William McDevitt Structural Option Dr. Richard Behr

Presentation Outline

- I. Introduction (2 slides 6 screens)
 - a. Personal (3)
 - b. Building, location, site (3)
- II. Existing Structural System (4 slides 8 screens)
 - a. Current structural system overview (4)
 - i. Foundation, floor system, gravity system, lateral system
- III. Thesis Proposal (2 slides 4 screens)
 - a. Explain structural depth (2)
 - b. Explain construction management breadth (1)
 - c. Explain mechanical breadth (1)
- IV. Structural Depth (9 slides 18 screens)
 - a. Gravity system redesign (6)
 - i. Flat slab with drop panel design
 - 1. Hand calculations
 - 2. spColumn Design
 - ii. Column design
 - 1. RAM model
 - b. Lateral System Redesign (6)
 - i. Wind and Earthquake Design Loads
 - ii. Shear wall design
 - 1. ETABS model
 - 2. Hand calculations
 - c. Vibration Analysis (6)
 - i. Current vibration design
 - ii. SAP2000 model
 - iii. Calculations and results
 - iv. Comparison
- V. Construction Management Breadth (3 slides 6 screens)
 - a. Existing cost and schedule (2)
 - b. Cost Analysis of two systems (2)
 - c. Schedule Analysis of two systems (2)
- VI. Mechanical Breadth (3 slides 6 screens)
 - a. Existing glazing (2)
 - b. TRACE modeling (2)
 - c. Comparison (2)
- VII. Conclusion (2 slides 3 screens)
 - a. Acknowledgements (2)
 - b. Questions and comments (1)

Total Number of Screens = 51 screens