



Kim Reynolds, Governor
Adam Gregg, Lt. Governor
Scott Marler, Iowa DOT Director

February 14, 2022

The Honorable Waylon Brown, Chair, Senate Transportation Committee
The Honorable Brian Best, Chair, House Transportation Committee
Tim McDermott, Interim Director, Legislative Services Agency
Ground Floor, State Capitol Building
Des Moines, Iowa 50319

Re: County Structurally Deficient Bridges Report for FY 2021

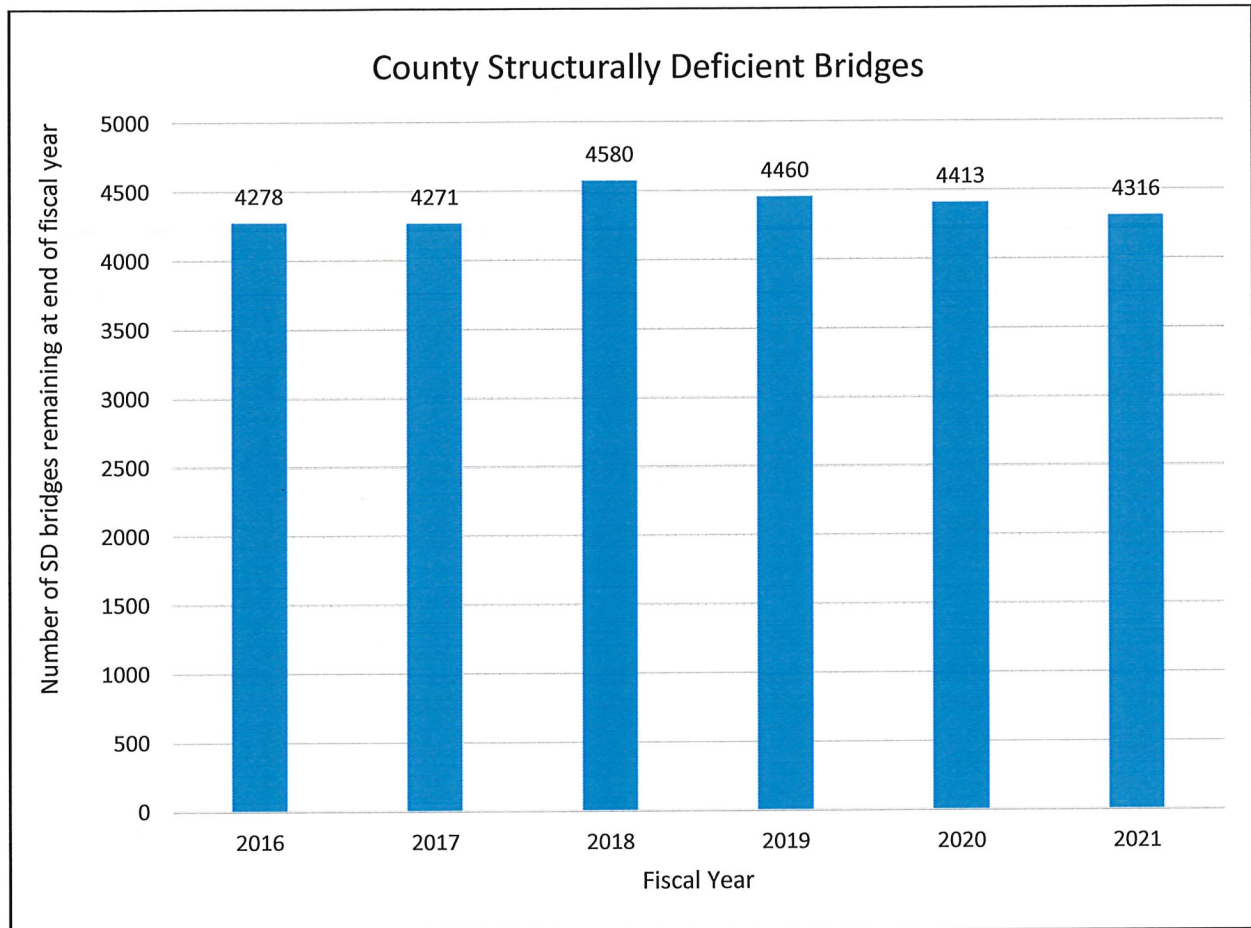
Pursuant to Iowa Code 307.32, the Iowa Department of Transportation respectfully submits the subject report summarizing the progress made during Fiscal Year (FY) 2021 to reduce the number of Structurally Deficient (SD) county bridges in Iowa. Included with the report is “A Guide to the County Structurally Deficient Bridges Summary Report,” which provides background information, definitions, and other information related to the report.

Highlights from this year’s report include the following:

- At the beginning of the FY there were 4,413 SD county bridges.
- During the FY an additional 312 bridges became SD and 409 bridges were repaired or replaced to remove their SD status, resulting in a net reduction of 97 SD bridges.
- Of the 4,316 bridges that remained in SD status at the end of the FY, 3,984 are still open to traffic and 332 are closed.
- Of the 3,984 bridges that are still open to traffic, 989 (or about 25%) are programmed for replacement or rehabilitation in the next five years.
- Of the 332 bridges that are closed, 259 (or about 78%) are not likely to reopen due to lack of funding for rehabilitation or replacement.

In summary, counties have continued to make progress in reducing the number of SD bridges, and compared to last year, progress has accelerated. One reason for the uptick in progress is that in federal fiscal years (FFY) 2019, 2020, and 2021, there was additional federal money appropriated for the replacement and rehabilitation of bridges, of which, the counties received a portion. The portion of the additional appropriation received by each county in each FFY was equivalent to approximately 40 percent of their yearly allocation. This additional funding allowed the counties to develop more projects, and many of those additional projects likely reached letting stage in FY 2021. With passage of the Infrastructure Investment and Jobs Act in November 2021, counties will receive even more federal funding dedicated to bridge projects over the next five years.

The chart on the following page shows the trend of county SD bridges over the past several years.



If you have any questions concerning this report, please feel free to contact me using the phone number or e-mail shown below.

Sincerely,



Scott C. Marler, Director

County Structurally Deficient Bridges Summary Report - Fiscal Year 2021

In accordance with Iowa Code 309.22A, this report details the manner in which counties use their road use tax funds to replace or repair structurally deficient bridges.

County	Beginning Status			Structures taken off SD status				Structures that remained in SD status at end of year						Effective 1/1/2021 Total Poor by current FHWA Definition	
	Carry over and newly designated SD			Bridges removed from structurally deficient status; restored to full legal load capacity				In Service (Open) - Still SD			Out of Service (Closed)				Total SD Remaining
	SD at beginning of reporting period	Became SD during FY 2021	Total SD during this FY	via Replacement	via Major Rehabilitation	via Light Rehabilitation	Total Restored	Partially Rehabbed	Programmed for Replace or Rehab	Not yet Programmed	Closed: plan to replace	Closed: programmed to replace	Closed: Not likely to reopen		
Adair	60	1	61	9	0	0	9	0	3	44	0	0	5	52	47
Adams	55	20	75	4	0	0	4	3	4	57	0	0	7	71	71
Allamakee	20	3	23	1	0	0	1	2	8	12	0	0	0	22	22
Appanoose	55	6	61	6	0	0	6	0	12	37	3	3	0	55	54
Audubon	30	6	36	4	0	0	4	0	7	16	1	2	6	32	25
Benton	75	0	75	3	0	0	3	0	36	33	0	0	1	72	72
Black Hawk	17	8	23	3	0	0	3	0	11	6	0	2	1	20	20
Boone	42	3	45	4	0	0	4	0	7	31	0	0	3	41	40
Bremer	37	2	39	5	0	0	5	0	12	20	0	1	1	34	34
Buchanan	25	1	26	4	0	0	4	0	9	11	0	2	0	22	22
Buena Vista	50	1	51	2	0	0	2	0	5	41	0	0	3	49	49
Buller	45	3	48	4	0	0	4	0	29	14	0	0	1	44	44
Calhoun	43	0	43	3	0	0	3	0	13	24	0	3	0	40	40
Carroll	15	0	15	1	0	0	1	0	5	9	0	0	0	14	13
Cass	84	19	103	2	0	0	2	0	19	79	0	1	2	101	99
Cedar	64	5	69	2	0	0	2	0	13	49	1	1	3	67	66
Cerro Gordo	19	0	19	5	0	0	5	0	6	8	0	0	0	14	14
Cherokee	66	0	66	0	0	0	0	0	11	49	0	0	6	66	66
Chickasaw	60	14	74	4	0	0	4	0	6	62	0	0	2	70	69
Clarke	58	3	61	2	0	0	2	0	7	44	0	0	8	59	54
Clay	18	0	18	2	0	0	2	0	4	12	0	0	0	16	16
Clayton	30	0	30	4	0	0	4	0	8	18	0	0	0	26	21
Clinton	9	3	12	3	0	0	3	0	4	2	0	0	3	9	8
Crawford	33	3	36	3	0	0	3	0	7	25	0	1	0	33	28
Dallas	10	2	12	0	0	0	0	0	4	6	0	0	2	12	12
Davis	53	2	55	6	0	0	6	0	7	38	0	1	3	49	48
Decatur	73	0	73	3	1	0	4	3	7	48	0	1	10	69	69
Delaware	16	2	18	2	0	0	2	0	4	11	0	0	1	16	15
Des Moines	25	2	27	6	0	0	6	0	8	12	0	0	1	21	21
Dickinson	23	0	23	3	0	0	3	1	10	7	0	1	1	20	20
Dubuque	36	0	36	4	0	0	4	0	2	26	0	0	4	32	31
Emmet	17	0	17	5	0	0	5	0	2	8	0	0	2	12	12
Fayette	66	6	72	3	0	0	3	0	9	59	0	0	1	69	64
Floyd	29	5	34	3	0	0	3	0	5	24	0	0	2	31	31
Franklin	30	3	33	5	0	0	5	0	8	18	0	1	1	28	27
Fremont	38	0	38	2	0	0	2	1	5	25	0	2	3	36	31
Greene	14	2	16	3	0	0	3	0	1	12	0	0	0	13	12
Grundy	63	7	70	1	1	0	2	0	26	39	0	2	1	68	68
Guthrie	89	6	95	3	0	0	3	1	11	76	0	0	4	92	92
Hamilton	33	0	33	2	0	0	2	0	11	18	0	0	2	31	31
Hancock	27	8	35	5	0	0	5	0	9	21	0	0	0	30	28
Hardin	46	4	50	9	0	0	9	0	8	31	0	1	1	41	41
Harrison	49	1	50	1	0	0	1	0	12	33	0	1	3	49	48
Henry	30	5	35	4	0	0	4	0	7	24	0	0	0	31	30
Howard	55	3	58	8	1	0	9	0	18	22	0	0	9	49	48
Humboldt	13	0	13	1	0	0	1	0	8	4	0	0	0	12	12
Ia	26	6	32	6	0	0	6	0	6	19	0	0	1	26	26
Iowa	45	10	55	4	0	0	4	1	7	39	0	1	3	51	51
Jackson	47	2	49	4	0	0	4	0	7	36	0	1	1	45	44
Jasper	117	4	121	7	0	0	7	0	11	92	0	1	10	114	113
Jefferson	37	2	39	7	1	0	8	1	19	11	0	0	0	31	31
Johnson	25	0	25	2	0	0	2	0	10	12	1	0	0	23	20
Jones	13	1	14	3	0	0	3	0	2	7	0	0	2	11	10
Keokuk	23	9	32	3	0	0	3	0	9	19	0	0	1	29	28
Kossuth	33	0	33	3	0	0	3	0	13	17	0	0	0	30	28
Lee	23	0	23	1	0	0	1	1	8	11	0	0	2	22	20
Linn	11	11	22	0	0	0	0	0	3	18	0	0	1	22	22
Louisia	21	1	22	4	0	0	4	0	8	8	1	0	1	18	18
Lucas	59	5	64	1	0	0	1	2	6	47	0	0	8	63	63
Lyon	50	6	56	6	0	0	6	0	7	30	0	4	9	50	50
Madison	91	1	92	2	0	0	2	1	19	65	0	2	3	90	87
Mahaska	80	8	88	3	2	0	5	0	14	60	0	3	6	83	83
Marion	35	1	36	3	0	0	3	2	11	19	0	1	0	33	30
Marshall	117	9	126	9	0	0	9	0	15	101	0	0	1	117	117
Mills	35	0	35	0	0	0	0	0	3	29	0	0	3	35	35
Mitchell	21	0	21	3	0	0	3	0	4	12	0	1	1	18	18
Monona	43	4	47	5	0	0	5	0	4	29	0	0	9	42	41
Monroe	41	0	41	3	0	0	3	1	7	28	0	0	2	38	36
Montgomery	56	0	56	4	0	0	4	0	10	36	0	0	6	52	50
Muscatine	32	2	34	5	0	0	5	0	10	19	0	0	0	29	29
O'Brien	5	0	5	1	0	0	1	0	2	2	0	0	0	4	1
Osceola	14	4	18	4	0	0	4	0	0	12	0	0	2	14	14
Page	61	2	63	5	0	0	5	1	8	41	0	0	8	58	58
Palo Alto	24	0	24	0	0	0	0	0	2	22	0	0	0	24	22
Plymouth	100	2	102	5	0	0	5	0	39	58	0	0	0	97	96
Pocahontas	47	6	53	0	0	0	0	1	2	41	0	1	8	53	53
Polk	24	0	24	6	0	0	6	0	7	10	0	0	1	18	18
Pottawattamie	56	0	56	11	0	0	11	0	18	26	0	0	1	45	45
Poweshiek	111	0	111	16	0	0	16	0	12	80	0	0	3	95	95

County	Beginning Status Carry over and newly designated SD			Structures taken off SD status Bridges removed from structurally deficient status: restored to full legal load capacity				Structures that remained in SD status at end of year						Effective 11/1/2021 Total Poor by current FHWA Definition	
	SD at beginning of reporting period	Became SD during FY 2021	Total SD during this FY	via Replacement	via Major Rehabilitation	via Light Rehabilitation	Total Restored	In Service (Open) - Still SD			Out of Service (Closed)				Total SD Remaining
								Partially Rehabbed	Programmed for Replace or Rehab	Not yet Programmed	Closed: plan to replace	Closed: programmed to replace	Closed: Not likely to reopen		
Ringgold	105	3	108	9	0	0	9	1	15	68	1	5	9	99	99
Sac	69	9	78	6	0	0	6	0	18	49	2	3	0	72	69
Scott	21	0	21	3	0	0	3	0	12	6	0	0	0	18	18
Shelby	28	0	28	4	0	0	4	0	4	19	1	0	0	24	23
Sioux	12	0	12	0	0	0	0	0	8	3	0	0	1	12	11
Story	42	7	49	5	0	0	5	0	10	28	0	0	6	44	42
Tama	108	7	115	6	0	0	6	1	16	79	1	0	12	109	109
Taylor	100	2	102	23	0	0	23	1	17	52	0	0	9	79	77
Union	62	1	63	9	0	0	9	0	7	42	0	1	4	54	52
Van Buren	49	2	51	1	0	0	1	0	10	36	0	0	4	50	46
Wapello	37	2	39	2	0	0	2	2	20	14	0	0	1	37	36
Warren	54	7	61	5	0	0	5	2	6	42	0	0	6	56	56
Washington	36	1	37	0	0	0	0	0	8	28	0	0	1	37	32
Wayne	37	2	39	4	1	0	5	2	11	15	3	1	2	34	32
Webster	47	4	51	8	0	0	8	0	27	15	0	1	0	43	42
Winnnebago	19	0	19	5	0	0	5	0	11	3	0	0	0	14	14
Winneshiek	69	0	69	4	0	0	4	0	14	47	0	2	2	65	65
Woodbury	79	5	84	7	0	0	7	0	25	47	0	4	1	77	75
Worth	20	0	20	0	0	0	0	0	8	11	0	0	1	20	17
Wright	51	7	58	6	0	0	6	0	9	39	0	0	4	52	52
Totals	4413	312	4725	402	7	0	409	31	989	2864	15	58	259	4316	4202

SD Structures to account for: 4725

Restored: 409
Still SD: 4316

Still open: 3984

Closed: 332
Net Improvement: 97

A Guide to the County Structurally Deficient Bridges Summary Report

Prepared by the Iowa Department of Transportation

January 2022

Background

Except when more frequent inspection cycles are required, counties must inspect all bridges at least every 24 months for structural integrity and overall condition. Some counties inspect all of their bridges every other year while others inspect roughly one-half of their bridges each year.

In accordance with Iowa Code 309.22A, this report summarizes the manner in which counties used their road use tax funds to replace or repair structurally deficient bridges. Each year the county engineers submit this information to the Iowa DOT as part of the county annual report of road and bridge expenditures required by Iowa Code 309.22. Additionally, more detailed information is available from the Iowa DOT upon request.

What is a “structurally deficient” (SD) bridge?

This classification does not mean a bridge is unsafe. SD bridges can safely remain in service (open to vehicular traffic) but often must be posted for weight limits that are less than the maximum allowed by law.

A bridge is classified as SD when significant load carrying elements are found to be in poor or worse condition due to deterioration and/or damage or when the adequacy of the waterway opening provided by the bridge is determined to be extremely insufficient to the point of causing intolerable traffic interruptions. This classification is determined based on the latest bridge inspection data and criteria prescribed by the National Bridge Inspection Standards (NBIS) published by the Federal Highway Administration (FHWA).

Please note, in accordance with the Pavement and Bridge Condition Performance Measures final rule published by FHWA in January of 2017, the definition of the term of “structurally deficient” has been changed by the FHWA, and the use of the terms “Good”, “Fair” and “Poor” has been implemented. The new classification of “Poor” is most equivalent to the previously classification of “SD”. Under the new definition a bridge can no longer qualify as structurally deficient via the structural condition (Item 67) or the waterway adequacy (Item 71) rating criteria. Therefore, some bridges that qualified as “SD” under the previous definition do not qualify as “Poor” under the new definition. This presentation continues use of the previous rule in order to allow valid historic comparisons within the State of Iowa; however, a column on the right side of the report shows the number of bridges classified as “Poor” using the new definition. Because this presentation is assembled using the previous definition of “SD”, direct comparisons with other states who are using the current definition may not be accurate.

What do each of the columns of this report mean?

Beginning Status – This section shows how the starting total of SD bridges for the reporting period are calculated.

SD at the beginning of the reporting period – This is the number of bridges which were classified as SD at the beginning of the reporting period.

Became SD during this FY – This is the number of bridges which moved into SD status during the reporting period.

Total SD during this FY – This is the sum of the previous two columns, which provides the total of SD bridges to be accounted for during the reporting period.

Structures Taken Off SD Status – This section shows the number of bridges that were restored to full legal load capacity, thereby removing the SD classifications. It also provides a breakdown of how these bridges were fixed.

Replacement – This is the number of SD bridges which were replaced by a new bridge or culvert.

Major Rehabilitation – This is the number of SD bridges which were not completely reconstructed but which had repairs made that were substantial enough to improve the condition enough to remove the SD condition designation. Examples might include complete deck replacements, beam replacements, or major repairs to the bridge piers or abutments (substructure supports).

Light Rehabilitation – This is the number of SD bridges for which only minor repairs were needed to improve the condition enough to remove the SD condition designation. Examples might include deck patching, beam strengthening, or less substantial repairs to the bridge piers (substructure supports).

Total Restored – This is the sum of the previous three columns, representing the total number of SD bridges replaced or repaired during the reporting period so that they no longer have a SD condition designation.

Structures that remained in SD Status at end of year – This section describes the status of bridges that did not have their SD status removed through the work accomplished during the year. These bridges are grouped into two main categories and several subcategories, as shown below:

In Service (open) Still SD – These bridges are still open to traffic while remaining in SD condition.

Partial Rehabilitation – This is the number of SD bridges on which minor repairs were made but not enough to remove the SD condition. Examples might include limited deck patching, bridge approach pavement repairs, bridge railing repairs, or joint replacements.

Programmed for Rehab or Replace – This is the number of SD bridges included in the county's five-year program which are scheduled for repair or replacement.

Not yet programmed – This is the number of SD bridges not yet included in the county's five-year program for repair or replacement.

Out of Service (Closed) – These bridges are closed to vehicular traffic and remain in SD condition.

Closed: Plan to Replace – This is the number of SD bridges that had an inspection which revealed issues that were serious enough to warrant closing the structure.

Closed: Programmed to Replace – This is the number of SD bridges which are closed to traffic and which will be replaced with an upcoming project. These structures may or may not be in the county's five-year plan.

Closed: Not Likely to Reopen – This is the number of SD bridges which are closed to traffic and for which the county has no current plans for repair or replacement.

Total SD Remaining – This is the total number of bridges that remain in SD status at the close of the reporting period.

Total Poor by current FHWA Definition – This is the total number of bridges that remain in Poor status at the close of the reporting period. Note, this column reflects the previously described definitional change from SD to Poor.

Net Improvement – This is the difference between the number of SD bridges at the beginning of the reporting period and the number of SD bridges remaining at the end of the reporting period.