Archaeology Wales

Llangefni College Campus Site, Llangefni, Anglesey

Archaeological Watching Brief



By James Weaver & Paul Shelmerdine

Report No. 1703

Archaeology Wales Limited The Reading Room, Town Hall, Llanidloes, SY18 6BN Tel: +44 (0) 1686 440371 Email: admin@arch-wales.co.uk Web: arch-wales.co.uk

~,0Q

Archaeology Wales

Llandrillo Campus Extension, Llangefni (Anglesey)

Archaeological Watching Brief

Prepared For: Grwp Llandrillo Menai

Edited by: Irene Garcia Rovira Signed: ______ Position: Project Manager

Date: 17.8.18

By

James Weaver and

Paul Shelmerdine

Report No. 1703

August 2018



Authorised by: Mark Houliston

Position: Managing Director

Signed:

Date: 17.8.18

Archaeology Wales Limited The Reading Room, Town Hall, Llanidloes, SY18 6BN Tel: +44 (0) 1686 440371 Email: admin@arch-wales.co.uk Web: arch-wales.co.uk

CONTENTS

Non-Technical S	Summary
-----------------	---------

		Contents	
	Non-Tech	nical Summary	
1		on1	
2	Aims and	Objectives	
3	Methodolo	ogy	
4	Watching	brief results 4	
5	Finds	s 10	
6		nclusion 10	
7	Bibliograp	hy and References 12	
Арр	endix I	Figures	
Figu	re 1	Site location	
Figu	re 2	Location of site 6	
Figu	re 3	General plan showing areas A-D	
Figu	re 4	Archaeological features revealed in Area A	
Figu	re 5	Archaeological features revealed in Area B	
Figu	re 6	Archaeological features revealed in Area C	
Figu	re 7	Archaeological features revealed in Area D	
Figu	re 8	Section of ditch [1036]	
Figu	re 9	Pre-excavation plan of culvert [1038]	
Figu	re 10	Post-excavation plan of culvert [1038]	
Figu	re 11	Section of culvert [1038]	

Appendix I Figures

Figure 1	Site location
Figure 2	Location of site 6
Figure 3	General plan showing areas A-D
Figure 4	Archaeological features revealed in Area A
Figure 5	Archaeological features revealed in Area B
Figure 6	Archaeological features revealed in Area C
Figure 7	Archaeological features revealed in Area D
Figure 8	Section of ditch [1036]
Figure 9	Pre-excavation plan of culvert [1038]
Figure 10	Post-excavation plan of culvert [1038]
Figure 11	Section of culvert [1038]
Figure 12	Section of ditch [1015]
Figure 13	Plan of ditch [1015]
Figure 14	Section of ditch [1040]
Figure 15	Plan of ditches [1015] and [1040]

Appendix II Plates

1	Topsoil strip of Area A looking NE
2	SE Section of (1001), (1002) and (1003) in Area A
3	SE Section of [1004] and (1005) pit in Area A
4	Working shot striping down to natural substrate (1003) in Area B
5	[1008] culvert looking NNW
6	Shot of central channel of culvert [1008] looking SSE
7	Shot in plan of construction cut [1043] of culvert [1008]
8	SE elevation section of [1008] culvert
9	Culvert [1009] looking NNE
10	S facing elevation of culvert [1009]
11	Oblique shot of culverts [1012], [1013] and [1014]
12	Plan shot of culvert [1012] looking NNE
13	WSW facing elevation of culvert [1012]
	2 3 4 5 6 7 8 9 10 11 12

2,0

- Plate 14 Plan shot culvert [1013] looking NNW
- Plate 15 WSW facing elevation of culvert [1013]
- Plate 16 Plan shot of culvert [1014] looking NNW
- Plate 17 WSW elevation of culvert [1014]
- Plate 18 Working shot of machine through natural [1003]
- Plate 19 W facing section (1010), (1011) and (1003) Area C
- Plate 20 Working shot of machine strip in Area D looking NE
- Plate 21 NW facing section of (1018), (1019) and (1003)
- Plate 22 SW section of ditch [1015], (1016) and (1017)
- Plate 23 Culvert [1020] looking NW
- Plate 24 Plan shot of (1028) (1032) field drain system looking NW
- Plate 25 Earth and stone hedge bank (1033) looking NE in Area A

rchaeoli

- Plate 26 Box culvert (1038) in ditch [1034] looking SW
- Plate 27 WSW facing section of curvilinear ditch [1040], (1041) and (1042)

Appendix III Context Inventory

Non-Technical Summary

From March to May 2018 Archaeology Wales Ltd (AW) carried out an archaeological watching brief at Menai College, Llangefni, Anglesey. The watching brief was associated with the development of a new engineering centre and car park to the east of the development associated to Llangefni campus, Penmynnyd Road, Llangenfi, LL77 7H4 (SH4715875762). The associated Planning Reference No. is 34C304K/1/EIA/ECON.

A previous archaeological evaluation defined to target anomalies observed during a magnetometer survey, and a ground penetrating radar survey (Stratascan 2016; Parry et al 2017), revealed the remains of an Early Medieval cemetery within the boundaries of the development area. The remains of a burnt mound and a possible corn drier were also observed during the evaluation stage. Furthermore, the perimeter of the cemetery was defined by Archaeology Wales in August 2017 and subsequently excavated (Thomas 2018). The excavation revealed two phases of activity within the site, with Phase 1 being represented by evidence of industrial activity as well as the first phase of the cemetery, with seven earth-cut graves. Phase 2 has five distinct sub-phases of activity, the first of which is represented by a single pit likely associated with the earlier industrial activity. The following four sub-phases relate to the continued use of the site as a cemetery after a brief hiatus in burials at the end of Phase 1.

During the course of the watching brief a number of culverts, field boundaries and drains of post-medieval date were encountered. Furthermore, a small pit of unknown function and date was excavated. The finds assemblage recovered from the watching brief was largely of post-medieval date, though a fragment of Roman pottery was recovered near the location of the cemetery excavated by Archaeology Wales in 2017. The watching brief was carried out throughout site 6 as well as area D located to the NE of the development.

This watching brief was undertaken to the standards set in the CIfA's Standards and Guidance: for an archaeological watching brief (2014) and current Health and Safety legislation.

Introduction

Location and Scope of Work

This report details the watching brief which was undertaken in association with the proposed development of a new engineering centre (NEC) and a car park to the east of the development, associated with Llangefni campus, Penmynnyd Road, Llangenfi, LL77 7H4 (SH4715875762) (Figure 1-3). The associated Planning Application No. is 34C304K/1/EIA/ECON.

A previous archaeological evaluation defined to target anomalies observed during a magnetometer survey, and a ground penetrating radar survey (Stratascan 2016; Parry et al 2017), revealed the remains of an Early Medieval cemetery within the boundaries of the development area. The remains of a burnt mound and a possible prehistoric kiln were also observed during the evaluation stage. The perimeter of the cemetery was defined by Archaeology Wales in August 2017 and subsequently excavated. GAPS recommended that further stripping activities at Site 6 are monitored in the form of a watching brief.

The following report provides details of the results of the work undertaken. The project was managed by Dr Irene Garcia Rovira and undertaken by James Weaver. The AW Project Number is 2538 and the Site Code LMCE/17/WB.

1.2 Geology and Topography

The development area measured circa 39,250 m2 and contained parts of the existing campus and land to the east of it (Figure 1-3). The area is bounded by Llangefni Link Road to the east. It is generally characterised by improved grassland, however, it also contains a region heavily disturbed land by heavy plant training associated with the college. The topography of the development site drops from the west to the east, ranging from 44m to 36m AOD.

The underlying geology is defined by the Clwyd Limestone Group. Most of the area to the east of the development is characterised by sedimentary rock formed during the Carboniferous period, while to the west the geology is to some extent different presenting sandstone and conglomerates. The superficial soils are defined as Till, Devensian Diamicton formed during the Quaternary period (BGS 2018).

1.3 Archaeological and Historical Background

A first comprehensive study of the archaeological background of the area was related to the construction of sections 1 and 2 of Llangefni Link Road. A Desk Based Assessment (AMEC 2014) and a subsequent stage of archaeological investigations - including a geophysical survey and an archaeological evaluation (see ASDU 2014; WA 2014) – revealed little potential for archaeology in the area. However, this view changed significantly when an Early Medieval cemetery was found during a watching brief centred at SH47237579.

The results obtained during the work relating to the construction of the Llangefni Link Road led to the recommendation of archaeological investigations in advance of the expansion of Llangefni Campus. An initial stage of non-intrusive investigations was carried out in Areas 4, 5 and 6 (see Parry et al 2017; Stratascan

2016). Ground penetrating radar was used as a technique within the eastern extreme of Area 6 to inform about the extent of the Early Medieval cemetery. This stage of investigations was followed by an archaeological evaluation in which more than 15 graves were revealed, allowing the estimation of the extent of the cemetery within the boundaries of the proposed development site. This stage of investigations also led to the discovery of remains of a possible Bronze Age burnt mound; a potential corn dryer and of finds of prehistoric and early historic chronologies.

Furthermore, the perimeter of the cemetery was defined by Archaeology Wales in August 2017 and subsequently excavated (Thomas 2018). The excavation revealed two phases of activity within the site, with Phase 1 being represented by evidence of industrial activity as well as the first phase of the cemetery, with seven earthcut graves. Phase 2 has five distinct sub-phases of activity, the first of which is represented by a single pit likely associated with the earlier industrial activity. The following four sub-phases relate to the continued use of the site as a cemetery after a brief hiatus in burials at the end of Phase 1.

2 Aims and Objectives

2.1 Watching Brief

- 2.1.1 The aims of an archaeological watching brief, as defined by the Chartered Institute for Archaeologists (CIFA, 2014) were:
 - To allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works;
 - To provide 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 has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard;
 - To establish and make available information about the archaeological resource existing on the site.

3 Methodology

3.1 Fieldwork

An archaeological watching brief was undertaken during all intrusive ground works associated with the development. The watching brief was focussed upon ground work undertaken in Site 6, and area D. The specific areas requiring an archaeological watching brief were (see Figure 3).

• All undisturbed areas which existed within the boundaries of Site 6 and area D. This excluded the area already stripped during the first phase of excavation of the Early Medieval cemetery, the stock piles present within the development site, and the areas disturbed in modern times in association with the college.

The watching brief was undertaken using a tracked 360-degree excavator equipped with a flat-bladed bucket, and was monitored by a suitably qualified archaeologist until either the foundation levels or the natural substrate had been reached. The work was undertaken to meet the standards required by *The Chartered Institute for Archaeologist's Standard and Guidance for Watching Briefs* (2014).

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

4. Watching Brief results (Figure 4- 15; Plate 1-27)

The watching brief was carried out over an area measuring 1.5 hectares. The watching brief area was divided into four different regions, (areas A, B, C and D) (see Figure 3 for details).

Area A (Figure 4)

Area A was located in the SE corner of the development. Area A was approximately 2182 m2, and was predominantly machine stripped of topsoil, aside from the southern end of Area A which was machine excavated up to 2m through the natural substrate (1003) using a toothless bucket for the construction of an access road (Plate 1).

The natural substrate (1003) was between 0.3m and 0.7m below ground level. This was comprised of a mid-light brown clay with inclusions of fragmented bedrock and stones measuring from 0.10m to over 1m (Plate 2). (1003) was overlain by the subsoil (1002). (1002) was between 0.2m and 0.5m thick, due to the undulating nature of the natural substrate. (1002) was a mid-brown grey, silty loam with inclusions of small to large stones measuring up to 0.4m. (1002) had an abundance of modern building waste and post-medieval finds, such as pottery, glass, metal, CBM and stone. (1002) was overlain by (1001) topsoil. (1001) was a dark brown silty loam measuring between 0.15m and 0.3m thick across Area A. (1001) had a large quantity of modern building material within

the deposit, such as stone, metal, CBM, and wood. In addition to this, various sherds of post-medieval pottery were recovered from (1001).

[1004] was a small sub-oval pit located in the SW corner of Area A. [1004] was 0.6m in diameter and 0.13m deep, and was cut into (1003) natural clay (Plate 3). [1004] had an irregular base due to the natural rock that was present in (1003) natural clay. [1004] had a gradual sloping side on the western side of the feature and a sharp side on the eastern side of the feature. [1004] pit had one fill (1005). (1005) was a fairly compacted light-mid brown clayey silt that had inclusions of small stones and gravel up to 0.1m and possible traces of charcoal within the fill. No finds were recovered from (1005). [1004] was located in an area of modern disturbance as there was a buried water main in close proximity on the south west side of the feature, and an open field drain to the NW of the feature.

(1033) linear earth and rubble field hedge bank was located in the NE corner of Area A and ran on a NE/SW alignment. (1033) was constructed from local stone, and consisted of stone facings with an earth and rubble core. (1033) was over 12m in length, 2.2m wide and 1m deep (see figure 8-11; Plate 25-26). No finds were recovered from (1033), however the hedge bank was interpreted as being post-medieval in date. (1033) was flanked on both sides by ditches [1034] and [1036].

[1034] was uncovered on the western side of hedge bank (1033), was over 10m long and between 0.9m-1.2m wide with a depth of 0.38m, and was cut into the natural clay (1003). [1034] had sloping sides, with a concave base. [1034] had one fill (1035) and a stone setting that formed a box culvert [1038]. Fill (1035) was a mid-brown grey silty clay with inclusions of small rounded stones measuring up to 0.05m. (1035) was over 10m in length and between 0.9m – 1.2m wide with a depth of 0.12m in the area of the box culvert [1038]. (1035) was formed as a result of natural degradation of the topsoil and the features sides, no finds were recovered from (1035). [1038] box culvert found in ditch [1034] was constructed from local stone cut into rectangular blocks with rounded stones infilling. The rectangular stones were roughly cut and measured up to 0.50m in length, 0.45m wide and 0.15m thick. [1038] was 3m long, 0.9m wide and 0.38m thick. [1038] was interpreted as a covered drain / box culvert that was most likely in an area of a former entrance, no finds were present within the feature. [1038] had one fill (1039). (1039) was a firm mid-brown grey silty clay fill with inclusions of small rounded stones. (1039) was 3m in length, 0.5m wide and at a depth of 0.2m. (1039) seems to have formed due to the natural accumulation of a silting process. No finds were recovered from (1039). [1036] ditch was situated on the eastern side of hedge bank (1033) running on a NE-SW alignment. [1036] was over 10m long and 0.85m wide and at a depth of 0.1m, and was cut into the natural clay (1003). [1036] had gradual sloping sides and a concave base. [1036] had one fill (1037). (1037) fill was a firm mid-brown silty clay with inclusions of small rounded stones. (1037) was over 10m long, 0.85m wide and 1m deep (Figure 8). No finds were recovered from (1037) so a precise date cannot be assigned to the feature, however it is most probably post-medieval in date and makes up part of a larger field boundary/drainage system.

Area B (Figure 5)

Area B was the largest area of the site, approximately 6859 m2, stripped as part of the watching brief. Area B was located in the central section of the overall watching brief area. Area B was machine excavated to various depths for the construction of an access road and a bus turning circle (Plate 4).

(1006) topsoil was a deposit of dark brown silty loam measuring up to 0.2m thick. (1006) had a large quantity of modern building waste and post-medieval pottery within the deposit. (1007) subsoil was overlain by (1006) at a depth of 0.2m across the majority of Area B, however in some areas of site there was no presence of a subsoil (1007) due to the undulating nature of the natural. (1007) was a mid-brown grey silty clay with inclusions of small to medium sized stones up to 0.3m in size. (1007) had a large quantity of modern building waste and household rubbish with in the deposit, along with various sherds of post-medieval pottery.

[1008] culvert was exposed at a depth approximately 1m from the top of (1007) subsoil, and running in a NNW-SSE alignment (Plate 5-7). [1008] was constructed from local stone with loose masonry walls, with a rough-cut local stone flagged top covering an internal channel. [1008] measured 10.4m in length within the limits of the strip, however at the SSE end of the structure damage to the feature was observed, as the masonry walls and the flagged top stones were missing, leaving only the central channel and the construction cut [1043], probably caused by modern disturbance. [1008] was between 0.45m and 0.55m in width, and was one course high measuring between 0.3m and 0.4m with the dimensions of the individual stones measuring up to 0.4m, there was no evidence of a bonding material used for the construction of the culvert. The central channel of culvert [1008] measured between 0.25m and 0.3m wide and it seems more care and attention was paid to the construction of the central channel, than the rest of the culvert, as the stone used was more uniformly cut and laid flat for the smooth flow of water. [1008] had a shallow construction cut [1043] which was 0.1m deep and between 0.3m and 0.35m wide, no finds were recovered from the culvert, however culvert [1009] located to the NW of [1008] was revealed during the strip, and a possible late 19th- early 20th century clay pipe stem was recovered from within the culvert. [1008] and [1009] were very similar in appearance, and materials used for construction, so it would seem they were of a similar date, possibly late 19th-early 20th century, as the clay pipe stem was the only dateable evidence recovered, so a precise date cannot not be assigned to the structures.

[1009] was located in the NW corner of Area B running on a NNE-SSW alignment (Plate 9). [1009] was encountered at a depth of 0.3m from the top of the topsoil (1006). [1009] was 19.7m in length within the limits of the strip, however the SSW end of the culvert was badly damaged, probably due to modern disturbance, and a further stretch of the culvert was revealed after a further strip of the area. [1009] was between 0.5m and 0.6m wide and up to 0.4m in height (Plate 10) and was constructed from the same material as culvert [1008], with a central channel and a stone flagged top, housing the

central channel. Once more the central channel was constructed of a different type of lighter coloured stone, compared to the loose masonry walls and the stone capping laid over the central channel, these were both constructed from the same local stone. [1009] was one course high and a construction cut [1044] could be observed in the SSW truncated portion of the structure that was cut into the natural clay (1003). [1044] construction cut was between 0.55m and 0.65m wide and at a depth of 0.13m. A clay pipe stem was recovered from the structure, found in between some of the stonework in the central portion of the structure. The clay pipe is probably late 19th-early 20th century in date, which could be a diagnostic date for the culvert, further analysis of the clay pipe stem is needed for more precise dating.

[1012] culvert was located in the central section of Area B running on an NNE-SSW alignment, in close proximity to culverts [1013] and [1014] (Plate 11-13). [1012] was encountered at a depth 0.7m from the topsoil. [1012] was 4.6m in length and was up to 0.4m in height and 0.53m wide. [1012] was constructed from local stone with loose masonry walls that were two courses high in places, with a rough-cut local stone flagged top covering an internal channel that was constructed from a lighter coloured stone. [1012] was badly damaged, probably due to modern disturbance in that area, as a modern sewer and manhole cover were situated to the E, approximately 4m from [1012]. Due to the poor state of preservation of the culvert, the central channel had been badly damaged, and was very fragmentary in appearance, as the stone capping of the culvert had collapsed in on the structure, probably causing the damage to the central channel. [1012] was truncated at its NNE extremity, again probably due to modern disturbance in that area. However, it could be observed that the structure would have continued, as traces of the construction cut [1046] were visible, and there was a large amount of rough cut stones, similar in appearance to the capstones and masonry walls, within (1007) subsoil. [1046] construction cut was up to 0.6m wide and 0.12m deep, with sharp sides cut into the natural clay (1003). One piece of fragmentary animal bone and six sherds of white glazed late 19th – early 20th century pottery were recovered from within the stonework of culvert [1012], giving the structure a possible date, however further analysis of the finds is needed.

[1013] culvert (Plate 14-15) was located in the same section of Area B as [1012], lying approximately 1.5m SSE from culvert [1013] and 0.50m from culvert [1014]. [1013] was encountered at a depth of 0.4m from the topsoil (1006), whilst stripping down to levels for the construction of a bus turning circle. [1013] ran on an NNW-SSE alignment, same as [1013] and [1014] and was truncated at both ends of the structure. [1013] was 4.2m long, 0.32m high and up to 0.75m wide. [1013] was constructed of a local stone for the masonry walls, that was two courses high in sections, and a stone flagged top, same as [1008], [1009] and [1012]. [1013] had partial remains of a central channel, however due to disturbance in the area the channel was very fragmentary and the lighter coloured stone used to construct the channel had degraded significantly. One sherd of black glazed Buckley ware pottery and one small horse femur were recovered from within the stonework of culvert [1013].

[1014] culvert was revealed at a depth of 0.35m from the top of the topsoil (1006) running on a NNW-SSE alignment (Plate 16-17), same as [1012] and [1013]. [1014] culvert was truncated at both ends of the structure, probably due to modern disturbance in the area, as there is a sewer and a man hole cover approximately 4m to the East of the structure. [1014] was 3.45m in length, up to 0.48m high and up to 0.35m wide. [1014] was in a poor state of preservation, as the structure seems to have collapsed in on its self, and the central channel was no longer visible, due to this. [1014] was constructed from local rough-cut stones, same as [1008], [1009], [1012] and [1013]. No finds were recovered from the structure, however due to its construction and materials used, [1014] is most probably the same date as the other culverts excavated during the watching brief.

Area C (Figure 6)

Area C was located at the eastern extremity of the watching brief area at Menai College. Area C was approximately 4436 m2, and was machine excavated down through the natural substrate for the construction of a carpark and a large water drainage tank (Plate 18). Area C had previously been used for heavy plant training, so the ground in that area was heavily disturbed. The majority of the Area C was topsoil (1010) on top of natural (1003) as the subsoil (1011) was only encountered where the natural bedrock was significantly undulated. (1011) subsoil was a mid-brown grey silty clay with small – large stones up to 0.5m with an abundance of modern building waste. (1011) was between 0.1m and 0.3m thick in some parts of Area C and non-existent in other areas, due to the undulating nature of the natural (1003) (Plate 19). (1011) was overlain by (1010) topsoil that was a dark brown silty loam with inclusions of small-medium sized stones and modern building waste. (1010) was between 0.14m and 0.2m thick and was littered with modern finds, such as various sherds of 20th century pottery, CBM, wood and stone.

[1015] linear ditch was uncovered in in the SE corner of Area C (Figure 13; Plate 22). [1015] was oriented on an NE-SW alignment running at a length of 1.57m, however it was observed that on its SW end [1015] ditch was truncated, most likely from modern machining. [1015] ditch was 0.82m wide with moderate sloping sides leading to a slightly pointed base (see figures 4 and 5). [1015] had two fills (1016) and (1017) within the feature. (1016) deposit was a moderate to firm silty clay that was mid-brown grey in colour, with inclusions of small sub angular stones up to 0.15m in size. (1016) was between 0.08m and 0.12m deep, no finds were recovered from (1016). (1016) appears to have formed from a natural silting process. (1017) was the upper fill of ditch [1015] that was a moderate to firmly compact silty clay. (1017) was mid-dark brown grey in colour with inclusions of sub-angular stones measuring up to 0.15m with traces of small flecks of charcoal. (1017) was between 0.12m and 0.25m deep, no finds were recovered from (1017). (1017) appears to have been formed due to a natural sedimentary process.

Area D (Figure 7)

Area D was located to the NE of the development, outside of the boundary of site 6. Area D was approximately 4439 m2, and was predominantly stripped of topsoil (1023) and subsoil (1018) (Plate 20). (1018) was only visible in some areas of the site, due to the undulating nature of the natural (1019). (1019) was characterised by mid-dark brown grey silty clay, and contained infrequent small-medium sized sub-angular stones (Plate 21). (1019) was overlaid by (1018). (1018) was characterised as mid to light orange brown silty loam with inclusions of small to medium sized sub-angular stones up to 0.1m in size. (1018) varied in depth, but had an average depth of 0.5m.

[1020] was a linear feature interpreted as a stone culvert, located in the SE extremity of Area D. [1020] culvert was not fully revealed during the strip, due to the levels of excavation being reached, so the feature was recorded on the surface, covered with geosynthetic terram, then sealed in situ. [1020] was 0.45m wide, and over 5m in length and oriented on a NW-SE alignment (Plate 23). [1020] was constructed from a roughcut local stone, with stones measuring up to 0.5m, no finds were recovered from [1020]. [1028] stone filled field drain located in the northern part of Area D, was interpreted as being part of a larger field drainage system, including [1029], [1030], [1031] and [1032] that were all oriented on a NE-SW alignment. [1028] was 3.8m long and between 0.15m and 0.18m wide with a depth of 0.1m, and filled with small pebbles and stones (Plate 24). [1028], [1029], [1030] [1031] and [1032] were not excavated, due to levels being reached in that area, the features were sealed in situ. [1029] stone filled field drain, was located 7.7m E of [1028]. [1029] was 8m in length and between 0.15m and 0.2m wide and filled with small pebbles and stones. [1030] was situated 7.7m to the west of field drain [1028]. [1030] was 7.5m long and between 0.15m and 0.2m wide and was filled with small pebbles and stones. [1031] field drain was located 7.6m to the west of [1030]. [1031] field drain was 15m in length and between 0.15m and 0.2m wide (Plate 24) and was filled with small pebbles and stones. [1032] was situated 7.6m to the east of field drain [1031]. [1032] was 15m in length and between 0.15m and 0.2m wide, and was filled with small pebbles and stones.

[1040] was a curvilinear feature located in the SW corner of Area D, W of the cemetery. [1040] was located whilst machine stripping down to levels for the construction of a large water tank. [1040] was interpreted as being a curvilinear ditch with steep sides and a concave base. [1040] was 13m in length, 0.65m wide and 0.35m deep (Figure 14-15). [1040] was aligned SW to NE and contained two fills (1041) and (1042). (1042) was the lower fill of [1040] and was characterised as a soft, pale grey brown, silty clay with occasional flat stones. (1042) was 1m in length. 0.3m wide and at a depth of 0.03m. (1042) was overlaid by (1041). (1041) was the upper fill of [1040]. (1041) was characterised as very compact, mid-red brown with black flecks, silty clay which contained frequent manganese and occasional small sub angular stones. (1040) was 13m in length, 0.65m in width and 0.3m deep (Plate 27). The function of [1040] ditch is unknown as no finds were recovered from fills (1041) and (1042), however the feature could be a continuation of [1015] ditch, located 10m SW from [1040].

5. Finds

The find assemblage recovered during the watching brief is largely of post-medieval date, with the exception of a fragment of Roman pottery found unstratified close to the cemetery area. A summary of the finds assembled and kept during the watching brief can be found below:

CONTEXT	TYPE	AMOUNT	DATE			
1013	Pottery (Buckley	1 base sherd	Post-Medieval			
	Ware) and bone	1 bone Fragment	N			
1012	Pottery (White glazed)	5 sherds	Post-Medieval			
1012	Bone	2 fragments	Post-Medieval			
1009	Clay pipe stem	1 fragment	Late 19 th -Early 20 th			
			Century			
Unsratified	Pottery (Red Ware)	1 sherd	Roman			
(Near						
Cemetery)						
Unstratified	Pottery (white and	11 sherds	Post-Medieval			
	Blue)					

6. Conclusion

From March to May 2018 Archaeology Wales Ltd (AW) carried out an archaeological watching brief at Menai College, Llangefni, Anglesey. The watching brief was associated with the development of a new engineering centre and car park to the east of the development associated to Llangefni campus, Penmynnyd Road, Llangenfi, LL77 7H4 (SH4715875762).

The watching brief was carried out throughout site 6 as well as area D located to the NE of the development. Site 6 was sub-divided into four areas of investigation A, B, C. and D.

Area A was separated from areas B and C by an existing field boundary wall and hedge line. Area A was heavily disturbed due to adjacent land being developed for the construction of the roundabout and link road. As result, any archaeological deposits that may have existed on the SE region of Area A might have been lost. Despite it, a small shallow pit [1004] of an unknown function and date that was located in the SW corner

of Area A. In addition, a linear feature was located in the NE corner of Area A. This was interpreted as an earth and rubble field bank circumscribed by two shallow ditches. These were interpreted as being part of a larger overall field boundary/drainage system, as ditch [1034] contained a stone-built box culvert [1038]. These features all ran on a NE-SW alignment and were post-medieval in date.

Area B, the largest portion of the overall strip, contained a number of culverts [1008], [1009], [1012], [1013] and [1014] all following the same construction. The physical appearance of the culverts were loose masonry walls with no bond and a narrow central channel and flagged top, housing the central channel. All culverts were post-medieval in date, as diagnostic pottery was recovered from three of the culverts.

Area C located in the eastern extremity of the strip was the least populated of archaeological features, out of the four areas. Located in the SE corner of Area C [1015] ditch was encountered running on a NW-SE alignment. The ditch yielded no dateable finds, but was interpreted as being post-medieval in date, and most likely served as an old field boundary or drainage system.

Area D located NE of the development, outside of site 6 was stripped as part of the watching brief. Located at the SE edge of Area D was culvert [1020], running on a NW-SE alignment. [1020] culvert was not fully excavated, due to levels being reached in that area, though it was observed that the culvert had a similar form to the culverts found across the rest of the watching brief area. No finds were recovered from [1020] culvert, though the feature was most probably post-medieval in date. Located in the SW corner of Area D was a curvilinear feature [1040], running on a SW-NE alignment. [1040] was interpreted as being an old field boundary or for the purpose of water drainage. In addition [1040] curvilinear was located near, and on the same alignment as ditch [1015], though no evidence survives, [1040] could be a continuation of [1015]. No finds were recovered from the feature. A series of post medieval, stone filled, field drains were observed in the north of Area D. The field drains [1028], [1029], [1030], [1031] and [1032] were all found in close proximity to each other, and all running on a NW-SE alignment. The drains were interpreted as being part of the same overall drainage system for the connecting fields, within the area of site 6.

5. Bibliography and References

AMEC, 2014. Llangefni Link Road, Historic Environment Assessment. Unpublished report.

Archaeological Services Durham University (ASDU), 2014. Llangefni Link Road, Geophysical Survey. Unpublished report.

Chartered Institute for Archaeologists, 2014. Standards and guidance for the collection, compilation, transfer and deposition of archaeological archives.

Chartered Institute for Archaeologists, 2014. Standards and guidance for the collection, documentation, conservation and research of archaeological materials.

Chartered Institute for Archaeologists, 2014. Standards and guidance for excavation.

Chartered Institute for Archaeologists, 2014. Standards and guidance for an archaeological watching brief.

English Heritage, 2006. Management of Research Projects in the Historic Environment (MORPHE).

Parry I.G., Parry L.W., Owen K., Lynes M., 2017. Fieldwork report: Archaeological Evaluation Trenching. Coleg Menai Llangefni. Unpublished report.

Research Framework for the Archaeology of Wales, 2003. A Research Framework for the Archaeology of Wales. North West Wales, Early Medieval. Regional Seminar paper, 23/12/2003.

Stratascan, 2016. Llangefni, Anglesey (Coleg Menai) Geophysical Survey. Unpublished report.

Thomas, S, 2018. Llandrillo Campus Extension, Llangefni, (Anglesey), Archaeological Assessment, ACIFA Report No 1670.

British Geological Survey: Geology of Britain viewer: www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html

with the second se

500 wight. Andraeology Wales Limited Archaeology Wales

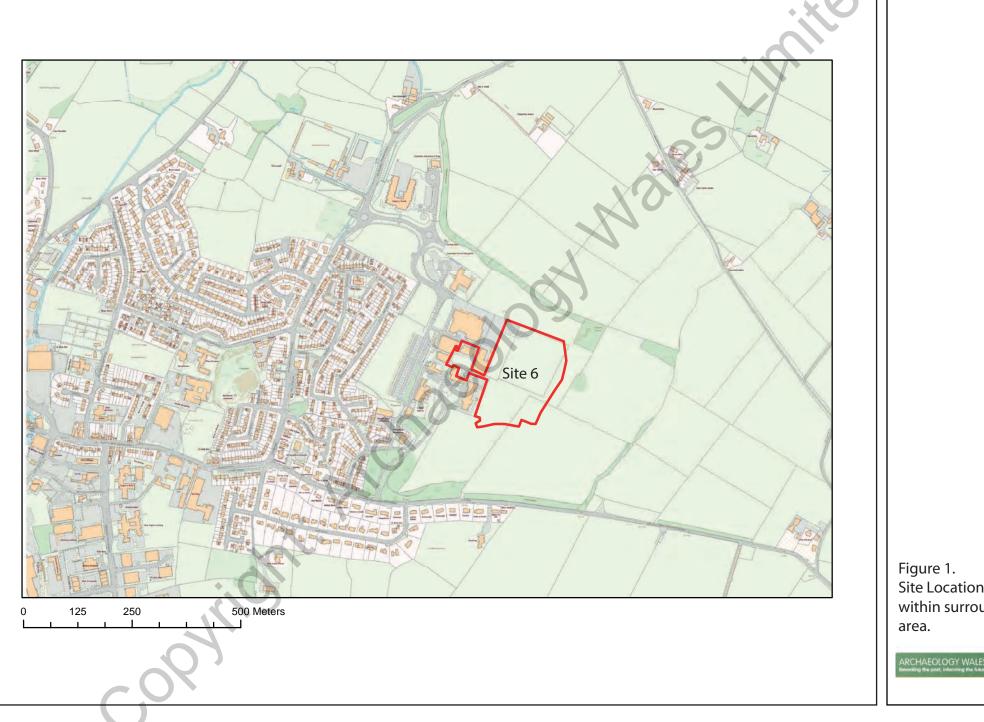
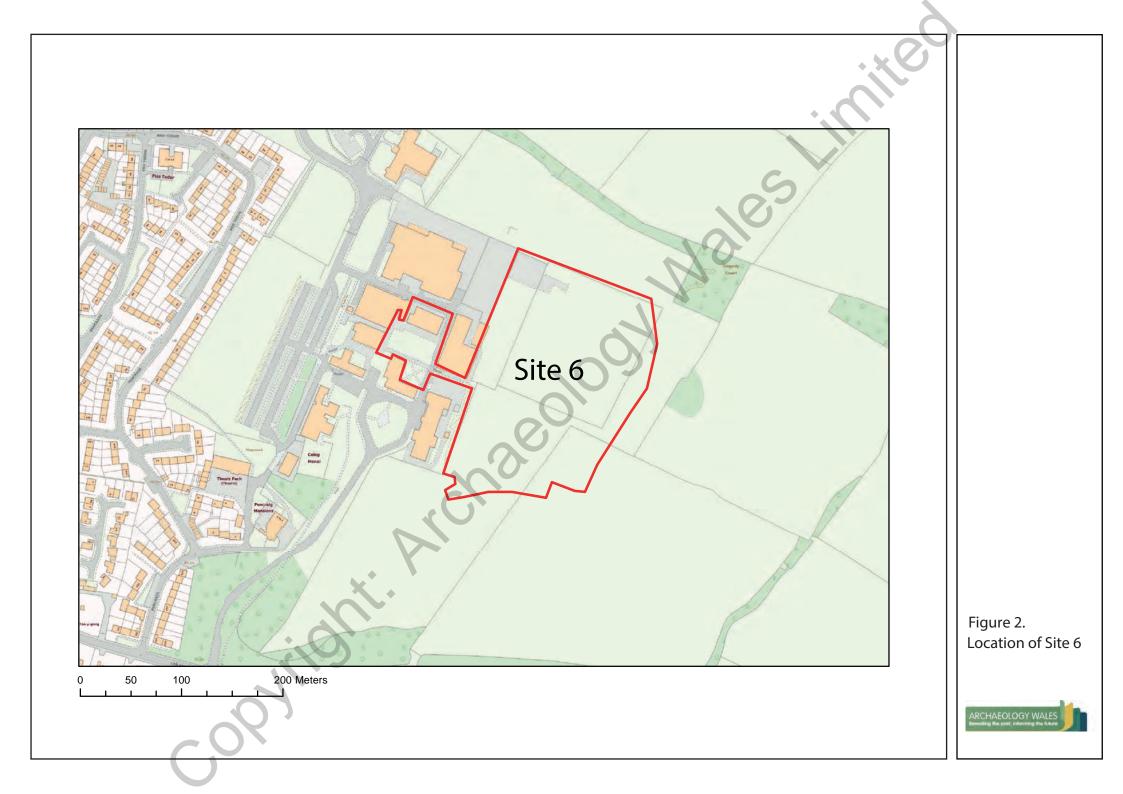


Figure 1. Site Location within surrounding area.





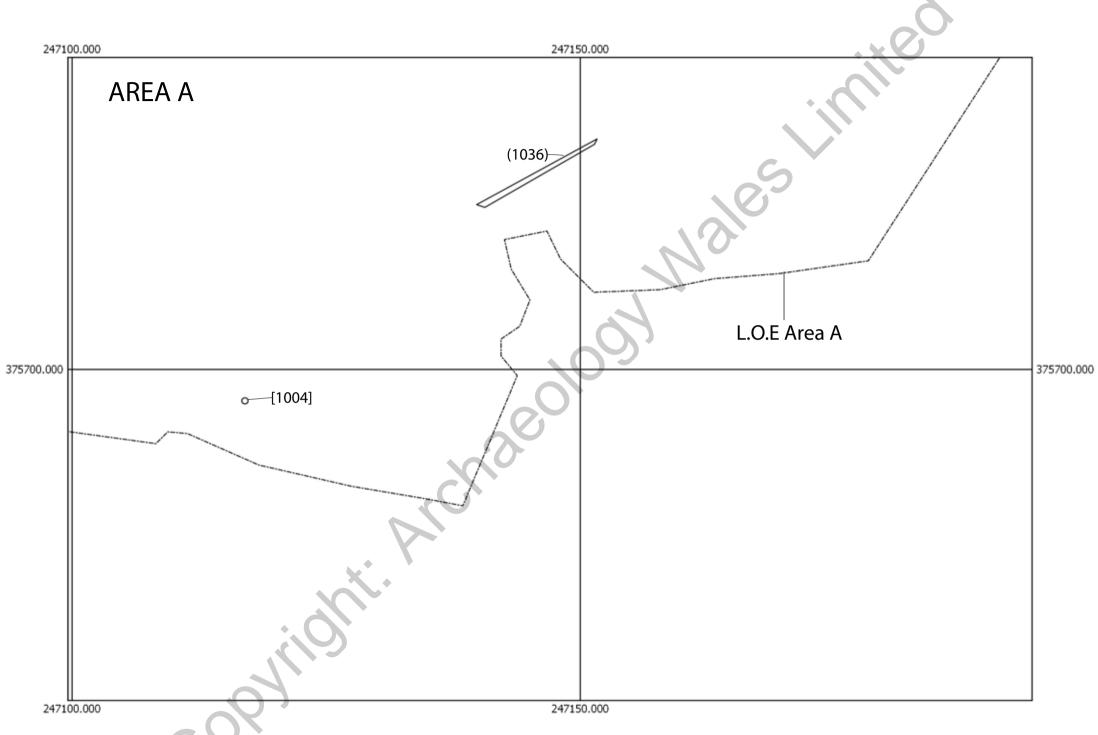
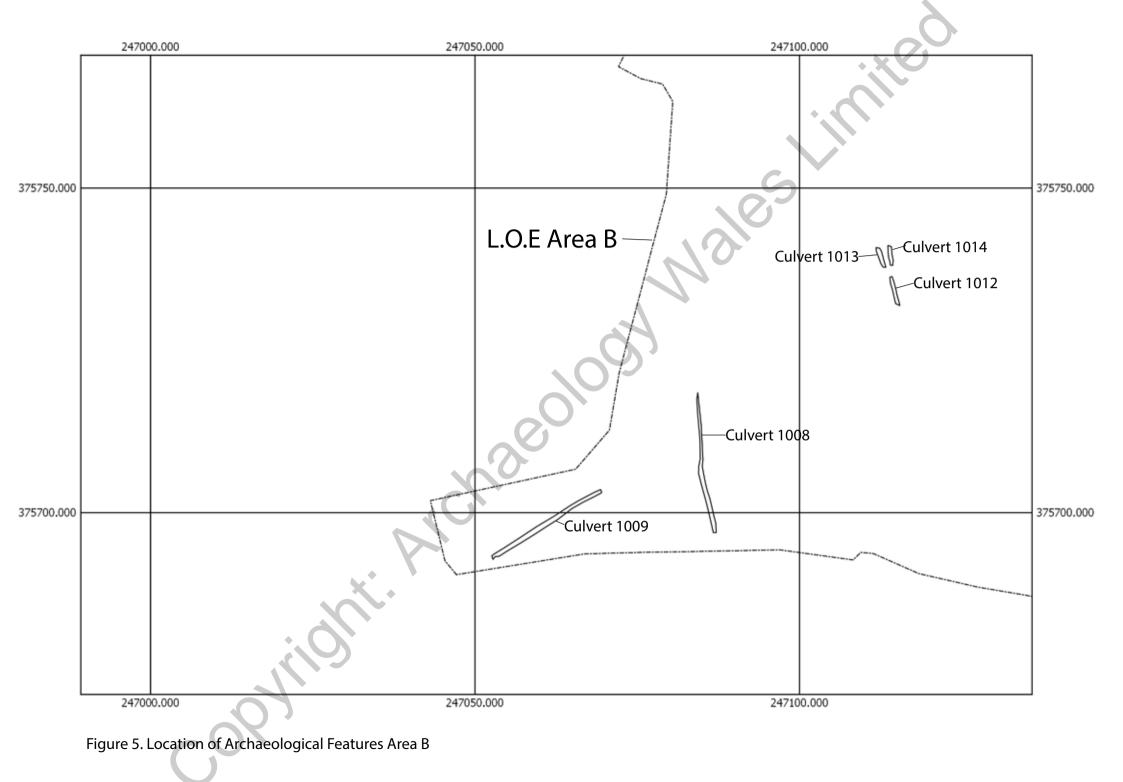
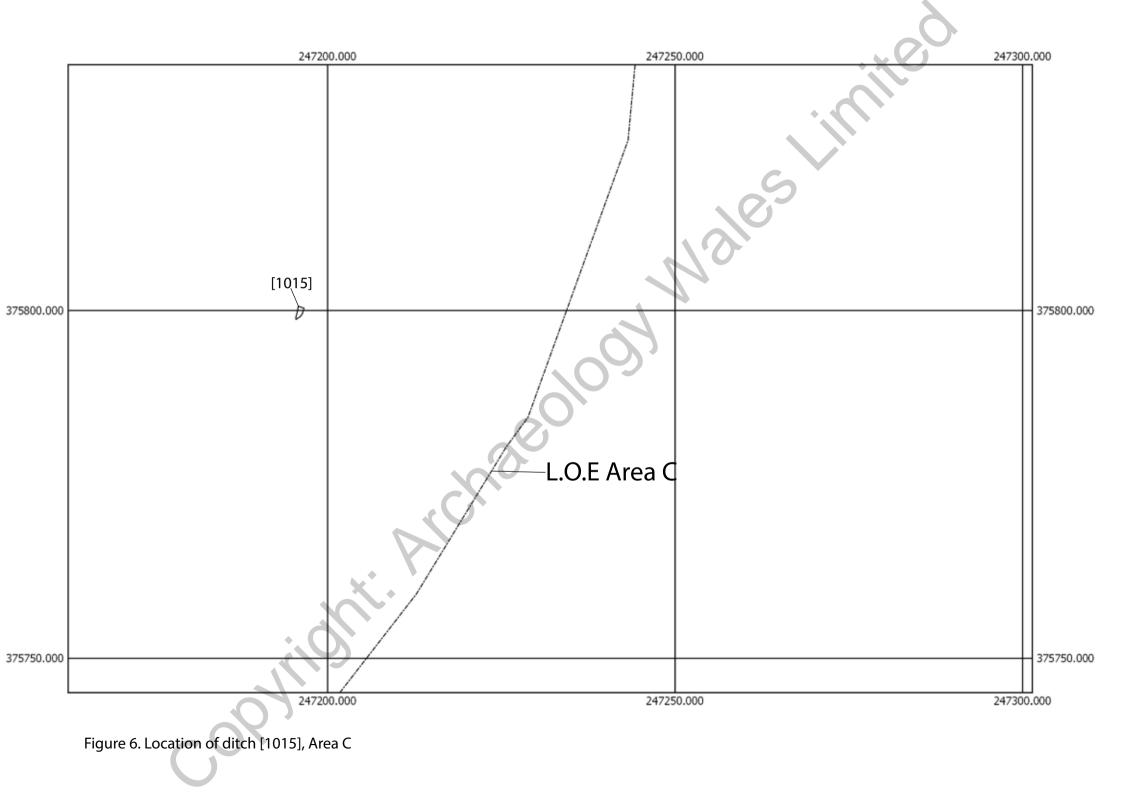
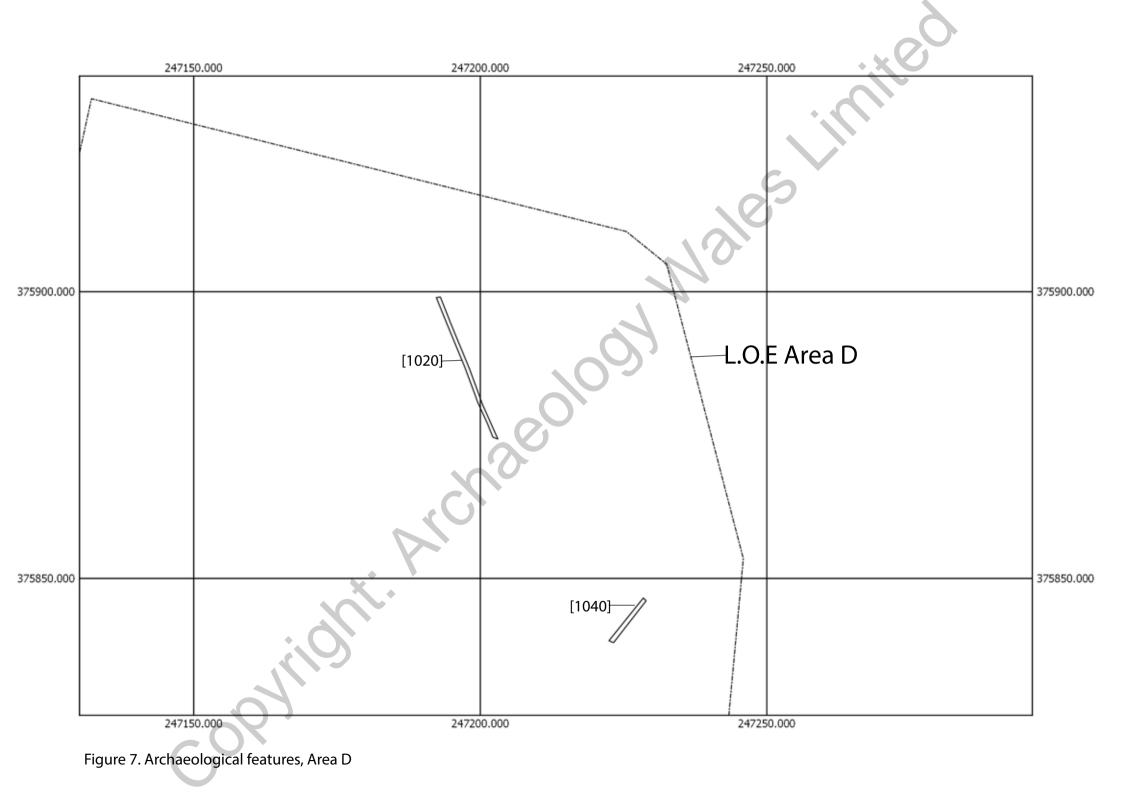
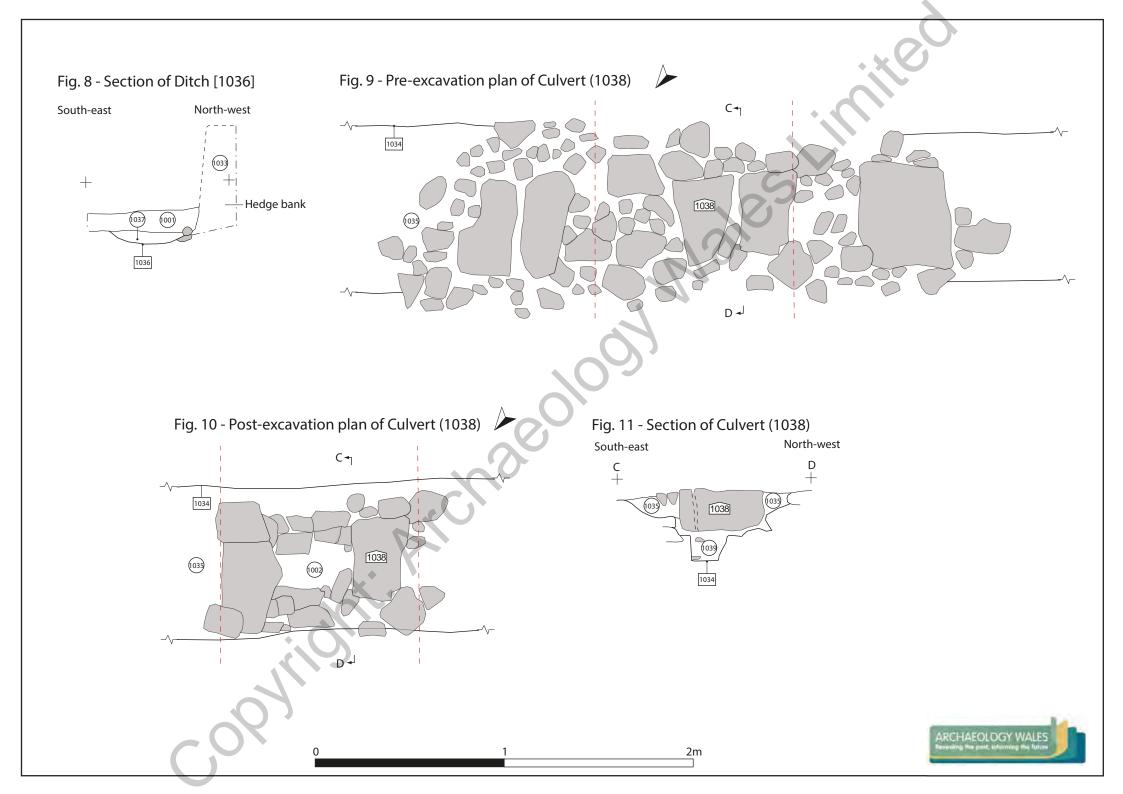


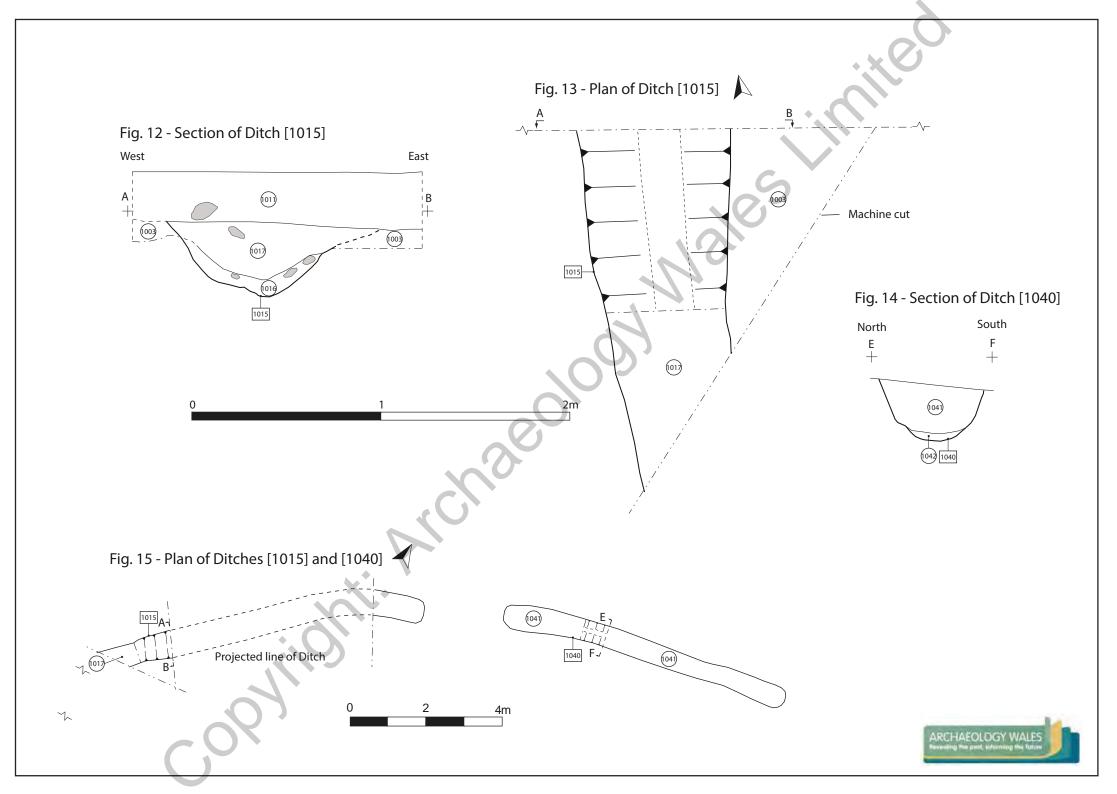
Figure 4. Location of archaeological features Area A











500 yright. Andraeology Wales Limited



Plate 1. Topsoil strip of Area A looking NE.



Plate 2. SE section of (1001), (1002) and (1003) in area A. Scales 2 x 1m





Plate 3. SE section of [1004] and (1005) pit in Area A. Scale 0.3m



Plate 4. Working shot striping down to natural substrate (1003) in Area B, looking NW





Plate 5. [1008] Culvert looking NNW. Scale 2m



Plate 6. Shot of central channel of culvert [1008] looking SSE





Plate 7. Shot in plan of construction cut [1043] of culvert [1008]. Scale 0.5m



Plate 8. South East elevation section of [1008] culvert. Scale 2m





Plate 9. Culvert [1009] looking NNE. Scale 2m



Plate 10. S facing elevation culvert [1009]. Scale 2m





Plate 11. Oblique shot of culverts [1012], [1013], and [1014]



Plate 12. Plan shot of culvert [1012] looking North North East. Scale 2m





Plate 13. WSW facing elevation culvert [1012]. Scale 2m



Plate 14. Plan shot of culvert [1013] looking NNW. Scale 2m





Plate 15. WSW facing elevation of culvert [1013]



Plate 16. Plan shot of culvert [1014] looking NNW. Scale 2m





Plate 17. WSW elevation of Culvert [1014]. Scale 2m



Plate 18. Working shot of machine excavating through natural [1003], looking NE





Plate 19. W Facing section (1010), (1011) and (1003) Area C. Scales 1m & 2m



Plate 20. Working shot of machine strip in Area D looking NE.





Plate 21. NW facing section of (1018), (1019) and (1003). Scale 1m



Plate 22. SW section of ditch [1015], (1016) and (1017). Scale 1m





Plate 23. Culvert [1022] looking NW. Scale 1m



Plate 24. Plan shot of (1028) - (1032) field drain system looking NW. Scale 1m & 2m





Plate 25. Earth and stone hedge bank (1033) looking NE in Area A. Scales 1m & 2m



Plate 26. Box culvert (1038) in ditch [1034] looking SW. Scales 0.3m & 0.5m





Plate 27. WSW facing section of curvilinear ditch [1040], (1041) and (1042). Scales 0.3m & 0.5m

t. Arch



Archaeology Wales

es walesti

CONTEXT	Area	DESCRIPTION
1001	A	Dark brown sandy loam.
1002	A	Silty subsoil from area A with small to large pebble inclusions and
		a moderate amount of building waste within.
1003	А	Mid to pale brown clay in area A with inclusions ranging from of
		small stones to large rocks.
1004	А	Cut of possible burnt post hole 0.6m in diameter and 0.13m deep
1005	Α	Compact light to mid-brown clay that forms the fill of [1004].
		Small stone inclusions up to 0.10m in diameter with no finds
		within.
1006	В	Dark brown sandy loam with a high amount of building debris
		within.
1007	В	Mid-brown grey silt subsoil in area B. Moderate amount of
		building and household debris within.
1008	В	Possible culvert or a wall with a N-S orientation across area. Light
		coloured stones laid flat as the base.
1009	В	Possible stone-built culvert with E-W orientation. Clay pipe stem
		found in between the stones.
1010	С	Dark brown sandy loam in Area C. Same as (1001)
1011	С	A silty clay subsoil in area C with unevenly distributed across the
		area. Same as (1011)
1012	V	Possible damaged culvert with a N-S orientation, 4.60m long,
		0.53m wide and up to 0.40m deep. 19 th to early 20 th century
		pottery and an bone found within.
1013	В	Possible culvert with a N-S orientation, 4.20m long, 0.75m wide
		and 0.32m deep. One piece of 19 th century Buckley ware pot
	<u> </u>	shard and an animal bone found within.
1014	В	Stone built culvert with a N-S orientation parallel to 1013 and was
	<u> </u>	3.45m long, 0.47m wide and 0.48 deep.
1015	С	Cut of ditch with moderately sloping sides and a v shaped base,
		1.57m long, 0.82m wide and 0.35m deep. Linear is orientated NE
	-	– SW and had two fills, (1016) and (1017).
1016	С	Moderately compact lower fill of [1015] from 0.08m to 0.12m
		deep. Consists of a light to mid-brown silty clay. No datable finds
10:17		within
1017	C	Upper fill of [1015], moderately compact mid to dark brown silty
1010		clay between 0.12m and 0.23m deep/ No datable finds within.
1018	D	Mid to light orange brown deposit above (1019), west of
• 6		cemetery in area D. Infrequent small to medium sub angular
1010		stones found within but no finds. Deposit was 0.50m deep.
1019	Ð	Firm mid to dark grey silty clay 0.15m deep immediately below
1000		(1018) in area D.
1020	D	Cut of culvert or wall found immediately w of cemetery on a NW –
K _		SE alignment. Stone filled field drain 0.45m wide and over 5m
1001		long.
1021	D	Mid -range brown silt fill of [1020] over 5m long and 0.45m wide
1000	<u> </u>	with no finds found within.
1022	D	Stone culvert or wall on a NW-SE orientation, over 5m long and
1000	<u> </u>	0.45m wide with sub oval stone inclusions.
1023	D	Mid-orange brown small strip of topsoil immediately west of
1		cemetery. No finds found within.

1024	D	Cut of ditch on a SW – NE alignment, in excess of 14m long, 0.30m wide and 0.12m deep.
1025	D	Firm dark brown grey silty clay that is the fill of [1024].
		Contains inclusions of small sub angular stones but no finds.
1026	А	Cut of pit, rectangular in shape with rounded corners. Sides were
		concave with a concave base. 0.78m long, 0.45m wide and 0.12m
		deep.
1027	А	Firm dark brown silty clay which forms fill of [1026] with possible
		animal burial. Inclusions of lime powder and occasional rounded
		stones
1028	D	Narrow gully SE – NW alignment, filled with stones and mid-
		brown silty clay. 3.8m long, 0.15 to 0.18m wide.
1029	D	Stone filled gully in SE – NW orientation, almost parallel to 1028
1030	D	Stone filled field drain 7.5m long and 0.15m to 0.2m wide.
1031	А	Stone filled field drain over 10m long and 0.15 to 0.2m wide.
1032	А	Stone filled field drain over 15m long and 0.15m to 0.2m wide.
1033	А	Stone based hedge bank, stone faced with earth and rubble core.
1034	А	Cut of ditch with sloping edges ad concave base on west side of
		hedge bank 1033. Over 10m long, 0.9m to 1.2m wide and 0.38m
		deep. Filled by (1035).
1035	Α	Firm mid-brown clay fill of [1034] with occasional small rounded
		stones. Over 10m long, 0.9 to 1.2m wide and 0.12m deep. No
		datable finds within. Possible formed through natural silting.
1036	А	Cut of linear gully with NE-SW orientation adjacent to Hedge bank
		1033 on east side. The cut is over 10m long, 0.85m wide and
		0.1m. Filled by (1037).
1037	А	Fir mid-brown silty clay fill of [1036] with occasional small
		rounded stones. No finds found within.
1038	А	Stone built box culvert/covered drain within ditch [1034]. Feature
		is over 3m long, 0.9m wide and 0.38m deep. Consists of mostly
		rectangular blocks with rounded stone infillings up to 0.45m wide,
		0.50m long and 0.15m deep. Filled by (1039).
1039	A	Fill of [1038], consisting of firm mid-brown silty clay with very
		occasional small rounded stones.
1040	D	Cut of slightly curving linear with steep edges and concave base.
		Feature is 13m long, 0.65m wide and 0.35m deep and is
		orientated SW – NE. Filled by (1041) and (1042).
1041	D	Upper fill of [1040], consisting of mid-red brown clay with black
		flecks of manganese and inclusions of occasional small sub
	ろ	angular pebbles. No datable finds. Most likely formed by slow
		silting. Fill was 13m long, 0.65m wide and 0.3m deep.
1042	D	Lower fill of [1040] consisting of soft pale grey brown silty clay.
		Fill has very few slat stone inclusions and no datable finds. Fill
		was over 1m long, 0.3m wide and 0.03m deep. Possible formed
	1	by natural silting.

Archaeology Wales

ti. Archaeolooy

Archaeology Wales Limited The Reading Room, Town Hall, Llanidloes, SY18 6BN Tel: +44 (0) 1686 440371

Email: admin@arch-wales.co.uk Company Directors: Mark Houliston MCIfA & Jill Houliston Company Registered No. 7440770 (England & Wales) Registered Office: Morgan Griffiths LLP, Cross Chambers 9 High Street, Newtown, Powys, SY16 2NY



ARCHAEOLOGY WALES Revealing the past, informing the future

Archaeology Wales Ltd Rhos Helyg, Cwm Belan, Llanidloes, Powys SY18 6QF T: 01686 440371 E: info@arch-wales.co.uk www.arch-wales.co.uk

WRITTEN SCHEME OF INVESTIGATION

FOR AN ARCHAEOLOGICAL

WATCHING BRIEF

AT LLANGEFNI COLLEGE CAMPUS SITE (ANGLESEY)

Prepared for:

Grŵp Llandrillo Menai (GLLM)

Planning Application Number: 34C304K/1/EIA/ECON

Project No: 2538

12th September 2017



Archaeology Wales Limited The Reading Room, Town Hall, Great Oak Street Llanidloes, Powys SY18 6BN Tel: +44 (0) 1686 440371 Email: admin@arch-wales.co.uk re le

miteo

Page

Contents

Sum	imary	
1.	Introduction and planning background	
2.	Site Description	
3.	Archaeological background	5
4.	Objectives	
4.1.	Site Specific Research Aims	6
5.	Timetable of works	7
5.1.	Fieldwork	7
5.2.	Report delivery	7
6.	Fieldwork	7
6.1.	Detail	7
6.2.	Recording	
6.3.	Finds	9
6.4.	Environmental sampling strategy	9
6.5.	Human remains	9
6.6.	Specialist advisers	9
7.	Monitoring	
8.	Post-fieldwork programme	.11
8.1.	Archive assessment	
8.2.	Reports and archive deposition	
9.	Staff	
Add	itional Considerations	. 13
10.	Health and Safety	
10.1		
10.2	. Other guidelines	. 13
11.	Community Engagement and Outreach	
12.	Insurance	
13.	Quality Control	. 14
13.1		
13.2		. 14
14.	Arbitration	
15.	References	. 14

Figure 1. Site location

Figure 2. Site location, close-up

Figure 3. Detailed plan of the site, showing areas of proposed investigation.

Summary

This Written Scheme of Investigation (WSI) details the methodology for a watching brief to be undertaken by Archaeology Wales at the request of Grŵp Llandrillo Menai (GLLM).

The watching brief will be undertaken prior to the commencement of ground works associated with the proposed development of a new engineering centre (NEC) and a car park to the east of the development associated to Llangefni campus, Penmynnyd Road, Llangenfi, LL77 7H4 (SH4715875762). The associated Planning Reference No. is 34C304K/1/EIA/ECON.

A previous archaeological evaluation defined to target anomalies observed during a magnetometer survey, and a ground penetrating radar survey (Stratascan 2016; Parry et al 2017), revealed the remains of an Early Medieval cemetery within the boundaries of the development area. The remains of a burnt mound and a possible corn drier were also observed during the evaluation stage. The perimeter of the cemetery was defined by Archaeology Wales in August 2017 and subsequently excavated.

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 watching brief to be undertaken in association with the proposed development of a new engineering centre (NEC) and a car park to the east of the development, associated to Llangefni campus, Penmynnyd Road, Llangenfi, LL77 7H4 (SH4715875762) (Figure 1-3). The associated Planning Application No. is 34C304K/1/EIA/ECON.

A previous archaeological evaluation defined to target anomalies observed during a magnetometer survey, and a ground penetrating radar survey (Stratascan 2016; Parry et al 2017), revealed the remains of an Early Medieval cemetery within the boundaries of the development area. The remains of a burnt mound and a possible prehistoric kiln were also observed during the evaluation stage. The perimeter of the cemetery was defined by Archaeology Wales in August 2017 and subsequently excavated. GAPS has recommended that further stripping activities at Site 6 are monitored in the form of a watching brief.

This WSI has been prepared by Dr Irene Garcia Rovira, Project Officer, Archaeology Wales Ltd (henceforth - AW) at the request of Grŵp Llandrillo Menai (GLLM).

The methodology set out in this WSI has been agreed with GAPS in its capacity as archaeological advisors to Isle of Anglesey County Council. GAPS has recommended that a watching brief of the development area is undertaken prior to the

commencement of ground works to mitigate the impact of the proposed development on the archaeological resource.

The aim of the 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, November 2016), Section 6.5 and Technical Advice Note TAN24: 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 development area measures circa 39,250 m2 and contains parts of the existing campus and land to the east of it. The area is bounded by Llangefni Link Road to the east. It is generally characterised by improved grassland, however, it also contains a region heavily disturbed land by heavy plant training associated with the college. The topography of the development site drops from the west to the east, ranging from 44m to 36m AOD.

The underlying geology is defined by the Clwyd Limestone Group. Most of the area to the east of the development is characterised by sedimentary rock formed during the Carboniferous period, while to the west the geology is to some extent different presenting sandstone and conglomerates. The superficial soils are defined as Till, Devensian Diamicton formed during the Quaternary period (BGS 2017).

3. Archaeological background

A first comprehensive study of the archaeological background of the area was related to the construction of sections 1 and 2 of Llangefni Link Road. A Desk Based Assessment (AMEC 2014) and a subsequent stage of archaeological investigations - including a geophysical survey and an archaeological evaluation (see ASDU 2014; WA 2014) – revealed little potential for archaeology in the area. However, this view changed significantly when an Early Medieval cemetery was found during a Watching Brief centred at SH47237579.

The results obtained during the work relating to the construction of the Llangefni Link Road led to the recommendation of archaeological investigations in advance of the expansion of Llangefni Campus. An initial stage of non-intrusive investigations was carried out in Areas 4, 5 and 6 (see Parry et al 2017; Stratascan 2016). Ground penetrating radar was used as a technique within the eastern extreme of Area 6 to inform about the extent of the Early Medieval cemetery. This stage of investigations

was followed by an archaeological evaluation in which more than 15 graves were revealed, allowing the estimation of the extent of the cemetery within the boundaries of the proposed development site. This stage of investigations also led to the discovery of remains of a possible Bronze Age burnt mound; a potential corn dryer and of finds of prehistoric and early historic chronologies.

The area of the cemetery has recently been defined and excavated by Archaeology Wales, revealing the remains of around 30 inhumations, including earth cut and cist graves. The excavations have also exposed the remains of Roman activity in the area in the form of finds.

4. Objectives

This WSI sets out a program of works to ensure that the watching 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.

4.1. Site Specific Research Aims

It is important to recognize that whilst primarily designed to mitigate impacts, developer-led archaeology is also regarded as research activity with an academic basis, the aim of which is to add to the sum of human knowledge. Curators recognize the desirability of incorporating agreed research priorities as a means of enhancing the credibility of the development control process, ensuring cost-effectiveness and legitimately maximizing intellectual return.

A research framework for the archaeology of Wales has been produced (2011-2014) and currently in the process of review. In light of the existing cemetery within the limits of Site 6, it appears possible to encounter the remains of associated activity. The strategy to be taken if such remains are encountered during the watching brief

has been designed following the recommendations given by the aforementioned research framework.

This watching brief has the capacity to identify areas where subsequent mitigation may contribute to better understandings about the Roman and Early Medieval activity in the area.

Broader themes are also to be addressed as follows:

- The changing nature of funerary activity across different historical periods.
- Patterns of landscape occupation in North West Wales and, more precisely in the Isle of Anglesey.
- Novel information regarding human activity on the aforementioned area during prehistoric and early historic times.

5. Timetable of works

5.1. Fieldwork

The watching brief will be undertaken prior to the prior the commencement of ground works associated with the proposed development. The work is proposed to start in the 25th of September 2017. Archaeology Wales will update GAPS with the exact date.

5.2. Report delivery

The report will be submitted to Grŵp Llandrillo Menai (GLLM) and to GAPS 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

An archaeological watching brief will be undertaken during all intrusive ground works associated with the development. The watching brief will be focussed upon ground work undertaken in Site 6 (see Figure 2). The specific areas requiring an archaeological watching brief are (see Figure 3):

All undisturbed areas existing within the boundaries of Site 6. This excludes the area already stripped during the first phase of excavation of the Early Medieval cemetery, the stock piles present within the development site, and the areas disturbed in modern times in association with the college. The watching brief will be undertaken using a tracked 360 degree excavated equipped with a flat-bladed bucket, and will be monitored by a suitably qualified archaeologist until the natural substrate has been reached.

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 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 Grŵp Llandrillo Menai (GLLM), GAPS 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, Grŵp Llandrillo Menai (GLLM) and GAPS.

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 GAPS, Grŵp Llandrillo Menai (GLLM) 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)

mileo

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.

Monitoring

GAPS 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 GAPS for approval on behalf of Planning Authority.

Representatives of GAPS will be given access to the site so that they may monitor the progress of the field evaluation. No area will be back-filled, until GAPS has had the opportunity to inspect it, unless permission has been given in advance. GAPS 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 Grŵp Llandrillo Menai (GLLM) and GAPS 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 GAPS.

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 Mark Houliston (AW Managing Director) and the fieldwork undertaken by James Weaver (Archaeology Wales). Any alteration to

staffing before or during the work will be brought to the attention of GAPS and Grŵp Llandrillo Menai (GLLM).

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. Community Engagement and Outreach

Wherever possible, AW will ensure suitable measures are in place to inform the local community and any interested parties of the results of the site investigation work. This may occur during the site investigation work or following completion of the work. The form of any potential outreach activities may include lectures and talks to local groups, interested parties and persons, information boards, flyers and other forms of communication (social media and websites), and press releases to local and national media.

The form of any outreach will respect client confidentiality or contractual agreements. As a rule, outreach will be proportional to the size of the project.

Where outreach activities have a cost implication these will need to be negotiated in advance and in accordance with the nature of the desired response and learning outcomes.

12. 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.

13. Quality Control

13.1. 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.

13.2. 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.

14. 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.

15. References

AMEC, 2014. Llangefni Link Road, Historic Environment Assessment. Unpublished report.

Archaeological Services Durham University (ASDU), 2014. Llangefni Link Road, Geophysical Survey. Unpublished report.

Chartered Institute for Archaeologists, 2014. Standards and guidance for the collection, compilation, transfer and deposition of archaeological archives.

Chartered Institute for Archaeologists, 2014. Standards and guidance for the collection, documentation, conservation and research of archaeological materials.

Chartered Institute for Archaeologists, 2014. Standards and guidance for excavation.

Chartered Institute for Archaeologists, 2014. Standards and guidance for an archaeological watching brief.

Edwards, N., Davies, T., Henier K. 2016. Research Framework for the Archaeology of Wales: Early Medieval.

English Heritage, 2002. Guidelines for Environmental Archaeology.

English Heritage, 2006. Management Of Research Projects in the Historic Environment (MORPHE).

McKinley, J., Roberts C., 1993, Excavation and post-excavation treatment of cremated and inhumed human remains, Technical Paper 13.

Parry I.G., Parry L.W., Owen K., Lynes M., 2017. Fieldwork report: Archaeological Evaluation Trenching. Coleg Menai Llangefni. Unpublished report.

Research Framework for the Archaeology of Wales, 2003. A Research Framework for the Archaeology of Wales. North West Wales, Early Medieval. Regional Seminar paper, 23/12/2003.

Stratascan, 2016. Llangefni, Anglesey (Coleg Menai) Geophysical Survey. Unpublished report.

British Geological Survey: Geology of Britain viewer: www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html

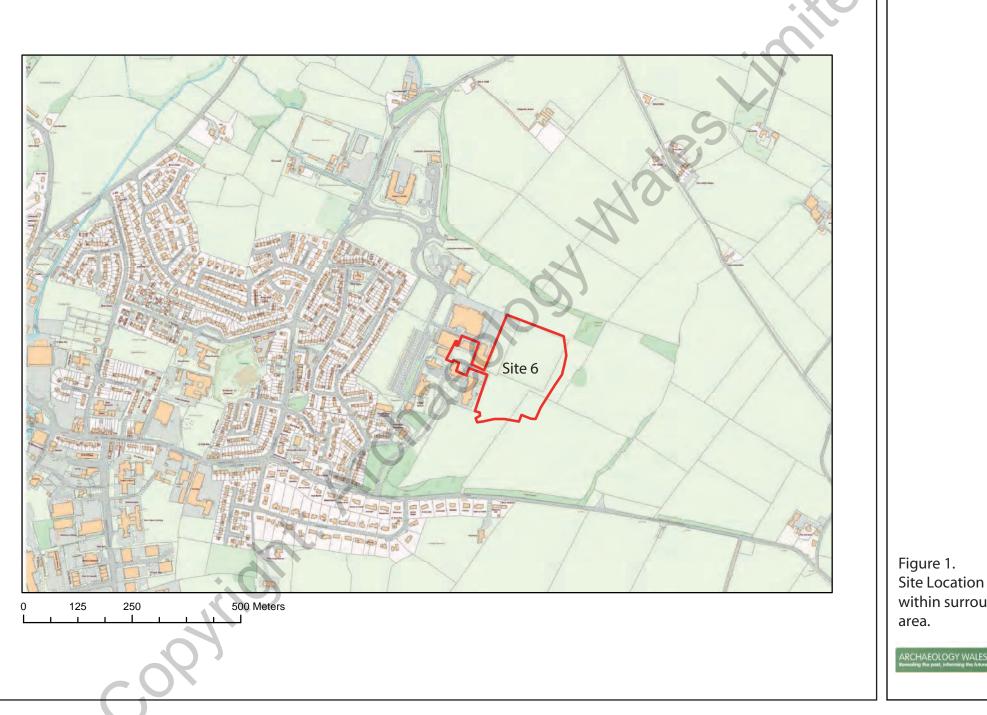
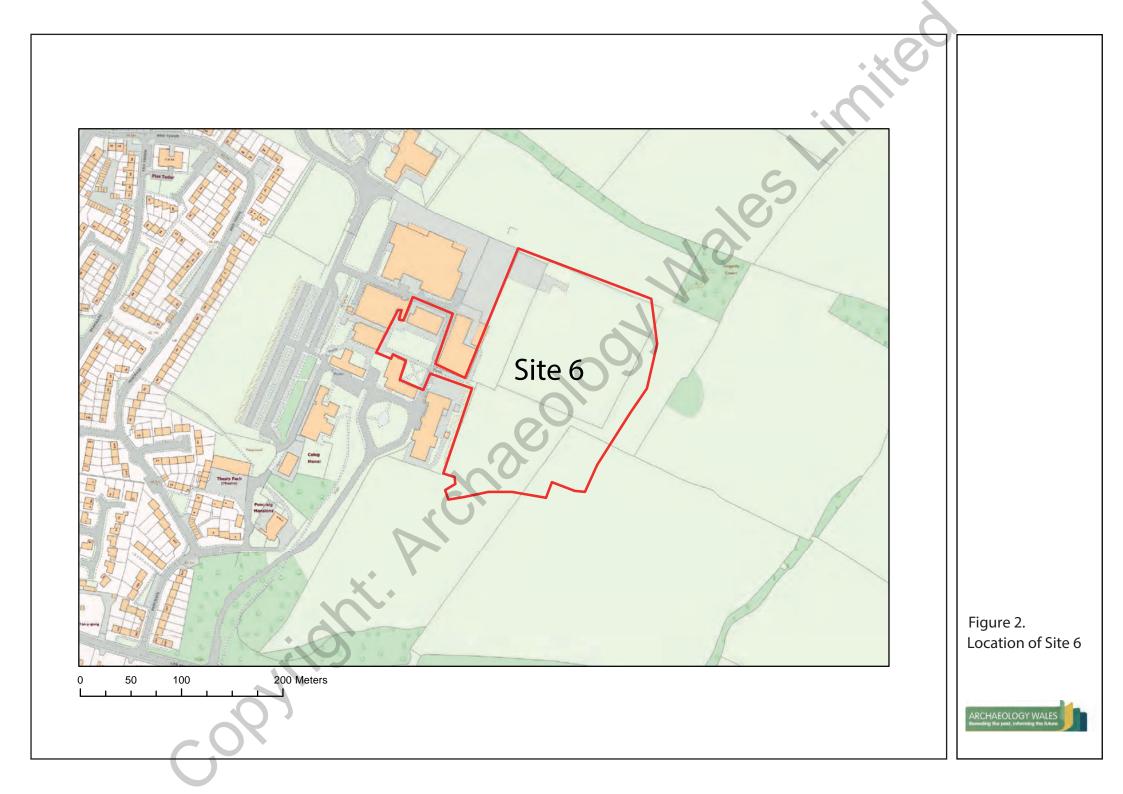
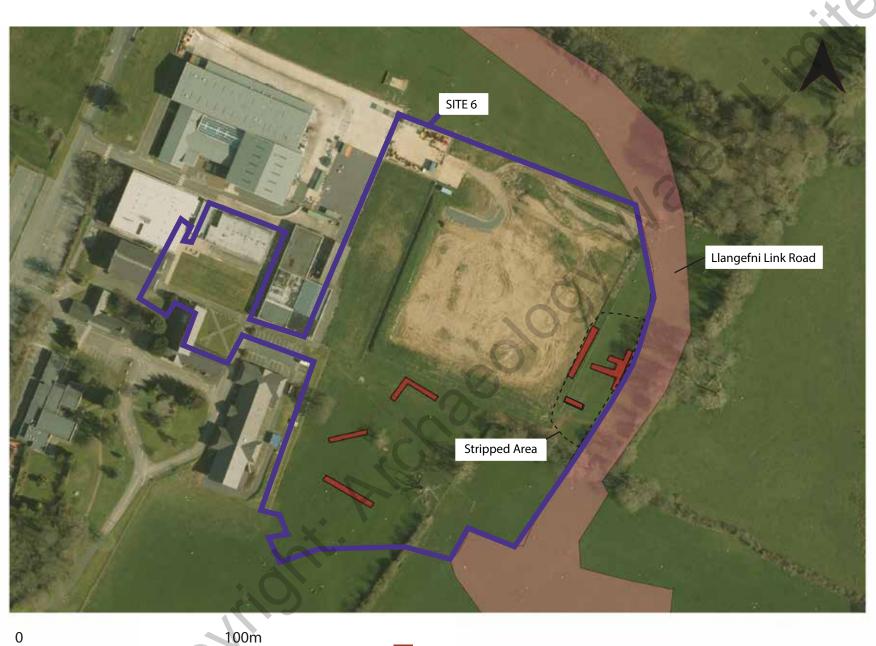


Figure 1. Site Location within surrounding area.





Excavated trenches during evaluation phase

Figure 3. Annotated map showing Site 6.

ARCHAEOLOGY WALES

