



## Inspection Checklist Residential Footing and Foundation

This Inspection Checklist reflects code requirements of the 2015 International Residential Code (IRC)

**Please verify the following before calling for a building final inspection**

### Permits and Plans

- Driveway culvert approval
- Job address shall be posted in a visible location at the roadside (R319)
- Permit and Approved plans are on site and accessible to the inspector (R106.3.1 and R105.7)
- Permit information is correct (address, permit number, description of work, etc.) (R106.1.1)
- Plans have been reviewed for any special inspection requirements (R401.4)
- NOTE:** If special inspections are required by the town ordinance, have the special inspector leave copies of their site visit report(s) with the permit each time they are on site. Make sure inspector is certified to perform the required type of inspection.
- Check approved plans for identification of flood hazard area and associated requirements for construction. (R109.1.3 & R322)
- Check approved plans for building height and/or setback restrictions. (Per local Land Use Ordinance)

### Location on Property

- The footings and foundation are not located within the setbacks.
- Protected areas and erosion control measures that need to be maintained and/or protected are marker per the approved plans. (Per Land Use Ordinance)

### Footings

- A safe and clear walking path to site and formwork.
- The footings are constructed per the approved plans. (R403)
- All loose soil, mud, or water is removed from the bottom of the footing. Debris, water and/or ice removed from spaces to be occupied by concrete. (R403.1)
- Steel reinforcement is properly placed and is the correct grade. (40 or 60 are most common) (R403.1.3.5.3)
  - To a minimum of 3" when cast against and permanently exposed to ground.
  - To a minimum of 2" for No. 6 through No. 18 bar when exposed to earth or weather.
  - To a minimum of 1.5" for No. 5 or smaller bar when exposed to earth or weather.
- The reinforcement steel is spliced per approved plans with two ties per lap. (R403.1.3.5.4)

- Footings for masonry chimneys are a minimum of 12" thick and extend not less than 6" outside the chimney wall and project below-grade as required. Reinforcement steel is per approved drawings. (R1001.2)
- Footings are level or stepped if the ground slopes more than 1 foot in 10 feet. (R403.1.5)
- Minimum 1" clear spacing between parallel reinforcing bars.
- Footings project beyond the face of the foundation wall at least 2 inches, but not more than the thickness of the footing. (R403.1.1)
- Footings don't bear on frozen soil. (R403.1.4.1)
- Reinforcement thoroughly clean of loose scale, rust, ice, mud, oil or other deleterious coatings.

## Foundation

- Top of the wall will project a minimum of 6" above finished grade. (R404.1.6)
- Foundations in flood prone areas per Table R301.2.4, (per Land Use Ordinance) shall be designed per R322. And elevation determined per FEMA maps and/or surveyed/sealed by design professional (R322.2.1) Flood resistant materials must be used.
- Surface drainage away from foundation walls minimum 6" for the first 10'. On narrow lots provide slope to drains or to approved (2%) sloped swales. (R401.3 exception)
- The joists within the building footprint maintain a minimum 18" above grade in the crawl space or be treated wood or wood of natural resistance to decay. (R317.1)
- The beams within the building footprint maintain a minimum 12" above grade in the crawl space or are treated wood or wood of natural resistance to decay. (R317.1)
- The foundation wall is at the thickness shown on the approved plans.
- The reinforcement steel grade, size, cover, spacing, and splicing is per the approved plan.
- When the concrete is poured, the anchor bolt will have a minimum of 7" of cover, putting the bottom of anchor bolts within steel. (R403.1.6)
- Anchor bolts are sized and spaced per the structural plans for shear walls.
- The required hold-downs are placed per approved plans and manufacturers installation requirements.  
NOTE: Hold-down straps and embedded bolts for hold-downs may not be wet set. Requirements Vary.
- Crawl space vents incorporated into foundation walls properly sized, spaced, and installed. (R408)
- Walls exposed to weather are to have a minimum of 3000 psi concrete strength, and air entrained (5-7%) (Table R402.2)
- Foundation retaining walls unsupported at the top and retaining greater than 48" of unbalanced fill shall be designed. (R404.4)
- Waterproofing/Damp proofing of foundation exterior walls required. (R406)

## General

- Cold weather requirements. Concrete being placed during freezing or near-freezing weather complies with the following:
  1. Adequate equipment provided for heating concrete materials and protecting concrete during freezing or near-freezing weather.
  2. Concrete materials and reinforcement, forms, fillers, and ground with which concrete is to come in contact is free from frost.
  3. Frozen materials or materials containing ice not being used.
- Hot weather requirements. During hot weather, proper attention is given to ingredients, production methods, handling, placing, protection and curing to prevent excessive concrete temperatures or water evaporation that could impair the required strength or serviceability of the member or structure.
- Field bending of steel. Minimum Diameter of bend 6 times the diameter.