



# Innovative Marina Designs

Lighter

Greener

Smarter

Cleaner



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# DESIGN

- Project Elements
  - breakwater options
  - piers and floats
  - boat sewage pumpouts
  - fuel services
- Layout
  - width
  - balance overwater coverage
  - deeper water
  - limit grounding
  - decrease shading from structures



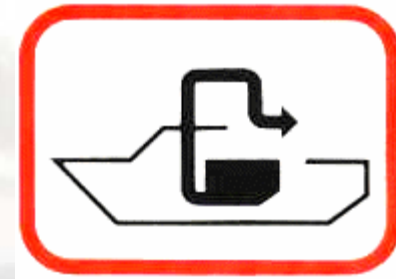
# DESIGN

- Bulkheads
  - vertical versus sloped
  - intertidal bench
  - fish rock
  - shoreline restoration opportunities
- Dredging
  - beneficial uses
  - design to minimize need for dredging



# DESIGN

- Buildings
  - green design
- Amenities
  - recycle facilities
  - secure garbage containers
  - informational signage
- Security



# MATERIALS

- Piling
  - Timber, Steel, Concrete, Plastic
- Pile facing and wraps
- Piers
- Floats
  - encased flotation
  - decking choices



# MATERIALS

- Decking
  - Grating
- Lighting
  - Shielding

