APPENDIX J

Appendix/Attachment Title

Supplemental Guide for Structure Inventory and Appraisal (SI&A) Data

Appendix/Attachment Revision and Year:

Version 1.0, 2020

Appendix/Attachment Introduction and Discussion

For use by the BITL when completing the inspection report. This supplemental coding guide shall be used as a shortcut for the *Recording and Coding Guide for the SI&A of the Nation's Bridges*.

Appendix/Attachment Description

Items marked with magenta shaded boxes indicate the data is controlled by the SCDOT Office of Road Data Services and a change to this data must be formally requested per Section 5.4.7 of the BIGD. NBI Items 06 and 07 shall be coded in accordance with Appendix M of the BIGD.

Items marked with yellow shaded boxes indicate the data which is updated by the BITL.

Items marked with purple shaded boxes indicate the scour assessment data which shall be reviewed by the BITL **prior** to the inspection or **during** the inspection. Scour consultants or SCDOT HQ will update this field. BITLs shall verify accuracy of NBI Item 113 as required in Section 5.3.4.3. Per Section 5.3.4.3, if the purple shaded boxes require revision, the Bridge Scour - Item 113 Re-evaluation Form shall be filled out and submitted to the BIPM; see Attachment 4.2.

Items marked with green shaded boxes indicate the load rating data which shall be reviewed by the BITL **prior** to the inspection or **during** the inspection. For example, a Load Rating Summary Form may indicate an assumption regarding functioning post-tensioning that can only be verified as accurate during the inspection. These green shaded boxes shall be reviewed meaning the BITL may need to coordinate for further action (whether with BMO to request a load rating (see Section 5.5) or with maintenance to replace a posting sign (see Chapter 8).

The cyan shaded boxes show values updated automatically given the criteria set forth in the *Coding Guide*.

The blue shaded boxes show which information is completed after the quality control review.

SCDOT BRIDGE INSPECTION FORM

(420) BRIDGE ID:	Use SCDOT Road Data Services to Update	(007) ROUTE:	Use SCDOT Road Data Services to Update, See Also Appendix O
(008) ASSET NO	Use SCDOT Road Data Services to Update	(006) CROSSING:	Use SCDOT Road Data Services to Update, See Also Appendix O
(419) RAMP NO:	Use SCDOT Road Data Services to Update	(009) LOCATION:	Use SCDOT Road Data Services to Update
(026) FUNCTIONAL CLASS:	Use SCDOT Road Data Services to Update	(016) LAT: Use SCDOT Road Data Services to Update	(017) LON: Use SCDOT Road Data Services to Update

GENERAL BRIDGE DATA

	EXISTING / REVISED		EXISTING / REVISED
(027) Year Built	XXXX Year Built (4 Digits)	(042) Type Serv; On(A) Und(B)	42A&42B-Services on and under bridge (2 Digits)
(106) Year Recon	XXXX Year Reconstructed (4 Digits)	(028) Lanes; On(A) Und(B)	28A&28B-Lanes on and under structure (2 Digits)
(031) Design Load	1=H10,2=H15,3=HS15,4=H20,5=HS20,6=HS20Mod,9=HS25	(107) Deck Struc	XXXX Deck system (1 Digits)
(36A) Railings	0=Not to Standard or None, 1=Meets Standard, N=N/A	(108) Wear Surf/Membrane/Prot	XXXX W.S., Membrane, Deck Protection (3 Digits)
(36B) Transitions	0=Not to Standard or None, 1=Meets Standard, N=N/A		MAT-SUP-SUB / MAT-SUP-SUB
(36C) Appr Guard	0=Not to Standard or None, 1=Meets Standard, N=N/A	(43) Main Original (A)	43A&44A-1=Conc,2=Conc. Con.,3=Steel,4=Steel Con.,5=P/S Conc,
(36D) Appr Guard End	0=Not to Standard or None, 1=Meets Standard, N=N/A	Main Reconst (B)	6=P/S Conc. Con,7=Timber,8=Mason.,9=Alum./Iron,0=Other
(037) History	1=Historic,2=Eligbile,4=Unknown,5=Not Eligible	(44) Appr Orginal (A)	43B&44B-1=Slab,2=Stringer,3=Gir/FB,4=T-Bm, 5=Multi.Box, 6=Single Box
(319) Last Paint Date	Month (XX)/Year (XXXX)	(45) Appr Reconst (B)	7=Frame,10=Truss,11=Arch,14-17=Complex,19=Culvert,21=SBG,22-Ch.Bm

GEOMETRIC DATA

	EXISTING / REVISED		EXISTING FT / IN	REVISED FT / IN
(032) Appr Rdway	XXXX Normal Width (4 Digits meters)	(053) Vert Clr Above Deck	XXXX Min Vertical Clearance over bridge (4 Digits)	
(033) Bridge Median	0=No Median,1=Open.M.,2=Clo.M,3=C.M.with non-mountable barriers	(54A) Vert Clear Ref	XXXX Min Vertical under clearance (4 Digits)	
(034) Skew	XX Skew Angle (2 Digits)	(54B) Vert Clear Right	H=highway beneath Struc., R=railroad, N=Feature not a highway	
(035) Flare	0=No Flare, 1=Yes, Flared	(54C) Vert Clear Left	Using Bent 1 as Reference, Measure Vert. Under Clr	
(045) # Main Spans	XXXX Number of Spans (3 Digits)	(10A) Great Min Clr Over/Und	XXXX Min. Vertical Clearance (4 Digits)	
(046) # Appr Spans	XXXX Number of Spans (4 Digits)	(10B) Great Min Right	Using Bent 1 as Reference, Measure Gr. Vert. Under Clr	
(048) Max Span Lgt	XXXXX C. to C. Bearing Points (5 Digits)	(10C) Great Min Left	Using Bent 1 as Reference, Measure Gr. Vert. Under Clr	
(308) Appr Span Lgth	XXXXXX C. to C. Structure Length (6 Digits)			
(049) Struct Length	XXXXXX C. to C. Structure Length (6 Digits)	(55A) Lat Clear Ref	H=highway,R=railroad,N=feature none, X reference feature (1 digit)	
(47A) Horz Clear Right	XXXX Clearance A>B (3 Digits)	(55B) Lat Clear Right	H=highway,R=railroad,N=feature none, XXX min. lateral unercl. (3 digits)	
(47B) Horz Clear Left	XXXX Clearance B>A (3 Digits)	(056) Lat Clear Left	Measure from road edge/center of rail to nearest obstruction	
(47UA) Horz Clear Right	XXXX U. Clearance A>B (3 Digits)			
(47UB) Horz Clear Left	XXXX U. Clearance A>B (3 Digits)	(038) Navigation Cont	N=no water,0=no navigation,1=navigation control, XXXX bridge permit (1 digit)	
(50B) Sidewalk Right	XXX Right Curb (3 Digits meters)	(039) Nav Vert Clear	XXXX Navigation vertical clearance (4 Digits) @ H. tide.	
(50A) Sidewalk Left	XXX Left Curb (3 Digits meters)	(040) Nav Horz Clear	XXXXX Navigation horizontal clearance (5 Digits) @ H. tide.	
(051) Curb to Curb	XXXX Curb to Curb distance (4 Digits meters)	(111) Nav Pier Port	1=Nav. Protection,2=Functioning,3=Deteriorated,4=Reevaluation,5=None but Reeval.	
(052) Deck Out-Out	XXXX Out to Out width (4 Digits meters)			

RATINGS DATA

	EXISTING / REVISED		EXISTING / REVISED
(58) Deck	X Rating for Deck Condition (1 Digit)	(041) Traffic Status	A=open,B=no posted sign,G=new no open,E=temp. bridge,K=closed,P=posted,R=special
(59) Super Str	X Condition of Structure Members (1 Digit)	(063) Rating Method	1=load factor,2=ASD,3=LRFR,4=load testing,5=no rating analysis
(60) Sub Str	X Piers/Piles/Footing/Abutments Condition (1 Digit)	(064) Operating Method	XXX Capacity Rating (Max Load) (3 Digits, tons)
(061) Channel	X Flow of Water/Riprap/Channel Condition (1 Digit)	(065) Rating Method	1=load factor,2=A. stress,3=LRFR,4=load testing,5=no rating analysis
(062) Culv Ret	X Culvert Rating Condition (1 Digit)	(066) Inventory Rating	XXX Inventory Rating (Load Lvl for Indef. Use) (3 Digits, tons)
(071) Water Adeq	X Passage of Flow through Bridge (1 Digit)	(411) Date Rated	Month (XX)/Year (XXXX) (when last rating completed)
(072) Appr Rdway	X Roadway Alignment (1 Digit)	(418) Conditions During Rating	NBI Item 58 NBI Item 59 NBI Item 60 (when rated)
(113) Scour Critical	BIPM to Update at SCDOT HQ BMO		Freq Mth/Year / Freq Mth/Year
(067) Structure	RIMS Automatically Calculates Value	(091, 090) Routine Insp	Designated inspection & inspection date (2&4 Digits)
(068) Deck Geom	RIMS Automatically Calculates Value	(92A, 93A) Non-Redundant Steel Tension Member	Designated FCM inspection & inspection date (2&4 Digits)
(069) Underclear	RIMS Automatically Calculates Value	(92B, 93B) Underwater Ins	Designated UW inspection & inspection date (2&4 Digits)
(070) Bridge Post	RIMS Automatically Calculates Value	(92C, 93C) Special Insp	Designated Special inspection & inspection date (2&4 Digits)

Inspection Leader:	BITL Name	Reviewed By:	(QCR) Complete Once QC Review Form is Complete and
Date:	Date of Inspection	Date:	all QC comments have been addressed.