

**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)**

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**CONSTRUCTION MANAGER'S**  
**WEEKLY PROGRESS REPORT**  
**From 02/12/2017 to 02/18/2017**

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**Project Website:** [www.keybridgeproject.com](http://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 installation of suspended scaffold system from North abutment to pier 4. Continued the installation of the protective nets from North abutment towards pier 4
4. Completed PCO-01 package. Package has been reviewed by DDOT and sent to Technopref for signature. Technopref requested language adjustment. DDOT rejects the request. Technopref signed PCO-01.
5. Continued to update the project website.
6. Contractor continued the demolition process for the concrete repairs at North abutment and pier 4.
7. Contractor continued removing delaminated cracked concrete and the CM team continues to monitor and work with the contractor in accordance with the CO letter to the contractor on this issue.
8. JMT engineer was on site to inspect East ramp bent 16A North abutment and also bearing in span B (North abutment) to gather information to answer RFI's related to these locations.
9. Washington aqueduct was on site to observe the sandblasting test for the water main support beams.

### **10. 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:**

- Sean met with Greg King at Thompson Boat Center on 2/16. Competitive rowing season is schedule to start on 3/25 and will run through 5/21. Regattas and other events are held every weekend on the river. These events use spans D and F and span F is the most critical span for races. Discussed plans for meeting with contractor and outreach team on March 1<sup>st</sup> or 2<sup>nd</sup> to discuss coordination with construction activities to mitigate any possible impacts. Greg is to confirm time next week.
- Sean met with Portia Sampson-Knapp of Boating In on 2/16 regarding the Key Bridge Boathouse dock. The dock will be installed at the boathouse in mid-March. Discussed coordination with our team on dock placement. Portia will follow up once date is confirmed.
- Sean spoke with Will Handsfield at the Georgetown BID on 2/15 to discuss the outreach team attending the next Boat House Coalition meeting in March. Will is working to confirm our attendance and will follow up with details.

#### **Notes:**

- Collateral developed is pending submission and review by DDOT including e-blast text and FAQs document, provided content and project rack card

#### **Key Takeaways:**

- 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. Some stakeholders now appear to be having an understanding of who is doing the trenching work on site.
- 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.
- Concerns raised by contractor regarding safety of personnel and public from concrete falling freely from overhead at pier 4 and elsewhere during an impromptu meeting at the field office. At the advice of DDOT following that meeting, Technopref submitted a letter in follow up to their safety concerns, titled, "Serious Safety Issue and Differing Site Conditions". This letter was acknowledged by DDOT and has since been responded to by DDOT addressing any concerns raised that requires attention. It is noted that the CM team had prior to the letter visited the Pier 4 location at the request of the contractor for an assessment of the alleged safety condition. No new conditions other than what was documented in the contract documents was observed by the team during the group visit; imminent concrete spalls has been identified and removed over C&O canal and over GW pkwy, However contractor continued to perform his own investigation and removal. DDOT sent Technopref a letter and reminded Technopref of its obligations under the Contract and asked to summarize and submit its "additional" costs, in an amount not to exceed \$35,000 as stipulated in the January 24, 2017 letter. The CM team continues to monitor and work with the contractor consistent with the CO letter to the contractor.
- **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 meeting continues with DDOT team, project progress meeting with DDOT and the contractor.

### 5. DAILY WORK PERFORMED

#### Monday 02/13/17

1. Technopref was on-site and continued cleaning at the staging area. Started installing beams for pedestal temporary support. Secured the chain link fence for the access to side walk at pier 4 and North abutment
2. Handon services continued erecting scaffolding system from North abutment to pier.
3. Fibrwrap was on-site but did not work due to windy condition.

#### Tuesday 02/14/17

1. Technopref was on-site and continued cleaning at the staging area. Sounding and scaling concrete at pier F. performed weekly safety meeting

2. Handon services continued erecting scaffolding system from North abutment to pier 4. Continued the installation of access to side walk at pier 4 and North abutment.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at North abutment and pier 4.
4. Mistras Group was on-site and started sounding and scaling loose concrete using hammer and at span E

**Wednesday 02/15/17**

1. Technopref was on-site and continued cleaning at the staging area. Continued installing beams for pedestal temporary support. Started installation of NPS security fence
2. Handon services continued erecting scaffolding system from North abutment to pier 4. Started installation of protective nets from North abutment to mid span C.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at North abutment. Continued demolition process for the concrete repairs at pier 4. Measurements of completed demolished areas

**Thursday 02/16/17**

1. Technopref was on-site and continued cleaning at the staging area. Continued installing beams for pedestal temporary support. Continued installation of NPS security fence.
2. Handon services continued erecting scaffolding system from North abutment to pier 4. Continued installation of protective nets from North abutment to mid span C.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at North abutment. Continued demolition process for the concrete repairs at pier 4. Measurements of completed demolished areas
4. Ionion Paint was on-site and performed a trial test for sandblasting on the water main supporting beams. The test was done in the presence of Washington aqueduct representative

**Friday 02/17/17**

1. Technopref was on-site and continued cleaning at the staging area. Continued installing beams for pedestal temporary support. Continued installation of NPS security fence. Continued scaling of delaminated concrete in span F and G
2. Handon services continued erecting scaffolding system from North abutment to pier 4. Continued installation of protective nets from North abutment to mid span C.
3. Fibrwrap was on-site and continued the demolition process for the concrete repairs at North abutment. Continued demolition process for the concrete repairs at pier 4. Measurements of completed demolished areas
- 4.

## 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:**
  - o RFI No. 032 – Compressive Strength of Shotcrete
    - Forwarded to DDOT/QAQC
  - o RFI No. 034 – Area of Concern - East Ramp Bent 16A - Top of Wall deterioration
    - Forwarded to JMT
- **Submittals:**
  - o Submittal No. 070 – MOT - George Washington Parkway
    - Forwarded to DDOT/MOT
  - o Submittal No. 083 – Blastech Safety Plan
    - Forwarded to AECOM
  - o Submittal No. 086 – Ionion Safety Plan
    - Forwarded to AECOM

## 8. CHANGE ORDERS/TASK ORDERS

- Negotiations were completed as of November 02, 2016 with contractor for CO #1 items. Completed PCO-01 package. Package has been reviewed by DDOT and sent to Technopref for signature. Technopref objects to the standard language and requested language adjustment. DDOT responded and rejected the request for language change/revision from the standard. Contractor signed the change order.

## 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

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



Installation of beams for the pedestal support system.

Temp Deck Pedestal Support beams

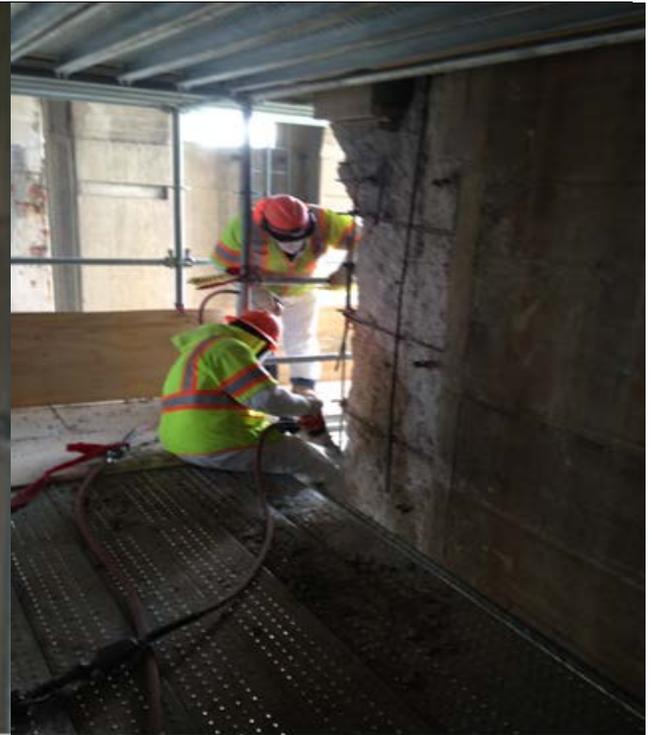


Concrete demolishing and saw-cutting at North abutment

Concrete demolishing and saw-cutting at pier 4



Concrete demolishing and saw-cutting at pier 4



Concrete demolishing and saw-cutting at pier 4



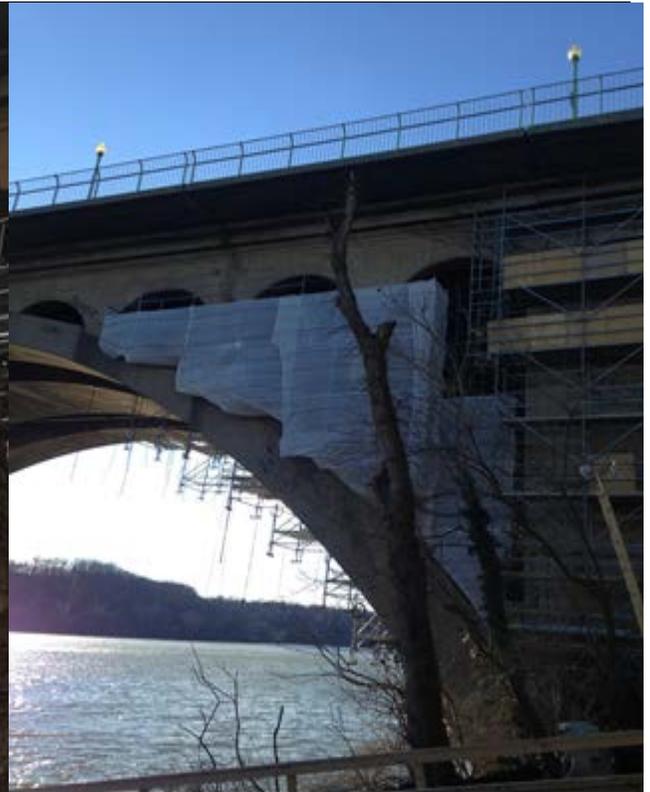
Concrete demolishing and saw-cutting at pier 4



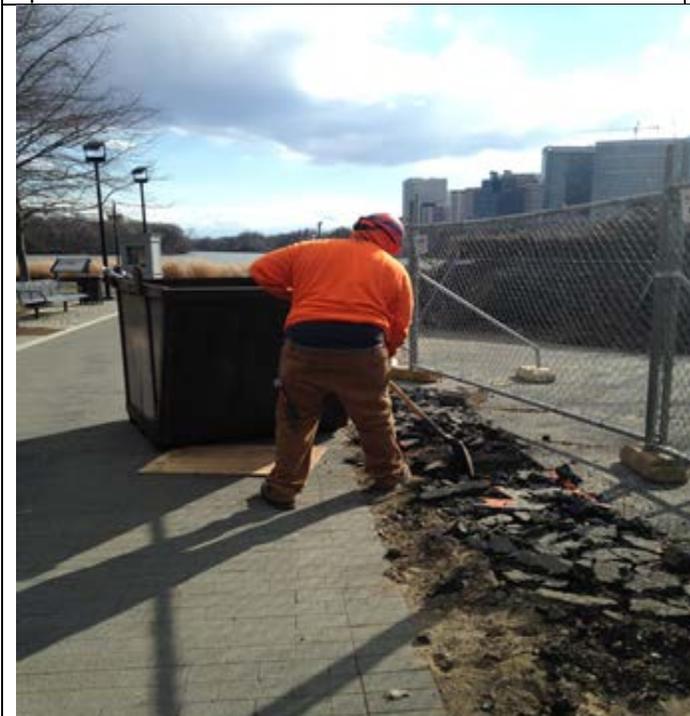
Weekly Safety Meeting Session



Installation of protective net from north abutment to mid span C



Installation of protective net from north abutment to mid span C



Installation of NPS fence



Installation of NPS fence