

# Revit 2014 – Attach & Join Messages (Ref: December 2013)

## Introduction

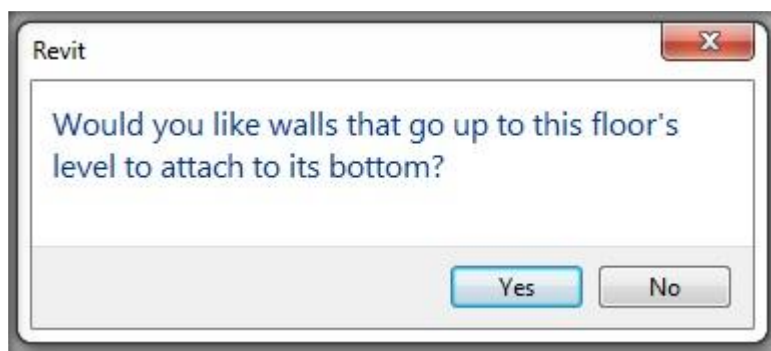
### Revit Architecture 2014: The Difference Between Attach and Join Messages

Walls do not directly attach to roofs, ceilings, and other modelling components through their properties. There are two kinds of messages that Revit shows you regarding how walls, floors and roofs interact.

#### Attach Messages (using partition walls as an example – see Figs 2 & 3)

The first kind (Attach) occurs when the geometry of a wall touches a floor or passes through the floor. If you edit the sketch of a floor, when you finish the sketch Revit asks you if you'd like to attach this wall (or any other walls that intersect) to the underside of the floor slab (Fig 1).

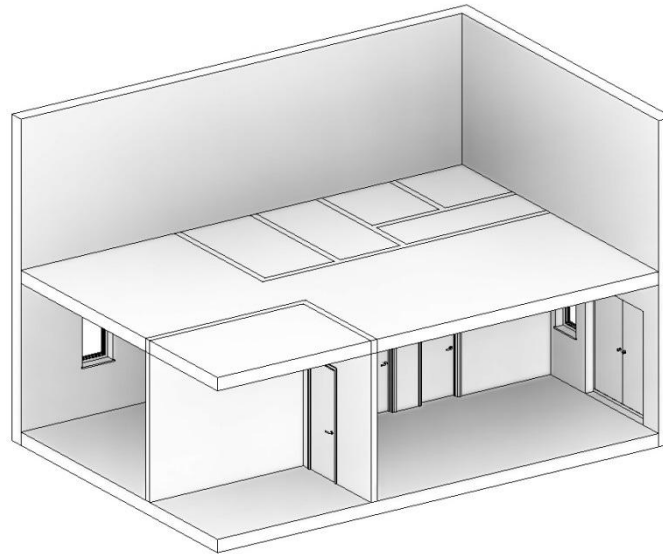
**Fig 1:** Attach Walls to Floors Message



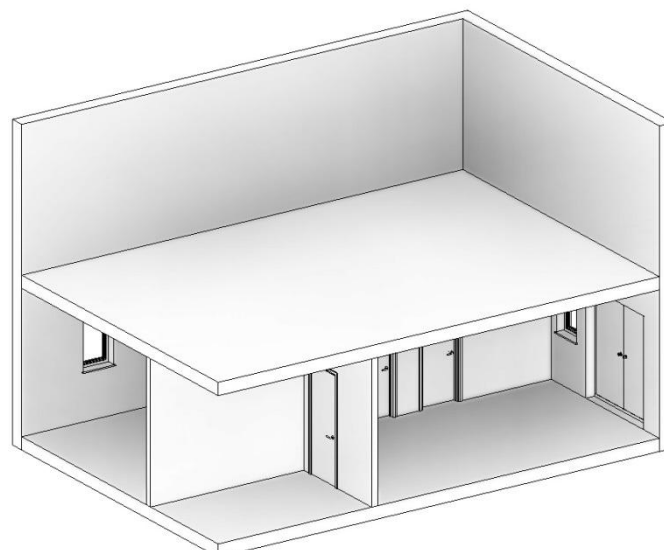
If you click yes the walls will auto constrain to the underside of the floor slab. If the floor type (thickness) changes the top of the wall(s) will change as well. If the level the floor is assigned to is raised/lowered the walls adjust accordingly too. It's meant to be "quicker" than manually doing it yourself by selecting walls and using the Attach Top/Base tool.

Here are the results for yes and no responses (note that there is no "joining" of geometry, just the wall height is changed).

**Fig 2: Attach "no" (Top of Partition Walls Visible)**



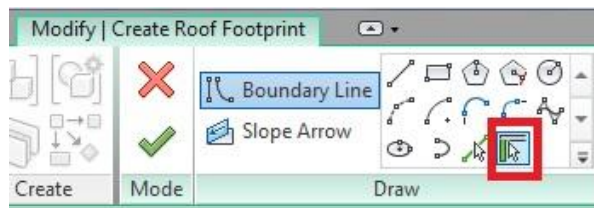
**Fig 3: Attach "yes" (Top of Partition Walls attached to base of floor slab)**



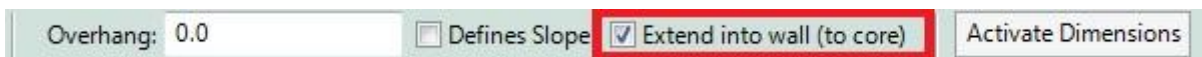
### Join Messages (using a flat roof as an example)

Similar messages appear when external walls and roof elements intersect. In the following example a flat roof had been created using the Pick Walls tool and the Extend into wall (to core) Option (Figs 4, 5 & 6).

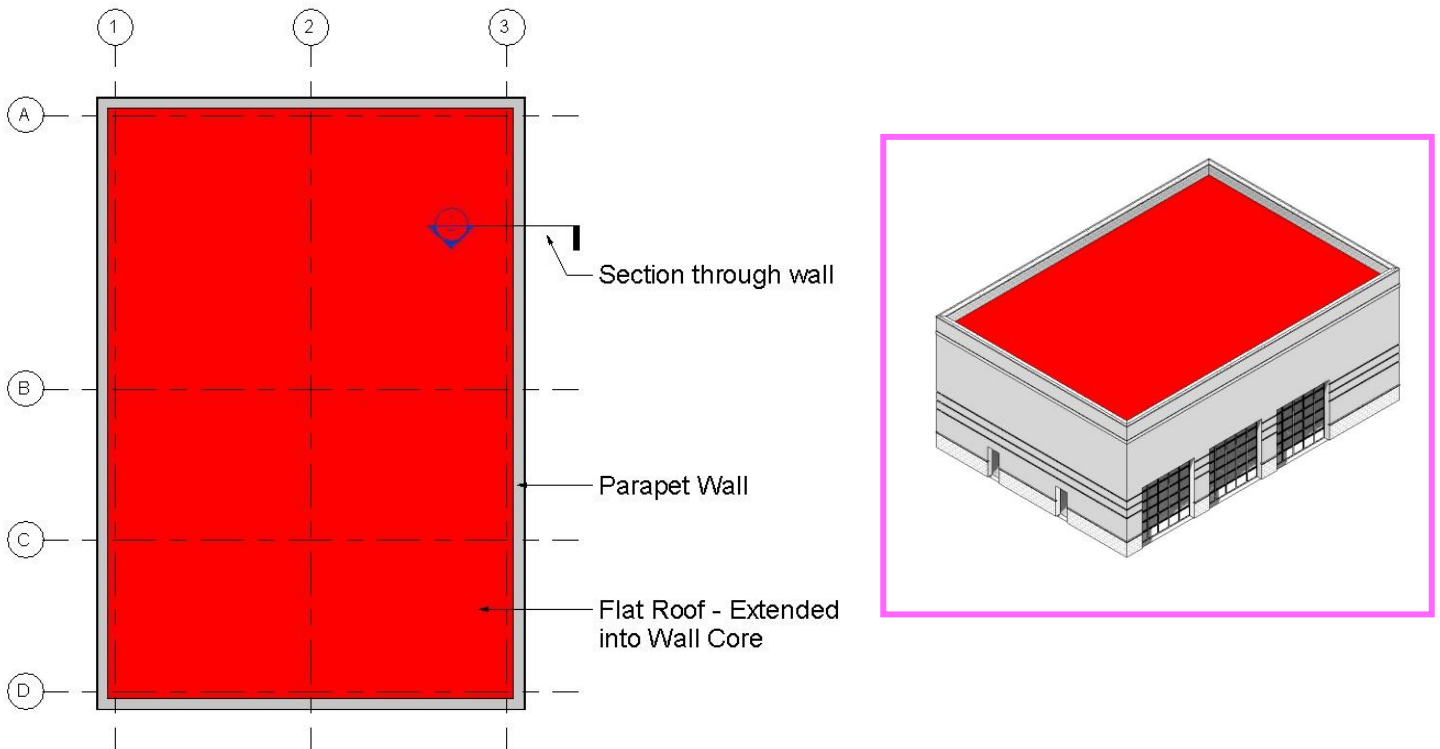
**Fig 4:** Pick Walls Tool location



**Fig 5:** Extend into wall (to core) Option

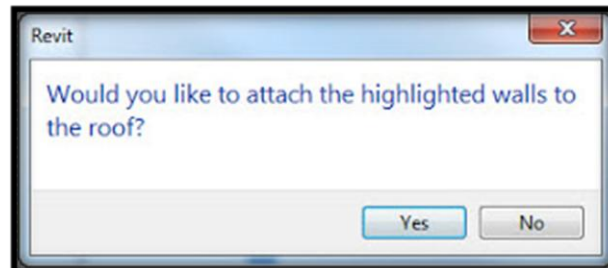


**Fig 6:** Flat Roof – Plan View (Create a square walled model and insert a flat roof using the options above)



The flat roof was created with no overhang and the Defines Slope Option was unticked. Once the Finish Roof option was selected the following messages appeared in sequence.

**Fig 7:** Attach Walls to Roof Notice



**Fig 8:** Cut Walls from Roof Notice



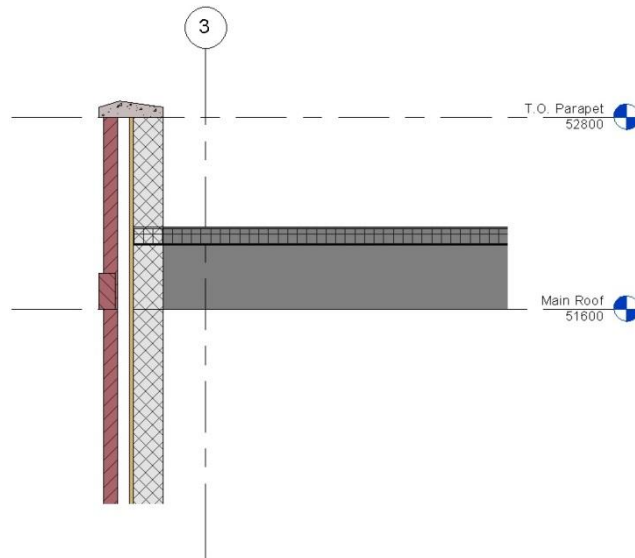
Basically Revit is asking if you want to join geometry so the cut/projection lines that it draws better represent how these elements would really intersect.

Select NO to the first message so the wall does not get attached (which would change its height) and then YES to the second message so the geometry joins cleanly.

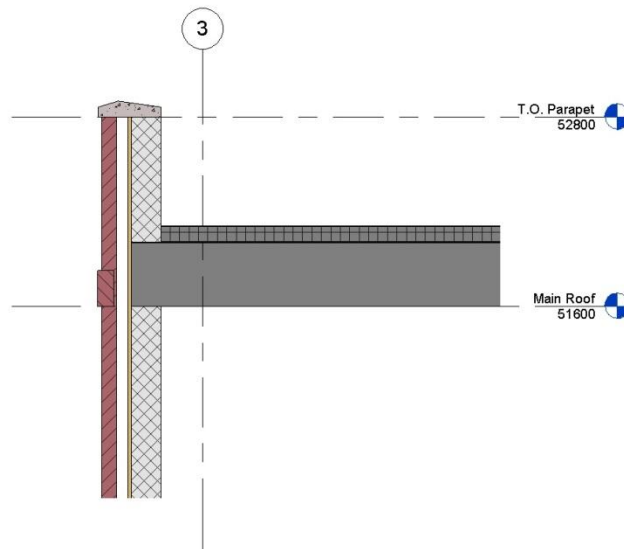
Run a section through the wall (see plan view Fig 6) to see how the wall and roof join up. Depending on your responses to the messages, you should get a result similar to either of the following illustrations.

Here are the results for yes and no responses.

**Fig 9: Join "no" (untidy result)**



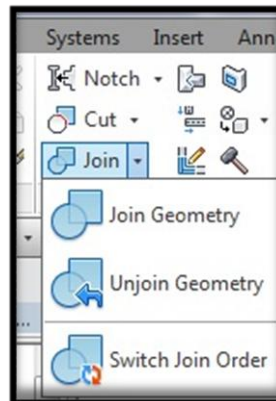
**Fig 10: Join "yes" (roof extends into wall core)**



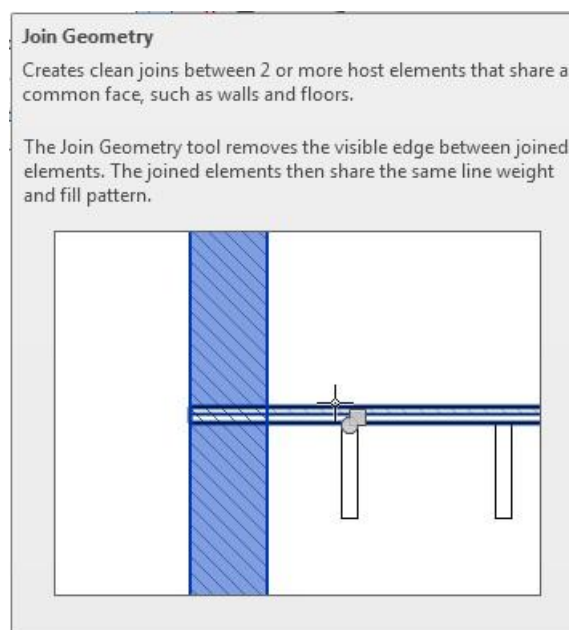
## **Conclusion**

If you choose NO for both "questions" you can always use the Join Geometry tool later between any elements that need to "clean up" better.

**Fig 11:** Join Geometry Tool (Ribbon location)



**Fig 12:** Tool Tip – Join Geometry Functionality



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**Date:** December 2013