

# 2021 Virginia Construction Code

## CHAPTER 16 STRUCTURAL DESIGN

### SECTION 1606 DEAD LOADS

#### 1606.1 General.

*Dead loads* are those *loads* defined in [Chapter 2](#) of this code. *Dead loads* shall be considered to be permanent loads.

#### 1606.2 Weights of materials of construction.

For purposes of design, the actual weights of materials of construction shall be used. In the absence of definite information, values used shall be subject to the approval of the *building official*.

#### 1606.3 Weight of fixed service equipment.

In determining dead loads for purposes of design, the weight of fixed service equipment, including the maximum weight of the contents of fixed service equipment, shall be included. The components of fixed service equipment that are variable, such as liquid contents and movable trays, shall not be used to counteract forces causing overturning, sliding, and uplift conditions in accordance with Section 1.3.6 of [ASCE 7](#).

#### Exceptions:

1. Where force effects are the result of the presence of the variable components, the components are permitted to be used to counter those load effects. In such cases, the structure shall be designed for force effects with the variable components present and with them absent.
2. For the calculation of seismic force effects, the components of fixed service equipment that are variable, such as liquid contents and movable trays, need not exceed those expected during normal operation.

#### 1606.4 Photovoltaic panel systems.

The weight of *photovoltaic panel systems*, their support system, and ballast shall be considered as *dead load*.

#### 1606.5 Vegetative and landscaped roofs.

The weight of all landscaping and hardscaping materials for vegetative and landscaped roofs shall be considered as *dead load*. The weight shall be computed considering both fully saturated soil and drainage layer materials and fully dry soil and drainage layer materials to determine the most severe *load* effects on the structure.