

**EFFECTIVE CODE**

2006 International Residential Code (IRC) with amendments

**CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA**

GROUND SNOW LOAD	WIND	SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM				WINTER DESIGN TEMP	FLOOD HAZARDS
	Speed (mph)		Weathering	Frost line depth	Termite	Decay		
N/A	90	B	Negligible	12"	Moderate to Heavy	None to Slight	34 F	Jurisdiction Specific

**GENERAL**

Item #	Correction Required on Sheet	Description	Code Reference	Correction Sheet
1		Provide a complete plot plan showing lot dimensions, yard setbacks, street name(s), site address, north arrow, existing and proposed building(s), distance between buildings, and easements. Include location of utilities (water and electric) source location	R106.2	
2		Coordinate building address on application with that on the plans. Also show subdivision and neighborhood/parcel on the plans.	R106.1.1	
3		Plans and any structural calculations prepared under supervision of an Arizona registrant such as civil or structural engineer or architect must be sealed as required by the State of Arizona Board of Technical Registration.	R106.1	
4		Provide a square footage summary for each of the following: livable, garage, covered patios and porches, accessory buildings, decks, bay windows. All options must be clearly identified.	R108.3	
5		Verify exterior wall location in reference to require fire separation.	R302.1	

**FOUNDATION**

Item #	Correction Required on Sheet	Description	Code Reference	Correction Sheet
6		<b>Add note:</b> "Soil shall be Chemical termiticide treated prior to concrete placement for all foundations and slabs that are part of or attached to a dwelling. "	R320.1	
7		Provide Soils Report; if no soils report on file with Town of Gilbert	R401.4	
8		Footings shall be on undisturbed soil for all; Patios, decks, ramadas, trellises, detached storage sheds (equal to or less than 400 square feet) and similar structures	R403.1	
9		Footings shall be on Certified Pad for all Custom homes, detached guest or secondary dwellings, detached garages, residential additions and similar structures	R403.1	
10		Footing details (interior and exterior) shall be located on the foundation sheet or the detail sheet and shall be cross-referenced to the foundation plans. Specify depth and size of all footings and pads. Specify dimensions to locations of pads. Shall comply with Soil Report where required.	R403	
11		Provide structural detail for P. T. Slab ufer/concrete-encased electrode. (min. for ufer is 12" wide and 12" below natural grade.)	E3507.1 E3508.1.2	
12		Window wells and required window well ladders. Provide details and dimensions to verify compliance.	R310.2. R404	
13		Foundation plates and sills shall be bolted to the foundation with minimum 1/2-inch bolts at 6 feet or less o.c. and embedded a minimum 7 inches into the foundation.	R403.1.6	
14		All plates in contact with concrete (interior and exterior, load bearing and non-load bearing) shall be pressure treated or foundation grade redwood.	R403.1.6	
15		There shall be a floor or landing on each side of each exterior door.	R311.4.3	

## FLOOR PLAN

Item #	Correction Required on Sheet	Description	Code Reference	Correction Sheet
16		Label and dimension all rooms and spaces. Reference ceiling height of all rooms and areas.	R304 & R305.1 T o G Amend.	
17		The minimum width of a hallway shall not be less than 3 feet.	R311.3	
18		Attic access opening shall be provided; opening shall be min. 30" x 22" w/min. 30" clear head room. Attics containing appliances require work platform, lighting and receptacle. Max. 20' distance from opening to appliance	R807.1, M1305.1.3, E3801.11, E3803.4	
19		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. Doors shall be self-closing and self-latching.	R309.1 T o G Amend.	
20		Openings from a private garage directly into a room used for sleeping purposes shall not be permitted.	R309.1	
21		At least one required exit door shall be a side hinged door not less than 3 feet in width and 6 feet, 8 inches in height.	R311.4.2	
22		The garage shall be separated from the residence and its attic area by not less than 1/2-inch gypsum board applied to the garage side. Garage beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8-inch Type X gypsum board or equivalent. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than 1/2-inch gypsum board or equivalent. In buildings protected by an automatic fire sprinkler system, including the private garage, the separation shall be permitted to be limited to a minimum 1/2-inch gypsum board applied to the garage side.	R309.2 T o G Amend. Table R702.3.5	
23		Ceiling gypsum board application: When applying a water-based texture material, the minimum gypsum board thickness shall be increased from 3/8 inch to 1/2 inch for 16-inch on center framing and from 1/2 inch to 5/8 inch for 24-inch on center framing or 1/2-inch sag resistant gypsum ceiling board shall be used.	Table R702.3.5	
24		<b>Add note:</b> Cement, fiber-cement and glass mat gypsum backers shall be used as backers for wall tile in tub and shower areas and wall panels in shower areas.	R702.4.2	
25		Gypsum board installed, on exterior of building, where it is directly exposed to the weather shall comply with ASTM C 931/C 931M—04	R702.3.1 R702.3.5	
26		Specify if appliances and equipment are gas, electric, or propane. Reference location of appliances and equipment, on floor plan.	R106.1.1	
27		Appliances having an ignition source shall be elevated such that the source of ignition is not less than 18" above the floor in garages.	M1307.3	
28		Appliances located in a garage or carport shall be protected from impact by automobiles	M1307.3.1	
29		<b>Add note:</b> "Required drain pan for water heater; pan shall be galvanized steel pan having a minimum thickness of 24 gage or other pans Listed for such use; pan shall be not less than 1 1/2 inches deep and shall be of sufficient size and shape to receive all dripping or condensate from the tank or water heater. The pan shall be drained by an indirect waste pipe having a minimum diameter of 3/4 inch; The pan drain shall extend full-size and terminate over a suitably located indirect waste receptor or shall extend to the exterior of the building and terminate not less than 6 inches (152 mm) and not more than 24 inches above the adjacent ground surface."	P2801.5	
30		For factory built fireplace specify the manufacture, model and ICBO/UL Number.	R1004.1	
31		Fireplace gas valves shall be located outside of required hearth area, but not more than 72-inches from gas outlet.	G2420.1.3 G2420.5	
32		Bedroom Egress shall comply with required emergency egress requirements.	R310.1	
33		Operable window located more than 72 inches above the finished grade or surface below, min. sill height of 24 inches above the finished floor	R613.2	
34		There shall be a floor or landing at the top and bottom of each stairway.	R311.5.4	
35		Butt Glass requires engineering design.	R308.5, IBC2403.2 & 2404	
36		Glazing in hazardous locations shall be tempered.	R308	
37		All interior and exterior glazing in bathrooms must be safety glazing when the bottom edge is less than fifty-six inches above the floor level. (Bathroom shall be defined as a room provided with a tub or shower.)	ARS 36- 1631	

## ELEVATION

Item #	Correction Required on Sheet	Description	Code Reference	Correction Sheet
38		Provide height dimensions for roofline, headers, top plate and finished floor.	R106	
39		Provide exterior wall covering information including current ICC report number.	R703	
40		Provide attic ventilation calculations for all concealed attic spaces; include required and provided net free ventilation area. Also, show type and location of attic ventilation on Roof/Framing plan.	R806	
41		<b>Add Note:</b> "Where eave or cornice vents are installed insulation shall not block the free flow or air. A minimum of 1 inch space shall be provided between the insulation and roof sheathing at the location of the vent."	R806	
42		Reference locations and provide size of roof drains and scuppers.	R903.4	
43		Chimneys shall extend at least 2-ft higher than any portion of a building within 10-ft, but shall not be less than 3-ft above the point where the chimney passes through the roof.	R2427.5.3	
44		Decorative shrouds shall not be installed at the termination of vents except where the shrouds are listed and labeled for use with the specific venting system and are installed in accordance with the manufacturer's installation instructions.	R1005.2 M1804.2.2	

## STRUCTURAL

Item #	Correction Required on Sheet	Description	Code Reference	Correction Sheet
45		For all engineered designs provide; Specify design criteria: floor and roof live and dead loads. Provide keyed layout for location of designed element on construction plans. (i.e., headers, beams, posts, footings, shear lines...)	R106 R301	
46		<b>Add Note:</b> "Prefabricated wood trusses to be provided by an approved fabricator. Truss diagrams and keyed layout shall be available to the field inspector at the job-site at the time of roof nailing and framing inspection."	R802.10.1	
47		Provide structural design for masonry perimeter fence. Arizona Masonry Guild Fence Standard, submitted in 8 1/2" x 11" format, permitted for interior lots less than 1/2 acre only.	R106	
48		Specify type of design and construction of all walls (Exterior, Interior Bearing, Interior Non-Bearing ...) and partitions. Wood stud walls shall comply with prescriptive requirements of IRC Section R602 or shall be designed by an Arizona Registrant. Masonry and concrete basement walls shall comply with prescriptive requirements of IRC Section R404 or shall be designed by an Arizona Registrant.	R404 R602 R606	
49		Indicate all braced wall panel locations. Specify the method of bracing to be used. A sealed lateral analysis, prepared by an Arizona Registrant, will be required if the bracing does not comply with the conventional provisions.	R602.10	
50		Provide details to show how lateral forces are transferred from the diaphragms through intermediate elements to shear walls and to the foundation. All blocking, fasteners and anchors shall be shown on the plans.	R602.10.8 IBC 2305.1.4	
51		Required hold downs, as specified on lateral design or as required for all alternate braced wall panels, shall be shown on the foundation plan OR provide a separate shear wall plan.	R106, R403.1.6 R602.10.8	
52		Specify lumber grade, species, and size of members.	R602	
53		Provide complete floor (if applicable) and roof framing plans. Specify size and spacing of all framing members.	R106	
54		Indicate all post sizes and locations.	R106	
55		Wood columns shall be approved wood of natural decay resistance or approved pressure preservative treated wood or be supported by piers or metal pedestals projecting 1 inch above concrete floor.	R319.1.4	
56		Specify all hangers used to hang trusses from girder trusses, walls, or other locations.	R106.1.1	
57		Indicate the size and span of headers and lintels in all bearing and non-bearing walls. Provide manufacturer's span charts for pre-manufactured steel lintels.	R602.7 R603.6 R606.10	
58		When there is usable space both above and below the concealed space of a floor/ceiling assembly, draft stops shall be installed so that the area of the concealed space does not exceed 1,000 square feet.	R502.12	

59		<b>Add Note:</b> Fire blocking shall be provided in; concealed spaces of stud walls (Vertically at the ceiling and floor levels and Horizontally at intervals not exceeding 10 feet); soffits, drop ceilings and cove ceilings; concealed spaces between stair stringers at the top and bottom of the run.	R602.8	
60		Detail stairway showing framing (stringer) sizes, bracing, connections and footings.	R106	
61		The maximum riser height shall be 7 3/4 inches and minimum tread depth shall be 10 inches. The minimum headroom in all parts of the stairway shall be not be less than 6 feet 8 inches measured vertically from the slope plane adjoining the tread nosing or from the floor surface of the landing or platform.	R311.5.2 R311.5.3	
62		Four or more stair risers shall have at least one handrail.	R311.5.6,	
63		Porches, balconies, ramps or raised floor surfaces located more than 30 inches above the floor or grade below shall have guards not less than 36 inches in height. Open sides of stairs with a total rise of more than 30 inches above the floor or grade below shall have guards not less than 34 inches in height measured vertically from the nosing of the treads.	R312	
64		<b>Add Note:</b> "Handrails and Guards shall be able to resist a single concentrated load of 200 pounds, applied in any point along the top, and have attachment devices and supporting structure to transfer this loading to appropriate structural elements of the building."	Table 301.5 & IBC 1607.7.1	

## PLUMBING

Item #	Correction Required on Sheet	Description	Code Reference	Correction Sheet
65		Provide a gas schematic indicating BTU or CFH rating for each appliance, size, and length of main and all branch lines. (include all options, worst case scenario)	G2413	
66		Gas piping to an island must be Corrugated Stainless Steel Tubing (CSST) and detail shall be provided showing compliance with code requirements.(in a vented sleeve).	G2415.11	
67		Provide typical sediment trap detail for all fixed appliances (include, but not limited to; Water Heaters, Furnaces). Detail shall include equipment shutoff valve.	G2419.4	
68		Water heater relief valve discharge pipe shall not be smaller than the diameter of the outlet of the valve served, serve a single relief device, shall discharge to the floor, to an indirect waste receptor or to the outdoors, be installed to flow by gravity, terminating not less than 6 inches and not more than 24 inches above the floor or waste receptor, and in a manner that does not cause personal injury or structural damage.	P2803.6.1 T o G Amend.	
69		Provide fixture unit schedule for water demand calculations and indicate water meter and building water supply lines sizes per Table R2903.7 Pressure Range 50 to 60 PSI.	R2903	

## MECHANICAL

Item #	Correction Required on Sheet	Description	Code Reference	Correction Sheet
70		Provide exhaust fans to the outside from bathrooms, water closet compartments, and similar rooms if not supplied with natural ventilation. (1.5 sq.ft.)	R303.3	
71		The clothes dryer exhaust duct shall be at least the diameter of the appliance outlet as recommended by the manufacturer and shall terminate on the outside of the building. It shall not exceed 25 feet in length with reductions for bends. The duct shall terminate not less than 3 feet from a property line.	M1502 G2439.5	
72		Provide combustion air for all liquid and solid fuel-burning appliances including size, type, and location of openings. (placed within 12" of floor & ceiling)	Chapter 17	

## ELECTRICAL

Item #	Correction Required on Sheet	Description	Code Reference	Correction Sheet
73		Provide an electrical plan: Show and label; receptacles, lights, switches, panels, smoke alarms, exhaust fans, etc.	R106.1.1	

74		Indicate the size (rating) and location of the electric panel, including any sub panels. One line diagram will be required including all sub panels, wire size and type, conduit size and type, burial depth, UFER grounding electrode system, and bonding to the interior water piping and above ground portion of gas piping systems. (separate grounding and bonding required for each building if sub panels are at detached structures)	E3301.3 E3305.2 R3306.5 E3508.1.2 E3509 R3604 E3606.1&2	
75		<b>Add note:</b> "A minimum of two 20-ampere-rated branch circuits for receptacles located in the kitchen, pantry, breakfast, and dining areas, a separate 20-ampere-rated branch circuit to the laundry, and a separate 20-ampere-rated branch circuit for bathroom receptacle(s) shall be provided".	E3603.2	
76		Receptacles shall be installed so that no point along the floor line in any wall space is more than 6 feet, measured horizontally, from an outlet in that space, including any wall space 2 feet or more in width.	E3801.2.1	
77		In kitchen and dining rooms, at least one receptacle outlet shall be installed at each island or peninsular counter space with a long dimension of 24 inches or greater and a short dimension of 12 inches.	E3801.4.2, E3801.4.3	
78		In kitchen and dining rooms, a receptacle outlet shall be installed at each wall counter space 12 inches or wider so that no point along the wall is more than 24 inches from a receptacle outlet and shall be GFCI protected.	E3801.4.1, E3802.6	
79		Provide at least one (1) receptacle outlet in hallways 10 feet or more in length.	E3801.10	
80		All 125-volt, single-phase, 15-and 20-ampere receptacles that are located within 6 feet of the outside edge of a laundry, utility or wet bar sink shall be GFCI protected.	E3802.7	
81		Provide at least one receptacle outlet on the wall within 36 inches of the outside edge of each lavatory basin in bathrooms. All bath receptacles to be GFCI protected.	E3801.6 E3802.1	
82		<b>Add Note:</b> "All branch circuits that supply 120-volt, single-phase, 15- and 20-ampere outlets installed in bedrooms shall be protected by a combination type arc-fault circuit interrupter installed to provide protection of the entire branch circuit."	E3802.12	
83		Provide one exterior GFCI receptacle on front and one on back elevation of dwelling. All receptacles installed outdoors must be GFCI protected.	E3801.7 E3802.3	
84		Provide one service receptacle within 25' of any heating, air-conditioning and refrigeration equipment.	E3801.11	
85		All receptacles in garage, accessory buildings and unfinished basement shall be GFCI.	E3802.2 R3802.5	
86		Provide at least one (1) wall switch-controlled lighting outlet in every habitable room and bathroom.	E3803.2	
87		Provide a lighting outlet on the exterior side of all exits/entrances.	E3803.3	
88		Provide a lighting source in all stairways, switched at each floor level.	R303.6 E3803.3	
89		Fixtures, fittings, boxes and receptacles located in damp or wet locations shall be "listed" to be suitable for such location.	E3805.11, E3902.8&9 E3903.8	
90		Fixed, hard wired appliances (including water heaters) require means of disconnect within sight of the appliance.	E4001.5	
91		A receptacle shall not be installed within a bathtub or shower space.	E3902.11	
92		<b>Add note:</b> "Provide interconnected smoke alarms in each sleeping room, outside of each sleeping area in the immediate vicinity of the bedrooms, and on each additional story of the dwelling. Where the ceiling height of a room open to the hallway servicing bedrooms exceeds that of the hallway by 24-inches or more, smoke detectors shall be installed in the hallway and the adjacent room. Smoke alarms shall be hard wired with battery backup."	R313	
93		When alterations, repairs or additions requiring a permit occur, or when 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; the smoke alarms shall be interconnected and hard wired.	R313.2.1	

**MISCELLANEOUS COMMENTS:**

Item #	Correction Required on Sheet	Description		Correction Sheet
94		Provide complete documentation, ResCheck, (including calculations, etc.,) demonstrating compliance with the required minimum level of energy efficiency in new construction	Chapter 11	

95		If property is in a <b>Flood Zone</b> , specify minimum finish floor elevation on the plans. (Available from Engineering Dep't.)		
96		Per subdivision plat conditions, AVIGATION EASEMENTS are required to be executed PRIOR to issuance of permits. Has this been done yet?		
97		PROXIMITY TO WILLIAMS GATEWAY AIRPORT Per subdivision plat conditions and ordinance, this dwelling shall comply with the sound attenuation standards, as referenced in the WRPS appendix, in order to achieve an exterior to interior noise level reduction of 20 decibels. Provide a sealed letter from an architect, engineer, or other qualified agency certifying compliance with sound attenuations standards.		
98		PROXIMITY TO SAN TAN FREEWAY Per subdivision plat conditions, subdivision ordinance, and ordinance #1250, building construction shall achieve a maximum interior noise level of 45 dBA Ldn and meet the minimum standards for interior noise levels prescribed by the General Department of Housing and Urban Development. Provide a sealed letter from an architect, engineer, or other qualified transportation noise analyst certifying compliance with sound attenuation standards.		
99		For <b>LP-gas</b> applications see attached Gilbert Fire Department requirements.		
100		If <b>fire sprinklers</b> are specified or required, note on plans that an approved fire sprinkler plan will be provided at start of construction.		
101		Upon resubmittal, if the plans have been modified, altered, changed, or revised in any manner other than as a result of responding to the checklist items, describe them in a separate written summary. "Cloud" all modifications on the plans.		