

**Exercise 3-9**

**Creating a Handrail on a Wall**

Drawing Name: ex3-8.rvt  
Estimated Time: 20 minutes

This exercise reinforces the following skills:

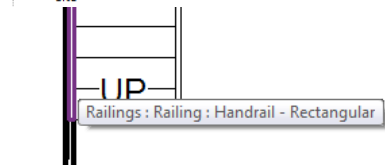
- ❑ Railings
- ❑ Railing Types

1. Open *ex3-8.rvt*.

2.  Activate **Level 1**.

1.

3.

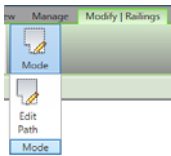


Hover your mouse over the Railing on the left side of the stairs.

Left click to select the railing.

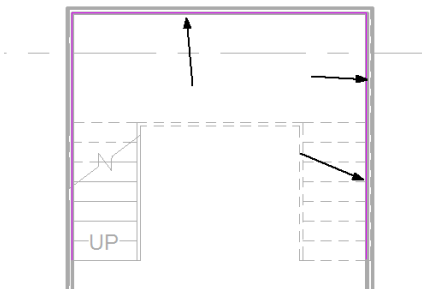
*If you have difficulty selecting the railing, use the TAB key to cycle the selection or use the FILTER tool.*

4.



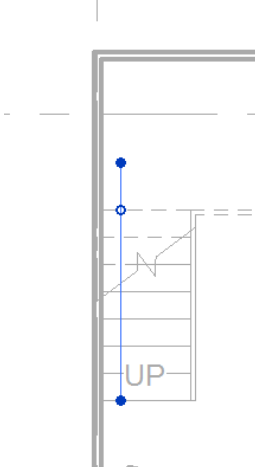
Select **Edit Path** under the Mode panel.

5.



Delete the lines indicated.

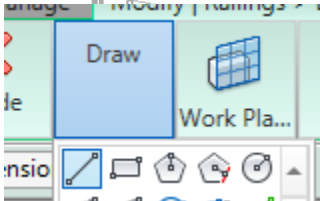
6.



Move the two remaining lines away from the wall.

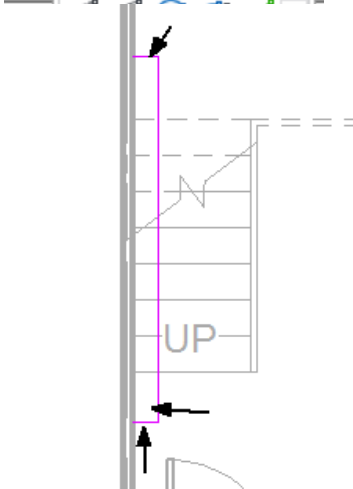
Adjust the top vertical line so it is about 1' 6" above the top riser.

7.



Select the **LINE** tool from the Draw panel.

8.



Add a short horizontal line at the top of the railing. This is the bar that of the handrail that attaches to the wall.

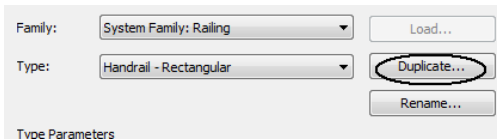
Add a vertical line going below the bottom riser and another horizontal line that attaches to the wall at the bottom of the railing.

9.



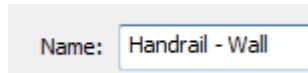
Select **Edit Type** from the Properties pane.

10.



Select **Duplicate**.

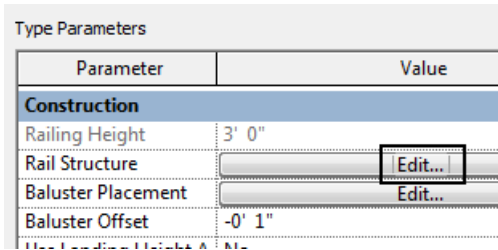
11.



Name it **Handrail - Wall**.

Press **OK**.

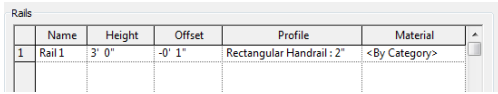
12.



Under Rail Structure:

Press **Edit**.

13.



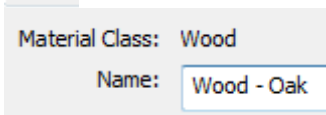
Click in the **Material** column.

14.



Select the **New** material button on the bottom left of the dialog.

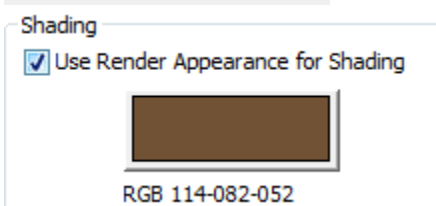
15.



Name it **Wood- Oak**.

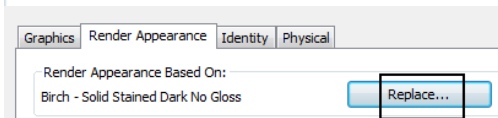
Press **OK**.

16.



Press a check on **Use Render Appearance for Shading**.

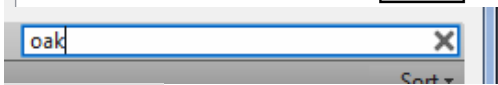
17.



Select the **Render Appearance** tab.

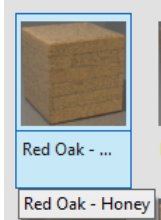
Press **Replace**.

18.



Type **oak** in the search field in the upper right of the dialog.

19.



Select **Red Oak - Honey**.

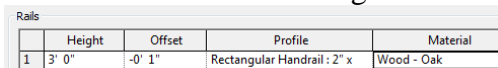
*If you prefer to use a different material, select it.*

Press **OK**.

20.

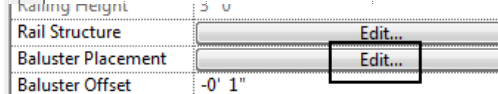
Press **OK** to close the dialog.

21.



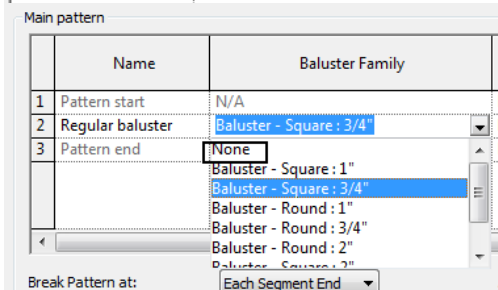
Press **OK**.

22.

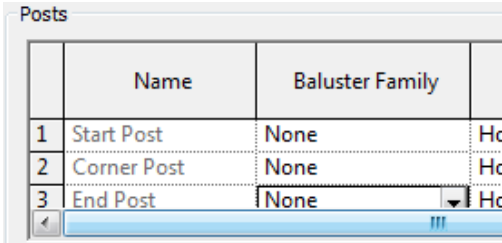


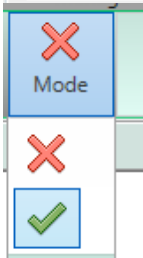
Press **Edit** next to Baluster Placement.


23.

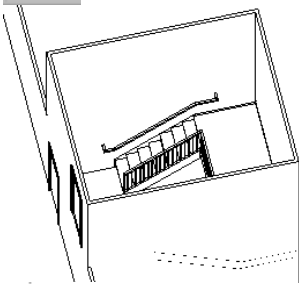


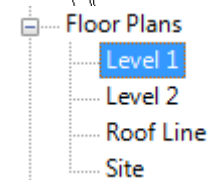
On Row 2 of the Main Pattern table, set the Regular baluster to **None**.

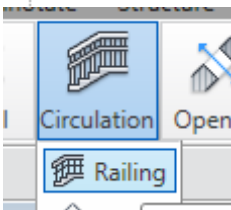
24.  In the Posts table, set all the posts to **None**.  
Press **OK** twice to exit all dialogs.

25.  Select the **Green Check** under Mode to exit Edit Mode.  
*If you get an error message, check the sketch. It must be a single open path. All line segments must be connected with no gaps and no intersecting lines or overlying lines.*

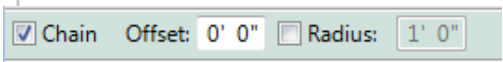
26.  Switch to a 3D view.

27.  Inspect the railing.

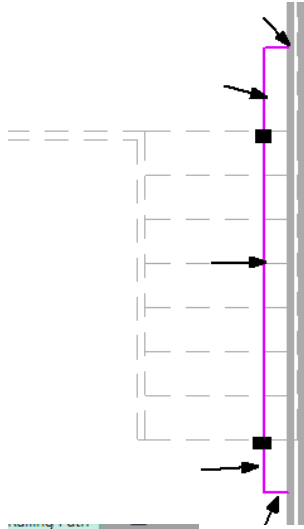
28.  Activate **Level 1**.

29.  Activate the Home ribbon.  
Select **Railing** from the Circulation panel.

30.  Select **Line** from the Draw panel.

31.  Enable **Chain** on the Options bar.

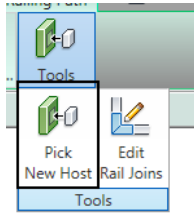
32.



Draw the rail path in five segments.

*By creating separate segments, you allow the rail to remain parallel to the floor, landing, and stairs.*

33.

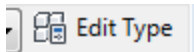


Select **Pick New Host** under Tools.

Then, select the stairs.

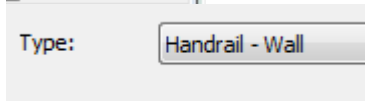
*By assigning a host, you instruct the railing to slope parallel to the stairs.*

34.



Select **Edit Type** on the Properties pane.

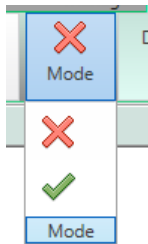
35.



Verify that the type is set to **Handrail- Wall**.

Press **OK**.

36.



Select the **Green Check** under Mode.

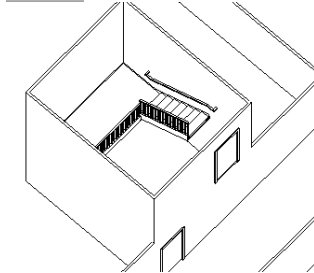
The railing will disappear, but that's because it is hosted on Level 2 and you are on Level 1.

37.



Switch to a 3D view.

38.



Inspect the railing.

39.

Save as *ex3-9.rvt*.