NORTHLIGHT HERITAGE
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DATA STRUCTURE REPORT

Blairforkie Drive, Bridge of Allan
Stirlingshire

Archaeological Evaluation

northlightheritage

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Blairforkie Drive, Bridge of Allan, Stirling

NGR: NS 7869 9782

Data Structure Report
on behalf of
Cala Homes (West) Ltd

Cover Plate: Lade wall in trench 5

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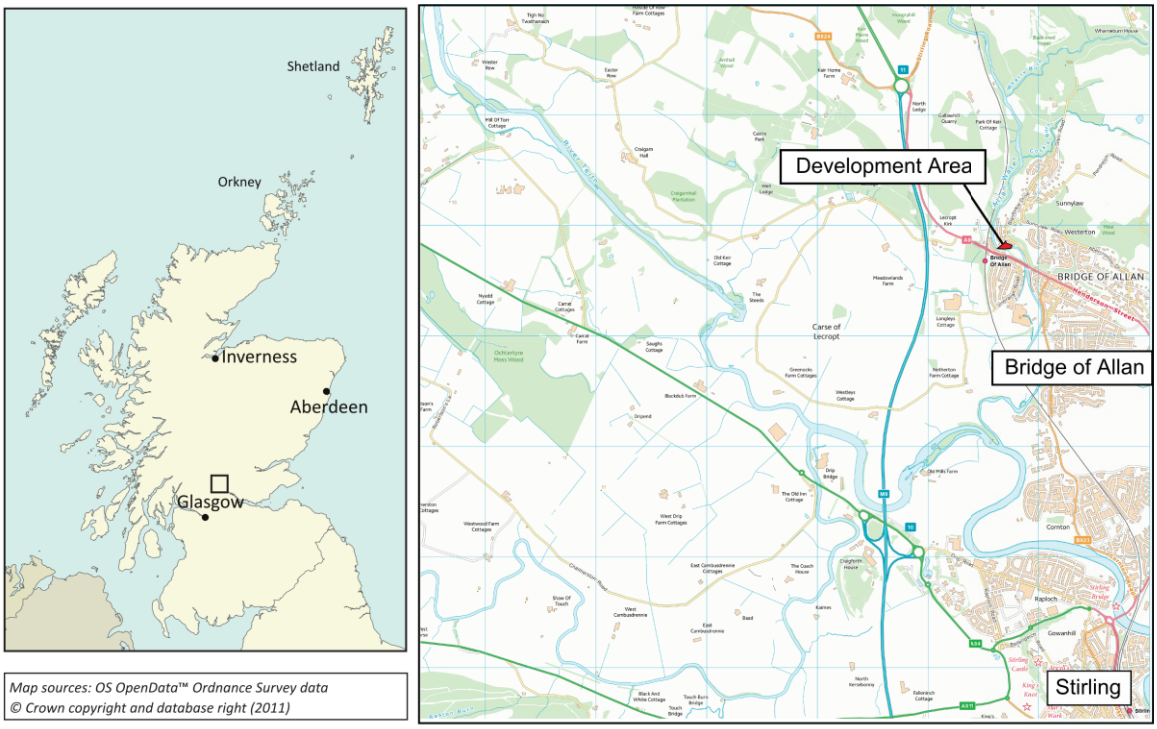
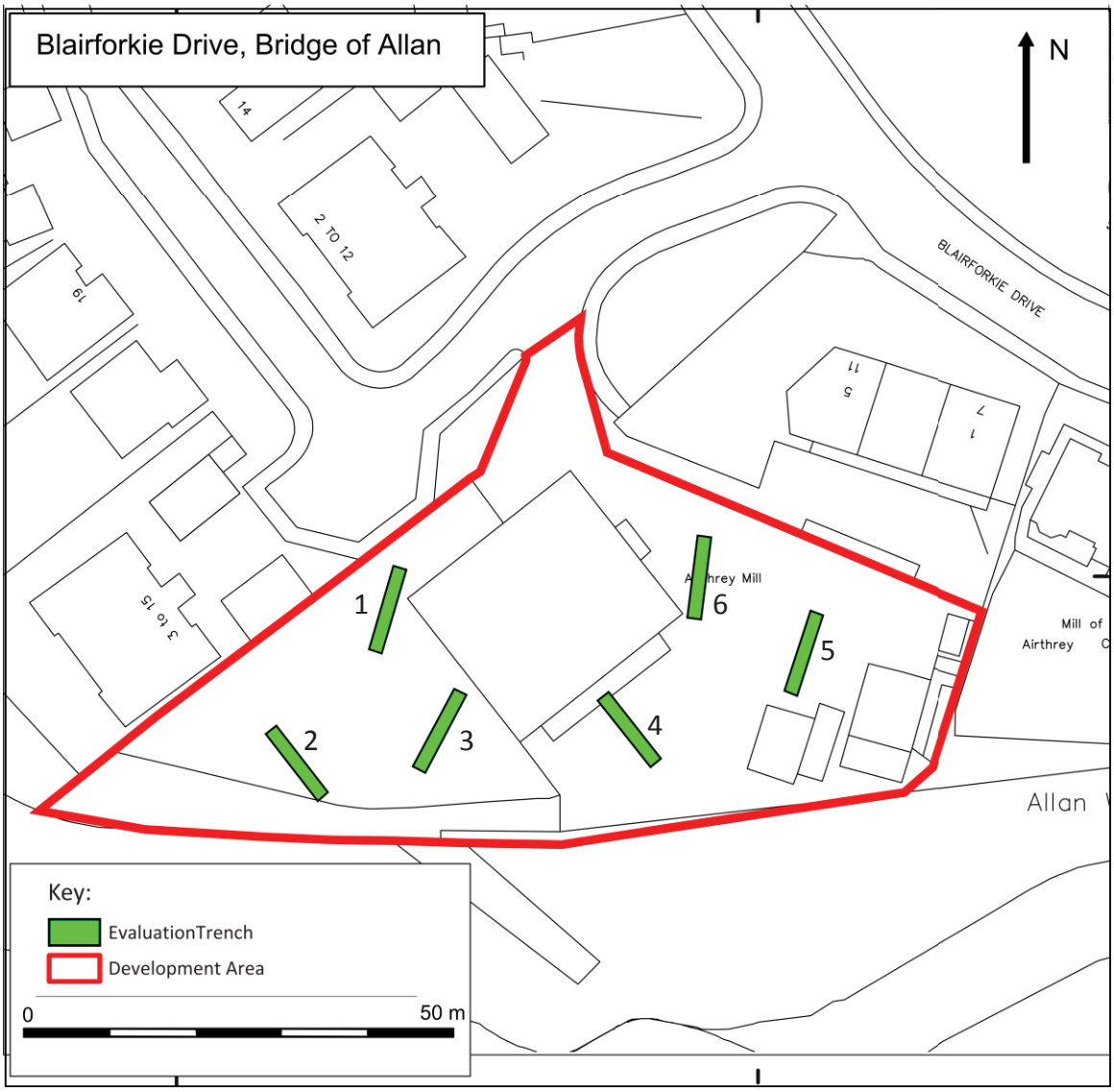
CONTENTS

FIGURES

PLATES

TABLES


Shetland
Orkney
Inverness
Aberdeen
Glasgow
Development Area
Bridge of Allan
Stirling
BRIDGE OF ALLAN
Carse of Lecropt
Map sources: OS OpenData™ Ordnance Survey data
© Crown copyright and database right (2011)


Blairforkie Drive, Bridge of Allan
N
BLAIRFORKIE DRIVE
2 TO 12
14
19
3 TO 15
1
2
3
4
5
6
Airthrey Mill
Mill of Airthrey
Allan
Key:
EvaluationTrench
Development Area
0
50 m
Map source: OS OpenData™ Ordnance Survey data © Crown copyright and database right (2011)

Abstract

An archaeological evaluation was undertaken at Blairforkie Drive, Bridge of Allan, Stirlingshire on behalf of CALA Homes (West) Ltd in advance of a residential development. The work was conducted by Northlight Heritage between 12th and 16th of August 2013. Six trenches, totalling an area of 96 sq. m, were excavated across the proposed development area, equivalent to approximately 5% of an area deemed worthy of investigation.

A probable 20th century floor surface and wall was discovered in one trench, and a lade wall was discovered within two trenches at the eastern side of the site. The remaining trenches were predominantly filled with demolition material used for reclaiming ground from the original route of the river.

1. Introduction

1.1

This report presents the results of archaeological works at Blairforkie Drive, Bridge of Allan, Stirling, conducted by Northlight Heritage on behalf of CALA Homes (West) Ltd between 12th August 2013 and 16th August 2013. Six trenches, to a total of 96 sq. m, were opened across an area proposed for housing development on the land of an existing warehouse and office, immediately north of the Allan Water. The evaluation trenches equated to approximately 5% of the proposed development area which was not either beneath the upstanding commercial building or in an area of made-ground reclaimed from the river to the southern end of the site (see section 5.1).

2. Location, Geology and Topography

2.1

The proposed development site is located within Bridge of Allan on the site of a warehouse and office, most recently used by a company called AA Components, and is centred on approximately NGR NS 7869 9782 (Figure 1). The site occupies a warehouse and yard, bound to the south by the Allan Water, to the north by Blairforkie Drive and to the west by residential houses of Allan Walk.

2.2

The underlying geology consists of Sheriffmuir Sandstone Member while the superficial deposits consist of Raised Tidal Flat Deposits (1:50000, British Geological Survey).

3. Archaeological and Historical Context

3.1

The development area is within the extents of a mill, known as Airthrey Mills, which was established in the mid 18th century and is listed on the National Monuments Record of Scotland as a paper mill (NMRS: NS79NE 251). These mills appear on historic mapping, including the first edition Ordinance Survey which shows a single building and two lades within the development area. By the end of the nineteenth century (and the 2nd edition OS map) this building was demolished and replaced by a row of buildings which were later demolished to make way for the building that stands on the site at the time of writing.

4. Summary Objectives

The objectives of the evaluation were:

- to identify the location, nature and extent of any hitherto unrecorded features or objects of archaeological significance that had the potential to be damaged or destroyed by the development;
- to excavate and ensure the preservation by record of all identified features and remains that could not be protected within the development ;
- to ensure that the needs for archaeological conservation and recording were met without causing any unnecessary delay or disturbance to the development project.

5. Methodology

5.1
As a proportion of the area covered within the development area was made ground (where the river appears to have been in-filled, c. 782 m²) and a large area wass taken up by the modern building (c. 447 m²), and as a result the 5% sample was based upon the remaining area (1899 m²). To mitigate against the possible destruction of buried archaeological evidence a series of trial trenches were positioned to evaluate the area to identify any significant archaeological features and/or deposits. A total of six trenches were excavated amounting to 96 square metres and all of which were tied into the OS grid.

5.2
As a number of known and unknown services were expected to be encountered during the excavation i.e. water and electricity, each trench was CAT scanned prior to excavation and if necessary the trench location was then altered to avoid any buried services.

5.3
Excavation was undertaken by a mechanical excavator using a 1.6m wide, toothless bucket under direct archaeological supervision. A breaker and toothed bucket were used where ground conditions deemed it necessary.

5.4
The topsoil, and subsoil interfaces were removed in spits to the level of natural subsoil or the first archaeological horizon. Any archaeological features encountered were cleaned by hand in order to help identify the date of the deposits, their character and extent. Such features were then recorded by written description on pro forma recording sheets and by photograph.

6. Results

6.1

The majority of the trenches were predominantly filled with deposits of demolition material and pockets of scrap metal material used in order to reclaim the land of the old river, with deposits of levelling material above. The area of trenches 2 and 3 had then been concreted over and trench 4 had been covered in gravel. The context numbers of these make-up layers and levelling deposits can be found in the concordance lists in appendix 1. The remainder of the trenches ,which contained archaeological remains, are listed below. The location of each of these trenches can be found in figure 2.

Trench 1

6.2

Trench 1 was excavated at the western corner of the existing warehouse. In the centre of the trench, beneath a concrete surface (008), which measured 0.16 m in depth, and a layer of gravel and brick rubble preparation/levelling material (009) , were the remains of a short section (approx 1 m in length) of a NE–SW running wall comprised of concrete blocks (011), measuring 0.08m in height. To the south eastern side and running beneath this wall was a concrete floor surface (012), and to the north west was a thin, 0.10m deep, layer of tar (010).

6.3

Beneath these deposits, and continuing throughout the rest of the trench, were a series of made-ground layers. Immediately below the tar (010) and concrete surface (012), was a layer of mottled yellow/white ash (013) which appears to have been used as a levelling deposit for the tar surface (010). Immediately below this ash layer (013) was a deposit of reddish brown clay, ranging in depth from approx 0.50–1.00 m, with frequent large boulder inclusions. Subsequently below this deposit was a light reddish brown sand layer with frequent stone inclusions (015) thought to be natural subsoil.

Plate 1: Wall [011] and surfaces (010) & (012) in trench 1

Trenches 5 & 6

Trenches 5 and 6 revealed a series of made-ground layers and levelling materials, detailed in appendix 1. These trenches also contained the remains of a dry stone wall [034] & [045] that ran east to west forming the southern edge of a lade. The wall itself was located at approximately 0.50 m below the gravel surface (028) & (036) and was at least 1.50 m in depth, however due to waterlogged conditions it was impossible to ascertain the exact depth. The northern face of the wall was constructed of squared off dry stone blocks with thin flat dry stone sitting on edge as the top course, whereas the southern face was a series of rounded stones, <0.35m diameter, simply piled up against the back of the wall acting as a support. The northern boundary wall of the lade was not identified within the evaluation trenches. On the southern side of this boundary wall were deposits of reddish brown sand (031) & (042), natural alluvial deposits into which the lade was dug. To the north of the wall was a deposit of rubble and silt which has been used to backfill the lade after it went out of use.

Plate 2: Northern face of lade wall [034] in trench 5.

7. Discussion and Summary

7.1
Through the excavation of these six evaluation trenches it appears that there is little chance of finding substantial archaeological remains relating to the early phases of Airthley Mills. It appears that much of the area to the rear of the existing warehouse has been built up on ground which has been reclaimed from the Allan Water, by building up the area with demolition material before being concreted over.

7.2
There are scant remains of a previous structure, as seen in trench 1, which may relate to fragmentary preservation of elements of 19th or 20th century structures. The wall may relate to the existing warehouse structure, as it runs almost perfectly in line with the upstanding western wall.

7.3
The walls discovered within trenches 5 and 6 are believed to be the southern boundary wall of a lade which ran east to west through the site. This lade can be seen on Stobies' 1783 map as well as later OS mapping and has remained in a well preserved state beneath this demolition material which was deposited around and on top of the wall. Only the southern boundary of the lade was identified within the trenches and no trace of the northern boundary was found. In trench 6 this was likely due to numerous utilities and services (drains and water pipes) identified at the northern end of the trench. In trench 5 the southern wall was located at the northern end of the trench and the northern wall may still survive outside the trench.

7.4
Due to the significant ground-works involved in reclaiming parts of the river, as well as the construction of the warehouse, other structures, and utilities and services, the potential for the survival of significant archaeological remains appears low.

8. Recommendations

8.1
The prospects for the survival of significant remains relating to early phases of the mill are low, and as such, Northlight Heritage recommend that no further archaeological work be required during the proposed development of the site.

8.2
Northlight Heritage would stress that these recommendations are intended for guidance only. Final decisions on the requirement for further mitigation rests with the planning authority.

9. List of Sources

Maps and Online Sources
British Geological Survey, 1:50000, http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html (accessed 21/08/2013).
Various map sources viewed via the NLS website (http://maps.nls.uk)

10. Appendices

APPENDIX 1: Tables / Concordances

Table 1: Context Information

Context No.	*Type*	*Length (m)*	*Width (m)*	*Depth (m)*	*Description/Interpretation*	*Stratigraphy and/or phasing info*
001	Deposit	Unknown	Unknown	<0.10m	Tarmac within trench 3.	Above (002)
002	Deposit	Unknown	Unknown	0.16m	Concrete within trench 3, same as (008).	Below (001), Above (003)
003	Deposit	Unknown	Unknown	0.05-0.10m	Tar with gravel inclusions within trench 3. Levelling deposit for concrete surface (002).	Below (002), Above (004)
004	Deposit	Unknown	Unknown	>1.4m	Loosely compacted sand and gravel with abundant sandstone blocks, brick & assorted rubble within trench 3. Material used to reclaim ground from the river. Same as (019) & (027).	Below (003), Above (005)
005	Deposit	Unknown	Unknown	c. 0.50m	Crushed red brick deposit within trench 3. Material used to reclaim ground from river. Same as (018).	Below (004), Above (006)
006	Deposit	Unknown	Unknown	c. 0.25m	Black silty material, possibly tar, within trench 3. Material used to reclaim ground from river.	Below (005), Above (007)
007	Deposit	Unknown	Unknown	Unknown	Concrete and gravel filled patch at northern end of trench 3.	Below (001)
008	Deposit	Unknown	Unknown	0.16m	Concrete in trench 1, same as (002).	Above (009)
009	Deposit	Unknown	Unknown	c. 0.10m	Mottled dark grey gravel and brick rubble in trench 1. Levelling/preparation deposit for concrete surface (008).	Below (008), Above (010)
010	Deposit	Unknown	Unknown	c. 0.10m	Very dark greenish brown, firmly compacted tar chippings in trench 1, at the south eastern side of wall [011].	Below (012)
011	Structure	Unknown	Unknown	0.08m	NE-SW running wall comprised of concrete blocks, within trench 1.	Below (009), Above (012)
012	Deposit	Unknown	Unknown	c. 0.16m	Concrete surface within trench 1, laid on top of wall [011].	Below [011], Above (010)
013	Deposit	Unknown	Unknown	c. 0.50m	Mottled yellow/white ash layer within trench 1, used as preparation for tar layer (010).	Below (010), Above (014)
014	Deposit	Unknown	Unknown	c. 0.50m	Reddish brown layer of clay with frequent boulders in trench 1, used as a make-up layer.	Below (013), Above (015)

015	Deposit	Unknown	Unknown	Unknown	Light reddish brown sand with frequent stone inclusions in trench 1, probable natural.	Below (014)
016	Deposit	Unknown	Unknown	0.16m	Concrete surface within trench 2. Same as (008).	Above (017)
017	Deposit	Unknown	Unknown	0.05 - 0.10m	Very dark grey/brown silt and gravel deposit within trench 2 used as a preparation layer before concrete surface (016).	Below (016), Above (018)
018	Deposit	Unknown	Unknown	0.10 - 0.35m	Red brick and assorted rubble within trench 2. Material used to reclaim ground from river. Same as (005).	Below (019), Above (020)
019	Deposit	Unknown	Unknown	>1.20m	Very dark grey silt with abundant large sandstone blocks, red and yellow bricks, within trench 2. Material used to reclaim ground from river. Same as (004) & (027).	Below (017), Above (018)
020	Deposit	Unknown	Unknown	c. 0.25	Layer of ash within trench 2. Material used to reclaim ground from river.	Below (018), Above (021)
021	Deposit	Unknown	Unknown	c. 0.20m	Reddish brown layer of clay with frequent boulders in trench 2. Material used to reclaim ground from river. Same as (014).	Below (023)
022	Deposit	Unknown	Unknown	c. 0.10m	Pocket of scrap iron within trench 2. Material used to reclaim ground from river.	Below (020), Above (023)
023	Deposit	Unknown	Unknown	Unknown	Dark brown sandy clay layer within trench 2.	Above (021), Below (022)
024	Deposit	Unknown	Unknown	0.10 - 0.20m	Very loose red/grey surface gravel within trench 4. Same as (028) & (036).	Above (025)
025	Deposit	Unknown	Unknown	0.10 - 0.15m	Light yellowish brown gravel with abundant small stone inclusions within trench 4 used as either a levelling deposit or in reclaimed river bank. Same as (029).	Below (024). Above (026)
026	Deposit	Unknown	Unknown	0.10 - 0.15m	Firmly compacted black tar chippings in trench 4, used to seal the deposit of demolition material (027) below. Same as (030) & (037).	Below (025), Above (027)
027	Deposit	Unknown	Unknown	>0.65m	Very dark grey silt with abundant large sandstone blocks, red and yellow bricks, within trench 2. Material used to reclaim ground from river. Same as (004) & (019).	Below (026)
028	Deposit	Unknown	Unknown	0.10 - 0.25m	Very loose red/grey surface gravel within trench 5. Same as (024) & (036).	Above (029)
029	Deposit	Unknown	Unknown	0.10 - 0.30m	Light yellowish brown gravel with abundant small stone inclusions within trench 5 used as either a levelling deposit or in reclaimed river bank. Same as (025).	Below (028), Above (033)
030	Deposit	Unknown	Unknown	0.10 - 0.15m	Firmly compacted black tar chippings in trench 5, used to seal the deposits below. Same as (026) & (037).	Below (032)

031	Deposit	Unknown	Unknown	Unknown	Light reddish brown sand with frequent stone inclusions in trench 5, alluvial deposit from river. Same as (042).	Below (034)
032	Deposit	Unknown	Unknown	c. 0.50m	Light yellowish/brown clay mixed with assorted demolition material within trench 5. Material used to reclaim ground from river.	Below (033), Above (030)
033	Deposit	Unknown	Unknown	c. 0.40m	Dark grey/brown silt deposit with abundant very coarse rubble inclusions within trench 5. Material used to reclaim ground from river.	Below (029), Above (032)
034	Structure	Unknown	c. 0.50m	>1.50m	Boundary wall of lade within trench 5. Cuts through alluvial deposit (031). Same as (045).	Above (031)
035	Deposit	Unknown	Unknown	>1.80m	Silt and rubble backfill of lade within trench 5.	Above (034)
036	Deposit	Unknown	Unknown	0.05 - 0.15m	Very loose red/grey surface gravel within trench 6. Same as (024) & (028).	Above (037)
037	Deposit	Unknown	Unknown	0.10 - 0.20m	Firmly compacted black tar chippings in trench 5, used to seal the deposits below. Same as (026) & (030).	Below (036), Above (038)
038	Deposit	Unknown	Unknown	0.40 - 0.60m	Friable clay with frequent boulders and mixed rubble used as a levelling deposit within trench 6.	Below (037), Above (039)
039	Deposit	Unknown	Unknown	>1.00m	Loosely compacted. Dark grey/brown silt deposit with assorted sandstone blocks and brick rubble within trench 6. Make-up layer.	Below (037)
040	Deposit/cut	Unknown	Unknown	c. 0.40m	Cut and fill of trench for armoured cable at the northern end of trench 6.	Cuts (037)
041	Deposit	Unknown	Unknown	>1.00m	Rubble deposit used as backfill for a service trench at the southern end of trench 6.	Below (037)
042	Deposit	Unknown	Unknown	>1.00m	Light reddish brown sand with frequent stone inclusions in trench 6, alluvial deposit from river. Same as (031).	Below (042)
043	Deposit/cut	Unknown	Unknown	c. 0.50m	Cut and fill of water and drainage pipes in trench 6.	Cuts (037)
044	Deposit	Unknown	Unknown	>1.00m	Silt and rubble backfill of lade within trench 6.	Above (038) & (048)
045	Structure/cut	Unknown	c. 0.50m	>1.50m	Boundary wall of lade within trench 6. Cuts through alluvial deposit (042). Same as (034).	Above (042)

Table 2: Digital Photographs

Photo No.	*Context No.*	*Description*	*From (Compass)*
001	028, 036	Pre excavation shot of front of building	NW
002	001, 028, 036	Pre excavation shot of east of building	NW
003	024, 036	Pre excavation shot of east of building	SW
004	001, 008, 016	Pre excavation shot of rear of building	ESE
005	001, 008, 016	Pre excavation shot of rear of building	SW
006	n/a	Weir in river	NE
007	008	Working shot of trench 1 being excavated	SSE
008	008	Working shot of trench 1 being excavated	SSE
009	008, 010, 011, 012, 013, 014	Post excavation shot of trench 1	NNW
010	008, 010, 011, 012, 013, 014	Post excavation shot of trench 1	SSE
011	010, 011, 012	Post excavation shot of wall [011] and surface (012) in trench 1	ESE
012	010, 011, 012	Post excavation shot of wall [011] and surface (012) in trench 1	ESE
013	001, 008, 016	Rear of building after trenches were backfilled	SW
014	016	Trench 2 after being backfilled	ESE
015	008	Trench 1 after being backfilled	SE
016	001	Trench 3 after being backfilled	S
017	001	Trench 3 after being backfilled	SE
018	016	Trench 2 after being backfilled	ESE
019	024	Trench 4 after being backfilled	SW
020	036	Trench 6 after being backfilled	S
021	036	Trench 5 after being backfilled	SW
022	024	Trench 4 after being backfilled	NE
023	036	Trench 6 after being backfilled	N
024	036	Working shot of trench 5 being backfilled	WNW
025	039, 044, 045	Post excavation shot of the top course of wall [045] in trench 6	N
026	036 - 045	Post excavation shot of trench 6	N
027	036 - 045	Post excavation shot of trench 6	S
028	028 - 033	ESE facing section of trench 5	ESE
029	028 - 033	ESE facing section of trench 5	ESE
030	028 - 035	Post excavation shot of trench 5	NE
031	028 - 035	Post excavation shot of trench 5	SW
032	024 - 027	NE facing section of trench 4	NE
033	024 - 027	NE facing section of trench 4	NE
034	024 - 027	Post excavation shot of trench 4	WNW
035	024 - 027	Post excavation shot of trench 4	ESE
036	031, 034, 035	Post excavation shot of top course of wall [034] in trench 5	ESE
037	031, 034, 035	Post excavation shot of rear of wall [034] in trench 5	SSW
038	010, 011, 012	Post excavation shot of wall [011] and surface (012) in trench 1	NW
039	010, 011, 012	Post excavation shot of wall [011] and surface (012) in trench 1	NW
040	031, 034, 035	Post excavation shot of front of wall [034] in trench 5	NNE
041	031, 034, 035	Post excavation shot of front of wall [034] in trench 5	NNE
042	031, 034, 035	Post excavation shot of front of wall [034] in trench 5	NNE
043	001 - 004	NW facing section of trench 3	NW
044	001, 002, 003	NW facing section of trench 3	NW
045	001 - 007	NW facing section of trench 3	NW
046	001 - 007	Post excavation shot of trench 3	S
047	001 - 007	Post excavation shot of trench 3	N
048	016 - 023	Post excavation shot of trench 2	ESE

049	016 - 023	Post excavation shot of trench 2	WNW
050	016 - 019	SSW facing section of trench 2	SSW
051	016 - 023	SSW facing section of trench 2	SSW
052	008 – 010, 012, 014	NW facing section of trench 1	NW
053	008, 010, 011, 012	NW facing section of trench 1	NW
054	008 – 010, 013 - 015	NW facing section of trench 1	NW
055	010, 011, 012	Mid excavation shot of wall [011] and surface (012) in trench 1	NW

Table 3: Trench Information

Trench	*Length (m)*	*Width (m)*	*Depth, at max extent (m)*	*Topsoil*	*Subsoil*	*Notes*
001	10.00	1.60	1.25	Concrete	Various deposits of demolition material to make up the ground level.	Contained remains of a wall modern wall [011], a tarmac surface (012) on the western side of this wall and a concrete surface (012) on the eastern side.
002	10.00	1.60 – 2.10	1.20	Concrete	Various deposits of demolition material to reclaim the land of the old river.	Contained no archaeological remains.
003	10.00	1.80– 2.00	1.50	Tarmac	Various deposits of demolition material to reclaim the land of the old river.	Contained no archaeological remains.
004	10.00	1.60 – 2.15	1.25	Gravel	Various deposits of demolition material to reclaim the land of the old river.	Contained no archaeological remains.
005	10.00	1.80 – 2.75	2.00	Gravel	Various deposits of demolition material to make up the ground level.	Contained the remains of a well preserved, east to west running boundary wall of the old lade [034].
006	10.00	1.70 – 1.80	1.25	Gravel	Various deposits of demolition material to make up the ground level.	Contained the remains of a well preserved, east to west running boundary wall of the old lade [045].

APPENDIX 2: Stage 1 Written Scheme of Investigation

Northlight Heritage: Blairforkie Drive, Bridge of Allan

Archaeological Evaluation

Written Scheme of Investigation

1.0 Introduction

This document sets out a written scheme of investigation for archaeological works at the site of a proposed housing development (Planning Reference No: 12/00811/FUL) at Blairforkie Drive, Bridge of Allan, Stirling on the behalf of CALA Homes (West) Ltd. In the first instance the requirement is for archaeological evaluation by trial trenching (Stage 1) of the development site.

Should significant archaeological deposits be present on site there may be requirement for a staged programme of archaeological works (which could include archaeological excavation, watching brief and/or further evaluation as appropriate). The detailed methodology to be employed during any Stage 2 mitigation works and Stage 3 post excavation analysis and publication, would, if required, be specified in addenda to this document, to be called project designs for any proposed fieldwork at Stage 2, and post- excavation research designs for work required at Stage 3.

These addenda, if required, will be submitted by the applicant for the agreement of the Stirling Council Archaeology Service, prior to the commencement of any archaeological work, which may be specified in the addenda documents. The Council will not discharge any planning condition which requires the programme of archaeological work, until such time as it is satisfied that all Stages of archaeological fieldwork have been completed (in the cases of Stages 1 and 2), or secured by contract (in the case of Stage 3).

All phases of work will be funded by the client, CALA Homes (West) Ltd.

2.0 Aims and Objectives

The aims and objectives of the evaluation are to:

- establish the presence or absence of any archaeological remains which may be present on site;
- determine the character, extent and significance of any archaeological deposits encountered;
- and, where preservation in-situ is not feasible, provide sufficient information to develop a stage 2 mitigation strategy to excavate and record any significant archaeological features or sites encountered during the evaluation to ensure preservation through record.

3.0 Methodology

The entire site comprises approximately 3128 m² of land which is intended for development. The location of the site is deemed to have potential for the discovery of archaeological features and/or deposits relating to the 18th century mill which stood on the site.

"The proposed development lies on the southern fringe of the Airthrey Mills complex; these mills were established in the middle of the 18th century and were the source of wealth that allowed Airthrey Castle to be constructed. Two mills and a lade are recorded on Stobies' 1783 map of the area (labeled 'Ethra Mills'). The 1861 Ordnance Survey 1st Edition records a single building and two lades within the development area, this single building was demolished and replaced by a row of buildings by the 2nd Edition Ordnance Survey (1891-1912) and in turn these buildings were demolish and replaced during the 20th century.

18th and 19th century mill complexes tended to build upwards on the demolished remains of any predecessor buildings and it is extremely likely that the remains of 18th and 19th century mill buildings survive under the current ground level. It is also possible that such remains reflect the technological shift from water power to steam power that was one of the main characteristics of the Industrial Revolution.

The construction, expansion and subsequent demolition of the mills reflects the wider transition of Scottish society across the last 200 years from manufacturing innovation to decline and transition into other economic drivers such as the knowledge economy (the university). Thus the mill and any remains associated with it are of clear regional significance and any development has the potential to damage or destroy them." (Murray Cook, Stirling Council Archaeology Service, in response to planning application)

To mitigate against the possible destruction of such archaeological evidence a series of trial trenches will be positioned to evaluate the area (5% sample) and identify any significant archaeological features and/or deposits. As a proportion of the area is likely to be made ground (where the river appears to have been in-filled, c. 782 m²) and a large area is taken up by a modern building (c. 447 m²) the 5% sample will be based upon the remaining area (1899 m²).

Trenches will therefore be positioned to ensure coverage of the area, but also to target the footprint of the historic mill buildings and mill lades as shown within figure 1. One trench will also be located to investigate the possibility of survival of the mill dam. The trench plan is indicative only, and may be altered on the ground to target topographic features deemed more likely to contain archaeologically significant material, or to avoid areas, such as overhead or underground services, in accordance with the site health and safety risk assessment.

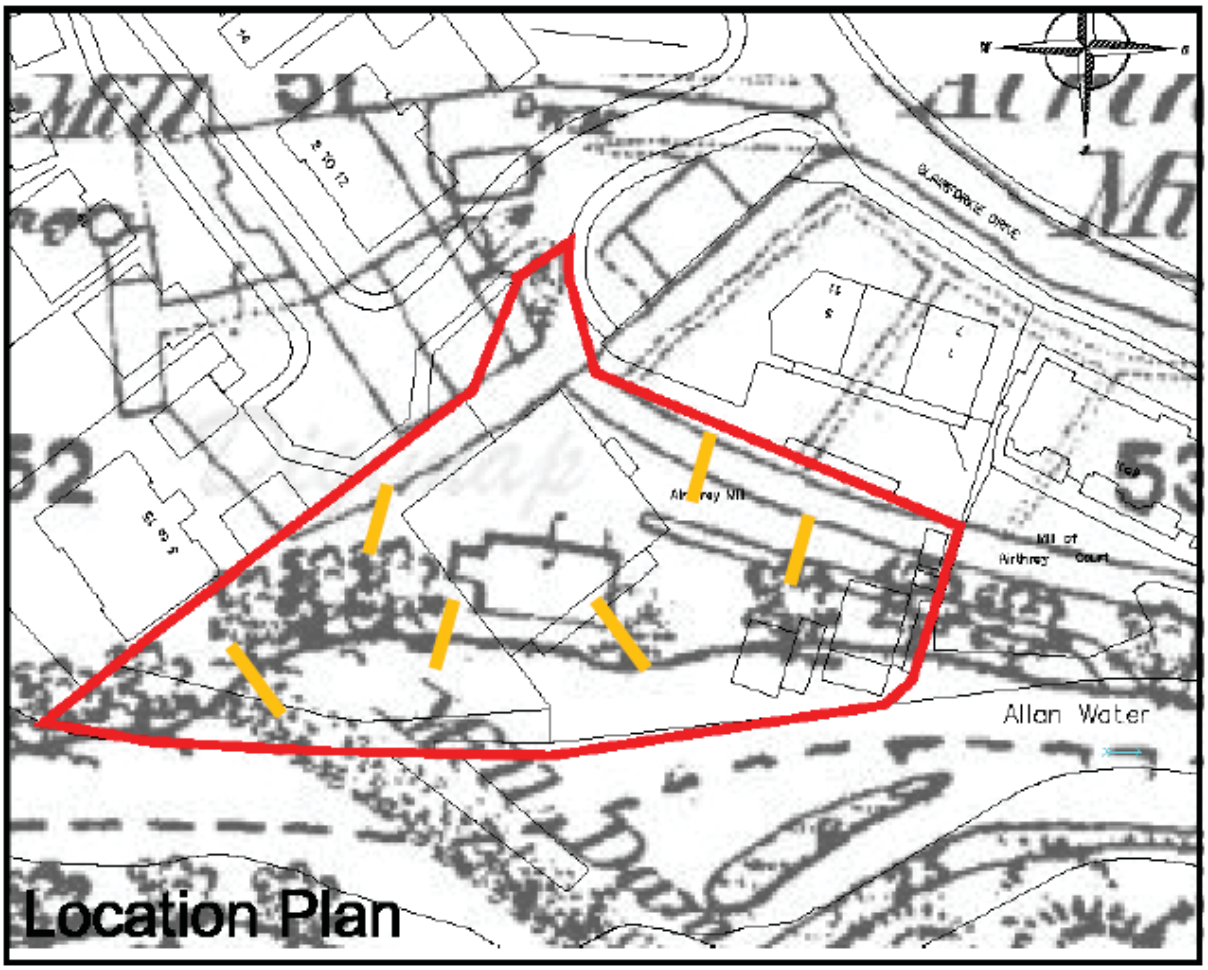


Figure 1: Approximate overlay of development area (red) with possible trench locations (orange) and 1st edition Ordnance Survey map (1860)

The strategy to be employed during the evaluation will consist of the following:

- Evaluation of the area of proposed development would require 6 x 10 m by 1.6 m trenches (or variation thereon, to a total of 95 m2) to be excavated.
- Excavation will be undertaken by a mechanical excavator using, where possible, a toothless ditching bucket under direct archaeological supervision. A breaker and toothed bucket may be required depending on the ground surface encountered.
- The topsoil, and any subsoil interfaces, will be removed in spits to the level of the natural subsoil or the first archaeological horizon. Any archaeological features encountered will be cleaned by hand to help determine the date of the deposits, their character and extent. Such features will be recorded by written description on pro forma recording sheets, by photograph and by measured drawing.
- Any archaeological features encountered will be investigated by the on-site archaeologists. Should negative-cut features be encountered a representative sample of them will be partially excavated in order to determine their significance, date and function.
- In the event that discovered features are deemed to be of archaeological significance, trenches will be extended to investigate the broader area surrounding them and establish the extent of the archaeological remains. Linear features will be sampled excavated to establish their character and potential date. Isolated features will be 100% excavated.

- Recording will include pro forma sheets, drawings and photographs.
- All archaeological finds will be dealt with by the on-site archaeological team. The general practice will be to bulk recover all artefacts by context which date from the later phases of occupation. Should finds be encountered from the earlier occupation phases of the site they will be three-dimensionally recorded prior to up-lifting. Finds which are of particular sensitivity or importance may require specialist conservation assessment.
- All excavated feature fills and horizons will be sampled for artefactual and environmental evidence.
- Where archaeological deposits or features prove to be present, and are particularly extensive, numerous or complex, the client will be informed and a site meeting will be held between all relevant parties to agree the most appropriate strategy. Where preservation in-situ is not feasible, this will generally comprise a need to develop a stage 2 mitigation strategy to excavate and record any significant archaeological features or sites encountered during the evaluation to ensure preservation through record.
- Due to the urban location, trenches will be backfilled and reinstated at the end of each day. In the case of trenches containing archaeology, these may require to be kept open overnight in which case hazard-tape will be erected around the open trench.
- All trenches will be surveyed in to the OS grid.

4.0 Reporting

Should the evaluation encounter no or limited archaeology a single data structure report will be produced outlining the circumstances and results of the project. Should archaeological deposits or features prove to be present, and particularly extensive, numerous or complex, the results of phase 2 works will take the form of data structure report for each area or concentration of features as appropriate. Drafts of these reports will be submitted to the Stirling Council Archaeology Service in digital editable formats, for agreement. These reports will outline the main results of the fieldwork and incorporate lists of all features, finds, samples, photographs and drawings. They will be produced in-house by Northlight Heritage as a desk-top published document and disseminated in digital formats.

In the circumstances of significant archaeological remains having been excavated, additionally a post-excavation research design will be produced making recommendations for phase 3 works including further analysis and publication. Implementation of any recommendations offered would however be conditional on meeting the approval of the Stirling Council Archaeology Service.

Final decisions on the need for further work, and on the detailed specification of the character of that work, rest with Planning Authority.

Northlight Heritage will also implement the standards and requirements of the Online Access to the Index of Archaeological Investigations (OASIS) and Discovery and Excavation in Scotland.

Copies of the reports will be provided to the developer, to the Stirling Council Archaeology Service and to the National Monuments Record for Scotland. Further copies can be distributed to other recipients if requested and specified.

5.0 Copyright

Unless otherwise agreed copyright for any report resulting from the archaeological work undertaken as part of the project will be deemed the intellectual property of York Archaeological Trust.

6.0 Human Remains, Archive Arrangements and Finds Disposal

In the unlikely event that human remains are encountered during the fieldwork the client, the local police and the Stirling Council Archaeology Service will be notified immediately and no further work will take place on site until agreement on how to proceed has been reached with all parties.

Northlight Heritage will ensure that the project archive is prepared and ready for submission within six months of the completion of all fieldwork or post-excavation work (as appropriate). The resultant site archive will be deposited with the National Monuments Records for Scotland.

The laws relating to Treasure Trove and Bona Vacantia in Scotland apply to all finds where the original owner cannot be identified. This includes all material recovered during archaeological fieldwork. Accordingly, all assemblages recovered from archaeological fieldwork are claimed automatically by the Crown and must be reported to the Scottish Archaeological Finds Allocation Panel through its secretariat, the Treasure Trove Unit. In the event of the discovery of small finds during the programme of archaeological works, a filled-out copy of the form "Declaration of an Archaeological Assemblage from Fieldwork" and two copies of the pertinent Data Structure Report will be submitted to the Panel at the conclusion of the fieldwork. The Panel will then be responsible for recommending to the Queen's and Lord Treasurer's Remembrancer (QLTR) which museum should be allocated the finds.

All artefacts will be stored temporarily by Northlight Heritage until a decision has been made by the Panel regarding the museum which will be allocated the finds for permanent curation. All finds will be transferred to the appropriate museum within six months of completion of the fieldwork, if no post-excavation work is required, or at the end of the latest finishing post-excavation programme.

In the event that unallocated finds recovered from the site require to be removed from Scotland, for the purposes of post-excavation analysis, Northlight Heritage will be legally required to obtain the consent of the QLTR, in the form of a loan agreement. Initially, an indication of intent would be registered with the Treasure Trove Secretariat at the National Museums of Scotland, after which formal consent would be applied for using the form "Application for authority to borrow unallocated Treasure Trove for research purposes". A consent form, signed by the QLTR and specifying conditions (such as the period during which finds may be held outside Scotland) would then be issued.

Northlight Heritage will require to be in receipt of this signed consent form before items may be removed from the country.

7.0 Timetable

The evaluation will be conducted in August 2013.

8.0 Staffing

The project will be directed by a suitably qualified member of the Northlight Heritage fieldwork team. The project will be managed for Northlight Heritage by Alastair Becket. A full CV for individuals concerned can be made available on request.

9.0 Health and Safety and Insurance

Prior to fieldwork commencing a risk assessment of the project will be undertaken. Northlight Heritage, as part of York Archaeological Trust, adheres to all standard Health and Safety regulations governing fieldwork projects.

Northlight Heritage also possesses appropriate third party/public liability insurance cover, proof of which may be supplied upon request.

10.0 Standards and Monitoring Procedures

Northlight Heritage adheres to standards set by the Institute of Archaeologists Standards and Guidance Notes and Historic Scotland's various Operational Policy Papers.

The Stirling Council Planning Officer (Archaeology) will have a formal monitoring role on behalf of Stirling Council.

All discoveries of significant archaeology, or other unexpected events which may occur which might significantly affect the archaeological work and/or the development, will be immediately reported by the site director to the Northlight Heritage project manager. The manager will in turn inform the Stirling Council Planning Officer (Archaeology) and the developer (or the developer's designated agent) in order to allow any necessary discussion and planning for appropriate actions arising to take place.

Alastair Becket will be the dedicated archaeological project manager for all the works outlined above and will be the first point of contact for any project-related liaison with Stirling Council and the developer for all formal logistical, administrative and financial aspects of the archaeological project.
It will be important to ensure that all formal communication, requests (including any proposed amendments to on-site strategies) and contacts be made in the first instance to the project manager (as opposed to the site director or other members of the on-site team) and ultimately in writing to ensure organisational, administrative and financial efficiency.

Any site visitors, including Council representatives and employees on official business, will be required to conform to the health and safety regime in place during the fieldwork programme.

Alastair Becket
Northlight Heritage
6 August 2013

APPENDIX 3: DES

LOCAL AUTHORITY:	Stirling
PROJECT TITLE/SITE NAME:	Blairforkie Drive
PROJECT CODE:	4363161
PARISH:	Logie (Stirling)
NAME OF CONTRIBUTOR:	Steven Black
NAME OF ORGANISATION:	Northlight Heritage
TYPE(S) OF PROJECT:	Archaeological Evaluation
NMRS NO(S):	None
SITE/MONUMENT TYPE(S):	Post Medieval
SIGNIFICANT FINDS:	None
NGR (2 letters, 8 or 10 figures)	NS 7869 9782
START DATE (this season)	12th August 2013
END DATE (this season)	16th August 2013
PREVIOUS WORK (incl. *DES* ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	An archaeological evaluation was undertaken at Blairforkie Drive, Bridge of Allan, Stirling on behalf of CALA Homes (West) Ltd. The work was conducted by Northlight Heritage between 12th and 16th of August 2013. Six trenches, totalling an area of 96 sq. m, were excavated across the proposed development area, equivalent to approximately 5% of the area to be developed. A probable 20th century floor surface and wall, as well as a probable lade wall were discovered. All of the other trenches were predominantly filled with demolition material used for reclaiming ground from the original route of the river.
PROPOSED FUTURE WORK:	None
CAPTION(S) FOR ILLUSTRS:	
SPONSOR OR FUNDING BODY:	Cala Homes (West) Ltd
ADDRESS OF MAIN CONTRIBUTOR:	York Archaeological Trust, 47 Aldwark, York, Y01 7BX
EMAIL ADDRESS:	archaeology@yorkat.co.uk
ARCHIVE LOCATION (intended/deposited)	National Monuments Record for Scotland (intended)