

# 2013 INVENTORY, APPRAISAL & INSPECTION SNAPSHOT

FULTON COUNTY ENGINEER

## Inventory Data - BR 87 NBIS Bridges Only

	<u>NBIS COUNT</u>
NBIS Bridges > 20'	120
Bridges 10'-20'	<u>140</u>
	260

Possible NBIS length errors 5 total see list

	<u>CODE</u>	<u>COUNT</u>	<u>%</u>
<b>Item 95</b>	<b>Inspection Responsibility</b>		
	County	3	120 100.0%
<b>Item 97</b>	<b>Maintenance responsibility</b>		
	County	3	120 100.0%
	City or other local	4	0 0.0%
	Railroad	6	0 0.0%
	Private	7	0 0.0%
	Combination	8	0 0.0%
	ODNR	A	0 0.0%
	Park District	C	0 0.0%
	Township	F	0 0.0%
		<u>120</u>	<u>100.0%</u>
<b>Item 100</b>	<b>Type service on bridge</b>		
	Other	0	0 0.0%
	Highway	1	120 100.0%
	Railroad	2	0 0.0%
	Ped/Bikeway	3	0 0.0%
	Hwy/RR	4	0 0.0%
	Hwy/Ped	5	0 0.0%
	RR Abnd. rails rem'vd	A	0 0.0%
		<u>120</u>	<u>100.0%</u>
<b>Item 100</b>	<b>Type service under bridge</b>		

Hwy w/ or w/o Ped	1	0	0.0%
Railroad	2	0	0.0%
Ped/Bkwy	3	0	0.0%
Hwy w/ RR	4	0	0.0%
Waterway	5	120	100.0%
Hwy/Waterway	6	0	0.0%
RR/Waterway	7	0	0.0%
Hwy/Wtrway/RR	8	0	0.0%
Relief (RR w/o tracks)	9	0	0.0%
Other	0	0	0.0%
		<u>120</u>	<u>100.0%</u>

Item 63	Structure Type			
	concrete slab simple	111	7	5.8%
	concrete slab continuous	112	12	10.0%
	concrete beam simple	121	8	6.7%
	concrete frame simple	171	1	0.8%
	concrete culvert filled	195	3	2.5%
	prestressed conc. box beam simple	231	39	32.5%
	prestressed conc. box beam continuous	232	6	5.0%
	steel beam simple	321	31	25.8%
	steel beam continuous	322	6	5.0%
	steel culvert filled	395	5	4.2%
	Steel Truss (pony)	34A	2	1.7%
			<u>120</u>	<u>100.0%</u>

Item 188	Fracture Critical		COUNT	%
	fracture critical member	Y	2	1.7%
	fracture critical member	N	118	98.3%
			<u>120</u>	<u>100.0%</u>
	No. of steel trusses and girders	34_, 36_ Struct. Type	2	
	<b>Fracture Critical File</b>	to be completed by April 1, 2013	<b>COUNT</b>	
	Required Fracture Critical Files (including written Procedure and FPD)	2 truss/girder	2	
	<b>Gusset Pl. Analysis</b>	to be completed by December 31, 2011	<b>COUNT</b>	
	Required Gusset Plate Analysis	2 trusses	1	

**Item 189 Underwater**

	requires dive inspection	N	120	100.0%
	requires dive inspection	Y	0	0.0%
	dive inspection dates		0	0.0%
<b>Item 74</b>	<b>Scour</b>			
	Bridge not over waterway	N	0	0.0%
	unknown foundation	U	0	0.0%
	over tidal waters	T	0	0.0%
	foundations on dry land	9	0	0.0%
	stable above footing	8	118	98.3%
	countermeasures installed	7	0	0.0%
	no scour evaluation made	6	0	0.0%
	stable within footer limits	5	2	1.7%
	stable action needed	4	0	0.0%
	scour critical - unstable	3	0	0.0%
	scour critical - scour present	2	0	0.0%
	scour critical - failure imminent	1	0	0.0%
	scour critical - bridge failed	0	0	0.0%
			120	100.0%

	<b>Load Rating</b>	<b>CODE</b>	<b>COUNT</b>	<b>%</b>
<b>Item 87</b>	<b>Plan Information</b>			
	no plans	0	0	0.0%
	plans available	1	119	99.2%
	field information	2	1	0.8%
	not applicable	N	0	0.0%
			120	100.0%

	<b>Load Rating</b>	<b>CODE</b>	<b>COUNT</b>	<b>%</b>
<b>Item 84</b>	<b>Method of Analysis</b>			
	WS or AS	1	27	22.5%
	Load Factor (LF)	2	75	62.5%
	Load & Resistance Factor	3	2	1.7%
	Combination of methods	4	1	0.8%
	Engineering Judgment Superstr	5	15	12.5%
	Load testing	6	0	0.0%
	Engineering Judgment Substr	7	0	0.0%
	Not applicable (Ped or RR bridges)	X	0	0.0%
			120	100.0%

**REMINDER:**

**Load Factor required for bridges built after 1993 (with certain exceptions)**  
**LRFR required for bridges built after 2010**

<b>LOAD RATING</b>	<b>Goal</b>	<b>DATE</b>	<b>COUNT</b>	<b>%</b>
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Total NBIS bridges to load rate

120	80%	County	3/26/2013	105	87.5%
120	80%	ODOT	3/27/2013	105	87.5%

**ODOT**

total	120
already rated	105
Left to load rate	15

**COUNTY**

total	120
closed	0
sub eng. Judg.	0
Good 5'S	0
Br no veh traffic	0
already rated	105
Left to load rate	15

### Inspection Condition Data - BR 86 NBIS Bridges Only

General Appraisal	CODE	COUNT	%
9 Excellent	9	3	2.5%
8 Very good	8	8	6.7%
7 Good	7	41	34.2%
6 Satisfactory	6	50	41.7%
5 Fair	5	9	7.5%
4 Poor	4	9	7.5%
3 Serious	3	0	0.0%
2 Critical	2	0	0.0%
1 Imminent Failure	1	0	0.0%
0 Closed	0	0	0.0%
		120	100.0%

Rating Consistency	COUNT	%
GA <> Summary Items	2	1.7%
1-4 codes <> Summary	14	0.7%

INSPECTION FREQUENCY	COUNT	%
Number inspections per day	Avg. 8.9	
	High 13	
Recommended Max. 10 per day	# days over 10 5	45.5%
Maximum 50 reviews per day		

Operating Status	CODE	COUNT	%
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Open, No restriction	A	115	95.8%
Open, posting recommended	B	0	0.0%
Open, Half width construction	C	0	0.0%
Open because of temporary fix	D	0	0.0%
Open using temporary structure	E	0	0.0%
New struture not yet open	G	0	0.0%
closed for load capacity reason	K	0	0.0%
Posted for load capacity	P	5	4.2%
Posted for other than load	R	0	0.0%
Closed for other than load	X	0	0.0%
		120	100.0%

<b>Good 5's from culverts</b>			
Culvert	fill>6.5'	1	possible

<b>Good 5's from plans</b>			
		0	possible

<b>195 Culvert vs 171 Frame</b>		<b># that do NOT meet the 2' Rule</b>	
		0	0.0%

Item 41	AGE of BRIDGES	YEAR	COUNT	
		-1900	2	1.7%
		1901-1910	0	0.0%
		1911-1920	3	2.5%
		1921-1930	5	4.2%
		1931-1940	9	7.5%
		1941-1950	3	2.5%
		1951-1960	17	14.2%
		1961-1970	19	15.8%
		1971-1980	27	22.5%
		1981-1990	15	12.5%
		1991-2000	12	10.0%
		2001-2010	6	5.0%
		2011-2020	2	1.7%
			120	100.0%

**Compliance Codes for the following Metrics:**

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

**METRIC 6 Insp. Frequency Routine**

	<u>ACTUAL COUNT</u>	<u>% COMPLIANT</u>	<u>COMPLIANCE</u>
Bridge Inspections Overdue			
NBIS - 24 months	0	100.0%	(C)
ORC - 18 months	0	100.0%	(C)

**METRIC 8 - Insp. Frequency Underwater**

	<u>ACTUAL COUNT</u>	<u>% COMPLIANT</u>	<u>COMPLIANCE</u>
Dive Inspections Overdue			
60 months	0	N/A	(C)

**METRIC 10 - Insp. Frequency FC Member**

	<u>ACTUAL COUNT</u>	<u>% COMPLIANT</u>	<u>COMPLIANCE</u>
FC Inspections Overdue			
24 months	0	100.0%	(C)

**METRIC 13 - Load Rating**

<u>Type of Metric check</u>	<u>Need for compliance</u>	<u># Not Rated</u>	<u>% of NBIS Rated</u>	<u>PCA in effect COMPLIANCE</u>
Deck, Super, Sub, Culvert Summary <=4	100%	0	100.0%	(C)
Operating Status = D or E	100%	0	100.0%	(C)
FC=Y	100%	0	100.0%	(C)
Operating Status = P or R	100%	0	100.0%	(C)
Bridges with no restrictions	95%	15	87.5%	(CC)

**METRIC 14 - Post or Restrict**

<u>Bridge posting/closing Follow-through</u>	<u>COUNT</u>	<u>% COMPLIA NT</u>	<u>COMPLIANCE</u>
Bridges below 10% legal but not closed	0	100.0%	(C)
Operating Rating Factor = 0 but not closed	0	100.0%	(C)
Bridges below 100% legal but not posted	0	100.0%	(C)
Bridges to be posted but aren't (GA code B)	0	100.0%	(C)

**METRIC 22 - Inventory (partial review)**

<u>Structure Length</u>	<u>ACTUAL COUNT</u>	<u>COMPLIANCE</u>
Number of bridges >10% length difference	0	depends on sample size
<u>LAT/LONG</u>		
missing coordinates	1	depends on sample size

## 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 100%				
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 94%				
23	Updating of Data				

\*\* based on results of Field Review

Metric	Action Needed
13	Complete and submit load ratings by Oct 1, 2013
22	check inventory and make corrections in upcoming year

