

REHABILITATION OF FRANCIS SCOTT KEY BRIDGE

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

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

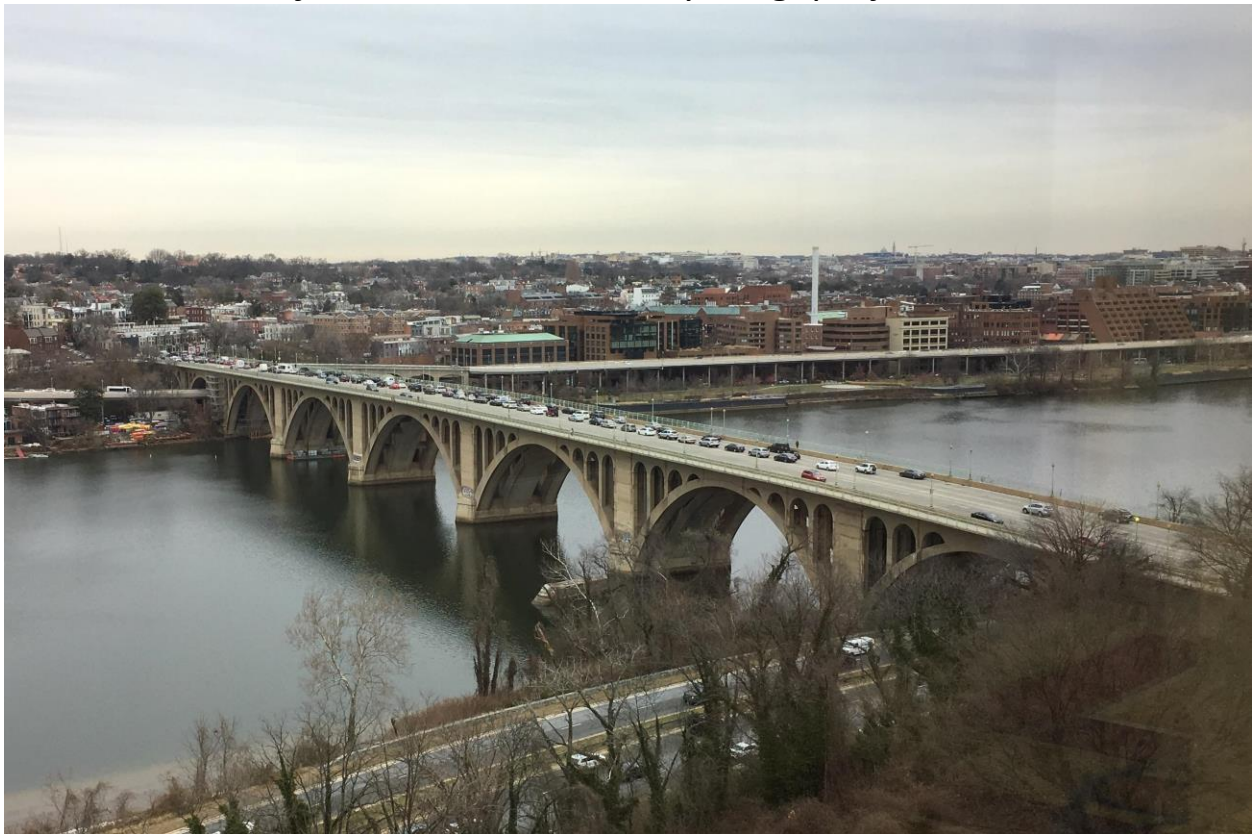
FAP No.: BH-1104 (013)

CONSTRUCTION MANAGER'S

WEEKLY PROGRESS REPORT

From 05/26/2019 to 06/01/2019

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:

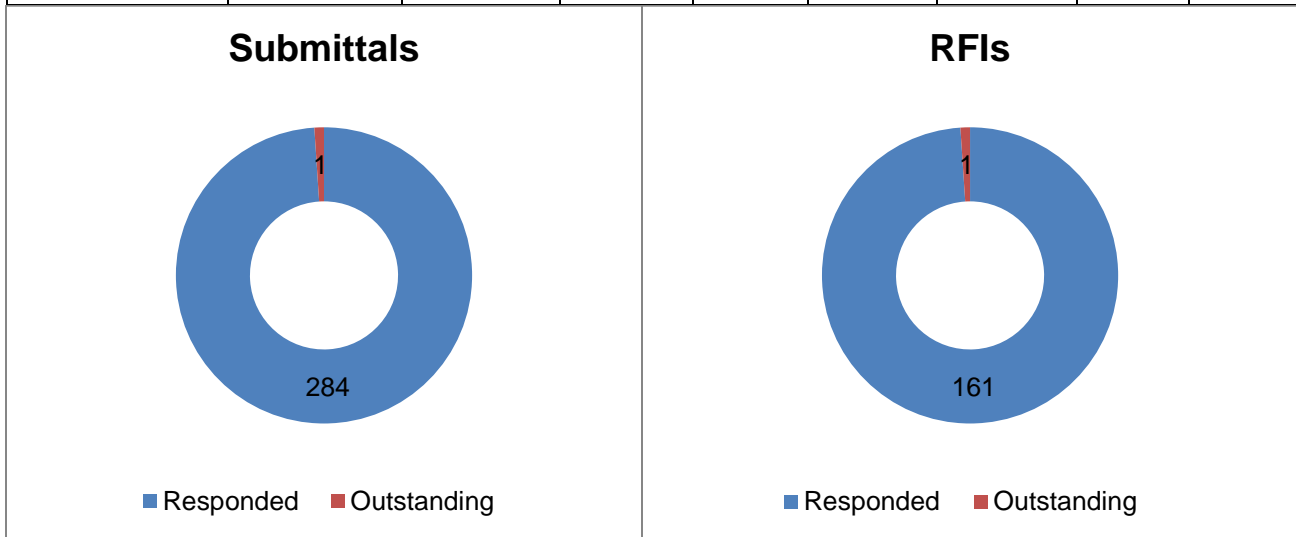
1. Installing pedestrian/bicycle detection loops and warning flashers on the bridge at the ramp to eastbound Whitehurst Freeway.
2. Cleaning and painting the existing steel pedestrian railing on the bridge.
3. Removing the concrete bollards from the east sidewalk at the east ramp exit.
4. Removing and 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	Consultant NTP Date:	6/16/2016						
Contractor Contract Expiration Date:	working under Liquidated Damages	Consultant Contract Expiration Date:	6/15/2017						
Weekly Report End Date:	6/1/2019	Consultant Contract Mod Expiration Date:	6/1/2019						

	Total Value	Planned % DBE	Previous Applications for Payment	Current Application	Previous + Current Applications	\$ Remaining in Contract	Complete to Date		% of Budget Used
							To Date DBE Utilisation	Per Planned Total Budget	
							Per Total Earnings To Date		
Contractor									
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	162	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 #
284	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:	
1	1	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 E, Pier 1 and East Ramp.
 2. CM inspection team checked Navigation lights and it was functional.
 3. Contractor continued dismantling scaffold system at Span H.
 4. Contractor continued installing the security fences at Pier 5 and Pier 4.
 5. Contractor continued remedial work for pedestrian railing bases, work done at night shift.
 6. Contractor completed the Anti-graffiti preparation and mockup at North Abutment bent 16A, pending approval.
 7. Contractor continued Pier Encapsulation at Pier 2.
- 8. 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

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

- No meeting

6. DAILY WORK PERFORMED

Sunday 05/26/19

1. No work.

Monday 05/27/05

1. No work.

Tuesday 05/28/19

1. Technopref (General Contractor) was on-site and continued miscellaneous cleaning activities. Continued concrete repairs at Rosslyn Approach gallery floor slab, Span E and Pier 1. Also, provided support for their subcontractors on site. At night work started scaffold removal at Span H, continued deficiency list remedial work for pedestrian railing. Crack repairs at East ramp.
2. Suburban (Sub) was on site and continued the security fence installation at Pier 5.
3. Specialty Underwater Services (Sub) was on site and continued Pier Encapsulation at Pier 2
4. Brocks (Sub) was on site and continued dismantling scaffold system at Span H.

Wednesday 05/29/19

1. Technopref (General Contractor) was on-site and continued miscellaneous cleaning activities. Continued concrete repairs at Rosslyn Approach gallery floor slab, Span E and Pier 1. Also, provided support for their subcontractors on site. At night work continued scaffold removal at Span H, continued deficiency list remedial work for pedestrian railing.
2. Suburban (Sub) was on site and continued the security fence installation at Pier 5.
3. Specialty Underwater Services (Sub) was on site and continued Pier Encapsulation at Pier 2
4. Brocks (Sub) was on site and continued dismantling scaffold system at Span H.
5. Ward and Associate (Sub) was on site and continued shotcrete operation at Rosslyn Approach.
6. Blastech (Sub) was on site and continued power washing and removal of graffiti at Pier 5 in preparation for Anti-graffiti application. Also perfumed mock for the Anti-graffiti application at bent 16A

Thursday 05/30/19

1. Technopref (General Contractor) was on-site and continued miscellaneous cleaning activities. Continued concrete repairs at Rosslyn Approach gallery floor slab, Span A, Span E and Pier 1. Also, provided support for their subcontractors on site. At night work continued scaffold removal at Span H, continued deficiency list remedial work for pedestrian railing.
2. Suburban (Sub) was on site and continued the security fence installation at Pier 5.
3. Specialty Underwater Services (Sub) was on site and continued Pier Encapsulation at Pier 2
4. Brocks (Sub) was on site and continued dismantling scaffold system at Span H.
5. Ward and Associate (Sub) was on site and continued shotcrete operation at Rosslyn Approach.
6. Blastech (Sub) was on site and continued the cleaning process of the mock for the Anti-graffiti application at bent 16A

Friday 05/31/19

1. Technopref (General Contractor) was on-site and continued miscellaneous cleaning activities. Continued concrete repairs at Rosslyn Approach, and Pier 3. Also, provided support for their subcontractors on site. At night work continued scaffold removal at Span H, continued deficiency list remedial work for pedestrian railing.
2. Suburban (Sub) was on site and continued the security fence installation at Pier 4.
3. Specialty Underwater Services (Sub) was on site and continued Pier Encapsulation at Pier 2
4. Brocks (Sub) was on site and continued dismantling scaffold system at Span H.
5. Ward and Associate (Sub) was on site and continued shotcrete operation at Rosslyn Approach.
6. Blastech (Sub) was on site and continued the marking and preparation process for the Anti-graffiti application

Saturday 06/01/19

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.
3. Ward and Associate (Sub) was on site and continued shotcrete operation at Rosslyn Approach.

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
05/29/19	Section 4 deck soffit in Roselyn approach.	USCP 7000-7001	75	75	.5	8.5	24*24*6
05/30/19	Section 3 Floor beam, South wall of Roselyn approach.	USCP 7000-7001	78	78	3	9	24*24*6
05/31/19	Level 1-6 North elevation row EE-E of Roselyn abutment	USCP 7000-7001	72	72	.5	6	24*24*6

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:**
 - RFI No.162 - Drainage System South Abutment Chambers
 - Submittal Fwd. to JMT

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

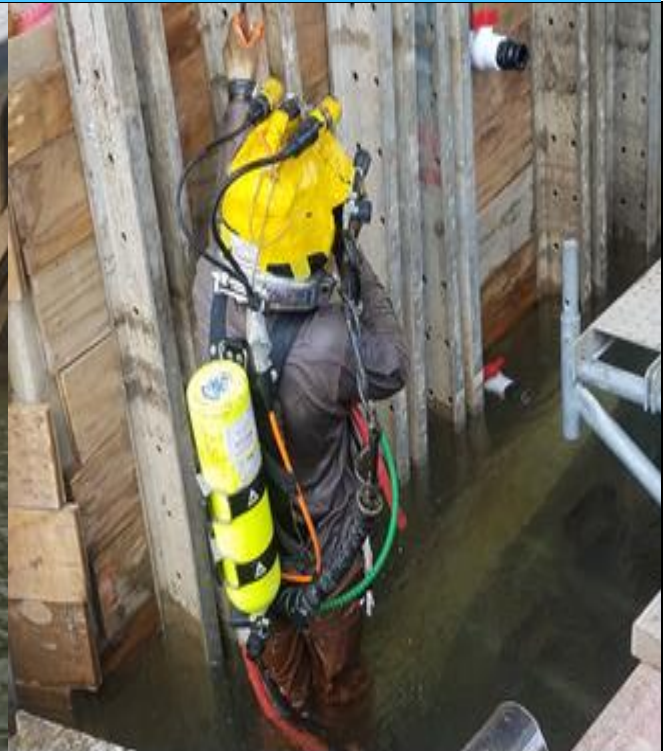
11. ACCIDENTS / INCIDENTS

- No incidents

12. PHOTOS OF WORK PERFORMED THIS PERIOD



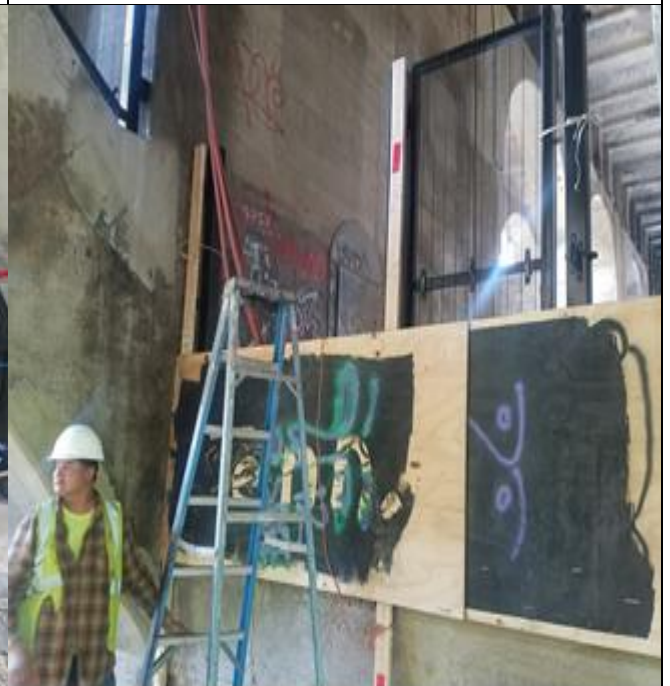
View of of Key Bridge marine operation to repositioning the barges.



Pier Encapsulation at Pier 2



Security fence installation at Georgetown abutment



Security fence installation at Pier 5



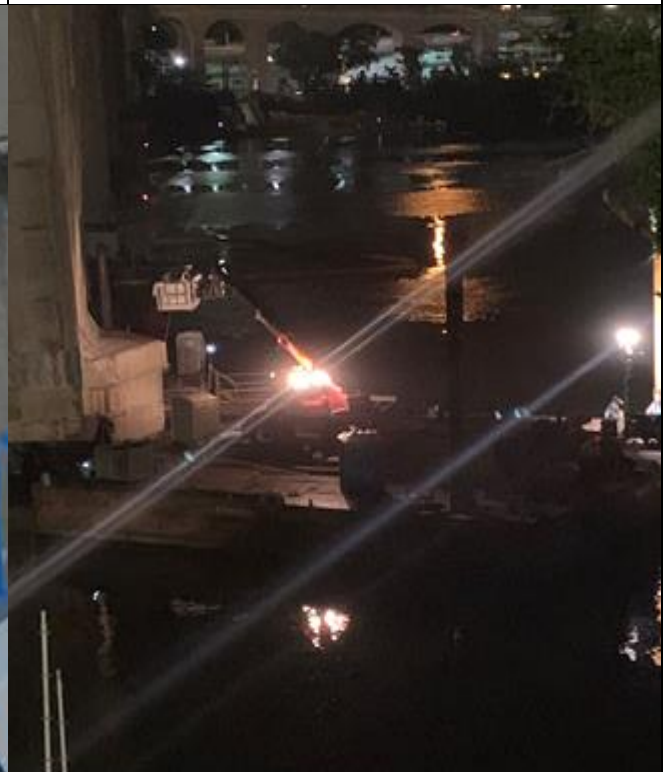
Pier Encapsulation at Pier 2



Performing Anti-graffiti application mock up



Concrete repair at Pier 1 from base to water line



Concrete repair at Per 1- night work