

DRAFT OUTLINE & SLIDES



SMC Campus Center
Baltimore, MD

Submitted: 3/25/2011

- I. Introduction and Overview
 - a. Personal Introduction
 - i. Introduce myself to faculty and present areas of study (2 screens)
 - b. Thesis Building Overview
 - i. Introduce the Campus Center, relation to adjacent buildings (2 screens)
 - ii. List prominent members of the design team (1 screen)
 - iii. Review existing architectural and lighting themes (2 screens)
 - c. Redesign Overview
 - i. Explain criteria and new design themes (1 screen)
 - ii. Show complete outline and highlight the studies shown in presentation (1 screen)
- II. Electrical Design
 - a. Wire/Conduit vs. MC Cable Feeders (4 screens)
- III. Lighting Design
 - a. Program Statement and Overall Design Goals
 - i. Present overall design themes and inspiration (1 screen)
 - b. North Façade
 - i. Present architecture, space use, and existing images (2 screens)
 - ii. Lighting design goals and schematic design (2 screens)
 - iii. Floor plan and lighting equipment (2 screens)
 - iv. AGi32 calculations and pseudo renderings (2 screens)
 - v. 3DS visual performance renderings (2 screens)
 - vi. Lighting design summary vs. recommended (2 screens)
 - c. Main Lobby
 - i. Present architecture, space use, and existing images (2 screens)
 - ii. Lighting design goals and schematic design (2 screens)
 - iii. Floor plan and lighting equipment (2 screens)
 - iv. AGi32 calculations and pseudo renderings (2 screens)
 - v. 3DS visual performance renderings (2 screens)
 - vi. Lighting design summary vs. recommended (2 screens)
 - d. Classroom
 - i. Present architecture, space use, and existing images (2 screens)
 - ii. Lighting design goals and schematic design and Flynn impressions (2 screens)
 - iii. Floor plan and lighting equipment (2 screens)
 - iv. AGi32 calculations and pseudo renderings (2 screens)
 - v. 3DS visual performance renderings and discuss Flynn impressions (2 screens)
 - vi. Lighting design summary vs. recommended (2 screens)
 - e. Natatorium
 - i. Present architecture, space use, and existing images (2 screens)
 - ii. Lighting design goals and schematic design, why my selection (2 screens)
 - iii. Floor plan and lighting equipment (2 screens)
 - iv. AGi32 calculations and pseudo renderings (2 screens)
 - v. 3DS visual performance renderings (2 screens)
 - vi. Lighting design summary vs. recommended (2 screens)
 - vii. MAE Focus - Daylighting study (6 screens)
- IV. Breadth Topics
 - a. Mechanical – Solar Hot Water for Natatorium
 - i. SHW Analysis (6 screens)
 - b. Structural – SHW Panels on Roof
 - i. Brief overview (2 screens)
- V. Summary and Conclusions
 - a. Summary of initial goals and compare to final solutions and success (4 screens)



CAMPUS CENTER

Josh Winemiller

AE Senior Thesis Presentation

Dr. Richard Mistrick and Prof. Ted Dannerth | April 13, 2011 | Lighting/Electrical

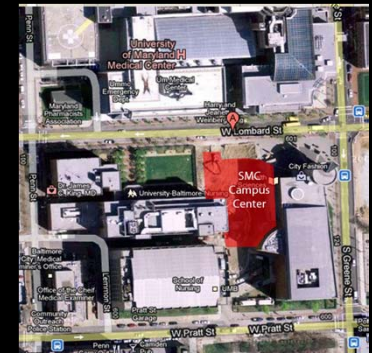
SMC CAMPUS CENTER

BUILDING OVERVIEW



- Site and Location
University of Maryland
Baltimore Campus
- Size
110,000 Square Feet
- Total Project Cost
\$43,400,000
- Primary Functions
Education Spaces
Food and Dining
Health and Relaxation
Recreational Spaces

- Owner
University of Maryland
- Architect
WTW Architects, Inc.
- MEP
Henry Adams, LLC
- Structural
WBCM
- CM/PC
Whiting- Turner



Introduction/Overview

Lighting Depth
North Façade
Main Lobby
Classroom
Natatorium

MAE Focus
Daylighting

Breadth Topics
Mechanical
Structural

Conclusions

Acknowledgments

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MECHANICAL – SOLAR HOT WATER



Introduction/Overview

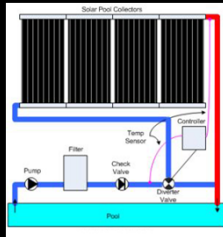
Lighting Depth
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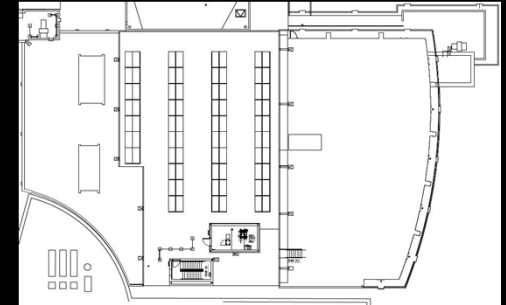
Breadth Topics
Mechanical
Structural

Conclusions

Acknowledgments



- Goals of Analysis
 - Reduce existing steam pool heating costs
 - \$13.47/MMBtu of steam
 - Promote an environmentally friendly campus
 - Green technologies
 - RETScreen Energy Software
 - Energy Production Evaluation
 - Life Cycle Cost of System
 - Greenhouse Gas Emissions Reduction



SMC CAMPUS CENTER

MAIN LOBBY

- Design Criteria and Considerations
 - Inviting and Open
 - Variety of Circulation Paths
 - Visual Guidance
 - Dining Facility
 - Student Lounges
 - Information/Elevators
 - Stairs
 - Hierarchy of Elements
 - Curved Ceiling
 - Information Desk
 - IESNA Illuminance Recommendation
 - 10 fc (horizontal)
 - ASHRAE 90.1-2007 LPD
 - 1.3 W/SF, 2.3 W/SF with decorative

