

## ARCH 402/503: Comprehensive Building Design Studio (CBDS)

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6 credits  
M, W, F - 1:00pm - 6:00 pm

## Comprehensive Building Design Studio (CBDS)

*Exploring the Integration of Building Systems, Materials, and Construction Methods into a Cohesive Whole*

### ASSIGNMENT #7: 1/4" Models and Wall Section Drawings

#### DESCRIPTION

During this assignment, each student will examine further how structure relates to skin and building enclosure. The building envelope is important for energy consumption and for exploiting natural forms of energy. But there are also requirements placed on a facade because of internal needs.

There is always direct interaction between building envelope and the other subsystems: loadbearing structure, interior layout, and building services. These interrelationships must be coordinated in three dimensions. The dimensional and modular conditions and the proportions must be clarified so that the building can evolve as a unified overall concept. See examples of the wall sections following the assignment.

#### ASSIGNMENT

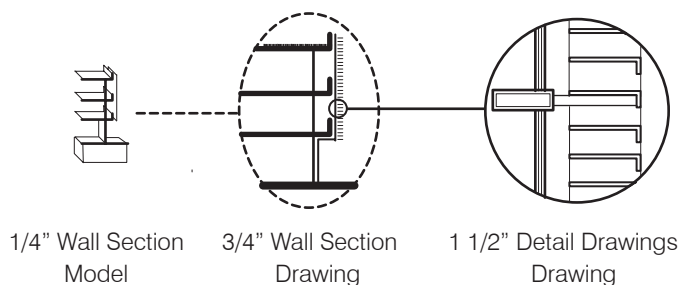
##### 1/4" Model of Bay

Build a Wall Section Model at 1/4" = 1'-0" of one bay of the building, approximately 20' of building width. Include 10'-0" of interior space. Each student shall build one bay so that when stacked together they complete a major area of the building. Pay close attention to changes in material and changes in section. Also, pay close attention to enclosing the building completely from roof parapet to foundation from the outdoor elements.

DUE: First round - Wednesday, 3/18, DD Pin Up  
Second round - Wednesday, 4/1 Detailing Workshop

##### Building Wall Section- 3/4" = 1'-0"

After the first round of the Wall Section Bay Model is complete, each student will draw the wall section to 3/4" = 1'-0" of their particular bay. Each student shall draw a pertinent wall section (i.e. changes in material, changes in sections, door / window openings, etc). This drawing will pull together the details used to construct the wall section model and will serve as a transition to present blown up detailed conditions at 1 1/2" = 1'-0". The section must extend into the building for 10', and HVAC ducts etc. should be drawn for coordination. The 10 foot measurement should begin at the exterior glazing, even if there are exterior element (overhangs, sunscreens, etc.) that extend beyond on the exterior that must be drawn in the section. The 1 1/2" = 1'-0" details will be incorporated in the final construction documentation.



DUE: Wednesday, 3/25, 75% DD Review