NETWORK RAIL

Bridge Detailed Examination Report

ELR: COL	**Contract Mileage: 189m 0825yds 37.50chs**	**Struc. Ref: 65**
Examination Type: Bridge Detailed	**NR ID: 12010422**	**Exam Date: 25-Nov-2021**
Area: Central East	**BRS: 0**	**OS Ref: SJ8383397490**
Structure Name: Whitworth Street	**Type: BU**	**Exam ID: 2571146**
Route: London Road - Ordsall lane		**Complete Exam: No**

Section A: To Be Completed By The Examining Organisation

HIDDEN PARTS NOT EXAMINED (EXCLUDING FOUNDATIONS)	Part	Reason
	30% of soffit	Cladding and room layout
	Pier faces	Tiled and other cladding, refrigeration units

ITEM	DESCRIPTION	LOCATION	Est. Cost £ +/- 20%	Priority Within	Quantity	Severity	Probability	Risk Score	Works Category
1	Start additional exam regime to monitor soffit fractures.	Soffit		Immed	1 unit	4	3	E12	Other
2	Develop renewal plan for arch in conjunction with adjacent spans.	Structure	50000.00	6yrs	1 unit	4	3	E12	Other
3	Undertake minor brickwork repairs to elevations	elevations	10000.00	3yrs	1 unit	3	3	M9	Brickwork/Stone Repairs
4	Liaise with properties about issues with tenancy with regards to required additional examinations and long term repair works.	na		Immed	1 unit	1	1	E1	Other

History of Live Significant Defects

No	Description	Location	Exam Date	Access Gained	Exam Type	Rec Raised	Risk Score	Access Req'd	Deter - ioration	Repaired	Flagged for Closure	Engineer Comments
1	9No. longitudinal fractures. 2 open 10mm+ with distortion of profile, wetness and loss of material	Arch barrel	23/07/12	N	V	N	9	Y	Baseline	N	N	Taken from the Detailed of 28/02/2008. Stitching and tie bars recommended. Not viewed at this examination.
1	9No. longitudinal fractures. 2 open 10mm+ with distortion of profile, wetness and loss of material	Arch barrel	29/04/13	N	D	N	9	Y	N/A	N	N	unknown no access to view.
1	9No. longitudinal fractures. 2 open 10mm+ with distortion of profile, wetness and loss of material	Arch barrel	08/02/14	N	V	N	9	Y	NV	N	N	Taken from the Detailed of 28/02/2008. Stitching and tie bars recommended. Not viewed at this examination.
1	9No. longitudinal fractures. 2 open 10mm+ with distortion of profile, wetness and loss of material	Arch barrel	11/04/15	N	V	NV	9	Y	NV	N	N	Not viewed
1	9No. longitudinal fractures. 2 open 10mm+ with distortion of profile, wetness and loss of material	Arch barrel	21/03/17	N	V	NV	9	Y	NV	N	N	Unable to view.
1	9No. longitudinal fractures. 2 open 10mm+ with distortion of profile, wetness and loss of material	Arch barrel	03/11/17	N	V	NV	9	Y	NV	N	N	Unable to view.

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History of Live Significant Defects

No	Description	Location	Exam Date	Access Gained	Exam Type	Rec Raised	Risk Score	Access Req'd	Deter - ioration	Repaired	Flagged for Closure	Engineer Comments
1	9No. longitudinal fractures. 2 open 10mm+ with distortion of profile, wetness and loss of material	Arch barrel	25/11/21	Y	P.A.N	Y	12	Y	Y	N	N	Further significant deterioration. Description updated. PAN LNW UD 1363.
1	9No. longitudinal fractures. 2 open 10mm+ with distortion of profile, wetness and loss of material	Arch barrel	25/11/21	Y	D	Y	12	Y	Y	N	N	Further deterioration, fracture aperture has increased with distortion to profile noted and loss of brickwork. Some previous JL fractures have sealed with calcite. Updated from PAN form raised during
2	Open joints and fractures	Parapets and spandrels	23/07/12	Y	V	N	4	N	Baseline	N	N	Taken from the Detailed of 28/02/2008. Pointing recommended. Risk reduced from 8 to 2x2=4
2	Open joints and fractures	Parapets and spandrels	29/04/13	Y	D	N	4	N	N/A	Y	N	some repairs appear to have been carried out.
2	Open joints and fractures	Parapets and spandrels	08/02/14	N	V	N	4	N	NV	Y	N	Not seen at exam
2	Open joints and fractures	Parapets and spandrels	11/04/15	Y	V	N	4	N	N	N	N	Old standing with no deterioration
2	Open joints and fractures	Parapets and spandrels	21/03/17	Y	V	N	4	N	N	N	N	no change
2	Open joints and fractures	Parapets and spandrels	03/11/17	Y	V	N	4	N	N	N	N	Old standing with no deterioration
2	Open joints and fractures	Parapets and spandrels	25/11/21	Y	D	Y	4	N	Y	N	N	Some slight deterioration.
3	Unexamined parts - Internal elements sheeted, Downside restricted.	Internal elements, Downside	23/07/12	N	V	N/A	N/A	Y	Baseline	N	N	Unexamined parts, not viewed at this examination.
3	Unexamined parts - Internal elements sheeted, Downside restricted.	Internal elements, Downside	29/04/13	N	D	N/A	N/A	Y	N/A	N	N	sheets need removing toallow internal inspection.
3	Unexamined parts - Internal elements sheeted, Downside restricted.	Internal elements, Downside	08/02/14	Y	V	N/A	N/A	Y	N/A	N	N	Sheeted over so unable to view internal elements
3	Unexamined parts - Internal elements sheeted, Downside restricted.	Internal elements, Downside	11/04/15	Y	V	N/A	N/A	Y	N/A	N	N	No change
3	Unexamined parts - Internal elements sheeted, Downside restricted.	Internal elements, Downside	21/03/17	Y	V	N/A	N/A	Y	N/A	N	N	Unable to view.
3	Unexamined parts - Internal elements sheeted, Downside restricted.	Internal elements, Downside	03/11/17	Y	V	N/A	N/A	Y	N/A	N	N	No change
3	Unexamined parts - Internal elements sheeted, Downside restricted.	Internal elements, Downside	25/11/21	Y	D	Y	9	Y	N	N	N	70% of soffit examined. Some previously recorded fractures not able to be viewed.
5	Separation fracture between face ring and spandrel wall	US elevation, HM haunch	25/11/21	Y	D	Y	6	N	Baseline	N	N	New tracked defect

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No	Description	Location	Exam Date	Access Gained	Exam Type	Rec Raised	Risk Score	Access Req'd	Deter - ioration	Repaired	Flagged for Closure	Engineer Comments
6	Vertical fractures to parapet. 1m L x HL from string course. FH x 5-10mm with 1m2 of 10mm displacement to wall and 1 no string stone.	US elevation, midspan and above HM pier respectively.	25/11/21	Y	D	Y	9	N	Baseline	N	N	Old standing, new to tracker. No change.
7	Loose brick at height	US elevation, HM pier, below padstone.	25/11/21	Y	D	Y	5	N	Baseline	N	N	New tracked defect

Engineers Notes

Structure is in poor condition, similar issues exist in Span 63-67. Holistic solution to this section of the viaduct should be planned. Span not viewed at recent additional exam dated 17/05/2022 and should be viewed at earliest

[redacted]

NETWORK RAIL

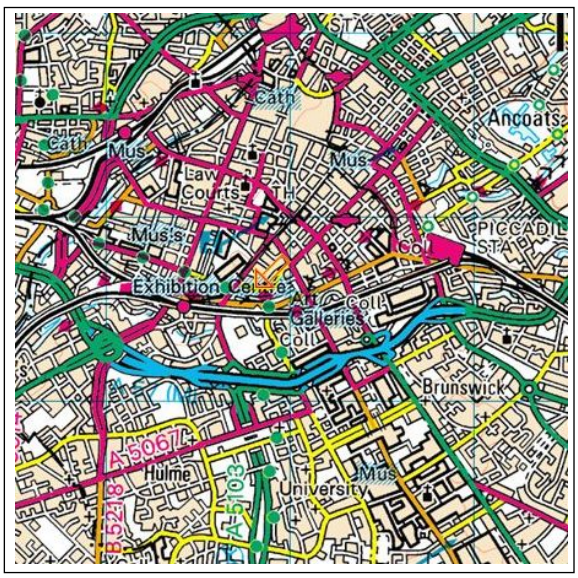
Bridge Detailed Examination Report

ELR: COL	**Contract Mileage: 189m 0825yds 37.50chs**			**Struc. Ref: 65**	
Struc Type BU	**NR ID** 12010422 **Rpt ID** 17317 **OS Ref** SJ8383397490			**Exam ID**	2571146
Dimensions	Height 6.35m Length 12.35m Span 10.60m No. Spans: 1			**Exam Date**	25/11/2021
Primary Material	RBE - Brick			**Last Detailed**	29/4/2013
Secondary Material	Not Recorded			**Last Visual**	3/11/2017
Structure Carries	Rail	**Over**	Land		
Line	London Road - Ordsall lane				
Name:	Whitworth Street				

Elevation Photograph



Map Extract



A tactile examination was undertaken by XEIAD on 05/05/19, 12/05/19, 06/12/19, 11-12/12/19 & 25/11/21 hand tools from ground level, MEWP with Traffic management and Rope Access techniques were utilised for this examination.
The examination was carried out during day and night shifts.
Trackside examination was carried out during night-time under T3 possession 12/12/19.
The weather was fair
The examination was undertaken by Chris Reid STE4 (inside tenanted arch), Dwain Jones STE4 (upside elevation), Joe Duckworth STE4 (Downside elevation) & and Eli Collier STE4 (trackside)

Report by Chris Reid

The structure is between Oxford road Station at LM end & Deansgate Station at HM end
Nearest postcode - M1 5ND

The Structure is a brick tenanted arch under bridge and is part of a larger viaduct. The structure carries 3no of electrified lines over pedestrianised area below.
Overall the structure is in a fair condition.

I confirm that the previous detailed and visual examination reports have been reviewed and the dates of the said reports are given in this report.
Previous detail report – 29/04/2013
Previous Visual report – 03/11/2017
One off additional - 28/02/2008 (cladding removed, fractures present)

The previous examination was incomplete due to soffit and pier faces being completely cladded and inaccessible.

NOTE – access keys required from Network Rail to enter tenanted arch – Enabling works team present on site to remove cladding.
Not all cladding could be removed from soffit and piers due to refrigeration units and small rooms present on the top floor. It was agreed with Dave Murphy Network Rail that a 70% best achievable was acceptable for this examination.

Adjacent spans 64 and 66 were accessed during a different examination dates (11 &12 /12/2019) and photos of the pier faces were taken – Cladding present.

OS reference update to SJ8383397490

Finally – PAN (LNW UD 1363) was raised during 25/11/21 exam regarding fractures in soffit.

See texts and sketches for full details of defects.

Has all the structure been examined? No (if no, see report for details)

30% of cladding to soffit could not be accessed.
Pier faces tiled and cladded both sides and to adjacent spans faces.
Has the structure been viewed under load? Yes

[redacted]

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Element Status Table

Element Name	Status	Condition
Arch Ring	Examined	Poor
Ballast Plates and Boards	N/A	N/A
Bearing	N/A	N/A
Cross Girders	N/A	N/A
Floor / Deck	N/A	N/A
Longitudinal Timbers	N/A	N/A
Main Girders	N/A	N/A
Parapets and Pilasters	Examined	Fair
Rail Bearers	N/A	N/A
Spandrels	Examined	Fair
Water Proofing	Not Included	Cannot Determine
Abutments	N/A	N/A
Bedstones and Cills	Examined	Fair
Columns and Cylinders	N/A	N/A
Piers	Examined	Fair
Trestles and Crossheads	N/A	N/A
Wing and Retaining Walls	N/A	N/A
Debris	N/A	N/A
Drainage	N/A	N/A
Gutters And Downpipes	Examined	Fair
Handrails	N/A	N/A
OLE	Examined	Fair
Painting	N/A	N/A
Pointing	Examined	Fair
Revetment Walls	N/A	N/A
Rivets and Bolts	N/A	N/A
Signage	Examined	Fair
Track/Road	Examined	Good
Vegetation	Examined	Fair

Record of Observations Under Load

Load Type	General Area Observed	Result Of Observation	Date & Time

Avongards

Are Avongards Present?	No

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Date Tabs

Are Date Tabs Present?	No

Plumbing Points

Are Plumbing Points Present?	No

Environmental Factors Present: No

Item number	Description	Location

Record of Condition by Element

Element Name	Status	Condition
Arch Ring	Examined	Poor
Parapets and Pilasters	Examined	Fair
Spandrels	Examined	Fair
Water Proofing	Not Included	Cannot Determine
Bedstones and Cills	Examined	Fair
Piers	Examined	Fair
Gutters And Downpipes	Examined	Fair
OLE	Examined	Fair
Pointing	Examined	Fair
Signage	Examined	Fair
Track/Road	Examined	Good
Vegetation	Examined	Fair

ENGINEERS RECOMMENDATIONS FROM PREVIOUS EXAMINATION REPORT
Previous Visual report – 03/11/2017

No action

LIVE SIGNIFICANT DEFECTS FROM PREVIOUS EXAMINATION REPORT
Previous Visual – Previous Visual report – 03/11/2017

DEFECT NO 1 - Multiple longitudinal fractures
LOCATION - Arch barrel
STATUS – Signs of deterioration
PHOTO – P8-20

DEFECT NO 2 – Open joints and fractures
LOCATION – Parapets and spandrels
STATUS – No significant signs of deterioration
PHOTO – P21 -24, 33 - 35

DEFECT NO 3 – Unexamined parts - Internal elements sheeted, Downside restricted.
LOCATION – Internal elements, Downside
STATUS – 70% of soffit examined (agreed with Network Rail) Downside elevation examined using rope access techniques.
PHOTO – P5

PRINCIPAL DIMENSIONS
Height – 6.35m
Length – 12.35m
Span – 10.60m

Clearances:
Upside – 1.50m
Downside – 3.50m

Parapet height:
Upside – 2.00m
Downside – 1.80m

PHOTO LIST
P1 - Upside elevation
P2 - Downside elevation
P3 - Track view looking towards LM
P4 - Track view looking towards HM
P5 - General view of soffit with cladding and panel removed
P6 - General view downstairs
P7 - General view upstairs

SKETCHES
Under load form
SK1 - Site location sketch - COL 65
SK2 - Soffit defect sketch - COL 65
SK3 - Upside elevation defect sketch - COL 65
SK4 - Downside elevation defect sketch - COL 65

CONTINUATION

ARCH RING - Overall poor condition

Spall and open joints to faces rings
Multiple longitudinal fracture present to soffit with slight spall and seepage. Loss of profile between two number of fractures.

Refer to sketches 2,3,4

PARAPETS & PILASTERS - Overall fair condition

General view of Upside trackside parapet. P33

Calcite veins between brick joints present throughout with staining running down. P34
NEW – 1no Vertical stepped fracture 1.2m long open hl-1mm (4m from LM end). P35

General view of Downside trackside parapet. P36
General weathering present throughout trackside parapet face 3m2 total up to 20mm deep.

Refer to sketches 3 & 4 for elevation defects.

SPANDRELS - Overall fair condition

Separation fracture present to upside elevation
Isolated spall and open joints to downside elevation.

Refer to sketches 3 & 4

WATERPROOFING – Not included

Cannot determine the condition of the waterproofing However, the soffit is slightly damp and seepage present to some of the larger fracture within the soffit.

Refer to Sketch 2

BEDSTONES & CILLS - Overall fair condition

Elevation faces weathered slightly
Sample section of plaster board removed from upstairs LM and HM pier exposing bed stones. The bedstones were wet and weathered up to 20mm. P37,38

Refer to Sketch 3,4

PIERS - Overall fair condition

Upside pier return examined 100% with weathering, open joints and 1no LTH brick.
Downside pier return examined 50% due to adjacent roof/ building.
LM & HM pier faces not examined downstairs due to local business below and walls being tiled.
Sample section of plaster board removed from upstairs LM and HM pier exposing top of pier. The pier faces signs of wetness staining. P37,38

Top of HM pier towards downside end exposed and has a concrete finish. P39
NEW – @6m from downside end - Vertical fracture 950mm long open hl-1mm. P40
NEW – @0m from downside end - Vertical fracture 950mm long open hl. P41
NEW – @0m from downside end - Diagonal fracture 1.3m long open 1mm. (connects into end wall) P41

LM and HM pier faces in adjacent spans 64 & 66 were examined during another previous exam visit. Both pier faces were plastered or cladded. P42,43

GUTTERS & DOWNPIPES - Overall fair condition

Sample section of plaster board removed from upstairs LM and HM pier exposing top of downpipes and guttering. Surround areas wet of pier and bedstones wet. P44,45

POINTING - Overall fair condition

Isolated open joints found throughout. Approx. 5m2 up to 30mm deep.

TRACK/ROAD - Overall good condition

No sign of movement or failure at time of examination.

VEGETATION - Overall fair condition

Vegetation growth present to downside elevation stringcourse.

Refer to sketch 4

SIGNAGE - Overall fair condition

Only bridge ID found was on upside parapet face and is corroded. P46

OLE - Overall fair condition

OLE tensioning bars fixed to both spandrel and OLE present to both elevations.
OLE fixed to upside spandrel wall – secure at time of examination. P47
OLE earth bond found in downside cess. P48

Refer to sketches 3 & 4

KEY

General

Dia. – Diameter
G.L – Ground Level
M.H – Manhole
N.F.D – No Further Deterioration
WL – Water Level
Col – Column
No. – Number
O/S – Old Standing
S.S.D – Shows Slight Deterioration

Masonry and Concrete

H – Hollow
H/L – Hairline
L.T.H – Loose to Hammer
O.J – Open Joints
DT – Date Tab
Sp. – Spall

Fractures
V.F – Vertical Fracture
V.S.F – Vertical Stepped Fracture
B.J.F – Bed Joint Fracture
D.F – Diagonal Fracture
D.S.F – Diagonal Stepped Fracture
HF – Horizontal Fracture
X<>mm – displaced by <> mm. *(+/- indicates direction of displacement)*

New / Worsened Fracture (line thickness to reflect fracture width) *(Red Line)*

Old Standing Fracture – NFD (line thickness to reflect fracture width) *(Blue Line)*

Spalling / Missing Brickwork *(Light Grey)*

Open Joints *(Yellow)*

Bulging / Out of Plumb / Displacement *(Brown)*

Indications of wetness *(Light Blue)*

H — Hollow / Drummy *(Black outline of area with "H")*

Date Tab / Avonguard (must also show installation date & reading) *(Black)*

Metal

MG – Main Girder
XG – Cross Girder
BF – Bottom Flange
TF – Top Flange
CI – Cast Iron
WI – Wrought Iron
Corr – Corrosion
Lam – Lamination
LOS – Loss of Section
KE – Knife Edge

Corrosion / Lamination *(Light Orange)*

Fractures / Tears / Cracked Welds *(Red Line)*

Loss of Section / Buckling *(Red)*

Version 1.1 April 2008

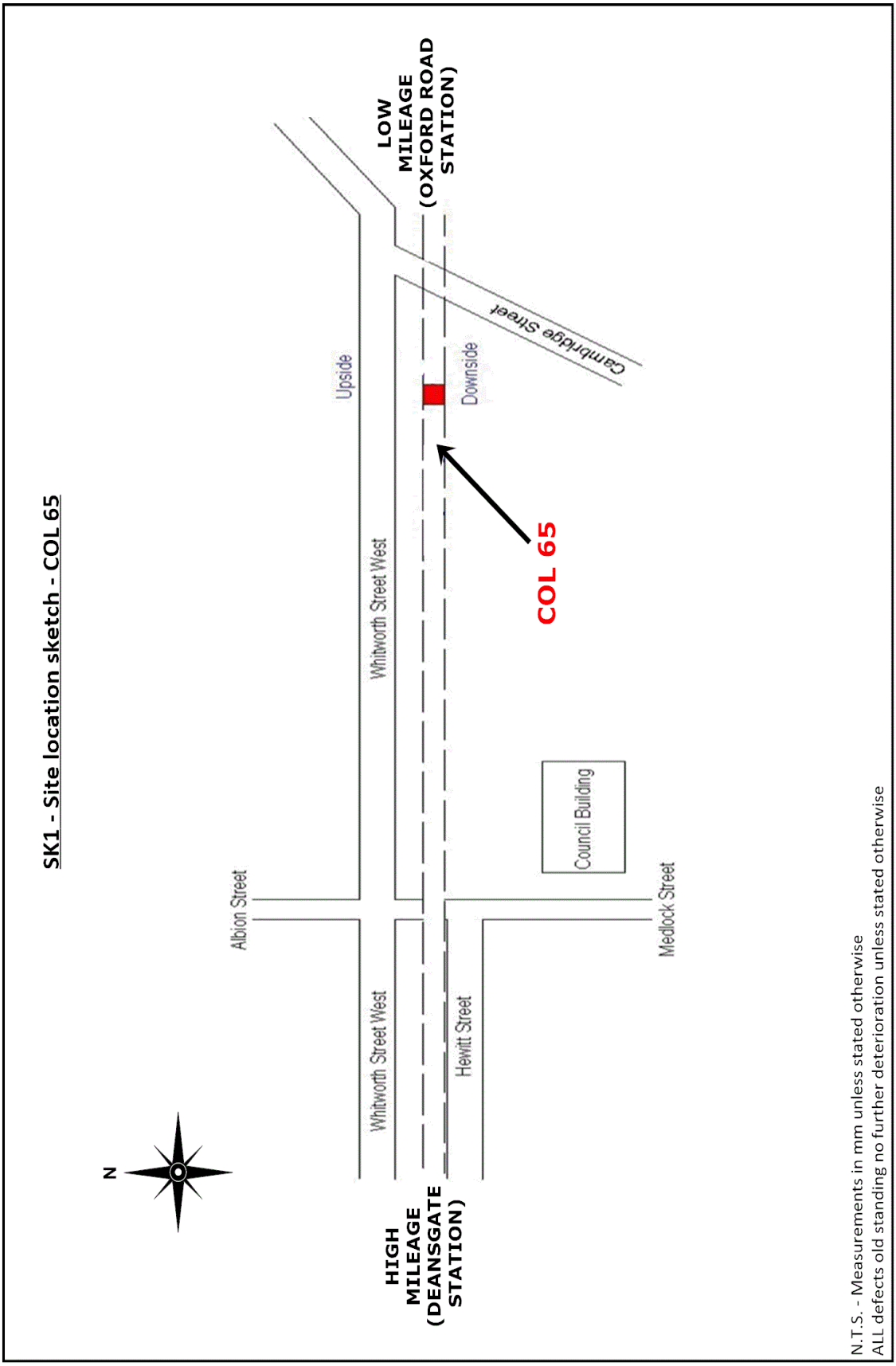
Record of observations under moving load

Note: The general observation under moving load of part of a structure does not necessarily mean that all defects have been identified as a result of that observation.

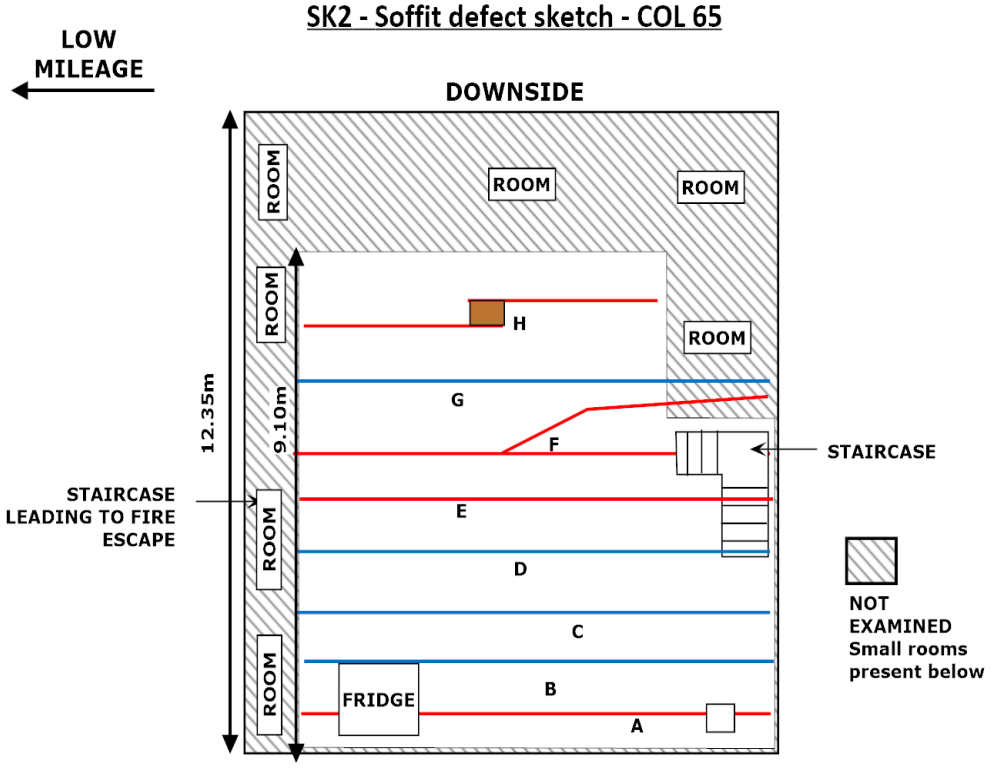
Load type	General area observed	Result of observation
Loco-hauled passenger train	soffit	Slight movement, can hear timber batons from cladding creaking

For example:
Low mileage bearings
Span 1 downside rail bearers
Span 2 arch soffit
Topside, general
Upside waybeam fixings
Etc.

For example:
Pumping at bearings
Excessive deflection
Fractures opening 1mm
No defects observed
Loose holding-down bolts
Etc.


SK1 - Site location sketch - COL 65
LOW MILEAGE (OXFORD ROAD STATION)
Cambridge Street
Upside
Downside
COL 65
Whitworth Street West
Albion Street
Council Building
Medlock Street
Hewitt Street
Whitworth Street West
HIGH MILEAGE (DEANSGATE STATION)
N
N.T.S. - Measurements in mm unless stated otherwise
ALL defects old standing no further deterioration unless stated otherwise

SK2 - Soffit defect sketch - COL 65



General comments

Note - 70% of soffit examined due to refrigeration units and small rooms with weak roofs present. This was agreed with Network rail before the examination.

Fractures not found have been taken from one off additional report 28.02.2008

Cladding had to be pulled back in sections during the examination.
Soffit slighty damp behind cladding
Timber cladding batons creak whilst under load.

General view of soffit. P5

A - SSD - @900mm from upside. Longitudinal fracture Full length open 2mm -10mm (prev. 5mm) with wetness and material seeping, edges of fracture spalled up to 50mm deep LM end, previously reported 2no loose bricks, wedged . P8-12

B - @2m from upside - Longitudinal fracture full length open hl (not found due to cladding)

C - @ 3m from upside, Longitudinal fracture full length open hl - 2mm. P13

D - @4m from upside - Longitudinal fracture full length open hl (not found due to cladding)

E - SSD - @5m from upside - Longitudinal fracture full length open hl-4mm (Prev 2mm). P14,15

F - SSD - @6m from upside - Y shaped - Longitudinal fracture full length open hl-1mm (Prev. hl). P16

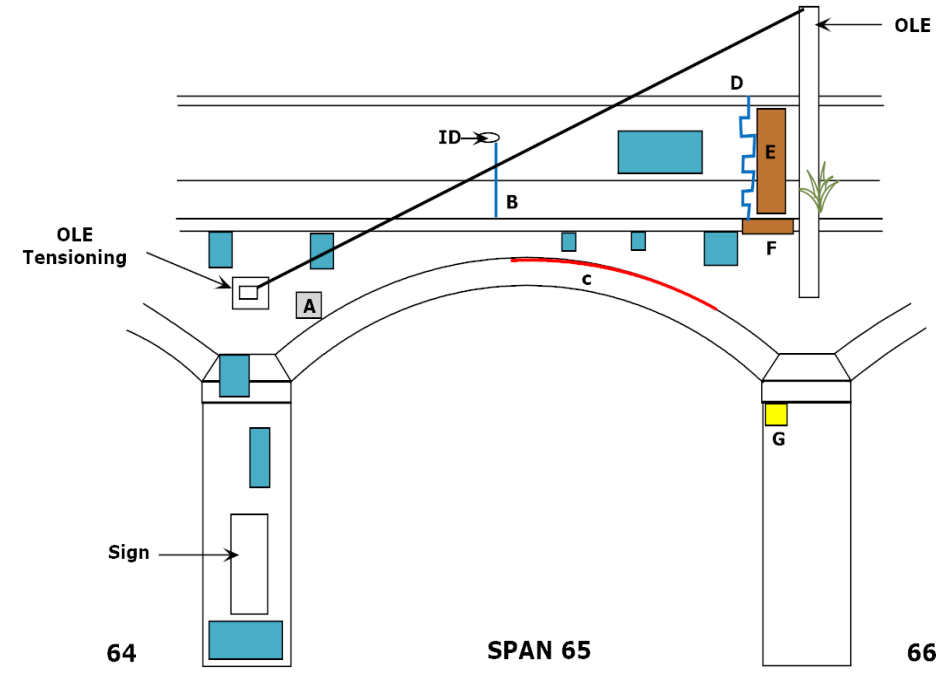
G - @7.5m from upside - Longitudinal fracture full length open hl-2mm (not found due to cladding)

H - SSD - @ 8m from upside - Staggered Longitudinal fracture 5.4m long open 1-3mm with loss of profile 0.4m2 up to 10-20mm between where the two fractures overlap. seepage also present. P17-20

N.T.S. - Measurements in mm unless stated
All defects old standing unless stated otherwise.

LOW MILEAGE

SK3 - Upside elevation defect sketch - COL 65



General comments

General view of upside elevation. P1

Isolated open joints 1m2 total up to 15mm deep.
Isolated patches of wetness throughout totaling approx. 5m2
crazed brickwork present throughout parapet. P21
OLE tensioning with concrete fill - paint flaking with underlying corrosion up to 1-2mm. P22
Light vegetation growing behind OLE

A] Spall 0.25m2 up to 15mm

B] Vertical hairline fracture 1m long.

C] NEW - Separation fracture 4m long open 1mm. P23

D] Vertical stepped fracture 2m long open 5-10mm. P24

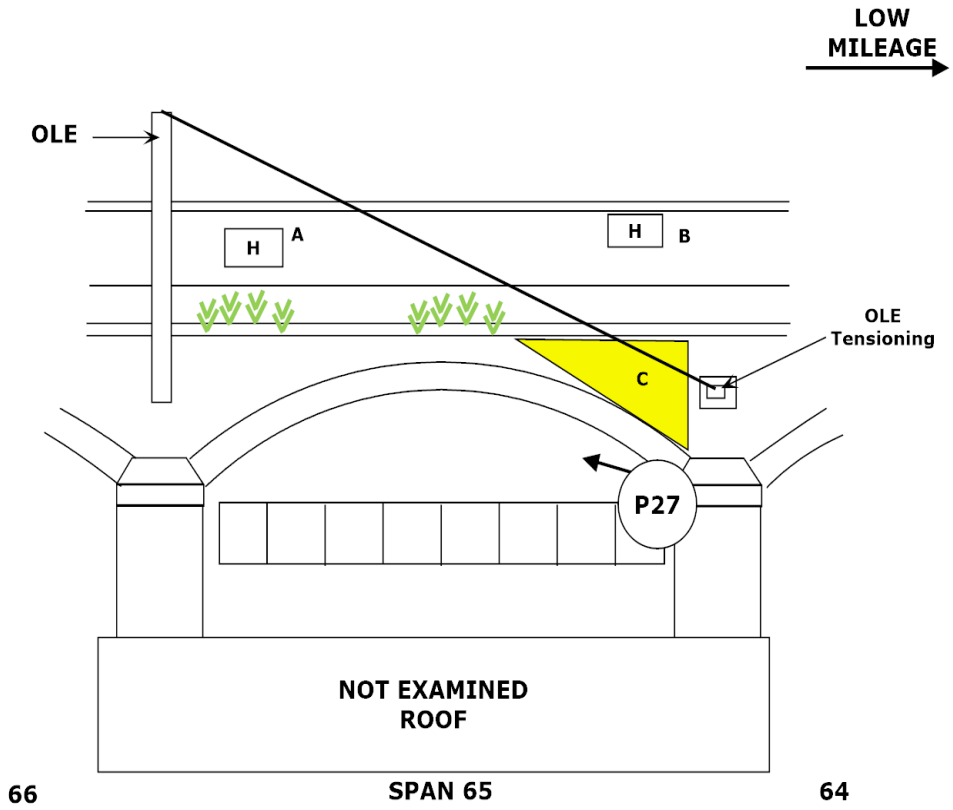
E] Displacement 1m2 up to 10mm

F] 1no displaced string course stones up to 40mm. P25

G] NEW - joint loss around 1no brick 50mm deep - slightly loose. P26

N.T.S. - Measurements in mm unless stated
All defects old standing unless stated otherwise.

SK4 - Downside elevation defect sketch - COL 65



General comments

General view of upside elevation. P2

PNE - Roof/ building below preventing full examination of piers. P28
Brick Infill wall present with windows and metal sheeting.

Isolated open joints Throughout parapet 2m2 total up to 30mm deep
Isolated areas of spalled brickwork 2m2 total up to 30mm deep.
SSD - Isolated area of open joints to face rings 1m2 total up to 30mm deep (prev. 15mm). P29
Vegetation growing along string course up to 4m2. P30
OLE tensioning with concrete fill - paint flaking with underlying corrosion up to 1-2mm.
Weathering to bedstone faces up to 30mm deep

A] NEW - 1m2 of hollow and 6no of slightly LTH bricks. P31

B] NEW - 0.5m2 of hollow. P32

C] Open joints 2m2 up to 30mm deep.

N.T.S. - Measurements in mm unless stated
All defects old standing unless stated otherwise.



P1 - Upside elevation - 25.11.21



P2 - Downside elevation - 25.11.21



P3 - Track view looking towards LM - 12.05.19



P4 - Track view looking towards HM - 12.05.19



P5 - General view of soffit with cladding and panel removed - 25.11.21



P6 - General view downstairs - 25.11.21



P7 - General view upstairs - 25.11.21



P8 - Longitudinal fracture, soffit, HM haunch, Seepage- Defect A - 25.11.21



P9- Longitudinal fracture, soffit, Seepage- Defect A - 25.11.21



P10- Longitudinal fracture, soffit, Seepage- Defect A- 25.11.21



P11 - Longitudinal fracture, soffit, Seepage- Defect A - 25.11.21



P12 - Longitudinal fracture LM haunch continues Defect A - 25.11.21



P13 - Longitudinal fracture, soffit - Defect C - 25.11.21



P14 - Longitudinal fracture, soffit - Defect E - 25.11.21



P15 - Longitudinal fracture, soffit - Defect E - 25.11.21



P16 - Longitudinal fracture, soffit - Defect F - 25.11.21



P17 - Longitudinal fracture, soffit, LM haunch - Defect H - 25.11.21



P18 - Longitudinal fractures overlapping in soffit- Defect H - 25.11.21



P19 - Loss of profile where fractures overlap - Defect H - 25.11.21



P20 - Longitudinal fracture, soffit, HM haunch- Defect H - 25.11.21



P21 - Typical crazed brickwork throughout upside parapet - 06.12.19



P22 - General view of OLE tensioning with concrete fill and corrosion - 06.12.19



P23 - Separation fracture to upside spandrel - 06.12.19



P24 - Vertical stepped fracture, upside parapet - 06.12.19



P25 - 1no displaced stringcourse stones - 06.12.19



P26 - 1no loose brick, upside HM pier - 06.12.19



P27 - General view looking across downside elevation - 05.05.19



P28 - PNE Roof at bottom of piers - 05.05.19



P29 - Typical open joints to downside face rings - 05.05.19



P30 - Typical open joints spall and vegetation growth to downside parapet - 05.05.19



P31 - Hollow and LTH bricks, downside parapet, HM end - 05.05.19



P32 - Hollow downside parapet- LM end - 05.05.19



P33 - General view upside trackside parapet - 12.05.19



P34 - Typical calcite veins and staining, upside parapet - 12.05.19



P35 - Vertical stepped fracture, upside trackside parapet - 12.05.19



P36 - General view trackside downside parapet - 12.05.19



P37 - Typical sample section removed from upstairs piers to expose pier and bedstone - 25.11.21



P38 - Typical weathering to bedstones and concrete finish to pier - 25.11.21



P39 - General view of top of HM pier face towards downside end - 25.11.21



P40 - Vertical fracture to HM pier face - 25.11.21



P41 - Vertical fracture and diagonal fracture, HM pier face and downside end wall - 25.11.21



P42 - General view of pier LM pier (span 64 side) - plastered and painted -11.12.2019



P43 - General view of pier HM pier (span 66 side) - cladded -12.12.2019



P44 - Typical guttering and downpipes hidden behind plaster boarded piers - 25.11.21



P45 - Typical guttering and downpipes hidden behind plaster boarded piers - 25.11.21



P46 - General view of bridge ID, upside parapet - 06.12.19



P47 - OLE stanchion fixed to upside spandrel - 06.12.19



P48 - OLE earth bond found in downside cess - 05.05.19

NETWORK RAIL BCMI EXAMINATION REPORT FORM

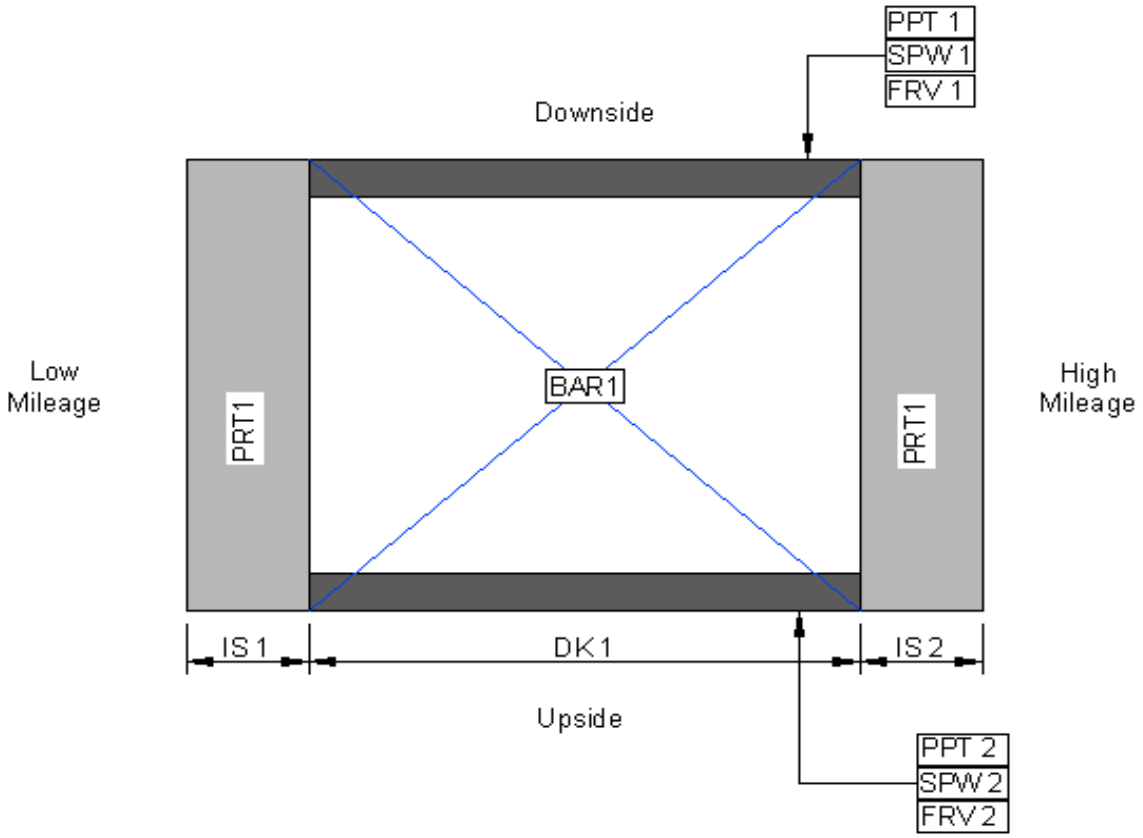
Territory	ELR	Structure No	Start Mileage	Group	Type	RAR ID	Structure Name	Exam Date	Task Year	Exam Type	Examiners Name	Weather
TLNW	COL	65	189.0825	BB	BBU		Whitworth Street	25/11/2021	18_19	D	Chris Reid	Fair

Major Element		Minor Element			Metal / Masonry / Concrete / Timber		Coated Metal / Cracked Masonry			Comments
Code	No	Code	No	Material	S/Ex 1	S/Ex 2	S/Ex 1	S/Ex 2	V	Note: This free text area of the report should be used extensively and can be enlarged as necessary.
IS	1	PRT	1	B	B4	A1	A1	A1	✓	weathering and wetness
IS	1	PCL	1	B	B4	A1	A1	A1	✓	weathering and wetness
DK	1	FRV	1	B	D4	C5	A1	A1	✓	Spall & Open joints
DK	1	FRV	2	B	B4	A1	A1	A1	✓	Weathering and wetness
DK	1	SPW	1	B	C5	B5	A1	A1	✓	Open joints and weathering
DK	1	SPW	2	B	B4	A1	M8	A1	✓	Wethering and wetness, separation fracture between spandrel and face rings open 1mm
DK	1	PPT	1	B	EX3	E3	A1	A1	✓	LTH and hollowness
DK	1	PPT	2	B	F3	B5	K9	G9	✓	Bulging and wetness/ weathering - Vertical fracture open 5-10 & vertical fracture open hl-1mm
DK	1	BAR	1	B	F3	D3	K9	J10	✓	Loss of profile between fractures, lonitudal fracture open 10mm, 2x longitudal fracture open 1-4mm, multipl hl fractures
IS	2	PRT	1	B	EX3	C3	A1	A1	✓	with joint loss
IS	2	PCL	1	B	B4	A1	A1	A1	✓	weathering and wetness

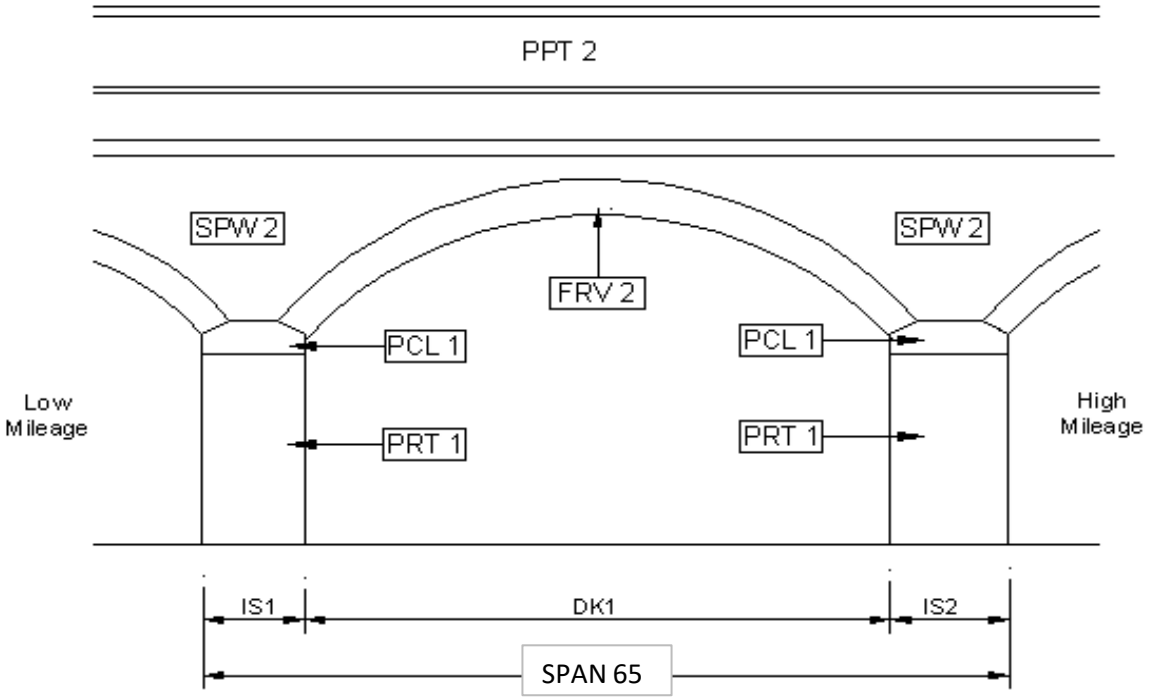
NETWORK RAIL BCMI EXAMINATION REPORT FORM

Major Element				
Code	**No**	**Material**	**Span No**	**V**
IS	1	B	1	✓
DK	1	B	1	✓
IS	2	B	1	✓

NETWORK RAIL BCMI EXAMINATION REPORT FORM



NETWORK RAIL BCMI EXAMINATION REPORT FORM



SKETCH 2 - BCMI - UPSIDE ELEVATION

NETWORK RAIL BCMI EXAMINATION REPORT FORM

Territory	ELR	Structure No	Start Mileage	Group	Type	RAR ID	Structure Name	Exam Date	Task Year	Exam Type	Examiners Name	Weather
TLNW	COL	65	189.0825	BB	BBU		Whitworth Street	25/11/2021	18_19	D	Chris Reid	Fair

Major Element		Minor Element		Metal / Masonry / Concrete / Timber		Coated Metal / Cracked Masonry			Comments	Scores		
Code	No	Code	No	Material	S/Ex 1	S/Ex 2	S/Ex 1	S/Ex 2	V	Note: This free text area of the report should be used extensively and can be enlarged as necessary.	Min El BCMI	Maj El BCMI	BCMI
DK	1	BAR	1	B	F3	D3	K9	J10	✓	Loss of profile between fractures, lonitudal fracture open 10mm, 2x longitudal fracture open 1-4mm, multipl hl fractures	55	64	74
DK	1	FRV	1	B	D4	C5	A1	A1	✓	Spall & Open joints	65		
DK	1	FRV	2	B	B4	A1	A1	A1	✓	Weathering and wetness	88		
DK	1	PPT	1	B	EX3	E3	A1	A1	✓	LTH and hollowness	60		
DK	1	PPT	2	B	F3	B5	K9	G9	✓	Bulging and wetness/ weathering - Vertical fracture open 5-10 & vertical fracture open hl-1mm	55		
DK	1	SPW	1	B	C5	B5	A1	A1	✓	Open joints and weathering	75		
DK	1	SPW	2	B	B4	A1	M8	A1	✓	Wethering and wetness, separation fracture between spandrel and face rings open 1mm	68		
IS	1	PCL	1	B	B4	A1	A1	A1	✓	weathering and wetness	88	88	
IS	1	PRT	1	B	B4	A1	A1	A1	✓	weathering and wetness	88		
IS	2	PCL	1	B	B4	A1	A1	A1	✓	weathering and wetness	88	69	
IS	2	PRT	1	B	EX3	C3	A1	A1	✓	1NO LTH brick with joint loss	60		