROTECTED.
    - DWELLING UNIT DISHWASHERS - OUTLETS (NOT REQUIRED FOR A HARDWIRED APPLIANCE) SUPPLYING DISHWASHERS IN A DWELLING UNIT MUST BE GFCI PROTECTED PER 2019 CEC ART. CEC 210.8
  18. ALL PERMANENTLY INSTALLED LUMINAIRES IN DWELLING UNITS SHALL BE HIGH EFFICACY AND HAVE MANUAL ON/OFF CONTROLS AND VACANCY SENSORS OR DIMMERS EXCEPT FOR HALLWAYS & CLOSETS LESS THAN 7 FEET.
  19. EXHAUST FAN MUST BE SWITCHED SEPARATE FROM LIGHTING OR UTILIZE A DEVICE WHERE LIGHTING CAN BE TURNED OFF WHILE THE FAN IS RUNNING. EXCLUDES KITCHEN EXHAUST HOODS.
  20. LINEN CABINET MUST BE SWITCHED SEPARATE FROM ALL OTHER LIGHTING.
  21. PERMANENTLY INSTALLED LIGHTING IN CABINETS MUST BE HIGH EFFICACY.
  22. LIGHTING IN BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS MUST HAVE AT LEAST ONE LUMINAIR CONTROLLED BY VACANCY SENSORS.
  23. PERMANENTLY INSTALLED OUTDOOR LIGHTING ATTACHED TO RESIDENCE OR OTHER BUILDING MUST BE HIGH EFFICACY AND MUST BE CONTROLLED BY A MANUAL ON AND OFF SWITCH AND ONE OF THESE CONTROL TYPES:
    - PHOTO-CONTROL AND MOTION SENSOR OR
    - PHOTO-CONTROL AND AUTOMATIC TIME SWITCH CONTROL OR ASTRONOMICAL TIME CLOCK THAT AUTOMATICALLY TURNS OUTDOOR LIGHTING OFF DURING DAYLIGHT HOURS OR
    - ENERGY MANAGEMENT CONTROL SYSTEM (EMCS) THAT PROVIDES THE FUNCTIONALITY OF AN ASTRONOMICAL TIME CLOCK.

- SMOKE ALARM NOTES:**
1. ALL SMOKE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 217 AND INSTALLED IN ACCORDANCE WITH CODE SECTION R314 AND THE HOUSEHOLD FIRE WARNING EQUIPMENT PROVISIONS OF NFPA 72.
  2. SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:
    - IN EACH SLEEPING ROOM.
    - OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
  3. WHEN MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT.
  4. SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING PROVIDED THAT SUCH WIRING IS FROM A COMMERCIAL SOURCE AND SHALL BE EQUIPPED WITH A BACKUP BATTERY.
- CARBON MONOXIDE ALARM NOTES:**
1. SINGLE AND MULTIPLE STATION CARBON MONOXIDE ALARMS SHALL BE LISTED AS COMPLYING WITH THE REQUIREMENTS OF UL2034. CARBON MONOXIDE DETECTORS SHALL BE LISTED AS COMPLYING WITH THE REQUIREMENTS OF UL2075. CARBON MONOXIDE ALARMS AND DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH R315, THE CURRENT EDITION OF NFPA 720, AND THE MANUF. INSTALLATION INSTRUCTIONS.
  2. CARBON MONOXIDE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:
    - OUTSIDE EACH SEPARATE DWELLING UNIT SLEEPING AREA IN THE IMMEDIATE VICINITY OF BEDROOMS.
    - ON EVERY LEVEL OF A DWELLING UNIT INCLUDING BASEMENTS.
  3. WHERE MORE THAN ONE CARBON MONOXIDE ALARM IS REQUIRED TO BE INSTALLED WITHIN THE DWELLING UNIT OR WITHIN A SLEEPING UNIT THE ALARM SHALL BE INTERCONNECTED IN A MANNER THAT ACTIVATION OF ONE ALARM SHALL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT.
  4. CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING PROVIDED THAT SUCH WIRING IS FROM A COMMERCIAL SOURCE AND SHALL BE EQUIPPED WITH A BACKUP BATTERY.
  5. CARBON MONOXIDE ALARMS COMBINED WITH SMOKE ALARMS SHALL COMPLY WITH SECTION R315, ALL APPLICABLE STANDARDS, AND REQUIREMENTS FOR LISTING AND APPROVAL BY THE OFFICE OF THE STATE FIRE MARSHALL, FOR SMOKE ALARMS.
- ENERGY COMPLIANCE:**
- SOLAR READY BUILDINGS, SHALL MEET THE REQUIREMENTS OF SECTION 110.10 APPLICABLE TO THE BUILDING PROJECT
  - ENERGY STORAGE SYSTEMS (ESS) READY. ALL SINGLE FAMILY RESIDENCES THAT INCLUDE ONE OR TWO DWELLING UNITS SHALL MEET THE FOLLOWING. ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE:
    1. AT LEAST ONE OF THE FOLLOWING SHALL BE PROVIDED:
      - A. ESS READY INTERCONNECTION EQUIPMENT WITH A MINIMUM BACKED-UP CAPACITY OF 60 AMPS AND A MINIMUM OF FOUR ESS-SUPPLIED BRANCH CIRCUITS, OR
      - B. A DEDICATED RACEWAY FROM THE MAIN SERVICE TO A PANELBOARD (SUBPANEL) THAT SUPPLIES THE BRANCH CIRCUITS IN SECTION 150.0(S)(2). ALL BRANCH CIRCUITS ARE PERMITTED TO BE SUPPLIED BY THE MAIN SERVICE PANEL PRIOR TO THE INSTALLATION OF AN ESS. THE TRADE SIZE OF THE RACEWAY SHALL BE NOT LESS THAN 1 INCH. THE PANELBOARD THAT SUPPLIES THE BRANCH CIRCUITS (SUBPANEL) MUST BE LABELED "SUBPANEL" SHALL INCLUDE ALL BACKED-UP LOAD CIRCUITS.
    2. A MINIMUM OF FOUR BRANCH CIRCUITS SHALL BE IDENTIFIED AND HAVE THERE SOURCE OF SUPPLY COLLOCATED AT A SINGLE PANELBOARD SUITABLE TO BE SUPPLIED BY THE ESS. AT LEAST ONE CIRCUIT SHALL SUPPLY THE REFRIGERATOR, ONE LIGHTING CIRCUIT SHALL BE LOCATED NEAR THE PRIMARY EGRESS AND AT LEAST ONE CIRCUIT SHALL SUPPLY A SLEEPING ROOM RECEPTACLE OUTLET.
    3. THE MAIN PANELBOARD SHALL HAVE A MINIMUM BUSBAR RATING OF 225 AMPS
  - 4. SUFFICIENT SPACE SHALL BE RESERVED TO ALLOW FUTURE INSTALLATION OF A SYSTEM ISOLATION EQUIPMENT/TRANSFER SWITCH WITHIN 3 FEET OF MAIN PANELBOARD. RACEWAYS SHALL BE INSTALLED BETWEEN THE PANELBOARD AND THE SYSTEM ISOLATION EQUIPMENT/TRANSFER SWITCH LOCATION TO ALLOW THE CONNECTION OF BACKUP POWER SOURCE.
- ELECTRIC COOKTOP READY. SYSTEMS USING GAS OR PROPANE COOKTOP TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE THE FOLLOWING:**
1. A DEDICATED 240 VOLT BRANCH CIRCUIT WIRING SHALL BE INSTALLED WITHIN 3 FEET FROM THE COOKTOP AND ACCESSIBLE TO THE COOKTOP WITH NO OBSTRUCTIONS. THE BRANCH CIRCUIT CONDUCTORS SHALL BE RATED AT 50 AMPS MINIMUM. THE BLANK COVER SHALL BE IDENTIFIED AS "240V READY." ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE.
  2. THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR THE INSTALLATION OF A DOUBLE POLE CIRCUIT BREAKER FOR A FUTURE ELECTRIC COOKTOP INSTALLATION. THE RESERVED SPACE SHALL BE PERMANENTLY MARKED AS "FOR FUTURE 240V USE."



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

POWER PLAN LEGEND  
 1/4" = 1'-0"

No.	Date	Description

Sheet Name:  
POWER PLAN

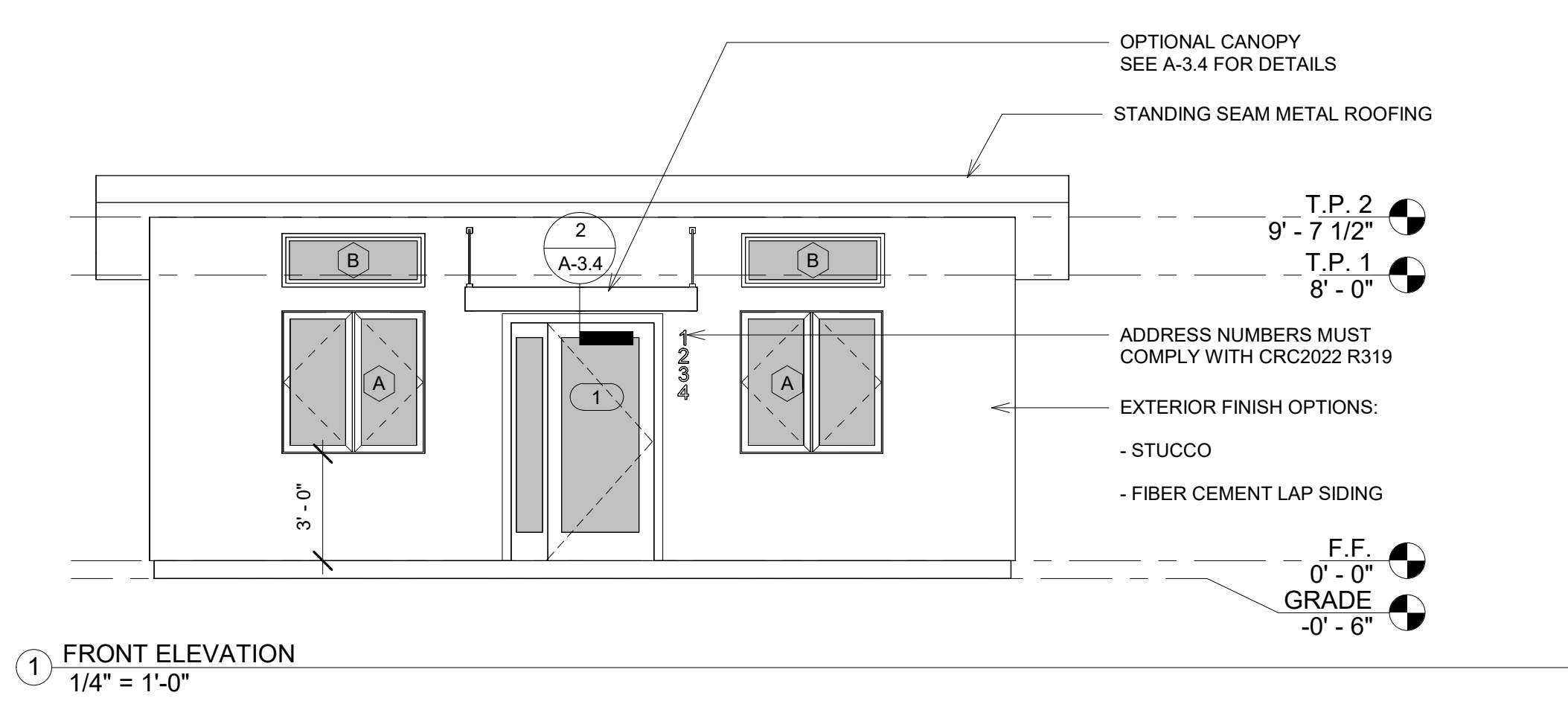
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1/4" = 1'-0"

Date:  
MAR 2024

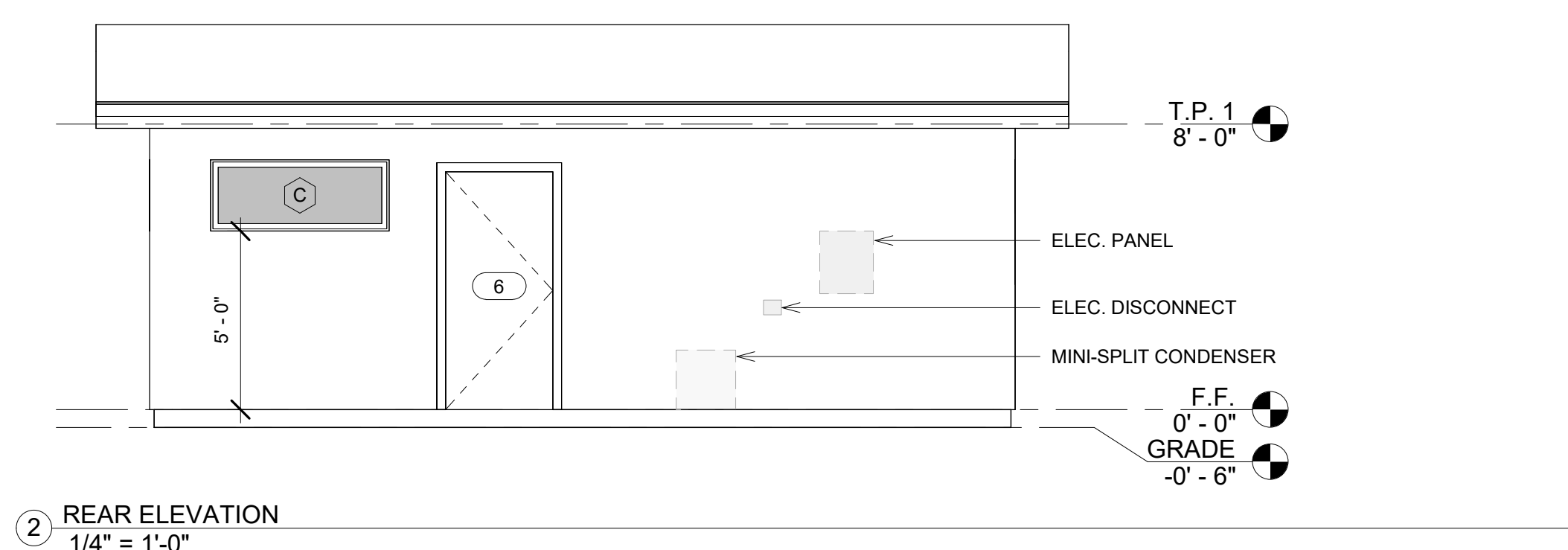
Drawn By:  
LM

Approved By:

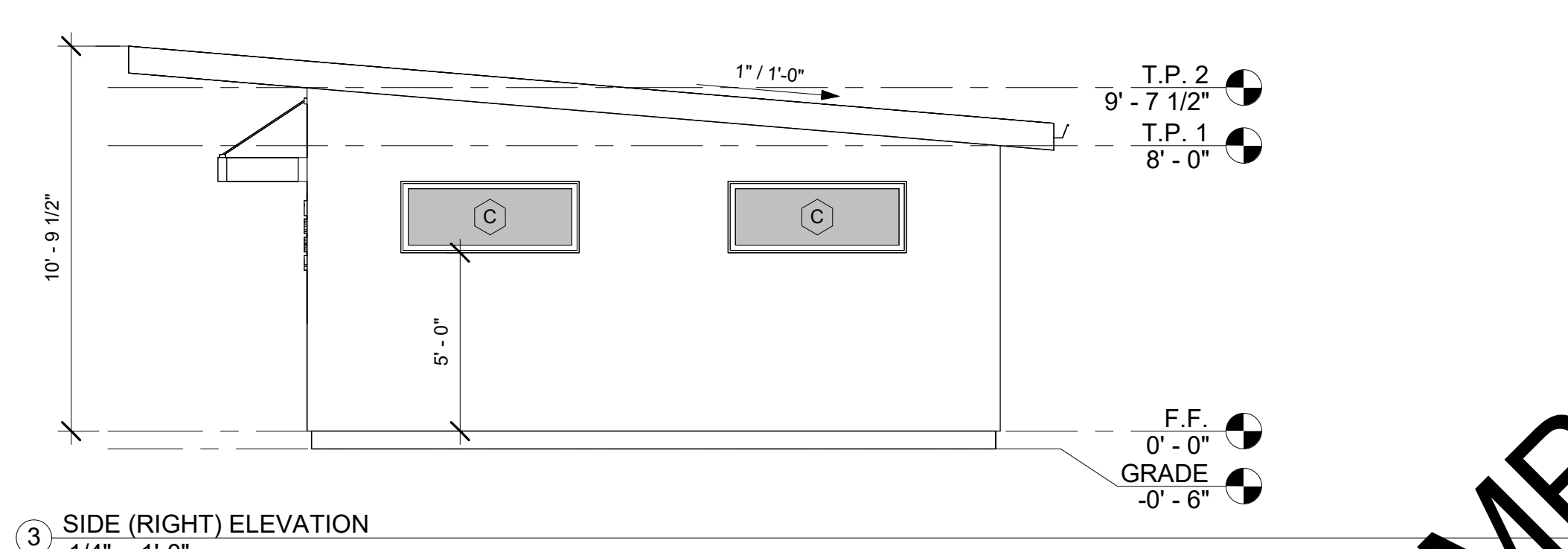
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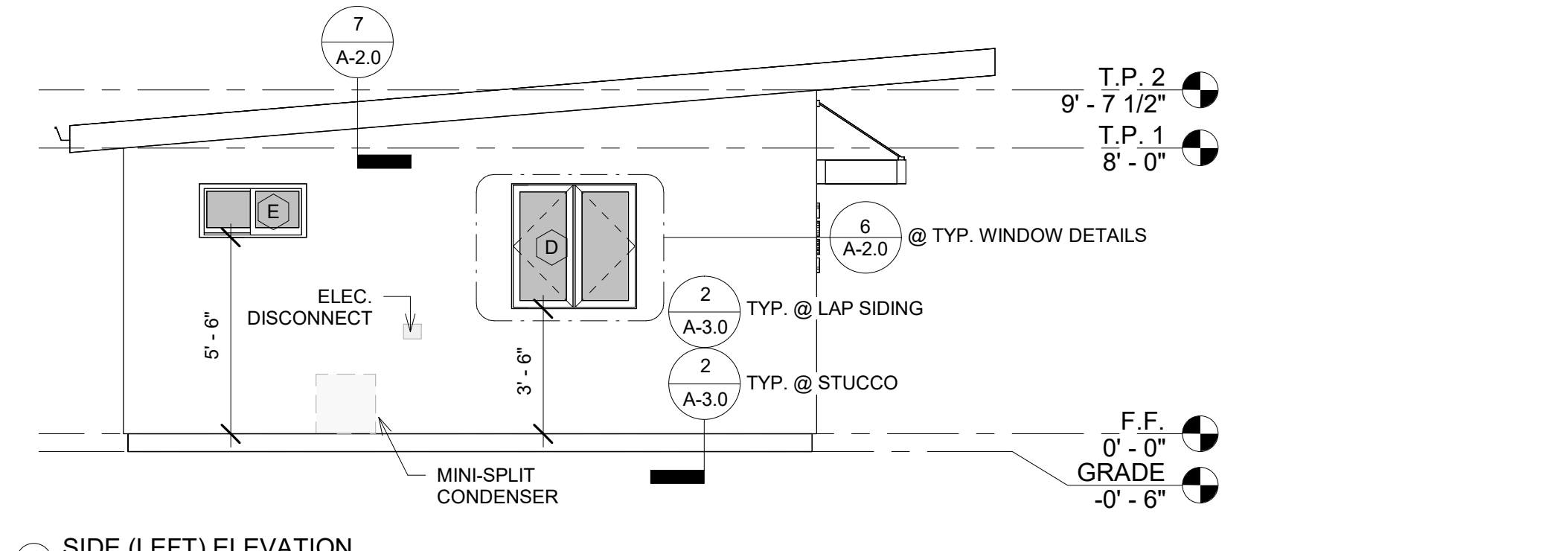
1 FRONT ELEVATION  
1/4" = 1'-0"



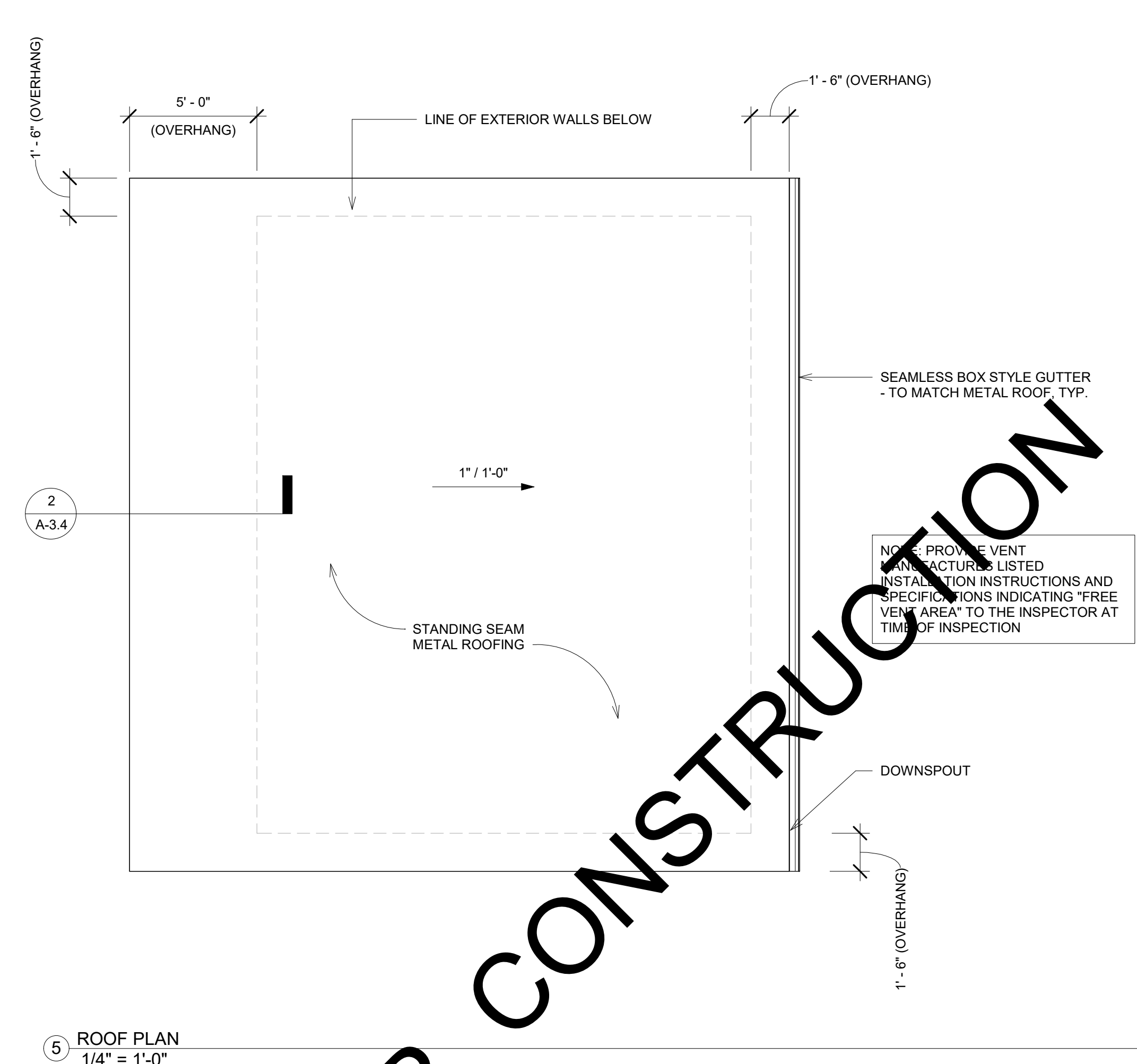
2 REAR ELEVATION  
1/4" = 1'-0"



3 SIDE (RIGHT) ELEVATION  
1/4" = 1'-0"



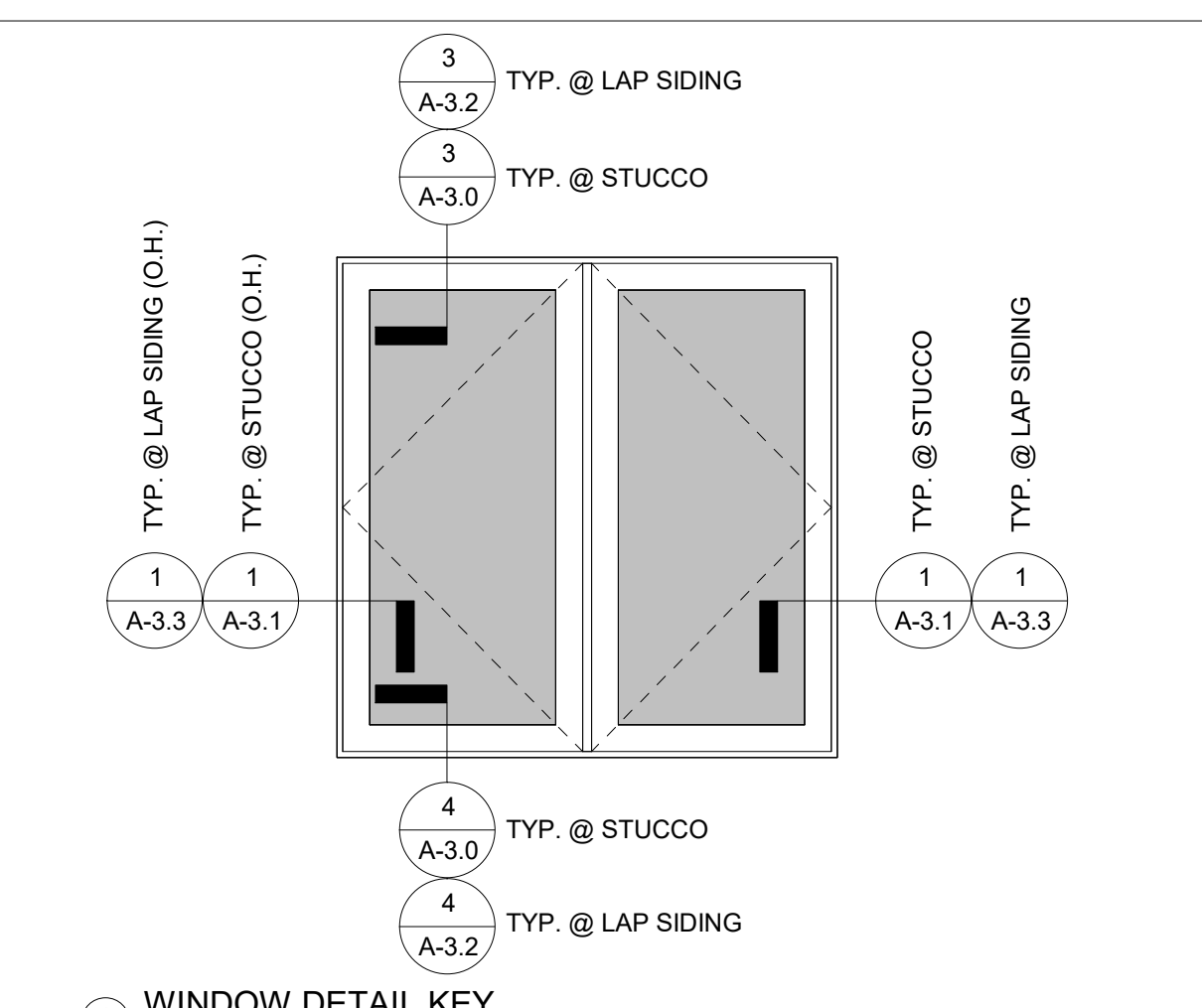
4 SIDE (LEFT) ELEVATION  
1/4" = 1'-0"



5 ROOF PLAN  
1/4" = 1'-0"

**ADDRESS NUMBER NOTES:**

- THE ADDRESS IDENTIFICATION SHALL BE LEGIBLE AND PLACED IN A POSITION THAT IS VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.
- ADDRESS IDENTIFICATION CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND.
- ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS. NUMBERS SHALL NOT BE SPELLED OUT.
- EACH CHARACTER SHALL BE NOT LESS THAN 4 INCHES IN HEIGHT WITH A STROKE WIDTH OF NOT LESS THAN 0.5 INCH.
- WHERE REQUIRED BY THE FIRE CODE OFFICIAL, ADDRESS IDENTIFICATION SHALL BE PROVIDED IN ADDITIONAL APPROVED LOCATIONS TO FACILITATE EMERGENCY RESPONSE.
- WHERE ACCESS IS BY MEANS OF A PRIVATE ROAD AND THE BUILDING ADDRESS CANNOT BE VIEWED FROM THE PUBLIC WAY, A MONUMENT, POLE OR OTHER SIGN OR MEANS SHALL BE USED TO IDENTIFY THE STRUCTURE. ADDRESS IDENTIFICATION SHALL BE MAINTAINED. CRC 2022 R319



6 WINDOW DETAIL KEY  
3/4" = 1'-0"

**ROOF PLAN NOTES:**

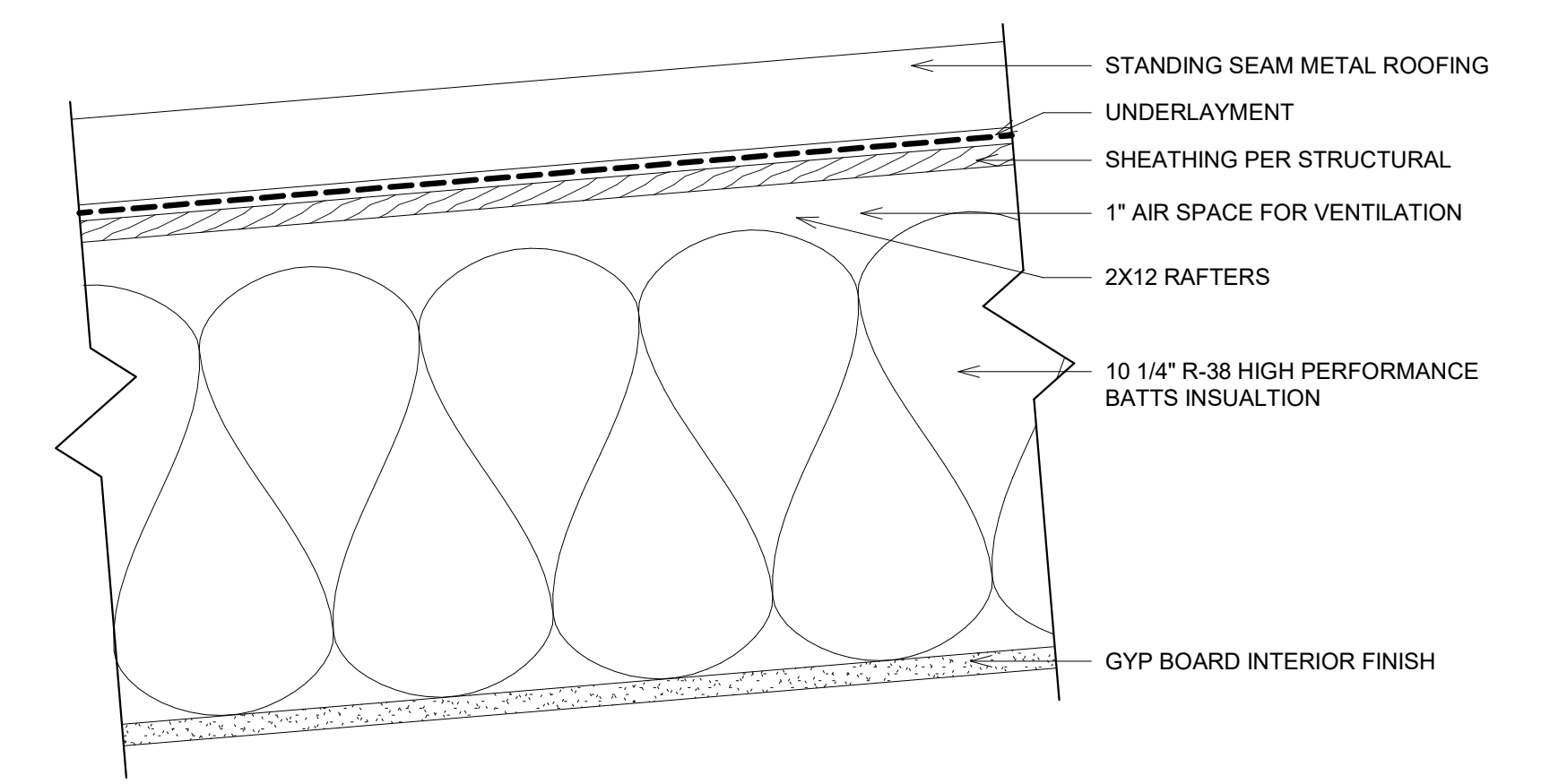
- THE MIN. NET FREE VENTILATION AREA SHALL BE 1/300 OF THE AREA OF THE VENTED SPACE (EXCEPTION, CBC R806.2)
- ENCLOSED RAFTER AREA:  
460 S.F./300 = 2.36 S.F. = 220.32 S.I. NET FREE VENTILATION AREA REQUIRED
- UPPER ROOF = 110.16 S.I. NET FREE VENTILATION AREA REQUIRED
- BOTTOM ROOF = 110.16 S.I. NET FREE VENTILATION AREA REQUIRED
- UPPER ROOF VENTILATION TO BE PROVIDED BY DUROVENT ATTIC VENTILATION CHANNELS OR APPROVED EQUAL AND 4" ROUND EAVE VENTS. BOTTOM ROOF VENTILATION TO BE PROVIDED BY DUROVENT ATTIC VENTILATION CHANNELS OR APPROVED EQUAL AND 4" ROUND EAVE VENTS.

**ROOF VENTILATION PROVIDED:**

- UPPER ROOF VENTILATION:  
4" LOUVERED ROUND EAVE VENT (5.17 S.I. EA.) X 2 VENTS = 10.34 S.I./BAY X 12 BAYS = 124.08 S.I. PROVIDED  
124.08 S.I. PROVIDED (110.16 S.I. REQUIRED)
- BOTTOM ROOF VENTILATION:  
4" LOUVERED ROUND EAVE VENT (5.17 S.I. EA.) X 2 VENTS = 10.34 S.I./BAY X 12 BAYS = 124.08 S.I. PROVIDED  
124.08 S.I. PROVIDED (110.16 S.I. REQUIRED)

**ROOFING NOTES:**

- ROOFING MATERIAL TO BE METAL STANDING SEAM. THE INSTALLATION OF METAL PANEL ROOFING SHALL COMPLY WITH THE PROVISIONS OF R905.10
- METAL ROOF UNDERLAYMENT TYPE SHALL BE ONE OF THE FOLLOWING:  
- ASTM D226 TYPE II  
- ASTM D4869 TYPE III OR TYPE IV
- GUTTERS & DOWNSPOUTS TO BE BOX STYLE. COLOR TO MATCH STANDING SEAM ROOFING.



7 ROOF SECTION  
3" = 1'-0"

SAMPLE NOT FOR CONSTRUCTION

No.	Date	Description

Sheet Name:  
ROOF PLAN  
AND EXTERIOR  
ELEVATIONS

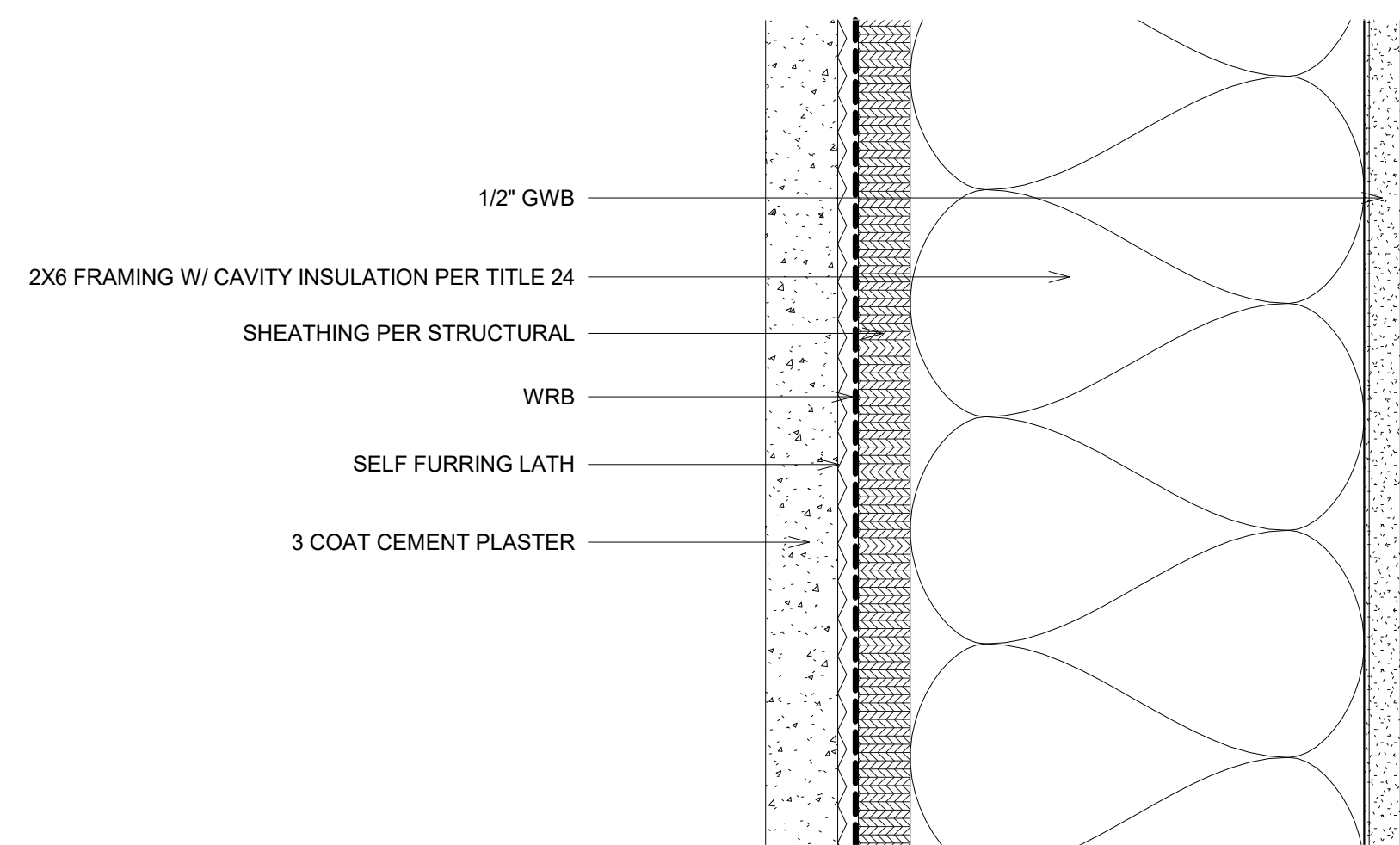
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As indicated

Date:  
MAR 2024

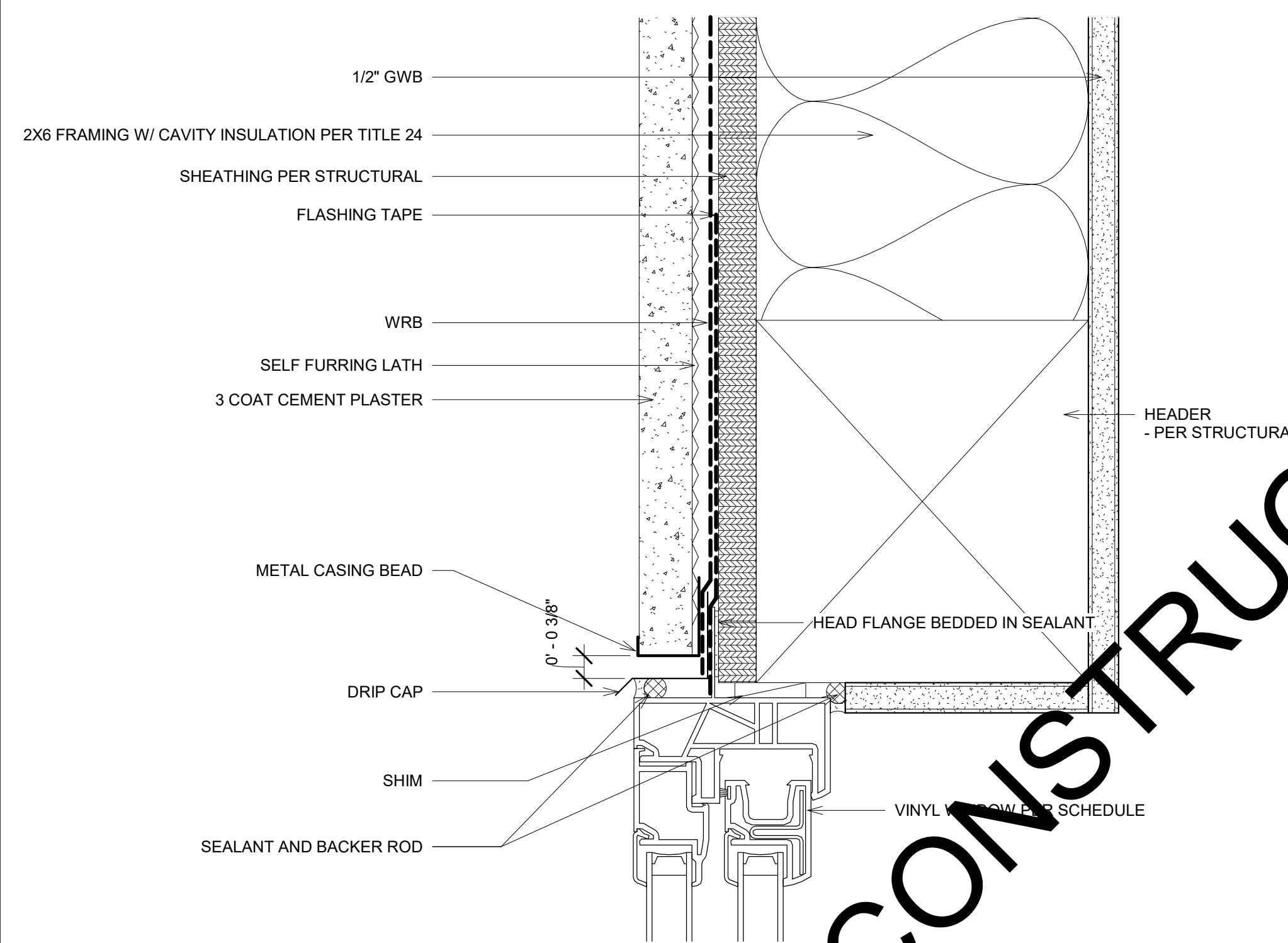
Drawn By:  
LM

Approved By:

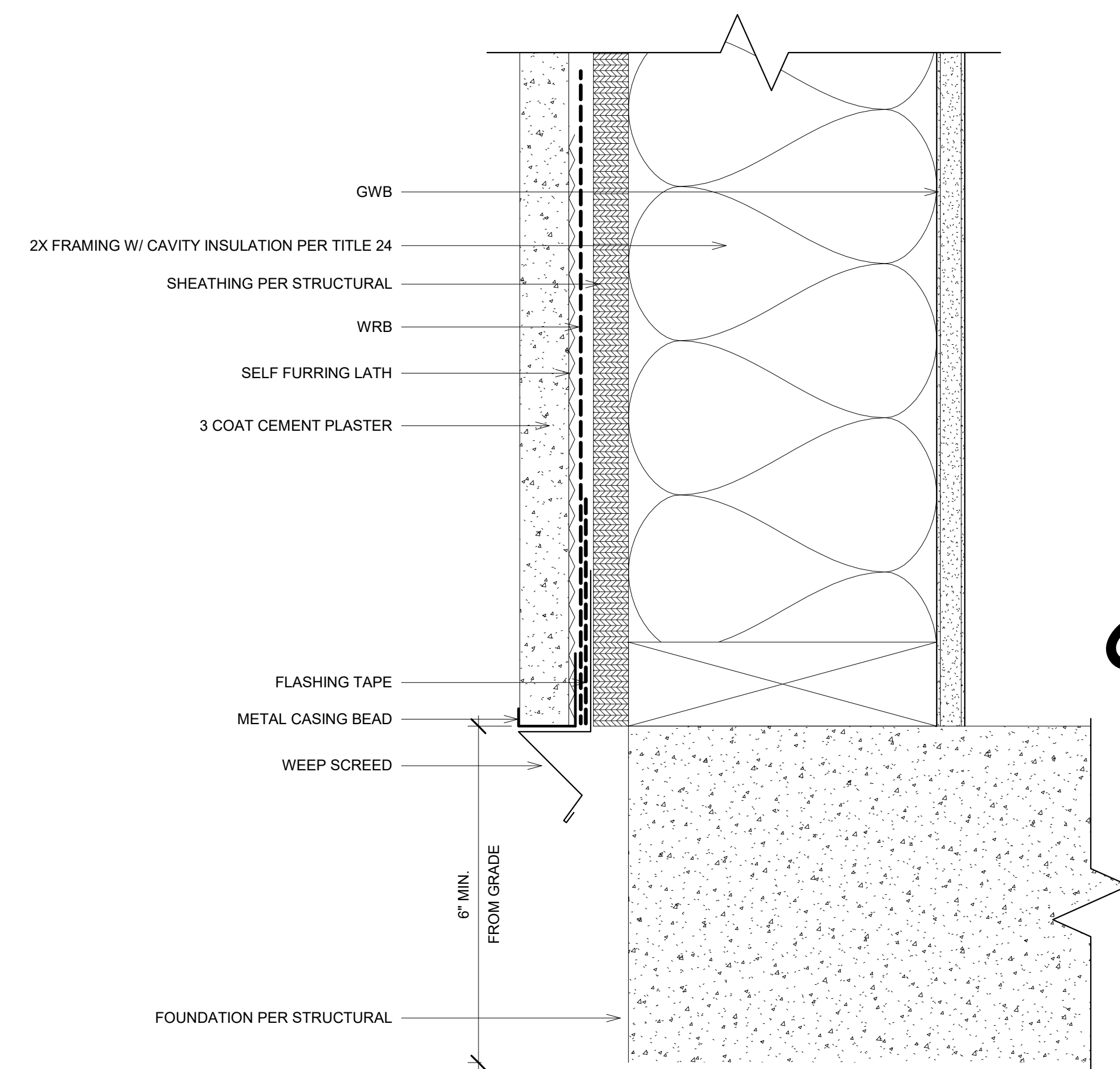
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A-2.0



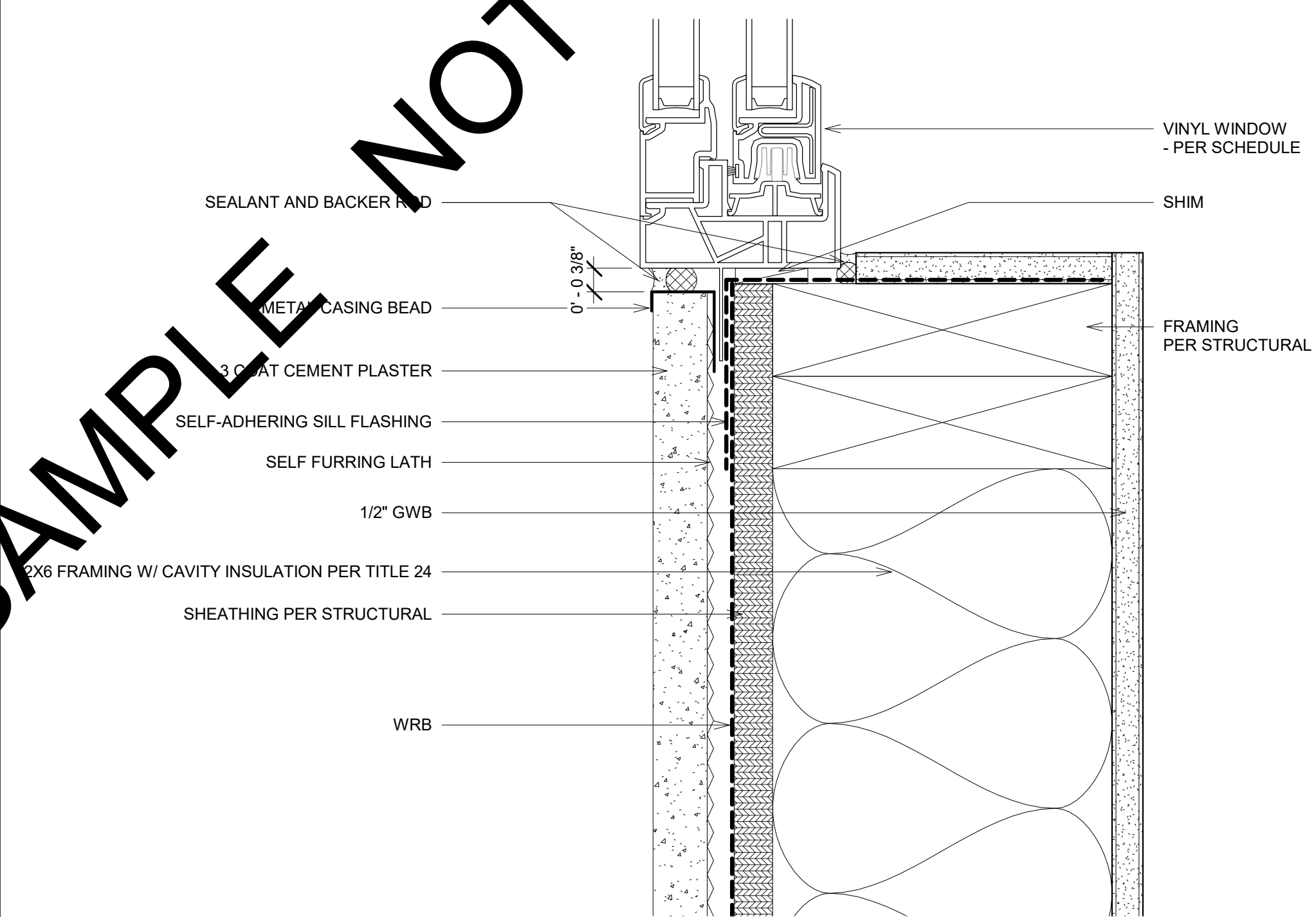
1 STUCCO WALL SECTION  
6" = 1'-0"



3 STUCCO @ VINYL WINDOW HEAD  
6" = 1'-0"



2 STUCCO @ WALL BASE  
6" = 1'-0"



4 STUCCO @ VINYL WINDOW SILL  
6" = 1'-0"

SAMPLE NOT FOR CONSTRUCTION

No.	Date	Description

Sheet Name:  
STUCCO SECTION DETAILS

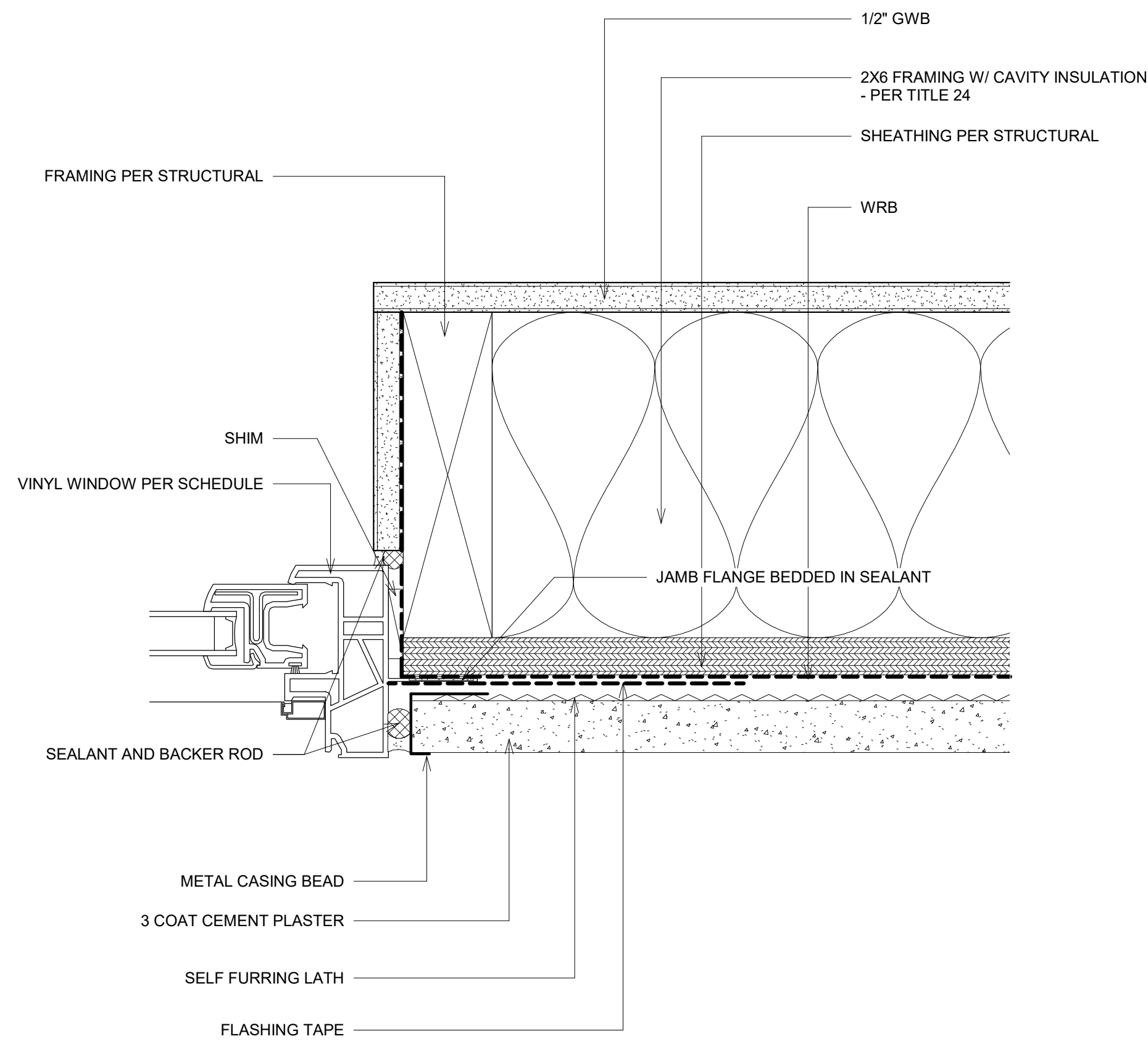
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Date:  
MAR 2024

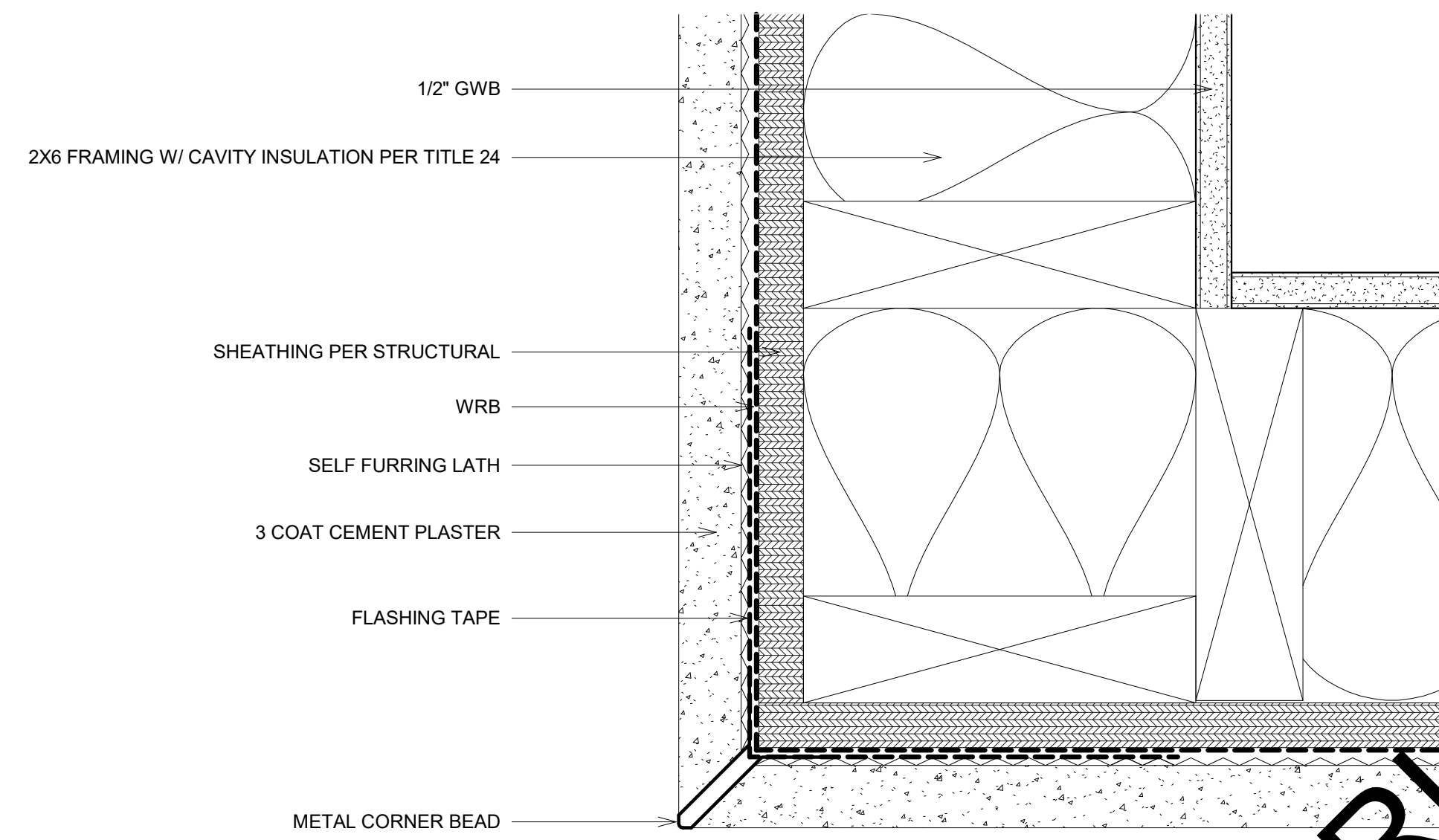
Drawn By:  
LM

Approved By:

Sheet Number:



① STUCCO @ VINYL WINDOW JAMB  
6" = 1'-0"



② STUCCO @ OUTSIDE CORNER  
6" = 1'-0"

SAMPLE NOT FOR CONSTRUCTION

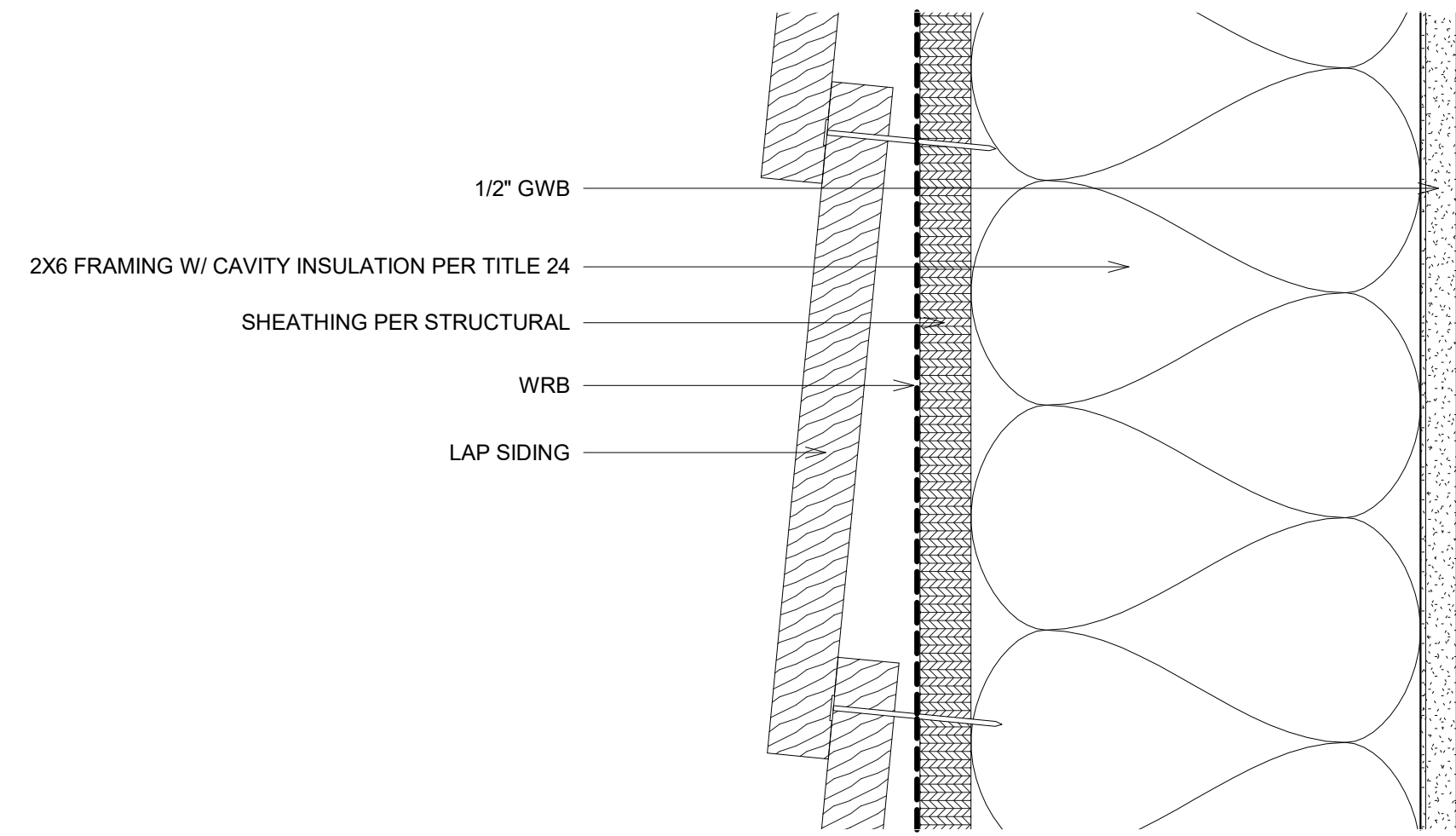
No.	Date	Description

Sheet Name:  
STUCCO PLAN  
DETAILS

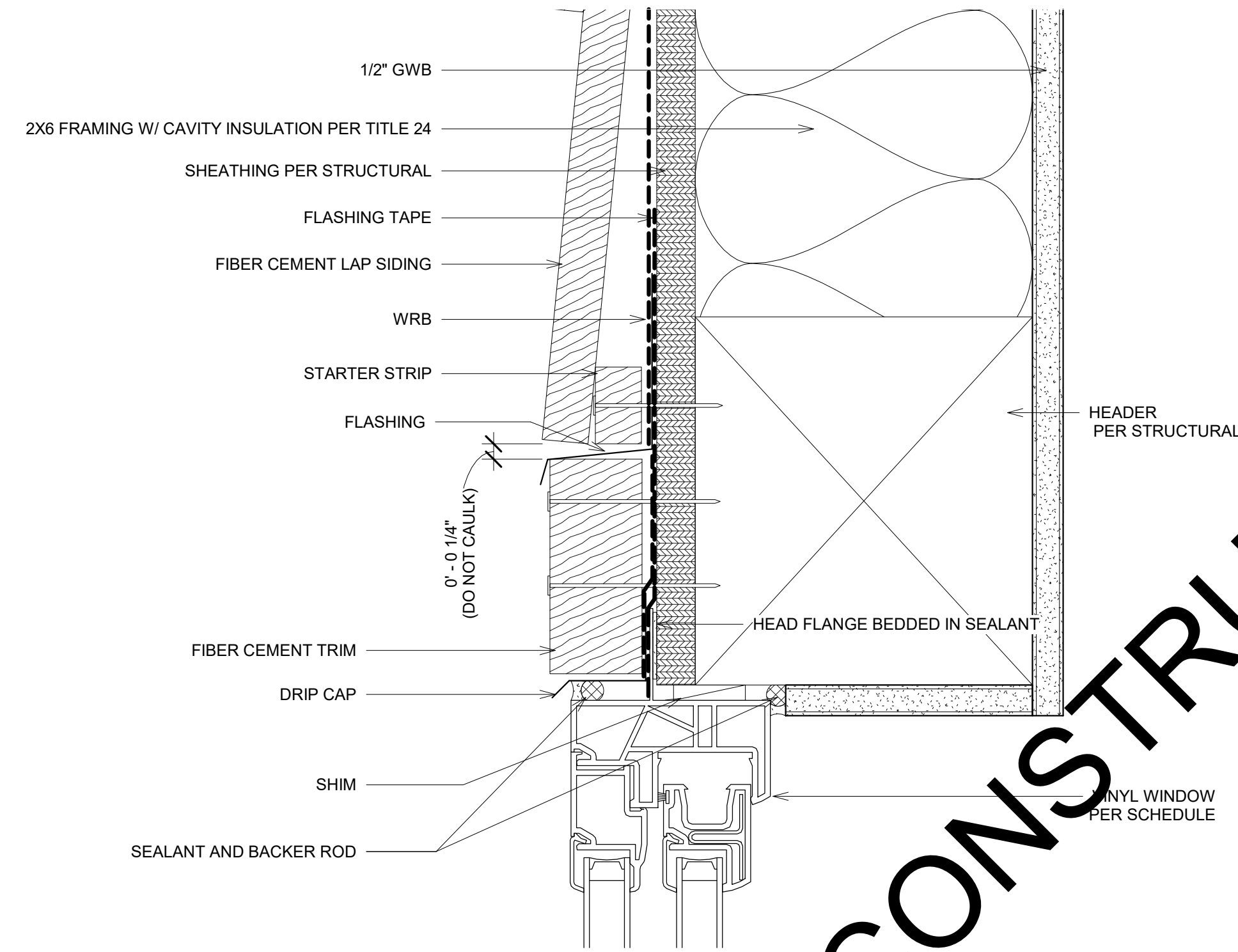
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Date:  
MAR 2024  
Drawn By:  
LM  
Approved By:

Sheet Number:

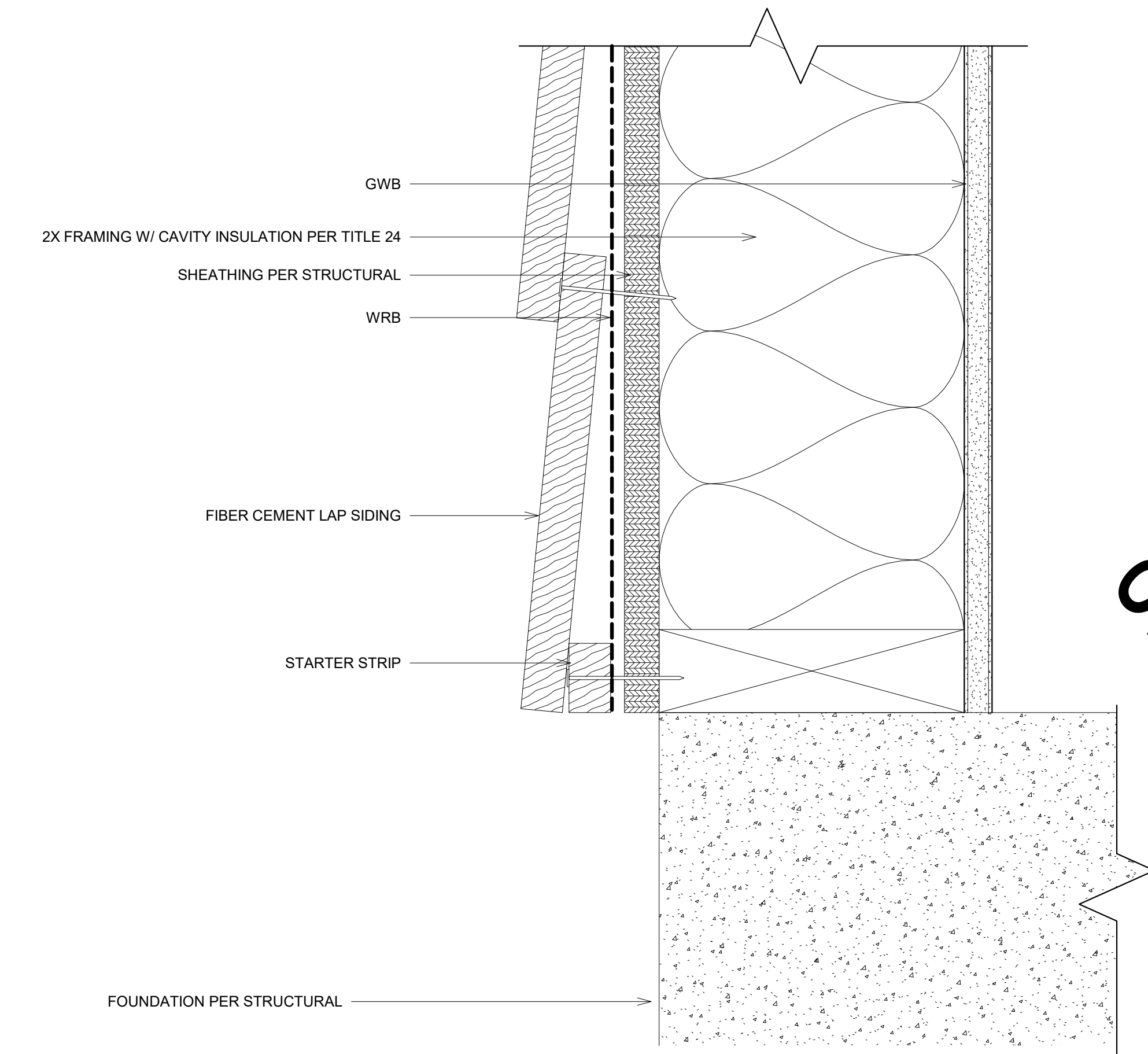




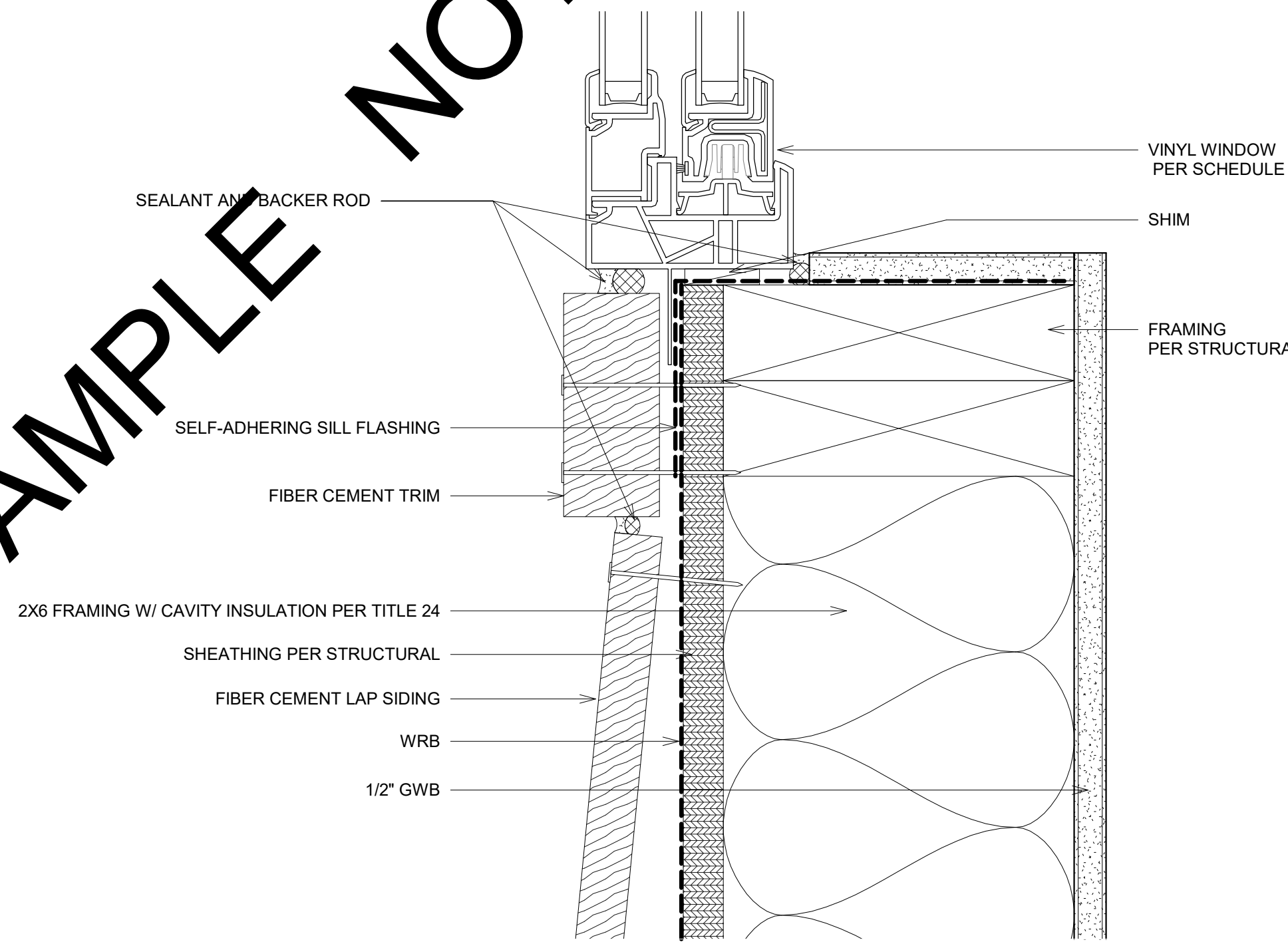
① LAP SIDING WALL SECTION  
6" = 1'-0"



③ LAP SIDING @ VINYL WINDOW HEAD  
6" = 1'-0"



② LAP SIDING @ WALL BASE  
6" = 1'-0"



④ LAP SIDING @ VINYL WINDOW SILL  
6" = 1'-0"

LAP SIDING NOTES:

- FIBER-CEMENT LAP SIDING HAVING A MAXIMUM WIDTH OF 12 INCHES SHALL COMPLY WITH THE REQUIREMENTS OF ASTM C1186, TYPE A, MINIMUM GRADE II OR ISO 8336, CATEGORY A, MINIMUM CLASS 2. LAP SIDING SHALL BE LAPPED A MINIMUM OF 1 1/4 INCHES (32 MM) AND LAP SIDING NOT HAVING TONGUE AND-GROOVE END JOINTS SHALL HAVE THE ENDS PROTECTED WITH CAULKING, COVERED WITH AN H-SECTION JOINT COVER, LOCATED OVER A STRIP OF FLASHING, OR SHALL BE DESIGNED TO COMPLY WITH SECTION R703.1. LAP SIDING COURSES SHALL BE INSTALLED WITH THE FASTENER HEADS EXPOSED OR CONCEALED, IN ACCORDANCE WITH TABLE R703.3(1) OR APPROVED MANUFACTURER'S INSTRUCTIONS.

SAMPLE NOT FOR CONSTRUCTION

No.	Date	Description

Sheet Name:  
LAP SIDING SECTION DETAILS

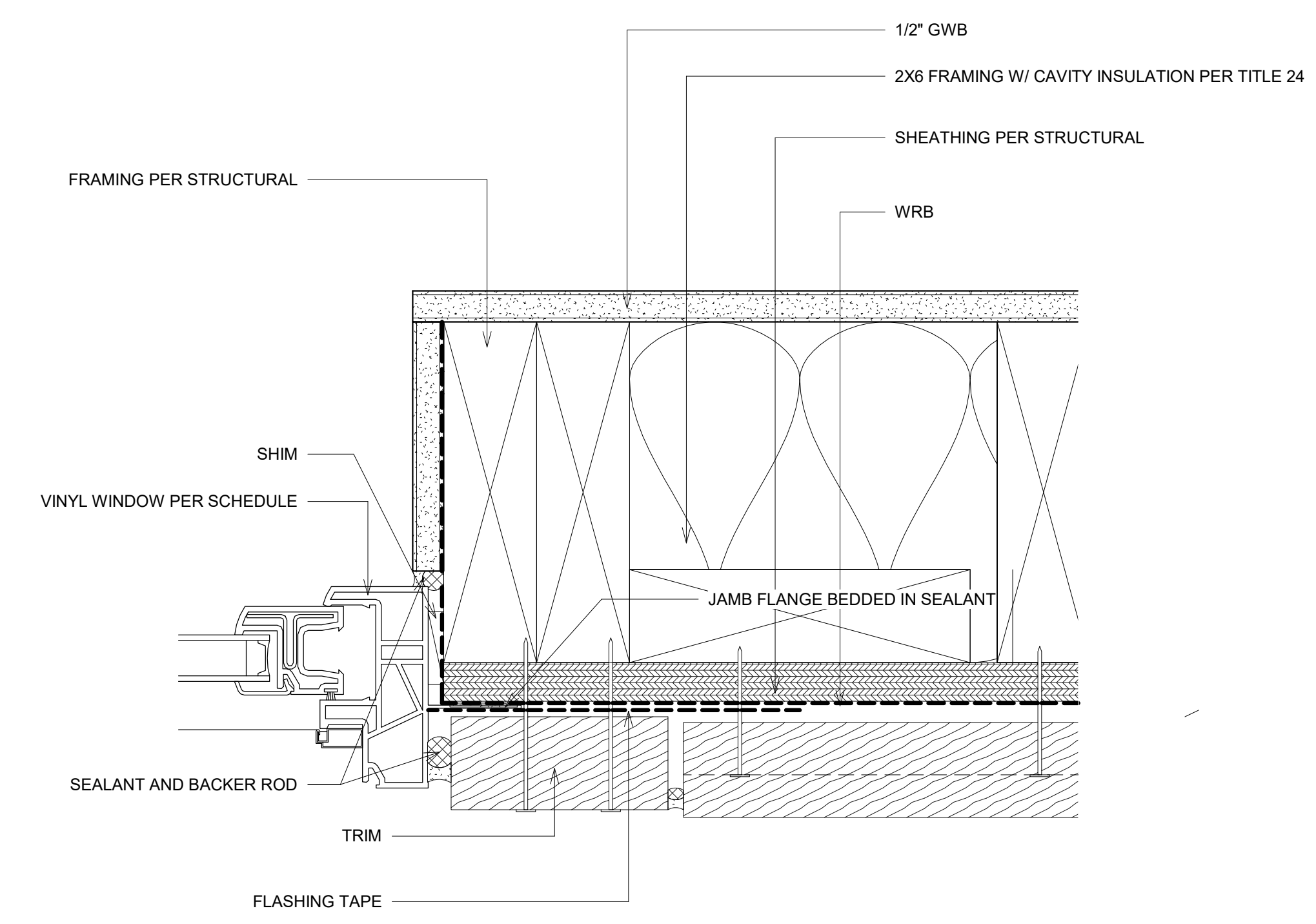
Scale:  
6" = 1'-0"

Date:  
MAR 2024

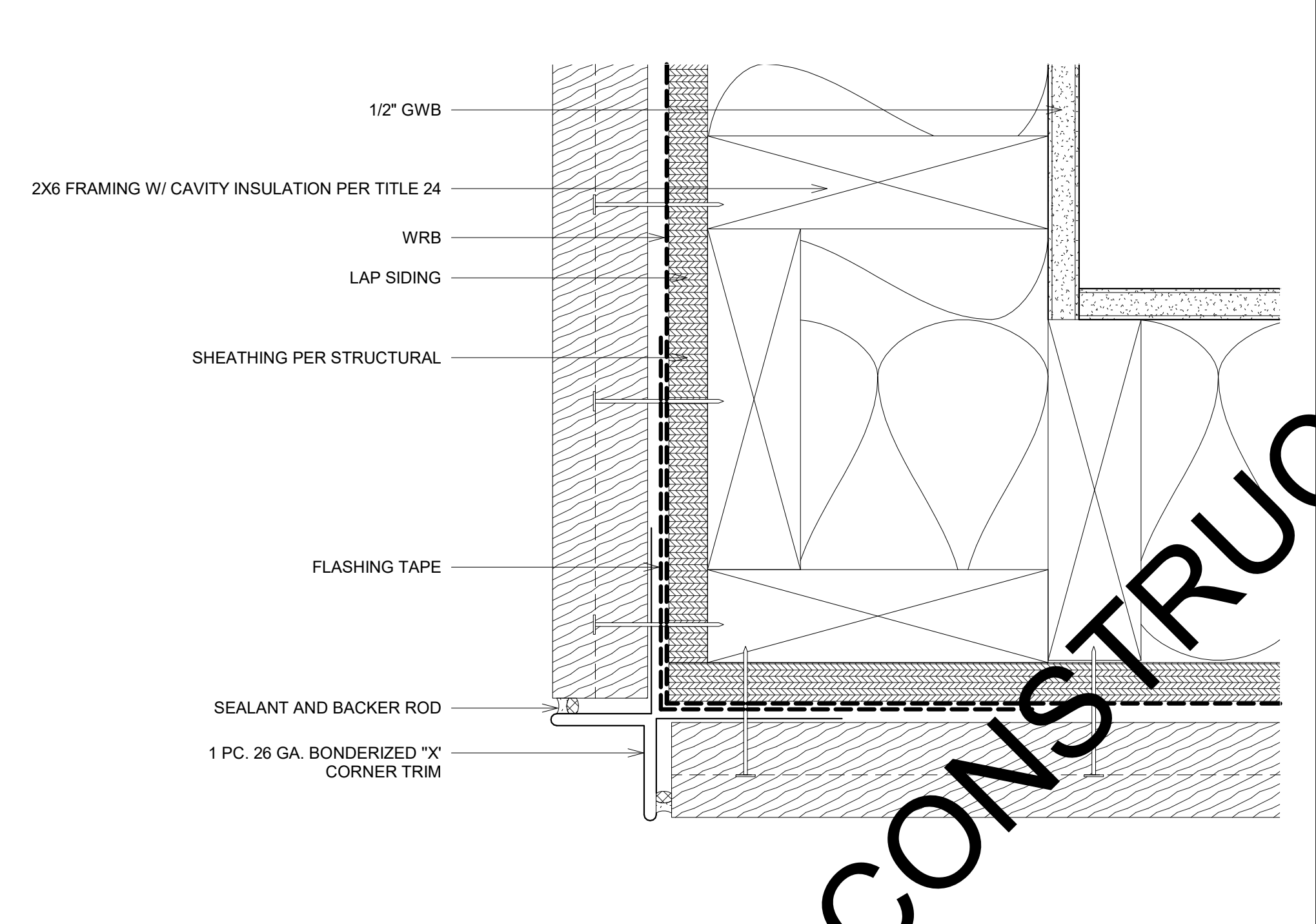
Drawn By:  
LM

Approved By:

Sheet Number:



① LAP SIDING @ VINYL WINDOW JAMB  
6" = 1'-0"



② LAP SIDING @ OUTSIDE CORNER  
6" = 1'-0"

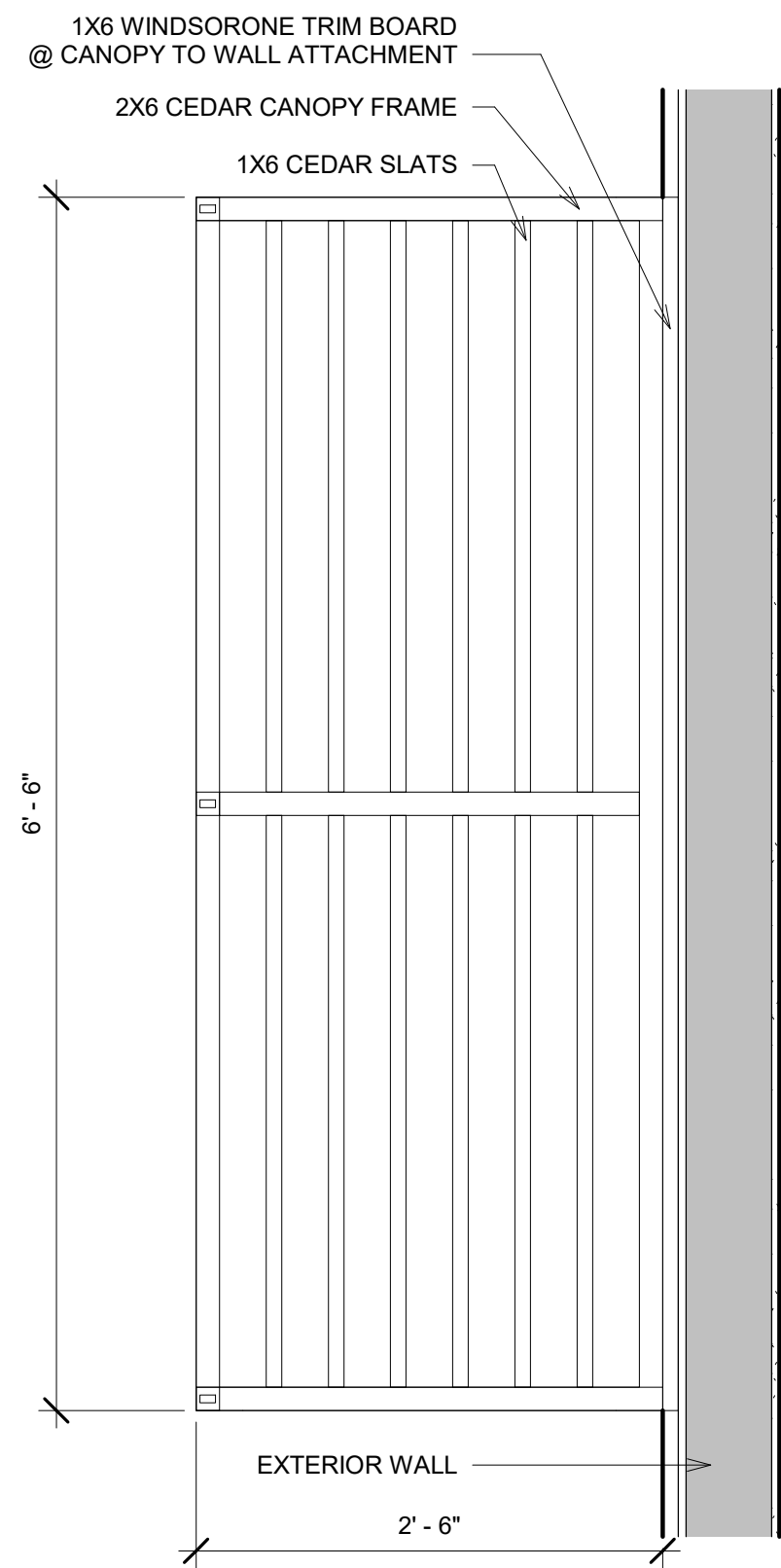
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No.	Date	Description

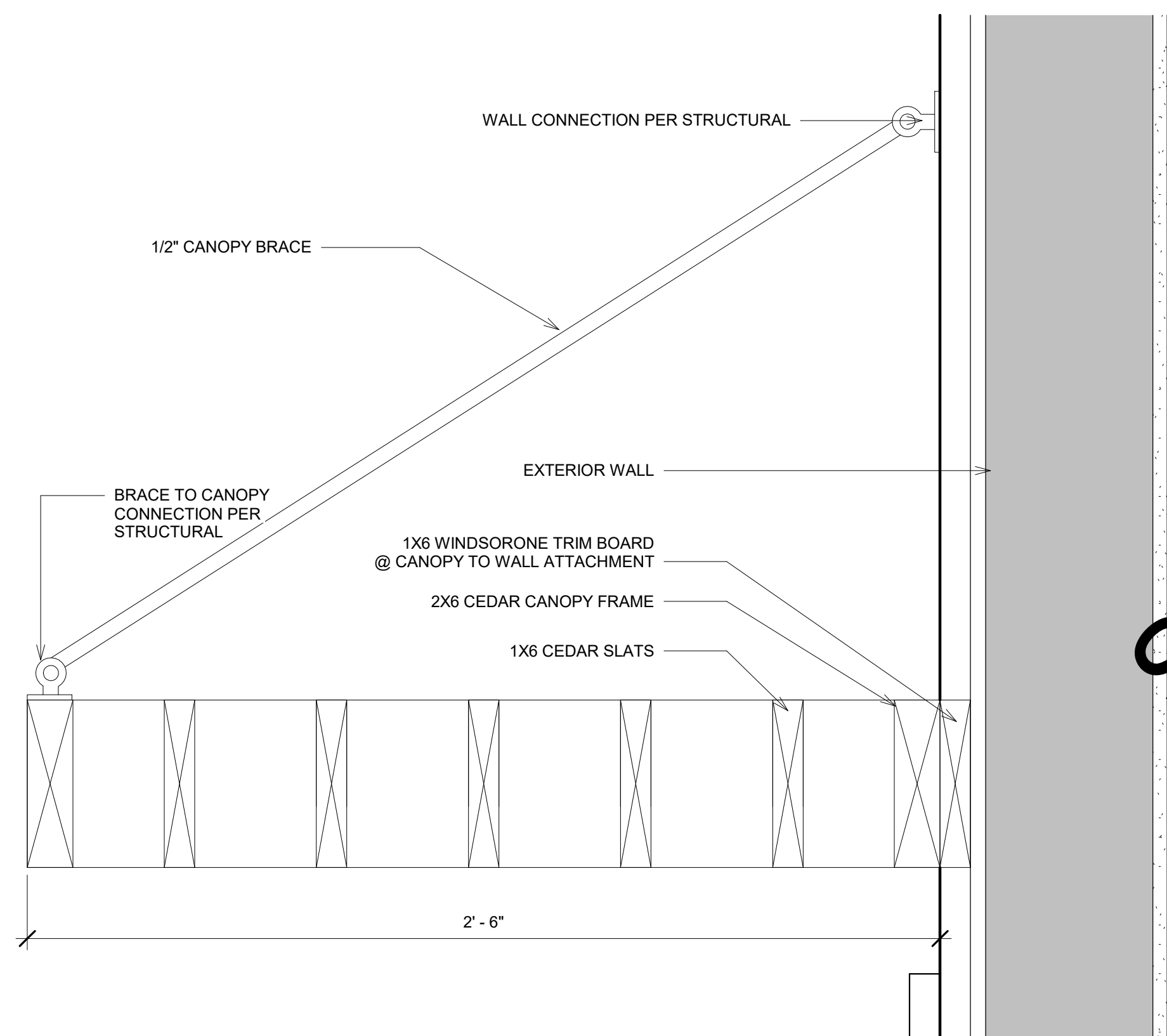
Sheet Name:  
 LAP SIDING  
 PLAN DETAILS

Scale:  
 6" = 1'-0"  
 Date:  
 MAR 2024  
 Drawn By:  
 LM  
 Approved By:

Sheet Number:  
A-3.3



① AWNING PLAN VIEW  
1" = 1'-0"



② AWNING SECTION  
3" = 1'-0"

SAMPLE NOT FOR CONSTRUCTION

No.	Date	Description

Sheet Name:  
AWNING  
DETAILS

Scale:  
As indicated  
Date:  
MAR 2024  
Drawn By:  
LM  
Approved By:

Sheet Number:

No.	Date	Description

Sheet Name:  
FIRE DETAILS

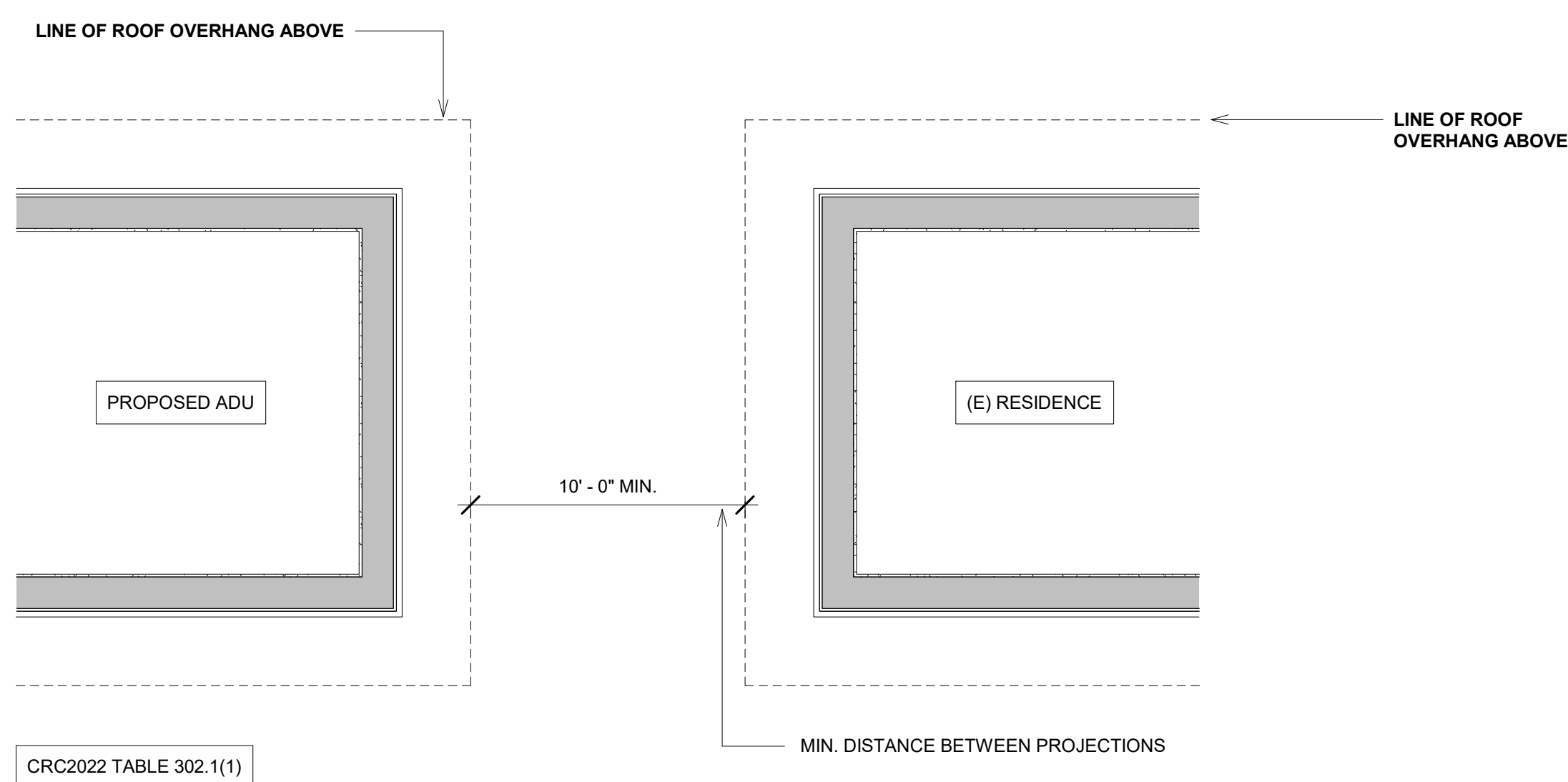
Scale:  
N.T.S.  
Date:  
MAR 2024  
Drawn By:  
LM  
Approved By:

Sheet Number:

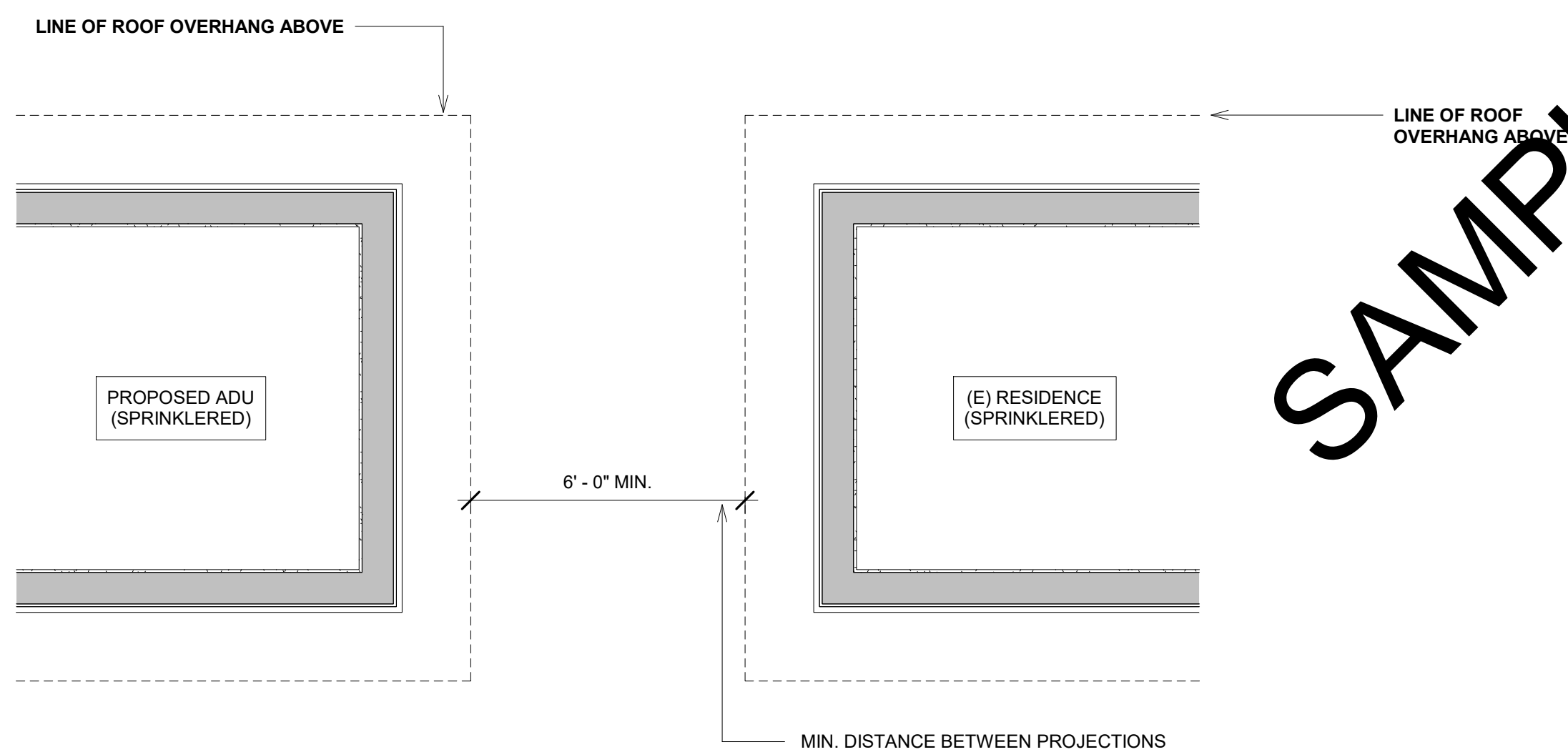
SAMPLE NOT FOR CONSTRUCTION

**FIREBLOCKING NOTES (IF REQUIRED):**

- FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAMED CONSTRUCTION IN THE FOLLOWING LOCATIONS:
- IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS, AS FOLLOWS:
  1. VERTICALLY AT THE CEILING AND FLOOR LEVELS.
  2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET (3048 MM).
- AT INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS AND COVE CEILINGS.
- IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN. ENCLOSED SPACES UNDER STAIRS SHALL COMPLY WITH SECTION R302.7.
- AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES AND WIRES AT CEILING AND FLOOR LEVEL, WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION.
- FIREBLOCKING MATERIALS SHALL COMPLY WITH R302.11.1

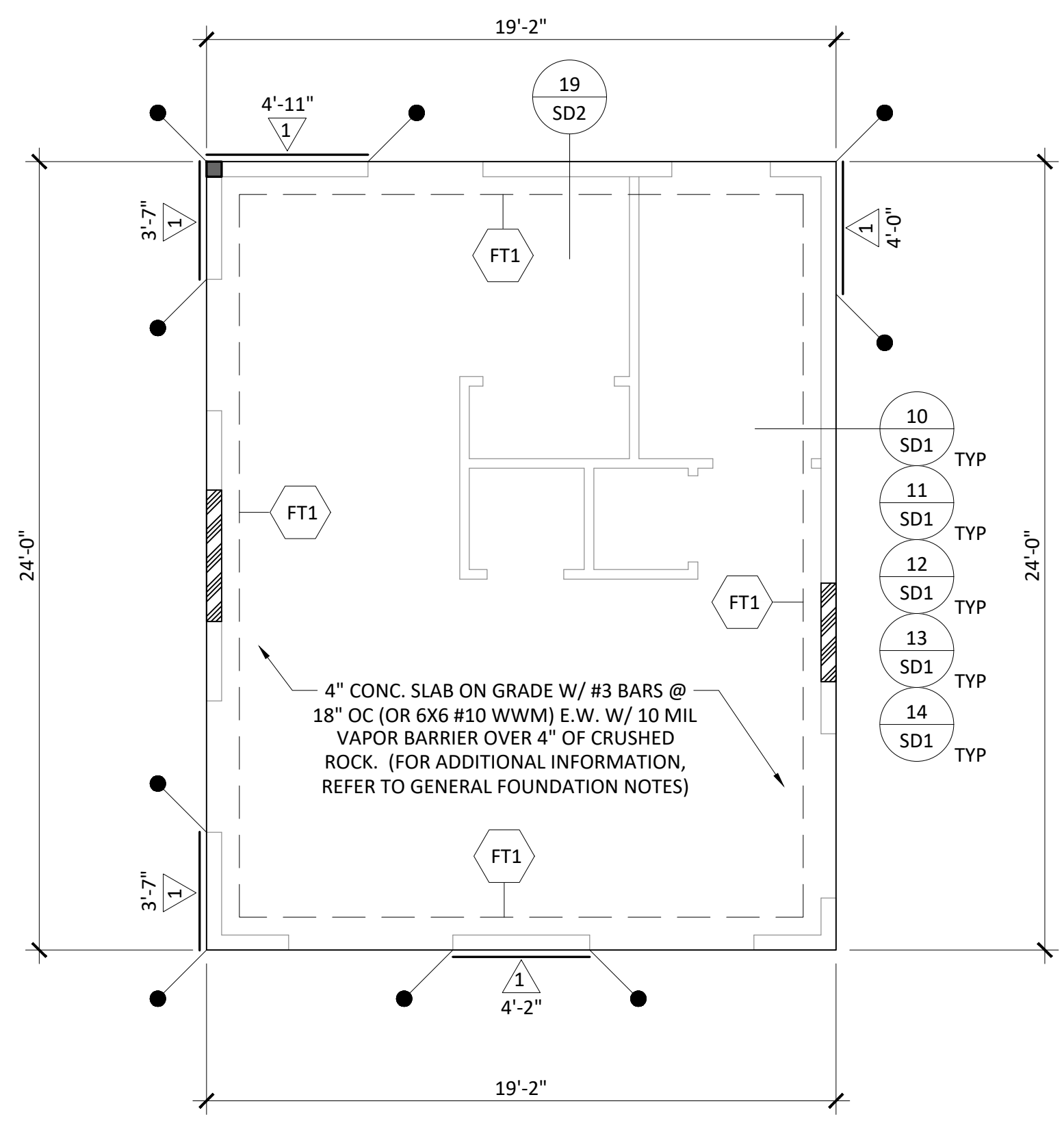


NON SPRINKLERED STRUCTURE  
SEPERATION KEY  
② N.T.S.



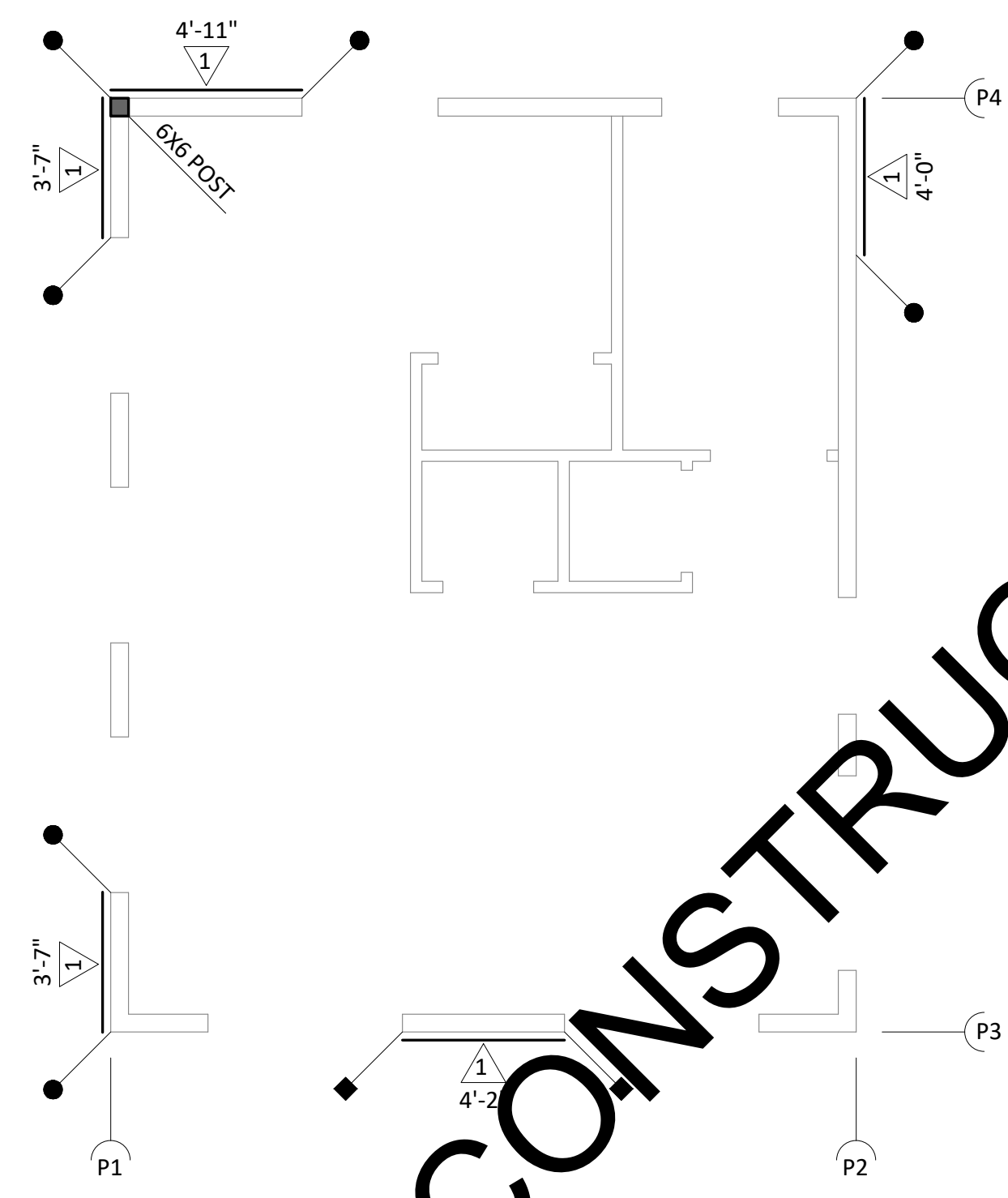
SPRINKLERED STRUCTURE  
SEPERATION KEY  
③ N.T.S.





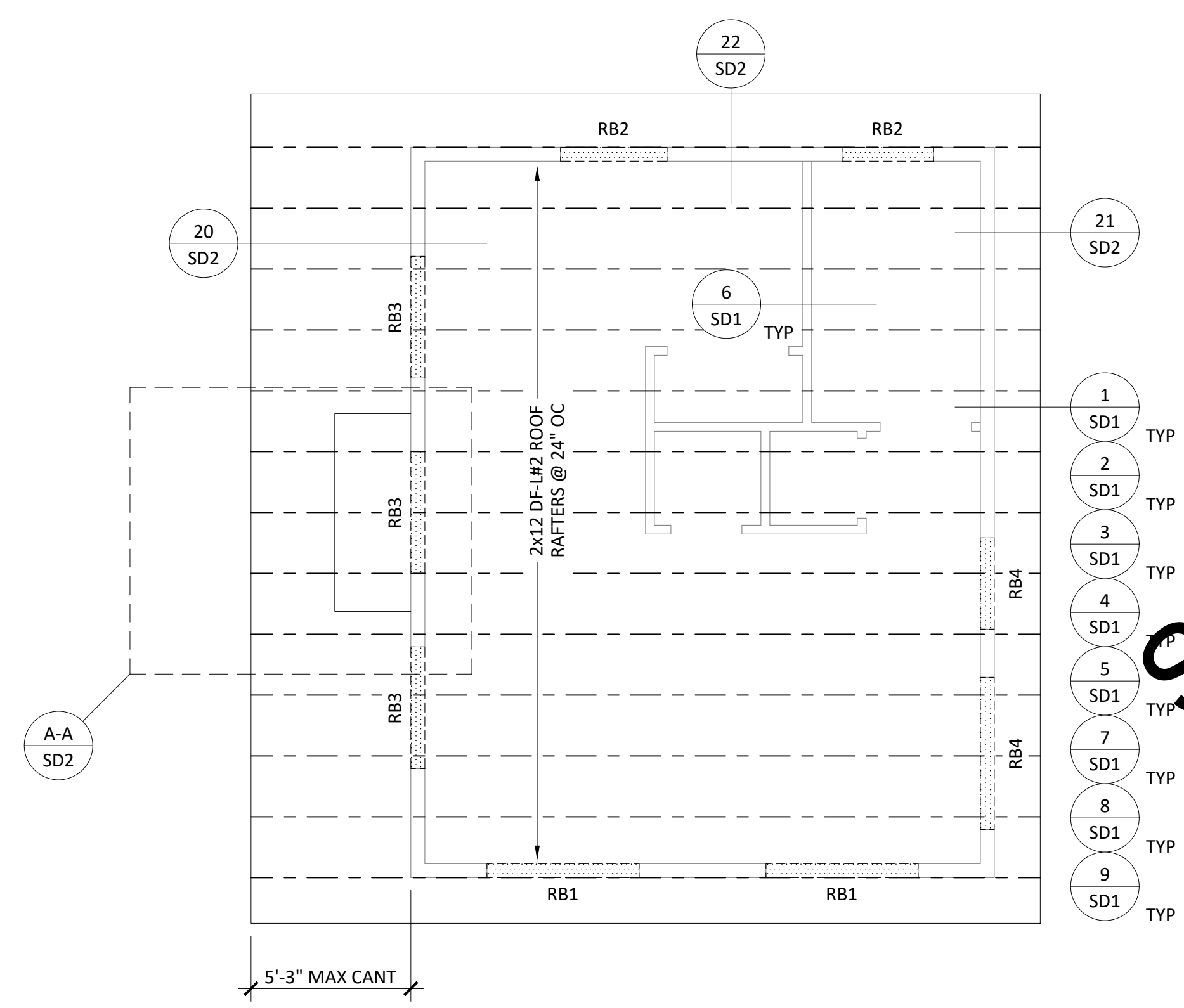
MODEL A- FOUNDATION AND SHEARWALL PLAN

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



MODEL A- SHEARWALL PLAN

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



MODEL A- ROOF FRAMING

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

FOOTING SCHEDULE

TYPE	DIMENSIONS			REINFORCEMENT			MAX. CAPACITY	NOTES			
	LENGTH	WIDTH	DEPTH	NO.	SIZE	LENGTH			NO.	SIZE	LENGTH
FT1	CONT.	12"	12"	2	#4	CONT.	-	-	-	1,500 PLF	(1) TOP, (1) BOT

GENERAL FOUNDATION NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR REFERRING TO THE PLANS TO VERIFY HOLDOWN LOCATIONS, STRUCTURAL PLYWOOD SHEATHING SPECIFICATIONS AND NAILING SCHEDULE.
- POSTS SHOWN ON THE FOUNDATION PLAN ARE THOSE DIRECTLY CONNECTED TO THE FOUNDATION WITH A HOLDOWN OR POST BASE CONNECTOR.
- TYPICAL ONE STORY FOUNDATION, U.N.O. - 12" WIDE X 12" DEEP FOOTING WITH (1) #4 REBAR TOP AND BOTTOM (TOT. 2).
- PROVIDE 3/8"x10" ANCHOR BOLTS @ 4'-0" OC AND 12" FROM ALL EDGES AT THE BEARING WALLS AND EXTERIOR NON-SHEAR WALLS W/ 7" MIN. EMBEDMENT. FASTEN TO BOTTOM PLATE USING 3"x3"x3/4" STEEL WASHERS.
- PROVIDE 2X PTFE SLEEPER EMBEDDED IN SLAB AT DOORS LEADING TO EXTERIOR AND GARAGE. EXTEND 6" PAST DOOR CASING, (2) 20d @ EA END & 24" OC
- ALL FOOTINGS, FOUNDATIONS, EXCAVATIONS, GRADING, AND FILL SHALL COMPLY TO THE PROVISIONS OF THE CALIFORNIA BUILDING CODE.
- SLAB REINFORCEMENT SHALL BE PROVIDED EACH WAY, AS INDICATED ON THE PLANS, IN THE MIDDLE THIRD OF SLAB. WHERE VAPOR BARRIER IS REQUIRED, VAPOR RETARD BARRIER SHALL BE SEALED AT ALL PENETRATIONS AND SHALL CONFORM TO CLASS A VAPOR RETARDER IN ACCORDANCE WITH THE MOST CURRENT VERSION OF ASTM E 1745, "STANDARD SPECIFICATIONS FOR PLASTIC WATER VAPOR RETARDERS USED IN CONTACT WITH SOIL OR GRANULAR FILL UNDER CONCRETE SLABS". VAPOR BARRIER SHALL BE UNDERLAIN WITH 4" DEEP 3/4" CRUSHED ROCK WITH 100% PASSING THE 3/4" SIEVE AND LESS THAN 5% PASSING THE NO. 4 SIEVE.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL MEASUREMENTS AGAINST THE ARCHITECTURAL PLAN SET. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE EOR AND DESIGNER BEFORE FORMING AND/OR POURING CONCRETE.

FOUNDATION LEGEND

- (N) FOOTING - SEE FOOTING SCHEDULE FOR DIMENSIONS AND REINFORCEMENT.
- DOOR SLEEPER PER FOUNDATION NOTE #5.

SHEARWALL SCHEDULE

### PLF	SHEATHING/NAILING	MUD SILL	ANCHOR BOLTS	VERT. MEMBER @ ADJ. PANEL EDGES	SOLE PLATE TO RIM	RIM TO SILL PLATE (A35 CLIPS)
260 PLF	3/8" APA RATED ONE FACE w/8d COMMONS @ 6" OC EDGE & 12" OC FIELD	2x	5/8" @ 48" OC	2x	SDWS22500DB @ 12" OC	@ 24" CC

- REFER TO "SHEARWALL NOTES" ON SHEET SN1 FOR ADDITIONAL INFORMATION.

HOLDOWN SCHEDULE

1,435 LBS	STHD10/10RJ HOLDOWN INSTALL PER DETAIL 15/SD2 & 18/SD2
2,685 LBS	STHD14/14RJ HOLDOWN INSTALL PER DETAIL 17/SD2 & 18/SD2

- ALL HOLDOWN CONNECTORS SHALL BE RE-TIGHTENED JUST PRIOR TO ENCLOSURE.
- CONTRACTOR SHALL PLACE ALL HOLDOWNS IN THE CORRECT LOCATION TO TIE INTO HD POST.
- REFER TO DETAIL 18/SD2 FOR HD PLACEMENT AT WINDOW OR DOOR OPEN.

ROOF BEAM SCHEDULE

NAME	PLY	SIZE	TYPE	LOCATION
RB1	1	6X8	DF-L#2	HEADER
RB2	1	6X6	DF-L#2	HEADER
RB3	1	6X8	DF-L#2	HEADER
RB4	1	6X6	DF-L#2	HEADER

- BEAMS SPECIFICATIONS:
- PSL 2900Fb, 290Fv, 2.2E
  - LVL 2600Fb, 285Fv, 1.8E
  - LSL 2300Fb, 285Fv, 1.55E
  - GLB 2400Fb, 265Fv, 1.9E

ROOF FRAMING NOTES

- SEE SHEET SD1 AND SD2 FOR ADDITIONAL FRAMING DETAILS.
- SEE "WOOD NOTES" ON SHEET SN1.
- ALL BEAM SUPPORTING POSTS ARE TO BE AT LEAST THE WIDTH OF THE BEAM BEING SUPPORTED.
- ROOF SHEATHING SHALL BE 1/2" STRUCT GRADE I WITH 8d @ 6" OC EN & 6" OC FIELD NAILING, U.N.O. 6" EDGE & 6" FIELD AT EAVE END & OVERHANGS. 3/16 SPAN RATING.
- NO EDGE BLOCKING REQUIRED, U.N.O.
- TOP PLATE SPLICE AT INTERIOR AND EXTERIOR WALLS SHALL BE 48" MIN. LENGTH AND NAILED WITH (16) 16d NAILS.
- FOR BUILT-UP COLUMNS, PROVIDE (2) 10d NAILS @ 8" OC TO PROVIDE SOLID CONNECTION.
- EXTERIOR STUD WALLS SHALL BE 2X6 DF-L#2 @ 16" OC U.N.O.. WALL SIZES SHALL BE VERIFIED TO MATCH THE ARCHITECTURAL PLAN SET.
- BEAMS MAY BE SUBSTITUTED FOR LARGER WIDTHS AND/OR DEPTH OF EQUAL SPECIFICATIONS TO ACCOMMODATE WALL FRAMING. POSTS SHALL BE EQUAL OR LARGE SIZE THAN BEAM WIDTH.
- ALL WOOD EXPOSED TO WATER FROM DIRECT OR BLOWING RAIN, SNOW, OR IRRIGATION TO BE PRESSURE TREATED.

ROOF LEGEND

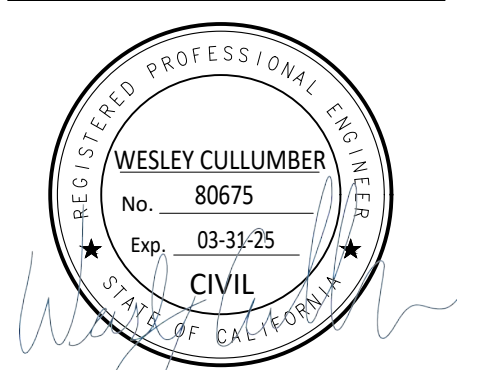
- BEAM PER BEAM SCHEDULE
  - INTERIOR NON-BEARING WALL
- \*NOTE: ALL EXTERIOR WALLS SHALL BE BEARING WALLS



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MODEL A- FOUNDATION, SHEARWALL, AND ROOF FRAMING PLANS  
 PERMIT READY  
 ACCESSORY DWELLING UNIT PLANS - MODEL A1

TITLE:  
 ADDRESS:

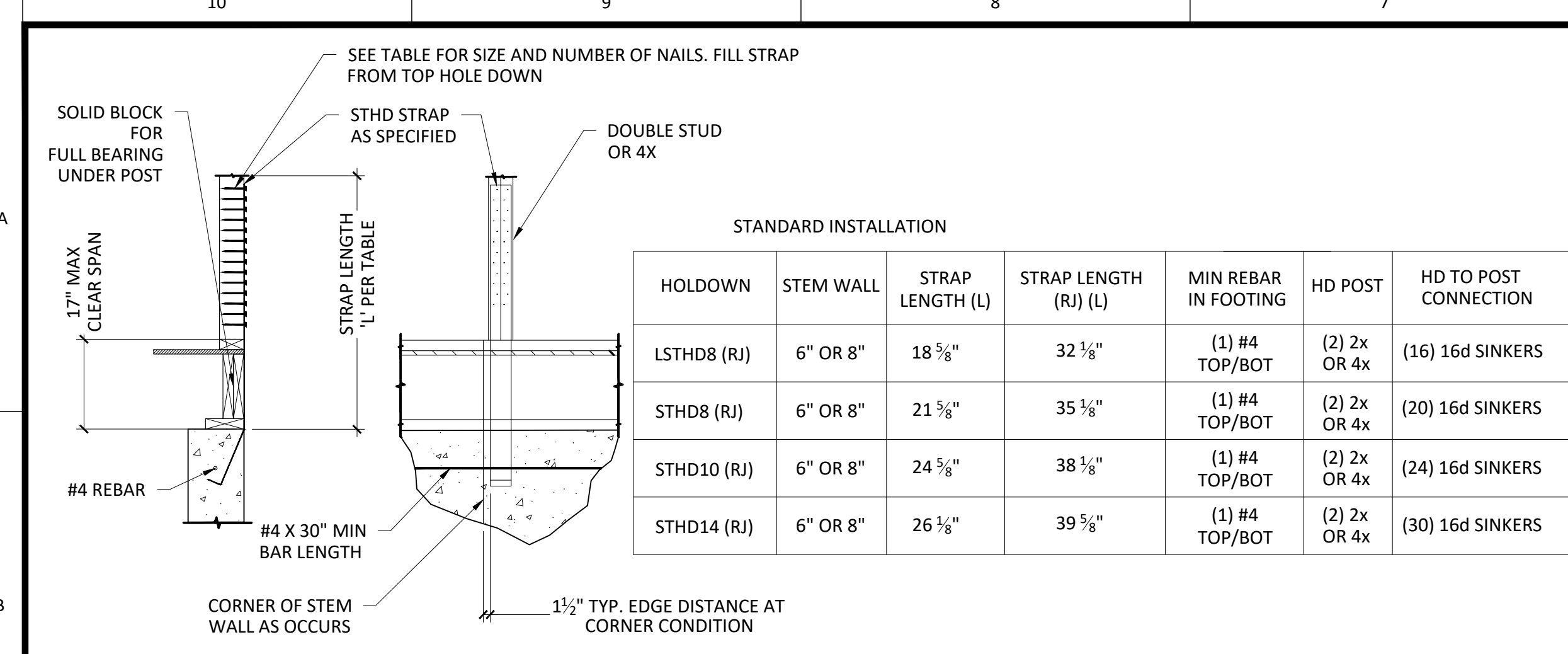


NO.	REVISIONS

SCALE: AS NOTED  
 DATE: 4/15/2024  
 DESIGNED BY: E.VILLALPANDO  
 DRAWN BY: M.LAMONT  
 REVIEWED BY: W.CULLUMBER  
 JOB NO: RN101022  
 SHEET NO.

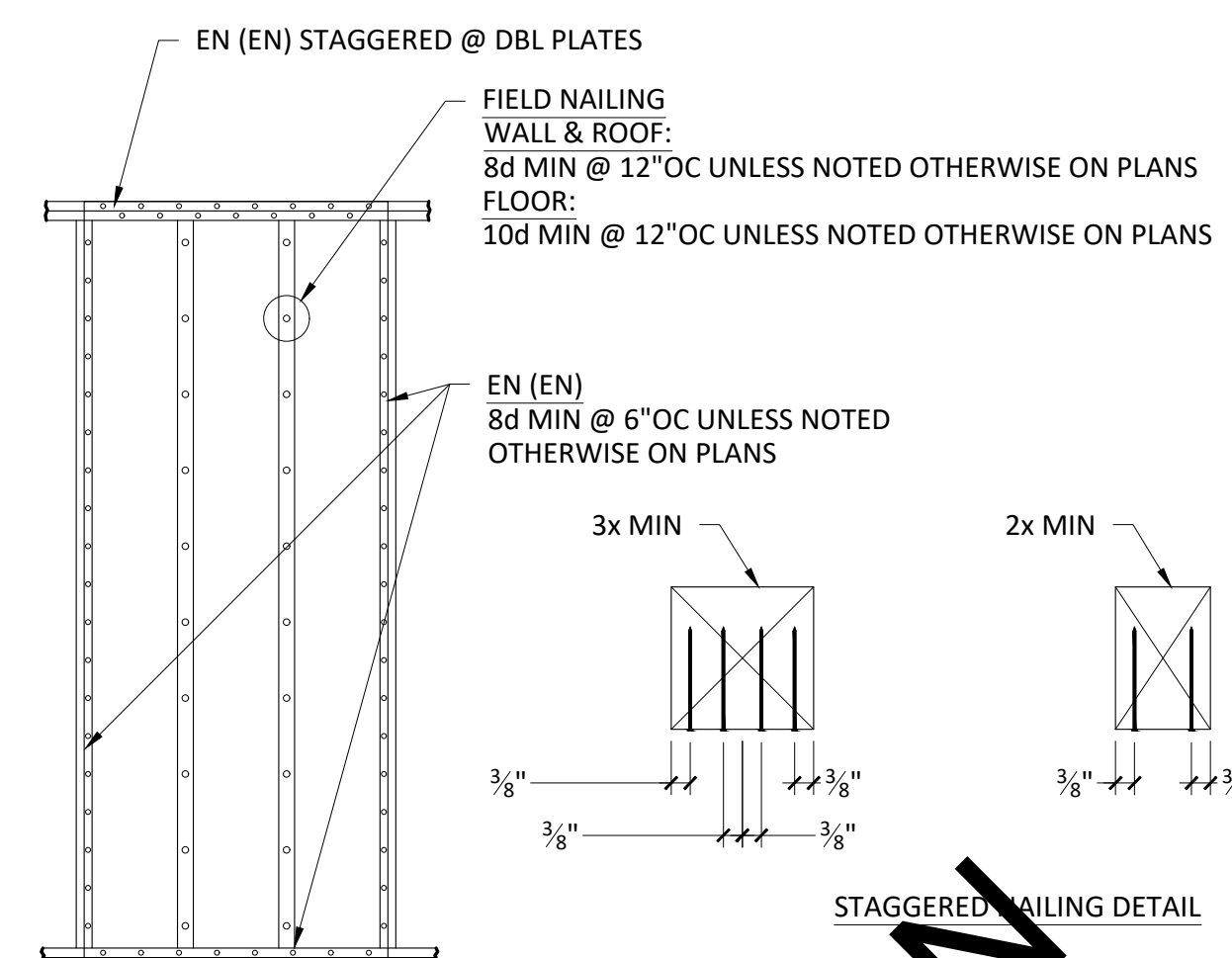
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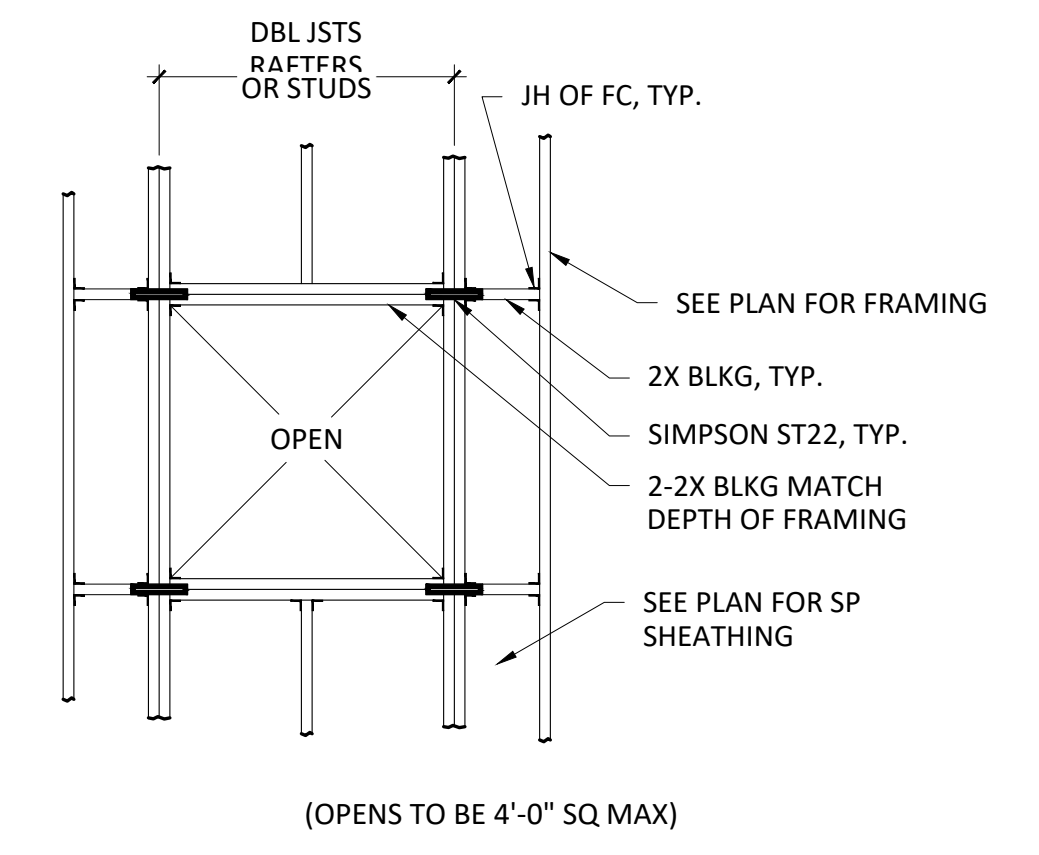


STHD INSTALLATION & DETAILS 15

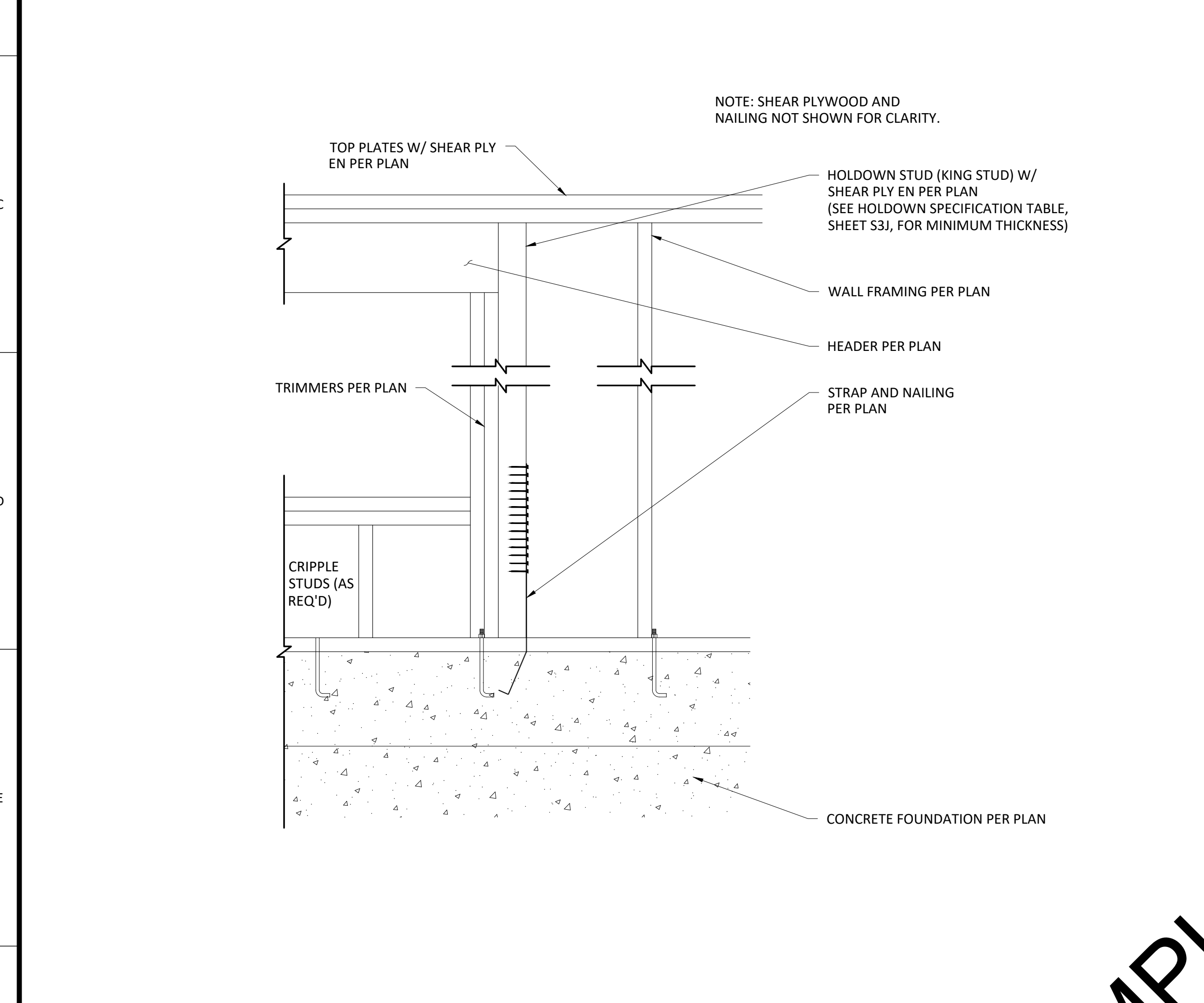
EN (EN) AS CALLED FOR ON PLANS & SECTIONS APPLIES TO EDGES OF ALL SHEETS & AT ALL INTERIOR LINES AS FOLLOWS:  
 AT SHEAR WALLS  
 1. WHERE SP CONTACTS WALL PLATES & SOLID BLOCKING OVER WALL CONSTRUCTION. SEE DETAILS ON THIS SHEET.  
 2. AT 4X STUD ADJACENT TO HOLDOWN STRAP SEE DETAIL ON THIS SHEET.  
 AT ROOF & FLOOR - DIAPHRAGMS  
 1. AT BLOCKING OR TOP P'S OVER SHEAR WALLS.  
 2. AT TIES & BEAM IN LINE WITH SHEAR WALLS.  
 3. ADDITIONAL NAILINGS AS NOTED ON DRAWINGS.  
 NOTES:  
 1. WHERE 8d NAILS ARE SPACED @ 2 1/2" OC OR LESS OR 10d NAILS @ 3" OC OR LESS, NAILS SHALL BE STAGGERED & FRAMING SP JOINTS SHALL BE 3X OR LARGER. SEE DETAIL AT RIGHT.  
 2. WHERE 10d NAILS ARE SPACED @ 3" OC OR LESS, NAILS SHALL BE 10d SHORTS. SEE TYP NAILING SCHEDULE.  
 3. STAGGER SP JOINTS WHERE SHEAR WALL IS MORE THAN ONE VERTICAL PANEL IN HEIGHT.



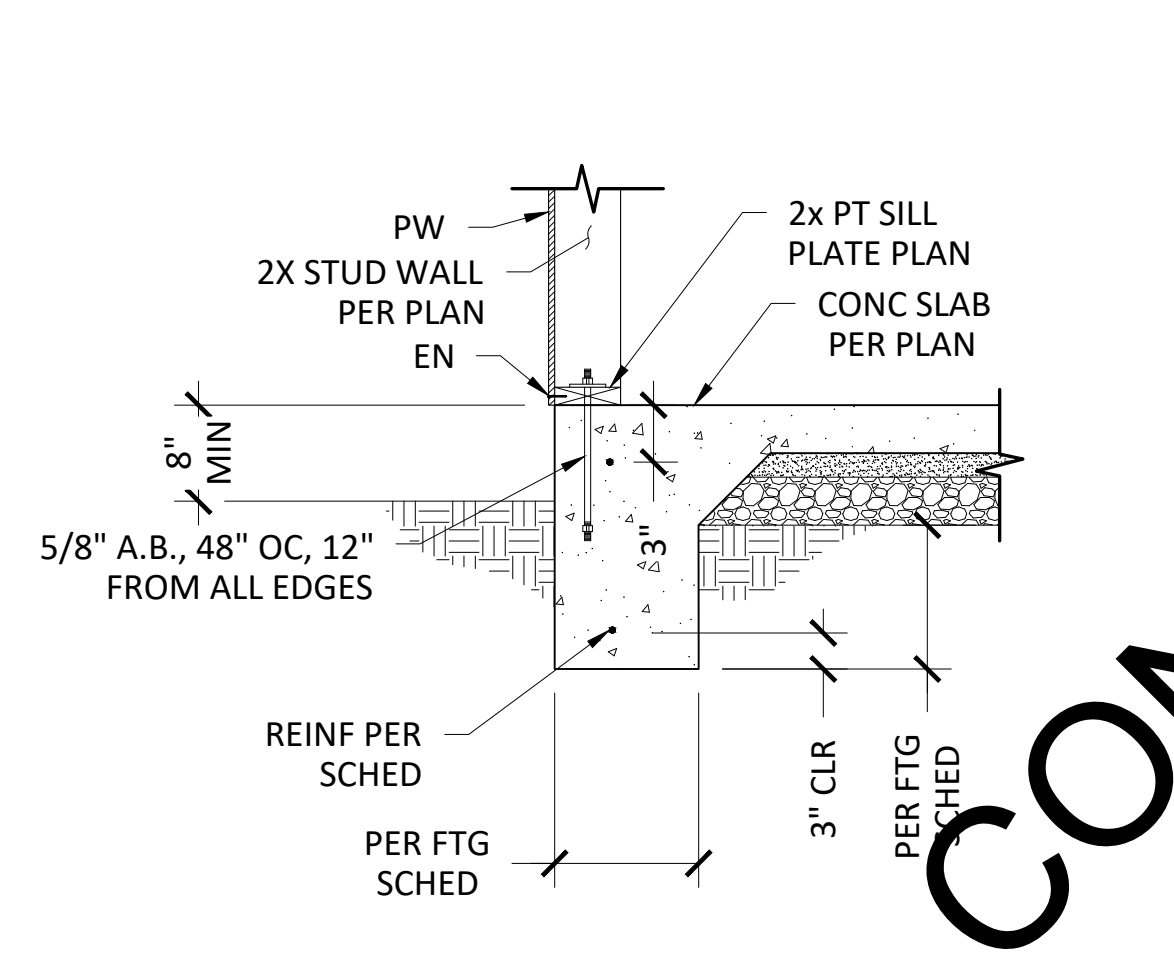
STRUCTURAL PLYWOOD & PLYWOOD SIDING NAILING 16



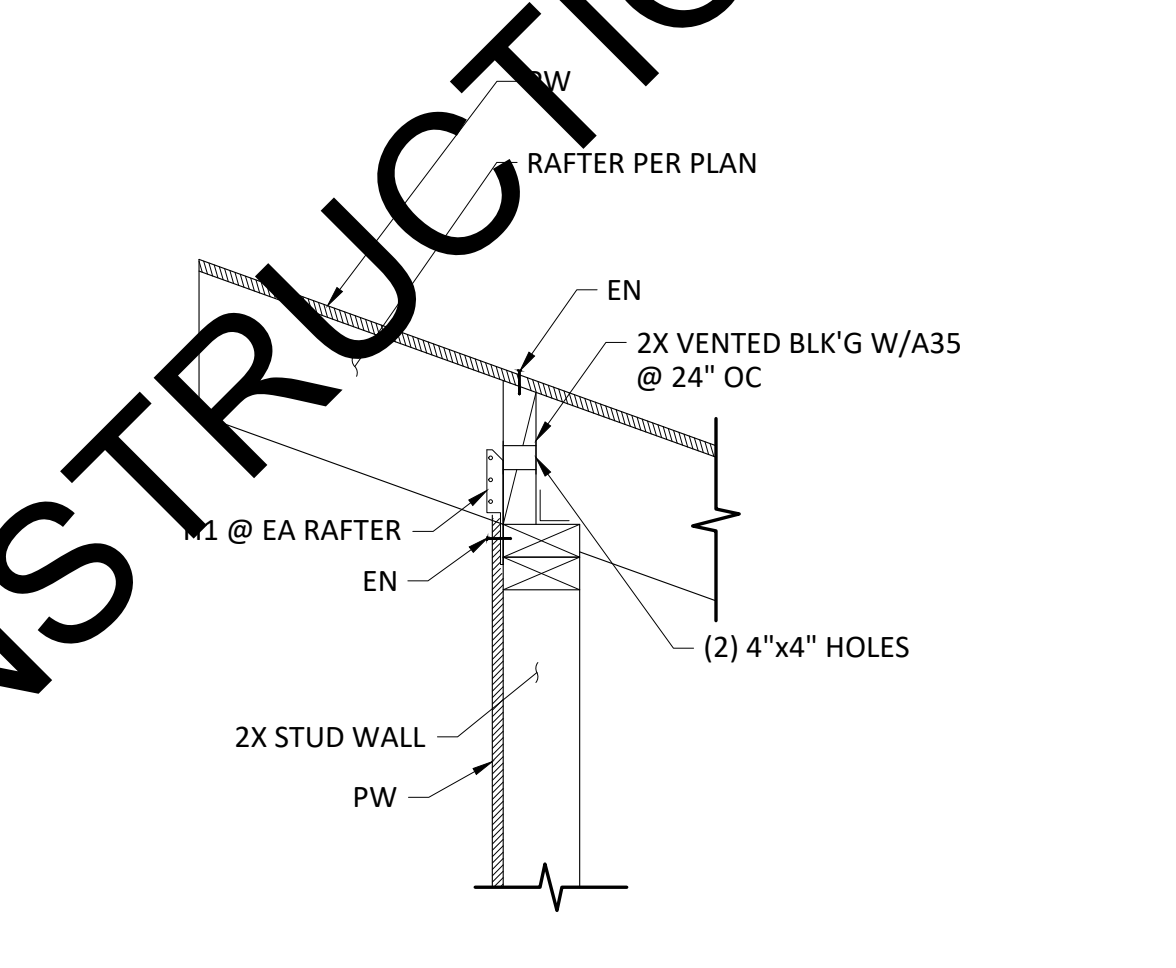
TYPICAL OPEN IN ROOF OR WALL PLYWOOD DIAPHRAGM 17



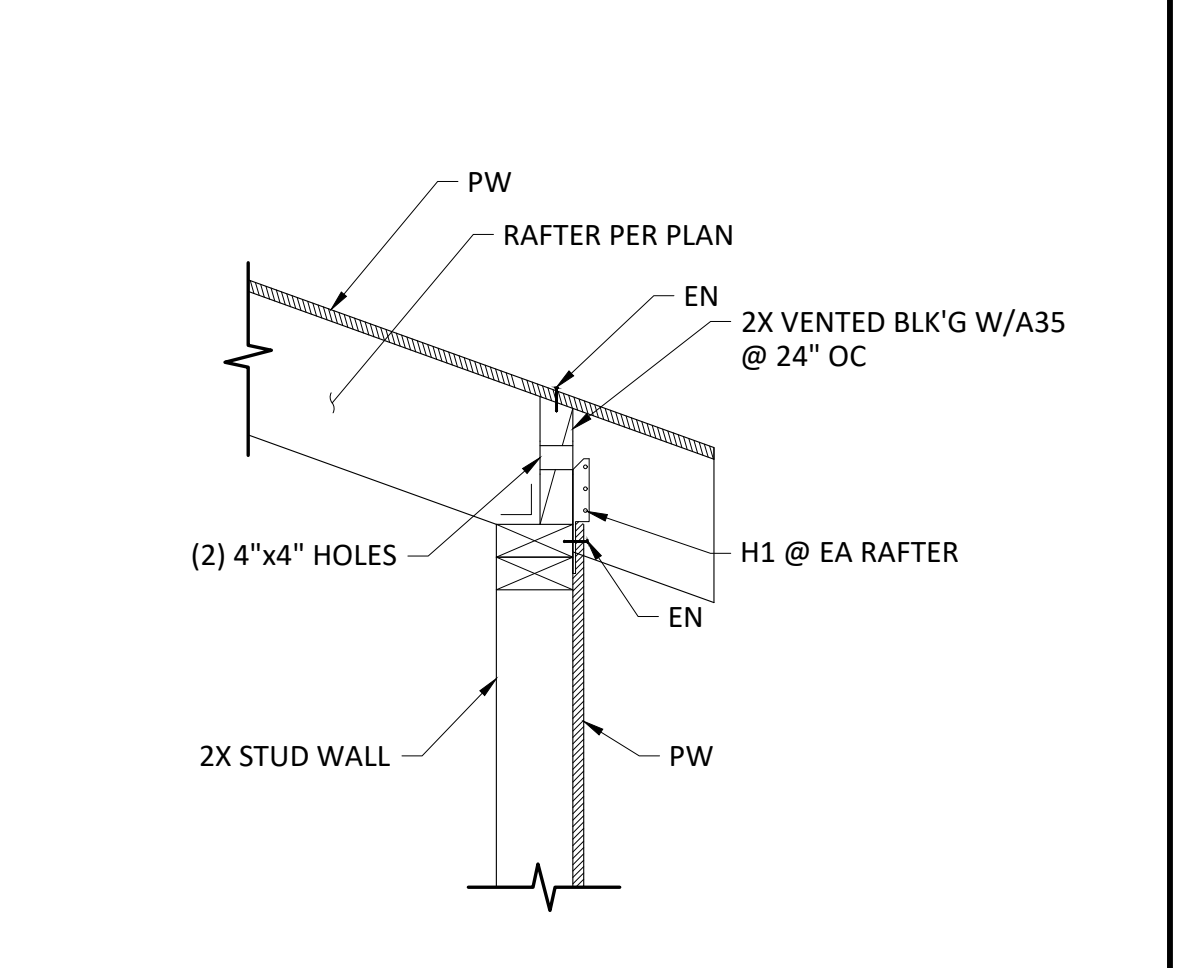
TYPICAL HOLDDOWN AT WINDOW/DOOR 18



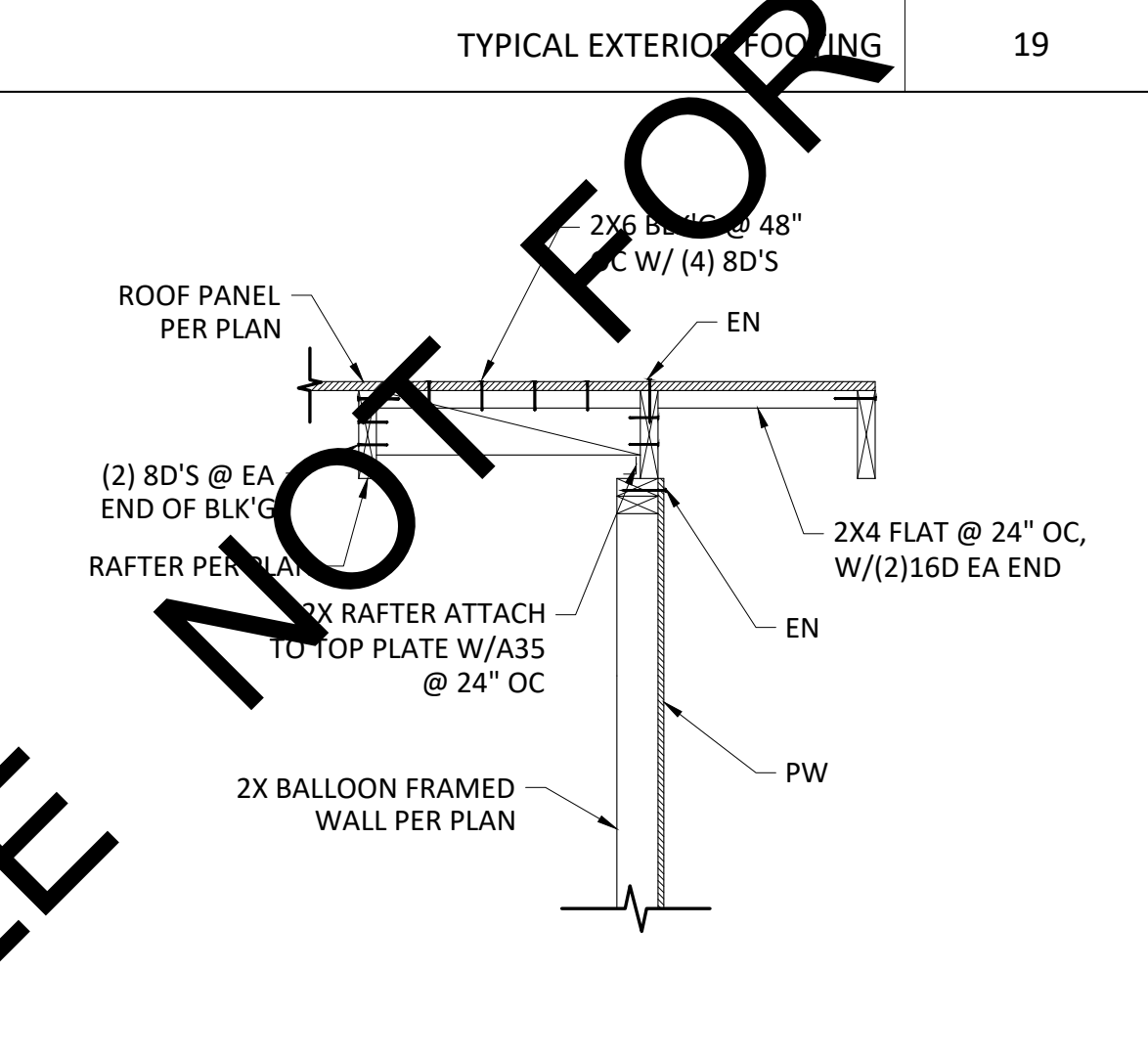
TYPICAL EXTERIOR FOOTING 19



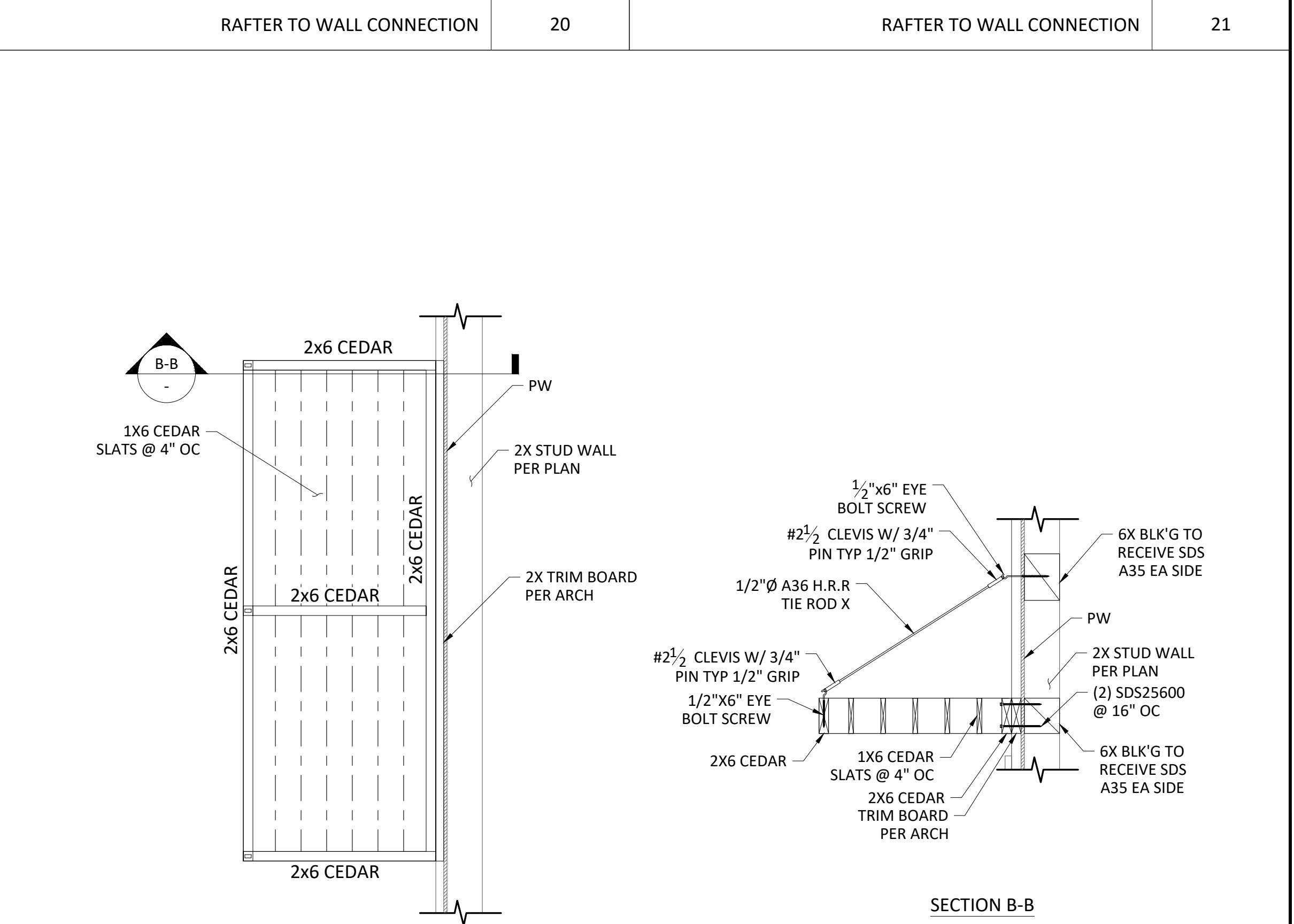
RAFTER TO WALL CONNECTION 20



RAFTER TO WALL CONNECTION 21



BALLOON FRAME WALL CONNECTION 22



SECTION B-B

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MODEL A - STRUCTURAL DETAILS  
 PERMIT READY  
 ACCESSORY DWELLING UNIT PLANS - MODEL A1

TITLE: \_\_\_\_\_ ADDRESS: \_\_\_\_\_

REGISTERED PROFESSIONAL ENGINEER  
 WESLEY CULLUMBER  
 No. 80675  
 Exp. 03-31-25  
 CIVIL  
 STATE OF CALIFORNIA

NO.	REVISIONS

SCALE: AS NOTED  
 DATE: 4/15/2024  
 DESIGNED BY: E.VILLALPANDO  
 DRAWN BY: M.LAMONT  
 REVIEWED BY: W.CULLUMBER  
 JOB NO: RN101022  
 SHEET NO.

SD2



CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

CF1R-PRF-01E

Project Name: Model A ADU with Shed Roof Sacramento Project  
Calculation Description: Title 24 Analysis

Calculation Date/Time: 2023-12-21T11:03:17-08:00  
Input File Name: Model A ADU with Shed Roof Sacramento Project.rbd22x

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GENERAL INFORMATION			
01	Project Name	Model A ADU with Shed Roof Sacramento Project	
02	Run Title	Title 24 Analysis	
03	Project Location		
04	City	Sacramento	05 Standards Version
06	Zip code	95820	07 Software Version
08	Climate Zone	12	09 Front Orientation (deg/ Cardinal)
10	Building Type	Single family	11 Number of Dwelling Units
12	Project Scope	Newly Constructed	13 Number of Bedrooms
14	Addition Cond. Floor Area (ft²)	0	15 Number of Stories
16	Existing Cond. Floor Area (ft²)	n/a	17 Fenestration Average U-factor
18	Total Cond. Floor Area (ft²)	460	19 Glazing Percentage (%)
20	ADU Bedroom Count	n/a	21 ADU Conditioned Floor Area
22	Fuel Type	Allelectric	23 No Dwelling Unit

COMPLIANCE RESULTS	
01	Building Complies with Computer Performance
02	This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.
03	This building incorporates one or more Special Features shown below

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Report Version: 2022.0.000  
Schema Version: rev 20220901

HERS Provider: CalCERTS, Inc.  
Report Generated: 2023-12-21 11:04:10

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ENERGY USE SUMMARY						
Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft² -yr)	Standard Design TDV Energy (EDR2) (kTDU/ft² -yr)	Proposed Design Source Energy (EDR1) (kBtu/ft² -yr)	Proposed Design TDV Energy (EDR2) (kTDU/ft² -yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
Space Heating	4.46	30.37	4.78	36.51	-0.32	-6.14
Space Cooling	1.47	38.95	1.29	39.53	0.18	-0.58
IAQ Ventilation	0.48	5.12	0.48	5.12	0	0
Water Heating	4.87	51.17	2.61	30.21	2.26	20.96
Self Utilization/Flexibility Credit			0			0
<b>South Facing Efficiency Compliance Total</b>	<b>11.28</b>	<b>125.61</b>	<b>9.16</b>	<b>111.37</b>	<b>2.12</b>	<b>14.24</b>
Space Heating	4.46	30.37	4.9	37.96	-0.44	-7.59
Space Cooling	1.47	38.95	1.61	49.08	-0.14	-10.13
IAQ Ventilation	0.48	5.12	0.48	5.12	0	0
Water Heating	4.87	51.17	2.61	30.2	2.26	20.97
Self Utilization/Flexibility Credit			0			0
<b>West Facing Efficiency Compliance Total</b>	<b>11.28</b>	<b>125.61</b>	<b>9.6</b>	<b>122.36</b>	<b>1.68</b>	<b>3.25</b>

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ENERGY DESIGN RATINGS						
	Energy Design Ratings			Compliance Margins		
	Source Energy (EDR1)	Efficiency <sup>1</sup> EDR (EDR2efficiency)	Total <sup>2</sup> EDR (EDR2total)	Source Energy (EDR1)	Efficiency <sup>1</sup> EDR (EDR2efficiency)	Total <sup>2</sup> EDR (EDR2total)
<b>Standard Design</b>	36.7	32.1	44.9			
<b>Proposed Design</b>						
North Facing	33.9	29.2	42.9	2.8	2.9	2
East Facing	34.2	30	43.5	2.5	2.1	1.4
South Facing	33.6	28.5	42.4	3.1	3.6	2.5
West Facing	34.3	31.3	44.3	2.4	0.8	0.6
<b>RESULT: PASS</b>						
<sup>1</sup> Efficiency EDR includes improvements like a better building envelope and more efficient equipment. <sup>2</sup> Total EDR includes efficiency and demand response measures such as photovoltaic (PV) system and batteries. *Building complies when source energy, efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded.						
• Standard Design PV Capacity: 0.00 kWdc • Proposed PV Capacity Scaling: North (0.00 kWdc) East (0.00 kWdc) South (0.00 kWdc) West (0.00 kWdc)						

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ENERGY USE INTENSITY				
	Standard Design (kBtu/ft² - yr)	Proposed Design (kBtu/ft² - yr)	Compliance Margin (kBtu/ft² - yr)	Margin Percentage
<b>North Facing</b>				
Gross EU1 <sup>1</sup>	31.89	29.13	2.76	8.65
Net EU2 <sup>2</sup>	31.89	29.13	2.76	8.65
<b>East Facing</b>				
Gross EU1 <sup>1</sup>	31.89	29.49	2.4	7.53
Net EU2 <sup>2</sup>	31.89	29.49	2.4	7.53
<b>South Facing</b>				
Gross EU1 <sup>1</sup>	31.89	28.91	2.98	9.34
Net EU2 <sup>2</sup>	31.89	28.91	2.98	9.34
<b>West Facing</b>				
Gross EU1 <sup>1</sup>	31.89	29.69	2.2	6.9
Net EU2 <sup>2</sup>	31.89	29.69	2.2	6.9
Notes: 1. Gross EU1 is Energy Use Total (not including PV) / Total Building Area. 2. Net EU2 is Energy Use Total (including PV) / Total Building Area.				

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ENERGY USE SUMMARY						
Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft² -yr)	Standard Design TDV Energy (EDR2) (kTDU/ft² -yr)	Proposed Design Source Energy (EDR1) (kBtu/ft² -yr)	Proposed Design TDV Energy (EDR2) (kTDU/ft² -yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
Space Heating	4.46	30.37	5.01	38.93	-0.55	-8.56
Space Cooling	1.47	38.95	1.26	39.78	0.21	-0.83
IAQ Ventilation	0.48	5.12	0.48	5.12	0	0
Water Heating	4.87	51.17	2.61	30.29	2.26	20.88
Self Utilization/Flexibility Credit			0			0
<b>North Facing Efficiency Compliance Total</b>	<b>11.28</b>	<b>125.61</b>	<b>9.36</b>	<b>114.12</b>	<b>1.92</b>	<b>11.49</b>
Space Heating	4.46	30.37	5.01	38.53	-0.55	-8.16
Space Cooling	1.47	38.95	1.45	43.71	0.02	-4.76
IAQ Ventilation	0.48	5.12	0.48	5.12	0	0
Water Heating	4.87	51.17	2.61	30.19	2.26	20.98
Self Utilization/Flexibility Credit			0			0
<b>East Facing Efficiency Compliance Total</b>	<b>11.28</b>	<b>125.61</b>	<b>9.55</b>	<b>117.55</b>	<b>1.73</b>	<b>8.06</b>

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REQUIRED PV SYSTEMS											
01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
0		Standard (14-17%)	Fixed	none	true	n/a	n/a	n/a	n/a	n/a	

REQUIRED SPECIAL FEATURES
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.
• PV exception 2: No PV required when minimum PV size (Section 150.1(d)(14)) < 1.8 kWdc (0 kW) • Northwest Energy Efficiency Alliance (NEEA) rated heat pump water heater; specific brand/model, or equivalent, must be installed

HERS FEATURE SUMMARY
The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry.
• Indoor air quality ventilation • Kitchen range hood • Verified Refrigerant Charge • Verified heat pump rated heating capacity

BUILDING - FEATURES INFORMATION						
01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft²)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
Model A ADU with Shed Roof Sacramento Project	460	1	1	1	0	1

ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft²)	Avg. Ceiling Height	Water Heating System 1	Status
ADU	Conditioned	Res HVAC1	460	8.75	DHW Sys 1	New

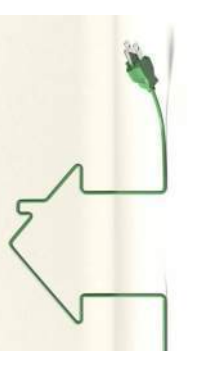
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Title 24 Part 6 Energy Services  
Elaine Smith  
Certified Energy Analyst  
R19-94-30006



2022 Title 24 Part 6  
Energy Code

Sheet:  
T24-1

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01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft <sup>2</sup> )	Window and Door Area (ft <sup>2</sup> )	Tilt (deg)
Front Wall	ADU	R-21 Wall	0	Front	180	70.8	90
Back Wall	ADU	R-21 Wall	180	Back	192	30.1	90
Right Wall	ADU	R-21 Wall	270	Right	170	20	90
Left Wall	ADU	R-21 Wall	90	Left	170	16.75	90

OPAQUE SURFACES - CATHEDRAL CEILINGS

01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Area (ft <sup>2</sup> )	Skylight Area (ft <sup>2</sup> )	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Cool Roof
Cathedral	ADU	R-38 Roof No Attic	180	Back	460	0	1	0.1	0.85	No

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft <sup>2</sup> )	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
F1a 4040	Window	Front Wall	Front	0			1	16	0.29	NFRC	0.21	NFRC	Bug Screen
F1b Abv 4016	Window	Front Wall	Front	0			1	6	0.29	NFRC	0.21	NFRC	Bug Screen
F2 4068	Window	Front Wall	Front	0			1	26.8	0.3	NFRC	0.23	NFRC	Bug Screen
F3a 4040	Window	Front Wall	Front	0			1	16	0.29	NFRC	0.21	NFRC	Bug Screen
F3b Abv 4016	Window	Front Wall	Front	0			1	6	0.29	NFRC	0.21	NFRC	Bug Screen
B1 3068	Window	Back Wall	Back	180			1	20.1	0.3	NFRC	0.23	NFRC	Bug Screen
B2 5020	Window	Back Wall	Back	180			1	10	0.29	NFRC	0.21	NFRC	Bug Screen

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FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft <sup>2</sup> )	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
R1 5020	Window	Right Wall	Right	270			1	10	0.29	NFRC	0.21	NFRC	Bug Screen
R2 5020	Window	Right Wall	Right	270			1	10	0.29	NFRC	0.21	NFRC	Bug Screen
L1 3636	Window	Left Wall	Left	90			1	12.25	0.29	NFRC	0.21	NFRC	Bug Screen
L2 3016	Window	Left Wall	Left	90			1	4.5	0.29	NFRC	0.21	NFRC	Bug Screen

SLAB FLOORS

01	02	03	04	05	06	07	08
Name	Zone	Area (ft <sup>2</sup> )	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade	ADU	460	86	none	0	80%	No

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-21 Wall	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-21	None / None	0.068	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Exterior Finish: All Other Siding
R-38 Roof No Attic	Cathedral Ceilings	Wood Framed Ceiling	2x12 @ 16 in. O. C.	R-38	None / None	0.029	Roofing: Light Roof (Metal Tile) Tile Gap: present Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-38 / 2x12 Inside Finish: Gypsum Board

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BUILDING ENVELOPE - HERS VERIFICATION

01	02	03	04	05
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50	CFM50
Not Required	Not Required	N/A	n/a	n/a

WATER HEATING SYSTEMS

01	02	03	04	05	06	07	08	09
Name	System Type	Distribution Type	Water Heater Name	Number of Units	Solar Heating System	Compact Distribution	HERS Verification	Water Heater Name (#)
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1	1	n/a	None	n/a	DHW Heater 1 (1)

WATER HEATERS - NEEA HEAT PUMP

01	02	03	04	05	06	07	08
Name	# of Units	Tank Vol. (gal)	NEEA Heat Pump Brand	NEEA Heat Pump Model	Tank Location	Duct Inlet Air Source	Duct Outlet Air Source
DHW Heater 1	1	40	Rheem	PROPH40 T2 RH37515 (40 gal, JAL13)	TankZone	ADU	ADU

WATER HEATERS - HERS VERIFICATION

01	02	03	04	05	06	07
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required

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SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09
Name	System Type	Heating Unit Name	Heating Equipment Count	Cooling Unit Name	Cooling Equipment Count	Fan Name	Distribution Name	Required Thermostat Type
Res HVAC1	Heat pump heating cooling	Heat Pump System 1	1	Heat Pump System 1	1	n/a	n/a	Setback

HVAC - HEAT PUMPS

01	02	03	04	05	06	07	08	09	10	11	12	13
Name	System Type	Number of Units	Heating			Cooling			Zonally Controlled	Compressor Type	HERS Verification	
			Heating Efficiency Type	HSPF/HS PF2/COP	Cap 47	Cap 17	Cooling Efficiency Type	SEER/SE ER2				EER/EER 2/CEER
Heat Pump System 1	Ductless MiniSplit HP	1	HSPF2	7.5	10900	6700	EER2SEER2	14.3	9	Not Zonal	Single Speed	Heat Pump System 1-hers-htpump

HVAC HEAT PUMPS - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Verified Airflow	Airflow Target	Verified EER/SEER2	Verified SEER/SEER2	Verified Refrigerant Charge	Verified HSPF/HSPF2	Verified Heating Cap 47	Verified Heating Cap 17
Heat Pump System 1-hers-htpump	Not Required	0	Not Required	Not Required	Yes	No	Yes	Yes

INDOOR AIR QUALITY (IAQ) FANS

01	02	03	04	05	06	07	08	09
Dwelling Unit	Airflow (CFM)	Fan Efficacy (W/CFM)	IAQ Fan Type	Includes Heat/Energy Recovery?	IAQ Recovery Effectiveness - SRE/ASRE	Includes Fault Indicator Display?	HERS Verification	Status
Sfam IAQventRpt	28	0.35	Exhaust	No	n/a / n/a	No	Yes	

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I, I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Jeff Travis  
Signature Date: 2023-12-21 11:07:08  
Address: 5201 Coventry Dr., Riverside, CA 92506  
Phone: 951-902-2660

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

- I am eligible under Division 3 of the Business and Professions Code to apply responsibility for the building design identified on this Certificate of Compliance.
- I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
- The building design features or system details identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name: laura miller  
Signature Date: 2023-12-21 11:51:06  
Address: 2656 Harkness Street, Sacramento, CA 95818  
Phone: 916-607-3321

Digitally signed by CalCERTS. This digital signature is provided in order to secure the content of this registered document, and in no way implies CalCERTS inc. or HERS Provider responsibility for the accuracy of the information.



Registration Number: 223-P0100546488-000-000-0000000-0000

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CA Building Energy Efficiency Standards - 2022 Residential Compliance

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2022 Title 24 Part 6  
Energy Code

Sheet:  
T24-2



2022 Single-Family Residential Mandatory Requirements Summary

NOTE: Single-family residential buildings subject to the Energy Codes must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information.

(M)22

Building Envelope:

Table with 2 columns: Code section and description. Includes sections like 110.6(a)1, 110.6(a)5, 110.6(b), 110.7, 110.8(a), 110.8(b), 110.8(c), 110.8(d), 110.8(e), 110.8(f), 110.8(g), 110.8(h), 110.8(i), 110.8(j), 110.8(k), 110.8(l), 110.8(m), 110.8(n), 110.8(o), 110.8(p), 110.8(q), 110.8(r), 110.8(s), 110.8(t), 110.8(u), 110.8(v), 110.8(w), 110.8(x), 110.8(y), 110.8(z).

Table with 2 columns: Code section and description. Includes sections like 110.5, 110.5(a), 110.5(b), 110.5(c), 110.5(d), 110.5(e), 110.5(f), 110.5(g), 110.5(h), 110.5(i), 110.5(j), 110.5(k), 110.5(l), 110.5(m), 110.5(n), 110.5(o), 110.5(p), 110.5(q), 110.5(r), 110.5(s), 110.5(t), 110.5(u), 110.5(v), 110.5(w), 110.5(x), 110.5(y), 110.5(z).

Table with 2 columns: Code section and description. Includes sections like 110.0, 110.0-1, 110.0-2, 110.0-3, 110.0-4, 110.0-5, 110.0-6, 110.0-7, 110.0-8, 110.0-9, 110.0-10, 110.0-11, 110.0-12, 110.0-13, 110.0-14, 110.0-15, 110.0-16, 110.0-17, 110.0-18, 110.0-19, 110.0-20, 110.0-21, 110.0-22, 110.0-23, 110.0-24, 110.0-25, 110.0-26, 110.0-27, 110.0-28, 110.0-29, 110.0-30, 110.0-31, 110.0-32, 110.0-33, 110.0-34, 110.0-35, 110.0-36, 110.0-37, 110.0-38, 110.0-39, 110.0-40, 110.0-41, 110.0-42, 110.0-43, 110.0-44, 110.0-45, 110.0-46, 110.0-47, 110.0-48, 110.0-49, 110.0-50, 110.0-51, 110.0-52, 110.0-53, 110.0-54, 110.0-55, 110.0-56, 110.0-57, 110.0-58, 110.0-59, 110.0-60, 110.0-61, 110.0-62, 110.0-63, 110.0-64, 110.0-65, 110.0-66, 110.0-67, 110.0-68, 110.0-69, 110.0-70, 110.0-71, 110.0-72, 110.0-73, 110.0-74, 110.0-75, 110.0-76, 110.0-77, 110.0-78, 110.0-79, 110.0-80, 110.0-81, 110.0-82, 110.0-83, 110.0-84, 110.0-85, 110.0-86, 110.0-87, 110.0-88, 110.0-89, 110.0-90, 110.0-91, 110.0-92, 110.0-93, 110.0-94, 110.0-95, 110.0-96, 110.0-97, 110.0-98, 110.0-99, 110.0-100.

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2022 Single-Family Residential Mandatory Requirements Summary

Table with 2 columns: Code section and description. Includes sections like 110.5, 150.0(h)1, 150.0(h)3A, 150.0(h)3B, 150.0(i)1, 150.0(i)2, 150.0(i)3, 150.0(j)1.

Table with 2 columns: Code section and description. Includes sections like 110.0(g)3, 150.0(m)1, 150.0(m)2, 150.0(m)3, 150.0(m)7, 150.0(m)8, 150.0(m)9, 150.0(m)10, 150.0(m)11, 150.0(m)12.

Table with 2 columns: Code section and description. Includes sections like 150.0(h)1C, 150.0(h)1E, 150.0(h)1F, 150.0(i)1, 150.0(i)2A, 150.0(i)2B, 150.0(i)2C, 150.0(i)2D, 150.0(i)2E, 150.0(i)2F, 150.0(i)2G, 150.0(i)2H, 150.0(i)2I, 150.0(i)2J, 150.0(i)2K, 150.0(i)2L, 150.0(i)2M, 150.0(i)2N, 150.0(i)2O, 150.0(i)2P, 150.0(i)2Q, 150.0(i)2R, 150.0(i)2S, 150.0(i)2T, 150.0(i)2U, 150.0(i)2V, 150.0(i)2W, 150.0(i)2X, 150.0(i)2Y, 150.0(i)2Z, 150.0(i)3, 150.0(i)4, 150.0(i)5, 150.0(i)6, 150.0(i)7, 150.0(i)8, 150.0(i)9, 150.0(i)10, 150.0(i)11, 150.0(i)12, 150.0(i)13, 150.0(i)14, 150.0(i)15, 150.0(i)16, 150.0(i)17, 150.0(i)18, 150.0(i)19, 150.0(i)20, 150.0(i)21, 150.0(i)22, 150.0(i)23, 150.0(i)24, 150.0(i)25, 150.0(i)26, 150.0(i)27, 150.0(i)28, 150.0(i)29, 150.0(i)30, 150.0(i)31, 150.0(i)32, 150.0(i)33, 150.0(i)34, 150.0(i)35, 150.0(i)36, 150.0(i)37, 150.0(i)38, 150.0(i)39, 150.0(i)40, 150.0(i)41, 150.0(i)42, 150.0(i)43, 150.0(i)44, 150.0(i)45, 150.0(i)46, 150.0(i)47, 150.0(i)48, 150.0(i)49, 150.0(i)50, 150.0(i)51, 150.0(i)52, 150.0(i)53, 150.0(i)54, 150.0(i)55, 150.0(i)56, 150.0(i)57, 150.0(i)58, 150.0(i)59, 150.0(i)60, 150.0(i)61, 150.0(i)62, 150.0(i)63, 150.0(i)64, 150.0(i)65, 150.0(i)66, 150.0(i)67, 150.0(i)68, 150.0(i)69, 150.0(i)70, 150.0(i)71, 150.0(i)72, 150.0(i)73, 150.0(i)74, 150.0(i)75, 150.0(i)76, 150.0(i)77, 150.0(i)78, 150.0(i)79, 150.0(i)80, 150.0(i)81, 150.0(i)82, 150.0(i)83, 150.0(i)84, 150.0(i)85, 150.0(i)86, 150.0(i)87, 150.0(i)88, 150.0(i)89, 150.0(i)90, 150.0(i)91, 150.0(i)92, 150.0(i)93, 150.0(i)94, 150.0(i)95, 150.0(i)96, 150.0(i)97, 150.0(i)98, 150.0(i)99, 150.0(i)100.

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2022 Single-Family Residential Mandatory Requirements Summary

Table with 2 columns: Code section and description. Includes sections like 150.0(h)1C, 150.0(h)1E, 150.0(h)1F, 150.0(i)1, 150.0(i)2A, 150.0(i)2B, 150.0(i)2C, 150.0(i)2D, 150.0(i)2E, 150.0(i)2F, 150.0(i)2G, 150.0(i)2H, 150.0(i)2I, 150.0(i)2J, 150.0(i)2K, 150.0(i)2L, 150.0(i)2M, 150.0(i)2N, 150.0(i)2O, 150.0(i)2P, 150.0(i)2Q, 150.0(i)2R, 150.0(i)2S, 150.0(i)2T, 150.0(i)2U, 150.0(i)2V, 150.0(i)2W, 150.0(i)2X, 150.0(i)2Y, 150.0(i)2Z, 150.0(i)3, 150.0(i)4, 150.0(i)5, 150.0(i)6, 150.0(i)7, 150.0(i)8, 150.0(i)9, 150.0(i)10, 150.0(i)11, 150.0(i)12, 150.0(i)13, 150.0(i)14, 150.0(i)15, 150.0(i)16, 150.0(i)17, 150.0(i)18, 150.0(i)19, 150.0(i)20, 150.0(i)21, 150.0(i)22, 150.0(i)23, 150.0(i)24, 150.0(i)25, 150.0(i)26, 150.0(i)27, 150.0(i)28, 150.0(i)29, 150.0(i)30, 150.0(i)31, 150.0(i)32, 150.0(i)33, 150.0(i)34, 150.0(i)35, 150.0(i)36, 150.0(i)37, 150.0(i)38, 150.0(i)39, 150.0(i)40, 150.0(i)41, 150.0(i)42, 150.0(i)43, 150.0(i)44, 150.0(i)45, 150.0(i)46, 150.0(i)47, 150.0(i)48, 150.0(i)49, 150.0(i)50, 150.0(i)51, 150.0(i)52, 150.0(i)53, 150.0(i)54, 150.0(i)55, 150.0(i)56, 150.0(i)57, 150.0(i)58, 150.0(i)59, 150.0(i)60, 150.0(i)61, 150.0(i)62, 150.0(i)63, 150.0(i)64, 150.0(i)65, 150.0(i)66, 150.0(i)67, 150.0(i)68, 150.0(i)69, 150.0(i)70, 150.0(i)71, 150.0(i)72, 150.0(i)73, 150.0(i)74, 150.0(i)75, 150.0(i)76, 150.0(i)77, 150.0(i)78, 150.0(i)79, 150.0(i)80, 150.0(i)81, 150.0(i)82, 150.0(i)83, 150.0(i)84, 150.0(i)85, 150.0(i)86, 150.0(i)87, 150.0(i)88, 150.0(i)89, 150.0(i)90, 150.0(i)91, 150.0(i)92, 150.0(i)93, 150.0(i)94, 150.0(i)95, 150.0(i)96, 150.0(i)97, 150.0(i)98, 150.0(i)99, 150.0(i)100.

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2022 Single-Family Residential Mandatory Requirements Summary

Table with 2 columns: Code section and description. Includes section 150.0(m)13.

Table with 2 columns: Code section and description. Includes sections like 150.0(j)1, 150.0(j)1B, 150.0(j)1C, 150.0(j)1G, 150.0(j)1H, 150.0(j)2.

Table with 2 columns: Code section and description. Includes sections like 110.4(a), 110.4(b)1, 110.4(b)2, 110.4(b)3, 110.5, 150.0(p).

Table with 2 columns: Code section and description. Includes sections like 110.9, 150.0(q)1A, 150.0(h)1B, 150.0(h)1C, 150.0(h)1D, 150.0(h)1E, 150.0(h)1F.

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2022 Single-Family Residential Mandatory Requirements Summary

Table with 2 columns: Code section and description. Includes sections like 150.0(q), 150.0(i), 150.0(l), 150.0(v).

\*Exceptions may apply.

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SAMPLE NOT FOR CONSTRUCTION

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R19-94-30005
Sheet:
T24-3
SINGLE
FAMILY
MANDATORY
REQUIREMENTS

**From Section 150.0(o) G. Local mechanical exhaust**

Local mechanical exhaust. A local mechanical exhaust system shall be installed in each kitchen and bathroom. Systems shall be rated for airflow in accordance with ASHRAE 62.2 Section 7.1.

- i. Nonenclosed kitchens shall have a demand-controlled mechanical exhaust system meeting the requirements of Section 150.0(o)1Giii.
- ii. Enclosed kitchens and all bathrooms shall have either one of the following alternatives a or b:
  - a. A demand-controlled mechanical exhaust system meeting the requirements of Section 150.0(o)1Giii.
  - b. A continuous mechanical exhaust system meeting the requirements of Section 150.0(o)1Giv.
- iii. Demand-controlled mechanical exhaust. A local mechanical exhaust system shall be designed to be operated as needed.
  - a. Control and operation. Demand-controlled mechanical exhaust systems shall be provided with at least one of the following controls:
    - 1. A readily accessible occupant-controlled ON-OFF control.
    - 2. An automatic control that does not impede occupant ON control.
  - b. Ventilation rate and capture efficiency. The system shall meet or exceed either the minimum airflow in accordance with Table 150.0-E or the minimum capture efficiency in accordance with Table 150.0-E, and Table 150.0-G. Capture efficiency ratings shall be determined in accordance with ASTM E3087 and listed in a product directory approved by the Energy Commission.
- iv. Continuous mechanical exhaust. A mechanical exhaust system shall be installed to operate continuously. The system may be part of a balanced mechanical ventilation system.
  - a. Control and operation. A manual ON-OFF control shall be provided for each continuous mechanical exhaust system. The system shall be designed to operate during all occupiable hours. The ON-OFF control shall be accessible to the dwelling unit occupant.
  - b. Ventilation rate. The minimum delivered ventilation shall be at least the amount indicated in Table 150.0-F during each hour of operation.
- v. Airflow measurement of local mechanical exhaust by the system installer. The airflow required by Section 150.0(o)1G is the quantity of indoor air exhausted by the ventilation system as installed in the dwelling unit. When a vented range hood utilizes a capture efficiency rating to demonstrate compliance with Section 150.0(o)1Giiib, the airflow listed in the approved directory corresponding to the compliant capture efficiency rating point shall be met by the installed system. The as-installed airflow shall be verified by the system installer to ensure compliance by use of either Subsection a or b below:
  - a. The system installer shall measure the airflow by using a flow hood, flow grid or other airflow measuring device at the mechanical ventilation fan's inlet terminals/grilles or outlet terminals/grilles in accordance with the procedures in Reference Residential Appendix RA3.7.
  - b. As an alternative to performing an airflow measurement of the system as installed in the dwelling unit, compliance may be demonstrated by installing an exhaust fan and duct system that conforms to the specifications of Table 150.0-H. Visual inspection shall verify the installed system conforms to the requirements of Table 150.0-H.

When using Table 150.0-H for demonstrating compliance, the airflow rating shall be greater than or equal to the value required by Section 150.0(o)1G at a static pressure greater than or equal to 0.25 in. of water (62.5 Pa). When a vented range hood utilizes a capture efficiency rating to demonstrate compliance with Section 150.0(o)1Giiib, a static pressure greater than or equal to 0.25 in. of water at the rating point shall not be required, and the airflow listed in the approved directory corresponding to the compliant capture efficiency rating point shall be applied to Table 150.0-H for determining compliance.

- Use of Table 150.0-H is limited to ventilation systems that conform to all of the following three specifications:
1. Total duct length is less than or equal to 25 ft (8 m).
  2. Duct system has not more than three elbows, and
  3. Duct system has exterior termination fitting with a hydraulic diameter greater than or equal to the minimum duct diameter and not less than the hydraulic diameter of the fan outlet.

**Table 150.0-G Kitchen Range Hood Airflow Rates (cfm) and ASTM E3087 Capture Efficiency (CE) Ratings According to Dwelling Unit Floor Area and Kitchen Range Fuel Type**

Dwelling Unit Floor Area (ft <sup>2</sup> )	Hood Over Electric Range	Hood Over Natural Gas Range
>1500	50% CE or 110 CFM	70% CE or 180 CFM
>1000 to 1500	50% CE or 110 CFM	80% CE or 250 CFM
750 - 1000	55% CE or 110 CFM	85% CE or 280 CFM
<750	65% CE or 110 CFM	85% CE or 280 CFM

**From Section 150.0 (n) (9)(u)(v) – MANDATORY FEATURES AND DEVICES**

- (n) **Water heating system.**
  - 1. Systems using gas or propane water heaters to serve individual dwelling units shall designate a space at least 2.5 feet by 2.5 feet wide and 7 feet tall suitable for the future installation of a heat pump water heater (HPWH) by meeting either A or B below. All electrical components shall be installed in accordance with the California Electrical Code:
    - A. If the designated space is within 3 feet from the water heater, then this space shall include the following:
      - i. A dedicated 125 volt, 20 amp electrical receptacle that is connected to the electric panel with a 120/240 volt 3 conductor, 10 AWG copper branch circuit, within 3 feet from the water heater and accessible to the water heater with no obstructions; and
      - ii. Both ends of the unused conductor shall be labeled with the word "spare" and be electrically isolated; and
      - iii. A reserved single pole circuit breaker space in the electrical panel adjacent to the circuit breaker for the branch circuit in A above and labeled with the words "Future 240V Use"; and
      - iv. A condensate drain that is no more than 2 inches higher than the base of the installed water heater, and allows natural draining without pump assistance.
    - B. If the designated space is more than 3 feet from the water heater, then this space shall include the following:
      - i. A dedicated 240 volt branch circuit shall be installed within 3 feet from the designated space. The branch circuit shall be rated at 30 amps minimum. The blank cover shall be identified as "240V ready"; and
      - ii. The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future HPWH installation. The reserved space shall be permanently marked as "For Future 240V use"; and
      - iii. Either a dedicated cold water supply, or the cold water supply shall pass through the designated HPWH location just before reaching the gas or propane water heater; and
      - iv. The hot water supply pipe coming out of the gas or propane water heater shall be routed first through the designated HPWH location before serving any fixtures; and
      - v. The hot and cold water piping at the designated HPWH location shall be exposed and readily accessible for future installation of an HPWH; and
      - vi. A condensate drain that is no more than 2 inches higher than the base of the installed water heater, and allows natural draining without pump assistance.

(s) **Energy Storage Systems (ESS) ready.** All single-family residences that include one or two dwelling units shall meet the following. All electrical components shall be installed in accordance with the California Electrical Code:

1. At least one of the following shall be provided:
  - A. ESS ready interconnection equipment with a minimum backed-up capacity of 60 amps and a minimum of four ESS-supplied branch circuits, or
  - B. A dedicated raceway from the main service to a panelboard (subpanel) that supplies the branch circuits in Section 150.0(s)(2). All branch circuits are permitted to be supplied by the main service panel prior to the installation of an ESS. The trade size of the raceway shall be not less than one inch. The panelboard that supplies the branch circuits (subpanel) must be labeled "Subpanel shall include all backed-up load circuits."
2. A minimum of four branch circuits shall be identified and have their source of supply collocated at a single panelboard suitable to be supplied by the ESS. At least one circuit shall supply the refrigerator, one lighting circuit shall be located near the primary egress, and at least one circuit shall supply a sleeping room receptacle outlet.
3. The main panelboard shall have a minimum busbar rating of 225 amps.
4. Sufficient space shall be reserved to allow future installation of a system isolation equipment/transfer switch within 3 feet of the main panelboard. Raceways shall be installed between the panelboard and the system isolation equipment/transfer switch location to allow the connection of backup power source.

- (t) **Heat pump space heater ready.** Systems using gas or propane furnace to serve individual dwelling units shall include the following:
  1. A dedicated 240 volt branch circuit wiring shall be installed within 3 feet from the furnace and accessible to the furnace with no obstructions. The branch circuit conductors shall be rated at 30 amps minimum. The blank cover shall be identified as "240V ready." All electrical components shall be installed in accordance with the California Electrical Code.
  2. The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future heat pump space heater installation. The reserved space shall be permanently marked as "For Future 240V use."
- (u) **Electric cooktop ready.** Systems using gas or propane cooktop to serve individual dwelling units shall include the following:
  1. A dedicated 240 volt branch circuit wiring shall be installed within 3 feet from the cooktop and accessible to the cooktop with no obstructions. The branch circuit conductors shall be rated at 50 amps minimum. The blank cover shall be identified as "240V ready." All electrical components shall be installed in accordance with the California Electrical Code.
  2. The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future electric cooktop installation. The reserved space shall be permanently marked as "For Future 240V use."
- (v) **Electric clothes dryer ready.** Clothes dryer locations with gas or propane plumbing to serve individual dwelling units shall include the following:
  1. A dedicated 240 volt branch circuit wiring shall be installed within 3 feet from the clothes dryer location and accessible to the clothes dryer location with no obstructions. The branch circuit conductors shall be rated at 30 amps minimum. The blank cover shall be identified as "240V ready." All electrical components shall be installed in accordance with the California Electrical Code.
  2. The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future electric clothes dryer installation. The reserved space shall be permanently marked as "For Future 240V use."

**SECTION 110.10 – MANDATORY REQUIREMENTS FOR SOLAR READINESS (From Section 110.10 of the 2022 Building Energy Efficiency Standards)**

a. **Single-family residences.** Single-family residences located in subdivisions with ten or more single-family residences and where the application for a tentative subdivision map for the residence has been deemed complete or approved by the enforcement agency, which do not have a photovoltaic system installed, shall comply with the requirements of Sections 110.10(b) through 110.10(e)

- b. **Solar zone.**
  1. Minimum solar zone area. The solar zone shall have a minimum total area as described below. The solar zone shall comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other Parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area shall be comprised of area as that have no dimension less than five feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet.
    - A. Single-family residences. The solar zone shall be located on the roof or overhang of the building and have a total area no less than 250 square feet.

**Exception 1** to Section 110.10(b)1A: Single-family residences with a permanently installed domestic solar water-heating system meeting the installation criteria specified in the Reference Residential Appendix RA4 shall have a minimum solar savings fraction of 0.50.

**Exception 2** to Section 110.10(b)1A: Single-family residences with three habitable stories or more and with a total floor area less than or equal to 2000 square feet and having a solar zone total area no less than 150 square feet.

**Exception 3** to Section 110.10(b)1A: Single-family residences located in the Wildland-Urban Interface Fire Area as defined in Title 24, Part 2 and having a whole house fan and having a solar zone total area no less than 150 square feet.

**Exception 4** to Section 110.10(b)1A: Buildings with a designated solar zone area that is no less than 50 percent of the potential solar zone area. The potential solar zone area is the total area of any low-sloped roofs where the annual solar access is 70 percent or greater and any steep-sloped roofs oriented between 90 degrees and 300 degrees of true north where the annual solar access is 70 percent or greater. Solar access is the ratio of solar insolation including shade to the solar insolation without shade. Shading from obstructions located on the roof or any other part of the building shall not be included in the determination of annual solar access.

**Exception 5** to Section 110.10(b)1A: Single-family residences having a solar zone total area no less than 150 square feet and where all thermostats are demand responsive controls and comply with Section 110.12(a), and are capable of receiving and responding to Demand Response Signals prior to granting of an occupancy permit by the enforcing agency.

**Exception 6** to Section 110.10(b)1A: Single-family residences meeting the following conditions:

- A. All thermostats are demand responsive controls that comply with Section 110.12(a), and are capable of receiving and responding to Demand Response Signals prior to granting of an occupancy permit by the enforcing agency.
- B. Comply with one of the following measures:
  - i. Install a dishwasher that meets or exceeds the ENERGY STAR® Program requirements with a refrigerator that meets or exceeds the ENERGY STAR Program requirements, a whole house fan driven by an electronically commutated motor, or an SAE J1772 Level 2 Electric Vehicle Supply Equipment (EVSE or EV charger) with a minimum of 40 amperes; or
  - ii. Install a home automation system capable of, at a minimum, controlling the appliances and lighting of the dwelling and responding to demand response signals; or
  - iii. Install alternative plumbing piping to permit the discharge from the clothes washer and all showers and bathtubs to be used for an irrigation system in compliance with the California Plumbing Code and any applicable local ordinances; or
  - iv. Install a rainwater catchment system designed to comply with the California Plumbing Code and any applicable local ordinances, and that uses rainwater flowing from at least 65 percent of the available roof area.

2. Azimuth range. All sections of the solar zone located on steep-sloped roofs shall have an azimuth range between 90 degrees and 300 degrees of true north.
3. Shading.
  - A. No obstructions, including but not limited to, vents, chimneys, architectural features and roof mounted equipment, shall be located in the solar zone.
  - B. Any obstruction, located on the roof or any other part of the building that projects above a solar zone shall be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.

**Exception** to Section 110.10(b)3: Any roof obstruction, located on the roof or any other part of the building, that is oriented north of all points on the solar zone.

4. Structural design loads on construction documents. For areas of the roof designated as solar zone, the structural design loads for roof dead load and roof live load shall be clearly indicated on the construction documents. Note: Section 110.10(b)4 does not require the inclusion of any collateral loads for future solar energy systems.

(c) **Interconnection pathways.**

1. The construction documents shall indicate a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service.
2. For single-family residences and central water-heating systems, the construction documents shall indicate a pathway for routing of plumbing from the solar zone to the water-heating system.

(d) **Documentation.** A copy of the construction documents or a comparable document indicating the information from Sections 110.10(b) through 110.10(c) shall be provided to the occupant.

(e) **Main electrical service panel.**

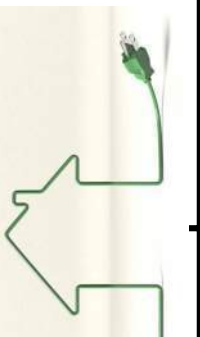
1. The main electrical service panel shall have a minimum busbar rating of 200 amps.
2. The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future solar electric installation. The reserved space shall be permanently marked as "For Future Solar Electric".

**Exception 2 to Section 150.1(c)14: No PV system is required when the minimum PV system size specified by section 150.1(c)14 is less than 1.8 kWdc.**

**Prescriptive Equation for PV Exemption:  
460 x 0.613/1000 + 1 x 1.4 = 1.68**

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