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CHEMISTRY BUILDING
THESIS PROPOSAL



BREADTH AREAS

Additional area to be redesigned is an atrium space. The space is comprised of a stair and elevator lobby which connects the 1st through 5th floors. A smoke evacuation is required by code to all atrium spaces by the mechanical code. An atrium space is defined as any space which is connected to another above it without any physical barriers. Atrium spaces cause significant problems with smoke during fires, in addition to creating a path for the fire to spread from floor to floor. During the design of the Chemistry Building the smoke evacuation system was left out, due to money constraints and having egress ways located in close proximity to the location of the atrium. Implementing, an exhaust fan and make-up air fan, sized using the NFPA guidelines will increase the safety of personnel occupying the building.

Other breadth topics include acoustics for the numerous conference and meeting spaces around the laboratory spaces. The laboratory spaces have a much higher noise criterion due to the large amount of equipment in use and the exhaust fans that run continuously. After surveying the building, it was noted that noise carried from lab areas to these conference and meeting spaces. Redesign of the duct lay out and incorporation of sound attenuation equipment and sound absorbing materials will reduce or eliminate the noise coming from the laboratory spaces and allow them to become more functional spaces for education.