

**Office of Local Systems/Project Delivery Bureau**  
800 Lincoln Way | Ames, Iowa 50010  
Phone: 515-239-1064 | Email: [eric.cowles@iowadot.us](mailto:eric.cowles@iowadot.us)

January 24, 2018

The Honorable Senator Tim Kapucian  
Senate Transportation Committee Chair  
State Capitol Building  
1007 E Grand Avenue  
Des Moines, Iowa 50319

The Honorable Representative Ashley Hinson  
House Transportation Committee Chair  
State Capitol Building  
1007 E Grand Avenue  
Des Moines, Iowa 50319

Mr. Glen Dickinson  
Director, Legislative Services Agency  
Ground Floor, State Capitol Building  
Des Moines, IA 50319

Re: Annual County Structurally Deficient Bridges Summary Report for FY 2018

All,

Pursuant to Iowa Code 307.32, the Iowa Department of Transportation, Office of Local Systems, respectfully submits the attached Annual Report of Structurally Deficient Bridges for work accomplished during the State fiscal year (FY) 2018. Contained within 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.

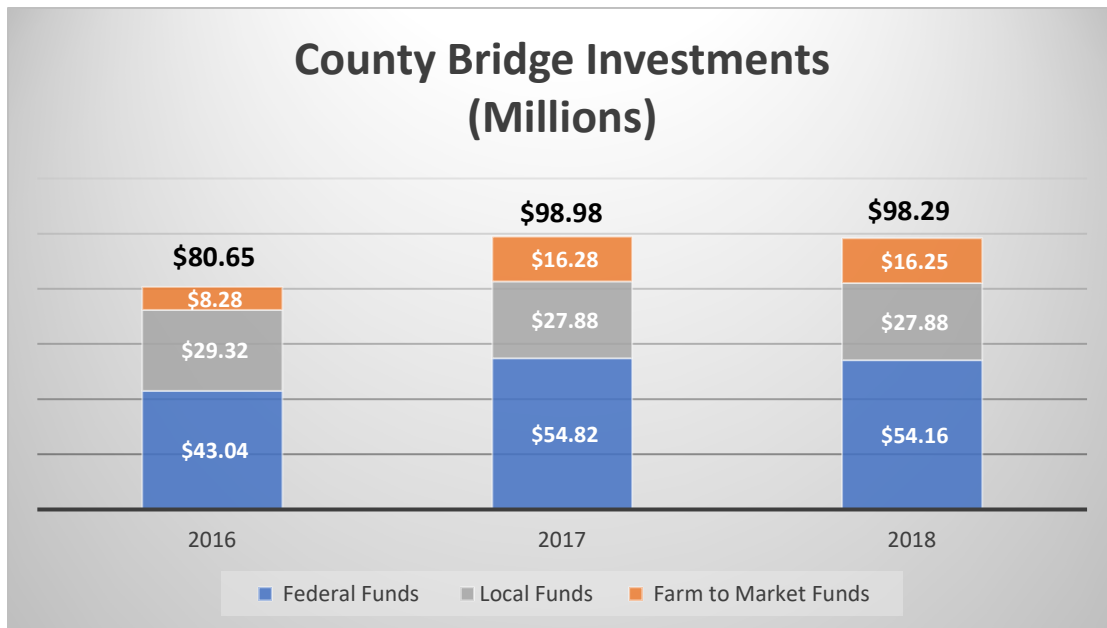
This report indicates progress slowed slightly in the total number of bridges rehabilitated or replaced and the number of bridges closed was reduced slightly. The following are some highlights of the FY 2018 report:

- 424 bridges were replaced or repaired so they are no longer structurally deficient. This is a decrease of 37 as compared to the FY 2017 report.



- 384 bridges were closed. This is an increase of 42 as compared to the FY 2017 report. Closed bridges may reflect a location that no longer serves a significant connection within the county or has very low traffic volumes. Of these 384 newly closed bridges, 101 are intended to be reopened in the future.

Though progress in the number of bridges appears to have slowed, the overall investment in county bridges was similar to the FY 2017 report.



If you have questions about specific bridges, please contact the County Engineer in the appropriate county. If you have any questions about the report, please contact me at the phone number or e-mail shown above.

Additionally, the Iowa DOT submitted a grant application in December 2018 to the Federal Highway Administration to request additional funding for 77 bridge replacement projects as a part of the Competitive Highway Bridge Program. The application includes 4 DOT bridges on the primary highway system, 4 city owned bridges as well as 68 county bridges with a focus on replacement of existing structurally deficient bridges. Determination of award will be made



SMARTER | SIMPLER | CUSTOMER DRIVEN

[www.iowadot.gov](http://www.iowadot.gov)

sometime in early 2019.

Sincerely,

A handwritten signature in blue ink that reads 'Eric D. Cowles'.

Eric D. Cowles, P.E.  
Secondary Roads Engineer  
Office of Local Systems

CC: Mitch Dillavou, PE, Director, Highway Division  
Charlie Purcell, PE, Director, Project Delivery Bureau  
John Selmer, Director, Strategic Performance Division  
Stu Anderson, Director, Planning, Programming and Modal Division Director  
Donna Buchwald, PE, Director, Office of Local Systems  
Susan Fenton, State Legislative Liaison

## County Structurally Deficient Bridges Summary Report - Fiscal Year 2018

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 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						Structure Removed  Sold Demolished Abandoned No longer NBIS	
	SD at beginning of reporting period	Became SD during this FY	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 Rehabed	Programmed for Replace or Rehab	Not yet Programmed	Closed: plan to replace	Closed: programmed to replace	Closed: Not likely to reopen		
Adair	62	3	65	2			2	0	4	51	1		7	63	
Adams	56	2	58	1			1	0	2	54	1			57	
Allamakee	25		25	2			2	0	7	15			1	23	
Appanoose	57	2	59	4			4	0	21	31	1		2	55	
Audubon	35	1	36	4			4	1	5	19	2		6	32	
Benton	54	16	70	1		1	2	0	34	29	2	1	2	68	
Black Hawk	24	1	25	1	1	2	4	0	10	10	1			21	
Boone	45	1	46	2			2	0	5	37			2	44	
Bremer	43		43	3			3	0	9	27	1		1	40	
Buchanan	34		34	5	1		6	0	12	13	1	2		28	
Buena Vista	37		37	1			1	0	5	24			7	36	
Butler	54	3	57	4			4	1	27	23		1	2	53	
Calhoun	25	9	34	1			1	0	14	18			1	33	
Carroll	14	2	16	1		1	2	0	6	8				14	
Cass	75	1	76	4		1	5	0	17	51	1	1	1	71	
Cedar	81	1	82	4			4	9	12	64			2	78	
Cerro Gordo	26		26				0	0	8	18				26	
Cherokee	68	2	70			4	4	2	2	57			7	66	
Chickasaw	48	12	60	5	1		6	0	9	42	1		2	54	
Clarke	52	3	55	3			3	0	10	33	2		7	52	
Clay	23		23	3			3	0	5	13				18	
Clayton	41	1	42	4	1		5	0	9	27		1		37	
Clinton	8	2	10	1			1	0	2	5			2	9	
Crawford	47		47	1	1		2	2	19	24	1		1	45	
Dallas	19		19	5	1		6	0	4	7			2	13	
Davis	74	3	77	6	3	1	10	0	13	44	1	2	7	67	
Decatur	76	7	83	7			7	0	10	58	2	2	4	76	
Delaware	20	2	22	1			1	0	1	19			1	21	
Des Moines	31	3	34	3	1		4	0	6	19			5	30	
Dickinson	9	2	11				0	0	5	8				13	
Dubuque	60	5	65	17			17	0	2	41			5	48	
Emmet	21		21				0	0	0	19			2	21	
Fayette	52	10	62	1			1	2	8	51	1	1		61	
Floyd	26	3	29	3			3	0	5	18		1	2	26	
Franklin	41	1	42	10			10	0	11	19	1		1	32	
Fremont	36	5	41	4			4	0	5	31			1	37	
Greene	19		19				0	0	1	16	2			19	
Grundy	63		63		1		1	0	25	32		2	3	62	
Guthrie	75	1	76	5			5	0	5	64			2	71	
Hamilton	31	1	32	2			2	0	8	22				30	
Hancock	37	1	38	7			7	0	10	21				31	
Hardin	39	8	47	2		1	3	0	20	19		1	4	44	
Harrison	51	2	53	2			2	0	13	37			1	51	
Henry	28	7	35	4			4	0	7	21			3	31	
Howard	53	2	55	1			1	0	8	37		4	5	54	
Humboldt	17		17	2			2	0	5	10				15	
Ida	24	1	25				0	0	3	21	1			25	
Iowa	35	1	36	5			5	0	5	20	2	3	1	31	
Jackson	46	11	57	6			6	0	8	40	1		2	51	
Jasper	130	11	141	7			7	0	23	98	1	2	10	134	
Jefferson	52	4	56	9			9	0	30	15			2	47	
Johnson	27	4	31	2			2	0	10	19				29	
Jones	16	1	17	3			3	0	4	6			4	14	
Keokuk	40		40	2	4		6	0	12	18	2	2		34	
Kossuth	39	4	43	8			8	0	17	16			2	35	0
Lee	20		20				0	0	7	13				20	
Linn	17		17	1			1	0	5	10			1	16	
Louisa	14	2	16				0	0	5	10				16	
Lucas	72	1	73	7			7	0	8	53			5	66	
Lyon	64	3	67	10			10	0	14	30			13	57	
Madison	81	12	93	2	2		4	8	26	57	1	1	4	89	
Mahaska	70	15	85	10			10	0	5	64			6	75	
Marion	58	4	62	2	5	2	9	1	16	35			2	53	
Marshall	95	10	105	4			4	0	20	78			3	101	
Mills	39	1	40	3			3	0	4	32			1	37	
Mitchell	27	1	28	2	1		3	0	5	16	2		2	25	
Monona	48	2	50		2		2	0	12	27	5	4		48	
Monroe	49		49	7			7	0	4	36			2	42	
Montgomery	59	2	61		2	1	3	1	9	42		1	6	58	
Muscatine	28	4	32	2			2	0	8	20			2	30	
O'Brien	15		15	4			4	0	7	4				11	
Osceola	16		16				0	0	4	10			2	16	
Page	57	1	58	1	1		2	0	5	48			3	56	
Palo Alto	25		25				0	0	1	24				25	
Plymouth	124	1	125	13			13	0	32	80				112	
Pocahontas	53	1	54	4			4	0	4	36	2	2	6	50	
Polk	25	3	28	5			5	0	9	13			1	23	
Pottawattamie	69	2	71	12			12	0	22	35			2	59	
Poweshiek	91		91	4	1		5	2	9	72			5	86	
Ringgold	118	2	120	12			12	0	7	83	1	2	15	108	
Sac	68		68	1			1	0	26	34	1	1	5	67	
Scott	11	13	24				0	0	13	10			1	24	
Shelby	34	2	36	6			6	1	9	20	1			30	

## County Structurally Deficient Bridges Summary Report - Fiscal Year 2018

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 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						Structure Removed  Sold Demolished Abandoned No longer NBIS	
	SD at beginning of reporting period	Became SD during this FY	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 Rehabed	Programmed for Replace or Rehab	Not yet Programmed	Closed: plan to replace	Closed: programmed to replace	Closed: Not likely to reopen		
Sioux	14	3	17	4			4	0	9	3			1	13	
Story	54		54	5			5	0	9	38			2	49	
Tama	116	7	123	7	3	4	14	1	8	87			14	109	
Taylor	103	7	110	1	2		3	0	10	76	2	1	18	107	
Union	60	3	63	3			3	0	6	44	1		9	60	
Van Buren	59		59	1			1	0	7	46			5	58	
Wapello	51	2	53	3	1		4	0	13	31	1		4	49	
Warren	71	6	77	4		1	5	0	13	51		2	6	72	
Washington	40	6	46	1		2	3	0	7	35			1	43	
Wayne	50	2	52	11			11	0	17	21			3	41	
Webster	53	7	60	11			11	0	34	14			1	49	
Winnebago	26	6	32	7			7	0	21	4				25	
Winneshiek	78	2	80	5			5	0	14	54	1	2	4	75	
Woodbury	89	5	94	7			7	0	23	55	5	4		87	
Worth	22	1	23	5			5	1	7	10			1	18	
Wright	45	4	49				0	0	10	34	1		4	49	
<b>Totals</b>	<b>4699</b>	<b>305</b>	<b>5004</b>	<b>368</b>	<b>35</b>	<b>21</b>	<b>424</b>	<b>32</b>	<b>1042</b>	<b>3154</b>	<b>53</b>	<b>48</b>	<b>283</b>	<b>4580</b>	<b>0</b>

SD Structures to account for: <span style="border: 1px solid black; padding: 2px;">5004</span>	Restored: <span style="border: 1px solid black; padding: 2px;">424</span> Still SD: <span style="border: 1px solid black; padding: 2px;">4580</span>	Still open: <span style="border: 1px solid black; padding: 2px;">4196</span> Closed: <span style="border: 1px solid black; padding: 2px;">384</span> Net Improvement: <span style="border: 1px solid black; padding: 2px;">119</span>
--	---	---

# **A Guide to the County Structurally Deficient Bridges Summary Report**

Prepared by the Iowa Department of Transportation

January 2019

## **Background**

Counties are required to inspect all bridges biannually for structural integrity and overall condition. Some counties inspect all 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. Additional more detailed information is available from the Iowa DOT upon request.

## **What's 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 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).

## **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 – the number of bridges that were classified at the beginning of the reporting period.

Became deficient during this FY – the number of bridge that moved into SD status during the reporting period.

Total SD during this FY – 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 classification. This section also provides a breakdown of how these bridges were fixed.

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

Major Rehabilitation – SD bridges that were not completely reconstructed, but substantial repairs were made to remove the SD condition. Examples might include complete deck replacements, beam replacements, or major repairs to the bridge piers or abutments (supporting columns).

Light Rehabilitation – SD bridges for which only minor repairs were needed to remove the SD condition. Examples might include deck patching, beam strengthening, or less substantial repairs to the bridge piers (supporting columns).

Total Restored – the sum of the previous three columns, representing the total number of SD bridges that were replaced or repaired during the reporting period so that they are no longer in SD condition.

Structures that Remained in SD Status at the End of the 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 – SD bridges that received minor repair, 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 – SD bridges that are included in the county’s five-year program. and are scheduled for repairs or replacement.

Not yet programmed – 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 – SD bridges that had an inspection that revealed issues were serious enough that the structure had to be closed.

Closed: Programmed to Replace – SD bridges that are closed to traffic and will be replaced with an upcoming project that may or may not be in the county’s five-year plan.

Closed: Not Likely to Reopen – SD bridges that are closed to traffic and the county has no current plans to repair or replace the bridge.

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

Structure Removed – Reflects structures that are no longer a public structure due to the being demolished, abandoned in place, de-listed by Federal Highway Administration, vacated or sold.

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.