



INTEROFFICE MEMORANDUM

Date: October 25, 2012

To: Code Services Staff

From: Brad Claussen, Building Official

Subject: CMU Inspection Procedures (1 & 2 Family Residential)

This memo is intended to give staff a consistent way to inspect concrete masonry unit (CMU) walls for structures constructed under the IRC which would typically be one and two family dwellings, townhouses and accessory structures. Any other CMU construction which is regulated under the IBC typically is treated as a special inspection conducted by the designated special inspector for that job. This memo also generally applied to CMU foundation walls, although can be used for above ground walls if necessary.

Footing Dowels

Footings for CMU walls shall contain dowels embedded in and extending from the footings at each location that a vertical bar is required in the wall. Tables 404.1.1 (2,3&4) set forth the vertical reinforcement spacing.

Wall Reinforcement

As noted above, the vertical rebar maximum spacing is set by Tables 404.1.1 (2,3&4). As an example, an 8 foot 8 inch high, 8" thick CMU wall in average soil, with a 7' unbalanced fill on the outside would require the following minimum reinforcement:

- Vertical #6 bar at 48" spacing (Table 404.1.1(2))
- Horizontally, one #4 bar within 12" of the top of the wall and one #4 at third points (Table 404.1.2(1))

Inspections Required

On a typical CMU basement wall, a total of 4 inspections would be needed. Those are as follows:

- Footing
- After courses have been laid to the 1/3 and 2/3 points
- At the top bond beam within 12” of the top of the wall

As a note, there is a table in the code for un-reinforced masonry wall construction (404.1.1(1) however, the maximum unbalanced height especially in clay based soils is fairly small and the wall thickness is much thicker than average so it is not usually feasible to try this in this area.