

Standing Building Survey
Former mill building, Middle Cardney
Butterstone, Perth and Kinross



Former mill building looking East



21st July 2010

Introduction (Illustrations 1 and 2)

Mr David Hendry proposes to build a new house adjacent to the site of the former mill at Middle Cardney, Butterstone, Perth and Kinross. The planning consent for this development (Perth and Kinross Planning Application 09/01274/FLL) included an archaeological condition which specified the need for the implementation of a standing building survey to record the former mill which will be affected by the proposed development. This survey was carried out by the author on Friday 16th July (Site Code CAR01); weather conditions were overcast with occasional heavy rain showers.

Historical Background (Illustrations 3,4 and 5)

General Roy's Military Survey of Scotland (1747-55) shows a group of four buildings at 'Mid Karney' and James Stobie's map (late 18th century) indicates structures at 'Mid Cairnie'. The earliest documentary reference to property at Middle Cardney is in c 1770-1790 when 'Cardneys' is valued at £279 and is listed as being under the proprietorship of the 'Ministers of Dunkeld and Abernyte for the Prebendary of Fungarth' (Timperley 1976, 265). The first detailed map of the building complex at Middle Cardney is the First Edition Ordnance Survey of the 1860's and the Valuation Roll of a similar date lists the 'Farm of Middle Cairdneys' being in the proprietorship of the trustees of the late Robert Cargill, banker, Dunkeld. At that time the tenants of the property are William and Alex Doig (County of Perth Valuation Rolls 1860-1861).

Description of mill complex

The roofless remains of the two buildings that represent the former mill at Middle Cardney lie upslope to the North of the modern farmhouse at 176.05m OD. The main building (A) is aligned North to South and has another structure (B) butted against its Eastern side that is aligned East to West.

Building A

Southern Elevation(Illustration 7 and 8)

This gable elevation is blank and is constructed of rough stone rubble bonded with a thin lime mortar mixed with soil and small stones. The gable end walls are constructed of alternate shaped stone blocks. There is a large vertical crack in this elevation at its East end.

Western Elevation(Illustrations 9, 10 and 11)

This side elevation is built against the exposed rock face and has a doorway (1.28m high by 0.76m wide) and a small window (0.75m high by 0.40m wide) at its Northern end, the mill wheel pit is built against it. It is constructed of rough stone rubble and is bonded in a similar manner to the Southern elevation, this wall face is plastered for a distance of 5.75m from its north end. The socket for holding the shaft of the mill wheel lies half way along this elevation (0.46m high by 0.38m wide).

Wheel Pit(Illustrations 10, 15, 17 and 18)

The wheel pit is 1.75m wide and currently at a depth of 0.80m although it is full of rubble, wood and plastic cans and is probably much deeper. The pit was fed from a lade to the north and the water then ran out into another lade which heads off South West from the mill. A mortar bonded rough stone rubble wall (0.45m thick) stands on the Western side of the wheel pit and contains the socket for the other side of the mill wheel shaft. This wall stands on a much wider wall (0.78m) which forms the Western side of the wheel pit.

Northern Elevation(Illustration 12)

This wall is constructed of rough stone rubble bonded with a thin lime mortar mixed with soil and small stones and is built directly against the exposed rock face. A threshold stone (1.53m long by 0.35m wide) is visible at its eastern end which presumably afforded access to an upper storey at the northern end of the building.

Eastern Elevation(Illustrations 13 and 14)

This wall is constructed of rough stone rubble bonded with a thin lime mortar mixed with soil and small stones. It contains a single doorway (1.48m wide by at least 2.07m high) and a window (0.77m wide by 1.20m high). The second building in this complex (B) is butted against this elevation.

Interior of building(Illustration 12)

This is full of wood, machinery and other materials no original floor surface is visible.

Stone built platform(Illustrations 26 and 27)

To the north west of building A is a stone built platform with revetted stone wall faces on its Southern side. This appears to have been designed as a loading area associated with the mill building.

Building B

Southern Elevation(Illustration 23)

This is constructed of larger more regular stone rubble than Building A and is bonded with lime mortar. This elevation runs for 2.25m East of Building A before stopping at one side of a former entrance. The remainder of this elevation has gone.

Eastern Elevation

Nothing remains of the eastern elevation of this building.

Northern Elevation (Illustration 24)

This is constructed of large mortar bonded rough stone rubble and is built against the exposed rock face. A small part of the interior face of this wall is plastered at its eastern end.

Western Elevation

The eastern wall of Building A has been used as the western wall of building B.

Interior of Building

This is full of stone rubble and nettles, no original floor surface is visible.

Area to north of building

This area is filled with rubble and may have been designed to afford access to the threshold visible in the northern elevation of Building A.

Lade system (Illustrations 19, 20, 21 and 22)

Building A's mill wheel was fed by a capped stone lined lade 0.70m wide which approaches the site from the North. The remains of two sluice gates are visible. Once the water had run through the wheel pit it then ran off into another lade which runs off south west to join the Cardney Burn. This lade is capped for a distance of 12m before it then becomes an open watercourse running down the hill.

Test Pits on site of new house (Illustration 2)

The five test pits that had been dug in the footprint of the new house were also recorded as part of this survey exercise.

Test Pit 1 (Illustration 28)

This pit measures 2.5m by 1.5m and has been dug to a depth of 1m below current ground level. From the top the deposit sequence is as follows: 0.20m of turf and topsoil overlies 0.30m of rubble and mortar which overlies an orange brown silty clay 0.20m thick. This last deposit lies directly above natural rock and glacial till. There were no finds present in this pit.

Test Pit 2

This pit measures 2.5m by 1.5m and has been dug through 0.20m of turf and topsoil which directly overlies natural rock and glacial till.

Test Pit 3

This pit measures 3.5m by 1.5m and has been dug through 0.90m of grey brown silty clay which directly overlies natural rock and glacial till.

Test Pit 4

This pit measures 2.5m by 1.5m and has been dug through 0.60m of grey brown silty clay which directly overlies natural rock and glacial till.

Test Pit 5

This pit measures 1m by 0.50m and has been dug through 0.20m of grey brown silty clay which directly overlies natural rock and glacial till.

Discussion

Building A appears to be the earlier of the two structures that make up the mill complex at Middle Cardney, Building B has been built against its Eastern side and is clearly shown on the 1st Edition Ordnance Survey map. The most interesting thing about this mill is the fact that its water source has been artificially provided by creating a pond on the high ground to the North of the site which then feeds the mill wheel before running back downhill to the South West. The mill complex at Middle Cardney provides an excellent example of the nature of the 18th century 'Agricultural Revolution' in this part of Highland Perthshire.

Recommendations

The author feels that the photographic survey and written notes of the nature of the mill buildings are an adequate record of them prior to their redevelopment. Recording of the excavated test pits in the footprint of the proposed new house suggests that there are no archaeological implications in the area where the house is to be built. However the final decision on the need for any further work rests with Perth and Kinross Heritage Trust.

References

Cartographic Sources (<http://www.nls.uk/maps>)

Roy, William General 1747-55 **Military Survey of Scotland**

Stobie, James 1783 **A large scale map of Perth and Clackmannan**

Ordnance Survey Maps - Six-inch 1st edition, Scotland, 1843-1882

Printed

Timperley, Loretta 1976 *A Directory of Landownership in Scotland, c.1770*, Scottish Record Society, New Series 5 (Edinburgh, 1976)

CC1/8/1/1A-213 County of Perth valuation rolls 1855-1978, 1983-1988 (Perth and Kinross Council Archives, A K Bell Library, Perth)

Discovery & Excavation in Scotland Entry

LOCAL AUTHORITY:	Perth and Kinross
PROJECT TITLE/SITE NAME:	Former mill, Middle Cardney, Butterstone
PROJECT CODE:	CAR01
PARISH:	Caputh
NAME OF CONTRIBUTOR(S):	Derek Hall
NAME OF ORGANISATION:	Derek Hall, archaeologist and ceramic specialist
TYPE(S) OF PROJECT:	Standing Building Survey
NMRS NO(S):	None
SITE/MONUMENT TYPE(S):	Former mill building
SIGNIFICANT FINDS:	None
NGR (2 letters, 6 figures)	N0 0509 4585
START DATE	16 th July 2010
END DATE	16 th July 2010
PREVIOUS WORK (incl. <i>DES</i> ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	A rapid photographic standing building survey of the former mill building was undertaken in advance of the construction of a new house directly adjacent. The structure was found to have been built in two phases and had been driven from an artificially created lade system which was fed from a reservoir on the hills to the North of the site.
PROPOSED FUTURE WORK:	
SPONSOR OR FUNDING BODY:	Mr David Hendry
CAPTIONS FOR ILLUSTRS	N/A
ADDRESS OF MAIN CONTRIBUTOR:	34 Glenfarg Terrace, Perth, PH2 0AP
ARCHIVE LOCATION (intended)	NMRS
EMAIL ADDRESS:	Derek.hall1@blueyonder.co.uk

Report Illustration List

Illustration 1 Location of former mill building, Middle Cardney (based on Ordnance Survey map Crown Copyright 2010. All Rights Reserved. Licence number 100049628)

Illustration 2 Mill buildings at Middle Cardney as numbered for survey, new house plot marked by dashed outline and engineers test pits by numbered boxes Scale 1:500

Illustration 3 'Mid Karney' on General Roy's Military Survey 1747-55 (© Trustees of National Library of Scotland)

Illustration 4 'Mid Cairnie' on James Stobie's map of the late 18th century (© Trustees of National Library of Scotland)

Illustration 5 Middle Cardney farm on 1st Edition Ordnance Survey map of c 1860 showing water source for mill (© Trustees of National Library of Scotland)

Illustration 6 General view of former mill building and Middle Cardney farmhouse looking North East

Illustration 7 Southern elevation of Building A looking North East

Illustration 8 Detail view of Southern gable elevation of Building A

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Illustration 26 Revetted rubble platform to West of Building A

Illustration 27 Surface of revetted rubble platform to West of building A

Illustration 28 Engineers test pit 1 in footprint of new house

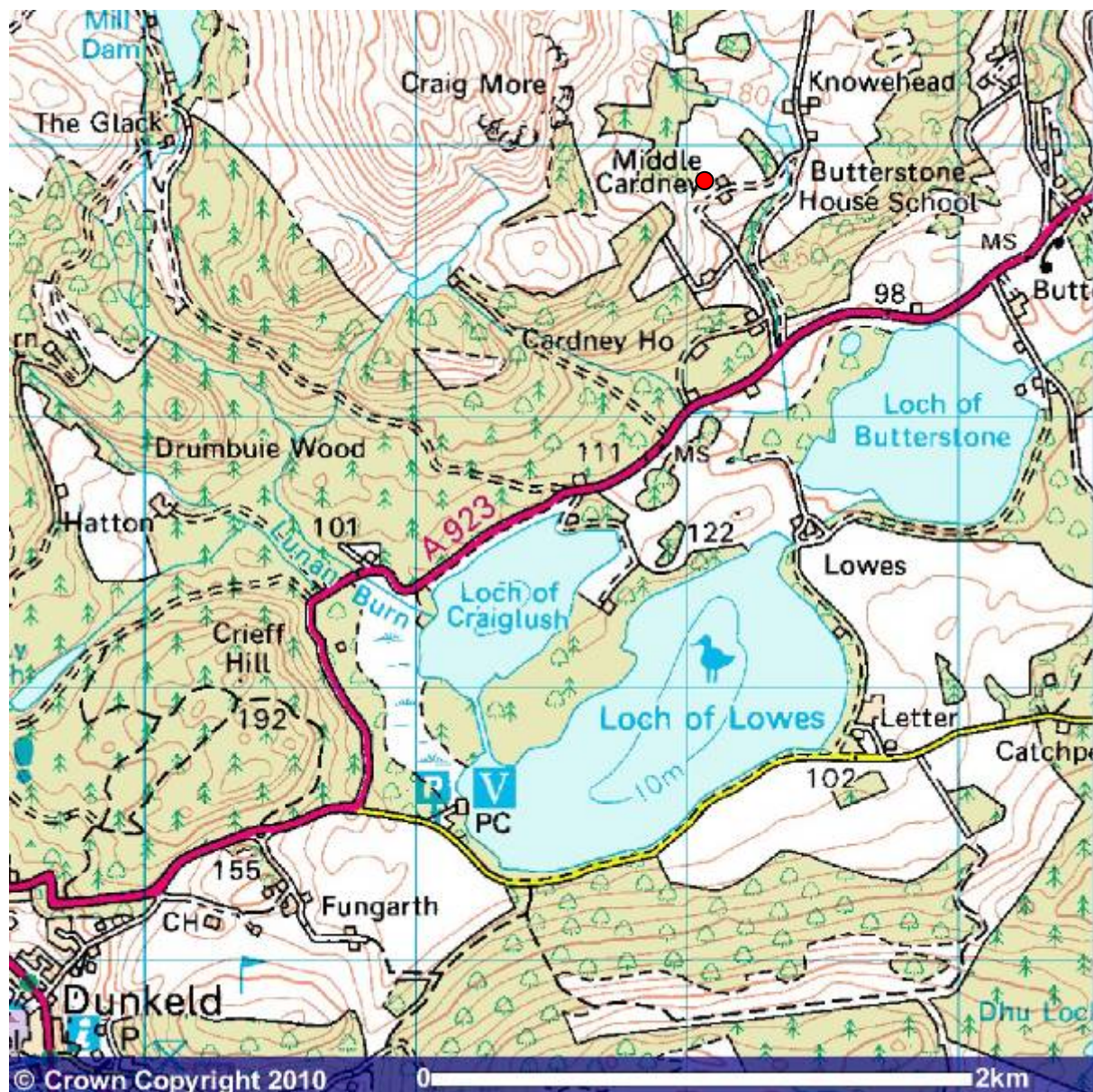


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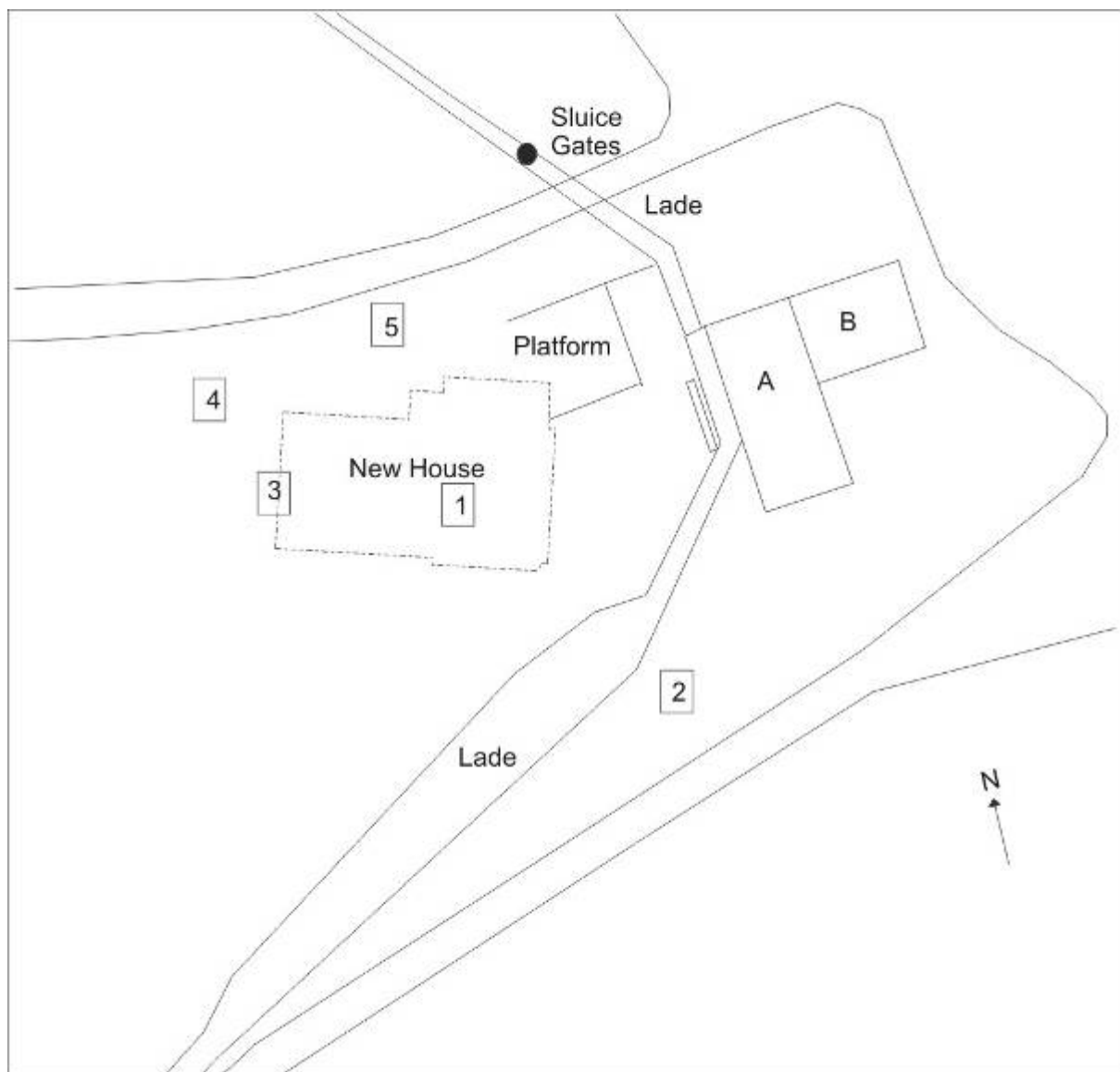


Illustration 2 Mill buildings at Middle Cardney as numbered for survey, new house plot marked by dashed outline and engineers test pits by numbered boxes Scale 1:500

Roy Map - zoom out to display Roy Map Index



Illustration 3 'Mid Karney' on General Roy's Military Survey 1747-55 (© Trustees of National Library of Scotland)



Illustration 4 'Mid Cairnie' on James Stobie's map of the late 18th century (© Trustees of National Library of Scotland)

Six-inch 1840s-1880s maps - zoom out to display small-scale 1920s maps

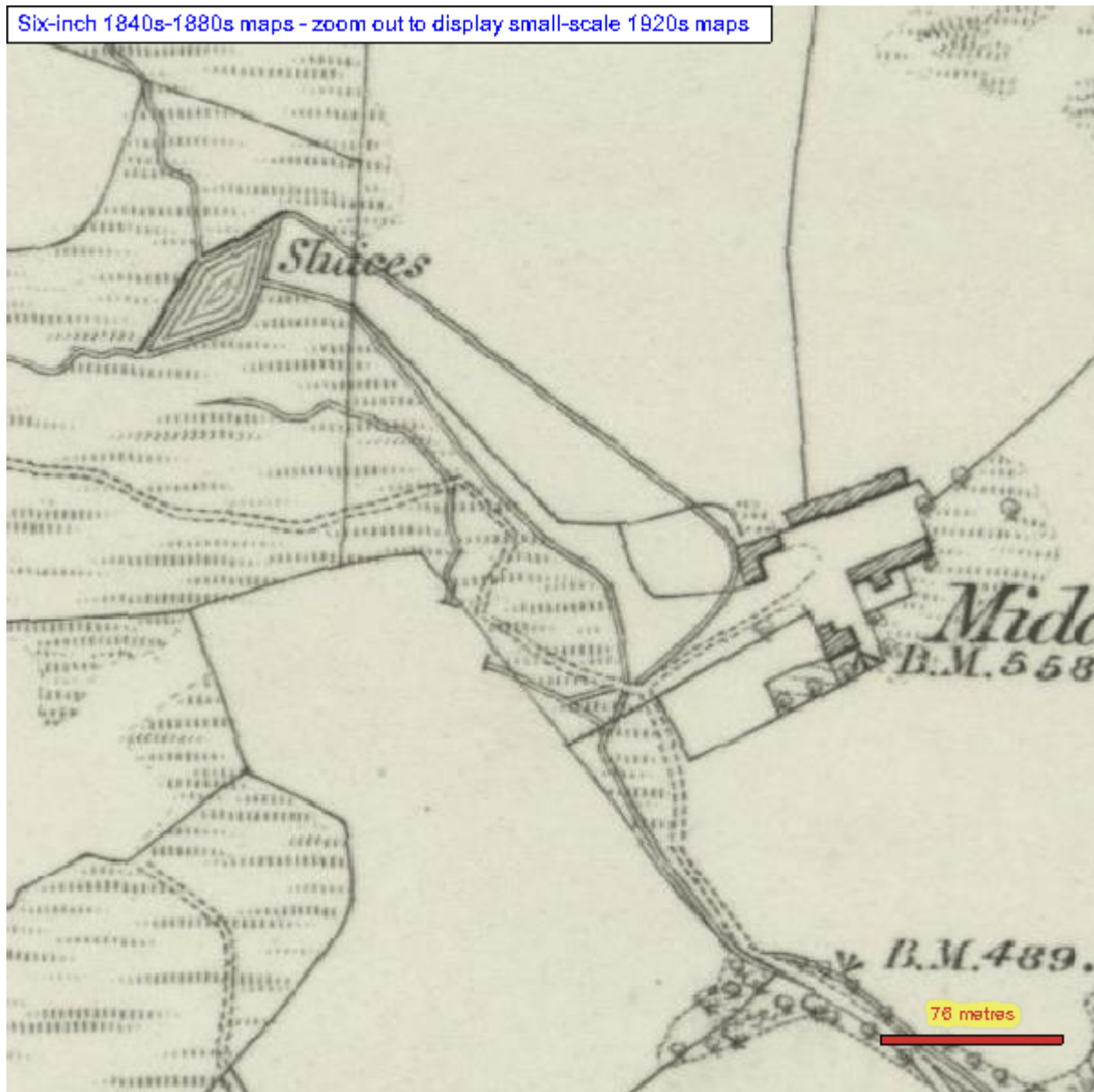


Illustration 5 Middle Cardney farm on 1st Edition Ordnance Survey map of c 1860 showing water source for mill (© Trustees of National Library of Scotland)



Illustration 6 General view of former mill building and Middle Cardney farmhouse looking North East



Illustration 7 Southern elevation of Building A looking North East



Illustration 8 Detail view of Southern gable elevation of Building A



Illustration 9 Western elevation of Building A



Illustration 10 View across wheel pit looking North



Illustration 11 Western elevation of Building A built against rock face looking North



Illustration 12 Threshold in northern elevation of Building A looking South



Illustration 13 Eastern elevation of Building A at southern end



Illustration 14 Window in eastern elevation of building A



Illustration 15 Wheel pit against Western elevation of building A looking South East



Illustration 16 Doorway and window in Western elevation of Building A



Illustration 17 Wall on Western side of wheel pit looking North West showing socket for mill wheel



Illustration 18 Socket for mill wheel in Western elevation of Building A



Illustration 19 Entrance from wheel pit into southern mill lade



Illustration 20 Southern mill lade running down hill to South West from mill



Illustration 21 Northern mill lade heading towards wheel pit



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