

COWLEY COUNTY, KANSAS
Request for Board Action

Date: September 02, 2025

Requested By: Public Works

Action Requested: Consideration to approve the deck replacement of FAS 67 as part of the Deck Repair Project Bundle or remove the bridge from the project.

Analysis: Following the inspection and analysis of FAS 67 conducted by Kirkham Michael to determine material quantities for the planned deck repair, it was found that approximately 81% of the existing concrete deck is delaminated. Due to the extent of this deterioration, the structure is no longer a viable candidate for deck repair, and full deck replacement is required.

The original estimate for deck repairs on FAS 5, 67, and 71 was approximately \$1,813,076.10. Should the Board approve the deck replacement for FAS 67, the revised total project cost is estimated at \$2,832,032.88—an increase of \$1,018,956.78.

If the Board elects not to proceed with the deck replacement as part of the current project scope, the bridge may qualify for consideration under the Bridge Investment Program. Once the new inspection data is updated, the bridge will likely shift from a “fair” to a “poor” rating, potentially improving its eligibility for federal funding assistance.

Fiscal Impact: \$2,832,032.88, if approved.

- ☐ **Budgeted item with available funds**
- ☐ **Non-budgeted item available through reprioritization**
- ☐ **Non-budgeted item with additional funds requested**
- ☒ **Not Applicable**

Attachments:

- Updated cost estimate from Kirkham Michael.
- Previous cost estimate from Kirkham Michael.

Cowley County FAS 5, FAS 67, FAS 71 Bridge Repairs

Client Name:		Cowley County		ENR Construction Cost Index	
Project Name:		FAS 5, FAS 67, FAS 71 Bridge Repair		Date	Index
Project Number:		KM2505820		Initial	2/5/2025
				Current	8/19/2025
					1

Item	Quantity	Units	Unit Cost \$	Cost \$
Project Common Items				
1 Mobilization	1	Lump Sum	\$175,000.00	\$175,000.00
2 Clearing and Grubbing	1	Lump Sum	\$15,000.00	\$15,000.00
Subtotal				\$190,000.00

FAS 5					
	<u>Road Approaches</u>				
1	HMA (Commercial Grade) (Class A)	50	Tons	\$500.00	\$25,000.00
2	HMA (Commercial Grade) (Class A) (Patching)	5	Tons	\$700.00	\$3,500.00
3	Milling	550	Sq. Yds.	\$15.00	\$8,250.00
	<u>Bridge Deck Repair</u>				
4	Area Prepared for Patching (45% of total deck area)	816	Sq. Yds.	\$450.00	\$367,200.00
5	Multi-Layer Polymer Concrete Overlay	2,052	Sq. Yds.	\$90.00	\$184,680.00
	<u>Approach Guardrail and Guardrail Pad Grading</u>				
6	Steel Plate Guardrail	100	Lin. Ft.	\$150.00	\$15,000.00
7	Guardrail End Terminal (SKT or FLEAT)	4	Each	\$4,500.00	\$18,000.00
8	Guardrail Pad Grading, Seeding, and Erosion Control	1	Lump Sum	\$20,000.00	\$20,000.00
9	Guardrail Retrofit and Repair	1	Lump Sum	\$15,000.00	\$15,000.00
	<u>Riprap</u>				
10	Slope Protection (Riprap Stone)	100	Cu. Yds.	\$135.00	\$13,500.00
	<u>Abutment Repair and Joint Repair Items</u>				
11	Removal of Existing Joint and Guardrail Repair	1	Lump Sum	\$2,500.00	\$2,500.00
12	Expansion Joint Strip Seal Assembly	52	Lin. Ft.	\$700.00	\$36,400.00
	<u>Traffic Control (Bridge Closed during Construction)</u>				
13	Detour Signing	1	Lump Sum	\$8,000.00	\$8,000.00
14	Traffic Control	1	Lump Sum	\$8,000.00	\$8,000.00
FAS 5 Construction Subtotal:					\$725,030.00

FAS 67					
	<u>Road Approaches</u>				
1	HMA (Commercial Grade) (Class A)	50	Tons	\$500.00	\$25,000.00
2	HMA (Commercial Grade) (Class A) (Patching)	5	Tons	\$700.00	\$3,500.00
3	Milling	550	Sq. Yds.	\$15.00	\$8,250.00
	<u>Bridge Deck Replacement (24' Roadway, 26' out-to-out)</u>				
4	Removal of Existing Structures	1	Lump Sum	\$75,000.00	\$75,000.00
5	Concrete (Grade 4.0) (AE)	425	Cu. Yds.	\$900.00	\$382,500.00
6	Concrete Pavement (10" Uniform) (AE) (Br App)	75	Sq. Yds.	\$350.00	\$26,250.00
7	Concrete Approach Slab Footing	15	Cu. Yds.	\$550.00	\$8,250.00
8	Bridge Deck Grooving	10,208	Sq. Ft.	\$7.00	\$71,456.00
9	Reinforcing Steel (Grade 60) (Epoxy Coated)	125,000	Lbs.	\$1.75	\$218,750.00
10	Welded Stud Shear Connectors	2,174	Each	\$7.50	\$16,306.88
	<u>Approach Guardrail and Guardrail Pad Grading</u>				
11	Steel Plate Guardrail	100	Lin. Ft.	\$150.00	\$15,000.00

12	Guardrail End Terminal (SKT or FLEAT)	4	Each	\$4,500.00	\$18,000.00
13	Guardrail Pad Grading, Seeding, and Erosion Control	1	Lump Sum	\$20,000.00	\$20,000.00
	<u>Riprap</u>				
14	Slope Protection (Riprap Stone)	100	Cu. Yds.	\$135.00	\$13,500.00
	<u>Traffic Control (Bridge Closed during Construction)</u>				
15	Detour Signing	1	Lump Sum	\$8,000.00	\$8,000.00
16	Traffic Control	1	Lump Sum	\$8,000.00	\$8,000.00
	<u>Abutment Repair and Joint Repair Items</u>				
17	Concrete (Grade 4.0) (AE) Backwall Abutment	12	Cu. Yds.	\$2,000.00	\$24,000.00
18	Reinforcing Steel (Grade 60) (Epoxy Coated)	500	Lbs	\$3.00	\$1,500.00
19	Expansion Joint Strip Seal Assembly	52	Lin. Ft.	\$700.00	\$36,400.00
20	Removal of Existing Abutments	1	Lump Sum	\$20,000.00	\$20,000.00
21	Drilling and Grouting	72	Each	\$50.00	\$3,600.00
22	Reset Bearing Devices	8	Each	\$4,500.00	\$36,000.00
FAS 67 Construction Subtotal:					\$1,039,262.88
FAS 71					
	<u>Road Approaches</u>				
1	HMA (Commercial Grade) (Class A)	50	Tons	\$500.00	\$25,000.00
2	HMA (Commercial Grade) (Class A) (Patching)	5	Tons	\$700.00	\$3,500.00
3	Milling	550	Sq. Yds.	\$15.00	\$8,250.00
	<u>Bridge Deck Repair</u>				
4	Area Prepared for Patching (17% of total deck area)	128	Sq. Yds.	\$450.00	\$57,600.00
5	Multi-Layer Polymer Concrete Overlay	818	Sq. Yds.	\$90.00	\$73,620.00
	<u>Approach Guardrail and Guardrail Pad Grading</u>				
6	Steel Plate Guardrail	100	Lin. Ft.	\$150.00	\$15,000.00
7	Guardrail End Terminal (SKT or FLEAT)	4	Each	\$4,500.00	\$18,000.00
8	Guardrail Pad Grading, Seeding, and Erosion Control	1	Lump Sum	\$20,000.00	\$20,000.00
9	Guardrail Retrofit and Repair	1	Lump Sum	\$15,000.00	\$15,000.00
	<u>Riprap</u>				
10	Slope Protection (Riprap Stone)	100	Cu. Yds.	\$135.00	\$13,500.00
	<u>Abutment Repair and Joint Repair Items</u>				
11	Removal of Existing Joint and Guardrail Repair	1	Lump Sum	\$2,000.00	\$2,000.00
12	Expansion Joint Strip Seal Assembly	52	Lin. Ft.	\$700.00	\$36,400.00
	<u>Traffic Control (Bridge Closed during Construction)</u>				
13	Detour Signing	1	Lump Sum	\$8,000.00	\$8,000.00
14	Traffic Control	1	Lump Sum	\$8,000.00	\$8,000.00
FAS 71 Construction Subtotal:					\$303,870.00
Construction Subtotal					\$2,258,162.88
Inflation 0.0 %					\$0.00
Contingency 10.0 %					\$225,816.29
Opinion of Probable Construction Cost					\$2,562,032.88
Additional PE					\$20,000.00
Construction Engineering Subtotal					\$250,000.00
Total:					\$2,832,032.88
Design Status (Check One) <input checked="" type="checkbox"/> Conceptual Design <input type="checkbox"/> Preliminary Design <input type="checkbox"/> Final Design					
Project Manager: <u>Brett Wilkinson</u>					Date: <u>8/19/2025</u>
The Engineer, using his or her professional judgement, has developed this stated Opinion of Probable Construction Cost based upon the design status identified above. Development of this Opinion has included consideration of design input level; however, the					

KIRKHAM MICHAEL

circumstances under which the work is expected to be undertaken, the cost and availability of materials, labor and services, probable bidder response and the economic conditions at the time of bid solicitation are beyond the control of the Engineer and will impact actual bid costs. Should bidding be delayed, these costs should be reviewed and, if necessary, adjusted to a more applicable *Engineering News Record* Construction Cost Index.

Cowley County FAS 5, FAS 67, FAS 71 Bridge Repairs

Client Name:	Cowley County	ENR Construction Cost Index	
Project Name:	FAS 5, FAS 67, FAS 71 Bridge Repair	Date	Index
Project Number:	TBD	Initial	2/5/2025 1
		Current	2/5/2025 1

	Item	Quantity	Units	Unit Cost \$	Cost \$
FAS 5					
	<u>Road Approaches</u>				
1	HMA (Commercial Grade) (Class A)	50	Tons	\$500.00	\$25,000.00
2	HMA (Commercial Grade) (Class A) (Patching)	5	Tons	\$700.00	\$3,500.00
3	Milling	550	Sq. Yds.	\$15.00	\$8,250.00
4	Mobilization	1	Lump Sum	\$5,000.00	\$5,000.00
	<u>Bridge Deck Repair</u>				
5	Area Prepared for Patching (5% of total deck area)	100	Sq. Yds.	\$500.00	\$50,000.00
6	Multi-Layer Polymer Concrete Overlay or OXCON Systems Overlay	2,052	Sq. Yds.	\$90.00	\$184,680.00
7	Mobilization	1	Lump Sum	\$35,000.00	\$35,000.00
	<u>Traffic Control (Bridge Closed during Construction)</u>				
8	Detour Signing	1	Lump Sum	\$8,000.00	\$8,000.00
9	Traffic Control	1	Lump Sum	\$8,000.00	\$8,000.00
FAS 5 Construction Subtotal:					\$327,430.00

FAS 67					
	<u>Road Approaches</u>				
1	HMA (Commercial Grade) (Class A)	50	Tons	\$500.00	\$25,000.00
2	HMA (Commercial Grade) (Class A) (Patching)	5	Tons	\$700.00	\$3,500.00
3	Milling	550	Sq. Yds.	\$15.00	\$8,250.00
4	Mobilization	1	Lump Sum	\$5,000.00	\$5,000.00
	<u>Bridge Deck Repair</u>				
5	Area Prepared for Patching (5% of total deck area)	65	Sq. Yds.	\$500.00	\$32,500.00
6	Multi-Layer Polymer Concrete Overlay or OXCON Systems Overlay	1,338	Sq. Yds.	\$90.00	\$120,420.00
7	Mobilization	1	Lump Sum	\$24,000.00	\$24,000.00
	<u>Traffic Control (Bridge Closed during Construction)</u>				
8	Detour Signing	1	Lump Sum	\$8,000.00	\$8,000.00
9	Traffic Control	1	Lump Sum	\$8,000.00	\$8,000.00
	<u>Abutment Repair Items</u>				
10	Concrete (Grade 4.0) (AE) Backwall Abut	10	Cu. Yds.	\$2,000.00	\$20,000.00
11	Reinforcing Steel (Grade 60) (Epoxy Coated)	500	Lbs	\$3.00	\$1,500.00
12	Expansion Joint Strip Seal Assembly	52	Lin. Ft.	\$700.00	\$36,400.00
13	Removal of Existing Abutments	1	Lump Sum	\$20,000.00	\$20,000.00
14	Drilling and Grouting	72	Each	\$50.00	\$3,600.00
15	Reset Bearing Devices	8	Each	\$4,500.00	\$36,000.00
16	Mobilization	1	Lump Sum	\$18,000.00	\$18,000.00
FAS 67 Construction Subtotal:					\$370,170.00

FAS 71					
	<u>Road Approaches</u>				
1	HMA (Commercial Grade) (Class A)	50	Tons	\$500.00	\$25,000.00
2	HMA (Commercial Grade) (Class A) (Patching)	5	Tons	\$700.00	\$3,500.00
3	Milling	550	Sq. Yds.	\$15.00	\$8,250.00
4	Mobilization	1	Lump Sum	\$5,000.00	\$5,000.00
	<u>Bridge Deck Repair</u>				
5	Area Prepared for Patching (5% of total deck area)	40	Sq. Yds.	\$500.00	\$20,000.00
6	Multi-Layer Polymer Concrete Overlay or OXCON Systems Overlay	818	Sq. Yds.	\$90.00	\$73,620.00
7	Mobilization	1	Lump Sum	\$14,000.00	\$14,000.00
	<u>Traffic Control (Bridge Closed during Construction)</u>				
8	Detour Signing	1	Lump Sum	\$8,000.00	\$8,000.00
9	Traffic Control	1	Lump Sum	\$8,000.00	\$8,000.00
FAS 71 Construction Subtotal:					\$165,370.00

Construction Subtotal				\$862,970.00
Inflation 0.0 %				\$0.00
Contingency 10.0 %				\$86,297.00
Design Status (Check One)				\$949,267.00

<input checked="" type="checkbox"/>	Conceptual Design
<input type="checkbox"/>	Preliminary Design
<input type="checkbox"/>	Final Design

Opinion of Probable Construction Cost

KIRKHAM MICHAEL

Project Manager: Brett Wilkinson

Date: 2/7/2025

The Engineer, using his or her professional judgement, has developed this stated Opinion of Probable Construction Cost based upon the design status identified above. Development of this Opinion has included consideration of design input level; however, the circumstances under which the work is expected to be undertaken, the cost and availability of materials, labor and services, probable bidder response and the economic conditions at the time of bid solicitation are beyond the control of the Engineer and will impact actual bid costs. Should bidding be delayed, these costs should be reviewed and, if necessary, adjusted to a more applicable *Engineering News Record* Construction Cost Index.

FAS 5

Location: 252nd Rd, 0.3 miles east of 11th Rd

Latitude: 37° 6'38.19"N Longitude: 97° 7'40.17"W

Item	Quantity	Units	Unit Cost	Cost
Guardrail Installation - Estimated by Prices from PJ Fulsom				
Guardrail Steel Plate MGS	100	Ln Ft	\$ 125.00	\$ 12,500.00
MKST End Sections	4	Ea	\$ 5,000.00	\$ 20,000.00
				\$ 32,500.00
Slope/Shoulder Stabilization - Estimated from Work Completed by Alan's Excavating				
Guardrail Pad	1	Lump Sum	\$ 10,000.00	\$ 10,000.00
Grubbing	1	Lump Sum	\$ 15,000.00	\$ 15,000.00
Geotextile Fabric, Riprap	530	CU Yds	\$ 125.00	\$ 66,250.00
				\$ 91,250.00
Bridge Rail - Estimated by Calculating Additonal Percentage of Costs and Applying to Polymer Overlay				
Repair Rail, Polymer Coating	1	Lump Sum	\$ 117,310.80	\$ 117,310.80
				\$ 117,310.80
			Subtotal:	\$ 241,060.80

FAS 67

Location: 132nd Rd, 0.75 miles east of 55th Rd

Latitude: 37°17'19.53"N Longitude: 97° 2'14.48"W

Item	Quantity	Units	Unit Cost	Cost
Guardrail Installation - Estimated by Prices from PJ Fulsom				
Guardrail Steel Plate MGS	100	Ln Ft	\$ 125.00	\$ 12,500.00
MKST End Sections	4	Ea	\$ 5,000.00	\$ 20,000.00
				\$ 32,500.00
Slope/Shoulder Stabilization - Estimated from Work Completed by Alan's Excavating				
Guardrail Pad	1	Lump Sum	\$ 10,000.00	\$ 10,000.00
Slope Rework	1	Lump Sum	\$ 15,000.00	\$ 15,000.00
Geotextile Fabric, Riprap	530	CU Yds	\$ 125.00	\$ 66,250.00
				\$ 91,250.00
Bridge Rail - Estimated by Calculating Additonal Percentage of Costs and Applying to Polymer Overlay				
Repair Rail, Polymer Coating	1	Lump Sum	\$ 62,806.60	\$ 62,806.60
				\$ 62,806.60
			Subtotal:	\$ 186,556.60

FAS 71

Location: 132nd Rd, 0.2 miles west of 101st Rd

Latitude: 37°17'18.21"N Longitude: 96°58'26.56"W

Item	Quantity	Units	Unit Cost	Cost
Guardrail Installation - Estimated by Prices from PJ Fulsom				
Guardrail Steel Plate MGS	100	Ln Ft	\$ 125.00	\$ 12,500.00
MKST End Sections	4	Ea	\$ 5,000.00	\$ 20,000.00
				\$ 32,500.00
Slope/Shoulder Stabilization - Estimated from Work Completed by Alan's Excavating				
Guardrail Pad	1	Lump Sum	\$ 10,000.00	\$ 10,000.00

Grubbing	1	Lump Sum	\$ 12,000.00	\$ 12,000.00
Geotextile Fabric, Riprap	530	CU Yds	\$ 125.00	\$ 66,250.00
				\$ 88,250.00
Bridge Rail - Estimated by Calculating Additonal Percentage of Costs and Applying to Polymer Overlay				
Repair Rail, Polymer Coating	1	Lump Sum	\$ 36,913.60	\$ 36,913.60
				\$ 36,913.60
Subtotal:				\$ 157,663.60
Total Costs for Additional Construction Services:				\$ 585,281.00

Construction Engineering FAS 5, FAS 67, FAS 71 - Estimated by Previous Costs on Similar Projects

Construction observation, patch marking, materials inspection, change orders, documentation.	1	Lump Sum	\$ 200,000.00	\$ 200,000.00
Total:				\$ 200,000.00

CE Services:	\$ 200,000.00
Additional Construction:	\$ 585,281.00
10% Contigency:	\$ 78,528.10
Sum From KM Quote:	\$ 949,267.00
Total Project Costs:	\$ 1,813,076.10