

National Bridge Inventory: Rhode Island

- The state has identified needed repairs on 776 bridges.
- This compares to 716 bridges that needed work in 2020.
- Over the life of the IIJA, Rhode Island will receive a total of \$255.0 million in bridge formula funds, which will help make needed repairs.
- Rhode Island currently has access to \$153.0 million of that total, and has committed \$82.9 million towards 23 projects as of June 2024.
- Of the 783 bridges in the state, 119, or 15.2 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 148 bridges classified as structurally deficient in 2020.
- The deck area of structurally deficient bridges accounts for 14.1 percent of total deck area on all structures.

Compared to 4 in the nation structurally of	in 2023 1 in % of deficient	45 Compared to 45 in the nation structurally d	n 2023 in # of eficient	L Compared to 1 in 2023 in the nation in % of structur deficient bridge deck are	
bridges		bridge	bridges		14.0
1. Iowa	19.0%	1. Iowa	4,544	2. West Virginia	13.0
4. Maine	15.0%	44. Alaska	133		
5. Rhode Island	15.0%	45. Rhode Island	119		
6 Puerto Rico	14.0%	16 Arizona	00		

Number of Bridges in Need of Repair, Including Structurally Deficient Bridges



Number of Structurally Deficient Bridges



Top Most Traveled Structurally Deficient Bridges in Rhode Island

County	Year Built	Daily Crossings	Type of Bridge	Location
Providence	1963	156,790	Urban Interstate	I-95 NB & SB over Thurbers Av
Kent	1966	146,680	Urban Interstate	I-95 NB & SB over Jefferson Blvd
Providence	1964	139,026	Urban Interstate	I-95 NB & SB over Narr Elec Co Siding
Providence	1964	129,532	Urban Interstate	I-95 NB & SB over Amtrak
Providence	1965	129,532	Urban Interstate	I-95 NB & SB over US 1 Elmwood Av
Providence	1969	80,500	Urban Interstate	I-195 WB over Seekonk River
Providence	1957	69,109	Urban freeway/expressway	RI 146 Ed Dowl Hwy over RI 15 Mineral Spring Av
Providence	1957	65,800	Urban freeway/expressway	RI 146 Ed Dowl Hwy over Branch Av
Providence	1969	53,619	Urban freeway/expressway	US 6 EB & WB over US 6A Hartford Av Ramp
Providence	1965	47,871	Urban other principal arterial	RI 37 EB & WB over RI 2 New London Av
Providence	1956	47,393	Urban freeway/expressway	RI 146 Ed Dowl Hwy over Cobble Hill Rd
Kent	1963	47,277	Urban freeway/expressway	RI 37 EB over Amtrak
Providence	1956	47,208	Urban freeway/expressway	RI 146 Ed Dowl Hwy over RI 246 Charles St
Washington	1969	46,800	Urban freeway/expressway	US 1 Tower Hill Rd over RI 138
Kent	1965	46,000	Urban freeway/expressway	RI 37 EB & WB over US 1 Post Rd
Kent	2006	34,118	Urban other principal arterial	RI 113 Main Av over Amtrak
Providence	1988	31,200	Urban Interstate	Ramp Ad over Amtrak,Woon Rvr,Ramp Bd
Providence	1972	31,112	Urban minor arterial	Dean St over US 6 Harris Av & Amtrak
Providence	1968	30,529	Urban freeway/expressway	RI 37 EB & WB over Wash Sec Bike Path
Providence	1968	30,528	Urban freeway/expressway	RI 37 EB & WB over Cranston St
Providence	1965	28,420	Urban freeway/expressway	RI 10 Huntngtn Exp over US 1 Elmwood Av
Providence	1969	27,992	Urban Interstate	I-295 NB over RI 146 Eddie Dowling Hwy
Providence	1968	27,900	Urban freeway/expressway	RI 37 EB & WB over I-295 NB
Providence	1969	27,900	Urban freeway/expressway	RI 37 EB & WB over I-295 SB
Providence	1965	26,754	Urban freeway/expressway	RI 10 Huntngtn Exp over I-95 NB & SB, Amtrak

Bridge Inventory: Rhode Island

Type of Bridge	Number of Bridges	Area of All Bridges (sq. meters)	Daily Crossings on All Bridges	Number of Structurally Deficient Bridges	Area of Structurally Deficient Bridges (sq. meters)	Daily Crossings on Structurally Deficient Bridges
Rural Interstate	14	7,092	444,242	0	0	0
Rural arterial	16	6,310	128,590	1	200	5,534
Rural minor arterial	9	2,305	42,545	0	0	0
Rural major collector	22	6,828	74,644	3	1,042	3,661
Rural minor collector	22	4,873	18,828	1	318	513
Rural local road	32	3,687	9,682	10	1,053	2,561
Urban Interstate	129	209,444	7,393,410	13	32,986	925,869
Urban freeway/expressway	120	236,704	3,722,042	16	23,559	633,831
Urban other principal arterial	129	121,681	1,978,589	18	16,882	331,953
Urban minor arterial	144	100,857	1,493,009	25	18,491	273,234
Urban collector	87	41,518	374,274	20	10,011	57,179
Urban local road	59	18,177	87,707	12	2,299	20,843
Total	783	759,476	15,767,562	119	106,841	2,255,178

Proposed Bridge Work

Type of Work	Number of Bridges	Cost to Repair (in millions)	Daily Crossings	Area of Bridges (sq. meters)
Bridge replacement	5	\$38	34,396	3,599
Widening & rehabilitation	0	\$0	0	0
Rehabilitation	708	\$3,597	14,342,944	646,978
Deck rehabilitation/replacement	0	\$0	0	0
Other structural work	63	\$562	1,262,799	105,337
Total	776	\$4,197	15,640,139	755,914

About the data:

Data and cost estimates are from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), downloaded on August 20, 2024. 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 2023 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.