NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURE MANAGEMENT UNIT

ATTENTION: PMN'S ISSUED FOR SUPERSTRUCTURE AND SUBSTRUCTURE...

Structure Safety Report

Routine Element Inspection

COUNTY: WATAUGA **STRUCTURE NUMBER:** 940022 **FREQUENCY:** 24 MONTHS

FACILITY CARRIED: SR1209 **MILE POST:**

LOCATION: .2 MI.S.JCT.SR1201

FEATURE INTERSECTED: BEAVER DAM CREEK

LATITUDE: 36° 17' 33.93" **LONGITUDE:** 81° 50' 57.09"

SUPERSTRUCTURE: STEEL PLANK FLOOR ON I-BEAMS

SUBSTRUCTURE: E.BTS:TIMBER CAPS/TIMBER POST&SILLS @ VARIOUS CENTERS

1 @ 45' - 6"

SPANS: 1 @ 45"-6

☐ FRACTURE CRITICAL ☐ TEMPORARY SHORING ☐ SCOUR CRITICAL ☐ SCOUR PLAN OF ACTION

PRESENT CONDITION: Poor **INSPECTION DATE:** 07/13/2015

POSTED SV: 19 **POSTED TTST:** 22

OTHER SIGNS PRESENT: 4 DELINEATORS



SOUTH TO NORTH

Sign noticed issued for		Number Required
NO	**WEIGHT LIMIT**	0
NO	**DELINEATORS**	0
NO	**NARROW BRIDGE**	0
NO	**ONE LANE BRIDGE**	0
NO	**LOW CLEARANCE**	0

INSPECTED BY	SIGNATURE	ASSISTED BY
ANDREW GLASCO	Andrew P. Glasco	BILLY ELLIS

Span Element Report

Structure Number: 940022 Inspection Date: 07/13/2015

Span Number 1 **Span Length** 45.5 Feet **Number of Beams/Girders:** 10

Element Number	Parent Number	Element Name	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity	Maint. Quantity	Maint. Code
30		Steel Deck Corrugated/Orthotropic/Etc.	1,096	796	0	300	0	300	3328
107		Steel Open Girder/Beam	460	0	0	460	0	460	3314
515	107	Steel Protective Coating	2900	900	0	0	2000	2000	3342
206		Timber Column	13	13	0	0	0	0	3344
216		Timber Abutment	78	38	0	40	0	40	3346
235		Timber Pier Cap	58	57	1	0	0	1	3344
313		Fixed Bearing	20	20	0	0	0	0	3334
515	313	Steel Protective Coating	20	20	0	0	0	0	3342
316		Other Bearings	20	20	0	0	0	0	3334
330		Metal Bridge Railing	92	85	0	0	7	7	3322
515	330	Steel Protective Coating	182	175	0	0	7	7	3342
510		Wearing Surface	1,092	0	0	0	1,092	1,092	2816

"Near" Approach and Substructure quantities have been include for reporting purposes. The last span will also include End Bent 2 and Far Approach quantities where applicable

Superstructure Detailed Element Quantites

Structure Number: 940022

Inspection Date: 07/13/2015

Structure Number: 940022 Inspection Date: 07/13/2015

Span Number 1

Element Location	Location Number	Element Number	Element Name	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity	Maint. Quantity	Maint. Code	Priority Maintenance
☑ Deck	1	30	Steel Deck Corrugated/Orthotropic/Etc.	1096	796	0	300	0	300	3328	☐ Requested
☑ Bridge Rail	1	330	Metal Bridge Railing	46	43	0	0	3	3	3322	☑ Requested
Protective System		515	Steel Protective Coating	91	88	0	0	3	3	3342	
☑ Bridge Rail	2	330	Metal Bridge Railing	46	42	0	0	4	4	3322	☑ Requested
Protective System		515	Steel Protective Coating	91	87	0	0	4	4	3342	
☑ Wearing Surfaces		510	Wearing Surface	1092	0	0	0	1092	1092	2816	☐ Requested
☑ Beam	1	107	Steel Open Girder/Beam	46	0	0	46	0	46	3314	☐ Requested
Protective System		515	Steel Protective Coating	290	90	0	0	200	200	3342	
☑ Beam	2	107	Steel Open Girder/Beam	46	0	0	46	0	46	3314	☐ Requested
Protective System		515	Steel Protective Coating	290	90	0	0	200	200	3342	
☑ Beam	3	107	Steel Open Girder/Beam	46	0	0	46	0	46	3314	☐ Requested
Protective System		515	Steel Protective Coating	290	90	0	0	200	200	3342	
☑ Beam	4	107	Steel Open Girder/Beam	46	0	0	46	0	46	3314	☐ Requested
Protective System		515	Steel Protective Coating	290	90	0	0	200	200	3342	
☑ Beam	5	107	Steel Open Girder/Beam	46	0	0	46	0	46	3314	☐ Requested
Protective System		515	Steel Protective Coating	290	90	0	0	200	200	3342	
☑ Beam	6	107	Steel Open Girder/Beam	46	0	0	46	0	46	3314	☐ Requested
Protective System		515	Steel Protective Coating	290	90	0	0	200	200	3342	
☑ Beam	7	107	Steel Open Girder/Beam	46	0	0	46	0	46	3314	☐ Requested
Protective System		515	Steel Protective Coating	290	90	0	0	200	200	3342	
☑ Beam	8	107	Steel Open Girder/Beam	46	0	0	46	0	46	3314	☐ Requested
Protective System		515	Steel Protective Coating	290	90	0	0	200	200	3342	
☑ Beam	9	107	Steel Open Girder/Beam	46	0	0	46	0	46	3314	☑ Requested
Protective System		515	Steel Protective Coating	290	90	0	0	200	200	3342	
☑ Beam	10	107	Steel Open Girder/Beam	46	0	0	46	0	46	3314	☐ Requested
Protective System		515	Steel Protective Coating	290	90	0	0	200	200	3342	
☑ Bearing Device	1	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	1	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	1	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	

Structure Number: 940022 Inspection Date: 07/13/2015

Span Number 1

Element Location	Location Number	Element Number	Element Name	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity	Maint. Quantity	Maint. Code	Priority Maintenance
☐ Bearing Device	1	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	2	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	2	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	2	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	2	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	3	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	3	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	3	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	3	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	4	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	4	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	4	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	4	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	5	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	5	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	5	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	5	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	6	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	6	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	6	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	6	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested

Structure Number: 940022 Inspection Date: 07/13/2015

Span Number 1

Element Location	Location Number	Element Number	Element Name	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity	Maint. Quantity	Maint. Code	Priority Maintenance
☑ Bearing Device	7	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	7	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	7	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	7	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	8	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	8	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	8	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	8	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	9	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	9	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	9	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	9	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	10	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	10	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested
☑ Bearing Device	10	313	Fixed Bearing	1	1	0	0	0	0	3334	☐ Requested
Protective System		515	Steel Protective Coating	1	1	0	0	0	0	3342	
☐ Bearing Device	10	316	Other Bearings	1	1	0	0	0	0	3334	☐ Requested

Superstructure Element Defect Descriptions

Structure Number: 940022 Inspection Date: 07/13/2015

Span Number 1

Span 1 **Deck** 1 **Component Name:** Steel Deck Corrugated

Element: 30 **Name** Steel Deck Corrugated/Orthotrc **Qty:** 1096 **Lvl 2:** 0 **Lvl 3** 300 **Lvl 4** 0 **Maint. Qty** 300

Defect Description:

300 Square Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION ON BOTTOM OF DECK IN ALL BAYS AROUND DRAIN HOLES AND JOINT SEAMS...

Span 1 **Bridge Rail** 1 **Component Name:** Steel Rail



Element: 330 **Name** Metal Bridge Railing **Qty:** 46 **Lvl 2:** 0 **Lvl 3** 0 **Lvl 4** 3 **Maint. Qty** 3

Defect Description:

3 Square Feet of Corrosion: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. SECTION LOSS WITH HOLES TO LEFT RAIL POST BLOCKS (2, 3 & 5)

3 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. SECTION LOSS WITH HOLES TO LEFT RAIL POST BLOCKS (2, 3 & 5)

Span 1 **Bridge Rail** 2 **Component Name:** Steel Rail



Element: 330 **Name** Metal Bridge Railing **Qty:** 46 **Lvl 2:** 0 **Lvl 3** 0 **Lvl 4** 4 **Maint. Qty** 4

Defect Description:

4 Square Feet of Corrosion: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. SECTION LOSS WITH HOLES TO RIGHT RAIL POST BLOCKS (2, 4, 6 & 8)

4 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. SECTION LOSS WITH HOLES TO RIGHT RAIL POST BLOCKS (2, 4, 6 & 8)

Span 1 **Wearing Surfaces** **Component Name:** Asphalt Wearing Surface

Element: 510 **Name** Wearing Surface **Qty:** 1092 **Lvl 2:** 0 **Lvl 3** 0 **Lvl 4** 1,092 **Maint. Qty** 1,092

Defect Description:

1092 Square Feet of Crack (Wearing Surface): The wearing surface is no longer effective. TRANSVERSE CRACKS THROUGHOUT ENTIRE WEARING SURFACE

Span 1 **Beam** 1 **Component Name:** Plate Girder

Element: 107 **Name** Steel Open Girder/Beam **Qty:** 46 **Lvl 2:** 0 **Lvl 3** 46 **Lvl 4** 0 **Maint. Qty** 46

Defect Description:

46 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. RUST AND SCALE FULL LENGTH ALONG RIGHT SIDE TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 3" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

200 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. RUST AND SCALE FULL LENGTH ALONG RIGHT SIDE TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 3" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

Span 1 **Beam** 2 **Component Name:** Plate Girder

Element: 107 **Name** Steel Open Girder/Beam **Qty:** 46 **Lvl 2:** 0 **Lvl 3** 46 **Lvl 4** 0 **Maint. Qty** 46

Defect Description:

46 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES. CORROSION EXTENDS (+/- 7" H) INTO BOTTOM PORTION OF WEB WITH (+/- 1/32") LOSS OF SECTION AT THIS TIME...

200 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES. CORROSION EXTENDS (+/- 7" H) INTO BOTTOM PORTION OF WEB WITH (+/- 1/32") LOSS OF SECTION AT THIS TIME...

Span 1 **Beam** 3 **Component Name:** Plate Girder

Element: 107 **Name** Steel Open Girder/Beam **Qty:** 46 **Lvl 2:** 0 **Lvl 3** 46 **Lvl 4** 0 **Maint. Qty** 46

Defect Description:

46 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 3" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

200 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 3" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

Span 1 **Beam** 4 **Component Name:** Plate Girder

Element: 107 **Name** Steel Open Girder/Beam **Qty:** 46 **Lvl 2:** 0 **Lvl 3** 46 **Lvl 4** 0 **Maint. Qty** 46

Defect Description:

46 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 3" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

200 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 3" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

Span 1 **Beam** 5 **Component Name:** Plate Girder

Element: 107 **Name** Steel Open Girder/Beam **Qty:** 46 **Lvl 2:** 0 **Lvl 3** 46 **Lvl 4** 0 **Maint. Qty** 46

Defect Description:

46 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 3" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

200 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 3" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

Span 1 **Beam** 6 **Component Name:** Plate Girder

Element: 107 **Name** Steel Open Girder/Beam **Qty:** 46 **Lvl 2:** 0 **Lvl 3** 46 **Lvl 4** 0 **Maint. Qty** 46

Defect Description:

46 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 3" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

200 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 3" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

Span 1 **Beam** 7 **Component Name:** Plate Girder

Element: 107 **Name** Steel Open Girder/Beam **Qty:** 46 **Lvl 2:** 0 **Lvl 3** 46 **Lvl 4** 0 **Maint. Qty** 46

Defect Description:

46 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 3" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

200 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 3" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

Span 1 **Beam** 8 **Component Name:** Plate Girder

Element: 107 **Name** Steel Open Girder/Beam **Qty:** 46 **Lvl 2:** 0 **Lvl 3** 46 **Lvl 4** 0 **Maint. Qty** 46

Defect Description:

46 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 3" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

200 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 3" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

Span 1 **Beam** 9 **Component Name:** Plate Girder



Element: 107 **Name** Steel Open Girder/Beam **Qty:** 46 **Lvl 2:** 0 **Lvl 3** 46 **Lvl 4** 0 **Maint. Qty** 46

Defect Description:

21 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. RUST AND SCALE ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/4") REMAINING SECTION. CORROSION STARTS AT ABUT. (A) AND EXTENDS (+/- 21 LF)

25 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 8" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

200 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 8" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

Span 1 **Beam** 10 **Component Name:** Plate Girder

Element: 107 **Name** Steel Open Girder/Beam **Qty:** 46 **Lvl 2:** 0 **Lvl 3** 46 **Lvl 4** 0 **Maint. Qty** 46

Defect Description:

46 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. RUST AND SCALE FULL LENGTH ALONG LEFT SIDE TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 3" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

200 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. RUST AND SCALE FULL LENGTH ALONG LEFT SIDE TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND (+/- 7/16") REMAINING SECTION. CORROSION EXTENDS (+/- 3" H) INTO BOTTOM PORTION OF WEB WITH NO MEASURABLE SECTION LOSS AT THIS TIME...

Substructure Detailed Element Quantites

Structure Number: 940022 Inspection Date: 07/13/2015

End Bent 1

Element Location	Location Number	Element Number	Element Name	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity	Maint. Quantity	Maint. Code	Priority Maintenance
☑ Abutments	1	216	Timber Abutment	39	33	0	6	0	6	3346	☑ Requested
☑ Caps	1	235	Timber Pier Cap	29	29	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	1	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	2	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	3	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	4	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	5	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	6	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	7	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	8	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested

End Bent 2

Element Location	Location Number	Element Number	Element Name	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity	Maint. Quantity	Maint. Code	Priority Maintenance
☑ Abutments	1	216	Timber Abutment	39	5	0	34	0	34	3346	☑ Requested
☑ Caps	1	235	Timber Pier Cap	29	28	1	0	0	1	3344	☐ Requested
☑ Piles and Columns	1	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	2	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	3	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	4	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	5	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested

Substructure Element Defect Descriptions

Structure Number: 940022 Inspection Date: 07/13/2015

End Bent 1

End Bent 1 **Row** 1 **Abutments** 1

Element: 216 **Name** Timber Abutment **Qty:** 39 **Lvl 2:** 0 **Lvl 3** 6 **Lvl 4** 0 **Maint. Qty** 6

Defect Description:

6 Feet of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. RIGHT END ABUT. (A) BULKHEAD (1) BOARD DECAYED (+/- 6 LF)

End Bent 1 **Row** 1 **Piles and Columns** 3

Element: 206 **Name** Timber Column **Qty:** 1 **Lvl 2:** 0 **Lvl 3** 0 **Lvl 4** 0 **Maint. Qty** 0

Defect Description:

POST IS SUPPLEMENTED

End Bent 1 **Row** 1 **Piles and Columns** 4

Element: 206 **Name** Timber Column **Qty:** 1 **Lvl 2:** 0 **Lvl 3** 0 **Lvl 4** 0 **Maint. Qty** 0

Defect Description:

POST IS SUPPLEMENTED

End Bent 1 **Row** 1 **Piles and Columns** 6

Element: 206 **Name** Timber Column **Qty:** 1 **Lvl 2:** 0 **Lvl 3** 0 **Lvl 4** 0 **Maint. Qty** 0

Defect Description:

POST IS SUPPLEMENTED

End Bent 2 **Row** 1 **Abutments** 1

Element: 216 **Name** Timber Abutment **Qty:** 39 **Lvl 2:** 0 **Lvl 3** 34 **Lvl 4** 0 **Maint. Qty** 34

Defect Description:

8 Feet of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. LEFT END ABUT. (B) BULKHEAD (2) BOARDS DECAYED WITH LOSS OF FILL (+/- 18 SF)

6 Feet of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. ABUT. (B) BULKHEAD BOTTOM (3) BOARDS DECAYED WITH LOSS OF FILL BETWEEN POST (4 & 5) (+/- 18 SF)

12 Feet of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. ABUT. (B) BULKHEAD (1) BOARD DECAYED BETWEEN BAYS (7-9) (+/- 12 SF)

8 Feet of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. RIGHT END ABUT. (B) BULKHEAD (3) BOARDS DECAYED WITH LOSS OF FILL (+/- 18 SF)

End Bent 2 **Row** 1 **Caps** 1

Element: 235 **Name** Timber Pier Cap **Qty:** 29 **Lvl 2:** 1 **Lvl 3** 0 **Lvl 4** 0 **Maint. Qty** 1

Defect Description:

1 Feet of Decay/Section Loss: Affects less than 10% of the member section. LEFT END ABUT. (B) CAP DECAYED AT TOP LEFT END OF CAP (+/- 7" L X 4" H X 3" D)

National Bridge and NC Inspection Items

Structure Number: 940022 **Inspection Date:** 07/13/2015

National Bridge Inventory Items

Item	Grade Scale	Grade
Item 58: Deck	0 - 9 , N	**5**
Item 59: Superstructure	0 - 9 , N	**4**
Item 60: Substructure	0 - 9 , N	**4**
Item 61: Channel and Channel Protection	0 - 9 , N	**5**
Item 62: Culvert	0 - 9 , N	**N**
Item 71: Waterway Adequacy	0 - 9 , N	**7**
Item 72: Approach Roadway Alignment	0 - 9 , N	**8**

Note: If NBI Inspection Item is not present, code NBI item with "N"

NC SMU Inspection Items

Item	Grade Scale	Grade	Maint. Qty.	Maint. Code
Deck Debris	G, F, P, or C	**F**	**184**	**3376**
Drainage System	G, F, P, or C	**G**	**0**	**3332**
Utilities	G, F, P, or C	**G**		
Slope Protection	G, F, P, or C	**G**	**0**	**3352**
Wingwall	G, F, P, or C	**P**	**30**	**3350**
Scour	G, F, P, or C	**G**		
Field Scour Evaluation		**L**		
Drift	G, F, P, or C	**G**	**0**	**3366**
Fender System	G, F, P, or C			
Response to Live Load	G, F, P, or C	**G**		
Estimated Remaining Life	0 - 100 Years	**12**		

Note: If NC SMU Insepction Item is not present, leave NC SMU item blank

Inspection Information

Item	Grade Scale	Grade
Regulatory Sign Noticed Issued	YES/NO	**N**
Priority Maintenance Request Submitted	YES/NO	**Y**
Inspection Time	Hours	**8**
Traffic Control Time	Hours	
Snooper Time	Hours	
Ladder Used	YES/NO	**Y**
Bucket Truck Used	YES/NO	**N**
Boat Used	YES/NO	**N**
Other Equipment Used	YES/NO	**N**

National Bridge and NC SMU Inspection Item Details

Structure Number: 940022 **Inspection Date:** 07/13/2015

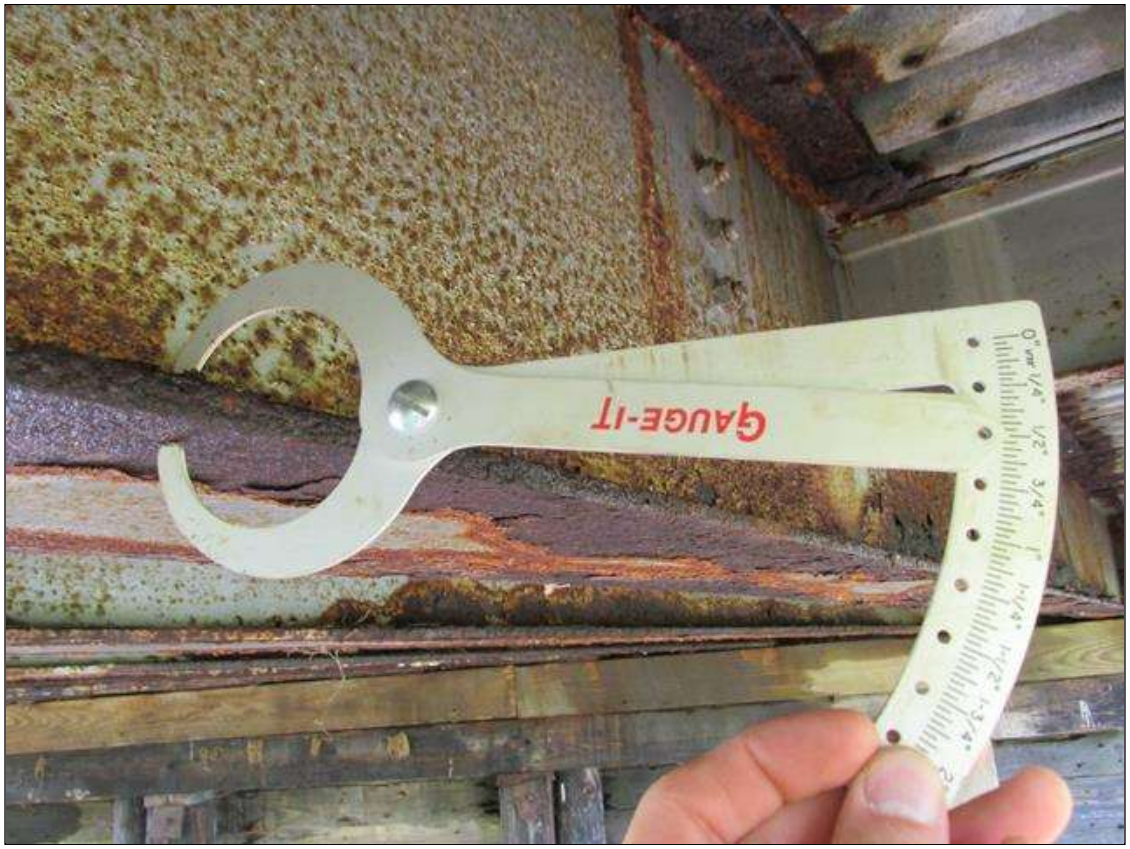
Item	Superstructure - Item 59	**Grade**	4	**Maint Code**		**Qty.**	0
Details	PMN ISSUED FOR BEAM (9) CORROSION...						
	PMN'S ISSUED FOR CORROSION TO RAIL POST BLOCKS...						
Item	Substructure - Item 60	**Grade**	4	**Maint Code**		**Qty.**	0
Details	PMN'S ISSUED FOR DECAY IN TIMBER BULKHEAD						
Item	Channel and Channel Protection - Item 61	**Grade**	5	**Maint Code**		**Qty.**	0
Details	WATERWAY ALIGNMENT FLOWS INTO AND ALONG ABUTMENT A						
Item	Priority Maintenance Issued	**Grade**	Y	**Maint Code**		**Qty.**	0
Details	PMN'S ISSUED FOR DECAY IN TIMBER BULKHEAD						
	PMN ISSUED FOR BEAM (9) CORROSION...						
	PMN'S ISSUED FOR CORROSION TO RAIL POST BLOCKS...						
Item	Deck Debris	**Grade**	F	**Maint Code**	3376	**Qty.**	184
Details	EXCESS SOIL AND VEGETATION ALONG EACH RAIL (+/- 184 SF)						
Item	Utilities	**Grade**	G	**Maint Code**		**Qty.**	0
Details	2" UTILITY FULL LENGTH ON TOP OF RIGHT RAIL POST BLOCKS. GOOD AT THIS TIME...						
Item	Wingwalls	**Grade**	P	**Maint Code**	3350	**Qty.**	30
Details	(NE) WING ALL BOARD ENDS DECAYED (+/- 12 SF)						
	(NW) WING TOP (3) BOARDS DECAYED (+/- 18 SF)						



WATERWAY ALIGNMENT FLOWS INTO AND ALONG ABUTMENT A



EXCESS SOIL AND VEGETATION ALONG EACH RAIL (+/- 184 SF)



Span 1 Beam 2: 46 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. RUST AND SCALE FULL LENGTH ALONG TOP AND BOTTOM FLANGES. CORROSION EXTENDS (+/- 7" H) INTO BOTTOM PORTION OF WEB WITH (+/- 1/32") LOSS OF SECTION AT THIS TIME...



Span 1 Beam 9: 21 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. RUST AND SCALE ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/4") REMAINING SECTION. CORROSION STARTS AT ABUT. (A) AND EXTENDS (+/- 21 LF)



End Bent 1 Abutment/Backwall : 6 Feet of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. RIGHT END ABUT. (A) BULKHEAD (1) BOARD DECAYED (+/- 6 LF)



End Bent 2 Abutment/Backwall : 8 Feet of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. LEFT END ABUT. (B) BULKHEAD (2) BOARDS DECAYED WITH LOSS OF FILL (+/- 18 SF)



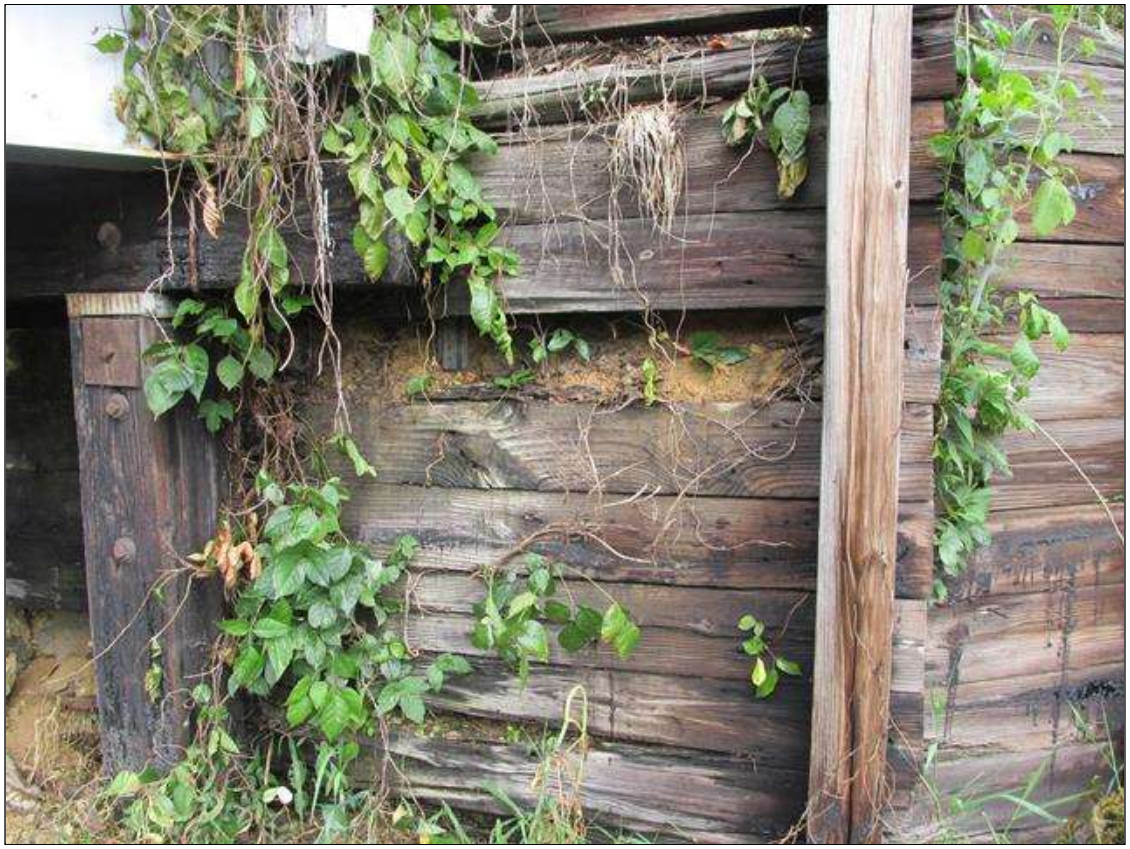
End Bent 2 Cap : 1 Feet of Decay/Section Loss: Affects less than 10% of the member section. LEFT END ABUT. (B) CAP DECAYED AT TOP LEFT END OF CAP (+/- 7" L X 4" H X 3" D)



End Bent 2 Abutment/Backwall : 6 Feet of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. ABUT. (B) BULKHEAD BOTTOM (3) BOARDS DECAYED WITH LOSS OF FILL BETWEEN POST (4 & 5) (+/- 18 SF)



End Bent 2 Abutment/Backwall : 12 Feet of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. ABUT. (B) BULKHEAD (1) BOARD DECAYED BETWEEN BAYS (7-9) (+/- 12 SF)



End Bent 2 Abutment/Backwall : 8 Feet of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. RIGHT END ABUT. (B) BULKHEAD (3) BOARDS DECAYED WITH LOSS OF FILL (+/- 18 SF)



Span 1 Left Bridge Rail: 3 Square Feet of Corrosion: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. SECTION LOSS WITH HOLES TO LEFT RAIL POST BLOCKS (2, 3 & 5)



Span 1 Right Bridge Rail: 4 Square Feet of Corrosion: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. SECTION LOSS WITH HOLES TO RIGHT RAIL POST BLOCKS (2, 4, 6 & 8)



(NE) WING ALL BOARD ENDS DECAYED (+/- 12 SF)



(NW) WING TOP (3) BOARDS DECAYED (+/- 18 SF)



Span 1 Wearing Surface: 1092 Square Feet of Crack (Wearing Surface): The wearing surface is no longer effective.
TRANSVERSE CRACKS THROUGHOUT ENTIRE WEARING SURFACE



Span 1 Deck: 300 Square Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION ON BOTTOM OF DECK IN ALL BAYS AROUND DRAIN HOLES AND JOINT SEAMS...



SOUTH TO NORTH



POSTING

Structure: 940022 County: WATAUGA Date: 07/13/2015 Structure Photos



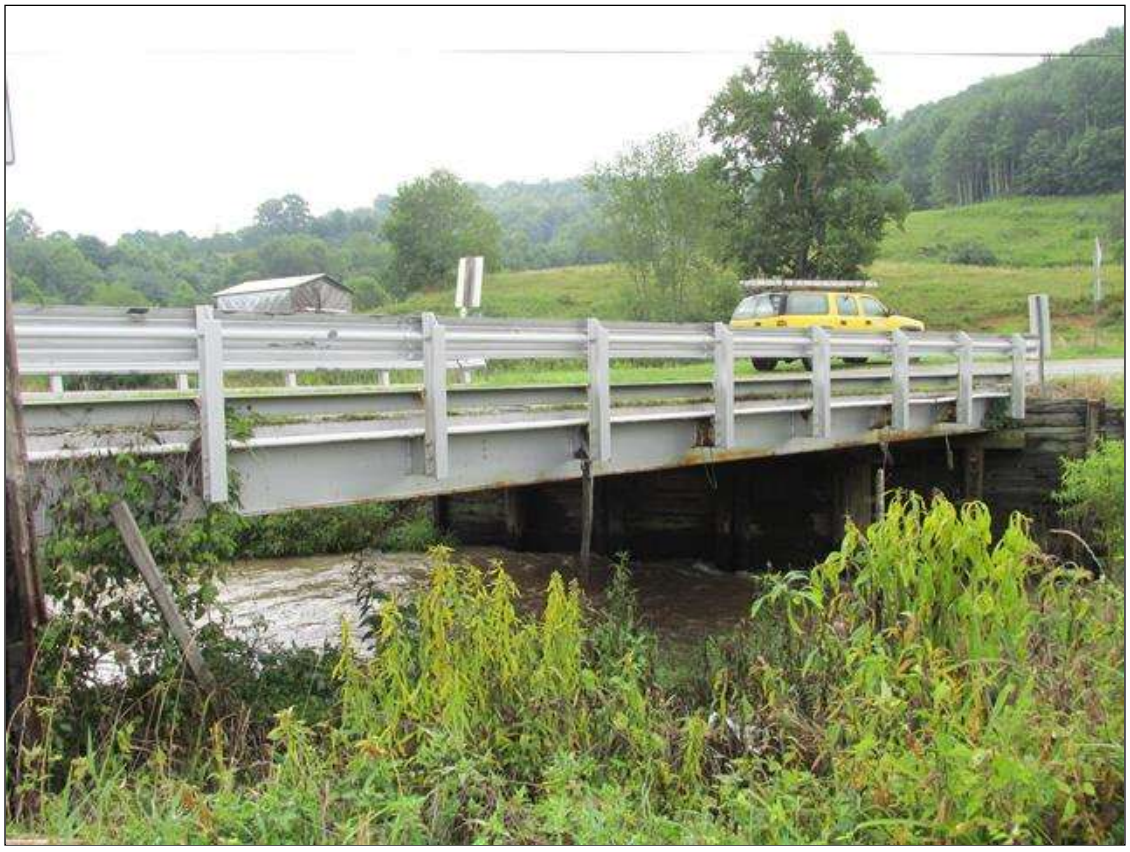
UPSTREAM



DOWNSTREAM



LOOKING SOUTH



WEST PROFILE



ABUTMENT A



ABUTMENT B



EAST PROFILE

NATIONAL BRIDGE INVENTORY-------- STRUCTURE INVENTORY AND APPRAISAL Run Date: 08/13/2015

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE **940022**
(8) STRUCTURE NUMBER(FEDERAL) 000000001890022
(5) INVENTORY ROUTE (ON/UNDER) - ON 31012090
(2) STATE HIGHWAY DEPARTMENT DISTRICT 2
(3) COUNTY CODE 189 (4) PLACE CODE 0
(6) FEATURE INTERSECTED - BEAVER DAM CREEK
(7) FACILITY CARRIED SR1209
(9) LOCATION .2 MI.S.JCT.SR1201
(11)MILEPOINT 0
(16)LAT 36° 17' 33.93" (17)LONG 81° 50' 57.09"
(98)BORDER BRIDGE STATE CODE PCT SHARE
(99)BORDER BRIDGE STRUCTURE NO

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE MAIN: Steel
TYPE - Stringer Mutlibeam or Girder CODE 302
(44) STRUCTURE TYPE APPR :
TYPE - CODE 000
(45) NUMBER OF SPANS IN MAIN UNIT 1
(46) NUMBER OF APPROACH SPANS
(107)DECK STRUCTURE TYPE - 6 CODE
(108)WEARING SURFACE / PROTECTIVE SYSTEM :
(A) TYPE OF WEARING SURFACE - CODE
(B) TYPE OF MEMBRANE - CODE
(C) TYPE OF DECK PROTECTION - CODE

AGE AND SERVICE

(27) YEAR BUILT 1968
(106)YEAR RECONSTRUCTED
(42) TYPE OF SERVICE : ON - Highway
UNDER - Waterway CODE 15
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE 0
(29) AVERAGE DAILY TRAFFIC 130
(30) YEAR OF ADT 2012 (109) TRUCK ADT PCT 6%
(19) BYPASS OR DETOUR LENGTH 10 MI

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 44 FT
(49) STRUCTURE LENGTH 46 FT
(50)CURB OR SIDEWALK: LEFT .3 FT RIGHT .3 FT
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 24 FT
(52) DECK WIDTH OUT TO OUT 24.083 FT
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 18 FT
(33) BRIDGE MEDIAN - No Median CODE 0
(34) SKEW 60° (35) STRUCTURE FLARED 0
(10) INVENTORY ROUTE MIN VERT CLEAR 999.9 FT
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 24 FT
(53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT
(54) MIN VERT UNDERCLEAR REF Not a Highway or Railroad 0 FT
(55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad 000 FT
(56) MIN LAT UNDERCLEAR LT REF - 000 FT

NAVIGATION DATA

(38) NAVIGATION CONTROL - No Navigational Control CODE 0
(111)PIER PROTECTION - CODE
(39) NAVIGATION VERTICAL CLEARANCE 0
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR FT
(40) NAVIGATION HORIZONTAL CLEARANCE 0 FT

SUFFICIENCY RATING = 33.56
STATUS = Structurally Deficient

CLASSIFICATION — CODE

(112)NBIS BRIDGE SYSTEM - YES
(104)HIGHWAY SYSTEM Is not on NHS 0
(26) FUNCTIONAL CLASS - Local 09
(100)STRAHNET HIGHWAY - Not a STRAHNET Route 0
(101)PARALLEL STRUCTURE - No Parallel Structure N
(102)DIRECTION OF TRAFFIC - 2-way Traffic 2
(103)TEMPORARY STRUCTURE - Temporary Structure/Conditions T
(110)DESIGNATED NATIONAL NETWORK - Not on the National Network 0
(20) TOLL On Free Road 3
(31) MAINTAIN - State Highway Agency 01
(22) OWNER - State Highway Agency 01
(37) HISTORICAL SIGNIFICANCE - Not Eligible 5

CONDITION — CODE

(58) DECK 5
(59) SUPERSTRUCTURE 4
(60) SUBSTRUCTURE 4
(61) CHANNEL & CHANNEL PROTECTION 5
(62) CULVERTS N

LOAD RATING AND POSTING — CODE

(31) DESIGN LOAD Unknown 0
(63) OPERATING RATING METHOD - Load Factor 1
(64) OPERATING RATING - HS-1 1
(65) INVENTORY RATING METHOD - Load Factor 1
(66) INVENTORY RATING - HS-1 1
(70) BRIDGE POSTING - Posting Required 0
(41) STRUCTURE OPEN, POSTED ,OR CLOSED P
DESCRIPTION - Posted for Load

APPRAISAL — CODE

(67) STRUCTURAL EVALUATION 3
(68) DECK GEOMETRY 5
(69) UNDERCLEARANCES,VERTI & HORIZ N
(71) WATERWAY ADEQUACY 7
(72) APPROACH ROADWAY ALIGNMENT 8
(36) TRAFFIC SAFETY FEATURES 0000
(113)SCOUR CRITICAL BRIDGES U

PROPOSED IMPROVEMENTS

(75) TYPE OF WORK - CODE
(76) LENGTH OF STRUCTURE IMPROVEMENT
(94) BRIDGE IMPROVEMENT COST
(95) ROADWAY IMPROVEMENT COST
(96) TOTAL PROJECT COST
(97) YEAR OF IMPROVEMENT COST ESTIMATE
(114)FUTURE ADT 260 (115) YEAR FUTURE ADT 2025

INSPECTIONS

(90) INSPECTION DATE 07/13/2015
(92) CRITICAL FEATURE INSPECTION : (93) CFI DATE
A) FRACTURE CRIT DETAIL - NO A)
B) UNDERWATER INSP - NO B)
C) OTHER SPECIAL INSP NO C)
SCOUR

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE Run Date: 08/13/2015

COUNTY :	DIVISION :	DISTRICT:	STRUCTURE NUMBER :	LENGTH :
WATAUGA	11	2	940022	46 FEET

ROUTE CARRIED : SR1209

FEATURE INTERSECTED : BEAVER DAM CREEK

LOCATED : .2 MI.S.JCT.SR1201

BRIDGE NAME :

CITY :

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :		RAIL TYPE :			
09	NFA	NFA	130	2012	LT	233	RT	233

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1968	BMU			Unknown

REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :		
			TAN	30	ON 2	UNDER	0

NAVIGATION :					HT. CRN. TO BED :		WATER DEPTH :	
VC	0	FT	HC	0	FT	11 FT	1	FT

SUPERSTRUCTURE : STEEL PLANK FLOOR ON I-BEAMS

SUBSTRUCTURE : E.BTS:TIMBER CAPS/TIMBER POST&SILLS @ VARIOUS CENTERS

SPANS : 1 @ 45'-6

BEAMS OR GIRDERS : 10 LINES 21 I-BEAMS @ 2'-6.625 CENTERS

FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
STL.PLK/3 AWS		24.083 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :			
24 FT	24.5 FT	LT	.3 FT	RT	.3 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :					
HS-1	HS-1	IntBm(#9)	SV	19	TTST	22	DATE	08/16/2013

SYSTEM : Secondary S.R. Route

GREEN LINE ROUTE : N

UNDER ROUTES AND CLEARANCES

REMARKS :

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 940022 County WATAUGA Date:

These Repairs Should Be Made Within Twelve Months From Date Of This Inspection

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3322	Maint to Steel Handrail	LF	3	SECTION LOSS WITH HOLES TO LEFT RAIL POST BLOCKS (2, 3 & 5)	
3322	Maint to Steel Handrail	LF	4	SECTION LOSS WITH HOLES TO RIGHT RAIL POST BLOCKS (2, 4, 6 & 8)	
3314	Maintain Steel Superstructure Components	LF	21	BEAM 9: RUST AND SCALE ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/4") REMAINING SECTION. CORROSION STARTS AT ABUT. (A) AND EXTENDS (+/- 21 LF) WITH A LOSS OF SECTION OF (+/- 1/4")	
3346	Repair / Maintain Timber Wings & Blkhds	SF	6	RIGHT END ABUT. (A) BULKHEAD (1) BOARD DECAYED (+/- 6 LF)	
3346	Repair / Maintain Timber Wings & Blkhds	SF	18	LEFT END ABUT. (B) BULKHEAD (2) BOARDS DECAYED WITH LOSS OF FILL (+/- 18 SF)	
3346	Repair / Maintain Timber Wings & Blkhds	SF	18	ABUT. (B) BULKHEAD BOTTOM (3) BOARDS DECAYED WITH LOSS OF FILL BETWEEN POST (4 & 5) (+/- 18 SF)	
3346	Repair / Maintain Timber Wings & Blkhds	SF	12	ABUT. (B) BULKHEAD (1) BOARD DECAYED BETWEEN BAYS (7-9) (+/- 12 SF)	
3346	Repair / Maintain Timber Wings & Blkhds	SF	18	RIGHT END ABUT. (B) BULKHEAD (3) BOARDS DECAYED WITH LOSS OF FILL (+/- 18 SF)	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 940022 County WATAUGA

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3322	Maint to Steel Handrail	3 LF

Location:		
Left Rail	Bent/Span No. 1	LEFT RAIL

Priority Level	Status
Critical Finding	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
07/13/2015	MAX FORD	ANDREW GLASCO

Details

SECTION LOSS WITH HOLES TO LEFT RAIL POST BLOCKS (2, 3 & 5)

MMS Code	MMS Description	Quantity
3322	Maint to Steel Handrail	4 LF

Location:		
Right Rail	Bent/Span No. 1	RIGHT RAIL

Priority Level	Status
Critical Finding	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
07/13/2015	MAX FORD	ANDREW GLASCO

Details

SECTION LOSS WITH HOLES TO RIGHT RAIL POST BLOCKS (2, 4, 6 & 8)

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 940022 County WATAUGA

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	21 LF

Location:		
Beams and Girders	Bent/Span No. 1	BEAM (9)

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
07/13/2015	MAX FORD	ANDREW GLASCO

Details

BEAM 9: RUST AND SCALE ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/4") REMAINING SECTION. CORROSION STARTS AT ABUT. (A) AND EXTENDS (+/- 21 LF) WITH A LOSS OF SECTION OF (+/- 1/4")

MMS Code	MMS Description	Quantity
3346	Repair / Maintain Timber Wings & Blkhds	6 SF

Location:		
Abutment Substructure	Bent/Span No. 1	ABUT. (A) BULKHEAD

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
07/13/2015	MAX FORD	ANDREW GLASCO

Details

RIGHT END ABUT. (A) BULKHEAD (1) BOARD DECAYED (+/- 6 LF)

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 940022 County WATAUGA

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3346	Repair / Maintain Timber Wings & Blkhds	18 SF

Location:		
Abutment Substructure	Bent/Span No. 2	ABUT. (2) BULKHEAD

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
07/13/2015	MAX FORD	ANDREW GLASCO

Details

LEFT END ABUT. (B) BULKHEAD (2) BOARDS DECAYED WITH LOSS OF FILL (+/- 18 SF)

MMS Code	MMS Description	Quantity
3346	Repair / Maintain Timber Wings & Blkhds	18 SF

Location:		
Abutment Substructure	Bent/Span No. 2	ABUT. (B) BULKHEAD

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
07/13/2015	MAX FORD	ANDREW GLASCO

Details

ABUT. (B) BULKHEAD BOTTOM (3) BOARDS DECAYED WITH LOSS OF FILL BETWEEN POST (4 & 5) (+/- 18 SF)

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 940022 County WATAUGA

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3346	Repair / Maintain Timber Wings & Blkhds	12 SF

Location:		
Abutment Substructure	Bent/Span No. 2	ABUT. (B) BULKHEAD

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
07/13/2015	MAX FORD	ANDREW GLASCO

Details

ABUT. (B) BULKHEAD (1) BOARD DECAYED BETWEEN BAYS (7-9) (+/- 12 SF)

MMS Code	MMS Description	Quantity
3346	Repair / Maintain Timber Wings & Blkhds	18 SF

Location:		
Abutment Substructure	Bent/Span No. 2	ABUT. (B) BULKHEAD

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
07/13/2015	MAX FORD	ANDREW GLASCO

Details

RIGHT END ABUT. (B) BULKHEAD (3) BOARDS DECAYED WITH LOSS OF FILL (+/- 18 SF)



SPAN 1 BEAM 9: RUST AND SCALE ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/4") REMAINING SECTION. CORROSION STARTS AT ABUT. (A) AND EXTENDS (+/- 21 LF)



RIGHT END ABUT. (A) BULKHEAD (1) BOARD DECAYED (+/- 6 LF)



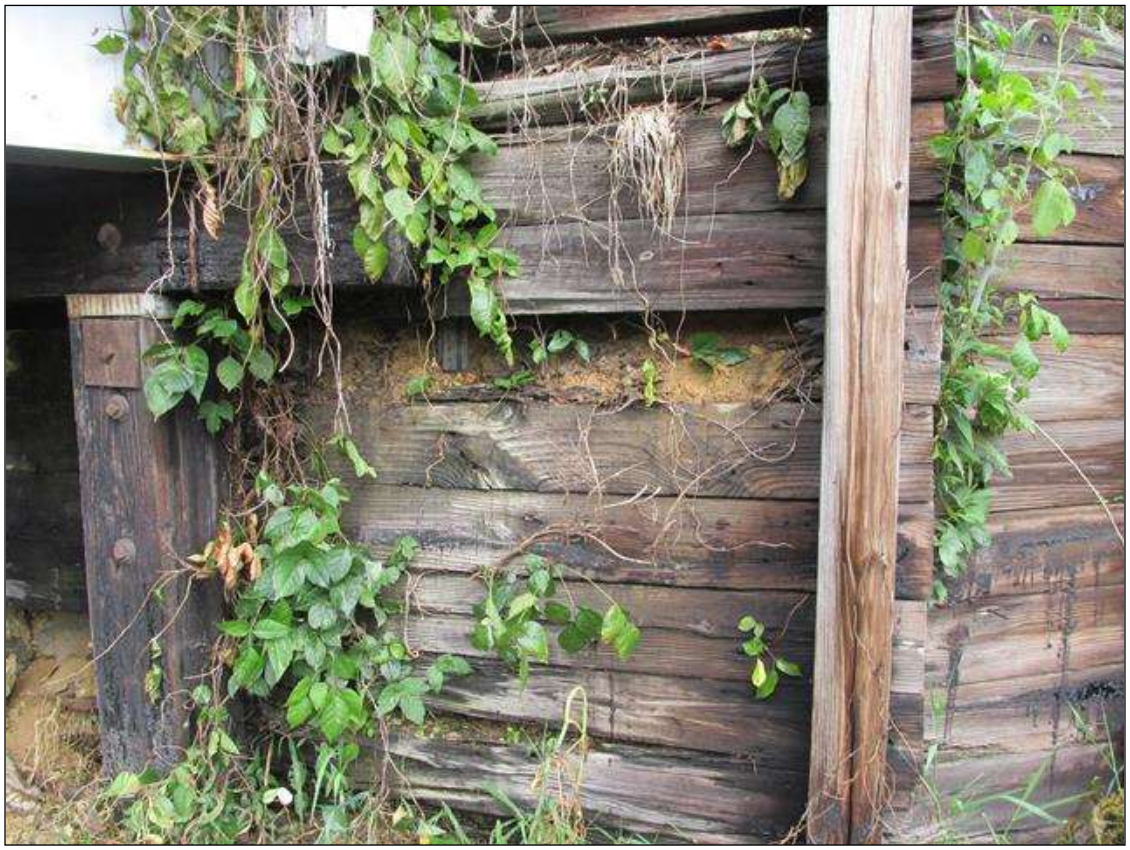
LEFT END ABUT. (B) BULKHEAD (2) BOARDS DECAYED WITH LOSS OF FILL (+/- 18 SF)



ABUT. (B) BULKHEAD BOTTOM (3) BOARDS DECAYED WITH LOSS OF FILL BETWEEN POST (4 & 5) (+/- 18 SF)



ABUT. (B) BULKHEAD (1) BOARD DECAYED BETWEEN BAYS (7-9) (+/- 12 SF)



RIGHT END ABUT. (B) BULKHEAD (3) BOARDS DECAYED WITH LOSS OF FILL (+/- 18 SF)



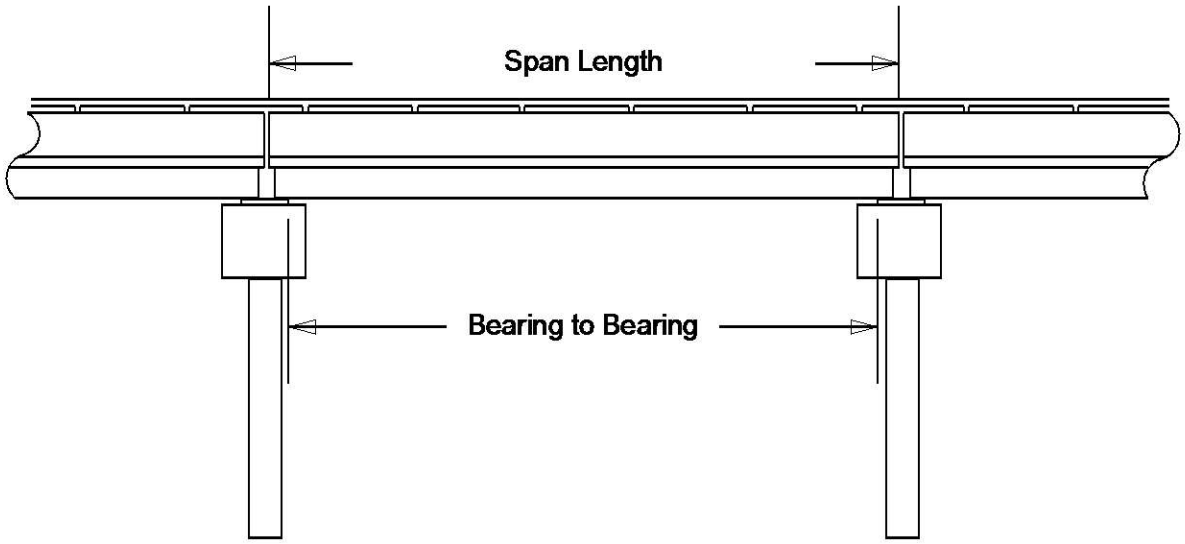
SECTION LOSS WITH HOLES TO LEFT RAIL POST BLOCKS (2, 3 & 5)



SECTION LOSS WITH HOLES TO RIGHT RAIL POST BLOCKS (2, 4, 6 & 8)

Structure Data Worksheet

County: WATAUGA **Structure No:** 940022 **Date:** **Inspected By:** AG



Span No	Span Length	Bearing to Bearing	Comments
1	45 FT. 6 IN.	44 ft. 2 in.	FACE OF ABUT. CAP TO FACE OF ABUT. CAP = 44' 10"

Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 940022 **County:** WATAUGA **Date:** _____ **By:** AG

Record sounding from top of rail. Other location if needed: TOP OF RAIL

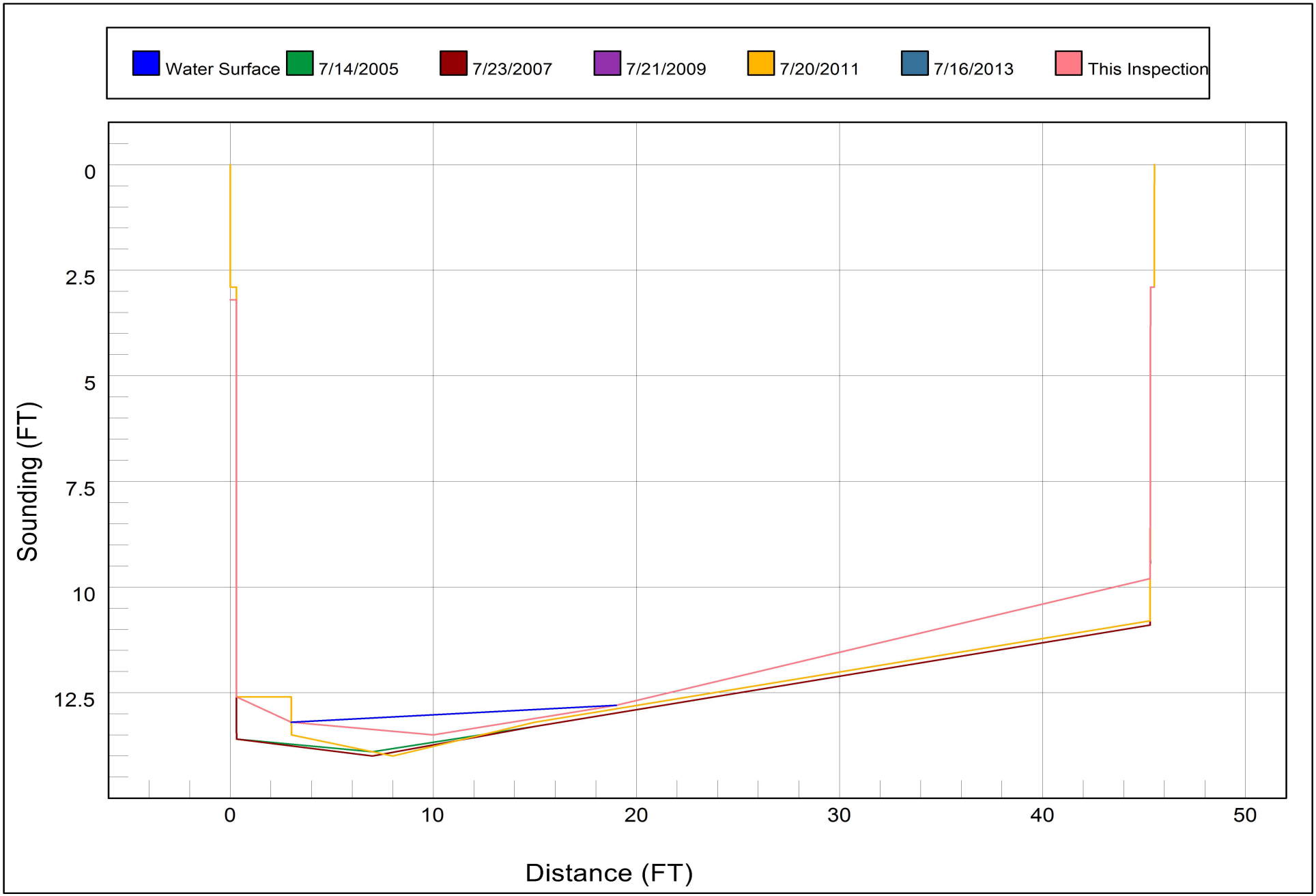
Distance from Highwater Mark to top of rail: _____ **Location of Highwater Mark:** _____

DOWNSTREAM			UPSTREAM		
Distance (Station) (ft)	Sounding (ft)	Description	Distance (Station) (ft)	Sounding (ft)	Description
0	3.2	FILL FACE			
0.3	3.2	TOP OF BACKWALL			
0.301	4.6	Top of Cap			
0.302	12.6	FACE OF BULKHEAD	0.302	12.4	FACE OF BULKHEAD
3	13.2	Water Surface/Water Edge (WSWE)			
10	13.5	CENTERLINE			
19	12.8	Water Surface/Water Edge (WSWE)			
45.3	9.8	FACE OF BULKHEAD	45.3	10.3	FACE OF BULKHEAD
45.31	4.6	Top of Cap			
45.32	2.9	TOP OF BACKWALL			
45.5	2.9	Top of Cap			

Bridge: 940022 County WATAUGA Date:

STREAMBED PROFILE (Downstream)

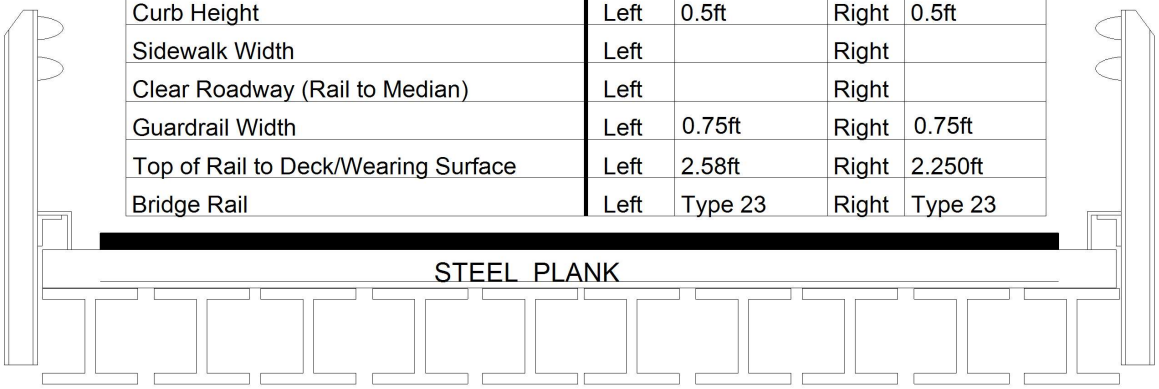
Top of Rail = 0 FT (Sounding)



Bridge Inspection Field Sketch

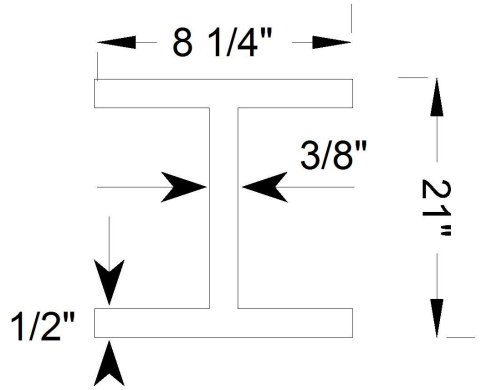
VERIFIED 7/13/2015 A. GLASCO, B. ELLIS

Deck Width/Out to Out	24.083ft	Between Rails			24.5ft
Clear Roadway	24.0ft	Wearing Surface			0.25ft
Median Width		Median Height			
Curb Height		Left	0.5ft	Right	0.5ft
Sidewalk Width		Left		Right	
Clear Roadway (Rail to Median)		Left		Right	
Guardrail Width		Left	0.75ft	Right	0.75ft
Top of Rail to Deck/Wearing Surface		Left	2.58ft	Right	2.250ft
Bridge Rail		Left	Type 23	Right	Type 23



Measurements for Span #	1		
Deck Thickness	0.167	Left Overhang	0.5417
Top of Rail to Bottom of Beam	4.417	Right Overhang	0.5417

Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	2.552ft	
2	Steel I Beam	2.552ft	
3	Steel I Beam	2.552ft	
4	Steel I Beam	2.552ft	
5	Steel I Beam	2.552ft	
6	Steel I Beam	2.552ft	
7	Steel I Beam	2.552ft	
8	Steel I Beam	2.552ft	
9	Steel I Beam	2.552ft	
10	Steel I Beam		



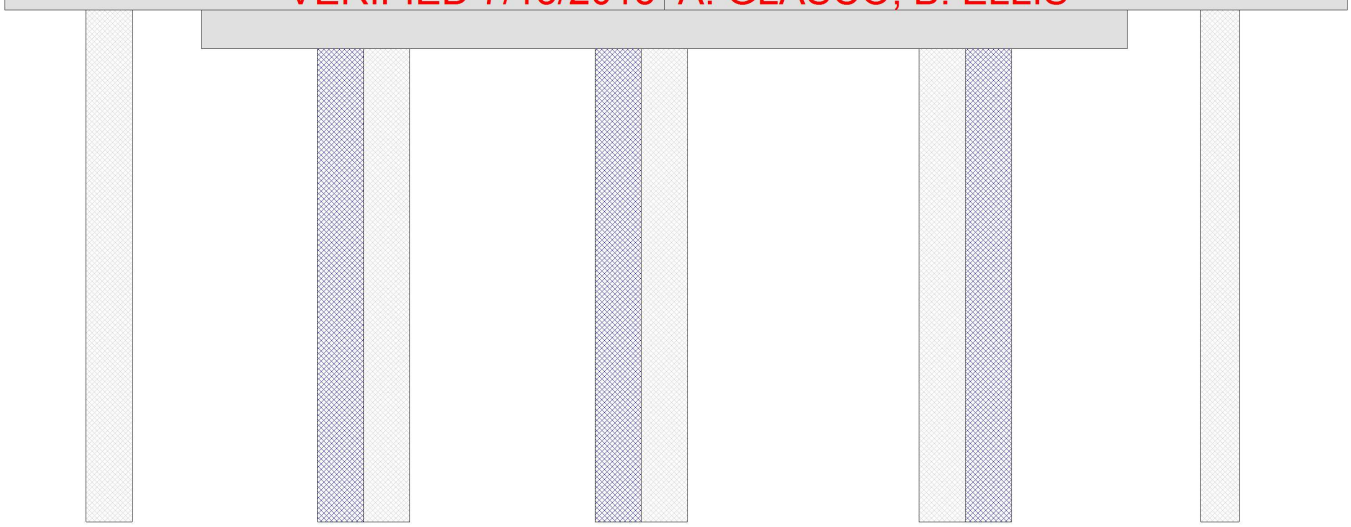
2 5/8" X 10" DIAPH. @ 1/3 PTS.

Title	Description
SUPERSTRUCTURE	DATA WORKSHEET

Bridge No:	Drawn By:	Date:	File Name:
940022	WCM	07/18/2013	S0126000153

Bridge Inspection Field Sketch

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Cap Information — Material: Timber

Length	Width	Height	Left Overhang	Right Overhang	Left Beam to End of Cap.	Right Beam to End of Cap.
29 ft.	0.833 ft.	0.958 ft.	2.25 ft.	2.5 ft.	1.417 ft.	1.0 ft.

Subcap Information — Material: Timber

Length	Width	Height	Left Overhang	Right Overhang	Left Pile to Splice.
20 ft.	0.98 ft.	0.833 ft.	3 ft.	3.167 ft.	7 ft.

Sill Information — Material:

Length	Width	Height
25.583 ft.	0.833 ft.	1.0 ft.

Pile #	Material	Spacing	Width/Dia.	Height	Length	Orientation	Driven?	Replacement?	Removed?	Collar?
1	Timber	5 ft.	1 ft.		0.833 ft.	Vertical	No	No	No	No
2	Timber	1 ft.	1 ft.		0.833 ft.	Vertical	No	Yes	No	No
3	Timber	5 ft.	1 ft.		0.833 ft.	Vertical	No	No	No	No
4	Timber	1 ft.	1 ft.			Vertical	No	Yes	No	No
5	Timber	6 ft.	1 ft.		0.833 ft.	Vertical	No	No	No	No
6	Timber	1 ft.	1 ft.		0.833 ft.	Vertical	No	No	No	No
7	Timber	5 ft.	1 ft.			Vertical	No	Yes	No	No
8	Timber		0.833 ft.		0.833 ft.	Vertical	No	No	No	No

Bent/Abutment #: 1 Similar Bents:

Title

SUBSTRUCTURE END BENT 1

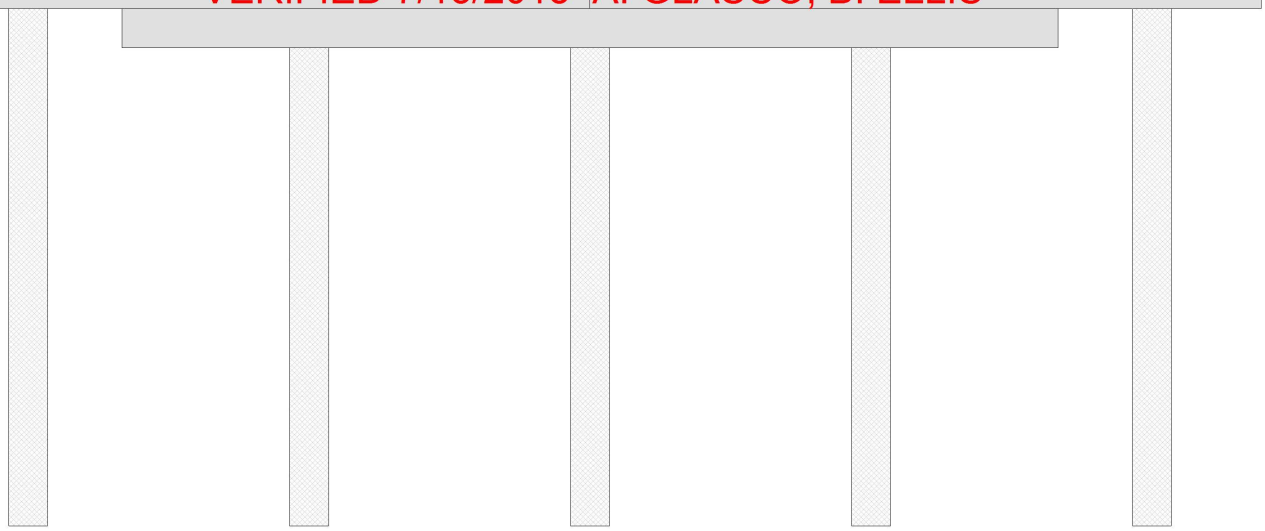
Description

DATA WORKSHEET

Bridge No:	Drawn By:	Date:	File Name:
940022	WCM	07/18/2013	S0130000167

Bridge Inspection Field Sketch

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Cap Information Material Timber

Length	Width	Height	Left Overhang	Right Overhang	Left Beam to End of Cap.	Right Beam to End of Cap.
28.667 ft.	0.833 ft.	0.833 ft.	2.333 ft.	2.333 ft.	1.083 ft.	1.667 ft.

Subcap Information Material

Length	Width	Height	Left Overhang	Right Overhang	Left Pile to Splice.
20 ft.	0.833 ft.	0.833 ft.	4 ft.	4 ft.	6 ft.

Sill Information Material

Length	Width	Height

Pile #	Material	Spacing	Width/Dia.	Height	Length	Orientation	Driven?	Replacement?	Removed?	Collar?
1	Timber	6 ft.	0.833 ft.		0.833 ft.		No	No	No	No
2	Timber	6 ft.	0.833 ft.		0.833 ft.		No	No	No	No
3	Timber	6 ft.	0.833 ft.		0.833 ft.		No	No	No	No
4	Timber	6 ft.	0.833 ft.		0.833 ft.		No	No	No	No
5	Timber		0.833 ft.		0.833 ft.		No	No	No	No

Bent/Abutment #: 2 Similar Bents:

Title

SUBSTRUCTURE END BENT 2

Description

DATA WORKSHEET

Bridge No:	Drawn By:	Date:	File Name:
940022	WCM	07/18/2013	S0130000168

Bridge Inspection Field Sketch

VERIFIED 7/13/2015 A. GLASCO, B. ELLIS



Roadway	18ft Wide	2 Paved Lanes	Looking South
Left Shoulder	4ft Wide		4ft Unpaved
Right Shoulder	7ft Wide		7ft Unpaved
Left Guardrail			
Right Guardrail			

Title	**Description**		
APPROACH ROADWAY	DATA WORKSHEET		
Bridge No: 940022	**Drawn By:** WCM	**Date:** 07/18/2013	**File Name:** S0130000169