

Level 2 Inspection - Concrete Deck							
Bridge File Number	75195 E-1 Bridge			Form Type	CDK		
Year Built/Year Supstr	1961/1961			Lot No.			
Bridge or Town Name	CARVEL CORNE			Inspector Name	Jason Saly		
Located Over	43:22 R1 23.827;43:22 L1 23.866			Inspector Class	BR CLS A		
Located On	16:12 R1 51.538			Assistant Name			
Water Body Cl./Year				Assistant Class			
Navigabil. Cl./Year				Inspection Date	02-Aug-2012		
Legal Land Location	NW SEC 10 TWP 53 RGE 2 W5M			Data Entry By	Jason Saly		
Longitude, Latitude	-114:13:17, 53:34:12			Data Entry Date	21-Jan-2013		
Road Authority	Alberta Transportation (AIT)			Reviewer Name	Paul Carter		
Contract Main. Area	CMA11			Review Date	25-Feb-2013		
Clear Roadway/Skew	12.2 / 38 deg. (RHF)			Dept. Reviewer Name			
AADT/Year	17,030 / 2012 (A)			Dept. Review Date			
Road Classification	RAD-412.4-120			Follow-Up By			
Detour Length (km)	1			Visual Inspection?	Y		
				CSE Testing?	Y		
				Chloride Testing?	N		
Allowable Load (t):	Single	CS1 28	Semi	CS2 49	Train	CS3 62	----> On Critical Spans ---->Critical Member
Design Loading:	HS20						----> Primary Span
(Primary Span : <b>RB</b> , Spans: <b>1,2,3</b> , Lengths(m): <b>14-24.4-17.1</b> )							
(Total Length : <b>14-24.4-17.1 = 55.5</b> )							

**Concrete Deck Inspection**

							Last	Now	Explanation of Condition
<b>Wearing Surface</b>									
Polymer? (Y/N)		Y							
ACP? (Y/N)		N							
Chip Seal Coat? (Y/N)		Y							
Seal Coat		Type	Year Installed	Avg. Total Thickness (mm)		Area (m <sup>2</sup> )			
		CONVENTIONAL CHIP SEAL COAT	1994			677.1			
<b>Polymer Rating (% Area)</b>									
	9-7	6/5	4	3	2/1	N/X			
<b>Last</b>									
<b>Now</b>	0	0	0	0	0	100			
<b>ACP Rating (% Area)</b>									
	9-7	6/5	4	3	2/1	N/X			
<b>Last</b>									
<b>Now</b>	0	0	0	0	0	100			
<b>Chip Seal Coat Rating (% Area)</b>									
	9-7	6/5	4	3	2/1	N/X			
<b>Last</b>									
<b>Now</b>	0	100	0	0	0	0			
Polymer Total Debonded /Lost Area (m <sup>2</sup> )		0							
ACP Total Debonded /Lost Area (m <sup>2</sup> )		X							
ACP Average Measured Depth (mm)		X							
ACP Crack Frequency (m/m <sup>2</sup> )		X							
Chip Seal Coat Total Lost Area (m <sup>2</sup> )		0							
<b>Concrete Overlay</b>									
Overlay? (Y/N)		Y							
<b>(Span Type : RB)</b>									
(Span Numbers : <b>1, 2, 3</b> )									
(Overlay type : <b>CONCRETE (HIGH DENSITY)</b> )									
(Area(m <sup>2</sup> ) : <b>677.1</b> )									

Minor flushing, some cracks reflecting through seal coat.

Concrete Deck Inspection						
	Last	Now	Explanation of Condition			
(Year Installed : <b>1982</b> )						
(Thickness(mm) : <b>50</b> )						
(Average Cylinder Strength(Mpa) : )						
<b>Overlay Rating (% Area)</b>						
	9-7	6/5	4	3	2/1	N/X
<b>Last</b>						
<b>Now</b>	0	0	0	0	0	100
Total Crack Length - Medium/Wide (m)						N
Total Scaled Area - Light (m <sup>2</sup> )						N
Total Scaled Area -Moderate/Heavy/Severe (m <sup>2</sup> )						N
Debonded Area (m <sup>2</sup> )						11
Spalled Area (m <sup>2</sup> )						N
Patched Area (m <sup>2</sup> )						N
Average Measured Cover Depth (mm)						110
Standard Deviation of Measured Cover Depth (mm)						14

Covered by chip eal coat and polymer overlay.

Deck				
(Span Type : <b>RB</b> )				
(Span Numbers : <b>1, 2, 3</b> )				
(Deck Type : <b>CONCRETE (CLASS C)</b> )				
(Area(m <sup>2</sup> ) : <b>677.1</b> )				
(Year Constructed : <b>1961</b> )				
(Year Widened : )				
(Thickness(mm) : <b>150</b> )				
(Average Cylinder Strength(MPa) : )				

	Type	Size	Design Cover (mm)	Spacing (mm)
Long. Reinforcing	REINFORCING STEEL			
Trans. Reinforcing	REINFORCING STEEL			

Deck Top Rating (% Area)						
	9-7	6/5	4	3	2/1	N/X
<b>Last</b>						
<b>Now</b>	0	0	0	0	0	100
Total Crack Length - Medium/Wide (m)						N
Total Scaled Area - Light (m <sup>2</sup> )						N
Total Scaled Area - Moderate/Heavy/Severe (m <sup>2</sup> )						N
Delaminated Area (m <sup>2</sup> )						N
Spalled Area (m <sup>2</sup> )						N
Patched Area (m <sup>2</sup> )						N
Average Measured Cover Depth (mm)						N
Standard Deviation of Measured Cover Depth (mm)						N

Deck Underside Rating (% Area)						
	9-7	6/5	4	3	2/1	N/X
<b>Last</b>						
<b>Now</b>	0	100	0	0	0	0
Total Stained Area - Moderate (m <sup>2</sup> )						2
Total Stained Area - Heavy/Severe (m <sup>2</sup> )						0
Total Crack Length - Medium/Wide (m)						149
% of Medium/Wide Cracks Stained						40

Slight sag along exterior girders on span 2 minor high load scrapes above highway 43.

Minor staining at west abutment

Edge Elements	
Curbs? (Y/N)	Y
Parapets? (Y/N)	N
Medians? (Y/N)	N
Sidewalks? (Y/N)	N

Concrete Deck Inspection												
		Last	Now	Explanation of Condition								
<b>Curbs</b>												
(Type : <b>CONCRETE</b> )												
(Total Length(m) : <b>111.0</b> )												
(Height(mm) : )												
(Width(mm) : )												
(Average Cylinder Strength(MPa) : )												
Reinforcement Type			Size		Design Cover (mm)			Spacing (mm)				
<b>Curb Rating (% Length)</b>							Transverse cracking.          Does not include areas with parging.					
	9-7	6/5	4	3	2/1	N/X						
<b>Last</b>												
<b>Now</b>	0	69	1	0	0	30						
Total Crack Length - Medium/Wide (m)						52						
Total Scaled Length - Light (m)						7						
Total Scaled Length - Moderate/Heavy/Severe (m)						0						
Delaminated Length (m)						1						
Spalled Length (m)						1						
Patched Length (m)						8						
Average Measured Cover Depth (mm)						90						
Standard Deviation of Measured Cover Depth (mm)						10						
<b>Deck Joints</b>												
(Type : <b>GLAND (WABO-MAUER, TRANSFLEX, ETC)</b> )												
(Number of Joints : <b>2</b> )												
(Expansion / Fixed? : <b>EXPANSION</b> )												
(Location : <b>A1, A2</b> )												
% Inspected				100								
% Joints Leaks				100								
% Joint Length Leaks				100								
Superstructure Damage Rating				5								
Substructure Damage Rating				4								
Level 1 Joint Rating				5								
<b>CSE Testing</b>												
Testing Date		18-Jul-2012			Previous Testing Date		24-Jul-2008					
<b>Weather Information</b>												
Temperature (°C)		17										
Conditions		Sunny										
<b>Equipment Information</b>												
Test Equipment Make and Model		Corexco CDL - 200 EA/512										
Electrical Ground Location and Type		1DJ, West abutment deck joint along the south curb										
<b>Measurement Locations Information</b>												
Origin for Data		south west										
		Number			Length of Each (m)			Length of Last (m)				
X Increments (Length)		53			1.219			1.200				
Y Increments (Width)		10			1.219			1.200				
<b>CSE Results</b>												
Span Numbers		1,2,3										
Span Type		RB										
Wearing Surface		CONVENTIONAL CHIP SEAL COAT, CONCRETE (HIGH DENSITY)										
Testing Year	% Deck Area 0 to -0.1 V	% Deck Area < -0.1 to -0.2 V	% Deck Area < -0.2 to -0.3 V	% Deck Area < -0.3 to -0.4 V	% Deck Area < -0.4 V	Avg. Deck Reading (V)	Std. Dev. Deck Reading	Avg. Curb Reading (V)	Std. Dev. Curb Reading			
2012	0.0	1.3	26.8	63.6	8.3	-0.332	0.070	-0.409	0.069			

CSE Testing									
2008	0.0	1.0	32.0	59.0	8.0	-0.323	0.071	-0.126	0.093
2004	0.0	1.0	32.0	62.0	5.0	-0.324	0.058	-0.403	0.086
CSE Prediction Model Optimum 5 year Rehab Start Year			2015						
Comments									

Maintenance Recommendations										
Inspector Recommendations	Year	Inspector Comments			Department Comments			Target Year	Est. Cost	Cat #
SEAL CURBS										
PATCH DECK										
SEAL DECK										
OVERLAY DECK										
REPAIR/REPLACE DECK JOINTS										
WASHING										
OTHER ACTION										
CRACK REPAIRS/TREATMENT										
PATCH CURBS/PARPETS										
OTHER ACTION										
OTHER ACTION										
OTHER ACTION										
<b>Structural Condition Rating (%)</b>	<b>38.9</b>	<b>Sufficiency Rating (%)</b>			<b>42.5</b>			Est Repl Year	2020	
Level 1 Insp Date	07-Aug-2012	Next Level 1 Insp Date			07-May-2014		Current Level 1 Insp Cycle (Default) (Months)			21
Special Comments for Next Insp										
Snooper? (Y/N)	No	Lift? (Y/N)	No	Traffic Control? (Y/N)	Yes	Boat? (Y/N)	No	Ladder? (Y/N)	No	
Other Special Requirements Comments										
Previous Level 2 Inspector's Name	Brian Cote			Previous Level 2 Insp Date	24-Jul-2008					
Next Level 2 Insp Date	02-Aug-2016			Discontinue Level 2 Insp? (Y/N)	No					
Level 2 Insp Previously Completed	11			Level 2 Insp Cycle (Default) (Months)	48					
Detailed Report/Diagram? (Y/N)	Yes									
Level 2 Insp Comments										
Next Level 2 Inspection/Test	Concrete Deck Insp? (Y/N)			Yes	CSE Testing? (Y/N)		Yes	Chloride Testing? (Y/N)		No
Department Reviewer Comments										