

## **EXECUTIVE SUMMARY**

This document proposes several different topics for my research next semester. The four analyses that I chose include schedule deceleration, guest room energy conservation, efficient landscaping, and the impact of the current economic status on my project. The majority of my topics focus on energy use and ways to reduce overall lifecycle costs.

### **Analysis I: Schedule Deceleration**

This analysis focuses on the choice by the owner to decelerate the schedule and overall project finish date by one year. An investigation into the cost implications of completing the project up to a certain point and only completing finishes immediately prior to opening. Research is done to determine the overall cost saved and the schedule implications.

### **Analysis II: Guest Room Energy Conservation**

A significant amount of energy use in hotels is wasted due to occupants not turning off lights and turning the heat down when not in the room. This analysis investigates ways to reduce energy use in each of the guest rooms by altering lighting fixtures and controls. Cost and payback period is analyzed.

### **Analysis III: Efficient Landscaping**

This analysis topic deals with the landscaping plan and irrigation system in place. I investigate alternative plants and their organization on site in order to reduce redundant watering. A rainwater collection system is analyzed.

### **Breadth Analysis 1: Lighting/Electrical**

Analysis II incorporates a lighting redesign in the guest rooms for reduce overall energy use when the guests are and are not in the room. The lighting breadth will be used to find before and after energy costs and payback period for the added fixtures and systems.

### **Breadth Analysis 2: Mechanical**

Analysis III incorporates an irrigation system redesign. I am proposing the addition of a rainwater collection tank and reorientation of the planting and piping system to provide better water efficiency.