

REHABILITATION OF FRANCIS SCOTT KEY BRIDGE
FROM ROSSLYN, ARLINGTON, VIRGINIA TO GEORGETOWN WASHINGTON, DC
DC Contract No.: DCKA-2014-C-0074

FAP No.: BH-1104 (013)

CONSTRUCTION MANAGER'S
WEEKLY PROGRESS REPORT
From 12/25/2016 to 12/31/2016

Project Website: www.keybridgeproject.com



1. EXECUTIVE SUMMARY

Project Description:

The AECOM Construction Management and Inspection team is providing construction and inspection services for the Rehabilitation of the Francis Scott Key Bridge over the Potomac River (Bridge No. 0007). This Francis Scott Key Bridge, built in 1929 is a historic 1,781-foot long reinforced concrete, open-spandrel arch bridge consisting of eight spans over the George Washington Parkway, Potomac River, Whitehurst Freeway and C&O Canal. The bridge not only served as a major commuter route into Washington, DC, but it also was listed on the National Register of Historic Place, which required coordination with the National Park Service since it spanned the C&O Canal and George Washington Parkway. This rehabilitation project is to restore the deteriorated portions of the structure, improving its structural integrity for another 30 years while maintaining those architectural features which contribute to its historical significance. The repair plans include conventional concrete patching repairs as well as strengthening with carbon fiber reinforced polymer reinforcing bars and sheeting materials. The construction cost is estimated to be approximately \$14.5 million.

The scope of the construction work includes the following:

1. Installing pedestrian/bicycle detection loops and warning flashers on the Bridge at the ramp to eastbound Whitehurst Freeway.
2. Cleaning and painting the existing steel pedestrian railing on the bridge.
3. Removing the concrete bollards from the east sidewalk at the east ramp exit.
4. Removing and installing new street light poles on the bridge.
5. Removing and resetting portion of the precast concrete traffic barrier on the Bridge.
6. Repairing the precast concrete traffic barrier and grout pads and the Northwest concrete traffic barrier end post.
7. Strengthening the deck overhangs with carbon fiber reinforced polymer bars.
8. Repairing the concrete wearing surface on the bridge.
9. Repairing grout pockets at the post-tensioned deck hold down bolts.
10. Replacing the non-armored expansion joint seal (B-0007 and East Ramp).
11. Replacing the armored expansion joint seals (B-0007 and East Ramp)
12. Overlaying the right lanes (inbound and outbound directions) on the bridge with a high molecular weight methacrylate resin (HMWM) overlay; Milling and overlaying the Rosslyn approach structure with a very high early strength latex-modified concrete (LMC-VE).
13. Cleaning debris from all bridge deck drainage scuppers and pier chambers and Removing and replacing the Bridge deck drainage downspout.
14. Rehabilitating the support for a 30-inch Washington Aqueduct water main on the bridge.
15. Repairing portions of the concrete encased and the reinforced concrete floor beams; Cleaning and painting the exposed end of the steel floor beams.
16. Replacing failed concrete deck pedestals and Replacing portions of the utility gallery floor slabs full depth.
17. Repairing portions of the concrete superstructure, including but not limited to: deck soffit, deck pedestals, spandrel arches, spandrel columns, main arches, diaphragm walls, deck slab, and arch struts.
18. Repairing portions of the concrete substructure, including the piers, abutments, abutment chambers, and wing walls and Encapsulating the pier footings with fiber reinforced polymer jackets at the waterline.
19. Removing and replacing the fixed steel access ladder at North abutment and Installing a new fixed steel access ladder at the South abutment.
20. Removing and replacing portion of chain link fencing (bridge access deterrent) on the main arches.
21. Cleaning the Bridge fascia with pressurized water and Applying an anti-graffiti treatment to portions of the piers.
22. Removing and applying new pavement markings (B-0007 and East Ramp).
23. Maintenance of pedestrian and vehicular traffic during construction of the project, including temporary lane and sidewalk closures necessary to perform the work.

2. STATUS OF CONSTRUCTION / PROGRESS SUMMARY

Progress Summary:

1. Continued efforts to setup coordination meetings with Pepco relating to ongoing utility issues with their existing facilities.
2. Continued to maintain and manage the Project SharePoint.
3. Contractor continued erection of the scaffolding system at the North abutment and pier 4 for the non-suspended (ground bearing) portion.
4. Contractor worked on color matching samples
5. Completed PCO-01 package. Package has been under review by Neil at DDOT.
6. Continued to update the project website.
7. Contractor continued working on setting up the barges and floating devices near pier 4.
8. Performed a walkthrough on the scaffold deficiencies to ensure the progress of fixing all the deficiencies.
9. Checked samples for Color and texture matching.
10. Contractor damaged overhang Pepco's cable and was fixed by Pepco's maintenance team.
11. Contractor continued installing the water/air piping system.
12. Contractor started scaffold installation at pier 4
13. Contractor did not do further concrete demolition at North abutment due to holidays.

CM Community Outreach Activities

The team visited and communicated with the key stakeholders during the week to give them project status updates and identify any concerns that they might have about the project.

Stakeholder Contact:

- No new visits made this week; However, Sean visited and spoke with Zubair Popal at Malmaison on 12/22. Zubair is happy with DDOT's efforts to be a good neighbor, but is upset with PEPCO and their lack of communication regarding their project and the negative impact of that work on his business
- Sean visited Go Puff on 12/22 and spoke with manager on duty regarding their drivers parked cars getting in the way of traffic flow and site deliveries. He assured me that they would make sure cars are not parked in a way that impedes traffic

Key Takeaways:

- Communications team will continue to develop relationships with key businesses near the bridge that can help us distribute project information to their customers
- PEPCO and DDOT coordination is still important as problems created by PEPCO's work may have negative repercussions for DDOT as opposed to PEPCO even though they may be at fault.

3. ISSUES / ACTION ITEMS

- **Ongoing Issues / Items:**
- Pepco Cable on the East Ramp Concrete Bent Columns still unresolved; Pepco confirmed the ownership of top overhead wire overhanging East Ramp piers as being theirs several weeks prior. DDOT continues to work with Pepco to determine the appropriate solutions to safely accommodate proposed work at the bent columns.
- **Action Items:** NPS issued Limited Special Use permit, and verbally provided access to the river. Contractor have since had access and been working on barges on the river.
- **New Issues / Items:** the presence of oil residue/sheen observed on surface on river between the floating dock and the river bank. Technopref had been informed and they indicated that it is not related or leaking from any equipment. They explained further that all is coming from upstream and may have been trapped at this project area with existing and old fallen trees and debris at the river bank of NPS land. This is said

to be due to the current situation at the area between the floating dock and the river bank water tends to stagnate and there is no current in this narrow section at the river bank of NPS land. Technopref has been advised to further investigate this to be sure of the source of the oil sheen.

4. MEETINGS / PROJECT COORDINATION

- Weekly coordination meeting continues with DDOT team, utility (Pepeco) meetings and updates, project progress meeting with DDOT and the contractor.
- Conference call continued to be utilized to communicate with the contractor when a physical meeting is not possible.

5. DAILY WORK PERFORMED

Monday 12/26/16

1. No work due to holidays

Tuesday 12/27/16

1. Technopref was on-site and continued working on their site staging area; continued installation of air/water pipe at North Abutment. General cleaning at the staging area on this date.
2. Handon services continued erecting scaffolding system at Pier 4. Started loading scaffold to the sectional barges. Received 6 loads of scaffold.

Wednesday 12/28/16

1. Technopref was on-site and continued working on their site staging area; continued installation of air/water pipe at North Abutment. General. Continued working on the water access ramp. Cleaning at the staging area on this date.
2. Handon services continued erecting scaffolding system at Pier 4. Continued loading scaffold to the sectional barges and relocated a sectional barge next to pier 3. Received 2 loads of scaffold.

Thursday 12/29/16

1. Technopref was on-site and continued working on their site staging area; continued installation of air/water pipe at North Abutment. General. Continued working on the water access ramp. Cleaning at the staging area on this date.
2. Handon services did not work due to weather condition.

Friday 12/30/16

1. Technopref was on-site and continued working on their site staging area; continued installation of air/water pipe at North Abutment. General. Continued working on the water access ramp. Cleaning at the staging area on this date.

2. Handon services continued erecting scaffolding system at Pier 4. Continued loading scaffold to the sectional barges and relocated a sectional barge next to pier 3. Started erecting scaffolding system at pier 3.

6. INSPECTION & MATERIAL TESTS PERFORMED

- Pay items worked this week are:
 - 000 003 Employee Training. We were on site to observe Employee Training.
- Contractor has been working on full schedule.

7. RFI's / SUBMITTALS

- **Requests For Information:**
 - None
- **Submittals:**
 - o Submittal No.059 – MasterKure CC 200 WB.
 - Forwarded to QA/QC DDOT.
 - o Submittal No. 062 – Primavera Schedule Update No.01 (November 2016)
 - Forwarded to OC&L
 - o Submittal No. 063 – Site Specific Safety Plan Addendum 2: Fall Rescue Plan
 - Forwarded to AECOM
 - o Submittal No. 066 – MOT Whitehurst Freeway
 - Forwarded to DDOT/MOT

8. CHANGE ORDERS/TASK ORDERS

- Negotiations were completed on November 02, 2016 with contractor for CO #1 items. Completed PCO-01 package. Under review by DDOT.

9. DBE or CBE PARTICIPATION SUMMARIES

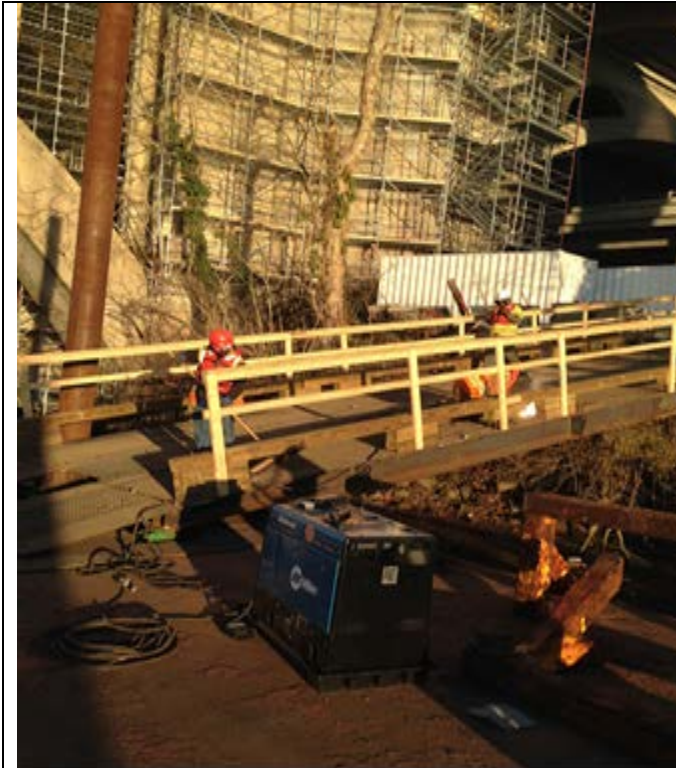
- AECOM DBE Activity:
 - o CSMI
 - Project Public out Reach.
 - o CKI
 - Aid to Construction Management and Inspection Services
- Technopref
 - o Intellect Corporation
 - Scaffolding erection
 - o Handon Diving Services Inc.
 - Capsulation of the piers

10. ACCIDENTS / INCIDENTS

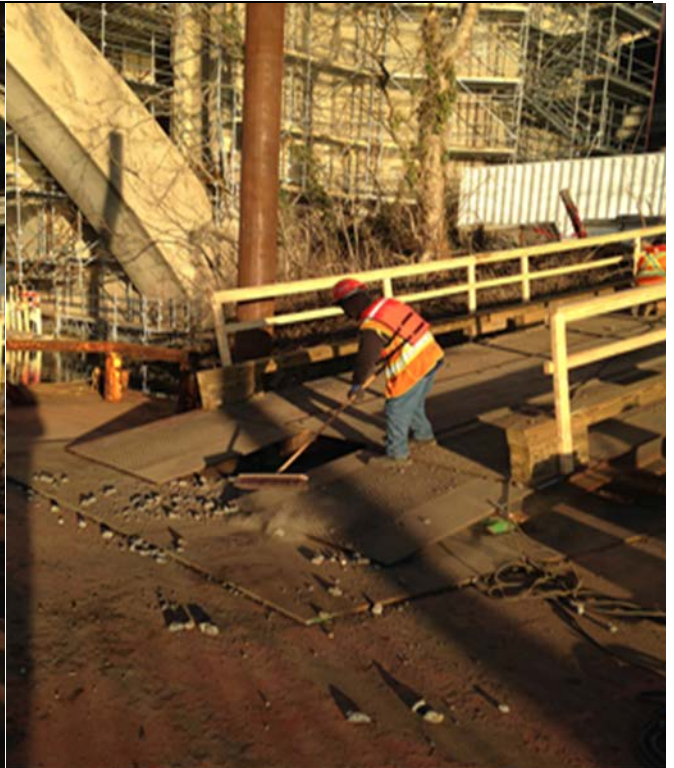
- Contractor "Technopref" damaged Pepco's over hanging cable over the first gate in front of the North abutment. Contractor was transporting a wood pallet by the use of a forklift, from inside the staging area out of gate No.2 and going outside of the work zone through Water Street and as it approached gate No.1 at the North abutment, the top of the forklift brushed the bottom of the hot cable, causing the cable to pop out and break in half.

- No injuries occurred.
- Pepco's maintenance arrived at the location at 5:30PM. Confirmed it is Pepco's cable. Reconnected and restored power to Key Bridge boathouse.

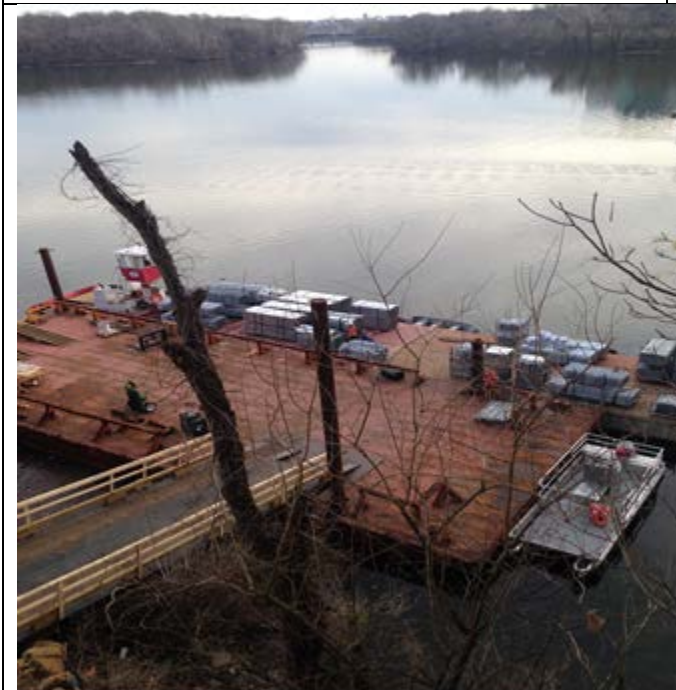
11. PHOTOS OF WORK PERFORMED THIS PERIOD



Welding wire mesh on the water access ramp.



Welding wire mesh on the water access ramp.



Loading scaffold to sectional barges



Receiving loads of scaffold



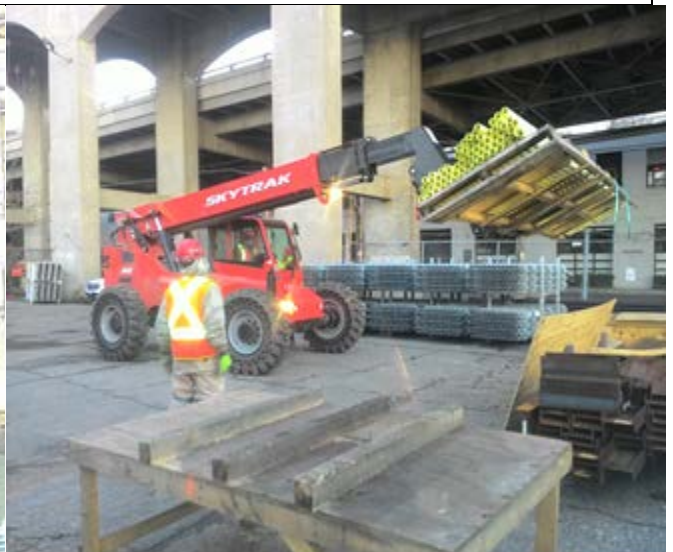
Relocating barges



Relocating barges



Scaffold instaling at pier 3



Transporting and installing water pipes for construction purposes