

# EXECUTIVE SUMMARY

---

This Thesis Proposal serves as a plan for the research and analyses that will be performed on the Department of Interior Cafeteria Modernization Project. The core of this investigation will evaluate critical industry issues, value engineering decisions, reviews of constructability, and opportunities to reduce the project schedule. The four analyses are as followed:

## **Technical Analysis I** *Critical Industry Issue: Using Tablet PCs for Quality Control*

Analysis I will research the use of Tablet PCs in the field to specifically aid in the quality control process. By being able to access the BIM Model and other construction documents in the field, many of the errors in the quality control process can be remediated. The cafeteria project is a prime candidate for this technology due to the lack of quality control throughout the project.

## **Technical Analysis II** *Historic Preservation*

This analysis breaks down each of the historic preservation decisions on a cost and schedule basis. These findings will then lead to value engineering decisions. This section will also contain an architectural breadth which will propose an alternative design without the historic preservations.

## **Technical Analysis III** *Advanced Lighting System*

The final analysis looks into combining the new design for the skylight system with the artificial lighting system in the dining room. By combining the use of advanced lighting controls with a new photovoltaic system, this analysis will attempt to create a Net-Zero Energy lighting system for the dining room. This section will include a lighting/electrical breadth for the design of the photovoltaic system.

