

I PRO 335:  
Renovation of Alumni Memorial Hall

Midterm Report

## 1.0 REVISED OBJECTIVES

### 1.1 Architecture

[No Changes]

### 1.2 Architectural Engineering

[No Changes]

### 1.3 Civil Engineering

[No Changes]

## 2.0 REVISED TASK SCHEDULE

### 2.1 Architecture

The architecture team has learned that some deadlines are not always met but they get done within a certain time period of when the goal was set. Currently we are on schedule but might have a slight set back with some of the deliverables that are more for the presentation. Currently the architecture team is still in the process of schematic design. Changes are in **Red**. Completed items are in **blue**.

Jan 23 - Code and Historical Research Complete

Jan 30 – Estimate of Renovation Cost

Working Drawing Complete

Feb 6 – Questionnaires and Surveys Done

Feb 22 – Interviews and Surveys Complete

March 1 – Results Compiled from surveys and interviews

March 8 – Completed Program with adjacency diagrams

~~March 27~~ April 3 – Schematic Design complete

~~April 10~~ April 3 – 3D Walk through complete

April 10 – Presentation Drawing complete

April 17 – All group presentations compiled

April 24 – Presentation Rehearsal

April 27- Project Presentation to Clients

### 2.2 Architectural Engineering

a. Determining the existing conditions has been ongoing. The completion of the model has been pushed back one to two weeks, and recommending

upgrades has been postponed until the completion of the model.

b. [Same as in Plan, except model deadline has been extended until April 6 and the possible elimination of recommendations.]

c. [No Change]

d. [No Change]

The time line has changed as data collection has taken longer and has been a slower process than expected.

None of the sub-tasks have been fully completed due to delays in the data collection process, however the data that has been collected is being incorporated into the model. The group has been able to photographically document some portions of the building, including the basement and roof.

### 2.3 Civil Engineering

The structural team has learned first hand the difficulty of finding information that is useful to perform the analysis necessary for this project. The information that would be most useful to the team, the strength of steel, and soil strength, are still not known, and we cannot easily test them. This difficulty has thrown the analysis of the current structure off schedule.

The schedule is now as follows (changes in red):

#### Code Research:

Jan 22 – Start code research

Jan 29 – Acquire required building codes

Feb 5 – Search for original building code

Feb 19 – Determine minimum loads for existing structure

Mar 5 – Minimum loads for proposed additions determined

#### Current Structural System Investigation:

Jan 22 – Begin investigation of current system

**Mar 26**– Soil report acquired

**Mar 26** – Design material specifications determined

~~Feb 26 – Tested material specifications determined if tests have occurred in the past~~

#### Structural Analysis of Existing Structural System:

Feb 12 – Begin SAP model of existing structure

Feb 26 – Complete SAP model of existing structure with current loads

**Apr 2** – Complete analysis of existing structure and determine if renovation for current loads is required

Feasibility Study for Proposed Additions:

**Apr 9** – Make additions to existing structural model to reflect possible changes

**Apr 16** – Begin study of feasibility of additions, and what structural changes may be necessary to allow for the additions

Design of Retrofits:

**Apr 2** – Begin design of structural retrofits if necessary

Updated task assignments:

Thus far, there have been no changes to the structural civil team.

### **3.0 REVISED TASK/ EVENT SCHEDULE**

#### **3.1 Architecture**

Currently nothing has changed with the architectural team.

#### **3.2 Architectural Engineering**

- a. Determining the existing conditions has been ongoing. The completion of the model has been pushed back one to two weeks, and recommending upgrades has been postponed until the completion of the model.
- b. [Same as in Plan, except model deadline has been extended until April 6 and the possible elimination of recommendations.]
- c. [No Change]
- d. [No Change]
- e. The time line has changed as data collection has taken longer and has been a slower process than expected.

None of the sub-tasks have been fully completed due to delays in the data collection process, however the data that has been collected is being incorporated into the model. The group has been able to photographically document some portions of the building, including the basement and roof.

#### **3.3 Civil Engineering**

Thus far, there have been no changes to the structural civil team.

## **4.0 REVISED OBJECTIVES**

### **4.1 Architecture**

No changes have taken place. Everyone in the team has been working on their assignments and has help out in other places where necessary.

### **4.2 Architectural Engineering**

No changes have taken place. Everyone in the team has been working on their assignments and has help out in other places where necessary.

### **4.3 Civil Engineering**

No changes have taken place. Everyone in the team has been working on their assignments and has help out in other places where necessary.

## **5.0 BARRIERS AND OBSTACLES**

### **5.1 Architecture**

Overall this semester we have not come across too many obstacles or barriers. We have gotten most of the work done that we set out to get done. One problem that we ran into is the return time on the questionnaires. Many of those were return to us at a reasonable time but not when we requested.

The barrier that we might have is the overall design and layout of Alumni Memorial. Currently there is more program space than actually square footage. We are currently waiting on the civil team to know if we can go up a third floor but do to their own set backs we are waiting on that. Currently, we are not letting that hinder us. We are all doing some sketches of how to get everything into the department.

### **5.2 Architectural Engineering**

- a. Several obstacles have been encountered. The first obstacle is that the Architecture group has been completing their tasks more slowly than initially expected. Another obstacle is the difficulty establishing communications with the providers of the data needed by the team. Some of the professional staff that may have the needed data have been unresponsive to the requests of our group. E-mails seem to be not getting through and other channels to get the

data have had to be established. Also, some data that is desirable to have to check the model is apparently not available due to limitations of the current physical plant. In some cases, documentation, if available, is outdated or incomplete. Other impediments include having to learn new software and the lack of experience in some areas which decreases efficiency.

- b. Some of these obstacles have been resolved by brute force, others by long-term persistence and patience. In some cases faculty members have helped out by contacting the persons who hold some of the needed information and getting it when the team is unsuccessful getting it themselves or establishing a channel for the team to get the data directly. In some cases, the team must simply make educated assumption.
- c. Remaining barriers still center around getting information from others and generating information when it is not available.
- d. If the information never becomes available and the team cannot generated directly, either the model will have to be incomplete and/or some assumptions will have to be made and checked.

### **5.3 Civil Engineering**

As mentioned before, there has been a lack of information that would be very useful in the analysis of the current structure. The team is planning on going with a conservative assumption with material strengths, but this may prove to be useless if the soil is not able to support the renovated structure.

The team has also had trouble with finding a time when all members are able to meet. At first, this was extremely difficult, but by moving our meeting to where a member supervises a lab, we were able to find a good time for everyone. However, this arrangement soon fell apart, as a member had a time conflict with our meeting time develop. This has caused difficulty in keeping that member in the loop with what the group is working on.