SCDOT BRIDGE INSPECTION FORM

(008) BRIDGE ID:	4010002640372	(005) ROUTE:	RICHLAND I-26
(420) ASSET NO:	2824	(006) CROSSING:	I-126
(419) RAMP NO:	7951	(009) LOCATION:	3 MI NW OF COLUMBIA
(026) FUNCTIONAL CLASS:	11	(016) LAT: 34d 1m 40.52s	(017) LON: 81d 6m 4.54s

GENERAL BRIDGE DATA

	EXISTING	REVISED
(027) Year Built	1958	
(106) Year Recon	1987	
(031) Design Load	5	
(36A) Railings	1	
(36B) Transitions	1	
(36C) Appr Guard	1	
(36D) Appr Guard End	1	
(037) History	5	
(319) Last Paint Date		

	EXISTING			REVISED
(042) Type Serv; On(A) Und(B)	1		1	
(028) Lanes; On(A) Und(B)	2		7	
(107) Deck Struct		1		
(108) Wear Surf/Membrane/Prot	6	8	8	
	MAT-SUP-SUB			MAT-SUP-SUB
(043) Main Original (A)	5	2	1	
Main Reconst (B)	5	02	1	
(044) Appr Orginal (A)	0	00	0	
Appr Reconst (B)	0	00	0	

GEOMETRIC DATA

	EXISTING	REVISED
(032) Appr Rdway	40	
(033) Bridge Median	0	
(034) Skew	40	
(035) Flared	0	
(045) # Main Spans	6	
(046) # Appr Spans	0	
(048) Max Span Lgth	65	
(308) Appr Span Lgth	0	
(049) Struct Length	363	
(47A) Horz Clear Right	40	
(47B) Horz Clear Left	0	
(47UA) Horz Clear Right	50	
(47UB) Horz Clear Left	50	
(50B) Sidewalk Right	0	
(50A) Sidewalk Left	0	
(051) Curb to Curb	40	
(052) Deck Out-Out	46	

	EXISTING		REVISED	
	FT	IN	FT	IN
(053) Vert Clr Above Deck	99	99		
(54A) Vert Clear Ref	H			
(54B) Vert Clear Right	16	7		
(54C) Vert Clear Left	17	4		
(10A) Great Min Clr Over/Und	99	99		
(10B) Great Min Right	16	9		
(10C) Great Min Left	17	6		
(55A) Lat Clear Ref	H			
(55B) Lat Clear Right	10			
(55C) Lat Clear Left	4			
(038) Navigation Cont	N			
(039) Nav Vert Clear	0			
(040) Nav Horz Clear	0			
(111) Nav Pier Port				

RATINGS DATA

	EXISTING	REVISED
(58) Deck	7	
(59) Super Str	6	
(60) Sub Str	6	
(061) Channel	N	
(062) Culv Ret	N	
(071) Water Adeq	N	
(072) Appr Rdway	8	
(113) Scour Critical	N	
(067) Structure	6	
(068) Deck Geom	5	
(069) Underclear	4	
(070) Bridge Post	5	

	EXISTING	REVISED
(041) Traffic Status	A	
(063) Rating Method	1	
(064) Operating Method	79	
(065) Rating Method	1	
(066) Inventory Rating	62	
(411) Date Rated		
(418) Conditions During Rating		

	Freq	Mth/Year	Freq	Mth/Year
(091, 090) Routine Insp	24	12/2017	24	12/2019
(92A, 93A) Fracture Critical	N			
(92B, 93B) Underwater Insp	N			
(92C, 93C) Special Insp	N			

Inspection Leader:	BOZARD JAMES B	Reviewed By:	POINTER WILLIAM D
Date:		Date:	12/17/2019

Bridge Element Group Textual Data

Bridge ID: 40-1-00026-4-03-72

17 Dec 2019

Abutments and/or Headwalls:

Hairline cracks with efflorescence in headwalls. Minor erosion on slope protection West end. Moderate erosion under slope protection, bent 1, left side, (see photo).

Bents and/or Piers:

Bridge was raised approx. 2' in 1987, efflorescence bleeding through construction joints on all caps. The raised section of caps, bents 4-6 have numerous vertical and longitudinal hairline cracks both sides near bearing area. Hairline map cracking on end section of original caps. Hairline cracks, several with efflorescence in caps, (see sketch sheet). Minor spall in column, (see sketch sheet).

Bearings:

Several anchor bolt nuts loose, (see sketch sheet). Moderate/heavy corrosion on bearings with section loss, (see photo), bearings appear to be frozen in place.

Girders/Floor Beams/Stringers and/or Beams:

Hairline cracks and minor/moderate spalls, one with rust on ends of beams in filler area and at bearing area, (see sketch sheet, photo).

Truss Members:

Expansion Joints:

Backer material being squeezed out of joints with some laying on caps. Joints covered with asphalt overlay.

Decks and/or Slabs:

Asphalt overlay, approximately 2" on deck and cracked at joints. Transverse hairline cracks several with efflorescence and minor spalls, several with rust on underside of deck, center section between beams 4 and 5 all spans. Minor spalls, several with rust on underside of deck at soffit.

Curbs:

Bridge Railing/Parapets and/or Median Barriers:

Bridge and approach rail in place. Hairline cracks, several with efflorescence in parapet walls. Guardrail at bents 3 and 6, continuous concrete median barrier at bents 3, 4, and 5 on I-126, with a crash continuator at bent 4 on I-126, EBL.

Paint Systems:

Waterway and Scour:

Fender System:

Roadway Alignment:

Traffic Signs:

2ea bridge end signs in place on I-26. 2ea bridge end signs in place on I-126. Clearance sign of 16'7" above EBL of I-126, installed on structure #4010002640300. Clearance sign of 17'4" above WBL of I-126 in place.

Encroachments:

1-1" and 1-3" metal pipe left side, attached to underside of deck.
1-1" metal pipe and street light attached to bent 3, 4, and 6, East side.
1-1" metal pipe attached to beam 4 span 5, street light attached to bent 5, East side.
1-2" metal and 2-1" plastic pipes under span 1 attached to bottom of beams.

Miscellaneous Notes:

I-26 WBL Ramp to Bush River Rd X-I-126 M/M 107.8.

Bridge Element Level Data

17 Dec 2019

					Quantity in Each Condition State				
Element No	**Element Name/Description**	**Units**	**Env**	**Defect**	**1**	**2**	**3**	**4**	**Total Qty**
109	Prestressed Concrete Open Girder/Beam	feet	4	Yes					
109	Delamination/Spall/Patched Area	feet	4	1080	0	130	0	0	130
109	Exposed Prestressing	feet	4	1100	0	16	0	0	16
109	Cracking (PSC)	feet	4	1110	0	130	0	0	130
109	Prestressed Concrete Open Girder/Beam	feet	4	Yes	2265	276	0	0	2541
12	Reinforced Concrete Deck	sq feet	4	Yes					
12	Delamination/Spall/Patched Area	sq feet	4	1080	0	5	0	0	5
12	Exposed Rebar	sq feet	4	1090	0	6	0	0	6
12	Efflorescence/Rust Staining	sq feet	4	1120	0	128	0	0	128
12	Cracking (RC and Other)	sq feet	4	1130	48	0	0	0	48
12	Reinforced Concrete Deck	sq feet	4	Yes	16559	139	0	0	16698
205	Reinforced Concrete Column	each	4	Yes					
205	Exposed Rebar	each	4	1090	0	1	0	0	1
205	Reinforced Concrete Column	each	4	Yes	14	1	0	0	15
234	Reinforced Concrete Pier Cap	feet	4	Yes					
234	Efflorescence/Rust Staining	feet	4	1120	0	33	0	0	33
234	Cracking (RC and Other)	feet	4	1130	73	0	0	0	73
234	Reinforced Concrete Pier Cap	feet	4	Yes	387	33	0	0	420
310	Elastormeric Bearing	each	3	No	28	0	0	0	28
311	Movable Bearing	each	3	Yes					
311	Corrosion	each	3	1000	0	13	15	0	28
311	Movable Bearing	each	3	Yes	0	13	15	0	28
313	Fixed Bearing	each	3	Yes					
313	Corrosion	each	3	1000	0	16	12	0	28
313	Fixed Bearing	each	3	Yes	0	16	12	0	28
331	Reinforced Concrete Bridge Railing	feet	2	Yes					
331	Delamination/Spall/Patched Area	feet	2	1080	0	1	0	0	1
331	Efflorescence/Rust Staining	feet	2	1120	0	14	0	0	14
331	Cracking (RC and Other)	feet	2	1130	64	0	0	0	64
331	Reinforced Concrete Bridge Railing	feet	2	Yes	711	15	0	0	726

Sketch Sheet

DATE **5 Dec 2019**

STRUCTURE NUMBER **4010002640372** ROAD NUMBER **I-26**
COUNTY **Richland** CROSSING **I-126**
RESTRICTION _____

Beams
(see photo)

Beam 1, bent 3, span 3 has a 6” long. h/l crack bottom at bearing area.
Beam 2, bent 3, span 3 has a 6” long. h/l crack bottom at bearing area.
Beam 3, bent 3, span 3 has a minor spall bottom at bearing area, 6”x6”.
Beam 4, bent 3, span 3 has a minor spall bottom at bearing area, 6”x6”.
Beam 7, bent 3, span 3 has a 6” long. h/l crack bottom at bearing area.
Beam 2, bent 4, span 3 has a minor spall bottom at bearing area, 6”x6”.
Beam 3, bent 4, span 3 has a minor spall bottom at bearing area, 6”x6”.
Beam 4, bent 4, span 3 has a minor spall bottom at bearing area, 6”x6”.
Beam 5, bent 4, span 3 has a minor spall bottom at bearing area, 6”x6”.
Beam 6, bent 4, span 3 has a moderate spall w/rust bottom at bearing area, 1’x1’.
Beam 7, bent 4, span 3 has a minor spall bottom at bearing area, 6”x6”.
Beam 3, bent 5, span 5 has a 6” long. h/l crack bottom at bearing area.
Beam 5, bent 5, span 5 has a 6” long. h/l crack bottom at bearing area.
Beam 6, bent 5, span 5 has a 6” long. h/l crack bottom at bearing area.
Beam 2, bent 6, span 6 has a 6” long. h/l crack bottom at bearing area.
Beam 3, bent 6, span 6 has a 6” long. h/l crack bottom at bearing area.
Beam 4, bent 6, span 6 has a minor spall bottom at bearing area, 6”x6”.

Sketch Sheet

DATE **5 Dec 2019**

STRUCTURE NUMBER **4010002640372** ROAD NUMBER **I-26**
COUNTY **Richland** CROSSING **I-126**
RESTRICTION _____

Loose Anchor Bolt Nuts

Beam	Bent	Span	
2	5	4	Left side
5	5	5	Right side
6	5	5	Right side
6	6	6	Left side

Sketch Sheet

DATE **5 Dec 2019**

STRUCTURE NUMBER **4010002640372** ROAD NUMBER **I-26**
COUNTY **Richland** CROSSING **I-126**
RESTRICTION _____

Caps

Cap bent 1 has a:

6' long. h/l crack under beam 4.
5' long. h/l crack under beam 5.
3' long. h/l crack between beams 5 & 6.
5' long h/l crack under beams 6 & 7.

Cap bent 2 has:

5ea 2' trans. h/l cracks w/eff. bottom between columns 2 & 3.
2' vert. h/l crack w/eff. between beams 4 & 5, East side.

Cap bent 3 has:

6ea 2' trans. h/l cracks bottom between columns 1 & 2.
8ea 2' trans. h/l cracks bottom between columns 2 & 3.
1' vert. h/l crack under beam 2, West side.
1' vert. h/l crack under beam 3, West side.
2' vert. h/l crack under beam 6, East side.

Cap bent 4 has a:

1' vert. h/l crack between columns 1 & 2, East side.
2' vert. h/l crack under beam 2, West side.
10' long. h/l crack w/eff. between beams 3 & 4, West side.
3' long. h/l crack w/eff. under beam 7, East side.
2' vert. h/l crack under beam 7, East side.

Cap bent 5 has a:

3' vert. h/l crack between beams 1 & 2, East side.
1' long. h/l crack bottom between columns 1 & 2, East side.
3' long. h/l crack under beam 3, both sides.
2' vert. h/l crack under beam 7, East side.

Cap bent 6 has a:

1' vert. h/l crack under beam 2, both sides.
3' long. h/l crack w/eff. under beam 3, both sides.
1' vert. h/l crack under beam 3, both sides.
3' long. h/l crack w/eff. under beam 4, both sides.
2ea 1' vert. h/l cracks w/eff. under beam 5, East side.
3' vert. h/l crack under beam 5, East side.
1' vert. h/l crack under beam 5, West side.
1' vert. h/l crack under beam 7, East side.
2ea 1' vert. h/l crack at end of cap, right side.

Cap bent 7 has a:

1' long. h/l crack between beams 3 & 4.
1' long. h/l crack w/rust between beams 5 & 6.

Sketch Sheet

DATE **5 Dec 2019**

STRUCTURE NUMBER **4010002640372** ROAD NUMBER **I-26**
COUNTY **Richland** CROSSING **I-126**
RESTRICTION _____

Columns

Bent 2, column 2 has a minor spall w/rust at ground-line, West side, 3”x3”.

5 Dec 2019: Top view of bridge from East approach. (3)

5 Dec 2019: Top view of bridge from West approach. (18)

5 Dec 2019: View of North from bridge. (20)

5 Dec 2019: View of South from bridge. (5)

5 Dec 2019: View of left elevation of bridge. (1)

5 Dec 2019: View of right elevation of bridge. (15)

5 Dec 2019: View of super/sub structure of bridge. (27)

5 Dec 2019: Beam 6, bent 4, span 3 has a moderate spall w/rust bottom at bearing area. (11)

5 Dec 2019: Heavy corrosion on bearings, appear frozen in place, typical. (24)

5 Dec 2019: Moderate erosion under slope protection at bent 1, left side. (25)

5 Dec 2019: Clearance sign in place above WBL of I-126. (7)

5 Dec 2019: Clearance sign in place above EBL of I-126 on structure #4010002640300. (2)

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
HIGHWAY MAINTENANCE MANAGEMENT SYSTEM

Bridge Deficiency Report

District	Work County	Type	Route	Aux	Off Sys	Asset ID	Priority	Activity	Status	Work Inspection From Date	Work Inspection To Date
1	**RICHLAND**	**I**	**26**			**2824**	**C**		**INCOMPLETE**		

District: **1 - ONE**

Work County: **RICHLAND**

Structure	Type	Route	Aux	Milepoint	Direction	Off System Description
2824 - 10002640372-I-126	**I**	**26**	**00**	**107.96**	**E**	

Insp.Date	Activity	Priority	Comp.Date	Org.Unit	Work Insp.Date	Cleared	Name Of Inspector
12/05/2019	**806**	**C**				**N**	

Deficiency Comment

(310,311,313) TIGHTEN LOOSE NUTS ON ANCHOR BOLTS, (SEE SKETCH SHEET).
(311'313) REMOVE RUST AND REPAINT BEARINGS, (SEE PHOTO).

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
HIGHWAY MAINTENANCE MANAGEMENT SYSTEM

Bridge Deficiency Report

District	Work County	Type	Route	Aux	Off Sys	Asset ID	Priority	Activity	Status	Work Inspection From Date	Work Inspection To Date
1	**RICHLAND**	**I**	**26**			**2824**	**D**		**INCOMPLETE**		

District: **1 - ONE**

Work County: **RICHLAND**

2824 - 10002640372-I-126 **I** **26** **00** **107.96** **E**

01/04/2012 **202** **D** **N**

REPAIR EROSION UNDER SLOPE PROTECTION WEST END, (SEE PHOTO).

2824 - 10002640372-I-126 **I** **26** **00** **107.96** **E**

02/04/2004 **803** **D** **N**

(110) PATCH SPALLS ON BEAMS, (SEE SKETCH SHEET, PHOTO).