

Highlights from FHWA's 2021 National Bridge Inventory Data

- Of the 875 bridges in the state, 17, or 1.9 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 39 bridges classified as structurally deficient in 2017.
- 0 of the structurally deficient bridges are on the Interstate Highway System. A total of 82.4 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.
- 23 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 317 bridges at an estimated cost of \$1.8 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	714	5,884	0	0	0
Other principal arterial	101	245,427	2,483,075	1	21,040	10,208
Minor arterial	20	11,688	227,417	1	159	9,465
Major collector	89	45,902	392,646	2	2,288	8,575
Minor collector	30	8,145	79,998	0	0	0
Local	167	24,756	178,105	3	229	853
Urban Bridges						
Interstate	90	335,507	4,217,164	0	0	0
Freeway/expressway	30	36,209	705,962	0	0	0
Other principal arterial	123	178,234	3,035,778	2	141	2,474
Minor arterial	76	78,598	976,628	3	5,524	46,189
Collector	82	37,491	579,386	2	1,068	18,687
Local	65	23,663	136,551	3	1,393	5,806
Total	875	1,026,333	13,018,594	17	31,842	102,257

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	129	\$532.9	2,727,301	119,211
Widening & rehabilitation	20	\$59.4	270,692	19,557
Rehabilitation	137	\$1,013.4	2,001,359	329,754
Deck rehabilitation/replacement				
Other work	31	\$235.1	706,137	77,187
Total	317	\$1,840.8	5,705,489	545,710

Top Most Traveled Structurally Deficient Bridges in Delaware

County	Year Built	Daily Crossings	Type of Bridge	Location
New Castle	1971	22,887	Urban minor arterial	Red Mill Rd over stream Mill Pond
Kent	1965	13,178	Urban collector	Lebanon Rd/SR10 WB over St. Jones River
New Castle	1963	12,252	Urban minor arterial	Chapman Rd over I 95, Delaware Turnpike
New Castle	1980	11,050	Urban minor arterial	Fourth Street over Christina River
Kent	1941	10,208	Rural arterial	US Route 13 over C & D Canal
New Castle	1920	9,465	Rural minor arterial	Dupont Pkw/US13 SB over Blackbird Creek
Sussex	1957	7,769	Rural major collector	SR 54 over Assawoman Bay
New Castle	1981	5,509	Urban collector	Brick Mill Rd over Dove Nest Branch
New Castle	1929	4,439	Urban local road	James St. over Christina River
Sussex	1966	1,268	Urban local road	Delaware Ave over Broad Creek

About the data: Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), downloaded on January 3, 2022. 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.