



## 2

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EXAMPLE 1 – BRIDGE STRUCTURE

**SANRAL** **EDMS # 45788276** **S.A. Occupational Health and Safety Act (198) and Construction Regulations (2014)** **BRIDGE 1**

Route: R25 Section: 4 Road km: 36.02

Structure No.: B0151 Start Latitude (south): 2 3 8 2 5 12 Start Longitude (east): 2 3 8 2 3 19

No of Spans: 4 End Latitude (south): 2 4 4 1 3 0 15 End Longitude (east): 2 4 4 1 3 0 15

Structure Name: Ormer River Bridge

The purpose of this Safety Inspection, to be undertaken by a competent person, is to identify safety related defects that require urgent attention to ensure the structure is safe for continued use. It is not required to record routine maintenance defects. These inspections are to be conducted and recorded electronically in SANRAL ITS system. For existing structures inspections shall be at 12 months maximum intervals. For new structures they shall be done every 6 months for the first 24 months and then 12 months maximum intervals thereafter.

Item	Description	Defect?		If Yes Degree Rating				Photo No.	
		Yes	No	NA	1	2	3		4
1	Major approaches (incl. guardrails)	X						X	P11
2	Footpaths (incl. meeting walls)	X							
3	Piers	X			X				P12
4	Top of deck	X						X	P13
5	Underside of deck	X			X				
6	Handrails/coraports (incl. sidewalks)	X					X		P14
7	Expansion joints	X				X			P15
8	Flood damage?	X				X			P16
9	Impact damage?	X							
10	Other defects?	X							

Photo No.	Inventory Description	Photo No.	Location	Defect Description
P01	Upper approach showing parapets	P11	Bridge Approach	Guardrail not connected to parapet and block.
P02	Bridge elevation	P12	Piers	Weathering of concrete on pier faces.
P03	Underside of deck	P13	Top of Deck	Blocked scuppers.
P04	Bridge number	P14	Parapets	Spalling of concrete on post and rail type parapets.
P05		P15	Expansion joints	Leaking expansion joints.
P06		P16	Subsidence	Debris accumulated at bridge abutment.
P07		P17		
P08		P18		
P09		P19		
P10		P20		

Urgent Action or Attention required? Yes ☒ No ☐ If Yes, Urgency? Immediate ☒ Within 2 months ☐ Within 6 months ☐

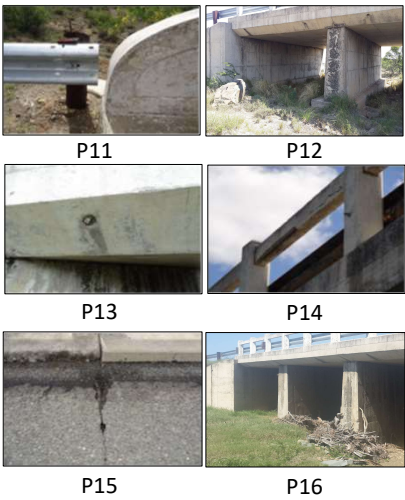
If Yes, specify details: The guardrail is not connected to the parapet and block and thus poses an immediate safety risk to road users. This defect in particular must be immediately addressed.

Inspector's comments: The overall structure is generally in good to fair condition with a few localized defects.

Inspected by: A. Man Date: 10/12/2019

Signature: Firm: A. Company

Defect Rating Description: No Defect 0 Minor 1 Moderate 2 Warning 3 Severe 4



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1	Major approaches (incl. guardrails)	X						X	P11
2	Footpaths (incl. meeting walls)	X			X				
3	Piers	X			X				P12
4	Top of deck	X						X	P13
5	Underside of deck	X			X				
6	Handrails/coraports (incl. sidewalks)	X					X		P14
7	Expansion joints	X				X			P15
8	Flood damage?	X				X			P16
9	Impact damage?	X							
10	Other defects?	X							

Photo No.	Inventory Description	Photo No.	Location	Defect Description
P01	Upper approach showing parapets	P11	Bridge Approach	Guardrail not connected to parapet and block.
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P08		P18		
P09		P19		
P10		P20		

Urgent Action or Attention required? Yes ☒ No ☐ If Yes, Urgency? Immediate ☒ Within 2 months ☐ Within 6 months ☐

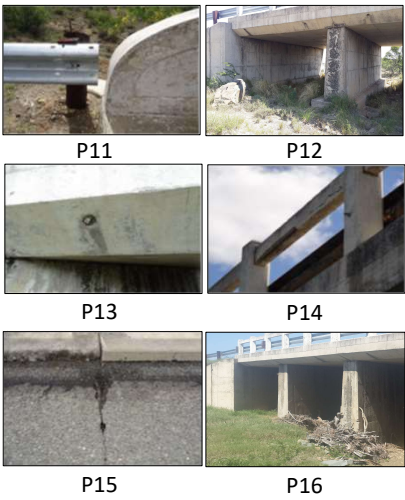
If Yes, specify details: The guardrail is not connected to the parapet and block and thus poses an immediate safety risk to road users. This defect in particular must be immediately addressed.

Inspector's comments: The overall structure is generally in good to fair condition with a few localized defects.

Inspected by: A. Man Date: 10/12/2019

Signature: Firm: A. Company

Defect Rating Description: No Defect 0 Minor 1 Moderate 2 Warning 3 Severe 4





## EXAMPLE 2 – MAJOR CULVERT STRUCTURE

SARFAI		EDMS #		SAFETY INSPECTION FORM										CULVERT'S	
ACTIVITY		U.S. Occupational Health and Safety Act (1980) and Construction Regulations (2014)												Major and Lesser	
Route	N2	Section	31	Road km						52					
Structure No.	C063	Start Latitude (south)	2 7 4 5 3 1 1 2	Start Longitude (east)						3 9 4 6 2 5 1 2					
No of cells	1	End Latitude (south)	2 7 4 6 2 5 1 5	End Longitude (east)						3 9 4 6 3 1 3 5					
Structure Name														Phonpea Dam Tributary Major Culvert	
<p>The purpose of this Safety Inspection, to be undertaken by a competent person, is to identify safety related defects that require urgent attention to ensure the structure is safe for construction. It is not required to report routine maintenance defects. These inspections are to be captured and recorded in SARFAI/EDMS system. For existing structures inspections shall be at 12 months maximum intervals. For new structures they shall be done every 6 months for the first 24 months and at 12 months maximum intervals thereafter.</p>															
INSPECTION (mark with an X as applicable for Defect and Degree)															
Item	Description	Defect?	Degree Rating				Photo No/s								
		Yes	No	1	2	3	4								
1	Exit works	X						P11							
2	Outlet works	X						P12							
3	Access	X						P13							
4	Waterways	X													
5	Reinforcements	X													
6	Retaining walls	X													
7	Project damaged?	X													
8	Project damaged?	X													
9	Other defects?	X													
PHOTOGRAPHS															
Photo No.	Inventory Description	Photo No.	Location	Defect Description											
P01	Read above culvert View 1	P11	Outlet	Severe scoring at outlet. Undermining of apron slab.											
P02	Read above culvert View 2	P12	Bent	Cracks in culvert bent											
P03	Exit	P13	Bent	Cracks in culvert bent											
P04	Outlet	P14	Retaining Wall	Rotation/Movement of culvert retaining walls.											
P05	Culvert number	P15													
P06		P16													
P07		P17													
P08		P18													
P09		P19													
P10		P20													
<p>Urgent Action or Abandon required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If Yes, Urgency: Immediate <input type="checkbox"/> Within 2 months <input type="checkbox"/> Within 6 months <input checked="" type="checkbox"/></p> <p>If Yes, specify details: Scouring at outlet of structure and rotation of culvert retaining wall.</p> <p>Inspector's comments: Significant defects noted that can compromise the structure and road user safety.</p> <p>Inspected by: A. Man Date: 19/10/2019</p> <p>Signature: Firm: A. Company</p> <p>Damage Rating Description: No Defect: 0 Minor: 1 Moderate: 2 Warning: 3 Severe: 4</p>															



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## EXAMPLE 2 – MAJOR CULVERT STRUCTURE

SARFAI		EDMS #		SAFETY INSPECTION FORM										CULVERT'S	
ACTIVITY		U.S. Occupational Health and Safety Act (1980) and Construction Regulations (2014)												Major and Lesser	
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No of cells	1	End Latitude (south)	2 7 4 6 2 5 1 5	End Longitude (east)						3 9 4 6 3 1 3 5					
Structure Name														Phonpea Dam Tributary Major Culvert	
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7	Project damaged?	X													
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