

2006 International Residential Code

Building provisions

Below is a list of design and building provisions that may be checked on your project. The list does not include all areas of the code and all items may not apply to all projects.

For further information on the codes referenced below, code books and other informative publications may be purchased through ICC at www.ICCsafe.org

Design Criteria

- Heating degree days 3,578, summer 2 ½% temp.-dry bulb 94, wet bulb 77 per IPC appdx. D (2009)
- Air freezing index is 332 per National Climatic Data Center (NCDC) & NOAA
- Mean annual temperature is 59.2 per National Climatic Data Center (NCDC) & NOAA
- Climate zone 4 per IRC Fig. N1101.2 & table N1101.2
- Seismic design category "B" per R301.2(2)
- Concrete weathering probability is "severe" per Fig.R301.2(3)
- Basic wind speed for 50 year mean (3 second gust) is 90mph per Fig. R301.2(4)
- Ground snow load is 15psf per Fig. R301.2(5)
- Termite infestation probability is moderate to heavy per Fig. R301.2(6)
- Frost depth is 10" per Fig. R301.2(8)
- Roof load is the snow load (15psf) unless slope is 1:3 (4/12) or less, then it is 20psf in accordance with R301.6 and Table R301.6
- Dead loads for material and fixed equipment as indicated in Table R301.4 or manufactures literature
- Live loads as indicated in table R301.5

Plans

- Closable job-box on job site for plans, inspections slips other documents
- Two duplicate sets of plans, at least 18" x 24", clearly legible, one submitted to office and one on job for all inspections in accordance with R106.1
 - Foundation, floor-plans, roof plans, structural plans
 - Must indicate accurate window and door sizes and locations
- All engineered material must be accompanied by appropriate documentation and calculations
- Truss design drawings must be submitted with plans or prior to installation in accordance with R802.10.1

Building Planning

- Light, ventilation and heating in accordance with R303
- Bathroom window or fan in accordance with R303.3
- Intake and exhaust openings in accordance with R303.4
- Minimum room areas in accordance with R304
- Ceiling height in accordance with R305
- Plumbing fixtures and spacing in accordance with R307 and Fig. R307.1
- Hazardous glazing in accordance with R308.4
- Garages and carports duct penetration in accordance with R309.1.1
- Garage and carport separation in accordance with R309.2
- Garage and carport parking surfaces in accordance with R309.4
- Emergency escape and egress in accordance with R310.1
- Windows and doors installed in accordance with section R613
- Required door size and location in accordance with R311.4 and landings at doors in accordance with R311.4.1
- Stairways in accordance with R311.5, stair handrails in accordance with R311.5.6
- Handrails in accordance with R311.5.6
- Ramps in accordance with R 311.6, ramp handrails in accordance with R311.6.3.1
- Guards in accordance with R312
- Smoke alarms in accordance with R313

Footings, conventional & monolithic

- All strip, isolated and monolithic footings to be placed on undisturbed natural soil of adequate soil bearing capacity or engineered fill accompanied by sealed letter in accordance with R403.1.
- Clean, square cut, dry, root free trenches, piers and lugs with adequate soil bearing capacity as shown in table R403.1 & R401.4.1 with all reinforcement and grade pins in place.
- Minimum width per table R403.1 for number of stories and type of construction
- Minimum depth per R403.1.1, projection 2" minimum, thickness of footing maximum
- Minimum burial of 12" below undisturbed ground surface per R403.1.4 at any point
- Minimum 2500psi concrete per table R402.2 (Severe per fig.301.2(3))
- Pier, lug and other concentrated load footings per tributary uniform live and dead loads and soil bearing capacity per R403.1.1

Foundation, floor framing, under-slab

- Finish floor elevation certificate if required must be provided upon completion of foundation.

Foundation

- Minimum thickness, wall height, unbalanced fill, lateral reinforcement, anchor bolt placement and aspect ratio in accordance with section R404 and associated tables.
- All foundation walls set, piers constructed and ventilation openings in place per R408.1 for vented crawlspaces
- Minimum under floor access provided in accordance with R408.4
- Interior crawlspace backfilled and leveled per R408.6 and free of organic debris per R408.5
- Foundation walls damp-proofed per R406.1 or waterproofed per R406.2 or drained per R405.1 if required and exposed to allow visual inspection.
- Anchorage placement in accordance with R403.1.6

Floor framing

- Framing clearances from ground and masonry in accordance with R319
- Protection from termites in accordance with R320
- All beam, joist and header spans in accordance with tables in R502. Show path of compliance and calculations
- All bearing, bridging, laps, lateral restraint, ledgers and blocking in accordance with R502.6 & 7
- Load path for required braced wall lines in accordance with R602.10.8
- Drilling & notching in accordance with R502.8
- Deck ledger attachment for *wall supported decks* in accordance with Chapter 5 and AF&PA/AWC "prescriptive Residential Wood Deck Construction Guide". Decks can not be supported by masonry veneer.
- Engineered material in accordance with Mfr. supplied specifications or engineered drawings supplied to the department.

Under-slab

- All organic material removed including top-soil in accordance with R506.2
- Clean uniformly compacted fill (limited to non-structural areas) in accordance with R506.2.1
- Base material of at least 4" clean sand or gravel in accordance with R506.2.2
- 6 mil vapor retarder in accordance with R506.2.3 (unheated garages, bldgs. and ext. flatwork excluded)
- Approved insulation for monolithic slab or non monolithic slab-on-grade floors in accordance with figure R403.3(1) & table N1102.1
- Depth for monolithically cast floors and footings in accordance with R403.1.4
- Anchorage for monolithically cast floors and footings in accordance with R403.1.6 and Fig. R403.1.6

Framing Inspection

- All other trades complete and required inspections passed

Walls

- Wall plates in accordance with R602.3.2
- Wall stud size, height and spacing in accordance with Table R602.3(5) and Table R602.3.1
- Drilling and notching in accordance with R602.6, Fig. R602.6(1) for studs and R602.6.1, Fig. R602.6.1 for top plates
- Headers and spans in accordance with R602.7, Tables R502.5(1) and R502.5(2)
- Fire-blocking in accordance with R602.8
- Wall bracing in accordance with section R602.10
- Sheathing size, thickness, spans and fastening in accordance with Tables R602.3(1), R602.3(2), R602.3(3), R602.3(4)
- Maximum stud height and spacing in accordance with table R602.3.1
- Weather resistive barrier (house-wrap) required in accordance with R703.2 & table R703.4
- Masonry veneer construction in accordance with R703.7, veneer masonry can not support any loads other than the weight of the veneer.

Roof/Ceiling

- Framing details in accordance with R802.3
- Rafter ties and collar ties in accordance with R802.3.1
- Ceiling joist lapped in accordance with 802.3.2
- Ceiling joist spans in accordance with table R802.4(1) & (2)
- Rafter spans (horizontal projection) in accordance with R802.5(1 through 8)
- Bearing in accordance with R802.6
- Lateral support and bridging in accordance with R802.8
- Framing of openings in accordance with R802.9
- Truss construction and plans in accordance with R802.10
- Roof/rafter tie down in accordance with R802.10.5, table R802.11.1
- Roof coverings in accordance with R905
- Masonry fireplaces and chimneys in accordance with table R1001.1 and figure R1001.1

Insulation/Energy

- Certificates posted in accordance with N1101.8
- Insulation and fenestration in accordance with table N1102.1
- R38 required in ceilings, R13 required in walls, R19 required in under floor applications per table N1102.1
- R10 required for crawlspace wall application with sealed crawlspace per N1102.2.8
- Air leakage requirements in accordance with N1102.4
- Systems insulation in accordance with N1103
- Insulation in place behind tubs/showers and other obstructed areas
- Baffles in place if to be obstructed

Final

- Final inspection includes all finished elements of the code requirements listed above and elsewhere in the IRC.
- Exterior decks in accordance with IRC chapter 5, AF&PA/AWC “Prescriptive Residential Wood Deck Construction Guide”
- Premises identification in accordance with R321
- Protection against subterranean termites in accordance with R320
- Proper drainage away from house
- HVAC system operating
- Attic access in accordance with R807.1