

Highlights from FHWA's 2022 National Bridge Inventory Data

- Of the 55,701 bridges in the state, 774, or 1.4 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is up from 695 bridges classified as structurally deficient in 2018.
- 42 of the structurally deficient bridges are on the Interstate Highway System. A total of 86.3 percent of the structurally deficient bridges are not on the National Highway System, which includes the Interstate and other key roads linking major airports, ports, rail and truck terminals.
- 2,687 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 11,310 bridges at an estimated cost of \$5.7 billion.

Bridge Inventory

Type of Bridge	All Bridges			Structurally Deficient Bridges		
	Total Number	Area (sq. meters)	Daily Crossings	Total Number	Area (sq. meters)	Daily Crossings
Rural Bridges						
Interstate	2,261	2,032,437	37,893,222	17	25,641	231,412
Other principal arterial	4,873	4,365,237	35,469,264	19	38,644	136,291
Minor arterial	3,884	2,732,848	13,905,595	28	62,017	98,631
Major collector	8,065	3,321,803	12,058,447	70	42,810	86,323
Minor collector	2,514	708,626	1,394,030	27	6,551	13,622
Local	10,352	2,198,172	5,495,227	428	50,775	68,845
Urban Bridges						
Interstate	3,500	9,988,725	198,111,559	25	149,442	1,547,934
Freeway/expressway	4,667	14,056,822	149,458,013	21	66,240	616,597
Other principal arterial	4,073	6,005,758	66,196,767	29	67,523	452,456
Minor arterial	2,960	3,187,521	32,823,174	28	47,326	216,616
Collector	3,198	2,883,272	23,503,019	20	62,083	103,458
Local	5,354	2,903,959	18,592,776	62	62,198	246,886
Total	55,701	54,385,180	594,901,056	774	681,251	3,819,071

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	2,750	\$1,200.6	9,457,444	1,173,954
Widening & rehabilitation	73	\$28.1	963,392	44,948
Rehabilitation	610	\$296.6	3,036,716	482,749
Deck rehabilitation/replacement	9	\$1.2	1,506	1,564
Other work	7,868	\$4,215.9	78,011,061	6,451,143
Total	11,310	\$5,742.3	91,470,119	8,154,358

Top Most Traveled Structurally Deficient Bridges in Texas

County	Year Built	Daily Crossings	Type of Bridge	Location
Harris	1973	136,576	Urban Interstate	IH 610 over Houston Ship Channel
Harris	1960	119,596	Urban Interstate	IH 45 NB over Crosstimbers St
Harris	1960	117,314	Urban Interstate	IH 45 SB over Crosstimbers St
Dallas	1969	109,090	Urban freeway/expressway	Lp 12 over Elm Fork Trinity River
Harris	1964	97,036	Urban Interstate	IH 610S EB over Holmes Rd; UPRR; Theresa
Harris	1958	92,413	Urban Interstate	IH 10 WB over McCarty St/US 90A
Harris	1964	91,568	Urban Interstate	IH 610S WB over Holmes Rd; UPRR & Theresa
Jefferson	1958	89,604	Urban Interstate	IH 10 over 11th St
Rockwall	1995	82,077	Urban Interstate	IH 30 over East Fork Trinity River
Dallas	1971	81,504	Urban Interstate	IH 30 WBml over IH 635

About the data: Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), downloaded on February 1, 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, [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.