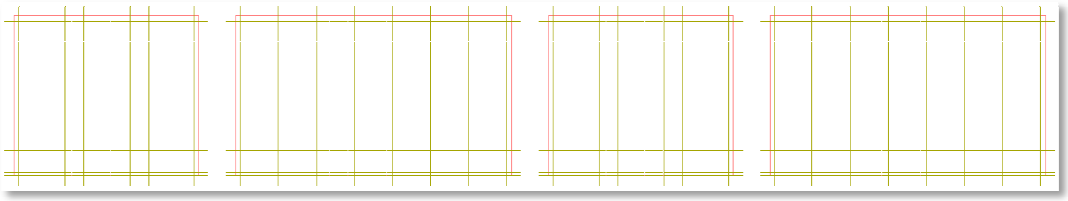
AutoCAD.Precast DEVELOPING AND DESIGNING AN PRECAST FACADE

Overview: Working with the lab module grid develop a facade using precast concrete. The maximum size of a precast panel is dictated by what can be shipped on an 8' x 45' long trailer. That size typically does not exceed 14'-0" high x 45' long.

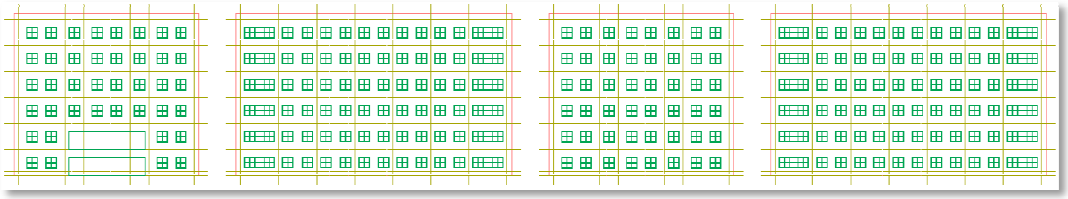
Windows: A typical lab counter is at a height of 3'-0". Adding 6" for a backsplash we will set the sill of our windows to be at 3'-6" and a typical window opening to be 6' x 6'. The windows will have a 1/2" joint between the precast and the window frame.

Joints & Reveals: For design purposes we will set our joints at 1/2" and our reveals at 1". A reveal is a recess in the panel that adds interest by casting a shadow and dividing up a larger panel into more interesting parts. Reveals also help to disguise joints and control cracks in the precast.

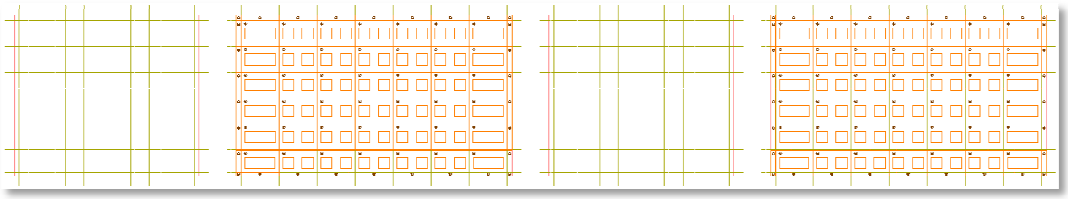
Facade and Grid: Draw the column grid and the building elevation envelopes. The shorter facades are **97'-6 wide x 87' high** and the two long facades are **148'-6 wide x 87' high.**



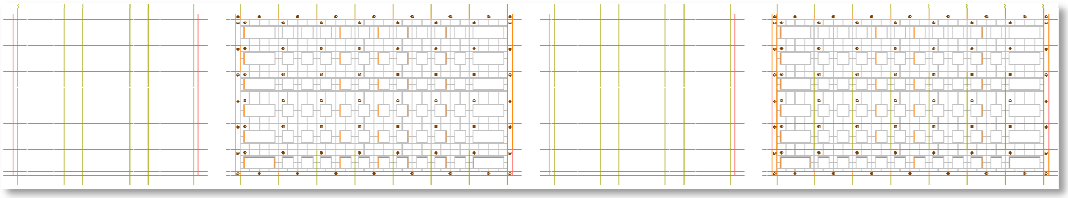
Windows: Add two window types based on openings sized to 6' x 16'-6" and 6' x 6'



Precast Panels: Create panels based on window placement and column grid lines

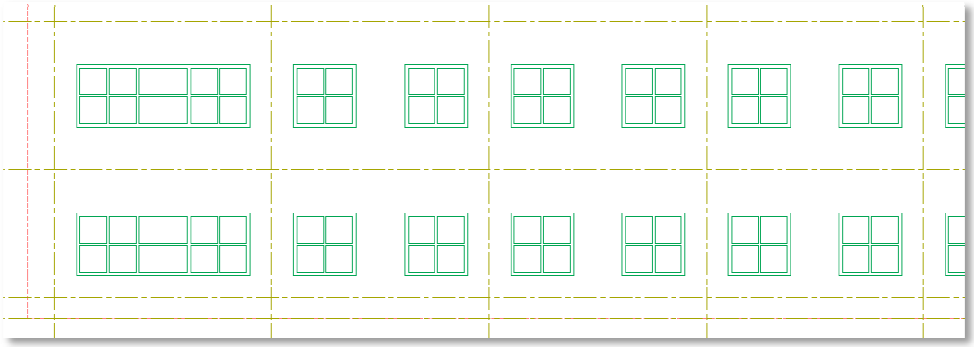


Panels Reveals: Add Reveals to each panel as part of the design

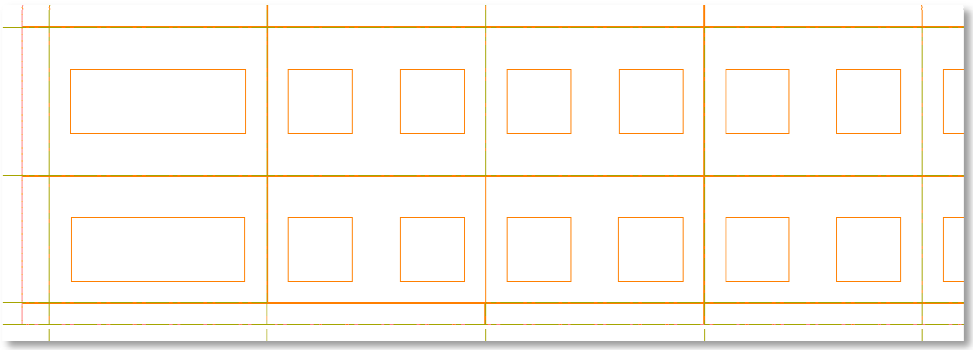


Blocks: Both the Precast panels and the windows should be created as blocks.

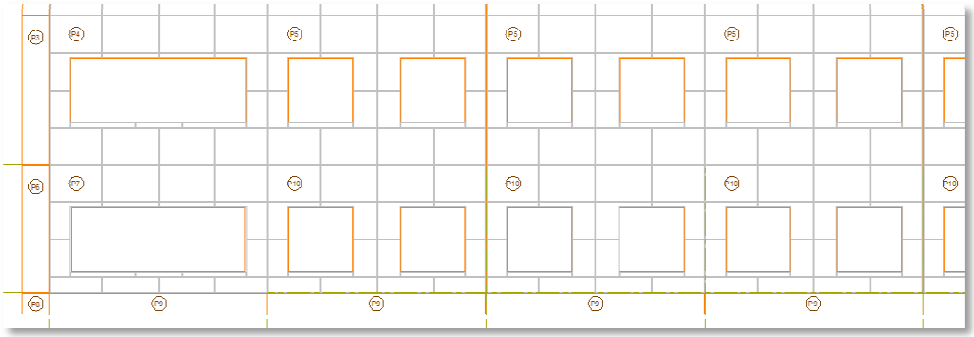
Windows: Add two window types based on openings sized to 6' x 16'-6" and 6' x 6'



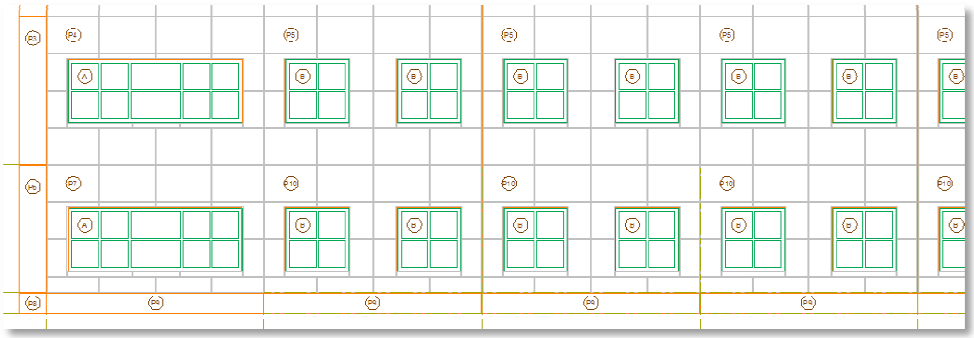
Precast Panels: Create panels based on window placement and column grid lines



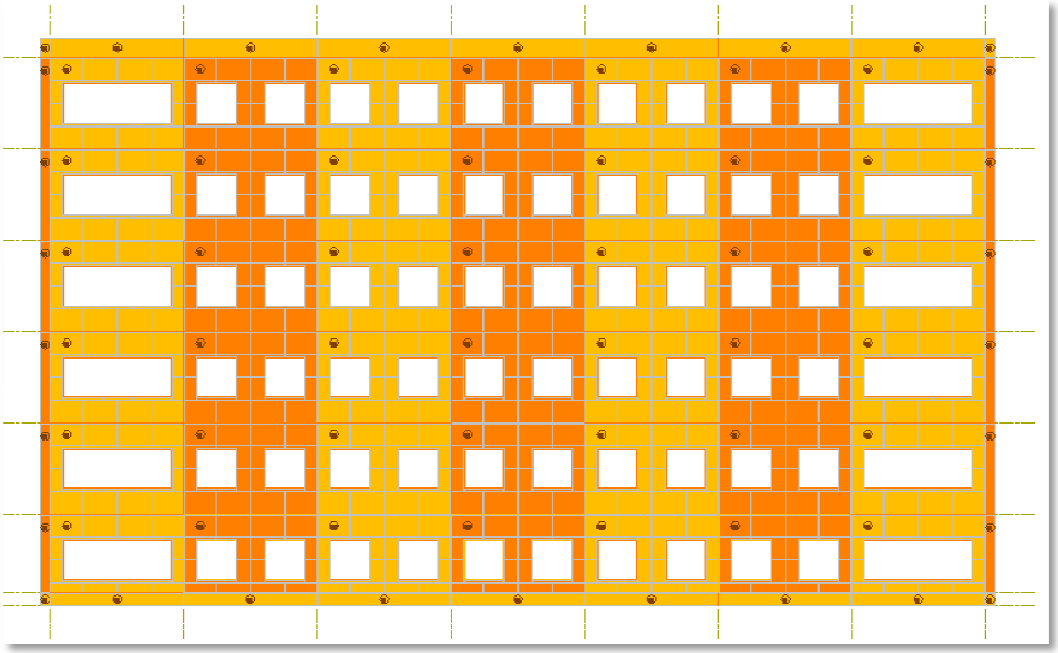
Panels Reveals: Add Reveals to each panel as part of the design



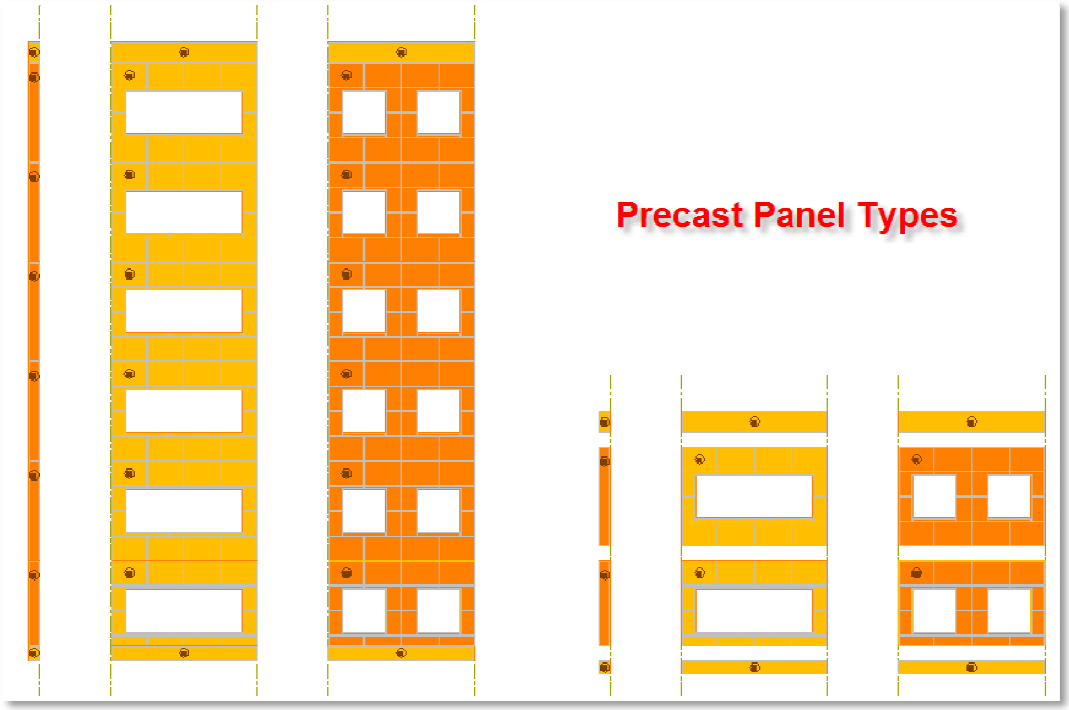
Panels and Windows: Both Precast Panels and windows will be labeled and scheduled



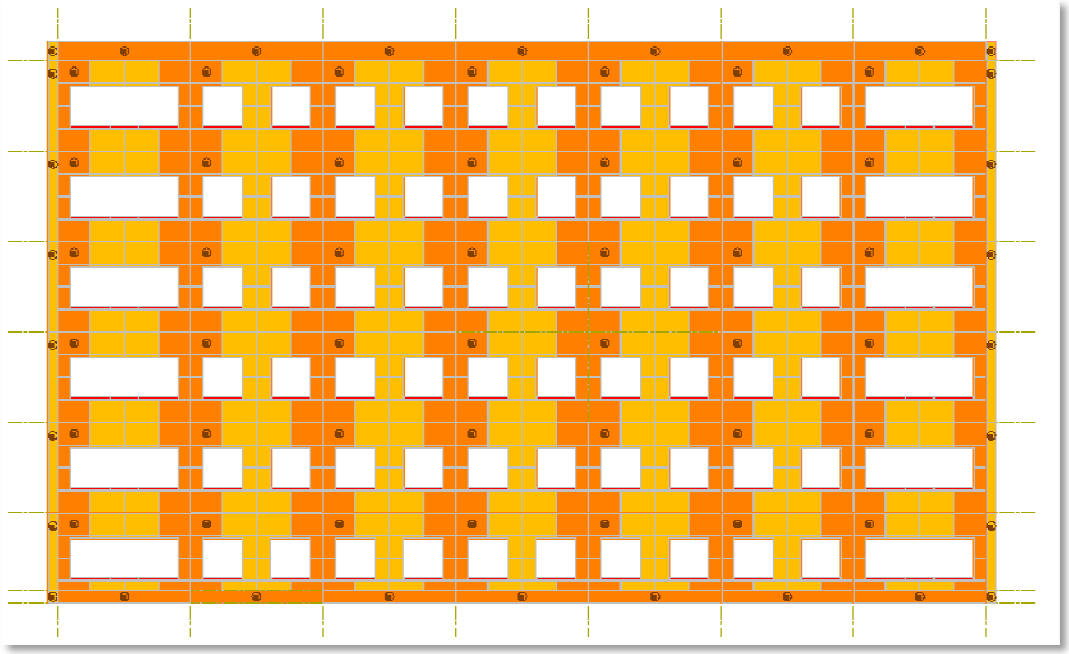
Option 1: Panels Joints are along the column grid lines. Panels with windows either include two square windows or 1 long rectangular window.



Panel Types: Each option is divided down to show each individual panel type that is needed to create the complete facade.



Option 2: This option creates "I" or "T" shaped panels with the joints between panels occurring above the window openings.



Option 3: Create an option of your own working with the window opening pattern