

Bridge Inspection							
Bridge File Number	77571 -1 Bridge			Form Type	PCS		
Year Built/Year Supstr	1960/1960			Lot No.	1		
Bridge or Town Name	SUNDRE			Inspector Name	Owen Salava		
Located Over	WIGWAM CREEK, 3.112, WATERCRS-ST			Inspector Class	BR CLS A		
Located On	734:10 C1 6.776			Assistant Name			
Water Body Cl./Year				Assistant Class			
Navigabil. Cl./Year				Inspection Date	29-Nov-2010		
Legal Land Location	SW SEC 18 TWP 31 RGE 9 W5M			Data Entry By	Marcia Chavez		
Longitude, Latitude	-115:16:08, 51:39:03			Data Entry Date	03-Jan-2011		
Road Authority	Alberta Transportation (AIT)			Reviewer Name	John O'Brien		
Contract Main. Area	CMA28			Review Date	16-Dec-2010		
Clear Roadway/Skew	6.7 / 15 deg. (RHF)			Dept. Reviewer Name	Chris Black		
AADT/Year	100 / 2009 (A)			Dept. Review Date	12-Jan-2011		
Road Classification	RCU-208G-90			Follow-Up By			
Detour Length (km)	80						
Allowable Load (t):	Single	CS1 28 GIRDER	Semi	CS2 49 GIRDER	Train	CS3 62 GIRDER	---> On Critical Spans --->Critical Member
Design Loading:	HS20						---> Primary Span

Posting Information							
Required Load Posting (t)	Single		Semi		Truck Train		
Posted Loading (t)	Single		20.0	Semi	40.0	Truck Train	54.0
Posted:	Lane	EB	At Junction (Y/N)	No	In Advance (Y/N)	Yes	At Bridge (Y/N) Yes
Posted:	Lane	WB	At Junction (Y/N)	No	In Advance (Y/N)	Yes	At Bridge (Y/N) Yes
Remarks	Not required.						
Hazard Marker At Bridge (Y/N)	Yes						
Remarks	All hazards are too low. Missing at NE corner.						
Other Sign Types	Creek signs at NE corner only, missing @ SW corner & Texas gate 200 m.						

Utilities (Located at)			
Utility Attachments			
Telephone			Gas
Power			Municipal
Others			Problem (Y/N) No
Remarks			

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	'T' intersection to approach road 50m SW.
Vertical Alignment		7	7	
Roadway Width (m)	7.000			Insufficient posts/length.
Approach Bump		7	7	
Guardrail (Y/N)	Yes			
Guardrail		7	7	
Length (m)	12.000			
Current Standard (Y/N)	No			
Termination Type	Modified turndown			
Drainage		4	6	
Approach Road General Rating		6	6	

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : PG, 2 Spans, Lengths(m): 6.1-6.1, A-Ident Number:)					
Special Features					
Special Feature			X		
(Type :)					
Special Feature			X		
(Type :)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	Snow covered.
Last					
Now	100.0	0.0	0.0	0.0	
Wearing Surface			X	X	
(Material Type :)					
(Thickness(mm) :)					
Lateral Connection Problem (Y/N)					
Deck Top			N	N	(50mm gravel covered. Deck top abraided where exposed. 24Nov2005). Snow covered. Holes in girder top (photo).
Deck Rideability			5	5	
Deck Joints			N	N	Buffer angles.
Bump (Y/N)		No			
Deck Drainage			5	5	
Drains Clogged (Y/N)		No			
Curbs/Median			3	N	(Timber wheelguard - rot. 24Nov2005). Snow covered. S curb spalled over pier from post anchor (photo).
(Curb Type : Standard)					
Scaling (Percent Area)		5			
Bridge Rail			4	4	Single layer, improper lap @ North rail.
(Type : FLEX BEAM)					
Bridge Rail Posts			3	4	S3 vertical split - minor. Posts not bolted tight to girders (photo). Rail only - peeling.
(Type : COPPER CHROMATE ARSENATE TREATED TIMBER;COPPER CHROMATE ARSENATE TREATED TIMBER)					
Bridge Rail/Posts Coating			3	3	
(Type : PAINT)					
Sidewalk			X	X	
Girder Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last				9	
Now	0	0	0	9	
Girders			3	3	Most girders with drift spall exposing dowel pin. 50% have flexural cracks extending from leg to leg. Wide cracks in AZ both legs. Majority of girders are not bolted together - photo. Spalls in AZ, 3 girders. Post has cracked South curb girder leg over pier. No connector pockets.
Last Complete Inspection Date		29-Nov-2010			
Cracking (Y/N)		Yes			
Spalling (Percent Area)		17			
Lift or Connector Pocket Grouted (Y/N)		No			
(Number Of Girders : 16)					
Span Alignment Problems					
Vertical (Y/N)		No			
Horizontal (Y/N)		No			
Superstructure General Rating			3	3	

Substructure						
Bridge Component		Last	Now	Explanation of Condition		
Abutments						
(Extended Backwall Piles (Y/N) : Y)						
(Extended Backwall Piles Spacing(mm) : 1000)						
(Total Number of Caps/Corbels : 1:1)						
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now	0	0	0	0		
Bearing Seats/Caps/Corbels				5	5	
(Type : TREATED TIMBER)						
(Depth(mm) : 305)						
(Width(mm) : 305)						
Backwalls/Breastwalls			3	3		
Greatest Height (m)		3.00				
Wingwalls			4	4		
(Total Number of Bearing Piles : 5:5)				Extended piles are rotten / hollow. All piles showing age. Wide checking (photo). Hammer sound revealed hollow in A1P1, P2 & P4 - suspect rot. A1P4 missing anchor tie back & top of pile is 125mm outside cap - photo. (Uneven bearing due to backwall pressure eroding under W abut. 29Nov2010).		
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last				3		
Now	0	0	0	3		
Piles				3	3	
Paint/Coating				X	X	
Abutment Stability			4	4		
Scour/Erosion			4	N		
Piers/Bents						
(Type : PIER-COLUMN)						
Too high to hammer sound.						
(Total Number of Caps/Corbels : 1)						
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now	0	0	0	0		
Bearing Seats/Caps/Corbels				6	6	
(Type : TREATED TIMBER)						
(Depth(mm) : 305)						
(Width(mm) : 356)						
(Total Number of Bearing Piles : 5)				Showing age where exposed at top. Fully sheathed.		
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now	5	0	0	0		
Pier Shaft/Piles				N	N	
Greatest Height (m)		2.50				
Bracing/Struts/Sheathing			7	4		
Nose Plate			4	4		
A timber pile acts as nose protector, does not extend to streambed.						
Paint/Coating				X	X	
(Colour Description :)						
(Colour Code :)						
Pier Stability			7	7		

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Scour		7	7	
Debris (Y/N)	Yes			Heavy gravel accumulation under S2, heavy drift under S2 - photos.
Substructure General Rating		3	3	
Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : S)				Heavy gravel deposit in U/S side diverting flow to both sides of gravel bar - photo. Heavy gravel buildup under S2. Heavy deadfall in both channels. Access bridge to rec area 50m u/s.
(D/S Direction : N)				
Alignment		4	4	
Bank Stability		6	4	Vertical banks d/s.
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	Yes			
Slope Protection		3	3	Insufficient at West abutment.
(Type : GRAVEL; GRAVEL)				
Guidebank/Spurs		X	X	
Adequacy of Opening		4	4	Partially blocked under S2 by gravel buildup.
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		4	3	

Maintenance Recommendations										
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #				
REPAIR/REPLACE BRIDGE RAIL	2011	Bolt rail posts to curb units (South side).								
SEAL CURBS										
PATCH DECK										
OVERLAY DECK										
STRAIGHTEN/REPLACE MEMBERS										
WASHING										
SHOTCRETE REPAIRS										
CORE TIMBER CAPS/CORBELS										
REPAIR/REPLACE TIMBER CAPS	2011	Core caps & piles and assess, if not done.								
REPAIR ABUTMENT SCOUR/EROSION										
PLACE ADDITIONAL RIP RAP	2011	2m3 CL 1 at SE wingwall.								
REMOVE DRIFT ACCUMULATION										
INSTALL STRUTS										
OTHER ACTION	2011	Replace stream ID signs (Wigwam Creek).								
OTHER ACTION	2011	Add fill @ NW corner, behind wingwall & armour with rock, if not done.								
OTHER ACTION	2011	Fix HMs to correct height. Add new HM at NE corner.								
OTHER ACTION										
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	48.1/46.9	Est. Repl. Yr	2015	Maint. Req. (Y/N)	Yes			
Special Comments for Next Inspection	Measure cracking in legs & girders. Check W abut cap/pile alignment.		Department Comments							
Maintenance Reviewed By		Date				Estimated Total	0			
Proposed Long-Term Strategy	2007.10.10 On spot program for 2012. 2005.09.07 Replace by 2011.									
On 3-Year Program (Y/N)										
Proposed Action										
Previous Inspector's Name	Dave Lam	Previous Assistant's Name								
Next Inspection Date	28-Feb-2014	Previous Inspection Date	24-Nov-2005							
Inspection Cycle (Default) (months)	39									
Comment										

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL	2011	Bolt rail posts to curb units (South side).	Defer, being designed for replacement.			
SEAL CURBS						
PATCH DECK						
OVERLAY DECK						
STRAIGHTEN/REPLACE MEMBERS						
WASHING						
SHOTCRETE REPAIRS						
CORE TIMBER CAPS/CORBELS						
REPAIR/REPLACE TIMBER CAPS	2011	Core caps & piles and assess, if not done.	Cored 2011			
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP	2011	2m3 CL 1 at SE wingwall.	Defer, being designed for replacement.			
REMOVE DRIFT ACCUMULATION						
INSTALL STRUTS						
OTHER ACTION	2011	Replace stream ID signs (Wigwam Creek).	To operations			
OTHER ACTION	2011	Add fill @ NW corner, behind wingwall & armour with rock, if not done.	Defer, being designed for replacement.			
OTHER ACTION	2011	Fix HMs to correct height. Add new HM at NE corner.	To operations			
OTHER ACTION						
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	48.1/46.9	Est. Repl. Yr	2015	Maint. Req. (Y/N) Yes
Special Comments for Next Inspection	Measure cracking in legs & girders. Check W abut cap/pile alignment.		Department Comments	South abutment- Beginning rot in two cores of cap. Shape still good. Beginning rot in four of five piles with rot in two bottom cores @ P4. Pier- Cap cored adequate. Beginning rot in four of five piles. North Abutment- Cap cored adequate. Beginning rot in bottom cores @ P2,4&5. Rot in bottom core of P3 with beginning rot in above core. Currently being designed for replacement. Budget dependant program year.		
Maintenance Reviewed By	Andrew Smikles		Date	06-Feb-2012	Estimated Total	0
Proposed Long-Term Strategy	2007.10.10 On spot program for 2012. 2005.09.07 Replace by 2011.					
On 3-Year Program (Y/N)						
Proposed Action						

Previous Inspector's Name	Dave Lam	Previous Assistant's Name	
Next Inspection Date	28-Feb-2014	Previous Inspection Date	24-Nov-2005
Inspection Cycle (Default) (months)	39		
Comment			