

Archaeology Wales

King's Gatehouse, Caernarfon Castle

Archaeological Evaluation



By
Philip Poucher

Report No. 1191




Archaeology Wales Limited,
Rhos Helyg, Cwm Belan,
Llanidloes, Powys SY18 6QF
Tel: +44 (0) 1686 440371
E-mail: admin@arch-wales.co.uk

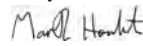
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Prepared For:
Cadw

Edited by: Mark Houliston
Signed: 
Position: Managing Director
Date: 24/2/14

Authorised by: Mark Houliston
Signed: 
Position: Managing Director
Date: 24/2/14

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E-mail: admin@arch-wales.co.uk

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Summary

In October and November 2013 Archaeology Wales Ltd (AW) carried out a trial trench evaluation within the entrance passageway of the King's Gatehouse, Caernarfon Castle, hereafter 'the site'. The investigation was commissioned by Cadw to investigate the archaeological resource and allow an assessment of the impact of a proposed new visitor centre.

The evaluation of the proposed development site comprised the excavation of three hand-excavated trial trenches in pre-determined locations. The trenches were located within the entrance passageway, two along the western side of the passageway, and one on the eastern side where the passageway opened out into the castle interior. Caernarfon Castle is a World Heritage Site and Scheduled Ancient Monument, open to the public and under the care of Cadw. It is described as one of the finest examples of late 13th and early 14th century military architecture in Europe.

Within the passageway, the upper 0.25m to 0.40m comprises modern material. Possible medieval deposits, consisting of likely levelling layers, occur below this. It appears the original medieval floor levels have been removed. Immediately outside the passageway, potential medieval surfaces survive at shallower depths, approximately 0.2m below current ground levels. However, these deposits have been heavily truncated and are likely to survive only in fragmentary 'islands' between service trenches.

The planned raft foundation design for the new visitor centre extends to depths of 0.9m below current ground levels, clearly impacting on potential medieval deposits. The deposits in the areas investigated, however, are heavily truncated and likely to be of limited archaeological value. It is suggested that an archaeological watching brief may provide adequate recording of these deposits during any future ground disturbance works below a depth of 0.2m.

1 Introduction

This report has been prepared by Archaeology Wales Ltd (AW) in response to a request by Cadw to undertake an archaeological evaluation at the King's Gatehouse, Caernarfon Castle (NGR SH 477 627, Fig. 1).

A scheme has been devised to replace and upgrade the visitor ticketing and arrival arrangements within the King's Gatehouse. This involves the removal of the existing ticket booth and its replacement with a new, larger structure. The draft foundation design for the new visitor centre consists of a raft foundation, extending to a depth of 0.9m below the present ground surface. Existing services will be re-located to run through a conduit located in the centre of the foundation raft.

Caernarfon castle is a World Heritage Site, described as one of the finest examples of late 13th and early 14th century military architecture in Europe (UNESCO/CLT/WHC). It is also a Scheduled Ancient Monument under the care of Cadw and open to the public. The castle itself survives in remarkably good condition, and there exists extensive and detailed contemporary technical, social and economic documentation associated with the castle. In order to reduce

the impact of the proposed development on any archaeological remains and to inform the proposed foundation design Cadw commissioned AW to undertake an archaeological evaluation to determine the depth, location and state of preservation of archaeological remains across the site of the proposed new visitor centre.

The evaluation consisted of three trial trenches, which were placed in pre-determined locations within the footprint of the new foundations. There were used to locate and describe archaeological features and thereby assess the potential for archaeological remains elsewhere within the development area. The aims of the work were to elucidate the presence or absence of archaeological material, its character, distribution, extent, condition and relative significance within the area of the proposed development process, and to obtain sufficient information about the archaeological resource to inform the foundation design.

The excavations took place between 27th October and the 5th November 2013. The work was carried out under the supervision of Andrew Shobbrook and under the management of Chris Smith.

All work conformed to the IFA's Standards and Guidance for Archaeological Field Evaluation (IfA 1994, revised 2008 with updates Nov 2013).

2 Site description

Caernarfon castle lies in the centre of Caernarfon at SH 477 627. It sits at the mouth of the Afon Seiont as it enters the Menai Strait. The castle itself is an imposing Edwardian castle, open to the public, and in the care of Cadw. The evaluation took place within the entrance passageway of the King's Gatehouse (Fig.2), the main entrance to the castle, which lies on its northern side, facing the former walled medieval town, with access via bridges from Castle Ditch (the street name) across the former castle ditch.

The entrance passageway runs between the two octagonal stone towers of the King's Gatehouse. Along the western side of the passageway, the wall continues, encompassing the Prison Tower behind the western gatehouse tower. On the eastern side, behind the eastern gatehouse tower, steps lead up into the castle interior. The floor currently comprises modern paving and cobbles; on these sit the existing ticketing booth.

3 Historical Background

Edward I chose Caernarfon as the capital of his new principality in 1283. The polygonal towers, which distinguish Caernarfon from other Edwardian castles, were probably inspired by the imperial walls of Constantinople. James of St George was no doubt the architect, as he was Master of the Kings Works in Wales at the time, with overall responsibility for a vast building programme. The plan of the castle resembles an hourglass, with a narrow middle separating the two wards. Straight lengths of curtain connect the seven main flanking towers and two gatehouses. Work began on Edward's castle (previous fortifications had stood on the site) in 1283. A slackening of expenditure from 1288 suggests that the ambitious building project had been put on hold with the majority of the north wall, including the King's Gatehouse, not standing much above foundation level. Shortly after Madog ap Llywelyn's 1294 rebellion, in which the half-built castle was damaged, building work began again in earnest. By the time of Edward's death in 1307 the castle was broadly defensible. Work on the northern wall, including

the King's Gate, lasted from approximately 1296 to 1323. The King's gate is much the larger of the two gatehouses. Its shallow, polygonal, towers flank a tall drawbridge recess, crowned by a much-weathered statue of Edward II in a decorative niche. The archway leads into a gate passage, which was defended by a drawbridge, a pair of gates and three portcullises. However, the existing passage is only half its intended length. The rear portion of the gatehouse was never built, except for the porter's lodge on the west side. Foundations stretching towards the Chamberlain Tower suggest that the gatehouse was originally planned to fill the narrow middle of the castle, dividing it in two. Had it been completed, the gate passage would have led into a central hallway, with further passages leading left and right into the upper and lower wards. A simplified version of this can be seen at Denbigh castle (Pettifer, 2000).

4 Methodology

Prior to the evaluation taking place, a Brief for Archaeological Evaluation was provided by Dr Kate Roberts of Cadw, and a Specification for the archaeological evaluation was drawn up by AW.

The aim of the evaluation is to investigate the archaeological potential of the gateway passage and to evaluate the suitability of the proposed foundation design.

The objectives of the archaeological evaluation were to:

- Identify the date and nature of features within the area to be affected by the new scheme
- Assess survival, quality, condition and relative significance of any archaeological features, deposits and structures within the evaluation area
- Produce a record of the features
- Facilitate a geotechnical investigation and ensure that it is carried out without adverse impact on archaeological features.

The results of the evaluation are to be used to assess the impact of the proposed visitor ticketing facility on the archaeological resource and, where appropriate, will provide adequate information to identify the scale and scope of necessary mitigation as part of the final design. This may include the protection of areas of surviving archaeological remains through full excavation and recording, or through sympathetic design and preservation engineering.

Three evaluation trenches were excavated. The suggested locations were provided within the brief supplied by Cadw. Trench 1 was located at the northern end of the passageway against the western tower wall. Trench 2 was located against the same wall, 1.5m further south, in front of an opening into the western tower of the gatehouse. Constraints, namely the need to maintain public access to the castle through the gatehouse passageway, and the location of existing services, meant that the location of Trench 3 had to be slightly altered. It was moved further to the south, towards, and on the eastern side of, the southern end of the entrance passageway. All trench locations were approved by Cadw prior to the excavations taking place.

Overlying cobbles and paving were removed by a Cadw appointed groundworks contractor prior to the start of works. The trenches were excavated by hand. All areas were hand

cleaned using pointing trowels to prove the presence, or absence, of archaeological features and to determine their significance. A representative sample of exposed archaeological deposits and features was sampled through excavation in order to elucidate the character, distribution, extent, date and importance of the archaeological remains.

The evaluation was intended to excavate to the maximum depth of disturbance required for the introduction of the structural raft, in sufficient locations to enable a mitigation strategy to be developed. The maximum depth required for this was 0.9m below current ground levels. In practise, due to the presence of modern services, this depth was only achievable in small areas.

Recording was carried out using Archaeology Wales recording systems (pro-forma context sheets etc), using a continuous number sequence for all contexts. Written, drawn and photographic records of an appropriate level of detail were maintained throughout the course of the project. Digital photographs were taken (in RAW format) using cameras with resolutions of 14 mega pixels or above. Plans and sections were drawn to a scale of 1:20 and 1:10 as required.

5 Results

5.1 Trench 1 (Figs 4 & 5, photos 1 – 8)

Trench 1 was located just to the north of the existing ticket booth, close to the street entrance to the castle. The trench was excavated against the western inner wall of the gatehouse. The trench measured 1.2m by 1.2m and was excavated to a maximum depth of 1.2m within a sondage along its northern edge.

The area was initially covered in a layer of modern cobbling (1000) 0.1m thick. Below the cobbles the trench was traversed by three iron pipes, the remains of modern services, all running in NNW – SSE direction. The existence of these pipes limited the area available to fully investigate. All three pipes were laid within deposit (1001) of blackish-brown sandy-silt that contained some post-medieval pottery, but was clearly of a modern date associated with the service pipes. This deposit was found throughout the trench, up to 0.2m thick. Below this was a relatively thin layer (1002) of light reddish-brown silty-sandy clay containing frequent fragments of mortar. This deposit, which also spread throughout the trench, was at most 0.12m thick. All three deposits appear to be modern in date.

Below this was a relatively thick layer of light brownish-grey silty-sand (1003), containing frequent small sub-angular sandstone and the occasional charcoal flecks. A fragment of an iron nail was also recovered from this deposit. This deposit was seen throughout the trench, occurring initially at depths of between 0.25m and 0.35m below the current ground surface and measured up to 0.47m thick in places. The fragment of iron nail could not be dated closely, but this deposit may be medieval. Underlying this was a light yellow sandy-mortar mix (1004) with possible metallurgy, suggesting it may represent a working surface.

Due to space restrictions, excavation largely stopped at this layer (0.7m to 0.8m below current ground levels), but a sondage 0.3m to 0.4m wide was excavated against the northern side of the trench. This revealed that the possible surface represented by layer 1004 was only 0.05m thick, with a slight eastwards slope. Underlying this was a thick deposit of mid to dark brown sandy-silt (1005) with frequent inclusions of small to medium sub-rounded cobbles spread throughout the deposit, along with the occasional charcoal flecks.

Up to 0.5m of this deposit was excavated (to a depth of 1.2m below current ground levels), but the base of the deposit was not reached. No finds were recovered.

All of the above deposits were built up against the face of the western gatehouse wall. The foundations of this wall were stepped out. The first step occurred at a depth of 0.33m below current ground levels, stepping out 0.12m. The second step occurred at a depth of 0.6m below current ground levels, and stepped out a further 0.09m. The wall continued below the levels reached during the excavation.

5.2 Trench 2 (Figs. 5 & 6, photos 9 – 17)

Trench 2 was also located against the western inner wall of the gatehouse, immediately to the south of the current ticket booth and placed partially in front of an entrance into the western gatehouse tower. The trench measured 1.6m by 1.8m and was excavated to a maximum depth of 0.6m. This trench was also heavily disturbed by modern service pipes. Several pipes crossed the trench in a north-south direction along the entrance passageway, but also in an east – west direction into the entranceway of the western tower. These pipes were largely contained within modern upper deposits. However, the southern edge of the trench was truncated by a modern service trench, up to 0.8m wide in places, running in an east-west direction through the entranceway and into the western tower. Areas of solid concrete, up to 0.3m wide, that could not be removed by hand, also obscured much of the eastern edge of the trench.

This area was overlain by modern cobbling set within cement (2000), which was 0.16m thick in places. Underlying this was a modern deposit of dark brown sandy-silt (2001), this contained fragments of mortar, brick and post-medieval pottery. This deposit was encountered across the trench, at its deepest (0.16m) against the northern edge of the trench. This deposit was considered to be a continuation of deposit 1001, as encountered in Trench 1, and contained most of the pipework. Underlying this was a thin deposit (2002) of light reddish-brown silty-clay containing fragments of mortar. This was a thin deposit, at most 0.06m thick, seen throughout the trench and considered to be a continuation of deposit 1002, as seen in Trench 1.

Underlying this was deposit 2003, a light brownish-grey silty-sand containing frequent small sub-angular stones. This deposit appears similar to deposit 1003 seen in Trench 1, and may represent the start of the medieval sequence. It is possible this deposit may be part of levelling or foundation layers associated with a now-truncated medieval floor. However, although clearly rough, it may in fact relate to the floor surface itself and overlie some of the stepped foundations in the adjacent wall. It was encountered at a depth of 0.25m below current ground levels.

The western wall of the gatehouse in this area was similar in construction to that revealed within Trench 1. This trench was located partly in front of the entrance to a passageway within the wall. However, the foundations immediately in front of the entranceway were obscured by modern service truncations. Immediately to the north of the entranceway, below a portcullis groove in the wall above ground, the foundations of the wall stepped outwards. The portcullis groove stopped at an initial step, 0.1m below the current ground levels. In front of the portcullis groove and passageway opening, this step was c.0.35m wide, as measured from the horizontal face of the groove and opening, but as both the entrance

and the portcullis groove were set back into the wall, this step projected only 0.06m from the main face of the wall. The subsequent foundation step was 0.2m below current ground levels and protruded 0.2m outwards, extending along the face of the wall beyond the northern edge of the entrance passage. The next step was a further 0.19m down, protruding between 0.16m and 0.23m out, getting wider to the south as it approached the entrance passageway. The final recorded step was another 0.22m down, protruding between 0.17m and 0.23m out. It is possible these foundations formed steps that led up into the entrance passageway in the western wall. However, modern disturbances prevented this relationship from being established.

5.3 Trench 3 (Figs 5 & 6, photos 18 – 25)

Trench 3 was located at the southern end of the entrance passageway, towards its eastern side. It was located a short distance to the south of the eastern tower of the King's Gatehouse. The trench measured 1.76m north-south by 2.4m east-west, and was excavated to a maximum depth of 1.04m in a sondage along its northern edge. Again this trench was heavily truncated by modern services. A water main trench cut through much of the western part of the trench, and other service trenches cut diagonally across the eastern part of the trench, leaving only small 'island' of potential archaeological deposits. A sondage was cut across the northern edge of the trench in order to understand these deposits in section.

The whole trench was overlaid by modern stone slab flooring and its associated levelling deposit, all given one context number (3000), which was typically 0.1m thick. Underlying this was a 0.13m thick deposit of dark brown sandy-silty-clay (3001). This too appeared to be a modern levelling deposit, although it was truncated by the numerous 20th century service trenches that crossed the area.

Somewhat isolated on the western side of the trench were the possible structural remains of a wall or fragmentary surface (3011). This deposit was revealed relatively close to the surface, although it appears to have been covered by a thin layer (part of 3001). It was truncated both to the east and west by modern service trenches, leaving a strip 0.28m wide and 0.9m long (north-south). Along its western side ran a line of four, large, relatively flat stones, with a smoothed or worn surface. Each stone was around 0.2m across. These stones appear to have been set into a jumbled bed of smaller sub-angular stone. The occasional angled stone along the eastern side suggests similar large stones may have been dislodged or removed by the excavation of the adjacent service trench (modern cut 3006). There is no indication of mortar amongst the stones, suggesting it represented possible clay bedding material for the structure. No finds were recovered from, or associated with, this feature. The feature was left *in situ*.

On the eastern side of the modern service trench 3006, and at a similar level to structural remains 3011, was a small area of possible metallised surfacing (3002), consisting of small to medium sub-rounded stones set in a compact deposit of mid orange-brown silty-clay. A triangular area measuring 0.55m by 0.6m was revealed in plan, truncated on all sides by modern service trenches. This area was left *in situ*, however, a continuation of the same deposit was revealed in the section of the sondage excavated against the northern edge of the trench. This showed the deposit occurring at a depth of 0.22m below current ground levels, and 0.16m thick. No finds were recovered from this deposit. Below this possible metallised surface was a bedding layer (3003) of light reddish-brown sandy-silt with frequent

flecks of charcoal. This deposit was at most 0.08m thick. Again no finds were recovered from this deposit.

Underlying this was a 0.5m thick deposit (3004) of blackish-grey silty clay, containing large amounts of mortar and charcoal fragments, along with animal bone and molluscs, and the occasional small fragment of unidentifiable slag.

Underlying this deposit, although only seen in patches to the east of modern service trench 3006, was a layer of light grey silty-clay (3005) containing flecks of mortar.

6 Conclusions and Impact Assessment

An archaeological evaluation, consisting of three small trial trenches, was undertaken within the entrance passageway of the King's Gatehouse, Caernarfon Castle, ahead of the proposed redevelopment of a visitor centre. The purpose of the evaluation was to identify the date and nature of any archaeological features present and to assess the survival, quality, condition and significance of those features. This would allow an assessment to be made of the impact of the proposed visitor centre on the archaeological resource.

Work began on the construction of Caernarfon Castle in 1283, although previous fortifications had stood on the site. By 1288, it appears that the King's Gatehouse still did not stand much above foundation level. Building work, however, began again in earnest after 1294, with work on the northern wall, including the King's Gatehouse, lasting from approximately 1296 to 1323. The passageway within the gatehouse was defended by a drawbridge, a pair of gates and three portcullises. The passageway was originally intended to be longer, but the rear portion of the gatehouse, except for the porter's lodge on the west side, was never built. Had it been completed, the passage would have lead into a central hallway, dividing the castle in two.

Evaluation trench 1 was located against the western wall of the passageway, close to the outer entrance. Trench 2 was also located against the western wall, partially in front of an entrance to the porter's lodge. Trench 3 was located on the eastern side of the passageway, just beyond the eastern gatehouse tower in the interior of the castle.

All three trenches revealed a large degree of modern disturbance in the upper deposits. Modern layers were present in all three trenches to a depth of at least 0.2m below current ground levels. These extended up to 0.4m below ground levels in Trenches 1 and 2. Deeper service trenches were noted in Trench 2, truncating deposits in front of the Porter's lodge entrance, and within Trench 3, where the base of a service trench was recorded up to 0.8m below current ground levels. Services were clearly recorded running both along the western and eastern edge of the passageway, into the castle grounds, and into the side passages. In all three trenches these services restricted the areas available for excavation.

Within Trench 1, deposit 1003 was encountered at a depth of 0.25m below current ground levels. As no modern or post-medieval material was recovered, it may represent a medieval deposit. The deposit is likely to be relatively extensive, as it appears to represent a continuation of deposit 2003, which was found in Trench 2. Within Trench 2 it was recorded at a shallowest depth, 0.25m below current ground level, but again no dateable finds were recovered. This deposit was between 0.47m and 0.6m thick. Its function is unclear, but it may represent a levelling deposit for a floor surface. If it is medieval, then the contemporary

floor has clearly been truncated. This is also indicated by the base of the portcullis groove in the wall adjacent to Trench 2. The base of this groove was 0.1m below current ground level. Therefore, it appears likely that the medieval floor level extended outwards from this level, approximately level with the upper step in the wall foundations. If this is the case, then the original floor has clearly been removed, as modern deposits were recorded to a depth of at least 0.25m below the current ground surface. Underlying deposits revealed in Trench 1 (1004 & 1005) also appear to represent general infilling and levelling deposits. These deposits were revealed to a depth of at least 1.2m below current ground levels within Trench 1; the base of the deposits was not reached. No dateable material was recovered.

Within Trench 3, possible surface and/or wall features were recorded, which may be of archaeological interest, at depths of around 0.2m below the current ground levels. Feature 3011 may be the fragmentary remains of a wall, although the wear on the stone suggests it is more likely to be a surface. A similarly fragmentary area of a possibly metallised surface (3002) was also recorded at the same level. A series of possible levelling deposits and construction debris lay underneath this. No dateable finds were recovered, so these surfaces and deposits could potentially be medieval in date.

To summarise, within the passageway the upper 0.25m consists of modern material, and generally these modern deposits extend up to 0.4m below current ground levels. Possible medieval deposits, consisting of likely levelling material, occur below this. It appears the original medieval floor levels have been removed. The underlying levelling deposits may, therefore, be of limited archaeological interest. These are heavily disturbed by modern services.

Immediately outside the passageway, potential medieval surfaces may survive at shallower depths, approximately 0.2m below current ground levels. However, here too, these deposits have clearly been heavily truncated and are likely to survive only in fragmentary 'islands' between service trenches.

The planned raft foundation design extends to a depth of 0.9m below the current ground level. This depth will clearly impact on the possible medieval levelling deposits seen within the entrance passageway, and the possible fragmentary surface remains located at the southern end of the passage as it open out into the castle interior. These possible medieval deposits, however, appear to be both heavily disturbed by modern intrusions and potentially of limited archaeological value. It is suggested, therefore, that they could be recorded during an archaeological watching brief, to be undertaken during ground disturbance associated with the proposed construction works, where these take place below a depth of 0.2m.

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Photo 1: North facing shot of Trench 1, showing restricted excavation conditions.



Photo 2: West facing shot of Trench 1 pre-excavation.



Photo 3: South facing section of Trench 1, showing the stepped wall foundations on the left, potential medieval deposits in the lower c.0.5m, and modern services. 1m scale.



Photo 4: South facing section of Trench 1 under different lighting conditions. 1m scale.



Photo 5: North facing section of Trench 1, slightly blurred due to lighting conditions. 1m scale.



Photo 6: North facing section of Trench 1 under different lighting conditions.



Photo 7: West facing shot of the stepped foundations of the western wall of the King's Gatehouse. 1m scale.



Photo 8: West facing shot of the western wall under different lighting conditions. 1m scale.



Photo 9: West facing pre-excitation shot of Trench 2. The portcullis groove and the opening can be seen in the rear wall.



Photo 10: Northwest facing shot of Trench 2 under excavation, showing restricted excavation area.



Photo 11: South facing section of Trench 2. 1m scale.



Photo 12: South facing section of Trench 2 under different lighting conditions.



Photo 13: North facing section of Trench 2. 1m scale in 0.5m segments.



Photo 14: North facing section of Trench 2 under different lighting conditions. 1m scale.



Photo 15: North facing section of Trench 2 under different lighting conditions.



Photo 16: Plan shot, facing east, of the stepped foundation of the western wall. The northern edge of the portcullis groove (arrow) is indicated. 1m scale.



Photo 17: West facing shot of the area of modern disturbance at the southern end of Trench 2. 1m scale.



Photo 18: North facing of Trench 3 pre-excitation. 1m scale.



Photo 19: Working shot of Trench 3, facing southeast.



Photo 20: West facing shot of Trench 3 showing modern services. 1m scale.



Photo 21: North facing shot of Trench 3, showing structure 3011 to the left and possible surface 3002 on the right. 1m scale.



Photo 22: West facing shot of Trench 3 showing structure 3011 at the top and possible surface 3002 at the bottom. 1m scale.



Photo 23: South facing sondage section in Trench 3, showing cut of modern services 3006. 1m scale.

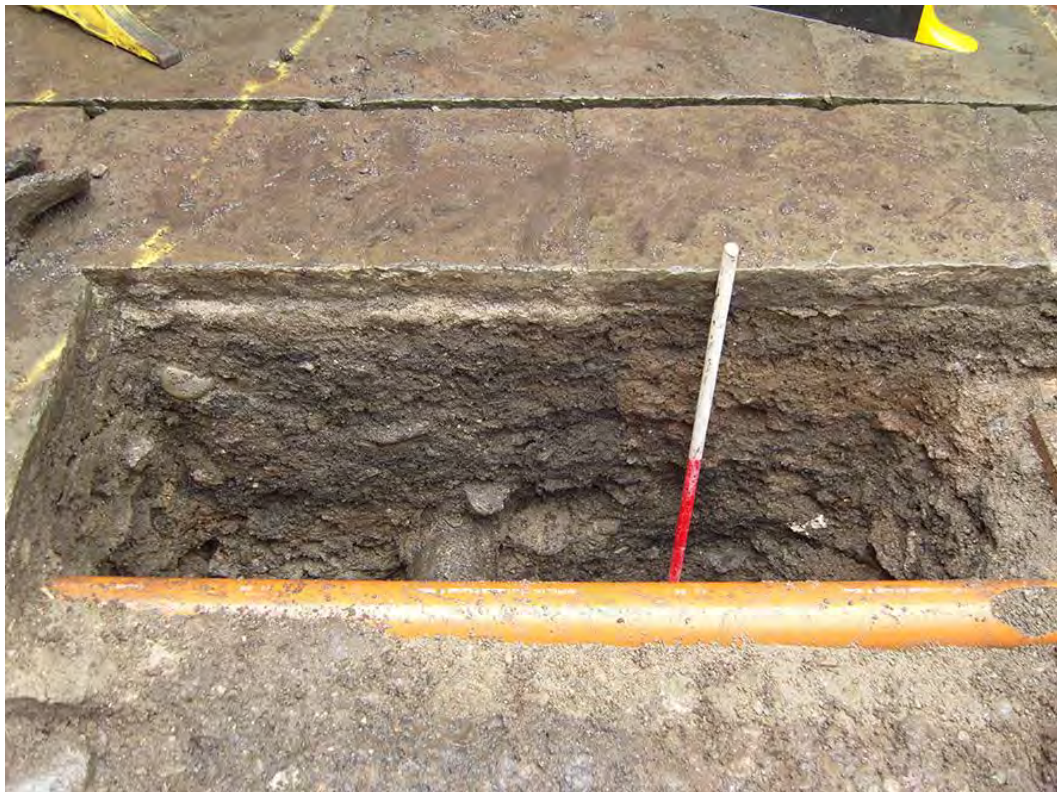


Photo 24: South facing sondage section in Trench 3. 1m scale.



Photo 25: Oblique shot of south facing sondage section in Trench 3. 1m scale.

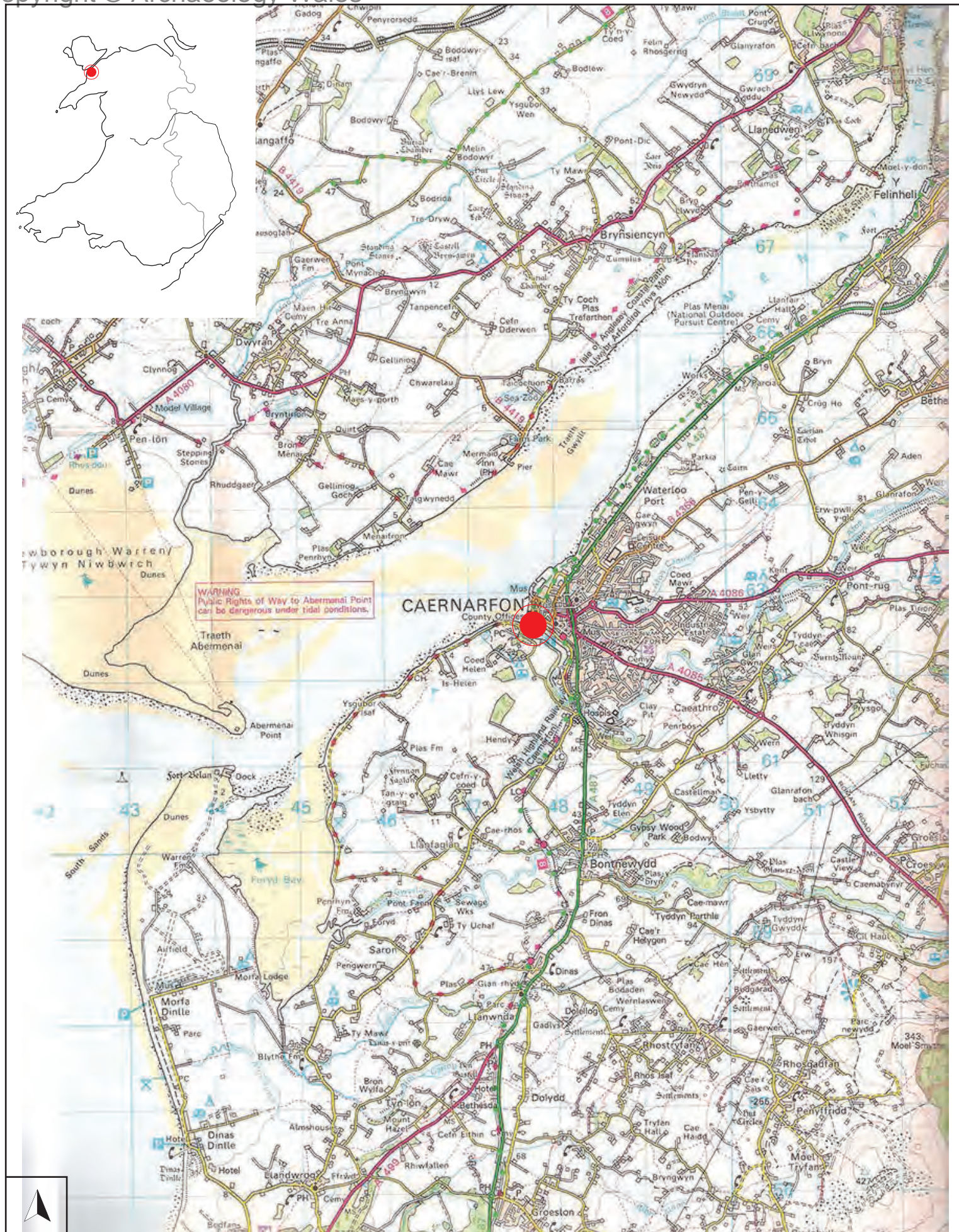


Fig. 1: Location map, based on the Ordnance Survey 1:50,000 map.

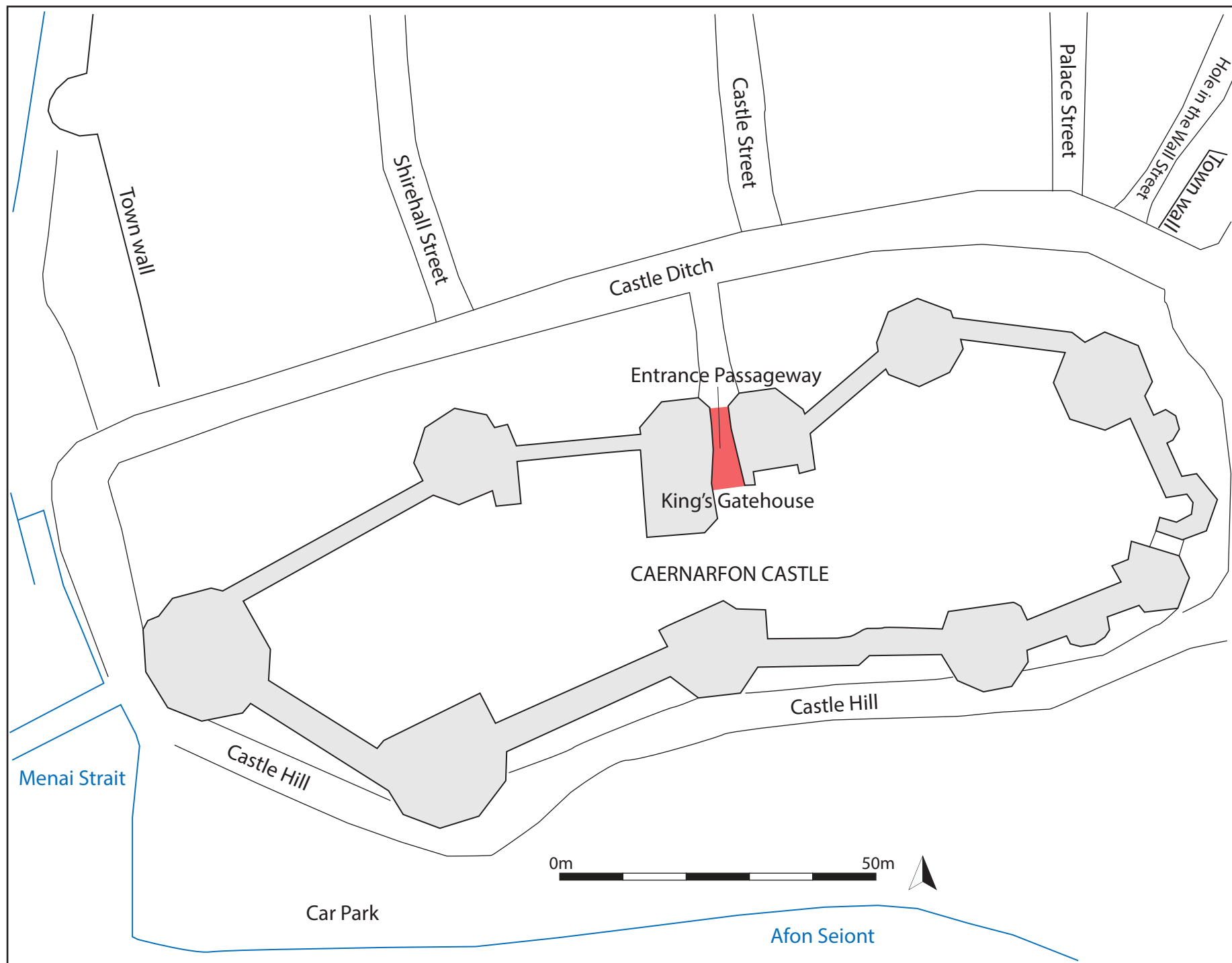


Fig. 2: Site location plan



Fig. 3: Trench location plan.

Based on a survey by Tower Surveys, provided by Donald Insall Associates Ltd. Job CCVF.01, No.2002.
Dated 15.10.2013.

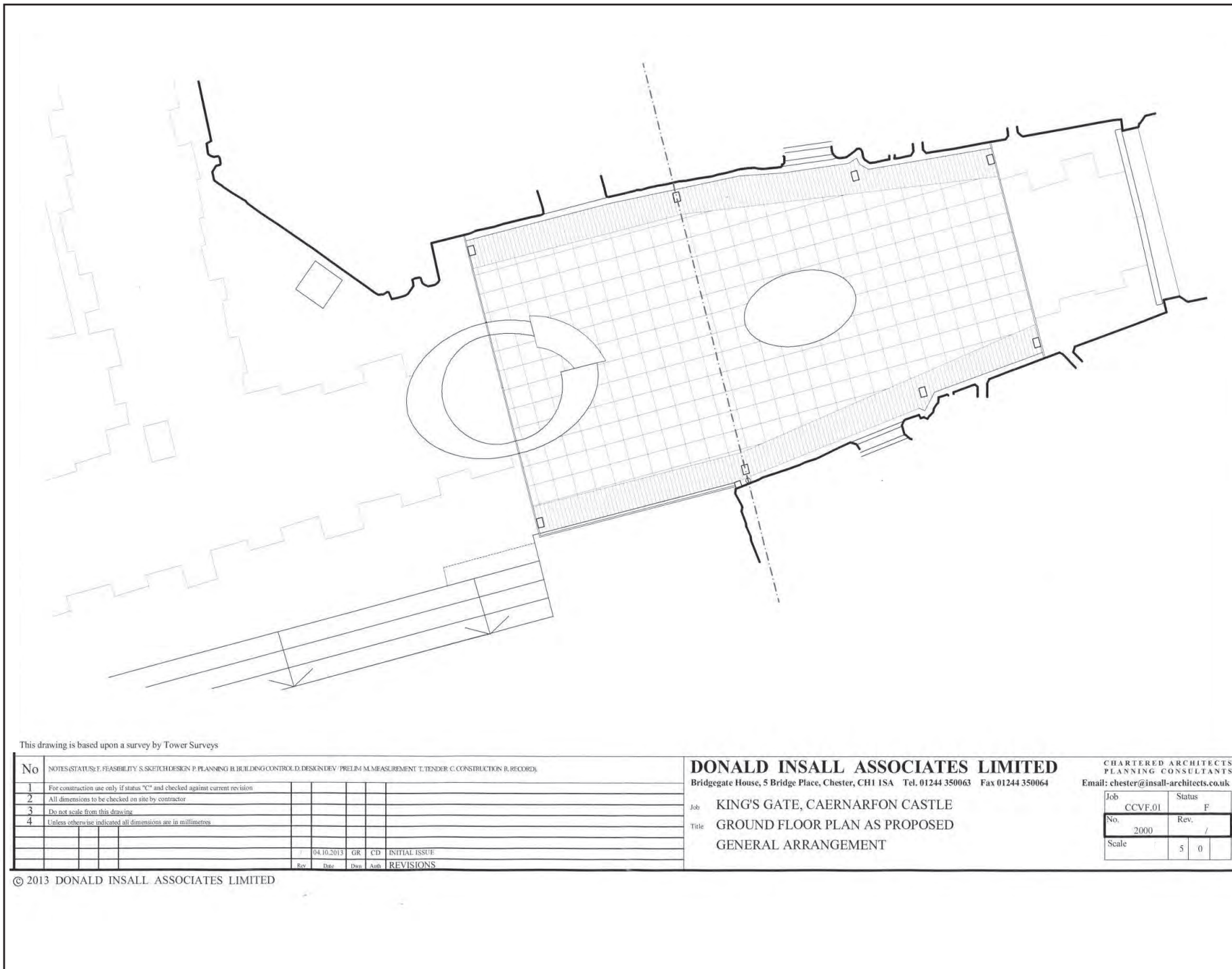


Fig. 4: Proposed ground floor plan

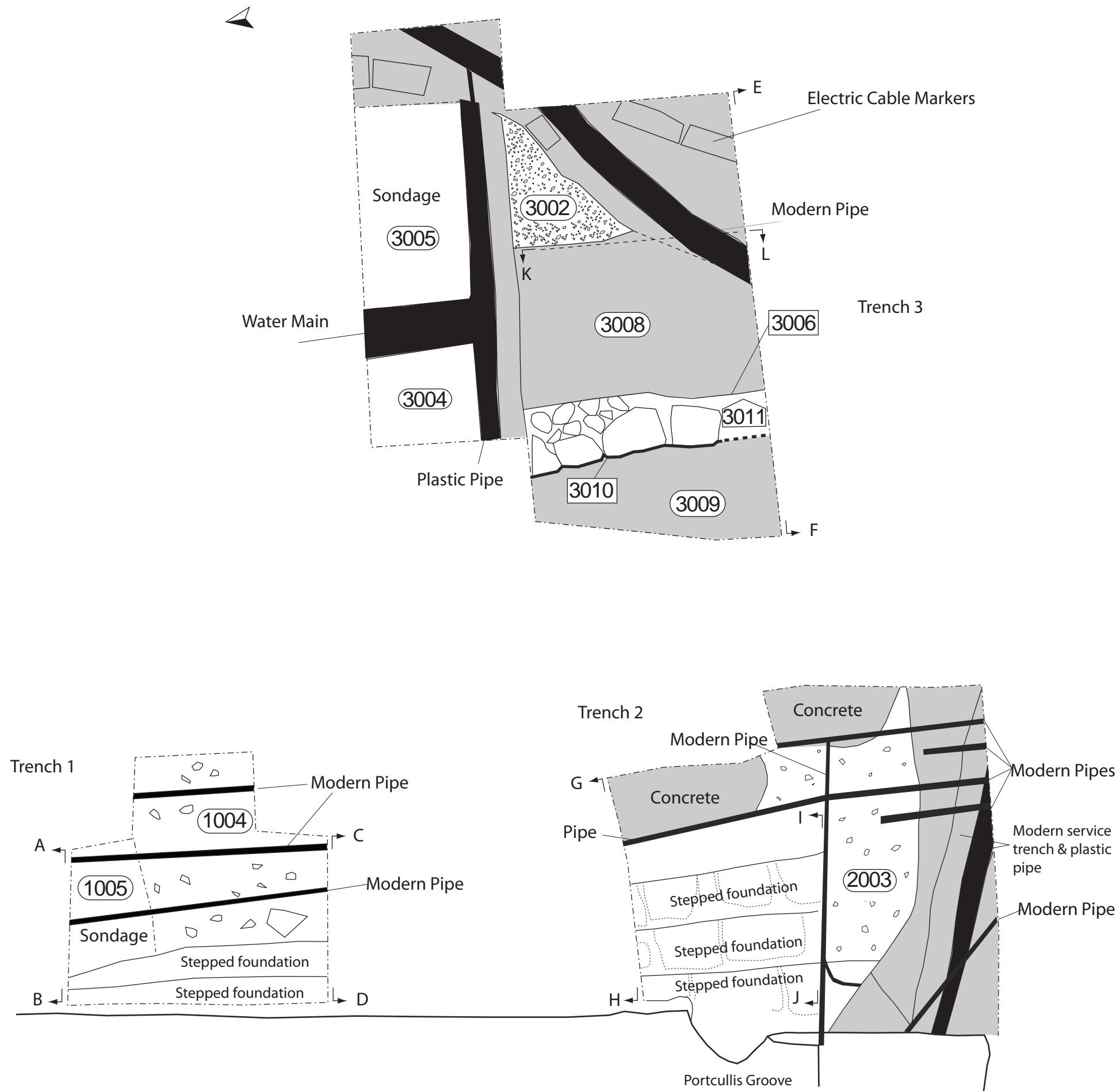


Fig 5: Trench plans from the King's Gatehouse, Caernarfon Castle archaeological evaluation

Date: 2/12/13

Drawn By: CES

Scale: 1:20

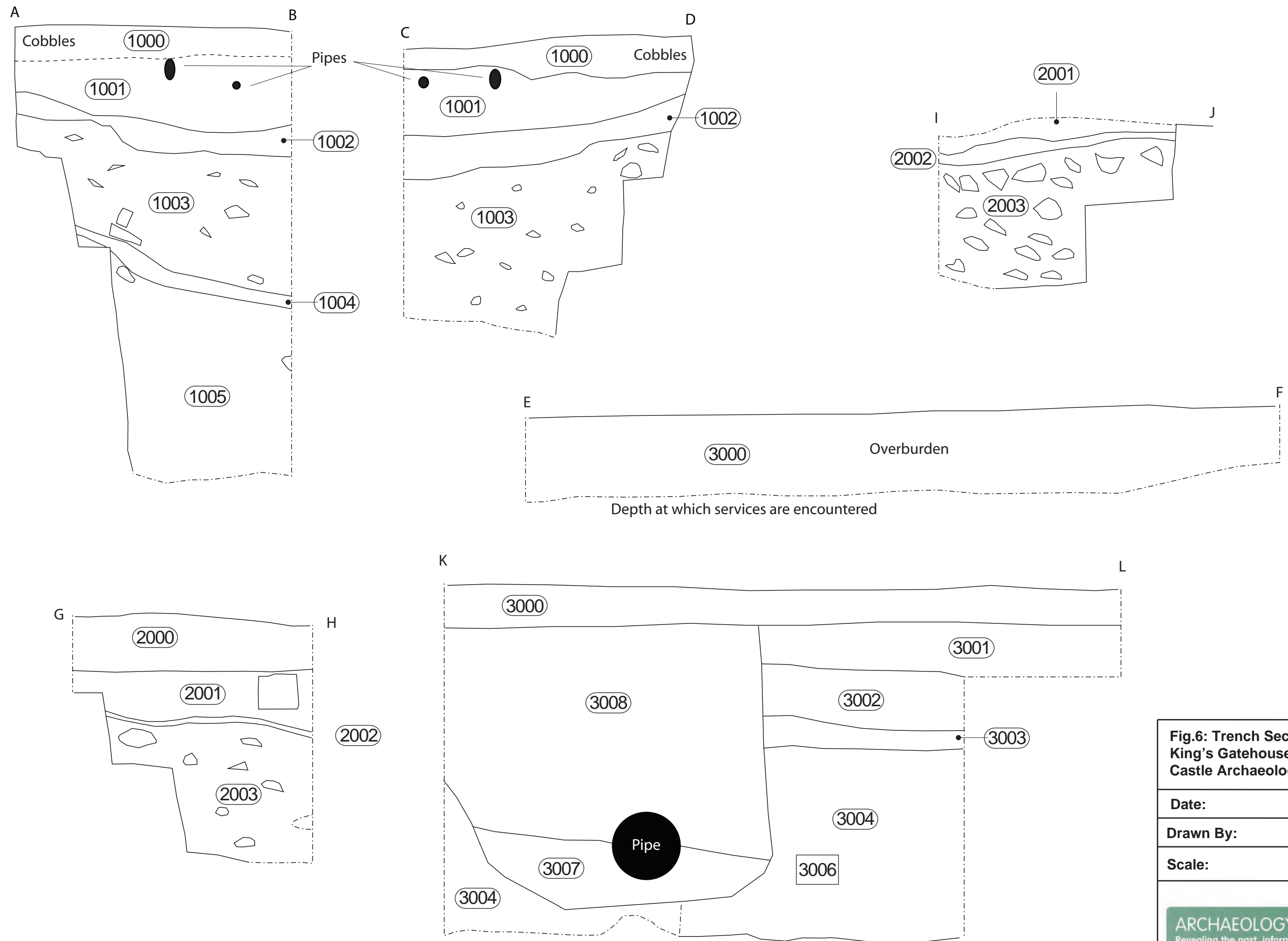


Fig.6: Trench Sections from the King's Gatehouse, Caernarfon Castle Archaeological Evaluation

Date: 02/12/13

Drawn By: CES

Scale: 1:10

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APPENDIX I: Context descriptions

Trench 1

Context Number	Description	Measurements
1000	Cobbling	0.1m thick
1001	Layer Moderate, mid blackish-brown, sandy-silt Abundant, small, mortar fragments Post-medieval pottery. Modern pipework.	0.2m thick
1002	Layer Moderate, light red-brown, silty-sandy clay Common, small – medium, mortar fragments No finds	0.12m thick
1003	Layer Moderate, light brown-grey, silty-sand Abundant, small, sub-angular sandstone Rare, small, charcoal flecks One small fragment of iron nail	0.47m thick
1004	Layer Fairly compact, light yellow, silty-sand Common, small – medium, mortar fragments No finds, possible metalling	0.05m thick
1005	Layer Moderate, mid to dark brown, sandy-silt Common, small – medium, sub-rounded cobbles Rare, small, charcoal flecks No finds	0.5m thick (base not reached)

Trench 2

Context Number	Description	Measurements
2000	Cobbling, set in cement	0.16m thick
2001	Layer Moderate, dark brown, sandy-silt Rare, small – medium, brick fragments Common, small – medium, mortar fragments Post-medieval pottery	0.16m thick
2002	Layer Moderate, light reddish-brown, silty clay Rare, small – medium, mortar fragments No finds	0.06m thick
2003	Layer Moderate, light brown-grey, silty-sand Abundant, small – medium, sub-angular stone No finds	0.36m thick (base not reached)

Trench 3

Context Number	Description	Measurements
3000	Cobbling/paving	0.1m thick
3001	Layer Moderate, dark brown, sandy-silty-clay Modern pipework	0.13m
3002	Possible surface (metalled) Compact, light brown-orange, silty-sand Abundant, small – medium, sub-rounded stone No finds	0.55m by 0.6m (truncated) 0.16m thick
3003	Layer – bedding for 3002 Moderate, light reddish-brown, sandy-silt Common, small, flecks of charcoal	0.08m thick
3004	Layer Moderate, dark blackish-grey, silty clay Common, small, mortar fragments Common, small, charcoal flecks Animal bone, molluscs, and the occasional small fragment of unidentifiable slag	0.5m thick
3005	Layer Moderate, light grey, silty-clay Common, small, mortar fragments	Only partially exposed
3006	Cut – modern services Linear. U-shaped, sharp break of slope at top, straight vertical sides. Moderate break of slope at bottom, onto a flat base. Contains 3007 & 3008	2m long 1.2m wide 0.75m deep
3007	Fill of 3006 Moderate, light brownish-grey, silty-clay Rare, small, charcoal flecks Modern pipework	0.8m wide 0.19m thick
3008	Fill of 3006 Moderate, dark blackish-brown, silty-clay Abundant, small, charcoal flecks Abundant, small, sub-rounded stone Modern pipework	1.2m wide, 2m long 0.63m thick
3009	Fill of 3010 Moderate, dark-brown, silty-clay Modern pipework	Unexcavated
3010	Cut – Modern services Linear Unexcavated	1.14m long, 0.44m wide (only partially revealed)
3011	Surface / possible wall Abundant, very-large (0.2m across), stone with worn upper surface Abundant, medium – large, sub-angular stone Set in a moderate, light brown, silty-clay	1.1m long (E-W), 0.28m wide. Truncated on all sides.

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APPENDIX II: Specification

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Specification
for an Archaeological Evaluation at
King's Gatehouse, Caernarfon Castle

Prepared for:
Cadw

Project No: T1520

22nd October 2013

Archaeology Wales Limited
Rhos Helyg, CwmBelan, Llanidloes, Powys, SY18 6QF
Tel: +44 (0) 1686 440371
Email: admin@arch-wales.co.uk

NON TECHNICAL SUMMARY

*This specification details the proposal for the excavation of three evaluation trenches **within the King's Gatehouse** at Caernarfon Castle, Caernarfon. It has been prepared by Archaeology Wales Limited and follows a Brief supplied by Dr Kate Roberts of Cadw.*

1. Introduction

Donald Insall Architects have been commissioned by Cadw to develop an architectural scheme to replace and upgrade the present visitor ticketing and arrival arrangements **within the King's Gatehouse, Caernarfon**. It is intended that the existing ticket booth will be removed and replaced with a new, larger structure which will improve the visitor arrival experience and increase the number of sales points.

This specification outlines the proposals for an archaeological evaluation within the area of proposed development in order to inform the foundation design for the new visitor entrance structure.

This specification has been drawn up by Chris E Smith (MIFA), Project Manager, Archaeology Wales Ltd, against a brief supplied by Dr Kate Roberts of Cadw. It provides information on the methodology that will be employed by AW during the excavation of three evaluation trenches at the site as well as details of reporting and archiving; anticipated timescales and staffing levels.

The work will be managed by Chris Smith and supervised by Louis Stafford. Louis will also write the report.

All work will conform to 'Standard and Guidance for Archaeological Evaluation' (IfA 2011) and be undertaken by suitably qualified staff to the highest professional standards. Archaeology Wales is a Registered Archaeological Organisation with the Institute for Archaeologists.

2 Site description

Edward I chose Caernarfon as the capital of his new principality in 1283. The polygonal towers which distinguish Caernarfon from other castles were probably inspired by the imperial walls of Constantinople. James of St George was no doubt the architect as he was Master of the Kings Works in Wales with overall responsibility for the vast building programme. The plan of the castle resembles an hourglass, with a narrow middle separating the two wards. Straight lengths of curtain connect the seven main flanking towers and two gatehouses. **Work began on Edward's castle (previous fortifications had stood on the site) in 1283. A slackening of expenditure from 1288 suggests that the ambitious building project had been put on hold with the majority of the north wall, including the King's Gatehouse, not standing much above foundation level. Shortly after Madog ap Llywelyn's 1294 rebellion, in which the half built castle was damaged, building work began again in earnest. By the time of Edward's death in 1307 the castle was broadly defensible. Work on the northern wall, including the King's Gate, lasted from approximately 1296 to 1323. The King's gate is much the larger of the two gatehouses. Its shallow polygonal towers flank a tall drawbridge recess, crowned by a much weathered statue of Edward II in a decorative niche. The archway**

leads into a gate passage which was defended by a drawbridge, a pair of gates and three portcullises. However, the existing passage is only half its intended length. The rear portion of the gatehouse was never built, **except for the porter's lodge on the west side**. Foundations stretching towards the Chamberlain Tower suggest that the gatehouse was originally planned to fill the narrow middle of the castle, dividing it in two. Had it been completed the gate passage would have led into a central hallway, with further passages leading left and right into the upper and lower wards. A simplified version of this can be seen at Denbigh castle (Pettifer, 2000).

3 Aims and Objectives

The aim of the evaluation is to investigate the archaeological potential of the gateway passage and to evaluate the suitability of the proposed foundation design.

The objectives of the archaeological evaluation are to:

- Identify the date and nature of features within the area to be affected by the new scheme
- Assess survival, quality, condition and relative significance of any archaeological features, deposits and structures within the evaluation area
- Produce a record of the features
- Facilitate a geotechnical investigation and ensure that it is carried out without adverse impact on archaeological features

During the archaeological evaluation, a geotechnical and geo-environmental evaluation will take place to establish ground conditions. AW Ltd will work with the geotechnical contractor, to ensure that the investigations are carried out with due regard to the archaeological sensitivity of the site. The geotechnical engineer will observe, log and take samples (jam jar size) from the excavation sites. Testing will comprise non-destructive hand held shear vane and mexicone tests.

4 Method Statement for Evaluation

Preliminary work

The archaeological project manager in charge of the work will satisfy him/herself that all constraints to ground works have been identified, including the siting of live services.

GPR timeslice data locating buried services will be examined and all proposed excavation areas will be scanned with a cable avoidance tool prior to the start of works.

A risk assessment will be prepared beforehand, with a copy supplied to the relevant Cadw Project Manager and/or site engineer.

Evaluation

It is proposed that three evaluation trenches will be excavated in the locations marked on figure 1. The exact dimensions of the trenches will be dependent upon the location of services and on **maintaining public access to the castle through the King's Gatehouse passageway**.

The cobbles and paving slabs currently forming the surface of the passageway will be removed by Cadw prior to the start of works.

Each trench will be excavated by hand. All areas will be hand cleaned using pointing trowels to prove the presence, or absence, of archaeological features and to determine their significance. A representative sample of exposed archaeological deposits and features will be sampled through excavation by hand in order to elucidate the character, distribution, extent, date and importance of the archaeological remains.

The evaluation shall include excavation to the maximum depth of disturbance required for the introduction of the structural raft in sufficient locations to enable a mitigation strategy to be developed. The maximum depth required is 0.9m below the current ground surface.

If any of the trenches cut into loose/friable material, such as rubble, consideration will be given to shoring and/or the stepping or battering of the trench edges. If the PM or site supervisor have any concerns about the stability of the site, work will stop and advice will be sought from the Archaeology Wales Health and Safety Consultant.

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

Written, drawn and photographic records of an appropriate level of detail will be maintained throughout the course of the project. Digital photographs will be taken (in RAW format) using cameras with resolutions of 14 mega pixels or above.

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

Monitoring

All excavation work will be monitored by representatives of Cadw.

Cadw will be provided with a copy of the Health and Safety Risk Assessment prior to the commencement of the work.

Any changes to the specification that AW may wish to make after approval will be communicated to Cadw for approval.

Representatives of Cadw will be given access to the site so that they may monitor the progress of the evaluation. Cadw will be kept regularly informed about developments, both during the site works and subsequently during post-excavation.

Artefacts

Archaeological artefacts recovered during the course of the excavation will be cleaned and labelled using an accession number which will be obtained from the local museum. A single number sequence will be allocated to all finds. The artefacts will be stored appropriately until they are deposited with the museum.

All artefacts recovered during the project will be retained and related to the contexts from which they were derived. All typologically distinct and closely datable finds will be recorded three-dimensionally.

The evaluation will carefully consider any artefactual or economic information and

provide an assessment of the viability, for further study, of such information. It will be particularly important to provide an indication of the relative significance of such material for any subsequent decision-making process regarding mitigation strategies.

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

A catalogue by context of all artefactual material found, quantified by number, weight, or both, and containing sketches of significant artefacts will be compiled.

Pottery will be analysed to the standards outlined in "Guidelines for the Preparation of Pottery Archives" (Darling, 1994) as prepared by the Study Group for Roman Pottery in consultation with the IFA. All other material will be analysed following the advice given in the Institute of Field Archaeologists: Guidelines for Finds Work.

The requirements for the conservation of artefacts will be unpredictable until after the completion of the fieldwork. The archaeological contractor will ensure, however, that at least minimum acceptable standards are achieved (the UK Institute of Conservation's Guidelines for the Treatment of Finds from Archaeological Sites should be used as guidance).

Environmental and technological samples

Samples will be taken where necessary when significant deposits are located. These will be retained for processing. The level of post-excavation processing will be dependent on the results of the field evaluation and following discussion with an environmental specialist and Cadw.

Any features containing deposits of environmental or technological significance will be sampled. If required, the project manager should arrange, through a suitably qualified expert the assessment of the environmental potential of the site through examination of suitable deposits. The assessment of potential should consider the guidelines set out in the English Heritage publication 'Guidelines for Environmental Archaeology' 2011.

The requirements for the conservation of samples will be unpredictable until after the completion of the fieldwork. The archaeological contractor will ensure, however, that at least minimum acceptable standards are achieved (the UK Institute of Conservation's Guidelines for the Treatment of Finds from Archaeological Sites should be used as guidance).

Human remains

Human remains will be left in situ, covered and protected when discovered. No further investigation should normally be permitted and Cadw and the local Coroner must be informed immediately. After discussion, it may be appropriate to take bone samples for C14 dating. If removal is essential it can only take place under the appropriate Ministry of Justice and Environmental Health regulations.

Reinstatement

All trenches will be backfilled on completion using the material removed from the trenches. Cadw will be responsible for the reinstatement of the paving slabs/cobbles.

5. Method statement for the production of an illustrated report and the

deposition of the site archive

Report preparation

The report will contain the following:

- **A fully representative description of the information gained from the evaluation**, even if there should be negative evidence.
- **A concise non-technical summary of the project results.**
- **At least one plan showing the site's location** in respect to the local topography, as well as the position of all excavated areas.
- **Suitably selected plans and sections of significant archaeological features.** All plans and sections should be related to Ordnance Datum.
- **Written descriptions of all features and deposits excavated and their considered interpretation** as well as the site history and methodology adopted for the evaluation
- **A summary report on the artefactual and ecofactual assemblage and an assessment** of its potential for further study, prepared by suitably qualified individuals or specialists.
- **A statement of the local and regional context of the archaeological remains** identified.
- **An impact assessment, with mitigation proposals, of the proposed development on the archaeological resource** will be included.

Two hard copies of the report will be sent to Cadw. Digital copies will be provided in pdf format if required along with digital images (TIFFs) of figures and illustrations in a format suitable for long term archiving.

Copies of the report will also be sent to the regional HER, held by the Gwynedd Archaeological Trust, and to the NMR held by the Royal Commission at Plas Crug, Aberystwyth.

A summary report of the work will be submitted for publication to a national journal (e.g. Archaeology in Wales) no later than one year after the completion of the work.

The site archive

A project archive will be prepared in accordance with the National Monuments Record (Wales) agreed structure and be deposited within an appropriate local museum on completion of site analysis and report production. It will also conform to the guidelines set out in MORPHE (English Heritage, 2006).

Arrangements will be made with the local museum before work starts. Wherever the archive is deposited, this information will be relayed to the HER.

Although there may be a period during which client confidentiality will need to be maintained, the report and the archive will be deposited not later than six months after the completion of the work.

Other significant digital data generated by the survey (i.e. AP plots, EDM surveys, CAD drawings, GIS maps, etc.) will be presented as part of the report on a CD/DVD. The format of this presented data will be agreed with the curator in advance of its preparation.

6. Resources and timetable

Standards

All stages of the project will be undertaken by AW staff using current best practice. All work will be undertaken to the standards and guidelines of the IfA.

Staff

The project will be undertaken by suitably qualified AW staff. Overall management of the project will be undertaken by Chris Smith.

Equipment

The project will use existing Archaeology Wales equipment.

Timetable of archaeological works

A start date has of Monday 28th October has been provisionally put forward with on-site works expected to last 5 days.

Insurance

Archaeology Wales is an affiliated member of the CBA, and holds Insurance through the CBA insurance service.

Health and safety

All members of staff will adhere to the requirements of the Health & Safety at Work Act, 1974, and the Health and Safety Policy Statement of Archaeology Wales.

AW will produce a detailed Risk Assessment before any work is undertaken.

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Archaeology Wales



Archaeology Wales Limited

Rhos Helyg, Cwm Belan, Llanidloes, Powys SY18 6QF

Tel: +44 (0) 1686 440371

Email: admin@arch-wales.co.uk

Company Directors: Mark Houlston MIFA & Jill Houlston

Company Registered No. 7440770 (England & Wales).

Registered office: Morgan Griffiths LLP, Cross Chambers,
9 High Street, Newtown, Powys, SY16 2NY