Archaeological Watching Brief
Electricity Cable Duct
Newburgh Road
ABERNETHY

AE18

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

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Author David Bowler, BA, MPhil, FSA Scot, MCIfA
Illustrator David Bowler, BA, MPhil, FSA Scot, MCIfA
Editor Ray Cachart

ABSTRACT

Alder Archaeology carried out a watching brief (AE18) on insertion of an electricity cable duct along the S verge of Newburgh Road, E of Abernethy, for Scottish and Southern Electricity. The work took place on 20th and 21st Feb 2017, and was required where the duct trench passed close to two prehistoric sites known from the Perth and Kinross Historic Environment Record. However the area had been extensively disturbed by previous BT cables and a deep storm drain, and no archaeology was found.

1 Background

1.1 Introduction

CKD Galbraith LLP on behalf of Scottish and Southern Electricity commissioned Alder Archaeology to undertake an archaeological watching brief on the insertion of a 33 kV electricity cable duct along the S side of the Newburgh Road, Abernethy.

Newburgh Road is on the E side of Abernethy, and is the main A913 heading towards Newburgh. The cable duct is part of a more extensive renewal of the electricity supply network in the area. A length of about 160 m had been identified as requiring archaeological monitoring, centred on NO 1985 1685.

The work (site code AE18) was undertaken on 20 – 21 February 2017 in cold and windy weather conditions. The requirement was to observe and record the digging of a trench for the insertion of the cable duct.

1.2 Aims and Objectives

The main aim of this investigation was to establish the presence/absence, date, character and quality of any archaeological remains surviving within the development area. In particular, the cable trench passed close to two prehistoric sites recorded in the Perth and Kinross Historic Environment record, and might have exposed features associated with them.

1.3 Reporting

The present document has been prepared as the final report on this Watching Brief. Copies will be sent to the client, Historic Environment Scotland and Perth and Kinross Historic Environment Record.

1.4 Planning and Curatorial Issues

This work was undertaken on behalf of Scottish and Southern Electricity as Statutory Undertakers, acting on advice from Perth and Kinross Heritage Trust as advisers to Perth and Kinross Council. This report is the final part of a programme of archaeological work.

1.5 Acknowledgements

We wish to thank Perth and Kinross Heritage Trust for their assistance and guidance throughout this project, and also PMK Civil Engineering, the main contractors on site. Scottish and Southern Electricity funded this WB. PKHT recommended the watching brief, and provided details and base plans showing the location of the known archaeological sites

2 Details of Work

2.1 The Site (Illus 1)

The area of investigation is a stretch of about 160 m along the S side of Newburgh Road, as it exits E from Abernethy. The work area lies just beyond the E limit of suburban housing in Abernethy, and is bounded N and S by agricultural fields, on the N side sloping down to the railway and the S bank of the Tay, and on the S side sloping up

towards the foot of the Ochills. The cable duct was inserted in an overgrown verge between the S kerb of the road, and the fence and hedge forming the boundary of the adjacent field. It transpired that this verge was already occupied by a BT cable close to the kerb, an older electricity cable, and a storm drain farther south, indicated by occasional inspection covers, some hidden by vegetation.

2.2 Archaeological Potential

The Newburgh Road, and therefore the cable duct, passes between two known prehistoric sites in the Historic Environment Record.

The first, MPK3098, lies on the N side of the road and is referred to as Pitcurran cremation urns. This was a deposit of five or six prehistoric cremation urns containing ashes, found just below the surface when regrading the road to reduce a summit many years ago.

The second, MPK3067, was on the S side of the road, at NO 1980 1685 and is referred to as Pitcurran / Elmbank cist. This was a prehistoric short cist containing a Food Vessel urn, now in the Royal Museum of Scotland. This was found while laying an earlier electricity cable in May 1947.

Both these discoveries were chance finds made many years ago without detailed records, but it was possible that further remains associated with either or both would be revealed by the new cable track.

2.3 Archaeological Method

The new cable trench was dug under continuous archaeological supervision, from W to E using a medium sized tracked excavator with a smooth-edged bucket. The trench was generally about 0.4 m wide and 1 m deep, about 2.5 m S of the road kerb, as it transpired in between the BT cable duct and the storm drain. A black plastic duct 0.2 m in diameter was laid in 6 m sections push-fitted together, and sealed with clean sand lightly compacted and covered over with warning signs printed on boards pegged together. The trench was then backfilled with the upcast as dug. The duct laying and backfilling proceeded continuously with the digging, using a second, smaller machine, following 30 m or so behind the first. This rapid progress was necessary as the work required the closure of the S carriageway of the road to allow access for machines and works vehicles, and naturally tended to disrupt traffic on a regionally important road.

The insertion of the electricity cables into the duct was left until later, allowing the digging and duct-laying to proceed rapidly and simply, without the delays which might have been caused by the more technical process of installing electrical conductors and other electrical equipment.

The deposits and features exposed were recorded using digital photography and written notes on pro-forma sheets.

2.4 Results of Investigations

The results are recorded in more detail in the Photographic and Context Registers, Appendices 1 and 2.

The deposits exposed consisted of a layer of rough turf 01, about 0.1 m deep, over a layer of reddish sandy loam or ploughsoil 02, generally extending to the bottom of the trench. Various other layers appeared in section, such as a fine gravel band 03, about 0.35 m down, a rubble band 04 with modern rubbish, and a rubble and gravel layer 014. As the trench progressed and these merged into one another, it became apparent that they were all fills spreading out from a deep storm drain trench further to the S, and being cut through by the new cable duct trench.

As the trench progressed E and over the summit of gently rising ground, a probably natural layer 17 of reddish coarse sandy silty gravel appeared in the bottom of the trench, under the sandy loam 02.

Two BT inspection covers 09 and 15 were found, with red brick substructures, as well as the BT cables. Two manholes 11 and 16 relating to the storm drain were found, also with red brick substructures. An existing electricity cable 10 was found crossing the new duct trench line where it intersected one of the farm access tracks.

3 Interpretation

No traces of the known prehistoric sites or of other archaeology were found. This was probably because the new duct was 'sandwiched' between the existing BT cables and storm drain, in effect isolating it from the surrounding fields. The digging of these earlier features, especially the deep storm drain whose fills spread out over the cable duct line, would have removed any shallow prehistoric features or deposits surviving along the roadside verge.

4 Conclusions and Recommendations

As no archaeology was found, no further work is required nor indeed possible at the present time, the excavation for the cable duct being now complete and backfilled.

Appendix 1 Photographic Register

Image No	*Description*	*View*
	20 Feb 2017	
001	Approaching work area from W. Ground rises to S.	E
002	Red-brown sandy loam / ploughsoil 02 to bottom of trench. Under 01.	E
003	Ground rising gently E. Road is on slightly raised area. Cable track is 2.5 m S of road edge. Trench 0.4 m wide, 1 m deep. Cable duct pipes are 0.2 m diameter, in 6 m lengths. Approaching junction with farm track to S.	E
004	Stony band 03 in section, 0.1 m deep, 0.35 m down, extends about 2 m E – W. Modern buried surface? Later proves to be gravel fill of modern storm drain to S of cable track, spread out to N.	ESE

005	Stone rubble layer 04 in section, angular whin, etc. 0.2 m down, 0.3 m deep, modern dumping? Occasional brick fragments, occasional modern cans. Continues 03. Grades to more even gravel fill, with occasional cobbles. Modern upfilling at junction to level up main road? Later proves to be gravel fill of modern storm drain to S of cable track, spread out to N.	ESE
006	004 grades to more even gravel fill, with occasional cobbles.	ESE
007	View to work area, showing road on slight embankment.	ESE
008	Fill 04 at junction with farm track to S.	ESE
009	BT concrete cover 09 on kerb side near 'start of monitoring' shown on plan.	E
010	Track dug 1.1 m deep under entrance to farm track.	E
011	Crossing E kerb of farm track.	E
012	Grey duct heading to BT cover. Modern brick structure in N section. Modern brick on spoil heap.	E
013	Duct and pipe beside BT cover.	E
014 – 5	Entering work area. 001, 2, 4 continue.	E
016	Dark lens 012, 0.2 m deep, 0.6 m down, 2 – 3 m E – W. 18 m E of junction. Trench about 3 m S of road edge. Pipe and adjacent field now level. Trench closer to road. Fill layer 04 peters out. Trench 1.1 m deep.	NE
017	Approaching speed limit sign. Trench closer to road.	E
018	Fill around limit sign. Trench now 2 m from road.	E
019	View W from sign. New duct being laid in trench.	W
020	Proceeding E, modern brick rubble.	E
021 – 2	Approaching bend to N.	E
023	Second BT box 15. Concrete lid. Grey cable on surface	E
024	Manhole 16 adjacent to 15. Cable trench inserted between.	SW
025	End of day. 4:45 pm. Gravel fill 04 on spoil heap. Grey surface cable.	E
	21 Feb 2017	
026	Natural 17 now reddish coarse sandy silty gravel. Occasional boulders. Grey surface cable. Approaching limit sign.	E
027	17 lies under gravel fill 04, about 0.5 m down.	SE
028	E of limit sign. Section.	SE
029	Trench centre now only 1 m from road.	E

030	Passing cast iron BT box.	E
031	Cable emerging from cast iron BT box.	SW
032	Old warning tape.	E
033	Approaching E end of work area.	E
034	E of BT box, trench moves N to carriageway. Existing BT duct.	E
035	End of area of monitoring. Road now 0.5 m above fields on N and S sides.	W
036	End of area of monitoring.	SW
037	End of area of monitoring. Track threads under existing BT duct, to S kerb of road.	W
038	General view back to Abernethy. Castle Law on skyline.	WSW
039	General view back to Abernethy. Castle Law on skyline.	WSW
040 – 1	General view back to Abernethy. W end of work area	WSW
042	View along work area from W end.	ESE

Appendix 2 Context Register

No:	*Description*
01	Turf and topsoil, 0.1 m deep.
02	Red-brown sandy loam / ploughsoil to bottom of trench. Under 01.
03	Stony band in section, 0.1 m deep, 0.35 m down, extends about 2 m E – W. Modern buried surface? Later proves to be gravel fill of modern storm drain to S of cable track, spread out to N.
04	Stone rubble layer in section, angular whin, etc. 0.2 m down, 0.3 m deep, modern dumping? Occasional brick fragments, occasional modern cans. Continues 03. Grades to more even gravel fill, with occasional cobbles. Modern upfilling at junction to level up main road? Later proves to be gravel fill of modern storm drain to S of cable track, spread out to N.
05-8	Not used
09	BT cover on kerb side near 'start of monitoring' shown on plan.
10	Existing cable N – S along fence line, W side of entrance, 1 m down.
11	Manhole at bend.
12	Dark lens, 0.2 m deep, 0.6 m down, 2 – 3 m E – W. 18 m E of junction.

13	Not used
14	Deep rubble and gravel layers, 6 – 10 m E of limit sign. Now natural? Coarse gravel or fill, at limit sign, approaching bend to N. Lies over natural silty loam. 14 is perhaps road levelling fill. Later thought to be gravel fill of modern storm drain to S of cable track. 14 continues to bend to N. Modern bricks and rubbish as road approaches summit.
15	Second BT box.
16	Manhole adjacent to 15.
17	Natural now reddish coarse sandy silty gravel. Occasional boulders.

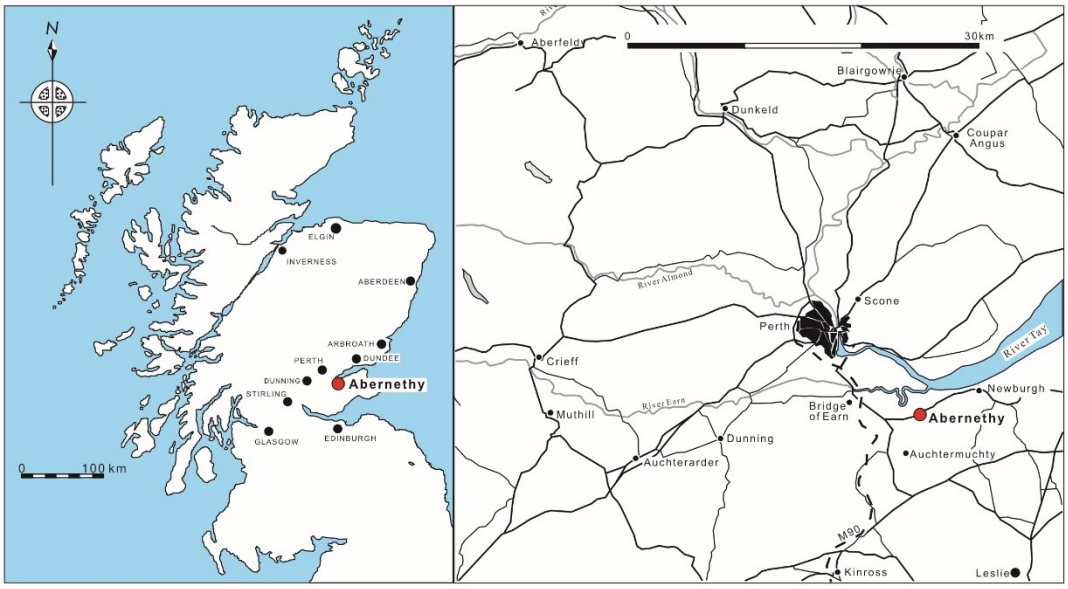
Discovery & Excavation in Scotland Entry

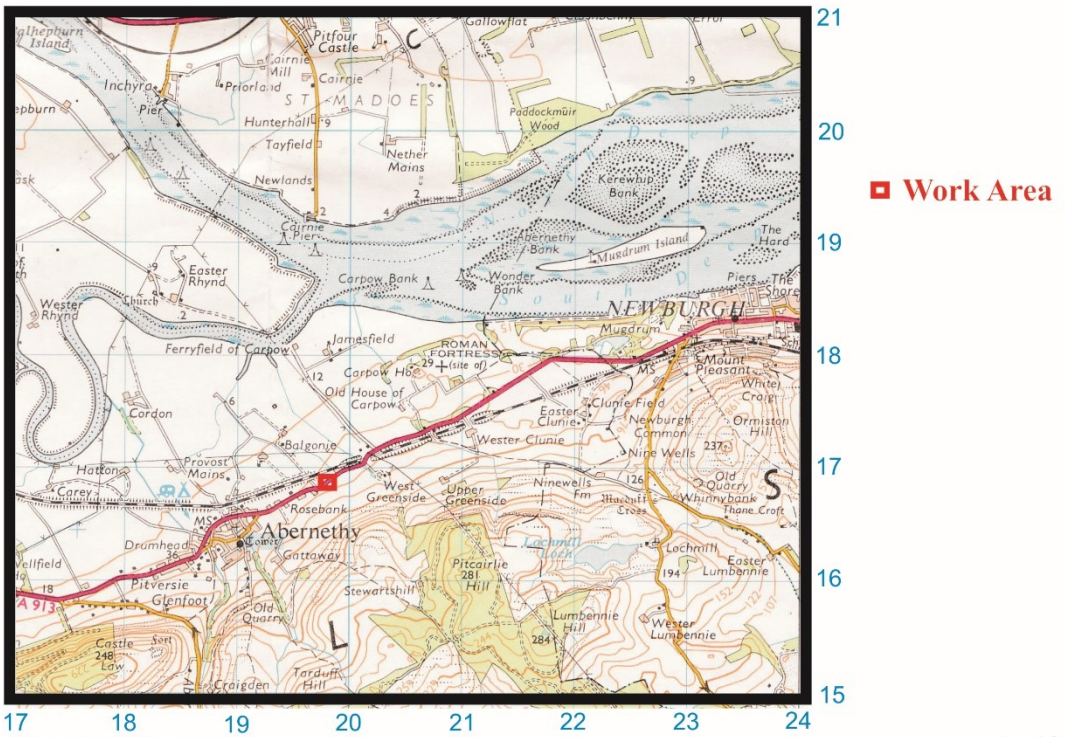
LOCAL AUTHORITY:	Perth and Kinross
PROJECT TITLE/SITE NAME:	Electricity Cable Duct, Newburgh Road, Abernethy
PROJECT CODE:	AE18
PARISH:	Abernethy
NAME OF CONTRIBUTOR:	David Bowler
NAME OF ORGANISATION:	Alder Archaeology
TYPE(S) OF PROJECT:	Watching Brief
NMRS NO(S):	n/a
SITE/MONUMENT TYPE(S):	n/a
SIGNIFICANT FINDS:	n/a
NGR (2 letters, 8 or 10 figures)	NO 1985 1685
START DATE (this season)	20th Feb 2017
END DATE (this season)	21st Feb 2017
PREVIOUS WORK (incl. *DES* ref.)	n/a
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	Alder Archaeology carried out a watching brief (AE18) on insertion of an electricity cable duct along the S verge of Newburgh Road, E of Abernethy, for Scottish and Southern Electricity. The work took place on 20th and 21st Feb 2017, and was required where the duct trench passed close to two prehistoric sites known from the Perth and Kinross Historic Environment Record. However the area had been extensively disturbed by previous BT cables and a deep storm drain, and no archaeology was found.
PROPOSED FUTURE WORK:	n/a
CAPTION(S) FOR ILLUSTRS:	n/a
SPONSOR OR FUNDING BODY:	Scottish and Southern Electricity

ADDRESS OF MAIN CONTRIBUTOR:	Alder Archaeology Ltd, 55 South Methven Street, Perth PH1 5NX
EMAIL ADDRESS:	director@alderarchaeology.co.uk
ARCHIVE LOCATION (intended/deposited)	HES (intended)

Illus 1 Electricity Cable Duct, Newburgh Road, Abernethy

Location





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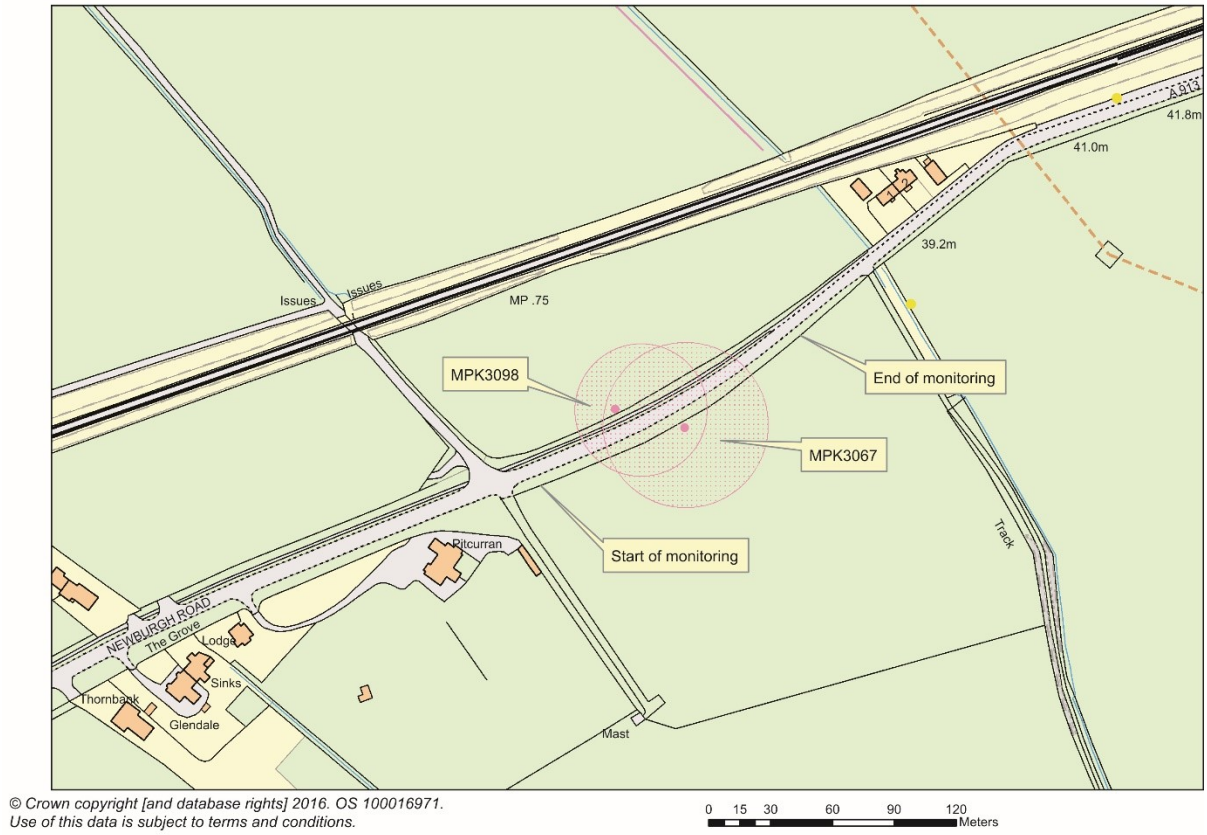
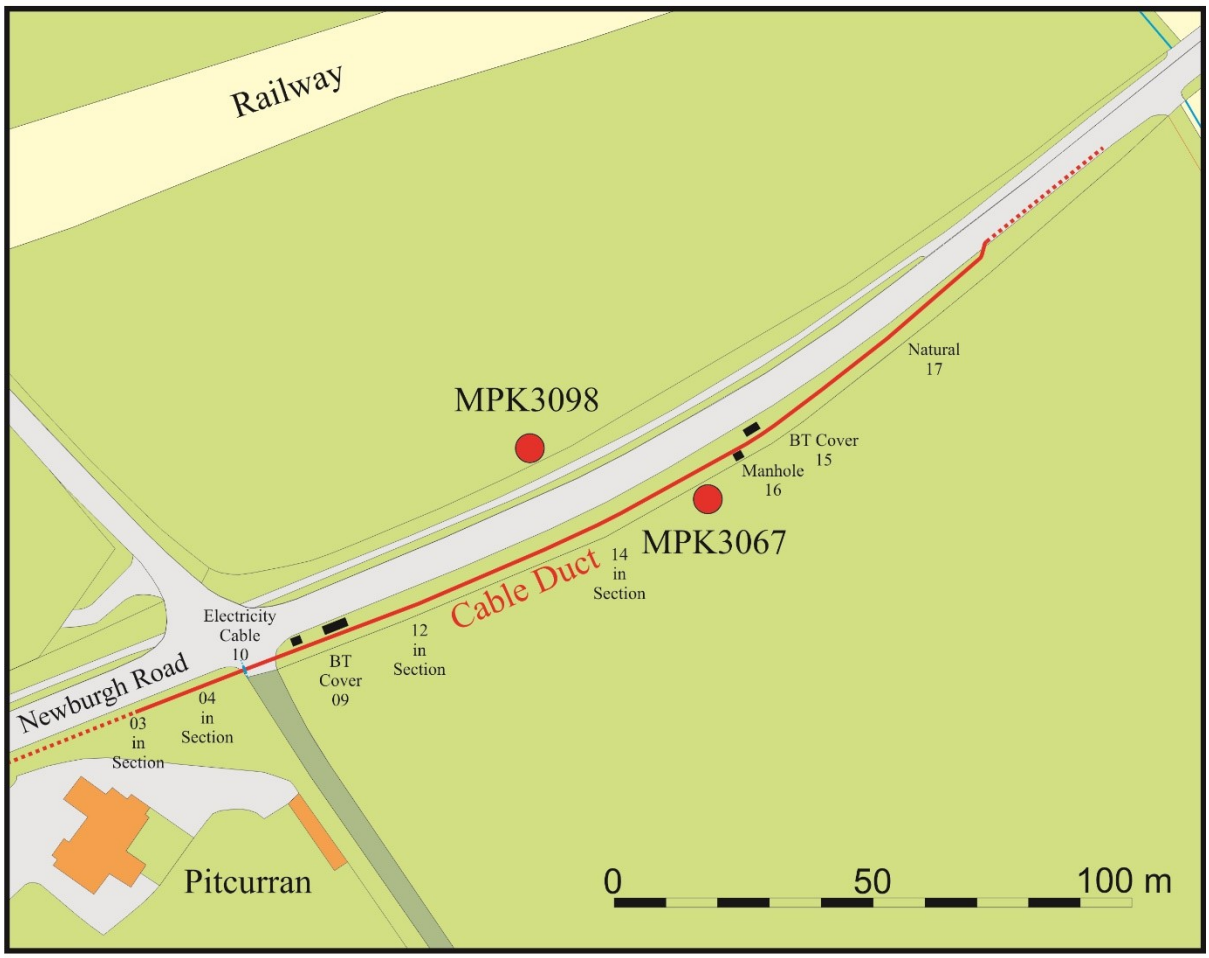
Illus 2 Site Plan as Provided by PKHT



Illus 3 Watching Brief



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