

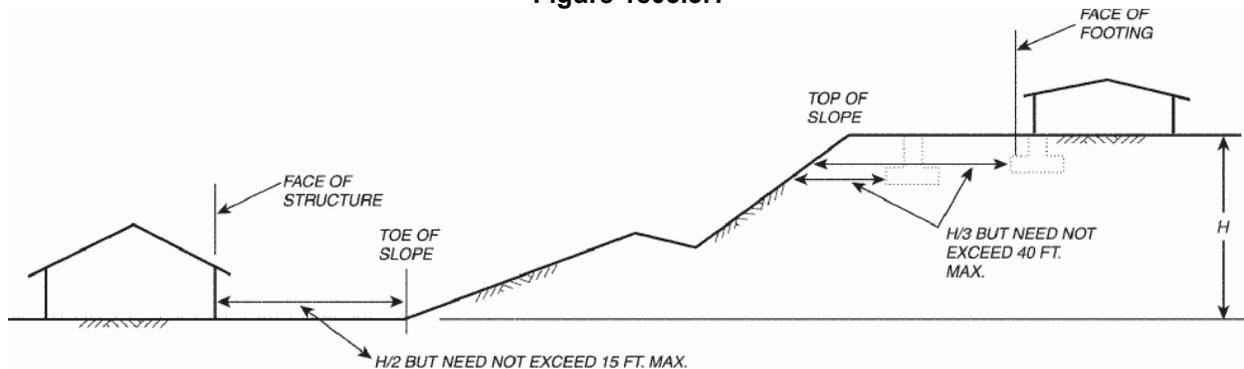
## Steep Slope Defined

- **Definition limitation.** The definition of steep slope is limited to the purposes of this informational bulletin and is not intended to be used for any other regulatory purpose.
- **Steep Slope.** A slope greater than one vertical unit for each 3 horizontal units (33%).

## Foundation Location Requirements

- **Prescriptive Clearances.** Foundations must be placed at least a minimum distance from steep slopes as shown in Figure 1805.3.1.

Figure 1805.3.1



- **Alternate setbacks.** The building official may approve structures to be placed closer to steep slopes than the prescriptive distances shown in Figure 1805.3.1 where “H” is the height of the slope. Approval will be based upon a soils investigation that is performed by a licensed design professional and the design professional’s recommendations.

## Foundation Elevation

- **Top of Foundation.** The top of the foundation must extend a minimum of six inches above finished grade at all points around the perimeter. Finished grade includes landscaping materials including topsoil or wood bark chips. Additional height may be required to obtain required ground slope away from the building.
- **Required Slope from Structures - Residential.** Residential and residential accessory structures built under the provisions of the International Residential Code (IRC) are required to provide slope away from the building to divert water away from the foundation. Such slope must be a minimum of 6 inches within 10 feet (5%) from the building.
  - Exception:** Where lot lines, walls, slopes or other physical barriers prohibit 6 inches of fall within 10 feet, drains or swales shall be provided to ensure drainage away from the structure.
- **Required Slope from Structures – Non-Residential.** On graded sites, the top of any exterior foundation shall extend above the elevation of the street gutter at point of discharge or the inlet of an approved drainage device a minimum of 12 inches plus 2 percent. Alternate elevations are permitted subject to the approval of the building official,

provided it can be demonstrated that required drainage to the point of discharge and away from the structure is provided at all locations on the site.

### Soils Investigations

- **Registered Professional Required.** Soils investigations may only be performed by Washington State licensed geologists or geologic engineers.
- **Investigation.** In areas likely to have expansive, compressible, shifting or other unknown soil characteristics, the building official will determine whether to require a soil test to determine the soils characteristics at a particular location. This test must be made by an approved agency using an approved method. Such an investigation must include consideration of:
  - i. Material;
  - ii. Height of slope;
  - iii. Slope gradient;
  - iv. Load intensity and;
  - v. Erosion characteristics of slope material.
- **Presumptive Load-Bearing Values of Soils.** At the discretion of the building official, soils investigations may use the following table to assign load-bearing values.

**TABLE R401.4.1  
PRESUMPTIVE LOAD-BEARING VALUES OF  
FOUNDATION MATERIALS<sup>a</sup>**

CLASS OF MATERIAL	LOAD-BEARING PRESSURE (pounds per square foot)
Crystalline bedrock	12,000
Sedimentary and foliated rock	4,000
Sandy gravel and/or gravel (GW and GP)	3,000
Sand, silty sand, clayey sand, silty gravel and clayey gravel (SW, SP, SM, SC, GM and GC)	2,000
Clay, sandy clay, silty clay, clayey silt, silt and sandy silt (CL, ML, MH and CH)	1,500 <sup>b</sup>

For SI: 1 pound per square foot = 0.0479 kN/m<sup>2</sup>

- a. When soil tests are required by Section R401.4, the allowable bearing capacities of the soil shall be part of the recommendations.
- b. When the building official determines that in-place soils with an allowable bearing capacity of less than 1,500 psf are likely to be present at the site, the allowable bearing capacity shall be determined by a soils investigation.