

## Highlights from FHWA's 2019 National Bridge Inventory Data

- Of the 24,043 bridges in the state, 4,575, or 19.0 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 4,719 bridges classified as structurally deficient in 2015.
- The deck area of structurally deficient bridges accounts for 10.0 percent of total deck area on all structures.
- 6 of the structurally deficient bridges are on the Interstate Highway System.
- 4,948 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 15,223 bridges at an estimated cost of \$3.1 billion.
- This compares to 15,228 bridges that needed work in 2015.

## Bridge Inventory

Type of Bridge	All Bridges			Structurally Deficient Bridges		
	Total Number	Area (sq. meters)	Daily Crossings	Total Number	Area (sq. meters)	Daily Crossings
<b>Rural Bridges</b>						
Interstate	371	311,740	4,808,385	1	648	13,650
Other principal arterial	1,256	963,471	5,530,150	9	3,946	41,530
Minor arterial	1,075	578,088	2,080,370	22	14,691	40,070
Major collector	3,445	1,238,461	2,574,623	556	179,960	373,350
Minor collector	3,893	1,002,088	551,215	726	135,027	83,280
Local	11,674	1,849,301	617,329	3,100	340,877	131,128
<b>Urban Bridges</b>						
Interstate	342	689,414	8,504,705	5	41,624	89,850
Freeway/expressway	0	0	0	0	0	0
Other principal arterial	621	1,077,286	5,736,750	6	23,718	97,050
Minor arterial	545	603,712	3,527,618	45	73,200	275,825
Collector	311	183,689	809,150	30	16,422	52,740
Local	510	185,138	455,673	75	40,213	39,107
<b>Total</b>	<b>24,043</b>	<b>8,682,388</b>	<b>35,195,968</b>	<b>4,575</b>	<b>870,325</b>	<b>1,237,580</b>

## Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	7,327	\$1,405	1,556,130	1,257,943
Widening & rehabilitation	72	\$28	119,724	37,726
Rehabilitation	1,315	\$355	956,353	450,723
Deck rehabilitation/replacement	48	\$18	51,830	23,625
Other work	6,461	\$1,275	2,758,849	1,682,206
<b>Total</b>	<b>15,223</b>	<b>\$3,081</b>	<b>5,442,886</b>	<b>3,452,222</b>

## Top Most Traveled Structurally Deficient Bridges in Iowa

County	Year Built	Daily Crossings	Type of Bridge	Location
Scott	1940	33,500	Urban other principal arterial	Centennial Bridge
Scott	1970	26,100	Urban Interstate	I-280 over Mississippi River & Road
Polk	1942	25,600	Urban other principal arterial	IA 415 over NW 66th Ave
Woodbury	1959	23,900	Urban Interstate	I29 SB Old Divided over Floyd Blvd
Scott	1963	20,000	Urban minor arterial	N Division St over Duck Creek
Polk	1936	18,600	Urban minor arterial	2nd Ave over Birdland Dr
Woodbury	1962	14,550	Urban Interstate	I-29 over Channel Floyd River
Johnson	1972	14,500	Urban minor arterial	Gilbert St over Ralston Creek
Poweshiek	1963	13,650	Rural Interstate	I 80 WB over Iowa 21
Johnson	1915	13,550	Urban other principal arterial	Ia 1 NB over Iowa River

**About the data:** Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), released April 2, 2020. Note that specific conditions on bridges may have changed as a result 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 2018 and average bridge replacement costs for structures on and off the National Highway System, [published by FHWA](#). 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.