NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURE MANAGEMENT UNIT

ATTENTION: PRIORITY ACTION REQUEST, CHANGE IN TYPICAL SECTION SKETCH, NEWLY STRUCTURAL DEFICIENT, CHANGE IN END BENT SKETCH, CHANGE IN NBI RATING FOR ITEM 60.

Structure Safety Report

Routine Element Inspection - Contract

INSPECTION DATE: 03/22/2019

DIVISION: 1 **COUNTY:** NORTHAMPTON **STRUCTURE NUMBER:** 650093 **FREQUENCY:** 24 MONTHS

FACILITY CARRIED: SR1203 **MILE POST:**

LOCATION: 0.1MI.W.JCT.US301

FEATURE INTERSECTED: JACKS SWAMP

LATITUDE: 36° 30' 55.12" **LONGITUDE:** 77° 32' 32.97"

SUPERSTRUCTURE: TIMBER DECK ON I-BEAMS (STD.BMD-8)

SUBSTRUCTURE: EBTS:TIMBER CAPS ON TIMBER PILES @ 6 'CENTERS, PILE: CONC.ENCASED

SPANS: 1 SPAN. SEE SPAN PROFILE SHEET FOR SPAN DETAILS

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

NBI GRADES: **DECK** 5 **SUPERSTRUCTURE** 5 **SUBSTRUCTURE** 4 **CULVERT** N

POSTED SV: 17 **POSTED TTST:** 23

OTHER SIGNS PRESENT: (2) WEIGHT LIMIT, (4) DELINEATORS.

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

DIRECTION OF INSPECTION W-E

DIRECTION MATCHES PLANS NO PLANS

LOOKING EAST.

INSPECTED BY	SIGNATURE	ASSISTED BY
RAGHUVEER SURAPANENI	R. Surapaneni	ANGELICA PILARSKI

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

11/21/2019

IDENTIFICATION

(1) STATE NAME NORTH CAROLINA BRIDGE **650093**
(8) STRUCTURE NUMBER (FEDERAL) **1310093**
(5) INVENTORY ROUTE (ON/UNDER) ON **131012030**
(2) STATE HIGHWAY DEPARTMENT DISTRICT **1**
(3) COUNTY CODE (FEDERAL) **131** (4) PLACE CODE **00000**
(6) FEATURE INTERSECTED **JACKS SWAMP**
(7) FACILITY CARRIED **SR1203**
(9) LOCATION **0.1MI.W.JCT.US301**
(11) MILEPOINT **0.0**
(12) BASE HIGHWAY NETWORK **0**
(13) LRS INVENTORY ROUTE & SUBROUTE
(16) LATITUDE **36° 30' 55.12"** (17) LONGITUDE **77° 32' 32.97"**
(98) BORDER BRIDGE STATE CODE PERCENT SHARED
(99) BORDER BRIDGE STRUCTURE NUMBER

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE MAIN **Steel**
TYPE **Stringer/Multi-beam or girder** CODE **302**
(44) STRUCTURE TYPE APPROACH
TYPE CODE
(45) NUMBER OF SPANS IN MAIN UNIT **1**
(46) NUMBER OF SPANS IN APPROACH **0**
(107) DECK STRUCTURE TYPE CODE **8**
(108)WEARING SURFACE/PROTECTIVE SYSTEM
(A) TYPE OF WEARING SURFACE CODE **6**
(B) TYPE OF MEMBRANE CODE **0**
(C) TYPE OF DECK PROTECTION CODE **0**

AGE AND SERVICE

(27) YEAR BUILT **1959**
(106) YEAR RECONSTRUCTED **0.0000000000000**
(42) TYPE OF SERVICE ON - **Highway**
OFF - **Waterway** CODE **15**
(28) LANES ON STRUCTURE **2** LANES UNDER STRUCTURE **0**
(29) AVERAGE DAILY TRAFFIC **100**
(30) YEAR OF ADT **2013** (109) TRUCK ADT PCT **6**
(19) BYPASS OR DETOUR LENGTH **99.0**

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN **34.0**
(49) STRUCTURE LENGTH **35.0**
(50) CURB OR SIDEWALK: LEFT **0.3** RIGHT **0.3**
(51) BRIDGE ROADWAY WIDTH, CURB TO CURB **19.2**
(52) DECK WIDTH OUT TO OUT **20.1**
(32) APPROACH ROADWAY WITH (W/ SHOULDERS) **15.0**
(33) BRIDGE MEDIAN **No median** CODE **0**
(34) SKEW **0** (35) STRUCTURE FLARED **0**
(10) INVENTORY ROUTE MIN VERT CLEAR **999.9**
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR **19.2**
(53) MIN VERT CLEAR OVER BRIDGE RDWY **999.9**
(54) MIN VERT UNDERCLEAR: REFERENCE **0.0**
(55) MIN LAT UNDERCLEARANCE RT: REFERENCE **N** **0.0**
(56) MIN LAT UNDERCLEARANCE LT: **0.0**

NAVIGATION DATA

(38) NAVIGATION CONTROL - CODE **0**
(111) PIER PROTECTION CODE
(39) NAVIGATION VERTICAL CLEARANCE **0.0**
(116) VERT - LIFT BRIDGE NAV MIN VERT CLEAR **0.0**
(40) NAVIGATION HORIZONTAL CLEARANCE **0.0**

SUFFICIENCY RATING **38.9400000000000**
STATUS = **Structurally Deficient**

CLASSIFICATION		CODE
(112) NBIS BRIDGE SYSTEM		YES
(104) HIGHWAY SYSTEM	Inventory Route not on NHS	0
(26) FUNCTIONAL CLASS	Rural Local	09
(100) STRAHNET HIGHWAY	Not a STRAHNET Route	0
(101) PARALLEL STRUCTURE	No parallel structure exists	N
(102) DIRECTION OF TRAFFIC	2-way traffic	2
(103) TEMPORARY STRUCTURE		
(110) DESIGNATED NATIONAL NETWORK -	on national network for trucks	0
(20) TOLL	On Free Road	3
(21) MAINT -		01
(22) OWNER -		01
(37) HISTORICAL SIGNIFICANCE -		5

CONDITION	CODE
(58) DECK	5
(59) SUPERSTRUCTURE	5
(60) SUBSTRUCTURE	4
(61) CHANNEL & CHANNEL PROTECTION	7
(62) CULVERTS	N

LOAD RATING AND POSTING		CODE
(31) DESIGN LOAD	Unknown	0
(63) OPERATING RATING METHOD -	Load Factor	1
(64) OPERATING RATING -	HS-12	23
(65) INVENTORY RATING METHOD -		1
(66) INVENTORY RATING	HS-7	14
(70) BRIDGE POSTING	Posting Required	0
(41) STRUCTURE OPEN, POSTED, OR CLOSED		P
DESCRIPTION	Posted for Load	

APPRAISAL	CODE
(67) STRUCTURAL EVALUATION	4
(68) DECK GEOMETRY	4
(69) UNDERCLEARANCES, VERT & HORIZ	N
(71) WATERWAY ADEQUACY	4
(72) APPROACH ROADWAY ALIGNMENT	4
(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 **200** YEAR OF FUTURE ADT **2040**

INSPECTION

(90) INSPECTION DATE **03/17** (91) FREQUENCY **24**
(92) CRITICAL FEATURE INSPECTION (93) CFI DATE
A) FRACTURE CRIT DETAIL **0** A)
B) UNDERWATER INSP **0** B)
C) OTHER SPECIAL INSP **0** C)
SCOUR

Superstructure Build Details

Span Number 1 **Span Length** 35.0000 **Skew** 90.0000

Number of Items	Type of Component	Element Name	Quantity		Protective System Applied	Quantity (Sq Ft)
1	Timber Deck	Timber Deck	700	Square Feet		
16	Other Bearing	Other Bearings	16	Each	Unknow	16
8	Plate Girder	Steel Open Girder/Beam	280	Feet	Unknow	1397
2	Timber Rail	Timber Bridge Railing	70	Feet		

Structure Element Scoring

Structure Number: **650093**

Inspection Date **3/22/2019**

Element Number	Parent Number	Element Name	Location	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity
31	0	Timber Deck	Deck	700	0	700	0	0
107	0	Steel Open Girder/Beam	Beam	280	10	70	200	0
515	107	Steel Protective Coating	Beam	1397	627	0	140	630
216	0	Timber Abutment	Abutments	52	31	2	19	0
228	0	Timber Pile	Piles and Columns	8	6	0	2	0
235	0	Timber Pier Cap	Caps	40	22	6	12	0
316	0	Other Bearings	Bearing Device	16	0	0	16	0
515	316	Steel Protective Coating	Bearing Device	16	0	0	0	16
332	0	Timber Bridge Railing	Bridge Rail	70	35	0	35	0

Summary of Maintenance Needs

Maintenance By Defect

Structure Number: **650093** Inspection Date: **03/22/2019**

MMS Code	Element Name	Defect Name	Recommended Quantity
3324	Timber Deck	Damage	100 Square Feet
3314	Steel Open Girder/Beam	Corrosion	200 Feet
3346	Timber Abutment	Decay/Section Loss	19 Feet
3344	Timber Pile	Decay/Section Loss	1 Each
3344	Timber Pile	Check/Shake	1 Each
3344	Timber Pier Cap	Damage	12 Feet
3334	Other Bearings	Corrosion	16 Each
3316	Timber Bridge Railing	Check/Shake	35 Feet
3342	Steel Protective Coating	Effectiveness (Steel Protective Coatings)	786 Square Feet

Element Structure Maintenance Quantities

Structure Number: **650093** Inspection Date **03/22/2019**

Location	MMS Code	Description	Maint Quantity	Total Quantity	Severe Quantity	Poor Quantity	Fair Quantity	Good Quantity
Abutments	3346	Maintenance of Timber Bulkheads or Wingwalls	19	52	0	19	2	31
Beam	3314	Maintenance Steel Superstructure Components	200	280	0	200	70	10
Beam	3342	Clean and Paint Steel	770	1397	630	140	0	627
Bearing Device	3334	Bridge Bearing	16	16	0	16	0	0
Bearing Device	3342	Clean and Paint Steel	16	16	16	0	0	0
Bridge Rail	3316	Maintenance of Timber Bridge Rail	35	70	0	35	0	35
Caps	3344	Maintenance To Timber Substrcutre	12	40	0	12	6	22
Deck	3324	Maintenance of Timber Deck Components	100	700	0	0	700	0
Piles and Columns	3344	Maintenance To Timber Substrcutre	2	8	0	2	0	6

Priority Actions Request

Structure Number **650093**

Span1

3314 **Beam 4** Plate Girder

Priority Level	Defect Type	Quantity	Defect Description
2	Corrosion	19	Span 1 Beam 4: HEAVY SURFACE CORROSION FOR FULL FLANGE WIDTH X 18.5 FT LONG IN BOTTOM FLANGE, STARTING AT 7.5 FT FROM BEAM END AT END BENT 1 . UP TO 0.36 SECTION REMAINING (PAR).

3314 **Beam 5** Plate Girder

Priority Level	Defect Type	Quantity	Defect Description
2	Corrosion	14	Span 1 Beam 5: HEAVY SURFACE CORROSION FOR FULL FLANGE WIDTH X 7 FT LONG IN BOTTOM FLANGE, STARTING AT 13.5 FT FROM BEAM END AT END BENT 1 . UP TO 0.41 SECTION REMAINING (PAR).

Bent 1

3346 **Abutment** Timber Abutment

Priority Level	Defect Type	Quantity	Defect Description
2	Decay/Section Loss	4	End Bent 1 Abutment/Backwall : SEVERE DETERIORATION OF SOLDIER PILE DUE TO DECAY AT NORTH END OF END BENT 1 ABUTMENT. 3 FT WIDE X 9 IN HIGH X 3 IN DEEP AREA OF BULKHEAD BOARD IS MISSING WITH SOIL SPILLING THROUGH. 10 IN WIDE X 6 IN HIGH X UP TO 3 IN DEEP AREA OF SECTION LOSS IN THE SECOND BULKHEAD BOARD IN BOTTOM AT NORTH END (PAR).

Bent 2

3346 **Abutment** Timber Abutment

Priority Level	Defect Type	Quantity	Defect Description
2	Decay/Section Loss	3	End Bent 2 Abutment/Backwall : 3 FT WIDE X 1 FT HIGH X 3 IN DEEP AREA OF SEVERE DECAY IN THE BACKWALL BULKHEAD BOARDS BEHIND BEAM 5 AND IN BAY 5 WITH SOIL SPILLING THROUGH (PAR).
2	Decay/Section Loss	1	End Bent 2 Abutment/Backwall : UP TO 1 FT WIDE X 8 IN HIGH X 3 IN DEEP AREA OF DECAY AND SECTION LOSS WITH SOIL SPILLING THROUGH BEHIND THE CAP AT SOUTH END OF END BENT 2 (PAR).
2	Decay/Section Loss	9	End Bent 2 Abutment/Backwall : UP TO 3 FT HIGH AREA OF SEVERE DECAY WITH UP TO 70% SECTION LOSS IN SOLDIER PILE AT NORTH END. 3 BULKHEAD BOARDS BEHIND THIS SOLDIER PILE EXHIBIT SEVERE DECAY UP TO 1 FT WIDE X 9 IN HIGH X 3 IN WIDE WITH SOIL SPILLING THROUGH (PAR).

3344 **Pile 4** Timber Pile

Priority Level	Defect Type	Quantity	Defect Description
2	Check/Shake	1	End Bent 2 Pile 4: 20 IN HIGH X 5 IN WIDE X UP TO 3 IN DEEP AREA OF SECTION LOSS DUE TO DECAY STARTING AT WATER LEVEL IN SOUTHWEST CORNER (PAR).

? Priority Action Request (PAR) 1 Assigned Routine Maintenance 2 Assigned Priority Maintenance 3 Assigned Critical Find

Priority Actions Request

Structure Number **650093**

Wingwalls

3350 **Wingwalls** Wingwalls

Priority Level	Defect Type	Quantity	Defect Description
2		7	5 FT LONG X 9 IN HIGH X UP TO 3 IN DEEP AREA OF SEVERE DECAY WITH SOIL SPILLING THROUGH IN THE BOTTOM BULKHEAD BOARD. 2 FT HIGH X 3/4 IN DIAMETER X UP TO 3 IN DEEP AREA OF SEVERE DECAY AND TREE ROOTS IN THE FIRST SOLDIER PILE FROM SOUTH END OF THE ABUTMENT AT END BENT 1 (PAR).

Element Condition and Maintenance Data

Structure Number: **650093** Inspection Date: **03/22/2019**

Span 1 Deck

Timber Deck

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
31	Timber Deck	700	0	700	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
31	Abrasion/Wear (Timber)	LOOSE AGGREGATE FOR 3 FT WIDE X FULL SPAN LENGTH ALONG BOTH BRIDGE RAILS.	2	300		Square Feet
31	Abrasion/Wear (Timber)	MINOR TO MODERATE ABRASION WITH WATER PONDING ON EXPOSED TIMBER BOARDS FOR UP TO 70% OF DECK AREA.	2	300		Square Feet
31	Damage	4 FT LONG X 4 FT WIDE SOUND CONCRETE PATCH AT THE BEGINNING OF THE BRIDGE.	2	100	100	Square Feet

General Comments

Span 1 Beam 1

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	35	0	35	0	0	Feet
515	Steel Protective Coating	172	102	0	70	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	MODERATE SURFACE CORROSION ON EDGES OF TOP FLANGES THROUGHOUT AND IN AREAS ON THE BOTTOM FLANGE.	2	35		Feet
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING IS OF LIMITED EFFECTIVENESS ON EDGES OF TOP FLANGES THROUGHOUT AND IN AREAS ON THE BOTTOM FLANGE.	3	70	70	Square Feet

General Comments

Span 1 Beam 2

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	35	0	35	0	0	Feet
515	Steel Protective Coating	175	105	0	70	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	MODERATE SURFACE CORROSION ON EDGES OF TOP FLANGES THROUGHOUT AND IN AREAS ON THE BOTTOM FLANGE.	2	35		Feet
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING IS OF LIMITED EFFECTIVENESS ON EDGES OF TOP FLANGES THROUGHOUT AND IN AREAS ON THE BOTTOM FLANGE.	3	70	70	Square Feet

General Comments

Span 1 Beam 3

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	35	0	0	35	0	Feet
515	Steel Protective Coating	175	125	0	0	50	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	HEAVY SURFACE CORROSION IN TOP FLANGE FOR FULL SPAN LENGTH. NO MEASUREABLE SECTION LOSS.	3	35	35	Feet
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED IN THE TOP FLANGE FOR FULL SPAN LENGTH.	4	50	50	Square Feet

General Comments

Span 1 Beam 4

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	35	0	0	35	0	Feet
515	Steel Protective Coating	175	55	0	0	120	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	HEAVY SURFACE CORROSION FOR FULL FLANGE WIDTH X 18.5 FT LONG IN BOTTOM FLANGE, STARTING AT 7.5 FT FROM BEAM END AT END BENT 1 . UP TO 0.36 IN SECTION REMANING (PAR).	3	19	19	Feet
107	Corrosion	MODERATE TO HEAVY CORROSION ON EDGES OF TOP FLANGE THROUGHOUT, AND IN THE BOTTOM 2 IN OF NORTH FACE OF WEB FOR FULL SPAN LENGTH.	3	16	16	Feet
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED IN THE BOTTOM FLANGE, ON EDGES OF TOP FLANGE THROUGHOUT, AND IN THE BOTTOM 2 IN OF THE NORTH FACE OF THE WEB FOR FULL SPAN LENGTH.	4	120	120	Square Feet

General Comments

Span 1 Beam 5

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	35	10	0	25	0	Feet
515	Steel Protective Coating	175	55	0	0	120	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	HEAVY SURFACE CORROSION FOR FULL FLANGE WIDTH X 7 FT LONG IN BOTTOM FLANGE, STARTING AT 13.5 FT FROM BEAM END AT END BENT 1 . UP TO 0.41 IN SECTION REMANING (PAR).	3	14	14	Feet
107	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON EDGES OF TOP FLANGE THROUGHOUT, IN AREAS ON THE BOTTOM FLANGE, SCATTERED, AND IN THE BOTTOM 2 IN OF NORTH FACE OF WEB STARTING AT MID SPAN AND EXTENDING TO END BENT 2.	3	11	11	Feet
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED IN TOP AND BOTTOM FLANGES AND IN 2 IN IN BOTTOM OF NORTH FACE OF WEB, THROUGHOUT.	4	120	120	Square Feet

General Comments

Span 1 Beam 6

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	35	0	0	35	0	Feet
515	Steel Protective Coating	175	55	0	0	120	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	HEAVY SURFACE CORROSION IN THE BOTTOM 2 IN OF NORTH FACE OF WEB STARTING AT 1/3 SPAN AND CONTINUING TO END BENT 2.	3	22	22	Feet
107	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON EDGES OF TOP FLANGES THROUGHOUT AND IN AREAS ON THE BOTTOM FLANGE.	3	13	13	Feet
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON EDGES OF TOP FLANGE THROUGHOUT, IN AREAS ON THE BOTTOM FLANGE, SCATTERED, AND IN THE BOTTOM 2 IN OF NORTH FACE OF WEB STARTING AT MID SPAN AND EXTENDING TO END BENT 2.	4	120	120	Square Feet

General Comments

Span 1 Beam 7

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	35	0	0	35	0	Feet
515	Steel Protective Coating	175	75	0	0	100	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	MODERATE TO HEAVY SURFACE CORRSION ON EDGES OF TOP FLANGES THROUGHOUT, IN AREAS ON THE BOTTOM FLANGE, AND IN THE BOTTOM 1 IN OF WEB IN SOUTH FACE AT SCATTERED LOCATION.	3	35	35	Feet
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON EDGES OF TOP FLANGES THROUGHOUT, IN AREAS ON THE BOTTOM FLANGE, AND IN THE BOTTOM 1 IN OF WEB IN SOUTH FACE AT SCATTERED LOCATION.	4	100	100	Square Feet

General Comments

Span 1 Beam 8

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	35	0	0	35	0	Feet
515	Steel Protective Coating	175	55	0	0	120	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON EDGES OF TOP FLANGES THROUGHOUT, IN AREAS ON THE BOTTOM FLANGE, AND IN THE BOTTOM 2 IN OF WEB IN THE SOUTH FACE THROUGHOUT.	3	35	35	Feet
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON EDGES OF TOP FLANGES THROUGHOUT, IN AREAS ON THE BOTTOM FLANGE, AND IN THE BOTTOM 2 IN OF WEB IN THE SOUTH FACE THROUGHOUT.	4	120	120	Square Feet

General Comments

Span 1 — Left Bridge Rail

Timber Rail

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
332	Timber Bridge Railing	35	0	0	35	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
332	Check/Shake	UP TO 1/4 IN WIDE X 1 IN DEEP LONGITUDINAL CHECKS IN THE CURB RAIL FOR FULL BRIDGE LENGTH.	3	35	35	Feet

General Comments

Span 1 — Near Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
316	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.	3	1	1	Each
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON BEARING PLATE.	4	1	1	Square Feet

General Comments

Span 1 — Far Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
316	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.	3	1	1	Each
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON BEARING PLATE.	4	1	1	Square Feet

General Comments

Span 1 — Near Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
316	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.	3	1	1	Each
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON BEARING PLATE.	4	1	1	Square Feet

General Comments

Span 1 — Far Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
316	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.	3	1	1	Each
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON BEARING PLATE.	4	1	1	Square Feet

General Comments

Span 1 — Near Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
316	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.	3	1	1	Each
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON BEARING PLATE.	4	1	1	Square Feet

General Comments

Span 1 — Far Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
316	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.	3	1	1	Each
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON BEARING PLATE.	4	1	1	Square Feet

General Comments

Span 1 — Near Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty

316	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.	3	1	1	Each
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON BEARING PLATE.	4	1	1	Square Feet

General Comments

Span 1 — Far Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
316	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.	3	1	1	Each
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON BEARING PLATE.	4	1	1	Square Feet

General Comments

Span 1 — Near Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
316	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.	3	1	1	Each
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON BEARING PLATE.	4	1	1	Square Feet

General Comments

Span 1 — Far Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
316	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.	3	1	1	Each
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON BEARING PLATE.	4	1	1	Square Feet

General Comments

Span 1 Near Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
316	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.	3	1	1	Each
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON BEARING PLATE.	4	1	1	Square Feet

General Comments

Span 1 Far Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
316	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.	3	1	1	Each
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON BEARING PLATE.	4	1	1	Square Feet

General Comments

Span 1 Near Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
316	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.	3	1	1	Each
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON BEARING PLATE.	4	1	1	Square Feet

General Comments

Span 1 Far Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
316	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.	3	1	1	Each

515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON BEARING PLATE.	4	1	1	Square Feet

General Comments

Span 1 — Near Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
316	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.	3	1	1	Each
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON BEARING PLATE.	4	1	1	Square Feet

General Comments

Span 1 — Far Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
316	Corrosion	MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.	3	1	1	Each
515	Effectiveness (Steel Protective Coatings)	STEEL PROTECTIVE COATING HAS FAILED ON BEARING PLATE.	4	1	1	Square Feet

General Comments

End Bent 1 — Abutment

Timber Abutment

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
216	Timber Abutment	26	19	1	6	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
216	Decay/Section Loss	10 WIDE X 9 IN HIGH X 3IN DEEP AREA OF SECTION MISSING IN BOTTOM BULKHEAD BOARD AT SOUTH END.	3	1	1	Feet
216	Decay/Section Loss	SEVERE DETERIORATION OF SOLDIER PILE DUE TO DECAY AT NORTH END OF END BENT 1 ABUTMENT. 3 FT WIDE X 9 IN HIGH X 3 IN DEEP AREA OF BULKHEAD BOARD IS MISSING WITH SOIL SPILLING THROUGH. 10 IN WIDE X 6 IN HIGH X UP TO 3 IN DEEP AREA OF SECTION LOSS IN THE SECOND BULKHEAD BOARD IN BOTTOM AT NORTH END (PAR).	3	4	4	Feet
216	Decay/Section Loss	UP TO 8 IN HIGH X FULL DIAMETER OF THE BOTTOM SOLDIER PILE HAS MODERATE DECAY AT THE GROUND SURFACE.	3	1	1	Feet
216	Check/Shake	3/16 IN WIDE X 1 IN DEEP VERTICAL CHECKS FOR FULL HEIGHT IN SOUTH FACE.	2	1		Feet

General Comments

End Bent 1 — Cap 1

Timber Pier Cap

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
235	Timber Pier Cap	20	11	0	9	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
235	Damage	MODERATE TO HEAVY DIRT AND DEBRIS ON TOP OF THE CAP IN BAYS 2, 4, AND 6.	3	9	9	Feet

General Comments

End Bent 2 — Abutment

Timber Abutment

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
216	Timber Abutment	26	12	1	13	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
216	Decay/Section Loss	3 FT WIDE X 1 FT HIGH X 3 IN DEEP AREA OF SEVERE DECAY IN THE BACKWALL BULKHEAD BOARDS BEHIND BEAM 5 AND IN BAY 5 WITH SOIL SPILLING THROUGH (PAR).	3	3	3	Feet
216	Decay/Section Loss	UP TO 1 FT WIDE X 8 IN HIGH X 3 IN DEEP AREA OF DECAY AND SECTION LOSS WITH SOIL SPILLING THROUGH BEHIND THE CAP AT SOUTH END OF END BENT 2 (PAR).	3	1	1	Feet
216	Decay/Section Loss	UP TO 3 FT HIGH AREA OF SEVERE DECAY WITH UP TO 70% SECTION LOSS IN SOLDIER PILE AT NORTH END. 3 BULKHEAD BOARDS BEHIND THIS SOLDIER PILE EXHIBIT SEVERE DECAY UP TO 1 FT WIDE X 9 IN HIGH X 3 IN WIDE WITH SOIL SPILLING THROUGH (PAR).	3	9	9	Feet
216	Check/Shake	UP TO 3/16 IN WIDE X 2 IN DEEP VERTICAL CHECKS IN SOUTHWEST FACE OF SOLDIER PILE AT SOUTH END.	2	1		Feet

General Comments

End Bent 2 — Cap 1

Timber Pier Cap

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
235	Timber Pier Cap	20	11	6	3	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
235	Damage	MODERATE TO HEAVY DIRT AND DEBRIS ON TOP OF THE CAP IN BAYS 7.	3	3	3	Feet
235	Check/Shake	6 FT LONG X 1/16 IN WIDE X UP TO 1 IN DEEP CHECK IN FRONT FACE OF CAP AT SOUTH END.	2	6		Feet

General Comments

End Bent 2 — Pile 3

Timber Pile

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
228	Timber Pile	1	0	0	1	0	Each

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
228	Decay/Section Loss	8 IN HIGH X 3 IN WIDE X 1 IN DEEP SECTION LOSS IN	3	1	1	Each

SOUTHWEST FACE, STARTING AT WATER LEVEL.

General Comments

End Bent 2 Pile 4

Timber Pile

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
228	Timber Pile	1	0	0	1	0	Each

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
228	Check/Shake	20 IN HIGH X 5 IN WIDE X UP TO 3 IN DEEP AREA OF SECTION LOSS DUE TO DECAY STARTING AT WATER LEVEL IN SOUTHWEST CORNER (PAR).	3	1	1	Each

General Comments

Elements Verfied

Location	Name	Component	Element Name	Amount
Span 1	Deck	Timber Deck	Timber Deck	700
Span 1	Beam 1	Plate Girder	Steel Open Girder/Beam	35
Span 1	Beam 2	Plate Girder	Steel Open Girder/Beam	35
Span 1	Beam 3	Plate Girder	Steel Open Girder/Beam	35
Span 1	Beam 4	Plate Girder	Steel Open Girder/Beam	35
Span 1	Beam 5	Plate Girder	Steel Open Girder/Beam	35
Span 1	Beam 6	Plate Girder	Steel Open Girder/Beam	35
Span 1	Beam 7	Plate Girder	Steel Open Girder/Beam	35
Span 1	Beam 8	Plate Girder	Steel Open Girder/Beam	35
Span 1	Left Bridge Rail	Timber Rail	Timber Bridge Railing	35
Span 1	Right Bridge Rail	Timber Rail	Timber Bridge Railing	35
Span 1	Near Bearing	Other Bearing	Other Bearings	1
Span 1	Far Bearing	Other Bearing	Other Bearings	1
Span 1	Near Bearing	Other Bearing	Other Bearings	1
Span 1	Far Bearing	Other Bearing	Other Bearings	1
Span 1	Near Bearing	Other Bearing	Other Bearings	1
Span 1	Far Bearing	Other Bearing	Other Bearings	1
Span 1	Near Bearing	Other Bearing	Other Bearings	1
Span 1	Far Bearing	Other Bearing	Other Bearings	1
Span 1	Near Bearing	Other Bearing	Other Bearings	1
Span 1	Far Bearing	Other Bearing	Other Bearings	1
Span 1	Near Bearing	Other Bearing	Other Bearings	1
Span 1	Far Bearing	Other Bearing	Other Bearings	1
Span 1	Near Bearing	Other Bearing	Other Bearings	1
Span 1	Far Bearing	Other Bearing	Other Bearings	1
Span 1	Near Bearing	Other Bearing	Other Bearings	1
Span 1	Far Bearing	Other Bearing	Other Bearings	1
End Bent 1	Cap 1	Timber Pier Cap	Timber Pier Cap	20
End Bent 1	Pile 1	Timber Pile	Timber Pile	1
End Bent 1	Pile 2	Timber Pile	Timber Pile	1
End Bent 1	Pile 3	Timber Pile	Timber Pile	1
End Bent 1	Pile 4	Timber Pile	Timber Pile	1
End Bent 1	Abutment	Timber Abutment	Timber Abutment	26
End Bent 2	Cap 1	Timber Pier Cap	Timber Pier Cap	20
End Bent 2	Pile 1	Timber Pile	Timber Pile	1
End Bent 2	Pile 2	Timber Pile	Timber Pile	1
End Bent 2	Pile 3	Timber Pile	Timber Pile	1
End Bent 2	Pile 4	Timber Pile	Timber Pile	1
End Bent 2	Abutment	Timber Abutment	Timber Abutment	26

General Inspection Notes

National Bridge and NC Inspection Items

Structure Number: 650093 **Inspection Date:** 03/22/2019

National Bridge Inventory Items

Item	Grade Scale	Grade
Item 58: Deck	0 - 9 , N	**5**
Item 59: Superstructure	0 - 9 , N	**5**
Item 60: Substructure	0 - 9 , N	**4**
Item 61: Channel and Channel Protection	0 - 9 , N	**7**
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**	**700**	**3376**
Drainage System	G, F, P, or C	**F**	**35**	**3332**
Utilities	G, F, P, or C			
Slope Protection	G, F, P, or C		**0**	**3352**
Scour	G, F, P, or C	**G**		
Wingwall	G, F, P, or C	**P**	**7**	**3350**
Field Scour Evaluation		**O**		
Drift	G, F, P, or C	**G**	**0**	**3366**
Fender System	G, F, P, or C		**0**	**3364**
Movable Span Machinery	G, F, P, or C			
Response to Live Load	G, F, P, or C	**F**		
Superstructure Paint Code		**U**		

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

Inspection Information

Item	Grade Scale	Grade
Sign Noticed Issued	YES/NO	**N**
Priority Maintenance Request Submitted	YES/NO	**Y**
Inspection Time	Hours	**6**
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: 650093 **Inspection Date:** 03/22/2019

Item Substructure - Item 60 **Grade** 4 **Maint Code** **Qty.** 0

Details SUBSTRUCTURE IS IN POOR CONDITION DUE TO SEVERE DECAY AND SECTION LOSS WITH SOIL SPILLING THROUGH IN BULKHEAD BOARDS AT BOTH ENDS. SOLDIER PILES AND PILE 4 AT END BENT 2 EXHIBIT SEVERE DECAY AND SECTION LOSS.

Item Deck Debris **Grade** F **Maint Code** 3376 **Qty.** 700

Details MODERATE TO HEAVY DEBRIS AND DRY LEAVES ACCUMULATED ALONG BOTH BRIDGE RAILS.

Item Drainage System **Grade** F **Maint Code** 3332 **Qty.** 35

Details DRAINAGE IS RESTRICTED DUE TO MODERATE TO HEAVY DEBRIS ALONG BOTH BRIDGE RAILS. WATER PONDING ON THE DECK SURFACE.

Item Response to live load **Grade** F **Maint Code** **Qty.** 0

Details MODERATE VIBRATION UNDER LIVE LOAD.

Item Wingwalls **Grade** P **Maint Code** 3350 **Qty.** 7

Details 5 FT LONG X 9 IN HIGH X UP TO 3 IN DEEP AREA OF SEVERE DECAY WITH SOIL SPILLING THROUGH IN THE BOTTOM BULKHEAD BOARD. 2 FT HIGH X 3/4 IN DIAMETER X UP TO 3 IN DEEP AREA OF SEVERE DECAY AND TREEE ROOTS IN THE FIRST SOLDIER PILE FROM SOUTH END OF THE ABUTMENT AT END BENT 1 (PAR).

Item General Comments and Misc Items **Grade** **Maint Code** **Qty.** 0

Details TWO (2) POTHOLES UP TO 2.5 FT X 2 FT LONG X 3 IN DEEP IN WEST APPROACH PAVEMENT.

2 FT WIDE X 1 FT LONG X 2 IN DEEP IN THE LEFT LANE AT DECK JOINT IN WEST APPROACH PAVEMENT.

THREE (3) POTHOLES UP TO 1 FT DIAMETER X 2 IN DEEP WITH WATER PONDING IN EAST APPROACH.

TWO (2) POTHOLES UP TO 2.5 FT X 2 FT LONG X 3 IN DEEP IN WEST APPROACH PAVEMENT.

3 FT WIDE X 1.5 FT LONG X UP TO 2 IN DEEP POTHOLE IN RIGHT LANE AT DECK JOINT IN WEST APPROACH PAVEMENT.

Span 1 Deck: MINOR TO MODERATE ABRASION WITH WATER PONDING ON EXPOSED TIMBER BOARDS FOR UP TO 70% OF DECK AREA.

Span 1 Deck: MINOR TO MODERATE ABRASION WITH WATER PONDING ON EXPOSED TIMBER BOARDS FOR UP TO 70% OF DECK AREA.

MODERATE TO HEAVY DEBRIS AND DRY LEAVES ACCUMULATED ALONG BOTH BRIDGE RAILS.

Span 1 Deck: 4 FT LONG X 4 FT WIDE SOUND CONCRETE PATCH AT THE BEGINNING OF THE BRIDGE.

Span 1 Deck: LOOSE AGGREGATE FOR 3 FT WIDE X FULL SPAN LENGTH ALONG BOTH BRIDGE RAILS.

Span 1 Left Bridge Rail: UP TO 1/4 IN WIDE X 1 IN DEEP LONGITUDINAL CHECKS IN THE CURB RAIL FOR FULL BRIDGE LENGTH.

End Bent 1 Abutment/Backwall : SEVERE DETERIORATION OF SOLDIER PILE DUE TO DECAY AT NORTH END OF END BENT 1 ABUTMENT. 3 FT WIDE X 9 IN HIGH X 3 IN DEEP AREA OF BULKHEAD BOARD IS MISSING WITH SOIL SPILLING THROUGH. 10 IN WIDE X 6 IN HIGH X UP TO 3 IN DEEP AREA OF SECTION LOSS IN THE SECOND BULKHEAD BOARD IN BOTTOM AT NORTH END (PAR).

End Bent 1 Abutment/Backwall : SEVERE DETERIORATION OF SOLDIER PILE DUE TO DECAY AT NORTH END OF END BENT 1 ABUTMENT. 3 FT WIDE X 9 IN HIGH X 3 IN DEEP AREA OF BULKHEAD BOARD IS MISSING WITH SOIL SPILLING THROUGH. 10 IN WIDE X 6 IN HIGH X UP TO 3 IN DEEP AREA OF SECTION LOSS IN THE SECOND BULKHEAD BOARD IN BOTTOM AT NORTH END (PAR).

Span 1 Beam 2: MODERATE SURFACE CORROSION ON EDGES OF TOP FLANGES THROUGHOUT AND IN AREAS ON THE BOTTOM FLANGE.

PILE 2 AT END BENT 1 IS ENCASED IN CONCRETE.

End Bent 2 Abutment/Backwall : UP TO 3 FT HIGH AREA OF SEVERE DECAY WITH UP TO 70% SECTION LOSS IN SOLDIER PILE AT NORTH END. 3 BULKHEAD BOARDS BEHIND THIS SOLDIER PILE EXHIBIT SEVERE DECAY UP TO 1 FT WIDE X 9 IN HIGH X 3 IN WIDE WITH SOIL SPILLING THROUGH (PAR).

End Bent 1 Abutment/Backwall : 10 WIDE X 9 IN HIGH X 3IN DEEP AREA OF SECTION MISSING IN BOTTOM BULKHEAD BOARD AT SOUTH END.

End Bent 1 Abutment/Backwall : UP TO 8 IN HIGH X FULL DIAMETER OF THE BOTTOM SOLDIER PILE HAS MODERATE DECAY AT THE GROUND SURFACE.

End Bent 1 Abutment/Backwall : 3/16 IN WIDE X 1 IN DEEP VERTICAL CHECKS FOR FULL HEIGHT IN SOUTH FACE.

End Bent 1 Cap 1: MODERATE TO HEAVY DIRT AND DEBRIS ON TOP OF THE CAP IN BAYS 2, 4, AND 6. PHOTO SHOWS DEBRIS IN BAY 4.

Span 1 Beam 5: HEAVY SURFACE CORROSION FOR FULL FLANGE WIDTH X 7 FT LONG IN BOTTOM FLANGE, STARTING AT 13.5 FT FROM BEAM END AT END BENT 1 . UP TO 0.41 IN SECTION REMANING (PAR).

Span 1 Beam 4: HEAVY SURFACE CORROSION FOR FULL FLANGE WIDTH X 18.5 FT LONG IN BOTTOM FLANGE, STARTING AT 7.5 FT FROM BEAM END AT END BENT 1 . UP TO 0.36 IN SECTION REMANING (PAR).

End Bent 2 Abutment/Backwall : UP TO 3 FT HIGH AREA OF SEVERE DECAY WITH UP TO 70% SECTION LOSS IN SOLDIER PILE AT NORTH END. 3 BULKHEAD BOARDS BEHIND THIS SOLDIER PILE EXHIBIT SEVERE DECAY UP TO 1 FT WIDE X 9 IN HIGH X 3 IN WIDE WITH SOIL SPILLING THROUGH (PAR).

Span 1 Beam 3 Far Bearing: MODERATE TO HEAVY SURFACE CORROSION ON BEARING PLATE.

End Bent 2 Abutment/Backwall : 3 FT WIDE X 1 FT HIGH X 3 IN DEEP AREA OF SEVERE DECAY IN THE BACKWALL BULKHEAD BOARDS BEHIND BEAM 5 AND IN BAY 5 WITH SOIL SPILLING THROUGH (PAR).

End Bent 2 Abutment/Backwall : 3 FT WIDE X 1 FT HIGH X 3 IN DEEP AREA OF SEVERE DECAY IN THE BACKWALL BULKHEAD BOARDS BEHIND BEAM 5 AND IN BAY 5 WITH SOIL SPILLING THROUGH (PAR).

End Bent 2 Pile 3: 8 IN HIGH X 3 IN WIDE X 1 IN DEEP SECTION LOSS IN SOUTHWEST FACE, STARTING AT WATER LEVEL.

End Bent 2 Pile 4: 20 IN HIGH X 5 IN WIDE X UP TO 3 IN DEEP AREA OF SECTION LOSS DUE TO DECAY STARTING AT WATER LEVEL IN SOUTHWEST CORNER (PAR).

End Bent 2 Abutment/Backwall : UP TO 1 FT WIDE X 8 IN HIGH X 3 IN DEEP AREA OF DECAY AND SECTION LOSS WITH SOIL SPILLING THROUGH BEHIND THE CAP AT SOUTH END OF END BENT 2 (PAR).

End Bent 2 Abutment/Backwall : UP TO 3/16 IN WIDE X 2 IN DEEP VERTICAL CHECKS IN SOUTHWEST FACE OF SOLDIER PILE AT SOUTH END.

5 FT LONG X 9 IN HIGH X UP TO 3 IN DEEP AREA OF SEVERE DECAY WITH SOIL SPILLING THROUGH IN THE BOTTOM BULKHEAD BOARD. 2 FT HIGH X 3/4 IN DIAMETER X UP TO 3 IN DEEP AREA OF SEVERE DECAY AND TREEE ROOTS IN THE FIRST SOLDIER PILE FROM SOUTH END OF THE ABUTMENT AT END BENT 1 (PAR).

Stream Bed Soundings

(Profile diagram on following sheet)

County **NORTHAMPTON** Structure Number: **650093** Inspection Date **03/22/2019**

Sounding recorded from: **Top of Bridge Rail**

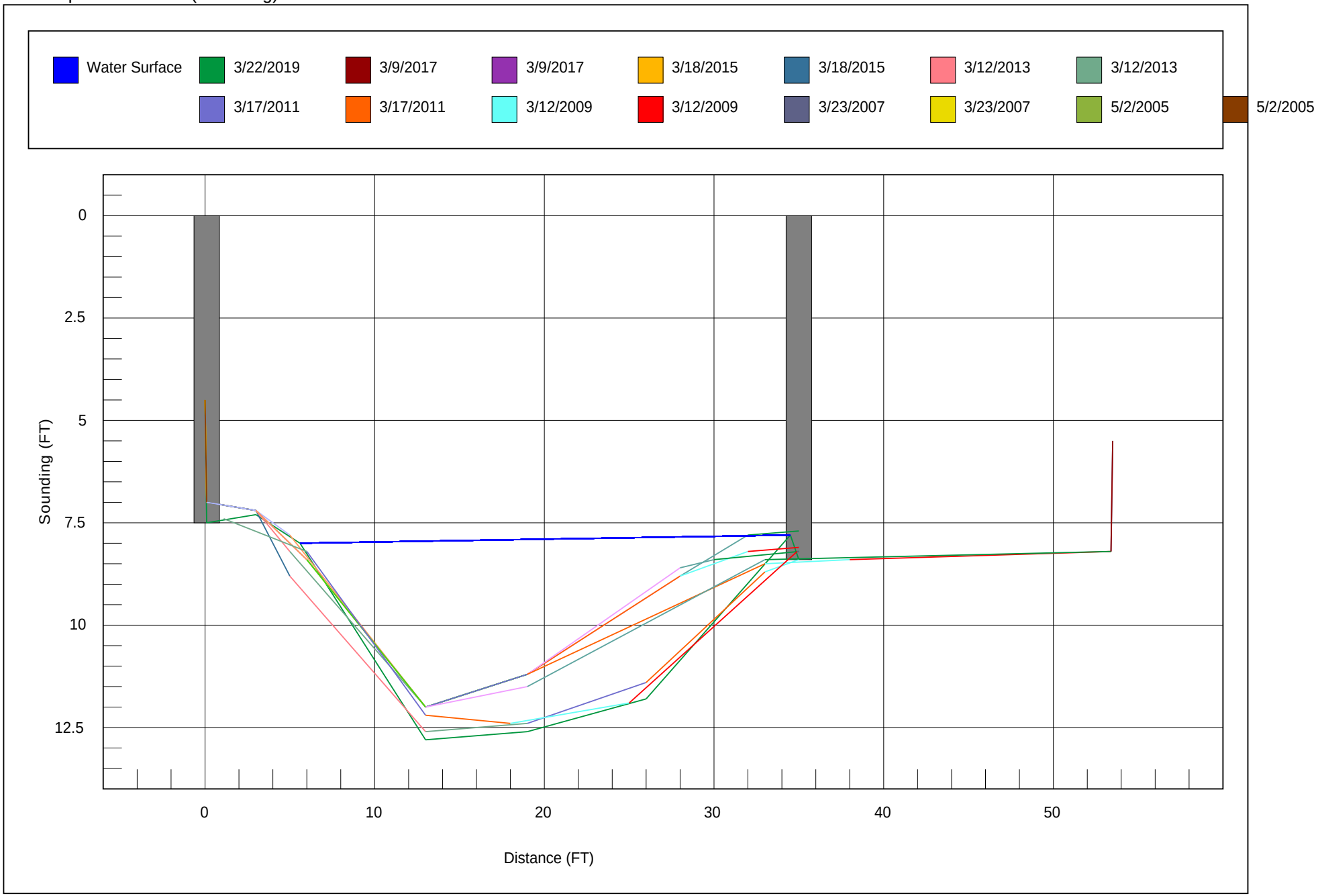
Highwater Mark Distance Location of Highwater Mark **NOT DETECTED**

Distance (Station) ft.	Downstream Sounding ft.	Upstream Sounding ft.	Description
0.000	4.500	0.000	TOP OF CAP
0.100	7.500	7.000	END BENT 1
3.000	7.300	0.000	
5.600	8.000	0.000	WSWE
13.000	12.800	0.000	
19.000	12.600	0.000	
26.000	11.800	0.000	
34.500	7.800	0.000	WSWE
35.000	8.400	11.800	END BENT 2

Bridge: 650093 County: NORTHAMPTON Date: 03/22/2019

STREAMBED PROFILE (Downstream)

Top of Rail = 0FT (Sounding)

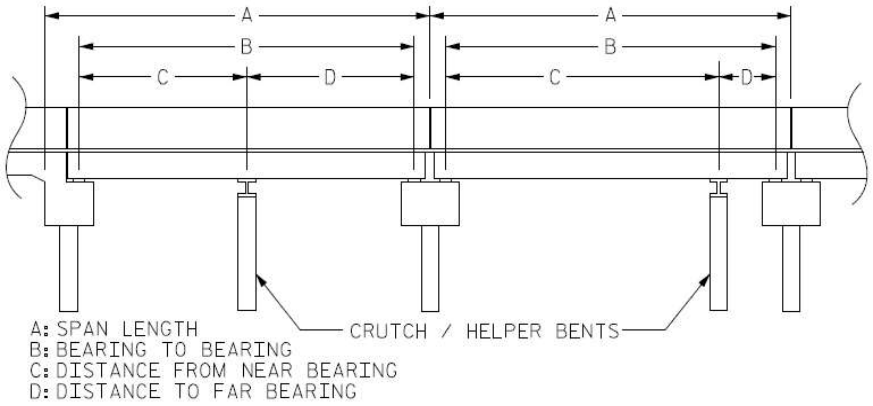


Structure Data Worksheet

Span Profile

County: **NORTHAMPTON**

Structure Number: **650093**



Span Number	Span Length	Bearing to Bearing	Crutch/ Helper Bent	Distance to Near Bearing	Distance to Far Bearing
1	35.000	34.000			

DECK OVER END BENT 1 LOOKING NORTH. SIMILAR AT END BENT 2.

UPSTREAM LOOKING SOUTH FROM TOP OF DECK.

DOWNSTREAM LOOKING NORTH FROM TOP OF DECK.

WEIGHT LIMIT SIGN AT NORTHEAST CORNER.

LOOKING WEST.

UPSTREAM/SOUTH PROFILE LOOKING EAST.

SOUTHEAST WINGWALL.

SOUTHWEST WINGWALL.

TYPICAL BRIDGE RAIL POST CONNECTION TO RIGHT FASCIA BEAM.

END BENT 1 PROFILE.

NORTHWEST WINGWALL.

DOWNSTREAM/NORTH PROFILE LOOKING EAST.

NORTHEAST WINGWALL.

BACKWALL AT END BENT 1, BAY 1.

BEARING AT END BENT 1 BEAM 2.

INTERMEDIATE DIAPHRAGM IN BAY 1 LOOKING EAST.

END BENT 2 PROFILE.

SUPERSTRUCTURE UNDERSIDE LOOKING EAST.

DOWNSTREAM LOOKING NORTH FROM UNDER THE BRIDGE.

UPSTREAM LOOKING SOUTH FROM UNDER THE BRIDGE.

BOAT USED.

TYPICAL DECK UNDERSIDE IN BAY 4 AT END BENT 1, LOOKING WEST.

LOOKING EAST.

LEFT BRIGE RAIL.

RIGHT BRIDGE RAIL.

WEIGHT LIMIT SIGN AT SOUTHWEST CORNER.

TOP OF DECK LOOKING EAST.

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 650093 County NORTHAMPTON Date:

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3314	Maintain Steel Superstructure Components	LF	14	Span 1 Beam 5: HEAVY SURFACE CORROSION FOR FULL FLANGE WIDTH X 7 FT LONG IN BOTTOM FLANGE, STARTING AT 13.5 FT FROM BEAM END AT END BENT 1 . UP TO 0.41 SECTION REMAINING (PAR).	
3314	Maintain Steel Superstructure Components	LF	19	Span 1 Beam 4: HEAVY SURFACE CORROSION FOR FULL FLANGE WIDTH X 18.5 FT LONG IN BOTTOM FLANGE, STARTING AT 7.5 FT FROM BEAM END AT END BENT 1 . UP TO 0.36 SECTION REMAINING (PAR).	
3344	Repair / Replace Timber Substructure Components	LF	1	End Bent 2 Pile 4: 20 IN HIGH X 5 IN WIDE X UP TO 3 IN DEEP AREA OF SECTION LOSS DUE TO DECAY STARTING AT WATER LEVEL IN SOUTHWEST CORNER (PAR).	
3346	Repair / Maintain Timber Wings & Blkhds	SF	4	End Bent 1 Abutment/Backwall : SEVERE DETERIORATION OF SOLDIER PILE DUE TO DECAY AT NORTH END OF END BENT 1 ABUTMENT. 3 FT WIDE X 9 IN HIGH X 3 IN DEEP AREA OF BULKHEAD BOARD IS MISSING WITH SOIL SPILLING THROUGH. 10 IN WIDE X 6 IN HIGH X UP TO 3 IN DEEP AREA OF SECTION LOSS IN THE SECOND BULKHEAD BOARD IN BOTTOM AT NORTH END (PAR).	
3346	Repair / Maintain Timber Wings & Blkhds	SF	9	End Bent 2 Abutment/Backwall : UP TO 3 FT HIGH AREA OF SEVERE DECAY WITH UP TO 70% SECTION LOSS IN SOLDIER PILE AT NORTH END. 3 BULKHEAD BOARDS BEHIND THIS SOLDIER PILE EXHIBIT SEVERE DECAY UP TO 1 FT WIDE X 9 IN HIGH X 3 IN WIDE WITH SOIL SPILLING THROUGH (PAR).	
3346	Repair / Maintain Timber Wings & Blkhds	SF	3	End Bent 2 Abutment/Backwall : 3 FT WIDE X 1 FT HIGH X 3 IN DEEP AREA OF SEVERE DECAY IN THE BACKWALL BULKHEAD BOARDS BEHIND BEAM 5 AND IN BAY 5 WITH SOIL SPILLING THROUGH (PAR).	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 650093 County NORTHAMPTON Date:

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3346	Repair / Maintain Timber Wings & Blkhds	SF	1	End Bent 2 Abutment/Backwall : UP TO 1 FT WIDE X 8 IN HIGH X 3 IN DEEP AREA OF DECAY AND SECTION LOSS WITH SOIL SPILLING THROUGH BEHIND THE CAP AT SOUTH END OF END BENT 2 (PAR).	
3350	Maint R C Wings and Walls	SF	7	5 FT LONG X 9 IN HIGH X UP TO 3 IN DEEP AREA OF SEVERE DECAY WITH SOIL SPILLING THROUGH IN THE BOTTOM BULKHEAD BOARD. 2 FT HIGH X 3/4 IN DIAMETER X UP TO 3 IN DEEP AREA OF SEVERE DECAY AND TREE ROOTS IN THE FIRST SOLDIER PILE FROM SOUTH END OF THE ABUTMENT AT END BENT 1 (PAR).	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 650093 County NORTHAMPTON

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	14 LF

Location:	
Bent/Span No.	

Priority Level	Status
	Request Awaiting Assignment

Submitted Date:	Submitted By:	Assisted By:
03/24/2019	RAGHUVEER SURAPANENI	

Details

Span 1 Beam 5: HEAVY SURFACE CORROSION FOR FULL FLANGE WIDTH X 7 FT LONG IN BOTTOM FLANGE, STARTING AT 13.5 FT FROM BEAM END AT END BENT 1 . UP TO 0.41 SECTION REMAINING (PAR).

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	19 LF

Location:	
Bent/Span No.	

Priority Level	Status
	Request Awaiting Assignment

Submitted Date:	Submitted By:	Assisted By:
03/24/2019	RAGHUVEER SURAPANENI	

Details

Span 1 Beam 4: HEAVY SURFACE CORROSION FOR FULL FLANGE WIDTH X 18.5 FT LONG IN BOTTOM FLANGE, STARTING AT 7.5 FT FROM BEAM END AT END BENT 1 . UP TO 0.36 SECTION REMAINING (PAR).

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 650093 County NORTHAMPTON

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

MMS Code	MMS Description	Quantity
3344	Repair / Replace Timber Substructure Components	1 LF

Location:		
Bent/Span No.		
Priority Level	Status	
	Request Awaiting Assignment	
Submitted Date:	Submitted By:	Assisted By:
03/24/2019	RAGHUVEER SURAPANENI	

Details

End Bent 2 Pile 4: 20 IN HIGH X 5 IN WIDE X UP TO 3 IN DEEP AREA OF SECTION LOSS DUE TO DECAY STARTING AT WATER LEVEL IN SOUTHWEST CORNER (PAR).

MMS Code	MMS Description	Quantity
3346	Repair / Maintain Timber Wings & Blkhds	4 SF

Location:		
Bent/Span No.		
Priority Level	Status	
	Request Awaiting Assignment	
Submitted Date:	Submitted By:	Assisted By:
03/23/2019	RAGHUVEER SURAPANENI	

Details

End Bent 1 Abutment/Backwall : SEVERE DETERIORATION OF SOLDIER PILE DUE TO DECAY AT NORTH END OF END BENT 1 ABUTMENT. 3 FT WIDE X 9 IN HIGH X 3 IN DEEP AREA OF BULKHEAD BOARD IS MISSING WITH SOIL SPILLING THROUGH. 10 IN WIDE X 6 IN HIGH X UP TO 3 IN DEEP AREA OF SECTION LOSS IN THE SECOND BULKHEAD BOARD IN BOTTOM AT NORTH END (PAR).

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 650093 County NORTHAMPTON

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	9 SF

Location:		
Bent/Span No.		
Priority Level	Status	
	Request Awaiting Assignment	
Submitted Date:	Submitted By:	Assisted By:
03/24/2019	RAGHUVEER SURAPANENI	

Details

End Bent 2 Abutment/Backwall : UP TO 3 FT HIGH AREA OF SEVERE DECAY WITH UP TO 70% SECTION LOSS IN SOLDIER PILE AT NORTH END. 3 BULKHEAD BOARDS BEHIND THIS SOLDIER PILE EXHIBIT SEVERE DECAY UP TO 1 FT WIDE X 9 IN HIGH X 3 IN WIDE WITH SOIL SPILLING THROUGH (PAR).

MMS Code	MMS Description	Quantity
3346	Repair / Maintain Timber Wings & Blkhds	3 SF

Location:		
Bent/Span No.		
Priority Level	Status	
	Request Awaiting Assignment	
Submitted Date:	Submitted By:	Assisted By:
03/24/2019	RAGHUVEER SURAPANENI	

Details

End Bent 2 Abutment/Backwall : 3 FT WIDE X 1 FT HIGH X 3 IN DEEP AREA OF SEVERE DECAY IN THE BACKWALL BULKHEAD BOARDS BEHIND BEAM 5 AND IN BAY 5 WITH SOIL SPILLING THROUGH (PAR).

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 650093 County NORTHAMPTON

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	1 SF

Location:
Bent/Span No.

Priority Level	Status
	Request Awaiting Assignment

Submitted Date:	Submitted By:	Assisted By:
03/24/2019	RAGHUVEER SURAPANENI	

Details
End Bent 2 Abutment/Backwall : UP TO 1 FT WIDE X 8 IN HIGH X 3 IN DEEP AREA OF DECAY AND SECTION LOSS WITH SOIL SPILLING THROUGH BEHIND THE CAP AT SOUTH END OF END BENT 2 (PAR).

MMS Code	MMS Description	Quantity
3350	Maint R C Wings and Walls	7 SF

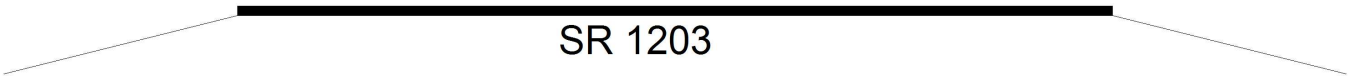
Location:
Bent/Span No.

Priority Level	Status
	Request Awaiting Assignment

Submitted Date:	Submitted By:	Assisted By:
03/27/2019	RAGHUVEER SURAPANENI	

Details
5 FT LONG X 9 IN HIGH X UP TO 3 IN DEEP AREA OF SEVERE DECAY WITH SOIL SPILLING THROUGH IN THE BOTTOM BULKHEAD BOARD. 2 FT HIGH X 3/4 IN DIAMETER X UP TO 3 IN DEEP AREA OF SEVERE DECAY AND TREE ROOTS IN THE FIRST SOLDIER PILE FROM SOUTH END OF THE ABUTMENT AT END BENT 1 (PAR).

Bridge Inspection Field Sketch



Roadway	15ft Wide	2 Unpaved Lanes	Looking East
Left Shoulder	4ft Wide		4ft Unpaved
Right Shoulder	4ft Wide		4ft Unpaved
Left Guardrail			
Right Guardrail			

MEASURED AT 2FT WEST OF BRIDGE.

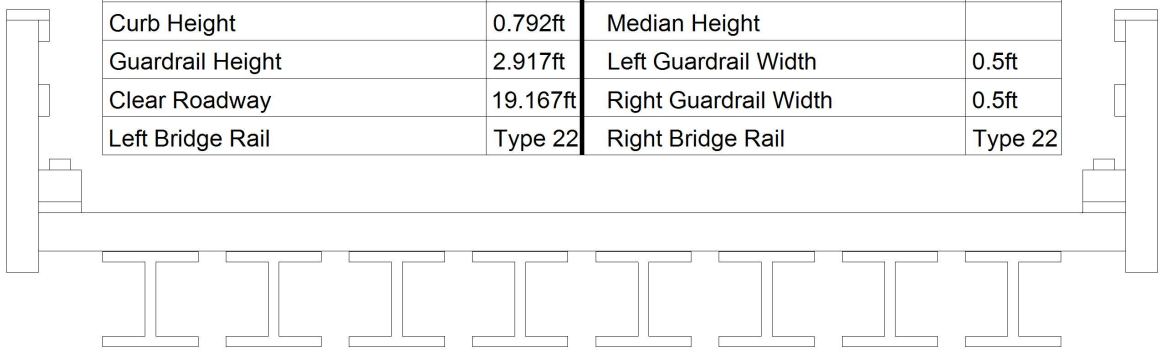
VERIFIED BY RS/AP ON 3/22/19

Title	**Description**
APPROACH ROADWAY	APPROACH ROADWAY

Bridge No: 650093	**Drawn By:** GLH	**Date:** 03/12/2013	**File Name:** S0034000646

Bridge Inspection Field Sketch

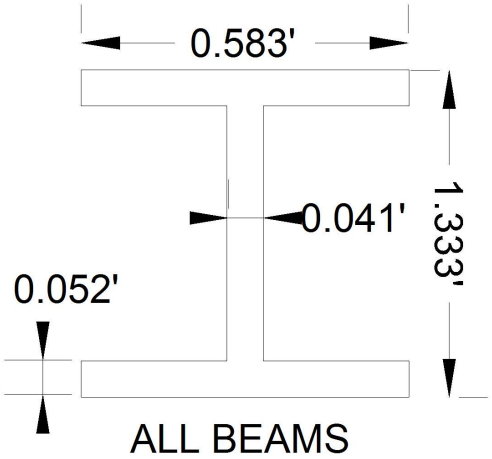
Out to Out	20.083ft	Wearing Surface	
Between Rails	19.833ft	Median Width	
Curb Height	0.792ft	Median Height	
Guardrail Height	2.917ft	Left Guardrail Width	0.5ft
Clear Roadway	19.167ft	Right Guardrail Width	0.5ft
Left Bridge Rail	Type 22	Right Bridge Rail	Type 22



Measurements for Span #	1		
Deck Thickness	0.312	Left Overhang	1
Top of Rail to Bottom of Beam	4.833	Right Overhang	1

Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	2.583 ft.	
2	Steel I Beam	2.583 ft.	
3	Steel I Beam	2.583 ft.	
4	Steel I Beam	2.583 ft.	
5	Steel I Beam	2.583 ft.	
6	Steel I Beam	2.583 ft.	
7	Steel I Beam	2.583 ft.	
8	Steel I Beam		

CHANGE IN CURB HEIGHT, TOP OF RAIL TO BOTTOM OF BEAM, AND FLANGE THICKNESS.



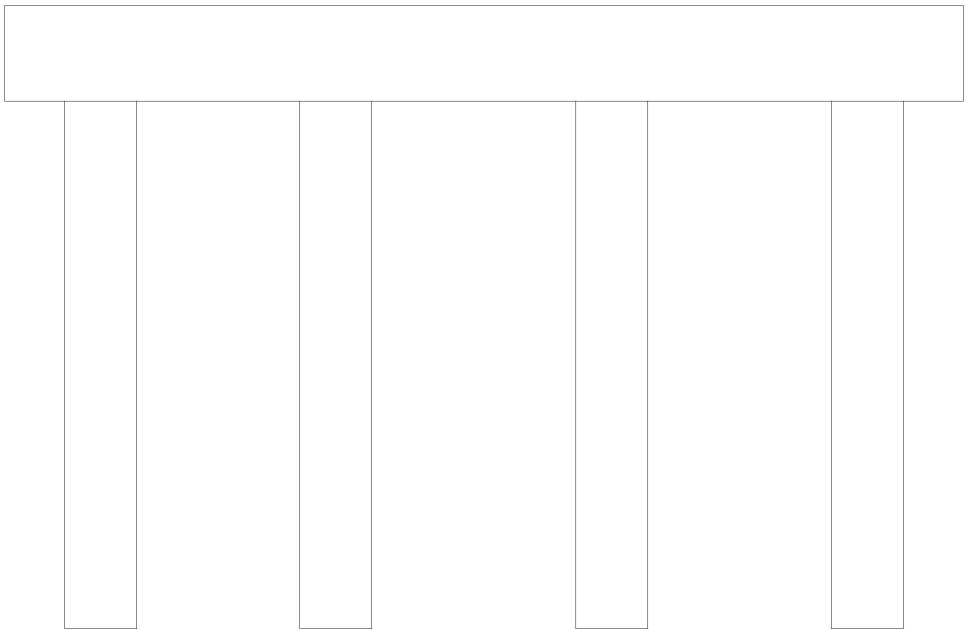
ALL BEAMS

MODIFIED BY RS/AP ON 3/22/19

Title	Description
TYPICAL SECTION	TYPICAL SECTION

Bridge No:	Drawn By:	Date:	File Name:
650093	GLH	03/12/2013	S0034000647

Bridge Inspection Field Sketch



Bent #	2		
Cap - Beam Type (Wood or Steel)			
Cap Size	20ft Long	0.812ft Wide	0.959ft High
Left Overhang	1ft	Lt Cap/Beam Overhang	1ft
Right Overhang	1ft	Rt Cap/Beam Overhang	1ft

Pile #	Material	Pile Type	Spacing	Length	Width/Diam.	Height	Orientation
1	Wood or Timber	Pile Bent	6'		1'		Vertical
2	Wood or Timber	Pile Bent	6'		1.25'		Vertical
3	Wood or Timber	Pile Bent	6'		1.25'		Vertical
4	Wood or Timber	Pile Bent			1.25'		Vertical

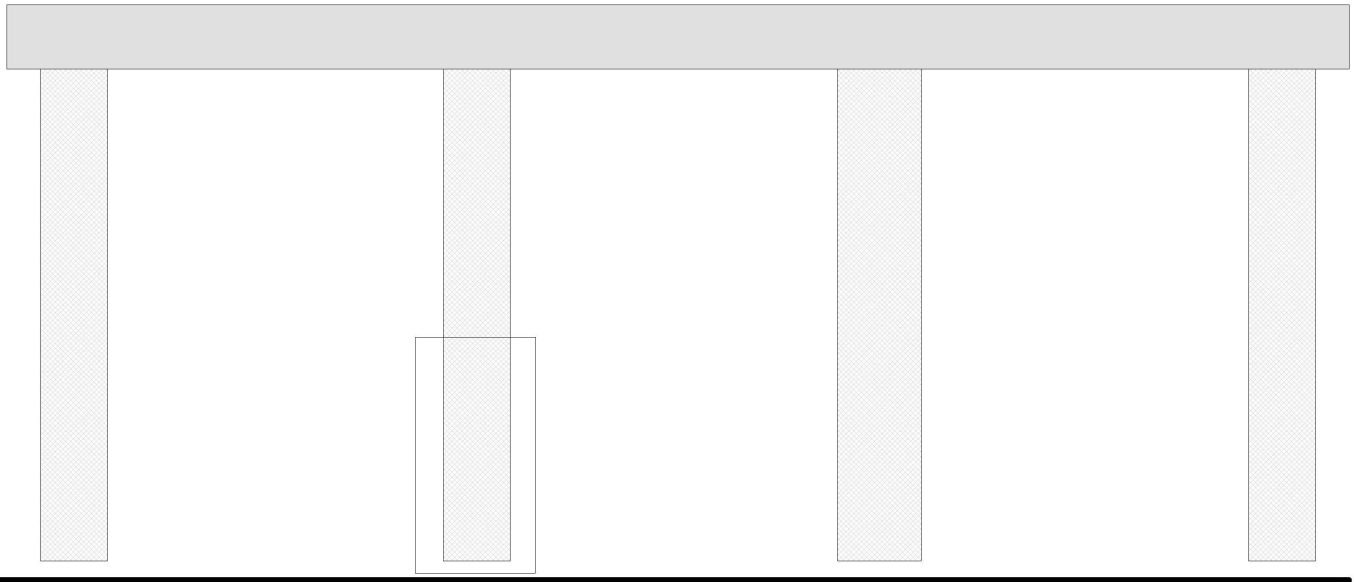
CHANGE IN PILE #1 SIZE

NEW END BENT 1 SKETCH

MODIFIED BY RS/AP ON 3/22/19

Title	**Description**		
SUBSTRUCTURE	END BENT 2		
Bridge No: 650093	**Drawn By:** GLH	**Date:** 03/12/2013	**File Name:** S0034000648

Bridge Inspection Field Sketch



Cap Information			Material Timber			
Length	Width	Height	Left Overhang	Right Overhang	Left Beam to End of Cap.	Right Beam to End of Cap.
20.000 ft.	.812 ft.	.959 ft.	1.000 ft.	1.000 ft.	1.000 ft.	1.000 ft.

Subcap Information			Material		
Length	Width	Height	Left Overhang	Right Overhang	Left Pile to Splice.

Sill Information			Material
Length	Width	Height	

Pile #	Material	Spacing	Width/Dia.	Height	Length	Orientation	Driven?	Replacement?	Removed?	Collar?
1	Timber	6 ft.	1 ft.			Vertical	No	No	No	No
2	Timber	6 ft.	1 ft.			Vertical	No	No	No	YES
3	Timber	6 ft.	1.25 ft.			Vertical	No	No	No	No
4	Timber		1 ft.			Vertical	No	No	No	No

Bent/Abutment #: 1 Similar Bents:

Title	**Description**
SUBSTRUCTURE EB1	END BENT 1

Bridge No: 650093	**Drawn By:** AP	**Date:** 3/27/2019	**File Name:** S0334000394