City of Gresham

Residential Footing and Foundation Inspection Checklist

August 2008

This checklist is intended for our customers to prepare for an inspection. It is also intended for our inspectors to improve consistency and overall service delivery.

Please verify the following before calling for the inspection:

Permits and Plans

- ❑ Job address is posted in a visible location.
- ❑ White Inspection Record Card (Hard Card)and approved plans are on site and accessible to the inspector
- ❑ Work is exposed and accessible for inspection.
- ❑ Permit information is correct (address, permit number, description of work, etc.).
- ❑ Any changes to the plans have prior approval from the building department.
- ❑ Plans have been reviewed for any special inspection requirements.
  NOTE: If special inspections are required, the contractor is requested to note on the permit each time the special inspector is on the site. Also, it is the contractor's responsibility to ensure that the special inspector is certified to perform the required type of inspection.

Ground Preparation

- ❑ Structural fill to be compacted in maximum 8 inch lifts, and may require special inspection.
- ❑ All erosion control, such as silt fences, must be in place prior to inspection.
- ❑ Prior to setting forms or placing rebar, if unusual or questionable soil and site conditions exist, a meeting with the building inspector should be requested.
- ❑ Expose property corner survey pins and string lines to verify setbacks per plans or provide a signed and stamped letter from a licensed surveyor for building placement. (Note: Fences, adjacent buildings, etc. cannot be used for setback verification)

Footings and Foundations

- ❑ Footings must be supported by undisturbed natural soil or engineered fill with max. load values per Table R401.4.1. Expansive, compressible, shifting or unknown soils require geotechnical evaluation.
- ❑ Where the grade slopes away from the footing, the maximum slope allowed without design is 1:1 (45º) from the toe of the footing.
- ❑ Footings must be clear of mud, standing water, vegetation and roots prior to placement of concrete.
- ❑ Basement foundation walls exceeding the limits found in IRC section R404.1.2 or having a surcharge are required to be designed by an engineer.
- ❑ Footing and foundation walls must be sized and located per the approved plans. Height of walls to be 6 inch minimum above finished grade and bottom of footing 18 inches minimum below finished grade for frost protection.
- ❑ Extend the top of the foundation 12 inches above the street gutter plus 2%.
- ❑ Install holdown bolts/straps per the approved set of plans. Verify anchor bolt size and spacing per plans and shear wall schedule.

Rebar Reinforcement

- Unless specified otherwise on the plans, install one No. 4 horizontal bar in the footing and one bar within 12 inches of the top of the wall with clearances of 3 inches minimum to ground and 1½ inches to forms. (Two No. 4 bars in the footing for monolithic foundations.)
- Provide No. 4 vertical rebar a minimum 4 feet on center and 3 inches clear of the bottom of the footing. Install the vertical bar with standard hooks (6 inch) and extend the bar a minimum of 14 inches into the stem wall. (Not required on mono pour.)
- A No. 4 rebar electrical ground (UFR), with a minimum 12 inch lap spliced (tightly attached with a minimum of 3 ties) to the continuous horizontal footing bar and stubbed 12 inches above the plate line.
- Rebar must be free of mud, rust, oil or nonmetallic coatings and must be tied in place prior to the inspection.
- Anchor bolts are not required to be tied in place and “wet setting” of anchor bolts is acceptable, unless disallowed by the engineer of record.

Isolated Footings

- Isolated footings within crawl spaces enclosed by a continuous foundation:
  - 18 inches in diameter x 8 inches deep (with all the following conditions):
    - Supporting a single floor with maximum of 50 pounds per square foot total floor load;
    - Beam spacing maximum of 48 inches on center;
    - Girder size maximum of 4 inches x 8 inches or 6 inches x 6 inches.
- 34 inches in diameter x 17 inches deep for footings up to 9000 pounds load. Loads over 9000 pounds must be designed.
- Set bottom of isolated footings outside the crawl space to frost depth of 18 inches below grade.

Underfloor

- Install a crawl space drain under the footing at the low point. Slope and drain all underfloor areas to the low point.
- The minimum net area of ventilation openings is not less than 1 square foot for each 150 square feet of underfloor space area (may be reduced to 1/1500 with approved ground cover). One opening must be within 3 feet of each corner of the building. Openings may be omitted on one side.
- For foundations, reinforcement, seismic attachment and clearances at masonry fireplaces, contact the building department.

Note: These are general requirements only and do not reflect all conditions. For additional information please contact the Building Division at 503-618-2845.