



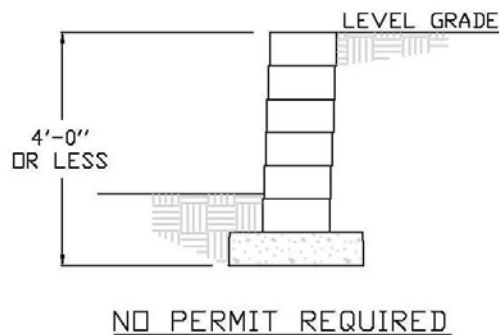
Platte County, Missouri Retaining Wall Requirements

Building Permits

Two of the building and specialty codes adopted by Platte County, Missouri are the 2006 International Building Code (IBC) and the 2006 International Residential Code (IRC). It is a common misconception by builders, designers, and homeowners that the IBC and the IRC allows retaining walls of up to 4 feet in *exposed wall height* to be constructed without a permit, regardless of the back slope conditions; however, this is not true. IBC Section 105.2, item 5, and IRC Section 105.2, Building item 3, state that:

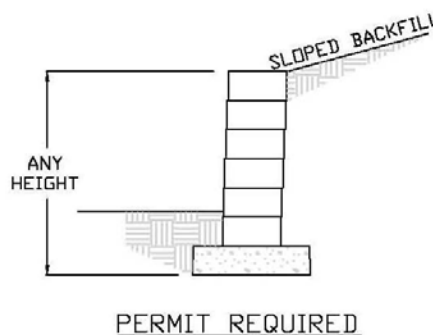
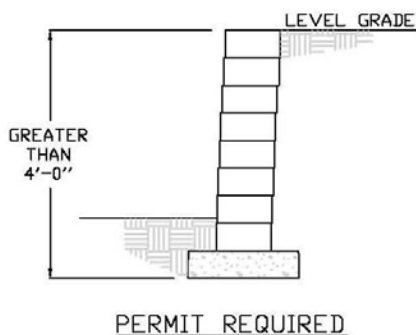
“Permits shall not be required for...Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.”

The only time a building permit is **NOT REQUIRED** is when retaining walls are 4'-0" high or less measured from the bottom of the footing to the top of the wall and do not have a sloped backfill (see detail below).



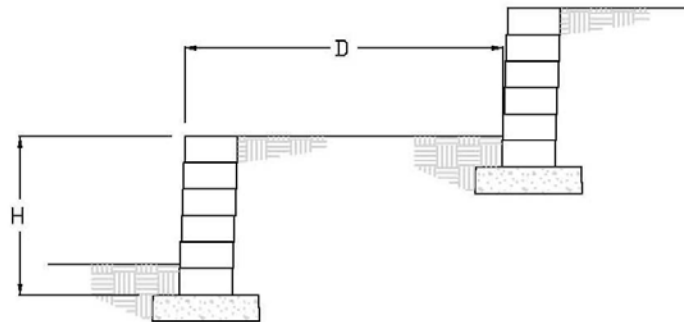
A Building Permit is **REQUIRED**, regardless of the type of wall (cantilever, gravity, modular, segmental, rock, etc.), when:

- The wall is greater than 4'-0" measured from the bottom of the footing to the top of the wall, or
- The wall, no matter the height, has a slope behind it, or
- The wall is supporting a parking lot, driveway, pool, or other structure



Tiered Walls

A tiered retaining wall system is a series of two or more stacked walls, each higher wall set back from the underlying wall. When tiered walls are not properly offset from each other, the upper wall may impose a surcharge load on the lower wall. In order for the tiered walls to be treated as separate retaining walls, a general rule of thumb is that the upper wall needs to be placed back a horizontal distance of at least twice the height of the lower wall ($D > 2H$).



For example, two tiered retaining walls, each with a wall height of 3 feet ($H = 3$) and level backfill, which are horizontally offset by a distance of 2 feet ($D = 2$), would be treated as a single 6-foot-tall wall. As a result, a building permit would be required.

Submittals

When a building permit is required for the construction of a retaining wall, the following documents are required:

1. A warranty deed showing ownership of the parcel along with a legal description of the land on which the proposed work is to be done.
2. The full name and address of the contractor.
3. An applicable site plan showing the location of the retaining wall and the dimensions from all property lines. The site plan must be completed by a surveyor licensed in the State of Missouri.
4. Complete construction details of the retaining wall, prepared (and sealed) by an engineer licensed in the State of Missouri.
5. Structural and stability calculations prepared (and sealed) by an engineer licensed in the State of Missouri.

Inspections

Retaining walls requiring a building permit will also require a third party inspection. Before Platte County can issue a certificate of occupancy, an original construction certification/inspection letter from (and wet-stamped by) an engineer licensed in the State of Missouri must be submitted.

Safety Barrier

Retaining walls which are more than thirty (30) inches above grade level shall have a safety barrier, such as guardrails or shrubbery. If shrubbery is used as a safety barrier, it shall meet the following requirements:

1. The shrubbery is a minimum of thirty-six (36) inches in height.
2. The shrubbery has foliage on it twelve (12) months of the year.
3. The shrubbery is of a dense enough quality to act as a safety barrier according to the Platte County Enforcement Officer.

A retaining wall which is more than thirty (30) inches above grade level shall not have a fence, freestanding wall or guardrail constructed on top of it that is more than four (4) feet in height. A fence or freestanding wall shall be considered to be on top of a retaining wall if it is within three (3) feet of the retaining wall.