

Homework 2A:**Update Sections Through Envelope in General****Background**

- The process of designing details is an iterative one, just like any solving any architectural design problem.
- This homework is to apply what you've learned since your first submission.

Resources

- 1 An excellent overview of the principles of designing a building envelope may be found at:
http://www.johnpilling.net/Designing_Details/Summary_files/Design-Strategies-for%20Moisture-Control.pdf
- 2 A study of alternative strategies for building envelopes in Massachusetts may be found at:
http://www.mass.gov/?pageID=eopsterminal&L=4&L0=Home&L1=Consumer+Protection+%26+Business+Licensing&L2=License+Type+by+Business+Area&L3=Construction+Supervisor+License&sid=Eeops&b=terminalcontent&f=dps_inf_bbrs_sample_detail&csid=Eeops

Research Work

- 1 Become familiar with the information in the two sets of resource materials
- 2 Using the examples from the Comm. Of Mass. Materials as a guide, propose a strategy for your building envelope.

Writing Work**Update the answers to the questions posed about the building based on discussions in class and feedback on your assignment 2A**

- 1 Explain your strategy for moisture control for the wall and roof of your building envelope.
- 3 Continuing the ideas from your in-class work, describe what changes, if any, you would make to your envelope design if the building were located in a) Mobile, AL and b) Santa Fe, NM

Drawing Work**Update the technical drawing based on discussions in class and feedback on assignment 2A**

- 1 Building on the ideas developed during class and answering the questions, illustrate your detailed strategy for the building envelope by designing a building cross section: scale: 1/2" = 1'-0"
- 2 Choose a section location to include a cut from the window with light shelf on the south side of the building up to and through a skylight and photovoltaic panel.
- 3 Account for your insulation strategy to meet Passivhaus goals
- 4 Account for any mechanical equipment between the building envelope and the interior finish.
- 5 Use cuts as needed to fit all the element of the drawing onto the sheet.

Criteria for marking this homework:**General Criteria**

This Homework counts as 20% of your marking for the course
Homework will be marked from '4' to '0.'
Answers to questions count as 1/3 of the mark for the homework
Drawings designed count as 2/3 of the mark for the homework

Criteria for Answers to questions

General: The response to this question is written, criteria are based on recommendations from 'Understanding by Design,' page 175

Requirements for a mark of '4' - "A clear, well developed [explanation] that deals in a sophisticated fashion with [key] components of the question.

Requirements for a mark of '3' - "Clear, developed [explanation] that deals with [key [components of the question]]."

Requirements for a mark of '2' - General [explanation] responding to all components superficially."

Requirements for a mark of '0' - "Little or no analysis."

Criteria for quality of drawings

General:

Drawings are evaluated in terms of completeness, accuracy, and legibility

Specific Criteria

Requirements for a mark of '4' -

Work product capable of being incorporated into a project using building information management.

Requirements for a mark of '3' -

Work product could be submitted to a plans examiner. Criteria are as described by Liebling (Wiley, publisher) - BAC library reference: <http://library.the-bac.edu/vwebv/holdingsInfo?bibId=5814> and in material provided in class web site.

Requirements for a mark of '2' -

Work product could be used to present an idea to a job captain

Requirements for a mark of '0' - Minimal drawing