

# Interior Remodel & Window Replacement for Hanson Residence

|                    |             |               |
|--------------------|-------------|---------------|
| project number     | 2025.090    |               |
| drawn by           | GK          | checked by BA |
| ISSUES & REVISIONS |             |               |
| no.                | description | date          |
| 1                  | HPAC Review | 2026.03.30    |
| -                  | -           | -             |
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## GOVERNING AGENCIES, ORGANIZATIONS, & UTILITIES

TOWN OF TRUCKEE  
10183 Truckee Airport Rd  
Truckee, CA 96161  
Phone (530) 582-7820  
<http://townoftruckee.com/departments/building-and-safety/tenant-improvement>

NEVADA COUNTY ENVIRONMENTAL HEALTH  
950 Maidu Avenue  
Nevada City, CA 95959  
Phone (530) 265-1222

TRUCKEE DONNER PUBLIC UTILITY DISTRICT  
11570 Donner Pass Road  
Truckee, CA 96161  
Water Department (530) 582-3956  
Electric Department (530) 582-3956

TRUCKEE SANITARY DISTRICT  
12304 Joerger Drive  
Truckee, CA 96161  
Phone (530) 587-3804

TRUCKEE FIRE PROTECTION DISTRICT  
10049 Donner Pass Road  
Truckee, CA 96161-0317  
(530) 582-7853  
[www.truckeefire.org](http://www.truckeefire.org)

TAHOE TRUCKEE UNIFIED SCHOOL DISTRICT  
11603 DONNER PASS ROAD  
TRUCKEE, CA 96161  
PHONE: (530) 582-2546  
<http://www.ttusd.org>

LIBERTY ENERGY  
701 National Ave.  
PO Box 107  
Tahoe Vista, CA 96148  
Phone 800.782.2506  
<http://www.liberty-energy.com/pages/home.php>

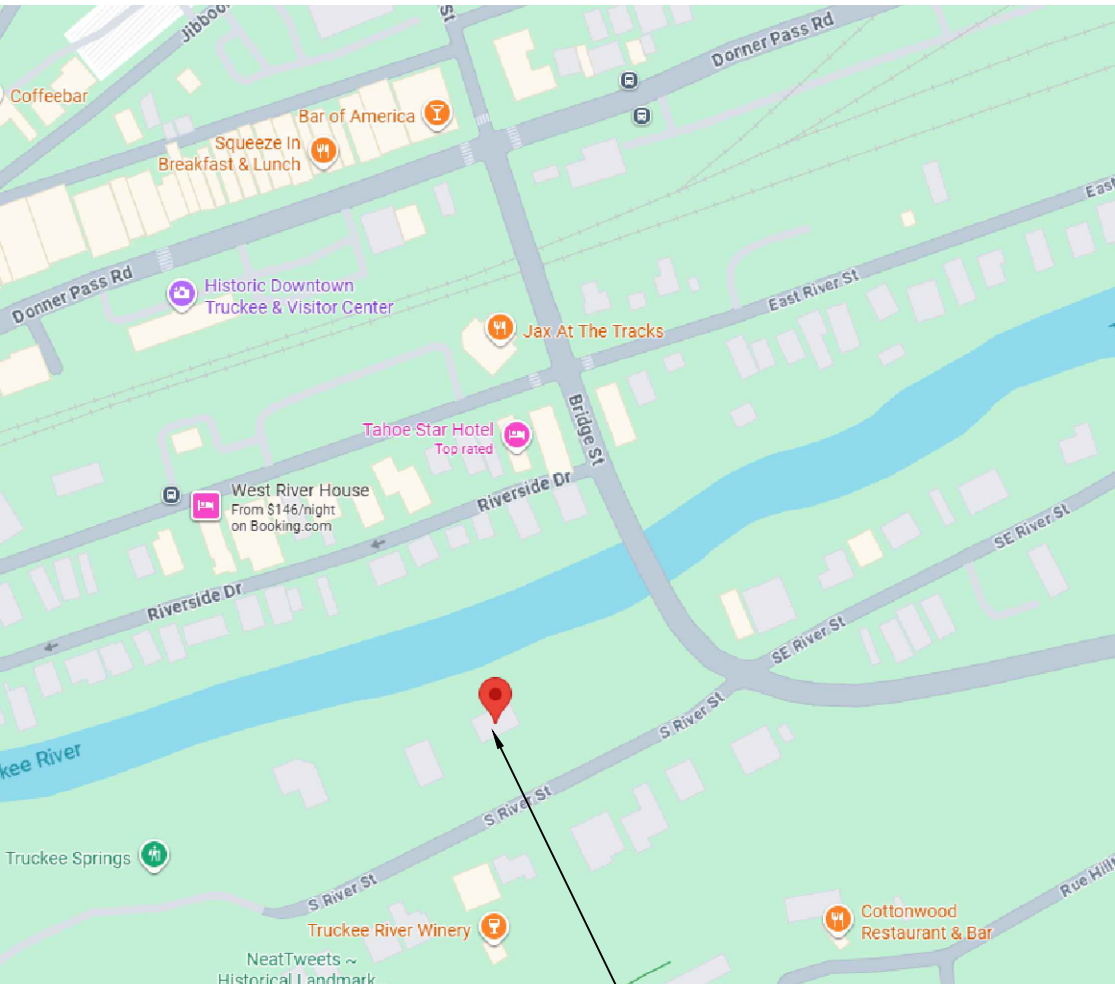
SOUTHWEST GAS CORPORATION  
(LOCAL CUSTOMER ASSISTANCE LOCATION)  
10682 Pioneer Trail  
Truckee, CA 96161-0218  
Phone: 877.860.6020  
<http://www.swgas.com/contactus/nnvcontacts.php>

## PROJECT CONTACT INFORMATION

OWNER  
SCOTT HANSON & JESS HANSON  
2185 ELIOT ST.  
DENVER, COLORADO  
916.712.0138  
SHANSON@MONEYMATTERS.COM

ENGINEER OF RECORD & DESIGNER  
EVOLVE DESIGN WORKS  
BRAD ALTMAN, P.E.  
PO BOX 7586  
TAHOE CITY, CA 96145  
530.412.1328  
BRAD@EVOLVEDSIGNWORKS.COM

## VICINITY MAP / PROJECT LOCATION



PROJECT LOCATION

## APPLICABLE CODES

2025 CALIFORNIA BUILDING CODE (2025 CBC)  
2025 CALIFORNIA ELECTRICAL CODE (2025 CEC)  
2025 CA ENERGY CODE  
2025 CALIFORNIA MECHANICAL CODE (2025 CMC)  
2025 CALIFORNIA PLUMBING CODE (2025 CPC)  
2025 CALIFORNIA RESIDENTIAL CODE (2025 CRC)  
2025 CALIFORNIA WILDLAND-URBAN INTERFACE CODE (2025 CWUI)  
2025 CALIFORNIA FIRE CODE (2025 CFC)  
TFPD ORDINANCE 01-2025  
2025 CALIFORNIA GREEN BUILDING CODE (2025 CALGREEN)  
2025 BUILDING ENERGY EFFICIENCY STANDARDS

### CODE ANALYSIS

Occupancy: R-3, CBC 310.4  
U, CBC 312  
Type of Construction: Type VB, CBC 602.5

## SPACE CALCULATIONS

|                         |              |
|-------------------------|--------------|
| UNCONDITIONED           |              |
| GARAGE                  | 500 SQ. FT.  |
| BACK DECK               | 318 SQ. FT.  |
| CONDITIONED             |              |
| BASEMENT - EXISTING     | 846 SQ. FT.  |
| FIRST LEVEL - EXISTING  | 1045 SQ. FT. |
| SECOND LEVEL - EXISTING | 789 SQ. FT.  |
| THIRD LEVEL - EXISTING  | 602 SQ. FT.  |

## DESIGN CRITERIA

|                                          |          |
|------------------------------------------|----------|
| GROUND SNOW LOAD                         | 325      |
| ROOF DEAD LOAD                           | 20       |
| FLOOR LIVE LOAD                          | 40       |
| FLOOR DEAD LOAD                          | 20       |
| WALL DEAD LOAD                           | 15 psf   |
| ALLOWABLE BEARING PRESSURE               | 2000 psf |
| 28-DAY CONCRETE COMPRESSIVE STRENGTH     | 2500 psi |
| WIND EXPOSURE                            | C        |
| ULTIMATE WIND SPEED                      | 130 mph  |
| SEISMIC                                  |          |
| LATITUDE 39.325933, LONGITUDE -120.18403 |          |
| SITE CLASS                               | D        |
| OCCUPANCY CATEGORY                       | II       |
| DESIGN CATEGORY                          | D        |

## PROJECT SCOPE

- WINDOW REPLACEMENT
- INTERIOR REMODEL

## DEFERRED SUBMITTAL

- AFTER THE FACT PERMIT FOR DAYLIGHT ADU

## SHEET INDEX

|                                                                            |           |
|----------------------------------------------------------------------------|-----------|
| COVER SHEET                                                                | 0.0       |
| CIVIL                                                                      |           |
| SITE PLAN                                                                  | C1.1      |
| ARCHITECTURAL                                                              |           |
| CALIFORNIA RESIDENTIAL CODE GENERAL NOTES                                  | A0.1      |
| CALIFORNIA RESIDENTIAL CODE & CALIFORNIA WILDLAND URBAN INTERFACE CODES    | A0.2      |
| CALIFORNIA WILDLAND-URBAN INTERFACE CODE & CALIFORNIA GREEN BUILDING CODES | A0.3      |
| DAYLIGHT ADU FLOOR PLAN                                                    | A2.1      |
| FIRST LEVEL FLOOR PLAN                                                     | A2.2      |
| SECOND & ATTIC LEVEL FLOOR PLANS                                           | A2.3      |
| BUILDING ELEVATIONS - EXISTING WINDOWS                                     | A4.1-A4.2 |
| BUILDING ELEVATIONS - PROPOSED WINDOWS                                     | A4.3-A4.4 |
| WINDOW & DOOR SCHEDULE                                                     | A4.5-A4.6 |
| BUILDING SECTIONS                                                          | A5.0      |
| MECHANICAL                                                                 |           |
| CALIFORNIA MECHANICAL AND ELECTRICAL CODES                                 | ME0.1     |
| CALIFORNIA ELECTRICAL AND PLUMBING CODES                                   | ME0.2     |
| DAYLIGHT ADU ELECTRICAL PLAN                                               | ME2.1     |
| FIRST LEVEL ELECTRICAL PLAN                                                | ME2.2     |
| SECOND & ATTIC LEVEL ELECTRICAL PLANS                                      | ME2.3     |





2025 CALIFORNIA RESIDENTIAL CODE

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| R319.1.1   | Operational constraints and opening control devices. Emergency escape and rescue openings shall be maintained clear of any obstruction other than those allowed by this section and shall be operational from the inside of the room without the use of keys, tools or special knowledge. Window opening control devices complying with ASTM F2090 shall be permitted for use on windows serving as a required emergency escape and rescue opening.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| R319.2     | Emergency escape and rescue openings. Emergency escape and rescue openings shall have minimum dimensions as specified in this section.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| R319.2.1   | Minimum opening area. Emergency and escape rescue openings shall have a net clear opening of not less than 5.7 square feet. The net clear opening dimensions required by this section shall be operational by the normal operation of the emergency escape and rescue opening from the inside. The net clear height opening shall be not less than 24 inches (610 mm) and the net clear width shall be not less than 20 inches (508 mm).<br>Exception: Grade floor or below grade openings shall have a net clear opening of not less than 5 square feet.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| R319.2.2   | Window sill height. Where a window is provided as the emergency escape and rescue opening, it shall have the bottom of the sill opening not greater than 44 inches measured from the floor; where the sill height is below grade, it shall be provided with a window well in accordance with Section R319.2.3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| R319.2.3   | Window wells. The horizontal area of the window well shall be not less than 9 square feet, with a horizontal projection and width of not less than 36 inches. The area of the window well shall allow the emergency escape and rescue opening to be fully opened.<br>Exception: The ladder or steps required by Section R319.2.3.1 shall be permitted to encroach not more than 6 inches into the required dimensions of the window well.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| R319.2.3.1 | Ladder shall be provided with a clear depth of not less than 44 inches shall be equipped with a permanently affixed ladder or steps usable with the window in the fully open position. Ladders or steps required by this section shall not be required to comply with Sections R319.7 and R319.8. Ladders or rungs shall have an inside width of not less than 12 inches, shall project not less than 3 inches from the wall and shall be spaced not more than 18 inches on center vertically for the full height of the window well.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| R319.2.3.2 | Drainage. Window wells shall be designed for proper drainage by connecting to the building's drainage/drainage system required by Section R405.1 or by an approved alternative method.<br>Exception: A drainage system is not required where the foundation is on well-drained soil or sand-gravel mixture soils in accordance with the United Soil Classification System, Group I soils, as detailed in Table R405.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| R319.3     | Emergency escape and rescue doors. Where a door is provided as the required emergency escape and rescue opening, it shall be permitted to be a side-hinged door or a slider. Where the opening is below the adjacent ground elevation, it shall be provided with a bulkhead enclosure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| R319.3.1   | Minimum door opening size. The minimum net clear height opening for any door that serves as an emergency escape and rescue opening shall be in accordance with Section R319.2.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| R319.4.4   | Bars, grilles, covers and screens. Bars, grilles, covers, screens or similar devices are permitted to be placed over emergency escape and rescue openings, bulkhead enclosures, or window wells that serve such openings, provided that the minimum net clear opening size complies with Sections R319.1.1 to R319.2.3, and such devices shall be releasable or removable from the inside without the use of a key, tool, special knowledge or force greater than that required for the normal operation of the escape and rescue opening. The release mechanism shall be maintained operable at all times. Such bars, grilles, grates or any similar devices shall be equipped with an approved exterior release device for use by the fire department only when required by the authority having jurisdiction. Where security bars (burglar bars) are installed on emergency egress and rescue windows or doors, on or after July 1, 2000, such devices shall comply with California Building Standards Code, Part 12, Chapter 12-3 and other applicable provisions of this code. |
| R319.6     | Dwelling additions. Where dwelling additions occur that contain sleeping rooms, an emergency escape and rescue opening shall be provided in each new sleeping room. Where dwelling additions occur that have basements, an emergency escape and rescue opening shall be provided in the new basement.<br>Exception:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 1.         | An emergency escape and rescue opening is not required in a new basement that contains a sleeping room with an emergency escape and rescue opening.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 2.         | An emergency escape and rescue opening is not required in a new basement where there is an emergency escape and rescue opening in an existing basement that is accessible from the new basement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| R319.7     | Alterations or repairs of existing basements. An emergency escape and rescue opening is not required where existing basements undergo alterations or repairs.<br>Exception: New sleeping rooms created in an existing basement shall be provided with emergency escape and rescue openings in accordance with Section R319.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

SECTION R320 HANDRAILS

|        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| R320.2 | Handrail height, measured vertically from the sloped plane adjoining the tread nosing, or finish surface of ramp slope, shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm).<br>Handrail height on alternating tread devices and ship's ladders shall be uniform and not less than 30 inches (762 mm) and not more than 34 inches (864 mm).<br>Exceptions:                                             |
| 1.     | The use of a volute, turnout or starting easing shall be allowed over the lowest tread.                                                                                                                                                                                                                                                                                                                                           |
| 2.     | Where handrail fittings or bendings are used to provide continuous transition between flights, transitions at winder treads, the transition from handrail to guard, or as used at the start of a flight, the handrail height at the fittings or bendings shall be permitted to exceed 38 inches.                                                                                                                                  |
| R320.5 | Continuity. Handrails for stairways shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above the lowest riser of the flight. Handrail ends shall be returned or shall terminate in newel posts or safety terminals. Handrails adjacent to a wall shall have a space of not less than 1½ inches between the wall and the handrails.<br>Exceptions: |
| 1.     | Handrails shall be permitted to be interrupted by a newel post at the turn.                                                                                                                                                                                                                                                                                                                                                       |
| 2.     | The use of a volute, turnout, starting easing or starting newel shall be allowed over the lowest tread. Grip-size. Required handrails shall be of one of the following types or provide equivalent graspability.                                                                                                                                                                                                                  |

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| Type 1.  | Handrails with a circular cross section shall have an outside diameter of not less than 1½ inches and not greater than 2 inches. If the handrail is not circular, it shall have a perimeter dimension of not less than 4 inches and not greater than 4½ inches with a cross section of dimension of not more than 2½ inches. Edges shall have a radius of not less than 0.01 inch.                                                                                                                                                                                                                                                                                 |
| Type 1½. | Handrails with a perimeter greater than 4½ inches shall have a graspable finger recess area on both sides of the profile. The finger recess shall begin within a distance of ¾ inch measured vertically from the tallest portion of the profile and achieve a depth of not less than ¾ inch within ¾ inch below the widest portion of the profile. This required depth shall continue for not less than ¾ inch to a level that is not less than 1½ inches below the tallest portion of the profile. The width of the handrail above the recess shall be not less than 1½ inches and not more than 2½ inches. Edges shall have a radius of not less than 0.01 inch. |

SECTION R321 GUARDS AND WINDOW FALL PROTECTION

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| R321.1.1    | Where required. Guards shall be located along open-sided walking surfaces, including stairs, ramps and landings, that are located more than 30 inches (762 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. Insect screening shall not be considered as a guard.                                                                               |
| R321.1.2    | Height. Required guards of open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 42 inches (1067 mm) in height as measured vertically above the adjacent walking surface or the line connecting the leading edges of the treads.                                                                                                                                                    |
| Exceptions: | Guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads. Where the top of the guard serves as a handrail on the open sides of stairs, the top of the guard shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) as measured vertically from a line connecting the leading edges of the treads. |
| R321.1.3    | Opening limitations. Required guards shall not have openings from the walking surface to the required guard height that allow passage of a sphere 4 inches (102 MM) in diameter.<br>Exceptions:                                                                                                                                                                                                                                     |
| 1.          | The triangular openings at the open side of stair, formed by the riser, tread and bottom rail of a guard, shall not allow passage of a sphere 6 inches (153 mm) in diameter.                                                                                                                                                                                                                                                        |
| 2.          | Guards on the open side of stairs shall not have openings that allow passage of a sphere 4¾/g inches (111 mm) in diameter.                                                                                                                                                                                                                                                                                                          |
| R321.1.4    | Exterior plastic composite guards. Plastic composite exterior guards shall comply with the requirements of Section R307.2.2.                                                                                                                                                                                                                                                                                                        |
| R321.2      | Window fall protection. Window fall protection shall be provided in accordance with sections R321.2.1 and R321.2.2.                                                                                                                                                                                                                                                                                                                 |
| R321.2.1    | Window sills. In dwelling units, where the top of the sill of an operable window opening is located less than 24 inches (610 mm) above the finished floor and greater than 72 inches (1829 mm) above the finished grade or other surface below on the exterior of the building, the operable window shall comply with one of the following:                                                                                         |
| 1.          | Operable windows with openings that will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening where the opening is in its largest opened position.                                                                                                                                                                                                                                                               |
| 2.          | Operable windows that are provided with window fall prevention devices that comply with ASTM F2090.                                                                                                                                                                                                                                                                                                                                 |
| R321.2.2    | Emergency escape and rescue openings. Where an operable window serves as an emergency escape and rescue opening, a window opening control device or fall prevention device, after operation to release the control device or fall prevention device allowing the window to fully open, shall not reduce the net clear opening area of the window unit to less than the area required by Sections R319.2.1 and R319.2.2.             |

SECTION R324 GLAZING

|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| R324.1 | Identification. Except as indicated in Section R324.1.1, each pane of glazing installed in hazardous locations as defined in Section R324.4 shall be provided with a manufacturer's designation specifying who applied the designation, designating the type of glass and the safety glazing standard with which it complies, which is visible in the final installation. The designation shall be acid etched, sandblasted, ceramic fired, laser etched, embossed, or be of a type that once applied cannot be removed without being destroyed. A label shall be permitted in lieu of the manufacturer's designation.<br>Exceptions: |
| 1.     | For other than tempered glass, manufacturer's designations are not required provided that the building official approves the use of a certificate, affidavit or other evidence confirming compliance with this code.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 2.     | Tempered spandrel glass is permitted to be identified by the manufacturer with a removable paper designation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| R324.1.1    | Identification of multiple assemblies. Multipane assemblies having individual panes not exceeding 1 square foot in exposed area shall have not less than one pane in the assembly identified in accordance with Section R324.1. Other panes in the assembly shall be labeled "CPSC 16 CFR 1201" or "ANSI Z97.1" as appropriate.                                                                                                                                                                                                                                                                                                                                                   |
| R324.2      | Louvered windows or жалюзиs. Regular, float, wired or patterned glass in жалюзиs and louvered windows shall be not less than nominal 1/8 inch thick and not more than 48 inches in length. Exposed glass edges shall be smooth.                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| R324.2.1    | Wired glass prohibited. Wired glass with wire exposed on longitudinal edges shall not be used in жалюзиs or louvered windows.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| R324.3      | Human impact loads. Individual glazed areas, including glass mirrors in hazardous locations such as those indicated as defined in Section R324.4, shall pass the test requirements of Section R324.3.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 1.          | Louvered windows and жалюзиs shall comply with Section R324.2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2.          | Mirrors and other glass panels mounted or hung on a surface that provides a continuous backing support. Glass unit masonry complying with Section R607.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| R324.3.1    | Impact test. Where required by other sections of the code, glazing shall be tested in accordance with CPSC 16 CFR 1201. Glazing shall comply with the test criteria for Category II unless otherwise indicated in Table R324.3.1 [1].                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Exceptions: | Glazing in not in doors or enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers shall be permitted to be tested in accordance with ANSI Z97.1. Glazing shall comply with the test criteria for Class A unless indicated in Table R324.3.1 [2].                                                                                                                                                                                                                                                                                                                                                                                                          |
| R324.4      | Hazardous locations. The locations specified in Sections R324.4.1 through R324.4.7 shall be considered to be specific hazardous locations for the purposes of glazing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| R324.4.1    | Glazing in doors. Glazing in fixed and operable panels of swinging, sliding and bifold doors shall be considered to be a hazardous location.<br>Exceptions:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 1.          | Glazed openings of a size through which a 3-inch-diameter sphere is unable to pass.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 2.          | Decorative glazing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| R324.4.2    | Glazing adjacent to doors. Glazing in an individual fixed or operable panel adjacent to a door shall be considered to be a hazardous location where the bottom exposed edge of the glazing is less than 60 inches above the floor or walking surface and it meets either of the following conditions:                                                                                                                                                                                                                                                                                                                                                                             |
| 1.          | Where the glazing is within 24 inches of either side of the door in the plane of the door in a closed position.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 2.          | Where the glazing is on a wall perpendicular to the plane of the door in a closed position and within 24 inches of the hinge side of an in-swinging door.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Exceptions: | Decorative glazing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 1.          | Where there is an intervening wall or other permanent barrier between the door and the glazing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 2.          | Where access through the door is to a closet or storage area 3 feet or less in depth. Glazing in this application shall comply with Section R324.4.3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 3.          | Glazing that is adjacent to the fixed panel of patio doors.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| R324.4.3    | Glazing in windows. Glazing in an individual fixed or operable panel that meets all of the following conditions shall be considered to be a hazardous location:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1.          | The exposed area of an individual pane is larger than 9 square feet.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 2.          | The bottom edge of the glazing is less than 18 inches above the floor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 3.          | The top edge of the glazing is more than 36 inches above the floor; and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 4.          | One or more walking surfaces are within 36 inches measured horizontally and in a straightline, of the glazing.<br>Exceptions:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 1.          | Decorative glazing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 2.          | Where a horizontal rail is installed on the accessible side(s) of the glazing 34 to 38 inches above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per linear foot without contacting the glass and have a cross-sectional height of not less than ½ inches                                                                                                                                                                                                                                                                                                                                                                        |
| 3.          | Outboard panes in insulating glass units and other multiple glazed panes where the bottom edge of the glass is 25 feet or more above grade, a roof, walking surfaces or other horizontal surface adjacent to the glass exterior.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| R324.4.4    | Glazing in guards and railings. Glazing in guards and railings, including structural baluster panels and nonstructural in-fill panels, regardless of area or height above a walking surface shall be considered to be a hazardous location.                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| R324.4.5    | Glazing and wet surfaces. Glazing in walls, enclosures or fences containing or facing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers and indoor or outdoor swimming pools where the bottom exposed edge of the glazing is less than 60 inches measured vertically above any standing or walking surface shall be considered to be a hazardous location. This shall apply to single glazing and each pane in multiple glazing.<br>Exception: Glazing that is more than 60 inches measured horizontally and in a straight line, from the water's edge of a bathtub, hot tub, spa, whirlpool or swimming pool or from the edge of a shower, sauna or steam room. |
| R324.4.6    | Glazing adjacent to stairs and ramps. Glazing where the bottom exposed edge of the glazing is less than 36 inches above the adjacent walking surface of stairs, landings between flights of stairs and ramps shall be considered to be a hazardous location.<br>Exceptions:                                                                                                                                                                                                                                                                                                                                                                                                       |
| 1.          | Where a rail is installed on the accessible side(s) of the glazing 34 to 38 inches above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per linear foot without contacting the glass and have a cross-sectional height of not less than ½ inches                                                                                                                                                                                                                                                                                                                                                                                   |
| 2.          | Glazing 36 inches or more measured horizontally from the walking surface.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| R324.4.7    | Glazing adjacent to the bottom step of a stair. Required glazing openings shall be located at the bottom of a stairway where the glazing is less than 36 inches above the landing and within a 60-inch horizontal arc less than 180 degrees from the bottom tread nosing shall be considered to be a hazardous location.<br>Exception: The glazing is protected by a guard complying with Section R321 and the plane of the glass is more than 18 inches from the guard.                                                                                                                                                                                                          |

SECTION R325 LIGHT, VENTILATION AND HEATING

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| R325.1   | Habitable rooms. Habitable space shall be provided natural light and natural ventilation in accordance with Sections R325.1.1 through R325.1.3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| R325.1.1 | Natural light. Habitable rooms shall have an aggregate area of glazed openings not less than 8 percent of the floor area of such room. Required glazed openings shall face directly onto a street, alley or public way, or a yard or court located on the same lot as the building.<br>Exceptions:                                                                                                                                                                                                                                                                                                                                                |
| 1.       | Required glazed openings shall be permitted to face into a roofed porch, deck or patio adjacent to a street, alley, public way, yard or court.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2.       | Where the longer side of the roofed area is not less than 65 percent unobstructed and the ceiling height is not less than 7 feet (2134 mm).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 3.       | Required glazed openings shall be permitted to face into a sunroom adjacent to a street, alley, public way, yard or court.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| R325.1.2 | Natural ventilation.Habitable rooms shall have an aggregate area openable to the outdoors not less than 4 percent of the floor area of such rooms. Openings shall be through windows, skylights, doors, louvers or other approved openings to the outdoor air. Such openings shall be provided with ready access or shall otherwise be readily controllable by the building occupants.<br>Exceptions:                                                                                                                                                                                                                                             |
| 1.       | Natural ventilation shall not be required in habitable rooms other than kitchens where a whole-house mechanical ventilation system or a mechanical ventilation system capable of producing 0.35 air changes per hour in the habitable rooms is installed in accordance with the California Mechanical Code.                                                                                                                                                                                                                                                                                                                                       |
| 2.       | Natural ventilation shall not be required in kitchens where a local exhaust system is installed in accordance with the California Mechanical Code.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 3.       | Required ventilation openings shall be permitted to open into a thermally isolated sunroom or roofed porch, deck, or patio where not less than 40 percent of the roofed area perimeter is open to the outdoor air.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4.       | Required ventilation openings shall be permitted to open into a thermally isolated sunroom provided there is an openable area between the adjoining room and the sunroom of not less than one-tenth of the floor area of the interior room and not less than 20 square feet (1.9 m2). The minimum openable area of the sunroom to outdoor air shall be based on the total floor area of the adjoining room and the sunroom.                                                                                                                                                                                                                       |
| 5.       | The windows, doors, louvers and other approved closeable openings not required by Section R319 may open into a passive solar energy collector for ventilation required by this section. The area of ventilation openings required by the interior space.                                                                                                                                                                                                                                                                                                                                                                                          |
| R325.1.3 | Adjoining rooms. For the purpose of determining light and ventilation requirements, rooms shall be considered to be a portion of an adjoining room where not less than one-half of the area of the common wall is open and unobstructed and provides an opening of not less than one-tenth of the floor area of the interior room and not less than 25 square feet (2.3 m2).                                                                                                                                                                                                                                                                      |
| R325.2   | Bathrooms: Bathrooms, water closet compartments and other similar rooms shall be provided with aggregate glazing area in windows of not less than 3 square feet (0.3 m2), one-half of which shall be operable.<br>Exception: The glazed areas shall not be required where artificial light and a local exhaust system are provided. The minimum local exhaust rates shall be 50 cubic feet per minute (25 L/s) for intermittent ventilation or 20 cubic feet per minute (10 L/s) for continuous ventilation in accordance with the California Mechanical Code, Chapter 4, Exhaust air from the space shall be exhausted directly to the outdoors. |
| R325.2.1 | Bathroom exhaust fans. Each bathroom containing a bathtub, shower or tub/shower combination shall be mechanically ventilated for purposes of humidity control in accordance with the California Mechanical Code, Chapter 4; and the California Green Building Standards Code, Chapter 4, Division 4.5. Window operation is not a permissible method of providing bathroom exhaust for humidity control.                                                                                                                                                                                                                                           |
| R325.3   | Ventilation air rates shall be in compliance with the California Mechanical Code.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| R325.4   | Opening location: Outdoor intake and exhaust openings shall be located in accordance with Sections R325.4.1 and R325.4.2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| R325.4.1 | Intake openings:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| R325.4.2 | Mechanical and gravity outdoor air intake openings shall be located not less than 10 feet (3048 mm) from any hazardous or noxious contaminant, such as vents, chimneys, plumbing vents, streets, alleys, parking                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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| R806.5   | lots and loading docks. For the purpose of this section, the exhaust from dwelling unit toilet rooms, bathrooms and kitchens shall not be considered as hazardous or noxious.<br>Exceptions:                                                                                                                                                                                                                                                                                                                                                              |
| 1.       | The 10-foot (3048 mm) separation is not required where the intake opening is located 3 feet (914 mm) or greater below the ceiling.                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 2.       | Vents and chimneys serving fuel-burning appliances shall be terminated in accordance with the applicable provisions of the California Mechanical Code.                                                                                                                                                                                                                                                                                                                                                                                                    |
| 3.       | Clothes dryer exhaust ducts shall be terminated in accordance with the California Mechanical Code.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| R325.4.2 | Exhaust openings: Exhaust air shall not be directed onto walkways.<br>Outside opening protection.                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| R325.5   | Air exhaust and intake openings that terminate outdoors shall be protected with corrosion-resistant screens, louvers or grilles having an opening size of not less than 1/4 inch (6 mm) and by this section a minimum opening size of 1/2 inch (13 mm), in any dimension. Openings shall be protected against local weather conditions. Outdoor air exhaust and intake openings shall meet the provisions for exterior wall opening protectives in accordance with this code.                                                                             |
| R325.6   | Interior stairway illumination<br>Interior stairways shall be provided with an artificial light source to illuminate the landings and treads. The light source shall be capable of illuminating treads and landings to levels of not less than 1 footcandle (11 lux) as measured at the center of treads and landings. There shall be a wall switch at each floor level to control the light source where the stairway has six or more risers.<br>Exception: A switch is not required where remote, central or automatic control of lighting is provided. |
| R325.7   | Exterior stairway illumination: Exterior stairways shall be provided with an artificial light source located at the top landing of the stairway. Exterior stairways providing access to a basement from the outdoor grade level shall be provided with an artificial light source located at the bottom landing of the stairway.                                                                                                                                                                                                                          |
| R325.8   | Required heating. Where the winter design temperature is below 60°F every dwelling unit shall be provided with heating facilities capable of maintaining a room temperature of not less than 68°F (20°C) at the point 3 feet (914 mm) above the floor and 2 feet (610 mm) from exterior walls in habitable rooms at the design temperature. The installation of one or more portable space heaters shall not be used to achieve compliance with this section.                                                                                             |
| R325.9   | Passive solar energy collectors: When a passive solar energy collector is designed as a conditioned area it shall comply with the California Energy Code. Nonconditioned passive solar energy collectors are exempt from the California Energy Code.                                                                                                                                                                                                                                                                                                      |

SECTION R327 TOILET, BATH AND SHOWER SPACES

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| R327.1 | Space required. Fixtures shall be spaced in accordance with the California Plumbing Code.                                                                                                                                                                                |
| R327.2 | Bathtub and shower spaces. Bathtub and shower floors and walls above bathtubs with installed shower heads and in shower compartments shall be finished with a nonabsorbent surface. Such wall surfaces shall extend to a height of not less than 1 foot above the floor. |

SECTION R338 CONSTRUCTION WASTE REDUCTION, DISPOSAL & RECYCLING

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| R338.1 | Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with the California Green Building Standards Code, Chapter 4, Division 4.4. |
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SECTION R408 UNDER-FLOOR SPACE

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| R408.1 | Ventilation. The under-floor space between the bottom of the floor joists and the earth under any building (except space occupied by a basement) shall have ventilation openings through foundation walls or exterior walls. The minimum net area of ventilation openings shall be not less than 1 square foot (0.0929 m²) for each 150 square feet (14 m²) of under-floor space area, unless the ground surface is covered by a Class I vapor retarder material. Where a Class I vapor retarder material is used, the minimum net area of ventilation openings shall be not less than 1 square foot (0.0929 m²) for each 1,500 square feet (140 m²) of under-floor space area. One such ventilating opening shall be within 3 feet (914 mm) of each corner of the building.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| R408.2 | Openings for under-floor ventilation. The minimum net area of ventilation openings shall be not less than 1 square foot (0.0929 m²) for each 150 square feet (14 m²) of under-floor area. One ventilation opening shall 1. be within 3 feet (915 mm) of each corner of the building. Ventilation openings shall be covered for their height and width with any of the following materials provided that the least dimension of the covering shall2. not exceed ¼ inch (6.4 mm).<br>1. Perforated sheet metal plates not less than 0.070 inch (1.8 mm) thick.<br>2. Expanded sheet metal plates not less than 0.047 inch (1.2 mm) thick.<br>3. Cast-iron grill or grating.<br>4. Extruded load-bearing brick vents.<br>5. Hardware cloth of 0.035 inch (0.89 mm) wire or heavier.<br>6. Corrosion-resistant wire mesh, with the least dimension being 1/8 inch (3.2 mm) thick.<br>Exception: The total area of ventilation openings shall be permitted to be reduced to 1/50 of the under-floor area where the ground surface is covered with an approved Class I vapor retarder material and the required openings are placed to provide cross ventilation of the space. The installation of operable louvers shall not be prohibited.                                                                                                                                                                                                                                                                                                                                               |
| R408.3 | Unvented crawl space. Ventilation openings in under-floor spaces specified in Sections R408.1 and R408.2 shall not be required where the following items are provided:<br>1. Exposed earth is covered with a continuous Class I vapor retarder. Joints of the vapor retarder overlap by 6 inches (152 mm) and shall be sealed or grouted. The edges of the vapor retarder shall extend not less than 6 inches (152 mm) up the stem wall and shall be attached and sealed to the stem wall or insulation.<br>2. One of the following is provided for the under-floor space:<br>2.1 Continuously operated mechanical exhaust ventilation at a rate equal to 1 cubic foot per minute (0.47 L/s) for each 50 square feet (4.7 m²) of crawl space floor area, including an air pathway to the common area (such as a duct or transfer grille).<br>2.2 Conditioned air supplied to deliver at a rate equal to 1 cubic foot per minute (0.47 L/s) for each 50 square feet (4.7 m²) of under-floor area, including a return air pathway to the common area (such as a duct or transfer grille). Crawl space perimeter walls shall be insulated in accordance with the minimum insulation requirements established in the California Energy Code. Crawl space insulation shall be permanently fastened to the wall and extend downward from the floor to the finished grade level and then vertically and/or horizontally for at least an additional 24 inches (610 mm).<br>2.3 Plenum in structures complying with the California Mechanical Code, if under-floor space is used as a plenum. |
| R408.4 | Access. Access shall be provided to all under-floor spaces. Access openings through the floor shall be a minimum of 18 inches by 24 inches (457 mm by 610 mm). Openings through a perimeter wall shall be not less than 16 inches by 24 inches (407 mm by 610 mm). Where any portion of the through-wall access is below grade, an areaway not less than 16 inches by 24 inches (407 mm by 610 mm) shall be provided. The bottom of the areaway shall be below the threshold of the access opening. Through wall access openings 2 shall not be located under a deck or porch. The California Mechanical Code for access requirements where mechanical equipment is located under floors.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| R408.5 | Removal of debris. The under-floor grade shall be cleaned of all vegetation and organic material. All wood forms used for placing concrete shall be removed before a building is occupied or used for any purpose. All construction materials shall be removed before a building is occupied or used for any purpose.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

SECTION R703 EXTERIOR COVERING

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| R703.8  | Anchored stone and masonry veneer, general. Anchored stone and masonry veneer shall be installed in accordance with this chapter. Table R703.3(1) and Figure R703.8. These veneers installed over a backing of wood or cold-formed steel shall be limited to the first story above grade plane and shall not exceed 5 inches (127 mm) in thickness. See Section R602.10 for wall bracing requirements for masonry veneer for wood-framed construction and Section R603.9.5 for wall bracing requirements for masonry veneer for cold-formed steel construction. |
| R703.12 | Adhered masonry veneer installation. Adhered masonry veneer shall comply with the requirements of Section R703.7.3 and the requirements in Sections 13.1 and 13.3 of TMS 402/ACI 530/ASCE 5. Adhered masonry veneer shall be installed in accordance with Section R703.7.1, Article 3.3D of TMS 602/ACI 530.1/ASCE 4 or the manufacturer's instructions.                                                                                                                                                                                                        |

SECTION R806 ROOF VENTILATION

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| R806.1 | Ventilation required. Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain or snow. Ventilation openings shall have a least dimension of ¼ inch (1.6 mm) minimum and ½ inch (6.4 mm) maximum. Ventilation openings having a least dimension larger than ¼ inch (6.4 mm) shall be provided with corrosion-resistant wire cloth screening, hardware cloth or similar material with openings having a least dimension of ¼ inch (1.6 mm) minimum and ½ inch (6.4 mm) maximum. Openings in roof framing members shall conform to the requirements of Section R802.7. Required ventilation openings shall open directly to the outside air.                                                                                                                                                      |
| R806.2 | Minimum vent area. The minimum vent area shall be 1/50 of the area of the vented space. Exception: The minimum net free ventilation area shall be 1/60 of the vented space provided one or more of the following conditions are met:<br>In Climate Zones 14 and 16, a Class I or II vapor retarder is installed on the warm-in-winter side of the ceiling.<br>Not less than 40 percent and not more than 50 percent of the required ventilating area is provided by ventilators located in the upper portion of the attic or rafter space. Upper ventilators shall be located not more than 3 feet (914 mm) below the ridge or highest point of the space, measured vertically, with the balance of the required ventilation provided by eave or cornice vents. Where the location of wall or roof framing members conflicts with the installation of upper ventilators, installation more than 3 feet (914 mm) below the ridge or highest point of the space shall be permitted. |
| R806.3 | Vent and insulation clearance. Where eave or cornice vents are installed, insulation shall not block the free flow of air. Not less than a 1-inch (25 mm) space shall be provided between the insulation and the roof sheathing and at the location of the vent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| R806.4 | Installation and weather protection. Ventilators shall be installed in accordance with manufacturer's instructions. Installation of ventilators in roof systems shall be in accordance with the requirements of Section R903. Installation of ventilators in wall systems shall be in accordance with the requirements of Section R703.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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| Unvented attic and unvented enclosed rafter assemblies. Unvented attics and unvented enclosed roof framing assemblies created by ceilings that are applied directly to the underside of the roof framing members and structural roof sheathing applied directly to the top of the roof framing members/rafters, shall be permitted where all the following conditions are met:<br>The unvented attic space is completed within the building thermal envelope.<br>No interior Class I vapor retarders are installed on the ceiling side (attic floor) of the unvented attic assembly or on the ceiling side of the unvented enclosed roof framing assembly.<br>Where wood shingles or shakes are used, a minimum ¼ inch (6.4 mm) vented airspace separates the shingles or shakes and the roofing underlayment above the structural sheathing.<br>In California Climate Zones 14 and 16, any air-impermeable insulation shall be a Class II vapor retarder, or shall have a Class II vapor retarder coating or covering in direct contact with the underside of the insulation.<br>A continuous underlayment shall be installed on the indirectly conditioned space side of all insulation in an unvented attic with air-permeable insulation, for condensation control. See the California Energy Code, Figure 1001-A – California Climate Zones.<br>Insulation shall be located in accordance with the following:<br>5.1 Item 5.1.1, 5.1.2, 5.1.3 or 5.1.4 shall be met, depending on the air permeability of the insulation directly under the structural roof sheathing. No insulation shall be required when roof files, wood shingles or wood shakes, or any other roofing system using battens and no continuous underlayment is installed.<br>A continuous underlayment shall be installed on the indirectly conditioned space side of all insulation in an unvented attic with air-permeable insulation, for condensation control. See the California Energy Code, Figure 1001-A – California Climate Zones.<br>5.1.1 Where only air-impermeable insulation is provided, it shall be applied in direct contact with the underside of the structural roof sheathing.<br>5.1.2 Where air-permeable insulation is provided inside the building thermal envelope, it shall be installed in accordance with Section 5.1.1. In addition to the air-permeable insulation installed directly below the structural sheathing, rigid board or sheet insulation shall be installed directly above the structural roof sheathing in accordance with the R-values in Table R806.5 for condensation control.<br>5.1.3 Where both air-impermeable and air-permeable insulation are provided, the air-impermeable insulation shall be applied in direct contact with the underside of the structural roof sheathing and shall be in accordance with the R-values in Table R806.5 for condensation control. The air-permeable insulation shall be installed directly under the air-impermeable insulation.<br>5.1.4 Alternatively, sufficient rigid board or sheet insulation shall be installed directly above the structural roof sheathing to maintain the monthly average temperature of the underside of the structural roof sheathing above 45 °F (7°C). For calculation purposes, an interior air temperature of 68°F (20°C) is assumed and the exterior air temperature is assumed to be the monthly average outside air temperature of the three coldest months.<br>5.2 Where performed insulation board is used as the air-impermeable insulation layer, it shall be sealed at the perimeter of each individual sheet interior surface to form a continuous layer. |
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SECTION R807 ATTIC ACCESS

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| R807.1 | Attic access. Buildings with attics shall have an access opening to attic areas that have a vertical height of 30 inches (762 mm) or greater over an area of not less than 30 square feet (2.8 m2). The vertical height shall be measured from the top of the ceiling framing members to the underside of the roof framing members. The rough-framed opening shall be not less than 22 inches by 30 inches (559 mm by 762 mm) and shall be located in a hallway or other location with ready access. Where located in a wall, the opening shall be not less than 22 inches wide by 30 inches high (559 mm wide by 762 mm high). Where the access is located in a ceiling, unobstructed headroom in the attic space above the access shall be not less than 30 inches (762 mm) along one side or more measured vertically from the bottom of ceiling framing members. See the California Mechanical Code for access requirements where mechanical equipment is located in attics. |
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SECTION R1003 MASONRY CHIMNEYS

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| R1003.9.2 | Spark arrestors. All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrester. Where a spark arrester is installed on a masonry chimney, the spark arrester shall meet all of the following requirements:<br>The net free area of the arrester shall be not less than four times the net free area of the outlet of the chimney flue it serves.<br>The arrester screen shall have heat and corrosion resistance equivalent to 72 gage wire, 19-gage galvanized steel or 24-gage stainless steel.<br>Openings shall not permit the passage of spheres having a diameter greater than ½ inch (12.7 mm) nor block the passage of spheres having a diameter less than ¾ inch (9.5 mm)<br>4. The spark arrester shall be accessible for cleaning and the screen or chimney cap shall be removable to allow for cleaning of the chimney flue. |
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Appendix XI SWIMMING POOLS, SPAS AND HOT TUBS

General. The design and construction of pools and spas shall comply with the International Swimming Pool and Spa Code and the California Swimming Pool Safety Act-2025 CBC APPENDIX CI.

2025 CALIFORNIA WILDLAND-URBAN INTERFACE CODE

SECTION 504.2 ROOF ASSEMBLY.

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| R807.1 | Roofs shall have a roof assembly that complies with a Class A fire classification when tested in accordance with ASTM E108 or UL 790.<br>Exceptions: The following assemblies are exempt from testing and shall be considered as equivalent to the Class A fire classification:<br>1. Roof assemblies with coverings of brick, masonry or an exposed concrete roof deck.<br>2. Roof assemblies with ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile or slate installed on noncombustible decks or ferrous, copper or metal sheets installed without a roof deck on noncombustible framing.<br>3. Roof assemblies with minimum 16 oz/sq ft (0.0416 kg/m²) copper sheets installed over combustible roof decks.<br>4. Roof assemblies of slate roof covering installed over ASTM D226, Type II underlayment over combustible decks.<br>504.2.1 Roof covering voids.<br>Where there is a void under the roof covering it shall comply with Section 504.2.1.1 or 504.2.1.2.<br>504.2.1.1 Airspace under roof covering.<br>Where the roof covering is installed over a combustible deck and the roofing profile creates an airspace under the roof covering, the installation shall comply with the following:<br>A 72 lb. (32.7 kg) cap sheet complying with ASTM D3909 Standard Specification for "Asphalt Rolled Roofing (Glass Felt) Surfaced with Mineral Granules," shall be installed over the roof deck.<br>Exception: Cap sheet is not required where not less than 1 inch of mineral wool board or other noncombustible material is located between the roofing material and wood framing or deck.<br>Bird stops shall be used at the eaves where the profile fits, to prevent the entry of debris at the eave.<br>Hip and ridge caps shall be mudded in to prevent intrusion of fire or embers.<br>504.2.1.2 Roof underlayment.<br>A listed and labeled roof underlayment that has been tested as part of the roof assembly in accordance with ASTM E108 or UL 790 for Class A fire classification shall be installed in accordance with the underlayment manufacturer's installation instructions and listing. Bird stops shall be used at the eaves when the profile fits, to prevent the entry of debris at the eave. Hip and ridge caps shall be mudded in to prevent intrusion of fire or embers.<br>Exception: Where the roof sheathing is fire-retardant-treated wood labeled for exterior use and complies with Section 2030.2 of the California Building Code, the underlayment shall not be required to comply with a Class A fire classification.<br>Roof valleys.<br>Where provided, valley flashings shall be not less than 0.019 inch (0.48 mm) (No. 26 galvanized sheet gage) corrosion resistant metal installed over a minimum 36-inch-wide (914 mm) underlayment consisting of one layer of 72-pound (32.4 kg) mineral-surface, nonperforated cap sheet complying with ASTM D3909 running the full length of the valley. |
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SECTION 504.3 PROTECTION OF ENCLOSED EAVES.

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| The exposed underside of enclosed roof eaves and soffits shall be protected on the exposed underside by one or more of the following: |
| 1. Noncombustible materials.</                                                                                                        |

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## 2025 CALIFORNIA WILDLAND-URBAN INTERFACE CODE

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| 504.3.1   | Protection of open eaves.<br>The exposed roof deck on the underside of unenclosed roof eaves shall consist of one or more of the following:                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 504.7.3.3   | Exception:Wall material shall be permitted to be of any material that otherwise complies with this chapter when the decking surface material complies with the performance requirements of ASTM E84 or UL 723 with a Class B flame spread index.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|           | 1. Noncombustible material.<br>2. Ignition-resistant building material.<br>3. Fire-retardant-treated wood labeled for exterior use and complying with Section 2303.2 of the California Building Code.                                                                                                                                                                                                                                                                                                                                                                                          |             | 7. Any material that complies with the performance requirements ofSection 504.7.3.4 when tested in accordance with ASTM E2632 and any attached exterior wall covering that is noncombustible or ignition-resistant building materials.<br>Exception:Wall material shall be permitted to be of any material that otherwise complies with this chapter when the decking surface material complies with the performance requirements of ASTM E84 or UL 723 with a Class B flame spread index.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 504.3.1   | Materials approved for not less than 1-hour fire-resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL 263.                                                                                                                                                                                                                                                                                                                                                                                                                                         | 504.7.3.3.1 | Materials shall be tested in accordance with bothASTM E2632 and ASTM E2726 and comply with the conditions of acceptance in Sections 504.7.3.3.1 and 504.7.3.3.2. The material shall also be tested in accordance with ASTM E84 or UL 723 and comply with the performance requirements ofSection 503.2.4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|           | 5. One layer of /-inch (1.6 mm) Type X gypsum sheathing applied behind an exterior covering on the underside of the roof deck.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             | Conditions of acceptance for ASTM E2632.<br>The ASTM E2632 test shall be conducted on a minimum of three test specimens and meet the conditions of acceptance in Items 1 through 3. If any one of the three tests does not meet the conditions of acceptance, three additional tests shall be performed. All three additional tests must meet the conditions of acceptance.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 504.3.1   | The exterior portion of a 1-hour fire-resistance-rated exterior assembly, as tested in accordance with ASTM E119 or UL 263, applied to the underside of the roof deck designed for exterior fire exposure, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.                                                                                                                                                                                                                                                  | 504.7.3.3.2 | Conditions of acceptance for ASTM E2726.<br>The ASTM E2726 test shall be conducted, using a "Class A" size roof test brand, on a minimum of three test specimens and meet the conditions of acceptance in Items 1 and 2. If any one of the three tests does not meet the conditions of acceptance, three additional tests shall be performed. All three additional tests must meet the conditions of acceptance.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|           | Facios, If provided, shall be of fire-retardant-treated wood labeled for exterior use and complying with Section 2303.2 of the California Building Code, ignition-resistant building materials, materials approved for not less than 1-hour fire-resistance-rated construction or 2-inch (51 mm) nominal dimension lumber.                                                                                                                                                                                                                                                                     |             | 1. Absence of sustained flaming or glowing combustion of any kind at the conclusion of the 40-minute observation period.<br>2. Absence of falling particles that are still burning when reaching the burner or floor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 504.3.1   | SECTION 504.4 GUTTERS AND DOWNSPOUTS.<br>Gutters and downspouts shall be constructed of noncombustible material. Gutters shall be provided with an approved means to prevent the accumulation of leaves and debris in the gutter.                                                                                                                                                                                                                                                                                                                                                              | 504.7.3.4   | Conditions of acceptance for Section 504.7.3.4.<br>The ASTM E2632 test shall be conducted on a minimum of three test specimens and the peak heat release rate shall be less than or equal to 25 kW/ft (269 kW/m ). If any one of the three tests does not meet the condition of acceptance, three additional tests shall be performed. All three additional tests must show a peak heat release rate shall be 25 kW/H (269 kW/m ) or less.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|           | SECTION 504.5 EXTERIOR WALLS.<br>Exterior walls of buildings or structures shall be constructed with one or more of the following methods, unless they are covered with an exterior wall covering complying with Sections 504.5.2 and 504.5.2.1:                                                                                                                                                                                                                                                                                                                                               | 504.7.3.4.1 | SECTION 504.9 EXTERIOR GLAZING.<br>Exterior windows, window walls and glazed doors, windows within exterior doors, and skylights shall beconstructed of any of the following:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 504.3.1   | 1. 1-hour fire-resistance-rated construction on the exterior side.<br>2. Noncombustible materials.<br>3. Heavy timber. Assembly of sawn lumber or glue-laminated wood with the smallest minimum nominal dimension of 4 inches (102 mm). Sawn or glue-laminated planks spliced, tongue-and-groove or set close together and well spiked.<br>4. Log wall construction.<br>5. Wall assemblies that have been tested in accordance with the test procedures for a 10-minute direct flame contact exposure test set forth in ASTM E2707 with the conditions of acceptance shown in Section 504.9.3. |             | 1. Multilayered glazed panels with at least one pane of tempered glass complying with Section 2406 of the California Building Code.<br>2. Glass block.<br>3. Glazing with a fire-protection rating of not less than 20 minuteswhen tested according to NFPA 257 or UL 9, and shall be exempt from the hose stream test.<br>4. Glazing meeting the performance requirements ofSFM Standard 12-7A-2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 504.3.1   | 7. Wall assemblies suitable for exterior fire exposure with ASTM E119 or UL 263.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 504.8.1     | Structural glass veneer.<br>The wall assembly behind structural glass veneer shall comply withSection 504.5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|           | 8. Fire-retardant-treated wood labeled for exterior use andcomplying with Section 2303.2 of the California Building Code.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 504.8.2     | Operable skylights.<br>Operable skylights shall be protected by a noncombustible mesh screen and the dimensions of the openings in the screen shall not exceed /-inch (3.2 mm).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 504.5.1   | Such material shall extend from the top of the foundation to the underside of the roof sheathing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 504.8.2     | SECTION 504.9 EXTERIOR DOORS.<br>Exterior doors shall be constructed in accordance with any of the following:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|           | Flashing<br>A minimum of 6 inches (152 mm) of metal flashing or noncombustible material applied vertically on the exterior of the wall shall be installed at the ground, decking and roof intersections.                                                                                                                                                                                                                                                                                                                                                                                       |             | 1. Noncombustible construction.<br>2. Solid-core wood not less than 1 / inches thick (44 mm).<br>3. The exterior door shall be constructed of solid core wood that complies with the following requirements:<br>3.1 Slides and rails shall not be less than 1 3/8 inches (35 mm) thick.<br>3.2 Raised panels shall not be less than 11/4 inches (32 mm) thick, except for the exterior perimeter of the raised panel that shall be permitted to taper to a tongue not less than 3/8 inch (10 mm) thick.<br>4. Have a fire protection rating of not less than 20 minuteswhen tested according to NFPA 252, UL 108 or UL 10C.<br>5. The exterior surface or cladding meeting the performance requirements ofSection 504.9.3 when tested in accordance with ASTM E2707.<br>6. The exterior surface or cladding shall be tested to meet the performance requirements ofSFM Standard 12-7A-1.                                                                                                                                                                                                                        |
| 504.5.2   | Exterior wall coverings.<br>Exterior wall coverings shall comply with one or more of the following requirements:                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 504.9.1     | Windows within doors and glazed doors shall be in accordance with Section 504.8.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|           | 1. Noncombustible material.<br>2. Ignition-resistant building material labeled for exterior use.<br>3. Fire-retardant-treated wood labeled for exterior use and complying with the requirements of Section 2303.2 of the California Building Code.                                                                                                                                                                                                                                                                                                                                             | 504.9.2     | Garage doors.<br>Automatic garage door openers for vehicle doors serving a residential building shall be equipped with a battery backup function.<br>Garage door perimeter gaps.<br>Exterior garage doors shall resist the intrusion of embers by preventing gaps between doors and door openings, at the bottom, sides and tops of doors, from exceeding 1/8 inch (3.2 mm). Gaps between doors and door openings shall be controlled by one or more of the following methods:<br>1. Weather-stripping products constructed of materials that which comply with both of the following:<br>1.1. The tensile strength of the material shall be tested in accordance withASTM D438 before and after exposure to not less than 10 hours at a period of 2,000 hours, and the maximum allowable difference in tensile strength values between exposed and nonexposed samples shall not exceed 10 percent.<br>1.2. When tested to UL 94, the materials shall have a flammability rating of V-2 or better.<br>2. Door overlaps onto jambs and headers.<br>3. Garage door jambs and headers covered with metal flashing. |
| 504.5.2.1 | Extent of exterior wall covering.<br>Where provided, exterior wall coverings shall extend from the top of the foundation to the roof, and terminate at 2-inch (50.8 mm) nominal solid wood blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure.                                                                                                                                                                                                                                                                                       | 504.9.3     | Conditions of acceptance for ASTM E2707.<br>The ASTM E2707 test shall be conducted on a minimum of three test specimens and meet the conditions of acceptance in Items 1 and 2. If any one of the three tests do not meet the conditions of acceptance, three additional tests shall be performed. All three additional tests must meet the conditions of acceptance.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|           | SECTION 504.6 UNDERFLOOR ENCLOSURE.<br>Buildings or structures shall have underfloor areas enclosed to the ground with exterior walls in accordance with Section 504.5.                                                                                                                                                                                                                                                                                                                                                                                                                        | 504.9.3     | 1. Absence of flame penetration through the wall assembly at any time.<br>2. Absence of evidence of glowing combustion on the interior surface of the assembly at the end of the 70-minute test.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 504.5.2.1 | Exception: Complete enclosure shall not be required where the underside of exposed floors and exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction or fire-retardant-treated wood. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the California Building Code.                                                                                                                                              | 504.10      | SECTION 504.10 VENTS.<br>Where provided, ventilation openings for enclosed attics, gable ends, ridge ends, under eaves and cornices, enclosed eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, underfloor ventilation, foundations and crawl spaces, or any other opening intended to permit ventilation, either in a horizontal or vertical surface, shall be in accordance with Section 504.10.1 or Section 504.10.2 to resist building ignition from the intrusion of burning embers and flame through the ventilation openings.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|           | SECTION 504.7 PROJECTIONS.<br>Unenclosed accessory structures attached to buildings with habitable spaces and projections, other than decks, shall be heavy timber construction or constructed of one of the following:                                                                                                                                                                                                                                                                                                                                                                        | 504.10.1    | Performance requirements.<br>Ventilation openings shall be fully covered withWildfire Flame and Ember Resistant vents approved and listed by the California State Fire Marshal, or WUJ vents, tested in accordance with ASTM E2886, to demonstrate compliance with all of the following requirements:<br>1. There shall be no flaming ignition of the cotton material during the Ember Intrusion Test.<br>2. There shall be no flaming ignition during the Integrity Test portion of the Flame Intrusion Test.<br>3. The maximum temperature of the unexposed side of the vent shall not exceed 622°F (350°C).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 504.7.1   | 1. Noncombustible materials.<br>2. Fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the California Building Code.                                                                                                                                                                                                                                                                                                                                                                                                                     | 504.10.2    | Off ridge and ridge vents.<br>Vents that are installed on a sloped roof, such as dormer vents, shall comply with all of the following:<br>1. Vents shall be covered with a mesh where the dimensions of the mesh therein shall be a minimum of/ inch(1.6 mm) and shall not exceed / inch (3.2 mm) in diameter.<br>2. The vent and mesh material shall be noncombustible.<br>3. The vent and mesh material shall be corrosion resistant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|           | 3. Ignition-resistant building materials in accordance with Section 503.2.<br>4. Materials approved for not less than 1-hour fire-resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL 263.                                                                                                                                                                                                                                                                                                                                                        | 504.10.3    | Vent locations.<br>Gable-end and dormer vents shall be located not less than 10 feet (3048 mm) from lot lines. Underfloor ventilation openings shall be located as close to grade as practical.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 504.7.1   | 5. One layer of 5/8 -inch (15.9 mm) Type X gypsum sheathing applied behind the exterior covering on the underside of the ceiling.                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 504.11      | SECTION 504.11 ACCESSORY BUILDINGS AND MISCELLANEOUS STRUCTURES.<br>Accessory buildings and miscellaneous structures that have the potential to pose a significant exterior fire exposure hazard during wildfires shall be constructed to conform to the ignition-resistance requirements of this section.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|           | 6. The exterior portion of a 1-hour fire-resistance-rated exterior assembly, as tested in accordance withASTM E119 or UL 263, applied to the underside of the ceiling assembly, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.                                                                                                                                                                                                                                                                             | 504.11.1    | Applicability.<br>Sections 504.11.2 through 504.11.6 apply to buildings accessory to an applicable building on the same lot, and attached or detached miscellaneous structures that require a building permit, including but not limited to trellises, arbors, patio covers, gazebos and similar structures.<br>Exception:<br>1. Decks shall comply with the requirements ofSection 504.7.3.<br>2. Awnings and canopies shall comply with the requirements of Section 3105 of the California Building Code.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 504.7.2   | The underside of a floor projection assembly that meets the performance criteria inSection 504.7.2 when tested in accordance with the test procedures set forth in ASTM E2957.                                                                                                                                                                                                                                                                                                                                                                                                                 | 504.11.2    | Miscellaneous structures and accessory buildings within 3 feet.<br>Miscellaneous structures that require a permit, and accessory buildings of any size, when separated from an applicable building on the same lot by a distance of less than 3 feet (914 mm), shall be constructed of noncombustible materials or ignition-resistant building materials as described in Section 503.2.4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|           | 8. The underside of a floor assembly that meets the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.                                                                                                                                                                                                                                                                                                                                                                                                                                             | 504.11.3    | Accessory buildings greater than 120 square feet, located 3 feet or more but less than 50 feet.<br>Accessory buildings that are greater than 120 square feet (11.15 m ) in size and separated from an applicable building on the same lot by a distance of 3 feet (914 mm) or more but less than 50 feet (15 240 mm) shall be constructed of noncombustible materials or of ignition-resistant building materials as described in Section 503.2.4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 504.7.2   | Exception: Structural columns and beams are not required to be protected in accordance with Section 504.7.1 when constructed with sawn lumber or glue-laminated wood with the smallest minimum nominal dimension of 4 inches (102 mm). Sawn or glue-laminated planks shall be spliced, tongue-and-groove, or set close together and well spiked.                                                                                                                                                                                                                                               | 504.11.4    | Accessory buildings 120 square feet or less, located 3 feet or more but less than 50 feet.<br>Where required by the code official, accessory buildings 120 square feet (11.15 m ) or less and separated from an applicable building on the same lot by a distance of 3 feet (914 mm) or more but less than 50 feet (15 240 mm) shall be constructed of noncombustible materials or of ignition-resistant building materials as described in Section 503.2.4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|           | Conditions of acceptance for ASTM E2957.<br>The ASTM E2957 test shall be conducted on a minimum of three test specimens and meet the conditions of acceptance in Items 1 through 3. If any one of the three tests does not meet the conditions of acceptance, three additional tests shall be performed. All three additional tests must meet the conditions of acceptance.                                                                                                                                                                                                                    | 504.11.5    | Miscellaneous structures located 3 feet or more but less than 50 feet.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 504.7.3   | 1. Absence of flame penetration of the eaves or horizontal projection assembly at any time.<br>2. Absence of structural failure of the eaves or horizontal projection subassembly at any time.<br>3. Absence of sustained combustion of any kind at the conclusion of the 40-minute test.                                                                                                                                                                                                                                                                                                      | 504.11.5    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|           | Decks.<br>The walking surface material of decks, porches, balconies and stairs shall comply with the requirements of Sections 504.7.3.1 through 504.7.3.4.                                                                                                                                                                                                                                                                                                                                                                                                                                     | 504.11.5    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 504.7.3.1 | Flashing.<br>A minimum of 6 -inch (150 mm) metal flashing, applied vertically on the exterior of the wall, shall be installed at all deck-to-wall intersections.                                                                                                                                                                                                                                                                                                                                                                                                                               | 504.11.5    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|           | Decking surfaces.<br>The walking surface material of decks, porches, balconies and stairs shall be constructed with any of the following materials:                                                                                                                                                                                                                                                                                                                                                                                                                                            | 504.11.5    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 504.7.3.2 | 1. Material that complies with the performance requirements ofSection 504.7.3.3 when tested in accordance with ASTM E2632 and ASTM E2726.                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 504.11.5    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|           | 2. Ignition-resistant building material that complies with the performance requirements ofSection 503.2.4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 504.11.5    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 504.7.3.2 | 3. Material that complies with the performance requirements of bothSFM Standard 12-7A-4 and Section 503.2.4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 504.11.5    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|           | 4. Fire-retardant-treated wood labeled for exterior use and complying with Section 2303.2 of theCalifornia Building Code.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 504.11.5    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 504.7.3.2 | 5. Noncombustible material.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 504.11.5    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|           | 6. Any material that complies with the performance requirements ofSFM Standard 12-7A-4A and any attached exterior wall covering that is noncombustible or ignition-resistant building materials.                                                                                                                                                                                                                                                                                                                                                                                               | 504.11.5    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

504.11.6

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| 504.11.6 | Roof construction.<br>Roof assemblies and roof coverings of accessory buildings required to be constructed entirely of noncombustible materials or of ignition-resistant building materials shall comply with Sections 504.2 and 504.2.1. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions. Roof assemblies in Fire Hazard Severity Zones shall comply with a Class A fire classification when tested in accordance with ASTM E108 or UL 790.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 504.11.6 | Where required by the code official, miscellaneous structures that require a permit and are separated from an applicable building on the same lot by a distance of 3 feet (914 mm) or more but less than 50 feet (15 240 mm) shall be constructed of noncombustible materials or of ignition-resistant building materials as described in Section 503.2.4. |
|          | Roof construction.<br>Roof assemblies and roof coverings of accessory buildings required to be constructed entirely of noncombustible materials or of ignition-resistant building materials shall comply with Sections 504.2 and 504.2.1. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions. Roof assemblies in Fire Hazard Severity Zones shall comply with a Class A fire classification when tested in accordance with ASTM E108 or UL 790.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |          |                                                                                                                                                                                                                                                                                                                                                            |
| 504.11.6 | SECTION 101 GENERAL.<br>Scope. The provisions of this code shall apply to the planning, design, operation, construction, use and occupancy of every newly constructed building or structure, unless otherwise indicated in this code, throughout the State of California.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
|          | SECTION 102 CONSTRUCTION DOCUMENTS AND INSTALLATION VERIFICATION.<br>102.1 Submittal documents. Construction documents and other data shall be submitted in one or more sets with each application for a permit. Where special conditions exist, the enforcing agency is authorized to require additional construction documents to be prepared by a licensed design professional and may be submitted separately.<br>Exception: The enforcing agency is authorized to waive the submission of construction documents and other data not required to be prepared by a licensed design professional.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |                                                                                                                                                                                                                                                                                                                                                            |
| 504.11.6 | SECTION 301 GENERAL.<br>301.1 Scope. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
|          | 301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or alteration.<br>Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to the issuance of a certificate of final completion, certificate of occupancy or final permit approval by the local building department. See Civil Code Section 11101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.                                                                                                                           |          |                                                                                                                                                                                                                                                                                                                                                            |
| 504.11.6 | SECTION 4.106 SITE DEVELOPMENT.<br>4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1 and 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the California Electrical Code, Article 625.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
|          | 4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages. For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than 1/2-inch (12.7 mm) nominal 1-inch inside diameter. The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.<br>Identification. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE". |          |                                                                                                                                                                                                                                                                                                                                                            |
| 504.11.6 | SECTION 4.303 INDOOR WATER USE.<br>4.303.1 Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
|          | 4.303.1.1 Water closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-type Toilets.<br>Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
| 504.11.6 | 4.303.1.2 Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
|          | 4.303.1.3 Showerheads.<br>4.303.1.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 2.0 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.<br>4.303.1.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 2.0 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.<br>Note: A hand-held shower shall be considered a showerhead.                                                                                                                                                                                                                                                                                                                                                                    | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
| 504.11.6 | 4.303.1.4 Faucets.<br>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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
|          | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
| 504.11.6 | 4.303.1.4.3 Metering faucets. Metering faucets when installed in residential buildings shall not deliver more than 0.25 gallons per cycle.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
|          | 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.<br>Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
| 504.11.6 | 4.303.2 Standards for plumbing fixtures and fittings. Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1701.1 of the California Plumbing Code.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
|          | SECTION 4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE.<br>4.406.1 Rodent proofing. Annular spaces around pipes, electric cables, conduits or other openings in sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
| 504.11.6 | SECTION 4.503 FIREPLACES.<br>4.503.1 General. Any installed gas fireplace shall be a direct vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
|          | SECTION 4.504 POLLUTANT CONTROL.<br>4.504.1 Covering of duct openings and protection of mechanical equipment during construction. At the time of rough installation, during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of water, dust and debris, which may enter the system.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
| 504.11.6 | SECTION 4.505 INTERIOR MOISTURE CONTROL.<br>4.505.2 Concrete slab foundations. Concrete slab foundations required to have a vapor retarder by the California Building Code, Chapter 19 or concrete slab-on-ground floors required to have a vapor retarder by the California Building Code, Chapter 5, shall also comply with this section.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
|          | 4.505.2.1 Capillary break. A capillary break shall be installed in compliance with at least one of the following:<br>1. A 4-inch-thick (101.6 mm) base of V-joint (12.7 mm) or larger clean aggregate shall be provided with a vapor retarder in direct contact with concrete and a concrete mix design, which will address bleeding, shrinkage, and curing, shall be used. For additional information, see American Concrete Institute, ACI 302.2R-06.<br>2. Other equivalent methods approved by the enforcing agency.<br>3. A slab design specified by a licensed design professional.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
| 504.11.6 | 4.505.3 Moisture content of building materials. Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19-percent moisture content. Moisture content shall be verified in compliance with the following:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |
|          | 1. Moisture content shall be determined with either a probe-type or contact-type moisture meter. Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements found in Section 101.8 of this code.<br>2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end of each piece to be verified.<br>3. At least three random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 504.11.6 |                                                                                                                                                                                                                                                                                                                                                            |

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

SECTION 4.506 INTERIOR AIR QUALITY AND EXHAUST.

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.

2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control.

a. Humidity controls shall be capable of adjustment between a relative humidity range of less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of adjustment.

b. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e. built-in).

Notes:

1. For the purposes of this section, a bathroom is a room which contains a bathtub, shower, or tub/shower combination.

2. Lighting integral to bathroom exhaust fans shall comply with the California Energy Code.

SECTION 4.507 ENVIRONMENTAL COMFORT.

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.

2. Duct systems are sized according to ANSI/ACCA 1 Manual D—2014 (Residential Duct Systems), ASHRAE handbooks or other equivalent design software or methods.

3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S—2014 (Residential Equipment Selection) or other equivalent design software or methods.

Exception: Use of alternate design temperatures necessary to ensure the systems function are acceptable.

SECTION 205 Building Energy Efficiency Standards

Section 150.0 – Mandatory Features and Devices

(k) Residential lighting.

1. Luminaire requirements.

A. Luminaire efficacy. All installed luminaires and light sources shall comply with Reference Joint Appendix JA8 and shall be certified and marked as required by JA8.

Exception 1 to Section 150.0(k)1A: Integrated device lighting. Lighting integral to exhaust fans, kitchen range hoods, bath vanity mirrors, garage door openers, and ceiling fan kits that are subject to DOE's Appliance and Equipment Standards Program.

Exception 2 to Section 150.0(k)1A: Navigation lighting rated less than 5 watts, such as night lights, step lights, and path lights.

Exception 3 to Section 150.0(k)1A: Lighting with an efficacy of 45 lumens per watt or greater and located internal to drawers, cabinetry, or linen closets.

Exception 4 to Section 150.0(k)1A: Light sources as follows:

i. LED light sources installed outdoors;

ii. Inseparable solid state lighting (SSL) luminaires containing colored light sources that are installed to provide decorative lighting;

iii. High-intensity discharge (HID) light sources, including pulse start metal halide and high-pressure sodium light sources; and

iv. Luminaires with hardwired high-frequency generator and induction lamp.

B. Reserved.

C. Recessed downlight luminaires in ceilings. Luminaires recessed into ceilings shall meet all of the following requirements:

i. Shall not contain screw base lamp sockets; and

ii. Have a label that certifies the luminaire is airtight with air leakage less than 2.0 cfm at 75 Pascals when tested in accordance with ASTM E283. An exhaust fan housing with integral light shall not be required to be certified airtight; and

iii.Be sealed with a gasket or caulk between the luminaire housing and ceiling, and have all air leak paths between conditioned and unconditioned spaces sealed with a gasket or caulk, or be installed per manufacturer's instructions to maintain airtightness between the luminaire housing and ceiling; and

iv.Meet the clearance and installation requirements of California Electrical Code Article 410.116 for recessed luminaires.

Exception to Sections 150.0(k)1Cii and iii: Recessed luminaires marked for use in fire-rated installations extruded into ceiling space and recessed luminaires installed in noninsulated ceilings.

D. Light sources in enclosed or recessed luminaires. Lamps and other separable light sources in enclosed or recessedluminaires shall be in compliance with the JA8 elevated temperature requirements in Section 150.0(k)2F: Ceiling fans may provide control of integrated lighting via a remote control.

Exception to Section 150.0(k)2A: Ceiling fans may provide control of integrated lighting via remote control.

E. Blank electrical boxes. The number of electrical boxes that are more than 5 feet above the finished floor and do not contain a luminaire or other device shall be no greater than the number of bedrooms. These electrical boxes shall be served by a dimmer, vacancy sensor control, low voltage wiring or fan speed control.

2. Indoor lighting controls.

A. Lighting shall have readily accessible wall-mounted controls that allow the lighting to be manually turned ON and OFF.

Exception to Section 150.0(k)2A: Ceiling fans may provide control of integrated lighting via remote control.

B. Reserved.

C. All lighting controls. Lighting controls shall comply with the applicable requirements of Section 110.9.

D. Controls permitted. An energy management control system (EMCS) or a multiscene programmable control may be used to comply with dimming, occupancy and lighting control requirements in Section 150.0(k)2 if it provides the functionality of the specified controls in accordance with Section 110.9. The physical controls specified in Section 150.0(k)2A, No controls shall bypass control functions of a dimmer, occupancy sensor, or vacancy sensor where the dimmer or sensor has been installed to comply with Section 150.0(k)2.

E. Automatic-off controls.

i.In bathrooms, garages, laundry rooms, utility rooms and walk-in closets, at least one installed luminaire shall be controlled by an occupancy or vacancy sensor providing automatic-off functionality.

ii.For lighting internal to drawers and cabinetry with opaque fronts or doors, controls that turn the light off when the drawer or door is closed shall be provided.

F. Dimming controls. Lighting in habitable spaces, including living rooms, dining rooms, kitchens, and bedrooms, shall have readily accessible wall-mounted dimming controls that allow the lighting to be manually adjusted up and down. Forward phase cut dimmers controlling LED light sources in these spaces shall comply with NEMA SSL-7A.

Exception 1 to Section 150.0(k)2F: Ceiling fans may provide control of integrated lighting via a remote control. Lighting integral to kitchen range hoods and bathroom exhaust fans.

Exception 2 to Section 150.0(k)2F: Luminaires connected to a circuit with controlled lighting power less than 20 watts or controlled by an occupancy or vacancy sensor providing automatic-off functionality.

Exception 3 to Section 150.0(k)2F: Navigation lighting rated less than 5 watts, such as night lights, step lights, and path lights. Lighting controlled by automatic-off controls and located internal to drawers, cabinetry with opaque fronts, or cabinetry with doors.

G. Independent controls. Lighting integrated with the exhaust fans shall be controlled independently from the fans. The following shall be controlled separately from ceiling-installed lighting such that one can be turned on without turning on the other:

i.Undercabinet lighting.

ii.Undershelf lighting.

iii.Interior lighting of display cabinets.

iv.Switched outlets.

3. Residential outdoor lighting. In addition to meeting the requirements of Section 150.0(k)1A, luminaires providing residential outdoor lighting shall meet the following requirements, as applicable:

A. Outdoor lighting permanently mounted to a residential building or to other buildings on the same lot shall meet the following requirements:

i. Controlled by a manual ON and OFF control switch that permits the automatic actions of Item ii below; and

ii. Controlled by one of the following controls:

a. A photocell and a motion sensor; or

b. A photocell and an automatic time switch control; or

c. Controlled by an astronomical time clock control.

B. Controls that override to ON shall not be allowed unless the override automatically returns the controls may be used to meet these requirements.

C. An energy management control system (EMCS) or other controls that provides the specified lighting control functionality and complies with all requirements applicable to the specified controls may be used to meet these requirements.

4. Internally illuminated address signs. Internally illuminated address signs shall either:

A. Comply with Section 140.8; or

B. Consume no more than 5 watts of power.

5. Residential garages for eight or more vehicles. Lighting for residential parking garages for eight or more vehicles shall comply with the applicable requirements for nonresidential garages in Sections 110.9, 130.0, 130.1, 130.4, 140.6 and 141.0.

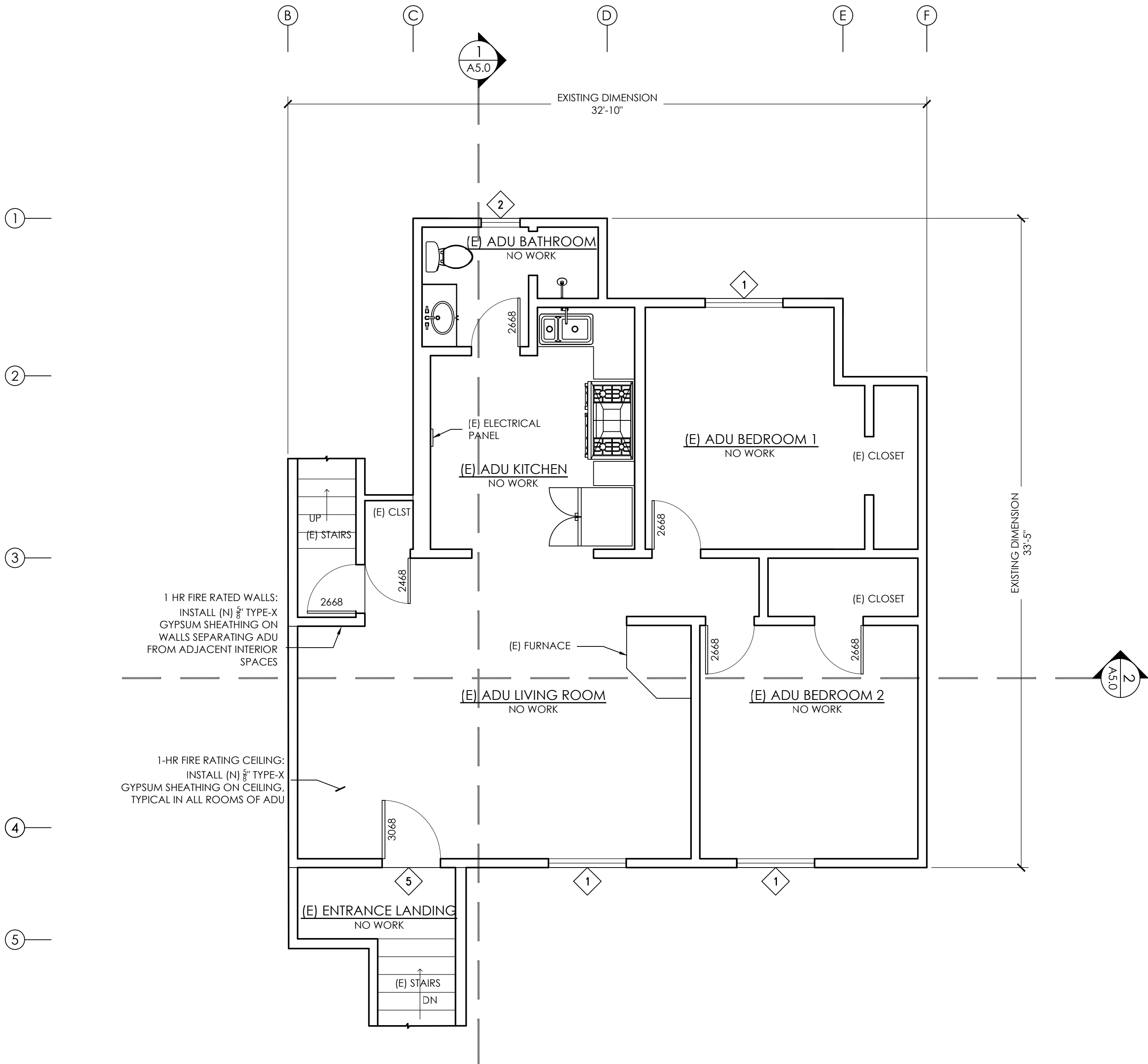
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SPACE CALCULATIONS

|                         |              |
|-------------------------|--------------|
| UNCONDITIONED           |              |
| GARAGE                  | 500 SQ. FT.  |
| BACK DECK               | 318 SQ. FT.  |
| CONDITIONED             |              |
| BASEMENT - EXISTING     | 846 SQ. FT.  |
| FIRST LEVEL - EXISTING  | 1045 SQ. FT. |
| SECOND LEVEL - EXISTING | 789 SQ. FT.  |
| THIRD LEVEL - EXISTING  | 602 SQ. FT.  |

FLOOR PLAN NOTES

- ALL INTERIOR FINISHES & TRIM ARE PER OWNER
- ALL APPLIANCES ARE PER OWNER
- ALL FIXTURES ARE PER OWNER
- ALL CABINETRY IS PER OWNER
- ALL HEARTH AND STONE WORK IS PER OWNER
- SEE WUI, CALGREEN, AND EFFICIENCY NOTES ON SHEETS A0.3.
- SEE ARCHITECTURAL NOTES ON SHEET A0.1 AND A0.2.
- SEE WINDOW SCHEDULES ON SHEETS A4.5 & A4.6



DAYLIGHT ADU FLOOR PLAN

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

stamp

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| project number     |             | 2025.090      |
| drawn by           | GK          | checked by BA |
| ISSUES & REVISIONS |             |               |
| no.                | description | date          |
| 1                  | HPAC Review | 2026.03.30    |
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project location

Interior Remodel & Window Replacement for:

Jess Hanson  
10050 S River St.  
Truckee California  
Nevada County 019-042-000

description

Daylight ADU  
Level Floor Plan



sheet

A2.1

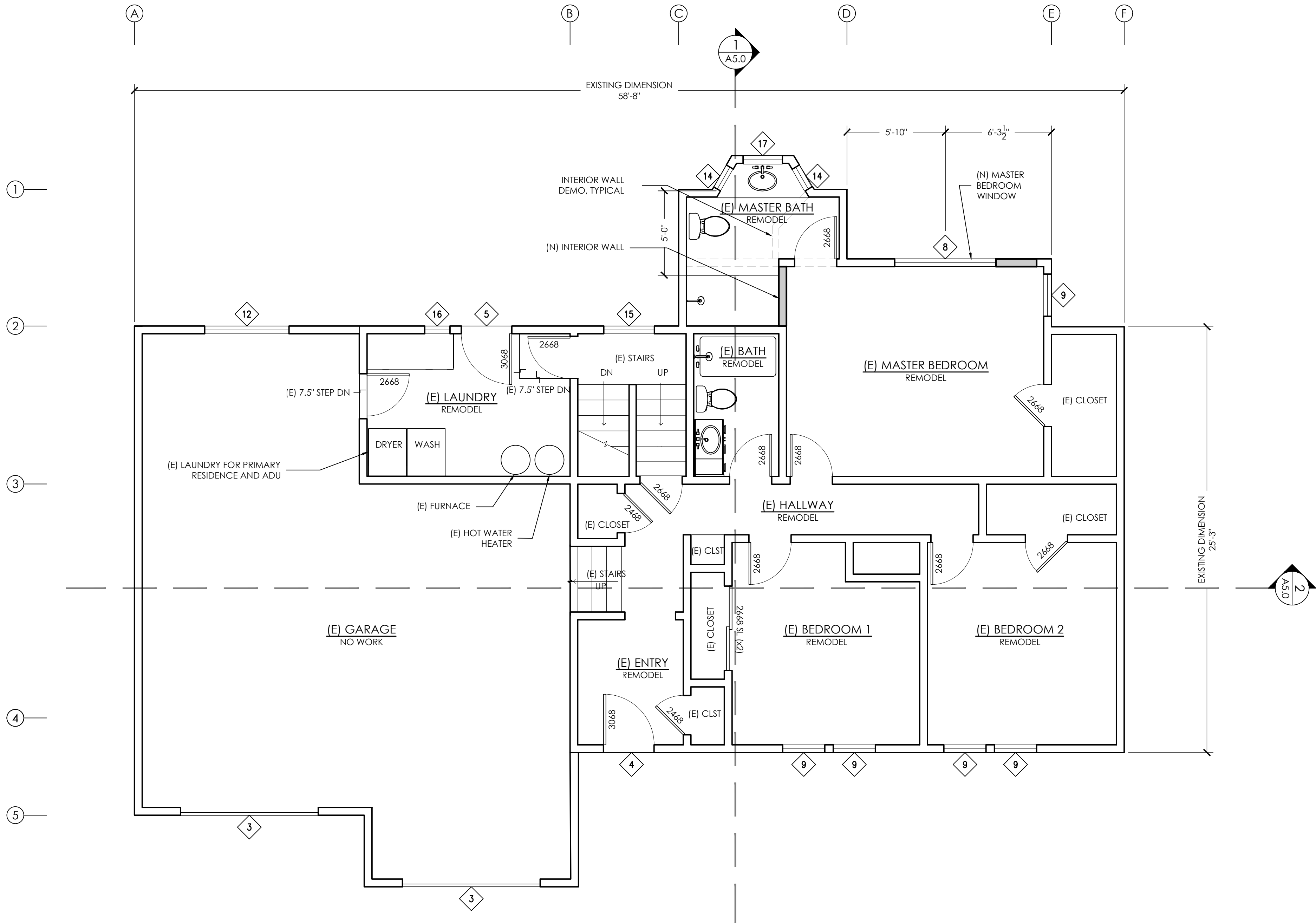
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SPACE CALCULATIONS

|                         |              |
|-------------------------|--------------|
| UNCONDITIONED           |              |
| GARAGE                  | 500 SQ. FT.  |
| BACK DECK               | 318 SQ. FT.  |
| CONDITIONED             |              |
| BASEMENT - EXISTING     | 846 SQ. FT.  |
| FIRST LEVEL - EXISTING  | 1045 SQ. FT. |
| SECOND LEVEL - EXISTING | 789 SQ. FT.  |
| THIRD LEVEL - EXISTING  | 602 SQ. FT.  |

FLOOR PLAN NOTES

- ALL INTERIOR FINISHES & TRIM ARE PER OWNER
- ALL APPLIANCES ARE PER OWNER
- ALL FIXTURES ARE PER OWNER
- ALL CABINETS ARE PER OWNER
- ALL HEARTH AND STONE WORK IS PER OWNER
- SEE WUI, CALGREEN, AND EFFICIENCY NOTES ON SHEETS A0.3.
- SEE ARCHITECTURAL NOTES ON SHEET A0.1 AND A0.2.
- SEE WINDOW SCHEDULES ON SHEETS A4.5 & A4.6



FIRST LEVEL FLOOR PLAN  
SCALE: 1/4" = 1'-0"

evolve

DESIGN WORKS

california | nevada

washington

alaska

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760 N. Lake Blvd. Suite 21

Tahoe City, CA 96145

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| project number     | 2025.090        |            |
| drawn by           | GK   checked by | BA         |
| ISSUES & REVISIONS |                 |            |
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| 1                  | HPAC Review     | 2026.03.30 |
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project location

Interior Remodel & Window Replacement for:  
**Jess Hanson**  
**10050 S River St.**  
**Truckee California**  
**Nevada County 019-042-000**

description  
**First Level Floor Plan**

sheet

A2.2

Existing Elevations Notes:

1.
- Existing Elevations are intended to provided HPAC  
A reference when reviewing the proposed window  
replacement scope of the project.
2.
- For proposed modificaitons to the windows, See Sheets A4.3 & 4.4.  
No other changes to the building exterior.



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



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

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project number2025.090

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| 1                  | HPAC Review | 2026.03.30 |
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project location

Interior Remodel & Window Replacement for:

Jess Hanson

10050 S. River St.

Truckee California

Nevada County 019-042-000

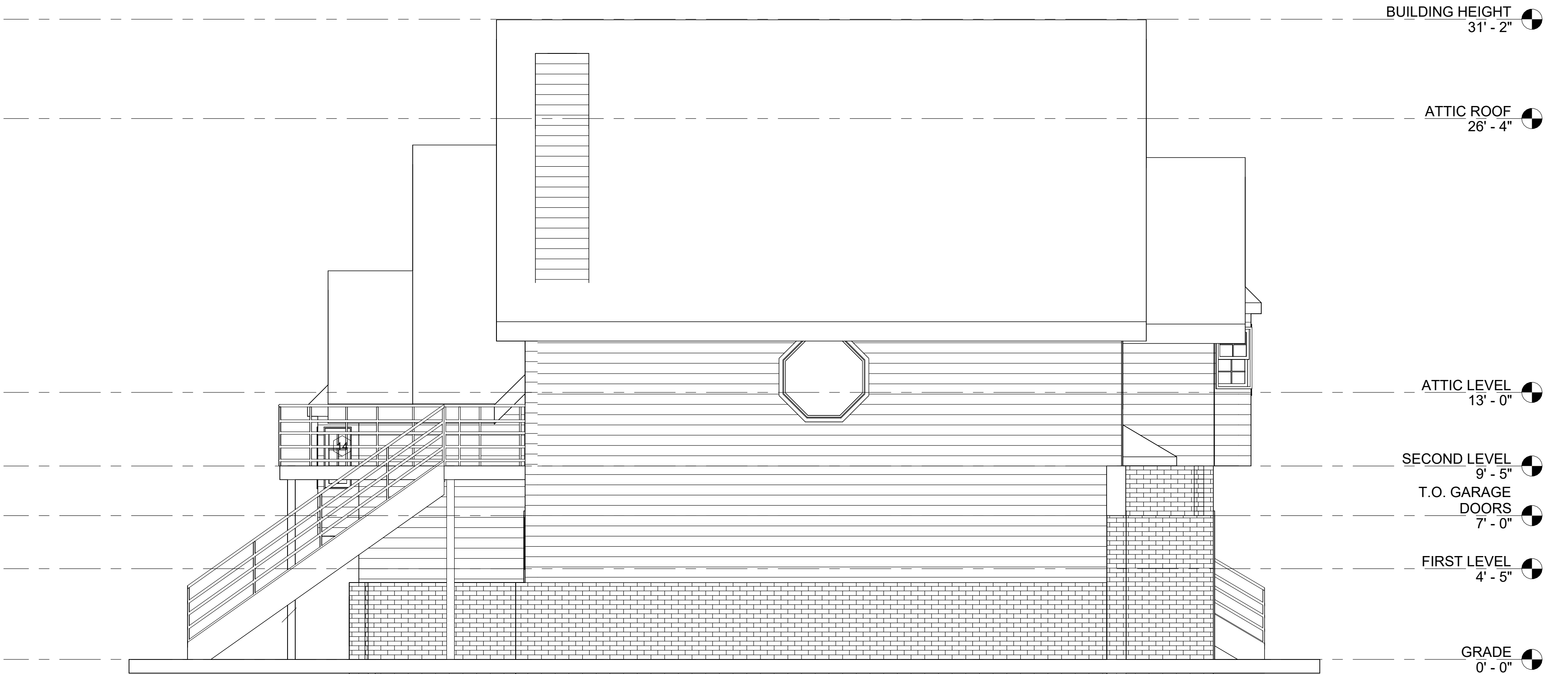
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Existing Elevations

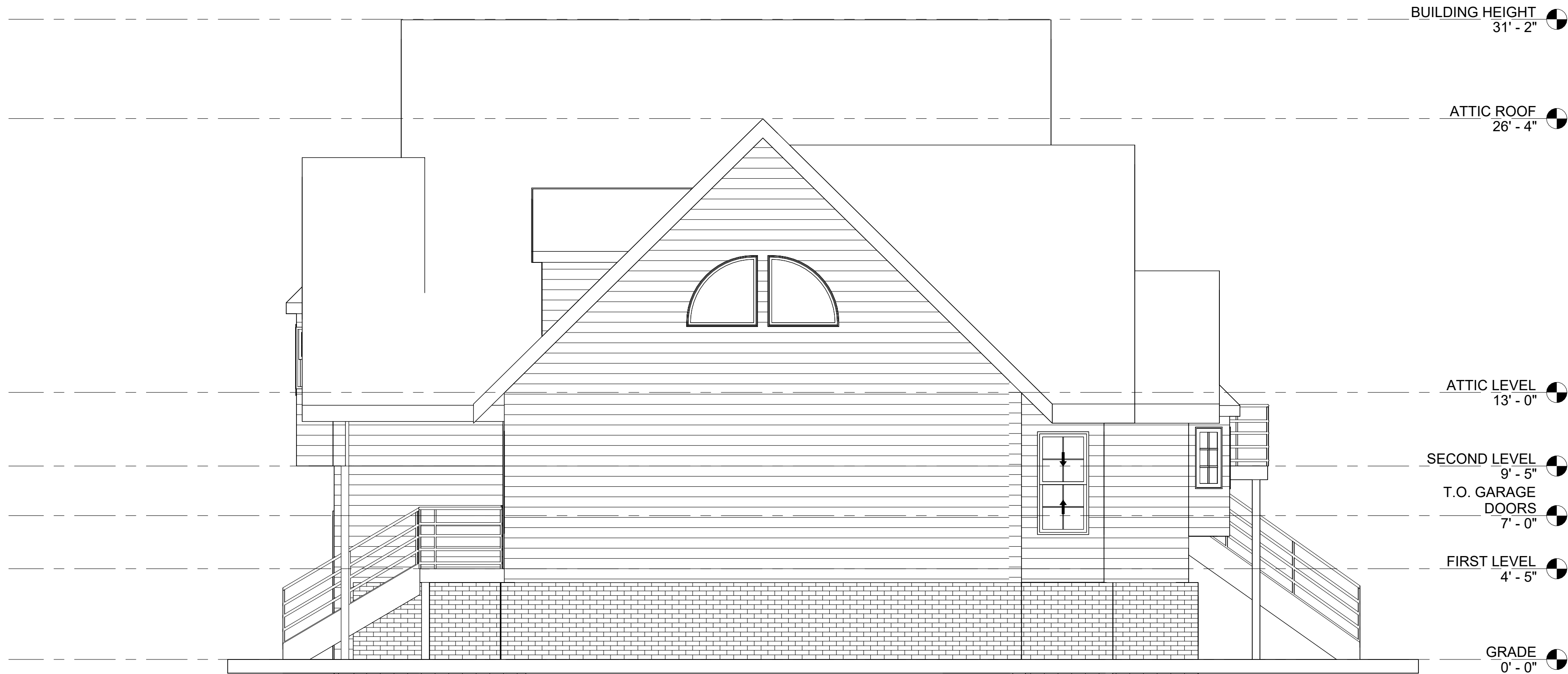
sheet

Existing Elevations Notes:

1.
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A reference when reviewing the proposed window  
replacement scope of the project.
2.
- For proposed modificaitons to the windows, See Sheets A4.3 & 4.4.  
No other changes to the building exterior.



① WEST ELEVATION  
1/4" = 1'-0"



② EAST ELEVATION  
1/4" = 1'-0"

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| ISSUES & REVISIONS |             |            |
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project location

Interior Remodel & Window Replacement for:

Jess Hanson  
10050 S. River St.  
Truckee California  
Nevada County 019-042-000

description

Existing Elevations

ADDRESS IDENTIFICATION NOTE:

1. BUILDINGS SHALL BE PROVIDED WITH APPROVED ADDRESS IDENTIFICATION. 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. CRC SECTION R308.1

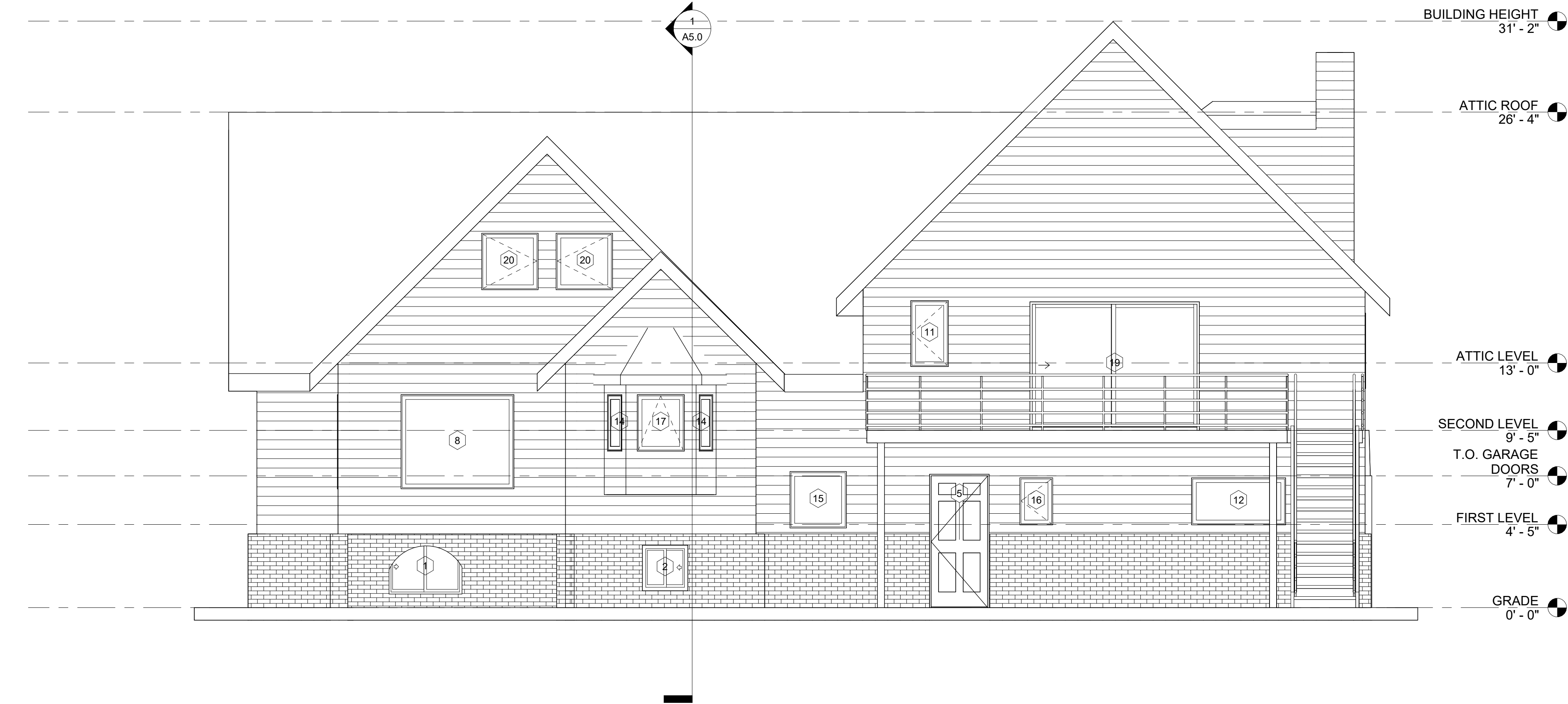
ELEVATION NOTES

REMOVE AND REPLACE (E) WINDOWS, TYPICAL UNLESS NOTED OTHERWISE ON WINDOW & DOOR SCHEDULE ON SHEETS A4.4 & A4.5.

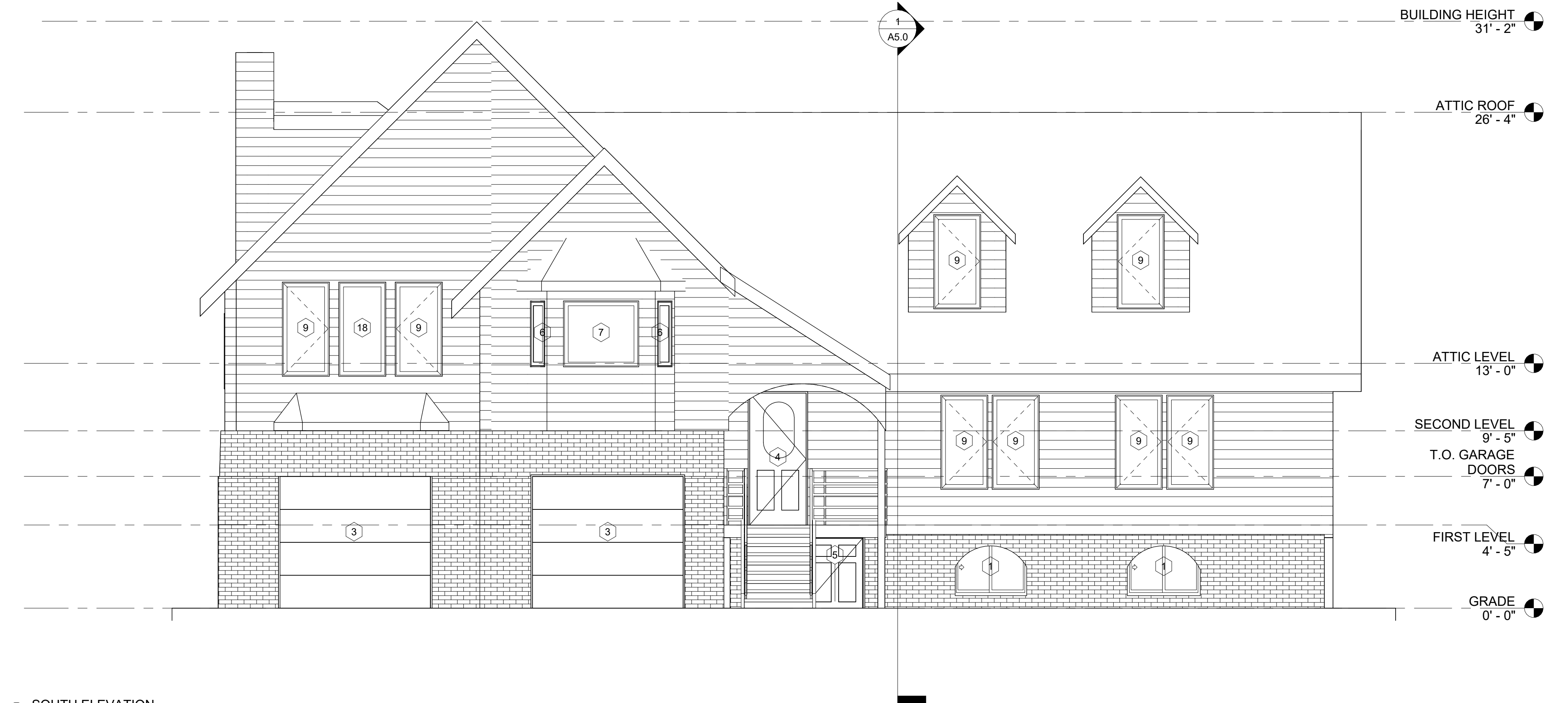
REMOVE AND REPLACE (E) SLIDING GLASS DOOR

NO WORK ON THE FOLLOWING EXTERIOR COMPONENTS:

- (E) ROOF, NO WORK, TYPICAL
- (E) BRICK SIDING, NO WORK, TYPICAL
- (E) WOOD SIDING, NO WORK, TYPICAL
- (E) DOORS, NO WORK, TYPICAL EXCEPT THE SLIDING GLASS DOOR
- (E) DECKS/LANDINGS/STAIRS, NO WORK, TYPICAL
- (E) LANDSCAPING/PAVING, NO WORK, TYPICAL
- (E) BASEMENT WINDOWS, NO WORK



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



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

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ISSUES & REVISIONS

| no. | description | date       |
|-----|-------------|------------|
| 1   | HPAC Review | 2026.03.30 |

project location

Interior Remodel & Window Replacement for:

Jess Hanson  
10050 S. River St.  
Truckee California  
Nevada County 019-042-000

description

Building Elevations  
- Proposed  
Windows

sheet

ADDRESS IDENTIFICATION NOTE:

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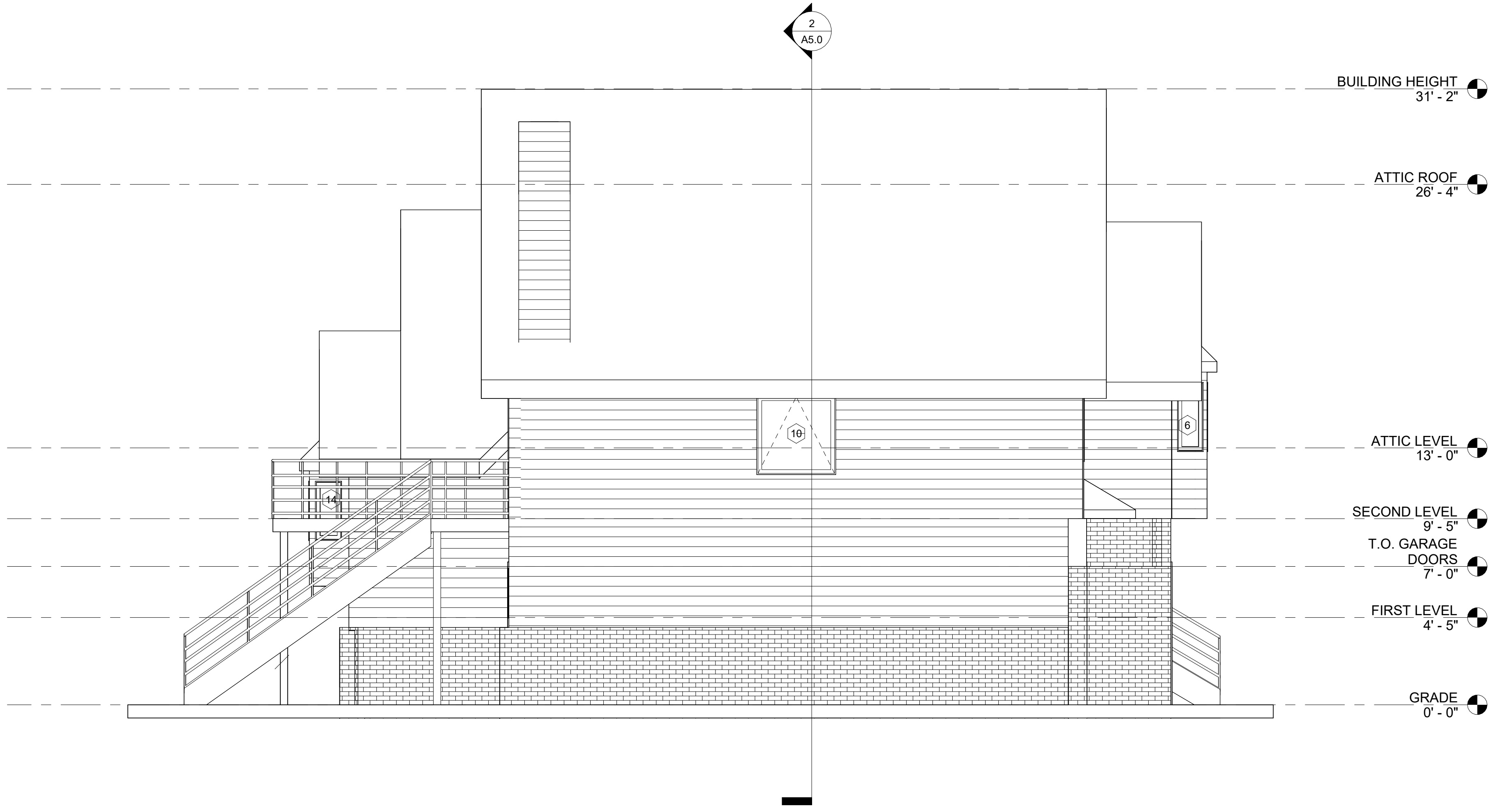
ELEVATION NOTES

REMOVE AND REPLACE (E) WINDOWS, TYPICAL UNLESS NOTED OTHERWISE ON WINDOW & DOOR SCHEDULE ON SHEETS A4.4 & A4.5.

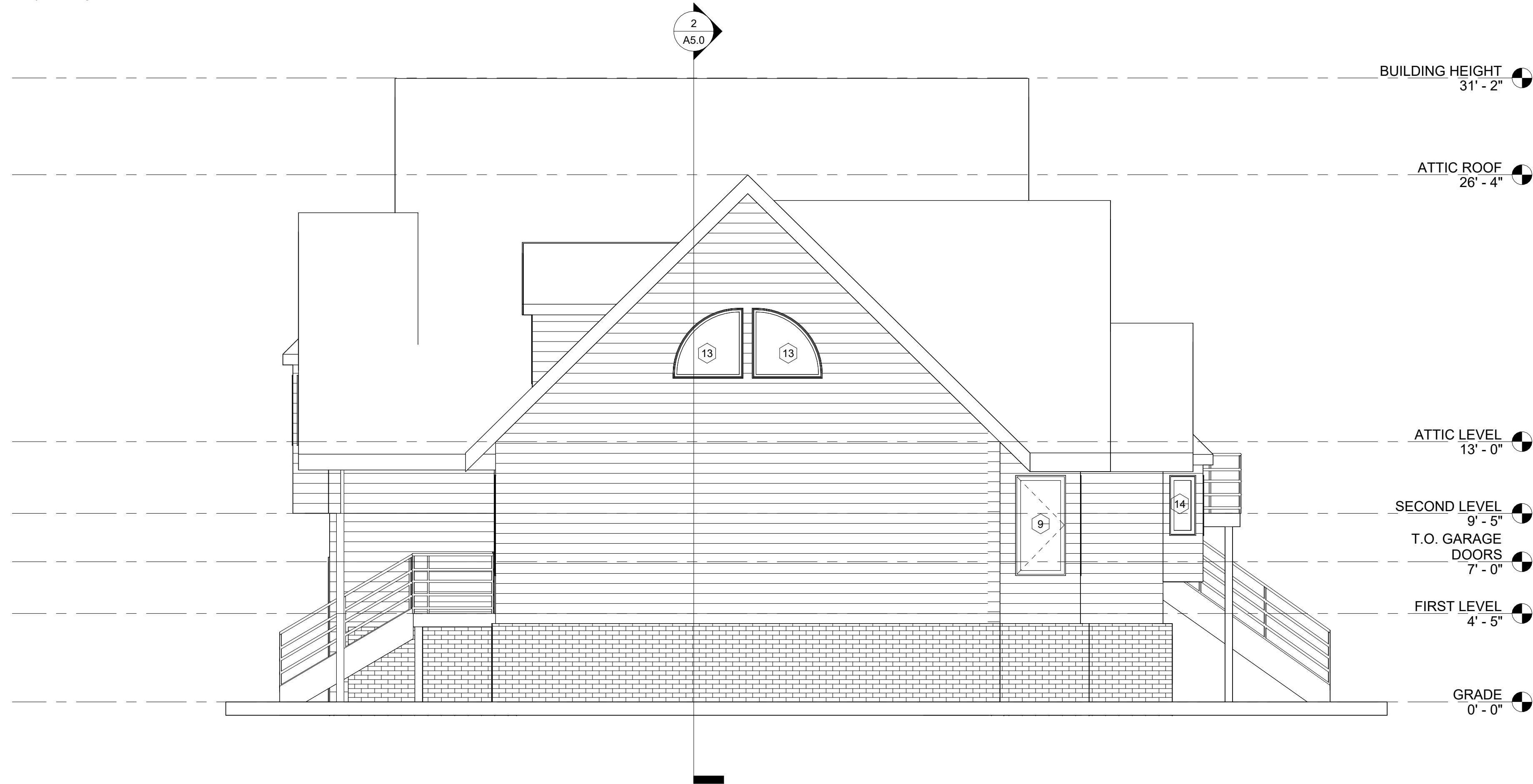
REMOVE AND REPLACE (E) SLIDING GLASS DOOR

NO WORK ON THE FOLLOWING EXTERIOR COMPONENTS:

- (E) ROOF, NO WORK, TYPICAL
- (E) BRICK SIDING, NO WORK, TYPICAL
- (E) WOOD SIDING, NO WORK, TYPICAL
- (E) DOORS, NO WORK, TYPICAL EXCEPT THE SLIDING GLASS DOOR
- (E) DECKS/LANDINGS/STAIRS, NO WORK, TYPICAL
- (E) LANDSCAPING/PAVING, NO WORK, TYPICAL
- (E) BASEMENT WINDOWS, NO WORK



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



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

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project number 2025.090  
drawn by GK checked by BA

ISSUES & REVISIONS

| no. | description | date       |
|-----|-------------|------------|
| 1   | HPAC Review | 2026.03.30 |

project location

Interior Remodel & Window Replacement for:

Jess Hanson  
10050 S. River St.  
Truckee California  
Nevada County 019-042-000

description

Building Elevations  
- Proposed  
Windows

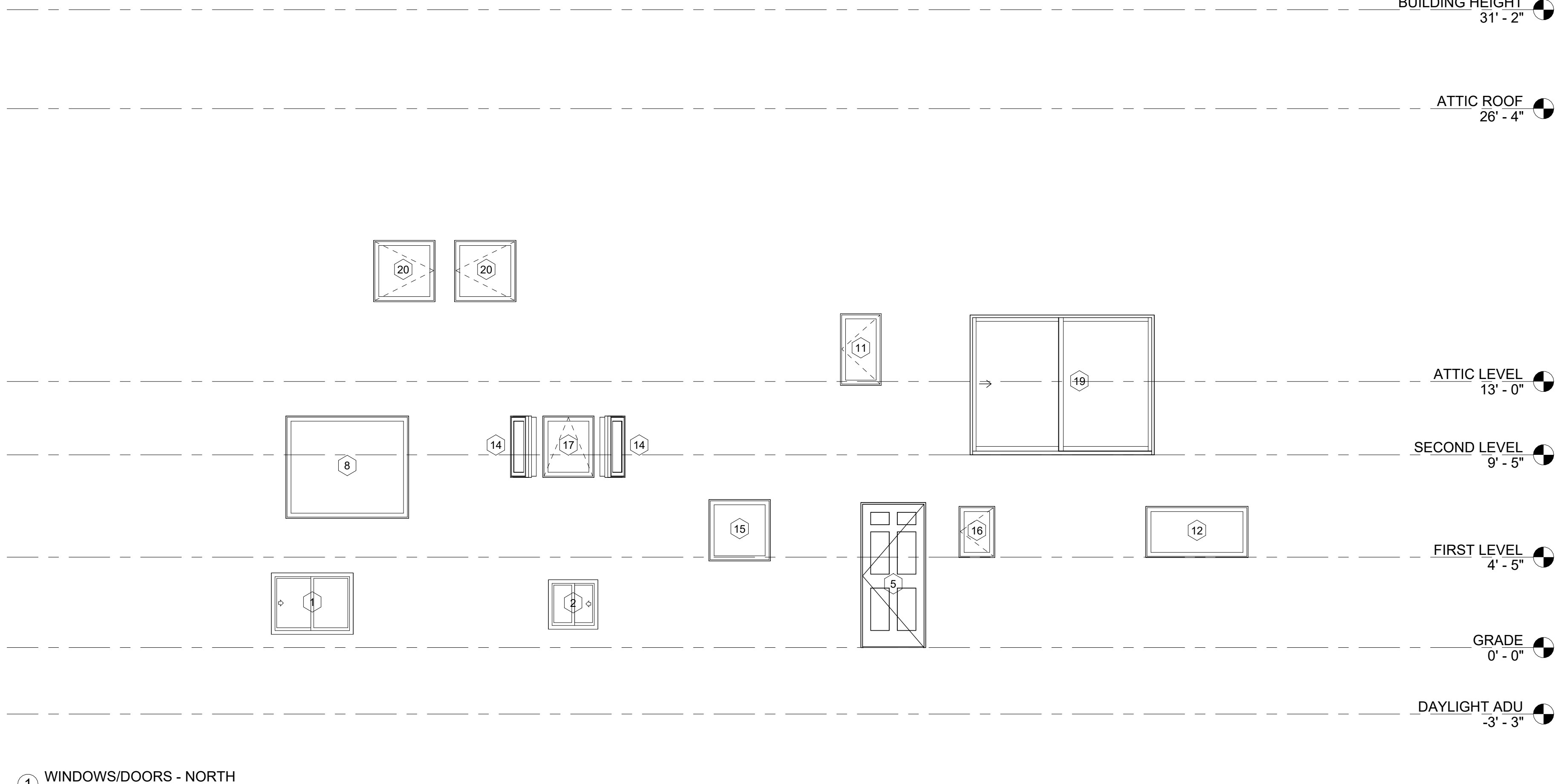
sheet

| Window Schedule |                          |              |                             |         |          |             |            |
|-----------------|--------------------------|--------------|-----------------------------|---------|----------|-------------|------------|
| ID              | Location                 | Level        | Type                        | Width   | Height   | Head Height | Treatments |
| 1               | DAYLIGHT ADU LIVING ROOM | DAYLIGHT ADU | (E) 4030 SL - Replace Glass | 4' - 0" | 3' - 0"  | 6' - 8"     |            |
| 1               | DAYLIGHT ADU BEDROOM 1   | DAYLIGHT ADU | (E) 4030 SL - Replace Glass | 4' - 0" | 3' - 0"  | 6' - 8"     | Egress     |
| 1               | DAYLIGHT ADU BEDROOM 2   | DAYLIGHT ADU | (E) 4030 SL - Replace Glass | 4' - 0" | 3' - 0"  | 6' - 8"     | Egress     |
| 2               | DAYLIGHT ADU BATHROOM    | DAYLIGHT ADU | (E) 2525 SL - Replace Glass | 2' - 5" | 2' - 5"  | 6' - 4"     | Tempered   |
| 3               | GARAGE                   | GRADE        | (E) Garage Door - No Work   | 8' - 0" | 7' - 0"  | 7' - 0"     |            |
| 3               | GARAGE                   | GRADE        | (E) Garage Door - No Work   | 8' - 0" | 7' - 0"  | 7' - 0"     |            |
| 4               | ENTRY                    | FIRST LEVEL  | (E) Exterior Door - No Work | 3' - 0" | 7' - 0"  | 7' - 0"     |            |
| 5               | DAYLIGHT ADU ENTRANCE    | DAYLIGHT ADU | (E) Exterior Door - No Work | 3' - 0" | 7' - 0"  | 7' - 0"     |            |
| 5               | LAUNDRY                  | GRADE        | (E) Exterior Door - No Work | 3' - 0" | 7' - 0"  | 7' - 0"     |            |
| 6               | KITCHEN                  | SECOND LEVEL | 1636 Casement               | 1' - 6" | 3' - 6"  | 6' - 8"     |            |
| 6               | KITCHEN                  | SECOND LEVEL | 1636 Casement               | 1' - 6" | 3' - 6"  | 6' - 8"     |            |
| 7               | KITCHEN                  | SECOND LEVEL | 4036 Fixed                  | 4' - 0" | 3' - 6"  | 6' - 8"     |            |
| 8               | MASTER BEDROOM           | FIRST LEVEL  | 6050 Fixed                  | 6' - 0" | 5' - 0"  | 6' - 8"     |            |
| 9               | MASTER BEDROOM           | FIRST LEVEL  | 2650 Casement               | 2' - 6" | 5' - 0"  | 6' - 8"     | Egress     |
| 9               | BEDROOM 1                | FIRST LEVEL  | 2650 Casement               | 2' - 6" | 5' - 0"  | 6' - 8"     | Egress     |
| 9               | BEDROOM 1                | FIRST LEVEL  | 2650 Casement               | 2' - 6" | 5' - 0"  | 6' - 8"     |            |
| 9               | BEDROOM 2                | FIRST LEVEL  | 2650 Casement               | 2' - 6" | 5' - 0"  | 6' - 8"     | Egress     |
| 9               | BEDROOM 2                | FIRST LEVEL  | 2650 Casement               | 2' - 6" | 5' - 0"  | 6' - 8"     |            |
| 9               | DINING                   | SECOND LEVEL | 2650 Casement               | 2' - 6" | 5' - 0"  | 7' - 8"     |            |
| 9               | DINING                   | SECOND LEVEL | 2650 Casement               | 2' - 6" | 5' - 0"  | 7' - 8"     |            |
| 9               | BONUS ROOM               | ATTIC LEVEL  | 2650 Casement               | 2' - 6" | 5' - 0"  | 7' - 8"     | Egress     |
| 9               | BONUS ROOM               | ATTIC LEVEL  | 2650 Casement               | 2' - 6" | 5' - 0"  | 7' - 8"     |            |
| 10              | LIVING ROOM              | SECOND LEVEL | 4040 Awning                 | 4' - 0" | 4' - 0"  | 6' - 0"     |            |
| 11              | LIVING ROOM              | SECOND LEVEL | 2036 Casement               | 2' - 0" | 3' - 6"  | 6' - 8"     |            |
| 12              | GARAGE                   | GRADE        | 5026 Fixed                  | 5' - 0" | 2' - 6"  | 6' - 8"     |            |
| 13              | BONUS ROOM               | ATTIC LEVEL  | Anderson Custom 1/4 Round   | 3' - 6" | 3' - 6"  | 6' - 8"     |            |
| 13              | BONUS ROOM               | ATTIC LEVEL  | Anderson Custom 1/4 Round   | 3' - 6" | 3' - 6"  | 6' - 8"     |            |
| 14              | MASTER BATH              | FIRST LEVEL  | 1630 Casement               | 1' - 6" | 3' - 0"  | 6' - 8"     |            |
| 14              | MASTER BATH              | FIRST LEVEL  | 1630 Casement               | 1' - 6" | 3' - 0"  | 6' - 8"     |            |
| 15              | STAIRWELL                | GRADE        | 3030 Fixed                  | 3' - 0" | 3' - 0"  | 7' - 0"     | Tempered   |
| 16              | LAUNDRY                  | GRADE        | 1926 Casement               | 1' - 9" | 2' - 6"  | 6' - 8"     | Tempered   |
| 17              | MASTER BATH              | FIRST LEVEL  | 2630 Awning                 | 2' - 6" | 3' - 0"  | 6' - 8"     |            |
| 18              | DINING                   | SECOND LEVEL | 2650 Fixed                  | 2' - 6" | 5' - 0"  | 7' - 8"     |            |
| 19              | LIVING ROOM              | SECOND LEVEL | Sliding Glass Door          | 9' - 0" | 6' - 10" | 6' - 10"    | Tempered   |
| 20              | BONUS ROOM               | ATTIC LEVEL  | 3030 Casement               | 3' - 0" | 3' - 0"  | 6' - 8"     |            |
| 20              | BONUS ROOM               | ATTIC LEVEL  | 3030 Casement               | 3' - 0" | 3' - 0"  | 6' - 8"     |            |

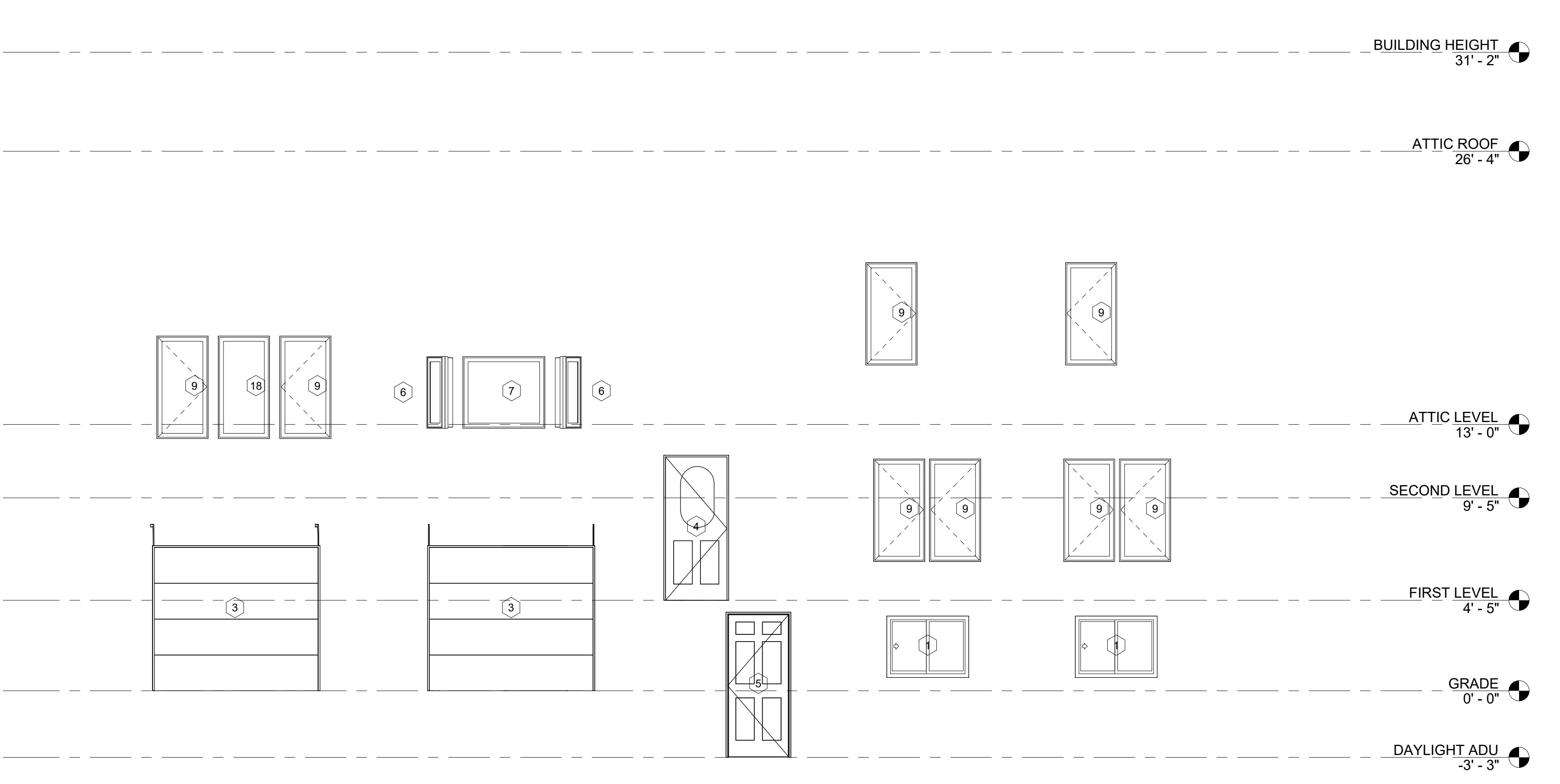
WINDOW GENERAL NOTES:

- WINDOW LAYOUT DRAWINGS ARE VIEWED FROM THE BUILDING EXTERIOR.
- GENERAL CONTRACTOR OR WINDOW VENDOR TO PROVIDE WINDOW SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FINAL ORDER.
- GENERAL CONTRACTOR OR WINDOW VENDOR TO VERIFY EGRESS WINDOWS MEET EGRESS CLEARANCE REQUIREMENTS.
- SEE TITLE 24 ENERGY CALCULATIONS FOR WINDOW U FACTOR AND SHGC REQUIREMENTS.
- SEE SHEET A0.1 319 EMERGENCY ESCAPE AND RESCUE OPENINGS AND A0.2 SECTIONS R324 GLAZING.
- SEE SECTION 504.8 & 504.9 WINDOW AND DOORS ON A0.3 FOR WUI REQUIREMENTS.
- WINDOWS SHALL BE CONSTRUCTED OF MULTIPANE GLAZING WITH A MINIMUM OF ONE TEMPERED PANE MEETING THE REQUIREMENTS OF SECTION R324 SAFETY GLAZING.

1 WINDOWS/DOORS - NORTH  
1/4" = 1'-0"



2 WINDOWS/DOORS - SOUTH  
1/4" = 1'-0"



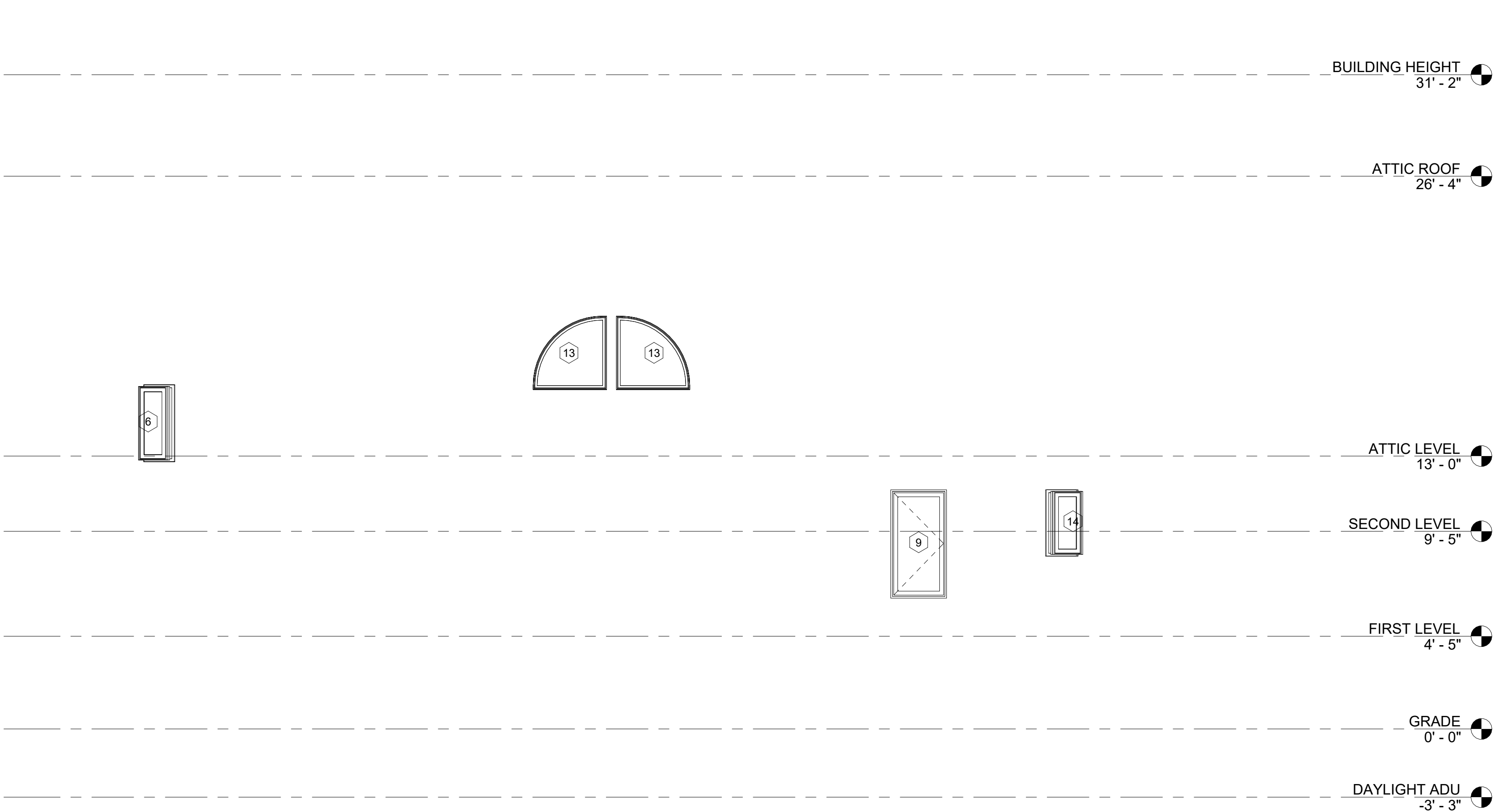
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| Window Schedule |                          |              |                             |         |          |             |            |
|-----------------|--------------------------|--------------|-----------------------------|---------|----------|-------------|------------|
| ID              | Location                 | Level        | Type                        | Width   | Height   | Head Height | Treatments |
| 1               | DAYLIGHT ADU LIVING ROOM | DAYLIGHT ADU | (E) 4030 SL - Replace Glass | 4' - 0" | 3' - 0"  | 6' - 8"     |            |
| 1               | DAYLIGHT ADU BEDROOM 1   | DAYLIGHT ADU | (E) 4030 SL - Replace Glass | 4' - 0" | 3' - 0"  | 6' - 8"     | Egress     |
| 1               | DAYLIGHT ADU BEDROOM 2   | DAYLIGHT ADU | (E) 4030 SL - Replace Glass | 4' - 0" | 3' - 0"  | 6' - 8"     | Egress     |
| 2               | DAYLIGHT ADU BATHROOM    | DAYLIGHT ADU | (E) 2525 SL - Replace Glass | 2' - 5" | 2' - 5"  | 6' - 4"     | Tempered   |
| 3               | GARAGE                   | GRADE        | (E) Garage Door - No Work   | 8' - 0" | 7' - 0"  | 7' - 0"     |            |
| 3               | GARAGE                   | GRADE        | (E) Garage Door - No Work   | 8' - 0" | 7' - 0"  | 7' - 0"     |            |
| 4               | ENTRY                    | FIRST LEVEL  | (E) Exterior Door - No Work | 3' - 0" | 7' - 0"  | 7' - 0"     |            |
| 5               | DAYLIGHT ADU ENTRANCE    | DAYLIGHT ADU | (E) Exterior Door - No Work | 3' - 0" | 7' - 0"  | 7' - 0"     |            |
| 5               | LAUNDRY                  | GRADE        | (E) Exterior Door - No Work | 3' - 0" | 7' - 0"  | 7' - 0"     |            |
| 6               | KITCHEN                  | SECOND LEVEL | 1636 Casement               | 1' - 6" | 3' - 6"  | 6' - 8"     |            |
| 6               | KITCHEN                  | SECOND LEVEL | 1636 Casement               | 1' - 6" | 3' - 6"  | 6' - 8"     |            |
| 7               | KITCHEN                  | SECOND LEVEL | 4036 Fixed                  | 4' - 0" | 3' - 6"  | 6' - 8"     |            |
| 8               | MASTER BEDROOM           | FIRST LEVEL  | 6050 Fixed                  | 6' - 0" | 5' - 0"  | 6' - 8"     |            |
| 9               | MASTER BEDROOM           | FIRST LEVEL  | 2650 Casement               | 2' - 6" | 5' - 0"  | 6' - 8"     | Egress     |
| 9               | BEDROOM 1                | FIRST LEVEL  | 2650 Casement               | 2' - 6" | 5' - 0"  | 6' - 8"     | Egress     |
| 9               | BEDROOM 1                | FIRST LEVEL  | 2650 Casement               | 2' - 6" | 5' - 0"  | 6' - 8"     |            |
| 9               | BEDROOM 2                | FIRST LEVEL  | 2650 Casement               | 2' - 6" | 5' - 0"  | 6' - 8"     | Egress     |
| 9               | BEDROOM 2                | FIRST LEVEL  | 2650 Casement               | 2' - 6" | 5' - 0"  | 6' - 8"     |            |
| 9               | DINING                   | SECOND LEVEL | 2650 Casement               | 2' - 6" | 5' - 0"  | 7' - 8"     |            |
| 9               | DINING                   | SECOND LEVEL | 2650 Casement               | 2' - 6" | 5' - 0"  | 7' - 8"     |            |
| 9               | BONUS ROOM               | ATTIC LEVEL  | 2650 Casement               | 2' - 6" | 5' - 0"  | 7' - 8"     | Egress     |
| 9               | BONUS ROOM               | ATTIC LEVEL  | 2650 Casement               | 2' - 6" | 5' - 0"  | 7' - 8"     |            |
| 10              | LIVING ROOM              | SECOND LEVEL | 4040 Awning                 | 4' - 0" | 4' - 0"  | 6' - 0"     |            |
| 11              | LIVING ROOM              | SECOND LEVEL | 2036 Casement               | 2' - 0" | 3' - 6"  | 6' - 8"     |            |
| 12              | GARAGE                   | GRADE        | 5026 Fixed                  | 5' - 0" | 2' - 6"  | 6' - 8"     |            |
| 13              | BONUS ROOM               | ATTIC LEVEL  | Anderson Custom 1/4 Round   | 3' - 6" | 3' - 6"  | 6' - 8"     |            |
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| 14              | MASTER BATH              | FIRST LEVEL  | 1630 Casement               | 1' - 6" | 3' - 0"  | 6' - 8"     |            |
| 14              | MASTER BATH              | FIRST LEVEL  | 1630 Casement               | 1' - 6" | 3' - 0"  | 6' - 8"     |            |
| 15              | STAIRWELL                | GRADE        | 3030 Fixed                  | 3' - 0" | 3' - 0"  | 7' - 0"     | Tempered   |
| 16              | LAUNDRY                  | GRADE        | 1926 Casement               | 1' - 9" | 2' - 6"  | 6' - 8"     | Tempered   |
| 17              | MASTER BATH              | FIRST LEVEL  | 2630 Awning                 | 2' - 6" | 3' - 0"  | 6' - 8"     |            |
| 18              | DINING                   | SECOND LEVEL | 2650 Fixed                  | 2' - 6" | 5' - 0"  | 7' - 8"     |            |
| 19              | LIVING ROOM              | SECOND LEVEL | Sliding Glass Door          | 9' - 0" | 6' - 10" | 6' - 10"    | Tempered   |
| 20              | BONUS ROOM               | ATTIC LEVEL  | 3030 Casement               | 3' - 0" | 3' - 0"  | 6' - 8"     |            |
| 20              | BONUS ROOM               | ATTIC LEVEL  | 3030 Casement               | 3' - 0" | 3' - 0"  | 6' - 8"     |            |

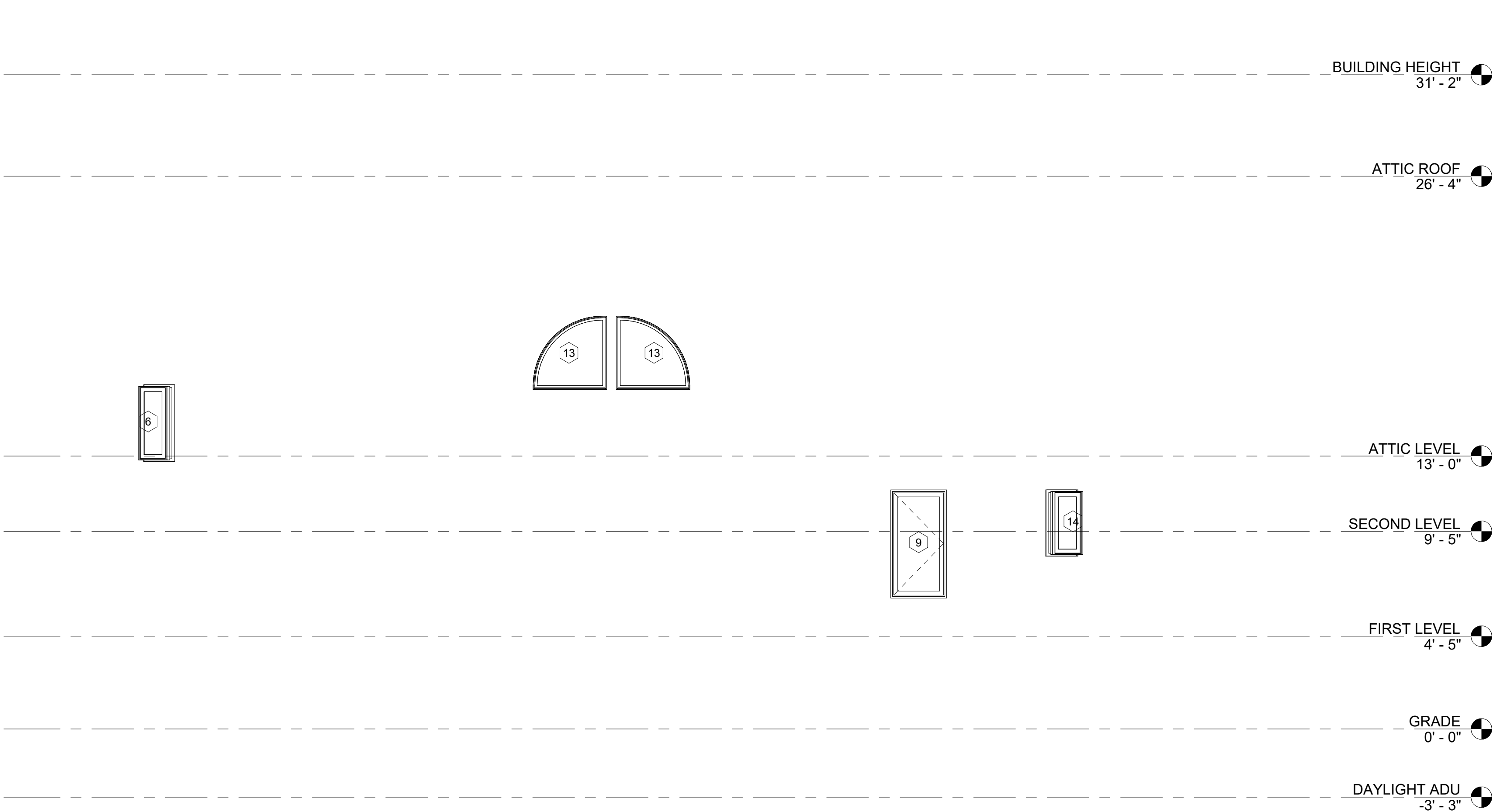
WINDOW GENERAL NOTES:

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- WINDOW LAYOUT DRAWINGS ARE VIEWED FROM THE BUILDING EXTERIOR.
2.
- GENERAL CONTRACTOR OR WINDOW VENDOR TO PROVIDE WINDOW SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FINAL ORDER.
3.
- GENERAL CONTRACTOR OR WINDOW VENDOR TO VERIFY EGRESS WINDOWS MEET EGRESS CLEARANCE REQUIREMENTS.
4.
- SEE TITLE 24 ENERGY CALCULATIONS FOR WINDOW U FACTOR AND SHGC REQUIREMENTS.
5.
- SEE SHEET A0.1 319 EMERGENCY ESCAPE AND RESCUE OPENINGS AND A0.2 SECTIONS R324 GLAZING.
6.
- SEE SECTION 504.8 & 504.9 WINDOW AND DOORS ON A0.3 FOR WUI REQUIREMENTS.
7.
- WINDOWS SHALL BE CONSTRUCTED OF MULTIPANE GLAZING WITH A MINIMUM OF ONE TEMPERED PANE MEETING THE REQUIREMENTS OF SECTION R324 SAFETY GLAZING.

① WINDOWS/DOORS - WEST  
1/4" = 1'-0"



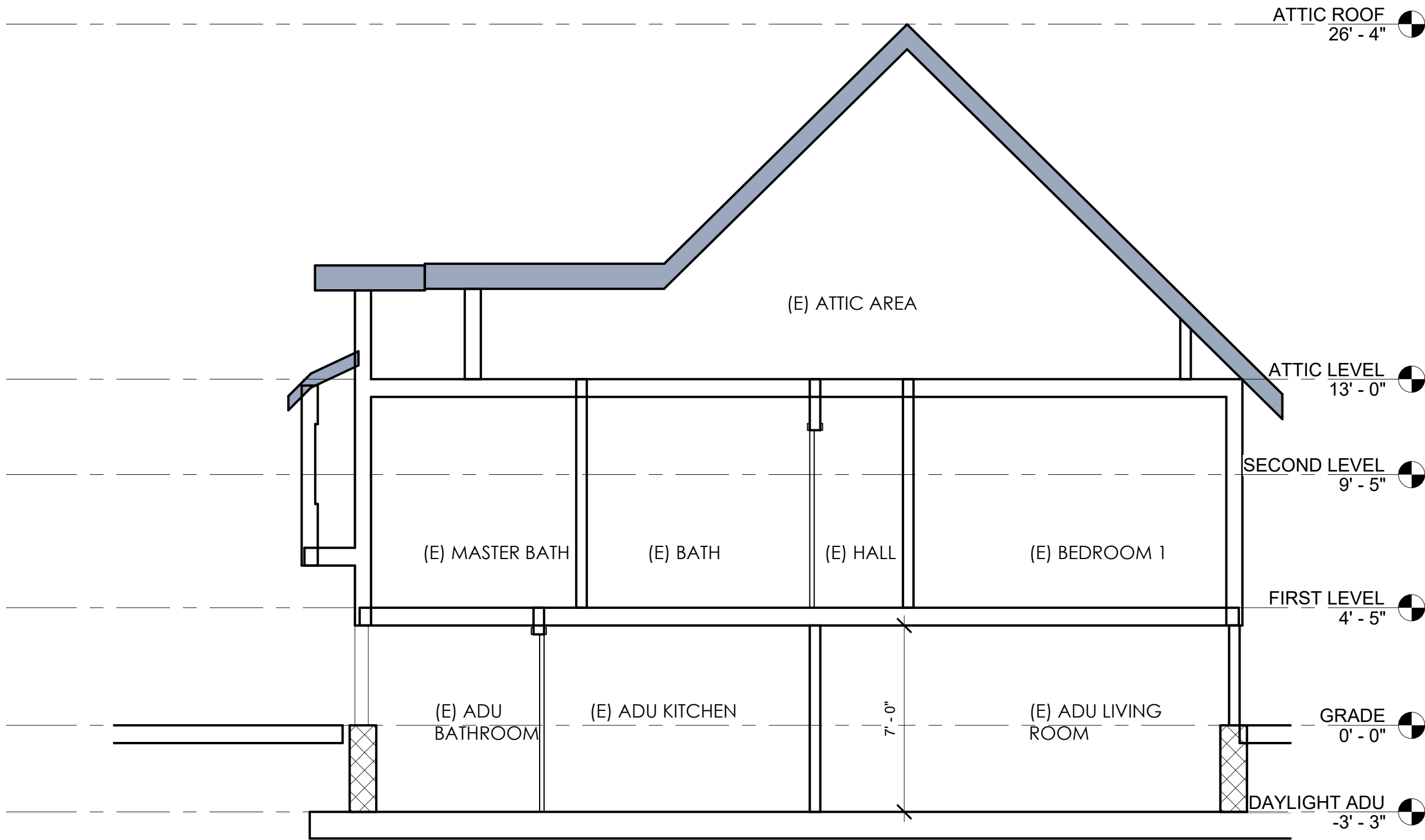
② WINDOWS/DOORS - EAST  
1/4" = 1'-0"



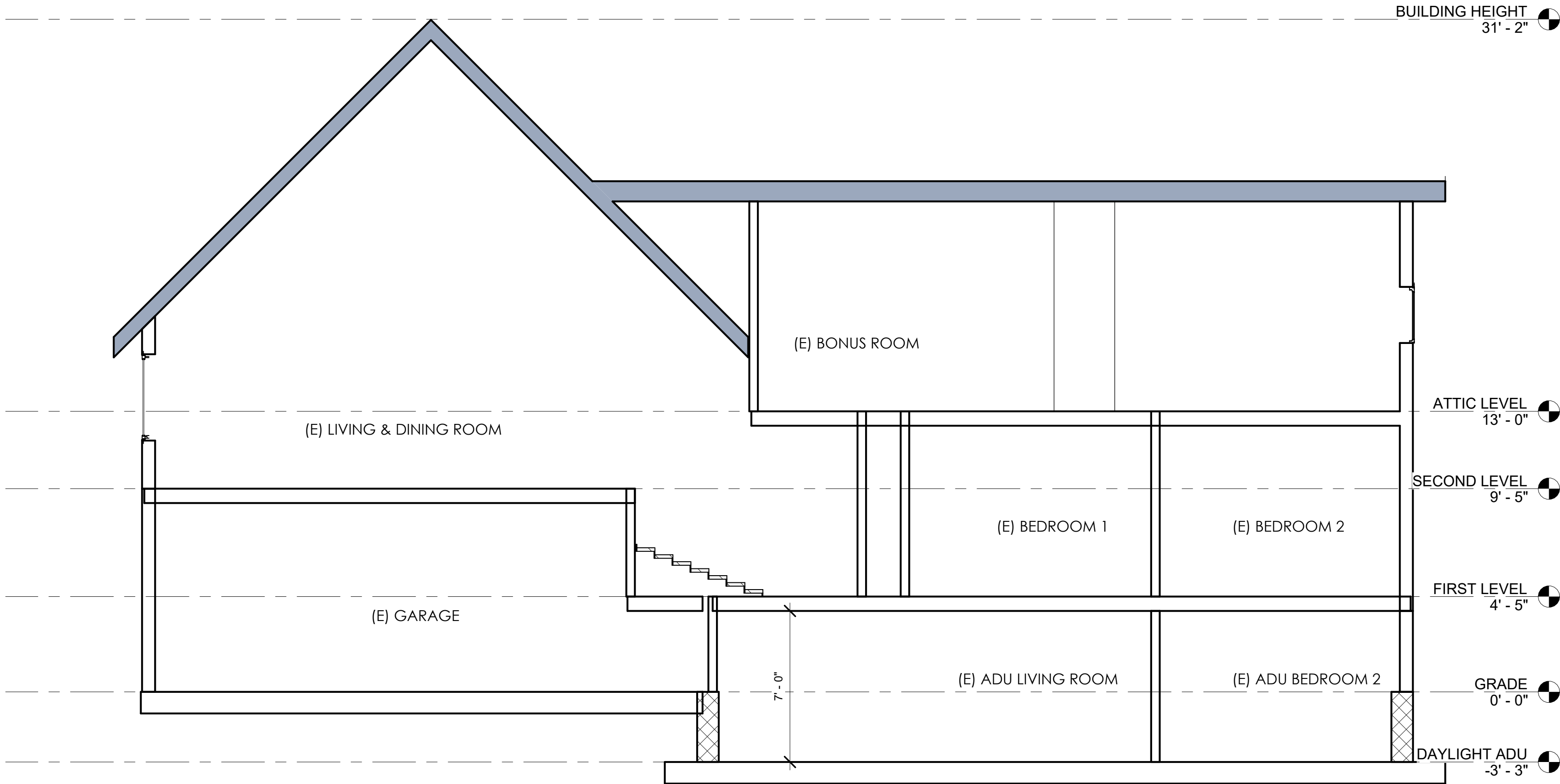
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SECTION GENERAL NOTES:

1.
- REFER TO FLOOR PLANS FOR ADDITIONAL INFORMATION NOT SHOWN IN BUILDING SECTIONS.
2.
- ADU FLOOR TO CEILING HEIGHTS SHOWN PER "APPLICATION SUBMITTAL REQUIREMENTS FOR AFTER-THE-FACT BUILDING PERMITS ACCESSORY DWELLING UNITS" CHECKLIST. ALL HEADROOM HEIGHTS ARE EXISTING AND TO REMAIN UNLESS NOTED OTHERWISE.



① Section 1  
1/4" = 1'-0"



② Section 2  
1/4" = 1'-0"

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project number 2025.090  
drawn by GK checked by BA

ISSUES & REVISIONS

| no. | description | date       |
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| 1   | HPAC Review | 2026.03.30 |
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project location

Interior Remodel & Window Replacement for:

Jess Hanson  
10050 S. River St.  
Truckee California  
Nevada County 019-042-000

description

Building Sections

sheet

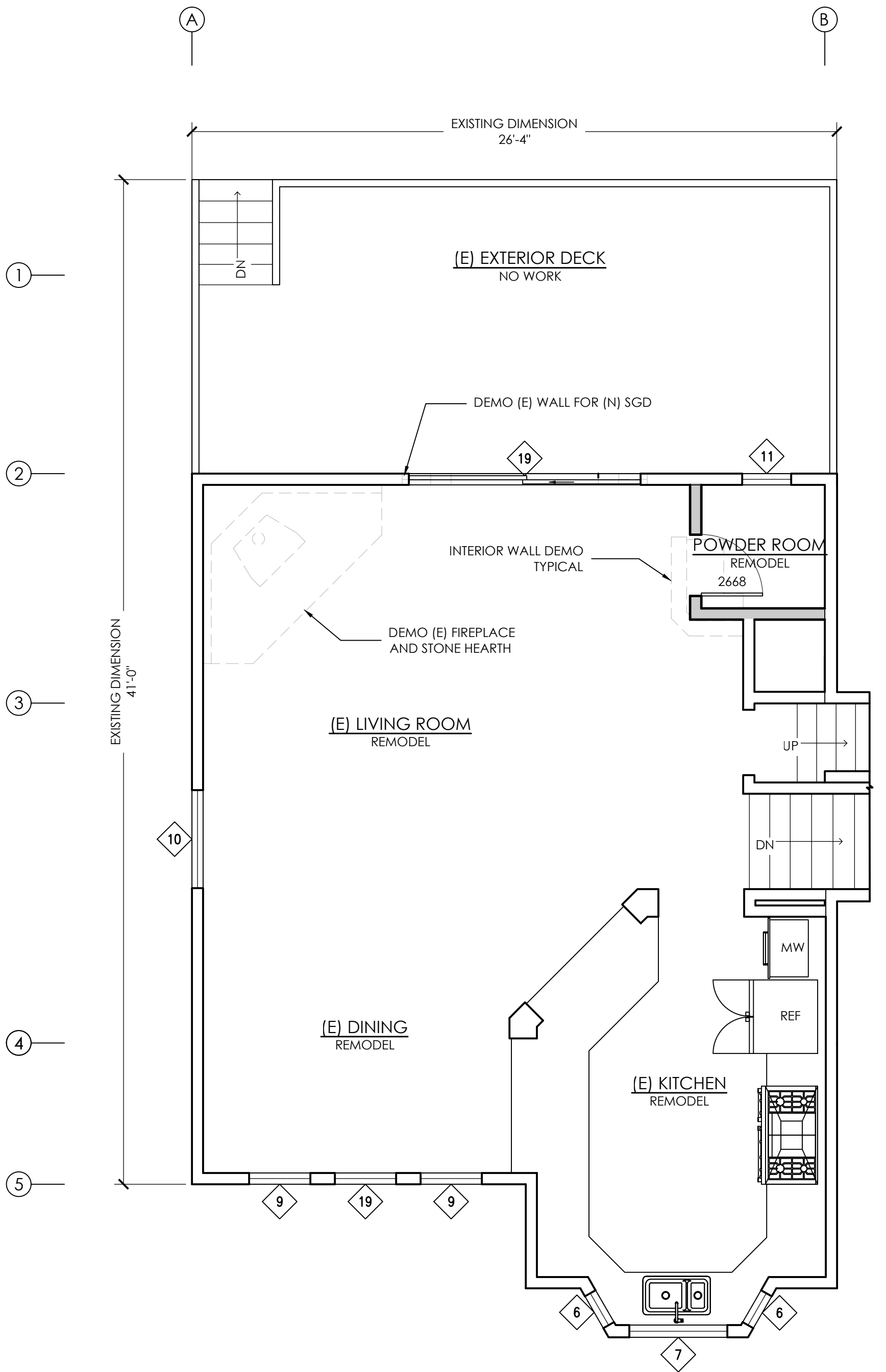
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SPACE CALCULATIONS

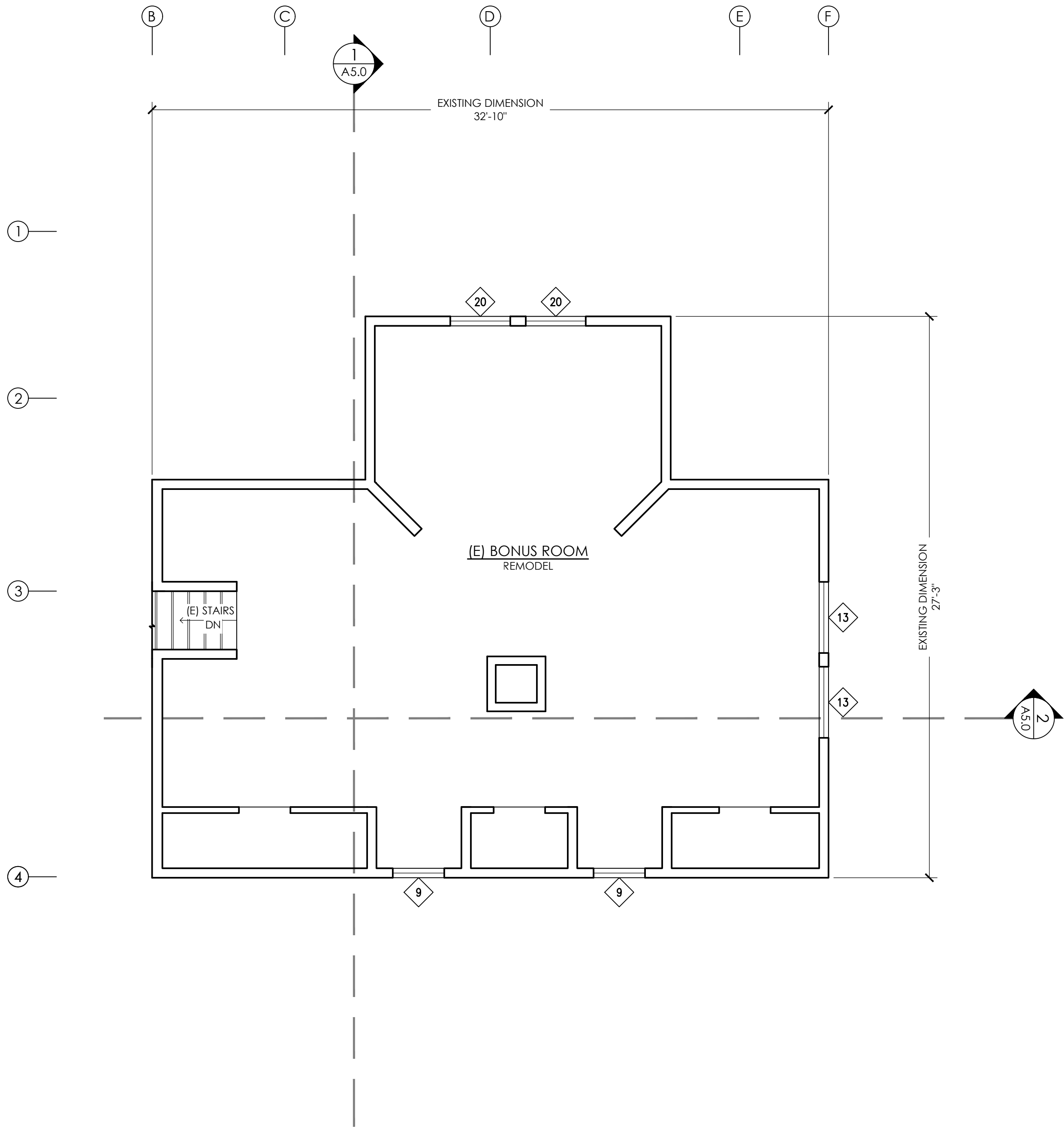
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| UNCONDITIONED           |              |
| GARAGE                  | 500 SQ. FT.  |
| BACK DECK               | 318 SQ. FT.  |
| CONDITIONED             |              |
| BASEMENT - EXISTING     | 846 SQ. FT.  |
| FIRST LEVEL - EXISTING  | 1045 SQ. FT. |
| SECOND LEVEL - EXISTING | 789 SQ. FT.  |
| THIRD LEVEL - EXISTING  | 602 SQ. FT.  |

FLOOR PLAN NOTES

1. ALL INTERIOR FINISHES & TRIM ARE PER OWNER
2. ALL APPLIANCES ARE PER OWNER
3. ALL FIXTURES ARE PER OWNER
4. ALL CABINERY IS PER OWNER
5. ALL HEARTH AND STONE WORK IS PER OWNER
6. SEE WUI, CALGREEN, AND EFFICIENCY NOTES ON SHEETS A0.3.
7. SEE ARCHITECTURAL NOTES ON SHEET A0.1 AND A0.2.
8. SEE WINDOW SCHEDULES ON SHEETS A4.5 & A4.6.



SECOND LEVEL FLOOR PLAN  
SCALE: 1/4" = 1'-0"



ATTIC LEVEL FLOOR PLAN  
SCALE: 1/4" = 1'-0"

evolve

DESIGN WORKS

california | nevada

washington

alaska

PO Box 7586

760 N. Lake Blvd. Suite 21

Tahoe City, CA 96145

530.412.1328, 530.318.0001

www.evolvedesignworks.com

stamp

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| project number     |             | 2025.090      |
| drawn by           | GK          | checked by BA |
| ISSUES & REVISIONS |             |               |
| no.                | description | date          |
| 1                  | HPAC Review | 2026.03.30    |
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project location

Interior Remodel & Window Replacement for:  
**Jess Hanson**  
**10050 S River St.**  
**Truckee California**  
**Nevada County 019-042-000**

description  
**Second & Attic**  
**Level Floor**  
**Plans**



sheet

A2.3

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## 2025 CALIFORNIA MECHANICAL CODE

### CHAPTER 3 GENERAL REGULATIONS

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 303.4   | Anchorage of Appliances. Appliances designed to be fixed in position shall be securely fastened in place in accordance with the manufacturer's installation instructions. Supports for appliances shall be designed and constructed to sustain vertical and horizontal loads within the stress limitations specified in the building codes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 304.1   | General. Appliances shall be located with respect to building construction and other equipment so as to permit access for repair and replacement of the appliance. Clearance shall be maintained to permit removal of the appliance; cleaning of heating surfaces; the replacement of filters, blowers, motors, burners, controls, and vent connections; the lubrication of moving parts where necessary; the adjustment and cleaning of burners and pilots; and the proper functioning of explosion vents, where provided. For attic installation, the passageway and servicing area adjacent to the appliance shall be floored. [NFFA 54:9.2.1.]<br>Unless otherwise specified, not less than 30 inches (762 mm) in depth, width, and height of working space shall be provided.<br>Exception: A platform shall not be required for unit heaters or room heaters. |
| 305.1   | Installation in Garages. Appliances in garages and in adjacent spaces that open to the garage and are not part of the living space of a dwelling unit shall be installed so that burners and burner-ignition devices are located not less than 18 inches (457 mm) above the floor unless listed as flammable vapor ignition resistant. [NFFA 54:9.3.1.10.]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 305.1.1 | Physical Damage. Appliances installed in garages, warehouses, or other areas subject to mechanical damage shall be guarded against such damage by being installed behind protective barriers or by being elevated or located out of the normal path of vehicles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

### CHAPTER 5 EXHAUST SYSTEMS

|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 504.4     | Clothes Dryers. A clothes dryer exhaust duct shall not be connected to a vent connector, gas vent, chimney, and shall not terminate into a crawl space, attic, or other concealed space. Exhaust ducts shall not be assembled with screws or other fastening means that extend into the duct and that are capable of catching fire, and that are not designed for the efficient use of the exhaust system. Exhaust ducts shall be constructed of rigid metal, and the termination, transition ducts used to connect the dryer to the exhaust duct shall be listed for that application or installed in accordance with the clothes dryer manufacturer's installation instructions. Clothes dryer exhaust ducts shall terminate to the outside of the building in accordance with Section 502.2.1 and shall be equipped with a backdraft damper. Screens shall not be installed at the duct termination. Devices, such as fire or smoke dampers, that will obstruct the flow of the exhaust shall not be used. Where joining of ducts, the male end shall be inserted in the direction of airflow. |
| 504.4.1   | Provisions for Makeup Air. Makeup air shall be provided in accordance with the following:<br>1. Makeup air shall be provided for Type 1 clothes dryers in accordance with the manufacturer's instructions. [NFFA 54:10.4.3.1.] Where a closet is designed for the installation of a clothes dryer, an opening of not less than 100 square inches (0.065 m <sup>2</sup> ) for makeup air shall be provided in the door or by other approved means.<br>2. Provision for makeup air shall be provided for Type 2 clothes dryers, with a free area of not less than 1 square inch (0.0006 m <sup>2</sup> ) for each 1,000 British thermal units per hour (Btu/h) (0.293 kW) total input rating of the dryer(s) installed. [NFFA 54:10.4.3.2.]                                                                                                                                                                                                                                                                                                                                                         |
| 504.4.2   | Domestic Clothes Dryers. Where a compartment or space for a Type 1 clothes dryer is provided, not less than a 4 inch diameter (102 mm) exhaust duct of approved material shall be installed in accordance with Section 504.0. Type 1 clothes dryer exhaust ducts shall be of rigid metal and shall have smooth interior surfaces. The diameter shall be not less than 4 inches nominal (100 mm) and the thickness shall be not less than 0.016 inch (0.406 mm).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 504.4.2.1 | Length Limitations. Unless otherwise permitted or required by the dryer manufacturer's instructions and approved by the Authority Having Jurisdiction, domestic dryer moisture exhaust ducts shall not exceed a total combined horizontal and vertical length of 14 feet (4267 mm), including two 90 degree (1.57 rad) elbows. A length of 2 feet (610 mm) shall be deducted for each 90 degree (1.57 rad) elbow in excess of two.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 504.4.2.2 | Transition Ducts. Listed clothes dryer transition ducts not more than 6 feet (1829 mm) in length shall be permitted to be used to connect the Type 1 dryer to the exhaust ducts. Transition ducts and flexible clothes dryer transition ducts shall not be concealed within construction, and shall be installed in accordance with the manufacturer's installation instructions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 504.5     | Heat (Energy) Recovery Ventilators and Energy Recovery Ventilation (ERV) Systems. Heat (energy) recovery ventilators and ERV shall be installed in accordance with their listings and comply with the appliance manufacturer's installation instructions. Non-ducted heat recovery ventilators shall comply with UL 1815. Ducted heat recovery ventilators shall comply with UL 1812. Heat (energy) recovery ventilator ducts shall comply with Chapter 6.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

### SECTION 603 INSTALLATION OF DUCTS

|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| 603.4 | Factory-Made Air Ducts and Connectors. Factory made air ducts and connectors shall be listed and labeled in accordance with UL 181 and installed in accordance with the terms of their listing, the manufacturer's installation instructions, and SMACNA HVAC Duct Construction Standards - Metal and Flexible.<br>Factory-made air ducts shall not be used for vertical risers in air-duct systems serving more than two stories and shall not penetrate a fire-resistance-rated assembly or construction.<br>Factory-made air ducts shall be installed with not less than 4 inches (102 mm) of separation from earth, except where installed as a liner inside of concrete, tile, or metal pipe and shall be protected from physical damage.<br>The temperature of the air to be conveyed in a duct shall not exceed 250°F (121°C). [9.3.8.7] |
| 603.8 | Support of Ducts. Installers shall provide the manufacturer's field fabrication and installation instructions. Factory-made air ducts that are in accordance with UL 181 shall be supported in accordance with the manufacturer's installation instructions. Other ducts shall comply with SMACNA HVAC Duct Construction Standards-Metal and Flexible.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

### SECTION 605 INSULATION OF DUCTS

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| 605.1   | General. Air ducts conveying air at temperatures exceeding 140°F (60°C) shall be insulated to maintain an insulation surface temperature of not more than 140°F (60°C). Factory-made air ducts and insulation intended for installation on the exterior of ducts shall be legibly printed with the name of the manufacturer, the thermal resistance (R) value at installed thickness, flame-spread index and smoke developed index of the composite material. Internal duct liners and insulation shall be installed in accordance with SMACNA HVAC Duct Construction Standards-Metal and Flexible. [OSHFD 1, 2, 3 & 4]<br>Cold air ducts shall be insulated wherever necessary or to prevent condensation.<br>Exceptions:<br>1. Factory-installed plenums, casings, or ductwork furnished as a part of HVAC equipment tested and rated in accordance with approved energy efficiency standards.<br>2. Ducts or plenums located in conditioned spaces where heat gain or heat loss will not increase energy use.<br>3. For runouts less than 10 feet (3048 mm) in length to air terminals or air outlets, the rated R value of insulation need not exceed R-3.5.<br>4. Backs of air outlets and outlet plenums exposed to unconditioned or indirectly conditioned spaces with face areas exceeding 5 square feet (0.5 m <sup>2</sup> ) need not exceed R-2; those 5 square feet (0.5 m <sup>2</sup> ) or smaller need not be insulated.<br>5. Ducts and plenums used exclusively for evaporative cooling systems. |
| 605.1.1 | Within Ducts or Plenums. Materials installed within ducts and plenums for insulating, sound deadening, or other purposes shall have a mold, humidity, and erosion-resistant surface where tested in accordance with UL 181. Duct liners in systems operating with air velocities exceeding 2000 feet per minute (10.16 m/s) shall be fastened with both adhesive and mechanical fasteners, and exposed edges shall have approved treatment to withstand the operating velocity. Where the internal insulation is capable of being in contact with condensates or other liquids, the material shall be water-resistant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 605.1.2 | Duct Coverings and Linings. Insulation applied to the surface of ducts, including duct coverings, linings, tapes, and adhesives, located in buildings shall have a flame-spread index not to exceed 25 and a smoke developed index not to exceed 50, where tested in accordance with ASTM E84 or UL 723. The specimen preparation and testing procedures of ASTM E2231 shall be used. Air duct coverings and linings shall not flame, glow, smolder, or smoke where tested in accordance with ASTM C411 at the temperature to which they are exposed in service. In no case shall the test temperature be less than 250°F (121°C). Coverings shall not penetrate a fire-resistance-rated assembly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

### SECTION 701 COMBUSTION AIR

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| 701.1   | Applicability. Air for combustion, ventilation, and dilution of flue gases for appliances installed in buildings shall be obtained by application of one of the methods covered in Section 701.4 through Section 701.9.3. Where the requirements of Section 701.4 are not met, outdoor air shall be introduced in accordance with methods covered in Section 701.6 through Section 701.9.3.<br>Exceptions:<br>1. This provision shall not apply to direct-vent appliances.<br>2. Type 1 clothes dryers that are provided with makeup air in accordance with Section 504.4.1. [NFFA 54:9.3.1.1.]                                                                                                              |
| 701.1.1 | Other Types of Appliances. Appliances of other than natural draft design and Category I vented appliances shall be provided with combustion, ventilation, and dilution air in accordance with the appliance manufacturer's instructions. [NFFA 54:9.3.1.2.]                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 701.3   | Makeup Air. Where exhaust fans, clothes dryers, and kitchen ventilation systems interfere with the operation of appliances, makeup air shall be provided. [NFFA 54:9.3.1.5]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 701.4   | Indoor Combustion Air. The required volume of indoor air shall be determined in accordance with the method in Section 701.4.1 or Section 701.4.2, except that where the air infiltration rate is known to be less than 0.40 ACH (air change per hour), the method in Section 701.4.2 shall be used. The total required volume shall be the sum of the required volume calculated for appliances located within the space, rooms communicating directly with the space in which the appliances are installed through openings not furnished with doors, and through combustion air openings sized and located in accordance with Section 701.5, are considered a part of the required volume. [NFFA 54:9.3.2] |
| 701.6   | Outdoor Combustion Air. Outdoor combustion air shall be provided through opening(s) to the outdoors in accordance with the methods in Section 701.6.1 or Section 701.6.2. The dimension of air openings shall be not less than 3 inches (76 mm).                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 701.7   | Combination Indoor and Outdoor Combustion Air. The use of a combination of indoor and outdoor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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| 701.1.1 | combustion air shall be in accordance with Section 701.7.1 through Section 701.7.3. (See Appendix F for example calculations.) [NFFA 54:9.3.4]<br>Combustion Air Ducts. Combustion air ducts shall comply with the following [NFFA 54:9.3.8]:<br>1. Ducts shall be constructed of galvanized steel or a material having equivalent corrosion resistance, strength, and rigidity.<br>Exception: Within dwellings units, unobstructed duct and joint spaces shall not be prohibited from conveying combustion air, provided that not more than one fireblock is removed. [NFFA 54:9.3.8.1]<br>2. Ducts shall terminate in an unobstructed space, allowing free movement of combustion air to the appliances. [NFFA 54:9.3.8.2]<br>3. Ducts shall serve a single space. [NFFA 54:9.3.8.3]<br>4. Ducts shall not be used for lower combustion air openings where both such openings are used. The separation between ducts serving upper and lower combustion air openings shall be maintained to the source of combustion air. [NFFA 54:9.3.8.4]<br>5. Ducts shall not be screened where terminating in an attic space. [NFFA 54:9.3.8.5]<br>6. Combustion air intake openings located on the exterior of the building shall have the lowest side of the combustion air intake openings located not less than 1 2 inches (305 mm) vertically from the adjoining finished ground level. [NFFA 54:9.3.8.8]<br>7. Weatherstripped combustion air ducts shall not be sloped downward toward the source of combustion air. [NFFA 54:9.3.8.6]<br>8. The remaining space surrounding a chimney liner, gas vent, special gas vent, or plastic piping installed within a masonry, metal, or factory-built chimney shall not be used to supply combustion air.<br>Exception: Direct-vent appliances designed for installation in a solid fuel burning fireplace where installed in accordance with the manufacturer's installation instructions. [NFFA 54:9.3.8.7] |
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### SECTION 802 VENTING OF APPLIANCES

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| 802.0   | Venting of Appliances.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 802.1   | Lifting. Type B and Type B-W gas vents shall comply with UL 441. Type L gas vents shall comply with UL 641.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 802.1.1 | Installation. Listed chimneys and vents shall be installed in accordance with this chapter and the manufacturer's installation instructions. [NFFA 54:12.2.1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 802.5.1 | Factory-Built Chimneys. Factory-built chimneys shall be listed in accordance with UL 103, UL 959, or UL 2561. Factory-built chimneys used to vent appliances that operate at positive vent pressure shall be listed for such application. [NFFA 54:12.6.1.1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 802.5.4 | Termination. A chimney for residential-type or low-height appliances shall extend at least 3 feet (914 mm) above the highest point where it passes through a roof of a building and at least 2 feet (610 mm) higher than any portion of a building within a horizontal distance of 10 feet (3048 mm). [NFFA 54:12.6.2.1] (See Figure 502.5.4)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 802.6   | Gas Venting. The installation of gas vents shall meet the following requirements:<br>1- Gas vents shall be installed in accordance with the manufacturer's installation instructions.<br>2- A Type B-W gas vent shall have a listed capacity not less than that of the listed vented wall furnace to which it is connected.<br>3- Gas vents installed within masonry chimneys shall be installed in accordance with the manufacturer's installation instructions. Gas vents installed within masonry chimneys shall be identified with a permanent label installed at the point where the vent enters the chimney. The label shall contain the following language: "This gas vent is for appliances that burn gas. Do not connect to solid or liquid fuel-burning appliances or incinerators."<br>4- Screws, rivets, and other fasteners shall not penetrate the inner wall of double-wall gas vents, except at the transition from the appliance draft hood outlet, flue collar, or single-wall metal connector to a double-wall vent. [NFFA 54:12.7.2] |

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| 802.6.1 | Gas Vent Termination. The termination of gas vents shall comply with the following requirements:<br>1- A gas vent shall terminate in accordance with one of the following:<br>a- Gas vents that are 12 inches (305 mm) or less in size and located not less than 8 feet (2438 mm) from a vertical wall or similar obstruction shall terminate above the roof in accordance with Figure 802.6.1, and Table 802.6.1.<br>b- Gas vents that are over 12 inches (300 mm) in size or are located less than 8 feet (2438 mm) from a vertical wall or similar obstruction shall terminate not less than 2 feet (610 mm) above the highest point where they pass through the roof and not less than 2 feet (610 mm) above a portion of a building within 10 feet (3048 mm) horizontally.<br>c- Industrial appliances as provided in Section 802.2.5.<br>d- Direct vent systems as provided in Section 802.2.6.<br>e- Appliances with integral vents as provided in Section 802.2.7.<br>f- Mechanical draft systems as provided in Section 802.3.3 through Section 802.3.4.<br>g- Ventilating hoods and exhaust systems as provided in Section 802.3.4.<br>2- A Type B or a Type L gas vent shall terminate at least 3 feet (1524 mm) in vertical height above the highest connected appliance draft hood or flue collar.<br>3- A Type B-W gas vent shall terminate at least 12 feet (3658 mm) in vertical height above the bottom of the wall furnace.<br>4- A gas vent extending through an exterior wall shall not terminate adjacent to the wall or below eaves or parapets, except as provided in Section 802.2.6 and Section 802.3.3 through Section 802.3.4.<br>5- Decorative shrouds shall not be installed at the termination of gas vents except where such shrouds are listed for use with the specific gas venting system and are installed in accordance with the manufacturer's installation instructions.<br>6- All gas vents shall extend through the roof flashing, roof jack, or roof thimble and terminate with a listed cap or listed roof assembly.<br>7- A gas vent shall terminate at least 3 feet (914 mm) above a forced air inlet located within 10 feet (3048 mm). [NFFA 54:12.7.3] |
| 802.8.1 | Clearance for Through-the-Wall Vent Termination. The clearance for through-the-wall direct vent and non-direct vent terminals shall be in accordance with Table 802.8.1 and Figure 802.8.1 of the California Mechanical Code Title 24 Part 4. Exception: The clearances in Table 802.8.1 shall not apply to the combustion air intake of a direct vent appliance. [NFFA 54:12.9.1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

### SECTION 904 CENTRAL HEATING BOILERS AND FURNACES

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| 904.0   | Central Heating Boilers and Furnaces.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 904.2   | Location. Central heating furnaces and low-pressure boiler installations in bedrooms or bathrooms shall comply with one of the following:<br>1. Central heating furnaces and low-pressure boilers shall be permitted to be installed in a closet located in the bedroom or bathroom, provided the closet is equipped with a listed, gasketed door assembly, and a listed self-closing device. The self-closing door assembly shall comply with the requirements of Section 904.1.1. The door assembly shall be installed with a threshold and bottom door seal and shall comply with the requirements of Section 904.1.2. Combustion air for such installations shall be provided from the outdoors. The closet shall be for the exclusive use of the central heating furnace or low-pressure boiler.<br>2. Central heating furnaces and low-pressure boilers shall be of the direct-vent type.<br>Self-Closing Doors. Self-closing doors shall swing easily and freely, and shall be equipped with a self-closing device to cause the door to close and latch each time it is opened. The closing mechanism shall not have a hold-open feature.<br>Gasketing. Gasketing on gasketed doors or frames shall be furnished in accordance with the published listings of the door, frame, or gasketing material manufacturer.<br>Exception: Where acceptable to the Authority Having Jurisdiction, gasketing of noncombustible or limited-combustible material shall be permitted to be applied to the frame, provided closing and latching of the door are not inhibited. |
| 904.2.2 | Clearance. Central heating boilers and furnaces shall be provided with clearances in accordance with the following:<br>1. Listed central heating furnaces and low-pressure boilers shall be installed with clearances in accordance with the terms of their listings and the manufacturer's installation instructions.<br>2. Unlisted central-heating furnaces and low pressure boilers shall be installed with clearances from combustible material not less than those specified in Table 904.2. [NFFA 54:10.3.2.2]<br>3. Listed and unlisted central heating furnaces and low-pressure boilers shall be permitted to be installed with reduced clearances to combustible material provided that the combustible material or appliance is protected in accordance with Table 303.10.1 and Figure 303.10.1(1) through Figure 303.10.1(3), and such reduction is allowed by the manufacturer's installation instructions. [NFFA 54:10.3.2.3]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 904.3   | Front clearance shall be sufficient for servicing the burner and the furnace or boiler. [NFFA 54:10.3.2.4]<br>5. Where the furnace plenum is adjacent to plaster on metal lath or noncombustible material attached to combustible material, the clearance shall be measured to the surface of the plaster or other noncombustible finish where the clearance specified is 2 inches (51 mm) or less. [NFFA 54:10.3.2.5]<br>6. The clearance to these appliances shall not interfere with combustion air, draft hood clearance and relief, and accessibility for servicing. [NFFA 54:10.3.2.6]<br>7. Supply air ducts connecting to listed central heating furnaces shall have the same minimum clearance to combustibles as required for the furnace supply plenum for a distance of not less than 3 feet (914 mm) from the supply plenum. Clearance is not required beyond the 3 feet (914 mm) distance. [NFFA 54:10.3.2.7]<br>8. Supply air ducts connecting to unlisted central heating furnaces equipped with temperature limit controls with a maximum setting of 250°F (121°C) shall have a minimum clearance to combustibles of 6 inches (152 mm) for a distance of not less than 6 feet (1829 mm) from the furnace supply plenum. Clearance shall not be required beyond the 6 feet (1829 mm) distance. [NFFA 54:10.3.2.8]<br>9. Central heating furnaces other than those listed in Section 904.2(7) or Section 904.2(8) shall have clearances from the supply ducts of not less than 1 8 inches (457 mm) from the furnace plenum                              |

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| 904.4     | Assembly and Installation. A central-heating boiler or furnace shall be installed in accordance with the manufacturer's installation instructions. It shall be installed on a floor of noncombustible construction with noncombustible flooring, and surface finish and with no combustible material against the underside thereof, or on fire-resistive slots or arches having no combustible material against the underside thereof.<br>Under-Floor Installation. Furnaces installed in an under-floor area of the building shall be in accordance with the Section 904.3.1.1 through Section 904.3.1.3.<br>Supported by Ground. Where a furnace is supported by the ground, it shall be installed on a concrete slab not less than 3 inches (76 mm) above the adjoining ground level.<br>Supported from Above. Where a furnace is supported from above, a clearance of not less than 6 inches (152 mm) shall be provided from finished grade.<br>Excavation. Where excavation is necessary to install a furnace, it shall extend to a depth of 6 inches (152 mm) below and 12 inches (305 mm) on all sides of the furnace, except on the service side, which shall have 30 inches (762 mm). Where the depth of the excavation for either the furnace or passageway exceeds 12 inches (305 mm), walls shall be lined with concrete or masonry 4 inches (102 mm) above the adjoining ground level. |
| 904.4.1   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 904.4.1.1 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 904.4.1.2 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 904.4.1.3 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

### SECTION 906 FLOOR FURNACES

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| 906.0 | Floor Furnaces.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 906.1 | Installation. The installation of floor furnaces shall comply with the following requirements:<br>1. Listed floor furnaces shall be installed in accordance with their listing and the manufacturer's installation instructions.<br>2. Unlisted floor furnaces shall not be installed in combustible floors.<br>3. Thermostats controlling floor furnaces shall not be located in a room or space that is capable of being separated from the room or space in which the register of the floor furnace is located.<br>Access. The space in which the furnace is installed shall be accessible by an opening in the foundation not less than 24 inches by 18 inches (610 mm by 457 mm) or by a trap door not less than 24 inches by 24 inches (610 mm by 610 mm) in a cross-section thereof, and a passageway not less than 24 inches by 1 8 inches (610 mm by 457 mm) in a cross section thereof. [NFFA 54:10.1.1.8] |
| 906.9 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## 2025 CALIFORNIA ELECTRICAL CODE

### ARTICLE 110 REQUIREMENTS FOR ELECTRICAL INSTALLATIONS

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| 110.26 | Spaces About Electrical Equipment. Access and working space shall be provided and maintained about all electrical equipment to permit ready and safe operation and maintenance of such equipment.<br>A. Working Space. Working space for equipment operating at 600 volts, nominal, or less to ground and likely to require examination, adjustment, servicing, or maintenance while energized shall comply with the dimensions of 110.26(A)(1), (A)(2), and (A)(3) or as required or permitted elsewhere in this Code.<br>1. Depth of Working Space. The depth of the working space in the direction of live parts shall not be less than that specified in Table 110.26(A)(1) unless the requirements of 110.26(A)(1)(a), (A)(1)(b), or (A)(1)(c) are met. Distances shall be measured from the exposed live parts or from the enclosure or opening if the live parts are enclosed.<br>2. Width of Working Space. The width of the working space in front of the electrical equipment shall be the width of the equipment or 762 mm (30 in.), whichever is greater. In all cases, the work space shall permit at least a 90 degree opening of equipment doors or hinged panels.<br>3. Height of Working Space. The work space shall be clear and extend from the grade, floor, or platform to a height of 2.0 m (6½ ft) or the height of the equipment, whichever is greater. Within the height requirements of this section, other equipment that is associated with the electrical installation and is located above or below the electrical equipment shall be permitted to extend not more than 150 mm (6 in.) beyond the front of the electrical equipment. |
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### ARTICLE 210 BRANCH CIRCUITS

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| 210.8 | Ground-Fault Circuit-Interrupter Protection for Personnel. Ground-fault circuit-interrupter protection for personnel shall be provided as required in 210.8(A) through (D). The ground-fault circuit-interrupter shall be installed in a readily accessible location.<br>Informational Note: See 215.9 for ground-fault circuit interrupter protection for personnel on feeders.<br>A. Dwelling Units. All 120-volt, single-phase, 15- and 20-ampere receptacles installed in the locations specified in 210.8(A)(1) through (10) shall have ground-fault circuit interrupter protection for personnel.<br>1. Bathrooms<br>2. Garages, and also accessory buildings that have a floor located at or below grade level not intended as habitable rooms and limited to storage areas, work areas, and areas of similar use<br>3. Outdoors. Exception to (3): Receptacles that are not readily accessible and are supplied by a branch circuit designed to electric snow-melting, deicing, or pipeline and vessel heating equipment shall be permitted to be installed in accordance with 426.28 or 427.22, as applicable.<br>4. Crawl spaces . at or below grade level<br>5. Unfinished basements . for purposes of this section, unfinished basements are defined as portions or areas of the basement not intended as habitable rooms and limited to storage areas, work areas, and the like. Exception to (5): A receptacle supplying only a permanently installed fire alarm or burglar alarm system shall not be required to have ground-fault circuit-interrupter protection.<br>Informational Note: See 760.41(B) and 760.121(B) for power supply requirements for fire alarm systems. Receptacles installed under the exception to 210.8(A)(5) shall not be considered as meeting the requirements of 210.52(G)<br>6. Kitchens . where the receptacles are installed to serve the countertop surfaces<br>7. Areas with sinks and permanent provisions for food preparation, beverage preparation, or cooking<br>8. Sinks . where receptacles are installed within 1.8 m (6 ft) from the top inside edge of the bowl of the sink<br>9. Sinks . where receptacles are installed within 1.8 m (6 ft) of the outside edge of the sink<br>10.Boathouses<br>11.Bathtubs or shower stalls . where receptacles are installed within 1.8 m (6 ft) of the outside edge of the bathtub or shower stall<br>12.Laundry areas |
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|  | Boat Hoists. GFCI protection shall be provided for outlets not exceeding 240 volts that supply boat hoists installed in dwelling unit locations. |
|  | Kitchen Dishwasher Branch Circuit. GFCI protection shall be provided for outlets that supply dishwashers installed in dwelling unit locations.   |

|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| 210.11 | Branch Circuits Required. Branch circuits for lighting and for appliances, including motor-operated appliances, shall be provided to supply the loads calculated in accordance with 220.10. In addition, branch circuits shall be provided for specific loads not covered by 220.10 where required elsewhere in this Code and for dwelling unit loads as specified in 210.11(C).<br>C. Dwelling Units.<br>1. Small-Appliance Branch Circuits. In addition to the number of branch circuits required by other parts of this section, two or more 20-ampere small-appliance branch circuits shall be provided for all receptacle outlets specified by 210.52(B).<br>2. Laundry Branch Circuits. In addition to the number of branch circuits required by other parts of this section, at least one additional 20-ampere branch circuit shall be provided to supply the laundry receptacle outlet(s) required by 210.52(F). This circuit shall have no other outlets.<br>3. Bathroom Branch Circuits. In addition to the number of branch circuits required by other parts of this section, at least one 120-volt, 20-ampere branch circuit shall be provided to supply a bathroom receptacle outlet. Such circuits shall have no other outlets.<br>Exception: Where the 20-ampere circuit supplies a single bathroom, outlets for other equipment within the same bathroom shall be permitted to be supplied in accordance with 210.23(A)(1) and (A)(2).<br>Arc-Fault Circuit-Interrupter Protection. Arc-fault circuit-interrupter protection shall be provided as required in 210.12 (A), (B), and (C). The arc-fault circuit interrupter shall be installed in a readily accessible location.<br>A. Dwelling units. All 120-volt, single-phase, 15- and 20-ampere branch circuits supplying outlets or devices installed in dwelling unit kitchens, 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 an of the the means described in 210.12(A)(1) through (6)<br>1. A listed combination type arc-fault circuit interrupter, installed to provide protection of the entire branch circuit.<br>2. A listed branch/feeder-type AFCI installed at the origin of the branch circuit in combination with a listed outlet branch circuit type arc-fault circuit interrupter installed at the first outlet box on the branch circuit. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit.<br>3. A listed supplemental arc protection circuit breaker installed at the origin of the branch circuit in combination with a listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet box on the branch circuit where all of the following conditions are met:<br>3.1. The branch-circuit wiring shall be continuous from the branch circuit over current device to the outlet branch-circuit arc-fault circuit interrupter.<br>3.2. The maximum length of the branch-circuit wiring from the branchCircuit overcurrent device to the first outlet shall not exceed 50 feet for a 14AWG conductor or 70 feet for a 12 AWG conductor.<br>3.3. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit.<br>4. A listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet on the |
| 210.12 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|        | branch circuit in combination with a listed branch circuit overcurrent protective device where all of the following conditions are met.<br>4.1. The branch-circuit wiring shall be continuous from the branch-circuit overcurrent device to the outlet branch-circuit arc-fault circuit interrupter.<br>4.2. The maximum length of the branch-circuit wiring from the branchCircuit overcurrent device to the first outlet shall not exceed 50 feet for a 14AWG conductor or 70 feet for a 12 AWG conductor.<br>4.3. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit.<br>4.4. The combination of the branch-circuit overcurrent device and outlet branch circuit AFCI shall be identified as meeting the requirements for a system combination-type AFCI and shall be listed as such.<br>5. If metal raceways, metal wireways, metal auxiliary gutters, or Type MC or Type AC cable meeting the applicable requirements of 250.118, with metal boxes, metal conduit bodies, and metal enclosures are installed for the portion of the branch circuit between the branch-circuit overcurrent device and the first outlet, it shall be permitted to install a listed outlet branch-circuit-type AFCI at the first outlet to provide protection for the remaining portion of the branch circuit.<br>6. Where a listed metal or nonmetallic conduit or tubing or Type MC cable is encased in not less than 2 in. of concrete for the portion of the branch circuit between the branch-circuit overcurrent device and the first outlet, it shall be permitted to install a listed outlet branch-circuit type AFCI at the first outlet to provide protection for the remaining portion of the branch circuit.<br>Dwelling Unit Receptacle Outlets.<br>A. General Provisions. In every kitchen, family room, dining room, living room, parlor, library, den, sunroom, bedroom, recreation room, or similar room or area of dwelling units, receptacle outlets shall be installed in accordance with the general provisions specified in 210.52(A)(1) through (A)(4).<br>1. Spacing. Receptacles shall be installed such that no point measured horizontally along the floor line of any wall space is more than 1.8 m (6 ft) from a receptacle outlet.<br>2. Wall Space. As used in this section, a wall space shall include the following:<br>2.1. Any space 600 mm (2 ft) or more in width [including space measured around corners] and unbroken along the floor line by doorways and similar openings, fireplaces, or radiators.<br>2.2. The space occupied by fixed panels in exterior walls, excluding sliding panels<br>2.3. The space afforded by fixed room dividers, such as freestanding bar-type counters or railings<br>3. Floor Receptacles. Receptacle outlets in or on floors shall not be counted as part of the required number of receptacle outlets unless located within 450 mm (18 in.) of the wall.<br>4. Countertop Receptacles. Receptacles installed for countertop surfaces as specified in 210.52(C) shall not be considered as the receptacles required by 210.52(A).<br>B. Small Appliances.<br>1. Receptacle Outlets Served. In the kitchen, pantry, breakfast room, dining room, or similar area of a dwelling unit, the two or more 20-ampere small-appliance branch circuits required by 210.11(C)(1) shall serve all wall and floor receptacle outlets covered by 210.52(A), all countertop outlets covered by 210.52(C), and receptacle outlets for refrigeration equipment.<br>3. Kitchen Receptacle Requirements. Receptacles installed in a kitchen to serve countertop surfaces shall be protected by not fewer than two small-appliance branch circuits, either of which shall also be permitted to supply receptacle outlets in the same kitchen and in other rooms specified in 210.52(B)(1). Additional small appliance branch circuits shall be permitted to supply receptacle outlets in the kitchen and other rooms specified in 210.52(B)(1). No small-appliance branch circuit shall serve more than one kitchen.<br>C. Countertops. In kitchens, pantries, breakfast rooms, dining rooms, and similar areas of dwelling units, receptacle outlets for countertop spaces shall be installed in accordance with 210.52(C)(1) through (C)(5).<br>1. Wall Countertop Spaces. A receptacle outlet shall be installed at each wall countertop space that is 300 mm (12 in.) or wider. Receptacle outlets shall be installed so that no point along the wall line is more than 600 mm (24 in.) measured horizontally from a receptacle outlet in that space. Exception: Receptacle outlets shall not be required on a wall directly behind a range, counter-mounted cooking unit, or sink in the installation described in Figure 210.52(C)(1).<br>2. Island and Peninsula Countertops and Work Surfaces.<br>2.1. Receptacle outlets, if installed to serve an island or peninsular countertop or work surface, shall be installed in accordance with 210.52(C)(3). If a receptacle outlet is not provided to serve an island or peninsular countertop or work surface, provisions shall be provided at the island or peninsula for future addition of a receptacle outlet to serve the island or peninsular countertop or work surface.<br>3. Receptacle Outlet Location:<br>3.1. On or above, but not more than 500 mm (20 in.) above, a countertop or work surface.<br>3.2. in a countertop using receptacle outlet assemblies listed for use in countertops<br>3.3. in a work surface using receptacle outlet assemblies listed for use in work surfaces or listed for use in countertops<br>D. Bathrooms. In dwelling units, at least one receptacle outlet shall be installed in bathrooms within 900 mm (3 ft) of the outside edge of each basin. The receptacle outlet shall be located on a wall or partition that is adjacent to the basin or basin countertop, located on the countertop, or installed on the wall or face of the basin cabinet. In no case shall the receptacle be located more than 300 mm (12 in.) below the top of the basin. Receptacle outlet assemblies listed for the application shall be permitted to be installed in the countertop.<br>E. Outdoor Outlets. Outdoor receptacle outlets shall be installed in accordance with 210.52(E)(1) through (E)(3).<br>1. One-Family and Two-Family Dwellings. For a one-family dwelling and each unit of a two-family dwelling that is at grade level, at least one receptacle outlet readily accessible from grade and not more than 2.0 m (6 ½ ft) above grade level shall be installed at the front and back of the dwelling.<br>3. Balconies, Decks, and Porches. Balconies, decks, and porches that are attached to the dwelling unit and are accessible from inside the dwelling unit shall have at least one receptacle outlet accessible from the balcony, deck, or porch. The receptacle outlet shall not be located more than 2.0 m (6½ ft) above the balcony, deck, or porch walking surface.<br>F. Laundry Areas. In dwelling units, at least one receptacle outlet shall be installed in areas designated for the installation of laundry equipment.<br>G. Basements, Garages, and Accessory Buildings. For a one-family dwelling, at least one receptacle outlet shall be installed in the areas specified in 210.52(G)(1) through (3). These receptacles shall be in addition to receptacles required for specific equipment.<br>1. Garages. In each attached garage and in each detached garage with electric power, the branch circuit supplying this receptacle(s) shall not supply outlets outside of the garage. At least one receptacle outlet shall be installed for each such space.<br>2. Accessory Buildings. In each accessory building with electric power.<br>3. Basements. In each separate unfinished portion of a basement.<br>H. Hallways. In dwelling units, hallways of 3.0 m (10 ft) or more in length shall have at least one receptacle outlet. As used in this subsection, the hallway length shall be considered the length along the centerline of the hallway without passing through a doorway.<br>Lighting Outlets Required. Lighting outlets shall be installed where specified in 210.70(A), (B), and (C).<br>A. Dwelling Units. In dwelling units, lighting outlets shall be installed in accordance with 210.70(A)(1), (A)(2), and (A)(3).<br>1. Habitable Rooms. At least one wall switch-controlled lighting outlet shall be installed in every habitable room and bathroom.<br>2. Additional Locations. Additional lighting outlets shall be installed in accordance with (A)(2)(a), (A)(2)(b), and (A)(2)(c).<br>a. At least one wall switch-controlled lighting outlet shall be installed in hallways, stairways, attached garages, and detached garages with electric power.<br>b. For dwelling units, attached garages, and detached garages with electric power, at least one wall switch-controlled lighting outlet shall be installed to provide illumination on the exterior side of outdoor entrances or exits with grade level access. A vehicle door in a garage shall not be considered as an outdoor entrance or exit.<br>c. Where one or more lighting outlet(s) are installed for interior stairways, there shall be a wall switch at each level of the stairway, and a switch on the landing level, to control the lighting outlet(s) where the stairway between floor levels has six risers or more.<br>C. For attics and underfloor spaces, utility rooms, and basements, at least one lighting outlet containing a switch or controlled by a wall switch or listed wall-mounted control device shall be installed where these spaces are used for storage or contain equipment requiring servicing. A point of control shall be at each entry point that permits access to the attic and underfloor space, utility room, or basement. Where a lighting outlet is installed for equipment requiring service, the lighting outlet shall be installed at or near the equipment. |
| 240.24 | Location in or on Premises.<br>A. Accessibility. Overcurrent devices shall be readily accessible and shall be installed so that the center of the grip of the operating handle of the switch or circuit breaker, when in its highest position, is not more than 2.0 m (6 ft 7 in.) above the floor or working platform.<br>D. Not in vicinity of easily ignitable material. Overcurrent devices shall not be located in the vicinity of easily ignitable material, such as in clothes closets.<br>E. Not Located in Bedrooms. In dwelling units, dormitories, in dwelling units, dormitories, overcurrent devices, other than supplementary overcurrent protection, shall not be located in bedrooms.<br>F. Attics and Underfloor Spaces, Utility Rooms, and Basements. At least one lighting outlet containing a switch or controlled by a wall switch or listed wall-mounted control device shall be installed where these spaces are used for storage or contain equipment requiring servicing. A point of control shall be at each entry point that permits access to the attic and underfloor space, utility room, or basement. Where a lighting outlet is installed for equipment requiring service, the lighting outlet shall be installed at or near the equipment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| 250.94 | Bonding for Other Systems. An interystem bonding termination for connecting interystem bonding conductors required for other systems shall be provided external to enclosures at the service equipment or metering equipment enclosure and at the disconnecting means for any additional buildings or structures. The interystem bonding termination shall comply with the following: (next sheet)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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### ARTICLE 240 OVER



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LEGEND

POWER SYMBOLS

RECEPTACLE 15AMP 120V LOCATE +12" ABOVE FINISH FLOOR.

RECEPTACLE 15 AMP 120V WITH ARC-FAULT CIRCUIT INTERRUPTER LOCATE +12" ABOVE FINISH FLOOR.

RECEPTACLE 15 AMP 120V WEATHER PROTECTED WITH GROUND FAULT INTERRUPTER. LOCATE +24" ABOVE FINISH FLOOR.

RECEPTACLE 120V WITH GROUND FAULT INTERRUPTER. USE GFI AT ALL MOIST LOCATIONS.

RECEPTACLE 120/240 10-3 WIRE OUTLET WITH 30 AMP WHERE REQUIRED. CHECK APPLIANCE RATINGS FOR FURTHER REQ.

RECEPTACLE 120V HALF-HOT SWITCHED

RECEPTACLE 120V FLUSH WITH FLOOR

QUAD RECEPTACLE LOCATE +12" ABOVE FINISH FLOOR.

O.H. DOOR

RECEPTACLE 120V FLUSH WITH CEILING.

SWITCH SYMBOLS

SWITCH - SINGLE POLE - FLUSH MOUNT

SWITCH - SINGLE POLE w/ DIMMER - FLUSH MOUNT

SWITCH - THREE POLE - FLUSH MOUNT

SWITCH - THREE POLE w/ DIMMER - FLUSH MOUNT

SWITCH - FOUR POLE - FLUSH MOUNT

SWITCH - OCCUPANT SENSOR

SWITCH - SINGLE POLE - GROUND FAULT INTERRUPT

LUTRON LIGHTING CONTROL STATION

SWITCH - DOOR JAMB

GRAPHIC EYE, SEE SCHEDULE

KEY PAD OR MASTER KEY PAD

LIGHT SYMBOLS

CEILING MOUNTED LED LIGHT FIXTURE

WALL MOUNTED LED LIGHT FIXTURE

LED CAN LIGHT

LOW VOLTAGE CAN LIGHT

LED PENDANT LIGHT

LED UNDER CABINET LIGHT

LED STRIP LIGHT

FLUORESCENT STRIP LIGHT

LED TRACK LIGHTING

SURFACE-MOUNTED LED SPOTLIGHT

RECESSED LED SHOWER LIGHT

LOW VOLTAGE LANDSCAPE LIGHT ON GFI CIRCUIT

MISCELLANEOUS ELECTRICAL SYMBOLS

SMOKE & CARBON MONOXIDE DETECTOR

THERMOSTAT

DOOR BELL (LOCATE CHIME AS APPROPRIATE)

DATA JACK

TELEPHONE & DATA JACK

TELEPHONE JACK

INTERCOM

SPEAKER

TELEVISION CABLE

GARAGE DOOR OPENER (BUTTON)

MECHANICAL SYMBOLS

EXHAUST FAN w/ MIN. 4" DUCTING

EXHAUST FAN/LIGHT w/ MIN. 4" DUCTING

FLOOR HEATING SUPPLY REGISTER

CEILING HEATING SUPPLY REGISTER

WALL/TOE KICK HEATING SUPPLY REGISTER

WALL RETURN AIR REGISTER

CEILING HEATING SUPPLY DUCT

FLOOR HEATING SUPPLY DUCT

UNDER-FLOOR SUPPLY/RETURN DUCT RUN

PLUMBING SYMBOLS

HOSE BIBB FREEZE PROTECTED w/ ATMOS. VAC. BARRIER

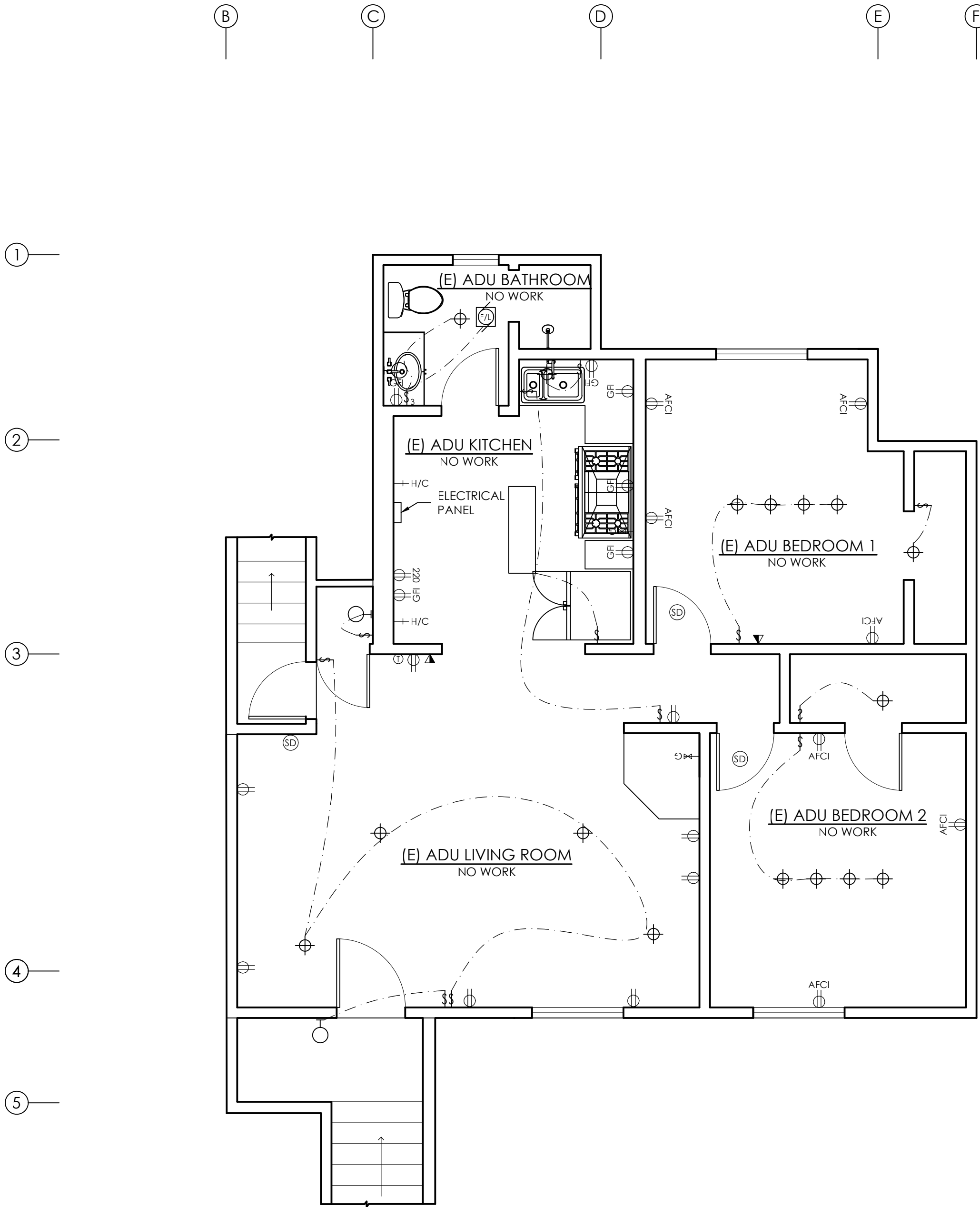
GAS COCK - PROVIDE AT W.H./FURN., DRYER, COOKTOP, F.P.

HOT AND COLD BIBBS AT WASHER

SHOWER HEAD WITH HOT AND COLD TAP AND TUB FAUCET AS APPLIES

ELECTRICAL NOTES

1. ALL ELECTRICAL SHALL BE VERIFIED WITH OWNER PRIOR TO PURCHASE AND INSTALL.



DAYLIGHT ADU ELECTRICAL PLAN  
SCALE: 1/4" = 1'-0"

stamp

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|                    |             |               |
|--------------------|-------------|---------------|
| project number     | 2025.090    |               |
| drawn by           | GK          | checked by BA |
| ISSUES & REVISIONS |             |               |
| no.                | description | date          |
| 1                  | HPAC Review | 2026.03.30    |
| -                  | -           | -             |
|                    |             |               |
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project location

Interior Remodel & Window Replacement for:

Jess Hanson  
10050 S River St.  
Truckee California  
Nevada County 019-042-000

description

Daylight ADU  
Electrical Plans

sheet

ME2.1

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 UNDER-FLOOR SUPPLY/RETURN DUCT RUN

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 HOSE BIBB FREEZE PROTECTED w/ ATMOS. VAC. BARRIER

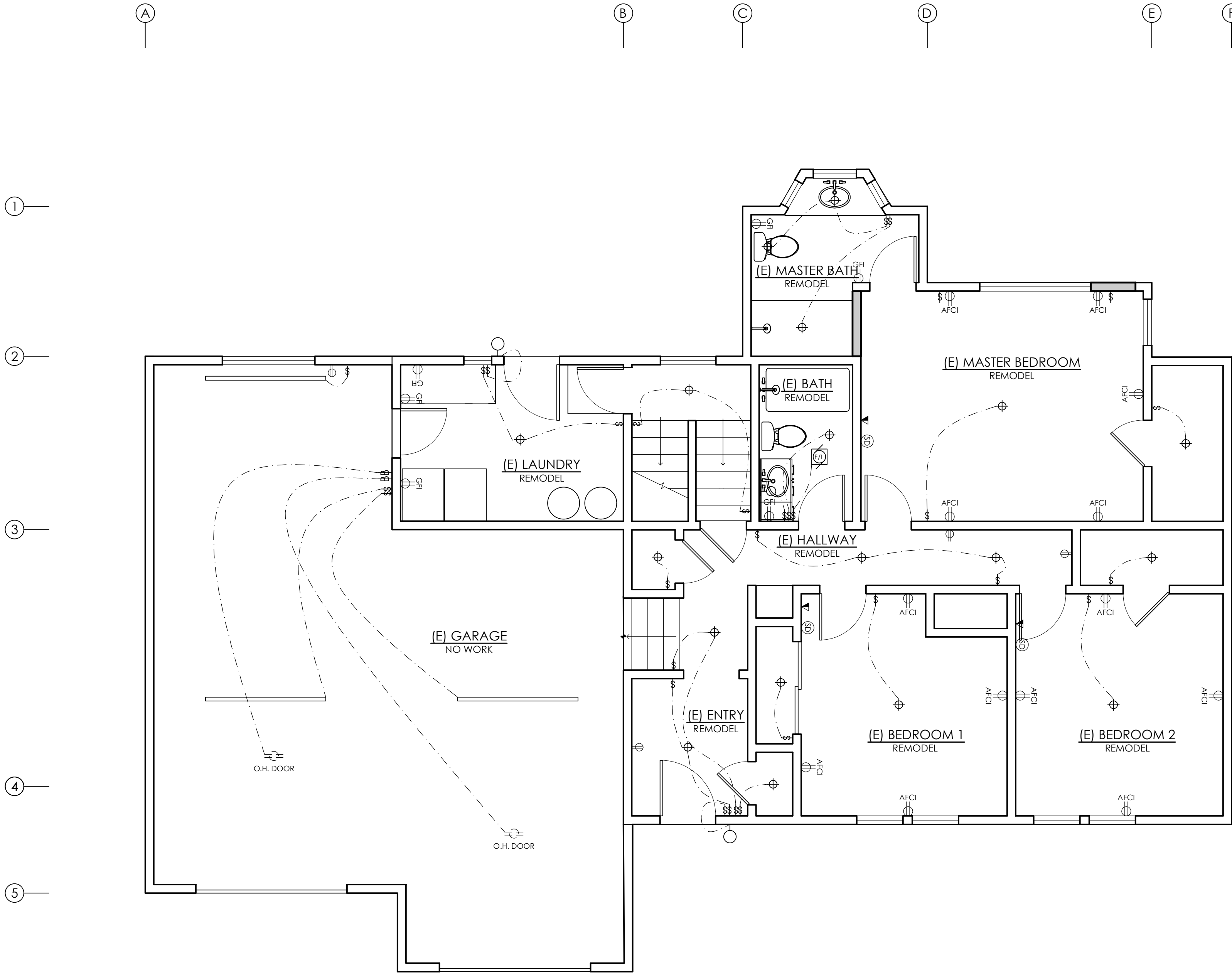
 GAS COCK - PROVIDE AT W.H./FURN., DRYER, COOKTOP, F.P.

 HOT AND COLD BIBBS AT WASHER

 SHOWER HEAD WITH HOT AND COLD TAP AND TUB FAUCET AS APPLIES

ELECTRICAL NOTES

1. ALL ELECTRICAL SHALL BE VERIFIED WITH OWNER PRIOR TO PURCHASE AND INSTALL.



FIRST LEVEL ELECTRICAL PLAN  
SCALE: 1/4" = 1'-0"

stamp

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|--------------------|-------------|---------------|
| project number     | 2025.090    |               |
| drawn by           | GK          | checked by BA |
| ISSUES & REVISIONS |             |               |
| no.                | description | date          |
| 1                  | HPAC Review | 2026.03.30    |
| -                  | -           | -             |
|                    |             |               |
|                    |             |               |
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|                    |             |               |
|                    |             |               |

project location

Interior Remodel & Window Replacement for:

Jess Hanson  
10050 S River St.  
Truckee California  
Nevada County 019-042-000

description

First Level  
Electrical Plan

sheet

ME2.2

C:\Users\gram\OneDrive\Design Works\Dropbox\EDW 2025 PROJECTS\2025.090 Hanson, Jess\DRAWINGS\2.0 CONSTRUCTION DOCUMENTS\2025.090 Hanson CD 2.1 MASTER WINDOW 2026.03.10.dwg, 3/30/2026 2:06:04 PM, \_DWG to PDF.pc3

LEGEND

POWER SYMBOLS

 RECEPTACLE 15AMP 120V LOCATE +12" ABOVE FINISH FLOOR.

 RECEPTACLE 15 AMP 120V WITH ARC-FAULT CIRCUIT INTERRUPTER LOCATE +12" ABOVE FINISH FLOOR.

 RECEPTACLE 15 AMP 120V WEATHER PROTECTED WITH GROUND FAULT INTERRUPTER. LOCATE +24" ABOVE FINISH FLOOR.

 RECEPTACLE 120V WITH GROUND FAULT INTERRUPTER. USE GFI AT ALL MOIST LOCATIONS.

 RECEPTACLE 120/240 10-3 WIRE OUTLET WITH 30 AMP WHERE REQUIRED. CHECK APPLIANCE RATINGS FOR FURTHER REQ.

 RECEPTACLE 120V HALF-HOT SWITCHED

 RECEPTACLE 120V FLUSH WITH FLOOR

 QUAD RECEPTACLE LOCATE +12" ABOVE FINISH FLOOR.

 O.H. DOOR

 RECEPTACLE 120V FLUSH WITH CEILING.

SWITCH SYMBOLS

 SWITCH - SINGLE POLE - FLUSH MOUNT

 SWITCH - SINGLE POLE w/ DIMMER - FLUSH MOUNT

 SWITCH - THREE POLE - FLUSH MOUNT

 SWITCH - THREE POLE w/ DIMMER - FLUSH MOUNT

 SWITCH - FOUR POLE - FLUSH MOUNT

 SWITCH - OCCUPANT SENSOR

 SWITCH - SINGLE POLE - GROUND FAULT INTERRUPT

 LUTRON LIGHTING CONTROL STATION

 SWITCH - DOOR JAMB

 GE# GRAPHIC EYE, SEE SCHEDULE

 KP/MKP KEY PAD OR MASTER KEY PAD

LIGHT SYMBOLS

 CEILING MOUNTED LED LIGHT FIXTURE

 WALL MOUNTED LED LIGHT FIXTURE

 LED CAN LIGHT

 LOW VOLTAGE CAN LIGHT

 LED PENDANT LIGHT

 LED UNDER CABINET LIGHT

 LED STRIP LIGHT

 FLUORESCENT STRIP LIGHT

 LED TRACK LIGHTING

 SURFACE-MOUNTED LED SPOTLIGHT

 RECESSED LED SHOWER LIGHT

 LOW VOLTAGE LANDSCAPE LIGHT ON GFI CIRCUIT

MISCELLANEOUS ELECTRICAL SYMBOLS

 SMOKE & CARBON MONOXIDE DETECTOR

 THERMOSTAT

 DOOR BELL (LOCATE CHIME AS APPROPRIATE)

 DATA JACK

 TELEPHONE & DATA JACK

 TELEPHONE JACK

 INTERCOM

 SPEAKER

 TELEVISION CABLE

 GARAGE DOOR OPENER (BUTTON)

MECHANICAL SYMBOLS

 EXHAUST FAN w/ MIN. 4" DUCTING

 EXHAUST FAN/LIGHT w/ MIN. 4" DUCTING

 FLOOR HEATING SUPPLY REGISTER

 CEILING HEATING SUPPLY REGISTER

 WALL/TOE KICK HEATING SUPPLY REGISTER

 WALL RETURN AIR REGISTER

 CEILING HEATING SUPPLY DUCT

 FLOOR HEATING SUPPLY DUCT

 UNDER-FLOOR SUPPLY/RETURN DUCT RUN

PLUMBING SYMBOLS

 HOSE BIBB FREEZE PROTECTED w/ ATMOS. VAC. BARRIER

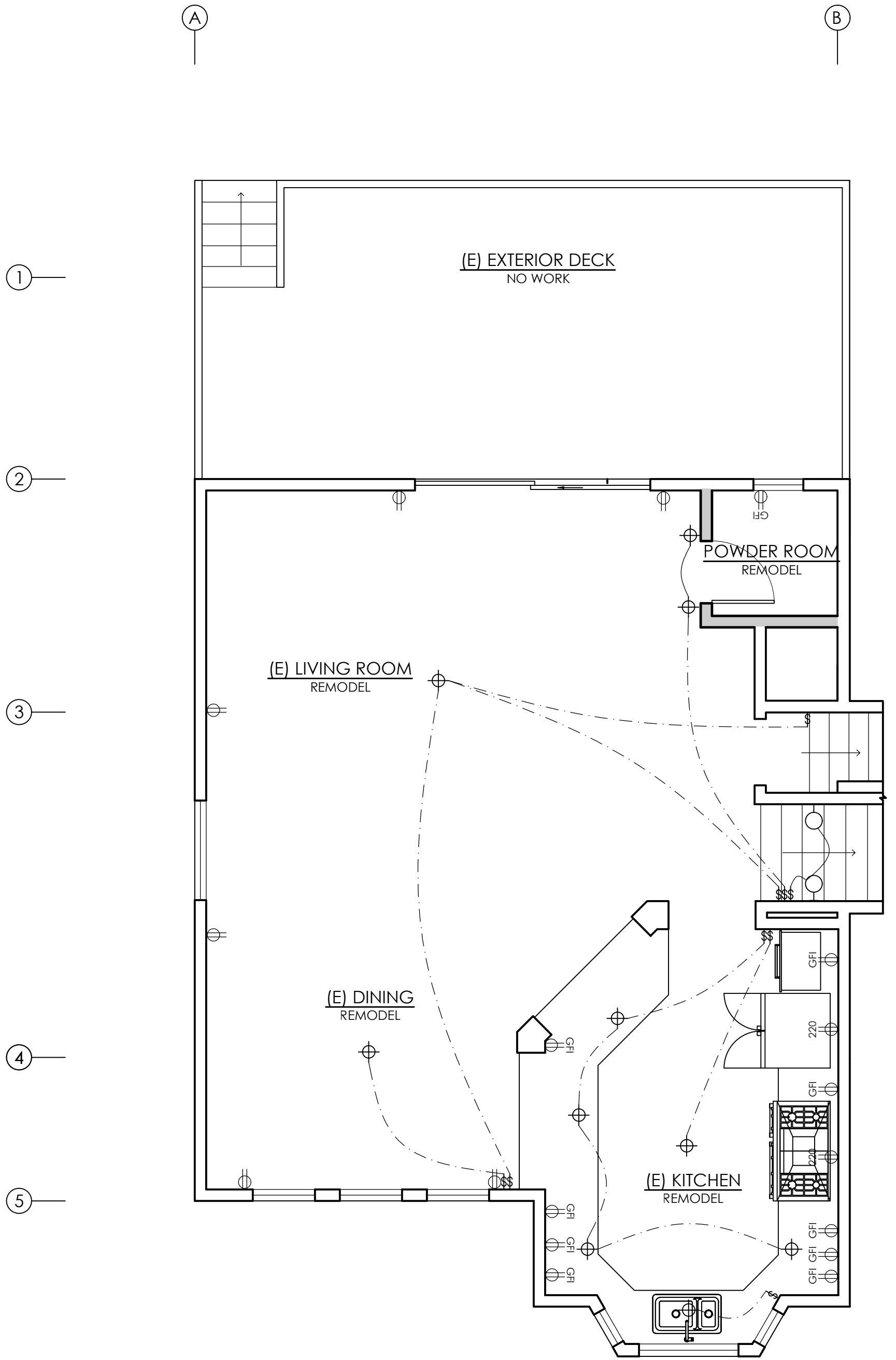
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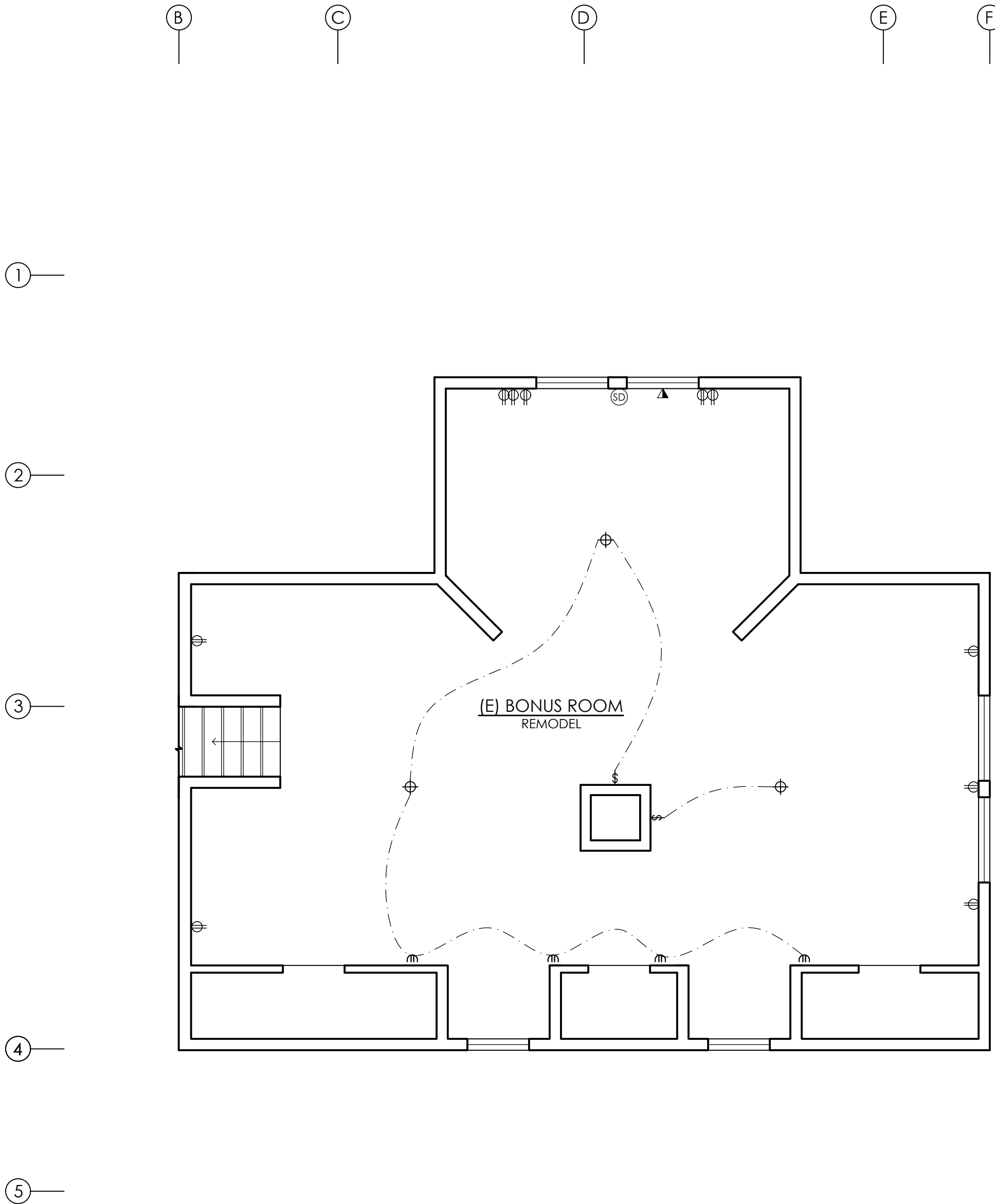
 SHOWER HEAD WITH HOT AND COLD TAP AND TUB FAUCET AS APPLIES

ELECTRICAL NOTES

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SECOND LEVEL ELECTRICAL PLAN  
SCALE: 1/4" = 1'-0"



ATTIC LEVEL ELECTRICAL PLAN  
SCALE: 1/4" = 1'-0"

stamp

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project location

Interior Remodel & Window Replacement for:  
Jess Hanson  
10050 S River St.  
Truckee California  
Nevada County 019-042-000

description

Second & Attic  
Level Electrical  
Plans

sheet

ME2.3