Walk-in Slide: AU 2014 Social Media Feed

1. Click on the link below, this will open your web browser

http://aucache.autodesk.com/social/visualization.html

2. Use “Extended Display” to project the website on screen if you plan to work on your computer. Use “Duplicate” to display same image on screen and computer.

AB5745 - When is a Door Not a Door?

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Class summary

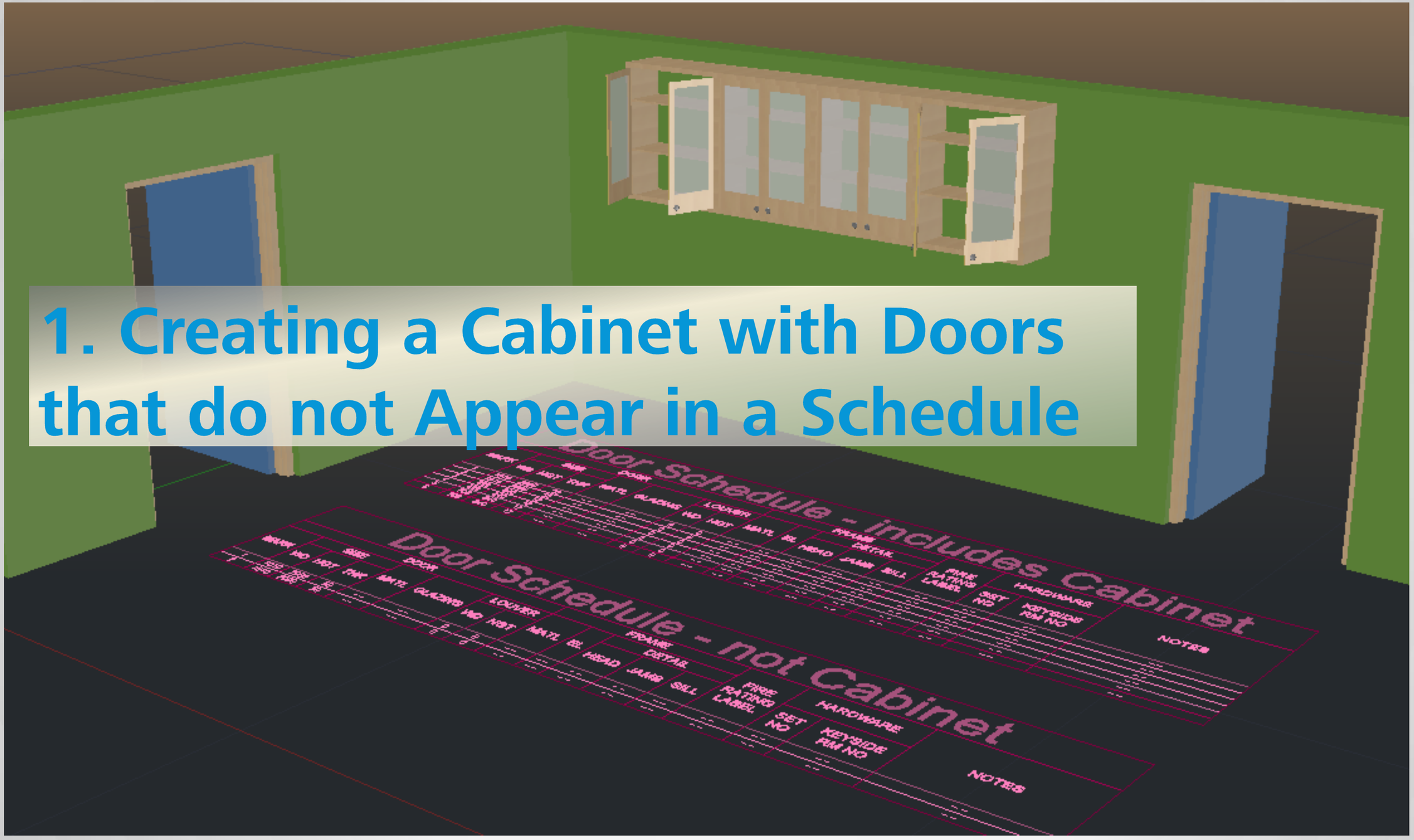
This classic children's riddle holds the key to using any program for detailed building design, including AutoCAD Architecture and MEP. No software provides every tool that is needed to model a building completely, so it is necessary to discover creative uses for the tools that are provided. This session will present several ways in which our customers are adapting standard objects to non-standard purposes.

For example, a door is not a door, at least not one that you want to include in a door schedule, when it is part of a cabinet created as a door and window assembly. We can use the railing object to create, modify, and schedule seating layouts. Railings can also create railroad tracks, telephone posts, and cables. Windows can be skylights or manhole covers. Structural members can form parking lines or electrical bussways. The class will describe these adaptations, as well as the steps needed to employ them effectively.

Key learning objectives

At the end of this class, you will be able to:

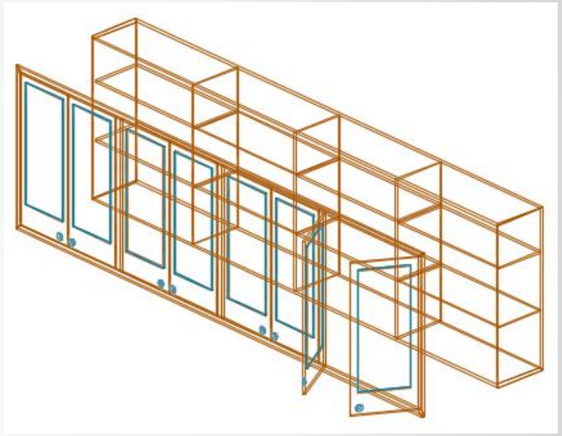
- Understand and use **Schedules, Property Set Definitions and Classifications** to get the desired results.
- Apply **Custom Blocks to Structural Members and Railings**, as well as other objects.
- Explore advanced use of the **Display System – Representations, Properties, Sets and Overrides**.
- Explain the answer to the riddle.

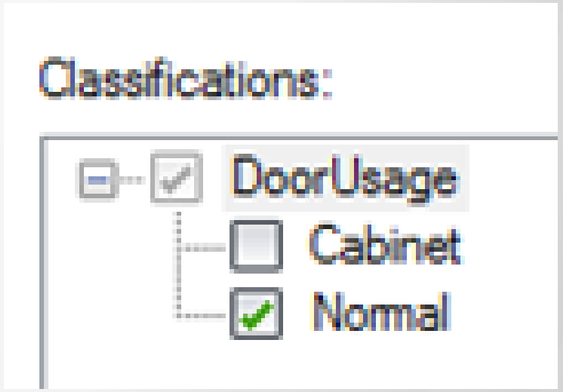


1. Creating a Cabinet with Doors that do not Appear in a Schedule

Preparation of Styles and Definition

- Cabinet created with Door/Window Assembly Styles
  - Two styles
    - Body with shelves
    - Door fronts
- Door style has a classification assigned
  - Create Classification Definition
  - Add to Cabinet Door Style
- Modify Door Schedule Table Style
  - Applies to only “Normal” classified Doors





Door Schedules – with and without Cabinet

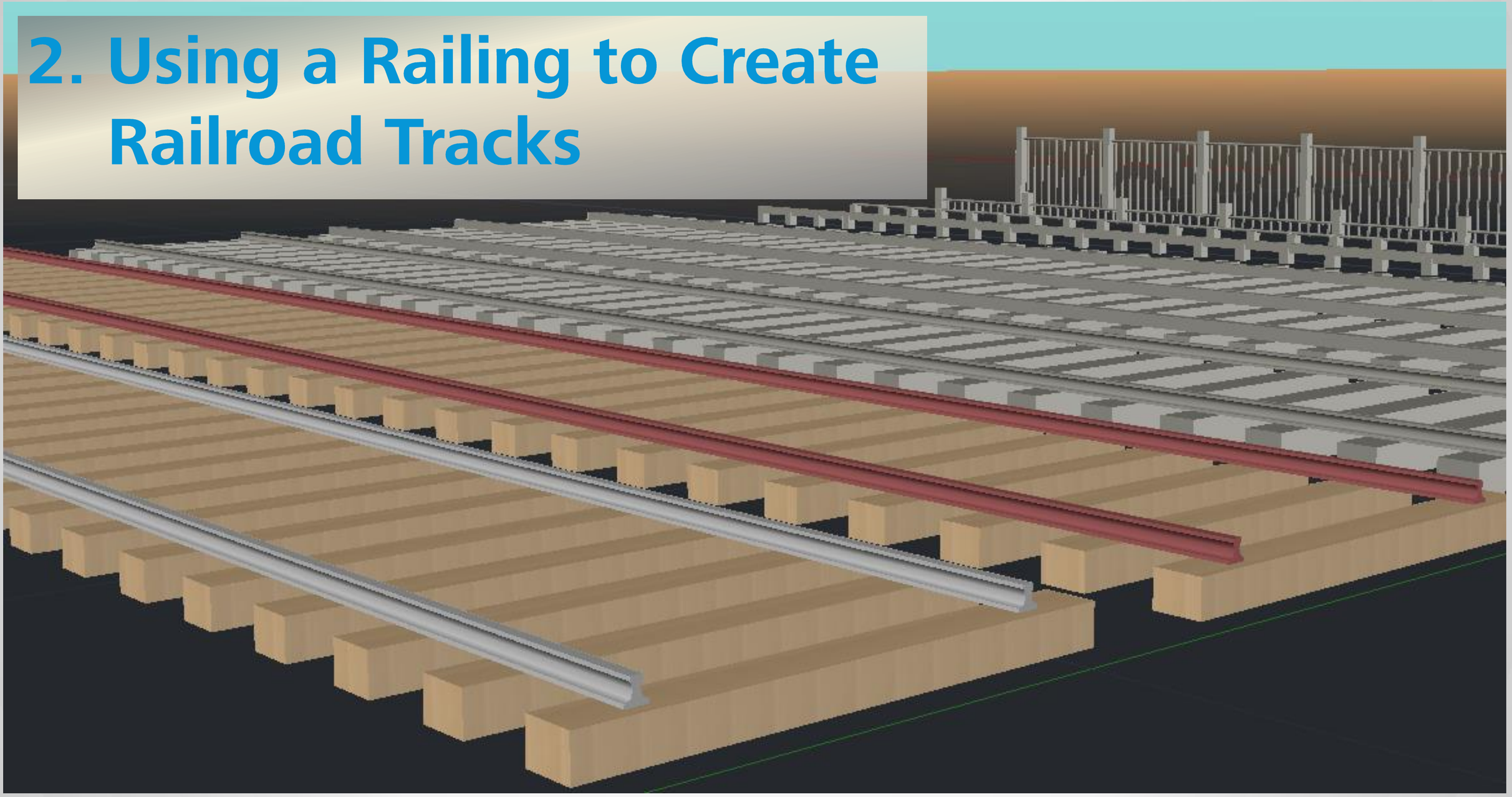
Door Schedule - includes Cabinet

DOOR									
MARK	SIZE			MATL	GLAZING	LOUVER		MATL	E
	WD	HGT	THK			WD	HGT		
1	1010	2000	50	--	--	0	0	--	
2	1010	2000	50	--	--				
3	699	840	12	--	--				
4	699	840	12	--	--				
5	708	840	12	--	--				
6	708	840	12	--	--				

Door Schedule - not Cabinet

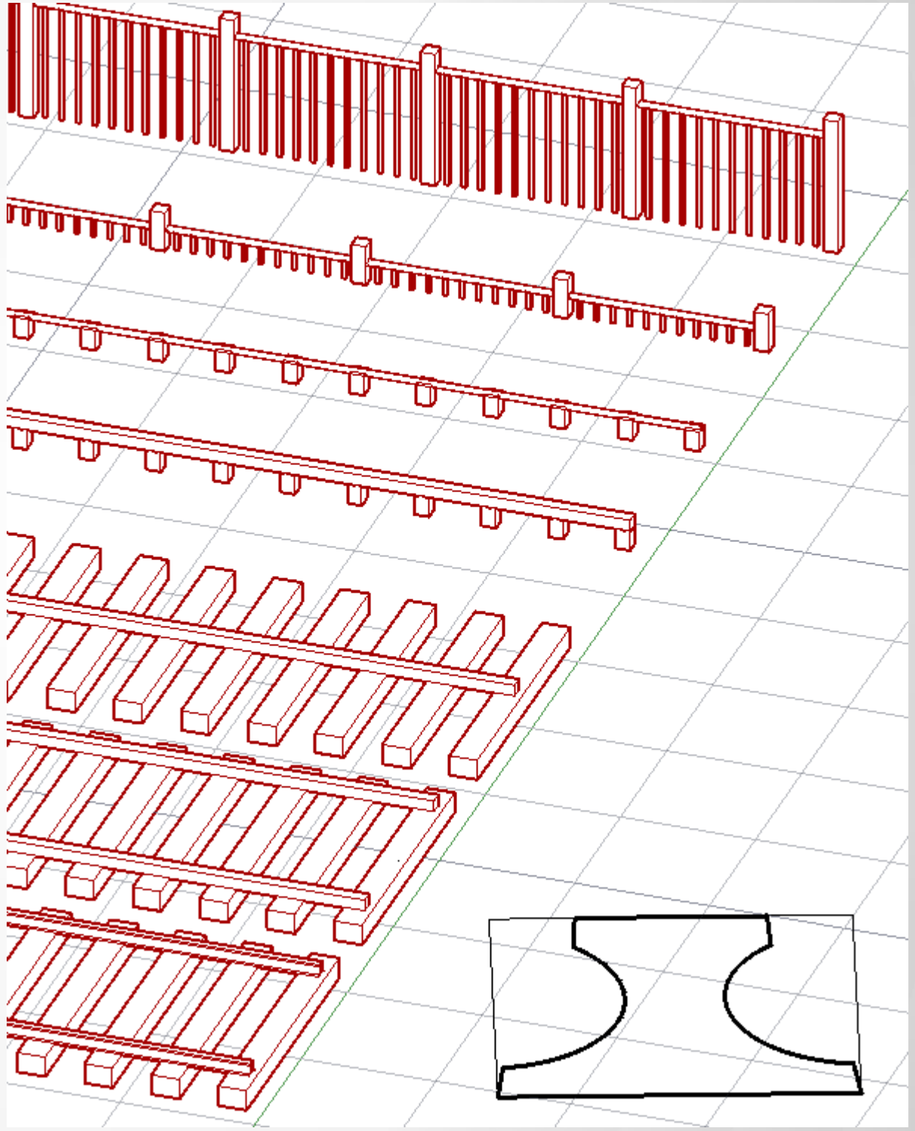
DOOR								
MARK	SIZE			MATL	GLAZING	LOUVER		MATL
	WD	HGT	THK			WD	HGT	
1	1010	2000	50	--	--	0	0	
2	1010	2000	50	--	--	0	0	

2. Using a Railing to Create Railroad Tracks



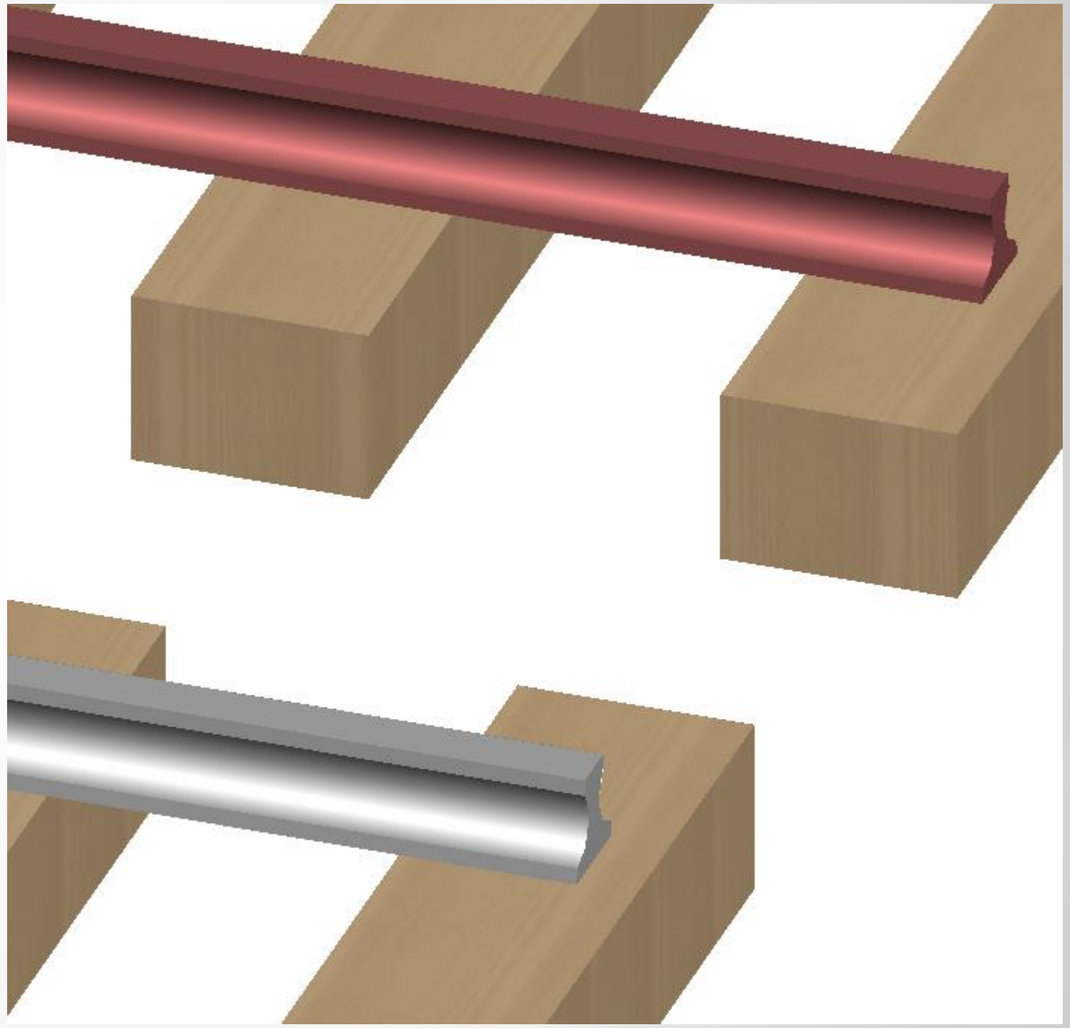
Adjust Dimensions of Default Style

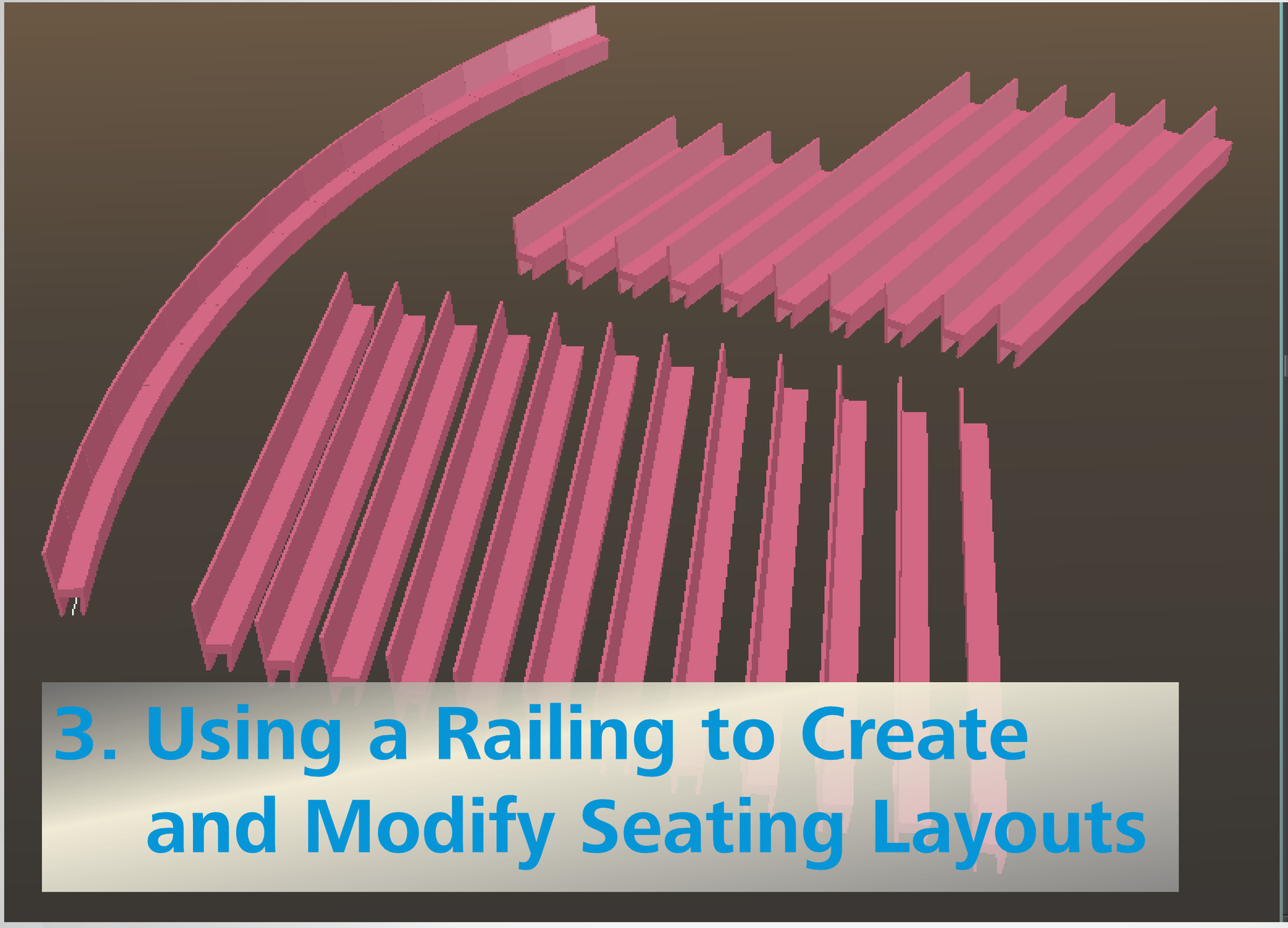
- Handrail height and dimensions
- Posts and Balusters
  - Set post spacing and size
  - Turn off Balusters
- Guardrail & spacing
- Rail profile
  - Direct manipulation
  - Create polyline and convert



Add Materials and Adjust Properties

- Use steel for the Rails
- Use wood for the Posts
- Change steel material
  - Color of 3D body
  - Render material



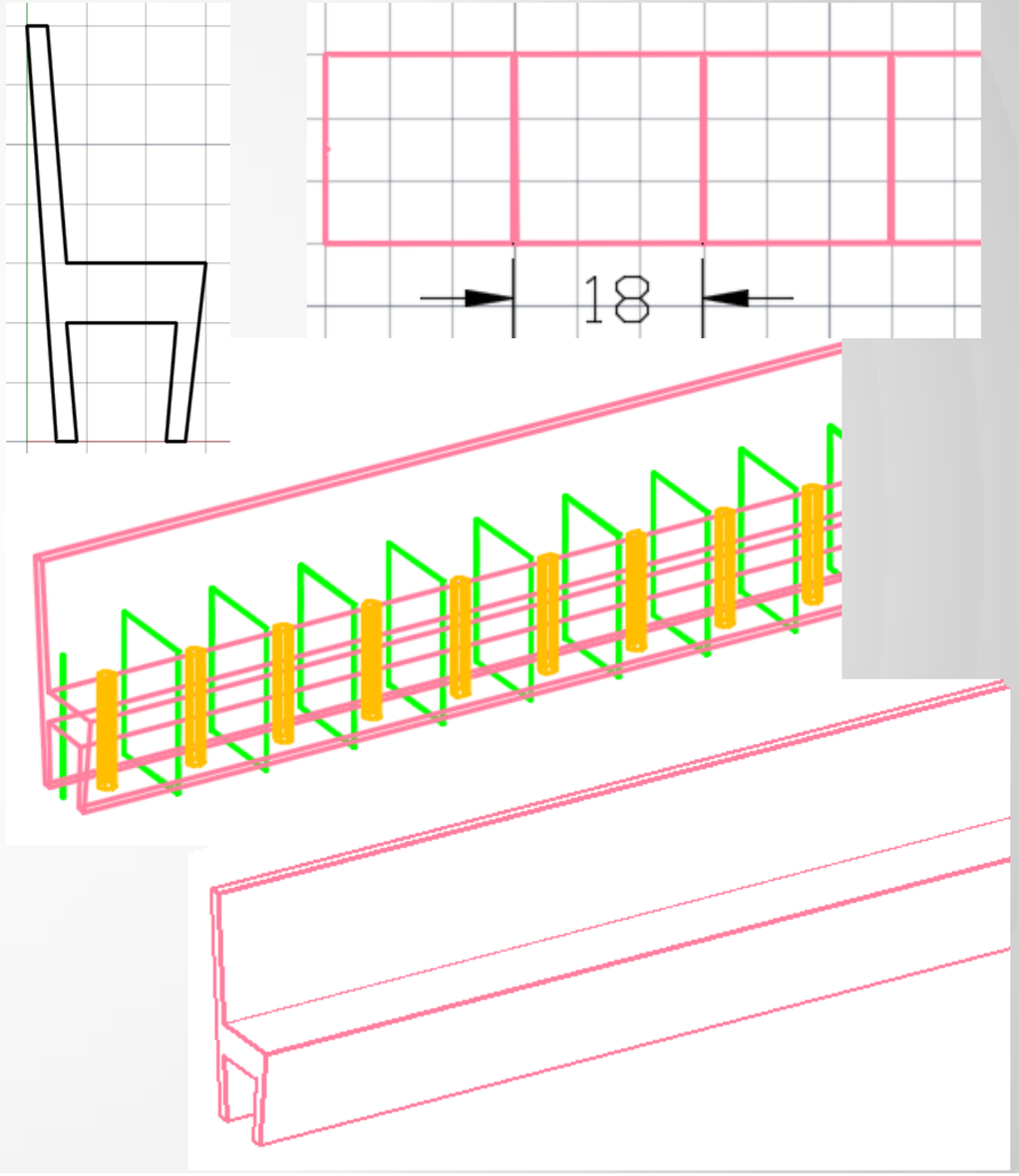


3. Using a Railing to Create and Modify Seating Layouts

Seating Count	
Row Number	Seat Count
Back	44
Left 01	19
Left 02	19
Left 03	19
Left 04	19
Left 05	19
Left 06	19
Left 07	19
Left 08	19
Left 09	19
Left 10	19
Left 11	19
Left 12	19
Right 01	19
Right 02	19
Right 03	19
Right 04	19
Right 05	19
Right 06	19
Right 07	11
Right 08	11
Right 09	11
Right 10	11
	430

Create Railing Style

- Create profile
- Use for Guardrail component
- Set Dynamic Post and Baluster dimensions and spacing
- Override the display of Posts and Baluster in Model Representation

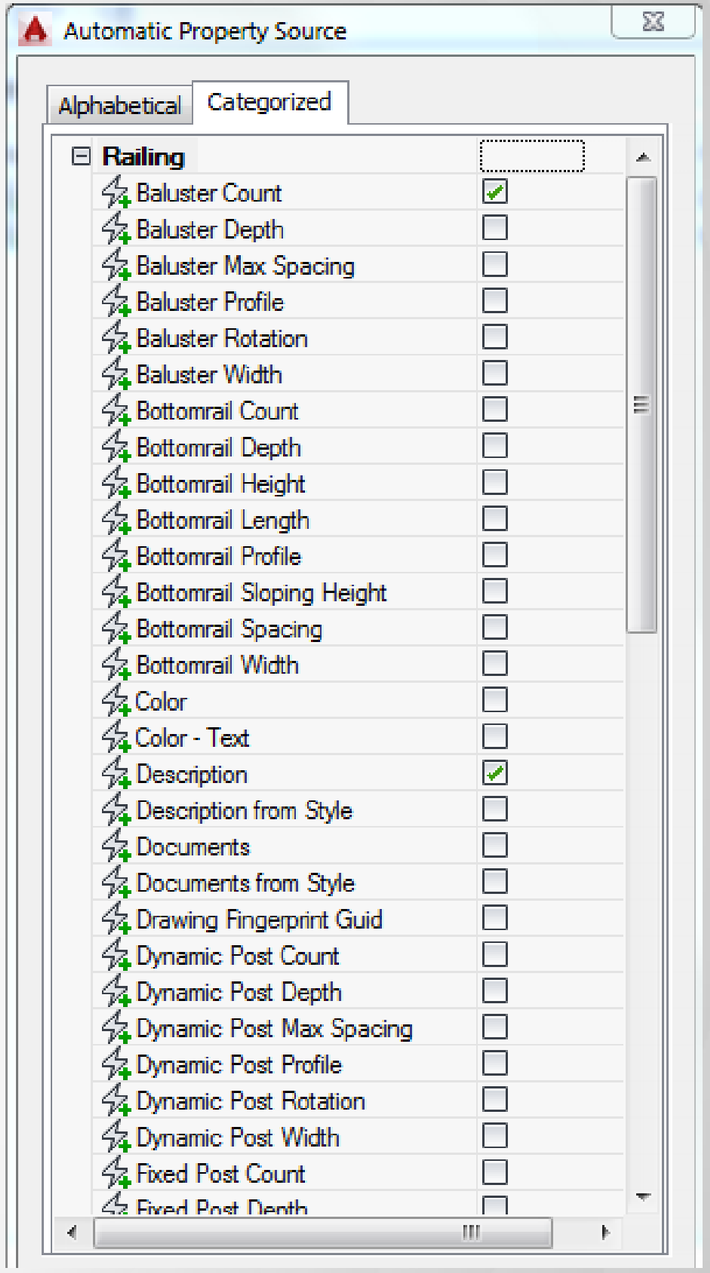


Create Schedule Table Style

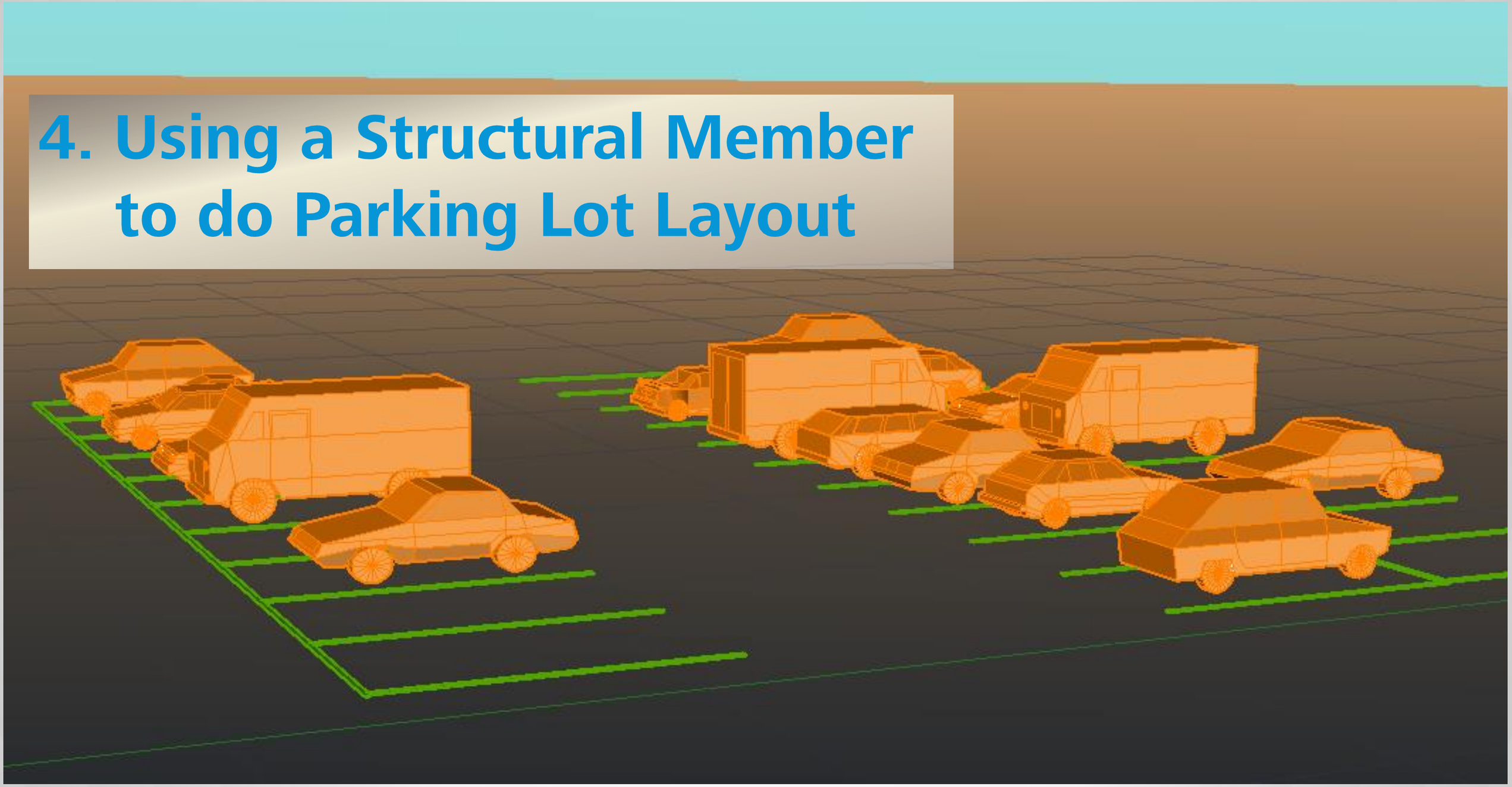
- Use the Baluster Count automatic property to count seats

- Use this property in a Schedule Table Style
- Use “Description” for Row Number

Seating Count	
Row Number	Seat Count
Back	44
Left 01	19
Left 02	19
Left 03	19
Left 04	19
Left 05	19
Left 06	19
Right 04	19
Right 05	19
Right 06	19
Right 07	11
Right 08	11
Right 09	11
Right 10	11
	430

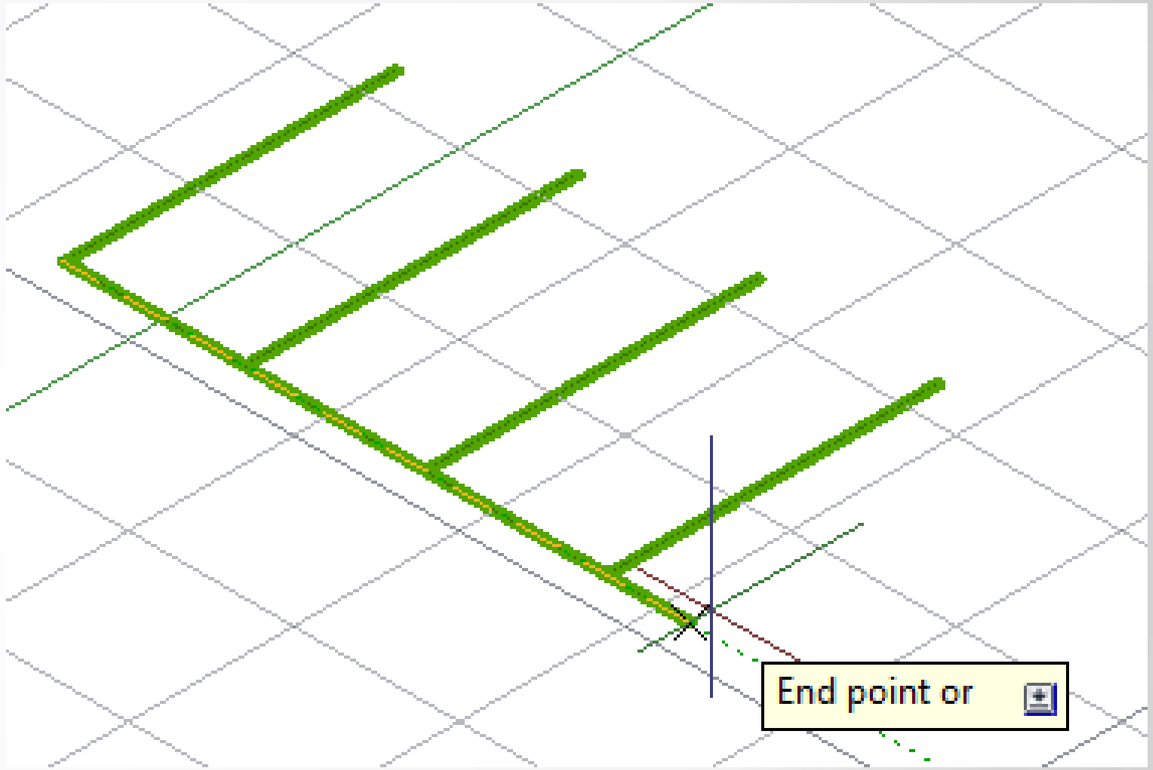


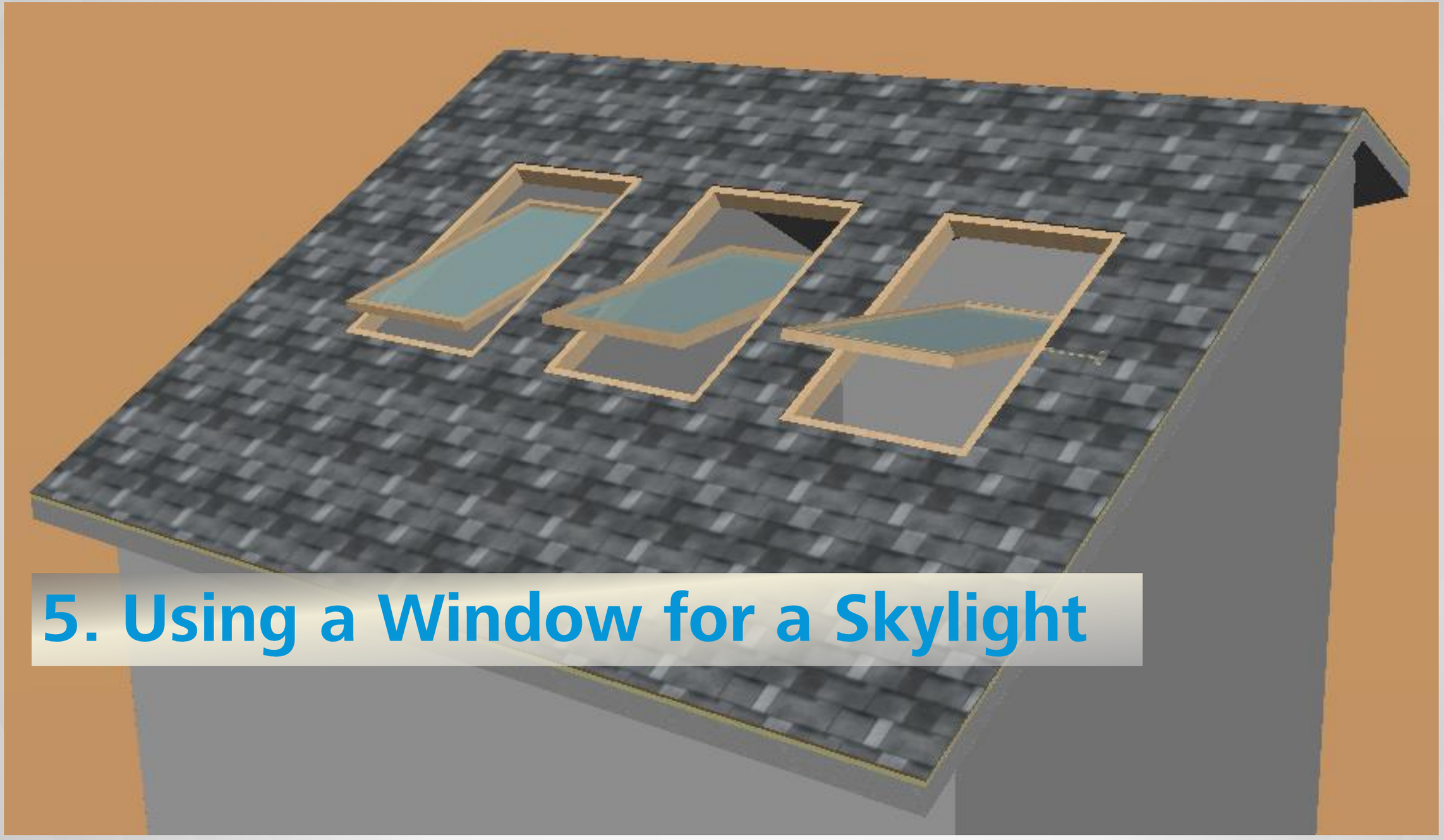
4. Using a Structural Member to do Parking Lot Layout



Prepare Structural Member Style

- Rectangle for plan block
  - Convert to Region (to shade)
- 3D Solid for model block
- Rectangle for Structural Member Shape
  - Create Custom Column
- Add Plan and Model blocks

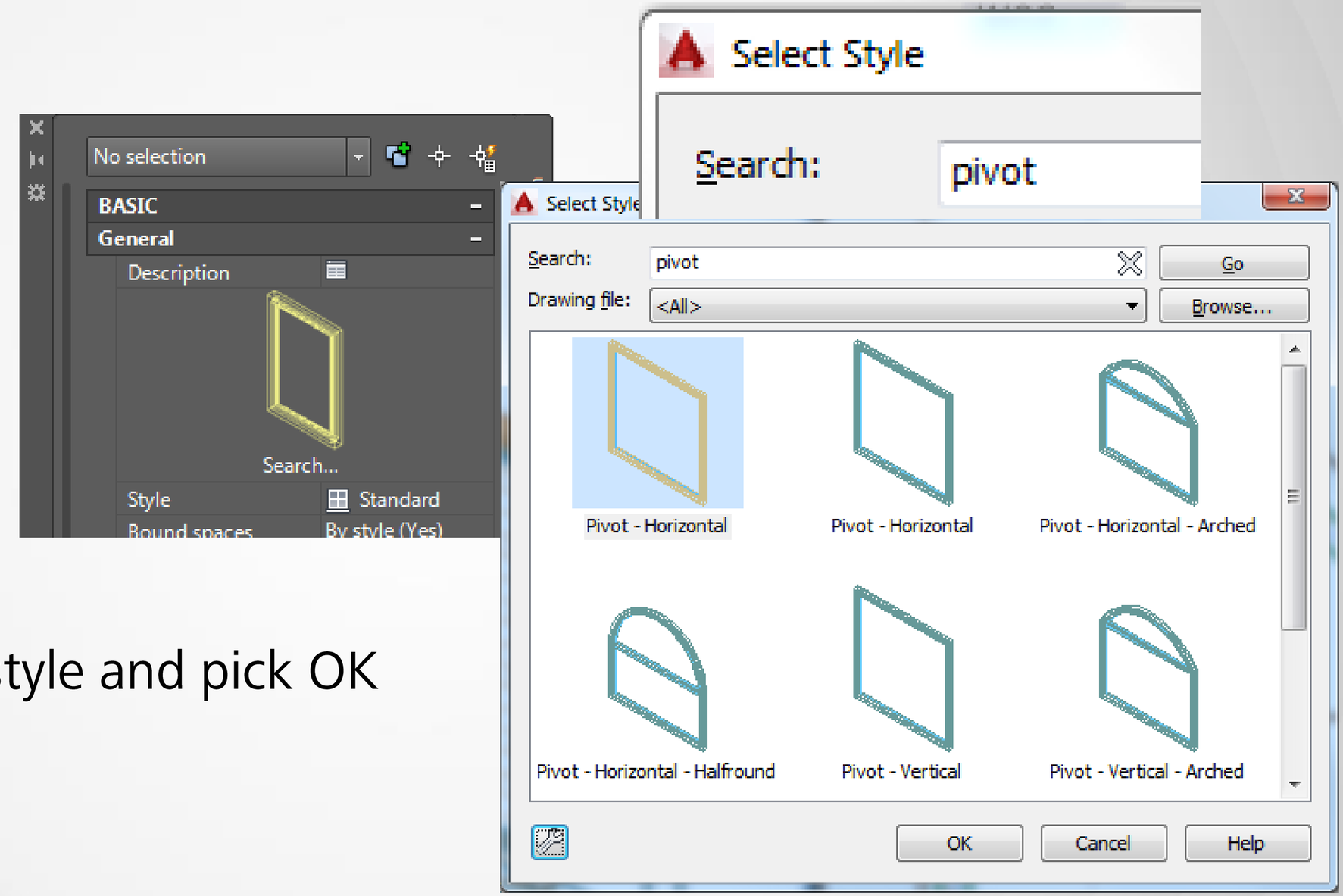




5. Using a Window for a Skylight

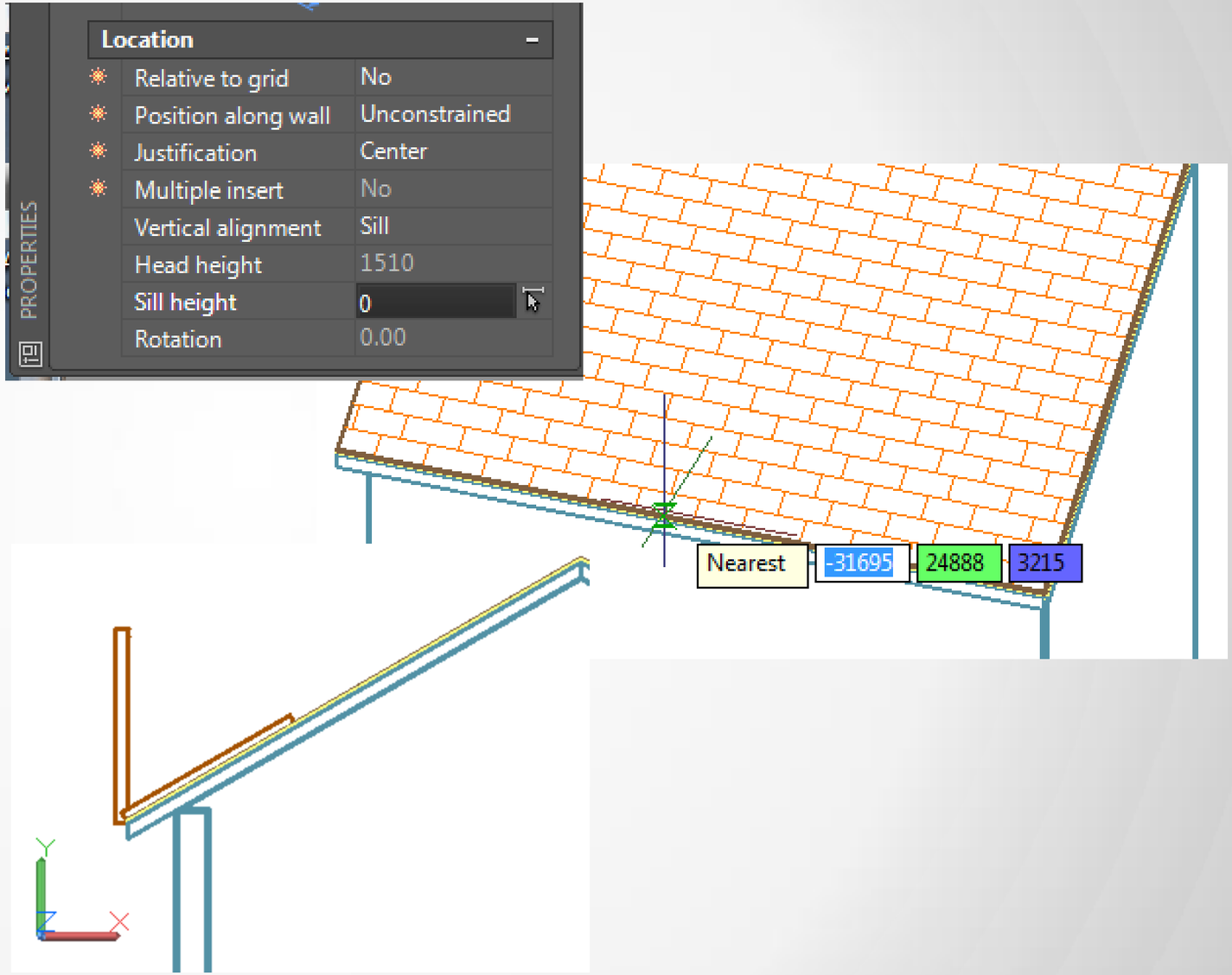
Import the desired Window style

- Use the new "Search…" button
- Search for "pivot" or "awning"
- Select the desired style and pick OK (or double-click)



Place as freestanding window at edge of slab

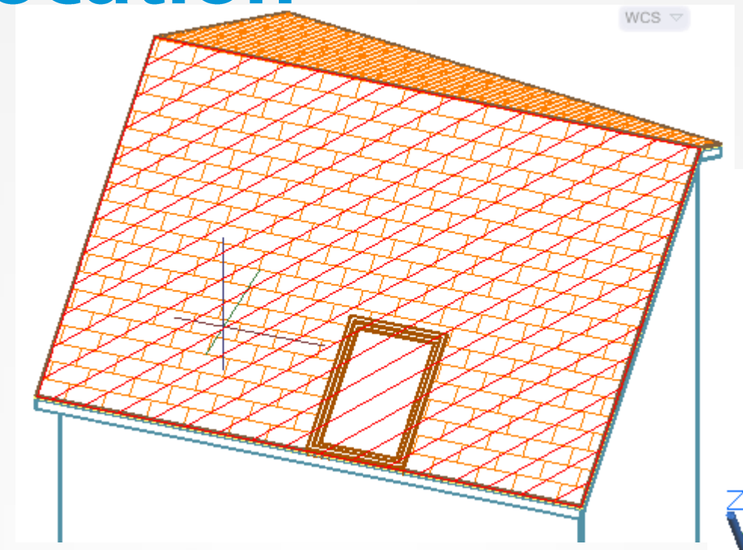
- Set Sill height to zero
- Pick the edge of Roof Slab
- Rotate window to plane of Roof Slab

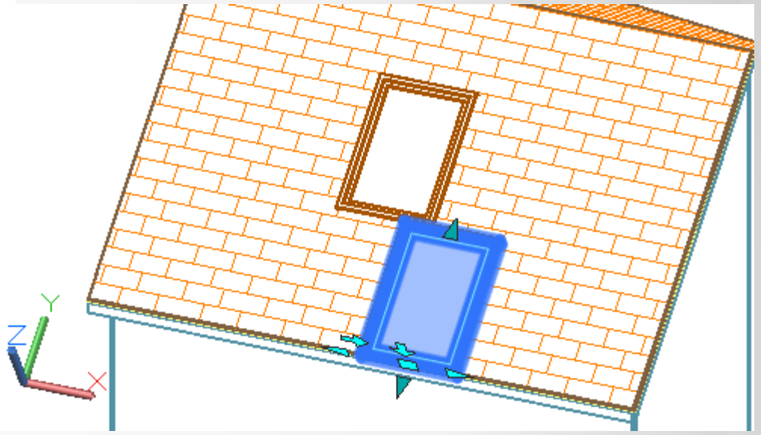


Move into desired location

- AecAlignUcsToFace

- Move by displacement

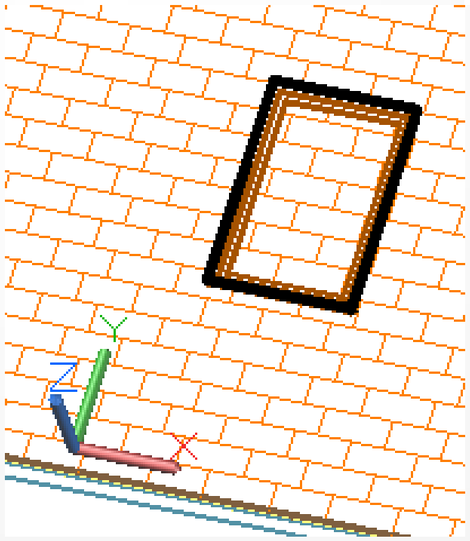


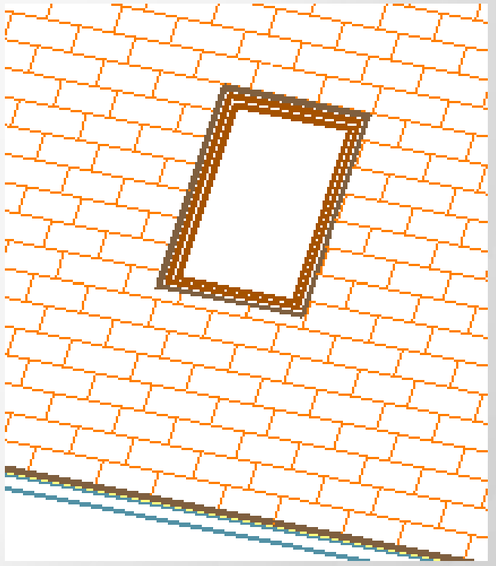


Create hole in roof

- Rectangle around Window

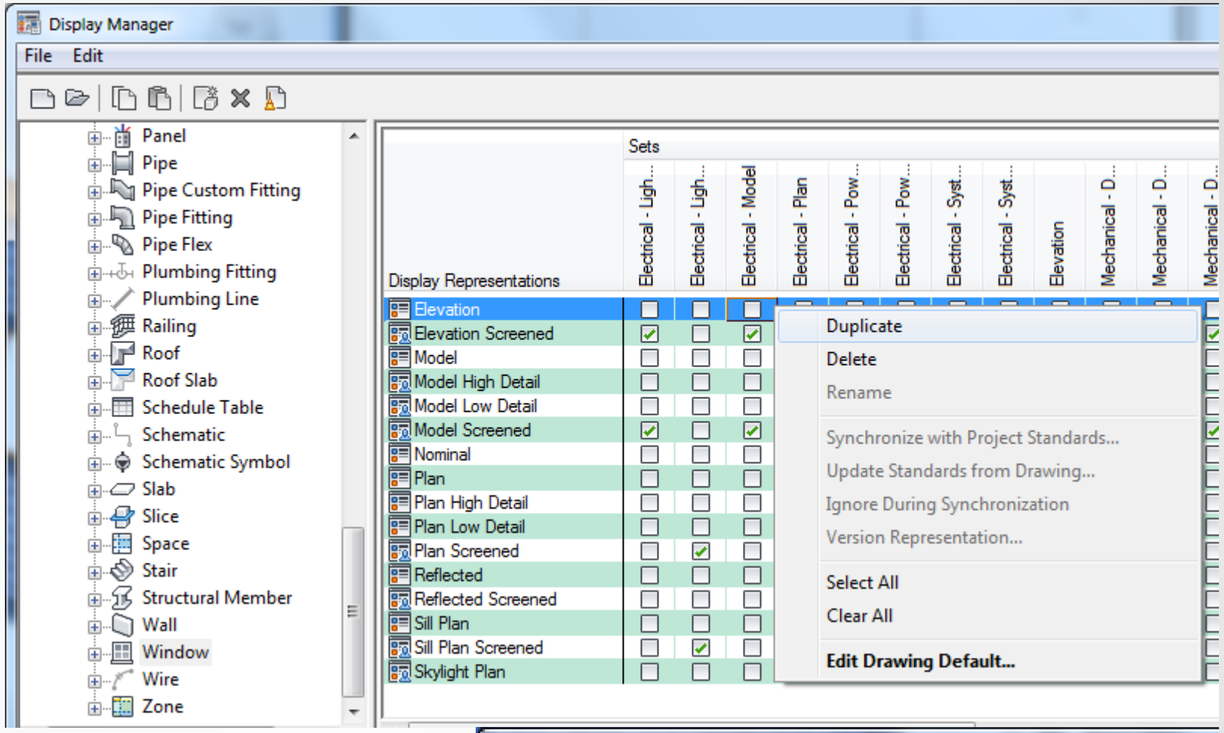
- Select Roof Slab > Hole > Add

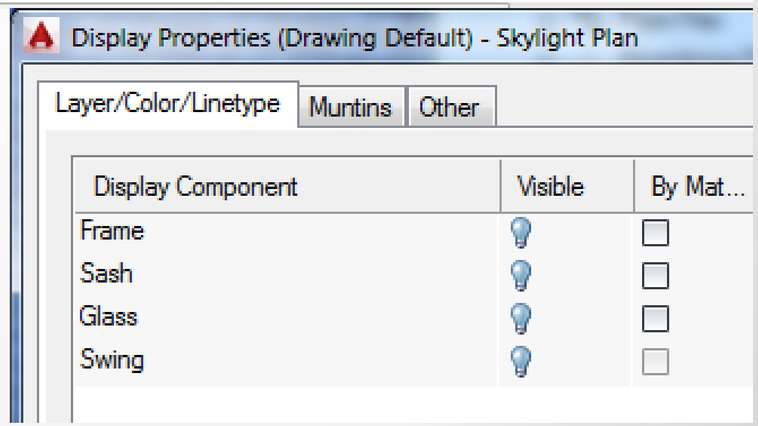




Create skylight plan display representation

- Display Manager > Representations > Window
- Duplicate Elevation display representation
- Rename



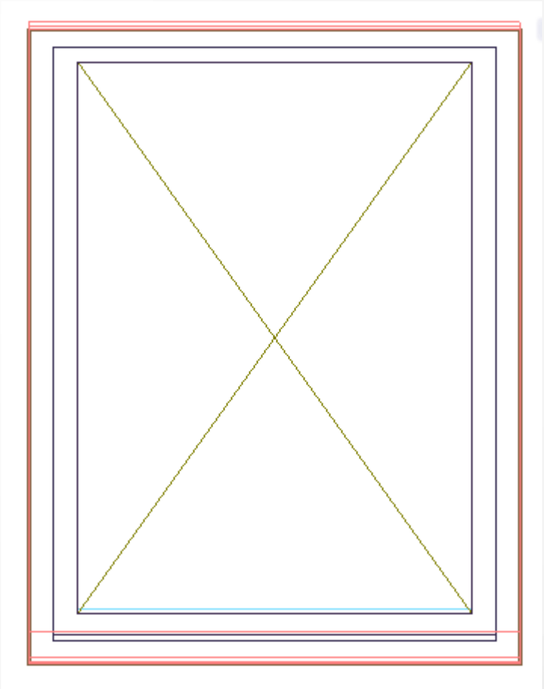


- Turn off all components (at the Drawing Default level)

Apply display overrides to Window Style

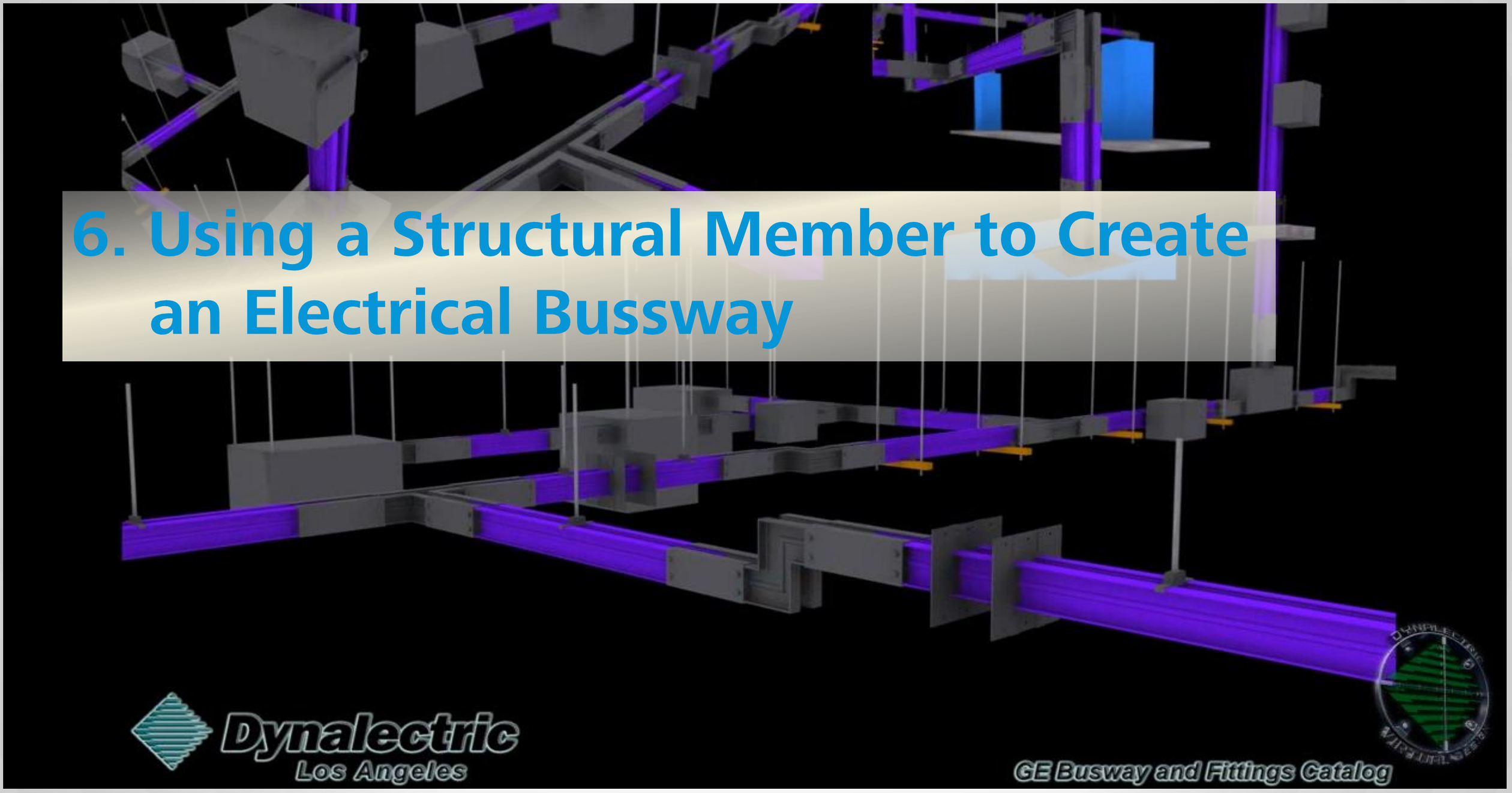
- Edit Style > Display Properties tab

- Override Plan > turn off all components



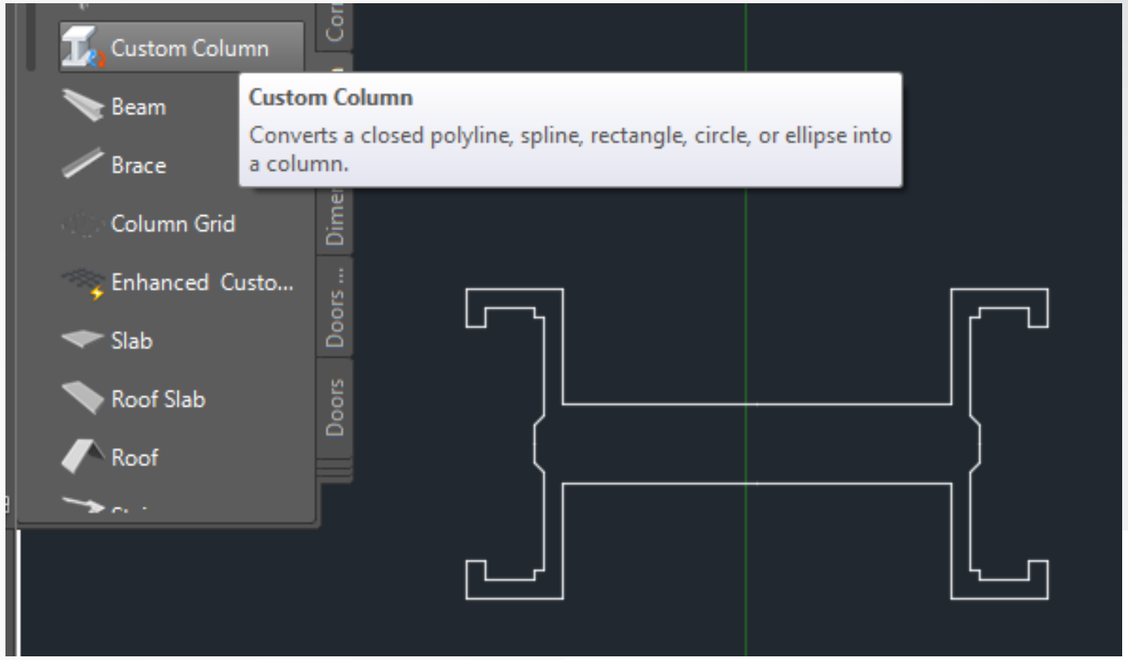
- Override Skylight Plan > turn on all components

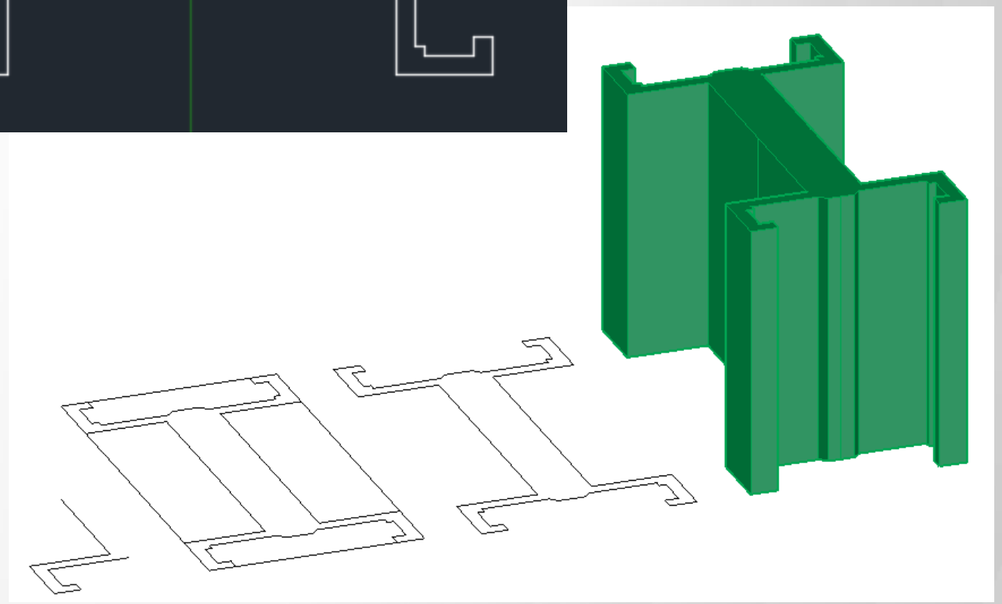
6. Using a Structural Member to Create an Electrical Bussway



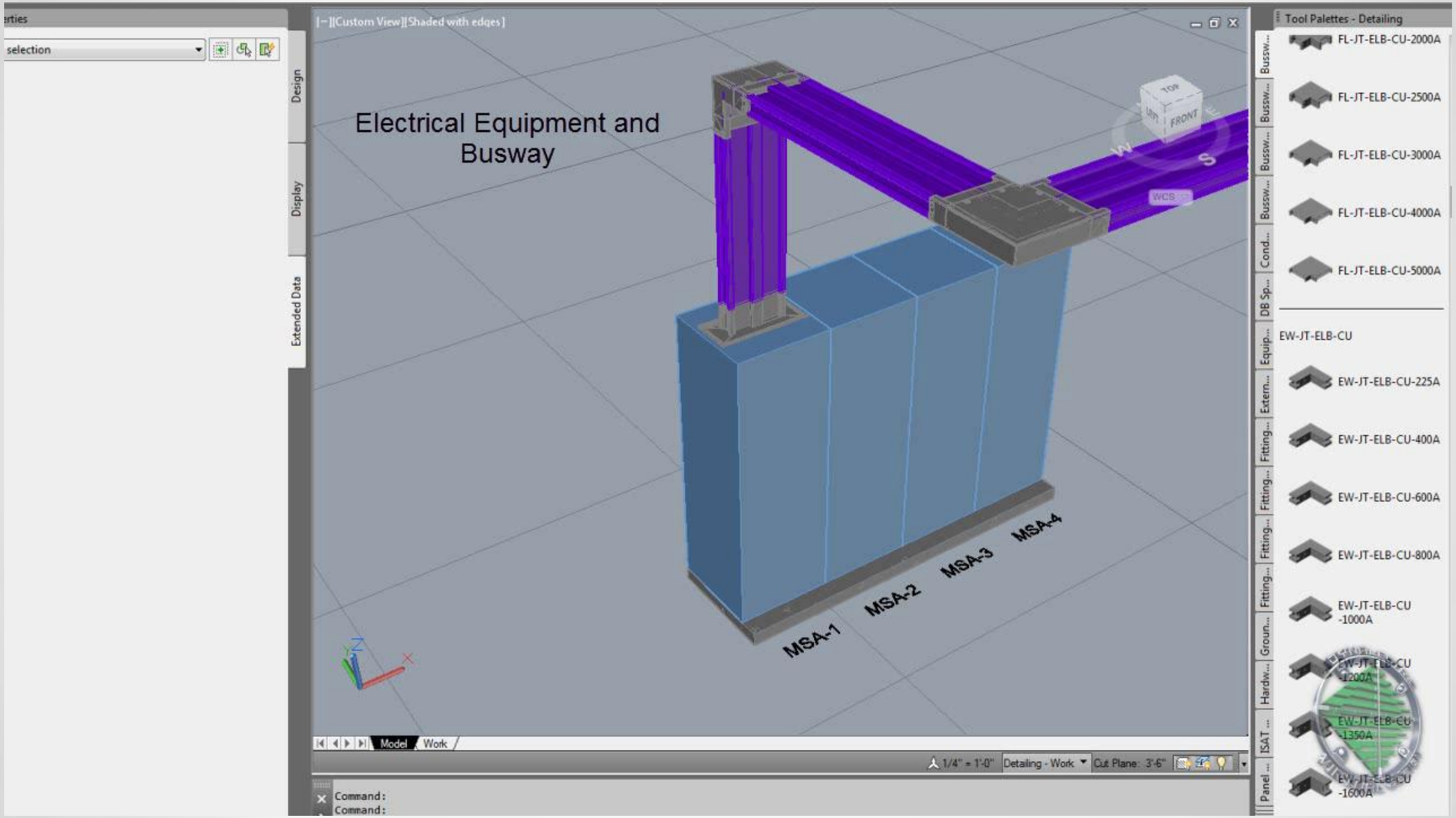
Create Structural Member Style with Custom Profile

- Draw the cross-section as a closed polyline
- Use the Custom Column command to create the Member Shape
- Create a Property Set definition that has the desired properties





Customer Video Demonstration - Courtesy Dynalectric




7. Questions and Answers

Session Feedback

- Via the Survey Stations, email or mobile device
- AU 2014 passes given out each day!
- Best to do it right after the session
- Instructors see results in real-time