

Almond Valley Heritage Centre, Livingston: Archaeological Mitigation

Data Structure Report



by Alan Matthews

issued 30th June 2015

on behalf of Almond Valley Heritage Trust

RATHMELL 
ARCHAEOLOGY LTD

Quality Assurance


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Signed

Date30th June 2015...

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Checked

Date30th June 2015...

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Introduction

1. This Data Structure Report has been prepared to present the findings of archaeological monitoring undertaken in support of construction work at Almond Valley Heritage Centre, Livingston. The proposed development work includes the construction of a new toilet block with associated services. These archaeological works were designed to mitigate any adverse impact on the archaeological remains within the development area.
2. West Lothian Council required a programme of archaeological works to be undertaken as an element of the granted listed building consent (0017/LBC/15). West of Scotland Archaeology Service, who advise West Lothian Council on archaeology matters, has provided guidance on the structure of archaeological works required by the granted listed building consent and the mitigation of the proposed development works.
3. Rathmell Archaeology Limited was appointed by Almond Valley Heritage Trust to undertake the development and implementation of archaeological mitigation works for the construction stages of the project. The project works were defined by a Method Statement (Rees 2015) that was agreed with the West of Scotland Archaeology Service.

Archaeological and Historical Background

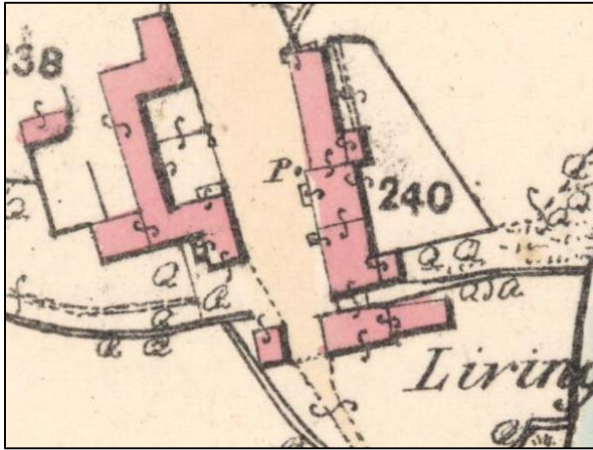
4. Livingston Mill (WoSAS Pin 18269, Canmore ID 275507 & 74209) was described in the Ordnance Survey Name Book (1855) as a '*large flour, oat and barley mill and a farmhouse two storeys high, with offices and thrashing machine, all in good repair*'. It goes on to make clear that '*there is a garden and a large arable farm attached to the farmhouse. The whole [is] tenanted by R M Buchanan; he sublets the mill to Hector Brown. The Earl of Rosebery is the proprietor.*'
5. The origins of the mill can be identified in the late 18th century. The mill is not depicted on mid 18th century mapping that depicts Livingston village such as Roy's *Military Survey of Scotland* (1752-55) and Adair's *A new and correct map of the Lothians* (1744). However, the mill is depicted by an icon on Armstrong's *Map of the three Lothians* (1773) and Forrest's *Linlithgowshire* (1818) – see Figures 1a and 1b respectively.
6. The Ordnance Survey provide sound mapping of the evolution of the mill complex from 1856 onwards (complemented by the Name Book information detailed above). The Ordnance Survey 25 inch sequence from 1856 to 1916 covering both Linlithgowshire and Edinburghshire (see Figure 2) allows good temporal control for the progressive expansion and amalgamation of structures.
7. The role and function of these structures (other than their broad use as a mill) and the location of the lade are uncertain. However, the plans and elevations of the mill from 1945-6 (see Figure 3) provide identified uses at that time for all the extant structures.
8. The Historic Scotland Listed Building register identifies that the structures present at the time of listing (February 1971) were a group consisting of House, Steading Corn Mill and ancillary buildings. They were assessed to date from the 18th and 19th centuries, predominantly of random rubble construction, with slated and pantiled roofs. Five main elements were identified at that time:
 - ❖ FARM-HOUSE 2 storeys, slated roof. Modern addition on front. STEADING Single storey. Pantiled roof. Creamery attached to south end.
 - ❖ CORN MILL 3 storeys. Slated roof. Kiln at north end with roof-vent. High-breast undershot wheel in wheel-house at south end. Lade from River Almond. All grinding machinery preserved.
 - ❖ THRESHING MILL 2 storeys. Pantiled roof. Machinery was powered by water wheel at Corn Mill Granary at east end.
 - ❖ BUTTER-MAKING HOUSE Single storey over laigh floor. Pantiled roof. Churn was powered by water.



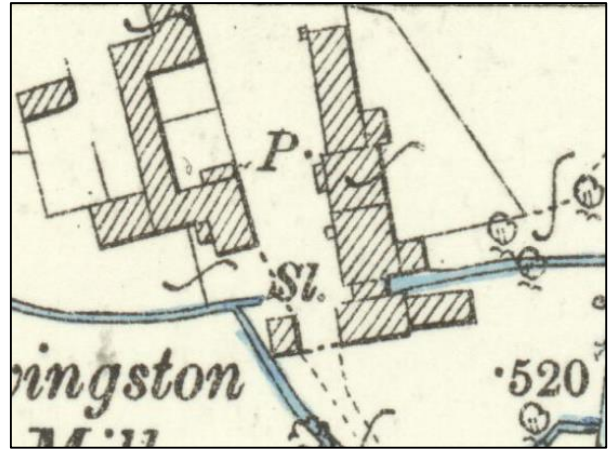
Figure 1a: Armstrong's Map of the three Lothians (1773)



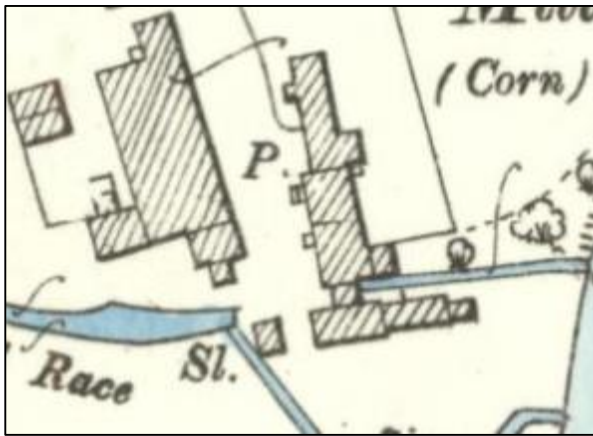
Figure 1b: Forrest's Linlithgowshire (1818)



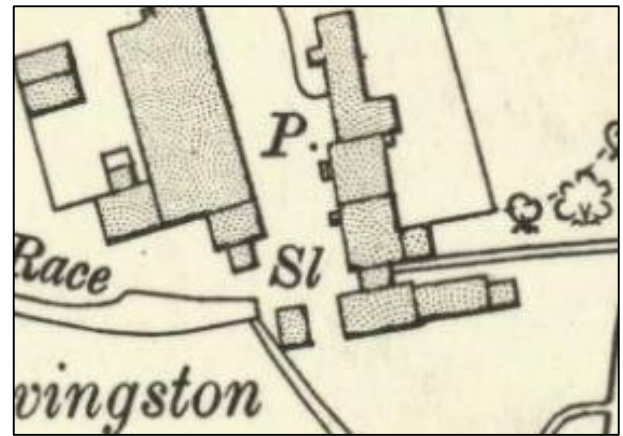
a. 1st edition 1856 Linlithgow



b. 2nd edition 1895 Edinburghshire



c. 2nd edition 1897 Linlithgowshire



d. 3rd edition 1907 Edinburghshire



e. 3rd edition 1916 Linlithgowshire

Figure 2: Ordnance Survey 25inch sequence from 1856 to 1916

The architectural drawings of the Livingston Mill complex are as follows:

- WEST ELEVATION:** A long, low building with a series of gabled roof sections and a central chimney.
- EAST ELEVATION:** A long, low building with a series of gabled roof sections and a central chimney.
- SOUTH SIDE VIEW, LOOKING WEST:** A side view of the building showing its profile and roofline.
- PLAN:** A top-down view of the building complex, showing the layout of the various structures and their relative positions.

The drawings are labeled with the following text:

- WEST ELEVATION
- EAST ELEVATION
- SOUTH SIDE VIEW, LOOKING WEST
- PLAN

Below the plan view, the text "LIVINGSTONE MILL" is written in large, bold letters. To the right of the plan view, there is a small note: "SEE ALSO PLAN OF MILL ON P. 100 OF THE REPORT OF 1880".

Figure 3: Dick Peddie, McKay & Jamieson Architects plans 1945-6



Figure 4: 1975 Hume photograph from NW of Farmhouse, Corn Mill and Threshing Mill
©RCAHMS

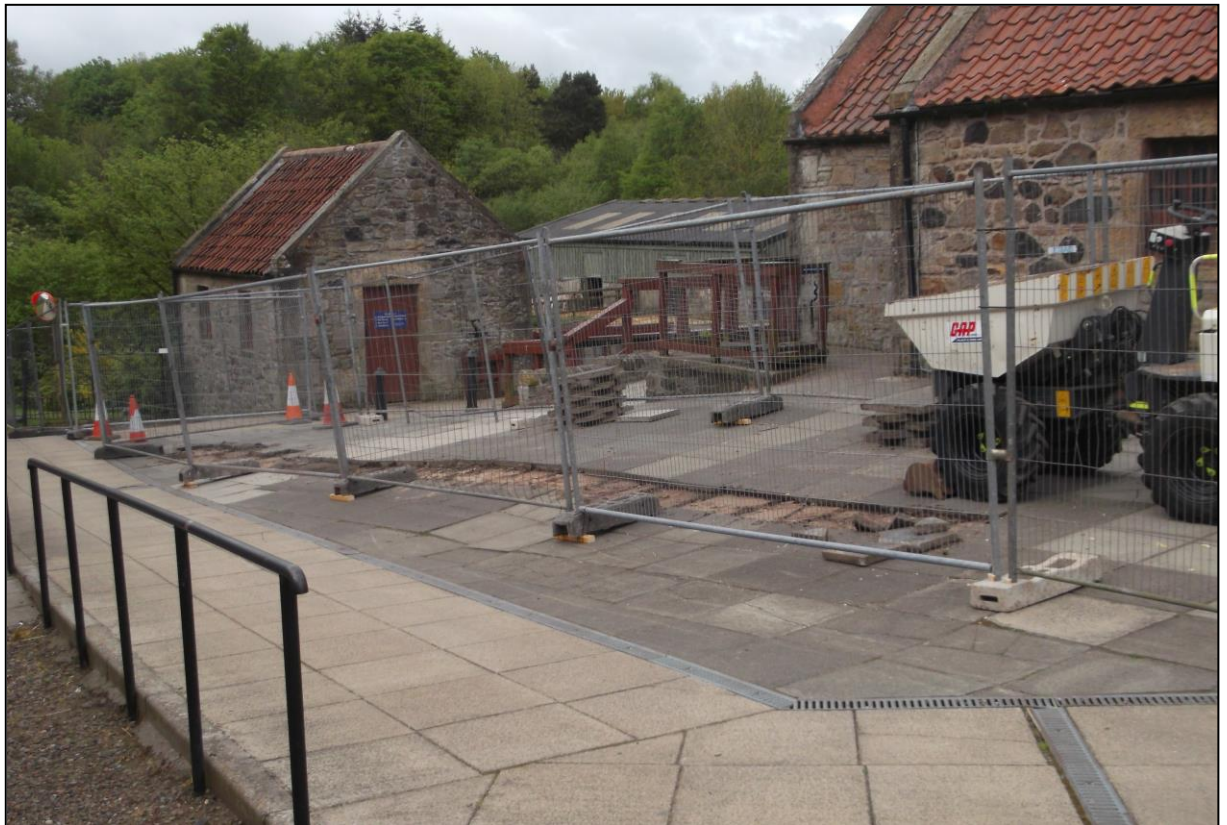


Figure 5: Looking south at service track before excavation

9. The listing report that classifies the structures as Category B listed buildings, goes on to make clear that the main interest lies in the Corn Mill which was built c.1770 and had, at that time, been disused since c.1950 but was in a good state of preservation. An image of the character of the mill complex is available from this period from the Hume archives (Figure 4a).
10. The Livingston Mill was subsequently restored across the 1970s and 1980s to ultimately become the Almond Valley Heritage Centre. These works were predominantly conducted under the auspices of the Livingston Development Corporation (1962-97). Subsequent development within the immediate surrounding area has sought to sustain and develop this role.
11. While the majority of the buildings depicted on the 1945-6 plans (see Figure 3) were retained in this process, ground disturbance and re-levelling between structures – especially in close proximity to the mill lade – was considerable.
12. The disturbances from the restoration of the mill complex have led to extensive excavations in and around all structures (see Figure 7), as well as re-levelling of surfaces to ameliorate gradients and improve surfaces – especially around the Threshing Mill on the south side of the mill lade given the gradients falling to this location.
13. Of particular relevance was the wholesale reconstruction of the lade as it ran through the mill (see Figure 8) which incorporated the uplifting of the neighbouring surfaces. The consequence of this for the Threshing Mill to the south of the lade was levelled up (see Figure 5 for before and during). The passage between the mills and the farmsteading was also subject to excavations and levelling (see Figure 6 for works underway).
14. During these works the interior of the Threshing Mill, including the engine house compartment to the immediate east, was excavated with new concrete floors inserted. Given the retention of the doorway thresholds (see Figure 5) this process should have removed all 18th and 19th century surfaces. The piggery on the southern elevation of the engine house (see Figure 3) was not extant at the time of restoration.
15. These disturbances have lessened, but not fully removed, the archaeological potential on the site which will be addressed by these works.

Project Works

16. The programme of works comprised archaeological monitoring of ground-breaking works undertaken with the intention of placing waste water services. Archaeological monitoring work was undertaken on the 26th and 27th of May 2015.
17. The work was undertaken by a single mechanical excavator, using a toothless ditching bucket or small toothed bucket as appropriate to the conditions, under the supervision of Rathmell Archaeology Ltd. Where there was a danger of disturbing existing services excavation work was carried out by hand. All work was carried out in accordance with the terms of the agreed Method Statement (Rees 2015).
18. In compliance with the Method Statement (Rees 2015), any potentially significant archaeological features were investigated and recorded. All works were conducted in accordance with the Institute for Archaeologists' Standards and Policy Statements and Code of Conduct and Historic Scotland Policy Statements.

Findings

19. The archaeological monitoring work focused on the excavation work to the immediate west of the corn mill (Area A), in the centre of the building complex. After consultation with the West of Scotland Archaeology Service this was agreed to be the location with the highest chance of finding significant archaeological material, which is material relating to the earliest phases of the use of the mill. An additional piece of archaeological monitoring was carried out on the second day in a small area south and adjacent to the proposed toilet block (Area B) that is to the south-east of the old threshing building. This enabled the testing of the inferred levels of relative archaeological potential.



Figure 6: Service track excavated showing multiple existing services



Figure 7: The eastern face of culvert (005) with tile drain within, note made ground over

20. Upon arrival on the 26th of May 2015 paving, slabs and cobbles (001), had already been removed along the line of the proposed service track (Figure 5). This was the modern ground surface. The upper layers of sediment consisted of a hard core and concrete sub-base for the paving (002). This modern ground surface ran the entire length of the excavated service track to a depth of approximately 300mm. No significant archaeological material was observed during the excavation of this material.
21. The natural subsoil (003) consisted of orange brown sand and cobbles and was reached in all parts of the monitored track. On the slope, to the west of the corn mill, in the middle of the excavated track a deposit of made ground sat between the modern ground surface (001)/(002) and the subsoil (003). This made ground (004) consisted of dark brown to black silty sand with frequent small stones and some boulders. Some sherds of blue-and-white transfer-printed glazed white earthenware pottery were observed and coal fragments were common. The generally disturbed nature of this deposit suggested that it predominantly represented reworked topsoil-like material, possibly placed to shallow out the natural slope.
22. Several existing services were uncovered during the excavation of the new service track (Figure 6). Running from north to south, these consisted of a surface drain, an electricity service, a second electricity service and a duct for cabling. Tracks for these services cut through (004) and in some cases cut into (003). All were modern (20th or 21st century) services and of no archaeological significance other than to show disturbance of the ground. At the southern end of the excavated track, adjacent to the culverted lade, a large area of poured concrete (006) based on the subsoil was exposed .
23. A fifth service in the form of a drain ran roughly north north-east to south south-west through the southern third of the excavated track (005). This drain was first exposed as two opposing lines of stones set approximately 300mm apart (Figure 7). The western line of stones only partially survived, suggesting that this feature had been physically disrupted at some point. This appeared to be the fragmentary remains of a culvert, possibly running from the farmhouse to the mill lade. No capstones were *in situ* and none were present in the surrounding deposits. In addition, tile drains had been placed between the stones. Replacement or renewal of the tile drains was evidenced by broken fragments of old drainpipe between the stones.
24. An additional small area (Area B) was excavated under archaeological supervision immediately to the south of the proposed toiled block and next to the old threshing building. Although this had been previously agreed to be an area of limited potential for significant archaeological material, the area was examined at the request of the crew carrying out the work because excavations had exposed a brick surface.
25. The surface was shallow, one layer thick, un-mortared and with no bedding material present (Figure 8). This appeared to be a modern attempt to hastily create a brick surface, perhaps to dispose of excess building material. This was underlain by topsoil-like material rich in demolition and modern detritus.
26. No significant archaeological features were disturbed during the course of the excavation work and no significant anthropic material was observed in the course of the archaeological monitoring work.

Discussion

27. No significant archaeological features were uncovered during the course of the archaeological monitoring works. The only material uncovered probably related to modern (late 20th to 21st century) use of the site in the form of modern services and modern ground surfaces. The potential culvert that was repetitively renewed with the inclusion of tile drains (005) may well have its origins in the 19th century as a general drainage feature for the yard, falling from the farmhouse area to the lade.



Figure 8: Brick surface within Area B



Figure 9: Area A post-excitation

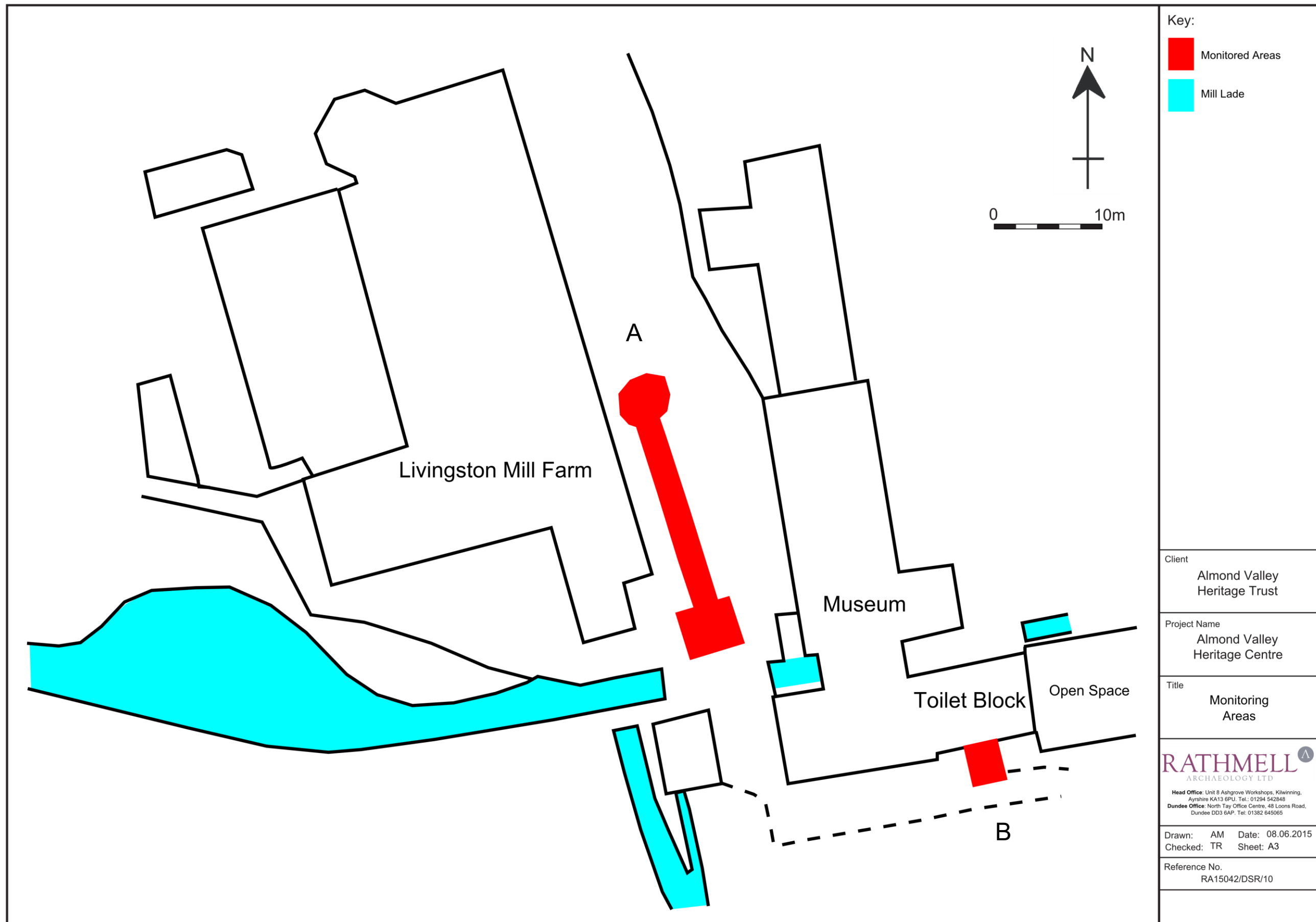


Figure 10: Monitored Areas

29. The majority of the sediments uncovered formed the sub-base (002) for the placement of a modern ground surface in the form of slabs and cobbles (001) (Figure 9). The layer of black made-ground (004) contained a variety of material including pottery and coal. It was clear that this layer consisted entirely of re-deposited material and had been disturbed multiple times, probably for the placement of modern services. It is likely that the deposition of layer (004) is an attempt at levelling related to the placement of the modern ground surface
30. The brick surface uncovered to the south of the proposed toilet block appeared to be of modern origin. It was a very roughly made surface with no bedding material and no mortar. There were no associated features of archaeological significance.

Recommendations

31. No significant archaeological remains were located within the development area and the only anthropic material observed during the monitoring related to modern use of the site or incidental 19th century use. Archaeological monitoring took place in the area considered most likely to contain significant archaeological material. The only deposits observed in the area were heavily disturbed made ground and the modern ground surface. Services and drainage were observed cutting through the excavated trench.
32. An additional area of archaeological monitoring took place to the south of the proposed toilet block and similarly did not reveal significant archaeological material.
33. This work both validated the original inferred model of likely survival and tested this by examining one of the low potential areas.
34. On balance, given the lack of significant archaeological material recovered in the course of the monitoring works, we consider that the development works will not compromise any significant archaeological strata. Rathmell Archaeology Ltd recommends that no further archaeological monitoring work be undertaken with regards to this development and that the planning condition be purged. The appropriateness and acceptability of our recommendations rest with West Lothian Council and their advisors, the West of Scotland Archaeology Service.

Conclusion

35. A programme of archaeological monitoring works was required by Almond Valley Heritage Centre in support of the construction of a new toilet block with associated services. The archaeological monitoring works involved excavation of a service track running roughly north-south to the west of the old mill building and a small area of excavation to the south of the proposed toilet block (Figure 10). This area was considered the area most likely to yield significant archaeological material. No significant archaeological features or anthropic material was observed in the course of the works.

Acknowledgements

36. I am grateful to the staff of Almond Valley Heritage Centre for their support during the site works, to Thomas Rees for carrying out the fieldwork and also to the West of Scotland Archaeology Service who gave guidance throughout.

References

Rees, T., 2015, Almond Valley Heritage Centre, Livingston: Archaeological Mitigation, Method Statement, Rathmell Archaeology Ltd,

Appendix 1: Registers

Within this appendix are all registers pertaining to works on-site during the watching brief.

Context Register

Context No.	Area/Trench	Type	Description	Interpretation
001	Service Track	Surface	Slabs and cobbles (concrete)	Modern engineered surface
002	Service Track	Deposit	Varied hardcore material – in places type 1, elsewhere similar material with concrete through making a hard packed surface layer	Sub-base for modern engineering surface
003	Service Track	Deposit	Orange/brown sand and cobbles	Natural subsoil in northern and mod portions of ground to north of lade
004	Service Track	Deposit	Dark brown to black silty sand with frequent stones, some boulders. Common Clay with tile fragments, rare pottery fragments (blue-and white transfer printed glazed white earthenware) and common coal fragments	Made ground – predominantly incorporating 19 th and 20 th century material – looks as if much of this material has been filled and cast back.
005	Service Track	Structure	Two opposed lines of stone set roughly 300mm apart and bedded into (003). Orientated NNE to SSW the E line crossed the width of the trench (cut by E/W service). The W line only partially survives. Between the lines was a series of tile drains.	Fragmentary remains of culvert. Falling from farmhouse to lade? No capstones extant. Tile drains replacing culvert?
006	Service Track	Structure	Buried concrete extending N from southern limit of track to N of lade.	Poured concrete – probably the concrete poured from N retaining structure for the culverted lade.
007	Southern Area	Deposit	Orange/grey clay with numerous sub rounded to rounded medium to small stones. Becomes darker with depth.	Natural clay
008	Southern Area	Deposit	Topsoil	Topsoil
009	Southern Area	Surface	Brick surface	Brick surface

Photographic Register

Image No.	Print		Slide		Digital	Description	From	Date
	Film No.	Neg. No.	Card No.	Image No.				
1	-	-	-	-	1	View of N area from NE	NE	26/5/15
2	-	-	-	-	2	E wall of culvert, N of surface	W	26/5/15
3	-	-	-	-	3	S of service, culvert tile drain	SE	26/5/15
4	-	-	-	-	4	S of service, culvert tile drain	SE	26/5/15
5	-	-	-	-	5	Working shot of clearing culvert	SE	26/5/15
6	-	-	-	-	6	Working shot of track falling S	NW	26/5/15
7	-	-	-	-	7	Buttery	SW	26/5/15
8	-	-	-	-	8	S face of buttery and W gable of threshing	S	26/5/15
9	-	-	-	-	9	Working shot of area	SW	26/5/15
10	-	-	-	-	10	Working shot of area	SE	26/5/15
11	-	-	-	-	11	Shot of 2 nd wheel pit to N	NW	27/5/15
12	-	-	-	-	12	Disregard	-	27/5/15
13	-	-	-	-	13	Panel in mill	-	27/5/15
14	-	-	-	-	14	Panel in mill	-	27/5/15
15	-	-	-	-	15	Detail of brick surface on S track	S	27/5/15

Appendix 3: Discovery & Excavation in Scotland

LOCAL AUTHORITY:	West Lothian
PROJECT TITLE/SITE NAME:	Almond Valley Heritage Centre, Livingston
PROJECT CODE:	RA15042
PARISH:	Livingston
NAME OF CONTRIBUTOR:	Alan Matthews
NAME OF ORGANISATION:	Rathmell Archaeology Limited
TYPE(S) OF PROJECT:	Monitoring
NMRS NO(S):	None
SITE/MONUMENT TYPE(S):	None
SIGNIFICANT FINDS:	None
NGR (2 letters, 8 or 10 figures)	NT 0330 6683
START DATE (this season)	26 th May 2015
END DATE (this season)	27 th May 2015
PREVIOUS WORK (incl. DES ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (may include information from other fields)	The archaeological monitoring works involved excavation of a service track running roughly north-south to the west of the old mill building and a small area of excavation to the south of the proposed toilet block. This area was considered the area most likely to yield significant archaeological material. No significant archaeological features or anthropic material was observed in the course of the works.
PROPOSED FUTURE WORK:	None
CAPTION(S) FOR ILLUSTRS:	None
SPONSOR OR FUNDING BODY:	Almond Valley Heritage Centre
ADDRESS OF MAIN CONTRIBUTOR:	Unit 8 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PU
E MAIL:	contact@rathmell-arch.co.uk
ARCHIVE LOCATION (intended/deposited)	Report to West of Scotland Archaeology Service and archive to RCAHMS Collections.

Contact Details

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