



Executive Summary

This technical assignment examines a few of the many management tasks required in every construction project. Even before construction begins, it is very important to have a grasp on cost and work methods to better prepare you for the responsibilities to come. Some of these duties include project schedules, site layout planning, and estimating.

For the Capital One Lecture Hall, we begin with a look into the current project schedule and projected dates of future work. Construction began on 03-May-05 and is to progress up until project closeout on 23-Aug-06. After breaking down the project into five smaller work packages, we find that the base building and interior construction consume pretty much the entire schedule. Base building work began on 03-May-05 and is to conclude 11-Apr-06, while the interior work began on 23-Aug-05 and will finish around 03-Aug-06.

In order to meet all of the project deadlines and efficiently complete tasks at hand, creating a site layout plan is necessary. For the Lecture Hall project, proper coordination of deliveries and construction of the superstructure was imperative. In between 20-Jun-05 and 30-Nov-05, the entire steel and concrete structure was to be complete. For the most part, all work began on the east side of the site and progressed clockwise, finishing on the front west façade.

After creating a mechanical assemblies estimate and a detailed structural estimate, although more time consuming, detailed estimates are more accurate to realistic figures. The generalized systems chosen for the assemblies estimate did not seem to be very precise. The mechanical system was estimated to be around \$1,111,000, while the subcontractor's price was \$1,500,000. The structural system estimate was more accurate with both the steel and concrete. Compared to Southland's concrete bid of \$1,122,817, the detailed was \$1,111,832. For the steel numbers, an estimate of \$509,000 was received, compared to Lynchburg's \$890,000. As given to the owner's representative, the calculated general conditions estimate from DAVIS Construction was around \$820,000.