Archaeology Wales

Trinity View, Caerleon, Newport

Archaeological Watching Brief

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Report No. 1635

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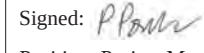
Archaeological Watching Brief

Prepared For: O'Connor Utilities Ltd

Edited by: Philip Poucher Signed:  Position: Project Manager Date: 22/01/18	Authorised by: Rowena Hart Signed:  Position: Regional Director Date: 24/01/18

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Non-Technical Summary

This report results from work undertaken by Archaeology Wales Ltd (AW) at the request of O'Connor Utilities Ltd, on behalf of Dwr Cymru/Welsh Water (reference 4182900). The report details the results of an archaeological watching brief, as recommended by Gwent-Glamorgan Archaeological Trust - Curatorial Division, that took place to ensure the preservation by record of any archaeological remains encountered during groundworks associated with the renewal of watermain services at Trinity View, Caerleon, centred on ST 32427 91048.

The site lies adjacent to Lodge Wood Camp (PRN 00597g), an Iron Age hillfort and Scheduled Ancient Monument (MM023) to the north, and alongside the route of a Roman Road (PRN 1016w) to the south.

No finds, features or deposits of archaeological interest were encountered during the works. Features recorded belonged to earlier modern groundworks associated with the water, gas and electricity service pipes and road surfaces.

All work was undertaken to the Standards and Guidance for an Archaeological Watching Brief as set by the Chartered Institute for Archaeologists (2014).

1. Introduction

Location and scope of work

Archaeology Wales Ltd (AW) was commissioned by O'Connor Utilities Ltd, on behalf of Dŵr Cymru/Welsh Water (reference 4182900) to undertake an archaeological watching brief in association with the renewal of water main services at Trinity View, Caerleon, centred on ST 32427 91048 (Fig 1).

Glamorgan-Gwent Archaeological Trust – Curatorial Division (GGAT-CD), in its capacity as archaeological advisors to the local planning authority, recommended that an archaeological watching brief be maintained during groundworks associated with the development to mitigate the impact of the proposed development on the archaeological resource. These recommendations are stated in a letter (GGAT reference U2388/SL-J) dated 12th May 2017. A Written Scheme of Investigation (WSI) was produced by AW in accordance with the Standard and Guidance for Archaeological Watching Briefs (CIfA 2014) and was designed to provide an approved methodology of archaeological work to be implemented during the construction works (Appendix II). This WSI was approved by GGAT-CD prior to works commencing.

The watching brief was undertaken by Archaeology Wales under the supervision of Daniel Moore and Jennifer Muller, and project managed by Philip Poucher MCIfA. The ground works and accompanying watching brief comprised two phases, the first was carried out on Lodge Road from 15/8/2017 to 5/9/2017, the second on Trinity View from 19/9/2017 to 29/9/2017. The AW project number for the work is 2545, and the site code is TVC/17/WB. The project details are summarised on the Archive Cover Sheet.

Topography and Geology

The site lies in Trinity View, a residential development on the west side of Caerleon, to the north of Newport in Southeast Wales, centred on ST 32427 91048 (Fig 1 & 2). The planned water main services run throughout the modern street layout of Trinity View, lined on all sides by modern residential development. The development occupies south-facing slopes on ground that falls from approximately 85mOD to 35mOD. These slopes form the northern side of the Usk valley, just before it turns south to enter the Bristol Channel. The river itself lies *circa* 500m to the south. The centre of Caerleon lies some 1.3km to the southeast, the centre of Newport lies just over 3km to the south.

The underlying geology on site comprises interbedded sandstone and argillaceous rocks of the Maughans Formation, with sandstone outcropping along the ridge top to the north (BGS 2017).

Archaeological and Historical Background

To the north lies Lodge Wood Camp, an Iron Age Hillfort. This extensive hillfort occupies high ground immediately to the north of Trinity View, defended by a series of well-preserved banks and ditches with a main entrance and inner enclosure at the eastern end, and further defences at the eastern end now occupied by Lodge Farm, an 18th century grade II Listed farmhouse. The south side of the hillfort is defended by a series of up to three well-preserved banks and ditches. Excavation in 2000 indicated that this hillfort was established in the 5th century BC and continued, albeit not continuously, in use into the later Roman period in the 4th century AD (Pollard et al 2006).

South of this the land slopes away, along which lies the route of a Roman Road, running roughly east to west between Chepstow and Loughor, and also accessing the major legionary fortress and settlement of Isca, established in Caerleon during the Roman era. During this period it was customary for burials to take place outside the town limits alongside the main roads. Remains of cremation burials have been uncovered at Hillside Lodge (PRN11357g) and the Abbeyfield site (PRN045501g) on Lodge Road to the east, with tombstones and monuments (PRN00547g), as well as a mosaic surface (PRN04433g) uncovered in proximity to the road to the south.

Trinity View residential estate was established on the sloping ground between the hillfort and the road in the later 20th century, with additions alongside Lodge Road added in the last 10 years.

2. Methodology

A watching brief following the methodology set out within the approved WSI (Appendix II) and complying with the Chartered Institute for Archaeologists (CIfA) *Standard and Guidance for an Archaeological Watching Brief* (2014) was undertaken during all intrusive ground work on the site.

The watching brief was undertaken to allow the preservation by record of any archaeological deposits, the presence and nature of which could not be in advance of works. The watching brief also provided an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find had been made for which the resources allocated to the watching brief itself were not sufficient to support treatment to a satisfactory and proper standard (CIfA, 2014).

The first phase of excavation comprised a continuous trench measuring 175m (approximately) in length along Lodge Road, of which the last 26m extended upwards, along the western road of Trinity View. The width of the trench was typically 0.30m, with a maximum of 1.60m and a depth of 1.10m (Fig 2). The second phase of excavation comprised a continuous trench that extended 55m in length from Trinity View upwards along a lane towards a reservoir, then a further 28m in length to the south-west, parallel to the reservoir boundary fence. The width of the trench was typically 0.30m, with a maximum of 3.70m and a depth of 1.30m (Fig 2).

Both phases were carried out using an 8tonne digger and 0.3m wide toothless bucket and removing the overburden by hand. The entire process was monitored by a suitably trained archaeologist. Sections and plans of the excavation were photographed using a 12MP digital camera. All the deposits encountered were recorded by means of a continuous context numbering system and recorded on pro-forma context sheets. All features and deposits are described in accordance with CIfA conventions. A register of all contexts and photographs was also made.

3. Watching Brief Results

Phase 1 (Figures 3 & 4, Photos 1 – 11)

The first phase of the excavation was located on the northern edge of Lodge Road. The trench, Trench 1, started just east of the Roman Reach junction and finished at the west junction of Trinity View. This continuous trench measured in total 175m in length with a width of 0.30m and a maximum depth of 1.10m. Box Trench 1, which was located 4m along from the very eastern edge of Trench 1, measured 2.60m in length, 1.60m in width and 1.10m in depth. Box Trench 2 was located along Trench 1, at the eastern junction of Trinity View and Lodge Road and measured 1.90m in length, 1.60m in width with a depth of 1.10m. An additional trench extended north from Box Trench 2 up Trinity View which measured 7.5m in length and 0.30m in width. The following deposits were recorded within Trench 1;

At the western end of Trench 1 bedrock (**025**) was encountered at a depth of 0.80m from existing ground level. This comprised a mid pink-grey coloured stone, measuring 11m in length, 0.50m in width, and 0.30m in deep (all measurements based on limit of excavation). This was overlain by a natural subsoil (**007**), encountered at a depth of approximately 0.65m below current ground levels. This comprised a firm mid brown-red silty-clay that continued the full length and width of Trench 1 and was 0.60m deep.

This deposit was cut by several modern features, including [**004**], a gas pipe running on a northwest southeast alignment. The pipe's steep cut, and its loose mid yellow-brown coarse sand fill (**005**), measured in excess of 5.80m in length, 0.35m in width, and 0.60 in depth. Other modern features included; concrete linear (**009**) and cut [**010**], which ran on a north-south alignment; metal water pipe (**008**), which had no visible cut and ran on a northwest-southeast alignment; and concrete linear (**012**) with its cut [**013**], which ran on a northwest-southeast alignment.

Overlying modern road surface deposits included, towards the eastern end of the trench, a deposit (**003**) of orange-pink sand and fine chippings with a concrete band that measured 175m in length, 3m in width and was 0.11m deep, overlaid by (**002**), an aggregate type material comprising an orange-pink sand and fine chippings with a hardcore band, that again measured the full length and width of the trench, and 0.25m deep, topped with the tarmac road surface (**001**), which included a concrete and chippings foundation that belonged to Lodge Road. This measured the full length and width of the trench, and 0.30m deep.

A short distance further west these road surface deposits included (**011**), a mid brown-pink aggregate that measured 27m in length, 0.50m in width (limit of excavation) and 0.55m deep. This layer, first encountered alongside (012), extended westwards and terminated gradually. This was overlain by (**014**), a loose dark grey sandy concrete type material with patches of various thicknesses, the largest of which measured 5m in length, 0.50m in width (limit of excavation) and 0.50m thick. This in turn was topped by an earlier tarmac surface (**015**). This layer, first encountered 8m west of Box Trench 1 and continued westwards for almost the full length of Trench 1, measured 120m in length, 0.50m in width (limit of excavation), and 0.15m deep. This was covered by both (002) and (001).

Deposit (011) was also cut by [**021**], a moderately shallow cut for concrete linear {**019**}, and ceramic pipe {**020**} with fill (**018**), a dark brown-black, almost tar-like, silty-clay. Within (011) was brick structure {**017**} and concrete capping (**016**). This probable inspection chamber did not have a visible cut and measured 1.25m in length (limit of excavation), 1.35m in width, and 0.25m in depth (limit of excavation).

In Box Trench 2 the natural subsoil (007) was overlaid by (**023**), a mid red-brown silty-clay with frequent, evenly sorted rounded and sub-rounded stones. This layer was probably modern, the loosely compacted stones showing no signs of wear. The layer, which appeared only in the south facing section of Box Trench 2, measured 1.20m in length, 0.30m in width (both measurements based on limit of excavation) and 0.25m deep. This in turn was overlaid by (**022**), a mixed orange and black tar like aggregate. This probable foundation for road surface (015) measured 1.60m in length (limit of excavation), 0.30m in width and 0.10m deep.

At the western end of Trench 1 the natural subsoil (007) was overlaid by concrete layer (**024**). This layer, which was first encountered 14m west of Box Trench 2 and continued westward along Lodge Road, measured 0.80m in length, 0.50m in width, and 0.10m deep. Deposit (002) overlay this.

Phase 2 (Figures 5 & 6, Photos 12 – 18)

The second phase of the excavation was located at the upper, north-western part of Trinity View. The trench, Trench 5, extended up the lane leading to the reservoir then continued, at a right angle, parallel with the reservoir boundary fence to the southwest. This trench measured in total 83m in length with a width of 0.30m and a maximum depth of 1.30m. Trench 4, which was located at the very western edge of Trench 5, measured 3m in length by 1.50m in width with a depth of 0.90m. Trench 3, which was located along the north-east south-west aligned part of Trench 5 and 17m east of Trench 4, measured 3.50m in length, 3.70m in width and 1.30m in depth.

In the northeast to southwest aligned part of Trench 5, including Trench 3 and 4, the following deposits were recorded;

The lowest deposit comprised a layer (**027**) of firm mid red-brown clay-silt, which measured 1m in depth (limit of excavation). This deposit contained blocks of concrete, the largest approximately 0.70m in length. This layer was cut by [**029**], which comprised northeast to southwest aligned linear cuts for service pipes (**028**), including a plastic BT pipe at a depth of 0.40 from existing ground level, two metal water pipes at a depth of 0.60m from existing ground level, and in Trench 4 a northwest to southeast aligned metal water pipe at a depth of 0.90m from existing ground level. These were all covered by topsoil (**026**), a friable mid red-brown clay-silt which continued to a depth of 0.30m.

In the northwest to southeast aligned part of Trench 5 the following deposits were recorded;

The lowest deposit revealed was (**034**), a firm mid red-brown clay-silt that was appeared to be a continuation of (027). This measured 55m in length, 0.30m in width and 0.60m deep. The deposit, which contained small lumps of concrete near the top and small patches of grey clay throughout, was cut by [**028**]. Cut [028] comprised linear cuts for service pipes (029) on roughly the same alignment as the lane.

The lane was laid to tarmac (**030**), 58m in length, 2.60m wide with a depth of 0.10m. This overlay (**031**), a red-brown sandy-silt and a foundation for the road surface. This measured 55m in length, 0.30m wide (limit of excavation), and a depth of 0.14m. Below this was (**032**), a tarmac deposit that belonged to an earlier road, presumably on the same alignment. Again, this measured 55m in length and 0.30m in width. It was 0.32m deep and overlay (**033**), an aggregate type material comprising orange-brown sand and chippings used as a foundation for (032), which measured 55m in length, 0.30m in width and 0.14 m deep.

4. Finds

No artefacts, either modern or otherwise, were recovered from any of the contexts recorded during the course of the excavation.

5. Conclusion

An archaeological watching brief was undertaken during groundworks associated with the renewal of water main services at Trinity View, Caerleon, centred on ST 32427 91048. The work was undertaken on the recommendation of Glamorgan-Gwent Archaeological Trust – Curatorial Division (GGAT-CD), in its capacity as archaeological advisors to the local planning authority.

The site lies between Lodge Wood Camp, an Iron Age Hillfort, and the line of a Roman Road, running roughly east to west between Chepstow and Loughor, and also accessing the major legionary fortress and settlement of Isca, established in Caerleon. A variety of archaeological material has been recorded in close proximity to this road in the local area.

No finds, features or deposits of archaeological interest were revealed during the course of works on the site. Features recorded belonged to earlier modern groundworks associated with the water, gas and electricity service pipes and road surfaces.

6. Bibliography

CIfA. (2014) *Standard and Guidance for an Archaeological Watching Brief* (Unpublished Guidance accessible at www.archaeologists.net)

NERC. (2016) British Geological Survey Maps (accessed at www.bgs.ac.uk)

Pollard, J., Howell, R., Chadwick, A. And Leaver, A. 2006 *Lodge Hill Camp, Caerleon, and the hillforts of Gwent*. Oxford: British Archaeological Report 407

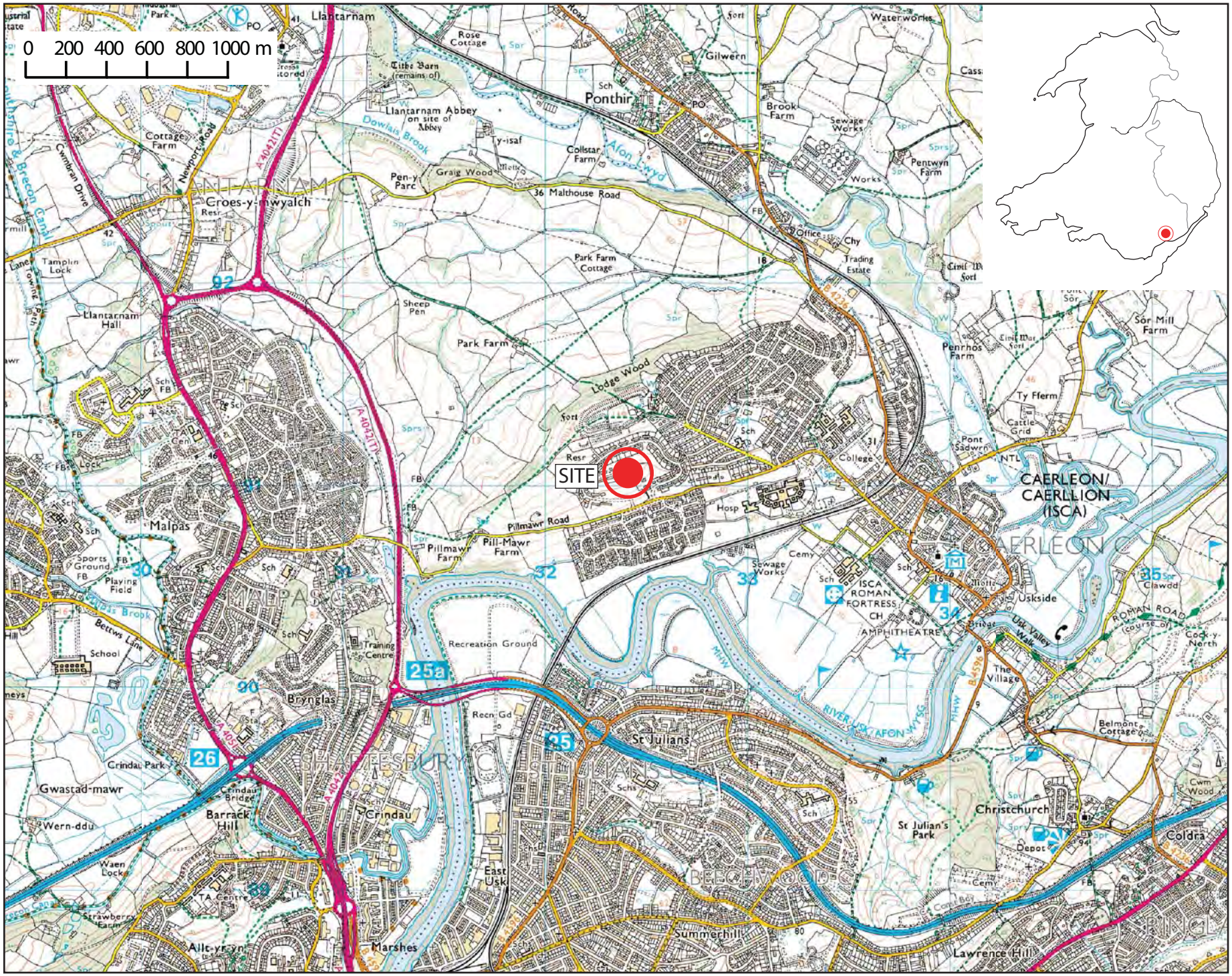

Figure 1: Location map, 1:25,000 @ A4

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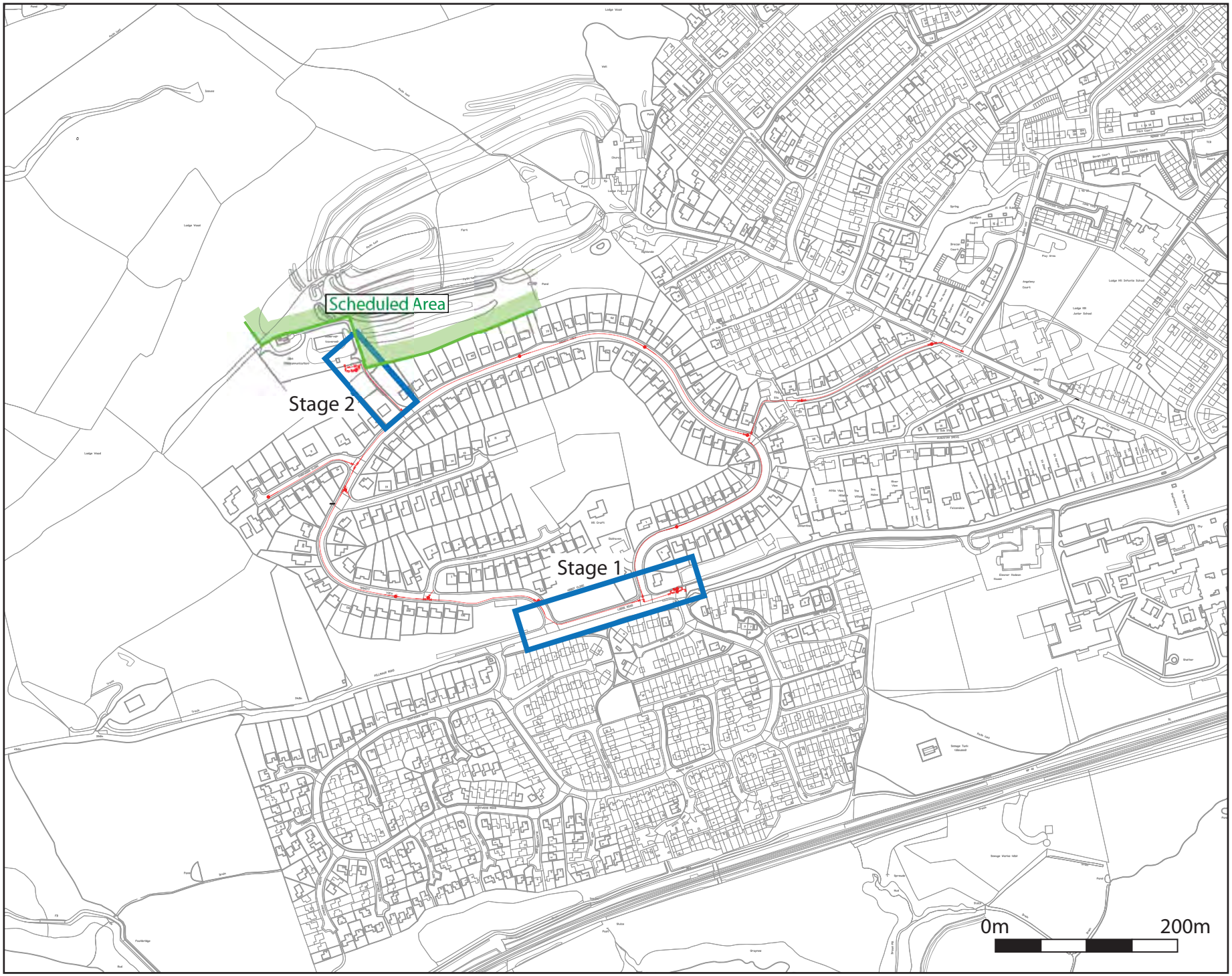

Watermain renewal work

Areas requiring an archaeological watching brief

Limit of Scheduled Area

Figure 2: Development plan, showing areas of archaeological watching brief work.

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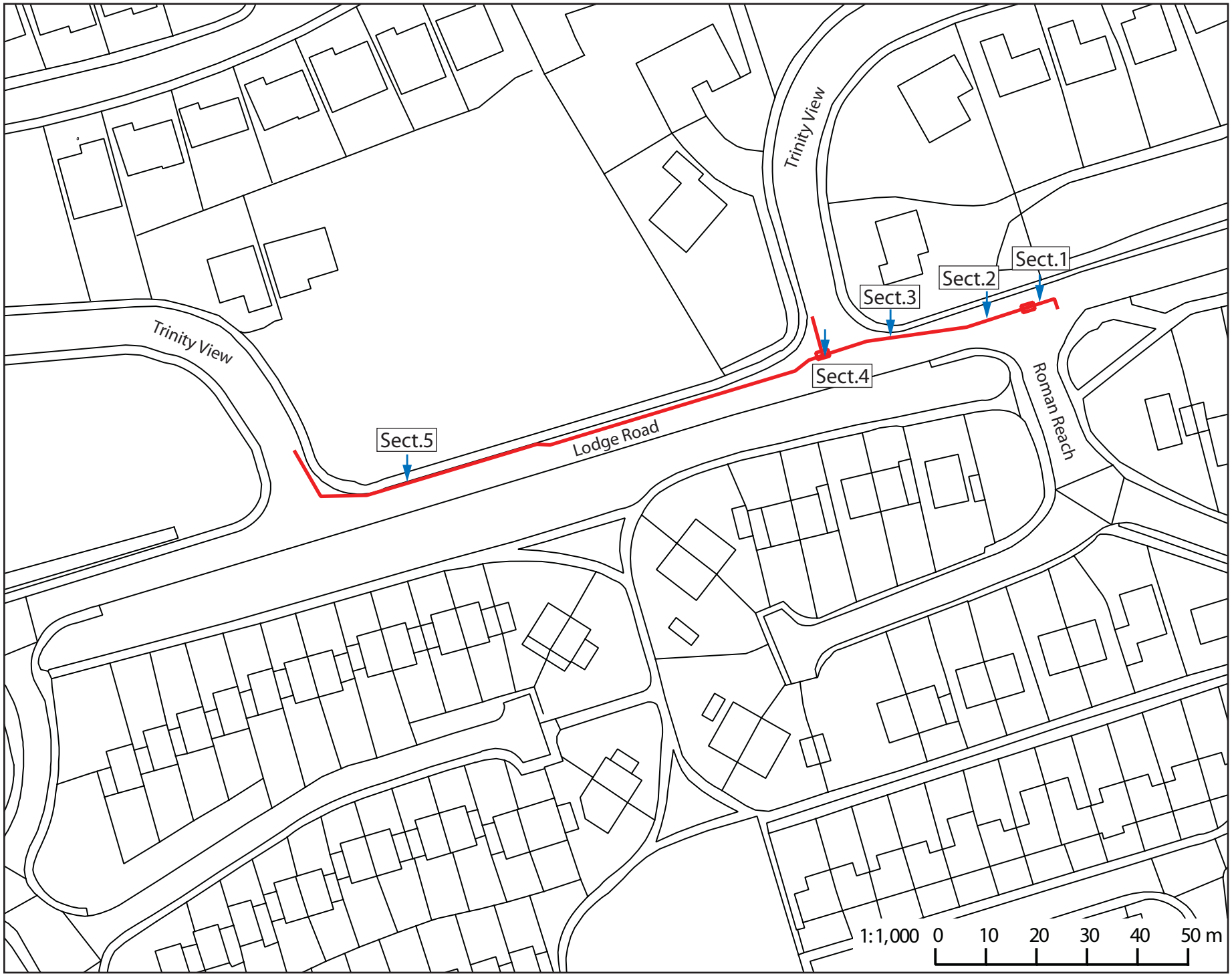

Observed groundworks

Figure 3: Extent of observed Phase 1 groundworks.

1:1000 @ A4

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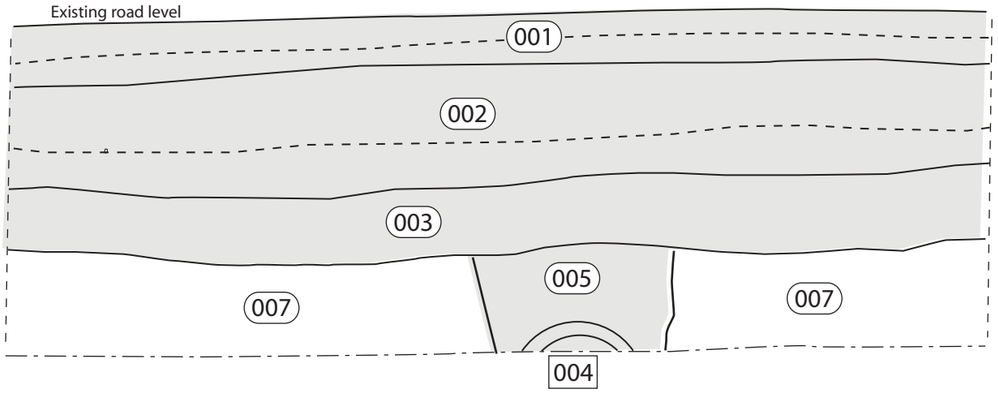
Section 1: North facing



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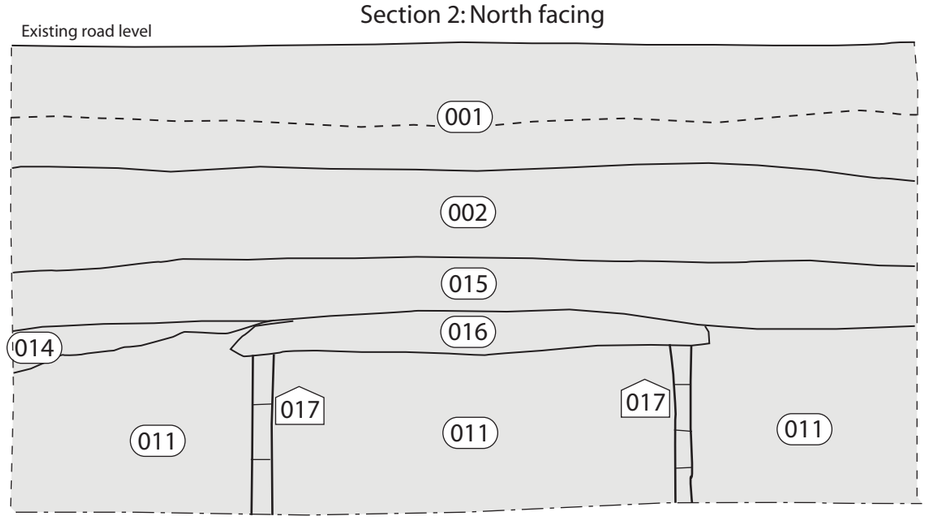
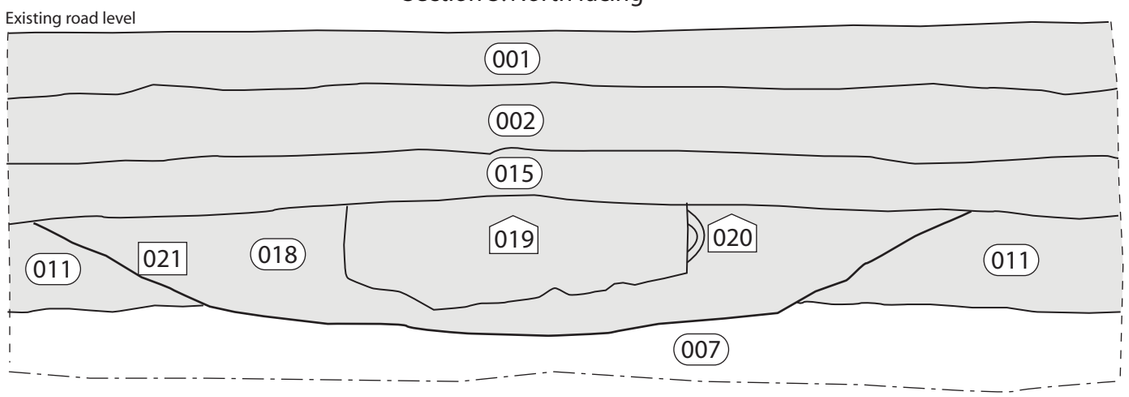
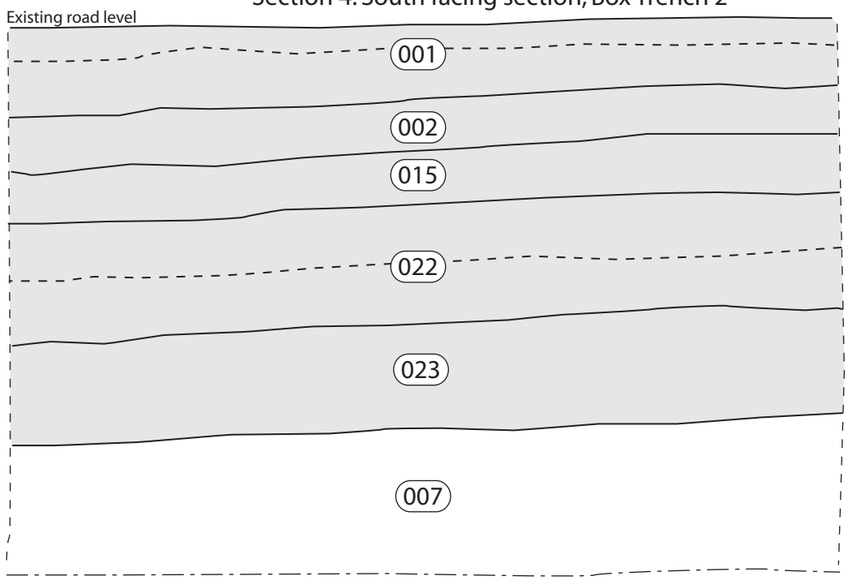


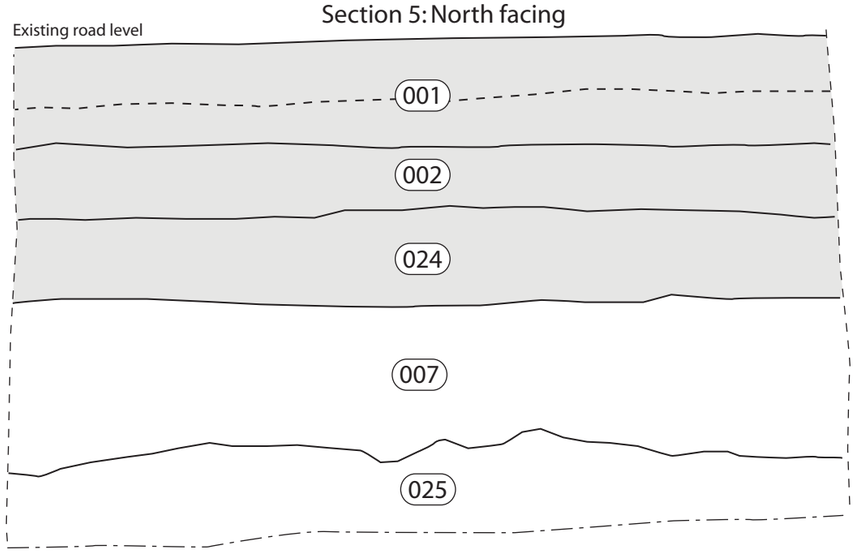
Section 3: North facing



Section 4: South facing section, Box Trench 2



Section 5: North facing



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Modern deposits

Figure 4: Sections from the Phase 1 development works.

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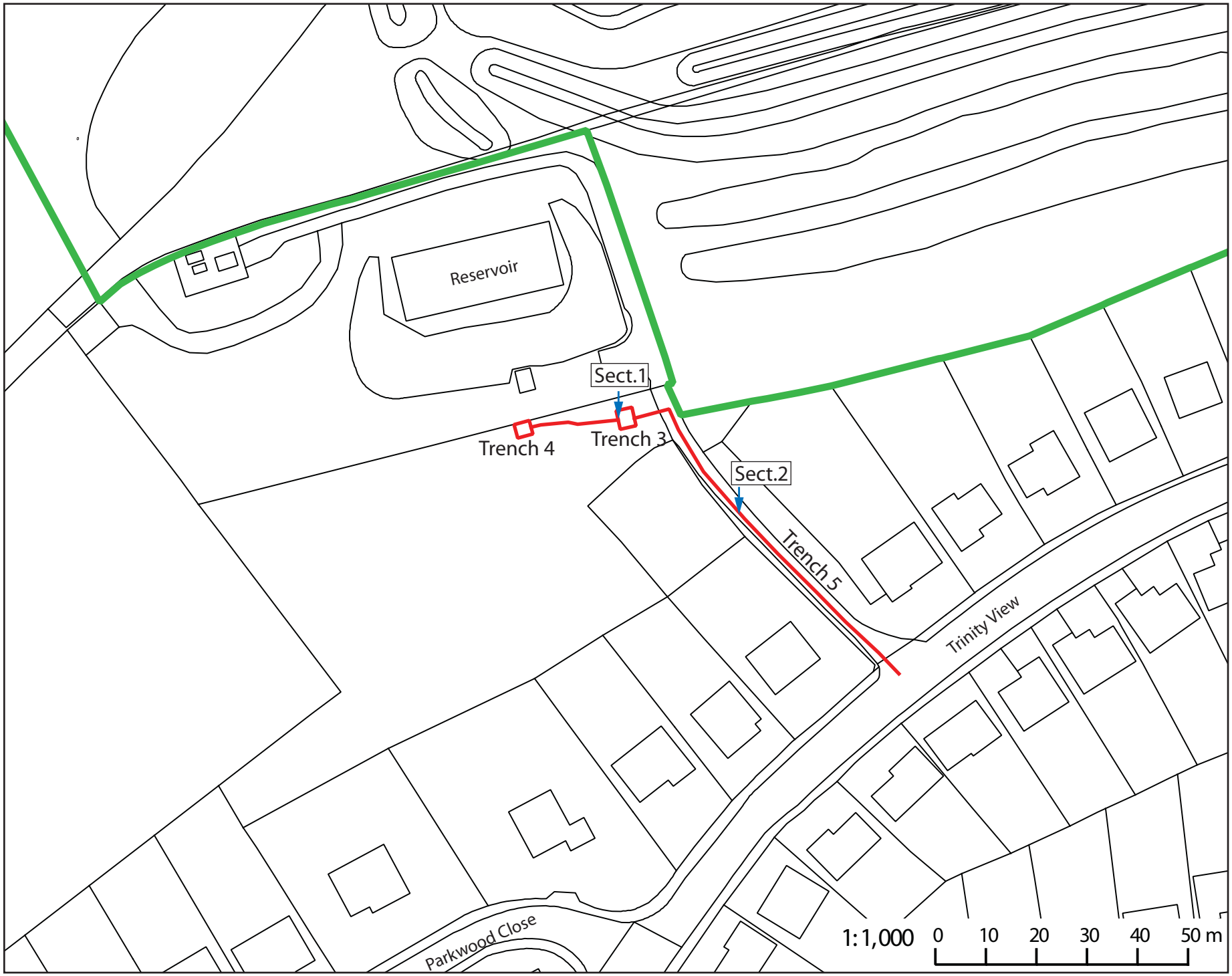

Observed groundworks

Edge of Scheduled Area

Figure 5: Extent of observed Phase 2 groundworks.

1:1000 @ A4

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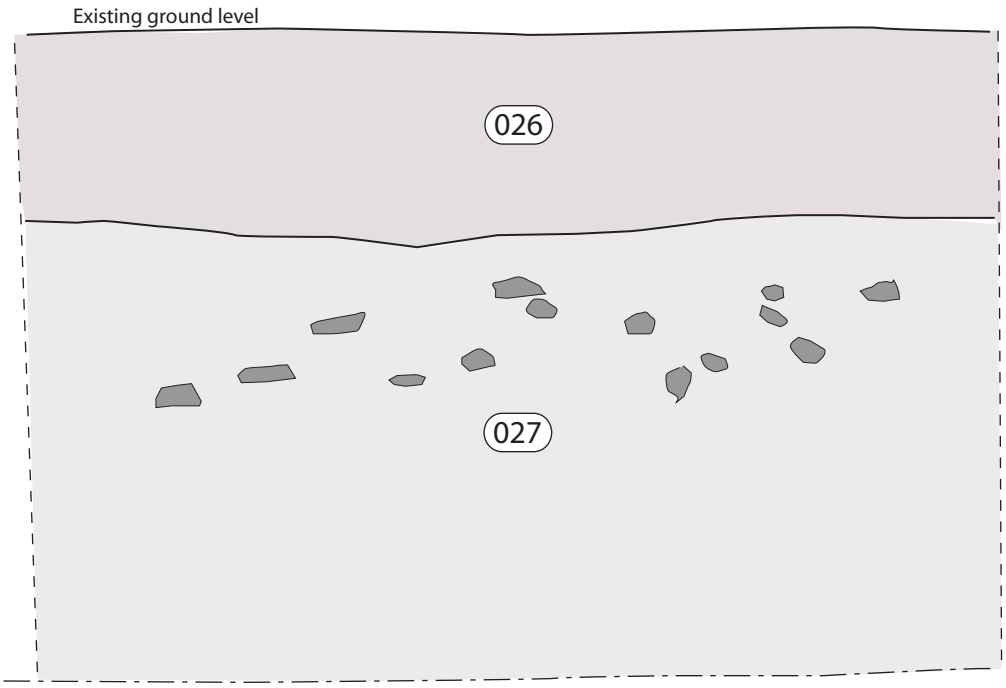
Section 1: Trench 3. Northwest facing



Section 2: Trench 5. East facing

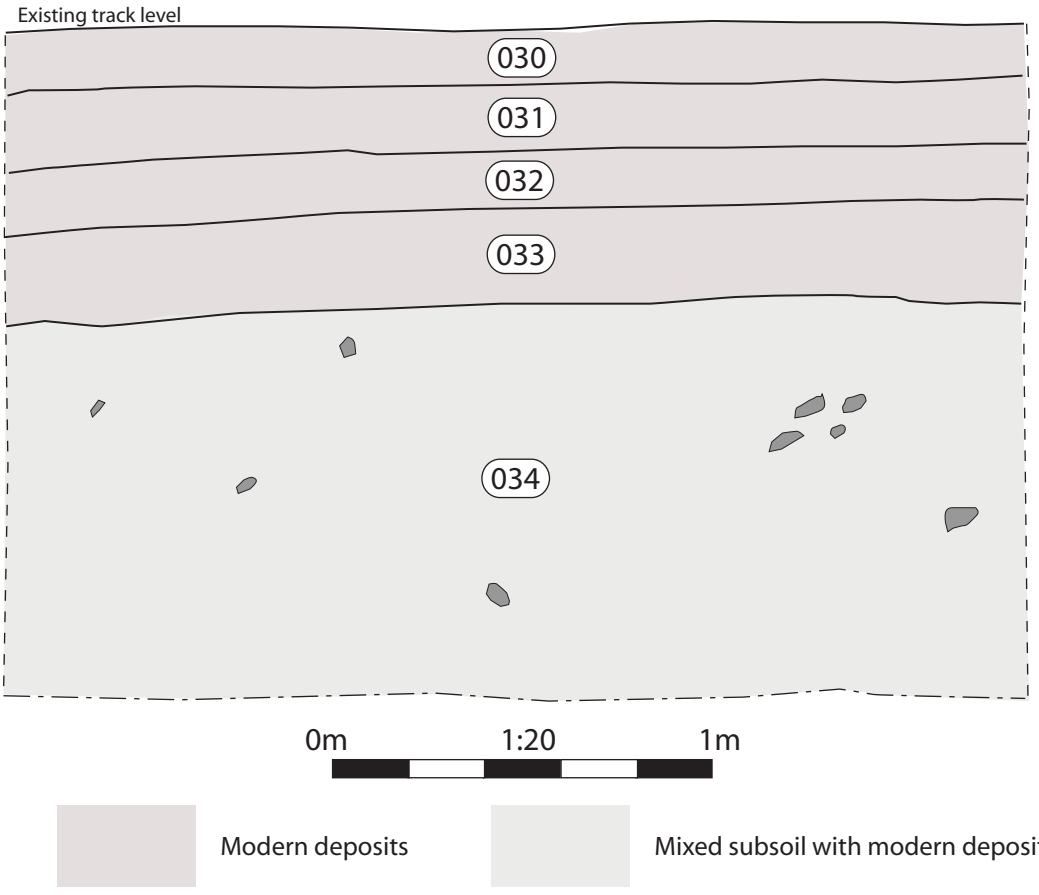


Figure 6: Sections from the Phase 2 development works.

1:20 @ A4

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Photo 1: View west of the excavations along Lodge Road (Phase 1). 1m scale.

Photo 2: View northeast of the excavations along Lodge Road (Phase 1). 1m scale.

Photo 3: View south of section along Lodge Road (Phase 1), showing deposits (007) cut by pipe [004], and including overlying deposits (003), (002) and (001). 1m scale.

Photo 4: View north of section along Lodge Road (Phase I), showing deposits (007), (003), (002) and (001). 1m scale.

Photo 5: View south of section along Lodge Road (Phase 1), showing deposit (007) and overlying modern deposits. 1m scale.

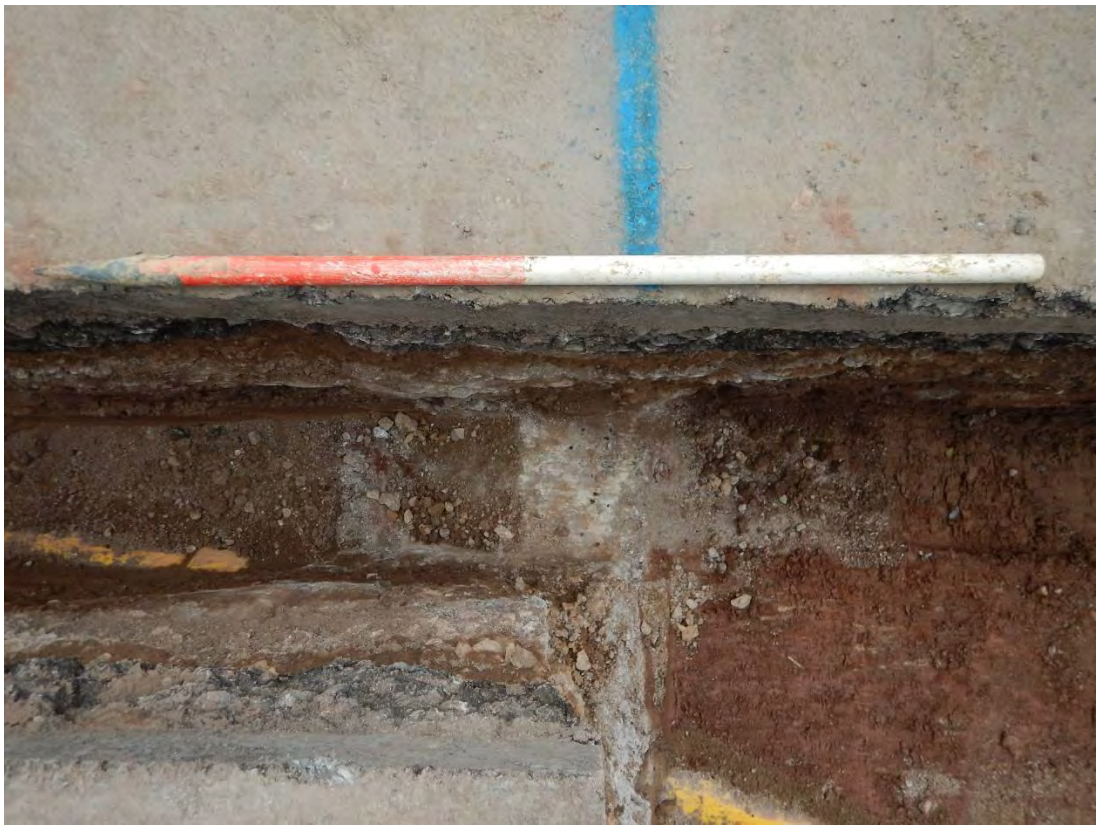

Photo 6: View in plan of concrete linear {009} within the Lodge Road (Phase 1) excavations. 1m scale.

Photo 7: View south of section along Lodge Road (Phase 1), showing marked water pipe (008) and overlying modern deposits. 1m scale.

Photo 8: View in plan of Lodge Road (Phase 1) excavation. 1m scale.

Photo 9: View west of Lodge Road (Phase 1) excavations, showing brick feature {017} and concrete capping {016}.

Photo 10: View north of section of Lodge Road (Phase 1) excavations, Box Trench 2, showing deposits (007) and (023), with overlying modern deposits. 1m scale.

Photo 11: View south of section of the Lodge Road (Phase 1) excavations, showing bedrock deposits (025). 1m scale.

Photo 12: View northwest along the reservoir access track excavations (Phase 2), Trench 5. 1m scale.

Photo 13: View northeast of the excavations adjacent to the reservoir (Phase 2), Trench 3. Showing deposits (026) and (027).

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Photo 15: View northeast of the excavations adjacent to the reservoir (Phase 2). Showing deposits (026) and (034). 1m scale.

Photo 16: View southeast of the excavations adjacent to the reservoir (Phase 2). Showing deposits (026) and (027). 1m scale.

Photo 17: View west of the excavations along the reservoir access track excavations (Phase 2), Trench 5. Showing deposits (030) to (034). 1m scale.

Photo 18: View west of the excavations along the reservoir access track excavations (Phase 2), Trench . Showing deposits (030) to (034). 1m scale.

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APPENDIX I:
Context List

Phase 1 contexts

Context	Description		Depth
001	Layer Tarmac road surface	Very firm tarmac, on concrete and aggregate foundations	175m+ long, 3m wide, 0.3m deep
002	Layer Modern road makeup	Loose, mid orange-pink sand and stone aggregate	175m+ long, 3m+ wide, 0.25m thick
003	Layer Modern road makeup	Loose, mid orange-pink sand Abundant, fine gravel inclusions. Concrete band inclusion	175m long+, 3m wide, 0.11m thick
004	Cut Modern services	Linear NW - SE Steep straight sides. Base not reached Filled by 005	5.8m+ long, 0.35m wide, 0.6m+ deep
005	Fill of 004	Loose, mid yellow-brown sand Contains gas pipe	5.8m+ long, 0.35m wide, 0.6m thick
006	Duplicate of 004	-	-
007	Natural subsoil	Firm, mid red-brown, silty-clay Rare, medium sub-angular stone	11m+ long, 3m+ wide, 0.6m+ thick
008	Modern service	Metal water pipe, no visible cut. Linear, NW-SE Unexcavated	0.5m+ long, 0.2m wide,
009	Structure Fill of 010	Very firm, solid concrete linear Unexcavated	0.5m+ long, 0.75m wide
010	Cut Modern services	Linear, N-S Steep, straight sides, flat base Contains 009	0.5m+ long, 0.75m wide
011	Layer Modern road makeup	Loose, mid brown-pink sandy-stone aggregate	27m+ long, 0.5m+ wide, 0.55m thick
012	Structure Fill of 013	Very firm, solid concrete	0.5m+ long, 1m wide, 0.4m thick
013	Cut Modern services	Linear, NW-SE Vertical straight sides, flat base Contains 009	0.5m+ long, 1m wide, 0.4m thick
014	Layer Modern road makeup	Loose, mid to dark grey sandy-concrete Abundant, medium sub-angular stone inclusions	5m long, 0.5m+ wide, 0.5m thick
015	Tarmac road surface	Firm, tarmac surface	120m long, 0.5m+ wide, 0.15m deep.

016	Layer Capping for 017	Firm, concrete layer	1.25m long, 1.35m wide, 0.25m thick
017	Structure Modern drainage	Brick-built structure. 3 course high Mortar bonding	1.25m+ long, 1.35m wide, 0.25m deep
018	Fill of 020	Firm, dark brown-black silty-clay Contains ceramic drainage pipe	0.5m+ long, 2.8m wide, 0.2m thick
019	Structure Fill of 021	Firm, concrete linear	0.5m+ long, 0.9m wide, 0.25m thick
020	Cut Modern services	Linear, Straight sides Filled by (018)	0.5m+ long.
021	Cut Modern services	Linear, N-S Straight sides. Shallow moderate slope to sides. Filled by (019)	0.5m+ long, 2.8m wide, 0.7m deep
022	Modern road makeup	Firm, mixed dark orange-black aggregate with tar inclusions	1.6m+ long, 0.3m wide, 0.1m thick
023	Layer ? Modern road makeup	Firm, mid red-brown silty-clay Abundant, medium rounded & sub-rounded stone inclusions.	1.2m long+, 0.3m+ wide, 0.25m deep
024	Layer Modern road makeup	Firm, fragmented concrete layer	0.8m long, 0.5m wide, 0.1m thick
025	Bedrock	Very firm, mid pink-grey stone	11m+ long, 0.5m+ wide, 0.3m+ thick

Phase 2 contexts

Context	Description		Depth
026	Topsoil	Firm, mid red-brown clayey-silt Rare, medium sub-angular stone inclusions	0.3m thick
027	Layer Mixed subsoil	Firm, mid red-brown clayey-silt. Rare, large concrete block inclusions Rare, small-medium sub-angular stone inclusions	3m+ long, 2.3m+ wide, 1m+ thick
028	Fill of 029	Contains modern BT pipe and metal water pipes	
029	Cut Modern services	Linear, orientated northeast – southwest. Straight sides in plan. Steep straight slope, flat base Filled by (028)	2.3m+ long, 0.5m+wide, 0.8m deep
030	Tarmac road surface	Firm, tarmac surface	58m long, 2.6m wide, 0.1m thick

031	Layer Modern road makeup	Loose, mid red-brown sandy-silt	55m long, 0.3m+ wide, 0.14m thick
032	Tarmac road surface	Firm, earlier tarmac surface	55m long, 0.3m+ wide, 0.08m thick
033	Layer Modern road makeup	Loose, mid orange-brown sand and chippings	55m long, 0.3m+ wide, 0.14m thick
034	Layer Mixed subsoil	Firm, mid red-brown clayey-silt. Rare, large concrete block inclusions. Common, medium patches of light grey clay inclusions	0.55m long, 0.3m+ wide, 0.6m thick.

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APPENDIX II:
Written Scheme of Investigation

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WRITTEN SCHEME OF INVESTIGATION

FOR AN ARCHAEOLOGICAL WATCHING BRIEF AT TRINITY VIEW, CAERLEON

Prepared for:

O'Connor Utilities Ltd

Project No: 2545

August 2017

REGISTERED CIfA ORGANISATION

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Summary

This Written Scheme of Investigation (WSI) details a programme of archaeological mitigation to be undertaken by Archaeology Wales at the request of O'Connor Utilities Ltd.

The archaeological mitigation will consist of a watching brief, and will be undertaken during ground works associated with the renewal of watermain services at Trinity View, Caerleon centred on ST 32427 91048. The work is being undertaken on behalf of Dŵr Cymru/Welsh Water, reference 4182900.

The site lies adjacent to Lodge Wood Camp (PRN 00597g), an Iron Age hillfort and Scheduled Ancient Monument (MM023) to the north, and alongside the route of a Roman Road (PRN 1016w) to the south. Consequently Glamorgan-Gwent Archaeological Trust – Curatorial Division have recommended an archaeological watching, which forms one of the conditions of the planning permission for the development.

All work will be undertaken in accordance with the standards and guidelines of the Chartered Institute for Archaeologists (2014).

1. Introduction and planning background

This WSI details the methodology for a programme of archaeological mitigation (watching brief) to be undertaken in association with the renewal of watermain services at Trinity View, Caerleon, centred on ST 32427 91048 (Figure 1 and 2). The work is being undertaken on behalf of Dŵr Cymru/Welsh Water, reference 4182900.

The route of the watermain services runs adjacent to the site of Lodge Wood Camp, an Iron Age Hillfort, to the north, and adjacent to the line of a Roman Road to the south. Lodge Wood Camp is an extensive hillfort occupying high ground immediately to the north of Trinity View, and has been designated as a Scheduled Ancient Monument (MM023). To the south Lodge Road/Pillmawr Road is believed to follow the approximate line of a Roman Road (PRN 01016.16w) that runs between Loughor in the west, and Chepstow in the east. It was a Roman custom to bury their dead outside settlement limits alongside such roads, and Roman-era cremation burials and tombstones have been recorded alongside this route in the vicinity.

This WSI has been prepared by Philip Poucher, Project Manager, Archaeology Wales Ltd (henceforth - AW) at the request of O'Connor Utilities Ltd, who are undertaken the groundwork on behalf of Dŵr Cymru/Welsh Water.

The methodology set out in this WSI will be agreed with Glamorgan-Gwent Archaeological Trust – Curatorial Division (GGAT-CD) in its capacity as archaeological advisors to the local planning authority. GGAT-CD has recommended that an

archaeological watching brief be maintained during groundworks associated with the development to mitigate the impact of the proposed development on the archaeological resource.

The recommendations made by GGAT-CD are given in a letter (GGAT reference U2388/SL-J) dated 12th May 2017, which requests that an archaeologist should be present during the proposed work to carry out a watching brief. The areas requiring a watching brief were further refined and identified by GGAT-CD in an email dated 7th August 2017. These areas are illustrated in Figure 2.

The purpose of the archaeological watching brief is to provide the local planning authority with sufficient information regarding the nature of archaeological remains on the site of the development, the requirements for which are set out in Planning Policy (revised edition 9, 2016), Section 6.5 and Technical Advice Note (TAN) 24: The Historic Environment (2017). The work is to ensure that all buried artefacts and deposits are fully investigated and recorded if they are disturbed or revealed as a result of activities associated with the development.

All work will be undertaken to the standards and guidance set by the Chartered Institute for Archaeologists (2014). AW is a Registered Organisation with the CIfA.

2. Site Description

The site lies in Trinity View, a residential development on the west side of Caerleon, to the north of Newport in Southeast Wales, centred on ST 32427 91048.

The planned watermain services run throughout the modern street layout of Trinity View, lined on all sides by modern residential development. The development occupies south-facing slopes on ground that falls from approximately 85mOD to 35mOD. These slopes form the northern side of the Usk valley, just before it turns south to enter the Bristol Channel. The river itself lies *circa* 500m to the south. The centre of Caerleon lies some 1.3km to the southeast, the centre of Newport lies just over 3km to the south.

The underlying geology comprises interbedded sandstone and argillaceous rocks of the Maughans Formation, with sandstone outcropping along the ridge top to the north.

3. Archaeological background

To the north lies Lodge Wood Camp, an Iron Age Hillfort. This extensive hillfort occupies high ground immediately to the north of Trinity View, defended by a series of well-preserved banks and ditches with a main entrance and inner enclosure at the eastern end, and further defences at the eastern end now occupied by Lodge Farm, an 18th century grade II Listed farmhouse. The south side of the hillfort is defended

by a series of up to three well-preserved banks and ditches. Excavation in 2000 indicated that this hillfort was established in the 5th century BC and continued, albeit not continuously, in use into the later Roman period in the 4th century AD.

South of this the land slopes away, along which lies the route of a Roman Road, running roughly east to west between Chepstow and Loughor, and also accessing the major legionary fortress and settlement of Isca, established in Caerleon during the Roman era. During this period it was customary for burials to take place outside the town limits alongside the main roads. Remains of cremation burials have been uncovered at Hillside Lodge (PRN11357g) and the Abbeyfield site (PRN04501g) on Lodge Road to the east, with tombstones and monuments (PRN00547g), as well as a mosaic surface (PRN04433g) uncovered in proximity to the road to the south.

Trinity View residential estate was established on the sloping ground between the hillfort and the road in the later 20th century, with additions alongside Lodge Road added in the last 10 years.

4. Objectives

This WSI sets out a program of works to ensure that the watching brief will meet the standard required by The Chartered Institute for Archaeologist's *Standard and Guidance for Archaeological Watching Briefs (2014)*.

The objective of the watching brief will be:

- to allow a rapid investigation and recording of any archaeological features that are uncovered during the proposed groundworks within the application area.
- to provide the opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief are not sufficient to support the treatment to a satisfactory or proper standard.

A written report will be compiled following the fieldwork. Sufficient desk-top research will be undertaken to ensure that the results of this work are properly understood, interpreted and reported.

The report will include a comprehensive assessment of the historic context within which the archaeological evidence rests and will aim to highlight any relevant research issues within regional, national and, if relevant, international research frameworks.

5. Timetable of works

5.1. Fieldwork

The programme of mitigation will be undertaken during ground works associated with the proposed development. The work is proposed to start imminently in August 2017, upon approval of an appropriate WSI.

5.2. Report delivery

The report will be submitted to O'Connor Utilities Ltd and to GGAT-CD within three months of the completion of the fieldwork. A copy of the report will also be sent to the regional HER.

6. Fieldwork

6.1. Detail

The work will be undertaken to meet the standard required by The Chartered Institute for Archaeologist's Standard and Guidance for Watching Briefs (2014).

The Watching Brief will be carried out by a suitably qualified archaeologist on groundworks associated with the renewal of watermain services (cutting of the service trench) where sub-surface deposits are likely to be exposed or cut into. The watching brief will be undertaken on areas of archaeological potential highlighted by GGAT-CD (Figure 2). These comprise the route up the access track to the reservoir adjacent to Lodge Wood Camp in the north, and work alongside and in proximity to Lodge Road to the south.

The site archaeologist will also ensure that no associated groundworks are undertaken within the limits of the Scheduled Area of Lodge Wood Camp (MM023), as illustrated on Figure 2.

The mechanical excavation will be undertaken by a machine using a toothless ditching bucket wherever possible, however it is acknowledged that the bulk of the excavations will be carried out through compacted modern deposits, likely to require the use of a toothed bucket.

The site archaeologist undertaking the watching brief will be afforded the required access by the main contractor in order to observe and where necessary to record any archaeological remains revealed. Groundwork will not be undertaken without the presence of the site archaeologist. The site archaeologist will record finds and less significant archaeological deposits and features without significant delay to the work program.

Where significant or complex archaeological deposits or features are encountered there will be a requirement for those areas to be fenced off and highlighted to all contractors employed on the site. Machines or contractors shall not enter this area until archaeological recording has been completed. If significant archaeological features are revealed during the work a meeting between O'Connor Utilities Ltd, GGAT-CD and AW will be called at the earliest convenience.

To comply with professional guidelines, a contingency for a maximum of three days' uninterrupted access to each such area and for a team of up to two further archaeologists to be employed should be provided. Contingency costs will be agreed in advance before any extension to the programme commences and will follow a site meeting between Archaeology Wales, O'Connor Utilities Ltd and GGAT-CD.

6.2. Recording

Recording will be carried out using AW recording systems (pro-forma context sheets etc) using a continuous number sequence for all contexts.

Plans and sections will be drawn to a scale of 1:50, 1:20 and 1:10 as required and related to Ordnance Survey datum and published boundaries where appropriate.

All features identified will be tied in to the OS survey grid and fixed to local topographical boundaries.

Photographs will be taken in digital format with an appropriate scale, using a 12MP camera with photographs stored in Tiff format.

The archaeologist undertaking the watching brief will have access to the AW metal detector and be trained in its use.

6.3. Finds

The professional standards set in the Chartered Institute for Archaeologists' *Standard and guidance for the collection, documentation, conservation and research of archaeological (2014)* will form the basis of finds collection, processing and recording.

All manner of finds regardless of category and date will be retained.

Finds recovered that are regarded as Treasure under *The Treasure Act 1996* will be reported to HM Coroner for the local area.

Any finds which are considered to be in need of immediate conservation will be referred to a UKIC qualified conservator (normally Phil Parkes at Cardiff University).

6.4. Environmental sampling strategy

Deposits with a significant potential for the preservation of palaeoenvironmental material will be sampled, by means of the most appropriate method (bulk, column etc). Where sampling will provide a significant contribution to the understanding of the site AW will draw up a site-specific sampling strategy alongside a specialist environmental archaeologist. All environmental sampling and recording and will follow English Heritage's *Guidelines for Environmental Archaeology* (2002).

6.5. Human remains

In the event that human remains are encountered, their nature and extent will be established and the coroner informed. All human remains will be left *in situ* and protected during backfilling. Where preservation *in situ* is not possible the human remains will be fully recorded and removed under conditions that comply with all current legislation and include acquisition of licenses and provision for reburial following all analytical work. Human remains will be excavated in accordance with the Chartered Institute for Archaeologist's *Excavation and Post-Excavation Treatment of Cremated and Inhumed Human Remains: Technical Paper Number 13* (1993).

A meeting with GGAT-CD, O'Connor Utilities Ltd and AW will be called if the human remains uncovered are of such complexity or significance that the contingency arrangement (6.1 above) would not be of sufficient scope.

6.6. Specialist advisers

In the event of certain finds, features or sites being discovered, AW will seek specialist opinion and advice. A list of specialists is given in the table below although this list is not exhaustive.

Artefact type	Specialist
Flint	Kate Pitt (Archaeology Wales)
Animal bone	Richard Madgwick (Cardiff University)
CBM, heat affected clay, Daub etc.	Rachael Hall (APS)
Clay pipe	Hilary Major (Freelance)
Glass	Rowena Hart (Archaeology Wales)
Cremated and non-cremated human bone	Malin Holst (University of York)/Richard Madgwick (Cardiff University)
Metalwork	Kevin Leahy (University of Leicester)/ Quita Mold (Freelance)
Metal work and metallurgical residues	Dr Tim Young (GeoArch)
Neo/BA pottery	Dr Alex Gibson (Bradford University)
IA/Roman pottery	Jane Timby (Freelance)
Roman Pottery	Rowena Hart (Archaeology Wales)/ Peter Webster (Freelance)

Post Roman pottery	Stephen Clarke (Monmouthshire Archaeology)
Charcoal (wood ID)	John Carrot (Freelance)
Waterlogged wood	Nigel Nayling (University of Wales – Lampeter)
Molluscs and pollen	Dr James Rackham
Charred and waterlogged plant remains	Wendy Carruthers (Freelance)

6.6.1. Specialist reports

Specialist finds and palaeoenvironmental reports will be written by AW specialists, or sub-contracted to external specialists when required.

7. Monitoring

GGAT-CD will be contacted approximately five days prior to the commencement of archaeological site works, and subsequently once the work is underway.

Any changes to the WSI that AW may wish to make after approval will be communicated to GGAT-CD for approval on behalf of Planning Authority.

Representatives of GGAT-CD will be given access to the site so that they may monitor the progress of the field work. No area containing significant archaeological remains will be back-filled, until GGAT-CD has had the opportunity to inspect it, unless permission has been given in advance. GGAT-CD will be kept regularly informed about developments, both during the site works and subsequently during post-excavation.

8. Post-fieldwork programme

8.1. Archive assessment

8.1.1. Site archive

An ordered and integrated site archive will be prepared in accordance with: Management of Research Projects in the Historic Environment (MoRPHE) (Historic England 2006) upon completion of the project.

The site archive (including artefacts and samples) will be will be prepared in accordance with the National Monuments Record (Wales) agreed structure and deposited with an appropriate receiving organisation, in compliance with CIfA Guidelines (*Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives'*, 2014). The legal landowners consent will be gained for deposition of finds.

8.1.2. Analysis

Following a rapid review of the potential of the site archive, a programme of analysis and reporting will be undertaken. This will result in the following inclusions in the final report:

- Non-technical summary
- Location plan showing the area/s covered by the watching brief, all artefacts, structures and features found
- Plan and section drawings (if features are encountered) with ground level, ordnance datum and vertical and horizontal scales.
- Written description and interpretation of all deposits identified, including their character, function, potential dating and relationship to adjacent features. Specialist descriptions and illustrations of all artefacts and soil samples will be included as appropriate.
- An indication of the potential of archaeological deposits which have not been disturbed by the development
- A discussion of the local, regional and national context of the remains by means of reviewing published reports, unpublished reports, historical maps, documents from local archives and the regional HER as appropriate.
- A detailed archive list at the rear listing all contexts recorded, all samples finds and find types, drawings and photographs taken. This will include a statement of the intent to deposit, and location of deposition, of the archive.

8.2. Reports and archive deposition

8.2.1. Report to client

Copies of all reports associated with the watching brief, together with inclusion of supporting evidence in appendices as appropriate, including photographs and illustrations, will be submitted to O'Connor Utilities Ltd and GGAT-CD upon completion.

8.2.2. Additional reports

After an appropriate period has elapsed, copies of all reports will be deposited with the relevant county Historical Environment Record, the National Monuments Record and, if appropriate, Cadw.

8.2.3. Summary reports for publication

Short archaeological reports will be submitted for publication in relevant journals; as a minimum, a report will be submitted to the annual publication of the regional CBA group or equivalent journal.

8.2.4. Notification of important remains

Where it is considered that remains have been revealed that may satisfy the criteria for statutory protection, AW will submit preliminary notification of the remains to Cadw.

8.2.5. Archive deposition

The final archive (site and research) will, whenever appropriate, be deposited with a suitable receiving institution, usually the relevant Local Authority museums service. Arrangements will be made with the receiving institution before work starts.

Although there may be a period during which client confidentiality will need to be maintained, copies of all reports and the final archive will be deposited no later than six months after completion of the work.

Copies of all reports, the digital archive and an archive index will be deposited with the *National Monuments Record*, RCAHMW, Aberystwyth.

Wherever the archive is deposited, this information will be relayed to the HER. A summary of the contents of the archive will be supplied to GGAT-CD.

8.2.6. Finds deposition

The finds, including artefacts and ecofacts, excepting those which may be subject to the Treasure Act, will be deposited with the same institution, subject to the agreement of the legal land owners.

9. Staff

The project will be managed by Philip Poucher (AW Project Manager) and the fieldwork undertaken by Dan Moore (Archaeology Wales). Any alteration to staffing before or during the work will be brought to the attention of GGAT-CD and O'Connor Utilities Ltd.

Additional Considerations

10. Health and Safety

10.1. Risk assessment

Prior to the commencement of work AW will carry out and produce a formal Health and Safety Risk Assessment in accordance with *The Management of Health and Safety Regulations* 1992. A copy of the risk assessment will be kept on site and be available for inspection on request. A copy will be sent to the client (or their agent as necessary) for their information. All members of AW staff will adhere to the content of this document.

10.2. Other guidelines

AW will adhere to best practice with regard to Health and Safety in Archaeology as set out in the FAME (Federation of Archaeological Managers and Employers) health and safety manual *Health and Safety in Field Archaeology (2002)*.

11. Insurance

AW is fully insured for this type of work, and holds Insurance with Aviva Insurance Ltd and Hiscox Insurance Company Limited through Towergate Insurance. Full details of these and other relevant policies can be supplied on request.

12. Quality Control

12.1. Professional standards

AW works to the standards and guidance provided by the *Chartered Institute for Archaeologists*. AW fully recognise and endorse the Chartered Institute for Archaeologists' *Code of Conduct*, *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* and the *Standard and Guidance for archaeological watching briefs* currently in force. All employees of AW, whether corporate members of the Chartered Institute for Archaeologists or not, are expected to adhere to these Codes and Standards during their employment.

12.2. Project tracking

The designated AW manager will monitor all projects in order to ensure that agreed targets are met without reduction in quality of service.

13. Arbitration

Disputes or differences arising in relation to this work shall be referred for a decision in accordance with the Rules of the Chartered Institute of Arbitrators' *Arbitration Scheme for the Institute for Archaeologists* applying at the date of the agreement.

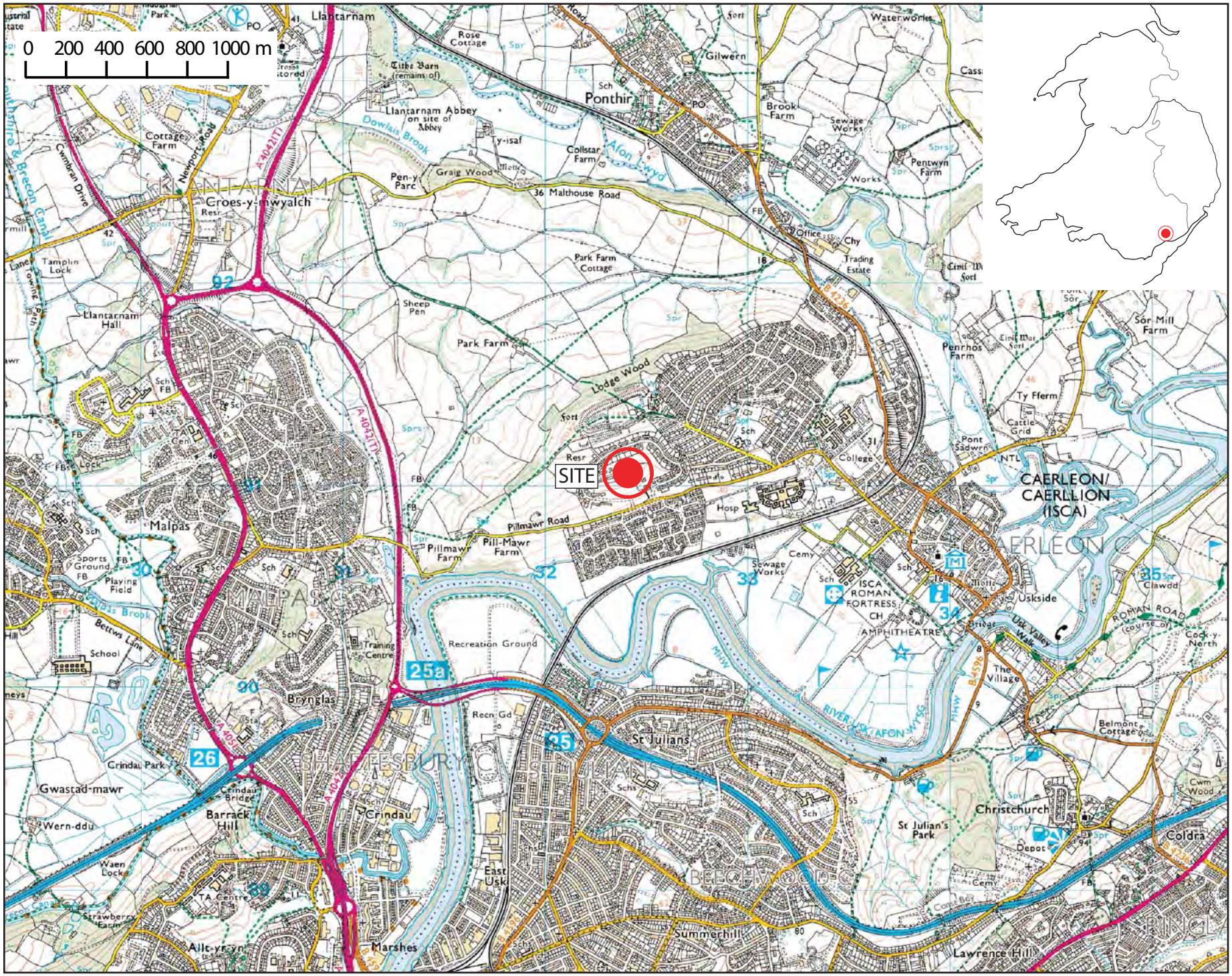
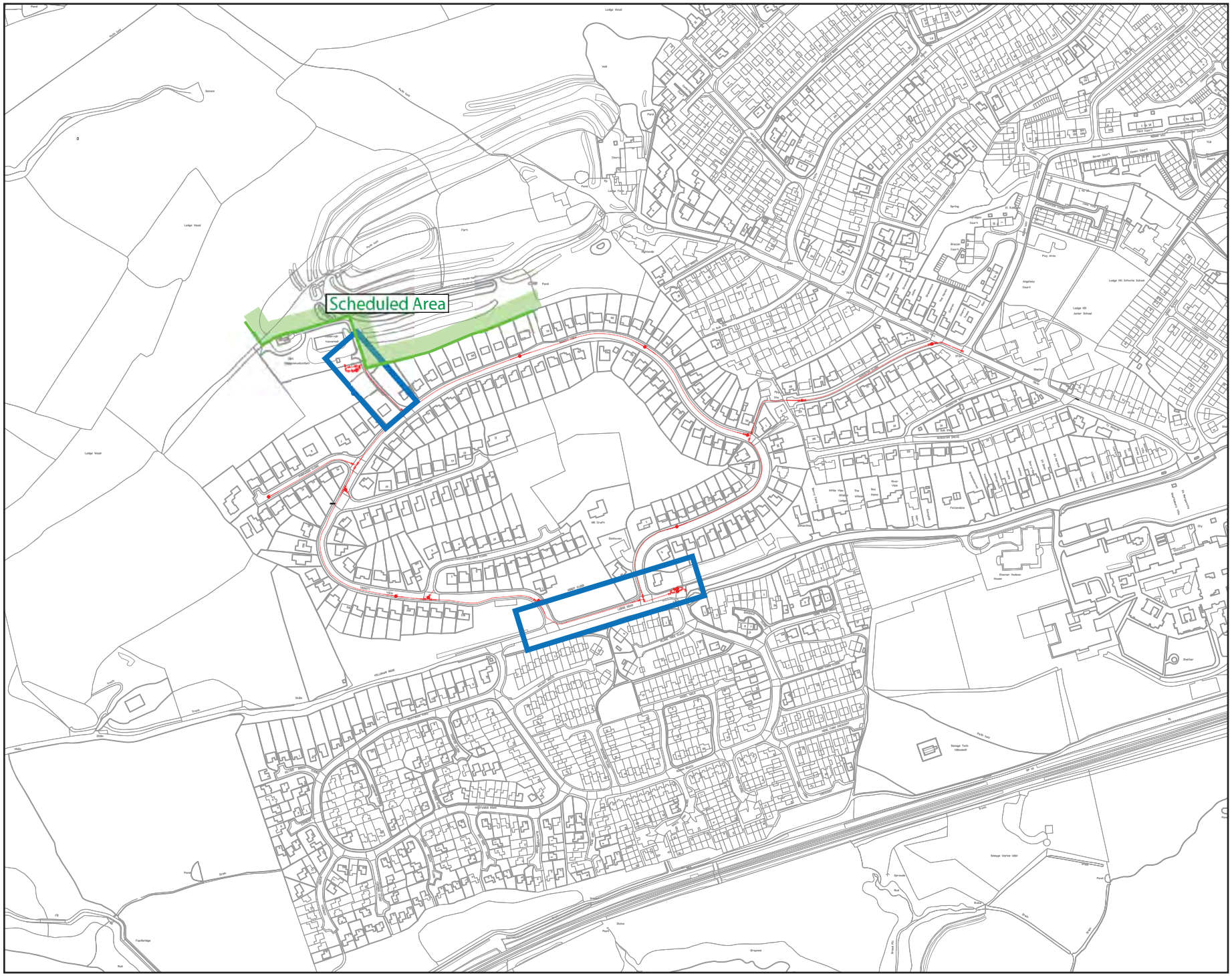


Figure 1: Location map, 1:25,000 @ A4

ARCHAEOLOGY WALES
Revealing the past, informing the future



Watermain renewal work

Areas requiring an archaeological watching brief

Limit of Scheduled Area

Figure 2: Development plan, showing areas of archaeological watching brief work.

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APPENDIX III:
Archive Cover Sheet

ARCHIVE COVER SHEET

Trinity View, Caerleon, Newport

Site Name:	Trinity View, Caerleon
Site Code:	TVC/17/WB
PRN:	597g, 9430g, 1016.16w
NPRN:	93396
SAM:	MM023
Other Ref No:	-
NGR:	NGR ST 32427 91048
Site Type:	Dwr Cymru service trench excavations
Project Type:	Watching Brief
Project Manager:	Philip Poucher
Project Dates:	August 2017 - January 2018
Categories Present:	Modern
Location of Original Archive:	AW
Location of duplicate Archives:	RCAHMW, Aberystwyth
Number of Finds Boxes:	-
Location of Finds:	-
Museum Reference:	-
Copyright:	AW
Restrictions to access:	None

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