



# Andhra Pradesh State Skill Development Corporation



# ARCHITECTURAL MODELING USING REVIT

## CREATION OF CEILINGS

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### CEILING:

A ceiling can be defined as an overhead interior surface that covers the upper limits of a room. Ceilings are not structural elements, but rather the finished surfaces below a roof or concrete slab.

**Ceiling finishes** provide a decorative skin to conceal building components. It hides structural members, insulation, ductwork, pipes, and wires.

### PROCEDURE:

1. In the floor plan levels activate **ceiling plans** view
2. Go to architecture menu and select **ceiling** in the build panel
3. There you can find two types of ceilings

- I. Automated ceiling
- II. Sketch ceiling

**Automatic Ceiling:** Creates ceiling in an area bounded by walls

In this type of ceiling it will detect the closed room automatically and assigns the ceiling

**Sketch Ceiling:** where as in the sketch ceiling we have to specify the shape of the ceiling as per our requirements.

It will create a ceiling based on selected walls or sketched lines

Let us see the automatic ceiling first

4. After selecting method of drawing ceiling i.e. Automatic ceiling, In the properties palette we have to specify the type of the ceiling by using drop down arrow on the type selector
  - 4.1 In the drop down we can find default ceiling types such as
    - a) Generic ceiling: this is a plane finished ceiling
    - b) Compound ceiling: this type of ceiling contains grid patterns
  - 4.2 After choosing required ceiling type in the instance parameter specify the level of placing ceiling and height offset from level as per the requirement
  - 4.3. Then click inside the region where you would like to place ceiling

**Note:** A single click inside the room will automatically assign/create ceiling
  - 4.4. After creating required number of ceilings click on finish (green color) which if available in ribbon tools in mode panel

**Note:** if you want to discard changes and exit edit mode click on cross symbol (red color) i.e. “cancel edit mode” option

Now let's see the 2<sup>nd</sup> method of creating ceiling i.e. **Sketch ceiling**

5. After selecting method of drawing ceiling i.e. Sketch ceiling, same as earlier
  - 5.4. In the **properties palette** we have to specify the type of the ceiling by using drop down arrow on the **type selector**
  - 5.5. In the drop down we can find default ceiling types such as



- a) Generic ceiling
  - b) Compound ceiling
- 5.6. After choosing required ceiling type, in the **instance parameter** specify the **level** of placing ceiling and **height offset from level** as per the requirement
- 5.7. In the **options bar** just below ribbon bar we can find various options like
- 5.7.1. **Chain** option which allows the chainage (continuity) in drawing lines or arcs
  - 5.7.2. **Offset-** to give the offset distance
  - 5.7.3. **Radius-** if we require curved/smooth corners
- 5.8. **Draw tools** will be activated in the ribbon bar
- 5.9. There we can find 2 options
- 5.9.1. **Boundary line:** to draw boundaries exactly horizontal
  - 5.9.2. **Slope arrow:** to define slope of ceiling if required
- 5.10. By using draw tools we have to specify the shape of the ceiling

Note: it should be drawn without overlapping, intersections and extensions. Make sure that it is a closed loop

- 5.11. In the ribbon tools **work plane** panel is available which allows us to set the workplane
- 5.11.1. **Set:** allows us to specify the work plane
  - 5.11.2. **Show:** displays or hides the active work plane in the view
  - 5.11.3. **Ref Plane:** creates a reference plane using draw tools
  - 5.11.4. **Viewer:** enables the workplane viewer
- 5.12. In ribbon tools at last **Auto ceiling** option exists which allows us to switch back to automatic ceiling
- 5.13. After creating required shape of ceiling click on **finish**(green color) which is available in ribbon bar in **mode panel**
- Note: if you want to discard changes and exit edit mode click on cross symbol (red color) i.e. “**cancel edit mode**” option

## EDITING CEILING

We can edit the shape of the ceiling even after finishing

### Procedure:

1. select existing ceiling and click on **Edit boundary** in the ribbon tools
2. we can find editing tools(draw) active
3. after making the changes as per the requirement click on **finish** to save the changes

### To change the type of ceiling in the existing one

Select the existing ceiling and choose the required type of ceiling from type selector present in the properties palette



### **Creating New Type of Ceiling**

To create own type of ceiling as per our requirement

#### **Procedure:**

1. Select any type of ceiling initially for reference from the type selector and click on **Edit Type**
2. A window pop-ups which displays the properties of ceiling
3. Click on **duplicate** and name the ceiling type
4. In **Type parameters** click on **edit** option just beside to structure to specify the thickness and material of the ceiling
5. To change the material select the material and click on the material browser box at the end
6. A window will pop-up which contains various materials, there select the required type of material and click on ok>ok>apply >ok

**Note:** If you click on cancel the changes will not be updated in the model