

TUSCARAWAS County 2020

INVENTORY, APPRAISAL & INSPECTION SNAPSHOT

1/27/2021 updated 2-18-2021

Inventory Data - NBIS Bridges Only

	<u>NBIS COUNT</u>
NBIS Bridges > 20'	172
Bridges 10'-20'	97
	269

Item 221 Inspection Responsibility	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab Col BV,BW County	2	172	269
Item 21 Maintenance responsibility	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab County	2	171	268
Col D City or other local	4	0	0
Railroad	27	0	0
Private (tohter than RR)	26	1	1
State Park	11	0	0
Local Park	23	0	0
Township	3	0	0
		172	269
Item 42A Type service on bridge	<u>CODE</u>	<u># NBIS</u>	<u># ALL</u>
Data Tab Other	0	1	1
Col Q Highway	1	169	266
Railroad	2	0	0
Ped/Bikeway	3	0	0
Hwy/RR	4	0	0
Hwy/Ped	5	2	2
		172	268
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	1	1
Railroad	2	2	2
Ped/Bkwy	3	0	0
Hwy w/ RR	4	0	0
Waterway	5	169	266
Hwy/Waterway	6	0	0
RR/Waterway	7	0	0
Hwy/Waterway/RR	8	0	0
Relief (for waterways)	9	0	0
		172	269

ITEMS 43A,B,C Structure Type	Data (Col M,N,O)	CODE	# NBIS	# ALL
Other Culvert (incl frame culverts)		019	0	1
Concrete Slab		101	4	37
Concrete Girder		103	1	1
Concrete Tee Beam		104	2	2
Concrete Box Beam/Girder Multiple		105	57	87
Concrete Frame		107	1	15
Concrete Deck Arch		111	2	3
Concrete Culvert (incl frame culverts)		119	0	8
Steel Beam or Girder		302	13	13
Steel Girder w/ Floor System		303	1	1
Steel Thru Truss (includes Pony)		310	6	6
Steel Culvert (incl frame culverts)		319	0	3
Steel Continuous Beam or Girder		402	8	8
Steel Frame (exc. Culverts)		407	1	1
Prestr. Conc. Cont. Box Beam/Girder Multiple		505	75	79
Timber Deck Arch		811	0	2
Aluminum or Iron Thru Truss (includes Pony)		910	1	1
			172	268

Item 92A Fracture Critical		CODE	# NBIS	# ALL
Data Tab	Requires FC Inspection	Y	7	n/a
Col U,V,Y	Requires FC Inspection	N	165	n/a
			172	n/a
	FC date blank but FC=Y		0	n/a

Item 113 Scour			# NBIS	# ALL
Data Tab	Bridge not over waterway	N	3	3
Col AA	unknown foundation	U	0	0
	over tidal waters	T	0	0
	foundations on dry land	9	35	40
	stable above footing	8	102	144
	countermeasures installed	7	21	43
	no scour evaluation made	6	0	2
	stable within footer limits	5	11	37
	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
			172	269

Item 63	Documented Engineering Judgment		# NBIS	# ALL
	Field Eval & Doc EJ		2	n/a

Item 92B	Underwater	CODE	# NBIS	# ALL
Data Tab	requires dive inspection	N	167	n/a
Col W,X,Z	requires dive inspection	Y	5	n/a
			172	
	dive insp date blank but Dive=Y		0	n/a

Item 709	Plan Information	CODE	# NBIS	# ALL
Data Tab	plans not avail	0	3	8
Col. AW	plan avail	1	166	255
	field measured	2	2	4
	Field Testing	3	0	0
	not applicable	N	1	1
			172	268

Item 63	Method of Analysis	CODE	# NBIS	# ALL
Data Tab	Field Eval & Doc. Eng Judgment	0	2	5
Col. AV	Load testing	4	0	0
	No Rating done	5	2	0
	Load Factor (LF)	6	9	0
	WS or AS	7	14	0
	Load & Resistance Factor	8	145	50
	Assigned Rating (LFR) HS20	D	0	10
	Assigned Rating (LRFR) HL93	F	0	18
	Not applicable (Ped, RR, Bldg)	X	0	186
			172	269
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	CODE	# NBIS	# ALL
Data Tab	Open, No restriction	A	169	266
Col AM	Open, posting recommended	B	0	0
	Open, Half width constr.	C	0	0
	Open because of temp. fix	D	0	0
	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	2	2
	Posted for other than load	R	0	0
	Closed for other than load	X	0	0
			172	269

Load Rating Data

Load Rating Tab		# OF ERRORS
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	7
Col. AV	Item 70 correct?	2
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?	1

KEY METRICS

(C)	Compliant	(CC)	Conditionally Compliant
(SC)	Substantially Compliant	(NC)	Non- Compliant
		(NC)	(SC) If corrected within 6/12 months Refresher=6 mo, Comprehensive=12 mo

METRIC 2 - Program Manager Qualification (from files examination)

From Files review	Missing	#sampled	% PASS	COMPLIANCE
PE /Experience	0	1	100.0%	(C)
Comprehensive	1	1	0.0%	(SC)
Refresher	0	1	100.0%	(C)

METRIC 3 - Team Leader Qualification (from files examination)

From Files review	Missing	#sampled	% PASS	COMPLIANCE
Degree /Experience	0	2	100.0%	(C)
Comprehensive	0	2	100.0%	(C)
Refresher	0	2	100.0%	(C)

METRIC 6 Insp. Frequency Routine

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

METRIC 8 - Insp. Frequency Underwater

Dive Inspections Overdue	# OVERDUE	# UW	% PASS	COMPLIANCE
Data Tab Col. Z 60 months	0	5	100.0%	(C)

METRIC 10 - Insp. Frequency FC Member

FC Inspections Overdue	# OVERDUE	# FC	% PASS	COMPLIANCE
Data Tab Col. Y 24 months	1	7	99.4%	(SC)

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	9	170	94.7%	(C)
Comments	Error	Total Scour	% PASS	
Tab Rating should be = Scour	4	167	97.6% within tolerance +/- 1	
Tab Noncompliant Scour Rating Err	1	167	99.4%	(C)

METRIC 14 - Posting Load rating data tab

From Files review	# errors	#sampled	% PASS	COMPLIANCE
Op RF < 3 tons but not closed	0	172	100.0%	(C)
Op RF = 0 but not closed	0	172	100.0%	(C)
% Legal < 100 but not posted	2	172	98.8%	(SC)

Item 41 = B	0	172	100.0%	(C)
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METRIC 16 - Fracture Critical Inspection

From Files review	Missing	# FC	% PASS	COMPLIANCE
Fract Critical Member ID	1	2	50.0%	(NC)
Fatigue Prone Detail	0	2	100.0%	(C)
Gusset Plate Calculations	0	2	100.0%	(C)
FC Inspection Procedure	2	2	0.0%	(NC)

METRIC 17 - Underwater Inspection

From Files review	Missing	# UW	% PASS	COMPLIANCE
UW Inspection Procedure	1	1	0.0%	(NC)
Location of UW elements	0	1	100.0%	(C)
UW frequency identified	1	1	0.0%	(NC)

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

2	Joe needs to do grandfather clause, Chris needs some paperwork
5	Obtain Dive inspector qualification. Ensure meets comprehensive and refresher
12	Scour Rating should control Substructure or Deck
14	Add load posting date and info to AssetWise
16	Supply FC Insp Procedure for each FC bridge
17	Supply UW Insp Procedure for each UW bridge

Note: Bridge file needs to have the dive insp credentials in the file.