

# EXECUTIVE SUMMARY

My senior thesis is based on analysis of the James J. Whalen Center for Music at Ithaca College in Ithaca, NY. I selected this building after researching several projects designed by HOLT Architects and other regional design firms. This building first intrigued me with the unique way which designers fused a new steel framed building to a monstrous concrete auditorium. Also, through my five years at Penn State I have been a member of the Penn State Glee Club, and in high school I performed in several instrumental ensembles and appeared in school musicals. I love music, and I jumped at the opportunity to examine a facility designed for the creation of music. I was able to visit the building twice, which is about 40 miles from my hometown in Elmira, NY. During my visits I was able to get a feel for the music program at Ithaca College and the overall attitude of the facility.

For this thesis I am analyzing four spaces from the Whalen Center; the façade where the Whalen Center and the existing Ford Hall connect, the large instrumental rehearsal room, the Hockett Recital Hall, and the two level corridor on the south end of the facility. For each of these spaces, design criteria will be established, and a complete lighting design will be developed, documented and analyzed. This thesis also contains the analysis and redesign of a portion of the emergency power system.

In the large instrumental rehearsal space, skylights were added as part of the lighting design. The addition of roof penetrations will affect the structural design of this space. An analysis and redesign of the roof structure to reflect the addition of the skylights is included in this thesis. Also, the addition of glazing in an instrumental rehearsal room may have adverse effects on the acoustic quality of the space. This thesis includes an analysis of reverberation times in this space before and after the addition of the skylights.

This thesis represents much of what I have learned through my five years at Penn State and my time in the Department of Architectural Engineering. Yet there is much that I have learned, through my friends, through my professors, and through my experiences, that simply cannot be translated onto paper.