



NC DEPARTMENT OF TRANSPORTATION

ATTENTION:

DIVISION OF HIGHWAYS

STRUCTURE MANAGEMENT UNIT

Structure Safety Report

Routine Element Inspection

COUNTY: JOHNSTON STRUCTURE NUMBER: 500231 FREQUENCY: 24 MONTHSFACILITY CARRIED: SR2159 MILE POST: _____LOCATION: 0.3 MI SE JCT SR2110FEATURE INTERSECTED: LITTLE BUFFALO CREEKLATITUDE: 35° 38' 51.97" LONGITUDE: 78° 10' 41.48"SUPERSTRUCTURE: PPC CHANNELS (BMD-13)SUBSTRUCTURE: EBTS&IBT:PPC CAP/TIM.PILES @ 5"9 CTS.SPANS: 2@30"☐ FRACTURE CRITICAL ☐ TEMPORARY SHORING ☐ SCOUR CRITICAL ☐ SCOUR PLAN OF ACTIONPRESENT CONDITION: Fair INSPECTION DATE: 09/11/2014POSTED SV: 23 POSTED TTST: 26OTHER SIGNS PRESENT: 4 Delineators

LOOKING NORTH

Sign noticed issued for		Number Required
<u>NO</u>	WEIGHT LIMIT	<u>0</u>
<u>NO</u>	DELINEATORS	<u>0</u>
<u>NO</u>	NARROW BRIDGE	<u>0</u>
<u>NO</u>	ONE LANE BRIDGE	<u>0</u>
<u>NO</u>	LOW CLEARANCE	<u>0</u>

INSPECTED BY
Willis C May

SIGNATURE

Willis C May

ASSISTED BY Wayne T Wilkinson

Span Element Report

Structure Number: 500231

Inspection Date: 09/11/2014

Span Number 1

Span Length 30 Feet

Number of Slabs/Channels: 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
15		Prestressed Concrete Top Flange	750	749	1	0	0	1	3326
104		Prestressed Concrete Closed Web/Box	300	285	15	0	0	15	3306
216		Timber Abutment	36	16	0	20	0	0	3346
228		Timber Pile	5	0	5	0	0	0	
233		Prestressed Concrete Pier Cap	26	26	0	0	0	0	3348
330		Metal Bridge Railing	60	48	12	0	0	12	3322
515	330	Steel Protective Coating	156	120	0	0	36	36	5603
510		Wearing Surface	720	672	0	48	0	48	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

Span Number 2

Span Length 30 Feet

Number of Slabs/Channels: 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
15		Prestressed Concrete Top Flange	750	750	0	0	0	0	3326
104		Prestressed Concrete Closed Web/Box	300	298	1	1	0	2	3306
216		Timber Abutment	36	36	0	0	0	0	3346
228		Timber Pile	5	0	5	0	0	0	
233		Prestressed Concrete Pier Cap	52	51	1	0	0	0	3348
330		Metal Bridge Railing	60	48	12	0	0	12	3322
515	330	Steel Protective Coating	156	120	0	18	18	36	5603
510		Wearing Surface	720	696	0	24	0	24	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 Quantities

Structure Number: 500231

Inspection Date: 09/11/2014

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
☒ Bridge Rail	1	330	Metal Bridge Railing	30	24	6	0	0	6	3322	☐ Requested
Protective System		515	Steel Protective Coating	78	60	0	0	18	18	3342	
☒ Bridge Rail	2	330	Metal Bridge Railing	30	24	6	0	0	6	3322	☐ Requested
Protective System		515	Steel Protective Coating	78	60	0	0	18	18	3342	
☒ Wearing Surfaces	1	510	Wearing Surface	720	672	0	48	0	48	2816	☐ Requested
☐ Beam	1	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	1	104	Prestressed Concrete Closed Web/Box C	30	29	1	0	0	1	3306	☐ Requested
☐ Beam	2	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	2	104	Prestressed Concrete Closed Web/Box C	30	30	0	0	0	0	3306	☐ Requested
☐ Beam	3	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	3	104	Prestressed Concrete Closed Web/Box C	30	28	2	0	0	2	3306	☐ Requested
☐ Beam	4	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	4	104	Prestressed Concrete Closed Web/Box C	30	30	0	0	0	0	3306	☐ Requested
☐ Beam	5	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	5	104	Prestressed Concrete Closed Web/Box C	30	28	2	0	0	2	3306	☐ Requested
☐ Beam	6	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	6	104	Prestressed Concrete Closed Web/Box C	30	29	1	0	0	1	3306	☐ Requested
☐ Beam	7	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	7	104	Prestressed Concrete Closed Web/Box C	30	29	1	0	0	1	3306	☐ Requested
☐ Beam	8	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	8	104	Prestressed Concrete Closed Web/Box C	30	28	2	0	0	2	3306	☐ Requested
☐ Beam	9	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	9	104	Prestressed Concrete Closed Web/Box C	30	29	1	0	0	1	3306	☐ Requested
☐ Beam	10	15	Prestressed Concrete Top Flange	75	74	1	0	0	1	3326	☐ Requested
☒ Beam	10	104	Prestressed Concrete Closed Web/Box C	30	25	5	0	0	5	3306	☐ Requested

Structure Number: 500231

Inspection Date: 09/11/2014

Span Number 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
☒ Bridge Rail	1	330	Metal Bridge Railing	30	24	6	0	0	6	3322	☐ Requested
Protective System		515	Steel Protective Coating	78	60	0	0	18	18	3342	
☒ Bridge Rail	2	330	Metal Bridge Railing	30	24	6	0	0	6	3322	☐ Requested
Protective System		515	Steel Protective Coating	78	60	0	18	0	18	3342	
☒ Wearing Surfaces	1	510	Wearing Surface	720	696	0	24	0	24	2816	☐ Requested
☐ Beam	1	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	1	104	Prestressed Concrete Closed Web/Box C	30	29	1	0	0	1	3306	☐ Requested
☐ Beam	2	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	2	104	Prestressed Concrete Closed Web/Box C	30	29	0	1	0	1	3306	☐ Requested
☐ Beam	3	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	3	104	Prestressed Concrete Closed Web/Box C	30	30	0	0	0	0	3306	☐ Requested
☐ Beam	4	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	4	104	Prestressed Concrete Closed Web/Box C	30	30	0	0	0	0	3306	☐ Requested
☐ Beam	5	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	5	104	Prestressed Concrete Closed Web/Box C	30	30	0	0	0	0	3306	☐ Requested
☐ Beam	6	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	6	104	Prestressed Concrete Closed Web/Box C	30	30	0	0	0	0	3306	☐ Requested
☐ Beam	7	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	7	104	Prestressed Concrete Closed Web/Box C	30	30	0	0	0	0	3306	☐ Requested
☐ Beam	8	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	8	104	Prestressed Concrete Closed Web/Box C	30	30	0	0	0	0	3306	☐ Requested
☐ Beam	9	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	9	104	Prestressed Concrete Closed Web/Box C	30	30	0	0	0	0	3306	☐ Requested
☐ Beam	10	15	Prestressed Concrete Top Flange	75	75	0	0	0	0	3326	☐ Requested
☒ Beam	10	104	Prestressed Concrete Closed Web/Box C	30	30	0	0	0	0	3306	☐ Requested

Superstructure Element Defect Descriptions

Structure Number: 500231

Inspection Date: 09/11/2014

Span Number 1

Span	1	Bridge Rail	1	Component Name:	Steel Rail					
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Element: 330 Name Metal Bridge Railing Qty: 30 Lvl 2: 6 Lvl 3: 0 Lvl 4: 0 Maint. Qty 6

Defect Description:

6 Square Feet of Corrosion: Freckled rust. Corrosion of the steel has initiated on posts.

18 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal on posts.

Span	1	Bridge Rail	2	Component Name:	Steel Rail					
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Element: 330 Name Metal Bridge Railing Qty: 30 Lvl 2: 6 Lvl 3: 0 Lvl 4: 0 Maint. Qty 6

Defect Description:

6 Square Feet of Corrosion: Freckled rust. Corrosion of the steel has initiated On posts.

18 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal on posts.

Span	1	Wearing Surfaces	1	Component Name:	Asphalt Wearing Surface					
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Element: 510 Name Wearing Surface Qty: 720 Lvl 2: 0 Lvl 3: 48 Lvl 4: 0 Maint. Qty 48

Defect Description:

48 Square Feet of Crack (Wearing Surface): Width of more than 0.05 in. or spacing of less than 1.0 ft. Over end bent 1 and bent 1.

Span	1	Beam	1	Component Name:	Prestressed Concrete Channel					
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Element: 104 Name Prestressed Concrete Closed V Qty: 30 Lvl 2: 1 Lvl 3: 0 Lvl 4: 0 Maint. Qty 1

Defect Description:

1 Feet of Patched Area: Patched area that is sound in left leg at bent 1.

Span	1	Beam	3	Component Name:	Prestressed Concrete Channel					
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Element: 104 Name Prestressed Concrete Closed V Qty: 30 Lvl 2: 2 Lvl 3: 0 Lvl 4: 0 Maint. Qty 2

Defect Description:

2 Feet of Delamination/Spall/Patched Area: Patched area that is sound in left leg at bent 1.

Span	1	Beam	5	Component Name:	Prestressed Concrete Channel					
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Element: 104 Name Prestressed Concrete Closed V Qty: 30 Lvl 2: 2 Lvl 3: 0 Lvl 4: 0 Maint. Qty 2

Defect Description:

2 Feet of Delamination/Spall/Patched Area: Patched area that is sound in left leg at bent 1.

Span	1	Beam	6	Component Name:	Prestressed Concrete Channel					
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Element: 104 Name Prestressed Concrete Closed V Qty: 30 Lvl 2: 1 Lvl 3: 0 Lvl 4: 0 Maint. Qty 1

Defect Description:

1 Feet of Delamination/Spall/Patched Area: Patched area that is sound in left leg at end bent 1.

Span	1	Beam	7	Component Name:	Prestressed Concrete Channel					
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Element: 104 Name Prestressed Concrete Closed V Qty: 30 Lvl 2: 1 Lvl 3: 0 Lvl 4: 0 Maint. Qty 1

Defect Description:

1 Feet of Delamination/Spall/Patched Area: Patched area that is sound in left leg at end bent 1.

Span	1	Beam	8	Component Name:	Prestressed Concrete Channel					
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Element: 104 Name Prestressed Concrete Closed V Qty: 30 Lvl 2: 2 Lvl 3: 0 Lvl 4: 0 Maint. Qty 2

Defect Description:

2 Feet of Delamination/Spall/Patched Area: Patched area that is sound in left leg at bent 1.

Span	1	Beam	9	Component Name:	Prestressed Concrete Channel					
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Element: 104 Name Prestressed Concrete Closed V Qty: 30 Lvl 2: 1 Lvl 3: 0 Lvl 4: 0 Maint. Qty 1

Defect Description:

1 Feet of spalled area 6 in. diameter x 1/2 in deep in right leg near end bent 1.

Span	1	Beam	10	Component Name:		Prestressed Concrete Channel							
Element:	15	Name	Prestressed Concrete Top Flan	Qty:	75	Lvl 2:	1	Lvl 3	0	Lvl 4	0	Maint. Qty	1
Defect Description:													

Spall 1 in. or less deep or 6 in. or less in diameter in right curb at end bent 1.

Span	1	Beam	10	Component Name:		Prestressed Concrete Channel							
Element:	104	Name	Prestressed Concrete Closed V	Qty:	30	Lvl 2:	5	Lvl 3	0	Lvl 4	0	Maint. Qty	5
Defect Description:													

5 Feet of Patched Area: Patched area that is sound 5 ft. long in left leg near end bent 1.

Span Number 2

Span	2	Bridge Rail	1	Component Name:				Steel Rail					
Element:	330	Name	Metal Bridge Railing	Qty:	30	Lvl 2:	6	Lvl 3	0	Lvl 4	0	Maint. Qty	6
Defect Description:													

6 Square Feet of Corrosion: Freckled rust. Corrosion of the steel has initiated On posts.

18 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal on posts.

Span	2	Bridge Rail	2	Component Name:				Steel Rail					
Element:	330	Name	Metal Bridge Railing	Qty:	30	Lvl 2:	6	Lvl 3	0	Lvl 4	0	Maint. Qty	6
Defect Description:													

6 Square Feet of Corrosion: Freckled rust. Corrosion of the steel has initiated on posts.

18 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal on posts.

Span 2		Wearing Surfaces 1		Component Name:		Asphalt Wearing Surface							
Element: 510		Name Wearing Surface		Qty:	720	Lvl 2:	0	Lvl 3	24	Lvl 4	0	Maint. Qty	24
Defect Description:													

24 Square Feet of Crack (Wearing Surface): Width of more than 0.05 in. or spacing of less than 1.0 ft. at end bent 2

Span	2	Beam	1	Component Name:		Prestressed Concrete Channel							
Element:	15	Name	Prestressed Concrete Top Flan	Qty:	75	Lvl 2:	0	Lvl 3	0	Lvl 4	0	Maint. Qty	0
Defect Description:													

Span	2	Beam	1	Component Name:		Prestressed Concrete Channel							
Element:	104	Name	Prestressed Concrete Closed V	Qty:	30	Lvl 2:	1	Lvl 3	0	Lvl 4	0	Maint. Qty	1
Defect Description:													

1 Square Feet Patched Area: Patched area that is sound in left leg at bent 1.

Span	2	Beam	2	Component Name:		Prestressed Concrete Channel							
Element:	104	Name	Prestressed Concrete Closed V	Qty:	30	Lvl 2:	0	Lvl 3	1	Lvl 4	0	Maint. Qty	1
Defect Description:													

1 Feet of Delamination/Patched Area: Patched area that is unsound with 1/4 wide crack.

Substructure Detailed Element Quantities

Structure Number: 500231

Inspection Date: 09/11/2014

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
☒ Caps	1	233	Prestressed Concrete Pier Cap	26	26	0	0	0	0	3348	☐ Requested
☒ Piles and Columns	1	228	Timber Pile	1	0	1	0	0	0	3344	☐ Requested
☒ Piles and Columns	2	228	Timber Pile	1	0	1	0	0	0	3344	☐ Requested
☒ Piles and Columns	3	228	Timber Pile	1	0	1	0	0	0	3344	☐ Requested
☒ Piles and Columns	4	228	Timber Pile	1	0	1	0	0	0	3344	☐ Requested
☒ Piles and Columns	5	228	Timber Pile	1	0	1	0	0	0	3344	☐ Requested
☒ Abutments	1	216	Timber Abutment	36	16	0	20	0	0	3346	☐ Requested

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
☒ Caps	1	233	Prestressed Concrete Pier Cap	26	25	1	0	0	0	3348	☐ Requested
☒ Piles and Columns	1	228	Timber Pile	1	0	1	0	0	0	3344	☐ Requested
☒ Piles and Columns	2	228	Timber Pile	1	0	1	0	0	0	3344	☐ Requested
☒ Piles and Columns	3	228	Timber Pile	1	0	1	0	0	0	3344	☐ Requested
☒ Piles and Columns	4	228	Timber Pile	1	0	1	0	0	0	3344	☐ Requested
☒ Piles and Columns	5	228	Timber Pile	1	0	1	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
☒ Caps	1	233	Prestressed Concrete Pier Cap	26	26	0	0	0	0	3348	☐ Requested
☒ Piles and Columns	1	228	Timber Pile	1	0	1	0	0	0	3344	☐ Requested
☒ Piles and Columns	2	228	Timber Pile	1	0	1	0	0	0	3344	☐ Requested
☒ Piles and Columns	3	228	Timber Pile	1	0	1	0	0	0	3344	☐ Requested
☒ Piles and Columns	4	228	Timber Pile	1	0	1	0	0	0	3344	☐ Requested
☒ Piles and Columns	5	228	Timber Pile	1	0	1	0	0	0	3344	☐ Requested
☒ Abutments	1	216	Timber Abutment	36	36	0	0	0	0	3346	☐ Requested

Substructure Element Defect Descriptions

Structure Number: 500231

Inspection Date: 09/11/2014

End Bent 1

End Bent 1	Row 1	Piles and Columns	1
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Element: 228 **Name** Timber Pile **Qty:** 1 **Lvl 2:** 1 **Lvl 3** 0 **Lvl 4** 0 **Maint. Qty** 0
Defect Description:

1 Each of Check/Shake: Penetrates 5%-50% of the thickenss of the member and not in the tension zone.

End Bent 1	Row 1	Piles and Columns	2
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Element: 228 **Name** Timber Pile **Qty:** 1 **Lvl 2:** 1 **Lvl 3** 0 **Lvl 4** 0 **Maint. Qty** 0
Defect Description:

1 Each of Check/Shake: Penetrates 5%-50% of the thickenss of the member and not in the tension zone.

End Bent 1	Row 1	Piles and Columns	3
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Element: 228 **Name** Timber Pile **Qty:** 1 **Lvl 2:** 1 **Lvl 3** 0 **Lvl 4** 0 **Maint. Qty** 0
Defect Description:

1 Each of Check/Shake: Penetrates 5%-50% of the thickenss of the member and not in the tension zone.

End Bent 1	Row 1	Piles and Columns	4
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Element: 228 **Name** Timber Pile **Qty:** 1 **Lvl 2:** 1 **Lvl 3** 0 **Lvl 4** 0 **Maint. Qty** 0
Defect Description:

1 Each of Check/Shake: Penetrates 5%-50% of the thickenss of the member and not in the tension zone.

End Bent 1	Row 1	Piles and Columns	5
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Element: 228 **Name** Timber Pile **Qty:** 1 **Lvl 2:** 1 **Lvl 3** 0 **Lvl 4** 0 **Maint. Qty** 0
Defect Description:

1 Each of Check/Shake: Penetrates 5%-50% of the thickenss of the member and not in the tension zone.

End Bent 1	Row 1	Abutments	1
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Element: 216 **Name** Timber Abutment **Qty:** 36 **Lvl 2:** 0 **Lvl 3** 20 **Lvl 4** 0 **Maint. Qty** 0
Defect Description:

20 Feet of Decay: left ends decayed back 5 ft. Bulkhead board # 2 decayed from pile 1 to pile 3 with exposed fill in spots. Vertical braces at left and right side decayed through. Right ends decayed back 2 ft.

Bent 1	Row 1	Caps	1
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Element: 233 **Name** Prestressed Concrete Pier Cap **Qty:** 26 **Lvl 2:** 1 **Lvl 3** 0 **Lvl 4** 0 **Maint. Qty** 0
Defect Description:

1 Feet of Patched area that is sound in span 2 side under channel 1.

Bent 1	Row 1	Piles and Columns	1
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Element: 228 **Name** Timber Pile **Qty:** 1 **Lvl 2:** 1 **Lvl 3** 0 **Lvl 4** 0 **Maint. Qty** 0
Defect Description:

1 Each of Check/Shake: Penetrates 5%-50% of the thickenss of the member and not in the tension zone.

Bent 1	Row 1	Piles and Columns	2
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Element: 228 **Name** Timber Pile **Qty:** 1 **Lvl 2:** 1 **Lvl 3** 0 **Lvl 4** 0 **Maint. Qty** 0
Defect Description:

1 Each of Check/Shake: Penetrates 5%-50% of the thickenss of the member and not in the tension zone.

Bent 1	Row 1	Piles and	3
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Columns												
Element: 228	Name	Timber Pile	Qty:	1	Lvl 2:	1	Lvl 3	0	Lvl 4	0	Maint. Qty	0
Defect Description:												
1 Each of Check/Shake: Penetrates 5%-50% of the thickenss of the member and not in the tension zone.												
Bent 1	Row	1	Piles and Columns	4								
Element: 228	Name	Timber Pile	Qty:	1	Lvl 2:	1	Lvl 3	0	Lvl 4	0	Maint. Qty	0
Defect Description:												
1 Each of Check/Shake: Penetrates 5%-50% of the thickenss of the member and not in the tension zone.												
Bent 1	Row	1	Piles and Columns	5								
Element: 228	Name	Timber Pile	Qty:	1	Lvl 2:	1	Lvl 3	0	Lvl 4	0	Maint. Qty	0
Defect Description:												
1 Each of Check/Shake: Penetrates 5%-50% of the thickenss of the member and not in the tension zone.												
End Bent 2	Row	1	Piles and Columns	1								
Element: 228	Name	Timber Pile	Qty:	1	Lvl 2:	1	Lvl 3	0	Lvl 4	0	Maint. Qty	0
Defect Description:												
1 Each of Check/Shake: Penetrates 5%-50% of the thickenss of the member and not in the tension zone.												
End Bent 2	Row	1	Piles and Columns	2								
Element: 228	Name	Timber Pile	Qty:	1	Lvl 2:	1	Lvl 3	0	Lvl 4	0	Maint. Qty	0
Defect Description:												
1 Each of Check/Shake: Penetrates 5%-50% of the thickenss of the member and not in the tension zone.												
End Bent 2	Row	1	Piles and Columns	3								
Element: 228	Name	Timber Pile	Qty:	1	Lvl 2:	1	Lvl 3	0	Lvl 4	0	Maint. Qty	0
Defect Description:												
1 Each of Check/Shake: Penetrates 5%-50% of the thickenss of the member and not in the tension zone.												
End Bent 2	Row	1	Piles and Columns	4								
Element: 228	Name	Timber Pile	Qty:	1	Lvl 2:	1	Lvl 3	0	Lvl 4	0	Maint. Qty	0
Defect Description:												
1 Each of Check/Shake: Penetrates 5%-50% of the thickenss of the member and not in the tension zone.												
End Bent 2	Row	1	Piles and Columns	5								
Element: 228	Name	Timber Pile	Qty:	1	Lvl 2:	1	Lvl 3	0	Lvl 4	0	Maint. Qty	0
Defect Description:												
1 Each of Check/Shake: Penetrates 5%-50% of the thickenss of the member and not in the tension zone.												

National Bridge and NC Inspection Items

Structure Number: 500231

Inspection Date: 09/11/2014

National Bridge Inventory Items

Item	Grade Scale	Grade
Item 58: Deck	0 - 9 , N	6
Item 59: Superstructure	0 - 9 , N	6
Item 60: Substructure	0 - 9 , N	
Item 61: Channel and Channel Protection	0 - 9 , N	7
Item 62: Culvert	0 - 9 , 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	G	0	3376
Drainage System	G, F, P, or C	G	0	3332
Utilities	G, F, P, or C			
Slope Protection	G, F, P, or C	F	0	3352
Wingwall	G, F, P, or C		0	3350
Scour	G, F, P, or C	G		
Field Scour Evaluation		G		
Drift	G, F, P, or C	G	0	3366
Fender System	G, F, P, or C		0	3364
Response to Live Load	G, F, P, or C	G		
Estimated Remaining Life	0 - 100 Years	10		

Note: If NC SMU Inspection 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	N
Inspection Time	Hours	8
Traffic Control Time	Hours	0
Snooper Time	Hours	0
Ladder Used	YES/NO	N
Bucket Truck Used	YES/NO	N
Boat Used	YES/NO	Y
Other Equipment Used	YES/NO	N

National Bridge and NC SMU Inspection Item Details

Structure Number: 500231

Inspection Date: 09/11/2014

Item	Presently Posted	Grade	Y	Maint Code	Qty.	0
Details	SV 23 TTST 26					
Item	Field Scour Evaluation	Grade	G	Maint Code	Qty.	0
Details	Plan of action code Z: No significant change in mudline from established baseline.					



TRANSVERSE CRACK IN WEARING SURFACE OVER END BENT 1 - SIMILAR AT END BENT 2



PROTECTIVE SYSTEM FAILING THROUGHOUT GUARDRAIL POSTS WITH SURFACE RUST TO EXPOSED STEEL



TRANSVERSE CRACK IN WEARING SURFACE OVER THE INTERIOR BENT



VEGETATION GROWTH IN TRANSVERSE CRACK OVER THE INTERIOR BENT



LEFT EXTERIOR BULKHEAD BOARDS DECAYED THROUGHOUT AT END BENT 1 - PHOTO 1 OF 2



LEFT EXTERIOR BULKHEAD BOARDS DECAYED THROUGHOUT AT END BENT 1 - PHOTO 2 OF 2



RANDOM SPALLS WITH EXPOSED REBAR THROUGHOUT END DIAPHRAGMS



REPAIR PATCH IN THE RIGHT LEG OF CHANNEL BEAM NO.10 IN SPAN 1



DECAY IN BULKHEAD BOARDS BETWEEN PILES 2 & 3 AT END BENT 1 - SIMILAR BETWEEN PILE 1 & PILE 2



SPALL REPAIR IN THE LEFT LEG IN CHANNEL BEAM NO.3 IN SPAN 1 AT BENT 1



SPALL REPAIR IN THE LEFT LEG OF CHANNEL BEAM NO.5 IN SPAN 1 AT BENT 1



SPALL REPAIR IN THE LEFT LEG OF CHANNEL BEAM NO.8 IN SPAN 1 AT BENT 1



PATCH REPAIR IN THE LEFT LEG OF CHANNEL BEAM NO.1 IN SPAN 1 OVER BENT 1



PATCH REPAIR IN FACE OF CAP AT BENT 1 SPAN 2 SIDE UNDER THE LEFT LEG OF CHANNEL BEAM NO.1



PATCH REPAIR IN THE LEFT LEG OF CHANNEL BEAM NO.2 IN SPAN 2 AT BENT 1



LOOKING NORTH



APPROACH 1 - APPROACH 2 SIMILAR



WEIGHT POSTING



LOOKING WEST DOWNSTREAM



LOOKING EAST UPSTREAM



END BENT 2 OVERVIEW



WEST PROFILE



END BENT 1 OVERVIEW



SUPERSTRUCTURE OVERVIEW



SUPERSTRUCTURE OVER END OF CAP



EAST PROFILE



INTERIOR BENT SPAN 1 SIDE



LOOKING SOUTH

NATIONAL BRIDGE INVENTORY----- STRUCTURE INVENTORY AND APPRAISAL

Run Date: 01/12/2015

IDENTIFICATION					
(1) STATE NAME -NORTH CAROLINA	BRIDGE	500231	SUFFICIENCY RATING =		36.47
(8) STRUCTURE NUMBER(FEDERAL)	000000001010231	STATUS =		Functionally Obsolete	
(5) INVENTORY ROUTE (ON/UNDER) - ON	31021590				
(2) STATE HIGHWAY DEPARTMENT DISTRICT	3	CLASSIFICATION		CODE	
(3) COUNTY CODE 101 (4) PLACE CODE	0	(112)NBIS BRIDGE SYSTEM -		YES	
(6) FEATURE INTERSECTED - LITTLE BUFFALO CREEK		(104)HIGHWAY SYSTEM Is not on NHS		0	
(7) FACILITY CARRIED SR2159		(26) FUNCTIONAL CLASS - Local		09	
(9) LOCATION 0.3 MI SE JCT SR2110		(100)STRAHNET HIGHWAY - Not a STRAHNET Route		0	
(11)MILEPOINT	0	(101)PARALLEL STRUCTURE - No Parallel Structure		N	
(16)LAT 35° 38' 51.97" (17)LONG 78° 10' 41.48"		(102)DIRECTION OF TRAFFIC - 2-way Traffic		2	
(98)BORDER BRIDGE STATE CODE	PCT SHARE	(103)TEMPORARY STRUCTURE -			
(99)BORDER BRIDGE STRUCTURE NO		(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	
STRUCTURE TYPE AND MATERIAL					
(43) STRUCTURE TYPE MAIN: Prestressed Concrete					
TYPE - Channel Beam	CODE	522			
(44) STRUCTURE TYPE APPR :					
TYPE -	CODE	000	CONDITION		CODE
(45) NUMBER OF SPANS IN MAIN UNIT		2	(58) DECK		6
(46) NUMBER OF APPROACH SPANS			(59) SUPERSTRUCTURE		6
(107)DECK STRUCTURE TYPE - 1	CODE		(60) SUBSTRUCTURE		5
(108)WEARING SURFACE / PROTECTIVE SYSTEM :			(61) CHANNEL & CHANNEL PROTECTION		7
(A) TYPE OF WEARING SURFACE -	CODE		(62) CULVERTS		N
(B) TYPE OF MEMBRANE -	CODE		LOAD RATING AND POSTING		CODE
(C) TYPE OF DECK PROTECTION -	CODE		(31) DESIGN LOAD HS 15		3
			(63) OPERATING RATING METHOD - Allowable Stress		2
			(64) OPERATING RATING - HS-16		28
			(65) INVENTORY RATING METHOD - Allowable Stress		2
			(66) INVENTORY RATING - HS-4		7
			(70) BRIDGE POSTING - Posting Required		2
			(41) STRUCTURE OPEN, POSTED ,OR CLOSED		P
			DESCRIPTION - Posted for Load		
AGE AND SERVICE				APPRAISAL	
(27) YEAR BUILT 1972				(67) STRUCTURAL EVALUATION	
(106)YEAR RECONSTRUCTED				(68) DECK GEOMETRY	
(42) TYPE OF SERVICE : ON - Highway				(69) UNDERCLEARANCES,VERTI & HORIZ	
UNDER - Waterway				(71) WATERWAY ADEQUACY	
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE				(72) APPROACH ROADWAY ALIGNMENT	
(29) AVERAGE DAILY TRAFFIC 250				(36) TRAFFIC SAFETY FEATURES	
(30) YEAR OF ADT 2012 (109) TRUCK ADT PCT 6%				(113)SCOUR CRITICAL BRIDGES	
(19) BYPASS OR DETOUR LENGTH 2 MI					
GEOMETRIC DATA				PROPOSED IMPROVEMENTS	
(48) LENGTH OF MAXIMUM SPAN 30 FT				(75) TYPE OF WORK -	
(49) STRUCTURE LENGTH 60 FT				CODE	
(50)CURB OR SIDEWALK: LEFT .4585 FT RIGHT .4585 FT				(76) LENGTH OF STRUCTURE IMPROVEMENT	
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 24 FT				(94) BRIDGE IMPROVEMENT COST	
(52) DECK WIDTH OUT TO OUT 25.25 FT				(95) ROADWAY IMPROVEMENT COST	
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 20 FT				(96) TOTAL PROJECT COST	
(33) BRIDGE MEDIAN - No Median				(97) YEAR OF IMPROVEMENT COST ESTIMATE	
(34) SKEW 0° (35) STRUCTURE FLARED 0				(114)FUTURE ADT 500 (115) YEAR FUTURE ADT 2025	
(10) INVENTORY ROUTE MIN VERT CLEAR 999.9 FT				INSPECTIONS	
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 24 FT				(90) INSPECTION DATE	
(53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT				09/11/2014	
(54) MIN VERT UNDERCLEAR REF Not a Highway or Railroad 0 FT				(92) CRITICAL FEATURE INSPECTION :	
(55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad 000 FT				(93) CFI DATE	
(56) MIN LAT UNDERCLEAR LT REF - 000 FT				A) FRACTURE CRIT DETAIL - NO	
				B) UNDERWATER INSP - YES 48Mo	
				C) OTHER SPECIAL INSP NO	
				SCOUR	
NAVIGATION DATA					
(38) NAVIGATION CONTROL - No Navigational Control					
(111)PIER PROTECTION -					
(39) NAVIGATION VERTICAL CLEARANCE					
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR					
(40) NAVIGATION HORIZONTAL CLEARANCE					

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 01/12/2015

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :	
JOHNSTON	4	3	500231	60	FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR2159	LITTLE BUFFALO CREEK

LOCATED :	BRIDGE NAME :	CITY :
0.3 MI SE JCT SR2110		

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
09	NFA	NFA	250 2012	LT 233 RT 233

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1972	BMU			HS 15

REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :		
			TAN.	90	ON 2	UNDER	0

NAVIGATION :			HT. CRN. TO BED :		WATER DEPTH :		
VC 0 FT	HC 0 FT		11 FT		6		FT

SUPERSTRUCTURE :	PPC CHANNELS (BMD-13)
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SUBSTRUCTURE :	EBTS&IBT:PPC CAP/TIM.PILES @ 5'9 CTS.
----------------	---------------------------------------

SPANS :	2@30'
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BEAMS OR GIRDERS :	10 LNS 30" PPC CHANNEL SECTIONS
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FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
PPC CH/4 AWS		25.25 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :
24 FT	24.917 FT	LT .4585 FT RT .4585 FT

VERT.CL.OVER :
999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :				
HS-4	HS-16	Timber Pile	SV 23	TTST 26	DATE	09/05/2008	

SYSTEM :	GREEN LINE ROUTE :
Secondary S.R. Route	N

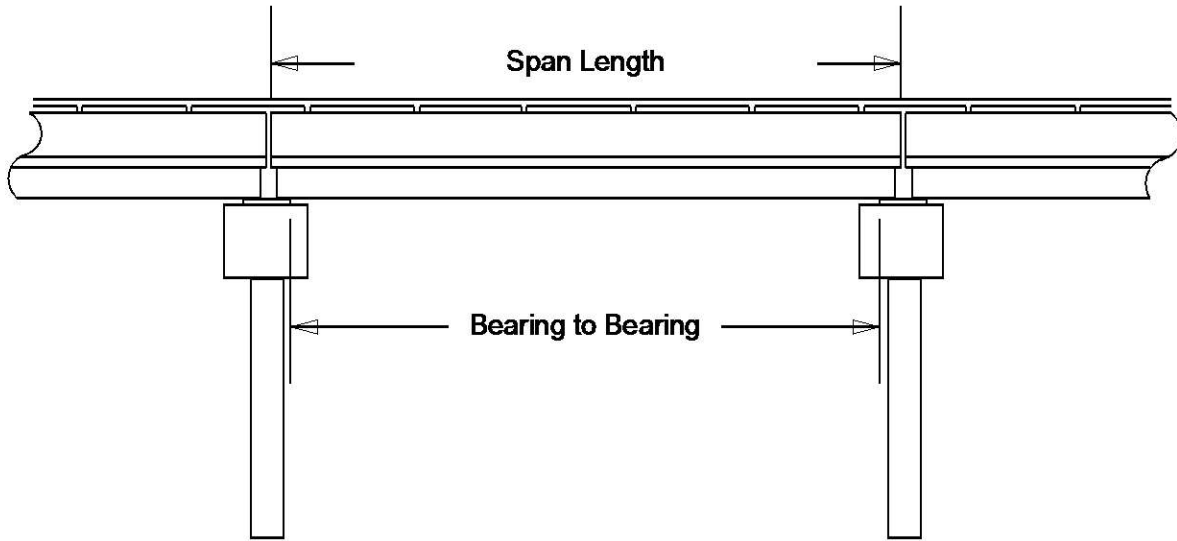
UNDER ROUTES AND CLEARANCES

REMARKS :

Structure Data Worksheet

Spans

County: JOHNSTON Structure No: 500231 Date: Inspected By: WCM



Span No	Span Length	Bearing to Bearing	Comments
1	30	29.250	
2	30	29.417	NBIS LENGTH = 56.833

Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 500231 County: JOHNSTON Date: _____ By: WCM

Record sounding from top of rail. Other location if needed: _____

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	0	TOP OF RAIL			
0	2.8	TOP OF WALL			
0.1	4.3	TOC			
1.2	4.3	TOC			
1.21	6.2	GAC	1.21	5.3	GAC
10	8.1	Water Surface/Water Edge (WSWE)			
20	13.5				
30.3	13.6	BENT 1	30.3	13.6	BENT 1
40	12.5				
48	8.1	Water Surface/Water Edge (WSWE)			
53	6.4				
59.3	5.9	GAC	59.3	7.6	GAC
59.31	4.3	TOC			
60.5	4.3	TOC			
60.51	2.8	TOP OF WALL			
61	0	TOP OF RAIL			

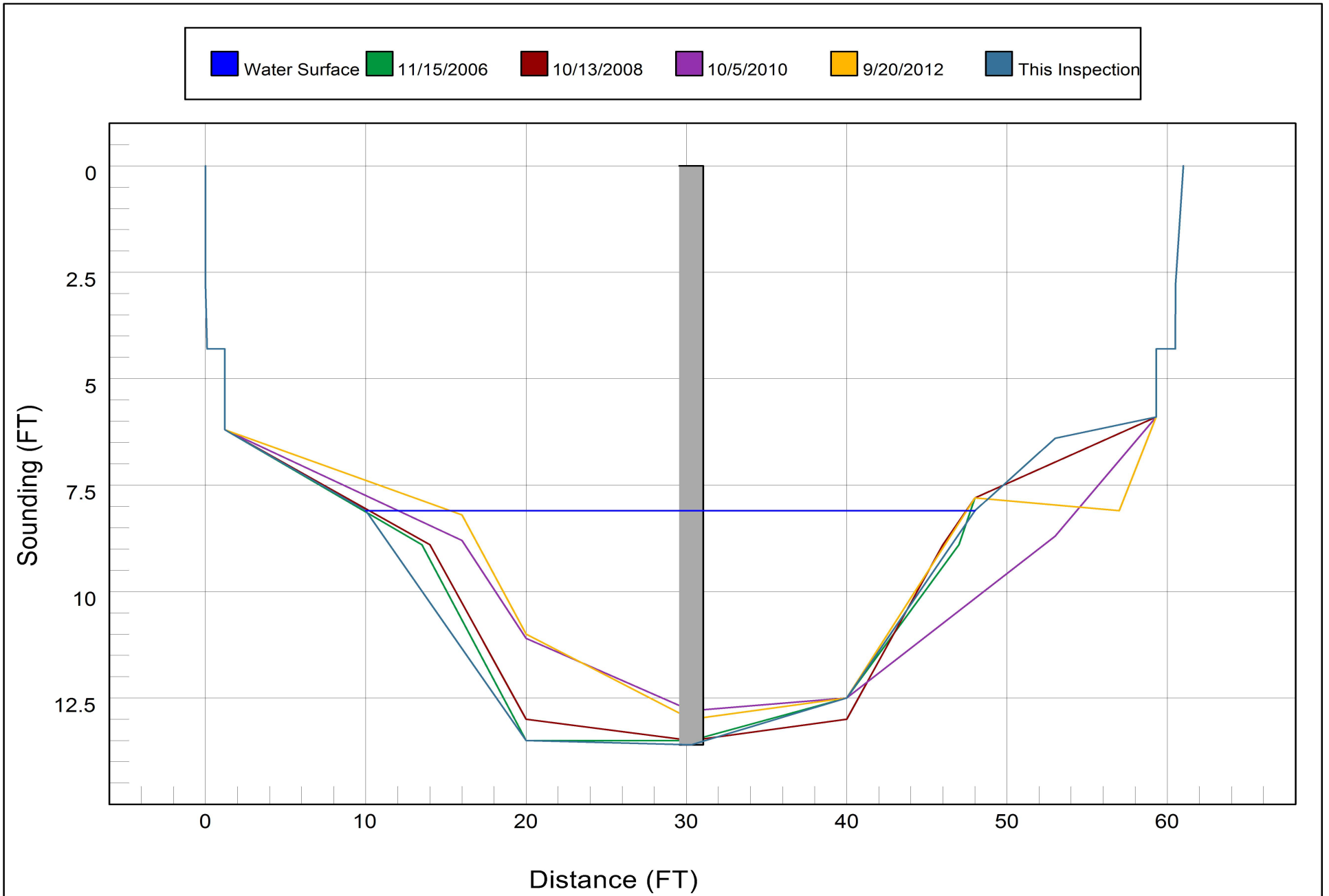
Bridge: 500231

County JOHNSTON

Date:

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



Bridge Inspection Field Sketch

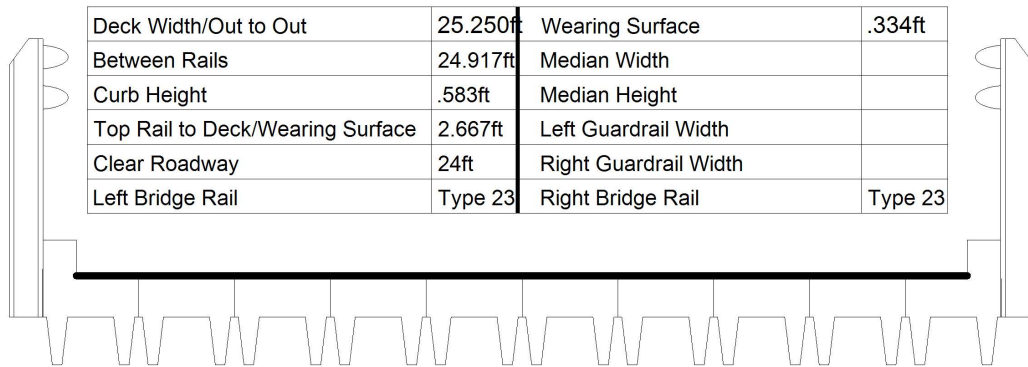


Roadway	20ft Wide	2 Paved Lanes	Looking North
Left Shoulder	4ft Wide		4ft Unpaved
Right Shoulder	4ft Wide		4ft Unpaved
Left Guardrail			
Right Guardrail			

CHECKED BY: WTW 09/11/2014

Title APPROACH ROADWAY		Description LOOKING NORTH	
Bridge No: 500231	Drawn By: CJS	Date: 11/15/2006	File Name: S0214000588

Bridge Inspection Field Sketch



Measurements for Span #	1		
Deck Thickness	.417	Left Overhang	0
Top of Rail to Bottom of Beam	4	Right Overhang	0

No. of Channels	10
Leg Width	.208ft
Leg Height	1.417ft
Leg to Leg (Centers)	2ft
Channel Width	2.5ft
Channel Height	1ft
Comments	

CHECKED: 9/11/2014 WTW

Title

TYPICAL SECTION

Description

LOOKING NORTH

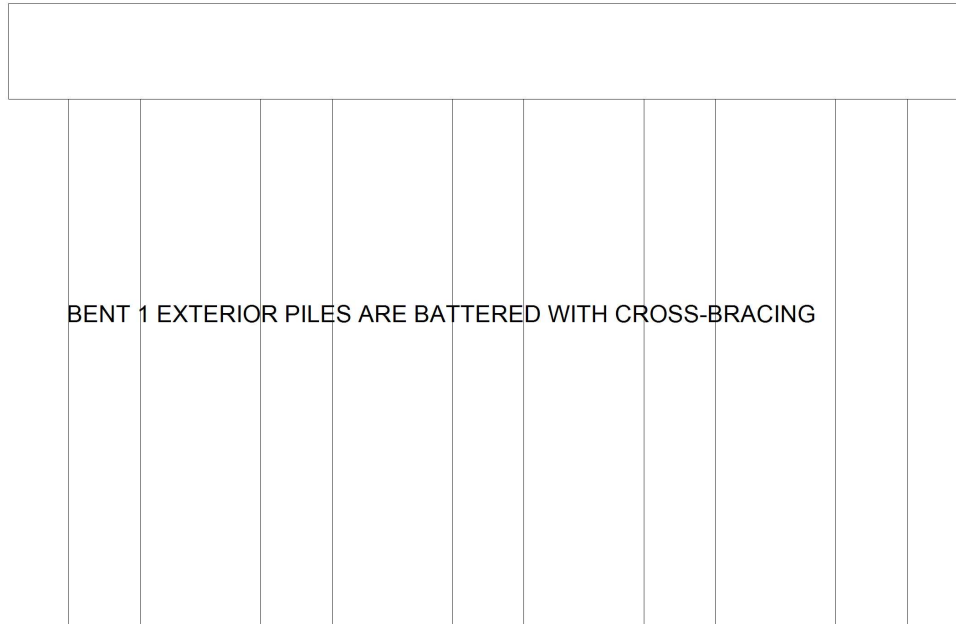
Bridge No: 500231

Drawn By: CJS

Date: 11/15/2006

File Name: S0214000589

Bridge Inspection Field Sketch



Abutment #	1	Abutment 2,1,2 similar	
Cap - Pre-Cast			
Cap Size	26 ft Long	1.333ft Wide	1.083ft High
Left Overhang	1.5ft	Lt Cap/Beam Overhang	2ft
Right Overhang	1.5ft	Rt Cap/Beam Overhang	2ft

Pile #	Material	Pile Type	Spacing	Length	Width/Diam.	Height	Orientation
1	Wood or Timber	Pile Bent	5.75		1		Vertical
2	Wood or Timber	Pile Bent	5.75		1		Vertical
3	Wood or Timber	Pile Bent	5.75		1		Vertical
4	Wood or Timber	Pile Bent	5.75		1		Vertical
5	Wood or Timber	Pile Bent			1		Vertical

CHECKED BY: WTW 09/11/2014

Title

PILE DIAGRAM

Description

LOOKING NORTH

Bridge No: 500231

Drawn By: CJS

Date: 11/15/2006

File Name: S0214000590

Bridge Inspection Field Sketch



END BENT 2

NO FLOW

5.0

BENT 1

4.0

SWAMP

END BENT 1

W/S: 8.1 FT AT BENT 1, WEST SIDE
BOTTOM COMP: SILT, SAND AND PEAT W/ 2 FT PROBE

Title
PLAN VIEW

Description
WATERWAY

Bridge No: 500231

Drawn By: JVB

Date: 9/2/2011

File Name: S0158001015