Ancient Monuments and Archaeological Areas Act 1979

It is important that you read the accompanying guidance notes as incorrect completion will delay the processing of your application. You can complete and submit this form by email (scheduledmonumentconsent@hes.scot) or by post to Heritage Management Business Support, Historic Environment Scotland, Longmore House, Salisbury Place, Edinburgh, EH9 1SH.

1 Applicant name and address

Title	Miss	**First Name**	Jessica	**Surname**	Smith
Company / Organisation	Atkins Limited				
Building No / Name	200				
Street	Broomielaw				
Town / City	Glasgow				
County / Region	City of Glasgow				
Postcode	G1 4RU				

2 Monument to which application applies

Index no	SM8954	**Name**	Union Canal (River Avon to River Almond)
Local Authority	West Lothian	**Grid Ref**	Area of interest starts at NT 01961 77150 and ends at NS 97901 297901.
Description of location of land	Union Canal embankments running through Linlithgow.		

3 Pre-application discussions

Have you undertaken pre-application discussions with Historic Environment Scotland? (If yes, please give details below)	**Y** ☒ **N** ☐

Telephone discussions with Hazel Johnson and Dr James Bruhn.
Email correspondence with the above summarising the intended works.

4 Summary of proposed works (max 20 words)

Intrusive ground investigation (boreholes) of Union Canal embankments.

5 Description of proposed works

Atkins has been appointed by Scottish Canals to undertake a geotechnical study of a series of Union Canal embankments in Linlithgow. This study includes a geophysical survey for which Section 42 consent has been applied for and an intrusive ground investigation which is the subject of this application.
The intrusive investigation will consist of boreholes that will be drilled from the canal towpath in order to allow the embankment materials to be characterised. Samples will be taken from the boreholes for

geotechnical laboratory testing and in situ testing will also be undertaken in order enable characterisation of the ground.
A Contractor for the ground investigation works has not yet been appointed; however, Atkins will specify that the boreholes are completed using a small Window Sampler rig such as a Dando Terrier due to access constraints along the towpath. Rigs of this kind form small diameter boreholes (approximately 100 mm) and are relatively compact when in operation. Given that rigs of this kind are relatively small there are limitations on the depth that can be achieved during the investigation – a maximum depth of approximately 6 m is typical although this will vary according to the exact plant that the Contractor elects to use. The use of air and water flush will be prohibited during drilling operations to ensure that preferential flow pathways are not created during the works.
A number of boreholes may be selected for the installation of groundwater monitoring equipment. The majority of boreholes will be backfilled with pre-mixed bentonite cement in order to ensure that a rapid seal is formed and the intrusive works do not affect the integrity of the embankments.
Indicative borehole positions are shown on the drawings that form part of this application. It is noted that the final positions of boreholes is dependent upon:

- Access restrictions.
- Avoidance of public utility apparatus.
- Findings of geophysical surveys.
- Comments received from HES.

Additional to the proposed boreholes on the canal embankments it is hoped that probing of the canal bed will be undertaken from the canal in order to measure the thickness of sediment build-up above the canal lining.
As discussed with Dr Bruhn and mindful of the fact that final borehole positions cannot yet be determined, we would welcome the opportunity to meet with HES to finalise positions prior to commencement of the ground investigation.
The ground investigation is currently programmed to commence on 31 October 2016 with a duration of three weeks.

6 List of plans, drawings and other documents accompanying application (continue on separate sheet if necessary)

No	Description	Reference	Document emailed	Document posted
1.	Scottish Canal's drawing: Linlithgow Embankments 69, 69A, 69B and 70. Associated Assets.	Dated 05.04.2016	☒	☐
2.	Scottish Canal's drawing: Linlithgow Embankments 71, 71A & 71B. Associated Assets.	Dated 16.06.2016.	☒	☐
3.	Preliminary Ground Investigation Layout (sheets 1 to 6)	5151905-ATK-XX-XX-DR-C-0001 to 0006	☒	☐
4.			☐	☐
5.			☐	☐

7 Nature Conservation – Protected Places and Species

Will the proposed works affect any of the following:

Yes	No	
☐	☒	Site of Special Scientific Interest
☐	☒	Special Protection Areas
☐	☒	Special Areas of Conservation
☐	☒	European Protected Species

If Yes, please give details below

8 Other information relevant to application

Section 42 consent for geophysical survey – application submitted to HES on 14 September 2016. Scottish Canals' environmental team will highlight any areas of environmental / ecological concern. Ground investigation is currently programmed to commence on 31 October 2016 for a duration of three weeks. Atkins Limited will have full time site supervision for the ground investigation.

9 Declaration

☒ I hereby apply for scheduled monument consent for the works described in this application and shown on the accompanying plans and drawings.

☒ I confirm that the information I have given on this form is true and accurate.

Name	Jessica T. Smith	**Date**	21.09.2016
On behalf of	Atkins Limited for Scottish Canals		

Where an application is being dealt with by an agent to whom correspondence should be sent, state the:-

Name of Agent		**Tel No**	
Address			
		Post Code	