

## Lutterworth Swinford Road STR\_318 /M1//137.50//

'WARNING – Assume that Asbestos is present. Be familiar with the relevant National Highways Help Guide and follow your own safe working procedures.'



# Structures Principal Inspection Report

**21/02/2025**  
**Completed**

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## 1. Inspection Summary

<b>Structure Name</b>	Lutterworth Swinford Road	<b>Maintaining Agent</b>	National Highways Area 7/Area 07
<b>Structure Key</b>	STR_318	<b>Geographical Area</b>	Leicestershire
<b>Structure Number</b>	/M1//137.50//	<b>Custodian/Region</b>	NH_OWNED / Midlands
<b>OS Grid</b>	454980 / 283420	<b>Structure Type</b>	Bridge And Large Culvert

**General Description** The bridge is a four span 'inclined leg frame' structure, which carries the Lutterworth to Swinford Road over the M1 Motorway and is situated 1/2 kilometre southeast of Lutterworth, near Junction 20. Marker post 137.50. The west span is 23.3m, the west centre span is 32.8m, the east centre span is 29.7 and the east span is 21.6m. The deck is 5.5m wide.

The deck consists of a continuous in-situ reinforced concrete slab, which has hinges at two positions within the two centre spans. Along each side of the deck are precast concrete service bays, which are connected to the deck using reinforced concrete tie beams.

End supports are mass concrete counterweights, which are connected to the deck by pre-cast concrete anchors. The two outer piers consist of four in-situ reinforced concrete columns cast continuously with the deck slab and reinforced concrete foundation block, which is founded on additional spread foundations. There are in-situ reinforced concrete ground slabs on the bank slopes, which tie the abutments to the pier foundation blocks. The centre pier is a reinforced concrete slab wall, which is also cast integrally with the deck.

The parapets are aluminium vertical infill type with post base plates bolted to the plinth on top of the precast service bay units. The parapets are 1200mm high.

The carriageway over the bridge comprises of asphalt carriageway with insitu concrete slabs over the service bays. The structure has asphaltic plug joints and Eliminator Single Coat waterproofing is provided to the deck.

The bridge is constructed on a skew of 45 degrees.

Beneath the deck, the outer piers are protected by OBB safety fence mounted in the verges. The centre pier is protected by OBB safety fence mounted to both faces. Over the bridge, OBB safety fence is mounted at the back of the footways adjacent the parapets. Picket fencing is provided at the top of the embankments adjacent the ends of the parapet. There is no positive drainage over the bridge deck.

**Structure Articulation** The deck consists of a continuous in-situ reinforced concrete slab, which has hinges at two positions within the two centre spans. Along each side of the deck are precast concrete service bays, which are connected to the deck using reinforced concrete tie beams.

**Inspection Date** 21/02/2025

Inspection Weather Date	Weather	Day Or Night
10/02/2025	Clear 3°C and dry	Night
11/02/2025	Clear 2°C and dry	Night
21/02/2025	Partly sunny 12°C and dry	Day

**Overall Condition** Fair

**Inspection Method** On foot within touching distance, visual.

**Equipment Used** Light hand tools (i.e. camera, chalk, tape, crack width gauge, hammer, disto) and 20m MEWP.

**Inspected By** [REDACTED]

**Supervised By** [REDACTED]

**Authorised By** Qamar Zaman **Date Authorised** 24/03/2025

### Summary

Where observed the structure was in fair condition overall with minor to moderate defects recorded. The previously recorded defects did not appear to have significantly deteriorated since the last inspection. Since the previous inspection numerous areas of significant spalling have been repaired.

Recorded defects consisted of cracking, delamination and spalling to the service bays on all four spans to both the north and south ends of the deck. Within spalled areas there was exposed reinforcement that exhibited moderate corrosion throughout. The largest area of spalling measured 850 x 210 x 180mm and delamination measured up to 840 x 160mm. There was cracking throughout the service bays up to 2mm wide. Within the hinge joints there was cracking up to 2mm wide and on the upper inner face of the east outer hinge joint there were minor areas of spalling and delamination measured up to 430 x 240 x 10mm. Within the deck soffit over southbound lane 2 there was spalling measuring 940 x 230 x 100mm and delamination to the west soffit adjacent the bankseat measuring 750 x 800mm.

There was minor delamination to the centre pier and south return wall of the west bankseat. There was vertical cracking to the bankseats measuring up to 0.2mm wide and both faces of the centre pier up to 1mm wide. To the deck surfacing there was potholes on the east approach and directly adjacent the east joint, measuring up to 120 x 530 x 30mm. Throughout the west abutment joint there was settlement and cracking throughout the joint surfacing.

It would be recommended to carry out suitable concrete repairs to the spalling and delamination throughout the structure. The surfacing of the east and west asphaltic plug joints should be replaced and repaired to ensure there is no further deterioration of the carriageway surfacing.

### Parts of Structure Not Inspected

Any buried surfaces (i.e. foundations, waterproofing)

2. Associated Images and Documents

09. North-West wingwall.JPG



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14. Centre pier - east face.JPG



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13. Centre pier - west face.JPG



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01. North elevation.JPG



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15. East pier.JPG



10. South-West wingwall.JPG



21. Northbound span hinge joint  
- east.JPG



16. West span soffit.JPG



26. North parapet - east end.JPG



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27. South parapet - west end.JPG



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23. Southbound hinge joint - east.JPG



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07. West bankseat.JPG



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12. West pier.JPG



20. Northbound span hinge joint - west.JPG



24. East abutment joint.JPG



03. View west over deck.JPG



06. East revetment.JPG



08. East bankseat.JPG



18. East span soffit.JPG



19. West abutment joint.JPG



05. West revetment.JPG



11. South-East wingwall.JPG



04. View east over deck.JPG



28. South parapet - east end.JPG



22. Southbound hinge joint - west.JPG



02. South elevation.JPG



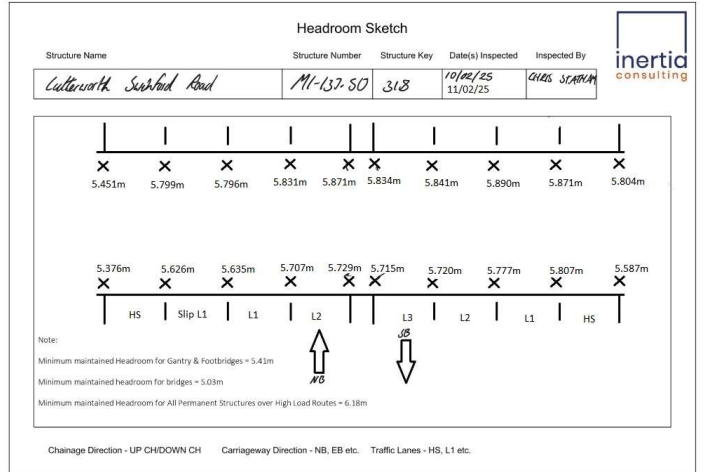
25. North parapet - west end.JPG



17. Southbound - east span soffit.JPG



Lutterworth Swinford Road  
headroom drawing.jpg



### 3. Observations/Defects Confirmed at this Inspection

<b>Defect Code</b>	DEF_2130580-0007		
<b>Component</b>	Road Vehicle Restraint System	South Parapet	
<b>Defect Type</b>	DefG - Deformed General defects		
<b>Extent</b>	SD - Defect present in 20% to not more than 50% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	The south parapet has an appearance of sagging over its western half.		
<b>Cause</b>	Design Issue	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130573-0008		
<b>Component</b>	Structural Joint	East Outer Hinge Joint	
<b>Defect Type</b>	ER - Exposed reinforcement Loss of concrete or masonry		
<b>Extent</b>	SC - Defect present in 5% to not more than 20% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	To the inner face of the east outer hinge joint there was minor spalling and delamination, exposing moderately corroded reinforcement. Measured up to 430 x 240 x 10mm.		
<b>Cause</b>	Reinforcement Corrosion	<b>Certainty</b>	High
<b>Comment on Cause</b>			

**Document ID** 4586908      **Document Title** STR\_318 PI Defect photos 21/02/2025

Minor spalling to the east outer hinge joint.JPG



Spalling and delamination to the east outer hinge joint - 430 x 240 x 10mm.JPG



Spalling to the outer east hinge joint.JPG



<b>Defect Code</b>	DEF_7277377-0002		
<b>Component</b>	SLB - Slab	Reinforced concrete deck slab	
<b>Defect Type</b>	Sp - Spalled area Loss of concrete or masonry		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Medium		
<b>Comments</b>	Within the deck soffit over southbound lane 2 there was one area of spalling with moderately corroded reinforcement measuring 940 x 230 x 100mm and on the west span soffit adjacent the bankseat there was delamination approximately 750 x 800mm.		
<b>Cause</b>	Reinforcement Corrosion	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130567-0005		
<b>Component</b>	EDG - Edge beam or edge cantilever South service bays		
<b>Defect Type</b>	ER - Exposed reinforcement Loss of concrete or masonry		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D3 - Moderate: Defect is probably causing damage to element or structure, or is likely to do so in the near future		
<b>Priority</b>	Medium		
<b>Comments</b>	The service bays exhibit several spalls measured up to 850 x 210 x 180mm. With the exception of a couple of areas the spalls expose reinforcement exhibits moderate to severe corrosion and lamination.  2025 PI - Majority of areas especially around the hinge joints have been repaired.		
<b>Cause</b>	Reinforcement Corrosion	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130554-0005		
<b>Component</b>	EDG - Edge beam or edge cantilever North service bays		
<b>Defect Type</b>	Holl - Hollow (delaminated) area Loss of concrete or masonry		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D3 - Moderate: Defect is probably causing damage to element or structure, or is likely to do so in the near future		
<b>Priority</b>	Medium		
<b>Comments</b>	There are isolated areas of delaminated concrete with associated rust staining found in the service bays measured up to 840 x 160mm. A delaminated area was found at the north end of the west bank seat measured at 730 x 110 x 10mm, at the south end of the east bank seat and at the top of west column no1 measured 400 x 530mm.		
<b>Cause</b>	Reinforcement Corrosion	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130569-0005		
<b>Component</b>	EDG - Edge beam or edge cantilever South service bays		
<b>Defect Type</b>	ER - Exposed reinforcement Loss of concrete or masonry		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D3 - Moderate: Defect is probably causing damage to element or structure, or is likely to do so in the near future		
<b>Priority</b>	Medium		
<b>Comments</b>	The service bays exhibit several spalls measured up to 850 x 210 x 180mm. With the exception of a couple of areas the spalls expose reinforcement exhibits moderate to severe corrosion and lamination.  2025 PI - Majority of areas especially around the hinge joints have been repaired.		
<b>Cause</b>	Reinforcement Corrosion	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130566-0005		
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<b>Component</b>	EDG - Edge beam or edge cantilever North service bays		
<b>Defect Type</b>	ER - Exposed reinforcement Loss of concrete or masonry		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D3 - Moderate: Defect is probably causing damage to element or structure, or is likely to do so in the near future		
<b>Priority</b>	Medium		
<b>Comments</b>	The service bays exhibit several spalls measured up to 850 x 210 x 180mm. With the exception of a couple of areas the spalls expose reinforcement exhibits moderate to severe corrosion and lamination.  2025 PI - Majority of areas especially around the hinge joints have been repaired.		
<b>Cause</b>	Reinforcement Corrosion	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Document ID</b>	4586885	<b>Document Title</b>	STR_318 PI Defect photos 21/02/2025
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Delamination and spalling to the north service bay on the east span soffit.JPG



Spalling and delamination to the south service bay over SB slip - 530 x 140 x 50mm.JPG



Spalling and delamination to the south service bay over SB L1 - 850 x 210 x 180mm.JPG



Spalling to the south service bay over NB L1-2 - 510 x 90 x 50mm.JPG



Spalling to the north service bay on the west span soffit.JPG



Spalling to the south service bay within the east span soffit.JPG



Spalling to the south service bay over NB slip - 440 x 170 x 20mm.JPG



Spalling to the south service bay over SB L3 - 540 x 100 x 120mm.JPG



<b>Defect Code</b>	DEF_7771154-0001		
<b>Component</b>	Carriageway Surfacing	Carriageway Surfacing	
<b>Defect Type</b>	Veg - Vegetation growth on the structure or encroaching on the structure General defects		
<b>Extent</b>	SC - Defect present in 5% to not more than 20% of area or length of element		
<b>Severity</b>	X2 - Defects unlikely to affect condition of adjacent elements now or in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	Minor vegetation grows along the edges of the carriageway and on the verges.		
<b>Cause</b>	Maintenance Issue	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130579-0007		
<b>Component</b>	Road Vehicle Restraint System	South Parapet	
<b>Defect Type</b>	DefG - Deformed General defects		
<b>Extent</b>	SD - Defect present in 20% to not more than 50% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	The south parapet has an appearance of sagging over its western half.		

<b>Cause</b>	Design Issue	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Document ID</b>	4586928	<b>Document Title</b>	STR_318 PI Defect photos 21/02/2025
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Sagging to the west end of the south parapet.JPG



<b>Defect Code</b>	DEF_2130571-0005		
<b>Component</b>	Abutment Wall	East Abutment	
<b>Defect Type</b>	ER - Exposed reinforcement Loss of concrete or masonry		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	190 x 430 x 20mm spalled and delaminated area in the north corner of the east bankseat. There was a minor area on the west bankseat at the north end.		

<b>Cause</b>	Reinforcement Corrosion	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Document ID</b>	4586899	<b>Document Title</b>	STR_318 PI Defect photos 21/02/2025
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Minor delamination to the west bankseat.JPG



Delamination to the north end of the east bankseat - 190 x 430 x 20mm.JPG



**Defect Code** DEF\_2130598-0005

**Component** Carriageway Surfacing

Carriageway Surfacing

**Defect Type** PH - Pothole Defects in components  
**Extent** SB - Defect present in not more than 5% of area or length of element  
**Severity** D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future  
**Priority** Medium  
**Comments** There was one pothole adjacent to the east joint, measured 120 x 530 x 30mm. The approach to the east end of the structure also had pothole and minor transverse cracking.

**Cause** Other **Certainty** High

**Comment on Cause** Material loss from vehicles passing over the structure.

**Document ID** 4587007 **Document Title** STR\_318 PI Defect photos 21/02/2025

Pothole adjacent the east joint - 120 x 530 x 30mm.JPG



Pothole and transverse cracking on the east approach - 300 x 600 x 50mm.JPG



**Defect Code** DEF\_7277376-0002

**Component** SLB - Slab Reinforced concrete deck slab

**Defect Type** Sp - Spalled area Loss of concrete or masonry  
**Extent** SB - Defect present in not more than 5% of area or length of element  
**Severity** D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future  
**Priority** Medium  
**Comments** Within the deck soffit over southbound lane 2 there was one area of spalling with moderately corroded reinforcement measuring 940 x 230 x 100mm and on the west span soffit adjacent the bankseat there was delamination approximately 750 x 800mm.

**Cause** Reinforcement Corrosion **Certainty** High

**Comment on Cause**

**Document ID** 4586984 **Document Title** STR\_318 PI Defect photos 21/02/2025

Delamination to the west span soffit adjacent the bankseat - 750 x 800mm approx.JPG



Spalling to the deck soffit over SB L2 - 940 x 230 x 100mm.JPG



<b>Defect Code</b>	DEF_2130593-0008		
<b>Component</b>	Expansion Joint	West outer hinge (plug)	
<b>Defect Type</b>	RSt - Rust stain/streak/spot Leaching/Staining		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	Rust staining can be found on isolated service bays.		
<b>Cause</b>	Reinforcement Corrosion	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130592-0008		
<b>Component</b>	Structural Joint	East inner hinge joint	
<b>Defect Type</b>	RSt - Rust stain/streak/spot Leaching/Staining		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	Rust staining can be found on isolated service bays.		
<b>Cause</b>	Reinforcement Corrosion	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130533-0006		
<b>Component</b>	Structural Joint	East inner hinge joint	
<b>Defect Type</b>	TenCr - Tension crack Cracks in concrete or masonry		
<b>Extent</b>	SE - Defect present in over 50% of area or length of element		
<b>Severity</b>	D3 - Moderate: Defect is probably causing damage to element or structure, or is likely to do so in the near future		
<b>Priority</b>	Medium		
<b>Comments</b>	There are hairline to 2mm wide cracks running along the hinge joints. A full length crack to the east intermediate hinge joint (above southbound lane 3) is open 2mm wide maximum. There is some minor corrosion staining in places emanating from the crack.		
<b>Cause</b>	Structural Movement	<b>Certainty</b>	Medium
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130536-0008		
<b>Component</b>	Structural Joint	East inner hinge joint	
<b>Defect Type</b>	WR - Running water Leaching/Staining		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D3 - Moderate: Defect is probably causing damage to element or structure, or is likely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	There are isolated areas of water seepage and leaching at the ends of the hinge joints.		
<b>Cause</b>	Moisture Egress	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130532-0006		
<b>Component</b>	Structural Joint	West Outer Hinge Joint	
<b>Defect Type</b>	TenCr - Tension crack Cracks in concrete or masonry		
<b>Extent</b>	SE - Defect present in over 50% of area or length of element		
<b>Severity</b>	D3 - Moderate: Defect is probably causing damage to element or structure, or is likely to do so in the near future		
<b>Priority</b>	Medium		
<b>Comments</b>	There are hairline to 2mm wide cracks running along the hinge joints. A full length crack to the east intermediate hinge joint (above southbound lane 3) is open 2mm wide maximum. There is some minor corrosion staining in places emanating from the crack.		
<b>Cause</b>	Structural Movement	<b>Certainty</b>	Medium
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130537-0006		
<b>Component</b>	Structural Joint	West Outer Hinge Joint	
<b>Defect Type</b>	WR - Running water Leaching/Staining		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D3 - Moderate: Defect is probably causing damage to element or structure, or is likely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	There are isolated areas of water seepage and leaching at the ends of the hinge joints.		
<b>Cause</b>	Moisture Egress	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130588-0008		
<b>Component</b>	Structural Joint	West Outer Hinge Joint	
<b>Defect Type</b>	RSt - Rust stain/streak/spot Leaching/Staining		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	Rust staining can be found on isolated service bays.		
<b>Cause</b>	Reinforcement Corrosion	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130534-0006		
<b>Component</b>	Structural Joint	West Inner Hinge Joint	
<b>Defect Type</b>	TenCr - Tension crack Cracks in concrete or masonry		
<b>Extent</b>	SE - Defect present in over 50% of area or length of element		
<b>Severity</b>	D3 - Moderate: Defect is probably causing damage to element or structure, or is likely to do so in the near future		
<b>Priority</b>	Medium		
<b>Comments</b>	There are hairline to 2mm wide cracks running along the hinge joints. A full length crack to the east intermediate hinge joint (above southbound lane 3) is open 2mm wide maximum. There is some minor corrosion staining in places emanating from the crack.		
<b>Cause</b>	Structural Movement	<b>Certainty</b>	Medium
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130589-0008		
<b>Component</b>	Structural Joint	West Inner Hinge Joint	
<b>Defect Type</b>	RSt - Rust stain/streak/spot Leaching/Staining		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	Rust staining can be found on isolated service bays.		
<b>Cause</b>	Reinforcement Corrosion	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130538-0006		
<b>Component</b>	Structural Joint	West Inner Hinge Joint	
<b>Defect Type</b>	WR - Running water Leaching/Staining		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D3 - Moderate: Defect is probably causing damage to element or structure, or is likely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	There are isolated areas of water seepage and leaching at the ends of the hinge joints.		
<b>Cause</b>	Moisture Egress	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130531-0009		
<b>Component</b>	Structural Joint	East Outer Hinge Joint	
<b>Defect Type</b>	TenCr - Tension crack Cracks in concrete or masonry		
<b>Extent</b>	SE - Defect present in over 50% of area or length of element		
<b>Severity</b>	D3 - Moderate: Defect is probably causing damage to element or structure, or is likely to do so in the near future		
<b>Priority</b>	Medium		
<b>Comments</b>	There are hairline to 2mm wide cracks running along the hinge joints. A full length crack to the east intermediate hinge joint (above southbound lane 3) is open 2mm wide maximum. There is some minor corrosion staining in places emanating from the crack.		
<b>Cause</b>	Structural Movement	<b>Certainty</b>	Medium
<b>Comment on Cause</b>			

<b>Document ID</b>	4586848	<b>Document Title</b>	STR_318 PI Defect photos 21/02/2025
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Cracking 2mm wide through the west hinge joint.JPG



Cracking within the east hinge joint over SB L1.JPG



Cracking within the west hinge joint over NB L1.JPG



Water and leachate staining to the west hinge joint over NB L1.JPG



<b>Defect Code</b>	DEF_2130535-0006		
<b>Component</b>	Structural Joint	East Outer Hinge Joint	
<b>Defect Type</b>	WR - Running water Leaching/Staining		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D3 - Moderate: Defect is probably causing damage to element or structure, or is likely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	There are isolated areas of water seepage and leaching at the ends of the hinge joints.		
<b>Cause</b>	Moisture Egress	<b>Certainty</b>	High
<b>Comment on Cause</b>			
<b>Document ID</b>	4586838	<b>Document Title</b>	STR_318 PI Defect photos 21/02/2025

Water seepage through the east hinge joint on the east span.JPG



Water seepage through the east deck west hinge joint on the north end.JPG



Water seepage through the east deck west hinge joint.JPG



Water seepage through the south end of the west hinge joint.JPG



Leachate through the west deck east hinge joint.JPG



<b>Defect Code</b>	DEF_2130587-0008		
<b>Component</b>	Structural Joint	East Outer Hinge Joint	
<b>Defect Type</b>	RSt - Rust stain/streak/spot Leaching/Staining		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	Rust staining can be found on isolated service bays.		
<b>Cause</b>	Reinforcement Corrosion	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130528-0005		
<b>Component</b>	EDG - Edge beam or edge cantilever	South service bays	
<b>Defect Type</b>	Cle - Calcite Leaching Leaching/Staining		
<b>Extent</b>	SC - Defect present in 5% to not more than 20% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	There is leachate staining and stalactites along the service bay joints across all deck spans.		
<b>Cause</b>	Moisture Egress	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130539-0005		
<b>Component</b>	EDG - Edge beam or edge cantilever	South service bays	
<b>Defect Type</b>	Cr - Crack of uncertain origin or a combination of causes Cracks in concrete or masonry		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	There are isolated areas of cracking in the service bays. The cracks range from hairline - 2mm wide.		
<b>Cause</b>	Shrinkage	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Document ID</b>	4586852	<b>Document Title</b>	STR_318 PI Defect photos 21/02/2025
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Hairline cracking to the north service bay over SB L1.JPG



Cracking to the south service bay 0.4mm wide over NB L1.JPG



Cracking 1mm wide to the north service bay over NB L1.JPG



Hairline cracking to the north service bays over NB L1.JPG



Cracking to the north service bay up to 0.5mm wide over NB L1.JPG



Cracking to the south service bay up to 0.5mm wide over SB HS.JPG



Cracking 2mm wide to the north service bay over NB L3.JPG



<b>Defect Code</b>	DEF_2130548-0008		
<b>Component</b>	Abutment Wall	West Abutment	
<b>Defect Type</b>	Cr - Crack of uncertain origin or a combination of causes Cracks in concrete or masonry		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	There are isolated areas of longitudinal and transverse cracking in the bank seats and revetments. The cracks range from hairline - 0.5mm wide.		
<b>Cause</b>	Shrinkage	<b>Certainty</b>	High
<b>Comment on Cause</b>			
<b>Document ID</b>	4586858	<b>Document Title</b>	STR_318 PI Defect photos 21/02/2025

Vertical cracking to the west bankseat at the north end.JPG



Vertical cracking to the east bankseat at the south end.JPG



Cracking 0.1mm wide to the east revetment.JPG



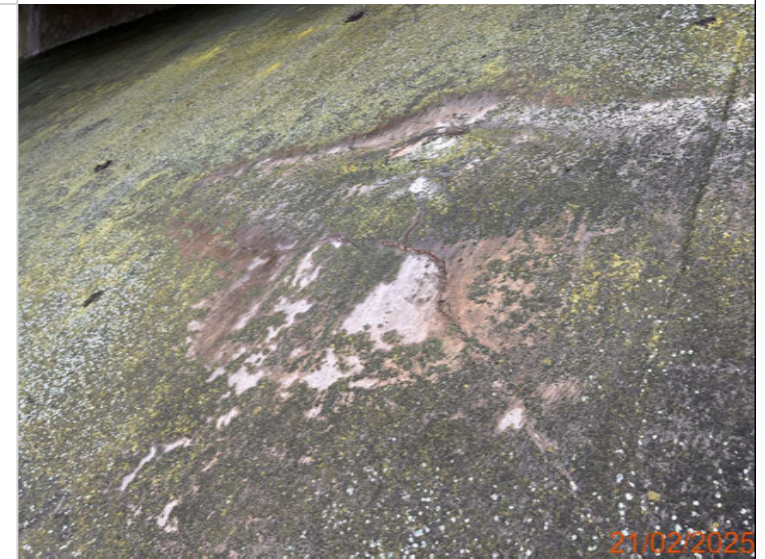
Cracking 0.1mm wide to the south return on the east bankseat.JPG



Cracking 0.2mm wide to the south return on the east bankseat.JPG



Cracking to the west revetment.JPG



Hairline cracking to the north return on the east bankseat.JPG



<b>Defect Code</b>	DEF_2130549-0008
<b>Component</b>	Abutment Wall East Abutment
<b>Defect Type</b>	Cr - Crack of uncertain origin or a combination of causes Cracks in concrete or masonry
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future
<b>Priority</b>	Low
<b>Comments</b>	There are isolated areas of longitudinal and transverse cracking in the bank seats and revetments. The cracks range from hairline - 0.5mm wide.
<b>Cause</b>	Shrinkage <b>Certainty</b> High
<b>Comment on Cause</b>	

<b>Defect Code</b>	DEF_2130585-0008
<b>Component</b>	Abutment Wall East Abutment
<b>Defect Type</b>	RSt - Rust stain/streak/spot Leaching/Staining
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future
<b>Priority</b>	Low
<b>Comments</b>	A rust stain from a small piece of exposed corroded rebar can be found in the south return of the east bankseat.
<b>Cause</b>	Reinforcement Corrosion <b>Certainty</b> High
<b>Comment on Cause</b>	

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Rust staining to the south return wall on the east bankseat.JPG



<b>Defect Code</b>	DEF_2130595-0005		
<b>Component</b>	SLB - Slab	Reinforced concrete deck slab	
<b>Defect Type</b>	RN - Rusty nails/Tie wire etc. Concrete workmanship		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D1 - Defect is definitely not causing damage to element or structure		
<b>Priority</b>	Low		
<b>Comments</b>	There are areas of rusty tie wire present in the deck soffit of all spans.		
<b>Cause</b>	Not Applicable	<b>Certainty</b>	
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130584-0005		
<b>Component</b>	SLB - Slab	Reinforced concrete deck slab	
<b>Defect Type</b>	RSt - Rust stain/streak/spot Leaching/Staining		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	Rust staining can be found on isolated service bays.		
<b>Cause</b>	Reinforcement Corrosion	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130594-0005		
<b>Component</b>	SLB - Slab	Reinforced concrete deck slab	
<b>Defect Type</b>	RN - Rusty nails/Tie wire etc. Concrete workmanship		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D1 - Defect is definitely not causing damage to element or structure		
<b>Priority</b>	Low		
<b>Comments</b>	There are areas of rusty tie wire present in the deck soffit of all spans.		
<b>Cause</b>	Not Applicable	<b>Certainty</b>	
<b>Comment on Cause</b>			

<b>Document ID</b>	4586973	<b>Document Title</b>	STR_318 PI Defect photos 21/02/2025

Rusty tie wire within the east span soffit.JPG



Rusty tie wire within the west span northbound soffit.JPG



Rusty tie wire to the west span soffit.JPG



<b>Defect Code</b>	DEF_2130581-0005		
<b>Component</b>	SLB - Slab	Reinforced concrete deck slab	
<b>Defect Type</b>	RSt - Rust stain/streak/spot Leaching/Staining		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	Rust staining can be found on isolated service bays.		
<b>Cause</b>	Reinforcement Corrosion	<b>Certainty</b>	High
<b>Comment on Cause</b>			

**Document ID** 4586939      **Document Title** STR\_318 PI Defect photos 21/02/2025

Rust staining to the south service bay over NB L1.JPG



<b>Defect Code</b>	DEF_2130597-0005		
<b>Component</b>	SLB - Slab	Reinforced concrete deck slab	
<b>Defect Type</b>	RN - Rusty nails/Tie wire etc. Concrete workmanship		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D1 - Defect is definitely not causing damage to element or structure		
<b>Priority</b>	Low		
<b>Comments</b>	There are areas of rusty tie wire present in the deck soffit of all spans.		
<b>Cause</b>	Not Applicable	<b>Certainty</b>	
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130582-0005		
<b>Component</b>	SLB - Slab	Reinforced concrete deck slab	
<b>Defect Type</b>	RSt - Rust stain/streak/spot Leaching/Staining		
<b>Extent</b>	SB - Defect present in not more than 5% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	Rust staining can be found on isolated service bays.		
<b>Cause</b>	Reinforcement Corrosion	<b>Certainty</b>	High
<b>Comment on Cause</b>			

<b>Defect Code</b>	DEF_2130529-0005		
<b>Component</b>	EDG - Edge beam or edge cantilever	North service bays	
<b>Defect Type</b>	CLe - Calcite Leaching Leaching/Staining		
<b>Extent</b>	SC - Defect present in 5% to not more than 20% of area or length of element		
<b>Severity</b>	D2 - Minor: Defect is unlikely to be causing damage to the element or structure now or unlikely to do so in the near future		
<b>Priority</b>	Low		
<b>Comments</b>	There is leachate staining and stalactites along the service bay joints across all deck spans.		
<b>Cause</b>	Moisture Egress	<b>Certainty</b>	High
<b>Comment on Cause</b>			