

Draft Presentation Outline – AE Senior Thesis

- I. Title Page *(1 slide)*
- II. Depth and Breadth Introduction slide *(1 slide)*
- III. Construction Depth #1: Domestic Water Piping Value Engineering *(3 slides)*
 - a. Slide 1 – Identify existing system; discuss reasons for changing system; identify proposed system and why it is being proposed
 - b. Slide 2 – Cost Analysis with Cost Estimate for initial and proposed systems
 - c. Slide 3 – Schedule Analysis; table summarizing benefits of proposed system
- IV. Construction Depth #2: Schedule Phasing Analysis *(3 slides)*
 - a. Slide 1 – Identify existing schedule plan and key dates for existing schedule; list reasons for considering schedule rephrasing
 - b. Slide 2 – Identify proposed schedule change due to switching phases 1 and 2
 - c. Slide 3 – Identify scheduling costs and cost savings (including value engineering)
- V. Construction Depth #3: Short Interval Production Scheduling Analysis *(3 slides)*
 - a. Slide 1 – Identify Classrooms that qualify for SIPS
 - b. Slide 2 – Show SIPS Schedule
 - c. Slide 3 – Show cost savings as a result of SIPS; highlight other benefits
- VI. Research Topic: BIM Utilization on Smaller Projects *(2 slides)*
 - a. Slide 1 – Identify existing BIM plan, reasons for research
 - b. Slide 2 – Identify benefits of research and show key components of BIM for smaller projects
- VII. Acoustical Depth: Classroom Acoustical Analysis *(4 slides)*
 - a. Slide 1 – Explain reasoning for analysis (due to building owner’s mission of providing students with high quality learning spaces);
 - b. Slide 2 – Identify classrooms that were analyzed and why
 - c. Slide 3 – Present analysis results; Show a table with redesign recommendations
 - d. Slide 4 – Identify cost and scheduling implications that result from design recommendations
- VIII. Structural Breadth: Foundation Redesign *(4 slides)*
 - a. Slide 1 – Explain reasoning for analysis; identify available space for building expansion with images
 - b. Slide 2 – Explain existing foundation system; explain proposed system
 - c. Slide 3 – Show simplified version of calculations defining column loads
 - d. Slide 4 – Show cost and scheduling effects; compare to original project costs
- IX. Summary Slides with Recommendations *(2 slides)*
 - a. Slide 1 – Construction Depths with tables summarizing schedule implications, cost implications, and recommendations
 - b. Slide 2 – Depth Topics with tables summarizing schedule implications, cost implications, and recommendations
- X. Acknowledgements Slide *(1 slide)*
- XI. Concluding Slide *(1 slide)*