American Road & Transportation Builders Association

National Bridge Inventory: Colorado

- The state has identified needed repairs on 1,242 bridges.
- This compares to 1,298 bridges that needed work in 2020.
- Over the life of the IIJA, Colorado will receive a total of $225.0 million in bridge formula funds, which will help make needed repairs.
- Colorado currently has access to $135.0 million of that total, and has committed $60.7 million towards 62 projects as of June 2024.
- Of the 8,965 bridges in the state, 432, or 4.8 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is down from 481 bridges classified as structurally deficient in 2020.
- The deck area of structurally deficient bridges accounts for 3.7 percent of total deck area on all structures.

34

Compared to 36 in 2023

in the nation in % of structurally deficient bridges

1. Iowa	19.0%
33. Idaho	5.0%
34. Colorado	5.0%
35. Ohio	5.0%

30

Compared to 32 in 2023

in the nation in # of structurally deficient bridges

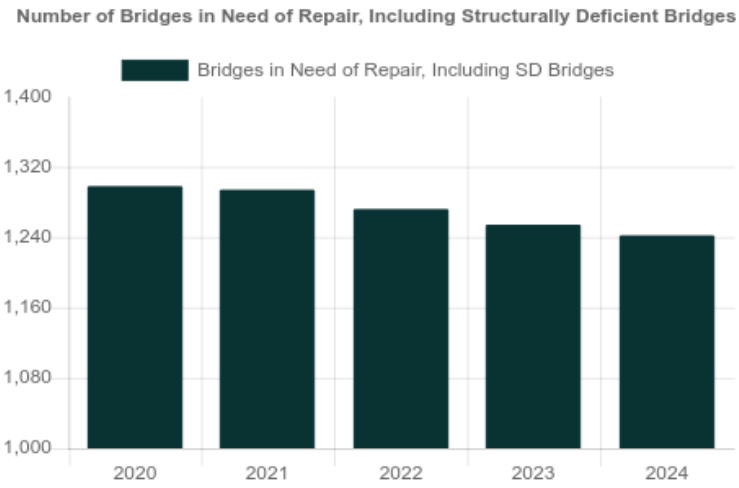
1. Iowa	4,544
29. Washington	462
30. Colorado	432
31. New Jersey	410

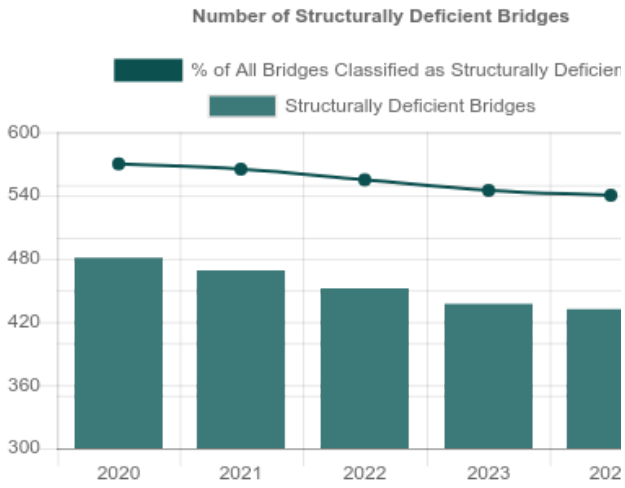
35

Compared to 34 in 2023

in the nation in % of structurally deficient bridge deck area

1. Rhode Island	14.0%
34. Vermont	4.0%
35. Colorado	4.0%
36. Ohio	4.0%





Top Most Traveled Structurally Deficient Bridges in Colorado

County	Year Built	Daily Crossings	Type of Bridge	Location
Denver	1971	128,000	Urban Interstate	I 225 ML over Goldsmith Gulch
Denver	1989	107,500	Urban freeway/expressway	Ramp to I 25 NBnd over US 6 Ml
Jefferson	1972	101,000	Urban freeway/expressway	US 6 ML over SH 121 Ml
Jefferson	1967	92,000	Urban Interstate	I 70 ML over Harlan Street
Denver	1962	60,000	Urban freeway/expressway	SH 35 ML over Sand Creek
Jefferson	1967	57,000	Urban Interstate	I 70 ML WBnd over SH 391 Ml
Jefferson	1967	57,000	Urban Interstate	I 70 ML EBnd over SH 391 Ml
Jefferson	1968	56,000	Urban Interstate	I 70 ML WBnd over SH 72 Ml
Adams	1969	48,500	Urban Interstate	I 270 ML WBnd over SH 265 Ml,UP RR,BNSF RR
Adams	1969	48,500	Urban Interstate	I 270 ML EBnd over ditch Rd,Burlington Cana
Adams	1969	48,500	Urban Interstate	I 270 ML WBnd over South Platte River
Adams	1970	48,500	Urban Interstate	I 270 ML WBnd over Service Rd, BNSF RR
Adams	1969	48,500	Urban Interstate	I 270 ML EBnd over South Platte River
Adams	1969	48,500	Urban Interstate	I 270 ML WBnd over ditch Rd,Burlington Cana
Clear Creek	1936	47,000	Rural local road	I 70 Frontage Rd over Clear Creek Sr
Adams	1968	46,500	Urban Interstate	I 270 ML WBnd over Dahlia Street
Arapahoe	1955	46,000	Urban other principal arterial	US 285 ML over Little Dry Creek
Jefferson	1968	45,500	Urban Interstate	I 70 ML WBnd over West 20th Ave
Adams	1975	43,499	Urban other principal arterial	120th Avenue over Farmers Highline Cnl
Adams	1967	42,000	Urban Interstate	I 76 ML EBnd over York Street
Clear Creek	1959	41,000	Rural minor arterial	Ramp to US 6 ML over Clear Creek R
Adams	1940	40,000	Urban other principal arterial	SH 6 ML over Sand Creek
Arapahoe	1969	38,305	Urban collector	Alameda Ave over I 225 Ml
Jefferson	1984	38,000	Urban Interstate	I 76 ML WBnd over Clear Creek
Jefferson	1982	38,000	Urban Interstate	I 76 ML WBnd over Ramp to SH 121 Ml

Bridge Inventory: Colorado

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	545	470,606	6,521,814	26	22,062	268,000
Rural arterial	608	328,910	3,523,703	17	5,606	67,936
Rural minor arterial	687	277,462	1,502,340	39	14,499	112,163
Rural major collector	697	234,564	911,960	46	9,440	41,376
Rural minor collector	826	200,034	590,094	52	9,009	28,065
Rural local road	1,983	363,857	975,994	125	24,179	131,019
Urban Interstate	565	896,001	32,440,000	25	26,263	1,182,032
Urban freeway/expressway	434	601,548	14,947,571	12	22,122	398,750
Urban other principal arterial	581	713,720	12,100,120	24	25,972	460,565
Urban minor arterial	581	408,292	6,034,855	19	13,654	179,669
Urban collector	518	311,934	3,518,875	19	8,807	108,896
Urban local road	940	402,202	3,281,345	28	9,961	109,614
Total	8,965	5,209,130	86,348,671	432	191,574	3,088,085

Proposed Bridge Work

Type of Work	Number of Bridges	Cost to Repair (in millions)	Daily Crossings	Area of Bridges (sq. meters)
Bridge replacement	244	$371	1,764,460	112,705
Widening & rehabilitation	247	$344	3,205,729	154,871
Rehabilitation	389	$436	2,950,341	197,915
Deck rehabilitation/replacement	37	$78	518,826	34,850
Other structural work	325	$445	3,394,222	199,709
Total	1,242	$1,674	11,833,578	700,050

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.