

Highlights from FHWA's 2023 National Bridge Inventory Data

- The state has identified needed repairs on 1,646 bridges.
- Over the life of the IJJA, Arizona will receive a total of \$225.0 million in bridge formula funds, which will help make needed repairs.
- Arizona currently has access to \$90.0 million of that total, and has committed \$41.3 million towards 4 projects as of June 2023.
- Of the 8,544 bridges in the state, 95, or 1.1 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 137 bridges classified as structurally deficient in 2019.

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	1,230	591,670	20,345,811	7	12,601	116,264
Other principal arterial	930	585,984	8,405,456	4	2,860	23,618
Minor arterial	700	265,895	5,127,757	9	5,405	18,322
Major collector	1,088	464,719	2,790,668	11	4,979	16,977
Minor collector	352	114,194	480,170	16	6,877	7,703
Local	835	241,264	740,712	34	5,960	7,514
Urban Bridges						
Interstate	317	643,041	17,872,889	1	10,977	8,350
Freeway/expressway	457	1,122,742	27,450,550	0	0	0
Other principal arterial	736	805,860	17,130,743	1	2,126	34,003
Minor arterial	685	732,523	11,089,302	3	10,381	47,077
Collector	461	323,610	2,933,309	1	61	660
Local	753	267,171	2,065,122	8	2,138	9,108
Total	8,544	6,158,674	116,432,496	95	64,364	289,596

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	1,200	\$2,109.5	21,494,628	676,132
Widening & rehabilitation	184	\$157.3	4,121,161	74,825
Rehabilitation	146	\$336.0	2,327,841	156,297
Deck rehabilitation/replacement	20	\$33.4	209,885	16,228
Other work	96	\$216.1	3,326,382	99,272
Total	1,646	\$2,852.3	31,479,897	1,022,754

Top Most Traveled Structurally Deficient Bridges in Arizona

County	Year Built	Daily Crossings	Type of Bridge	Location
Pima	1966	38,365	Urban minor arterial	22nd Street over SPRR; Aviation Hwy
Maricopa	1976	34,003	Urban other principal arterial	Shea Boulevard over Indian Bend Wash
Mohave	1964	27,997	Rural Interstate	I 15 over Virgin River
Mohave	1967	21,051	Rural Interstate	I 15 over Virgin River
Mohave	1972	20,007	Rural Interstate	I 15; NB over Virgin River
Mohave	1973	20,007	Rural Interstate	I 15; SB over Virgin River
Navajo	1969	13,297	Rural Interstate	I-40 WB over SB 40
Apache	1964	8,418	Rural Interstate	IRR I 40; WB over Window Rock Rd
Yuma	1978	8,350	Urban Interstate	I 8 EB over Colo R Pentnry Av Sptco
Pinal	1929	7,553	Rural arterial	US 60 over Waterfall Canyon

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.