



*JL Arnold Engineering, Inc*  
*Structural Engineers, Inc.*

**Jeff Arnold, PE, SE**  
**President**

Jeff Arnold, PE, SE has over 25 years of professional experience in the design, rehabilitation, inspection and construction of multiple major and complex bridge structures for the FDOT, Sarasota County, Charlotte County, CSX Railroad and other Public Works Agencies throughout Florida and the United States. Professional experience includes AASHTO girder bridges, steel beam and box girder bridges, bascule bridges, fender systems, MSE walls, sign structures and incidental structures.

**PROFESSIONAL ENGINEERING REGISTRATION:**

Florida (0049753), California (C-057099), Maryland (0017616), Louisiana (E-22792), Virginia (020457), South Carolina (24056), Alabama (28345)

**STRUCTURAL ENGINEERING REGISTRATION:**

Illinois (081-005743)

**EDUCATION:**

MSCE University of New Orleans, 1987

BSCE University of Illinois, 1982

**RELEVANT EXPERIENCE:**

**Specialty Structural Engineer for FTS – Flatiron, Tidewater Skanska, Tampa, FL:** Analysis and inspection of bridge formwork for all items affecting construction safety, design of bridge and culvert elements requiring modifications for field conditions in Tampa, FL.

**Specialty Structural Engineer for MCM, Miami, FL:** Analysis of girder segments and temporary shoring for the erection of 517 ft 3-span steel box girder bridge, analysis and design of temporary soldier pile retaining walls, analysis of the deck forming system and determine elevations for the deck's SIP forms for the Golden Gate Parkway over I-75 in Collier County, FL.

**Specialty Structural Engineer for Standard Concrete Products, Tampa, FL:** Value Engineering analysis of 30-inch voided piles for a two-point pick and 30-inch concrete sheet piles for the Sanibel Island Causeway Bridge replacement project. Pile analyses were designed to FDOT criteria.

**Specialty Structural Engineer for Lovin Construction, Inc, Bradenton, FL:** Design cast-in-place reinforced concrete box culverts and junction boxes for Lovin Construction, Inc. for projects in Manatee, Sarasota and Charlotte Counties. The culverts and junction boxes were designed to FDOT criteria and included quantity calculations.

**Specialty Structural Engineer for All American Concrete, Inc, Largo, FL:** Perform a value engineering redesign of the Symmes Road over Bull Frog Creek, Bridge No. 104702, Hillsborough County, FL. The Symmes Road Bridge project includes the reconstruction and widening of a 4 span continuous flat slab bridge designed to AASHTO LFRD Specifications. The bridge redesign revised battered fascia piles to plumb pile.

**Specialty Structural Engineer for VHP Enterprises, Inc, Tampa, FL:** Design of a paint containment systems for repainting the historic Hal Adams suspension bridge in Lafayette County, FL; for the repainting of twelve bridges for the South Carolina Department of Transportation, in Richland County, SC; and for the repainting of seven bridges for the Virginia Department of Transportation.

**Specialty Structural Engineer for Abhe & Svoboda, Inc, Prior Lake, MN:** Design of a paint containment systems for repainting the CR 707 Bascule Bridge and design of the tie-back system.

**Specialty Structural Engineer for Standard Concrete Products/Misener Marine Construction, Tampa, FL:** Analyze precast prestressed deck slabs for the construction of a cruise ship pier in the Grand Turks.

**Thomas B. Manuel Bridge, Martin County, Florida:** Project manager to rehabilitate the existing Thomas B. Manuel Bridge, which is inclusive of a design build project to construct a new parallel bridge for northbound traffic.



Responsible for all design and field activities to determine if the existing superstructure could be redecked to current FDOT standards; an 8 1/2 inch deck (original design was a 7 inch deck), new 32 inch F-Shape barriers, and replacing all existing steel bearings with neoprene bearings.

**Longboat Pass Bridge Inspection and Rehabilitation, Manatee County, Florida:** Project Manager to inspect and prepare rehabilitation plans for the Longboat Pass Bascule Bridge. Perform a field inspection and review of existing inspection reports to identify deficient structural members, plan preparation and an engineer's cost estimate, prepare Technical Special Provisions, shop drawing review and participation in public meetings.

**Tri-Rail Double Track, Miami/Dade, Broward and Palm Beach Counties, Florida:** Senior Bridge Engineer representing CSXT to review design plans, calculations, specifications and shop drawings of the Segment 5 and New River Bridge sections of Tri-Rail through Miami-Dade, Broward and Palm Beach Counties.

**Albee Road and Manasota Beach Road Inspection and Rehabilitation, Sarasota County, Florida:** Senior Bridge Engineer to inspect and prepare rehabilitation plans to rehabilitate these two bascule bridges. Perform the bridge's structural inspection, supervise structural repair plan preparation, perform Construction and Engineering Inspection, review and approve shop drawings and change orders.

**Treasure Island Causeway Bridges, Treasure Island, Florida:** Senior bridge engineer responsible for the design of the east and west bridge pile foundations, for the City of Treasure Island, Florida.

**Royal Park Permanent Bridge, West Palm Beach, Florida:** Senior Bridge Engineer to design the bascule piers, and review calculations for the approach spans segmental box girders and piers. This bascule bridge is to replace an existing bascule bridge with structural deficiencies that required an emergency declaration and closing 2 of 4 lanes to the existing bridge. Aesthetic requirements were significant element to incorporate into the bridge design.

**Tom Adams Bridge Inspection and Rehabilitation, Charlotte County, Florida:** Project Manager for the inspection and preparation of plans to rehabilitate the Tom Adams Bascule Bridge in Charlotte County, Florida.

**Paradise Island Bridge Rehabilitation, Nassau, Bahamas:** Project manager responsible for the in-depth inspection, report preparation and preparation of plans to rehabilitate the existing Paradise Island Bridge.

**US 231 over the Ohio River, Owensboro, Kentucky:** Senior Structural Engineer of a cable-stayed bridge with steel plate girder and AASHTO concrete I-beam approach spans. Assisted in design and analysis of concrete caisson and steel pile foundation alternatives for the main span pylons, and the design of the steel plate girder and precast prestressed concrete I-beam approach superstructures supported on reinforced concrete piers.

**John A. Roebling Bridge over the Ohio River from Covington, Kentucky to Cincinnati, Ohio:** Senior Structural Engineer for the in-depth inspection and subsequent preparation of repair plans. Participate in the bridge inspection and report preparation, supervise the preparation of three rehabilitation contracts for the reconstruction of the Ohio approach span's superstructure, rehabilitation of the suspension span's floor system and bearings, masonry repairs to the towers and anchorages, design of pedestrian stairways and perform construction inspection as needed. The bridge is 2,162 feet long and the suspension spans total 1,643 feet; it is listed as a national landmark with the National Register of Historic Places.

**CSXT New River Bridge, Ft. Lauderdale, Florida:** Project Manager for the inspection and repairs of structural and mechanical elements for this rolling leaf bascule bridge. The inspection identified fatigue cracks in fracture critical members and recommended CSXT take emergency corrective action. From declaring an emergency through repair completion took less than two weeks for which I was on site to assist with the structural repairs.

**South Capitol Street Bridge, Washington, D.C:** Project Manager for the mechanical and electrical facilities inspection of a 386-foot swing span bridge. Assist with the mechanical facilities inspection, supervise the electrical facilities inspection, prepare an inspection report describing existing electrical and mechanical facilities conditions, recommending repair or replacement of parts, and prepare a cost estimate of recommended repairs.

**Washington Metropolitan Area Transit Authority, Washington, D.C.:** Project Engineer to identify all fracture critical members in 40 transit structures, one highway structure, and four pedestrian structures. Prepare inspection



reports recommending both short-term and long-term repairs to reduce susceptibility to fatigue crack initiation. Supervise short-term repairs to five transit structures identified with significant fatigue sensitive details. Structural Engineer for the bearing replacement of two through-plate girder structures including the design of new bearings, determining jacking loads required, and specified the jacking sequence for the bearing replacement.