

eligible under Criterion C in the area of Engineering as an example of a multiple-span arch deck bridge designed by the Luten Bridge Company.



Photo 5-18. Philippe Parkway Bridge, Pinellas County (No. 150009)

Philippe Parkway over Mullet Creek

Pinellas County

FDOT #150009, 8PI8742

This 1926 arch deck bridge carries Philippe Parkway over Mullet Creek in Safety Harbor. It was designed and constructed by the Luten Bridge Company, as designated by the plaques on the northwest and southeast corners of the railings reading “1926 Luten Bridge Co. York, PA.” The 57-foot long, single-span, reinforced concrete arch deck bridge features a Neoclassical Revival style balustrade along its western railing and a simple rectangular concrete balustrade along its eastern railing. Five lampposts stand atop each railing. In 2007, the City of Safety

Harbor enhanced this bridge to serve as the northern gateway into the city. These enhancements included restoring the historic appearance of the bridge, stamping the roadway surface with a brick pattern, and adding bollocks along the sidewalk to protect pedestrians from automobile traffic.

This bridge retains its historic physical integrity and is an excellent example of a Luten bridge. Therefore, it was determined NRHP-eligible during the 2000 survey under Criterion C in the areas of Architecture and Engineering as an example of an early arch deck bridge designed with Neoclassical Revival style features by the Luten Bridge Company.



Photo 5-19. Moss Rainbow Arch, Pinellas County (No. 150113)

Moss Rainbow Arch

Pinellas County

FDOT #150113, 8PI8730

The Moss Rainbow Arch carries Coachman Road (SR-590) over Alligator Creek. It was erected in 1927 by the Luten Bridge Company, the most active and widespread builder of concrete arch bridges in Florida through the 1920s. Made of reinforced concrete, the 37-foot long, single-span bridge uses a design in which the arch springs from the abutment and passes through the railing to cross over the waterway. Hangers suspended from the arch connect with the

floor beams that support the concrete deck. While the design is believed to have the advantage of permitting the floor to expand and contract, it makes widening the roadway virtually impossible.

This rainbow arch, a type of reinforced concrete through arch, is the only one of its type in Florida. Similar bridges, including the Luten-designed Liberty Street Bridge in Jefferson County, Ohio and the Big Soldier Creek Bridge in Shawnee County, Kansas are among the few surviving examples of this type nationwide.¹¹² As a bridge form, the rainbow arch, also known as the Marsh arch, primarily owed its design and promotion, as well as its construction in various states of the Midwest, to engineer and bridge builder James Marsh of Iowa. Although the Luten Bridge Company seems to have constructed a number of rainbow arch bridges in southeastern states, including Virginia and West Virginia, the use of this design by Luten was surprising given that Luten and Marsh were great rivals in bridge building, as well as personal foes. They battled long and hard in the courts about patent rights on concrete designs and quarreled about proper conduct by professional men.

The Moss Rainbow Arch retains its historic physical integrity, and was determined NRHP-eligible during the 2000 survey. It is considered eligible under Criterion C in the area of Engineering as the only example of a through arch in Florida and for its association with the Luten Bridge Company, and under Criterion C in the area of Architecture for the aesthetics of its design.

Luten “Half-Arch” Bridge

Pinellas County
FDOT #159901, 8PI8749

A unique and historically important bridge stands on a private drive over Ike’s Creek (now Golf Course Creek) in Belleair. Built in 1915 by the Luten Bridge Company, it once controlled the entranceway to the 600-room Belleview Hotel – a vast, luxurious resort developed by railroad magnate Henry B. Plant. The complex later became the Belleview Biltmore Casino, regarded by many as the grandest resort on Florida’s Gulf Coast.



**Photo 5-20. Luten “Half-Arch” Bridge, Pinellas County
(No. 159901)**

In what was then an experimental project, pioneer designer and builder of reinforced concrete bridges Daniel B. Luten constructed the bridge with a 46-foot main span and two half-spans of 23 feet each. While the half-arches appear to be cantilevered, Luten made them as true arches, meaning they are supported by abutments. He claimed to have achieved stability, greater efficiency in the use of materials, as well, as a more pleasing appearance in crossing the ravine at Belleview. It is not known if he built any others like this in the nation. No others are believed to have been built in Florida.

Keeping with Luten’s desire for an artistic appearance, the structure possessed a classical balustrade and decorative lampposts at each corner of the entrances. Later, perhaps at the time a new bridge was built

¹¹² “Historic Bridges of the U.S.” Accessed at: www.bridgehunter.com.