

District Bridge Profile

Highlights from FHWA's 2023 National Bridge Inventory Data

- Of the 1,417 bridges in the counties of this district, 31, or 2.2 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 33 bridges classified as structurally deficient in 2019.
- Repairs are needed on 148 bridges in the district, which will cost an estimated \$209.3 million.
- This compares to 727 bridges that needed work in 2019.
- There currently are now projects in the District that use IIJA formula bridge funds.

Bridge Inventory

| | All Bridges | | | Structurally Deficient Bridges | | |
|--------------------------|-----------------|----------------------|--------------------|--------------------------------|----------------------|--------------------|
| Type of Bridge | Total Number | Area (sq. meters) | Daily Crossings | Total Number | Area (sq. meters) | Daily Crossings |
| Rural Bridges | | | | | | |
| Interstate | 7 | 6,656 | 77,911 | 0 | 0 | 0 |
| Other principal arterial | 68 | 59,938 | 571,846 | 1 | 1,130 | 18,082 |
| Minor arterial | 10 | 5,147 | 46,073 | 0 | 0 | 0 |
| Major collector | 110 | 48,553 | 114,521 | 1 | 226 | 1,835 |
| Minor collector | 19 | 3,436 | 3,108 | 2 | 275 | 189 |
| Local | 201 | 38,699 | 39,191 | 7 | 560 | 221 |
| Urban Bridges | | | | | | |
| Interstate | 231 | 554,450 | 6,583,750 | 2 | 23,364 | 16,355 |
| Freeway/expressway | 92 | 138,353 | 1,758,345 | 3 | 21,124 | 31,128 |
| Other principal arterial | 47 | 120,463 | 528,674 | 2 | 7,724 | 19,951 |
| Minor arterial | 221 | 258,539 | 2,830,972 | 5 | 6,312 | 48,066 |
| Collector | 183 | 107,814 | 746,490 | 0 | 0 | 0 |
| Local | 228 | 69,743 | 384,073 | 8 | 1,318 | 5,768 |
| Total | 1,417 | 1,411,791 | 13,684,954 | 31 | 62,034 | 141,595 |

Proposed Bridge Work

| Type of Work | Number | Cost (millions) | Daily Crossings | Area (sq. meters) |
|---------------------------------|--------|--------------------|-----------------|----------------------|
| Bridge replacement | 77 | \$25.6 | 126,766 | 13,995 |
| Widening & rehabilitation | 1 | \$0.1 | 548 | 92 |
| Rehabilitation | 40 | \$153.7 | 252,629 | 85,062 |
| Deck rehabilitation/replacement | 11 | \$13.6 | 92,798 | 10,936 |
| Other work | 19 | \$16.2 | 106,915 | 13,061 |
| Total | 148 | \$209.3 | 579,656 | 123,147 |



Kansas – Congressional District 3

District Bridge Profile

Top Most Traveled Structurally Deficient Bridges in this District

| County | Year Built | Daily Crossings | Type of Bridge | Location | |
|-----------|------------|--------------------|-----------------------------------|--|--|
| Johnson | 1976 | 24,000 | Urban minor arterial | College Blvd over Indian Ck | |
| Johnson | 1975 | 18,082 | Rural arterial | K10 Hwy, WB over Kill Creek | |
| Wyandotte | 1959 | 15,153 | Urban freeway/expressway | 9 Hwy (18th St) over Ks Riv, RR, Levee Rds | |
| Wyandotte | 1959 | 12,930 | Urban freeway/expressway | US69, 18th St Expy over Merriam Ln,Turkey Creek | |
| Wyandotte | 1933 | 12,526 | Urban other principal arterial | US-169 Highway NB over Ks River,RR Yard,3 Str | |
| Wyandotte | 1974 | 9,715 | Urban Interstate | I70 WB to I635 SB over I-635 NB,& I-70 Highways | |
| Johnson | 1975 | 8,342 | Urban minor arterial | 103rd. Street over Trib. to Indian Creek | |
| Johnson | 1910 | 7,700 | Urban minor arterial | Kenneth Rd over Negro Ck | |
| Wyandotte | 1971 | 7,425 | Urban other principal arterial | K-32 Highway over Betts Creek Drainage | |
| Wyandotte | 1907 | 6,640 | Urban Interstate | I-70 EB Highway over Kansas River,3 RR,5 St | |

Data includes information for the following area(s): Johnson County, Miami County, Wyandotte County

About the data: Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), downloaded on July 3, 2023. Note that specific conditions on bridges may have changed because of recent work or updated inspections.

Effective January 1, 2018, FHWA changed the definition of structurally deficient as part of the final rule on highway and bridge performance measures, published May 20, 2017 pursuant to the 2012 surface transportation law Moving Ahead for Progress in the 21st Century Act (MAP-21). Two measures that were previously used to classify bridges as structurally deficient are no longer used. This includes bridges where the overall structural evaluation was rated in poor or worse condition, or where the adequacy of waterway openings was insufficient.

The new definition limits the classification to bridges where one of the key structural elements—the deck, superstructure, substructure or culverts, are rated in poor or worse condition. During inspection, the conditions of a variety of bridge elements are rated on a scale of 0 (failed condition) to 9 (excellent condition). A rating of 4 is considered "poor" condition.

Cost estimates have been derived by ARTBA, based on 2020 and average bridge replacement costs for structures on and off the National Highway System, <u>published by FHWA</u>. Bridge rehabilitation costs are estimated to be 68 percent of replacement costs. A bridge is considered to need repair if the structure has identified repairs as part of the NBI, a repair cost estimate is supplied by the bridge owner or the bridge is classified as structurally deficient. Please note that for a few states, the number of bridges needing to be repaired can vary significantly from year to year, and reflects the data entered by the state.

Bridges are classified by FHWA into types based on the functional classification of the roadway on the bridge. Interstates comprise routes officially designated by the Secretary of Transportation. Other principal arterials serve major centers of urban areas or provide mobility through rural areas. Freeways and expressways have directional lanes generally separated by a physical barrier, and access/egress points generally limited to on- and off-ramps. Minor arterials serve smaller areas and are used for trips of moderate length. Collectors funnel traffic from local roads to the arterial network; major collectors have higher speed limits and traffic volumes and are longer in length and spaced at greater intervals, while minor collectors are shorter and provide service to smaller communities. Local roads do not carry through traffic and are intended for short distance travel.