

National Bridge Inventory: New Hampshire



2021 Bridge Profile

Highlights from FHWA's 2020 National Bridge Inventory Data

- Of the 2,514 bridges in the state, 215, or 8.6 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 249 bridges classified as structurally deficient in 2016.
- The deck area of structurally deficient bridges accounts for 6.8 percent of total deck area on all structures.
- 9 of the structurally deficient bridges are on the Interstate Highway System. A total of 85.6 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.
- 147 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 2,462 bridges at an estimated cost of \$6.0 billion.

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	208	119,490	1,972,175	1	99	13,715
Other principal arterial	122	54,832	1,115,839	11	5,576	98,798
Minor arterial	165	61,088	795,083	9	2,418	46,172
Major collector	199	67,022	563,335	21	9,652	49,512
Minor collector	180	36,844	249,769	11	3,786	11,942
Local	853	110,671	302,348	97	8,777	41,480
Urban Bridges						
Interstate	163	209,373	5,250,834	8	9,496	250,289
Freeway/expressway	92	118,772	2,910,665	5	4,616	102,658
Other principal arterial	113	162,158	1,885,333	5	11,137	85,553
Minor arterial	134	104,041	1,538,438	15	13,283	193,776
Collector	119	58,500	689,756	12	6,055	76,652
Local	166	47,542	274,981	20	3,484	27,188
Total	2,514	1,150,333	17,548,556	215	78,378	997,735

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	2,447	\$5,996,309.8	17,533,889	1,144,342
Widening & rehabilitation	.	\$.	.	.
Rehabilitation	10	\$3,998.4	405	794
Deck rehabilitation/replacement	1	\$905.9	50	180
Other work	4	\$11,124.4	11,007	2,210
Total	2,462	\$6,012,338.5	17,545,351	1,147,526

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Top Most Traveled Structurally Deficient Bridges in New Hampshire

County	Year Built	Daily Crossings	Type of Bridge	Location
Merrimack	1959	48,774	Urban Interstate	I-89 over South Street
Merrimack	1958	46,136	Urban Interstate	I-393,US 4,US202 over I-93
Merrimack	1958	46,136	Urban minor arterial	US202 over NHRR,Constitution Av.
Merrimack	1980	44,015	Urban Interstate	I-393,US 4,US202 over Fort Eddy Rd
Merrimack	1966	25,347	Urban minor arterial	Nh 9(Loudon Road) over Merrimack River
Strafford	1957	24,688	Urban freeway/expressway	Nh 16,Sp Tpk NB over Cocheco River
Hillsborough	1923	24,531	Urban other principal arterial	US 3,NH 3A over I-293,NH 3A,PAR,Merr R
Hillsborough	1956	24,408	Urban Interstate	I-293,NH 3A,Tpk N over Black Brook
Strafford	1957	23,907	Urban freeway/expressway	Nh 16,Sp Tpk SB over Cocheco River
Strafford	1957	23,012	Urban freeway/expressway	Nh 16,Sp Tpk NB over Nh108,Par(Abd)

About the data: Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), downloaded on March 11, 2021. 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 2019 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.

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