

## **Structural Submittals**

Three structural submittals outlined below will be due during the course of the semester. In addition, weekly meetings with the structural design mentors will be required for monitoring progress of the design. Additional office hours with the structural design mentors will also be available. Note that all drawings and calculations are accumulative.

### **Preliminary Structural Design**

due date: Thursday September 18

Calculation:

- Floor live loads and dead loads
- Roof snow loads and dead loads
- Design of floor systems
  - alternate designs
  - investigate several beam/joist spacing options to maximize efficiency
- Design of roof systems
  - investigate several beam/joist spacing options to maximize efficiency
- Preliminary selection of curtain wall system
- Preliminary loads to foundation elements

Floor plan drawings to include:

- Locations of all columns
- Locations of all beams/girders
- Locations of lateral force resisting systems

### **Intermediate Structural Design**

due date: Thursday October 30

Calculations to include:

- Final design of all beams and girders
- Final design of all columns
  - investigate options for the column steel sections
- Wall and roof wind loads
- Final design of the curtain wall system
- Preliminary design of lateral force resisting system

Drawings to include:

- Floor plans with all columns, beams, girders, floor and roof systems
- Curtain wall system
- Preliminary design of lateral force resisting systems

## **Final Structural Design**

due date: Thursday December 11

Calculations to include:

Final design of the lateral force resisting system elements  
include alternative designs

Drawings to include:

Floor plans with all lateral force resisting systems