

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 03/26/2017 to 04/01/2017

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. Contractor continued installation of the suspended scaffold system from pier 4 to North abutment. Tagged scaffold system at pier 3. And proceeded with installation of scaffold system at pier 2
2. Completed PCO-01 package for change order #1. Processing of the resulting CO #1 has been completed at the field level and awaits execution by the Contracting Officer.
3. Continued to update the project website.
4. Contractor continued the demolition work for the concrete repairs at pier 4 and at North abutment.
5. Contractor started setting up forms for concrete repair locations at North abutment
6. Contractor started sandblasting, power washing, installing anchors and wire mesh for concrete repairs.
7. Contractor continued the replacement of the deck pedestals having completed installing the first temporary support (curing)
8. Continue to follow up on the concrete color matching efforts with the contractor.
9. Continue to coordinate with the contractor regarding their means and methods proposal for traffic barriers repairs/replacement. Field test trial is scheduled for April 05, 2017. Means and method already submitted by the contractor for review.
10. Coordinating meetings between Technopref and their sub (Fibrwrap) regarding questions and clarification for field work. And also between DDOT and JMT regarding RFI responses
11. Continued coordination with Pepco regarding their work schedule; Next meeting is scheduled for April 7, 2017

12. CM Community Outreach Activities

The team 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:

- Corresponded with Jason Freeze, NPS and Portia Sampson-Knapp, Boating In on 3/28 about the feasibility of moving Key Bridge Boathouse floating dock further upstream to reduce the potential for interference with construction. They requested more information on our request.
- Visited Key Bridge Boathouse on 3/29 to assess options for reconfiguring the floating dock. Talked with contractor onsite about reconfiguration options
- Spoke with Mark Davis, George Washington University crew coach on 3/31 regarding the George Washington Invitational Regatta on April 6-8. I let Coach Davis know that we were aware of the special requirements for this event and that the contractor has plans in place to avoid interference with the event. Followed up conversation with an email with contact information
- Corresponded with Dan Engler, Bethesda-Chevy Chase High School crew coach on 3/31 to give him an update on the bridge project in advance of his upcoming regatta
- Corresponded with Matthew Grau, Woodrow Wilson High School crew coach on 3/31 to give him an update on the bridge project in advance of his upcoming regatta
- Ongoing coordination with Greg King, Thompson's Boat Center, regarding spring racing and regattas
- Visited Key Bridge Boathouse on 3/30 with Technopref to discuss the changes they would like to make to the floating dock in advance of my correspondence with Jason Freeze, NPS and Portia Sampson-Knapp, Boating In on 3/30

Notes:

- Prepared Traffic Advisory for 4/5 off peak lane closure on the Key Bridge
- Project collateral submitted to DDOT on 2/24 is awaiting review by DDOT. Items including e-blast text and FAQs document, provided content and project rack card
- Posted weekly report to website and updated two week look ahead schedule

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

3. ISSUES / ACTION ITEMS

- **Ongoing Issues / Items:**
- Pepco Cable on the East Ramp Concrete Bent Columns still unresolved although Pepco confirmed the ownership of overhead wires overhanging East Ramp piers as being theirs for some weeks now. DDOT continues to work with Pepco to determine the appropriate solutions to safely accommodate proposed work at the bent columns. On-site meeting on Monday February 06, 2017 and Pepco indicated that cables cannot be relocated until the new underground cables are in place. See item #9 above (Progress Summary) for further details on this activity.
- Technopref remaindered of its obligations under the Contract and requested by DDOT to summarize and submit supposed claimed "additional" costs, in an amount not to exceed \$35,000 as stipulated in the January 24, 2017 letter. Technopref has since submitted the requested costs and is currently being reviewed for merit.
- **Action Items:** NPS issued Limited Special Use permit, and verbally provided access to the river. Contractor has since had access and been working on barges on the river unimpeded. Hardcopy permit still awaited although does not impact progress of contractor's operations on site.
- **New Issues / Items:** None, except as noted elsewhere in this report.

4. MEETINGS / PROJECT COORDINATION

- Conference call continued to be utilized to communicate with the contractor when a physical meeting is not possible.
- Weekly coordination meetings continue with DDOT team, project progress meetings with DDOT and the contractor.
- On-going meetings as needed with DC Water and Washington Aqueduct regarding the work associated with the 30 inch Water Main and the 16 inch water pipe

5. DAILY WORK PERFORMED**Monday 03/27/17**

1. Technopref was on-site and continued cleaning at the staging area. Miscellaneous work around staging area
2. Handon services continued erecting scaffolding system at Span C. Continued loading scaffold materials on barge.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at Pier 4. continued sandblasting, power washing, installing anchors and wire mesh for type 1 repair and installation of form work

Tuesday 03/28/17

1. Technopref was on-site and continued cleaning at the staging area. Miscellaneous work around staging area
2. Handon services continued erecting scaffolding system at Span C. Continued loading scaffold materials on barge.

3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at Pier 4. continued sandblasting, power washing, installing anchors and wire mesh for type 1 repair and installation of form work

Wednesday 03/29/17

1. Technopref was on-site and continued cleaning at the staging area. Miscellaneous work around staging area
2. Handon services continued erecting scaffolding system at Span C. Continued loading scaffold materials on barge.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at Pier 4. continued sandblasting, power washing, installing anchors and wire mesh for type 1 repair and installation of form work

Thursday 03/30/17

1. Technopref was on-site and continued cleaning at the staging area. Miscellaneous work around staging area
2. Handon services continued erecting scaffolding system at Span C. Continued loading scaffold materials on barge.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at Pier 4. continued sandblasting, power washing, installing anchors and wire mesh for type 1 repair and installation of form work

Friday 03/31/17

1. Technopref was on-site and continued cleaning at the staging area. Miscellaneous work around staging area
2. Handon services continued erecting scaffolding system at Span C. Continued loading scaffold materials on barge.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at Pier 4. continued sandblasting, power washing, installing anchors and wire mesh for type 1 repair and installation of form work

6. INSPECTION & MATERIAL TESTS PERFORMED

- Pay items worked this week are:
 - 000 003 Employee Training. We were on site to observe Employee Training.

7. RFI's / SUBMITTALS

- **Requests For Information:**
 - o RFI No. 038B – Seeking Repair type for areas beyond 6 Inches - Clarification and Repair Detail in Reference to JMT's response to RFI 38A
 - Forwarded to JMT

- RFI No. 039A – Exterior chamber wall
 - Forwarded to JMT
- RFI No. 041 – Pier 2 Encapsulation
 - Forwarded to JMT
- RFI No. 044 – Pier Encapsulation
 - Forwarded to JMT
- RFI No. 045 – Deck Pedestal Forming and rebar coverage
 - Forwarded to JMT
- RFI No. 046 – Deck Pedestal Repairs
 - Forwarded to JMT

- **Submittals:**

- Submittal No. 094 – Supplement Submittal for Glass Fiber Wrap Material (Sub 64)
 - Forwarded to DDOT/QAQC
- Submittal No. 096 – Pier Encapsulation
 - Forwarded to DDOT/QAQC
- Submittal No. 097 – MOT Key Bridge – Detour of pedestrian (railing and/or concrete barriers)
 - Forwarded to DDOT/MOT
- Submittal No. 099 – Supplement Submittal for SikaGrout 328
 - Forwarded to DDOT/QAQC
- Submittal No. 100 – RB1600 system green rebar epoxy
 - Forwarded to DDOT/QAQC

8. CHANGE ORDERS/TASK ORDERS

- Change Order #1 only processed to date. Package completed on the field level and currently awaits final execution by the Contracting Office.

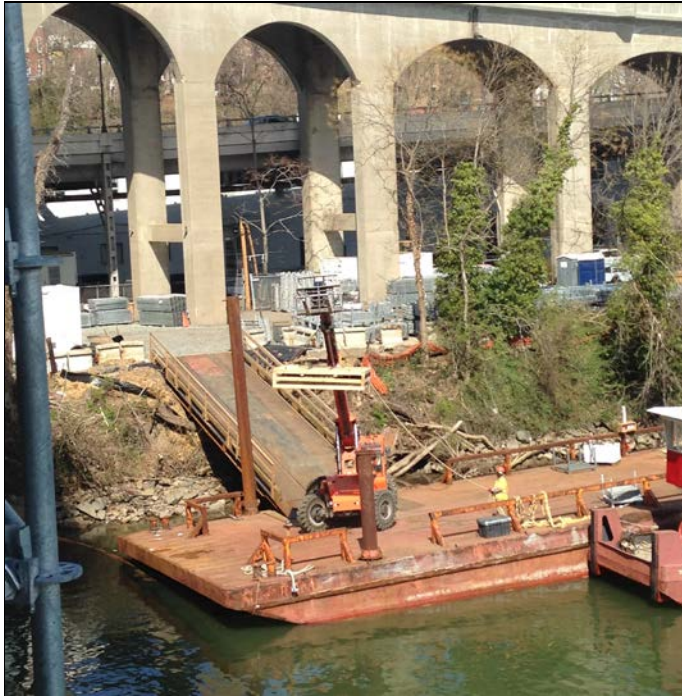
9. DBE or CBE PARTICIPATION SUMMARIES

- AECOM DBE Activity:
 - CSMI
 - Project Public out Reach.
 - CKI
 - Aid to Construction Management and Inspection Services
- Technopref
 - Handon Diving Services Inc.

10. ACCIDENTS / INCIDENTS

There were no reported personnel or safety accidents within the limits of the project during this reporting period.

11. PHOTOS OF WORK PERFORMED THIS PERIOD



Miscellaneous work around staging area



Loading scaffold on barges



Concrete sandblasting at North abutment



Setting up forms for concrete repair at North abutment



Concrete sounding at pier 4



Sandblasting contamination setup for concrete repair



Concrete demoliting at pier 4



Sand blast area of concrete repair at North abutment



Sand blast area of concrete repair at North abutment



Concrete demolition operation at pier 4



Concrete demolition operation at pier 4 and preparing for type 1 repair