Rochdale Canal Union Street Bridge, Redhill Street

Grade II listed

Design and Access Statement



Nature of works

The towpath frequently exhibits voiding/erosion next to the north side of the ‘horse tunnel’ of Union Street Bridge (No. 88). It is thought that this is due to canal water flowing under the towpath washing out soil towards historic canal arms or infill on the immediate eastern side of the canal.



Location of Sinkhole



View within sinkhole. Bottom of retaining wall unsupported for ~1.5m.



2025 Repair against washwall



Crack in retaining wall above voided area.





28/9/26



Figure 3 - View from behind Boundary Wall towards canal voids (foliage in corner of image is site of towpath voiding)



Figure 4 - Stone Safety Fence to Canal - appears stable but some displacement of joints noticed next to towpath repair, do not apply lateral load to this wall

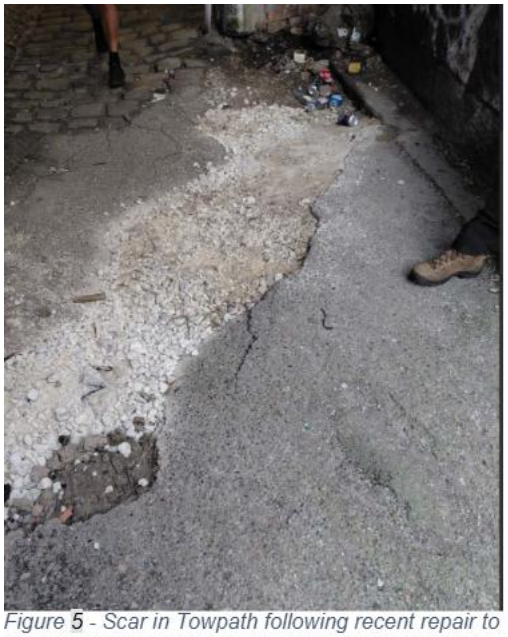
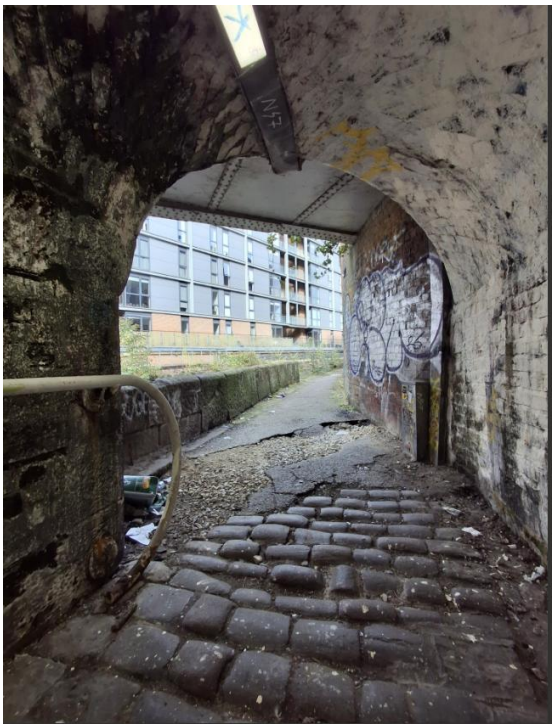


Figure 5 - Scar in Towpath following recent repair to be removed and refilled with 2A3 clay and concrete fill below boundary wall to development



Figure 6 - Potential site of discarded syringes etc in corner







In September 2026, temporary stabilisation works were undertaken to reduce the risk of structural movement. These works included the installation of timber props beneath the retaining wall and the placement of bagged MOT material to provide temporary support and maintain stability until the permanent repair solution can be implemented.

It is proposed to (i) underpin the unsupported retaining wall and fill the void in the towpath and behind the wall using pumped mass concrete above a compacted stone foundation and (ii) excavate the towpath Type 1 stone from behind the canal washwall and seal the leak from the canal by reinstating the towpath with clay materials (or mass concrete fill if necessary).

Work to be completed in stages subject to rate of ingress of water into excavations.

Stage 1 - excavate and remove existing stone fill in affected areas and prepare excavations for sealing works. Provide shoring as required if sides of excavation are soft/unstable. If voiding exceeds existing scar width, extend width of excavation to suit.

Stage 1+ – PU grouting each side of excavation within towpath to stem flow of canal water (if persistent flows are noticed).

Stage 2 – seal canal edge wall from further leaks either by installing a compacted clay bund across the full excavation and width of the towpath (or if site inundation is still persistent, mass concrete fill). No excavation below the stone safety wall because of its shallow foundations and stability.

Stage 3 – specific secondary support under stone/brickwork boundary wall using C15 concrete fill prepared on a suitably compacted formation at least 350mm below the base of the wall. It is assumed that the stone boundary wall is self-supporting for short

section exposure of its foundations and that the foundations of this wall are shallow. (less than 50mm below existing towpath).

Stage 4 – reinstate towpath to original detail or to include setts to match existing tunnel detail (the setts are currently missing from this section of towpath).

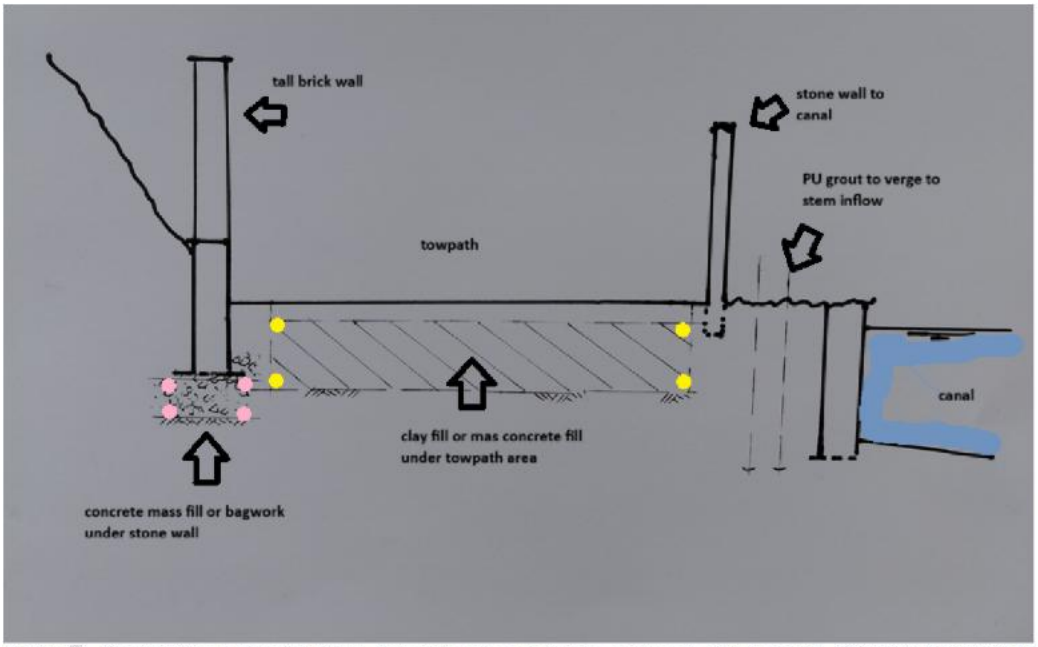


Figure 8 - Design Cross Section Mass Concrete etc per stages approach given earlier. DO NOT EXCAVATE UNDER STONE EDGE WALL TO CANAL

Conclusions

Repair works are required for public safety and to ensure the proper preservation of this historic site (avoiding the need for more intrusive interventions to the historic fabric at a later date). The need for minimum intervention to the historic fabric has informed scheme design. The works will have a positive effect on the listed building.

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