

CITY OF ASHLAND



Policies / Interpretations / Procedures

BD-PP-0001

FOOTING AND FOUNDATION WALL REBAR REQUIREMENTS FOR SINGLE FAMILY RESIDENCES

Policy Summary:

Clarifies rebar requirements for footings and foundation walls in single-family residential construction.

Background:

The following question related to the Oregon Residential Specialty Code (ORSC) requirements for footings/foundations have been raised by the plan review and inspection staff:

When utilizing Table R404.1.1, what are the rebar requirements when a 6" foundation wall is utilized as allowed for a foundation wall associated with unbalanced fill 4' or less in height?

Discussion:

ORSC Section 404.1.4 indicates that rebar is required in the upper 12 inches of the foundation wall.

Section R401.4 indicates that the Building Official may require a soil test in areas likely to have expansive, compressible, shifting, or other unknown soil characteristics. Ashland is known to have expansive soils in certain areas. Recent improvements in GIS mapping have provided staff with better tools which reflect Benton Soils Maps and depict specific soil types for specific areas. Because of this, staff are able to more accurately determine if soils testing is necessary for specific locations of proposed construction activity.

In areas that would typically require soils testing, and where no other special site conditions exist, our experience indicates that horizontal rebar should be required in cases where the foundation wall thickness is less than eight (8) inches or where the height of the unbalanced fill exceeds four (4) feet. Vertical rebar should be required in those cases where there is a horizontal "cold" joint. The vertical rebar should be placed four feet on center. If deemed an acceptable alternative by the Plans Examiner, compliance with these rebar placement standards would typically negate the need for a soil test.

Special consideration must also be taken for new subdivisions where expansive soils are identified. A soils report will be required for new subdivisions and the guidelines for foundation construction in the soils report, shall be followed.

Policy:

In areas that require a soils test, where no special site conditions are known to exist, the following standard may be utilized if deemed acceptable by the Plans Examiner in lieu of providing a soils test.

The minimum rebar requirements for a 6 inch thick concrete foundation wall (height of unbalanced fill 4 feet or less) and the associated footing are as follows if no soil test is submitted as required by Section 401.4:

Horizontal rebar - two #4 bars are required in all cases; if the footing is poured independent of the foundation wall or monolithically, the two bars will both be in the footing. In addition, one bar must be placed in the upper 12 inches of foundation wall.

Vertical rebar - #4 rebar is required in those cases where there will be a horizontal "cold" joint. The vertical rebar will be spaced 4 feet on center and must have a standard hook.

This policy does not apply to installations where a soils test is not required and the foundation is proposed to be constructed prescriptively to comply with minimum code requirements.

In the case of new subdivisions where expansive soils are identified, a soils report shall identify specific soils preparation, soils compaction, foundation construction methods, and wet weather construction guidelines. In addition, a subdivision plot plan shall be provided with the soils report that identifies each lot covered by the soils report along with lots containing areas of expansive soils. Each plan submittal for a foundation on a lot containing expansive soils shall provide copy of such soils report. A copy of the soils report will be scanned along with the site plan for each case.