

# VIRGINIA ADVANCED SHIPBUILDING & CARRIER INTEGRATION CENTER

NEWPORT NEWS, VA

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Structural Option  
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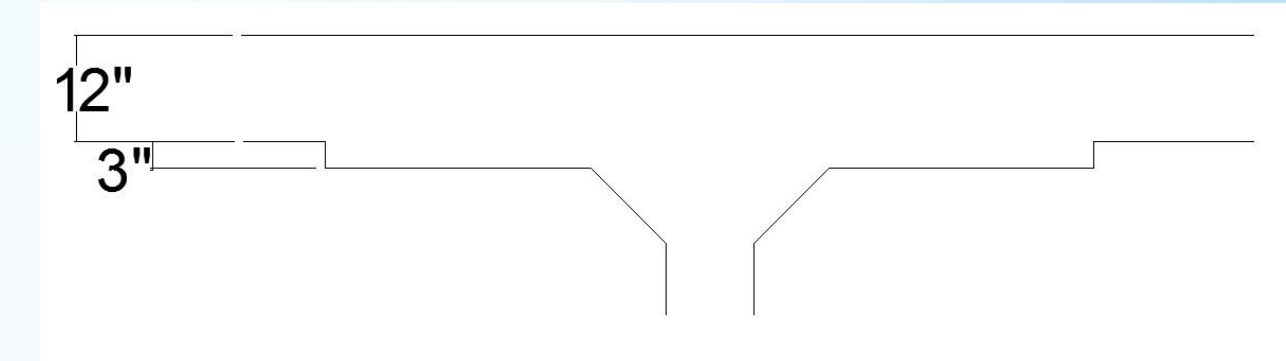


## SLAB REDESIGN

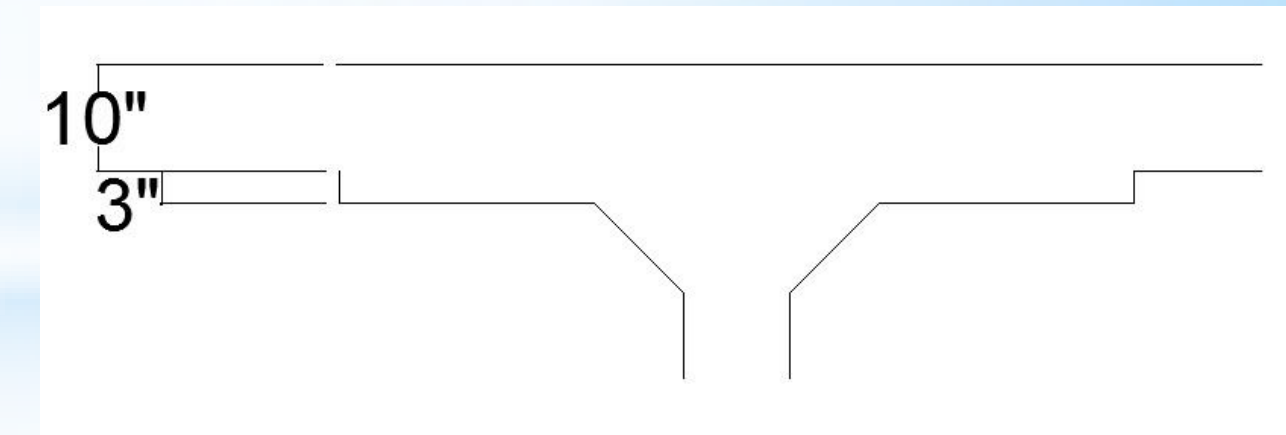
- Introduction
- Existing Structural System
- Problem Statement
- Proposed Solution
- Column Layout Redesign
- **Slab Redesign**
  - **Two-way reinforced conc.**
  - **Architectural Impact**
- Loads
- Column Strip Design
- Column Redesign
- Lateral System Redesign
- CM Breadth – Cost Analysis
- Flood Analysis

- Results
  - 12" thickness w/ 3" drop panels
  - Penthouse:
    - 10" thickness w/ 3" drop panels
  - Nearly 8"/floor reduction

### SLAB THICKNESS FLOORS 1-7



### SLAB THICKNESS PENTHOUSE



## CM BREADTH COST ANALYSIS

- Existing Structure
  - Steel
    - Weight: 13,078k
    - Cost/lb: \$/lb

Total Cost: \$



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- **CM Breadth – Cost Analysis**
  - **Existing Building Cost**
  - **Redesign Cost**
- Flood Analysis