

SCOPE OF SERVICES

Financial Project 451280-1-52-01
SR 758 Over Sarasota Bay
Bridge No. 170061
Sarasota County, Florida

Purpose of Project: The purpose of this project is to perform repairs to Bridge No. 170061 intended to extend the bridge's service life and minimize future maintenance.

Project Limits: The project involves the bridge limits (begin to end bridge)

Scope of Services: The general scope for the project consists of concrete repairs (sealing, cracks, delamination, spalls, cathodic protection), rehabilitation of existing mechanical and electrical systems, and structural steel repairs (cracked welds in grid deck and sidewalk brackets) as well as structural steel coating replacement.

The key repairs include the following bridge components and recommendations/actions:

Concrete Bridge Railing

Condition: CS-3 (spalling / cracking)

Recommendation/action: Spall repair / crack injection.

Deck Slab

Condition: CS-3 (spall in deck near concrete filled steel grating).

Recommendation/action: Spall repair.

Concrete Bulkhead Caps

Condition: CS-3 (spalling / cracking).

Recommendation/action: Spall repair / crack injection.

Concrete Beams

Condition: CS-3 (bottom flange spalls).

Recommendation/action: Spall repair.

Bascule Piers 9 and 10

Condition: CS-3 (spalling / rusting).

Recommendation/action: Spall repair / clean and paint underside of SIP forms.

Bent Caps

Condition: CS-3 (spalls, delaminations).

Recommendation/action: Spall repair / crack repair (epoxy injection).

Bent Piles

Condition: CS-2 and CS-3 (cracks, spalls, delaminations, CP jackets sound solid above water so may remain).

Recommendation/action: Crack repair, spall repair. Install Structural CP jackets.

Steel Grid Deck

Condition: CS-3 (26 cracked grid deck welds / cracked primary bar over FBM 9-6 adjacent to MG 9-1).

Recommendation/action: Repair cracked welds.

Flanking Span Steel Crossbeam

Condition: CS-3 (corrosion / pitting).

Recommendation/action: Properly clean and paint crossbeams and bearings.

Structural Steel Bascule Span

Condition: CS-3 (cracked welds at cantilever brackets / corrosion).

Recommendation/action: Repair cracked welds / replace grid deck flooring span lock platform.

Steel Girder Coating System

Condition: CS-3 and CS-4 (localized coating system failing).

Recommendation/action: Pressure wash to remove all debris and soluble salts and apply a new coating system.

Speed Reducers

Replace all seals, oil level gauges and breathers. Drain and flush both reducers. Clean and touch-up paint as needed.

Hydraulic Power Units

Recondition HPU including replacement of components approaching their service life as well as non-functioning pressure gages, (1) on each of (2) HPUs = (2) Total. Complete replacement may be required if in-kind replacement component parts are not available.

Emergency Drive

Replace automatic transfer switch, annunciator panel and associated components. Recommend replacement of generator batteries, battery charger, miscellaneous generator components. Refurbish existing generator.

Span Drive Motors

Mechanical - Recondition existing hydraulic motors. Replacement may be required if component parts are not available.

Electrical - Replace/rehabilitate hydraulic span motors and integral brakes. Recommend replacement of disconnect switches, associated conduits, wiring and termination boxes.

Span Locks

Mechanical - Recondition span locks including adjustment of (6) span lock shoes on (2) assemblies = (12) shim packs total, to meet required clearances and replacement of actuators. Replace south access platform grating which exhibits corrosion with section loss up to 100%. Clean and touch-up paint existing components to remain, as needed.

Electrical - Replace/rehabilitate span lock motors and limit switches. Recommend replacement of disconnect switches, associated conduits, wiring and termination boxes.

Trunnions

Replace Far leaf Trunnion Bearing Debris shields (2) locations total. Clean and touch-up paint existing components to remain, as needed.

Live Load Bearings

Rehabilitate and adjust live load bearings to complement span lock work and ensuring proper seating for live loads. Perform span balance testing, adjust as required for positive seating at all locations. Address near leaf north grout pad which has a crack in the vertical face and all four exhibit 5%-20% painted over section loss.

Hopkins Frame

Repair clevis base grout pads at (2) far leaf locations. Clean and touch-up paint existing components to remain, as needed.

Control Console

Replace surge suppressors, grounding, cabinets and associated electrical components. Refurbish control console with new indicator lights, pushbuttons, and switches.

Operator Facilities

Replace battery operated emergency lights, wiring conduit and update lighting systems with LED type light fixtures. Update circuit breaker panel for new lighting system.

Traffic Signals

Replace traffic signal assemblies, traffic signal lightning arrestors and associated wiring and conduits.

Conduits & Junction Boxes

Replace select deteriorated and damaged conduits cables, conduit bodies, fittings, junction boxes, pull boxes and wiring throughout the bridge.

Navigational Lights

Replace existing navigational lighting system with LED type navigation lights. Recommend replacement of associated conduits, wiring and termination boxes. Recommend adding uninterruptible power supply for navigation lighting system.

This concludes this Scope of Services.