FLAGLER BEACH
FISHING PIER

WORKSHOP OBJECTIVES

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The Flagler Beach Fishing Pier is the COMMUNITY'S pier. We are here to provide unbiased support to the COMMUNITY in their pursuits associated with their pier by:

- Listening to questions from community members
- Answering those questions and sharing our experience and knowledge with projects of this type
- Collecting ideas, experiences, preferences, and concerns from community member on what they want done with their pier

Discussion Points

Background and Concepts
- Repetitive losses
- Other Atlantic Piers
- Modern Construction

Design Constraints
- Balancing act…
- Per Length and Height
- Water Depth and Wave height

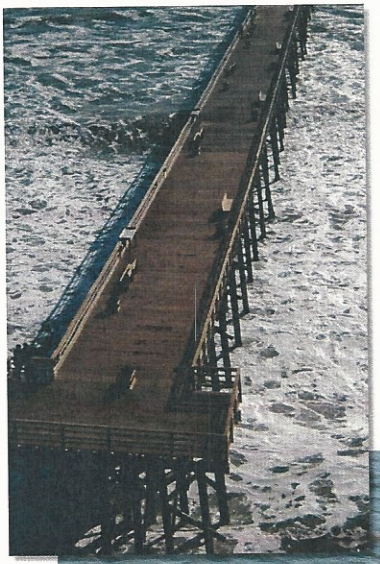
Pier Features
- End Treatments
- Fishing Amenities
- Pedestrian Amenities
- Lighting
- Accessibility

Pier Options
- Restoration
- Replacement
- Suggestions

Key Project Steps
- Process
- Timeline

Permitting
- Required Permits
- Permitting Hurdles

COMMUNITY INPUT!!!



Flagler Pier (2006)

Flagler Pier (2005)

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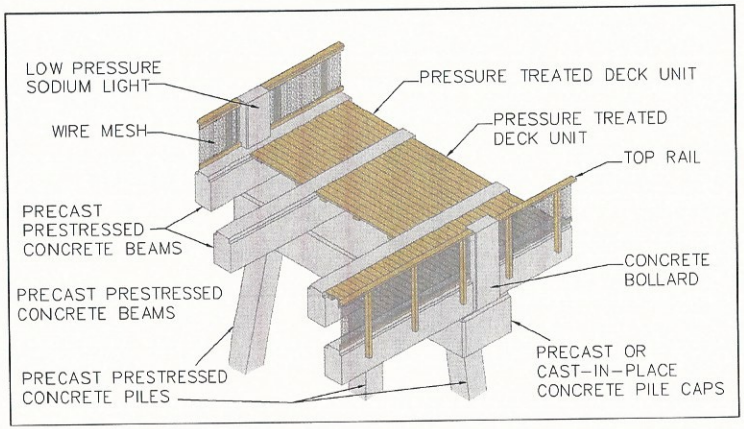
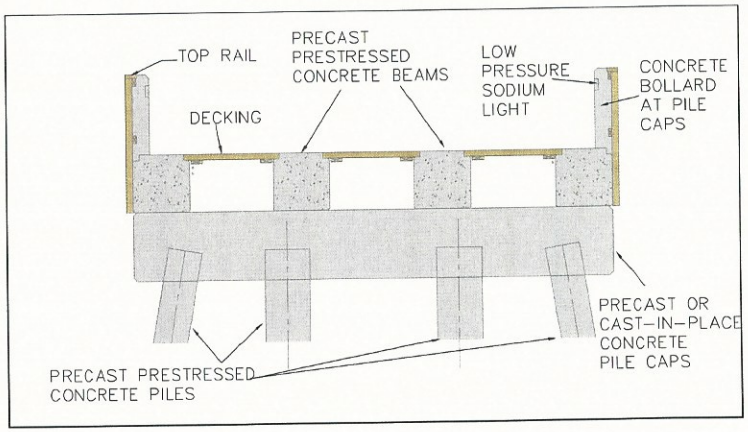
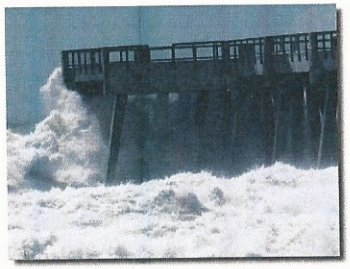
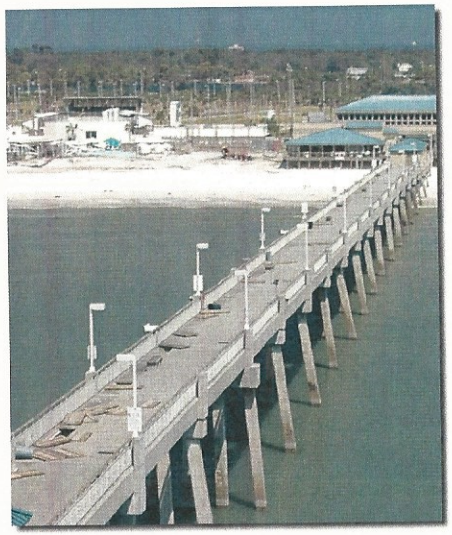
PIER DESIGN

FLAGLER BEACH FISHING PIER









Florida's Atlantic Coast Ocean Fishing Piers			
Pier Name (County)	**Year Built (Rebuilt/ Repaired)**	**Length (ft.)**	**Wood/ Concrete**
Amelia by the Sea Condominium (Nassau)	1948 (2017)	795	Wood
Jacksonville Beach (Duval)	2004 (currently closed)	1300	Concrete
St. Augustine Beach (St. Johns)	1986	605	Concrete
Flagler Beach (Flagler)	1928	800	Wood
Daytona Beach (Volusia)	1925	745	Wood
Sunglow, Daytona Beach Shores (Volusia)	1960	820	Wood
Cocoa Beach Pier (Brevard)	1963	705	Wood

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PIER LENGTH AND HEIGHT VERSUS WAVE ENVELOPE

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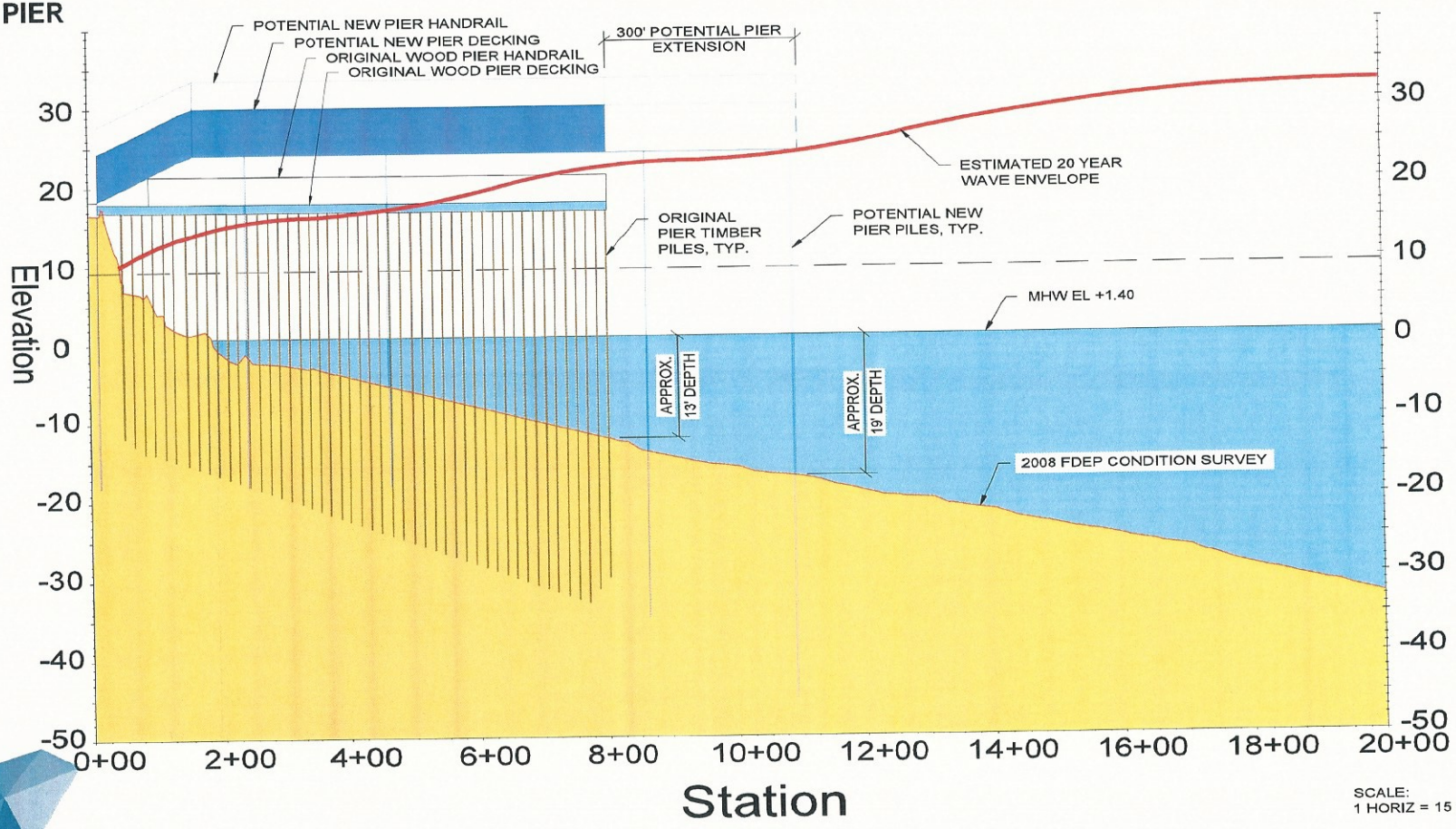

SCALE:
1 HORIZ = 15 VERT

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ALIGNMENT ALTERNATIVES

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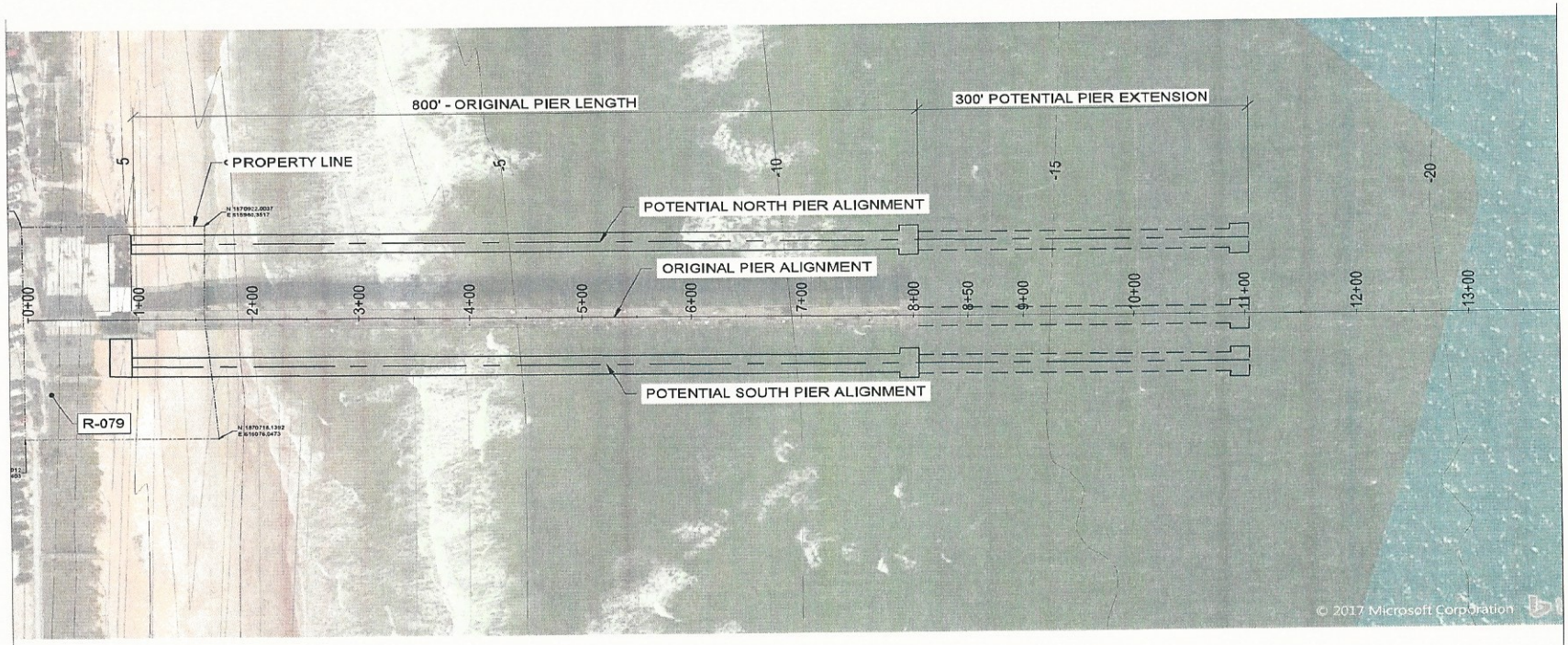

NOTES:
1. SURVEY INFORMATION TAKEN FROM SURVEY RECORD DRAWING PREPARED BY SLIGER & ASSOCIATES, INC. DATED 09-21-2012.

0 80' 160'
SCALE: 1" = 80'

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RESTORE OR REPLACE?

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FISHING PIER

Option 1: RESTORE

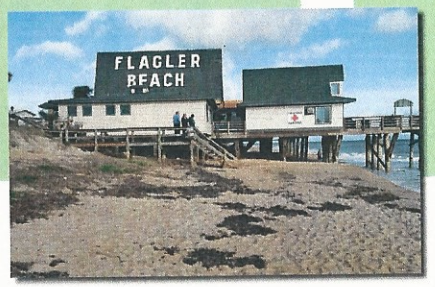
- Building Materials: Wood
- Permitting: Challenging, Difficult to Satisfy Requirements, Success - Unlikely
- Geometry: Restore to Previous Configuration
- Risk: Repetitive loss during storm events

Approximate Years & Lengths of Losses
1944 - Half of pier lost [1]
1960 - 50-ft. of pier lost [1]
1964 - 400-ft. of pier lost [1]
1984 - 440-ft. of pier lost [1]
2002 - 304-ft. of pier lost [1]
2005 - 180-ft. of pier lost [2]
2016 - 250-ft. of pier lost [2]

[1] 2014 Beach Management Plan
[2] Aerial Imagery

Option 2: REPLACE

- Building Material: Concrete Core with Wood Secondary Elements
- Permitting: More Conventional, More Likely to Satisfy Requirements, Higher Probability of Success
- Geometry: Higher-Wider-Longer
- Risk: Lower Residual Risk of Damage or Destruction due to:
  - Elevating Above Most Waves
  - More Robust Materials
  - Stronger Foundations
  - Blow out Panels
- Optional Features:
  - Added Width for Walkers
  - Benches
  - Sea Turtle Friendly Lighting
  - Shade Structures



COMMUNITY INPUT

- Public Suggestions

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OPTIONAL FEATURES

End Configuration: Octagon Shape

End Configuration: T-Shape

Viewing Station

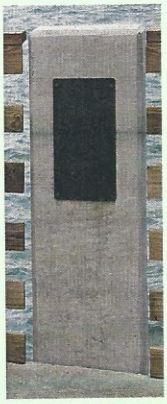
Additional Rod Holders

Benches and Trash Cans

Sponsor Names on
Blowout Panels

ADA Accessiblity

Shaded Structure



Sea Turtle Friendly Lighting

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OPTIONAL FEATURES

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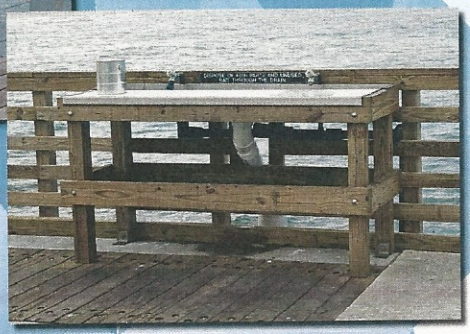
Shade Structure

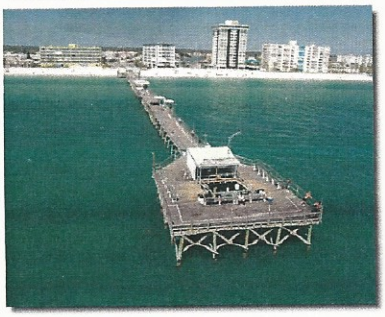
Pier Seating

Fish Cleaning Station

Gate Marquis



Fish Cleaning Station



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PIER PERMITTING

FLAGLER BEACH FISHING PIER

Single Joint Coastal Permit (JCP) Application begins both the state and federal permitting process:

- State – Florida Department of Environmental Protection JCP
- Federal – U.S. Army Corps of Engineers (Corps) Individual Permit (IP)

FDEP and Corps consult sister agencies

- FDEP
  - Division of State Lands (Sovereign
  - Submerged Lands Authorization)
  - Florida Fish and Wildlife Conservation Commission (FWC)
  - State Historic Preservation Office (SHPO)
- Corps
  - US Fish and Wildlife Service (FWS)
  - National Marine Fisheries Service (NMFS)

Species of Concern

- Marine Turtles
  - Pier lighting
  - Construction timing and marine turtle nesting
  - Hardbottom resources
  - Hooking turtles on fishing line
  - Fishing debris management plan
- Northern Right Whale
  - Winter calving grounds
  - Migratory corridor
  - Vibration from pile driving
- Migratory nesting shorebirds (Plover, Red Knot, etc.)

FWS and/or NMFS initiate Section 7 Consultation under Endangered Species Act (ESA) to ensure the project is not likely to adversely impact listed species or their habitat.

- Informal consultation – quick evaluation of potential effects, if any. Determines if formal consultation is required
- Formal consultation – results in issuance of a Biological Opinion. Officially determines whether project is likely to jeopardize listed species or their habitat
- Biological Opinion (BO) – if appropriate, includes Incidental Take Statement and provides measures to minimize impact and take of species

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Major Milestones and Estimated Timeframes for New Pier Construction

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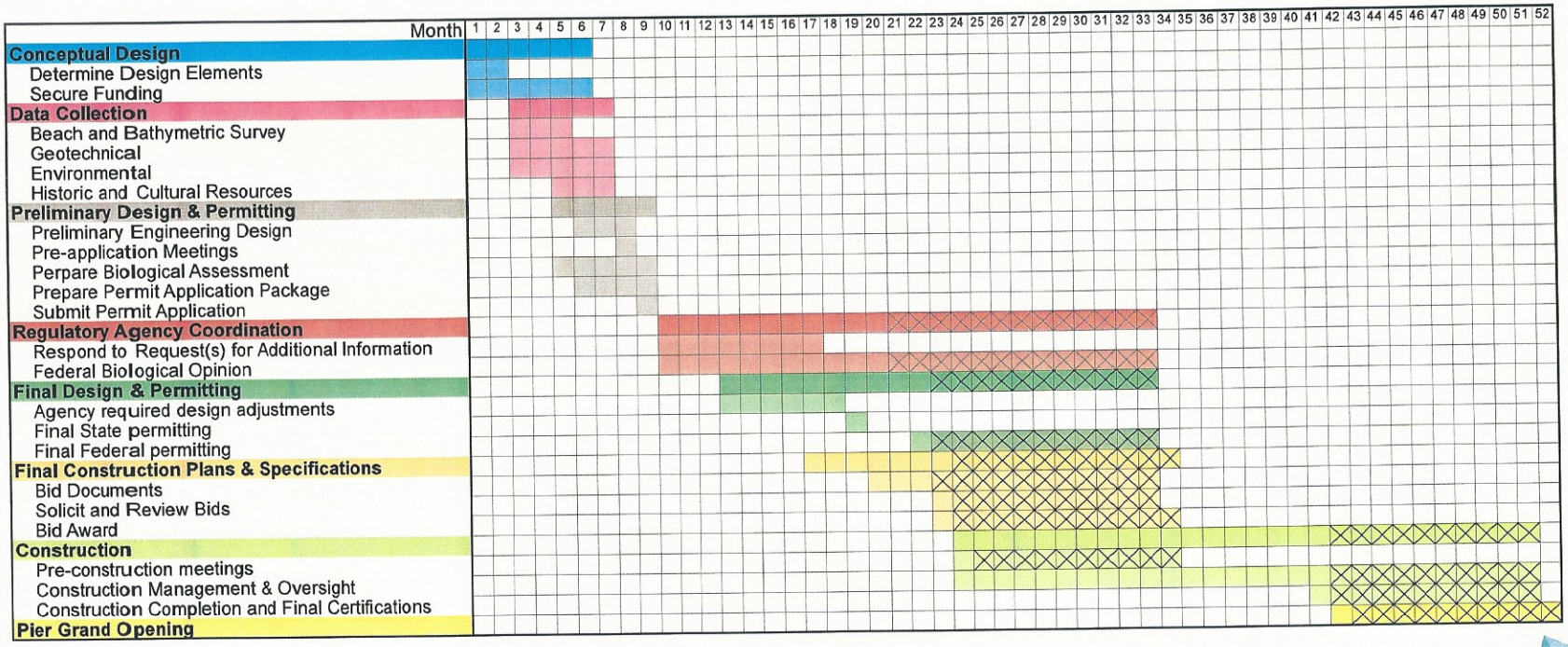

Due to uncertainties in the time it takes to obtain federal regulatory authorization, a range of time frames is presented. Hatched areas indicate the potential increase in project duration that may result from a longer federal review process.