



Highlights from FHWA's 2018 National Bridge Inventory Data

- Of the 5,824 bridges in the state, 973, or 16.7 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 1,068 bridges classified as structurally deficient in 2014.
- 4 of the structurally deficient bridges are on the Interstate Highway System.
- 1,120 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 2,468 bridges at an estimated cost of \$534.8 million.
- This compares to 2,543 bridges that needed work in 2014.

Bridge Inventory

Type of Bridge ⁴	All Bridges			Structurally Deficient Bridges		
	Total Number	Area (sq. meters)	Daily Crossings	Total Number	Area (sq. meters)	Daily Crossings
Rural Bridges						
Interstate	333	198,810	1,750,495	3	2,580	13,035
Other principal arterial	449	256,654	962,403	10	3,943	20,279
Minor arterial	522	226,581	636,730	16	7,757	17,407
Major collector	1,149	335,223	444,541	155	40,459	51,768
Minor collector	171	46,716	31,153	29	4,878	3,703
Local	2,787	400,409	215,757	738	74,486	43,834
Urban Bridges						
Interstate	121	110,330	1,524,041	1	980	10,516
Freeway/expressway	10	15,375	83,282	0	0	0
Other principal arterial	75	89,689	835,426	1	812	19,377
Minor arterial	86	75,856	602,828	3	970	19,739
Collector	56	31,293	203,481	9	5,623	41,906
Local	65	16,834	63,822	8	1,417	2,093
Total	5,824	1,803,770	7,353,959	973	143,905	243,657

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	1,300	\$459,570	688,885	276,443
Widening & rehabilitation	5	\$3,010	47,042	2,858
Rehabilitation	420	\$31,681	178,790	111,324
Deck rehabilitation/replacement	52	\$17,190	118,961	32,959
Other work	691	\$23,368	257,323	126,768
Total	2,468	\$534,819	1,291,001	550,352



Top Most Traveled Structurally Deficient Bridges in South Dakota

County	Year Built	Daily Crossings	Type of Bridge	Location
Brown	1954	19,377	Urban other principal arterial	US012 over Moccasin Ck
Minnehaha	1979	18,174	Urban collector	49th Street over Big Sioux River
Pennington	1959	10,516	Urban Interstate	I090 E over Boxelder Ck
Minnehaha	1912	10,163	Urban collector	8th Street over Big Sioux River
Minnehaha	1948	9,815	Urban minor arterial	60th Street North over Silver Creek
Minnehaha	1960	6,544	Rural Interstate	I090 W over Split Rock Ck
Minnehaha	1964	6,485	Rural Interstate	I090 W over Sd019
Lawrence	1953	6,425	Rural arterial	US014A over Deadwood Ck
Brown	1969	5,087	Urban minor arterial	3rd Avenue SE over Moccasin Creek
Codington	1941	4,837	Urban minor arterial	3rd Avenue NW over Big Sioux River

About the data: Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), released March 15, 2019. 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 federal aid highway bill 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 2017 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.