
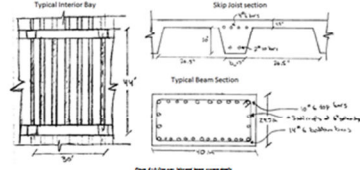


## **DRAFT PRESENTATION OUTLINE**

1. Title slide (1)
2. Introduce myself (1)
3. Presentation outline (on left hand side) (1)
4. Building Introduction
  - a. General building information (2)
    - i. Building statistics
  - b. Existing structure
    - i. Foundation (2)
    - ii. Gravity system (3)
    - iii. Lateral system (2)
5. Thesis proposal
  - a. Problem statement (1)
  - b. Proposed solution
    - i. Include goals of proposal (1)
    - ii. Overview slide of depths and breadths (1)
      1. Introduce one way joist and beam & explain reasons for choosing this
    - iii. Include criteria for evaluation (1)
  - c. Structural depth
    - i. Gravity system
      1. Beams, joists and slab design (1)
      2. 3 design iterations (3)
      3. Column design (1)
    - ii. Lateral system (4)
      1. Load combinations
      2. Wind and seismic analyses (diff base shear)
      3. Computer modeling
    - iii. Results of analysis (1)
    - iv. Effect on foundation (1)
  - d. Cost and schedule analysis (Breadth #1) (2)
  - e. Acoustical analysis (Breadth #2) (2)
6. Comparison and conclusion (2)
7. Acknowledgements, Questions and comments (1)

Total slides: 34

North Shore Equitable Building		
<ul style="list-style-type: none"> <li>Existing Building Information</li> <li>Problem Statement</li> <li>Proposed Solution</li> <li>Structural Depth</li> <li>Acoustical Analysis</li> <li>Cost &amp; Schedule Analysis</li> <li>Conclusion</li> <li>Acknowledgements &amp; Questions</li> </ul>	<ul style="list-style-type: none"> <li>• Location: Pittsburgh's North Shore</li> <li>• Owner: Continental Real-Estate</li> <li>• Occupancy Type: low rise commercial</li> <li>• Delivery method: Design build</li> <li>• Dates of construction: Oct '03 - Dec '04</li> <li>• Cost: \$70 million</li> <li>• Size: 6 stories, 180,000 square feet</li> <li>• 1 parking sublevel</li> <li>• "Turret" located in SW corner of building</li> </ul>	
Stephan Northrop		Structural Option
North Shore Equitable Building		
<ul style="list-style-type: none"> <li>Existing Building Information</li> <li>Problem Statement</li> <li>Proposed Solution</li> <li>Structural Depth</li> <li>Acoustical Analysis</li> <li>Cost &amp; Schedule Analysis</li> <li>Conclusion</li> <li>Acknowledgements &amp; Questions</li> </ul>	<p style="text-align: center;"><u>Floor System Design</u></p> <p><b>Slab:</b> 4.5" NW concrete, 4000 psi</p> <p><b>Skip Joists:</b> 7" rib width, 20" depth Spans up to 44'</p> <p><b>Beams:</b> 24.5" x 32" and 24.5" x 40" spans up to 44'</p>	 <p style="font-size: small;">Page # 1.2 (See also Section 05200-0000)</p>
Stephan Northrop		Structural Option
North Shore Equitable Building		
<ul style="list-style-type: none"> <li>Existing Building Information</li> <li>Problem Statement</li> <li>Proposed Solution</li> <li>Structural Depth</li> <li>Acoustical Analysis</li> <li>Cost &amp; Schedule Analysis</li> <li>Conclusion</li> <li>Acknowledgements &amp; Questions</li> </ul>	<p style="text-align: center;"><u>Building Cost Comparison</u></p> <p><b>Composite steel floor system</b></p> <ul style="list-style-type: none"> <li>• Cost of steel floor system per Sq. Ft.</li> <li>• No formwork needed</li> <li>• Additional fireproofing necessary</li> </ul> <p><b>Concrete joist and beam system</b></p> <ul style="list-style-type: none"> <li>• Cost of concrete floor system per Sq. Ft.</li> <li>• Cost of formwork</li> <li>• No additional fireproofing needed</li> </ul>	<div style="border: 1px solid black; padding: 20px; width: fit-content; margin: auto;"> <p>May include a chart or graph of system costs here</p> </div>
Stephan Northrop		Structural Option