

Report on	Cott Lane Footbridge
Reporting Officer	Andrew Cassells, Director of Environment & Property
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Is this report restricted for confidential business?	Yes	
If 'Yes', confirm below the exempt information category relied upon	No	X

1.0	Purpose of Report
1.1	To inform Members of the outcome of a Principle Inspection Report on the condition of Cott Lane Footbridge and to seek approval in relation to the proposed detailed structural analysis in relation to same.
2.0	Background
2.1	Cott Lane Links Co. Tyrone and Co. Derry/Londonderry and the parishes of Lower Mullan and Ballylifford. On the Tyrone side the Cott Lane backs off the Mullan Road over a pedestrian bridge crossing the Ballinderry River into Co Derry/Londonderry and terminates at the Ballinderry Bridge Road.
2.2	The route is approximately two miles in length and on the Derry/Londonderry side follows the line of a series of field lanes whilst on the Tyrone side is accessed by a combination of laneway and a fenced path which gives access to the Bridge. The entrance to the Lane is marked with entrance signs at each end.
2.3	Cookstown District Council carried out significant works on the Cott Lane in 2002 which included the installation and repair of drainage, improvements to the surface of the path, fencing works, cosmetic repairs to the concrete footbridge and works associated with the car park on the Derry/Londonderry side of the Ballinderry River. The cost of the works at that time amounted to some £21,200.
2.4	The footpath is also part of the National Cycle Network (Route 94) which circumnavigates Lough Neagh.
2.5	The footbridge structure is the key element of infrastructure along the length of the footpath and consists of a cast concrete structure which is understood to have been jointly constructed in circa 1924 by the County Councils of Tyrone and Londonderry.
3.0	Main Report
3.1	The bridge is a five span reinforced concrete slender structure with significant spans of up to 15.2 m. The bridge comprises of two reinforced concrete edge beams supporting a reinforced concrete deck and supported on concrete piers and abutments. Steel parapet railing is supported by a mixture of concrete pillars and steel posts. There is no detailed of the bridge construction available and it is not possible to ascertain the formation level

	of the concrete piers or abutments. As the structure operates as a footbridge the loading on the bridge is light.
3.2	Whilst superficial repairs were carried out in 2002 by Cookstown District Council no condition inspections records of the actual structure itself have been discovered within the annals of the former Cookstown District Council.
3.3	Following inspections by Council Officers in 2016 a Principle Inspection Report of the structure was commissioned, following a quotation exercise, with WDR & RT Taggart Consulting Engineers being appointed to carry out the work.
3.4	The report was received in October 2016 and a full copy is attached as Appendix 1 to this report.
3.5	<p>The Conclusions of the Principle Inspection Report are set out at Section 5 of the report and can be summarised as follows:</p> <ul style="list-style-type: none"> ➤ There are various defects in the structure with some evidence of movement and there is movement across the structure when the bridge is being trafficked. ➤ The bridge deck shows isolated signs of concrete spalling and subsequent corrosion of reinforcement at these locations. Evidence of hairline cracks in the deck are apparent with associated leachating. ➤ The beam edges show isolated signs of spalling and associated corrosion of reinforcement. There is significant damage to the downstream beam between Piers 2 and 3 with hairline cracks on the beams between Pier 3 and Abutment 2. ➤ Piers 1, 2 and 3 exhibit concrete damage which may indicate movement of the bridge. ➤ The visible elements of the bridge abutments are generally in good condition. ➤ Foundations are not visible and unknown. ➤ The parapet railing and concrete pillars are in relatively good condition. ➤ The river bed is deepest between Piers 3 and 4 and appears to have partly scoured the river bed along Pier 4. ➤ The embankments are in good condition with no evidence of slippage.
3.6	<p>The Recommendations contained in the Engineers Report at Section 6 are as follows;</p> <ul style="list-style-type: none"> ➤ That a detailed structural analysis is carried out on the bridge. ➤ That testing be carried out to ascertain reinforcement cover levels and reinforcement layout diameter. ➤ Testing to ascertain the long term durability and life span of the bridge to include: <ul style="list-style-type: none"> ○ Cover meter survey to assess cover and layout ○ Opening up of small areas to confirm size, location and spacing of reinforcement ○ Carbonation tests ○ Chlorine and cement dust content ○ Pull Off concrete strength tests ○ Core removal for analysis <ul style="list-style-type: none"> ▪ Compressive Strength Testing ▪ Chemical testing to establish cement, chlorine and sulphate content
3.7	Whilst the Consulting Engineers have not recommended that access to the bridge should be restricted in any way nor have they been able to give an indication of the remaining life of the bridge at this time. There is no indication that the bridge cannot remain in use for the time being. Members will note that the bridge is nearing 100 years old.

3.8	In order to carry out the detailed structural analysis it will be necessary to engage a specialist contractor to carry out the work. The first stage in this process will be the preparation of a schedule of works contract document to enable the procurement of the contractor to undertake opening up and testing works to the bridge and administering the contract.
3.9	It is proposed therefore to progress with the recommendations contained in the report and engage WDR&RT Taggart to prepare the Schedule of Works for the necessary procurement.
3.10	Only once the detailed structural analysis is completed will it be possible to consider what repair or replacement options would be available for the bridge.
4.0	Other Considerations
4.1	<p>Financial & Human Resources Implications</p> <p>Financial: The initial financial outlay to develop the Schedule of Works in relation to the detailed structural analysis is £2,760 which can be funded from the current revenue budget. The cost of the detailed structural analysis will only be known following the necessary procurement exercise. Any financial decisions regarding the repair or replacement of the structure would be referred to the Policy and Resources Committee in due course and could require a call on the Council's Capital Programme.</p> <p>Human: Officer time in managing the works.</p>
4.2	<p>Equality and Good Relations Implications</p> <p>None at this juncture.</p>
4.3	<p>Risk Management Implications</p> <p>The bridge represents the principle structure on this right of way and was evidently constructed by the predecessors of the Mid Ulster District Council. Failure to maintain the structure in a safe condition would have implications for the Council with regards to fulfilling its statutory obligations.</p>
5.0	Recommendation(s)
5.1	Members are asked to note the contents of the report and to approve the instigation of a detailed structural analysis of Cott Lane Footbridge as detailed in this report.
6.0	Documents Attached & References
6.1	Cott Lane Footbridge, Principal Inspection Report.