



Project Name: Kingsbury - SFD
Project Location: 8549 East Spring Park
 Eden, UT

Code by: Rob Sears
Structural by: Joe Bingham

SQUARE FOOTAGE SUMMARY:

Main Level	Upper Level	Finished Basement	Unfinished Basement	Deck(s)	Covered Patio(s)	Garage	Carport
1,712 ft ²	1,144 ft ²	1,7151 ft ²	79 ft ²	769 ft ²	-	685 ft ²	-

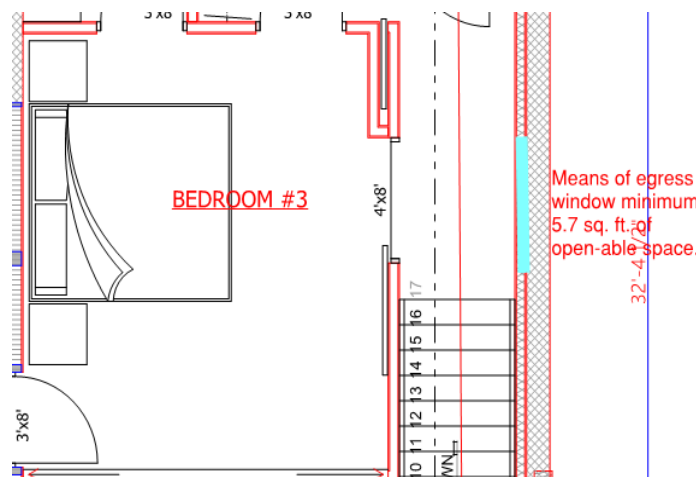
The following residential plan review comments address non-compliance with governing 2015 IRC, as adopted by the State of Utah and potential errors or omissions in the proposed design.

PLAN REVIEW COMMENTS:

Please provide a written response to each comment listed. Revisions to the plans and structural calculations are required where identified below. Please cloud any revisions made to the construction drawings and provide the date of the latest revision of each revised sheet.

CODE REVIEW

- A1. Site Plan: Please provide the distance (setbacks) from the corners of the house to the property line on all sides.
- A2. A letter has been provided stating a geotech report has been generated. Please provide the soils report in compliance of IBC 1803.6.
- A3. Bedroom 3 does not meet the requirements of egress per R310.1. The barn style door does not meet the requirements for means of egress per R310.3. Provide a means of egress side-hinged swinging door at the 4'X8' opening and a means of egress window to meet the requirements of R310.2. Be aware the stairs do not lead to the exterior and cannot be considered as part of a means of egress system.





- A4. The plans do not provide clear information regarding the spiral staircase. Please identify the requirements of the treads for the winder stair of the spiral staircase to show compliance with R311.7.5.2 or to the requirements of the exception listed on R311.7.10.1.
- A5. The general notes list the requirements for asphalt shingles. Since this does not apply due to the installation of metal roof panels, please provide the manufacturer's installation specifications or provide the requirements as listed in R905.10.
- A6. The plans show a chimney will be installed. Please address the following
 - A. The structural plans need to detail how the chimney is to be constructed and be seismically anchored for Seismic Design Category D.
 - B. Sheet 3.1 identifies a wood burning chimney, while the floor plans all indicate gas fireplaces will be provided. Please update the plans to show continuity throughout the plan set.
- A7. There is conflicting information regarding the heating of the house. The plans indicate a boiler will be installed, while the Manual J & D list a furnace. Please identify the appliance to be provided and provide continuity between the plans and reports.
 - A. Please provide a gas line schematic identifying the BTU rating for all gas fueled appliances, size, and length of main and all branch lines per G2413.
 - B. If a boiler is being installed, will there be hydronic piping or radiant floor heating?
 - I. Please provide the manufacturer specifications for the boiler to show that the protection of potable water will be provided per M2101.3.
- A8. The Manual J & D lists insulation values in the floors and certain walls that have not been included on the plans or the REScheck. Please ensure the plans, the REScheck and the Manual J&D all provide the same complete and accurate information.

STRUCTURAL REVIEW

- S1. On Sheet S0 please include all of the earthquake design data required by IBC 1603.1.5 including basic seismic force-resisting system(s) and response modification coefficient(s).
- S2. Please verify that there is a note on the plans stating that all fasteners (i.e. nails, screws, anchor bolts, etc.) which are to be installed in preservative treated wood (i.e. sill plates) shall meet the requirements of IBC 2304.10.5.
- S3. Please clarify the intent of beams MB3 and RB3 which show (2) glulam beams screwed together. This is not a common thing to do with glulam beams. In addition, Detail 2/S2 seems to apply more to attaching multiple plies of LVL and not to glulam beams which are much wider. Please address.
- S4. Calculation page 55 shows RB3 as a 7-1/2 x 10-1/4 glulam beam while the plans show (2) 6-1/2 x 10-1/4 glulam beams. Please clarify.
- S5. No calculations were included for snow drift loads as required by Sections 7.7 through 7.8 of ASCE 7-16. Please provide calculations and revise the roof framing calculations and plans as necessary to include these increased loads where they occur.
- S6. Please address any building irregularities as defined in Tables 12.3-1 and 12.3-2 of ASCE 7-16 that may apply and show that the ASCE 7 requirements for each irregularity type have been met.



- A. The proposed structure includes in-plane discontinuity in vertical lateral force-resisting element irregularities as defined by Table 12.3-2 of ASCE 7-16. Please confirm that the requisite forces were increased as required by Sections 12.3.3.3 and 12.3.3.4 of ASCE 7.
- B. The proposed structure includes nonparallel system irregularities as defined by Table 12.3-1 of ASCE 7-10. Please confirm that the requirements of Sections 12.5.3 and 12.7.3 of ASCE 7 have been met and that the requisite forces were increased as required by Section 12.5.3.

REDLINE/CONDITIONAL APPROVAL COMMENTS:

The following plan review items are required by the IRC and are not a part of the submitted plans. The code information may be added as part of the required revisions to the plans. Otherwise, the information will be redlined on the plans as part of WC³'s final review process.

- Provide Geotech letter to inspector at time of footing inspection.
- Provide manufacture specs to the inspector of the glass railing to be installed and ensure tempered glazing is provided per R308.1, R308.3.1 and R308.4.4.
- Provide manufacture specs to the inspector at the time of inspection of the 'Weathered Roof Panels' to be installed and ensure compliance as per R905.10.
- R319.1: Buildings shall be provided with address identification legible and placed in a position that is visible from the street fronting the property.
- R703.8 and R905: Wall and roof flashings are required to meet code based upon the applicable application, i.e., siding, brick veneer, asphalt shingles, clay tiles.
- R903.2.2: A cricket or saddle is required on the ridge side of any roof penetration or chimney more than 30 inches wide.
- R1004.1: Provide the listing and manufacturer's installation instructions for the gas fireplace to the inspector.
- G2419.4: Sediment traps are required on the downstream side of the gas-fired appliances shutoff valve.
- E3901: Electrical receptacles are required at the following locations:
 - No point measured horizontally along "wall space" is more than 6 feet from receptacle. "Wall space" includes any space 2 feet or more in width.
 - At each wall counter space 12" or wider so that no point along the wall is more than 24" from a receptacle outlet.
 - Within 6 feet of intended appliance locations (i.e. oven, laundry, etc.). No less than one receptacle is required in laundry areas.
 - Basements, garages, and accessory buildings shall have at least one receptacle outlet, in addition to any provided for specific equipment. To be GFCI protected.
 - Provide a convenience receptacle for the servicing of appliances (HVAC) within 25 feet of the appliance. To be GFCI protected when outdoors.
- E4003.9: All lighting over tubs or showers shall be suitable for wet or damp locations.
- E3903.3: A least one wall-switched lighting outlet shall be installed in hallways and stairways and shall be switched at each floor level.
- R315 and Utah State Amendments: Carbon monoxide detectors are required in the following locations and shall receive their primary power from the building wiring and shall have battery backup:
 - A minimum of one carbon monoxide alarm on each habitable level including the loft.
- Provide all documentation at time of inspection to ensure a timely inspection.

If you have any questions regarding the above comments, please contact Mike Molyneux at mikem@wc-3.com or by phone at (801) 547-8133.

[END]