NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURE MANAGEMENT UNIT

ATTENTION:

Structure Safety Report

Routine Element Inspection

COUNTY: ROBESON **STRUCTURE NUMBER:** 770036 **FREQUENCY:** 24 MONTHS

FACILITY CARRIED: US301 SBL **MILE POST:**

LOCATION: 0.5 MI. N. JCT. SR1005

FEATURE INTERSECTED: I95

LATITUDE: 34° 40' 12.12" **LONGITUDE:** 79° 0' 21.27"

SUPERSTRUCTURE: RC DECK ON PRESTRESSED CONCRETE MODIFIED BULB TEES (CONTINUOUS), SIP FORMS, AF

SUBSTRUCTURE: END BENTS:RC CAPS ON STEEL PILES; WITH MSE WALLS, INT. BENT:3 COLUMN, RC POST & BEAM

SPANS: 2@107' 9" CONTINUOUS, COMPOSITE

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

PRESENT CONDITION: Fair **INSPECTION DATE:** 01/03/2018

POSTED SV: Not Posted **POSTED TTST:** Not Posted

OTHER SIGNS PRESENT: ÑONE

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 S-N

DIRECTION MATCHES PLANS YES

LOOKING SOUTH

INSPECTED BY	SIGNATURE	ASSISTED BY
Ray L. Kisner	Ray L. Kisner	Debra Kristensen

Structure Element Scoring

Structure Number: **770036**

Inspection Date **1/3/2018**

Element Number	Parent Number	Element Name	Location	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity
12	0	Reinforced Concrete Deck	Deck	7884	7779	105	0	0
109	0	Prestressed Concrete Open Girder/Beam	Beam	1050	1028	22	0	0
205	0	Reinforced Concrete Column	Piles and Columns	3	3	0	0	0
215	0	Reinforced Concrete Abutment	Abutments	196	195	1	0	0
220	0	Reinforced Concrete Pile Cap/Footing	Footing	48	48	0	0	0
225	0	Steel Pile	Piles and Columns	24	24	0	0	0
234	0	Reinforced Concrete Pier Cap	Caps	155	155	0	0	0
301	0	Pourable Joint Seal	Expansion Joints	99	0	99	0	0
310	0	Elastomeric Bearing	Bearing Device	16	16	0	0	0
515	310	Steel Protective Coating	Bearing Device	32	32	0	0	0
321	0	Reinforced Concrete Approach Slabs	Approaches	2431	2256	175	0	0
333	0	Other Bridge Railing	Bridge Rail	432	413	19	0	0

Summary of Maintenance Needs

Maintenance By Defect

Structure Number: **770036** Inspection Date: **01/03/2018**

MMS Code	Element Name	Defect Name	Recommended Quantity
3306	Prestressed Concrete Open Girder/Bear	Cracking (PSC)	22 Feet

Element Structure Maintenance Quantities

Structure Number: **770036** Inspection Date **01/03/2018**

Location	MMS Code	Description	Maint Quantity	Total Quantity	Severe Quantity	Poor Quantity	Fair Quantity	Good Quantity
Abutments	3350	Maintenance of Concrete Wings and Wall	0	196	0	0	1	195
Approaches	3353	Maintenance of Concrete Bridge Approach Slabs	0	2431	0	0	175	2256
Beam	3306	Maintenance Concrete Superstructure Components	22	1050	0	0	22	1028
Bearing Device	3334	Bridge Bearing	0	16	0	0	0	16
Bearing Device	3342	Clean and Paint Steel	0	32	0	0	0	32
Bridge Rail	3318	Maintenance of Concrete Bridge Rail	0	432	0	0	19	413
Caps	3348	Maintenance of Concrete Substructure	0	155	0	0	0	155
Deck	3326	Maintenance of Concrete Deck	0	7884	0	0	105	7779
Expansion Joints	3310	Maintenance of Standard Bridge Expansion Joints	0	99	0	0	99	0
Footing	3348	Maintenance of Concrete Substructure	0	48	0	0	0	48
Piles and Columns	3348	Maintenance of Concrete Substructure	0	3	0	0	0	3
Piles and Columns	3354	Maintenance of Steel Substructure Components	0	24	0	0	0	24

Element Condition and Maintenance Data

Structure Number: **770036** Inspection Date: **01/03/2018**

Span 1 — Deck

Reinforced Concrete Deck

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
12	Reinforced Concrete Deck	3,942	3,902	40	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
12	Cracking (RC and Other)	HAIRLINE LONGITUDINAL CRACKING AT END BENT 1 END	2	40		Square Feet

General Comments

Span 1 — Expansion Joint

Standard Joint

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
301	Pourable Joint Seal	53	0	53	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
301	Debris Impaction	DEBRIS IN JOINT	2	53		Feet

General Comments

Span 1 — Left Bridge Rail

Concrete and Metal Railing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
333	Other Bridge Railing	108	102	6	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
333	Cracking (RC and Other)	HAIRLINE TRANSVERSE AND VERTICAL CRACKS AT 8- 10 FT. SPACING	2	6		Feet

General Comments

Span 1 — Right Bridge Rail

Concrete and Metal Railing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
333	Other Bridge Railing	108	107	1	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
333	Cracking (RC and Other)	HAIRLINE TRANSVERSE AND VERTICAL CRACK AT MID SPAN	2	1		Feet

General Comments

Span 1 Beam 2

Prestressed Concrete Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
109	Prestressed Concrete Open Girder/Beam	105	101	4	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
109	Cracking (PSC)	2 - 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB BAY 1 SIDE AT NEAR END	2	4	4	Feet

General Comments

Span 1 Beam 3

Prestressed Concrete Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
109	Prestressed Concrete Open Girder/Beam	105	101	4	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
109	Cracking (PSC)	2 - 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB BAY 2 SIDE AT NEAR END	2	4	4	Feet

General Comments

Span 2 Deck

Reinforced Concrete Deck

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
12	Reinforced Concrete Deck	3,942	3,877	65	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
12	Cracking (RC and Other)	HAIRLINE LONGITUDINAL CRACKING AT END BENT 2 END	2	65		Square Feet

General Comments

Span 2 Expansion Joint

Standard Joint

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
301	Pourable Joint Seal	46	0	46	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
301	Debris Impaction	DEBRIS IN JOINT	2	46		Feet

General Comments

Span 2 Left Bridge Rail

Concrete and Metal Railing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
333	Other Bridge Railing	108	102	6	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty

333	Cracking (RC and Other)	HAIRLINE TRANSVERSE AND VERTICAL CRACKS AT 8- 10 FT. SPACING	2	6	Feet

General Comments

Span 2 — Right Bridge Rail

Concrete and Metal Railing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
333	Other Bridge Railing	108	102	6	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
333	Cracking (RC and Other)	HAIRLINE TRANSVERSE AND VERTICAL CRACKS AT 8- 10 FT. SPACING	2	6		Feet

General Comments

Span 2 — Beam 1

Prestressed Concrete Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
109	Prestressed Concrete Open Girder/Beam	105	101	4	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
109	Cracking (PSC)	1- 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB BAY 1 SIDE AT FAR END	2	2	2	Feet
109	Cracking (PSC)	1- 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB LEFT SIDE AT FAR END	2	2	2	Feet

General Comments

Span 2 — Beam 2

Prestressed Concrete Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
109	Prestressed Concrete Open Girder/Beam	105	103	2	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
109	Cracking (PSC)	1- 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB BAY 2 SIDE AT FAR END	2	2	2	Feet

General Comments

Span 2 — Beam 3

Prestressed Concrete Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
109	Prestressed Concrete Open Girder/Beam	105	103	2	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
109	Cracking (PSC)	1- 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB BAY 2 SIDE AT FAR END	2	2	2	Feet

General Comments

Span 2 — Beam 4

Prestressed Concrete Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
109	Prestressed Concrete Open Girder/Beam	105	99	6	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
109	Cracking (PSC)	1 - 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB RIGHT SIDE AT FAR END	2	2	2	Feet
109	Cracking (PSC)	1- 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB AT RIGHT SIDE AT NEAR END.	2	2	2	Feet
109	Cracking (PSC)	1- 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB BAY 3 SIDE AT FAR END	2	2	2	Feet

General Comments

End Bent 1 — Abutment

Reinforced Concrete Abutment

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
215	Reinforced Concrete Abutment	98	97	1	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
215	Cracking (RC and Other)	4' HIGH X HAIRLINE VERTICAL CRACK AT WEST END NEAR BEAM 1	2	1		Feet

General Comments

End Bent 1 — Cap 1

Reinforced Concrete Pier Cap

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
234	Reinforced Concrete Pier Cap	53	53	0	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty

General Comments

END BENT PILES NOT VISIBLE

End Bent 2 — Cap 1

Reinforced Concrete Pier Cap

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
234	Reinforced Concrete Pier Cap	53	53	0	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty

General Comments

END BENT PILES NOT VISIBLE

Approach 1

Reinforced Concrete Approach Slab

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
321	Reinforced Concrete Approach Slabs	1,213	1,138	75	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
321	Cracking (RC and Other)	HAIRLINE LONGITUDINAL AND MAP CRACKING	2	75		Square Feet

General Comments

Approach 2

Reinforced Concrete Approach Slab

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
321	Reinforced Concrete Approach Slabs	1,218	1,118	100	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
321	Cracking (RC and Other)	HAIRLINE LONGITUDINAL AND MAPCRACKING	2	100		Square Feet

General Comments

Elements Verfied

Location	Name	Component	Element Name	Amount
Span 1	Deck	Reinforced Concrete Deck	Reinforced Concrete Deck	3942
Span 1	Beam 1	Prestressed Concrete Girder	Prestressed Concrete Open Girder/Beam	105
Span 1	Beam 2	Prestressed Concrete Girder	Prestressed Concrete Open Girder/Beam	105
Span 1	Beam 3	Prestressed Concrete Girder	Prestressed Concrete Open Girder/Beam	105
Span 1	Beam 4	Prestressed Concrete Girder	Prestressed Concrete Open Girder/Beam	105
Span 1	Left Bridge Rail	Concrete and Metal Railing	Other Bridge Railing	108
Span 1	Right Bridge Rail	Concrete and Metal Railing	Other Bridge Railing	108
Span 1	Expansion Joint	Standard Joint	Pourable Joint Seal	53
Span 1	Near Bearing	Elastomeric Bearing with Metal Plates	Elastomeric Bearing	1
Span 1	Far Bearing	Elastomeric Bearing with Metal Plates	Elastomeric Bearing	1
Span 1	Near Bearing	Elastomeric Bearing with Metal Plates	Elastomeric Bearing	1
Span 1	Far Bearing	Elastomeric Bearing with Metal Plates	Elastomeric Bearing	1
Span 1	Near Bearing	Elastomeric Bearing with Metal Plates	Elastomeric Bearing	1
Span 1	Far Bearing	Elastomeric Bearing with Metal Plates	Elastomeric Bearing	1
Span 1	Near Bearing	Elastomeric Bearing with Metal Plates	Elastomeric Bearing	1
Span 1	Far Bearing	Elastomeric Bearing with Metal Plates	Elastomeric Bearing	1
Span 2	Deck	Reinforced Concrete Deck	Reinforced Concrete Deck	3942
Span 2	Beam 1	Prestressed Concrete Girder	Prestressed Concrete Open Girder/Beam	105
Span 2	Beam 2	Prestressed Concrete Girder	Prestressed Concrete Open Girder/Beam	105
Span 2	Beam 3	Prestressed Concrete Girder	Prestressed Concrete Open Girder/Beam	105
Span 2	Beam 4	Prestressed Concrete Girder	Prestressed Concrete Open Girder/Beam	105
Span 2	Left Bridge Rail	Concrete and Metal Railing	Other Bridge Railing	108
Span 2	Right Bridge Rail	Concrete and Metal Railing	Other Bridge Railing	108
Span 2	Expansion Joint	Standard Joint	Pourable Joint Seal	46
Span 2	Near Bearing	Elastomeric Bearing with Metal Plates	Elastomeric Bearing	1
Span 2	Far Bearing	Elastomeric Bearing with Metal Plates	Elastomeric Bearing	1
Span 2	Near Bearing	Elastomeric Bearing with Metal Plates	Elastomeric Bearing	1
Span 2	Far Bearing	Elastomeric Bearing with Metal Plates	Elastomeric Bearing	1
Span 2	Near Bearing	Elastomeric Bearing with Metal Plates	Elastomeric Bearing	1
Span 2	Far Bearing	Elastomeric Bearing with Metal Plates	Elastomeric Bearing	1
Span 2	Near Bearing	Elastomeric Bearing with Metal Plates	Elastomeric Bearing	1
Span 2	Far Bearing	Elastomeric Bearing with Metal Plates	Elastomeric Bearing	1
Bent 1	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	49
Bent 1	Pile 1	Reinforced Concrete Column	Reinforced Concrete Column	1
Bent 1	Pile 2	Reinforced Concrete Column	Reinforced Concrete Column	1
Bent 1	Pile 3	Reinforced Concrete Column	Reinforced Concrete Column	1
End Bent 1	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	53
End Bent 1	Abutment	Reinforced Concrete Abutment	Reinforced Concrete Abutment	98
End Bent 2	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	53
End Bent 2	Abutment	Reinforced Concrete Abutment	Reinforced Concrete Abutment	98

General Inspection Notes

Bent 1 Cap 1

END BENT PILES NOT VISIBLE

Bent 2 Cap 1

END BENT PILES NOT VISIBLE

National Bridge and NC Inspection Items

Structure Number: 770036 **Inspection Date:** 01/03/2018

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	**8**
Item 61: Channel and Channel Protection	0 - 9 , N	**N**
Item 62: Culvert	0 - 9 , N	**N**
Item 71: Waterway Adequacy	0 - 9 , N	**N**
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		**0**	**3352**
Scour	G, F, P, or C			
Wingwall	G, F, P, or C			
Field Scour Evaluation				
Drift	G, F, P, or C			
Fender System	G, F, P, or C			
Movable Span Machinery	G, F, P, or C			
Response to Live Load	G, F, P, or C	**G**		
Estimated Remaining Life	0 - 100 Years	**70**		
Superstructure Paint Code				

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	**N**
Inspection Time	Hours	**4**
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: 770036 **Inspection Date:** 01/03/2018

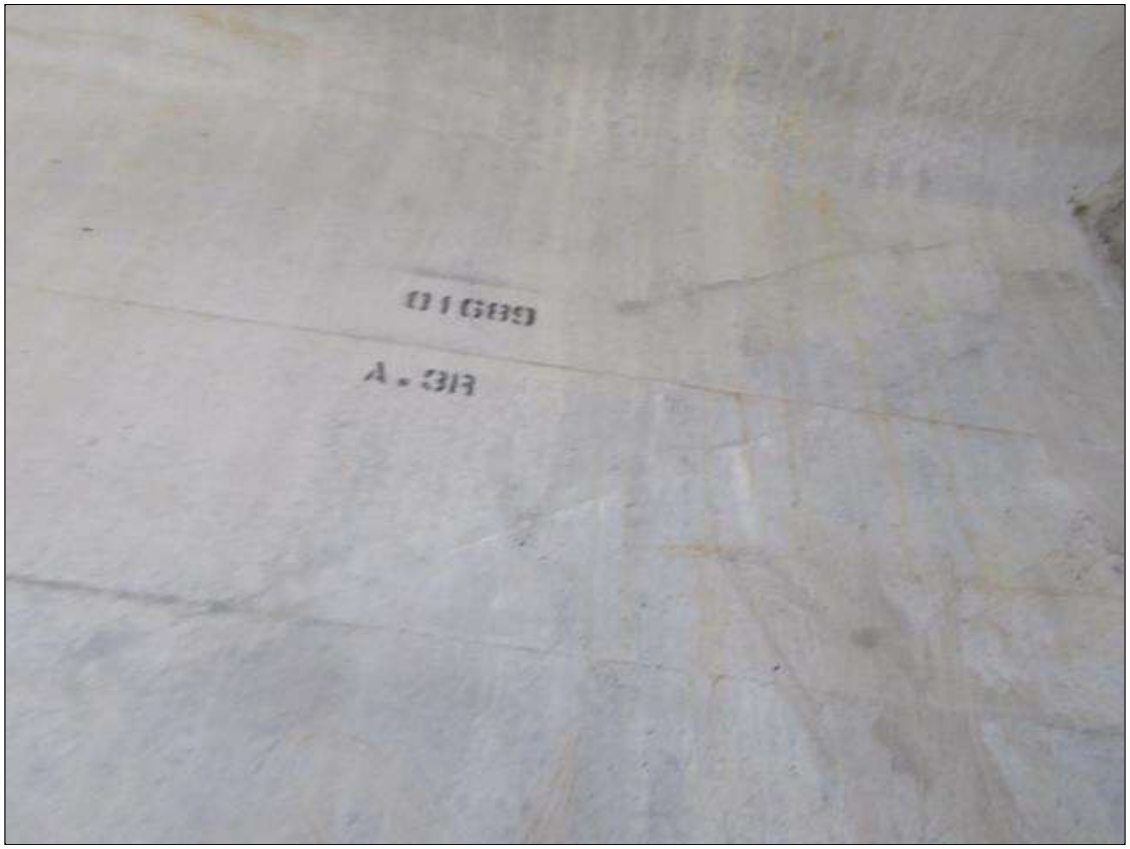
Item	Deck - Item 58	**Grade** 5	**Maint Code**	**Qty.** 0	
Details	CRACKING AT ENDS OF DECK IN BOTH SPANS.				

Item	Superstructure - Item 59	**Grade** 5	**Maint Code**	**Qty.** 0	
Details	HAIRLINE DIAGONAL SHEER CRACKING AT SEVERAL BEAM ENDS				

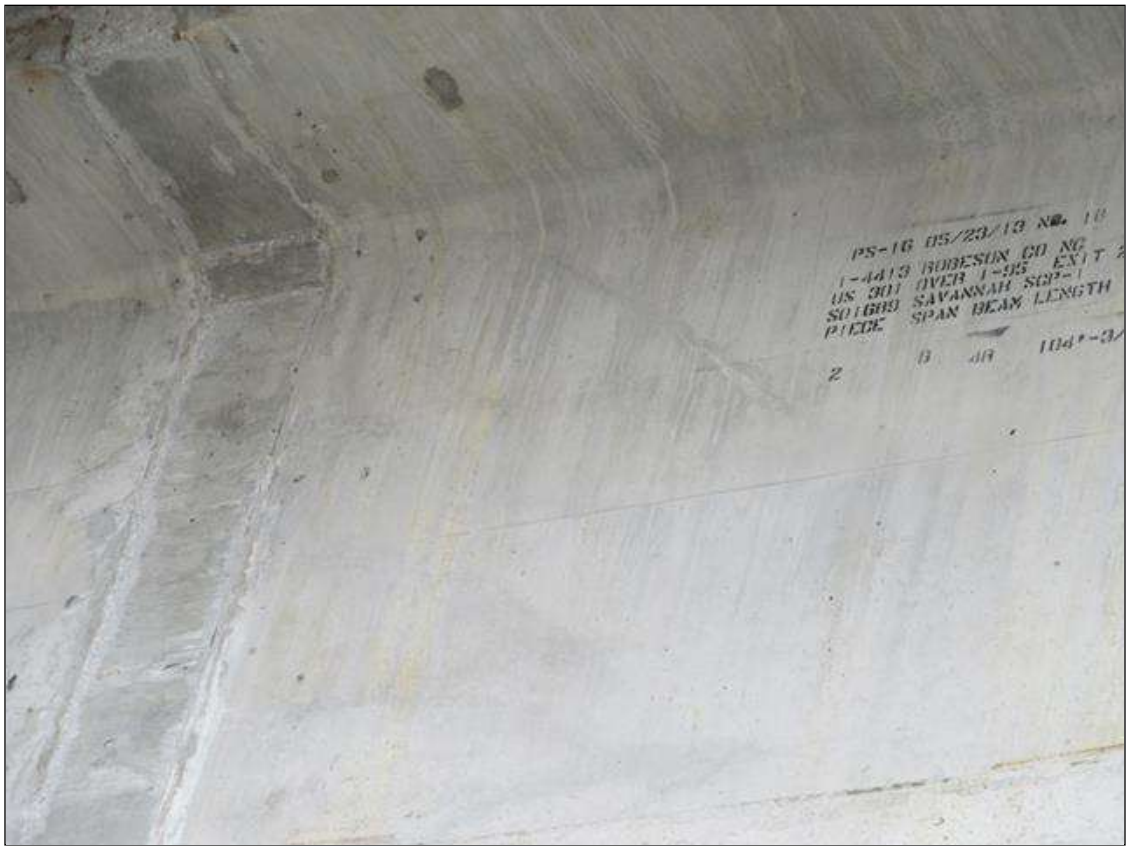
Item	General Comments and Misc Items	**Grade**	**Maint Code**	**Qty.** 0	
Details	FAIR GRADE FOR DECK CRACKING AND FOR HAIRLINE SHEER CRACKING IN SEVERAL BEAM ENDS.				

End Bent 1 Abutment/Backwall : 4' HIGH X HAIRLINE VERTICAL CRACK AT WEST END NEAR BEAM 1

Span 1 Beam 2: 2 - 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB BAY 1 SIDE AT NEAR END



Span 1 Beam 3: 2 - 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB BAY 2 SIDE AT NEAR END



Span 2 Beam 4: 1- 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB AT RIGHT SIDE AT NEAR END.

Span 2 Beam 4: 1 - 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB RIGHT SIDE AT FAR END

Span 2 Beam 4: 1- 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB BAY 3 SIDE AT FAR END

Span 2 Beam 3: 1- 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB BAY 2 SIDE AT FAR END

Span 2 Beam 2: 1- 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB BAY 2 SIDE AT FAR END

Span 2 Beam 1: 1- 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB BAY 1 SIDE AT FAR END

Span 2 Beam 1: 1- 2 ' LONG X HAIRLINE DIAGONAL SHEER CRACKING IN WEB LEFT SIDE AT FAR END

Approach 2: HAIRLINE LONGITUDINAL AND MAPCRACKING

Expansion Joint : DEBRIS IN JOINT

Span 2 Deck: HAIRLINE LONGITUDINAL CRACKING AT END BENT 2 END

Span 2 Left Bridge Rail: HAIRLINE TRANSVERSE AND VERTICAL CRACKS AT 8- 10 FT. SPACING

Span 1 Left Bridge Rail: HAIRLINE TRANSVERSE AND VERTICAL CRACKS AT 8- 10 FT. SPACING

Span 1 Deck: HAIRLINE LONGITUDINAL CRACKING AT END BENT 1 END

Expansion Joint : DEBRIS IN JOINT

Approach 1: HAIRLINE LONGITUDINAL AND MAP CRACKING

Span 1 Right Bridge Rail: HAIRLINE TRANSVERSE AND VERTICAL CRACK AT MID SPAN

Span 2 Right Bridge Rail: HAIRLINE TRANSVERSE AND VERTICAL CRACKS AT 8- 10 FT. SPACING

LOOKING EAST, NORTHBOUND LANE I 95 THRU SPAN 1

BENT 1

END BENT 1

END BENT 1 CLOSE UP

SPAN 1 BEAM 1 NEAR BEARING

EAST PROFILE

SPAN 1 SUP, SPAN 2 SIMILAR

LOOKING WEST, SOUTHBOUND LANE I 95 THRU SPAN 2

END BENT 2

EAST END OF BENT 1 CAP

SPAN 2 BEAM 1 NEAR BEARING

END BENT 2 CLOSE UP

WEST PROFILE

GUARDRAIL END TERMINAL

LOOKING NORTH, AT DIAMOND INTERCHANGE

GUARDRAIL POST SPACING AT MID PORTION

LOOKING SOUTH

GUARDRAIL POST SPACING AT BRIDGE

GUARDRAIL CONNECTION

EXTERIOR GUARDRAIL CONNECTION

SIMILAR RAIL / PARAPET CONNECTION

LOOKING NORTH, OFF BRIDGE

LOOKING SOUTH, OFF BRIDGE

LOOKING WEST, I 95 SOUTH

LOOKING EAST, I 95 NORTH

LOOKING NORTH, SOUTHBOUND LANE

NATIONAL BRIDGE INVENTORY-------- STRUCTURE INVENTORY AND APPRAISAL Run Date: 06/11/2018

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE **770036**
(8) STRUCTURE NUMBER(FEDERAL) 000000001550036
(5) INVENTORY ROUTE (ON/UNDER) - ON 21003010
(2) STATE HIGHWAY DEPARTMENT DISTRICT 1
(3) COUNTY CODE 155 (4) PLACE CODE 39700
(6) FEATURE INTERSECTED - I95
(7) FACILITY CARRIED US301 SBL
(9) LOCATION 0.5 MI. N. JCT. SR1005
(11)MILEPOINT 0
(16)LAT 34° 40' 12.12" (17)LONG 79° 0' 21.27"
(98)BORDER BRIDGE STATE CODE PCT SHARE
(99)BORDER BRIDGE STRUCTURE NO

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE MAIN: Prestressed Concrete Continuous
TYPE - Stringer Mutlibeam or Girder CODE 602
(44) STRUCTURE TYPE APPR :
TYPE - CODE 000
(45) NUMBER OF SPANS IN MAIN UNIT 2
(46) NUMBER OF APPROACH SPANS
(107)DECK STRUCTURE TYPE - 1 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 2015
(106)YEAR RECONSTRUCTED
(42) TYPE OF SERVICE : ON - Overpass - Interchange
UNDER - Highway CODE 61
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE 4
(29) AVERAGE DAILY TRAFFIC 4400
(30) YEAR OF ADT 2013 (109) TRUCK ADT PCT 6%
(19) BYPASS OR DETOUR LENGTH 0 MI

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 104 FT
(49) STRUCTURE LENGTH 216 FT
(50)CURB OR SIDEWALK: LEFT 0 FT RIGHT 0 FT
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 33.385 FT
(52) DECK WIDTH OUT TO OUT 36.583 FT
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 35 FT
(33) BRIDGE MEDIAN - No Median CODE 1
(34) SKEW 37° (35) STRUCTURE FLARED 0
(10) INVENTORY ROUTE MIN VERT CLEAR 999.9 FT
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 33.385 FT
(53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT
(54) MIN VERT UNDERCLEAR REF Highway 17.9 FT
(55) MIN LAT UNDERCLEAR RT REF Highway 37.7 FT
(56) MIN LAT UNDERCLEAR LT REF - 11.75 FT

NAVIGATION DATA

(38) NAVIGATION CONTROL - Not Applicable CODE N
(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 = 86
STATUS = Not Deficient

CLASSIFICATION — CODE

(112)NBIS BRIDGE SYSTEM - YES
(104)HIGHWAY SYSTEM Is not on NHS 0
(26) FUNCTIONAL CLASS - Minor Arterial 16
(100)STRAHNET HIGHWAY - Not a STRAHNET Route 0
(101)PARALLEL STRUCTURE - Right Parallel Structure R
(102)DIRECTION OF TRAFFIC - 1-way Traffic 1
(103)TEMPORARY STRUCTURE -
(110)DESIGNATED NATIONAL NETWORK - On the National Network 1
(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 5
(60) SUBSTRUCTURE 8
(61) CHANNEL & CHANNEL PROTECTION N
(62) CULVERTS N

LOAD RATING AND POSTING — CODE

(31) DESIGN LOAD HL 93 A
(63) OPERATING RATING METHOD - Load and Resistance Factor 3
(64) OPERATING RATING - HS-44 80
(65) INVENTORY RATING METHOD - Load and Resistance Factor 3
(66) INVENTORY RATING - HS-31 56
(70) BRIDGE POSTING - No Posting Required 5
(41) STRUCTURE OPEN, POSTED ,OR CLOSED A
DESCRIPTION - Open, No Restriction

APPRAISAL — CODE

(67) STRUCTURAL EVALUATION 5
(68) DECK GEOMETRY 4
(69) UNDERCLEARANCES,VERTI & HORIZ 6
(71) WATERWAY ADEQUACY N
(72) APPROACH ROADWAY ALIGNMENT 8
(36) TRAFFIC SAFETY FEATURES 1111
(113)SCOUR CRITICAL BRIDGES N

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 8800 (115) YEAR FUTURE ADT 2025

INSPECTIONS

(90) INSPECTION DATE 01/03/2018
(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

Structure No: 770036 County: ROBESON Run Date:

Span Number	Feature Intersected	Inventory Route	Minimum Maximum Vertical Clearance	Milepoint	Base Highway Network	LRS Inventory Route	Toll	Functional Classification	Numer of Lanes	Average Daily Traffic	Year of Average Daily Traffic	Total Horizontal Clearance	See Note 1					STRAHNET Highway Designator	Direction of Traffic	Highway System of Route
													Reference Feature	Minimum Vertical Underclearance	Right Lateral Underclearance	Left Lateral Underclearance	Underclearance Appraisal Grade			
	6	5	10	11	12	13	20	26	28	29	30	47	54A	54	55	56	69	100	102	104
1	I95N	11000950	18.8	21.60	1	10095		11	2	23500	2015	73.9	H	18.7	37.9	12	9	1	1	1
2	I95S	11000950	18.5	21.60	1	10095		11	2	23500	2015	73.45	H	17.9	37.7	11.75	9	1	1	1

Note 1: Items 54, 55, and 56 are not reported FHWA under route data points but are collected for each under route to determine the minimum value for Underclearance Appraisal Item 69. The under route that generates the lowest Underclearance Appraisal value will be reported on the Facility Carried record.

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE Run Date: 06/11/2018

COUNTY : ROBESON | DIVISION : 6 | DISTRICT: 1 | STRUCTURE NUMBER : 770036 | LENGTH : 216 FEET

ROUTE CARRIED : US301 SBL | FEATURE INTERSECTED : I95

LOCATED : 0.5 MI. N. JCT. SR1005 | BRIDGE NAME : | CITY : LUMBERTON

FUNC. CLASS : 16 | SYST.ON : FA | SYST.UNDER : NFA | ADT & YR : 4400 2013 | RAIL TYPE : LT 749 RT 749

BUILT : 2015 | BY : DOH | PROJ : 35901.2.1 | FED.AID PROJ : IMF-095-1(87)22 | DESIGN LOAD : HL 93

REHAB : | BY : | PROJ : | ALIGNMENT : TAN | SKEW : 53 | LANES : ON 2 UNDER 4

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

SUPERSTRUCTURE : RC DECK ON PRESTRESSED CONCRETE MODIFIED BULB TEES (CONTINUOUS), SIP FORMS, APPROACH SLABS

SUBSTRUCTURE : END BENTS:RC CAPS ON STEEL PILES; WITH MSE WALLS, INT. BENT:3 COLUMN, RC POST & BEAM, PILE FOOTINGS

SPANS : 2@107' 9" CONTINUOUS, COMPOSITE

BEAMS OR GIRDERS : 4 LINES OF 63" PRESTRESSED CONCRETE MODIFIED BULB TEES (CONTINUOUS) @ 9'-6" CENTERS

FLOOR : 8.25" RC, NO AWS | ENCROACHMENT : | DECK (OUT TO OUT) : 36.583 FT

CLEAR ROADWAY : 33.385 FT | BETWEEN RAILS : 33.385 FT | SIDEWALK OR CURB : LT 0 FT RT 0 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-31 | OPE.RTG. : HS-44 | CONTR.MEMBER : int beam | POSTED : SV | TTST | DATE 04/13/2011

SYSTEM : Primary U.S. Route | GREEN LINE ROUTE : Y

UNDER ROUTES AND CLEARANCES

		Vertical Clearances		Horizontal Clearances		
Span	**Route Description**	**MMVC**	**MVC**	**Total**	**Left**	**Right**
1	I95N	18.80	18.70	73.90	12	37.90
2	I95S	18.50	17.90	73.45	11.75	37.70

Note: All measurements are in feet.

REMARKS :

Bridge Inspection Field Sketch

US 301 , SBL

MEASURED AT 20 FT. NORTH OF STRUCTURE

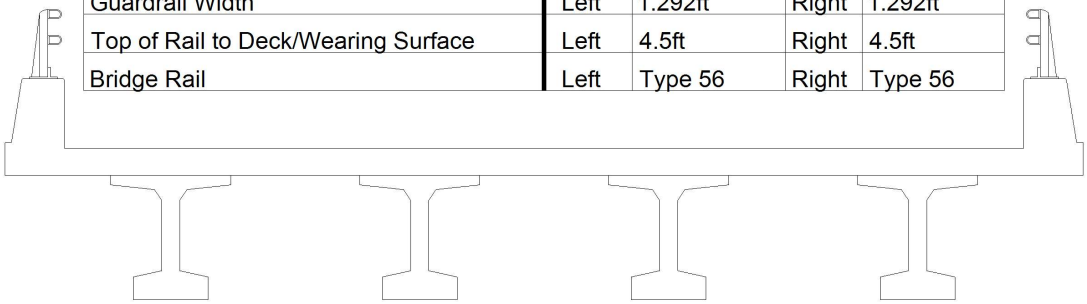
Roadway	31ft Wide	2 Paved Lanes	Looking South
Left Shoulder	2ft Wide	2ft Paved	
Right Shoulder	2ft Wide	2ft Paved	
Left Guardrail	2ft from road		
Right Guardrail	2ft from road		

MEASUREMENTS VERIFIED BY DLK 1/3/18

Title	**Description**		
APPROACH ROADWAY	LOOKING SOUTH		
Bridge No: 770036	**Drawn By:** JMS	**Date:** 11/30/2015	**File Name:** S0494000131

Bridge Inspection Field Sketch

Deck Width/Out to Out	36.583ft	Between Rails				34ft
Clear Roadway	33.385ft	Wearing Surface				
Median Width		Median Height				
Curb Height		Left		Right		
Sidewalk Width		Left		Right		
Clear Roadway (Rail to Median)		Left		Right		
Guardrail Width		Left	1.292ft	Right	1.292ft	
Top of Rail to Deck/Wearing Surface		Left	4.5ft	Right	4.5ft	
Bridge Rail		Left	Type 56	Right	Type 56	



Measurements for Span #	1	SPAN 2 SIMILAR	
Deck Thickness	0.917	Left Overhang	4.042
Top of Rail to Bottom of Beam	10.25	Right Overhang	4.042

Beam Number	Beam Type	Spacing	Comments
1	Concrete Bulb Tee	9.5ft	63" Modified Bulb Tees
2	Concrete Bulb Tee	9.5ft	
3	Concrete Bulb Tee	9.5ft	
4	Concrete Bulb Tee	ft	

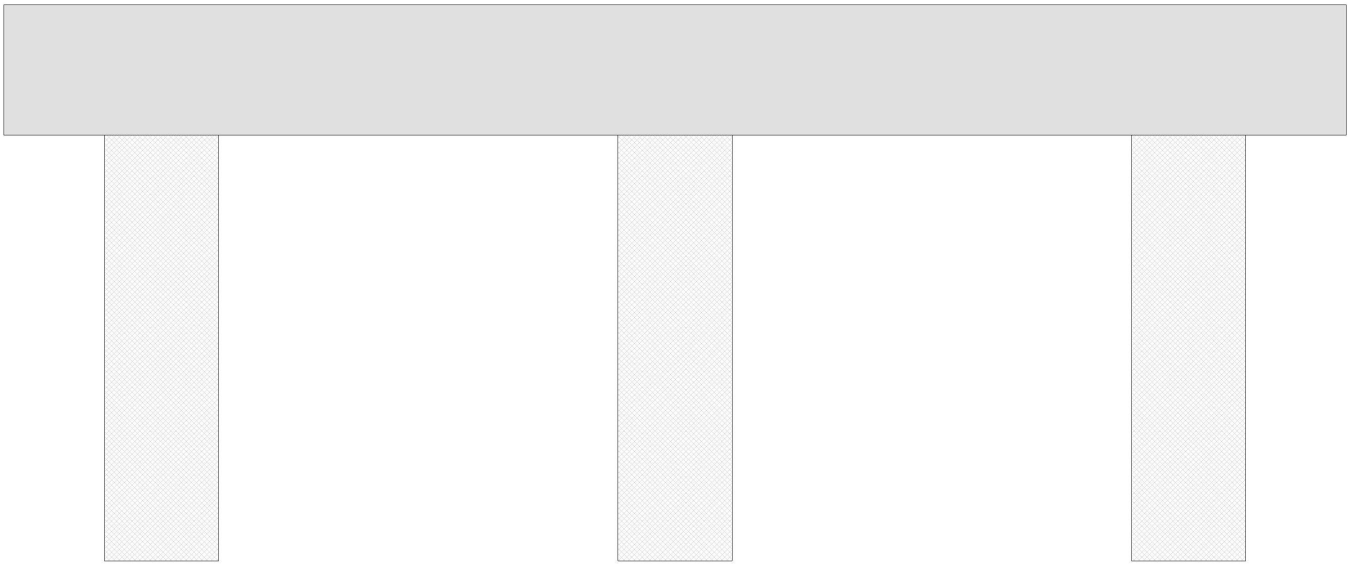
MEASUREMENTS VERIFIED BY RLK 1/3/18

INTERMEDIATE DIAPHRAGMS AT 1/3 AND 2/3 POINTS IN BOTH SPANS

Title	**Description**
TYPICAL SECTION	LOOKING NORTH

Bridge No:	**Drawn By:**	**Date:**	**File Name:**
770036	JMS	11/30/2015	S0494000132

Bridge Inspection Field Sketch



Cap Information			Material Cast-in-Place Concrete			
Length	Width	Height	Left Overhang	Right Overhang	Left Beam to End of Cap.	Right Beam to End of Cap.
41.167 ft.	4.667 ft.	4.000 ft.	4.833 ft.	4.833 ft.	2.786 ft.	2.786 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	Concrete	15.75 ft.	3.5 ft.			Vertical	No	No	No	No
2	Concrete	15.75 ft.	3.5 ft.			Vertical	No	No	No	No
3	Concrete		3.5 ft.			Vertical	No	No	No	No

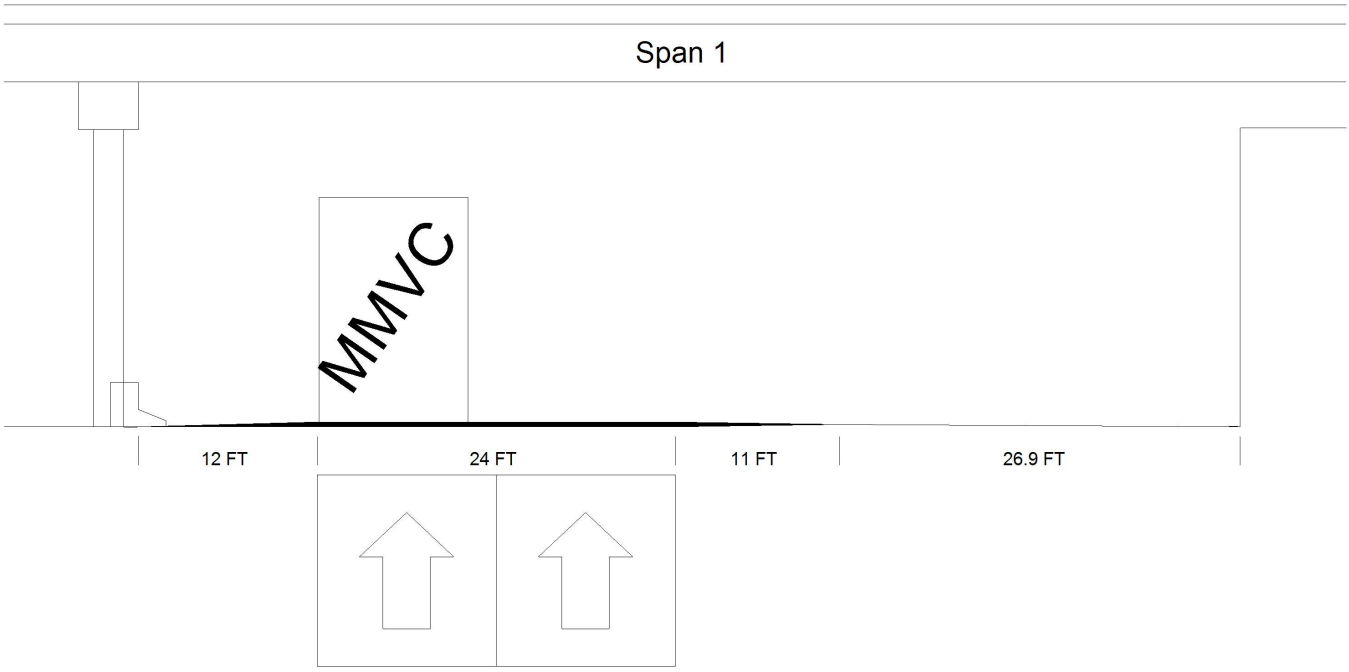
MEASUREMENTS VERIFIED BY DLK 1/3/18

Bent/Abutment #: 1 Similar Bents:

Title	**Description**
BENT	LOOKING NORTH

Bridge No: 770036	**Drawn By:** JMS	**Date:** 11/30/2015	**File Name:** S0494000133

Bridge Inspection Field Sketch

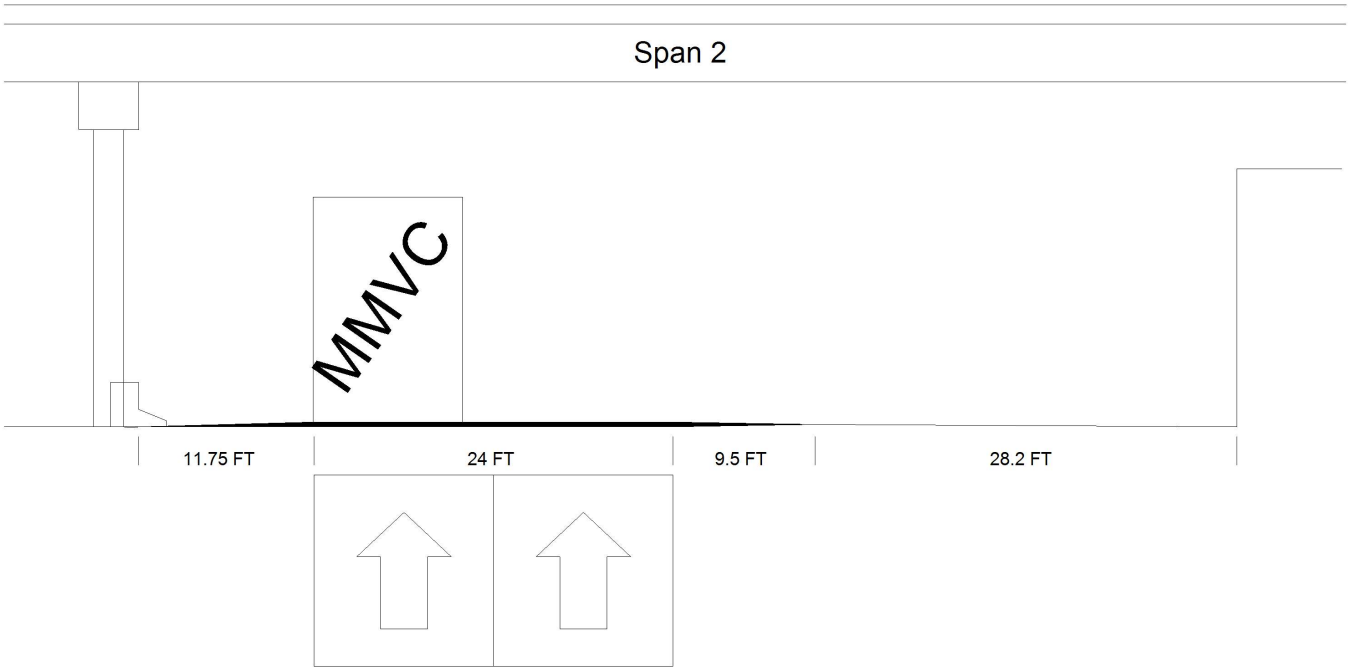


Roadway 1		Direction of Traffic	East
Distance to Left Rail	12FT	Distance to Right Rail	
Distance to Left Toe of Slope		Distance to Left Bent	13FT
Distance to Right Toe of Slope		Distance to Right Bent	37.9FT
MMVC	18.8 Ft at Beam 4, 10 FT from RIGHT EDGE OF ROADWAY		
MVC	18.7 Ft at Beam 4, 0 FT from LEFT EDGE OF ROADWAY		

MEASUREMENTS VERIFIED BY RLK 1/3/18

Title	**Description**		
VERTICAL CLEARANCE (SPAN 1)	LOOKING EAST		
Bridge No: 770036	**Drawn By:** JMS	**Date:** 12/4/2015	**File Name:** S0494000134

Bridge Inspection Field Sketch



Roadway 1		Direction of Traffic	West
Distance to Left Rail	11.75FT	Distance to Right Rail	
Distance to Left Toe of Slope		Distance to Left Bent	12.75FT
Distance to Right Toe of Slope		Distance to Right Bent	37.7FT
MMVC	18.5 Ft at Beam 4, 10 FT from LEFT EDGE OF ROADWAY		
MVC	17.9 Ft at Beam 4, 0 FT from RIGHT EDGE OF ROADWAY		

MEASUREMENTS VERIFIED BY RLK 1/3/18

Title	**Description**		
VERTICAL CLEARANCE (SPAN 2)	LOOKING WEST		
Bridge No: 770036	**Drawn By:** JMS	**Date:** 12/4/2015	**File Name:** S0494000135