VILLAGE OF RUIDOSO NEW MEXICO

313 CREE MEADOWS DRIVE
RUIDOSO, NM, 88345
575-258-4343

WWW.RUIDOSO-NM.GOV

VILLAGE OF RUIDOSO
RESIDENTIAL BUILDING PLAN CHECK

Project Address:	
Contact's Name:	Contact's Tele:
Owners Name:	Owner's Tele:
Owner's Address:	E-mail:
General Contractor:	Contractor's Contact #:
Date:	Construction Type:
Occupant Load: N/A	Fire Sprinklers: Y-☐ N-☐
Building Classification: Residential	Occupancy Use:
Plan Checker:	Flood Zone:
Description of Work:	

CORRECT BOLD AND UNDERLINED ITEMS

(Provide a list detailing location of corrections on plans or answers to questions & indicate revisions on plans)

Please reference the following codes on your plans.

- Village of Ruidoso Municipal code 22-31
- 2015 New Mexico Commercial Building Code (2015 IBC)
- 2015 New Mexico Residential Building Code (2015 IRC)
- 2009 New Mexico Energy Conservation Code (2009 IECC)
- 2015 New Mexico Plumbing Code (2015 UPC)
- 2015 New Mexico Mechanical Code (2015 UMC)
- 2017 New Mexico Electrical Code (2017 NEC)

The State of New Mexico construction codes may be found at:
http://www.rld.state.nm.us/construction/Rules_and_Laws.aspx .

The issuance or granting of a permit or approval of plans, specifications and computations shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of the Ruidoso Building & Fire Code or any other ordinance of the Village of Ruidoso. Permits presuming to give authority to violate or cancel the provisions of the codes and ordinances of the Village of Ruidoso shall not be valid.

Planning Department office hours are from 8:00 a.m. to 5:00 p.m. Monday through Friday. The office is located at 313 Cree Meadows Dr. Ruidoso, Nm. 88345. Contact the office at 575-258-6999 for questions.

A building permit is required to construct, enlarge, alter, repair, move, demolish or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system. Exceptions include a one-story tool sheds or playhouses 120 square feet or less, retaining wall less than 3' in height measured from the bottom of the footing and not supporting a surcharge, interior finish such as paint or carpet, prefabricated swimming pools less than 24" high, residential playground equipment, window awnings less than 54" from the exterior wall and not requiring additional support. Other exceptions may apply.

Submit to:

In Person:	Mail To:
Village of Ruidoso Building Dept. 313 Cree Meadows Dr. Ruidoso, NM 88345 Phone: (575) 258-6999	Village of Ruidoso Building Dept. 313 Cree Meadows Dr. Ruidoso, NM 88345 Phone: (575) 258-6999

BASIC PLAN REQUIREMENTS

1. Two (2) Plot Plans showing all of the following:
   a. Show all buildings (proposed and existing) and sizes.
   b. Show well and septic system with distances to structure and distance apart. (If applicable)
   c. Streets and setbacks to all property lines
   d. On new foundations, **show drainage away from structure; provide 6" of slope for the first 10' away from structure. Control drainage to an approved location and provide erosion control prior to final approval.**
   e. List Flood Zone (show where even if only on part of property)

2. Two (2) complete sets of Building Plans drawn to scale, 1/8" minimum:
   a. Foundation, basement, crawl space, or slab on grade (Plan and details).
   b. Floor Framing Plan. (Show girder locations & joist size and spacing).
   c. Floor Plan.
   d. Wall Elevations (north, south, east, and west) with cross sections and details
   e. Roof Plan showing ceiling joist layout, rafter layout, post and beams or truss layout (trussed roofs require all calculations from manufacturer at time of submittal).
   f. Cross section(s) and details.
   g. Plumbing Plan (when required by Building Official)
   h. Mechanical Plan (when required by Building Official)
   i. Electrical Plan (when required by Building Official)
   j. All engineering data (If applicable) "Stamped and Signed"
   k. All energy requirements

DESIGN REQUIREMENTS

1. **Design minimums: Ultimate wind speed; 115-B. Seismic; B. Ground snow load; 30#, Soil load; 2000#, Weathering; moderate, Frost depth; 20" (to bottom of footings), Termite; slight, Winter design temp; 5 deg. Ice barrier; no, Air freezing index; 5-10 deg. Mean annual temp; 50 deg. Energy Zone; 5B per NMAC & IECC. The cover sheet will also include address of project, project description and owners name and contact information (mailing address and phone number), Show on plans**

2. **For engineered metal buildings; Designer of Record is to write the job number from the metal building plans on the foundation plan and write "this foundation plan has been designed and coordinated with Plan #?"**

3. **Provide a preliminary Flood Elevation Certificate, with plan and application submittal, from a Licensed Professional for projects in flood plain locations**

4. **Complete and sign a Village of Ruidoso Floodplain Use Permit prior to permit issuance in flood plain areas**

5. **Provide Flood Zone, driveway permit, approval to construct and Address verification forms from Lincoln County, when projects are located outside Village limits.**

6. **Provide drainage direction, location and termination or method on site plans (Ruidoso municipal code Section 22-31.b.11 & IRC 401.3)**

7. **Provide average percent slope of development area on site plan, for areas in excess of 20% slope see RMC 54-132 for additional requirements. For areas in excess of 33.3% average slope see IRC 403.1.7 for additional requirements.**

8. **Complete and provide a Home Owners Responsibilities form for owner builder projects**

9. **Provide floor area breakdown, occupancy type, on the cover page and index for plans.**

PLAN REQUIREMENTS (NMAC 14.5.2.10)

1. **HEIGHT OF BUILDING / GRADE PLANE:** IRC Section 202. The building height is the vertical distance from grade plane to the average height of the highest roof surface. The grade plane is a reference plane representing the average of the finished ground level adjoining the building at all exterior walls. **Show on plans/elevation page**

2. **ROOM IDENTIFICATION:** IRC Section R106.1.1. **Each room and its intended use must be clearly shown on the plans** by the applicant for plan review purposes.

3. **EGRESS WINDOWS:** IRC Section R310.2.1. Basements, **habitable attics**, and every sleeping room shall have at least one operable emergency escape and rescue opening. (Habitable attic is a conditioned attic area with a habitable floor area of 70 square feet and ceiling height of at least 7 feet over minimum area of 35 square feet). **Show which window, type, size, etc, on floor plans.**
    a. Windows shall have a minimum net clear open able area of 5.7 square feet, or, minimum of 5.0 square feet for grade floor openings.
    b. The minimum clear opening height shall be 24", and the minimum clear opening width shall be 20". The window shall have a finished sill height at 44" or less above the floor.
    c. Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys, tools, or special knowledge.
    d. Window wells shall be provided when egress windows have a finished sill height below the adjacent ground elevation. The well shall allow the window to be fully opened and provide a minimum accessible net clear opening of 9 square feet, with a minimum dimension of 36". Window wells with a vertical depth of more than 44" shall be equipped with a permanent ladder or steps.

e. Replacement Egress Windows: IRC Section 310.2.5. Replacement windows installed in buildings meeting the scope of this code shall be exempt from the maximum sill height requirements of Sections R310.1 and Sections R310.2.1 and R310.2.2.2, provided the replacement window meets the following conditions:
   - **i.** The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window is of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.
   - **ii.** The replacement window is not part of a change of occupancy

4. **SMOKE ALARMS:** IRC Section R314. A smoke alarm listed in accordance with UL217 shall be installed in each sleeping room, including each bedroom, as well as outside each separate sleeping area in the immediate vicinity of the bedrooms, and each additional story of the dwelling including basements and **habitable attics** (but excluding crawl spaces and uninhabitable attics). **Show on floor plans.**
   a. In dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
   b. When more than one smoke alarm is required to be installed within an individual dwelling unit, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit.
   c. Alterations, repairs and additions. R314.2.2 Where *alterations*, *repairs or additions* requiring permit occur, or where one or more sleeping rooms are added or created in existing *dwellings*, the individual *dwelling unit* shall be equipped with smoke alarms located as required for new *dwellings*.
   d. Interconnection: R314.4. **Exception**: Interconnection of smoke alarms in existing areas shall not be required where *alterations* or repairs do not result in removal of interior wall or ceiling finishes exposing the structure, unless there is an *attic*, *crawl* space or *basement* available that could provide access for interconnection without the removal of interior finishes.

   Note: Habitable rooms such as dens, libraries and offices that are provided with built in features that establish the specific use of the room as something other than for sleeping, and do not contain clothes closets, need not be considered a sleeping room.

5. **CARBON MONOXIDE ALARMS:** IRC Section 315. An approved carbon monoxide alarm listed with UL 2034 shall be installed outside of each separate sleeping area in the immediate vicinity of the bedroom. (In all residences with gas-fired appliances and/or an attached garage). **Show on floor plans.**

6. **SAFETY GLAZING:** *Hazardous Locations*. IRC Section R308.4. All glass located in an area considered *hazardous must be safety glazed*: **Show on floor plans.**
   a. Glazing in fixed and operable panels of swinging, sliding and bi-fold doors shall be considered a hazardous location.
   b. Glazing in an individual fixed or operational 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 (1524 mm) above the floor or walking surface and it meets either of the following conditions:
      - i. Where the glazing is within 24 inches (610 mm) of either side of the door in the plane of the door in a closed position.

ii. Where the glazing is on a wall perpendicular to the plane of the door in a closed position and within 24 inches (610 mm) of the hinge side of an in-swinging door.

Exceptions:

1. Decorative glazing.
2. Where there is an intervening wall or other permanent barrier between the door and the glazing.
3. Where access through the door is to a closet or storage area 3 feet (914 mm) or less in depth. Glazing in this application shall comply with Section R308.4.3.

c. Glazing that meets all of the following conditions:

i. Exposed area of an individual pane is greater than 9 square feet.
ii. Exposed bottom edge is less than 18" above the floor.
iii. Exposed top edge is greater than 36" above the floor.
iv. One or more walking surfaces are within 36" horizontally and in a straight line of the glazing.

Exceptions:

1. Decorative glazing.
2. Where a horizontal rail is installed on the accessible side(s) of the glazing 34 to 38 inches (864 to 965 mm) above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per linear foot (730 N/m) without contacting the glass and have a cross-sectional height of not less than 11/2 inches (38 mm).
3. Outboard panes in insulating glass units and other multiple glazed panels where the bottom edge of the glass is 25 feet (7620 mm) or more above *grade*, a roof, walking surfaces or other horizontal [within 45 degrees (0.79 rad) of horizontal] surface adjacent to the glass exterior.

d. 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.

e. 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 (1524 mm) 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.

Exception: Glazing that is more than 60 inches (1524 mm), 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.

7. **CLOTHES DRYERS:** UMC 504.1 & 504.3 -504.3.2.2. Clothes dryer exhaust ducts shall terminate outside the building at least 3 feet away from any openings and be equipped with a back-draft damper. **Show duct and termination; include total length of duct on plans**

a. Exhaust ducts shall be constructed of minimum 0.016-inch-thick rigid metal ducts, having smooth interior surfaces with joints running in the direction of air flow. Ducts shall not be connected with sheet metal screws or other fasteners which could obstruct the flow.

b. Duct length shall not exceed a total combined vertical and horizontal length of 14′ (includes 2-90-degree elbows), subtract 2′ for each additional elbow, from the connection of the transition duct from the dryer to the outlet terminal. The maximum length of the duct shall be reduced **in accordance** with UMC 504.3.2.2 except the manufacturer's instructions may prevail if the instructions are provided to the inspector at the time of the concealment inspection.

8. **CHIMNEYS & FIREPLACES:** IRC Chapter 10. Factory-built chimneys and fireplaces, R1005, shall be tested in accordance with UL 127, listed and labeled, and shall be installed and terminated in accordance with the manufacturer's installation instructions. Masonry or concrete fireplaces shall be constructed in accordance with IRC Chapter 10 and shall include details on plans. **Show fireplace type and fuel type on plans**

9. **APPLIANCE LOCATIONS:** Fuel burning appliances shall not be installed in a sleeping room, bathroom, toilet room, or closet. *Exception: direct vent appliances (see UMC for additional exceptions).* **Show the location of all appliances on plans, any roof or attic appliances shall be shown on the roof framing plan and indicated on the truss calcs by the truss engineer. Any exterior ground type appliance(s) are to be shown above the floodplain on plans.**

10. **GARAGE/DWELLING DOOR:** IRC Section R302.5.1. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1-3/8 inches in thickness, solid or honeycomb core steel doors not less than 1-3/8 inches thick, or 20-minute fire-rated doors. Door is to be self-closing and latching. **Show 20 minute rated door and self-closing on plans or equal.**

11. **GARAGE/DWELLING SEPARATION, GARAGE FLOOR:** IRC Section R302.6, R309.1, NMRC 14.7.3.11.B. The garage shall be separated from the residence and its attic area by not less than 5/8" type "X" gypsum board applied to the garage side, including garages located less than 5′ from a dwelling unit on the same lot. **Show on plans**

12. **SEPARATION BETWEEN DWELLING UNITS:** IRC Section R302.3, R302.2. Walls and floors separating dwelling units in two-family dwellings shall not be less than 1-hr fire-resistance construction when tested in accordance with ASTM E 119 or UL 263. Townhouses shall be separated by either a 1-hour fire-resistance-rated wall assembly at ***each*** townhouse, or a common 2-hour fire-resistance-rated wall assembly between townhouses, with no plumbing, ducts, or vents in the cavity, tested in accordance with E119 or UL 263. See R302 for details of fire-resistant-rated construction. **Provide on plans**

13. **FIRE-RESISTANCE OF EXTERIOR WALLS:** IRC Section R302.1, Table R302.1 (1). 1-hr fire-resistive construction is required less than 5 feet of property lines. Openings are not permitted at less than 3′ and are limited between 3′ and 5′. Projections are allowed to be protected with 1-hour fire-resistance rated construction on the underside when the projection is between 2′ and 5′ from the property line. **Provide details on plans**

14. **MINIMUM CEILING HEIGHTS:** IRC Section R305.1, RMC 22-31 b. (10). Habitable spaces shall have a ceiling height of not less than 7 feet. Beams and girders spaced not less than 4 feet on center may project

not more than 6 inches below the required ceiling height. Ceilings in basements without habitable spaces may have a ceiling height of 6′-8″ with beams projecting to within 6′-4″ of the finished floor. Bathrooms shall have minimum ceiling height of 6′-8″ at the front clearance areas of fixtures. **Show all ceiling heights on plans.**

15. **DOORS & EXITS:** IRC Section R311.2. At least one egress door shall be provided in each dwelling unit. The egress door shall be side-hinged, with a minimum clear width of 32″ when measured between the face of the door and the stop (usually a 36″ door) and clear height of 78″, and. that can be opened without the use of a key, tool or special knowledge.

16. **LANDINGS:** IRC Section R311.3. There shall be a floor or landing on each side of exterior doors with dimensions of at least 36″ measured in the direction of travel, and at least the width of the door served. **Show on plans**

17. **STAIRWAYS:** IRC Section R311.7. Private dwelling stairways shall not be less than 36″ in width and shall have a headroom clearance of not less than 6 feet 8 inches measured vertically from the sloped plane adjoining the tread nosing, or landing surfaces.

18. **STAIR RISE & RUN:** IRC Section R311.7.5.1 & NMAC 14.7.3.11. **Maximum riser height shall be 8 inches and the minimum tread depth shall be 9 inches.** The greatest riser height may not exceed the smallest by more than 3/8 inch. The greatest nosing projection shall not exceed the smallest nosing projection by more than 3/8 inch between two stories, including the nosing at the level of floors and landings.

19. **STAIRWAY ILLUMINATION** R311.7.9. All interior and exterior stairways shall be provided with a means to illuminate the stairs, including the landings and treads.

20. **WINDING STAIRWAYS:** IRC Section R311.7.4. Winding stairways shall have minimum tread depth of 6″ and a minimum tread depth of 10″ measured between the vertical planes of the foremost projection of adjacent treads at the intersections with the walk line.

21. **SPIRAL STAIRWAYS:** IRC Section R311.7.10. Spiral stairs must provide a clear walking area measuring at least 26″ from the outer edge of the supporting column to the inner edge of the handrail. The tread run must be at least 7 ½″ at the point 12″ from where the tread is the narrowest. The rise must be sufficient to provide 6′-6″ headroom, and each riser shall not exceed 9 ½ inches.

STRUCTURAL

1. **MIN. CONCRETE FOOTING SIZE;** IRC Section R403.1, Table R403.1 (1). **Provide an accurate and complete foundation plan; include all interior bearing, pad and porch footings. These should correspond with the truss calculations or roof loads.**

   The charts are based on 32-foot-wide house with load-bearing center wall that carries half of the tributary attic, and floor framing. For every 2 feet of adjustment to the width of the house add or subtract 2 inches of footing width and 1 inch of footing thickness (but not less than 6 inches thick). **Show calculations on plans**

NOTE: All exterior (of occupancies) walls shall be supported on continuous footings or other approved structural systems of sufficient design to accommodate all loads and to transmit the resulting loads to the supporting soil within the limitations determined from the characteristics of the soil. Footings shall be supported on undisturbed natural soil or properly compacted engineered fill.

2. **MIN. CONCRETE FOOTING REINFORCEMENT:** RMC Section 22-31.b.11. At least two #4 bars are required for all continuous concrete footings or 1 #5 rebar. Provide a minimum of 3" between rebar and soil. (Vertical bars shall be tied in place at the time of the footing inspection. Wet setting of vertical bars will not be approved.**) Indicate on plans**

3. **MIN. CONCRETE FOUNDATION WALL SIZE:** IRC Section 404.1.4.2, Walls that have more than 4 feet of unbalanced fill and no permanent lateral support at the top of the wall, must be designed, signed and sealed by a Licensed Design Professional. . Grouting requirements: R606.3.5.1-96 inch max and 64" lifts. **Show minimum distance between top of stem wall or slab and exterior soil below. Show maximum height of walls; rebar size and spacing, etc. on details on plans**

4. **MINIMUM FOOTING DEPTH & SLOPE:** IRC Section R403.1.4, R403.1.4.1, R403.1.5, NMRBC 14.7.3.12.B.2. Exterior footings shall be placed at least 20"below the undisturbed ground. Interior footings supporting bearing or bracing walls and cast monolithically with a slab on grade shall extend to a depth of not less than 12" below the top of slab. Footing bottoms exceeding a 1/10 slope shall be stepped to bring the slope to 1/10 maximum. **Indicate on plans**

5. **SLAB ON GRADE FLOOR:** IRC R403.1.3.3, IRC R309.1. Foundations must extend at least 6" above finish grade. Garage or carport floor surfaces shall be sloped to a drain or toward the main vehicle entry doorway. A 6 mil (0.006 inch) polyethylene or *approved* vapor retarder with joints lapped not less than 6 inches (152 mm) shall be placed between the concrete floor slab and the base course or the prepared sub-grade where no base course exists. R506.2.3 **Show on plans**

   Exception: The vapor retarder may be omitted as follows:
   1. From; detached garages, utility buildings and other unheated *accessory structures*.
   2. For; unheated storage rooms having an area of less than 70 square feet (6.5 m^2) and carports.
   3. From; driveways, walks, patios and other flatwork not likely to be enclosed and heated at a later date.

6. **FOUNDATION ANCHORAGE:** IRC Section R403.1.6 & R602.11.1. Anchor bolts shall be not less than ½" diameter, embedded at least 7", and spaced no more than 6' apart. There shall be a minimum of 2 bolts per piece (sill plate), with a bolt located within 12" of each end of each piece. If foundation anchor straps are used instead of anchor bolts, they shall be spaced no more than 4' apart. **Indicate size and spacing on plans**

7. **DAMP-PROOF FOUNDATION WALLS:** IRC Section R406 Exterior foundation walls that retain earth and enclose habitable or usable spaces located below grade or sub-floor below grade or concrete shall be damp proofed in accordance with IRC R406.1 or waterproofed in accordance with IRC 406.2, from the top of the footing to 6" above the finished grade by approved methods and materials. **Show on plans**

8. **PIER PADS & COLUMNS:** IRC Section R403.1 (1) (2) (3), R404.1.5.3. Concrete pier footings shall have a depth to width ratio not to exceed 2:1, or, shall have #4 bars located each direction spaced not more than 12" on center. (Rebar must be in place upon inspection.) Support and Cover: Rebar to be installed per R404.1.3.3.7.4-. Positive connections shall be provided to prevent lateral displacement at both the top and bottom of columns. Indicate size, location and rebar on plans

9. **FOOTING/PIER ON OR NEAR SLOPE:** IRC Section R403.1.7 The placement of buildings and structures on or adjacent to slopes steeper than 1-unit vertical in 3 units horizontal (33.3%) slope shall conform to Sections R403.1.7.1 through R403.1.7.4. (See also IRC Figure R403.1.7.1) Footings must be embedded in material sufficient to provide vertical and lateral support for the footing without detrimental settlement or blow out. **Provide average percent slope of development area on site plan at submittal.** (see design requirements items 7 above)

10. **CHIMNEY FOUNDATION:** IRC Section R1001.2 and R1003 Masonry chimneys shall be supported on foundations of solid masonry or concrete at least 12 inches thick, at least 6 inches beyond each side of the exterior dimensions of the chimney, be at least 12" below grade, and on natural undisturbed earth or engineered fill. **Show on plans**

11. **FOUNDATION VENTILATION:** IRC Section R408.2. Minimum net area of ventilation openings shall not be less than 1 square foot for each 150 square feet of under-floor space area. **Indicate on plans**

12. **PROTECTION AGAINST DECAY:** IRC Section R317.1, R317.3.1. All wood in contact with the ground that supports permanent structures intended for human occupancy shall be approved pressure preservative treated wood suitable for *ground contact* use and treated in accordance with AWPA U1. **(Show on plans)**

13. **POSTS, POLES AND COLUMNS:** IRC Section R317.1.2, R317.1.4. Columns and posts supporting permanent structures that are embedded in concrete or in direct contact with the ground or embedded in concrete exposed to the weather shall be approved pressure treated wood suitable for ground contact use. Posts or columns which are exposed to weather, or are located in basements or cellars, shall be supported by piers or metal pedestals projecting 1 inch above the floor (and 6" above exposed earth). **Show on plans**

14. **GIRDERS ENTERING MASONRY OR CONCRETE WALL:** IRC Section R317.1(4) Ends of wood girders entering concrete or masonry walls must have a minimum clearance of ½ inch on tops, sides and ends, or shall be of an approved species and grade of lumber pressure treated or decay resistant heartwood of redwood, black locust, black walnut or cedars.

15. **POST-BEAM CONNECTIONS/FASTENING:** IRC R301, R407.3, R502.9. Where posts and beam or girder construction is used to support framing, positive connections shall be provided to ensure against uplift and lateral displacement. The construction of buildings and structures shall result in a system that provides a complete load path capable of transferring all loads from their point of origin through the load resisting elements to the foundation. **Indicate on plans and address uplift where required**

16. **SPECIFY WOOD SPECIES & GRADES:** IRC Sections R502.1, R602. **Indicate on plans and sections/details**

17. **FLOOR FRAMING:** IRC Sections R502.3, R502.6, R502.6.1, R502.7. See IRC Tables R502.3.1 (1) & (2) for floor joist spans, R602.7 (1) (2) (3) for girder spans and R502.3.3 (1) & (2) for cantilever spans. A load path for lateral forces shall be provided between floor framing and braced wall panels located above or below a floor. **Provide beams, joists, etc. and include sizes, spacing, type, etc.**

18. **UNDER-FLOOR CLEARANCE:** IRC Section 317.1. When floor joists or the bottom of a wood structural floor are located within 18" or wood girders are located within 12" to the exposed ground. **Indicate on plans**

19. **WALL FRAMING:** IRC Sections 601, 602.3, 602.3.1, 602.3.2, 602.3.3, 602.3.4, 602.6 & 602.9. The size, height, and spacing of all other wood-framing studs shall be in accordance with Table R602.3 (5). Studs shall be continuous from support from sole plate to a support at the top plate to resist loads perpendicular to the wall. The support shall be a foundation or floor, ceiling or roof diaphragm. Except jack studs, trimmers and cripple studs at openings. **Provide details/information on plans; including full height stud requirements and trimmers at window and door openings when more than 1 of each is required per header span charts and table R602.7.5.**

20. **BRACED WALL PANELS AND UPLIFT PATH**: IRC602.10. **Provide details, methods, material and fastening on plans**
    a. **Bracewell and Uplift Plan Specifications (example only, provide information on plans)**
        1. Bracewell Method (or mixed):
            Intermittent ___ Continuous ___ Simplified ___
        2. Bracewell Material/type: _____, Mixed materials/type; _____
        3. Number of brace wall lines, each plan direction: _____ and _____ (see figure R602.10.2.2)
        4. Spacing between BWLs: A-B; ___ B-C; ___ Etc. (If over 60' than see Table R602.10.1.2)
        5. Adjustment factors: (Table 602.10.3(2)
            a. Exposure category _____: Increase/decrease _____
            b. Roof eave to ridge height _____: Increase/decrease _____
            c. Wall height adjustment _____: Increase/decrease _____
            d. Number of brace wall lines per direction _____ & _____: Increase/decrease _____
            e. Additional hold down device _____: Decrease _____
            f. Omitted interior gypsum board finish: Increase _____
            g. Increased fastening at interior gypsum board: Decrease _____
            Subtotal: _____ Increase/decrease
        6. List of brace wall line(BWL) identifications, BWL lengths and minimum length of brace wall panels required: Example; BWL A; ___ - min.- ___ BWL B; ___- min.- ___ BWL C; ___- min.- ___ BWL 1; ___- min.- ___ BWL 2; ___- min.- ___ BWL 3; ___- min.- ___; etc.
        7. Show on the plans the location, type and length of brace wall panels for all BWL.

8. Provide end of brace wall connection to floor diaphragm for continuous sheathing method, per R602.10.7
9. Provide uplift load path calculations on brace wall plan per R602.3.5 and beams per R802.11.1 (Uplift resistance). Specify the following; (Use truss calculations for uplift at trusses to wall connections but use table R802.11 for wall uplift requirements).
   a. PLF of uplift per table 802.11 at roof to wall connection or beam
   b. State if uplift connectors are required; include spacing and strength
   c. Show uplift calculations for the base of each wall or post below until foundation or uplift is 100 plf or less.
   d. Show hold down device locations and strength on brace wall panels, show on plans when hold downs are required.

21. **EXTERIOR WALL COVERING TYPE:** IRC Section R703.3, R703.4, R703.5, R703.8, R703.9, R703.10, Table R703.4. Exterior wall coverings shall be installed, attached and flashed in accordance with the provisions of IRC Section R703 and the manufacturer's installation instructions. Weep screeds shall be installed per R703.7.2.1**. Show type, thickness, etc on plans**

22. **WEATHER RESISTIVE BARRIER:** IRC Sections R701.2, R703.2, R703.4 R703.8, R703.9.1. Exterior sheathing shall be dry before applying exterior cover. Asphalt-saturated felt or other approved weather resistant material such as house wrap shall be applied over the sheathing of all exterior. Such felt or house wrap material shall be applied horizontally, with the upper layer lapped over the lower layer not less than 2". **Show type and number of layers on plans**

23. **ANCHORED STONE AND MASONRY VENEER**: IRC Section R703.8, 703.8.4, Tables R703.8 (1) (2). **Indicate type, material and spacing on plans. Provide amount and location of weep holes on plans for anchored stone or masonry.**

24. **SIDING/EARTH SEPARATION:** IRC Section R317. Wood siding, sheathing and wall framing on the exterior of the building used within 8" of earth shall be pressure treated wood or wood of natural resistance to decay. **Indicate on plans**

25. **DECKS & EXTERIOR STAIRS:** IRC Section R317, R507, R507.2, R507.2.3 (1) (2). Ledger boards fastened to a wall shall be properly flashed and positively connected. Where supported by attachment to an exterior wall, decks shall be positively anchored to the primary structure and designed for both vertical and lateral loads as applicable. **Provide details on plans**

26. **WOOD TRUSSES:** IRC Section R502.11, R802.10**. 1 complete set of truss calculations and layouts shall be submitted at plan check, include on calculation and layout all roof and attic a/c or heat units, attic storage, etc for projects over 20' wide**. No deferred submittals will be allowed. Wood trusses shall be designed in accordance with approved engineering practice.

27. **RAFTERS:** IRC Section R802.3, R802.5 Rafters shall be framed to ridge board or to each other with a gusset plate as a tie. The ridge board shall be at least 1" nominal thickness, and all valley or hip rafters shall be at least 2" nominal thickness. See IRC Tables 802.5.1(1) through 802.5.1(8) for allowable spans. **Provide solid support under rafters at over frame locations, solid blocking between lower rafters and fastened or use 2x sleepers on top of lower roof sheathing to support rafters. Indicate rafter size, spacing, etc on plans and include purlin and bracing locations for cut and stack roofing systems (to match with framing/foundation system).**

28. **CEILING JOISTS:** IRC Sections R802.3.1, Ceiling joist spans shall be in accordance with IRC Tables R802.4 (1) and R802.4 (2) or specifically designed for applied loads. **Indicate size, spacing and maximum span on plans**

29. **ROOF SHEATHING:** IRC Section R803. Allowable spans for lumber used as roof sheathing shall conform to Table R803.1. Table R503.2.1.1 (1). **Indicate approximate locations of crickets required to divert water at low slope areas with vertical obstructions 30" wide or more and show slopes. (Indicate method, material and nailing on plans)**

30. **ROOF DRAINAGE & COVERING** IRC Section R801.3, R903, R904, R905. **Roofs that do not drain over edges shall have roof drains installed at the low point of the roof as well as overflow drains or scuppers.** See IRC R903.4. **Roof slope shall be indicated on the plans** and selected roof covering must be appropriate for the roof pitch. Roof coverings must be installed in accordance with the manufacturer's installation instructions. Flashing shall be installed at wall & roof intersections, at changes in roof slope or direction, and around roof openings
    a. **Provide the type of roofing material to be used on plans and drain or scupper sizes and spacing and include cricket locations.**
    b. **Note on the plans for tile roofs; "Tile roofs require a felt, flashing and batten inspection prior to loading or installing the tile".**

31. **ATTIC VENTILATION:** IRC Section R806, R806.2, R806.3 Enclosed attics and rafter spaces shall have cross ventilation. For each separate space, the total net free ventilating area shall not be less than 1 to 150 of the area of the space ventilated, the total area is permitted to be reduced to 1 to 300, provided at least 50% and not more than 80% of the required ventilating area is located in the upper portion of the. A minimum of 1-inch airspace must be maintained between the insulation and the roof sheathing at the locations of the vents. **Provide venting requirements on plans.**

ENERGY CODE

1. **HEATING AND COOLING:** IRC R303.10. Every dwelling unit shall be provided with heating facilities capable of maintaining a room temperature of 68° F at a point 3' above the floor and 2' from exterior walls in all habitable rooms. **Show the size and location of all units on the plans.**

2. **SLAB FOUNDATION INSULATION:** Required insulation by the IECC is to be installed (R-10), or R-15 for hydronic heating in floors.

3. **UNDER-FLOOR INSULATION:** IECC Table 402.1.1. Floors over unconditioned spaces, such as vented crawl spaces, unconditioned basements and garages shall be insulated with at least **R-19 insulation**. Provide **R-38** insulation for floor areas over outdoor air.

4. **WALL INSULATION:** IECC Table 402.1.1. Above grade exterior walls shall be insulated with **minimum R-19**. Insulation Faced batts shall be face-stapled *(not inset-stapled),* to avoid compression.

5. **ATTIC INSULATION:** IECC Table 402.1.1. Ceilings below vented attics shall be insulated to not less than the nominal R-value shown for ceilings on the energy code application for the compliance option chosen **(required R-38**). Where eave vents are installed rigid baffles shall be installed to deflect the incoming air above surface of the insulation (minimum 1″ air gap).

6. **VAULTED CEILING INSULATION:** IECC 402.1.1. Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof framing members shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain and snow. A minimum of 1″ of airspace shall be provided between the insulation and the roof sheathing. Single rafter joist vaulted ceiling cavities shall be of sufficient depth to allow a minimum 1″ vented air space above the insulation**. See exceptions**. **R-38 required, show on plans 2015 NMECC**

7. **DUCT INSULATION:** IECC Table 402.1.1. **All heating ducts within unconditioned spaces shall be insulated to a minimum of R-8 in attics and R-6 in other locations**. Ducts installed under slabs shall be insulated to a minimum of R-3.5. See exceptions

8. **EXTERIOR DOORS:** IECC Glazed doors are considered to be windows. Exterior (opaque) doors shall have an area weighted average U-factor not to exceed that specified in NMECC. Exception: One unlabeled or untested exterior swinging door with the maximum area of 24 square feet may be installed for ornamental, security, or architectural purposes.

9. **VAPOR RETARDER:** IECC. Vapor retarders shall be installed on the warm side (in winter) of insulation. Faced batt insulation where used as a vapor retarder shall be faced stapled.

10. **GLAZING:** IECC Table 402.1.1. The total glazing area shall have an area weighted average U-factor not to exceed that specified in Table 402.1.1 **(required U-Factor - .35 Maximum)**. Any change in windows must be approved by the Building Division before installation. NFRC compliance stickers shall remain on the windows until the framing inspection has been approved by the Building Department.