



908 WEST GORDON AVE. SUITE #3
LAYTON, UT 84041
(801) 547-8133

August 15, 2017

FIRST REVIEW
WC³ Project #: 217-525-142

Weber County
Building Inspection Department
2380 Washington Boulevard, Suite 240
Ogden, Utah 84401
Phone: (801) 399-8374

Attention: Craig Browne, Building Official

Subject: Umbanhower-Village East Nest4 – Plan Review Comments

Mr. Browne:

West Coast Code Consultants, Inc. (WC³) has completed the first review of the proposed Umbanhower-Village East Nest4 project located in Eden, UT. This review was based upon the following:

1. Architectural drawings dated 7/28/2017 by Hugh Sumbanhowar, sealed and signed by John Umbanhowar, Licensed Architect.
2. Structural drawings and calculations dated 7/21/2017 by Richmond Hoffmayer, sealed and signed by Joseph Hoffmayer, Licensed Professional Engineer.
3. Geotechnical investigation report (#01628-015) dated 12/1/2016 by Intermountain GeoEnvironmental Services, sealed and signed by David A Glass, Professional Engineer.

The 2015 IRC, as adopted by the State of Utah, were used as the basis of our review. Specific comments regarding this project are enclosed with this cover letter. If you have any questions regarding this review please do not hesitate to contact me.

Sincerely,

Mike Molyneux, P.E.

Attachment: Comments

Plan Review Comments

Project Name: Umbanhower-Village East Nest4
Location(s): 5778 Daybreak Ridge, Eden, UT
Checked By: DeAnn Wilde

Code Review by: Jason vonWeller
Structural by: Mike Molyneux

SQUARE FOOTAGE SUMMARY:

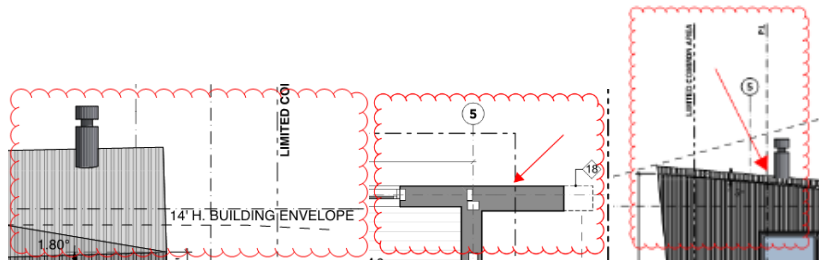
Main Level	Upper Level	Finished Basement	Unfinished Basement	Deck(s)	Covered Patio(s)	Garage	Carport
743 ft ²	657 ft ²	-	-	106 ft ²	-	276 ft ²	-

GENERAL INFORMATION:

The submitted documents for the above-mentioned project, as outlined in the cover letter, have been reviewed. The following comments address areas of concern, non-compliance with the governing code, potential errors, or omissions in the proposed design. The appropriate design professional must address each comment below and submit a written response in addition to revised plans and calculations if necessary. **Please cloud any revisions made to the construction drawings and provide the date of the latest revision on each revised sheet.**

CODE REVIEW COMMENTS:

- A1. Sheet A1.01: The sheet appears to contain formatting errors and is illegible. Please make necessary corrections.
- A2. Sheet A-1.02: The general plan notes reference Sheets A-4.00, A-5.00, and A-6.00. However, the sheets are not a part of the plans, nor are they identified in the sheet index. Please make necessary corrections.
- A3. Sheet A-2.00: Please address the property line and building envelope boundaries, in accordance with Chapter 3 of the IRC and local Weber County codes and ordinances. There are various locations where the building appears to encroach.



- A4. Per R311.7.8, please identify the required handrails on the plans. A handrail is required on not less than one side of each continuous run of treads or flight of stairs with four or more risers. Identify the required handrail height at 34-inches minimum and 38-inches maximum measured vertically from the sloped plane adjoining the tread nosing.
- A5. Provide details and dimensions for guardrails to be provided at the exterior decks adjacent to elevation changes 30" or greater. Per R312.1, the minimum height of guards located more than 30 inches above the floor shall be not less than 36 inches, except at the sides of stairs where the minimum height is 34 inches.



Openings in guards shall have intermediate rails or ornamental closures that do not allow passage of a 4-inch sphere. Please detail the required guard on the plans.

- A6. Indicate on the plans the location of the smoke detectors, per IRC 314.3. Smoke detectors are required on every level, every bedroom, and in the immediate vicinity outside the bedroom. Clarify that smoke detectors shall be interconnected, hardwired to the building power supply, and provided with battery backup per IRC R314.4 and R314.5.
- A7. Identify the location of carbon monoxide detectors. Per R315 and Utah State Amendments, provide a minimum of one carbon monoxide alarm on each habitable level, outside each separate sleeping area in the vicinity of bedrooms, and within bedrooms where fuel-burning appliances exist. Alarms shall receive their primary power from the building wiring and shall have battery backup.
- A8. Per R 302.5.1, please detail on the plans the openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8-inch thick, or shall be 20-minute fire-rated.

MECHANICAL REVIEW COMMENTS:

- M1. Please provide general mechanical sheet notes to demonstrate compliance with IRC R106.1.1.
- M2. Please identify location and type of interior conditioning equipment, per R106.1.1. Please verify necessary working clearances.
- M3. Please provide 100 cubic inches of makeup air for laundry closet, and note or detail same on the plans.
- M4. Indicate on the plans the length of the clothes dryer vent. Verify that it will meet the requirements of IRC M1502.4.4.1 as amended by the State of Utah.
- M5. Per R303.3 and M1506, identify on the plans the required exhaust fans vented to the outside from bathrooms, water closet compartments, and similar rooms if not supplied with natural ventilation.

PLUMBING REVIEW COMMENTS:

- P1. Please provide general plumbing sheet notes to demonstrate compliance with IRC R106.1.1.
- P2. Please indicate location of water heating/circulation device(s) and provide manufacturer details for installation and required working clearances.
- P3. Indicate on the plans that hose bibs shall be provided with an atmospheric or pressure type vacuum breaker, per IRC P2902.4.3
- P4. Please clarify the seismic bracing requirements for the water heater if applicable, per IRC P2801.7.
- P5. Please note on plans that a backwater valve is required to protect plumbing fixtures that are located below the elevation level of the nearest upstream man hole cover. Fixtures that are above the elevation level of the manhole cover shall not discharge through the backwater valve. IRC P3008.1

ELECTRICAL REVIEW COMMENTS:

- E1. Please provide general electrical sheet notes to demonstrate compliance with IRC R106.1.1.
- E2. Indicate outlets will be provided on the exterior of the home, in accordance with IRC E3901.7.
- E3.



- E4. If applicable, please note that electrical outlets in floors shall not be counted as part of the required number of receptacle outlets except where located within 18" of walls, per E3901.2.3.
- E5. Please provide a note on the plans indicating that all outlets will be tamper resistant in accordance with IRC E4002.14.
- E6. Please specify on the plans that electric radiant heating system for the bathroom(s) must have ground-fault circuit protection, per IRC E3902.10.
- E7. Please note on the plans where two or more non-metallic sheathed cables (romex) are installed together in the same space without maintaining space between them and where the opening they are installed in is filled with caulking, foam insulation, or other types of insulation, the conductors must be derated, as required by IRC E3705.4.4.
- E8. Please show the electrical panel on the plans so that working space can be verified, as required by IRC E3405.1
- E9. Please specify that all lighting over tubs or showers must be suitable for wet or damp locations, as required by IRC E4003.9.
- E10. Please show electrical GFCI receptacles within 24" of the edges of counter spaces, within 24" of the sink, within 24" of the cook top at the kitchen counter spaces, and spaced every 4' o.c. thereafter, per IRC E3901.4.
- E11. Please specify two small appliance branch circuits for the kitchen that are limited to supplying wall and counter space outlets for the kitchen, pantry, breakfast room, dining room, or similar areas. Note: These circuits cannot serve outside plugs, range hoods, disposals, dishwashers, or microwaves. They may only serve the required countertop/wall outlets and the refrigerator.
- E12. Please note that a dedicated 20-amp branch circuit for the bathroom receptacle outlets is required. This circuit cannot supply any other receptacles, lights, fans, etc.
- E13. Identify all receptacles in the garage as GFCI protected, per E3902.2.
- E14. Identify on the plans the dishwasher branch circuit shall be protected by GFCI, per E3902.9
- E15. Please note that all 125-volt, single phase, 15- and 20-amp receptacles in laundry areas shall have GFCI protection, per E3902.9.
- E16. Please show a GFCI protected outlet adjacent to each lavatory the bathrooms, per E390.1.6.
- E17. Please show a receptacle in hallway leading to bedrooms, per E3901.2.2.

ENERGY REVIEW COMMENTS:

- N1. Please indicate the U-factor for the windows on the plans. Include a note which clarifies that all U-factors shall be determined by testing in accordance with NFRC 100 and labeled as such by the manufacturer, per Section 102.1.3.
- N2. Please note that a permanent certificate shall be completed and located in an approved location that lists the predominant R-values of the insulation installed in the ceiling/roof, walls, foundation and ducts outside conditioned spaces, and U-factors for fenestration.
- N3. Please indicate on the plans that no less than 75% of the lamps permanently installed in lighting fixtures shall be high efficacy lamps or not less than 75 percent of the permanently light fixtures shall contain only high efficacy lamps. IRC N1104.1



- N4. Per IECC R402.4.5, please indicate that recessed luminaires (can lights) will be IC rated, air-tight and sealed to limit air leakage per ASTM E 283.

STRUCTURAL COMMENTS:

Structural Drawings:

- S1. Sheet SD.2: Details 7 and 8 show a W16x40 beam. The roof framing plan shows a W16x45 steel beam. Please coordinate.
- A. This occurs at detail 6/SD.4 as well.

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]