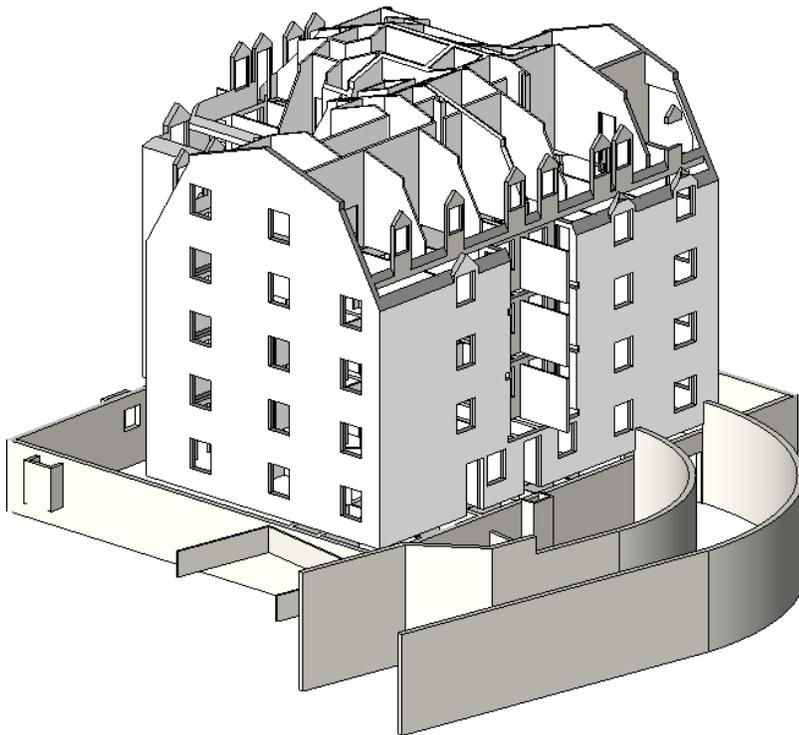


Walls

Walls can function as interior, exterior, foundation, retaining, soffit, or core-shaft. All walls have a structure that can be defined through the type properties of the wall. In addition, various instance and type properties can be specified to define the appearance of the wall.

3D view of walls



Walls Workflow

Adding and modifying walls is one of the primary functions you perform. Walls include layers of various materials that give the wall a thickness and each material has information within it so that the walls will be properly represented depending on how it is viewed within Revit.

This chapter sequentially describes how to create walls and then perform advanced techniques with them.

Walls Overview

Walls are basic components of most building plans and models. You can create simple walls that have standardized settings. You can also create compound walls with different components and materials. With Revit, the materials in walls can provide much internal information since they are built up from layers of materials that give walls thickness. When you draw walls within Revit, the default assumes you create walls clockwise.

There are six wall functions:

- Interior - a wall inside of a building, or the inside surface of an object
- Exterior - a wall outside of a building, or the outside face of a surface
- Foundation - wall foundations are members of the structural foundation category. The structural base of a building that provides stability and rigidity
- Retaining - a wall that holds back earth
- Soffit - the exposed underside of an architectural element
- Core-Shaft - the structural part of a compound wall or other host element

Location Line - You create a wall by drawing the Location Line of the wall in a plan view, ceiling plan view, or 3D view. Revit Architecture applies the thickness, height, and other properties of the wall around the location line of the wall. The Location Line is a plane in the wall that does not change, even if the wall type changes.

You have six options to choose from in the Location Line. For example, if you draw a wall and specify its location line as Core Centerline, the Location Line remains there, even if you select that wall and change it to another type or change its structure. Another example is if you specify the location line as Finish Face: Interior and draw the wall from left to right, the location line displays on the exterior side of the wall. If you draw from right to left, the location line displays on the interior side of the wall. You can also change the Location Line.

Adding Walls

- 1 In a floor plan view or 3D view, click Home tab ► Build panel ► Wall.
- 2 Click Place Wall tab ► Element panel, and select the desired wall type from the Type Selector drop-down.
- 3 To change the properties of the wall, click Place Wall tab ► Element panel ► Element Properties drop-down ► Instance Properties or Type Properties.

For descriptions of wall properties and their values, see [Wall Properties](#) on page 40.

- 4 On the Options Bar, specify wall design options:
 - Level (3D views only): Choose a level as the base constraint. You can choose a non-story level. See Levels.
 - Height: Set the height of a wall to go up to a level. The default value is Unconnected, which allows you to specify a value for Height.

NOTE When you draw a foundation wall type, the option name is displayed as Depth.

- Location Line: Specify the location line of the wall as Wall Centerline, Core Centerline, Finish Face: Exterior, Finish Face: Interior, Core Face: Exterior, or Core Face: Interior.

5 Create the wall, using one of the following methods:

- **Draw the wall:** By default, Line is active. (If it is not active, click Place Wall tab ► Draw panel ►  (Line), or select another draw tool.) See Sketching.
As you draw a wall, you can quickly set its length by entering a value on the keyboard, taking advantage of the listening dimension feature. See Listening Dimensions.
If you want to flip the orientation of the wall about its location line, press the *Spacebar* as you draw the wall. This works for all wall drawing tools, such as rectangles, circles, and 3-point arcs.
- **Pick Lines** (): Select existing lines. Lines can be model lines or edges of elements, such as roofs, curtain panels, and other walls.
- **Pick Faces** (): Select either a massing face or a generic model face. The generic model could be created as in-place or family file based. See Creating Walls from Mass Faces.

TIP To highlight all vertical faces on the mass or generic model, press *Tab*. Click to place walls simultaneously on each highlighted face.

6 Add dimensions if desired. See Placing Permanent Dimensions.

Modifying Walls

After creating a wall, you can modify it by changing the wall type or resizing the wall.

Changing Wall Types

When you activate the Wall tool to place walls, you can use the Type Selector drop-down to select different types of walls.

Understanding Compound Walls

A compound wall is a wall that consists of multiple vertical layers. Each layer can use a different material (such as concrete, insulation, and interior finish) and have a different function (such as structure, thermal layer, and substrate).

Sketching Wall Shapes

In Revit Architecture, you can sketch straight, curved, or circular walls and you can add openings or cuts to walls. Also, you can specify properties for dimensioning, snapping, and locking walls. For descriptions of the different sketch tools, see Sketching.

~~Defining Wall Shapes or Openings~~