AE 481W Senior Thesis Dustin Faust Building Statistics Construction Management Dr. Reily October 6<sup>th</sup>, 2006 PENNSTATE Borland Laboratory Renovation

## **Executive Summary**

The Pennsylvania State University, Borland Laboratory Renovation is scheduled to be under construction from November 27<sup>th</sup>, 2006 until April 8<sup>th</sup>, 2008. During this time, as an employee of The Pennsylvania State University Office of the Physical Plant (PSU OPP), I will be working on this project. Due to the tardiness in the completion of The University Creamery, there was a delay in removing production machinery from the Borland Laboratory. This has cause the project start time to be pushed back drastically. However it has also allowed ample time for the Architects, Bower Lewis Thower, to produce a 100% complete bid set. This is uncommon for PSU OPP. Most jobs done in University Park, Pa, begin construction with 50-75% complete drawings. This causes a lot of change-orders and other mistakes that would otherwise be picked up in a drawing set review meeting.

There are multiple trees surrounding the perimeter of the building that must be protected. PSU OPP will be contacted before construction begins and trim the trees. After that, it will be up to the contractor to protect any branches and the root structures of each tree. This renovation will be the first LEED rated project for an existing building on any Penn State Campus. Penn State has hired a construction group that specializes in designing LEED buildings. Atelier Ten has formed a list of the different LEED items they believe could be achievable for this project. This list if completed will give The Borland Laboratory Renovation a total of 32 points, which is enough to be certified as a LEED rated building. A possible point of interest for the topic of my capstone project could be to design a better LEED system that would allow this project to receive the Silver LEED rating, which required 33-38 points.