Alumni Hall Renovation

**Lighting Systems**

- Sustainable Sights
- Light Pollution Reduction
- Energy & Atmosphere
- Minimum Energy Performance
- Optimize Energy Performance
- Measurement and Verification
- Indoor Environmental Quality
- Controllability of Systems-Perimeter
- Innovation & Design Process

**Elevator Design Development**

- Design a 2-story glass elevator that satisfies American Disability Act (ADA)
- Research on elevator technologies that can minimize energy consumption
- Find a suitable location for elevator
- Design the curtain wall surrounding the elevator

**HVAC Redesign**

- Currently
  - Heated hydronically by steam
  - Entire building is not air conditioned
- Needed
  - Updated heating and air conditioning system to improve comfort and balance temperature throughout the building
- Process
  - Room loads were calculated
  - Duct sizes were determined

The building was divided into zones. Loads for each room were calculated using computer software. The air handler must be able to push 100 tons of air through the building.

**Cost Estimating**

- First Floor
- Second Floor

**Renvation of a Landmark**

Alumni Memorial Hall is Mies van der Rohe’s first classroom building on the I.I.T. campus. While the building as a whole is not under historical preservation status the exterior element, and the University has decided to extend the historic status of the campus as a whole to the treatment of all the existing buildings of the original Mies master plan.

**Renovation Issues Addressed:**

- Design of green roof system
- Design of rain water run off and retention
- Design of efficient HVAC system
- Design of elevator for ADA compliance
- Design of building layout to client specifications
- Design of electrical and lighting systems for code compliance
- All system design to fulfill requirements for Silver Certification from LEED EB

**HVAC Redesign**

- Recommended Air Handler: Trane M Series 100 ton capacity