



**MASON COUNTY  
DEPARTMENT OF COMMUNITY DEVELOPMENT**

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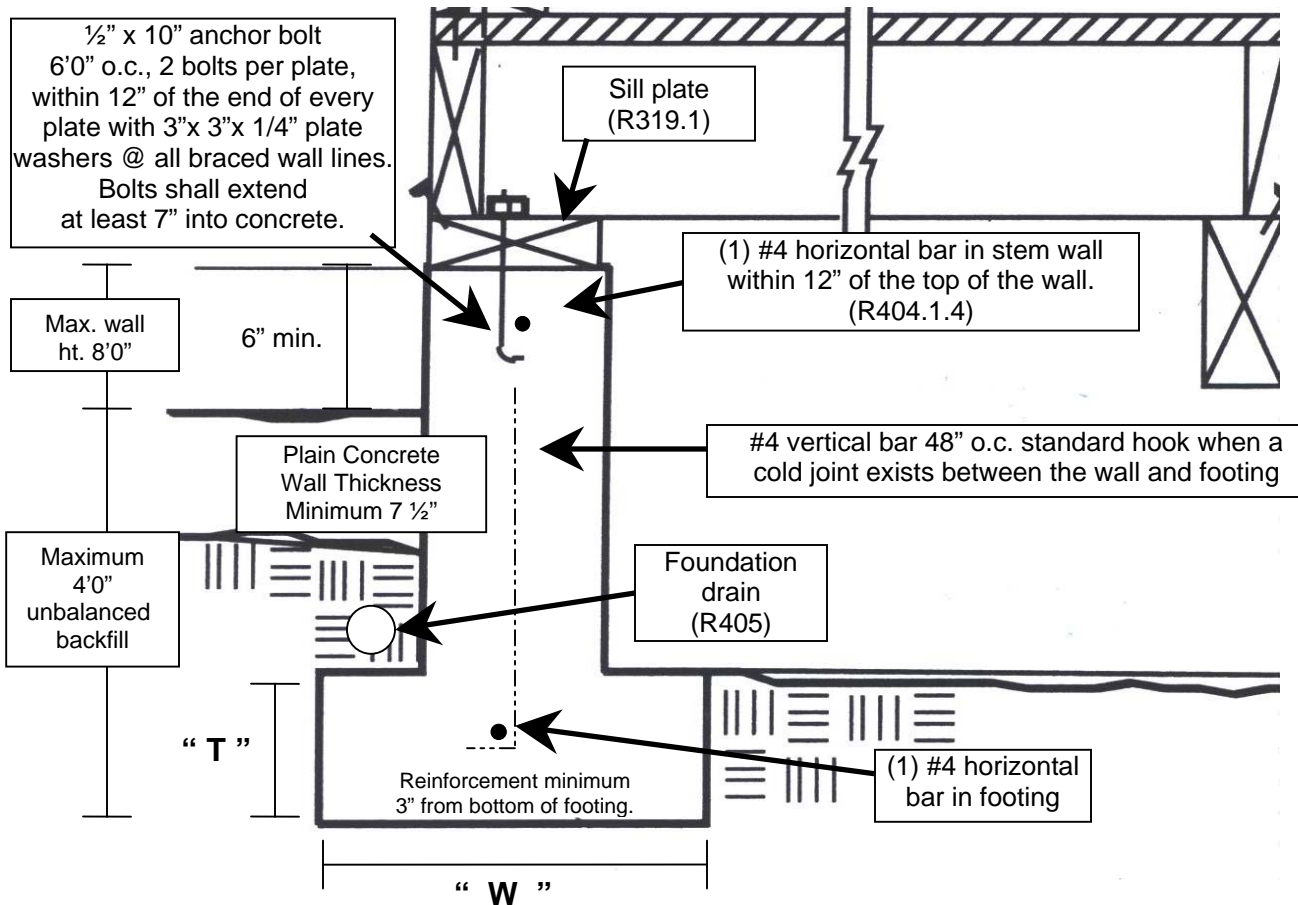
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## Concrete Foundation 8'0" Wall Height (Maximum)

With maximum 4 feet of unbalanced backfill\*\*



\*\*Unbalanced backfill height is the difference in height of the exterior and interior finish ground levels. Where there is an interior slab the distance inside is measured from the top of that slab.

Story	1	2	3
Footing Thickness ( " T " )	6"	6"	8 1/2"
Footing Width ( " W " )	12"	15"	23"
Foundation Walls: See Table 404.1.1(5)			

R404.1.4: Seismic Design Categories D<sub>1</sub> and D<sub>2</sub>. In addition to the requirements of Table R404.1.1(1), concrete foundation walls located in Seismic Design Categories D<sub>1</sub> and D<sub>2</sub>, as established in Table R301.2(1) as amended by Mason County, supporting more than 4 feet of unbalanced backfill shall be constructed in accordance with Table R404.1.1(5). Wall height of concrete foundation walls shall not have an unbalanced backfill height exceeding 4 feet unless reinforcement is provided per table R404.1.1(5) or engineered design.

**NOTE: In lieu of a professional soils report Mason Co. will assume that the most restrictive soil conditions exist onsite.**

**TABLE R404.1.1(1)  
PLAIN MASONRY FOUNDATION WALLS**

**NOTE: In lieu of a professional soils report Mason Co. will assume the most restrictive soil conditions exist.**

Maximum Wall Height (feet)	Maximum Unbalanced Backfill Height <sup>c</sup> (feet)	Plain Masonry <sup>a</sup> Minimum Nominal Wall Thickness (inches)		
		GW, GP, SW & SP	GM, GC, SM, SM-CL & ML	SC, MH, ML-CL & Inorganic CL
5	4	6 solid <sup>d</sup> or 8	6 solid <sup>d</sup> or 8	6 solid <sup>d</sup> or 8
6	4	6 solid <sup>d</sup> or 8	6 solid <sup>d</sup> or 8	6 solid <sup>d</sup> or 8
7	4	6 solid <sup>d</sup> or 8	8	8
8	4	6 solid <sup>d</sup> or 8	6 solid <sup>d</sup> or 8	8

- (a) Mortar shall be Type M or S and masonry shall be laid in running bond. UngROUTED hollow masonry units are permitted except where otherwise indicated.
- (b) Soil classes are in accordance with the United Solid Classification System. Refer to Table R405.1
- (c) Unbalanced backfill height is the difference in height of the exterior and interior finish ground levels. Where an interior concrete slab is provided and is in contact with the interior surface of the foundation wall, measurement of the unbalanced backfill height from the exterior finish ground level to the top of the interior concrete slab is permitted.
- (d) Solid grouted hollow units or solid masonry units.
- (e) Wall construction shall be in accordance with Table R404.1.1(2) or a design shall be provided.

**FOUNDATION WATERPROOFING AND DAMPPROOFING**

(R406.1) Foundation walls that retain earth and enclose habitable or usable spaces located below grade shall be damp proofed from the top of the footing to the finished grade. Masonry walls shall have not less than 3/8" Portland cement parging applied to the exterior of the wall. The parging shall be damp proofed with bituminous coating, 3 lbs. per square yard of acrylic modified cement, 1/8" coat of surface-bonding mortar complying with ASTM C 887 or any material permitted for waterproofing in Section R406.2 (see below). Concrete walls shall be damp proofed by applying any one of the waterproofing materials listed in Section R406.2 (see below) to the exterior of the wall.

Section R406.2: Concrete and masonry foundation waterproofing: In areas where a high water table or other severe soil-water conditions are known to exist, exterior foundation walls that retain earth and enclose habitable or usable spaces located below grade shall be waterproofed with a membrane extending from the top of the footing to the finished grade. The membrane shall consist of 2-ply hot-mopped felts, 55 lb. roll roofing, 6 mil polyvinyl chloride, 6 mil polyethylene, 40-mil polymer-modified asphalt or 60 mil flexible polymer cement. The joints in the membrane shall be lapped and sealed with an adhesive compatible with waterproofing membrane. *Exception:* Organic solvent based products such as hydrocarbons, chlorinated hydrocarbons, ketones and esters shall not be used for ICF walls and expanded polystyrene form material. Plastic roofing cements, acrylic coatings, latex coatings, mortars and pargings are permitted to be used to seal ICF walls. Cold setting asphalt or hot asphalt shall conform to type C of ASTM D 449. Hot asphalt shall be applied at a temperature of less than 200 degrees.

Backfill shall not be placed against the wall until the wall has sufficient strength and has been anchored to the foundation at all points a minimum of 4 inches where masonry veneer is used and a minimum of 6 inches elsewhere. (R404.1.7). For purposes of determining wall height the concrete wall is measured from the top of the footing to the top of the concrete wall. In basements the wall height is measured from the top of the slab to the top of the concrete wall.

Surface drainage shall be diverted to an approved point of collection so as to not create a hazard. Lots shall be graded so as to drain surface water away from foundation walls. The grade away from foundation walls shall fall a minimum of 6 in. within the first 10 ft. *Exception:* Where lot lines, walls, slopes or other physical barriers prohibit 6 in. of fall within 10 ft. drains or swales shall be provided to ensure drainage away from the structure. (R401.3)