



Case Information

Reference/Case ID	300018541		
Scheduled Monument	Forth and Clyde Canal: Bowling - Old Kilpatrick		
Index no	SM6779	Grid ref	NS 44700 73400
Date application validated	23 August 2016		
Summary of proposed works	Forth & Clyde Canal, Bowling Basin - Bowling Outer Harbour Wall Repair		

1. Summary recommendation

Stabilisation of ashlar masonry retaining wall and installation of additional safety railing. This report recommends that consent be granted without conditions.

2. Background

The monument

The monument is the first of Scotland's great inland waterways to be constructed (between 1768 and 1790) and even at the time of its opening in the 1770s it was christened 'The Great Canal', a recognition of its undoubted national importance even then. The Bowling Harbour terminus was part of a scheme to extend the canal westward from its original terminus at Stockingfield, in Glasgow. The harbour walls are covered by the scheduling. They do not appear to have seen any significant episodes of repair or replacement, and therefore form part of the original masonry. As such, they make a significant contribution to the cultural significance of the monument.

Pre-application discussions

No pre-application discussion took place. The applicant submitted copies of the method statement and SNH Licence after the application was made.

Planning history

The Bowling Harbour area has seen a large number of SMC applications for minor works since 2009. The most significant planning application (201506213) is for a



series of public realm and redevelopment works that include a proposed bridge across the eastern end of the upper basin. Historic Scotland did not object to that proposal but made a series of recommendations regarding the development and, in particular, the form and location of the bridge. No further discussions have been had on this point.

3. Proposals

This proposal is for consolidation of approximately 25m length of the outer harbour wall, and for the installation of protective handrails on the inner edge of this wall. The sea wall does not appear to have been subject to previous repairs, but the adjacent beach has eroded significantly since the early 1980s, leading to greater levels of erosion of the wall. The condition of the wall is such that there is the risk of eventual failure, and consolidation and repair have been identified as a major priority for the applicant. The handrail would be required because the public have access to the rear of the wall, which is presently less than 1m high and poses a health and safety risk.

The work divides into the following elements:

- Removal of 7 tree stumps growing from within the masonry, including removal of their roots systems
- Excavation to a depth of 1.4m at the rear of the wall, installation of a gravel drain, and regrading to an even profile once the consolidation works are completed
- The underpinning of a 10m long failed section of walling with a 500mm by 500mm concrete beam
- The reinstatement of a total of 18 square metres of wall, where stone loss has been total and where indenting is necessary. Much of this area is at the wallhead. A 3m by 1m area of failed stone requires indenting. In both cases, new stone will be chosen to match existing
- Reinstating 10m of failed cope, with stone to match existing
- Raking out and repointing with mortar for the entire length of walling.
- Placement of rock armour (rip-rap) at unprotected toe of wall. This would involve excavation of the base of the wall in the tidal muds and sands and use of up to 0.5 cubic metres of rip-rap per metre of wall length.
- Refurbish existing stone pitching (which amounts to approximately 5m length) with new stone to match existing
- Installation of steel handrail at rear face of wall, linking on to (and of same finish as) existing handrail towards the viewpoint. The existing 3.5m high steel security fence at the rear face would be removed.



4. Representations received

No representations have been received. SNH have not objected to the proposal (see Protected Species and Places report).

5. Report

a) Policy considerations

The application should be considered with the following legislative and policy considerations in mind:

Historic Environment Scotland Policy Statement June 2016

3.16. Works on scheduled monuments should therefore normally be the minimum level of intervention that is consistent with conserving what is culturally significant in a monument.

Ancient Monuments and Archaeological Areas Act 1979

Part 1 Section 2: Control of works affecting an ancient monument.

b) Assessment

Direct impacts of the proposed works

Removal of trees and roots

Seven trees and shrubs have taken significant root within the masonry of the wall, on both the cope and the face. These have led to the complete failure of the surrounding masonry. It is proposed to cut the stems off and then remove the roots while the surrounding masonry is dismantled for repair. This work would have an adverse impact on the monument, in that it involves the loss of original masonry. The residual impacts of this are considered below.

Excavation at inner face of wall, installation of drainage, and regrading

The full length of the inner face of the wall would be excavated to a depth of 1.4m without archaeological oversight as part of the existing fence removal. The gravel drain would be placed in the excavation, and would take water away from the inner face. The regrading would achieve the effect of slightly increasing the height of the inner wall from 0.9m to 1.1m. The archaeological potential of the deposits on the inner face of the wall is not high, as the installation of the existing fence will have



largely truncated any deposits directly relating to the construction of the wall. The excavation and drainage would therefore not have an adverse effect on the cultural significance of the monument. The exposure of slightly more of the wall face would restore the original appearance of the monument prior to a buildup of humic materials and overburden. This would be a neutral impact on the cultural significance of the monument.

Underpinning

A 10m long section of the wall founds have been completely voided and poses a significant risk of failure to the masonry above. This loss would represent a significant adverse impact if unmitigated. This area suffers the greatest level of sea erosion, and replacing the lost soil and beach sands would not offer a reasonable level of protection. The original foundation material does not make a meaningful contribution to the cultural significance of the monument, and the concrete slab would be hidden when the works are completed. On balance, this work would not involve an adverse impact on the monument, and would avoid the risk of loss.

Stone repair, replacement and indenting

The loss of 18 square metres of wall is mostly at the wallhead. It is proposed to replace this with new masonry in a form to match the existing. This would have a positive benefit for the cultural significance of the monument.

The areas of failed masonry will involve the removal of the existing stonework (particularly around the tree roots) and replacement of the failed stone with matching stone. In addition, a 3m by 1m area of failed masonry requires indenting. In both cases, the masonry is not in a safe condition. While this is original masonry, the cultural significance of the monument is largely exhibited by the overall appearance of the wall, rather than the intrinsic importance of any single stone. Moreover, without this work, the wall would be lost and would have a significant adverse impact on the monument. On balance, it is concluded that this work would conserve the monument in a condition to match existing, and this would represent a neutral impact on the monument.

Placing of rock armour

The sea wall would originally have had extensive stone pitching at its base, which would have formerly protected the masonry of the sea wall from erosion. The rock armour would restore this protection and extend the life of the wall and the proposed repairs. This would have a visual impact on the ability to appreciate the monument, but this would not be significant in nature as the sea wall could still be readily seen from adjacent parts of the canal and beach. On balance, this impact would be of a neutral nature.



Refurbishing of stone pitching

The sole area of original pitching is in poor condition with considerable stone loss, but it can be readily understood as the remains of the historic protection. Rather than replace this with rock armour, the repair of this pitching would preserve the original appearance of the sea protection. As such, this would represent a neutral impact on the cultural significance of the monument.

Installation of handrail

The excavation and regrading works would leave a 1.1m high wall on the inner edge of the sea wall. This is presently of a slightly lower height and is protected by a high steel security fence. The additional height would still leave a hazard for the public accessing the area. The viewpoint (to the immediate west of the proposed work site) already has a 1.5m high fence to protect from falls into the sea, and the proposed handrail would carry this protection around to the Scottish Canals boundary fence (which is outside the scheduled area). This would avoid a health and safety risk, but would also replace a large scale industrial fence with one that is similar to the fencing treatment of the rest of the harbour area. On balance, the proposed handrail would have a neutral impact on the cultural significance of the monument.

c) Other material considerations, including impact of the works on Protected Species and Places

The proposed works will take place outwith the period when bats may be present within the structure, and will be completed before November 30 - this is in line with advice from SNH and the applicant's own natural heritage advisor. The SNH licence included with the application confirms that while there may be an impact on redshanks, this would not be sufficiently adverse to raise serious concerns with works proceeding.

d) Conclusion

The proposed works would not have an adverse impact on the cultural significance of the monument, and would preserve its general appearance for the present. As such, the proposed works are fully consistent with HES Policy Statement paragraph 3.16, as outlined above. The proposed works are also intended to commence as soon as possible, and to be completed by 30 November 2016. Therefore, it is neither necessary or reasonable to impose a notification condition, as the opportunity to inspect the works will be available as required. No reporting is proposed or required.



6. Recommended decision

The works proposed are considered acceptable in meeting the terms of national policy for scheduled monuments, and also accounting for other material considerations. On that basis, it is recommended that consent is granted without conditions.

I recommend consent is **granted without conditions**.

7. Conditions

No conditions have been attached to this decision.

8. Approval

Case officer	John Malcolm	Date	13 October 2016
Approved by	Dara Parsons	Date	17 October 2016

Annex A – list of supporting documents

- 1) Principal Inspection - provided details of the current defects
- 2) FC-056-018-L, Bowling Harbour Retaining Wall Principal Inspection
- 3) Location Plan
- 4) Bowling Wall Repairs - Location Plan
- 5) Workslope - Document issued to contractor which specifies the works required
- 6) Bowling Outer Harbour Wall Repair - Workslope
- 7) MS01 Bowling seawall 1 (002)
- 8) Method Statement
- 9) SNH Licence consent - Inner Clyde - s13 - Scottish Canals - Bowling harbour wall repairs