

## Creating a Step Footing In-Place Family

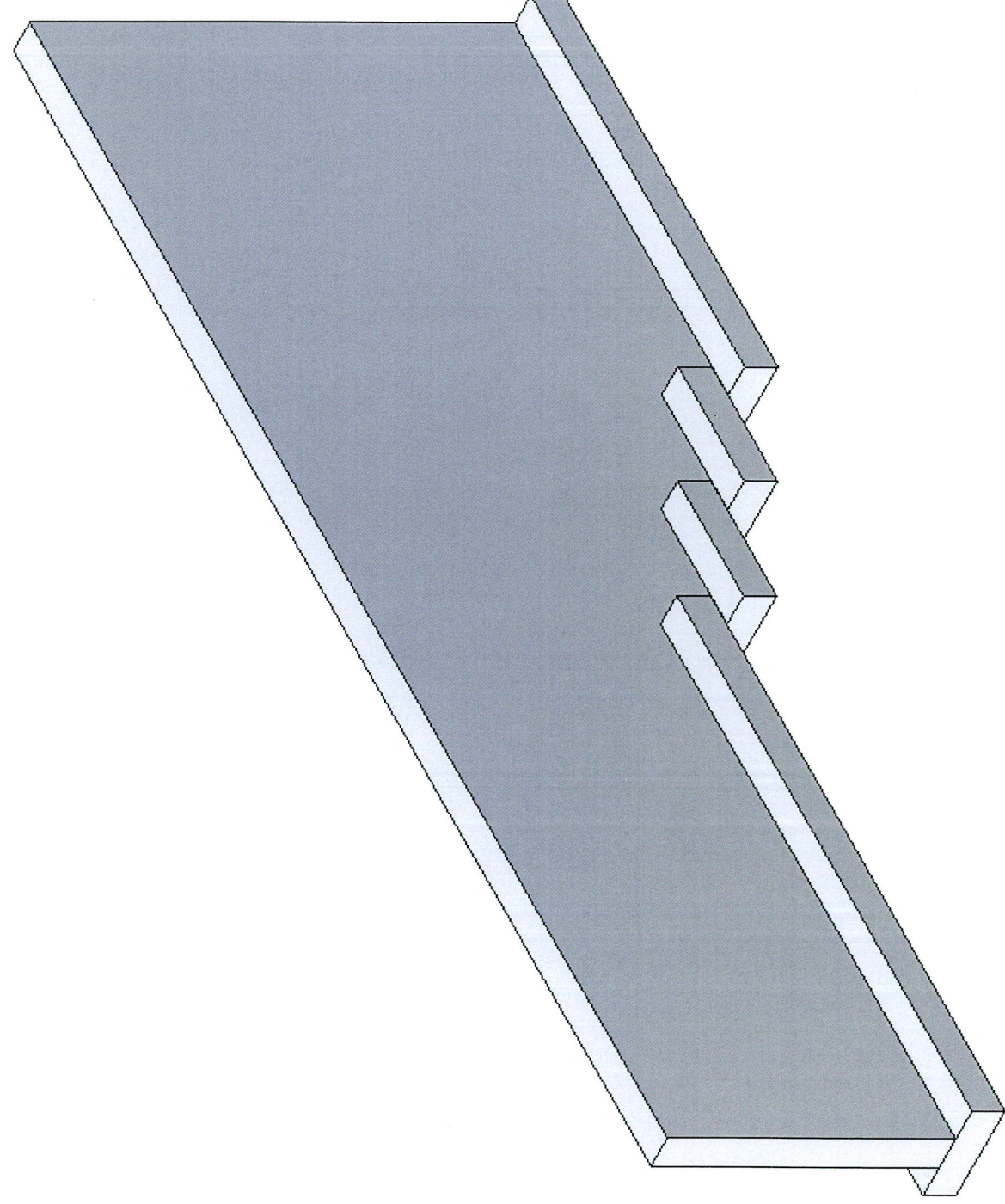
In this exercise, you create a step footing on an existing foundation wall.

### Training File

- Click File menu ► Open.
- In the left pane of the Open dialog, click Training Files, and open Imperial\li\_RST\_In-Place-Footing.rvt.

### Place the foundation wall

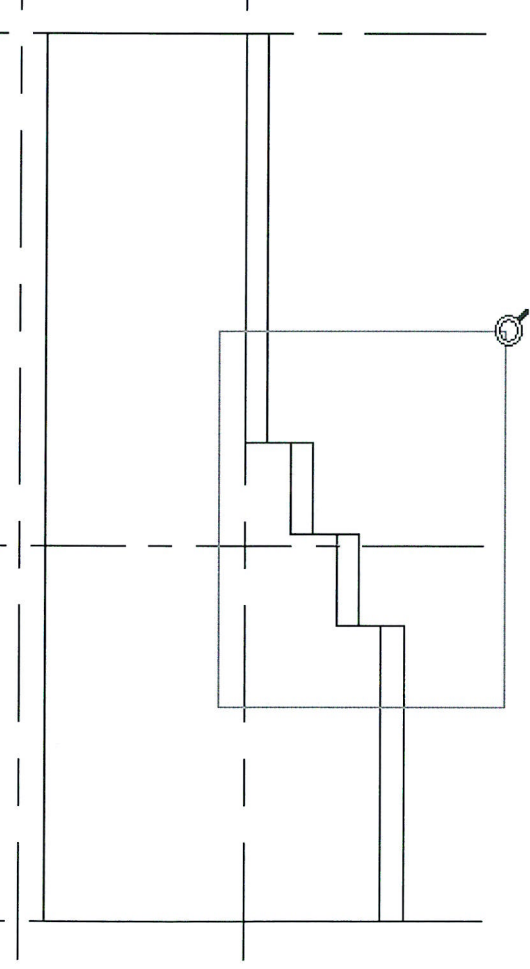
1. In the Project Browser, click 3D Views ► 3D.
2. On the Modelling tab of the Design Bar, click Foundation ► Wall.
3. In the Type Selector, select Wall Foundation: Bearing Footing - 36" x 12".
4. Click the foundation wall.



The footing is placed at the base of the foundation wall.

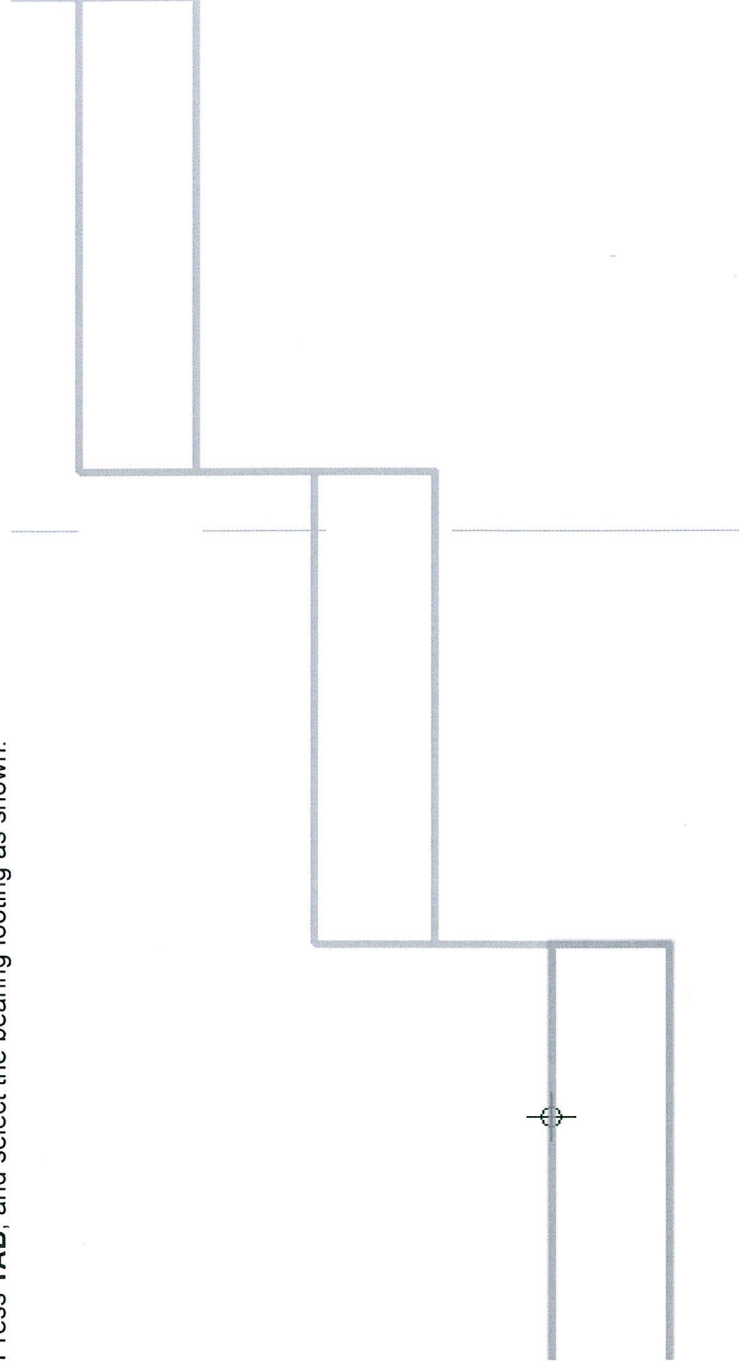
Create **new family category**

5. In the Project Browser, click Sections (Building Section) ► Section 1.
6. On the Options Bar, click , and draw a zoom box around the foundation steps as shown.



7. On the Modelling tab of the Design Bar, click Create.
8. In the Family Category and Parameters dialog, select Structural Foundations, and click OK.

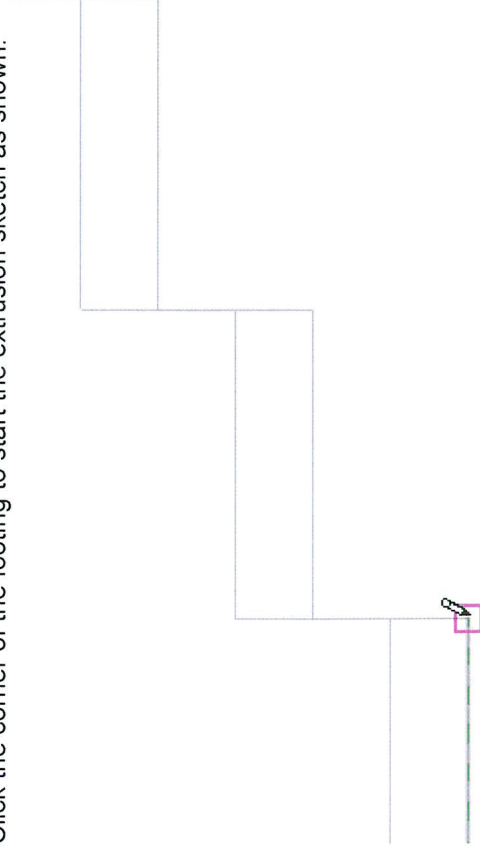
9. In the Name dialog, enter **Structural Foundations 1** for Name, and click OK.
10. On the Design Bar, click Solid Form ► Solid Extrusion.
11. In the Work Plane dialog, select Pick a plane, and click OK.
12. Press **TAB**, and select the bearing footing as shown.



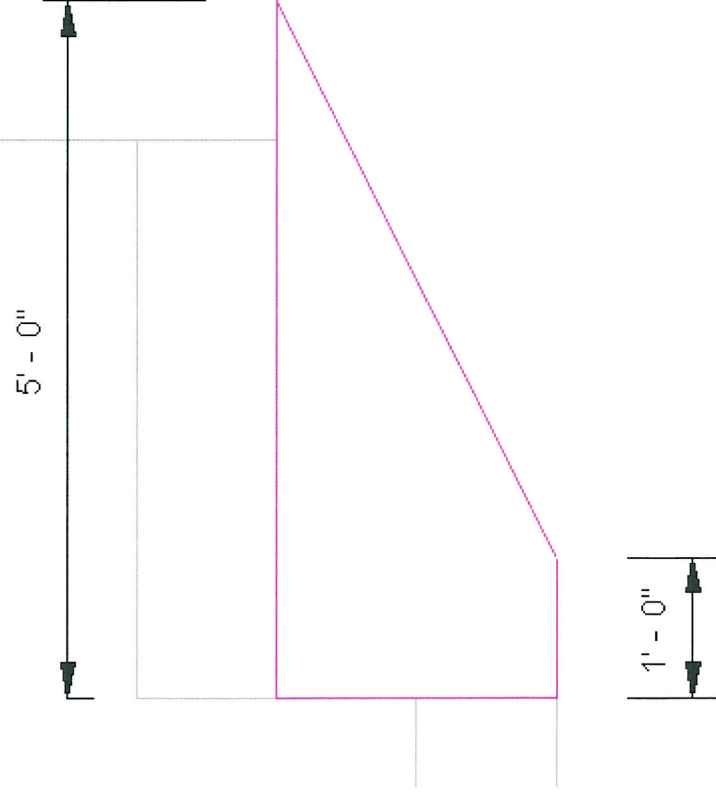
Make sure the entire footing is selected.

#### Sketch the extrusion

13. Click the corner of the footing to start the extrusion sketch as shown.



14. Using the drawing tools provided with Revit Structure, sketch a solid extrusion as shown.



The dimensions have been added for reference purposes only.

15. On the Options Bar, for Depth, enter **-3' 0"**.
  16. On the Design Bar, click Modify.
- #### Change extrusion properties
17. On the Design Bar, click Extrusion Properties.
  18. In the Element Properties dialog, under Materials and Finishes, click the value for Material.
  19. In the Materials dialog, for Name, select Concrete - Cast-in-Place Concrete, and then click OK.
  20. In the Element Properties dialog, click OK.
  21. On the Design Bar, click Finish Sketch.
  22. On the Family Design Bar, click Finish Family.