

Below Grade Entry (2015 National Building Code of Canada)

Information and Drawing Requirements

Localized depressed areas for exterior unheated entryways [maximum 1.067x1.067m (3'-6" x 3'-6" landing)] shall:

1. Have a minimum of 50mm (2") of horizontal and vertical insulation with an R-value of 4.5 / inch under the slab, stair and on the exterior of the adjacent concrete foundation wall respectively. Insulation must project 1.2 m (48") either side of the retaining walls both horizontally and vertically to protect the house foundation wall and footing from frost exposure. Insulation not covered by backfill must be protected from damage with a suitable covering.
2. Retaining wall(s) must be constructed as a concrete grade beam dowelled into the house foundation wall and supported by minimum 200 mm (8") diameter piles that extend a minimum of 2.4 meters (8') below the entryway slab floor level complete with 100 mm (4") void forms between piles. Pile reinforcement shall be a minimum of 15M full depth and tied into the retaining walls. Where backfill height is greater than 1.2 m (48"), the walls must be reinforced with a minimum 2-10M horizontal top and bottom.
3. The entryway slab must be placed over the horizontal insulation and be free floating (not tied to the foundation wall). A drain connected directly to a sump pit using non-perforated pipe must be installed to prevent water accumulation in the entryway. Connecting the slab drain to perimeter weeping tile is not acceptable.

