



ARCH 2330

BUILDING TECHNOLOGY III

V

Assignment Name:

Elevator & Escalator Vertical Circulation Studies (SK-103)

Computer Program(s):

AutoCAD, Revit, Web Browser and Blackboard

Student Learning Objectives:

Upon successful completion of this assignment, the student will:

1. Construct accurate scaled plans, sections and elevations of elevators & escalators.
2. Understand issues of fire rating & egress that relate to elevators & escalators.
3. Understand relevant ADA code for railings and stair nosing's, etc.
4. Understand mechanical space requirements for various types of elevators & escalators.
5. Understand appropriate dimensions for elevators & escalators and arrange in groupings
6. Understand how to arrange elevators & escalators in appropriate groupings

Student Skills Learning Objectives: (AutoCAD)

Upon successful completion, in addition to skills required by previous lessons the student will:

1. Be able to externally reference and scale files and images for reference.
2. Be able to add annotation and dimensions

Assessment:

To evaluate the student's achievement of the learning objectives, the professor will do the following:

1. Evaluate the student's elevator & escalator drawings. (plans & sections)
2. Evaluate annotations including titles, notes and dimensions.
3. Evaluate layout and format of sheet and clarity and completeness of information represented.
4. Drawing will be evaluated on its own and as part of the AutoCAD drawing set submission.

Project Description:

Students will research elevators & escalators appropriate to the different needs of the semesters building project. Develop appropriately dimensioned plans and sections as needed for three different floor to floor heights (12' 14' and 16') . Research details and assembly as needed.

Process:

1. Work as a team to research different elevator and escalator types.
2. As a team debate type and location of elevators & escalators.
3. As an individual identify type and location of elevators & escalators for your design and draw appropriate configurations. Allow for all mechanical and structural needs as required.
4. Arrange studies on sheet. Add appropriate titles, notes and dimensions.
5. Post completed sheet as a pdf and as a drawing file by the assigned deadline & add description.

References:

1. Otis website <http://www.otisworldwide.com/>
2. Schindler <http://www.schindler.com>