

# Scope of Work

**Project:** Structural Repair and Partial Replacement of Pierhead (Waterway Section)

**Location:** 125 South Shore Halstead Park Fishing Pier, Holden Beach, North Carolina

**Specific Area:** From the landward end of the elevated walkway transition (above mean high water) to the outermost end of the pier head (entire Waterway-exposed portion)

## 1. Project Overview

The pier head and Waterway-exposed portion of the Halstead Park public fishing pier have experienced significant deterioration of horizontal and diagonal structural members, guardrails, handrails, piles and deck framing due to long-term exposure to marine environment, weathering, and age. Timber piles are no longer structurally sound and are included in this scope. The primary structural elements (stringers, joists, caps, piles and X-bracing) below and immediately above the deck have weathered to the point that they can no longer safely transfer design loads. The intent of this project is to rebuild the T-Head portion of the pier while maintaining the existing footprint and appearance of the pier.

## 2. Limits of Work

- Begin at the first bent Waterway-ward of the elevated walkway (first bent fully exposed to tidal waters).
- Continue to the outermost end timber or railing post.
- Work shall include all deck-level and below-deck structural members, bracing, guardrails, piles, handrails, and decking within these limits.
- Landward elevated walkway and pile caps/piles above mean high water are excluded unless specifically noted.

## 3. Scope of Repairs and Replacement

### 3.1. Demolition & Removal

- Remove and properly dispose of all deteriorated structural timber members including, but not limited to:
  - Stringers and outriggers
  - Floor joists/beams
  - Diagonal X-bracing and knee braces
  - Piles
  - Beam caps and blocking
  - Guardrails, mid-rails, top rails, and posts
  - Handrails and rub rails
  - Decking planks (full removal and replacement in repair areas)
- Remove all corroded fasteners, bolts, drift pins, and abandoned hardware.
- Cut and remove any protruding or failed elements flush with remaining sound material.

### **3.2. Structural Repairs/Replacement (Like-for-Like or Better)**

- Replace all removed members with new, marine-grade materials meeting or exceeding current North Carolina Building Code, NCDENR/CAMA, and US Army Corps of Engineers requirements.
- Minimum material specifications:
  - All structural timbers: Southern Yellow Pine, pressure-treated with CCA or ACQ to 2.5 pcf retention (AWPA UC4B or UC4C marine use) or approved equal (e.g., polymer-coated timber or fiberglass-reinforced members if approved by engineer).
  - All bolts, fasteners, and hardware: Type 316 stainless steel or hot-dipped galvanized (minimum G185 coating) with isolation washers where dissimilar metals contact.
- Replicate existing X-bracing patterns and connections unless structural engineer directs upgrades for current wind/load standards.
- Sister or reinforce any marginally compromised members only if approved, in writing by the project structural engineer.

### **3.3. Guardrail & Handrail Replacement**

- Install new 42" minimum height guardrail system meeting NCBC/2018 and NC accessibility requirements.
- Post maximum 6'-0" on center, with top rail, mid-rail, and bottom rail or equivalent to prevent 4" sphere passage.
- Replace handrails on both sides of pier with a continuous grasping surface if required (1-1/4" to 2" diameter).

### **3.4. Decking**

- Replace all decking within the limits of work with new 2x6 or 5/4x6 pressure-treated deck boards (marine grade) or approved composite/alternative material.
- Fasten with stainless steel or coated deck screws (two per board at each joist).
- Provide 1/4" spacing between boards for drainage.

### **3.5. Connections & Hardware**

- All new connections shall use 316 stainless steel thru-bolts with nuts and oversized washers (Equivalent), or approved hurricane ties/straps where applicable.
- Replace all existing drift pins with new galvanized or stainless pins as required.

## **4. Additional Work Items**

- Pressure-wash remaining sound members above deck prior to reinstallation of new decking (to remove marine growth and debris).

- Install new reflective pile markers or navigational lighting if required by USCG or NCDOT.
- Repair or replace any damaged bench seating, fish cleaning stations, or signage mounts on the pierhead (field verify quantities).

## **5. Exclusions (Not in Contractor's Scope)**

- Dredging or modification of waterway bottom.
- Electrical or plumbing repairs unless specifically added by change order.
- Landside walkway or parking lot improvements.

## **6. Permitting & Regulatory Compliance**

- Contractor shall obtain all required permits including:
  - CAMA Minor Permit (or Major if triggered)
  - US Army Corps of Engineers Nationwide Permit verification
  - Town of Holden Beach building permit
- Work shall comply with current NC State Building Code (2018 edition with local amendments), FEMA flood zone requirements, and 150 mph wind load design (Risk Category II).

## **7. Schedule & Access Restrictions**

- Work windows restricted to avoid peak summer season if required by Town.
- All work over water shall use floating barges or crane barges, no driving on pier with heavy equipment.
- Always maintain public safety barricades and signage.

## **8. Deliverables**

- As-built drawings showing all replaced members
- Material certifications and fastener schedules
- Photographic documentation of before, during, and after conditions
- Structural engineer's letter for completed repairs. or a sectional sealed by a design professional.

This Scope of Work is intended to be attached to bid documents or contracts for the Halstead Park Pier Head Rehabilitation Project. All work shall be performed by a North Carolina licensed general contractor with documented marine construction experience.  
Prepared: November 2025 For: Town of Holden Beach / Halstead Park