

# RESIDENCE INN

BY MARRIOTT  
2345 MILL RD, ALEXANDRIA, VA  
JULIA E. PHILLIPS  
CONSTRUCTION MANAGEMENT

---



## *Executive Summary*

This document is intended to outline the issues I plan to research and improve upon during the spring semester 2008. Four technical issues and one critical industry research area will be explored for possible improvements. Throughout these analysis and research areas I hope to add value to the building by implementing more green technologies and materials, as well as reducing the schedule and cost, and improving the constructability of the project.

### *Analysis 1: Acoustics*

This analysis will focus on improving the acoustics between the outside and inside of the façade as well as between guestrooms. Green materials will be implemented into the improvement of the acoustical system.

### *Analysis 2: Mechanical System*

This analysis will focus on reducing the energy consumption by the fan coil units in the guestrooms that are designed to run 24 hours a day. This re-design also focuses on implementing a greywater system in to the building.

### *Analysis 3: Structural Design of Underground Garage*

This analysis focuses on reducing the schedule and cost of constructing the underground garage by instituting the use of the flat plate pre-cast Filigree structural panels.

### *Analysis 4: Off-Site Prefabrication*

This analysis focuses on reducing the schedule time of the façade and increasing the quality of construction by using off-site prefabrication.

### *Critical Industry Research: "Greening" of Hotels*

This research is intended to help dispel the notion that adding green value to any project costs considerable more money up front. This will be done by using green technologies during my breadth studies and comparing the up front cost, life cycle cost, and energy use of the current system vs. the proposed system.