

REHABILITATION OF FRANCIS SCOTT KEY BRIDGE

FROM ROSSLYN, ARLINGTON, VIRGINIA TO GEORGETOWN, WASHINGTON, DC.

DC Contract No.: DCKA-2014-C-0074

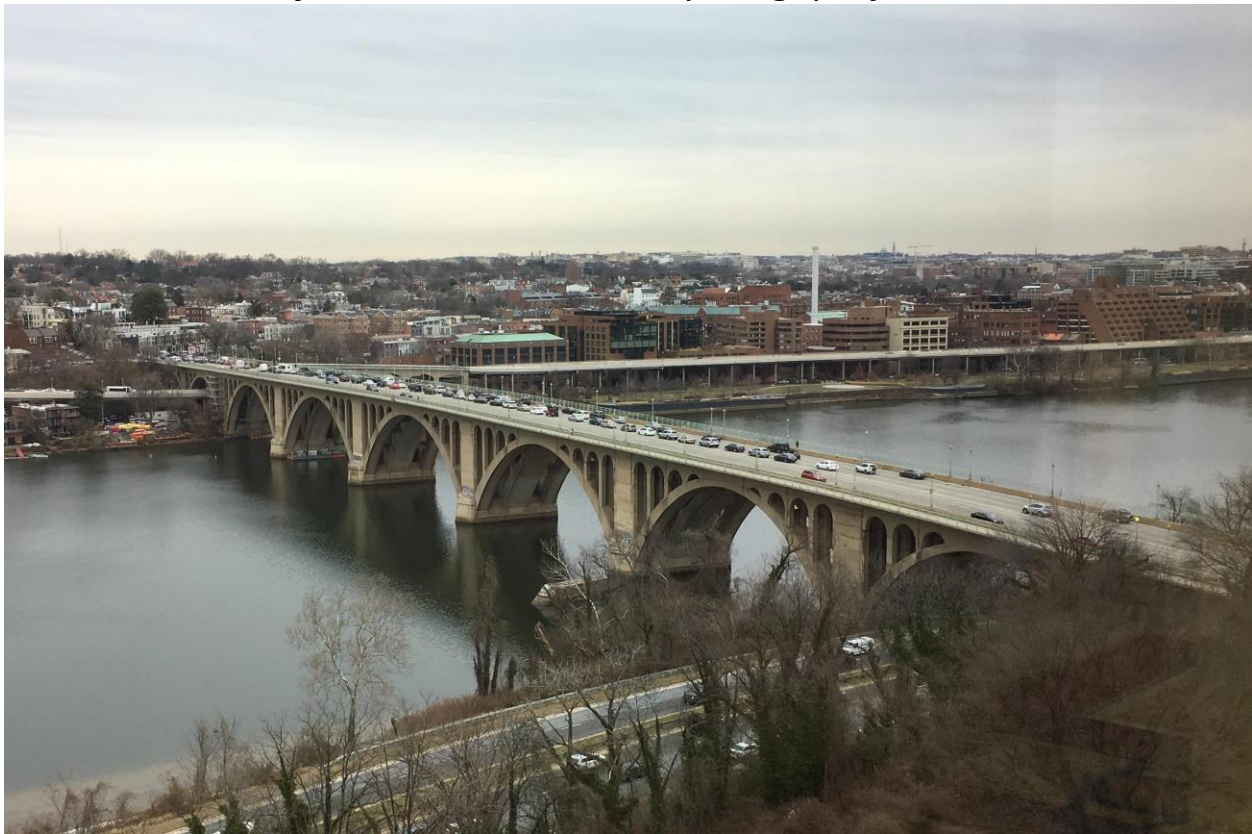
FAP No.: BH-1104 (013)

CONSTRUCTION MANAGER'S

WEEKLY PROGRESS REPORT

From 05/12/2019 to 05/18/2019

Project Website: www.keybridgeproject.com



1. EXECUTIVE SUMMARY

Project Description:

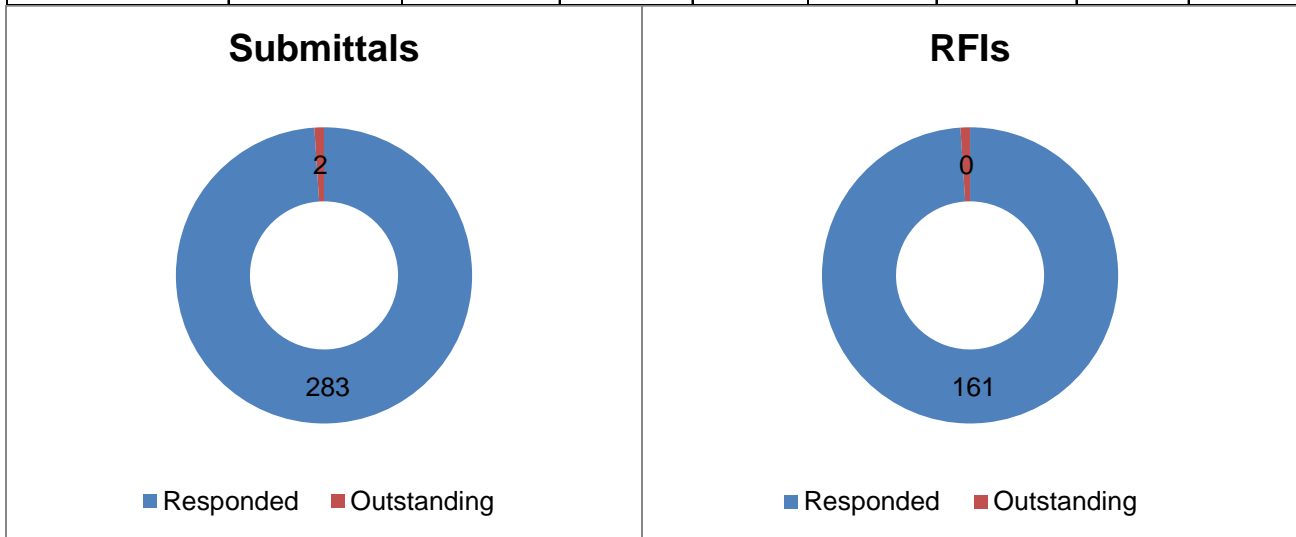
The AECOM Construction Management and Inspection team is providing construction and inspection services for the Rehabilitation of the Francis Scott Key Bridge over the Potomac River (Bridge No. 0007). Francis Scott Key Bridge, built in 1929, is a historic 1,781-foot long reinforced concrete, open-spandrel 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 Places, 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 a 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 encasement 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 the following: 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 a 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 PROJECT FUNDING AND SCHEDULE

Contractor NTP Date: 9/27/2016 working under Contractor Contract Expiration Date: Liquidated Damages Weekly Report End Date: 5/18/2019	Consultant NTP Date: 6/16/2016 Consultant Contract Expiration Date: 6/15/2017 Consultant Contract Mod Expiration Date: 6/1/2019								
Contractor	Total Value	Planned % DBE	Previous Applications for Payment	Current Application	Complete to Date				
					Previous + Current Applications	\$ Remaining in Contract	To Date DBE Utilisation		% of Budget Used
							Per Total Earnings To Date	Per Planned Total Budget	
Technopref	\$14,471,254.00		\$14,412,243.99	\$2,055,942.88	\$16,468,186.87	(\$1,996,932.87)			113.80%
Handon	\$1,012,987.78	7.00%	\$475,212.20	\$0.00	\$475,212.20	\$537,775.58	\$475,212.20	\$1,012,987.78	46.91%
Technopref Current Contract Total	\$18,071,294.44		\$14,412,243.99	\$2,055,942.88	\$16,468,186.87	\$1,603,107.57		\$0.00	91.13%
CONTRACTOR'S DBE GOAL		7.00%							
Construction Management									
AECOM (Prime)	\$3,589,180.54	62.96%	\$3,585,062.47	\$123,670.61	\$3,708,733.08	-\$119,552.54	\$3,708,733.08	\$3,589,180.54	65.06%
CSMI	\$259,312.34	4.55%	\$138,642.10	\$0.00	\$138,642.10	\$120,670.24	\$138,642.10	\$259,312.34	2.43%
CKI	\$1,399,053.29	24.54%	\$1,297,268.16	\$25,601.43	\$1,322,869.59	\$76,183.70	\$1,322,869.59	\$1,399,053.29	23.21%
OC&L	\$365,219.00	6.41%	\$337,408.77	\$11,897.30	\$349,306.07	\$15,912.93	\$349,306.07	\$365,219.00	6.13%
Roenker Bates Group	\$10,000.00	0.18%	\$9,587.50	\$0.00	\$9,587.50	\$412.50	\$9,587.50	\$10,000.00	0.17%
Direct expenses	\$77,764.22	1.36%	\$8,404.13	\$0.00	\$8,404.13	\$69,360.09	\$8,404.13	\$77,764.22	0.15%
CM-Total	\$5,700,529.39	100.00%	\$5,367,969.00	\$161,169.34	\$5,529,138.34	\$171,391.05			96.99%



Number of Submittals to Date	Number of RFIs to Date	Number of Change Orders to Date	Number of Letters Received to Date	Invoice # - Payment by DDOT to AECOM	Invoice # - Payment by DDOT to Technopref
285	161	8	79	#30	#29
Number of Submittals Responded To	Number of RFIs Responded To	Number of Change Orders Executed to Date	Number of Letters Responded To	Submitted AECOM Invoice #	Submitted Technopref Invoice #
283	161	7	48	#33	#32
Number of Submittals Outstanding	Number of RFIs Outstanding	Percent Completed from Resource Loaded Schedule	Number of Letters Outstanding	Technopref Original Contract Amount:	
2	0	91.13%	31	\$14,471,254.00	

3. STATUS OF CONSTRUCTION / PROGRESS SUMMARY

Progress Summary:

1. Concrete repair work is still in progress inside Rosslyn Approach, Span A, Span F, Pier 4 and East Ramp.
2. CM inspection team checked Navigation lights and it was functional.
3. Contractor continued dismantling scaffold system at South Abutment and Pier 2.
4. Contractor continued installing the security fences at Pier 3.
5. Contractor continued remedy work for non – armored deck joints, work done at night shift.
6. Contractor continued the Anti-graffiti removal at North Abutment, Pier 3 and Pier 2 in preparation for Anti-graffiti application.
7. Contractor continued fascia cleaning at Span B.
8. Contractor continued Pier Encapsulation at Pier 2.

1. CM Community Outreach Activities

- Communications team will continue to develop relationships with key businesses near the bridge that can help us distribute project information to their customers
- Contractor planned work activities over the weekend not to interfere with several events commencing around the project.

4. ISSUES / ACTION ITEMS

- **Ongoing Issues / Items:**

- Technopref was notified on August 2, 2018 that the navigation light on the bridge were out. Electrical crew were on site same day and navigation light were back working on the same day August 2, 2018. Inspection team continued to monitor the Bridge Navigation lights on a daily basis.
- Technopref has been notified with the issue of transporting scaffolding materials with the SKYTRAK at the C & O Canal which while in process resulted in damaging C & O Canal South side trail leaving tire tracks that will need repair. NPS, Technopref and DDOT met to discuss the issue. Technopref claimed responsibility for the damage and requested to fix the damage after finishing with work over C&O Canal. NPS agreed and requested that the work with manlift would only be happening on night shift from 7Pm to 5Am. NPS also requested to be notified with the work schedule.

- **Action Items:** N/A

- **New Issues / Items:** N/A

5. MEETINGS / PROJECT COORDINATION

- Progress meeting No 108
- Onsite visit from DOEE to observe the fascia cleaning procedure and drafting water from the Potomac river for the operation.

6. DAILY WORK PERFORMED

Sunday 05/12/19

1. No work.

Monday 05/13/05

1. Technopref (General Contractor) was on-site and continued miscellaneous cleaning activities. Continued concrete repairs at Rosslyn Approach and worked on punch list items at South Abutment. Dismantled scaffold at Pier 2. Continued Fascia cleaning at Span B. Also, provided support for their subcontractors on site.
2. Ribeiro (Sub) was on-site and continued concrete repair at Rosslyn approach and East Ramp.
3. Brocks (Sub) was on site and continued dismantling scaffold system at Mid Span G to South Abutment

Tuesday 05/14/19

1. Technopref (General Contractor) was on-site and continued miscellaneous cleaning activities. Continued concrete repairs at Rosslyn Approach. Dismantled scaffold at Pier 2. Continued Fascia cleaning at Span B. Also, provided support for their subcontractors on site. At Night work, worked on deficiency list for deck joint repair. Mobilized 2 manlifts over C&O Canal to continue work over the tow-path.
2. Ribeiro (Sub) was on-site and continued concrete repair at East Ramp.
3. Brocks (Sub) was on site and continued dismantling scaffold system at Mid Span G to South Abutment
4. Blastech (Sub) was on site and continued power washing and removal of graffiti at Pier 3 in preparation for Anti-graffiti application.
5. Suburban (Sub) was on site and continued the security fence installation at Pier 3.

Wednesday 05/15/19

1. Technopref (General Contractor) was on-site and continued miscellaneous cleaning activities. Continued concrete repairs at Rosslyn Approach. Dismantled scaffold at Pier 2. Also, provided support for their subcontractors on site. At Night work, worked on deficiency list for deck joint repair, Concrete repair at Span A and Span F.
2. Ribeiro (Sub) was on-site and continued concrete repair at East Ramp.
3. Brocks (Sub) was on site and continued dismantling scaffold system at Mid Span G to South Abutment
4. Blastech (Sub) was on site and continued power washing and removal of graffiti at Pier 1 in preparation for Anti-graffiti application.
5. Suburban (Sub) was on site and continued the security fence installation at Pier 3.

Thursday 05/16/19

1. Technopref (General Contractor) was on-site and continued miscellaneous cleaning activities. Continued concrete repairs at Rosslyn Approach. Dismantled scaffold at Pier 2. Also, provided support for their subcontractors on site. At Night work, worked on deficiency list for deck joint repair, Concrete repair at Span A and Span F.
2. Ribeiro (Sub) was on-site and continued concrete repair at East Ramp.
3. Brocks (Sub) was on site and continued dismantling scaffold system at Mid Span G to South Abutment
4. Blastech (Sub) was on site and continued power washing and removal of graffiti at Pier 1 in preparation for Anti-graffiti application.
5. Suburban (Sub) was on site and continued the security fence installation at Pier 3.

Friday 05/17/19

1. Technopref (General Contractor) was on-site and continued miscellaneous cleaning activities. Continued concrete repairs at Rosslyn Approach and Pier 4. Dismantled scaffold at Pier 2. Also, provided support for their subcontractors on site.
2. Ribeiro (Sub) was on-site and continued concrete repair at East Ramp.
3. Brocks (Sub) was on site and continued dismantling scaffold system at Mid Span G to South Abutment
4. Blastech (Sub) was on site and continued power washing and removal of graffiti at Pier 1 in preparation for Anti-graffiti application.
5. Suburban (Sub) was on site and continued the security fence installation at Pier 3.
6. Specialty Underwater Services (Sub) was on site and continued Pier Encapsulation at Pier 2.

Saturday 05/11/19

1. Technopref (General Contractor) was on-site and continued miscellaneous cleaning activities, provided support for their subcontractors on site.
2. Specialty Underwater Services (Sub) was on site and continued Pier Encapsulation at Pier 2.

7. INSPECTION & MATERIAL TESTS PERFORMED

- Performed sounding for concrete demo.
- Tested bag-mixed concrete and obtained the following results:

Date	Location	Material	Ambient Temp °F	Concrete Temp °F	Slump (Inches)	Air Content %	Concrete Specimens
05/15/2019	East Ramp	USCP Gunite	72	72	N/A	N/A	6 Cylinders

05/015/19	Level 1 bay 4 and East chamber entrance of South abutment	USCP 7000-7001+	72	72			6 cylinders
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8. RFIs / SUBMITTALS

- **Requests for Information:**
Except as noted below, there are no current unresolved/uncompleted RFIs or Submittals.
- **Submittals:**
 - Submittal No.280 - DDOE - Request to Draft Water from Potomac River for Fascia Cleaning
 - Submittal Fwd. to DOEE for review
- **RFIs:**
 - N/A

9. CHANGE ORDERS/TASK ORDERS

- Change Order # 1 was executed on June 12, 2017.
- Change Order # 2 was executed on November 13, 2017.
- Change Order # 3 was executed on August 17, 2017.
- Change Order # 4 was executed on February 22, 2018.
- Change Order # 5 was executed on May 07, 2018.
- Change Order # 6 was executed on June 15, 2018.
- Change Order # 7 was executed on April 17, 2019.

10. DBE or CBE PARTICIPATION SUMMARIES

- AECOM DBE Activity:
 - CSMI (subcontractor for AECOM) activity on the project is to provide project public outreach.
 - CKI (subcontractor for AECOM) activity on the project is aide to construction management and inspection services.
- Technopref DBE Activity:
 - Ribero activity on the project is Concrete demolition and repairs
 - Sysnet America activity on the project is the installation of the light poles
 - 3D Building supply activity on the project is to supply all the concrete materials

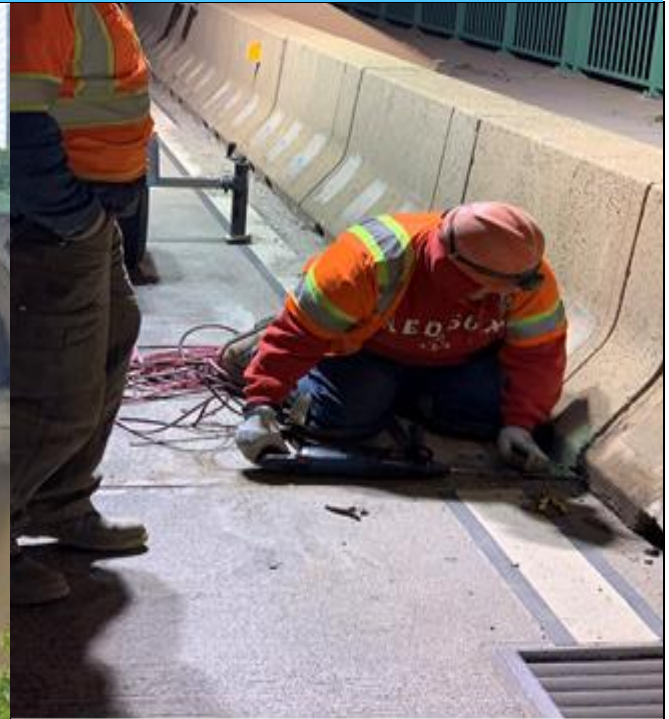
11. ACCIDENTS / INCIDENTS

- No incidents

12. PHOTOS OF WORK PERFORMED THIS PERIOD



View of of Key Bridge marine operation to repositioning the barges.



Repair work for the Non-Armored joints



Sounding and marking at Span A



Concrete repair at East ramp by the use of manlift



Contractor mobilized manlift to C&O Canal tow-path through the Capital Crescent Trail (CCT) up to the Foundry Branch stairs and ramp, then on to the canal towpath and travel down to the Key Bridge construction site



Power washing concrete portion of the Key Bridge on Span B East Fascia



Temporary Support for Bearing Replacement at North Abutment on Row EE



Temporary Support for Bearing Replacement at North Abutment on Row EE