

## Building Code References – Retaining Walls

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The below content is referenced from the [National Building Code – 2023 Alberta Edition](#).

**4.1.4.1.(6). Dead loads:** Except for structures where a dead load of soil is part of the load-resisting system, where the dead load due to soil, superimposed earth, plants and trees is counteractive, it shall be included in the design calculations.

**A4.1.4.1(6).** Counteracting Dead Load due to soil: Examples of structures that traditionally employ the dead load of soil to resist loadings are pylon signs, tower structures, retaining wall and deadmen which resist wind uplift and overturning in light structures.

**9.4.4.5. Retaining Walls:** Walls shall be designed to resist the lateral pressure of the retained material.

### **9.4.4.6. Walls Supporting Drained Earth:**

- 1) Except where constructed in accordance with Section 9.15, walls supporting drained earth shall be designed:
  - a) for a pressure equivalent to that exerted by a fluid that has a density of not less than 480 kg/m<sup>3</sup> and a depth equal to that of the retained earth, or
  - b) in accordance with Section 4.2. so as to be able to resist the loads and effects described in Article 4.1.2.1.
- 2) Walls supporting other than drained earth shall be designed-
  - a) for the pressure described in Clause 1(a) plus the fluid pressure of the surcharge, or
  - b) in accordance the Section 4.2. so as to be able to resist the loads and effects described in 4.1.2.1.

### **9.8.8.1: Required Guards**

- 1) If the retaining wall supports an accessible surface where there is a elevation difference greater than 600mm (2') or if adjacent surface has a slope greater than 1 in 2 a guard will be required to be installed.
- 2) Guards are not required
  - a) At loading docks
  - b) At floor pits in repair garages
  - c) Where access is provided for maintenance purposes only.