

ASHTABULA County 2020 INVENTORY, APPRAISAL & INSPECTION SNAPSHOT

Inventory Data - NBIS Bridges Only

	<u>NBIS COUNT</u>
NBIS Bridges > 20'	154
Bridges 10'-20'	207
	361

Item 221	Inspection Responsibility	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab	Col BV,BW County	2	154	361
Item 21	Maintenance responsibility	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab	County	2	153	359
Col D	City or other local	4	1	1
	Railroad	27	0	0
	Private (tohter than RR)	26	0	0
	State Park	11	0	0
	Local Park	23	0	0
	Township	3	0	1
			154	361
Item 42A	Type service on bridge	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab	Other	0	0	0
Col Q	Highway	1	154	361
	Railroad	2	0	0
	Ped/Bikeway	3	0	0
	Hwy/RR	4	0	0
	Hwy/Ped	5	0	0
			154	361
Item 42B	Type service under bridge	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab	Other	0	0	0
Col R	Hwy w/ or w/o Ped	1	0	0
	Railroad	2	1	1
	Ped/Bkwy	3	0	1
	Hwy w/ RR	4	0	0
	Waterway	5	153	359
	Hwy/Waterway	6	0	0
	RR/Waterway	7	0	0
	Hwy/Waterway/RR	8	0	0
	Relief (for waterways)	9	0	0
			154	361

ITEMS 43A,B,C Structure Type	Data (Col M,N,O)	CODE	# NBIS	# ALL
Concrete Slab		101	10	65
Concrete Girder		103	1	1
Concrete Tee Beam		104	3	3
Concrete Box Beam/Girder Multiple		105	1	1
Concrete Frame		107	1	26
Concrete Deck Arch		111	2	2
Concrete Thru Arch		112	1	1
Concrete Culvert (incl frame culverts)		119	4	71
ConcreteContinuous Frame		207	2	2
Steel Beam or Girder		302	44	62
Steel Thru Truss (includes Pony)		310	19	19
Steel Culvert (incl frame culverts)		319	7	33
Steel Continuous Beam or Girder		402	7	7
Steel Continuous Girder w/ Floor System		403	1	1
Prestressed Concrete Thru Arch		502	1	2
Prestr. Conc. Cont. Box Beam/Girder Multiple		505	30	32
Prestressed Concrete Continuous Slab		601	1	1
Prestressed Concrete Continuous Thru Arch		602	1	1
Timber Slab		701	2	7
Timber Thru Arch		702	1	1
Timber Girder w/ Floor System		703	2	2
Timber Thru Truss (includes Pony)		710	11	11
Timber Thru Arch		712	2	2
Timber Culvert (incl frame culverts)		819	0	3
Aluminum or Iron Culvert (incl frame culverts)		919	0	5
			154	361

Item 92A Fracture Critical		CODE	# NBIS	# ALL
Data Tab	Requires FC Inspection	Y	19	n/a
Col U,V,Y	Requires FC Inspection	N	135	n/a
			154	n/a
	FC date blank but FC=Y		0	n/a

Item 92B Underwater		CODE	# NBIS	# ALL
Data Tab	requires dive inspection	N	154	n/a
Col W,X,Z	requires dive inspection	Y	0	n/a
			154	
	dive insp date blank but Dive=Y		0	n/a

Item 113 Scour			# NBIS	# ALL
Data Tab	Bridge not over waterway	N	1	2
Col AA	unknown foundation	U	0	0
	over tidal waters	T	0	0
	foundations on dry land	9	32	146
	stable above footing	8	121	213
	countermeasures installed	7	0	0
	no scour evaluation made	6	0	0
	stable within footer limits	5	0	0
	stable action needed	4	0	0
	scour critical - unstable	3	0	0
	scour critical - scour present	2	0	0
	scour critical - failure imminent	1	0	0
	scour critical - bridge failed	0	0	0
			154	361

Item 709 Plan Information			CODE	# NBIS	# ALL
Data Tab	plans not avail	0	17	172	
Col. AW	plan avail	1	133	181	
	field measured	2	4	4	
	Field Testing	3	0	0	
	not applicable	N	0	2	
			154	359	

2 non-NBIS bridges have no load rating - that's OK

Item 63 Documented Engineering Judgment			# NBIS	# ALL
	Field Eval & Doc EJ		5	n/a

BR_100 for these bridges?

Item 63 Method of Analysis			CODE	# NBIS	# ALL
Data Tab	Field Eval & Doc. Eng Judgment	0	5	127	
Col. AV	Load testing	4	0	0	
	No Rating done	5	0	29	
	Load Factor (LF)	6	94	121	
	WS or AS	7	43	67	
	Load & Resistance Factor	8	12	12	
	Assigned Rating (LFR) HS20	D	0	5	
	Assigned Rating (LRFR) HL93	F	0	0	
	Not applicable (Ped, RR, Bldg)	X	0	0	
			154	361	

REMINDER:

Load Factor required for bridges built after 1993

(exceptions: timber, etc.)

LRFR required for bridges built after 2010

Inspection Condition Data - NBIS Bridges Only

Item 41	Operating Status	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab	Open, No restriction	A	143	349
Col AM	Open, posting recommended	B	0	0
	Open, Half width constr.	C	0	0
	Open because of temp. fix	D	0	1
	Open using temp. structure	E	0	0
	New struture not yet open	G	0	0
	closed for load cap. reason	K	1	1
	Posted for load capacity	P	9	9
	Posted for other than load	R	1	1
	Closed for other than load	X	0	0
			154	361

Load Rating Data

Load Rating Tab		<u># OF ERRORS</u>
Col. AN	Op RF greater than Inv RF?	0
Col. AO	Posting and % Legal OK?	0
Col. AP	"0" used instead of blank	0
Col. AT	% legal <> lowest RF	0
Col.A V	Item 70 correct?	0
Col. AW	Method of Rating Alike?	0
Col. AX	Op & Inv RF in Tons as req'd?	0
Col. AY	Item 575 correct?	0
Col. AZ	Depth of fill completed?	0

KEY METRICS

(C)	Compliant
(SC)	Substantially Compliant
(CC)	Conditionally Compliant (Adhering to approved pan of corrective action)
(NC)	Not Compliant

METRIC 6 Insp. Frequency Routine (as of) 12/8/2020

Bridge Inspections Overdue			ACTUAL COUNT	% PASS	COMPLIANCE
Data Tab	NBIS -	24 months	0	100.0%	(C)
Col. Y	ORC -	Calendar Year	0	100.0%	(C)
	BIM -	18 months	0	100.0%	(C)

METRIC 8 - Insp. Frequency Underwater

Dive Inspections Overdue		ACTUAL COUNT	# UW	% PASS	COMPLIANCE
Data Tab	Col. Z	60 months	0	100.0%	(C)

METRIC 10 - Insp. Frequency FC Member

FC Inspections Overdue		ACTUAL COUNT	# FC	% PASS	COMPLIANCE
Data Tab	Col. Y	24 months	0	100.0%	(C)

METRIC 12 - Routine Inspection

Field Ratings		# > +/-1	# Ratings	% PASS	COMPLIANCE
	field ratings	0	24	100.0%	(C)
Comments		Missing	# < 6	% PASS	
Tab	Comments when Rating < 6	3	17	85.0%	(SC)

METRIC 14 - Posting

From Files review		# errors	#sampled	% PASS	COMPLIANCE
Op RF < 3 tons but not closed		0	154	100.0%	(C)
Op RF = 0 but not closed		0	154	100.0%	(C)
% Legal < 100 but not posted		0	154	100.0%	(C)
Item 41 = B		0	154	100.0%	(C)

METRIC 16 - Fracture Critical Inspection

From Files review		Missing	#sampled	% PASS	COMPLIANCE
Fract Critical Member ID		0	2	100.0%	(C)
Fatigue Prone Detail		1	2	50.0%	(NC)
Gusset Plate Calculations		0	2	100.0%	(C)
FC Insp. Procedure w/. risk factors		2	2	0.0%	(NC)

METRIC 17 - Underwater Inspection

From Files review		Missing	# sampled	% PASS	COMPLIANCE
UW Inspection Procedure		0	0	100.0%	(C)
Location of UW elements		0	0	100.0%	(C)
UW frequency identified		0	0	100.0%	(C)

PRELIMINARY FHWA 23 Metric Matrix

23 metrics used by FHWA to measure NBIS compliance

Compliance Codes for the following Metrics:

- (C) Compliant
- (SC) Substantially Compliant
- (CC) Conditionally Compliant (Adhering to approved PCA)
- (NC) Not Compliant

Metric	Description	(C)	(SC)	(CC)	(NC)
1	State Bridge Inspection Organization				
2	Program Manager Qualification				
3	Team Leader Qualification				
4	Load Rating Engineer Qualification				
5	UW Bridge Inspection Diver Qualification				
6	Routine Inspection Frequency - Low Risk				
7	Routine Inspection Frequency - High Risk				
8	UW Inspection Frequency - Low Risk				
9	UW Inspection Frequency - High Risk				
10	FC Inspection Frequency				
11	Frequency Criteria				
12	Inspection Quality **				
13	Load Rating				
14	Posted or Restricted Bridges				
15	Bridge Files				
16	FC Bridges				
17	UW inspection procedures				
18	Scour Critical Bridges				
19	Complex Bridges				
20	QC/QA				
21	Critical Findings				
22	Inventory **				
23	Updating of Data				

** based on results of Field Review

Metric	Action Needed
12	Comments needed when Super, Sub, Deck, Channel, Culvert < 6
16	Need Fat. Prone Detail list, add Risk Factors to Insp Procedure