

Nicole Drabousky Structural Option Thomas E. Boothby Wellington at Hershey's Mill West Chester, Pennsylvania 12/12/2005

**Thesis Proposal** 

## **Breadth Topics**

Included in the proposed thesis are two breadth topics related to the change of the structural system materials. The two breadth topics that are to be studied are analyses of the interior acoustics and the overall building envelope.

## **Breadth Topic #1 – Interior Acoustic Analysis**

The change in materials from both alternate systems will affect the acoustics of the interior. The purpose of this analysis is to establish if there is a significant acoustical advantage to changing the materials of the structure. The most interesting area of investigation will concern the barrier between the garage and first floor. The noise generated by cars will have to be isolated from the first floor residential units.

## **Breadth Topic #2 – Building Envelope Analysis**

The effectiveness of the building envelope will also be altered with the change in materials. An analysis on the thermal, acoustic and waterproofing barriers will be performed using resources from previous classes and discussions with appropriate consultants.