

Highlights from FHWA's 2018 National Bridge Inventory Data

- Of the 8,786 bridges in the state, 473, or 5.4 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is up from 470 bridges classified as structurally deficient in 2014.
- 51 of the structurally deficient bridges are on the Interstate Highway System.
- 412 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 1,353 bridges at an estimated cost of \$683.3 million.
- This compares to 2,227 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	558	410,776	5,778,074	28	30,291	282,088
Other principal arterial	633	337,786	3,458,024	21	7,813	73,986
Minor arterial	673	303,500	1,876,854	50	18,309	123,921
Major collector	710	271,720	1,394,339	53	13,467	50,095
Minor collector	1,082	314,335	1,276,624	63	13,958	53,885
Local	2,293	456,409	1,342,756	164	30,372	75,181
Urban Bridges						
Interstate	559	969,713	24,523,782	23	33,053	1,010,136
Freeway/expressway	405	521,439	11,749,852	11	14,086	349,463
Other principal arterial	551	667,131	11,083,706	20	22,316	384,970
Minor arterial	437	362,938	4,390,317	17	16,874	105,116
Collector	353	245,573	2,478,768	11	4,463	35,870
Local	532	163,303	1,996,974	12	2,342	8,561
Total	8,786	5,024,623	71,350,072	473	207,344	2,553,272

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	326	\$299,725	2,115,314	193,892
Widening & rehabilitation	256	\$100,423	3,058,252	164,439
Rehabilitation	374	\$109,794	2,093,459	199,901
Deck rehabilitation/replacement	53	\$29,472	535,499	43,793
Other work	344	\$143,919	3,585,582	229,800
Total	1,353	\$683,334	11,388,106	831,826



Top Most Traveled Structurally Deficient Bridges in Colorado

County	Year Built	Daily Crossings	Type of Bridge	Location
Jefferson	1972	112,000	Urban freeway/expressway	US 6 ML over SH 121 MI
Jefferson	1967	90,000	Urban Interstate	I 70 ML over Harlan Street
Denver	1964	64,000	Urban Interstate	I 70 ML WBnd over SH 35 MI
Denver	1964	64,000	Urban Interstate	I 70 ML EBnd over SH 35 MI
Denver	1964	64,000	Urban Interstate	I 70 ML WBnd over UP RR
Denver	1960	64,000	Urban Interstate	I 70 ML EBnd over UP RR
Denver	1962	58,000	Urban freeway/expressway	SH 35 ML over Sand Creek
Jefferson	1967	56,000	Urban Interstate	I 70 ML EBnd over SH 391 MI
Jefferson	1967	56,000	Urban Interstate	I 70 ML WBnd over SH 391 MI
Arapahoe	1955	55,000	Urban other principal arterial	US 285 ML over Little Dry Creek

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.