



CITY OF MESA  
DEVELOPMENT SERVICES  
SINGLE FAMILY DWELLING REQUIREMENTS

PROJECT STREET ADDRESS: \_\_\_\_\_

PERMIT # \_\_\_\_\_

THIS CHECKLIST CAN BE USED AS A GUIDE WHEN REVIEWING PLANS FOR RESIDENTIAL CONSTRUCTION. THESE COMMENTS CAN BE CUT AND PASTED INTO YOUR ELECTRONIC DOCUMENT REVIEW. **NOTE: ALL REFERENCES WERE TAKEN FROM THE 2018 MESA RESIDENTIAL CODE. NOTE: THIS IS TO BE USED AS A GUIDE AND NOT AS A COMPLETE COMPREHENSIVE LIST. ADDITIONAL ITEMS THAT ARE NOT INCLUDED ON THIS LIST MAY BE IDENTIFIED DURING THE REVIEW PROCESS.**

**For Site Plan review – See Zoning Requirements for Single Family Residential Check Sheet**

**Cover sheet and Site Plan – for additional required site plan information, see the Zoning Requirements for Single Family Residential check sheet**

- \_\_\_\_\_ 1. Architect’s and/or engineer’s seals are required to be signed and sealed (if applicable)
- \_\_\_\_\_ 2. Identify current codes
- \_\_\_\_\_ 3. Provide owner information
- \_\_\_\_\_ 4. Provide a project description
- \_\_\_\_\_ 5. Specify livable area(s) in square feet and non-livable area(s) in square feet. Identify areas separately by stories. Provide a footprint of the house with garage, patios etc.
- \_\_\_\_\_ 6. Identify septic system location, if applicable

**Floor Plan**

- \_\_\_\_\_ 7. Identify/label rooms (kitchen, bedroom, etc.). Show all window and door locations, type, and size. Habitable room areas shall not be less than 70 square feet (except kitchens). R304.1
- \_\_\_\_\_ 8. Minimum room dimension: Not less than 7’ in any horizontal direction. R304.2
- \_\_\_\_\_ 9. Minimum room height required for room area calculation: Not less than 7’ in a horizontal direction and not less than 5’ for sloped ceilings. R304.3

- \_\_\_\_ 10. Identify ceiling heights. Minimum room height for habitable rooms, hallways and portions of basements containing these spaces shall have a ceiling height of not less than 7'. Bathrooms, toilet rooms and laundry rooms shall have a ceiling height of not less than 6' 8". For rooms with sloped ceilings, the required floor area of the room shall have a ceiling height of not less than 5' and not less than 50% of the required floor area shall have a ceiling height of not less than 7'. R305.1
- \_\_\_\_ 11. Hallways shall be not less than 3 feet wide. R311.6
- \_\_\_\_ 12. Verify floor plan dimensions match the site plan footprint of the house.
- \_\_\_\_ 13. A minimum of one egress door is required for a single-family residence. Required exit door must comply with R311.2
- \_\_\_\_ 14. Exterior doors and windows shall comply with Section R328, Security Standards of the Mesa Residential Code.
- \_\_\_\_ 15. Provide a landing at every exterior door. The width of the landing shall not be less than the door served but shall not be less than 36" measured in the direction of travel with a slope not exceeding ¼" vertical in 12" horizontal (2%). R311.3
- \_\_\_\_ 16. Openings from a garage directly into a room used for sleeping purposes shall not be permitted. R302.5.1
- \_\_\_\_ 17. Openings from a garage into livable area shall be equipped with solid core doors not less than 1 3/8" thick or 20-minute fire-rated doors, equipped with a self-closing or automatic-closing device. R302.5.1
- \_\_\_\_ 18. Dwelling-garage separation shall be as required by Table R302.6. The garage shall be separated from the residence and its attic area by not less than ½" (12.7mm) gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8" (15.9mm) Type X gypsum board or equivalent. Where the separation is a floor/ceiling assembly, the structure supporting the separation shall be protected by not less than ½" (12.7mm) gypsum board or equivalent. Table R302.6
- \_\_\_\_ 19. Ducts in the garage or penetrating the walls or ceiling that separate the dwelling from the garage shall be a minimum No. 26 gage sheet metal, or other approved material, and shall not have openings into the garage. R302.5.2
- \_\_\_\_ 20. Garage floors shall be of non-combustible material and drain toward the vehicle door. R309.1
- \_\_\_\_ 21. Appliances having an ignition source shall be elevated such that the source of ignition is not less than 18 inches above the floor in garages. Rooms or spaces that are not part of the living space of a dwelling unit and that communicate with a private garage through openings shall be considered to be part of the garage. M1307.3, G.2408.2

- \_\_\_\_\_ 22. Show location of water heater and identify if it is electric or gas. Water heaters installed in garages must comply with P2801.6 – required pan; P2801.7 – platform height; and M1307.3.1 – protection from impact.
- \_\_\_\_\_ 23. Fuel-fired water heaters shall not be installed in a room used as a storage closet. Water heaters located in a bedroom shall be installed in a sealed enclosure so that combustion air will not be taken from the living space. Direct-vent water heaters are not required to be installed within an enclosure. M2005.2
- \_\_\_\_\_ 24. Show location of the water heater discharge pipe. Include dimensions from ground or floor surface. P2804.6.1
- \_\_\_\_\_ 25. Habitable rooms shall have an aggregate glazing area of not less than 8% of the floor area of such rooms. Natural ventilation shall be through windows, skylights, doors, louvers, or other approved openings to the outdoor air. The openable area to the outdoors shall not be less than 4% of the floor area being ventilated. R303.1
- \_\_\_\_\_ 26. Where a window is provided as the emergency escape and rescue opening, it shall have a sill height of not more than 44 inches above the floor. R310.2.2
- \_\_\_\_\_ 27. Window wells, ladders and grates shall comply with R310.2.3
- \_\_\_\_\_ 28. When a door is provided as the required emergency escape and rescue opening, it shall be a side-hinged door or a slider. R310.3 The landings at the required egress door shall be not more than 1 ½” lower than the top of the threshold. R311.3.1
- \_\_\_\_\_ 29. Provide a smoke detector in each sleeping room, outside each separate sleeping area in the immediate vicinity of the bedrooms and on each story of the dwelling, including basements and habitable attics. The smoke alarm must be installed not less than 3 feet horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by this Section. R314.3
- \_\_\_\_\_ 30. Smoke detectors must be hard wired with battery backup and all smoke alarms must be interconnected in such a manner that the actuation of one alarm will activate all the alarms in the individual dwelling unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm. Combination smoke and carbon monoxide alarms shall be permitted to be used in lieu of smoke alarms. R314.4 thru R314.6. Locations for smoke alarms shall be per R314.3
- \_\_\_\_\_ 31. Provide a carbon monoxide detector outside of each separate sleeping area in the immediate vicinity of the bedrooms. Where a fuel burning appliance is located in a bedroom or its attached bathroom, a carbon monoxide alarm shall be installed within the bedroom. Carbon monoxide detectors must be hard wired with battery backup. Where more than one carbon monoxide alarm is required within a dwelling unit the carbon monoxide alarms must be interconnected. R315.1 thru R315.7.4
- \_\_\_\_\_ 32. Basements, habitable attics, and every sleeping room shall have not less than one operable emergency escape and rescue opening. Opening shall have a net

clear opening of not less than 5.7 square feet. The net clear height of the opening shall be not less than 24 inches and the net clear width shall be not less than 20 inches. **Exception:** Grade floor openings or below-grade openings shall have a net clear opening area of not less than 5 square feet. R310.2.1

- \_\_\_\_\_ 33. Glazing subject to human impact shall be safety glazed per Sections R308.4 through R308.4.7
- \_\_\_\_\_ 34. Bathrooms shall be provided with aggregate glazing area in windows of not less than 3 square feet, one half of which shall be openable or be provided with artificial light and a local exhaust system. R303.3
- \_\_\_\_\_ 35. Shower finishes shall comply with R702.3.7 and P2709.2
- \_\_\_\_\_ 36. Toilets must be low water use type, designed for maximum 1.6 gallons per flush. Sinks and shower heads, 3.0 gallons per minute per Arizona Revised Statutes Section 45-312.
- \_\_\_\_\_ 37. Provide dimensions from the center of the water closet to the side wall. Minimum dimension from center of water closet to a side wall is 15". P2705.1 #5
- \_\_\_\_\_ 38. Provide dimensions of the shower compartment. Minimum dimension is 30" from the finished interior dimension and the minimum area is 900 square inches. P2708
- \_\_\_\_\_ 39. Provide pressure balance or thermostatic mixing valves for all shower and tub-shower combinations. P2708.4
- \_\_\_\_\_ 40. For fixture clearances see Figure R307.1
- \_\_\_\_\_ 41. Identify all appliances in the kitchen and provide countertop lengths, including any islands. Provide a detail for island sink venting if applicable.
- \_\_\_\_\_ 42. Domestic cooking exhaust equipment shall comply with M1503
- \_\_\_\_\_ 43. Show location of dryer exhaust vent. Installation must comply with the manufacturer's installation instructions and the requirements of Section M1502
- \_\_\_\_\_ 44. Provide heating facilities capable of maintaining a room temperature of not less than 68°F at a point 3' above the floor and 2' away from exterior walls. R303.10
- \_\_\_\_\_ 45. Show attic access location on floor plan.
- \_\_\_\_\_ 46. Stairways must meet the following requirements:

Width – minimum 36" in clear width at all points above the permitted handrail height and below the required headroom height. The clear width below the handrail height shall not be less than 31 ½" where a handrail is installed on one side and 27" where handrails are installed on both sides. R311.7.1

Headroom – The headroom in stairways shall be not less than 6' 8" measured vertically from the sloped line adjoining the tread nosing or from the floor surface of the landing or platform on that portion of the stairway. R311.7.2

Vertical rise – A flight of stairs shall not have a vertical rise larger than 151 inches (12'7") between floor levels or landings. R311.7.3

Risers – The riser height shall be not more than 7 ¾". The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8".

R311.7.5.1

Treads – The tread depth shall be not less than 10". The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8".

R311.7.5.2

Landings shall comply R311.7.6

Winder treads shall comply with R311.7.5.2.1

Landings shall comply with R311.7.6

Enclosed space under stairs that is accessed by a door or access panel shall have walls, under stair surfaces and any soffits protected on the enclosed side with ½" gypsum board. R302.7

Provide a stair section that complies with the above requirements.

- \_\_\_\_\_47. Enclosed space under stairs that is accessed by a door or access panel shall have walls, under-stair surface and any soffits protected on the enclosed side with ½" gypsum board. R302.7
- \_\_\_\_\_48. Handrails are required on at least one side of a flight of stairs with four or more risers and shall not be less than 34" and not more than 38" measured vertically from the sloped plane adjoining the tread nosing, or finish surface of ramp slope. The handrail shall not project more than 4 ½" on either side of the stairway. Handrails adjacent to a wall shall have a space of not less than 1 ½" between the wall and the handrails. Handrails 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. R311.7.8 thru R311.7.8.4 Handrails shall have a grip size complying with R311.7.8.5. Provide a detail that complies with these requirements.
- \_\_\_\_\_49. Spiral stairways and bulkhead enclosure stairways shall comply with R311.10.1 and R311.10.2.
- \_\_\_\_\_50. Provide a detail for the guardrail that complies with Section R312. Note: Required guards shall have intermediate rails or ornamental closures which do not allow the passage of a sphere 4" or larger in diameter. R312.1.3
- \_\_\_\_\_51. Interior stairways shall be provided with an artificial light source to illuminate the landings and treads. R303.7
- \_\_\_\_\_52. Exterior stairways shall be provided with an artificial light source located at the top of the landing of the stairway. R303.8

## Plumbing

- \_\_\_\_\_53. Provide a water system schematic; include type of material and size of piping. Provide a list of fixture units, distance from water meter to furthest fixture, size of

water meter and size of supply line. P2903.6. Verify schematic matches floor plan.

- \_\_\_\_ 54. Determine water meter and water supply lines sizes. P2903.8.2
- \_\_\_\_ 55. Provide a sanitary drainage/venting schematic; include type of material and size of piping. P3002. Show compliance with Tables P3004.1, 3005.4.1, and 3005.4.2. Provide a list of drainage fixture units per Table P3004.1. Verify schematic matches floor plan.
- \_\_\_\_ 56. Identify cleanout locations. Cleanouts to be provided per P3005.2
- \_\_\_\_ 57. Air admittance valves are allowed in lieu of vents per P3114.
- \_\_\_\_ 58. A sump pump is required for \_\_\_\_\_. Provide information on the sump pump which complies with Section P3007.
- \_\_\_\_ 59. Provide hose bibs with backflow preventers per P2902.4.3
- \_\_\_\_ 60. Provide an air gap for dishwasher per P2902.3.1
- \_\_\_\_ 61. Provide water hammer arrestors at quick-closing valves. P2903.5
- \_\_\_\_ 62. Provide a pressure reducing valve when supply pressure >80 psi. P2903.3.1

## Gas

- \_\_\_\_ 63. Show all proposed gas appliances on floor plan.
- \_\_\_\_ 64. Provide a gas piping schematic; include type of material, CFH of appliances and developed length between appliances. G2413 through G2414. Verify gas schematic matches the floor plan.
- \_\_\_\_ 65. Show on the roof elevation the vent termination locations, with dimensions. G2427
- \_\_\_\_ 66. Identify locations and sizes for combustion air vents required by the use of fuel gas appliances. G2407 Mesa Residential Code
- \_\_\_\_ 67. Gas vents and vent connectors shall comply with G2426 and G2427

## Mechanical

- \_\_\_\_ 68. 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 ¼" and maximum opening size of ½", in any dimension. R303.7
- \_\_\_\_ 69. Show locations of HVAC equipment
- \_\_\_\_ 70. Provide attic access for any mechanical equipment located in the attic. Attic access opening and a clear and unobstructed passageway large enough to allow removal of the largest appliance but not less than 30 inches high and 22 inches wide and not more than 20 feet long. See M1305.1.2 for additional requirements.

- \_\_\_\_ 71. Provide a light at the attic access when appliances are located in the attic.  
M1305.1.2.1
- \_\_\_\_ 72. Provide a receptacle outlet at or near the appliance located in the attic.  
M1305.1.2.1
- \_\_\_\_ 73. Provide truss support detail for roof mounted HVAC units.
- \_\_\_\_ 74. HVAC units located in a garage shall comply with raised platform, M1307.3; protection from impact, M1307.3.1; and metal ducts, R302.5.2
- \_\_\_\_ 75. HVAC units located in a closet shall comply with M1305.1.1
- \_\_\_\_ 76. HVAC units located outdoors shall comply with M1305.1.3.1
- \_\_\_\_ 77. Add note to plan: Installation of appliances shall conform to the conditions of their listing and label and the manufacturer's instructions. The manufacturer's operating and installation instructions shall remain attached to the appliance.  
M1307.1
- \_\_\_\_ 78. Identify the location of the condensate disposal pipe per Section M1411.3.
- \_\_\_\_ 79. Mechanical ventilation shall comply with M1505
- \_\_\_\_ 80. Return air openings for heating, ventilation and air-conditioning systems shall comply with M1602.2 #1 - #7

## Energy Efficiency

- \_\_\_\_ 81. Provide a Rescheck. The Rescheck will show compliance with Chapter 11, Energy Efficiency, that has been adopted as part of the Mesa Residential Code. Click the link provided to obtain the Rescheck. When completed upload the document with your revised plans. <https://www.energycodes.gov/>
- \_\_\_\_ 82. Compliance of R-values for ceilings, walls, floors, basement walls, slabs and crawl spaces shall comply with Table N1102.1.2
- \_\_\_\_ 83. Compliance with fenestration U-factor and glazed fenestration Solar Heat Gain Coefficient (SHGC) can be found in Table N1102.1.2
- \_\_\_\_ 84. Insulation of supply and return ducts must comply with N1103.3
- \_\_\_\_ 85. Insulation of mechanical system piping and hot water piping shall comply with N1103.4
- \_\_\_\_ 86. Recessed lighting (IC rated) shall comply with N1102.4.5
- \_\_\_\_ 87. 90% high efficiency lighting shall comply with N1104.1
- \_\_\_\_ 88. Foam insulation products are permitted to be used in building construction in accordance with the following:  
  
Flame spread and smoke-developed index – shall have a flame spread index of not more than 75 and shall have a smoke-developed index of not more than 450 when tested in the maximum thickness and density intended for use in

accordance with ASTM E84 or UL 723. **Exception:** Foam plastic insulation more than 4 inches thick shall have a flame spread index of not more than 75 and a smoke-developed index of not more than 450 were tested at a thickness of not more than 4 inches provided that the end use is approved in accordance with Section R316.6 using the thickness and density intended for use. R316.3

Thermal barrier – foam plastic shall be separated from the interior of a building by an approved thermal barrier of not less than ½” gypsum wallboard, 22/32” wood structural panel or a material that is tested in accordance with and meets the acceptance criteria of both the Temperature Transmission Fire Test and the Integrity Fire Test of NFPA 275. R316.4

Attics – The thermal barrier specified in R316.4 is not required where all of the following apply:

1. Attic access is required by Section R807.1
2. The space is entered only for purposes of repairs or maintenance.
3. The foam plastic insulation has been tested in accordance with Section R316.6 or the foam plastic insulation is protected against ignition using one of the following ignition barrier materials:
  - 3.1. 1 ½-inch-thick mineral fiber insulation.
  - 3.2. ¼-inch-thick wood structural panels.
  - 3.3. 3/8-inch particleboard.
  - 3.4. ¼-inch hardboard.
  - 3.5. 3/8-inch gypsum board.
  - 3.6. Corrosion-resistant steel having a base metal thickness of 0.016 inch.
  - 3.7. 1 ½-inch-thick cellulose insulation.
  - 3.8. ¼-inch fiber-cement panel, soffit, or backer board.

If intumescent paint will be used as an ignition barrier, specify the system, and provide forms for the Special Inspection required for this coating.

**Note:** The unvented portion of the attic cannot be open to the vented portions of the roof, by definition. Also, the unvented portion cannot be open to the over framed areas. Penetrations need to be sealed to obtain an unvented attic. If the air handler is in the attic, the flue will need to be sealed. State this on the drawings.

- \_\_\_\_ 89. Identify if solar roof panels will be installed. Show on the elevations and show compliance with R324.
- \_\_\_\_ 90. Provide compliance with electric vehicle charging stations per R327.

## Chimneys and Fireplaces

- \_\_\_\_ 91. Masonry chimneys shall comply with R1003. See Ordinance restrictions.



- \_\_\_\_ 92. Provide an approved barrier between factory fireplace boxes, chimneys and building insulation. Clearance shall be maintained between the chimney and combustible barriers according to the manufacturer's installation instructions. Provide a detail showing compliance and add a note that the manufacturer's installation instructions will be provided to the Building Inspector at time of inspection. R1005
- \_\_\_\_ 93. Framing details at masonry chimneys, clearances and fire blocking shall comply with R1001.11 and R1001.12

## Exterior Elevations

- \_\_\_\_ 94. Identify exterior wall covering. Exterior walls, exposed to weather, shall provide the building with a weather-resistant exterior wall envelope. R703
- \_\_\_\_ 95. Exterior plaster (stucco), lath and weep screeds shall comply with Section R703.7 through R703.7.5 and R703.9.
- \_\_\_\_ 96. Anchored stone and masonry veneer shall comply with Section R703.8. R703
- \_\_\_\_ 97. Provide a detail for veneer attachment. R703.8
- \_\_\_\_ 98. Show chimney height. R1003.9 and R1005
- \_\_\_\_ 99. Identify roof pitch, decking material, underlayment, type of roofing material, flashing, crickets, scuppers etc. Provide a detail showing compliance with R903 through R905.17.7.
- \_\_\_\_ 100. Verify all critical details are provided and correspond correctly with the plans.

## Foundations

- \_\_\_\_ 101. Add note to plan: Termite treatment will be per R318.
- \_\_\_\_ 102. Identify concrete strength. Table R402.2 or Soils Report.
- \_\_\_\_ 103. Provide drainage away from foundation walls. The grade shall fall not fewer than 6" within the first 10'. Where lot lines, walls, slope, or other physical barriers prohibit 6" of fall within 10', drains or swales shall be constructed to ensure drainage away from the structure. Impervious surfaces within 10' of the building foundation shall be sloped not less than 2% away from the building. R401.3
- \_\_\_\_ 104. Provide soil bearing capacity per Table R401.4.1 or provide soils report.
- \_\_\_\_ 105. Provide a front to rear cross-section of the foundation for the building.
- \_\_\_\_ 106. Provide footing details for all exterior and interior walls and all post footings. R403.1 Include minimum size and depth per Tables R403.1(1) through R403.1(3)
- \_\_\_\_ 107. Show reinforcement in footings per R403.1.3, or per engineering/soils report and identify reinforcement lap splices per R403.1.3.5.4

- \_\_\_\_ 108 Spread footings are undersized. Revise to meet R403.1.1 and Table R403.1(1).
- \_\_\_\_ 109 Provide foundation anchorage per R403.1.6 and show hold-down locations as required by R403.1.6 and R602.10.6.
- \_\_\_\_ 110 Add note to plan: Top of exterior foundation shall be 12" plus 2% above the elevation of the street gutter at a point of discharge or the inlet of an approved drainage device. R403.1.7.3
- \_\_\_\_ 111 Identify slab thickness R506.1 or soils report.
- \_\_\_\_ 112 Provide a detail for the retaining wall and its foundation. R404
- \_\_\_\_ 113 Provide a detail that shows how waterproofing for basement walls will be achieved. R406
- \_\_\_\_ 114 Compare foundation plan to floor plan and roof framing plan to verify they match.
- \_\_\_\_ 115 Verify all critical details are provided and correspond correctly with the plans.

## Floors

- \_\_\_\_ 116 Does the floor framing plan match the floor plan and roof plan?
- \_\_\_\_ 117 Provide lumber species and grades.
- \_\_\_\_ 118 Label/identify all framing members (trusses, headers, beams, etc.).
- \_\_\_\_ 119 Floor joists are over spanned. Revise floor framing plan to meet requirements of R502 and Table R502.3.1(1)
- \_\_\_\_ 120 Floor sheathing shall be per R503 and Tables R503.1, R503.2.1.1(1) and R503.2.1.1(2).
- \_\_\_\_ 121 Detail connection between: \_\_\_\_\_
- \_\_\_\_ 122 For floor trusses – truss diagrams must be sealed, R502.11, and be provided to the inspector in the field (add note if necessary).
- \_\_\_\_ 123 Verify floor bearing points (concentrated loads) match the foundation plan.
- \_\_\_\_ 124 Verify all critical details are provided and correspond correctly with the plans.

## Walls

- \_\_\_\_ 125 Exterior walls shall be designed and constructed in accordance with Chapter 6 of the 2018 Mesa Residential Code or shall be designed in accordance with accepted engineering practice. Provide details that identify compliance.
- \_\_\_\_ 126. Stud size, height and spacing shall be in accordance with Table R602.3(5). See exceptions.
- \_\_\_\_ 127 Provide double top plates per R602.3.2 and bottom plates per R602.3.4.

- \_\_\_\_\_ 128 Provide interior and exterior wall bracing per R602.10 and/or 602.12 or provide engineering for wall bracing. Alternate braced wall panels shall comply with R602.10.6.1 and Table R602.10.6.1
- \_\_\_\_\_ 129 Provide shear wall transfer details (to roofs, floors, and foundation) R602.10.8.
- \_\_\_\_\_ 130 Show hold-down locations on shear wall plan R602.10 Tables.
- \_\_\_\_\_ 131 Wall sheathing shall be attached according to R603.9
- \_\_\_\_\_ 132 Wall heights must comply with R301.3.
- \_\_\_\_\_ 133 King, jack, and cripple studs at header locations must comply with R603.7 for the number, dimension, and thickness. See Tables R603.7(1) and R603.7(2)
- \_\_\_\_\_ 134 Exterior wall construction must comply with R302.1 for fire resistance construction in the locations identified. Provide details.
- \_\_\_\_\_ 135 Provide fire blocking per R302.11
- \_\_\_\_\_ 136 Exterior concrete wall construction must comply with R608.
- \_\_\_\_\_ 137 Windows and doors shall be installed and flashed in accordance with the fenestration manufacturer's written instructions. Window and door openings shall be flashed in accordance with R703.4. Written installation instructions shall be available to the Building Inspector for each window and/or door. R609.1
- \_\_\_\_\_ 138 Gypsum sheathing shall be attached to exterior wall in accordance with Table R602.3 (1). Gypsum board and gypsum panel products shall comply with Table 702.3.5 or be engineered.
- \_\_\_\_\_ 139 Verify all critical details are provided and correspond correctly with the plans.

## Roof-Ceiling Construction

- \_\_\_\_\_ 140 Conventionally framed roof/ceiling assemblies shall comply with R802.2 through R802.11.1.2. Roof rafters – Table R802.4.1 (1 – 8). Ceiling Joists – Table 802.5.1 (1 – 2). Revise plans to show compliance.
- \_\_\_\_\_ 141 Installation of purlins to reduce the span of rafters is permitted. Purlins shall be sized not less than the required size of the rafters that they support. Purlins shall be continuous and shall be supported by 2" by 4" braces installed to bearing walls at a slope not less than 45 degrees from the horizontal. The braces shall be spaced not more than 4 feet on center and the unbraced length of braces shall not exceed 8 feet. R802.4.5
- \_\_\_\_\_ 142 Provide attic ventilation complying with R806. Show vent locations, sizes and methods used to determine required ventilation on the plans.
- \_\_\_\_\_ 143 Provide attic access, show location and size on plans. R807.1, N1102.2.4
- \_\_\_\_\_ 144 Provide posts at beam and girder truss bearing locations. Provide details.
- \_\_\_\_\_ 145 Verify all concentrated load locations have connections from foundation up to the roof framing.

- \_\_\_\_ 146 Beam and header sizes are to be per Table R R803602.7, R502.10 and R502.5.
- \_\_\_\_ 147 Verify truss plans match roof framing plans?
- \_\_\_\_ 148 Provide a detail for roof over-framing.
- \_\_\_\_ 149 Verify roof sheathing is per R803.
- \_\_\_\_ 150 Flat roofs require crickets and scuppers or provide another method for flat roof drainage. R903.4
- \_\_\_\_ 151 Roof coverings shall comply with R905.
- \_\_\_\_ 152 Verify all critical details are provided and correspond correctly with the plans.

## Masonry

- \_\_\_\_ 153 Masonry wall construction shall be per R606.

## Cross Sections

- \_\_\_\_ 154 Provide a cross section that shows the following: building height, roof pitch, roofing materials, foundation including drainage, exterior finishes, interior finishes (gypsum board, sag-resistant ceiling board, ignition barrier at exposed foam board in attic and crawl spaces, etc.)

## Electrical

- \_\_\_\_ 155 Provide clearance dimensions for overhead service drops. E3604
- \_\_\_\_ 156 Identify the location of the electric service panel/meter. Include clearance dimensions. E3405 and E3601.
- \_\_\_\_ 157 Engineering is required for services of 400 amps.
- \_\_\_\_ 158 Revise the one-line diagram to meet the requirements of Chapter 37, Branch Circuit and Feeder Requirements.
- \_\_\_\_ 159 Show the grounding method used for the panel and the size of the grounding conductor. E3603.4 & E3608
- \_\_\_\_ 160 Provide bonding for water and gas pipes. E3609
- \_\_\_\_ 161 Feeder sizes to comply with E3603.
- \_\_\_\_ 162 Kitchen circuits shall be per E3703.2
- \_\_\_\_ 163 Laundry room circuits shall be per E3703.3
- \_\_\_\_ 164 Bathroom circuits shall be per E3703.4
- \_\_\_\_ 165 Garage circuits shall be per E3703.5

- \_\_\_\_\_ 166 Provide a weatherproof and GFCI protected receptacle within 25' of outdoor HVAC equipment. E3901.12
- \_\_\_\_\_ 167 Provide a switched light at attic HVAC equipment. E3903.4
- \_\_\_\_\_ 168 Foyers that are not part of a hallway and are greater than 60 sq ft shall have a receptacle on each wall space that is three (3) feet or more in width. E3901.11
- \_\_\_\_\_ 169 Receptacles in garages and accessory structures shall comply with E3902.2.
- \_\_\_\_\_ 170 Provide disconnects for all HVAC equipment and water heaters.
- \_\_\_\_\_ 171 Provide a GFCI protected receptacle for whirlpool tub with access panel. P2720 & E3902.1
- \_\_\_\_\_ 172 Provide approved outlet boxes for ceiling fans. E4203.4
- \_\_\_\_\_ 173 Verify damp/wet listed fixtures are provided at required locations. E4003.9
- \_\_\_\_\_ 174 Provide minimum clearances to light fixtures in clothes closets. E4003.12
- \_\_\_\_\_ 175 Receptacles shall be installed so that no point measured horizontally along the floor line of any wall space is more than 6', from a receptacle outlet. E3901.2.1
- \_\_\_\_\_ 176 Receptacles in kitchens, breakfast rooms, dining rooms with wall countertops that are a minimum of 12" wide shall be spaced so that no point along the wall line is more than 24", measured horizontally from a receptacle outlet in that space. E3901.4.1
- \_\_\_\_\_ 177 Provide at least one receptacle outlet at each island and peninsular countertop space with a long dimension of 24" or greater and a short dimension of 12" or greater. E3901.4.2 and E3901.4.3
- \_\_\_\_\_ 178 Provide at least one GFCI protected receptacle outlet in bathrooms and such outlet shall be located within 36" of the outside edge of each lavatory basin. E3901.6 & E3902.1
- \_\_\_\_\_ 179 Provide at least one GFCI protected outdoor receptacle outlet that is readily accessible from grade level and located not more than 6'6" above grade, at the front and back of each dwelling unit. E3901.7 & 3902.3
- \_\_\_\_\_ 180 Provide at least one GFCI protected outdoor receptacle outlet installed within the perimeter of any balcony, deck or porch that is accessible from the inside of the dwelling. The receptacle shall be located not more than 6'6" above the balcony, deck, or porch surface. E3901.7 & E3902.3
- \_\_\_\_\_ 181 Provide at least one GFCI protected receptacle outlet in the laundry room. E3901.8 & E3902.9
- \_\_\_\_\_ 182 Provide at least one GFCI protected receptacle outlet in each unfinished portion of a basement, in each attached garage vehicle bay not more than 5.5' above the floor, in each vehicle bay not more than 5.5' above the floor in detached garages that are provided with electric power and in accessory building that are provided with electric power. E3901.9, E3902.2 & E3902.5
- \_\_\_\_\_ 183 Provide at least one receptacle outlet in hallways 10' or more in length. E3901.10

- \_\_\_\_\_184 All receptacle outlets located within 6' of the top inside edge of the bowl of the sink and those located within 6' of the edge of a bathtub or shower enclosure shall be GFCI protected. E3902.7 & E3902.8
- \_\_\_\_\_185 The receptacle outlet serving a dishwasher must be GFCI protected. E3902.10
- \_\_\_\_\_186 Branch circuits that supply 120-volt, single-phase, 15- and 20-ampere outlets installed in kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreations rooms, closets, hallways, laundry areas and similar rooms or areas shall be protected by an arc-fault circuit interrupter. E3902.16
- \_\_\_\_\_187 Provide wall-switch-controlled lighting outlets at each exterior door, at top and bottom of stairs, basements, garages, utility rooms, and all habitable rooms per E3903.2 through E3903.4
- \_\_\_\_\_188 Exterior flush mounted switches shall be equipped with a weatherproof cover. E4001.7
- \_\_\_\_\_189 Exterior receptacles shall be protected from the weather per E4002.8 through E4002.10.