



INSPECTION CHECKLIST
Residential Underfloor
April 2011

2009 Codes

This checklist is intended for use to prepare for an inspection. References are to the 2009 International Residential Code (Sections are designated as R).

Please verify the following before calling for the underfloor inspection.

Permits and Plans

- Job address is posted in a visible location. (R321)
- Permit and approved plans are on the site. (R106.3.1 and R105.7)
- Note corrections left which need to be addressed at this time.
- If foundation was special inspected, the reports are with the permit and approved. (R109.2)
- Check approved plans for identification of flood hazard area and associated requirements for construction. (R109.1.3 & R323)
- Check approved plans for building height restrictions. (Per the local jurisdiction)

Grade

- Grade under girders/beams is 12" minimum. (R317.1)
- Grade under joisting is 18" minimum. (R317.1)
- If less than these dimensions above beam/girder, joisting, and sub-floor are pressure-treated. (R317.1)
- Grade minimums at sloped crawls. Typically 1 unit vertical to 3 units horizontal. (R403.1.7)
- Verify lowest floor elevations for any construction identified as being in flood hazard areas.

Foundation

- Foundation has not been damaged by backfill. (R404.1.7)

Hardware

- Anchor bolting is installed per shearwall schedule when specified and at a minimum of 2 per plate, spaced maximum 6' o.c., maximum 12" from plate ends.
- Square hot-dipped galvanized plate washers (minimum 3"x 3" x 1/4") are installed at pressure treated plates within the width of the plate at anchor bolts. (R602.11.1)
- R317.3 Fasteners and connectors in contact with preservative-treated and fire-retardant-treated wood.
- Fasteners and connectors in contact with preservative-treated wood and fire-retardant-treated wood shall be in accordance with this section. The coating weights for zinc-coated fasteners shall be in accordance with ASTM A 153.
- Check for any strapping at drag struts, holdowns, top flange hangers, specified hardware etc which may occur at underfloor areas.
- R317.3.1 Fasteners for preservative-treated wood. Fasteners for preservative-treated wood shall be of hot dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper. Coating types and weights for connectors in contact with preservative-treated wood shall be in accordance with the connector manufacturer's recommendations. In the absence of manufacturer's recommendations, a minimum of ASTM A 653 type G185 zinc-coated galvanized steel, or equivalent, shall be used.

Exceptions:

1. One-half-inch (12.7 mm) diameter or greater steel bolts.
2. Fasteners other than nails and timber rivets shall be permitted to be of mechanically deposited zinc coated steel with coating weights in accordance with ASTM B 695, Class 55 minimum. Check for missing or damaged holdowns and anchor bolts within sill plate, proper anchor bolt placement where sill plates have been cut and/or foundation vents provided.

Framing

- Review floor plan for joists, beams, and posting.
- Note their size, type, spacing, grade, etc.
- Dimensional joist bearing to be minimum 3" on concrete or masonry and 1 ½" on wood or metal. (R502.6)
- Hangers are installed at headouts, cantilevers, etc. (R502.6.2)
- Joists bearing and beams are supported laterally at ends and at bearing points by solid blocking. (R502.7)
- Nailing of joisting, double joists, rims, etc. are per plan and code. (Table R502.3(1))
- If wood I-joists are being used, verify layout and installation guides are onsite. Check that blocking detail, bearing requirements, etc. are per manufacturer's specifications.
- Load bearing cripple walls with studs < 14", are fully blocked and sheeted one side minimum with plywood and nailed per shear schedule or Table 602.3(1). (R602.9 WSA)
- When cripple wall studs exceed 48", the studs are the size required for an additional story. (R602.9 WSA) Load bearing cripple walls are braced per code minimum. (R602.9 WSA)
- Identify any point loads which require blocking, posting, joisting additions.
- Identify shearwalls and note joisting and/or hardware details.
- Positive connections at post to pads, post to beams, etc. (R502.9 and R407.3)
- Check areas where shearwall/floor diaphragm nailing and/or blocking may occur (typically blocking perpendicular to joisting, or specified hardware are connections).
- Check crawl space venting requirements. 1 square foot for each 150 feet of under-floor space. Can be seen at later inspection. (R408.1 and R408.2)
- Check areas where plumbing may cause problems, such as toilet flanges centered on joists, plumbing walls, etc.

Framing/Concrete

- Girder end joints occur over supports. (R502)
- Foundation plates, sills, and sleepers on concrete, which is in direct contact with the earth, are to be treated wood or wood of natural resistance to decay. (R317.1).
- Check areas where exceptional conditions may occur. Example: Patios, slabs, step areas: treated plywood and flashing to be installed where concrete is being poured up against framing. Where concrete is being poured over framed floor, approved protective moisture barrier must be installed and inspected prior to concrete pour, or joisting and plywood sheeting required to be pressure treated. (R317.1)