

Scottish Canals

Water Control Structures Upgrade and Repair SMC Application Supporting Information

Notes:

Section numbering as per SMC Application e-form Part a.

Item reference lettering as per the contact documents.

2. Monument to which application applies

Index No.	Name	Local Authority	Grid Ref.	Description of location of land
11097	Union Canal, Fountainbridge to River Almond	Edinburgh City Council	324448, 672683	Leamington Sluice, (Leamington Lift Bridge), Edinburgh
11097	Union Canal, Fountainbridge to River Almond	Edinburgh City Council	322060, 670780	Slateford Aqueduct Sluices, Slateford, Edinburgh
11097	Union Canal, Fountainbridge to River Almond	Edinburgh City Council	318816, 670256	Sighthill Sluice, Edinburgh
11097	Union Canal, Fountainbridge to River Almond	River Almond is on boundary of ECC and WLC.	310470, 670623	Almond Aqueduct Sluices, West Lothian
8954	Union Canal, River Almond to River Avon	West Lothian Council	297687, 675951	Woodcockdale Sluice, Woodcockdale (south-west of Linlithgow)

4. Summary of proposed works

F. Leamington Sluice, Union Canal – see Location Plan

Replacement of the existing sluice.

G. Slateford Aqueduct Sluices, Union Canal – see Location Plan.

Repair of the existing sluices.

H. Sighthill Sluice, Union Canal – see Location Plan.

Replacement of the existing sluice and provision of an operating platform.

I. Almond Aqueduct Sluices, Union Canal – see Location Plan.

Stabilising of the existing sluices.

J. Woodcockdale Sluice, Union Canal – see Location Plan.

Removal of the existing sluice (bed valve).

5. Description of proposed works

F. Leamington Sluice, Union Canal

The existing sluice next to the south-west corner of Leamington Lift Bridge on the Union Canal in Edinburgh is currently inoperable.

The works shall therefore comprise the following;

- i) Supply and install a proprietary temporary dam around the sluice.
- ii) Remove the existing sluice and guides.
- iii) Supply and install a new sluice.
- iv) Remove the temporary dam.

G. Slateford Aqueduct Sluices, Union Canal

The two sluices on the south side of the Slateford Aqueduct discharge from high level into the Water of Leith below.

The sheet metal that supports the concrete ledge on top of the sluice chamber is showing signs of deterioration. As an interim safety measure, a fence barrier has been securely placed, face down on top of the unstable ledge, to eliminate the risk of someone falling through the sluice chamber. These sluices are currently inoperable, with clay in the canal making a temporary seal.

The works shall therefore comprise the following;

- i) Supply and install a proprietary temporary dam around the sluices.
- ii) Remove the clay.
- iii) Refurbish the sluices in-situ.
- iv) Remove the temporary dam.

H. Sighthill Sluice, Union Canal

This sluice is currently inoperable. The head of the sluice spindle is below the normal operating water level of the Union Canal. Access to the sluice is across the downstream apron of a canal overflow weir.

The works therefore comprise the following;

- i) Supply and install a proprietary temporary dam around the sluice.
- ii) Remove the existing sluice and guides.
- iii) Supply and install a new sluice and guides.
- iv) Remove the temporary dam.
- vi) Supply and install a raised walkway and operating platform for the sluice.

I. Almond Aqueduct Sluices, Union Canal

The two sluices on the south side of the Almond Aqueduct discharge from high level into the River Almond below. The stability of these sluices is unsatisfactory when operated.

The works shall therefore comprise the following;

- i) Supply and install a proprietary temporary dam around the sluices.
- ii) Refurbish the sluices in-situ.
- iii) Supply and install additional galvanised steel bracing.
- iv) Remove the temporary dam.

J. Woodcockdale Sluice, Union Canal

This type of canal outlet sluice is sometimes referred to as a 'bed valve'. However, this is a misnomer, as 'bed valves' comprise a sluice plate within guides at the upstream toe of the canal embankment i.e. within the canal. Operation is with a long mobile sluice spindle operating key. However, the Woodcockdale sluice has been removed and replaced with a modern 300mm dia. gate valve on the discharge pipe outlet at the bottom of a flight of timber steps on the outer face of the canal embankment.

The volume of discharge from the new valve is being restricted due to blockage of the intake on the canal bed.

The works shall therefore comprise the following;

- i) Supply and install a temporary portable dam around the pipe intake.
- ii) Clear the intake of all obstructions, including the old sluice plate and spindle.
- iii) Remove the temporary dam.