PROBLEM 2: DESIGNING THE BUILDING ENVELOPE

Description:

As a related “sketch” problem for the Competition design, you will research, design, develop, and build a model of an exterior wall and/or roof of your building. This design should address all the issues and criteria of the overall project, while focusing on a detailed level. Issues to consider should include:

- The thermal envelope
- Shading devices
- Ventilation
- Pressure equalizing the envelope
- Integrating (or divorcing) the thermal envelope from the structure
- Roof structure
- Material choices
- Connecting different materials
- Roof-to-wall junctures
- Floor-to-wall junctures
- Wall-to-foundation junctures
- Water and drainage

You will begin by developing large scale (¾” = 1'-0" or larger) section drawings of two different walls of your project. These should be dealing with different design and environmental criteria (such as north and south facades). These drawings will be reviewed and critiqued with your section instructor.

You will then develop a detailed model of one of the two sections at a scale of ¾” = 1'-0" or larger, using basswood or another suitable material. The model should provide a detailed representation of the construction of the building envelope. The design that is developed should support and inform the larger design effort for the project.

Schedule:


Thursday, February 16th: Review of detailed drawings of two wall sections at ¾” = 1'-0". Review of impact of wall designs on plan and section of overall building design.

Thursday, February 23rd: Present wall section model. Present and review impact on project design.