



**NASA 1 (3), WALLOPS ISLAND
CAUSEWAY BRIDGE OVER CAT
CREEK**
Wallops Island, VA

Work / Activity 1

Concrete Repairs

Work / Activity 2

CFRP



Description of the work

Wallops Island Causeway Bridge owned by the FHWA and constructed in 1959, is a twenty-one span cast-in place concrete deck bridge, consisting of twenty 60' long spans and one 83'-6" long span totaling 1283'-6" long. The structure was rehabilitated in 1986. During an inspection conducted in December 2011, numerous areas of concrete delamination and surface spalling were observed as well as several deficiencies to the post-tensioning system on spans 8 and 11. Furthermore recommended repairs were based on prolonging the life of the bridge for another ten years.

Freyssinet Mission

Freyssinet, Inc. was awarded the project on June 5, 2013 after full and open competition. The work consisted of concrete repairs and restoration to the deck (surface and underside) substructure (Beam, pier caps, and columns) and post-tensioning strands, with the installation of a beam strengthening system using carbon fiber (4,256 SF of CFRP and 9,305 SF of unidirectional GFRP) and other miscellaneous repair works.

Freyssinet, Inc. installed a SafeSpan platform system under the bridge to be able to access the underside of the bridge at all time. Since most of the work was performed during the winter months while maintaining production targets, a need to keep the workers in a safe environment and to ensure all work areas were at proper temperature to receive material application, Freyssinet, Inc. installed a heating system as shown on the bottom picture.

General Contractor : Freyssinet, Inc.
Owner : NASA
Administrator: Federal Highway Administration

Subsidiaries :

Beginning of works : 08/2013
End of works : 06/2014

