

Archaeological Watching Brief
Development South Side of
16-18 Abbey Street
Arbroath



Alder Archaeology Ltd
55 SOUTH METHVEN STREET
PERTH PH1 5NX
Tel: 01738 622393
Fax: 01738 631626
Director@AlderArchaeology.co.uk

**ARCHAEOLOGICAL WATCHING BRIEF
DEVELOPMENT SOUTH SIDE OF
16-18 ABBEY STREET
ARBROATH**

AB26

1	<i>Background</i>	1
2	<i>Details of Work</i>	1
3	<i>Interpretation</i>	6
4	<i>Conclusions and Recommendations</i>	7
5	<i>References</i>	7
<i>Appendix 1</i>	<i>Context Register</i>	8
<i>Appendix 2</i>	<i>Photographic Register</i>	11
<i>Appendix 3</i>	<i>Drawing Register</i>	13
<i>Appendix 4</i>	<i>Finds Register</i>	14
<i>Appendix 5</i>	<i>Discovery & Excavation in Scotland Entry</i>	15
<i>Appendix 6</i>	<i>Standard Terms of Reference for all Fieldwork</i>	17

Cover Plate: General view of upper area of site on south side of 16-18 Abbey Street, Arbroath

Illustration 1: Site location plan

Illustration 2: Site plan with archaeological features

Illustration 3: Sections 1 and 2

Author Ray Cachart
Illustrator Tamlin Barton MA
Editor David Bowler BA(Hons), M Phil, FSA, Scot, MIFA

ABSTRACT

A watching brief (Alder site code AB 26) on the foundation excavations for new flats located on the S side of 16-18 Abbey Street, Arbroath (centred on NGR NO 6425 4124) was undertaken during the period 29th October and 13-14th December 2012. The site was considered to be of archaeological significance due to its location within the abbey precinct, close to the site of the abbey and the Abbot's House. The site was formed by an upper area on Abbey Street and a lower area to the rear of High Street property. The two areas were linked by a central stairway.

Limited work in the rear of the High Street property revealed that any early archaeological deposits had been removed down to natural deposits to create a level open courtyard and outhouses, most likely in the 19th century. Of interest was a mason's mark in the form of a star found on stonework for the S door jamb of an outhouse building, adjacent to the N side of the central stair extending from the upper to the lower part of the site. The mason's mark was considered to be 19th century rather than medieval.

Sections recorded on the upper area revealed a modern surface over earlier garden soil deposits. Below the garden soil was a deposit of small/medium sized red sandstone fragments which indicated an earlier, probable medieval surface. Predating the sandstone fragments was a small pit cut into the subsoil which contained butchered animal bone and oyster shell, considered to date from the medieval period. One sherd of unstratified medieval pottery was recovered from the spoil.

The surface of sandstone fragments had previously been identified during the excavation for the Arbroath Abbey new visitor's centre in 2000 and again on the watching brief in Abbey Street on excavations for a new water main in 2001. The surface of sandstone fragments therefore appears to extend from the site of the new visitor centre at the NW corner of the abbey, along Abbey Street and onto the upper part of the development area. It is likely that the sandstone fragments were chippings from the working of stone to construct the abbey which were then spread to form a consolidated area of hardstanding around the abbey construction site. The foundation trenches excavated for the development on the upper part of the site also indicated that there has been no substantial building development on this part of the site which historically, seems to have been used as garden ground/yard/drying green.

1 Background

1.1 Introduction

Brunton Design Studio commissioned Alder Archaeology on behalf of their client George Falconer to undertake an archaeological watching brief on ground adjacent to 16-18 Abbey Street, Arbroath centred on NGR NO 6425 4124. The work (site code AB 26) was undertaken during the period 29th October and 13-14th December 2012 in variable weather conditions. The requirement was to monitor the ground breaking work for the erection of a flatted development on the plot. Special attention was to be paid to recording any archaeological deposits that may be associated with the nearby Arbroath Abbey and Abbot's House.

The work was designed to satisfy the archaeological condition on development application reference 08/00185/FULL.

1.2 Aims and Objectives

The main aim of this watching brief was to record the presence/absence, date, character and quality of any archaeological remains surviving within the development area uncovered by the groundwork for the new development. The results of this investigation may be used to inform future mitigation strategies for any future ground breaking development within the vicinity of the site.

1.3 Reporting

The present document has been prepared as the final report on this watching brief. Copies will be sent to the client, The Royal Commission on the Ancient and Historical Monuments of Scotland and Angus Sites and Monuments Record.

1.4 Planning and Curatorial Issues

This watching brief is the final part of a programme of archaeological work designed to satisfy the outstanding archaeological condition on the planning consent (08/00185/FULL) for this development.

1.5 Acknowledgements

We wish to thank Bruce Mann of Aberdeenshire Council Archaeology Service for his assistance and guidance throughout this project. Thanks are also due to George Falconer for his on site assistance. The watching brief was fully funded by the developer.

2 Details of Work

2.1 The Site (Illus 1 and 2)

The site is located on the S side of 16-18 Abbey Street across the street from the Abbot's House and garden. The development area comprises an upper part on Abbey Street measuring 8.5m EW and 12m NS and a lower part, accessed by steps, at the High Street level measuring approximately 7m NS and 9m EW. The lower part backs onto

shops fronting High Street. The difference between the levels of the upper and lower parts of the site is almost 3m.

2.2 Archaeological Potential

The site lies within the precinct of Arbroath Abbey and is only 20m SW of the Abbot's House. The abbey is a Tironensian foundation of 1178 and was dedicated to St Thomas of Canterbury. It was founded by King William the Lion who was buried before the high altar. The still intact Abbot's House is a three storied building with a groined roof and is regarded as the best example of its kind remaining in Scotland.

Archaeological excavation in advance of the abbey's new visitor centre by SUAT Ltd in 2000 (Angus SMR NO64SW0202) revealed part of the original abbey wall with a previously unknown gateway and traces of a metalled roadway into the abbey precinct. Four human burials were uncovered. Finds included a large number of carved stones, some with mason-marks, dumps of stone chippings, metal working debris, coins, window glass, pottery and animal bones. A layer of orange brown sandstone chippings and fragments appeared to be waste from stoneworking for the abbey and was spread across the site to form a consolidated surface.

A watching brief was undertaken by SUAT Ltd in 2001 (Angus SMR – NO64SW0018) on water mains replacement work close to the abbey, along Abbey Street, Abbey Park, Abbey Path and along the S side of the Abbot's house. The watching brief produced evidence of a medieval ground surface and medieval pottery sherds. The pottery (22 sherds) ranged in date from the 13th or 14th centuries through to the 18th or 19th centuries. The earliest sherd present was a rim and neck from a splash glazed Scottish White Gritty ware jug that probably dates to the 13th or 14th centuries. Of most interest amongst the other pieces are two sherds of Rhenish stoneware which are from the bases of vessels made in Siegburg and Frechen, both probably date to the 14th or 15th centuries. A small assemblage of artefacts, including iron objects, stone and ceramic building materials and glass, was also recovered during these watching briefs. Some evidence of the continuation of the spread of sandstone chippings found in the excavation for the visitor's centre was also found in the area of Abbey Street.

The Ordnance Survey plan Arbroath 1859 – XLVI.11.24 (1:500) shows a vacant site fronting on Abbey Street with buildings to the rear of the High Street Properties on the lower part of the site. The Abbey Street part of the site has a wall along its frontage and a pathway through the centre of the site leading to stairs down to the lower part of the site. It also shows revetting walls back from structural walls on the W edge of the site. The building adjacent to the N (now 16-18 Abbey Street) is the Abbey Inn. Each corner of the upper part of the site has a post which may indicate that the area was used as a drying green at this time.

John Wood's map of 1822 shows the Abbey Inn building and some development in the backland to the rear of the High Street level of the site but no development on the upper part of the site along Abbey Street.

2.3 Archaeological Method

An archaeological watching brief was carried out on all ground disturbance which comprised mainly machine excavated foundation trenches on the upper part of the site. Any archaeological deposits or features revealed by the groundworks were cleaned and recorded. As the site was within the abbey precinct special attention was paid to identifying and recording any archaeology relating to the development and operation of Arbroath Abbey.

2.4 Results of Investigations (Illus 2 and 3)

Lower Area of Site

Limited excavation for a new stairwell on the lower part of the site revealed natural deposits below makeup (03) and (04) for flagstones within a partly demolished outhouse. It was evident that at the lower level of the site the ground slope had been reduced down to the natural deposits for the yard at the rear of the High Street properties. Of interest was a mason's mark in the form of a star found on stonework for the S door jamb of the outhouse building, adjacent to the N side of the central stair extending from the upper to the lower part of the site.



Working on lower area of site



Mason's mark on door jamb on lower area of site

Upper Area of Site

The upper area of the site had foundation trenches cut along all four sides and two parallel trenches cut for a passageway through the centre of the site. The foundation trenches were approximately 0.70m wide and 1m in depth. However, at the SW corner of the site, foundation excavation below wall (26) extended to a depth of 2.20m below site surface level onto loose stone (53) below the wall's scarcement. On the W side of the site, two earlier revetting walls (11) and (27) were found approximately 1m forward of the main structural walls dividing the upper and lower half of the site which were removed. These revetting walls are shown on the Ordnance Survey plan Arbroath 1859. Walls (11) and (27) had over time become buried and the passageway between the two sets of walls had been infilled with silty deposits (13) and (28) which contained abundant large sherds of 19/20th C pottery (not retained).

Two sections, 01 and 02, on the upper area of the site were recorded (Ills 3):

Section 01 was N facing on the N side of the S part of the site. This section revealed modern hardcore surface and disturbed garden soil over a layer of sandstone fragments (50). The sandstone fragments appeared to represent an earlier surface possibly medieval. Deposit (50) was identified as deposit (38) in section 2. Below the sandstone fragments was a silty subsoil (51) equivalent to deposit (39) in section 2.

Section 02 was W facing on the N part of the site at the W end, on the E side of removed wall (27). This section revealed modern site surface hardcore and garden soil deposits with a pit containing a modern fill (35). An earlier surface (38), comprising red sandstone fragments, was identified below the garden soil. Surface (38) was possibly medieval. Below (38) was a subsoil (39) of mid brown fine silt. Cut into the subsoil was a small pit with a fill (42) containing fine silt with butchered animal bone comprising cattle, sheep and pig as well as oyster shell (see finds register below). The style of the butchering of the bone in the fill indicated a likely medieval date for this pit feature.



Working on upper area of site with Abbot's House in background



Upper part of site showing section 02

3 Interpretation

Lower Area of Site

Limited excavation in the rear of the High Street property revealed that any early archaeological deposits had been removed down to natural deposits to create a level open courtyard and outhouses, most likely in the 19th century. With regard to the mason's mark found on the door jamb for an outhouse; the stonework in question had the appearance of 19th century work and did not look medieval. The mason's mark was most likely inscribed by the mason when the outhouse was being erected and was not on medieval stonework recovered from the abbey site.

Upper Area of Site

Sections recorded in foundation trenches on the upper part of the site revealed a modern surface over earlier garden soil deposits. Of interest was a deposit of small/medium sized red sandstone fragments which indicated an earlier, probable medieval surface previously identified during the excavation for the new visitor's centre in 2000 and again on the watching brief in Abbey Street on excavations for a new water main in 2001. Predating the sandstone fragments was a small pit cut into the subsoil with butchered animal bone considered to date from the medieval period. One sherd of unstratified medieval pottery was recovered from loose spoil.

4 Conclusions and Recommendations

Alder concludes that the watching brief was successful in identifying that medieval activity had survived on the upper part of the site in the form of a medieval surface of red sandstone fragments and an earlier medieval pit below the sandstone surface. The surface of sandstone fragments appears to spread from the site of the new visitor's centre at the NW corner of the abbey, along Abbey Street and onto the upper part of the development area. It is likely that the sandstone fragments forming the surface were chippings from the working of stone to construct the abbey which were then spread to form a consolidated area of hardstanding around the abbey construction site. Medieval activity was also indicated by the presence of one unstratified medieval pottery sherd on the upper part of the site. The foundation trenches excavated for the development on the upper part of the site also indicated that there had been no substantial development and this part of the site seems to have been used as garden ground/yard/drying green.

Observations on the lower part of the site revealed that no significant archaeological deposits had survived the levelling of the site.

4.1 Recommendations for Further Work

All the groundworks for the new development have now been completed and no further monitoring of the site is required.

5 References

Angus SMR – NO64SW0018 – ARBROATH ABBEY

Angus SMR – NO64SW0202 – ARBROATH ABBEY

Angus SMR – NO64SW0211 – ABBEY STREET, ARBROATH

Ordnance Survey Arbroath 1859 – XLVI.11.24 (1:500)

Wood, John Plan of the Town of ARBROATH from Actual Survey, Edin 1822

Appendix 1 Context Register

<i>No:</i>	<i>Description</i>	<i>Phase</i>
01	A concrete floor on the N side of the roofless outhouse, 0.05-0.10m thick.	20 th century?
02	A flagstone floor on the S side of the roofless outhouse, 0.06m thick.	19 th century
03	Deposit, grey course sand below (02), 0.03m thick. Bedding for flags.	19 th century
04	Deposit, a loose crushed red sandstone fragments, sand and mortar below (03), 0.07m thick. Bedding for the outhouse.	19 th century
05	Deposit, a coarse mid grey-brown sand with 40% rounded cobbles (beach) 0.12-0.02m dia and occasional fragments of shell. Natural deposit.	Natural
06	Deposit, a mixed deposit, topsoil, fragments of masonry, rubble and concrete. Disturbed ground, upper most deposit where flats are being built, 0.10-0.30m thick.	Modern
07	Concrete floor and N wall for a garage in the SE corner of the site (largely demolished on arrival).	Modern
08	Deposit, a clean dark brown loamy silt on the E side of the E wall of the roofless outhouse, below (06).	19 th century?
09	A mortared rubble built wall (red sandstone), c. 0.45m wide. Remains of the S retaining wall for the upper part (E end) of the central stairs which were demolished.	19 th century
10	Deposit, type 1 hardcore and a layer of tarmac in the corner of the site next to the roofed outhouse, 0.10-0.15m thick. Surface deposits.	Modern
11	A stone wall running N-S parallel to the E wall of the roofed outhouse. Wall stones are single thickness, squared blocks of red sandstone measuring c. 0.40m wide, 0.40-0.50m long and 0.13m thick. Wall lime mortared. The wall survived to a height of 0.60m excluding foundation stones. May be the rear wall of a building which fronted onto Abbey Street but no front wall found on Abbey Street.	19 th century?
12	Deposit, a reddish grey brown sandy clay below (15) on the E side of wall (11). Contains a 19 th century salt glazed sewer pipe (14), not bottomed, 10cm+ poss top of old garden soil same as (49).	19 th century
13	Deposit, a mixed deposit below (10) against the W side of wall (11) and the E wall of the roofed outhouse. Contains mixed topsoil (60%) with sand, clay and brick fragments. About 30% of this layer is composed entirely of broken 19 th century vessels, mainly TGE, but there are also fragments of porcelain, slipwares, willow pattern and other blue glazed ceramics. Probably deposited in a single event. May relate to a high street shop throwing away rubbish. Leather and a thimble were also found in this layer (not retained). Deposit 0.80m+ thick, not bottomed.	19 th century
14	A salt glazed sewer pipe within deposit (12).	19 th century
15	Deposit, a lightish yellow-brown sandy layer above (12), 0.25m thick.	19 th century

16	Deposit, a dark layer containing mixed topsoil, sands, grits and clay, 0.22m thick. Lies above (15). Below, (10).	Modern?
17	Deposit which is really a lens of material within (13) seen to the N of the deposit at its base. Layer contains 90% brick fragments mixed with stone slates and true roofing slate. Rubble dumped between property boundaries.	19 th century
18	A lead water pipe found beside wall (11).	20 th century?
19	Rear wall of garage, a single brick wall.	Modern
20	Deposit, a light brown layer below (16) underneath where the garage was located at its SW corner. Deposit is 50% mixed gravel (1cm dia) and clay. Contains animal bone. Layer above (21).	Modern?
21	Deposit, a mixed deposit below the old garage, contains crushed red sandstone, sand, mortar and clay. Occasional fragments of TGE. Lies below (16). At front of property layer is c. 0.35m thick.	19 th century
22	A deposit of darkish grey clayey silt below (21), noted mainly to the front of the property beside Abbey Street, not bottomed. This layer is probably natural.	Natural
23	A lead water pipe found at the SE corner of the site.	20 th century?
24	Deposit, a compact red clay layer below (04), 0.13m thick. Bedding for floor of roofless outhouse, above natural (05). Does not extend below the S wall of the structure.	19 th century
25	Wall, red sandstone top of existing stairs descending to High St level, side wall for stairs.	19 th century
26	Wall, 2.85m high with scarcement, forms W side S end of Abbey St part of site, rubble (53) observed below scarcement to depth of 2.20m below site surface and over natural deposit (54).	19 th century
27	Wall, rubble with some ashlar, mortared, extending to N from centre of upper part of site, E wall of passage with wall (29) forming other side.	19 th century
28	Deposit, fill, black silt or silty loam, with abundant 19 th C pottery, accumulated fill between walls (27) and (29), c 1m deep, infilling former passageway to give further area on W side of upper part of site, equivalent to deposit (13) on S side of site.	
29	Wall, grey red sandstone, back wall of roofless outhouse, main revetting wall between upper and lower parts of site on N side of site.	19-20 th century
30	Wall, some large ashlar and brick with stone top, square drain over fill (28), soakaway.	20 th century
31	Modern site surface upper part of plot, hardcore, general yard type compacted surface over upper part of site, 0.22m thick; section 01.	20 th century
32	Deposit, fill for wall cut (33), for wall 41, adjacent house on N side of site, max 0.20m wide 0.30-0.40m thick; section 01.	19 th century
33	Cut, for wall (41) with fill (32), narrow, opening out towards top; section 01.	19 th century
34	Deposit, grey silty loam, moderate amount of sandstone rubble, some modern	19 th century

	pottery, appears to be worked, possible garden soil 0.30-0.40m thick; section 01.	
35	Deposit, fill modern brick and sandstone fragments, pit, cut [36] into deposits (34) and (37), 1.40m wide, 0.40m deep; section 02.	20 th century
36	Cut for fill (35), bowl shaped; section 02.	20 th century
37	Deposit, modern makeup, hardcore and stone chippings 0.30m thick; section 02.	20 th century
38	Deposit, former surface, abund small rounded stone and small-medium sandstone fragments in a matrix of mid brown silty clay, 0.18m thick; section 02.	18-19 th century
39	Deposit, subsoil mid brown fine silt, 0.20-40m thick over 40; section 02.	medieval
40	Deposit, compacted bright natural orange brown fine silt; section 02 same as (54).	Natural deposit
41	Wall, red sandstone, wall of house on N side of upper part of site, cut [33], fill of cut (32); section 02.	19 th century
42	Deposit, fill of pit cut (43), brown silt, animal bone and oyster shell, pit cut into subsoil; section 02.	Medieval
43	Cut, 0.80m wide 0.20m deep for fill (42) dish shaped, cut into subsoil (39) section 02.	Medieval
44	Pavement, Abbey St, adjacent to site E side, concrete, 0.10m thick, with hardcore rubble below in total 0.24m thick; section 01.	20 th century
45	Deposit grey brown silty loam, 0.28 thick, deposit below demolished front wall of property, (a fee standing wall no foundation, not part of a building); section 01.	19 th century
46	Deposit, layer of red sandstone fragments, makeup possibly medieval; section 01.	Medieval
47	Deposit, subsoil , same as (51), below sandstone fragments 46; section 01.	Medieval
48	Mixed deposits disturbance, at E end of section 03.	20 th century
49	Deposit, mid brown silty loam former garden soil, some red sandstone frags occasional bone and 19 th C pottery, same as (12) also a levelling layer over sandstone fragments (50); section 03.	19 th century
50	Deposit, Layer of red sandstone fragments, small-medium, occasional oyster shell, sloping down slightly to W; section 03.	Medieval
51	Deposit, mid brown orange silt, subsoil, occasional rounded stone, max 0.24m thick, slopes down to W; section 03.	Medieval
52	Site surface on S half of upper part of site 0.07-0.22m thick; section 03.	Modern
53	Deposit, packing/makeup, large rubble mainly red sandstone, observed below scarcement of wall.	19 th century
54	Deposit, natural compacted silty clay of E side of (53).	Natural
55	Stonework 0.80 X 0.85m for N jamb of yard entrance for recently demolished free standing wall, the property boundary wall fronting Abbey St.	Modern

56	Lead water pipe in SW corner of upper part of site.	Modern
----	---	--------

Appendix 2 Photographic Register

Folder: 29-10-12		
<i>Image No</i>	<i>Description</i>	<i>View (in relation to Site N)</i>
DSC_0001.jpg	General of site	SW
DSC_0002.jpg	General of site	NW
DSC_0003.jpg	Looking at the NW corner of the site	NW
DSC_0004.jpg	Looking down into the roofless outhouse where a trench was dug for the foundations of a new stairwell	W
DSC_0005-6.jpg	Photos looking at the roofless outhouse	NE
DSC_0007.jpg	Looking at the N wall of the roofless outhouse	NE
DSC_0008.jpg	Stairs in between the two outhouses	NE
DSC_0009.jpg	Looking at the W wall of the roofless outhouse, note mason's mark	E
DSC_0010.jpg	Close up of mason's mark	E
DSC_0011-14.jpg	General working shots of excavation of the new stairwell foundations in the roofless outhouse	SE-S
DSC_0015-16.jpg	Forming ramp where the upper part of the central stairs used to be	E-NE
DSC_0017-18.jpg	A black soil (08) to the N of the central stairs	NE-N
DSC_0019-21.jpg	General clearance of ground where the garage used to be	SE
DSC_0022-25.jpg	Excavation of 1m deep trench behind the roofed outhouse	S
DSC_0026-7.jpg	Wall (11) and deposits either side exposed	S-SE
DSC_0028-9.jpg	Wall (11) and deposits either side exposed and cleaned up	S
DSC_0049.jpg	Excavation through hardcore next to the roofed outhouse	S
DSC_0050.jpg	General working shot	SE
DSC_0051-52.jpg	General excavation of the trench next to the roofed outhouse	S
DSC_0053-54.jpg	Lead pipe (18)	E
DSC_0055-56.jpg	Excavation of the 0.7m deep trench along the S wall of the property through deposit (21)	E

DSC_0057-8.jpg	Looking down at the foundation trench for the new stairwell	NW-W
DSC_0059-60.jpg	E facing section of the foundation trench for the new stairwell	W
DSC_0060-63.jpg	The possible wall stub for wall (11) along the S boundary wall	S
DSC_0064.jpg	Excavation of the trench along the front of the property (S side). Photo shows deposit (21)	NE
DSC_0065-67.jpg	General working shots	NE-N
DSC_0068-69.jpg	Shot showing deposit (22) at the bottom of the trench along the front of the property	NE
DSC_0070-71.jpg	General shots of site from Abbey Street	NW-W
Folder 13-14 Dec 2012		
DSC_0072.jpg	Loading spoil	SW
DSC_0073.jpg	Loading spoil with Abbot's house in background	NE
DSC_0074.jpg	W Wall of site showing part of scarcement	S
DSC_0075.jpg	Start of excavation of foundation trench, removing wall (27)	N
DSC_0076.jpg	General of NE part of site with Abbot's house	NE
DSC_0077.jpg	Continuing excavation of foundation trench, removing wall (27) and fill 28	SW
DSC_0078-80.jpg	Continuing excavation of foundation trench, removing wall (27) and fill 28, general	SW
DSC_0081.jpg	Continuing excavation of foundation trench, removing wall (27) and fill (28), detail	W
DSC_0082.jpg	General working in W corner of site	NW
DSC_0083.jpg	Wall (27) removed in NW corner of site	NW
DSC_0084-85.jpg	Section, W facing showing subsoil deposit (39)	NE
DSC_0086-87.jpg	Wall (29 W wall of plot	N
DSC_0088.jpg	Wall 41, property adjacent on N side of plot abutted by walls 29 and 27	N
DSC_0089-90.jpg	Working in foundation trench at junction of wall 29 and wall 41	NW
DSC_0091-92.jpg	Loose stonework below scarcement of wall 26	W
DSC_0093-94.jpg	General excavation and removing spoil	NW
DSC_0095-96.jpg	Loose stonework below scarcement of wall 26	SW

DSC_0097.jpg	Excavation into deposit 40, natural silt	NW
DSC_0098-0100.jpg	Loose stonework and natural deposit in foundation trench below wall 26	SW
DSC_0101.jpg	Working in foundation trench against wall 41	NE
DSC_0102.jpg	Foundation trench against wall 41	NE
DSC_0103.jpg	Foundation trench against wall 41	NW
DSC_0104.jpg	Foundation trench along pavement, E side of site N end	S
DSC_0105.jpg	General working in dark, foundation trench site E side	W
DSC_0106.jpg	General working in dark, foundation trench site E side	NW
DSC_0107.jpg	General working in dark, foundation trench site E side	NW
DSC_0108-0109.jpg	Marking out foundations for passageway through centre of new build	W
DSC_0110.jpg	Foundation trench along site frontage N end	SE
DSC_0111-0112.jpg	Foundation trench against wall 41	W
DSC_0113-0114.jpg	Foundation trench, centre of site, N side	E
DSC_0115.jpg	Foundation trench, centre of site S side	E
DSC_0116-0117.jpg	Foundation trench, centre of site S side	E
DSC_0118.jpg	General of site	SW
DSC_0119.jpg	Foundation trench, centre of site S side	SE
DSC_0120.jpg	Foundation trench, centre of site S side	SW
DSC_0121-0122.jpg	Foundation trench, centre of site N side	NE

Appendix 3 Drawing Register

<i>Sheet No.</i>	<i>Description</i>	<i>Scale</i>
01	Site plan prior to new development with WB comments	1:100
02	Context descriptions	
03	Context descriptions	
04	Context descriptions sections 01 and 02	1:20

05	Section 03	1:20
----	------------	------

Appendix 4 Finds Register

<i>Context</i>		<i>Material type</i>	<i>Details</i>
42	Pit cut (43) into subsoil 39, section 02	Cattle bone	R radius/ulna shaft: chopped; gnawed by carnivore L radius: proximal end; chopped; epiphysis fused; probably gnawed by carnivore L innominate: 2 conjoining fragments acetabulum/ilium R innominate: acetabulum/ilium R innominate (does not conjoin with above): acetabulum
42	Pit cut (43) into subsoil 39, section 01	Sheep/goat bone	L tibia: distal; epiphysis fused. In poor, abraded condition.
42	Pit cut (43) into subsoil 39, section 02	Pig bone	R ulna: fair condition
42	Pit cut (43) into subsoil 39, section 02	Mammal bone	Large ungulate rib shaft fragments
42	Pit cut (43) into subsoil 39, section 02	Mollusc shell	2 oyster valves and fragments
Unstrat	Found in general spoil after machine excavation	Pottery	1 medieval body sherd redware, glazed green-brown

Appendix 5 Discovery & Excavation in Scotland Entry

LOCAL AUTHORITY:	Angus Council
PROJECT TITLE/SITE NAME:	Archaeological Watching Brief, Site on South side of 16-18 Abbey Street Arbroath
PROJECT CODE:	AB26
PARISH:	Arbroath & St Vigeans
NAME OF CONTRIBUTOR(S):	Ray Cachart
NAME OF ORGANISATION:	Alder Archaeology Ltd
TYPE(S) OF PROJECT:	Watching Brief
NMRS NO(S):	NO 6425 4124
SITE/MONUMENT TYPE(S):	Site within precinct of Arbroath Abbey
SIGNIFICANT FINDS:	Medieval pit with, oyster shell and animal bone; medieval pottery sherd, medieval surface
NGR (2 letters, 8 or 10 figures)	Site centred on NO 6425 4124
START DATE	29 th October 2012
END DATE	14 th December 2012
PREVIOUS WORK (incl. <i>DES</i> ref.)	None on this site
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>A watching brief (Alder site code AB 26) on the foundation excavations for new flats located on the S side of 16-18 Abbey Street, Arbroath (centred on NGR NO 6425 4124) was undertaken during the period 29th October and 13-14th December 2012. The site was considered to be of archaeological significance due to its location within the abbey precinct, close to the site of the abbey and the Abbot's House. The site was formed by an upper area on Abbey Street and a lower area to the rear of High Street property. The two areas were linked by a central stairway.</p> <p>Limited work in the rear of the High Street property revealed that any early archaeological deposits had been removed down to natural deposits to create a level open courtyard and outhouses, most likely in the 19th century. Of interest was a mason's mark in the form of a star found on stonework for the S door jamb of an outhouse building. The mason's mark was considered to be 19th century rather than medieval.</p> <p>Sections recorded on the upper area revealed a modern surface over earlier garden soil deposits. Below the garden soil was a deposit of small/medium sized red sandstone fragments which indicated an earlier, probable medieval surface. Predating the sandstone fragments was a small pit cut into the subsoil which contained butchered animal bone and oyster shell, considered to date from the medieval period. One sherd of unstratified medieval pottery was recovered from the spoil. The surface of sandstone fragments had previously been identified during the excavation for the Arbroath Abbey new visitor's centre in 2000 and again on the watching brief in Abbey Street on excavations for a new water main in 2001. The surface of sandstone fragments appears to extend from the site of the new visitor's centre at the NW corner of the abbey, along Abbey Street and onto the upper part of the development area. It is likely that the</p>

	sandstone fragments were chippings from the working of stone to construct the abbey which were then spread to form a consolidated area of hardstanding around the abbey construction site. The foundation trenches excavated for the development on the upper part of the site also indicated that there has been no substantial building development on this part of the site which historically, seems to have been used as garden ground/yard/drying green.
PROPOSED FUTURE WORK:	None
SPONSOR OR FUNDING BODY:	Developer
CAPTIONS FOR ILLUSTRS	
ADDRESS OF MAIN CONTRIBUTOR:	Alder Archaeology Ltd, 55 South Methven Street, Perth PH1 5NX
ARCHIVE LOCATION (intended)	NMRS
EMAIL ADDRESS:	Director@AlderArchaeology.co.uk

Appendix 6 Standard Terms of Reference for all Fieldwork

6.1 Recording Methodology

Alder Archaeology employs a Single Context Recording System that allows full cross-referencing of stratigraphy, finds and environmental samples, as well as site-wide phasing. All features will be planned at scale 1:20, and sections drawn at scale 1:10. Sections and profiles will be drawn and all features will be photographed with metric scale included. Environmental samples will be taken from archaeologically significant contexts, if the analysis of these samples would aid significantly in the interpretation of any features identified.

6.2 Human Remains

If human remains are encountered they will be left in situ and the local police will be informed. If removal is required this will take place in compliance with Historic Scotland's Policy Paper *The Treatment of Human Remains in Archaeology*.

6.3 Products and Reporting

A Data Structure Report will normally be prepared within a period agreed within the Written Scheme of Investigation/ Project Design, after the completion of the fieldwork. This forms the basic level of reporting. Further reporting may be required on the basis of discoveries made during excavations.

A copy of the report and the project archive will be deposited in the NMRS. Further copies will be sent to the client, LAAO and others, as appropriate.

6.4 Artefacts

Finds of objects will be subject to the Scots Laws of Treasure Trove and *Bona Vacantia*. We will report such finds, if recovered, with supporting documentation to the Secretariat of the Treasure Trove Panel for disposal to the appropriate museum.

6.5 Discovery and Excavation in Scotland

A brief summary of the results will be submitted to *Discovery and Excavation in Scotland*.

6.6 General Conditions and Health and Safety

We adhere to the Code of Conduct of the Institute for Archaeologists.

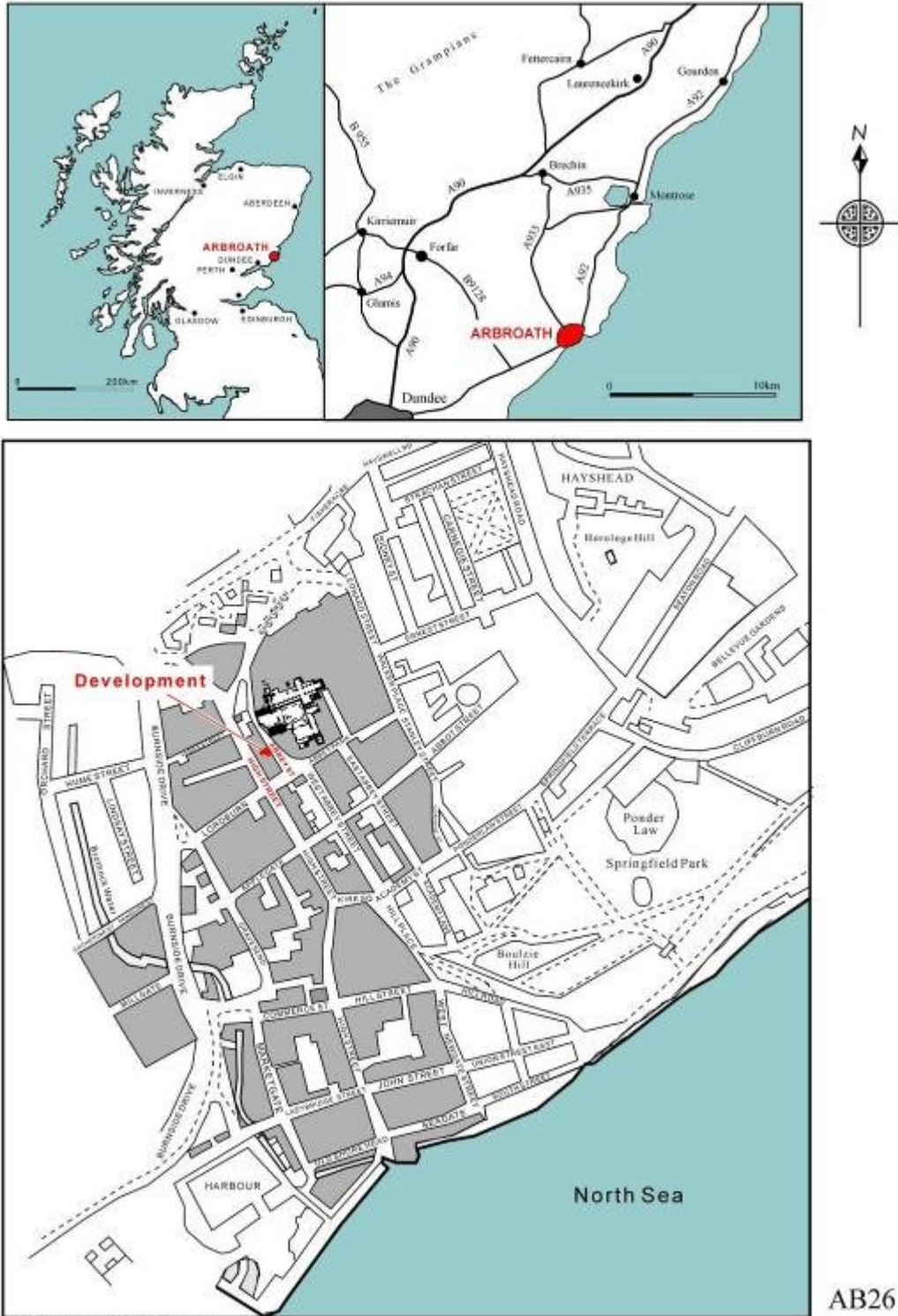
Alder Archaeology Ltd has public liability insurance of £2,000,000. Details of this can be provided on request.

We operate a strict health and safety policy and conforms to the Health and Safety at Work Act. We undertakes Risk Assessments on all fieldwork carried out.

Alder Archaeology representatives will at all times wear protective footwear, high visibility clothing and other appropriate clothing. Hard hats will be worn if there is active plant on site or at all times if the site is deemed a hard hat area.

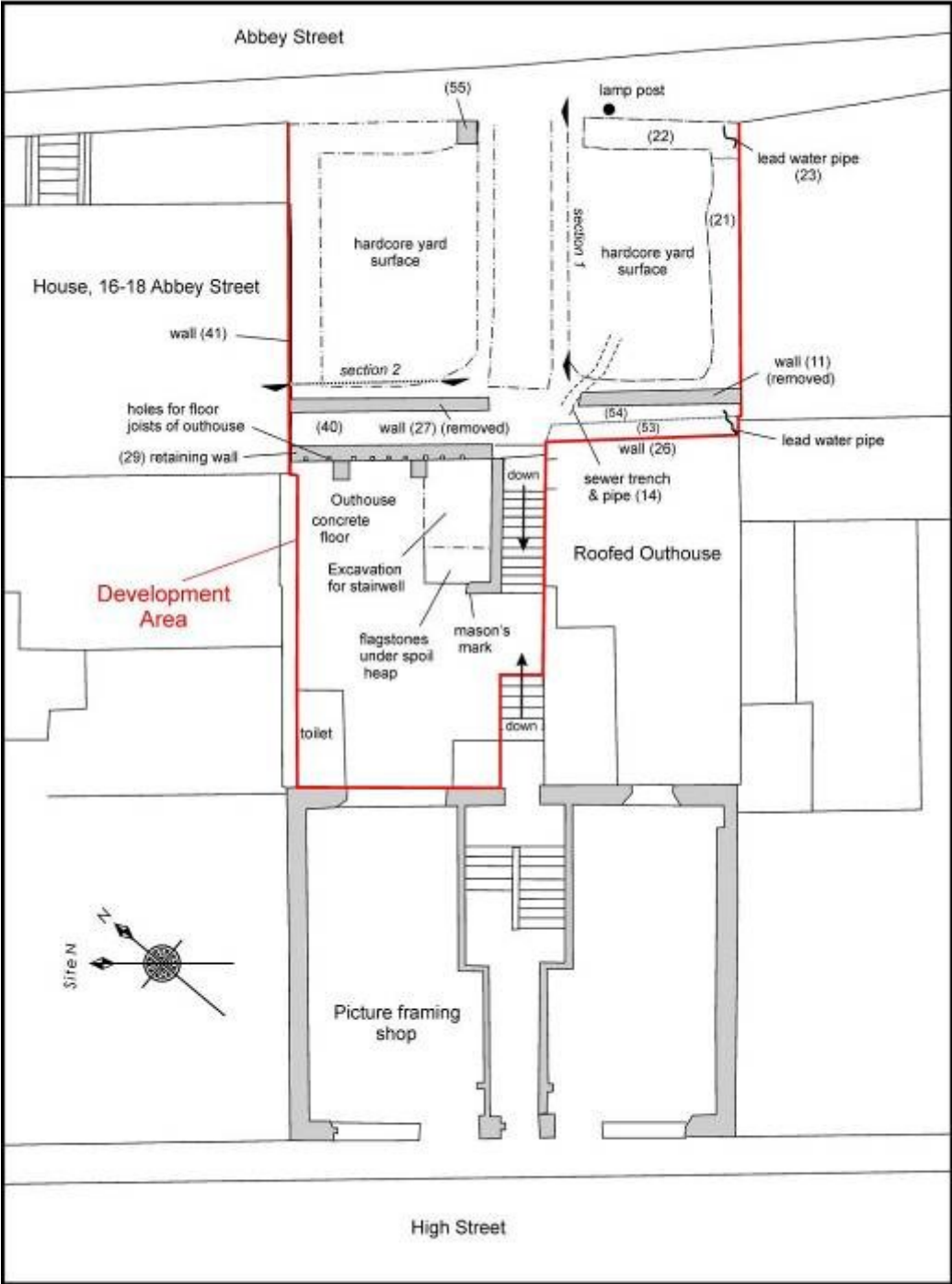
If lightly contaminated deposits are uncovered disposable boiler suits and gloves will be worn. A source of clean water will be made available for staff to clean hands with. If the health risk posed by site contamination is felt to be too high all further archaeological work will stop in that area.

Illus 1 Location of Development Adjacent to 16-18 Abbey Street, Arbroath



© Crown copyright. All rights reserved.
Licence number AL 100049514

Illus 2 Features found during Watching Brief



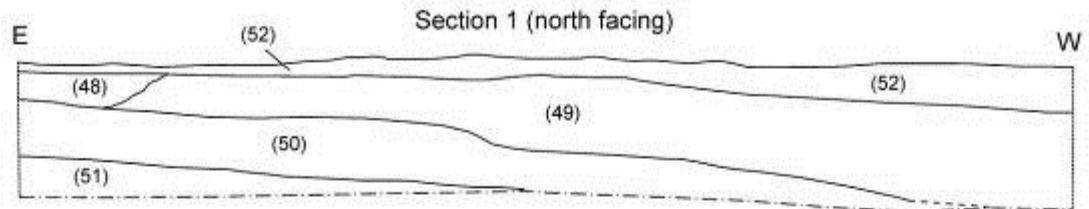
© Crown copyright. All rights reserved.
 Licence number AL 100049514

0 10m

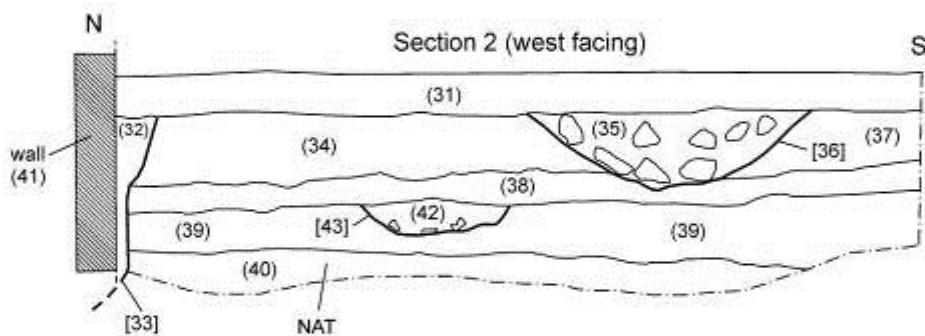
AB26

Illus 3

Sections



- (48) Mixed disturbed deposits, modern
- (49) Mid brown fine silty loam, garden soil
- (50) Layer of medium sand and stone fragments with frags of oyster shell, old ground surface, possibly Medieval
- (51) Mid orange brown silty subsoil
- (52) Make-up, hardcore forming site surface



- (31) Modern site surface hardcore
- (32) Fill for wall cut [33]
- (33) Wall cut
- (34) Recent garden soil, grey silty loam with small sandstone fragments
- (35) Modern fill - brick and large fragments of red sandstone
- [36] Cut for (35)
- (37) Modern make-up, hardcore chippings
- (38) Mid red brown silty clay with abundant rounded stones and small-med sandstone frags, old surface possibly Medieval
- (39) Subsoil, mid brown fine silt
- (40) Bright orange-brown fine silt, natural
- (41) Wall, large blocks of red sandstone
- (42) Fill of pit [43], bone and oyster shell.
- [43] Pit