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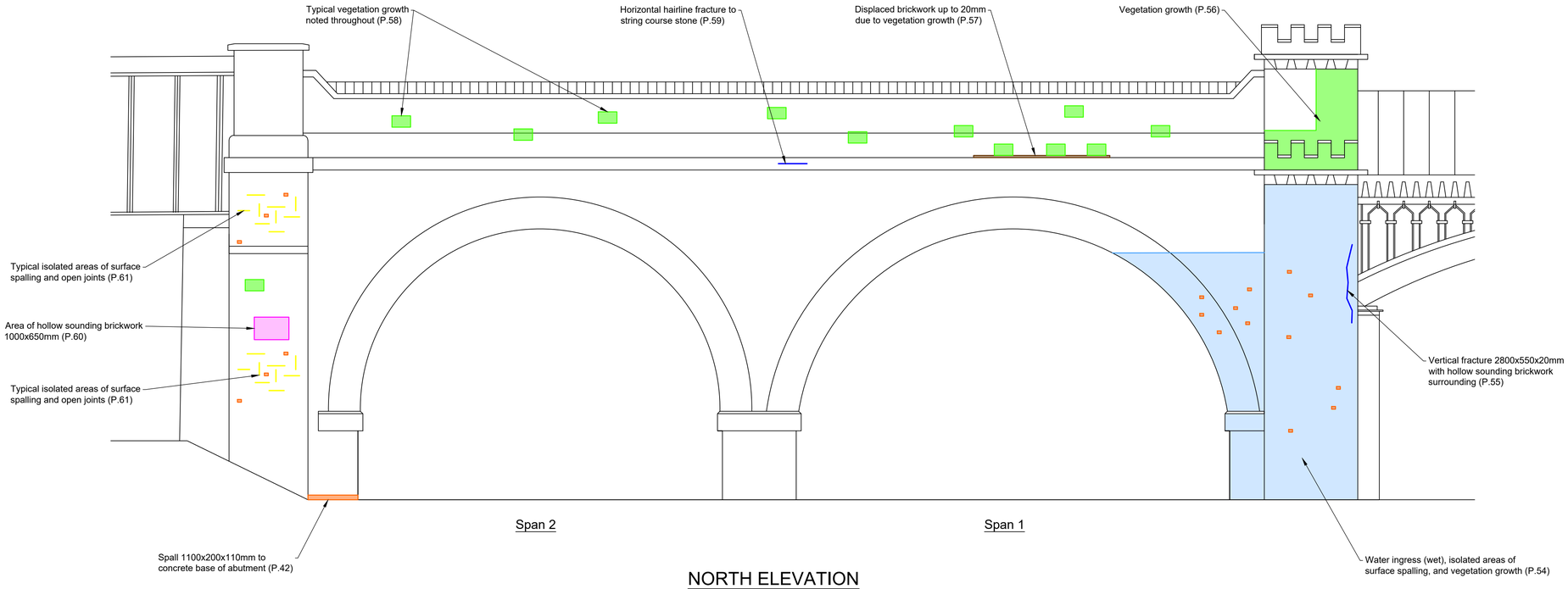
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Lifesaving Rules
Refer to:
Lifesaving Rules on Safety Central
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highlighting the core risks associated with working on the railway.

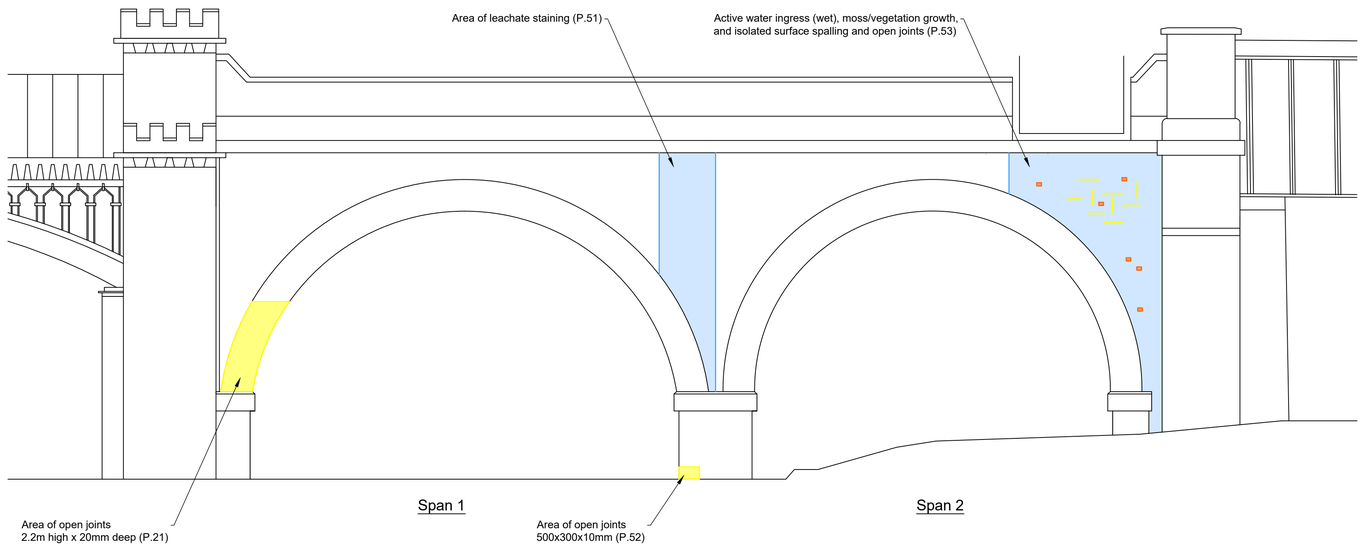
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NORTH ELEVATION



SOUTH ELEVATION

Rev	Revision details	Chkd	Appd	Date
P01.1	Text	.	.	.

Designed:		Date:	.
Drawn:	KS	Date:	25/09/2024
Checked:	.	Date:	.
Approved:	.	Date:	.

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Client
KEOLIS amey Metrolink

Project Name
KELIOS AMEY METROLINK INSPECTIONS

Drawing Title
A53 - WILLIAM STREET ARCHES

ELEVATION DEFECTS

Original Drawing Size : A1	Scale : NTS
Dimensions : mm	Level:m

Drawing Status	Suitability
N/A - FOR ASSESSMENT ONLY	N/A

Drawing No	Rev
COCAFAKAMWB1_A53_02	A

File ref - d:\kams reports\a53 - william street arches\a53 william street arches - defects.dwg

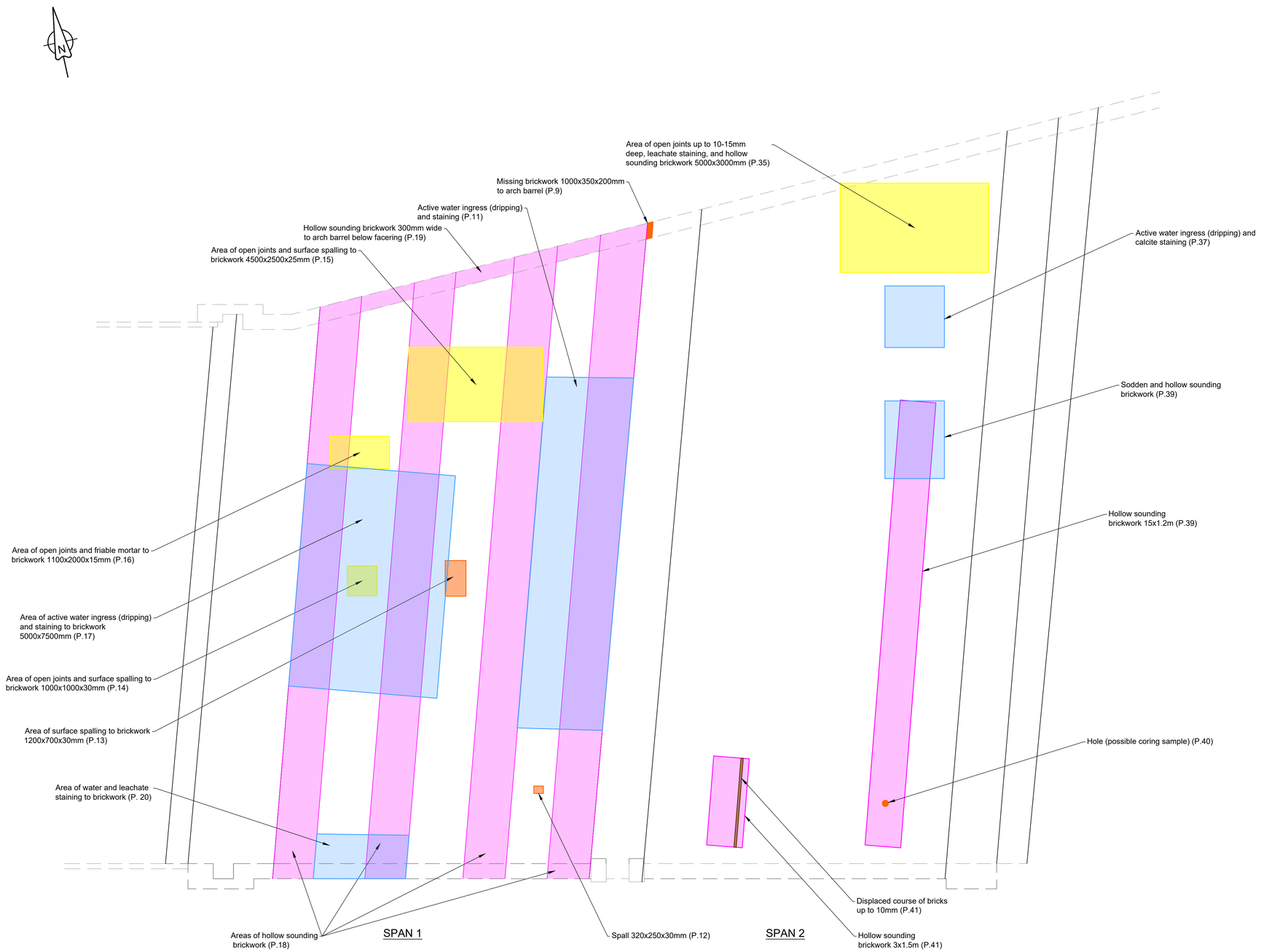
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PLAN

Rev	Revision details	Chkd	Appd	Date
P01.1	Text	.	.	.

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Drawn:	KS	Date:	25/09/2024
Checked:	.	Date:	.
Approved:	.	Date:	.

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Client
KEOLIS amey Metrolink

Project Name
KELIOS AMEY METROLINK INSPECTIONS

Drawing Title
A53 - WILLIAM STREET ARCHES

PLAN DEFECTS

Original Drawing Size : A1	Scale : NTS
Dimensions : mm	Level:m

Drawing Status	Suitability
N/A - FOR ASSESSMENT ONLY	N/A

Drawing No	Rev
COCAFAKAMWB1_A53_01	A

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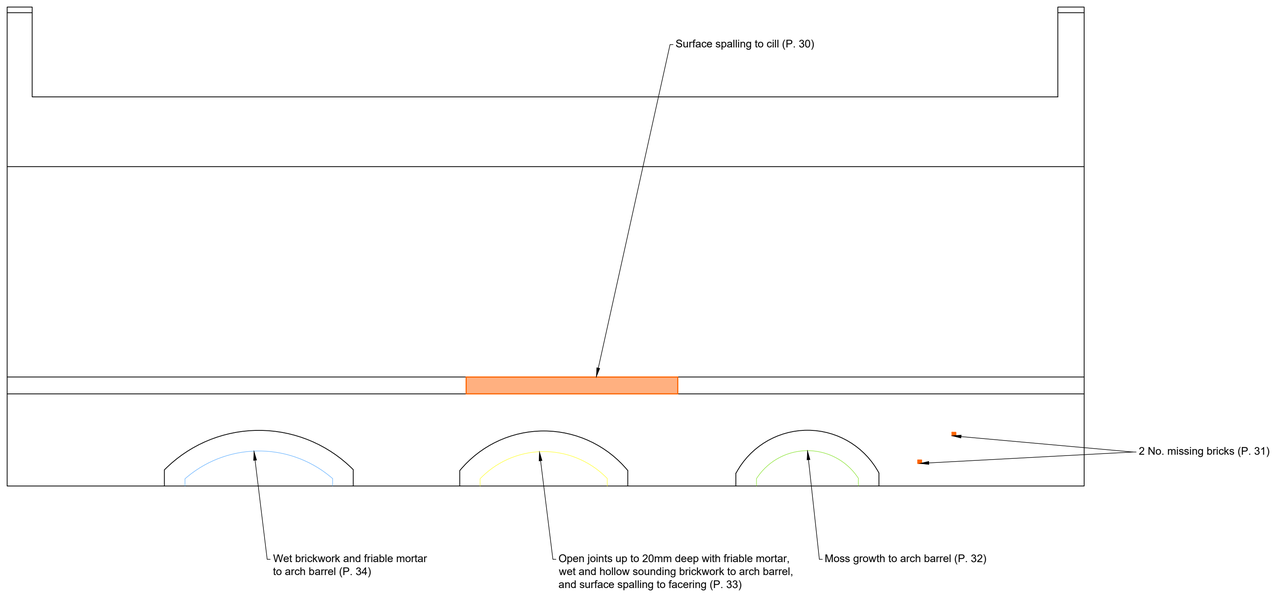
Lifesaving Rules
Refer to:
Lifesaving Rules on Safety Central
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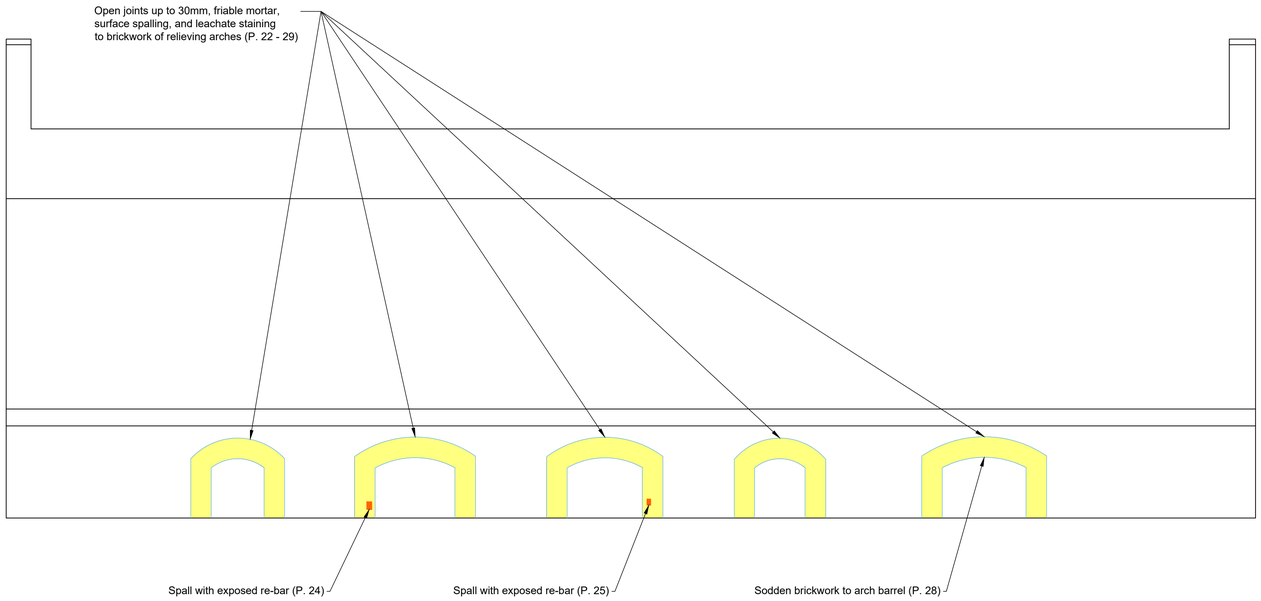
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CENTRAL PIER - WEST ELEVATION DEFECTS



EAST ABUTMENT DEFECTS

Rev	Revision details	Chkd	Appd	Date
P01.1	Text	.	.	.

Designed:		Date:	.
Drawn:	KS	Date:	25/09/2024
Checked:	.	Date:	.
Approved:	.	Date:	.

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Client
KEOLIS amey Metrolink

Project Name
KELIOS AMEY METROLINK INSPECTIONS

Drawing Title
A53 - WILLIAM STREET ARCHES SPAN 1 ABUTMENT AND PIER DEFECTS

Original Drawing Size : A1	Scale : NTS
Dimensions : mm	Level:m

Drawing Status	Suitability
N/A - FOR ASSESSMENT ONLY	N/A

Drawing No	Rev
COCAFAKAMWB1_A53_03	A

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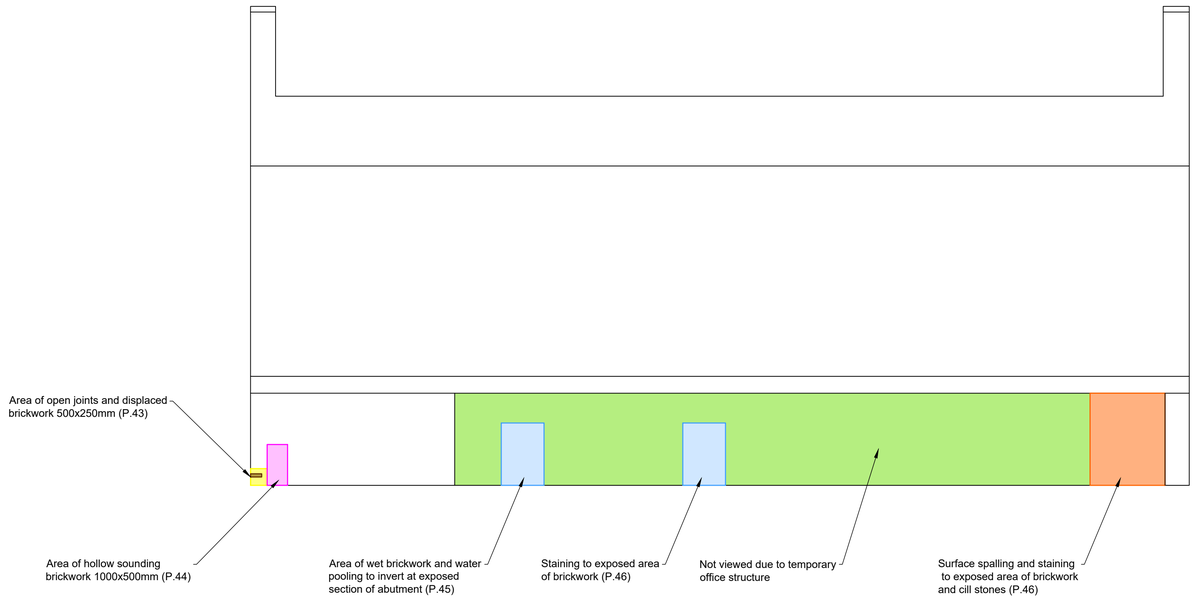
Lifesaving Rules
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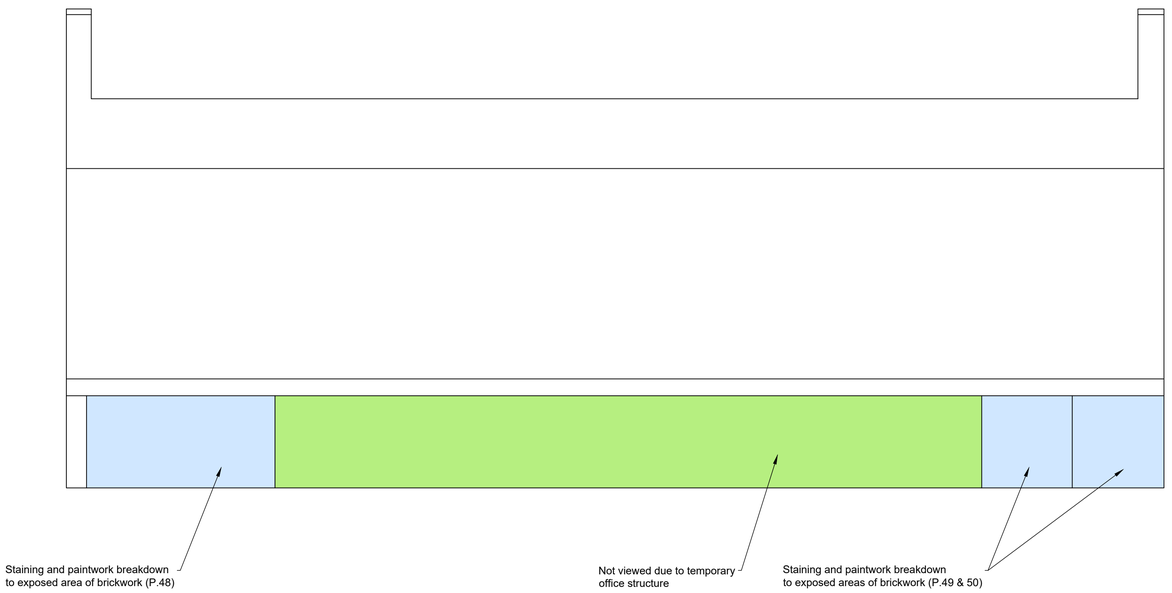
NOTES

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EAST ABUTMENT DEFECTS



CENTRAL PIER - EAST ELEVATION DEFECTS

Rev	Revision details	Chkd	Appd	Date
P01.1	Text	.	.	.

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Drawn:	KS	Date:	25/09/2024
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Project Name
KELIOS AMEY METROLINK INSPECTIONS

Drawing Title
A53 - WILLIAM STREET ARCHES SPAN 2 ABUTMENT AND PIER DEFECTS

Original Drawing Size : A1	Scale : NTS
Dimensions : mm	Level:m

Drawing Status	Suitability
N/A - FOR ASSESSMENT ONLY	N/A

Drawing No	Rev
COCAFAKAMWB1_A53_04	A

Appendix B: Photographs



Photo 1: General view south elevation (picture from previous GI report – 2021).



Photo 2: General view across topside looking south to north.



Photo 3: General view across topside looking north to south.



Photo 4: General view north elevation showing construction works affecting access.



Photo 5: General view through span 1 looking north to south.



Photo 6: General view of span 1 soffit looking north to south.



Photo 7: General view of west abutment showing relieving arches.



Photo 8: General view of west face of central pier showing relieving arch.



Photo 9: Spall to brickwork 1000x350x200mm to northeast quarter point of span 1 arch barrel.



Photo 10: Area of open joints 1m²x15mm deep to northeast end of span 1 arch barrel.



Photo 11: Moss growth, isolated open joints, and water staining / active ingress (dripping) to east face of span 1 arch barrel.



Photo 12: Spall 320x250x30mm to southeast end of span 1 arch barrel.



Photo 13: Area of spalling 1200x700x30mm and open joints at mid-span crown of span 1 arch barrel.



Photo 14: Area of spalling and open joints 1m²x30mm at mid-span of west face of span 1 arch barrel.



Photo 15: Area of surface spalling and open joints 4500x2500x25mm from east quarter point to west quarter point at north end of span 1 arch barrel.



Photo 16: Area of wet friable mortar and open joints 1100x2000x15mm to quarter point at northwest end of span 1 arch barrel.



Photo 17: Area of wet friable mortar and active water ingress (dripping) 5000x7500mm to mid-span of west face of span 1 arch barrel.



Photo 18: Areas of hollow sounding brickwork between east and west springing's and quarter points, and quarter points and crown (approx. 65% total area) throughout span 1 arch barrel.



Photo 19: Area of hollow sounding brickwork 300mm wide from east to west springing's at north end of span 1 arch barrel.



Photo 20: Water/leachate staining to southwest end of span 1 arch barrel.



Photo 21: Area of open joints to southwest of face ring from springing up 2.2m by width of face ring and up to 20mm deep of span 1.



Photo 22: Open joints up to 30mm deep, wet friable mortar, surface spalling, and leachate staining to arch barrel of 1st relieving arch from south end of west abutment span 1.



Photo 23: Wet friable morter and damp brickwork to west face of 1st relieving arch from south end of west abutment span 1.



Photo 24: Open joints up to 30mm deep, wet friable mortar, surface spalling, and leachate staining to arch barrel and exposed re-bar to face ring of 2nd relieving arch from south end of west abutment span 1.



Photo 25: Open joints up to 30mm deep, wet friable mortar, surface spalling, and leachate staining to arch barrel and exposed re-bar to face ring of 3rd relieving arch from south end of west abutment span 1.



Photo 26: Open joints up to 30mm deep, wet friable mortar, surface spalling, and leachate staining to arch barrel of 4th relieving arch from south end of west abutment span 1.



Photo 27: Wet friable water to west face of 4th relieving arch from south end of west abutment span 1.



Photo 28: Open joints up to 30mm deep, wet friable mortar, surface spalling, leachate staining, and sodden brickwork to arch barrel of 5th relieving arch from south end of west abutment span 1.



Photo 29: Wet friable water and drummy brickwork to west face of 5th relieving arch from south end of west abutment span 1.



Photo 30: Isolated areas of surface spalling to mid-span of cill at west face of central pier.



Photo 31: 2 No. missing bricks and leachate staining to south end of central pier west face.



Photo 32: Moss growth and leachate deposits to arch barrel and face ring of 1st relieving arch from south end of central pier west face.



Photo 33: Open joints up to 20mm deep with friable mortar, wet brickwork, hollow sounding brickwork to crown of arch barrel and surface spalling to face ring of 2nd relieving arch from south end of central pier west face.



Photo 34: Wet brickwork and friable mortar to 3rd relieving arch from south end of central pier west face.



Photo 35: Leachate staining, open joints 10-15mm deep, and hollow sounding area of brickwork 3000x5000mm to northeast of span 2 arch barrel.



Photo 36: Typical paintwork breakdown throughout to internal section of span 2 soffit.



Photo 37: Calcite staining and active water ingress (dripping) to northeast end to internal section of span 2 soffit.



Photo 38: Water pooling to temporary ceiling below water ingress in previous photograph.



Photo 39: Area of sodden and hollow sounding brickwork 15x1.2m to east face of arch barrel starting from south infill wall and approx. 2m up from east springing of span 2.



Photo 40: Hole (possible historic core hole) to east face south end of internal section of arch barrel span 2.



Photo 41: Hollow sounding area of brickwork 3x1.5m to west quarter point starting at south infill wall with 10mm displaced course of bricks within same area of span 2 arch barrel.



Photo 42: Area of section loss 1100x200x110mm to concrete section at base of east abutment north end.



Photo 43: Area of displaced brickwork and mortar loss 500x250mm to north end of east abutment.



Photo 44: Area of hollow sounding brickwork 1000x500mm to north end of east abutment.



Photo 45: Wet brickwork and water pooling at base of east abutment at exposed section below Photo. 37.



Photo 46: Staining to exposed section of east abutment at approx. mid-span.



Photo 47: Isolated surface spalling and staining to brickwork at south end of east abutment.

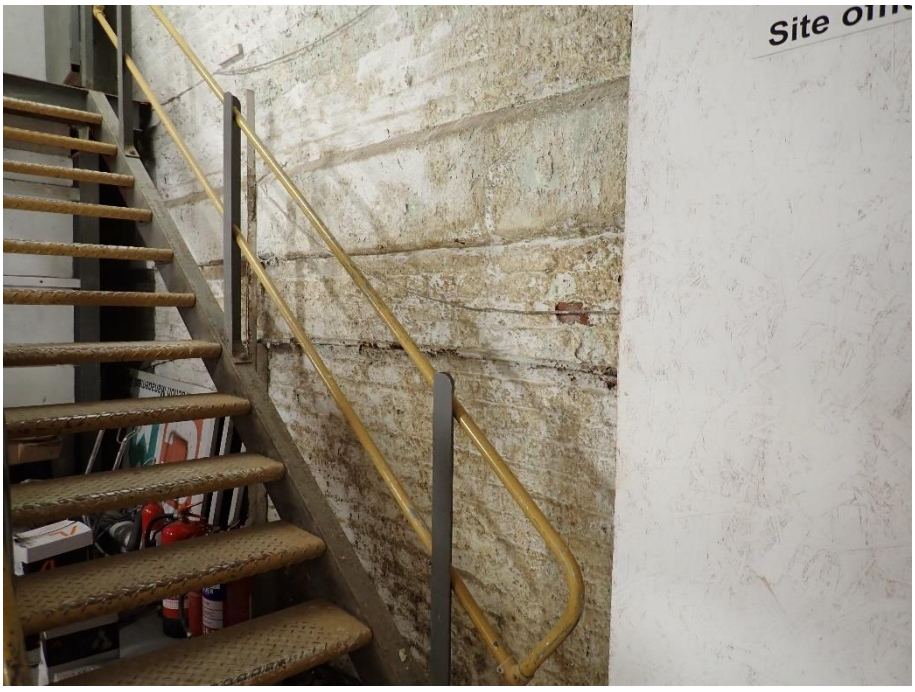


Photo 48: Paintwork breakdown to south end of central pier east face.



Photo 49: Staining and paintwork breakdown to north end of central pier east face.



Photo 50: Paintwork breakdown and staining to north end of central pier.



Photo 51: Leachate staining to east spandrel of span 1 south elevation.



Photo 52: Area of open joints 500x300x10mm to south end of central pier.



Photo 53: Moss/vegetation growth, isolated surface spalling, isolated open joints, and water ingress (wet) to east spandrel of span 2 south elevation below footbridge.



Photo 54: Water ingress (wet), isolated areas of surface spalling, and vegetation growth to west abutment and spandrel north elevation of span 1.



Photo 55: Vertical fracture up to 20mm with hollow sounding brickwork 2800x550mm surrounding fracture to west edge of west abutment north end.



Photo 56: Vegetation growth to top section of west abutment north end.



Photo 57: Significant root growth displacing brickwork up to 20mm to string course of north elevation of span 1.



Photo 58: Typical vegetation growth and isolated surface spalling to brickwork of north elevation parapet.



Photo 59: Horizontal hairline fracture to string course stone between span 1 & 2 of north elevation.



Photo 60: Area of hollow sounding brickwork 1000x650mm to north elevation of east abutment.

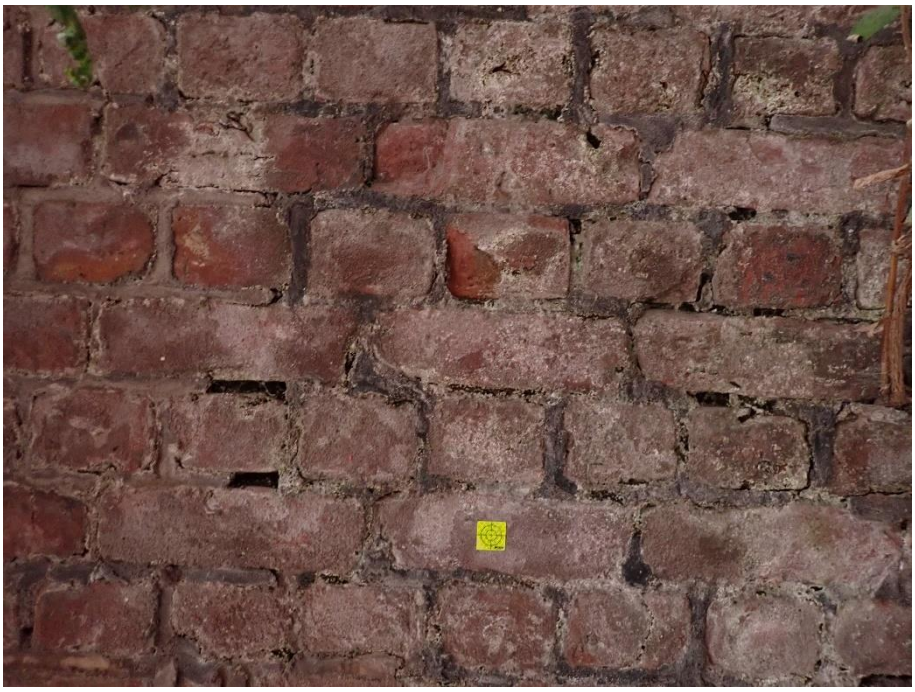


Photo 61: Typical isolated open joints and surface spalling to north elevation of east abutment.

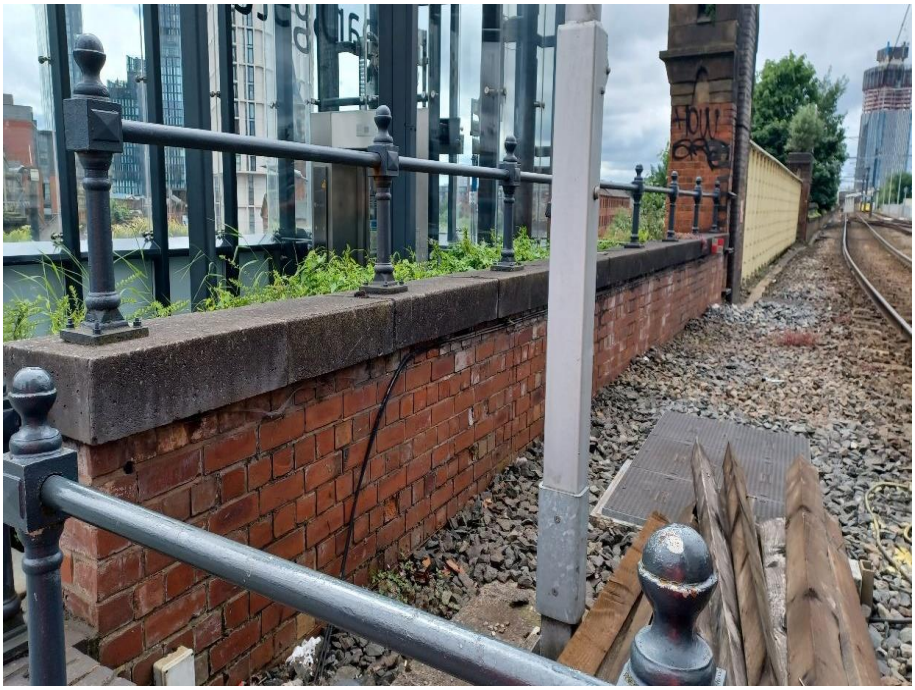


Photo 62: Isolated open joints, joint fractures, leachate staining, surface spalling, and minor vegetation growth to north face of south parapet.



Photo 63: Vegetation and graffiti to southwest pilaster.



Photo 64: Gutter raised above carriageway surfacing by 30mm affecting drainage.



Photo 65: Sunken/displaced access cover in north carriageway.



Photo 66: Cracks in footway surfacing adjacent to north parapet.



Photo 67: Isolated open joints and surface spalling to brickwork of north parapet south face.



Photo 68: Isolated open joints and vegetation growth to northwest pilaster.



Photo 69: Loose fixing and railing at north end of north metallic parapet.



Photo 70: Surface spall to coping stone at mid-span of north parapet south face.