

SCDOT BRIDGE INSPECTION FORM

(008) BRIDGE ID: 3210002000500			(005) ROUTE: LEXINGTON I-20		
(420) ASSET NO: 4366			(006) CROSSING: RR CN&L		
(419) RAMP NO:			(009) LOCATION: 5MI NW OF COLUMBIA		
(026) FUNCTIONAL CLASS: 11			(016) LAT: 34d 1m 40s (017) LON: 81d 7m 34s		
GENERAL BRIDGE DATA					
EXISTING REVISED			EXISTING REVISED		
(027) Year Built	1964		(042) Type Serv; On(A) Und(B)	1	2
(106) Year Recon	1991		(028) Lanes; On(A) Und(B)	6	0
(031) Design Load	6		(107) Deck Struct	1	
(36A) Railings	0		(108) Wear Surf/Membrane/Prot	1 8 8	0 0
(36B) Transitions	1			MAT-SUP-SUB	MAT-SUP-SUB
(36C) Appr Guard	1		(043) Main Original (A)	5 2 1	
(36D) Appr Guard End	1		Main Reconst (B)	5 02 1	
(037) History	5		(044) Appr Orginal (A)	0 00 0	
(319) Last Paint Date			Appr Reconst (B)	0 00 0	
GEOMETRIC DATA					
EXISTING REVISED			EXISTING REVISED		
(032) Appr Rdway	102			FT IN	FT IN
(033) Bridge Median	3		(053) Vert Clr Above Deck	99 99	
(034) Skew	28		(54A) Vert Clear Ref	R	
(035) Flared	0		(54B) Vert Clear Right	21 0	
(045) # Main Spans	3		(54C) Vert Clear Left	0 0	
(046) # Appr Spans	0		(10A) Great Min Clr Over/Und	99 99	
(048) Max Span Lgth	59	58	(10B) Great Min Right	21 0	
(308) Appr Span Lgth	0		(10C) Great Min Left	0 0	
(049) Struct Length	176	174			
(47A) Horz Clear Right	51.40	50.75	(55A) Lat Clear Ref	R	
(47B) Horz Clear Left	51.40	50.75	(55B) Lat Clear Right	19	16
(47UA) Horz Clear Right	40		(056) Lat Clear Left	0	
(47UB) Horz Clear Left	0				
(50B) Sidewalk Right	0		(038) Navigation Cont	N	
(50A) Sidewalk Left	0		(039) Nav Vert Clear	0	
(051) Curb to Curb	102.80		(040) Nav Horz Clear	0	
(052) Deck Out-Out	108	109.60	(111) Nav Pier Port		
RATINGS DATA					
EXISTING REVISED			EXISTING REVISED		
(58) Deck	7	6	(041) Traffic Status	A	
(59) Super Str	7	6	(063) Rating Method	8	
(60) Sub Str	7		(064) Operating Method	1.57	
(061) Channel	N		(065) Rating Method	8	
(062) Culv Ret	N		(066) Inventory Rating	1.01	
(071) Water Adeq	N		(411) Date Rated	02/2020	
(072) Appr Rdway	7		(418) Conditions During Rating	7 7 7	
(113) Scour Critical	N			Freq Mth/Year	Freq Mth/Year
(067) Structure	7		(091, 090) Routine Insp	24 11/2019	24 11/2021
(068) Deck Geom	9		(92A, 93A) Fracture Critical	N	
(069) Underclear	5		(92B, 93B) Underwater Insp	N	
(070) Bridge Post	5		(92C, 93C) Special Insp	N	
Inspection Leader: DOUGLAS MCLENDON, COLLINS ENG			Reviewed By: KEVIN VELLO, COLLINS ENG		
Date:			Date: 2/16/2022		

Bridge Element Group Textual Data

Bridge ID: 32-1-00020-0-05-00

16 Feb 2022

Abutments and/or Headwalls:

Reinforced concrete abutments in place at both ends. Hairline cracks with efflorescence in headwalls and wide cracking at construction joints from widening.

Bents and/or Piers:

3 separate reinforced concrete caps, two original per bent and one new, at each interior bent due to widening. Original caps are 4' x 3.5' x 44' long, new caps are 4' x 3.5' x 31.5' long. Original caps are supported by (3) 3' diameter concrete columns and the new caps are supported by (2) 3' diameter concrete columns. Hairline cracks and minor spalls, several with exposed rebar in caps and columns, (see sketch sheet).

Bearings:

Several anchor bolt nuts are loose/missing, (see sketch sheet). Minor corrosion on bearings in headwalls.

Girders/Floor Beams/Stringers and/or Beams:

(16) prestressed AASHTO type III concrete beams per span. Hairline cracks with efflorescence and minor spalls, several with exposed reinforcing in diaphragms. Spalls up to 6"x6" and hairline to 1/4" cracks/impending spalls at end of beams behind bearings in filler area.

Truss Members:

N/A

Expansion Joints:

Expansion material at pourable joints are cracked, split, torn and pulling loose.

Decks and/or Slabs:

Reinforced concrete deck. Hairline to 1/16" transverse, diagonal, and map cracking on deck. Spalling noted in approach slab at joint 1. 2' diameter by 3" deep.

Curbs:

N/A

Bridge Railing/Parapets and/or Median Barriers:

Bridge and approach rail in place. Hairline cracks with efflorescence in parapet walls. Parapet wall surface concrete spalled due to collision damage, approximately 50' section, left side, WBL. Concrete median barrier center of structure separating traffic lanes on I-20. Minor collision damage to approach rail, EBL, West end, right side with traffic.

Paint Systems:

N/A

Waterway and Scour:

N/A

Fender System:

N/A

Roadway Alignment:

Lid from approach slope drain is missing, West end, left side, (see photo). Moderate spalls in asphalt approach EBL of I-20, East end, patched and very rough, (see photo). Minor spall in approach slab, WBL, West end, (see photo).

Traffic Signs:

2ea bridge end signs in place.

Encroachments:

1-2" metal pipe left side attached to parapet wall.

Miscellaneous Notes:

I-20 M/M 63.

Labeling diagram orientation is the same direction as the historic orientation of the bridge W-E.

Bridge Asset ID is located on the SW corner of the bridge.

Bridge Inspected on 11/17/2021. Sunny 78°.

BITL: Douglas McLendon PE, Collins Engineers, Inc.

Assistant(s): Mikayla Young

Vertical Clearance RR (54B)

-22'-4"

Lateral Clearance Right (55B)

-Rail to Bent 2 : 16'-1"

-Rail to Bent 3 : 27'-2"

Bridge Element Level Data

16 Feb 2022

Element No	Element Name/Description	Units	Env	Defect	Quantity in Each Condition State				Total Qty
					<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	
109	Prestressed Concrete Open Girder/Beam	feet	4	Yes					
109	Delamination/Spall/Patched Area	feet	4	1080	0	0	32	0	32
109	Prestressed Concrete Open Girder/Beam	feet	4	Yes	2752	0	32	0	2784
12	Reinforced Concrete Deck	sq feet	4	Yes					
12	Cracking (RC and Other)	sq feet	4	1130	0	8553	951	0	9504
12	Reinforced Concrete Deck	sq feet	4	Yes	9566	8553	951	0	19070
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	15	1	0	0	16
215	Reinforced Concrete Abutment	feet	3	Yes					
215	Cracking (RC and Other)	feet	3	1130	0	0	4	0	4
215	Reinforced Concrete Abutment	feet	3	Yes	238	0	4	0	242
234	Reinforced Concrete Pier Cap	feet	4	Yes					
234	Delamination/Spall/Patched Area	feet	4	1080	0	1	0	0	1
234	Exposed Rebar	feet	4	1090	0	0	5	0	5
234	Efflorescence/Rust Staining	feet	4	1120	0	1	0	0	1
234	Cracking (RC and Other)	feet	4	1130	6	0	0	0	6
234	Reinforced Concrete Pier Cap	feet	4	Yes	231	2	5	0	238
301	Pourable Joint Seal	feet	3	Yes					
301	Seal Damage	feet	3	2330	0	10	98	162	270
301	Pourable Joint Seal	feet	3	Yes	196	10	98	162	466
310	Elastomeric Bearing	each	3	Yes					
310	Connection	each	3	1020	0	8	0	0	8
310	Elastomeric Bearing	each	3	Yes	56	8	0	0	64
313	Fixed Bearing	each	3	Yes					
313	Corrosion	each	3	1000	0	20	0	0	20
313	Connection	each	3	1020	0	1	0	0	1
313	Fixed Bearing	each	3	Yes	11	21	0	0	32
321	Reinforced Concrete Approach Slab	sq feet	2	Yes					
321	Delamination/Spall/Patched Area	sq feet	2	1080	0	2	0	0	2
321	Cracking (RC and Other)	sq feet	2	1130	1480	0	0	0	1480

321	Reinforced Concrete Approach Slab	sq feet	2	Yes	6118	2	0	0	6120
331	Reinforced Concrete Bridge Railing	feet	2	Yes					
331	Delamination/Spall/Patched Area	feet	2	1080	0	0	50	0	50
331	Efflorescence/Rust Staining	feet	2	1120	0	174	0	0	174
331	Cracking (RC and Other)	feet	2	1130	20	0	0	0	20
331	Reinforced Concrete Bridge Railing	feet	2	Yes	298	174	50	0	522