



Bridge Management System BRIDGE Inventory Sheet

Structure No	R023_02N_B1929
Structure Name	Road over Rail at Balfour

Location Details

N-Route No. :	R023	Primary Feature :	Railway
Section No. :	02N	Feature Name :	Railway to Villiers (abandoned)
Route Description :		Feature Road No. :	
Route km :	75.34	Feature Road km :	
N-Route Over/Under :	Over	Farm :	
Province :	Mpumalanga	Secondary Feature :	N/A
Magisterial District :		Secondary Feature Name :	
Other Authority :	Spoornet	Other Bridge No. :	
Orientation :	North/South	Elevation (m) :	
		Direction of River Flow :	N/A

1:50,000 TOPOGRAPHICAL MAP		GIS Coordinates	
Map Name :		Latitude (South)	Longitude (East)
Map No. :		Start :	26d 40m 22.60s 28d 34m 35.80s
Survey System :		End :	26d 40m 21.80s 28d 34m 35.20s

Contract Details

Design Engineers :		Contract Number :	
Contractors :		Year Built :	1967
Contract Price :		Completion Time :	
Escalated Cost :			
Total Cost (Design & Construct) :			

Structural Features

No. of Spans :	1	No. of Piers :	0	No. of Abutments :	2
Facility Carried :	Road			Approach Slabs :	Unknown
Structure Type :	Simply supported			Abutment Gallery :	No
Bridge Description :	Road over Rail			fcu Slabs :	
Deck Constr. Method :	Precast beam and insitu slab				MPa
Parapet Handrails :	Spoornet type solid balustrade (not NJ)			fcu Beams :	
					MPa
No of arches :	0	Arch Span (m) :	0	fcu Piers :	
					MPa
Springer Thickness (m) :	0			fcu Abutments :	
					MPa
Crown Thickness (m) :	0			fcu Arches :	0
					MPa

Deck Cross Section

Position	Type	Material	Span Length	Deck Soffit Profile	Avg Deck Depth (m)	Min Deck Depth (m)	Max Deck Depth (m)
S1	Beam and slab	Composite prestressed and reinforced concrete	12	Straight	0.90	0.9	0.9

Bearings

Position	Type	Fixity
BA	Malthoid (slip membrane)	Multi directional

Expansion Joints

Position	Type	Dir Movement	Photos
BA	Buried under surfacing	Longitudinal	

Piers

Position	Type	Material	Foundation Type	Founding Material	Hmax	Dmax
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Abutments						
Position	Type	Material	Foundation Type	Founding Material	Hmax	Dmax
UB	Box with support and Wingwall	Reinforced Concrete	Unknown	Unknown		

Wing/Retaining Walls						
Position	Type	Material	Foundation Type	Founding Material	Hmax	Dmax

Embankment Protection				
Position	Type	Material	Thickness	Slope
BA	Grass or other vegetation	Grass	0.00	40
BA	Gabion Boxes	Rocks	1.00	40

Arches				
No Arches	Span Length	Springer Thickness	Crown Thickness	FCU
0	0	0	0.00	0.00

Design Characteristics				
Design Live Load :	<input type="text"/>		Perc. Overloading :	<input type="text"/>
Design Codes :	<input type="text"/>		Wind Load :	<input type="text"/> kN/m ²
Temp. Range From :	<input type="text"/> °C		Frequency :	<input type="text"/> Hz
Temp. Range To :	<input type="text"/> °C			
Temp. Gradients :	<input type="text"/>			

Hydraulic Data				
Peak Discharge :	<input type="text"/> m ³ /sec		Scour Protection :	<input type="text"/> N/A
Design Discharge :	0 m ³ /sec		Risk of Scour :	<input type="text"/> N/A
Design Flood Level :	0		Design Scour Depth :	<input type="text"/> m
Soffit Level :	0 m ASL		Ht Above/Below Soffit :	<input type="text"/> m
Clearance (Freeboard) :	0 m		Catchment Area :	<input type="text"/> km ²
Peak Year :	<input type="text"/>		Angle Between :	<input type="text"/>
Return Period :	0 yrs		Max Scour Depth :	<input type="text"/> m
Depth of Design Flow :	<input type="text"/> m			

Drainage	
Support Drainage :	<input type="text"/> Unknown
Superstructure Drainage :	<input type="text"/> Chutes before and-or after bridge
Seepage Drains :	<input type="text"/>

Dimensions, Geometry and Road Clearances				
Overall Length :	12.6	m	Vertical Alignment :	<input type="text"/>
Overall Width :	13.6	m	Horizontal Alignment :	<input type="text"/>
Kerb Width :	12.2	m	Camber/Crossfall :	<input type="text"/>
Carriageway :	Single		Angle of Skew :	0 degrees
Direction Traffic :	E	<input type="text"/>	Ht of highest Pier/Abutment :	7.6 m
Min Road Width :	7.4	m	Opening Area :	<input type="text"/> m ²
Approach Width :	12.2	m		

Minimum Horizontal Clearances			
ID	Date Recorded	Clearance (m)	Description

Minimum Vertical Clearances			
ID	Date Recorded	Clearance (m)	Description
2	2006/02/07	5.5	S1



Reg.No.1998/009584/30

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Minimum Vertical Clearances			
ID	Date Recorded	Clearance (m)	Description
2	2016/06/24	5.6	S1

Services

Type	Description	Location	Authority
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Road Type, Traffic Volumes and Surfacing

	Road Over	Road
Class of Road :	2- Major route(Freeways and Highways)	Not applicable
No. of Carriageways :	2	
Names of Carriageways :		
No./Dimensions of Lanes (m) :	2x3.9	
No./Dimensions of Shoulders (m) :		
No./Dimensions of Sidewalks (m) :		
Average Daily Traffic :		
Year ADT Recorded :		
Truck Factor (%) :		
Detour Length (km) :		
Minimum Class of Detour :	?	?
Surface Slab :	Asphalt	
Surface Approach :	Asphalt	

Archive Details

Project No. : Correspondence File : Strip Map :

Drawing No.	Title	Location	Type
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Microfilm No.	Title	Location
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Maintenance Agreements and Responsibilities

Responsibilities :

Agreement No. :

Share of Costs :

Agreement Location :

Maintenance History

Details	Design Engineer	Contractor	Completion Date	Cost
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Widening, Strengthening, Retrofitting

Details	Design Engineer	Contractor	Completion Date	Cost
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Additional Remarks

Remarks :



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Factors Influencing Field Inspection

Access Factors :

Piers : Easy access - binoculars adequate

Bearings : No bearings

Box Girder : No Box

Effective Bridge Area : 171

m²

Availability of Drawings :

Deck Soffit : Easy Access or binoculars

Abutment Gallery : No galleries

Traffic Volume : Medium

General Info :