

Executive Summary

The purpose for writing this Thesis Proposal is to explain what will be researched during next semesters AE 482 Thesis course. For my thesis I will be doing in depth research on four technical analyses. These analyses are as follows: The installation of Solyndra Solar Panels, the implementation of Building Automation Systems, the conversion to Wireless Controls, and the installation of SIP Panels.

The primary focus of my research will be energy efficiency and value engineering. Using these analyses, I will attempt to reduce the project schedule and decrease initial construction costs and future building usage costs.

The Breadth Studies that will be covered are Electrical and Structural. Electrical calculations will be necessary to determine energy cost savings. Structural load calculations will be used to determine wall thickness and confirm that SIP panels will be an appropriate replacement.