



## **A. EXECUTIVE SUMMARY**

*Medlar Field at Lubrano Park* is located in State College, PA and will be the new home for The Pennsylvania State University baseball team as well as a the State College Spikes, a minor league Single A short season affiliate. This project is unique in the fact that it is the first project in the country to have joint ownership group between a university and a minor league baseball team. Construction of the new facility began in June 2005 and will be complete in time for the minor league baseball season in June 2006. The following discussion describes the three main areas that my thesis report will focus on. The two breadth areas which will be analyzed are the structural columns that support the field lighting fixtures on the first and third base line, and the added costs associated with winter construction of the main building enclosure components. Furthermore, my construction research topic will analyze streamlining the superstructure design & construction through computer modeling.

In analyzing the structural columns that support the field lighting fixtures, I hope to successfully find an alternative way to design the field lighting fixture structural supports while still achieving the same aesthetic look. This will ultimately allow for cost savings in the structural steel package, and might allow for a quicker erection time in this area due to lighter and less steel members. I will be able to use the knowledge I have learned from performing this analysis when value engineering ideas might be needed on future projects and the project team might need suggestions in how to achieve the same look with lighter steel members. By analyzing the added costs incurred with constructing the building envelope during with construction, I will have to ability to roughly estimate the added costs incurred by different construction trades due to winter weather construction as well as a total project cost due to winter weather construction means and methods.

By evaluating the efforts to streamlining the superstructure design & construction through computer modeling, I will be able to address better techniques in going from steel design to fabrication stage of a project. Furthermore, I will be able to address better coordination techniques between steel suppliers.