



**90 Dean Road,
Bo'ness,
Falkirk,
Archaeological Evaluation,
Data Structure Report**







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Executive Summary

ARCHAS Cultural Heritage Ltd were contracted by Mr Wallace Alexander to undertake an archaeological evaluation at 90 Dean Road in Bo'ness in Falkirk Council area.

The site is subject to a pre-planning application to Falkirk Council which has identified the potential of archaeological concerns affecting any proposed development. The site partly lies within the Antonine Wall UNESCO World Heritage Site and as such is considered an area of great archaeological significance. The official response to the pre-planning application from Falkirk Council required that a programme of archaeological evaluation be completed in advance of the proposed development.

The archaeological evaluation involved the mechanical excavation of two evaluation trenches at the southern end of the site, running perpendicularly to the line of the Antonine Wall. The evaluation revealed the denuded remains of the large defensive bank known to lie on the northern side of the Antonine Wall ditch. This extended around 5m into the proposed development area, the remainder of which was shown to be devoid of significant archaeological deposits or features.

ARCHAS Cultural Heritage Ltd recommend that no further archaeological mitigation be required on site. Any excavations at the southern end of the development area are not expected to disturb the remains of the upcast bank, while no structures will be built directly overlying the recorded remains to impinge upon the line of the Antonine Wall World Heritage Area.

A record of the work has been deposited with the Online Access to the Index of Archaeological Investigations (OASIS) website hosted by the Archaeological Data Service (OASIS ID archascu1-274128) and with Discovery and Excavation in Scotland (DES), the annual publication of fieldwork by Archaeology Scotland.

1 Introduction

1.1 General

- 1.1.1 ARCHAS Cultural Heritage Ltd (hereafter ARCHAS) were commissioned by Mr Wallace Alexander to undertake an archaeological evaluation at 90 Dean Road in Bo'ness in the Falkirk Council area (centred NGR: NS 99503 80979).
- 1.1.2 The site is subject to a pre-planning application to Falkirk Council which has identified archaeological concerns which had potential to affect any proposed development. The site partly lies within the Antonine Wall UNESCO World Heritage Site and as such is considered an area of great archaeological significance.
- 1.1.3 In their response to the pre-planning application, Falkirk Council requested an archaeological investigation be carried out in advance of a planning application in order to guide the Council's archaeological response to the proposals. The primary concern is to identify the presence or absence of Roman stratigraphy and deposits, related to the Antonine Wall.
- 1.1.4 The Supplementary Planning Guidance on the Frontiers of the Roman Empire (Antonine Wall) World Heritage Site¹ provides advice and guidance on how to deal with development within the UNESCO World Heritage Site. As part of this guidance, development needs to ensure the protection and avoidance of deposits associated with the Antonine Wall during site works.
- 1.1.5 The Falkirk Community Trust provide planning advice to Falkirk Council in all matters relating to Cultural Heritage. ARCHAS held discussions with Falkirk Community Trust Archaeologist Geoff Bailey in order to establish the exact requirements of Falkirk Council. During these discussions the Falkirk Community Trust Archaeologist indicated that he would like to see two trenches excavated perpendicularly across the line of the Antonine Wall World Heritage area. It was anticipated that these trenches would investigate an area within which elements of the ditch and mound may survive.²
- 1.1.6 Subsequently, ARCHAS produced a detailed Written Scheme of Investigation (hereafter WSI) outlining the methodology to be followed and standards maintained during the work. This WSI was accepted by the Falkirk Community Trust Archaeologist on 11th January 2017.
- 1.1.7 The archaeological evaluation was completed on Tuesday 24th January 2017 by Ross Cameron and Alastair Rees. The day was mild and overcast.
- 1.1.8 ARCHAS conform to the standards of professional conduct outlined in the Chartered Institute for Archaeologists (hereafter CIfA) Code of conduct, and relevant Standards and Guidance documents.

¹ RCAHMS 2011 Frontiers of the Roman Empire (Antonine Wall) World Heritage Site: Supplementary Planning Guidance

² Geoff Bailey *pers. comm.* 19/10/16

1.2 Site Location and Setting

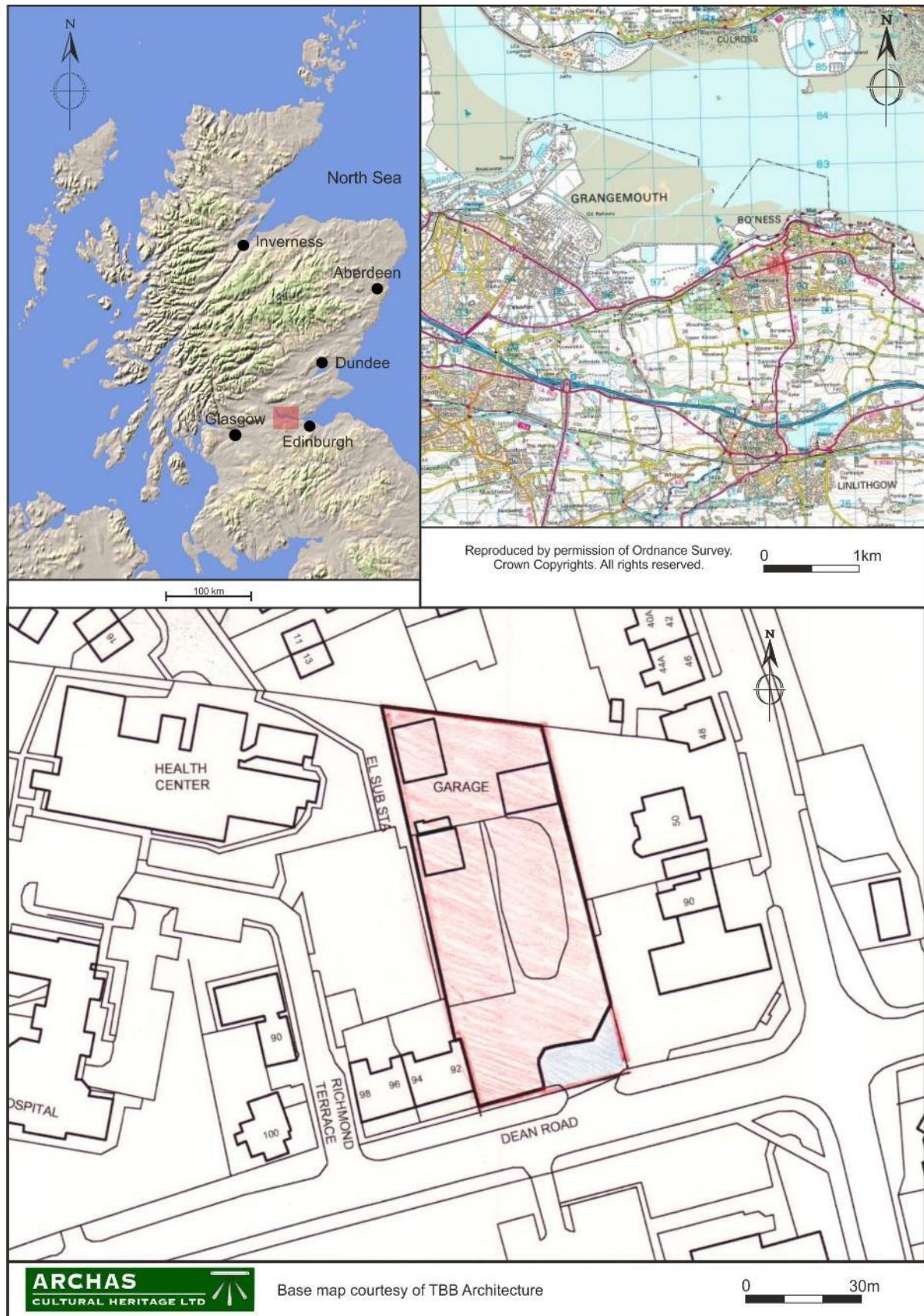


Figure 1: Site location

General

- 1.2.1 The proposed development lies at 90 Dean Road in the town of Borrowstouness, or more commonly Bo'ness, within the jurisdiction of Falkirk Council. The site lies on the north side of Dean Road, a short distance west of the crossroads of Dean Road and Linlithgow Road centred on NGR: NS 99503 80979.

Study Area

- 1.2.2 In plan the proposed development site is a roughly rectangular plot anchored on Dean Road to the south, aligned roughly NNW to SSE, but with an oblique northern terminal aligned around west to east (Figure 1). It is currently occupied by workshops and a garage.
- 1.2.3 The site is bordered on the east by a petrol station and domestic properties which also lie on the northern side. The western side is also bordered by dwellinghouses at the southern extent, with a large health centre to the north.
- 1.2.4 Although the entire site is proposed for development, at present only the area covered by the UNESCO World Heritage Site is assigned for evaluation (Figure 2). This runs parallel to Dean Road across the full width of the site, and extends up to 20m to the NNW.

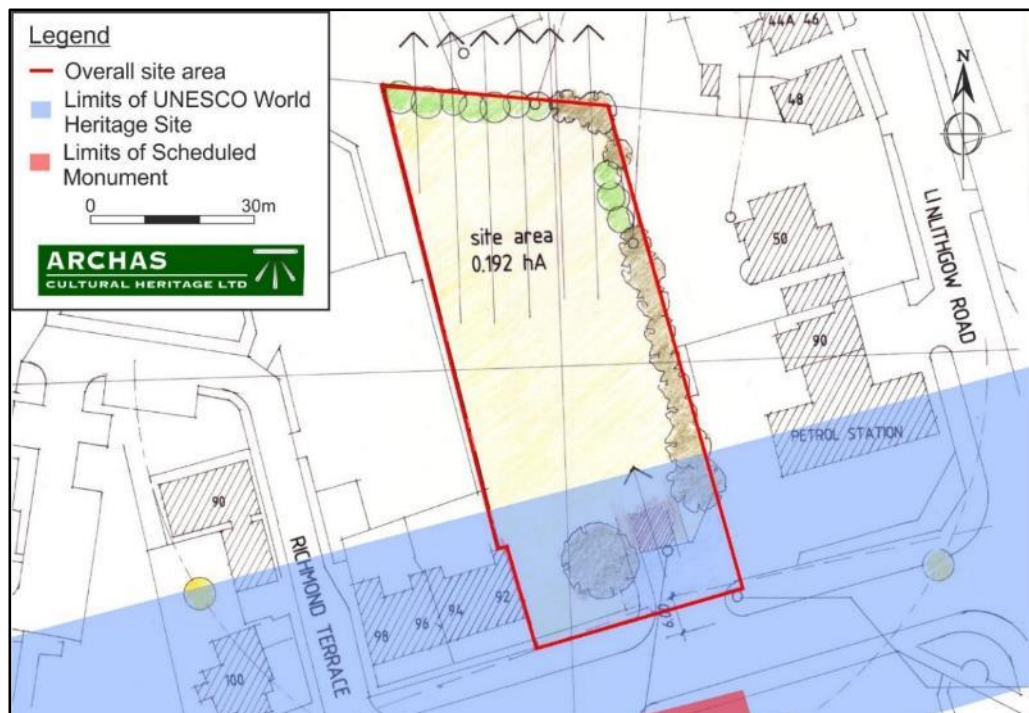


Figure 2: The proposed development area at 90 Dean Road with the area proposed for evaluation within the UNESCO World Heritage Site indicated in blue. ARCHAS after TBB Architecture.

Geology

- 1.2.5 The drift geology of the proposed development site comprises Till, Devensian - Diamicton. These superficial deposits formed up to two million years ago in the Quaternary Period and are characteristic of a local environment previously dominated by Ice Age conditions.
- 1.2.6 The underlying bedrock geology is from the Limestone Coal Formation, Sedimentary Rock Cycles, Clackmannan Group. This was formed 322-326 million years ago in the Carboniferous Period and is characteristic of a local environment previously dominated by swamps, estuaries and deltas.³

³ www.bgs.ac.uk – 15/12/16

2 Background

2.1 General

- 2.1.1 Elements of the Roman Antonine Wall were known to survive close to or within the southern limit of the proposed development site at 90 Dean Road.
- 2.1.2 The history and development of the Antonine Wall complex and the Romans in Scotland is fairly well understood, extensively studied and it is not appropriate to cover this in great detail in a document of this scope. This section will briefly look at the legislative background to the UNESCO World Heritage Site, while providing a brief summary of the Antonine Wall, its development, history and survival in order to assess the likelihood of elements of the wall surviving within the evaluation area.

2.2 Legislative Background

- 2.2.1 In 2008 the Antonine Wall was accepted as part of the Frontiers of the Roman Empire World Heritage Site by UNESCO. This designation recognises the Antonine Wall as a site of international significance and places obligations upon decision making bodies to manage the preservation of Roman remains in relation to planning applications and inappropriate development.
- 2.2.2 The Frontiers of the Roman Empire (Antonine Wall) World Heritage Site Supplementary Planning Guidance outlines the importance of early pre-planning discussions in relation to prospective development along the route of the wall, or within the buffer zones established to the north and south.⁴ Following these discussion, the Falkirk Community Trust Archaeologist requested an archaeological evaluation be undertaken to guide the response of Falkirk Council to proposals.

2.3 Brief Historical Summary⁵

The Antonine Wall

- 2.3.1 The Antonine Wall was constructed during the years following AD 142 to delineate the division of Scotland by north and south of the Forth-Clyde isthmus. The wall was constructed by the Roman occupiers of Scotland and was named for the Roman Emperor of the time, Antonius Pius.
- 2.3.2 Facing north, the wall stretches for nearly 60km and comprised a turf rampart on a stone base between 3-4m high, fronted by a great ditch. The rampart would have been around 4.3m wide. In general, the ditch was a V-Shaped earthwork, measuring up to 12m wide with a depth of c.3.6m. The ditch was separated from the rampart by an area of open ground known as a berm. The berm is likely to have contained rows of pits containing wooden stakes. The material excavated for the ditch was spread along the front of the ditch to form a low upcast mound or glacis.
- 2.3.3 Forts were placed along the wall at 3km intervals and linked by a road known as the Military Way. In addition to this more regularised pattern, the Antonine Wall complex also contains

⁴ RCAHMS 2011 Frontiers of the Roman Empire (Antonine Wall) World Heritage Site: Supplementary Planning Guidance, 10

⁵ This brief synopsis is primarily derived from Breeze, D 1996 "Roman Scotland" and Historic Scotland 2007 "Frontiers of the Roman Empire World Heritage Site Proposed Extension: The Antonine Wall Volume I – Nomination for the extension of the World Heritage Site".

smaller fortlets, possible beacon platforms, enclosures, labour camps as well as temporary marching camps in the area. The forts may also have had associated civilian settlements attracted by the presence of the soldiers.

- 2.3.4 The eastern terminal of the Antonine Wall is thought to be located within the town of Bo'ness at Bridgeness Tower, less than two kilometres from the proposed development site.
- 2.3.5 The purpose of the Antonine Wall was unlikely to have been primarily military, although the wall clearly retained a military purpose. The Antonine Wall was a symbolic indication of the annexation of southern Scotland by Emperor Antonius Pius into the Roman Empire, providing a clear demarcation between the occupants of the Roman provinces and the 'barbarians' beyond. It controlled the movement of people to the provinces to the south.
- 2.3.6 The Wall was only briefly and intermittently occupied with the initial phase of occupation abandoned in AD 162 when the legions withdrew south to Hadrian's Wall. The Antonine Wall was briefly refortified by Emperor Septimus Severus following AD 208.

Excavation nearby

- 2.3.7 A stretch of the Antonine Wall has been excavated immediately south of the proposed evaluation site, on the opposite side of Dean Road. This area is now protected as a Scheduled Monument under the Ancient Monuments and Archaeological Areas Act 1979 (SM11639).
- 2.3.8 This excavation was completed in 1989 and revealed the southern lip of the ditch, the berm incorporating a possible Roman defensive feature and the stone base of the rampart. This excavation indicates that the proposed development area may contain elements of the ditch and the upcast mound or glacis.

2.4 Map Regression

General

- 2.4.1 Early and historic maps were consulted in order to chart the history of development on the evaluation site. The analysis of such maps is important in assessing the likelihood of archaeological deposits surviving undamaged by subsequent development.

Pre-ordnance Survey Maps

- 2.4.2 William Roy's 'Military Survey of Scotland' from c.1750 clearly shows the line of the Antonine Wall running south of the town of *Borrowstoness* and north of the town of *Borrowston*. It is crossed by a road running between the two which today forms the crossroads between Dean Road and Linlithgow Road in Bo'ness. This allows the proposed development site at 90 Dean Road to be accurately pinpointed within a landscape dominated by ploughing and field systems.
- 2.4.3 The Antonine Wall is also shown on 'Map of the Three Lothians' by John Thomson and William Johnson from 1820, here by its later name of 'Graham's Dyke'. The crossroads between modern Dean Road and Linlithgow Road is now clearly established and remains free of development with no structures visible in the immediate vicinity.

Ordnance Survey Maps

- 2.4.4 The 25 inch to 1 mile 1st edition Linlithgow Sheet 1.7 (Borrowstouness) from 1856 shows the area of 90 Dean Road in excellent detail and devoid of occupation. The wall which forms the WNW running oblique at the northern end of the property is in place however as a land boundary around Bankhead Cottage.
- 2.4.5 The 25 inch Linlithgowshire 001.07 OS map from 1897 shows development beginning to occupy the area to the north east of the return between Dean Road and Linlithgow Road. The plot of land now formed by 90 Dean Road has not yet taken shape, but small structures occupy the south east corner of the proposed evaluation area while an access track is clearly shown running in a ENE direction across the extent of the evaluation area towards a large property on the site now occupied by the petrol station (Figure 3).

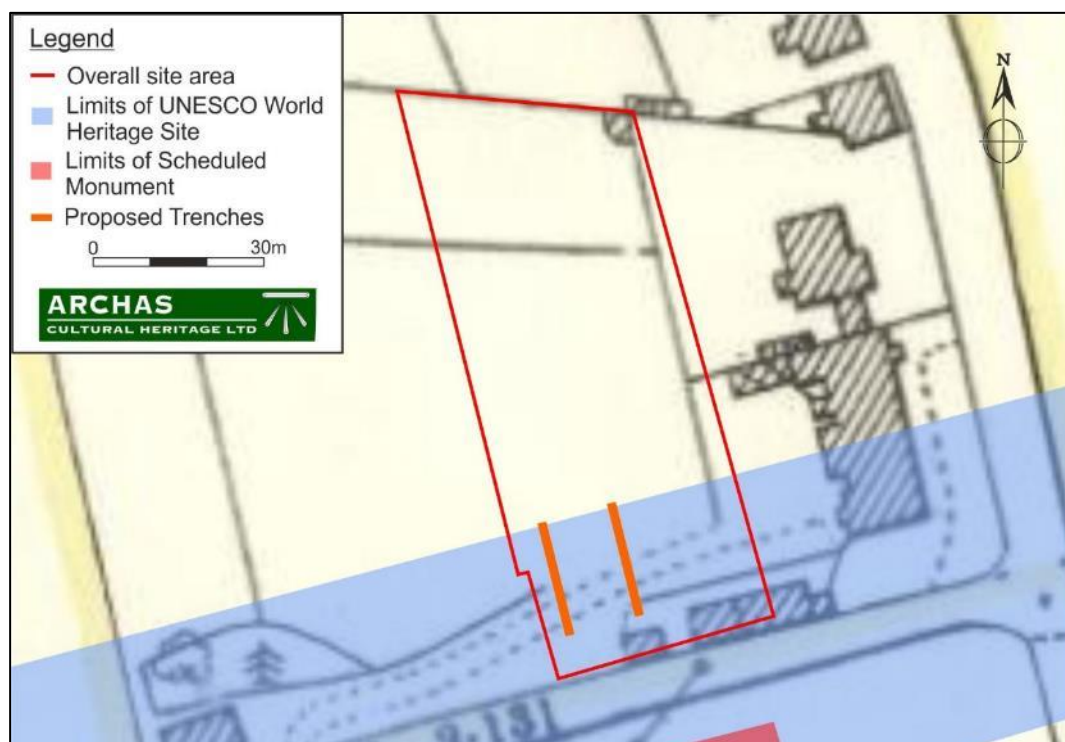


Figure 3: Detail of the 25 inch to 1 mile 001.07 OS map from 1897 showing the development area and proposed trenches crossing the World Heritage Site and the 19th century access track. ARCHAS after NLS.

- 2.4.6 This access track has disappeared by the production of the 25 inch to 1 mile Linlithgowshire n003.03 in 1916. Small structures still line Dean Road in the south west of the plot.

2.5 Statement of Archaeological Potential

- 2.5.1 It was clear that the area to be evaluated at 90 Dean Road has **high** archaeological potential for Roman stratigraphy to survive. Despite lying adjacent to a crossroads, the site sits in undeveloped countryside until the late 19th century when dwellings begin to be constructed. Despite this, no significant development takes place within the confines of what is now 90 Dean Road, with the area to the south west of the site bordering Dean Road in particular surviving undisturbed.
- 2.5.2 While the presence of a 19th century access track is notable, there appear to have been no deep excavations which would have removed traces of a substantial Roman ditch or upcast mound.

3 Methodology

3.1 Field Evaluation

Scope

- 3.1.1 The purpose of evaluation is to gain information about the archaeological potential of a site in order to meet the requirements of the Falkirk Community Trust Archaeologist acting on behalf of Falkirk Council. The results of the evaluation will be used to decide whether further archaeological mitigation is required. In practice, this requires a number of trenches to be opened, strategically placed across the site, in order to provide good spatial coverage for assessing potential of archaeological survival.
- 3.1.2 The results of this phase of works and subsequent recommendations by ARCHAS allows the Falkirk Community Trust Archaeologist to make an informed decision as to the level of mitigation required for any future development, or whether development proposals should be recommended for refusal. ARCHAS will provide recommendations relating to any future archaeological mitigation or otherwise, but the decision for any further archaeological intervention rests with the Falkirk Community Trust Archaeologist and ultimately Falkirk Council.

Extent

- 3.1.3 The proposed evaluation does not cover the whole of the site, but is instead confined to that area protected as part of the UNESCO World Heritage site.
- 3.1.4 Through discussions with the Falkirk Community Trust Archaeologist it was agreed to open two trenches perpendicular to the line of the UNESCO World Heritage Site and the Antonine Wall (Figure 4). It was hoped these would measure 20m in length.

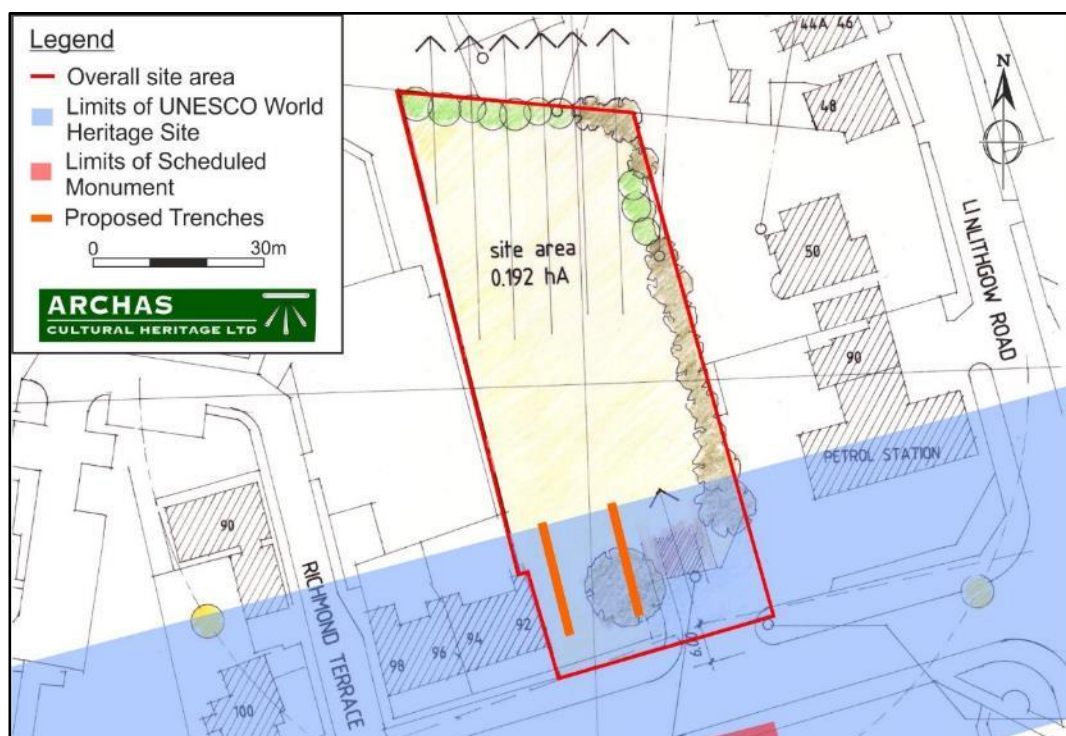


Figure 4: Proposed trenches marked in orange. ARCHAS after TBB Architecture.

3.1.5 In the event, two trenches were opened, running roughly NNW-SSE across the line of the Antonine Wall (Figure 5).

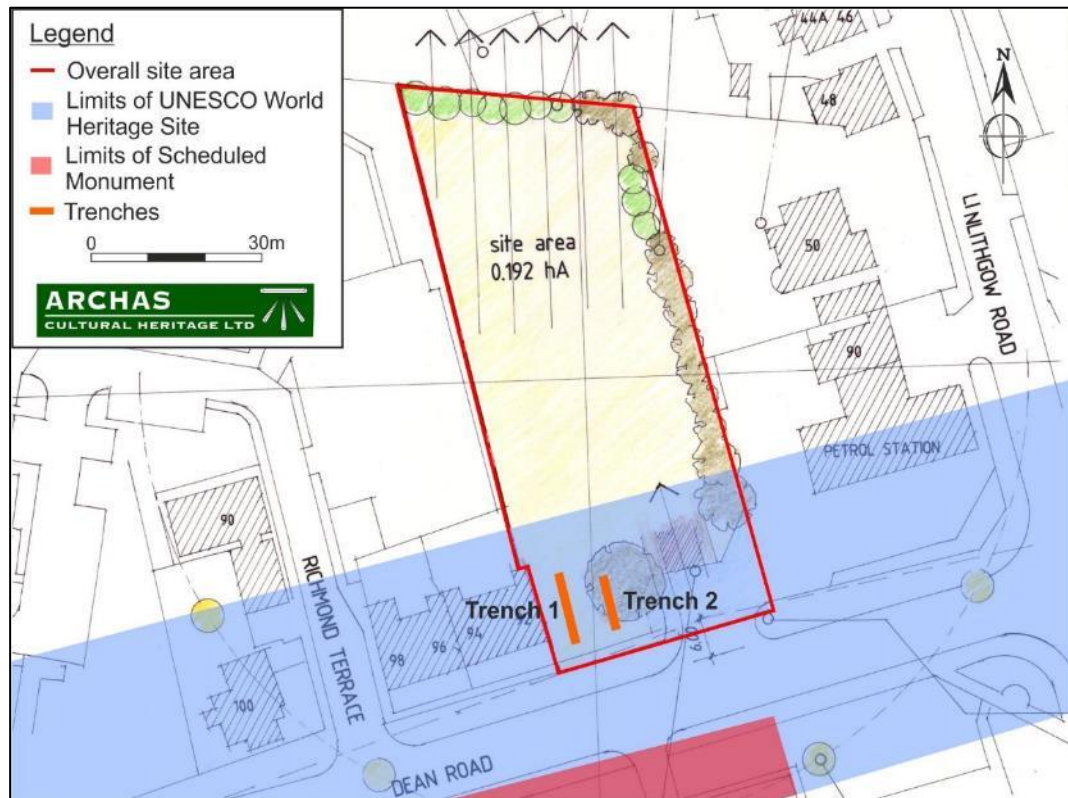


Figure 5: Trenches as excavated. ARCHAS after TBB Architecture

- 3.1.6 The trenches were excavated by a JCB 3CX mechanical excavator fitted with a 1.60m wide toothless bucket under the direct supervision of a qualified archaeologist.
- 3.1.7 Trenches were excavated to a depth of c.1.20m as this was considered by the archaeological team to represent a safe level of excavation given the constraints of the site and proximity of piled spoil. In Trench 2, this depth proved suitable to reveal the undisturbed natural subsoil. In Trench 1, the subsoil was not revealed across the length of the Trench, but instead shown to lie at a depth of c.1.30-1.35m by a series of test pits excavated through the base of the trench.
- 3.1.8 All trenches and soil deposits were recorded to ARCHAS Ltd and ClfA standards and relevant details noted down on ARCHAS *pro forma* trench record sheets.

4 Results

4.1 General

- 4.1.1 Two parallel trenches (Plate 1) were opened at 90 Dean Road in Bo'ness, with both revealing the likely extent of the northern edge of the Antonine Wall complex.
- 4.1.2 Prior to work commencing, a large quantity of mature vegetation was cleared from the site using the mechanical excavator. This left a surface littered with modern detritus and crushed branches.



Plate 1: Working shot showing the locations of the trenches just prior to backfilling (Photograph 045)

- 4.1.3 A description of both trenches and the key deposits and features identified in each is provided below. For ease of discussion, context numbers for deposits and feature fills are shown within parentheses, while context numbers for cuts are recorded within squared parentheses. In each case the initial letter applied to a context defines the trench in which it was located. For example **(101)** would be the first deposit recorded in Trench 1. All context numbers are recorded in **bold**.
 - 4.1.4 Details of each context recorded can be viewed in Appendix A, while records of trenches excavated, including their dimensions and orientation can be viewed in Appendix C.
- ### 4.2 Trench 1
- 4.2.1 Trench 1 was aligned roughly north to south on the same alignment as the neighbouring property to the west. Set 1m from the southern limit of the proposed development area, Trench 1 ran perpendicular to the line of the Antonine Wall complex.
 - 4.2.2 The upper deposits in Trench 1 proved to be a surprisingly rich black brown silty loam **(101)** with very few inclusions with the exception of occasional charcoal flecks and 19th-20th century ceramic. This deposit is the garden soil of the orchard associated with the large house which once occupied the plot to the east and shown on the 1897 OS map.
 - 4.2.3 As excavation proceeded, this topsoil developed a more grey hue, appearing less worked **(104)**. It directly overlay a low mound of re-deposited natural subsoil **(103)**. Comprising moderately compact mid orange, yellow and mid brown slightly silty clay, this deposit had a mottled appearance and peeled back in a manner to further indicate re-deposition. **(103)**

extended 3.97m from the northern end of Trench 1, with a depth of c.0.47m at the northern end, sloping gently towards the south and tapering out. While (103) contained occasional white sandstone flecks, it is noticeable that the southern limit of the deposit contained a quantity of medium sized, angular white sandstone blocks. These stones were in no discernible pattern or placement, but concentrated in a rough west to east alignment along the edge of the re-deposited natural subsoil (103) (Plate 2).



Plate 2: Oblique view of the south end of Trench 1 showing the re-deposited natural subsoil (103) (right of the scale). Note the white sandstone flecks at the edge of the mound (Photograph 020)

- 4.2.4 After c.4.80m from the southern end of Trench 1, the ground became much more disturbed, and continuing excavation revealed a cut [109] through the topsoil, within which a series of deposits clearly related to an old road surface (106) with associated bedding material (107) (Plate 3). These were overlain by a mixed topsoil (102).



Plate 3: Oblique view of the west facing section of Trench 1 with the cut for the road and the road surface and bedding material visible in the foreground (Photograph 022)

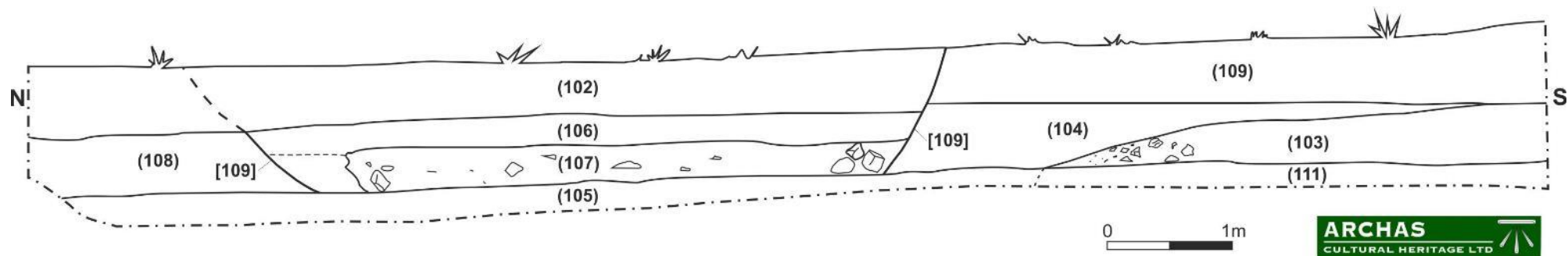


Figure 6: West facing section of Trench 1 (Drawing 001)

4.2.5 Below both the 19th century road disturbance and the natural subsoil mound, a thin band of moderate to firmly compact mid brown silty clay with occasional white sandstone flecks (**105**). This had a slightly redder hue at the southern end below the re-deposited natural mound and was here recorded as (**111**).

4.2.6 The undisturbed natural subsoil (**110**) was revealed below (**105/111**) as a compact mid brown orange clay with frequent blocks of white sandstone.

4.3 Trench 2

4.3.1 Trench 2 was opened on the same alignment a short distance to the east of Trench 1. The deposits and features in Trench 2 clearly mirrored those already recorded in Trench 1.

4.3.2 The rich loam topsoil (**201**) was removed to reveal the road make up (**205**) and associated deposits within a larger cut [**210**].

4.3.3 Removal of the upper 0.50m of topsoil (**201**) revealed the same moderately compact mottled mid orange brown silty clay (**203**) as recorded in Trench 1 (Plate 4). This deposit maintained the same basic profile as (**103**), but sloped a little more sharply towards the southern end, where the small to medium angular white sandstones were also visible.



Plate 4: Oblique view of re-deposited natural mound (**203**) at the south end of Trench 2 (Photograph 032)



Plate 5: West facing section of Trench 2 showing (**203**) (Photograph 039)

5 Summary and Discussion

5.1 General

- 5.1.1 The proposed development plot at 90 Dean Road in Bo'ness lies along the northern edge of the Antonine Wall and within the UNESCO World Heritage Site and as such was identified as a site of significant archaeological potential and sensitivity. Cartographic research revealed that the site was largely undeveloped between c.1750 and the present day, suggesting elements of the Antonine Wall if present, would survive intact.
- 5.1.2 Two trenches were opened during the evaluation, and the stratigraphy shown to be essentially the same. The northern limits of each trench revealed 19th century deposits which clearly correlate with the access track visible on the 1897 OS map. These were cut through the rich topsoil of the 19th century orchard gardens around the large house which once occupied the plot to the east.
- 5.1.3 The southern limits of each trench revealed a low mound of re-deposited natural subsoil. This is almost certainly the denuded remains of the upcast mound which marks the northern limit of the Antonine Wall complex. This material would have been excavated from the ditch to the north of the wall/rampart itself and spread in front of the ditch to create additional height and form a rough glacis. The low and flat nature of the glacis/mound as recorded is likely as a result of weathering and slippage following the abandonment of the wall and development of Dean Road.
- 5.1.4 The identification of sandstone fragments present along the northern limit of the mound was interpreted as a natural accumulation of stones collecting at the base of the slope. These may have accumulated both during the creation of the upcast mound and in the years following its abandonment. Following discussion with the Falkirk Community Trust Archaeologist⁶, it was suggested that this may be the remains of stone facing of the northern limit of the upcast mound.

⁶ Geoff Bailey *pers. comm.*

6 Conclusions and Recommendations

6.1 General

- 6.1.1 The evaluation revealed the northernmost limits of the Antonine Wall complex, with the upcast mound located in both Trenches 1 and 2. This was revealed as a low, denuded mound of re-deposited natural subsoil, extending c.5m into the northern part of the proposed development site at a depth of 0.63m from the current ground surface. No further features or artefacts were recorded which relate to the Roman occupation of the area.
- 6.1.2 The remainder of Trenches 1 and 2 were occupied by undisturbed natural subsoils and the access track visible on the 1897 OS map.
- 6.1.3 The evaluation successfully defined the extent of elements of the Antonine Wall, complex demonstrating that no other Roman features extend into the proposed development area.
- 6.1.4 ARCHAS Cultural Heritage Ltd recommend that proposed development be allowed to proceed without the requirement for further archaeological mitigation. No construction work should be proposed within the southern limits of the site, extending c.7m from the southern boundary of the site in order to provide a buffer for the upcast mound remains. Should any excavation be required in this area for the installation of services, these will not extend any deeper than 0.50m below the current ground surface.
- 6.1.5 While ARCHAS can provide recommendations as to any future work on site, the final decision for any further archaeological mitigation rests with Falkirk Council as advised by the Falkirk Community Trust Archaeologist.

Acknowledgements

ARCHAS Cultural Heritage Ltd would like to thank Mr Wallace Alexander for commissioning us to undertake the work and for his company, assistance and good humour during the site works.

Tommy Thomson of TBB Architecture deserves our gratitude for his help in the early stages of the project.

Lomond Plant Hire provided the mechanical excavator and their operator Mick deserves praise for his patience and skill during an often slow and time consuming job.

We must also note the assistance provided by Geoff Bailey, archaeologist with The Falkirk Community Trust for his assistance and guidance during the project.

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RCAHMS 2011 Frontiers of the Roman Empire (Antonine Wall) World Heritage Site:
Supplementary Planning Guidance

Electronic References

www.bgs.ac.uk

www.pastmap.org.uk

www.rcahms.gov.uk

Appendix A Context Register

Context No.	Trench	Type	Description	Dimension	Comments	Date	Initial
101	1	Deposit	Moderately compact rich, black brown, fine grain silty loam with frequent root intrusion, infrequent stone and rare charcoal flecks.	D: <0.60m	Turf and topsoil. Surprisingly clean containing 19th century ceramic and modern detritus.	24/01/17	RC
102	1	Deposit	Very mixed and mottled moderately compact mid brown, red brown and mid grey gritty silt with flecks of brick.	D: c.0.45m	Topsoil and upper fill of [109] containing a mix of deposits.	24/01/17	RC
103	1	Deposit	Mottled, soft to moderately compact mid orange, yellow, mid brown re-deposited natural subsoil with occasional white sandstone flecks.	D: 0.60-0m W: >3.70m	Mound which slopes and tapers to north. North edge of denuded Antonine Wall upcast mound, consisting of re-deposited natural with occasional larger, white sandstone fragments along the northern edge.	24/01/17	RC
104	1	Deposit	Moderately compact mid brown loam/garden soil.	D: <0.45m	Very similar to (101) but with a slight grey hue. Overlies (103) and cut by (106).	24/01/17	RC
105	1	Deposit	Moderately compact mid brown silty clay with no real inclusions with the exception of occasional white sandstone fragments.	D: 0.20-0.25m	Old ground surface. Very similar to (111) and seems to lap up against this.	24/01/17	RC
106	1	Deposit	Very mixed soft to moderately compact black/grey gritty industrial waste with occasional fragments and areas of red blaes.	D: c.0.30m	Old road surface visible on st edition OS.	24/01/17	RC
107	1	Deposit	Firm spread of broken white sandstone, with fragments of brick and red blaes.	D: 0.30m W: 3.20m	Bedding material for road surface (106).	24/01/17	RC
108	1	Deposit	Moderately compact mid brown loam/garden soil.	D: 0.50mm	Same as (104), but geographically separated by [109].	24/01/17	RC
109	1	Cut	Wide cut, with gradually sloping sides and a roughly flat base containing (106) and (107).	D: c.0.92m W: 5.20m	Cut for road (107).	24/01/17	RC
110	1	Deposit	Very firmly compact, orange brown fine grain sandy clay with frequent small white sandstone fragments.	-	Undisturbed natural subsoil.	24/01/17	RC
111	1	Deposit	Moderately compact red brown fine clay silty.	D: <0.30m	Buried subsoil below upcast mound (103). Very similar to (105).	24/01/17	RC

Context No.	Trench	Type	Description	Dimension	Comments	Date	Initial
201	2	Deposit	Moderately compact rich, black brown, fine grain silty loam with frequent root intrusion, infrequent stone and rare charcoal flecks.	D: <0.60m	Turf and topsoil. Same as (101). Surprisingly clean containing 19th century ceramic and modern detritus.	24/01/17	AR
202	2	Deposit	Moderately compact mid brown loam/garden soil.	D: <0.45m	Very similar to (101) but with a slight grey hue. Overlies (203) and cut by (106).	24/01/17	AR
203	2	Deposit	Moderately compact light brown mixed clay and sandy silt with frequent white sandstone fragments.	D: 0.60m L: >2.70m	Same as (103). Mound which slopes and tapers to north. North edge of denuded Antonine Wall upcast mound, consisting of re-deposited natural with occasional larger, white sandstone fragments along the northern edge.	24/01/17	AR
204	2	Deposit	Moderately compact beige, mid brown silty clay with no real inclusions with the exception of occasional white sandstone fragments.	D: 0.20m	Same as (105). Old ground surface/topsoil.	24/01/17	AR
205	2	Deposit	Very mixed soft to moderately compact black/grey gritty industrial waste.	D: c.0.30m	Same as (106). Old road surface visible on 1st edition OS.	24/01/17	AR
206	2	Deposit	Moderately compact mixed topsoil and type 1 hardcore material.	-	Partial fill of [210].	24/01/17	AR
207	2	Deposit	Thin layer of red brick/fired red clay fragments.	D: <0.05m	Associated with road surface (205).	24/01/17	AR
208	2	Deposit	Very firmly compact, orange brown fine grain sandy clay with frequent small white sandstone fragments.	-	Same as (110). Undisturbed natural subsoil.	24/01/17	AR
209	2	Deposit	Firm spread of broken white sandstone, with fragments of brick and red blaes.	-	Same as (107). Bedding material for road surface (205).	24/01/17	AR
210	2	Cut	W-E aligned cut, with a stepped southern side and flat base.	D: c.0.90m W: 5.20m	Same as [109]. Cut for road containing (205), (206) and (207).	24/01/17	AR

Appendix B Photographic Register

<i>Image No.</i>	<i>Direction Facing</i>	<i>Trench</i>	<i>Context</i>	<i>Description</i>	<i>Date</i>	<i>Initial</i>
001	SE	-	-	Pre-excavation view of Plot A	19/12/16	RC
002	E	-	-	Pre-excavation view of Plot A	19/12/16	RC
003	N	-	-	Pre-excavation view of Plot A	19/12/16	RC
004	NE	-	-	Pre-excavation view of Plot A	19/12/16	RC
005	W	-	-	Pre-excavation view of Plot A	19/12/16	RC
006	W	-	-	Pre-excavation view of Plot A	19/12/16	RC
007	SE	1	(101)	Working shot - Excavating Trench 1	19/12/16	RC
008	SW	1	(101), (102)	NE facing section of Trench 1	19/12/16	RC
009	SE	1	(103)	Post-excavation view of Trench 1	19/12/16	RC
010	NE	2	(201)	Working shot - Excavating Trench 2	19/12/16	RC
011	NW	2	(201), (202)	SE facing section of Trench 2	19/12/16	RC
012	NE	2	(203)	Post-excavation view of Trench 2	19/12/16	RC
013	N	3	(301)	Working shot - Excavating Trench 3	19/12/16	RC
014	N	3	(301)	Working shot - Trench 3	19/12/16	RC
015	NW	3	(301), (303)	Working shot - Natural subsoil (303) appearing in Trench 3	19/12/16	RC
016	SW	3	(301), (302)	NE facing section of Trench 3	19/12/16	RC
017	WNW	3	(301), (302)	Oblique view along NE facing section of Trench 3	19/12/16	RC
018	NW	3	-	Post-excavation view of Trench 3	19/12/16	RC
019	SE	4	-	Working shot - Opening Trench 4	19/12/16	RC
020	NE	4	-	Working shot - Opening Trench 4	19/12/16	RC
021	E	4	(403)	Post-excavation view of Trench 4	19/12/16	RC
022	N/V	4	(403)	Working shot - Mechanical excavator scars in subsoil (403)	19/12/16	RC
023	E	5	(503)	Post-excavation view of Trench 5	19/12/16	RC
024	N	5	(501), (502)	S facing section of Trench 5	19/12/16	RC
025	NE	5	(501), (502)	Oblique view of S facing section of Trench 5	19/12/16	RC
026	NW	6	-	Pre-excavation view of Plot C	19/12/16	RC
027	NE	6	-	Working shot - Excavator at Plot C	19/12/16	RC
028	S	6	(601)	N facing section of Trench 6	19/12/16	RC
029	N	6	(601)	S facing section of Trench 6 showing ceramic finds	19/12/16	RC
030	W	6	(603)	Post-excavation view of Trench 6 N-S arm	19/12/16	RC
031	N	6	(603)	Post-excavation view of Trench 6 W-E arm	19/12/16	RC
032	NW	6	-	Post-excavation view of Trench 6	19/12/16	RC
033	NW	6	-	Post-excavation view of Trench 6 - N-S arm	19/12/16	RC
034	NNW	6	-	Post-excavation view of Trench 6 - W-E arm	19/12/16	RC
035	V	6	-	Working shot - detail of 20th century glass and ceramic (not retained)	19/12/16	RC
036	NW	-	-	Working shot - Existing development on Plot B	19/12/16	RC

Appendix C Trench Register

<i>Trench No.</i>	<i>Length (m)</i>	<i>Width (m)</i>	<i>Orientation</i>
1	12.80	1.60	N-S
2	9.50	1.60	N-S

Appendix D Finds Register

<i>Finds No.</i>	<i>Context No.</i>	<i>Quantity</i>	<i>Material</i>	<i>Description</i>	<i>Comments</i>	<i>Date</i>	<i>Initial</i>
001	101	12	Ceramic	Mixed glazed ceramic	19th-20th century	24/01/17	RC
002	106	2	Fe	Fe fragments	-	24/01/17	RC

Appendix E Sample Register

<i>Sample No.</i>	<i>Context No.</i>	<i>Type</i>	<i>Quantity</i>	<i>Description</i>	<i>Comments</i>	<i>Date</i>	<i>Initial</i>
001	111	Large	1	Trapped old ground surface/ploughsoil	Sealed by upcast mound (103)	24/01/17	RC

Appendix F Drawing Register

<i>Drawing No.</i>	<i>Sheet No.</i>	<i>Scale</i>	<i>Type</i>	<i>Description</i>	<i>Date</i>	<i>Initial</i>
001	001	1:20	Section	West facing section of Trench 1	24/01/17	RC

Appendix G

Provisional Discovery and Excavation Scotland Entry

LOCAL AUTHORITY:	Falkirk Council
PROJECT TITLE/SITE NAME:	90 Dean Road, Bo'ness
PROJECT CODE:	259
PARISH:	Bo'ness and Carriden
NAME OF CONTRIBUTOR:	Ross Cameron
NAME OF ORGANISATION:	ARCHAS Cultural Heritage Ltd
TYPE(S) OF PROJECT:	Archaeological Evaluation
NMRS NO(S):	n/a
SITE/MONUMENT TYPE(S):	Antonine Wall World Heritage Site
SIGNIFICANT FINDS:	None
NGR (2 letters, 8 or 10 figures)	NS 99503 80979
START DATE (this season)	24/01/17
END DATE (this season)	24/01/17
PREVIOUS WORK (incl. <i>DES</i> ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>ARCHAS Cultural Heritage Ltd were contracted to undertake an archaeological evaluation at 90 Dean Road in Bo'ness.</p> <p>The site is subject to a pre-planning application to Falkirk Council which has identified the potential of archaeological concerns affecting any proposed development. The site partly lies within the Antonine Wall UNESCO World Heritage Site and as such is considered an area of great archaeological significance. The official response to the pre-planning application from Falkirk Council required that a programme of archaeological evaluation be completed in advance of the proposed development.</p> <p>The archaeological evaluation involved the mechanical excavation of two evaluation trenches at the southern end of the site, running perpendicularly to the line of the Antonine Wall. The evaluation revealed the denuded remains of the upcast mound known to lie on the northern side of the Antonine Wall ditch. This extended around 5m into the proposed development area, the remainder of which was shown to be devoid of significant archaeological deposits or features.</p> <p>ARCHAS Cultural Heritage Ltd recommend that no further archaeological mitigation be required on site. Any excavations at the southern end of the site will not extend to such depth as to disturb the remains of the upcast mound, while no structure will be built directly overlying the recorded remains to impinge upon the line of the Antonine Wall World Heritage Area.</p>
PROPOSED FUTURE WORK:	None
CAPTION(S) FOR ILLUSTRS:	n/a
SPONSOR OR FUNDING BODY:	Private Client
ADDRESS OF MAIN CONTRIBUTOR:	ARCHAS Cultural Heritage Ltd Suite B2 Laws Close 339-343 High Street Kirkcaldy KY1 1JN
EMAIL ADDRESS:	ross.cameron@archas.co.uk
ARCHIVE LOCATION	NMRS and Falkirk Council SMR (intended)