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Title:

The Dual Footed Foundation; an Alternative to the Slab-on-Grade

Abstract:

A possible alternative is suggested to the slab-on-grade foundation; a steel, reinforced, monolithic structure. With the increasing cost of Portland cement and steel an alternative foundation may be due to cost alone but here there are other reasons as well. The inherent weakness of the slab-on-grade, especially associated with expanding soil, is the footer in direct contact with the soil, is resolved by two footings, one each above and below grade.

The above grade, or top footer, either of stone or concrete, rests on a trench or bottom footer, on unconsolidated or non-cohesive fill: e.g., sand or gravel. This arrangement permits the trench footer to dissipate the kinetic energy of expanding clay leaving the top footer undisturbed. The rubble trench or dry wall footing of Frank Lloyd Wright is specialized version of the double footed foundation.