Overview

- The Lady Washington
- Goals
- Schedule
- Mix Design
- Structural Design
- Construction
- Final Aesthetics
- Closing Thoughts
The Lady Washington

- Based on Washington’s Tall Ship
- Built in Massachusetts
- First American flagged ship to...
  - Round Cape Horn
  - Reach Puget Sound
  - Reach Japan
Goals

- Increase knowledge:
  - New faculty interactions
  - Better documentation
  - Junior involvement

- Improve quality:
  - Bow and stern
  - Gunwales
  - Keel mold repair
Schedule

- Concrete mix development
- November 23rd placing
- Cold front = 42-day cure
- Swamp testing
Mix Design

- Three Layer Design
  - Outer: SG: 1.14
  - Middle: SG: 0.73
  - Inner: SG: 0.99
- Composite: SG: 0.87
Structural Design

- Compressive test: 2 inch cubes
- Center-point loading: composite panels
- Optimal thickness: first/post-failure strength
Construction

- Mold preparation
  - Repairs
  - Inlay forms
  - Staging gunwales

- Quality control
  - Practice placing
  - Foam depth gauges
  - Bow/stern compaction
Aesthetics

- Inlays
- Stain/sealer
  - ECO friendly
  - Durable
Closing Thoughts
Thank You