

## EXECUTIVE SUMMARY

The following report proposes three analysis topics to research next semester. These 3 topics include LEED implementation, the concrete floor system, and the use of building information modeling. These topics will be looked at from four distinct areas. These areas include critical industry issue research, constructability review, value engineering, and schedule reduction.

Analysis 1, the implementation of LEED, will look at the embodied energy of the finishes and attempt to lower the values. Also, other LEED ideas will be implemented, especially those affecting the mechanical systems as this will be included as a breadth study. A life cycle cost will be calculated and will hopefully add value to the project.

Next, an analysis will be performed looking at the concrete slab system. Precast slabs will be looked at as an alternative to the poured in place slabs used on the project. Potential schedule savings will be reviewed and a cost analysis will be performed. Also, the structural ramifications will be looked at as part of a structural breadth.

Finally, the third analysis will look at implementing BIM on the project. A 3D and 4D models will be developed and the project team will be interviewed for their reaction to the models and their views on BIM. Potential issues which could have been avoided will be identified as well as areas where BIM may have been able to reduce the schedule.

An appendix has also been included with the breadth studies specifically identified.