Market Street, Holyhead Drainage Scheme

Archaeological Watching Brief





MARKET STREET, HOLYHEAD DRAINAGE SCHEME

Archaeological Watching Brief

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Prepared for: Cyngor Ynys Mon Council

April 2015

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SUMMARY

Gwynedd Archaeological Trust (GAT) was commissioned by Cyngor Sir Ynys Môn to complete a partial archaeological watching brief during groundworks associated with a water drainage scheme and street improvement works at Market Street, Holyhead (centered on NGR SH24728253; Figure 01).

The scheme included the removal of the present road surface and shallow underlying deposits across the width of the road to a maximum depth of c.500mm. A 0.6m wide service trench for storm-water was excavated to connect existing services, which was approximately 1m deep from the existing road surface. The current road surface was replaced by a tarmacadam surface, slightly lowered from the height of the existing road surface, within a paved pedestrian area on both sides of the road. The site contactor was Amey/S.G.and S Williams.

The monitoring work took place from the 9th of February to the 27th of March 2015 and was completed within 9 visits, each for only a part of the day.

A partial watching brief was suggested for the project as the area had been subjected to heavy disturbance and an inspection of the open service trenches would be sufficient.

The only archaeology noted during the watching brief was the evidence for two areas containing a metalled surface (between G9-G10, and also after the removal of the lamp-post near St Cybi's Churchyard wall scheduled monument) (Plates 01 and 05).

1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) was asked by Cyngor Sir Ynys Môn to undertake a partial archaeological watching brief during groundworks associated with a water drainage scheme at Market Street, Holyhead (centred on NGR SH24728253; Figure 01). The scheme was located between NGR SH24668249 and SH24688258, within the footprint of Market Street, at the centre of Holyhead within an area containing shops, public houses and private properties.

The scheme route was defined on Cyngor Sir Ynys Mon Council drawing no. 025.22.19 DP B_2 (reproduced as Figure 02). In reference to the Cyngor Ynys Mon Council drawing, the watching brief on the service trench was undertaken between proposed gully points G9 and G12 as indicated on the drawing and confirmed by the scheme engineer (Wyn Jones, Cyngor Ynys Mon Council; pers. comm. 05/02/15), a 150mm excavation was also completed to the north of gully point G12, either side of the *Millennium Cross* and terminated to the immediate south of St. Cybi's churchyard wall, as part of the scheme; this involved removing the existing pavers and replacing them with alternative paving stones. The scheme also included the removal of the present road surface and underlying deposits across the width of the road to a maximum depth of c.500mm. A 0.6m wide service trench for storm-water was subsequently excavated to connect between existing services, which was positioned approximately 1.0m below the existing road surface. The current road surface was replaced by a tarmacadam surface, slightly lowered from the height of the existing road surface, within a paved pedestrian area on both sides of the road.

The groundwork monitored by the watching brief commenced on the 9th of February 2015, and was completed by the 27th of March 2015. The site contactor was *Amey/S.G.and S Williams*.

The scheme was monitored by the Gwynedd Archaeological Planning Service (GAPS). A project design was prepared by GAT, summarising project methodology and background; which was sent to GAPS prior to the start of the watching brief (cf. Appendix I for a copy of the design).

The watching brief was completed in accordance with the guidelines specified in *Standard* and *Guidance Archaeological Watching Brief* (Chartered Institute for Archaeologists, 2014).

2 ARCHAEOLOGICAL BACKGROUND

The scheme route was located within an area of known Roman and Medieval archaeology. Based on information within the Regional Historic Environment Record, (Gwynedd Archaeological Trust, Craig Beuno, Garth Road, Bangor LL57 2RT), the known receptors within the local area include:

- Scheduled Ancient Monument AN031: Roman Wall for Caer Gybi Roman fort surrounding St Cybi's Churchyard (SH24708260), located at the northeastern side of the scheme end point (Figure 01);
- Primary Reference Number (PRN) 1,763: St. Cybi's Church, Holyhead (SH24728262), located 32.0m to the northeast of the scheme end point (Figure 01);

Gwynedd Archaeological Trust completed an archaeological watching brief at 9 Stanley Street, 55.0m to the northwest of the current watching brief (GAT Report 144 (1995)). The watching brief at 9 Stanley Street included a 21m² rear extension to the property, which was located 10m west of Scheduled Ancient Monument AN031. Excavations on the north side of the Roman fort in 1952 had produced evidence of further walls surviving in the area beyond the main defensive wall and the 1995 watching brief monitored the groundworks for activity associated with the fort as well as later medieval activity associated with the church within the footprint of the fort. The extensions foundation footprint contained a lower deposit of glacial clay, sealed by garden soil; no evidence for activity before the 19th century was identified within the confines of the foundation.

A watching brief in the churchyard of St. Cybi's in 1992, during the construction of a new footpath revealed similar results (GAT Report 041).

3 METHODOLOGY

The drainage groundworks were completed along Market Street, Holyhead, between *Barclays* Bank and the St Cybi church walls next to the Millennium Cross, as indicated on Cyngor Sir Ynys Mon Council drawing no. 025.22.19 DP B_2 (reproduced as Figure 02). The drainage works measured 160.0m in length and comprised 14 gully points (referenced as G1 to G14), with associated drainage trenches. The groundworks were completed by removing the existing road surface, excavating an open cut trench for the drainage pipes between the local services, and then re-surfacing the road with tarmac. A narrow paved area for pedestrian access on both sides of the road was retained during the groundwork for the drainage scheme, which was replaced by a kerb and a new pavement when the new road surface was laid.

A partial watching brief was maintained during the groundworks, specifically for the section between gully points G8 and G14, encompassing the northern section of the scheme between *Boots* and the St Cybi church walls (cf. Figure 02). A daily record was maintained on GAT pro-forma recording sheets, with all identified features also recorded on the same sheets, and a continuous photographic record maintained of ongoing work using a digital SLR camera set to RAW format, and which will be archived in TIFF format. A total of 42 photographic images were taken (archive reference G2412_001 to G2412_042; cf. Appendix 2 for a reproduction of the photographic metadata).

4 RESULTS

The groundworks were completed in two main sections of differing length. The initial section measured 70.0m in length and encompassed the southern end of the route between gully points G1 and G8 (between *Barclays Bank* and *Boots;* cf. Figure 02). To accommodate the groundworks, the existing pedestrian paving slabs were removed along with foundation layers of sand and concrete, after which a trench was excavated for the drainage pipes. The road surface was then re-instated with tarmac, kerb stones and a pavement. This part of the scheme was not monitored by the watching brief, although a short section of the open cut trench was not backfilled at the time of the first site visit, and was therefore observed. The deposits were recorded as bedding sand above approximately 0.3m of concrete; beneath this was a layer of sub-base approximately 0.3m deep above red brown gravelly clay which exceeded the limit of the excavation. No archaeology was identified within the trench in this area.

The same methodology was used for the northern section of the groundworks, which measured 90.0m in length and was located between gully points G8 and G14, (between *Boots* and the St Cybi church walls; cf. Figure 02). A Scheduled Monument Consent was obtained by the client to undertake the work in proximity to the church walls (pers. Comm. Wyn Davies, Highways Dept. Ynys Mon Council). Between gully points G9 and G10 (Figure 02), a 6.6m long area of bedrock was identified, sealed by a possible metalled surface lying directly on the bedrock (Plate 01). The metalled surface may have been fragmented bedrock, but the stones forming the surface appeared to lie quite flat and level, giving the appearance of a metalled surface. This section was noted for large volume of modern services.

A section of drainage trench by gully point G10 (Figure 02) measured 0.6m wide, 0.75m deep and 30m in length (Plate 03). This exposed section contained a sequence of deposits that included a sub-base for the modern brick road surface above a re-deposited grey gravelly clay containing a moderate amount of sub-angular pebble and cobble sized stone, and also included a few patches of a red brown gravelly clay. These were fairly recent made ground deposits and exceeded the 0.75m depth limit of excavation required by the site contractor. The natural deposits were not reached in this section, except in a short length containing exposed bedrock. These mixed deposits are most likely associated with the modern phases of development in Market Street, possibly during the middle part of the 20th Century.

Service pipes (water and electricity) crossed the open cut trench at regular intervals, and a gas main was located aligned roughly northeast to southwest along the road; a high voltage electricity cable was also located on the western side of the road running parallel to the buildings. The ground appeared to be heavily disturbed by the groundwork for the services, the gas main and the construction of the road. The area of the trench where the gas main was visible contained a sub-base throughout.

A pit measuring 1.2m x 1.2m, and also 1.2m deep was excavated for a tank/chamber between gully points G9 and G10 (Plate 02); the pit contained grey gravelly clay with subangular pebble and cobble inclusions. These deposits within the excavated pit were redeposited clays excavated from modern made ground connected with previous 20th Century road construction phases, including large amounts of services and drains below street level.

When the groundwork for this portion of the drainage scheme was completed, the road was re-surfaced with Tarmac, and new kerbstones for a pavement on both sides of the road were laid before the next phase of excavation was undertaken.

The next section of the trench was observed between William Hill and Beresford Adams (G10 to G11) (Plate 03) with approximately 30m excavated. The trench was 0.8m wide and 0.6m deep after the removal of the upper street surfaces (paving brick, sand and concrete). The trench contained an orange-grey clayey gravelly silt with occasional angular and sub-angular small and medium stone inclusions. The deposits were very disturbed especially in the areas of the trench where drains and services crossed the trench. Bricks and rubble were observed in this section of the trench.

Lamp-post removal near St Cybi's Churchyard wall.

The lamp post was located very close to a low stone wall outside a solicitor's office and 2m south of the walled entrance to St Cybi's Churchyard, and was conducted by AMEY sub-contractor staff. The current brick road surface was removed within an approximate surface area of 0.8m x 0.5m, with the thickness of the bricks being 100mm. Below the bricks there was a deposit of bedding sand and concrete, of which the concrete extended to the full depth of the lamp post, which was 0.7m below the level of the ground surface, and was broken up with a large pneumatic hammer.

At a depth of 0.6m below the existing ground surface and within the extent of the lamp post post-hole a very small area of possible metalled surface was found (Plate 05). The observed area at the base of the post-hole had a rough diameter of 0.4m, with the metaling only seen in approximately half this area, as the former lamp post had cut the remaining half down to bedrock which was at a depth of 0.7m below ground surface.

The metaling could be fragmented bedrock, although when observed in this very small section the stones lay very flat and were quite level, giving the impression that they were a metalled surface. This metalled area is very similar to another metalled area described above, between section G9 and G10, outside Boots the chemist, and lies directly onto the bedrock with no intervening bedding deposits.

The post-hole for the lamp-post was photographed and recorded onto a GAT Watching Brief Day Record sheet before the resumption of work on the replacement lamp post. The deposits surrounding the post-hole were composed of concrete at the upper 0.3m below the brick road surface and bedding sand, underlain by re-deposited mixed orange-yellow silty clay, which contained a small amount of broken brick. This deposit continued down as far as the metalled surface at a depth of 0.6m, although it was very difficult to make accurate assumptions within the small area observed which had considerable recent disturbance.

The last phase of the watching brief involved removing the road surface bricks as far as the entrance arches to the wall of St Cybi's Churchyard/ Roman fort, the width of the area removed was c3.2m, which is the total width at the arched fort entrance between the solicitors dwarf wall and the large flats on the opposite side.

The depth of the removed area was 0.14m, which accounts for the brick road surface and the underlying bedding sand. Below the sand was a base of a thick concrete floor, which will not be disturbed during the current works, as the new paving slabs will be re-bedded into the same sand. All the bricks were removed by hand, as was the laying of the new paving stones and no damage occurred to the fort wall during this process.

The area underneath the arched churchyard wall/fort entrance is composed of modern stone setts, possibly only 20 years old, bedded into cement and underlain by cobbles (Plate 06). It was not possible to determine in this section of the ground works if the cobbles were set on top of the concrete floor. The stone setts though were laid on top of the cobbles.

5 CONCLUSION

This short and partial watching brief in a very disturbed multi period area of Holyhead did not produce any unexpected archaeological discoveries. The main part of the site contractors work involved the removal of the current street surface, and relaying the roadway with tarmac, and the pedestrian walkways on either side with paving stones. Narrow and short service trenches were excavated into sections of the road and it was only within parts of these service trenches, or limited deeper excavations such as during the lamp-post removal that deposits below the modern made ground levels were observed.

Within a service trench between section G9-G10, and during the lamp-post removal a very similar small section of a metalled surface was found directly above the bedrock (Plates 01 and 05). This could be the remnants of a road surface which may date to the Medieval period, or even earlier. The location and depth below the present ground surface was recorded for future reference.

6 SOURCES CONSULTED

Cyngor Ynys Mon Council drawing no. 025.22.19 DP B_2

Regional Historic Environment Record (Gwynedd Archaeological Trust, Craig Beuno, Garth Road, Bangor LL57 2RT)

Gruffydd, A. (1992). *Investigations at Holyhead, St. Cybi Environmental Improvement Scheme*. Gwynedd Archaeological Trust Report 041

Davidson, A. (1995). 9 Stanley Street, Holyhead, Watching Brief G1311. Gwynedd Archaeological Trust Report 144

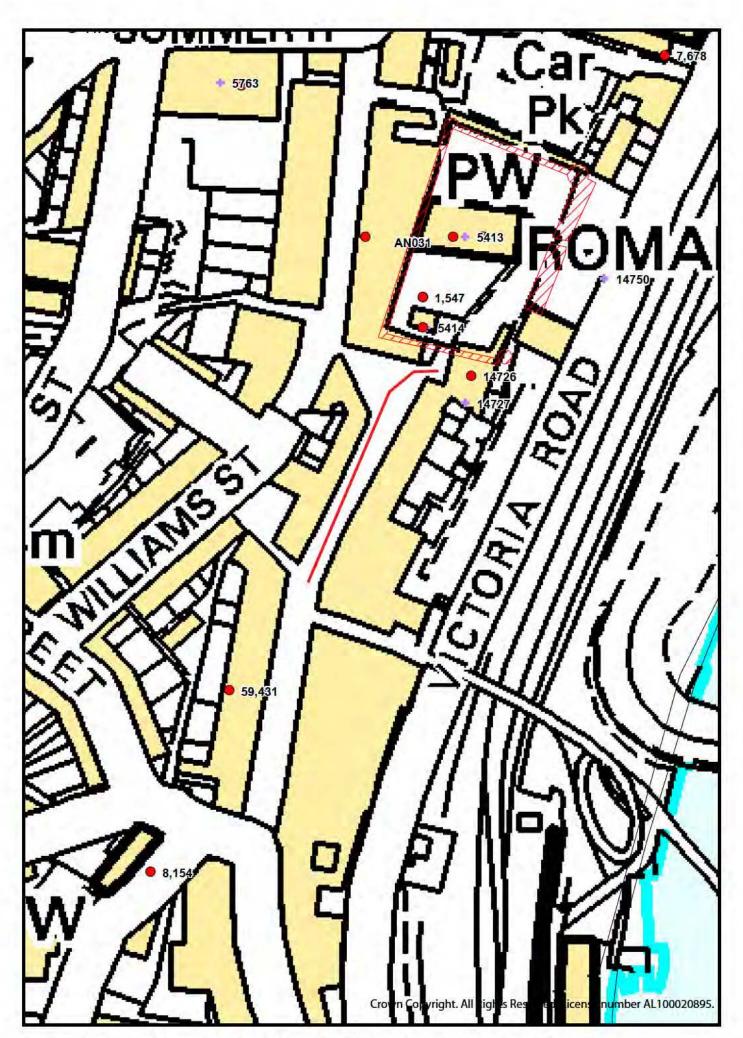


Figure 01: Scheme location map, based on Ordnance Survey County Series 1:10000 map sheet SH28SW.

The scheme route is outlined in red and is based on the route defined on Cyngor Ynys Mon Council drawing no. 025.22.19 DP B_2 (reproduced as Figure 02). Note the Scheduled Ancient Monument to teh immediate north (red hachure). Scale 1:1250@A4

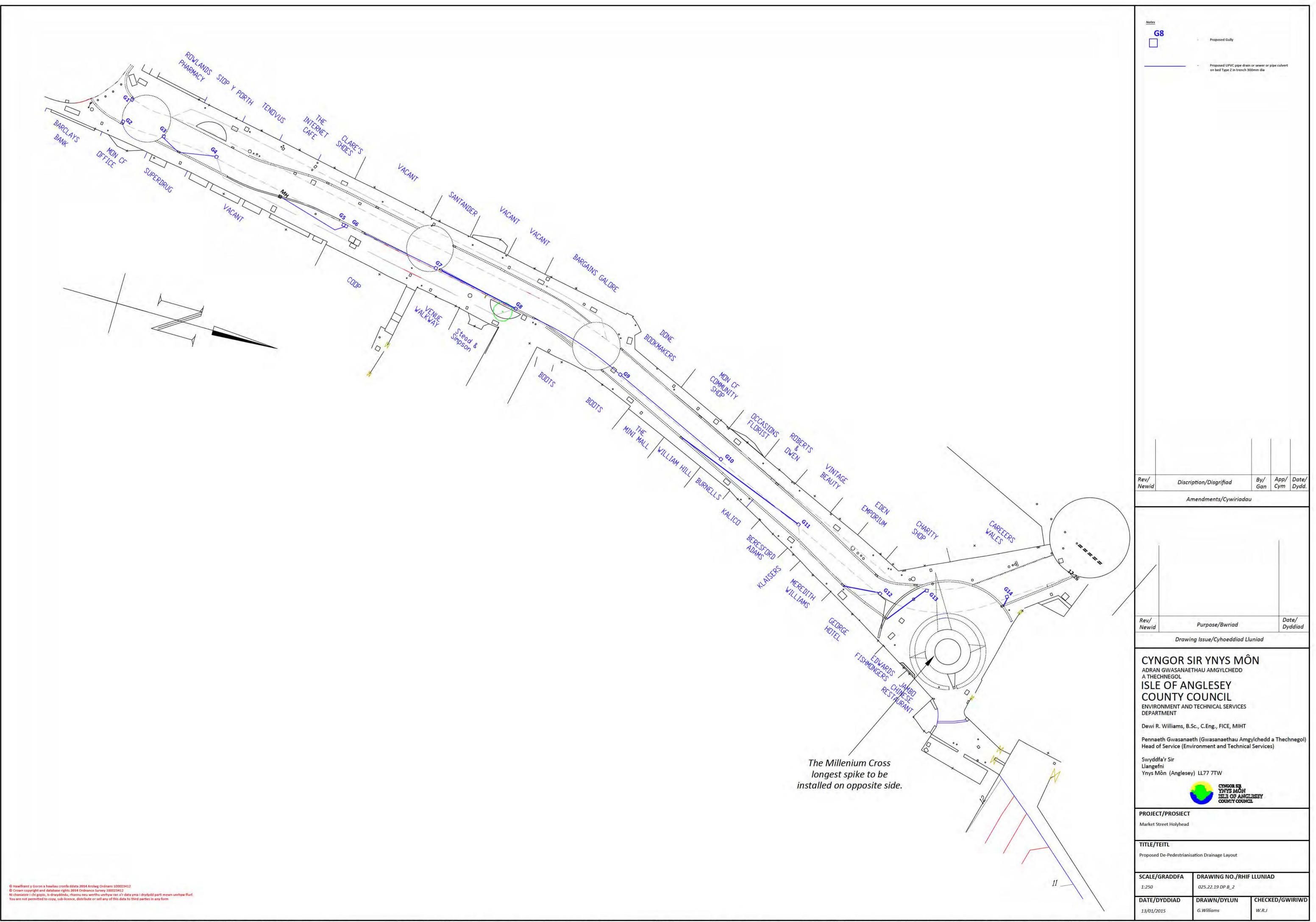




Plate 01: Possible metaled surface in open cut trench, with services crossing the trench. Section between G9-G10. No scale. Viewed from the North-West.



Plate 02: Small pit excavated for gully G9. 1m scale, as seen from the South-West.



Plate 03: Length of trench showing gas main and other services. 1m scale, and viewed from the North-West.



Plate 04: General working shot of Market Street. No scale and viewed from the North-East.



Plate 05: Possible metaling at the base of lamp-post near St Cybi`s Churchyard wall after removal. 1m scale, and also trowel for comparison. Viewed from the South-West.



Plate 06: Cobbles below modern stone setts within the walled arch at St Cybi's Churchyard wall. No scale and seen from the South-West.

Appendix I

MARKET STREET, HOLYHEAD DRAINAGE SCHEME

PROJECT DESIGN FOR AN ARCHAEOLOGICAL WATCHING BRIEF (G2412)

Prepared for

Cyngor Ynys Mon Anglesey County Council

February 2015

Ymddiriedolaeth Archaeolegol Gwynedd Gwynedd Archaeological Trust

MARKET STREET, HOLYHEAD DRAINAGE SCHEME

Prepared for Cyngor Ynys Mon Council, February 2015

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1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) has been asked by Cyngor Ynys Mon Council to provide a project design for undertaking an archaeological watching brief during groundworks associated with a water drainage scheme at Market Street, Holyhead (centred on NGR SH24728253; Figure 01).

The scheme measures on a *c*.90.0m length and is located between NGR SH 24668249 and SH24688256, within the footprint of the Market Street Road in an area containing shops, public house and private properties; the scheme terminates to the immediate south of St. Cybi's churchyard wall.

The groundworks include the removal of the present road surface, underlying deposits and services, to a width of 300mm and a depth of *c.* 750mm. All services are to be renewed, as well as a larger service trench for storm-water which is expected to be roughly 1m deep from the present road surface. The current road surface will be replaced by a tarmacadam surface, slightly lowered from the height of the existing road surface, within a paved pedestrian area on both sides of the road. The site contactor is *Amey/S.G. Williams*. The current phase of the WB is expected to start on the 9th of February 2015, with a duration of 2 weeks. The scheme route is defined on Cyngor Ynys Mon Council drawing no. 025.22.19 DP B_2 (reproduced as Figure 02). In reference to the Cyngor Ynys Mon Council drawing, the scheme will be undertaken between proposed gully points G9 and G12. Not indicated on the drawing, but confirmed by the scheme engineer (Wyn Jones, Cyngor Ynys Mon Council; pers. comm. 05/02/15), a 150mm excavation will also be completed to the north gully point G12, either side the *Millenium Cross*, as part of the scheme.

The scheme will be monitored by the Gwynedd Archaeological Planning Service (GAPS). A copy of this design must be approved by GAPS prior to the start of the watching brief. GAPS will also monitor the project duration the archaeological mitigation phase.

The watching brief will conform to the guidelines specified in *Standard and Guidance Archaeological Watching Brief* (Chartered Institute for Archaeologists, 2014).

2 ARCHAEOLOGICAL AIMS

The definition of an archaeological watching brief is "a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive". (*Standard and Guidance archaeological watching brief* (Chartered Institute for Archaeologists, 2014) page 1.)

The purpose of the watching brief is:

- 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

3 ARCHAEOLOGICAL BACKGROUND

The scheme route is located within an area of known Roman and Medieval archaeology. Based on information within the Regional Historic Environment Record (Gwynedd Archaeological Trust, Craig Beuno, Garth Road, Bangor LL57 2RT), the known receptors within the local area include:

- Scheduled Ancient Monument AN031: Roman Wall for Caer Gybi Roman fort surrounding St Cybi's Churchyard (SH24708260), located 18.0m to the northeast of the scheme end point (Figure 01);
- Primary Reference Number (PRN) 1,763: St. Cybi's Church, Holyhead (SH24728262), located 50.0m to the northeast of the scheme end point (Figure 01);

Gwynedd Archaeological Trust completed an archaeological watching brief 1995 at no. 9 Stanley Street, 55.0m to the northwest of the current watching brief (GAT Report 144). The watching brief at no.9 included a 21m² rear extension to the property, which was located 10m west of Scheduled Ancient Monument AN031. Excavations on the north side of the Roman fort in 1952 had produced evidence of further walls surviving in the area beyond the main defensive wall and the 1995 watching brief monitored the groundworks for activity associated with the fort as well as later medieval activity associated with the church within the footprint of the fort. The extension foundation footprint contained a lower deposit of glacial clay, sealed by garden soil; no evidence for activity before the 19th century was identified within the confines of the foundation. A watching brief in the churchyard of St. Cybi's in 1992, during the construction of a new footpath revealed similar results (GAT Report 041).

4 METHODOLOGY

4.1 Watching Brief

A partial watching brief will be maintained on the 90.0m length of drainage groundworks, during initial excavation of the drainage route.

- All identified features will be recorded using GAT pro-formas and photographed using a digital SLR camera set to RAW format. The location of the watching brief, the extent of any identified archaeological activity and any features therein will be located using survey grade (not handheld) GPS with <10cm accuracy (model: Trimble GNSS/R6/5800). Appropriate scales will be used where possible.
- A drawn record will be completed for all relevant features. This will include sections and plans where required at either 1:10 or 1:20 scale.
- Adobe Photoshop CS5 will be used for any post processing work required.
- A complete table of metadata with details of each image, including descriptions and directions of shot will be produced using Microsoft Access.
- Images will be converted to TIFF and JPEG format for archiving.
- All field records will be completed using GAT pro-formas.
- A basic record of non-archaeological work will also be maintained on GAT proforma record sheets as well as a photographic record.

All archaeological features/deposits encountered will be manually cleaned and examined to determine extent, function, date and relationship to adjacent features. Limited excavation will be undertaken to characterise the features/deposits: this strategy will be based on feature type and may include an initial 50% sample of sub-circular features and 10% sample of linear features. Any subsequent excavation required will be detailed in an appropriate **Further Archaeological Works Design**.

4.2 Environmental Samples

Relevant archaeological deposits (if suitable) will be sampled by taking bulk samples for flotation of charred plant remains. Bulk samples will be taken from waterlogged deposits for macroscopic plant remains. Other bulk samples, for example from middens, may be taken for small animal bones and small artefacts.

Specific palaeoenvironmental strategies for any peat deposits (if encountered) will be discussed with the GAPS if encountered and input from a specialist will be sought during the archaeological excavation on an appropriate sampling strategy to be rationalised in a further archaeological works design.

4.3 Human Remains

Any finds of human remains will be left *in-situ*, covered and protected, and both the coroner and the GAPS Archaeologist informed. If removal is necessary it will take place under appropriate regulations and with due regard for health and safety issues. In order to excavate human remains, a licence is required under Section 25 of the Burials Act 1857 for the removal of any body or remains of any body from any place of burial. This will be applied for should human remains need to be investigated or moved.

4.4 Small Finds

The vast majority of finds recovered from archaeological excavations comprise pottery fragments, bone, environmental and charcoal samples, and non-valuable metal items such as nails. Often many of these finds become unstable (i.e. they begin to disintegrate) when removed from the ground. All finds are the property of the landowner; however, it is Trust policy to recommend that all finds are donated to an appropriate museum where they can receive specialist treatment and study. Access to finds must be granted to the Trust for a reasonable period to allow for analysis and for study and publication as necessary. All finds would be treated according to advice provided within *First Aid for Finds* (Rescue 1999). Trust staff will undertake initial identification, but any additional advice would be sought from a wide range of consultants used by the Trust, including National Museums and Galleries of Wales at Cardiff and ARCUS at Sheffield.

Unexpected Discoveries: Treasure Trove

Treasure Trove law has been amended by the Treasure Act 1996. The following are Treasure under the Act:

- Objects other than coins any object other than a coin provided that it contains at least 10% gold or silver and is at least 300 years old when found.
- Coins all coins from the same find provided they are at least 300 years old when found (if the coins contain less than 10% gold or silver there must be at least 10. Any object or coin is part of the same find as another object or coin, if it is found in the same place as, or had previously been left together with, the other object. Finds may have become scattered since they were originally deposited in the ground. Single coin finds of gold or silver are not classed as treasure under the 1996 Treasure Act.
- Associated objects any object whatever it is made of, that is found in the same place as, or that had previously been together with, another object that is treasure.
- Objects that would have been treasure trove any object that would previously have been treasure trove, but does not fall within the specific categories given above.
 These objects have to be made substantially of gold or silver, they have to be buried with the intention of recovery and their owner or his heirs cannot be traced.

The following types of finds are not treasure:

- Objects whose owners can be traced.
- Unworked natural objects, including human and animal remains, even if they are found in association with treasure.
- Objects from the foreshore which are not wreck.

All finds of treasure must be reported to the coroner for the district within fourteen days of discovery or identification of the items. Items declared Treasure Trove become the property of the Crown, on whose behalf the National Museums and Galleries of Wales acts as advisor on technical matters, and may be the recipient body for the objects.

The National Museums and Galleries of Wales will decide whether they or any other museum may wish to acquire the object. If no museum wishes to acquire the object, then the Secretary of State will be able to disclaim it. When this happens, the coroner will notify the occupier and landowner that he intends to return the object to the finder after 28 days unless he receives no objection. If the coroner receives an objection, the find will be retained until the dispute has been settled.

4.5 Further Archaeological Works

The identification of significant archaeological features during the archaeological excavation may necessitate the production of a new project design and the submission of new cost estimates to the contractor.

The application of a further archaeological works design (FAWD) will be dependent on the initial identification, interpretation and examination of an archaeological feature and the establishment of a threshold of significance over which a FAWD might be triggered. The requirement for an FAWD will be determined in conjunction with GAPS through established communication lines and the monitoring process.

The FAWD will be instigated through a GAT produced document that will include:

- feature specific methodologies;
- artefact and ecofact specialist requirements, with detail of appropriate sampling strategies and specialist analysis
- timings, staffing and resourcing.
- Additional costs

The FAWD document will need to be approved by the GAPS Archaeologist.

This design does not include a methodology or cost for examination of, conservation of, or archiving of finds discovered during the archaeological excavation, nor of any radiocarbon dates required, nor of examination of palaeoenvironmental samples. The need for these will be identified in the post-fieldwork programme (if required), and a new design will be issued for approval by the GAPS Archaeologist.

4.6 Monitoring Arrangements

The GAPS Archaeologist will need to be informed of the project start date and of the subsequent progress and findings. This will allow the GAPS Archaeologist time to arrange monitoring visits and attend site meetings (if required) and enable discussion about the

need or otherwise for FAWDs (if required) as features of potential archaeological significance are encountered.

4.7 Data processing and report compilation

Following completion of the stages outlined above, a report will be produced incorporating the following:

- Non-technical summary
- Introduction
- · Aims and purpose
- Specification
- Methods and techniques, including details and location of project archive
- Watching Brief Results
- Summary and conclusions
- List of sources consulted.

Illustrations will include plans of the location of the study area and archaeological sites. Historical maps, when appropriate and if copyright permissions allow, will be included. Photographs of relevant sites and of the study area where appropriate will be included. A draft copy of the report will be sent to the regional curatorial archaeologist (GAPS) and to the client prior to production of the final report.

5 DISSEMINATION AND ARCHIVING

A full archive including plans, photographs, written material and any other material resulting from the project will be prepared. All plans, photographs and descriptions will be labelled and cross-referenced, and lodged in an appropriate place (to be decided in consultation with the regional Historic Environment Record) within an agreed submission period.

- A digital report will be provided to GAPS;
- Two copies of the paper report plus a digital report and archive on optical disc will be provided to Historic Environment Record, Gwynedd Archaeological Trust; this will be submitted within six months of report completion
- A digital report and archive (including photographic and drawn) data will be provided to Royal Commission on Ancient and Historic Monuments, Wales.
- A paper report(s) plus digital report(s) will be provided to the client.

5.1 Historic Environment Record

In line with the regional Historic Environment Record (HER) requirements, the HER must be contacted at the onset of the project to ensure that any data arising is formatted in a manner suitable for accession to the HER. At the onset, the HER Enquiry Form provided by the HER, will be completed and submitted.

The watching brief is currently scheduled to from 9th February 2015, with an expected duration of two weeks.

6 PERSONNEL

The work will be managed by John Roberts, Principal Archaeologist GAT Contracts Section. The work will be undertaken by one of the Trust's Archaeologists experienced in the relevant skills/periods required.

7 HEALTH AND SAFETY

The Trust subscribes to the SCAUM (Standing Conference of Archaeological Unit Managers) Health and Safety Policy as defined in **Health and Safety in Field Archaeology** (2006).

The GAT Project Archaeologist will be CSCS certified. Copies of the site specific risk assessment will be supplied to the client and landowner prior to the start of fieldwork. Any risks and hazards will be indicated prior to the start of work via a submitted risk assessment. All staff will be issued with required personal safety equipment, including high visibility jacket, steel toe-capped boots and hard hat.

8 INSURANCE

Public Liability

Limit of Indemnity- £5,000,000 any one event in respect of Public Liability

INSURER Aviva Insurance Ltd
POLICY TYPE Public Liability
POLICY NUMBER 24 7651 01 CHC/000405
EXPIRY DATE 21/06/2015

Employers Liability

Limit of Indemnity- £10,000,000 any one occurrence.

INSURER Aviva Insurance Ltd
POLICY TYPE Employers Liability
POLICY NUMBER 24 765101 CHC/000405
EXPIRY DATE 21/06/2015

Professional Indemnity

Limit of Indemnity- £2,000,000 in respect of each and every claim

INSURER Royal & Sun Alliance Insurance PLC POLICY TYPE Professional Indemnity POLICY NUMBER RKK865819/1208 EXPIRY DATE 22/07/2015

9 SOURCES CONSULTED

Cyngor Ynys Mon Council drawing no. 025.22.19 DP B_2

Regional Historic Environment Record (Gwynedd Archaeological Trust, Craig Beuno, Garth Road, Bangor LL57 2RT)

Gruffydd, A. 1992. *Investigations at Holyhead, St. Cybi Environmental Improvement Scheme*. Gwynedd Archaeological Trust Report 041

Davidson, A. 1995. *9 Stanley Street, Holyhead, Watching Brief (G1311)*. Gwynedd Archaeological Trust Report 144

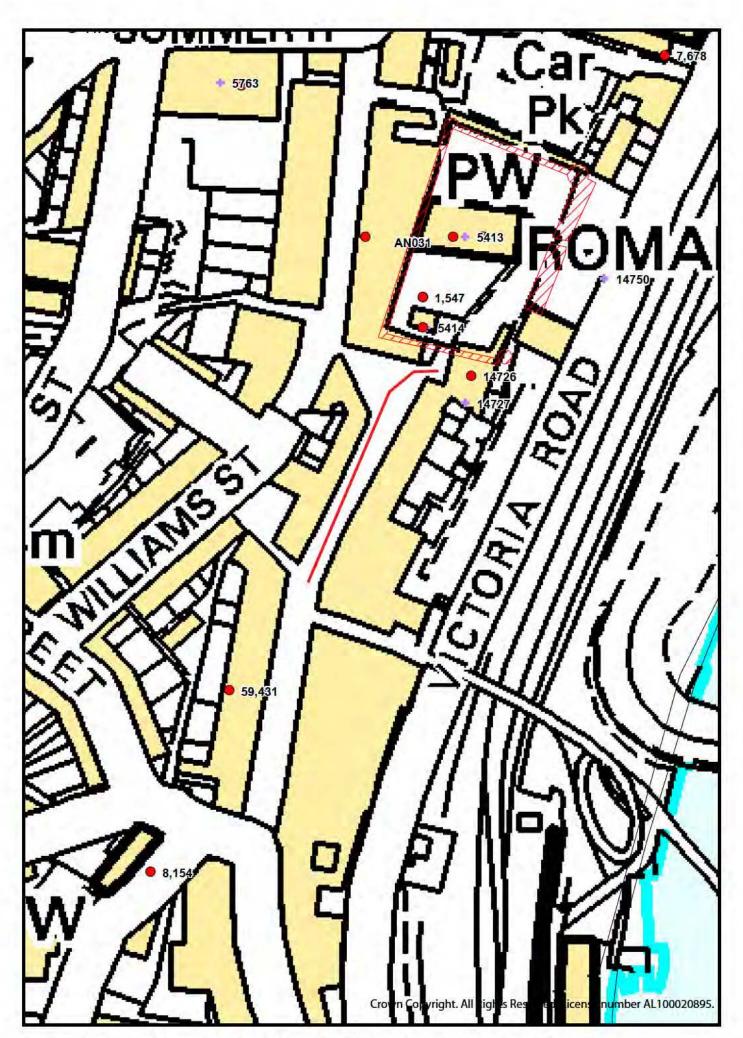
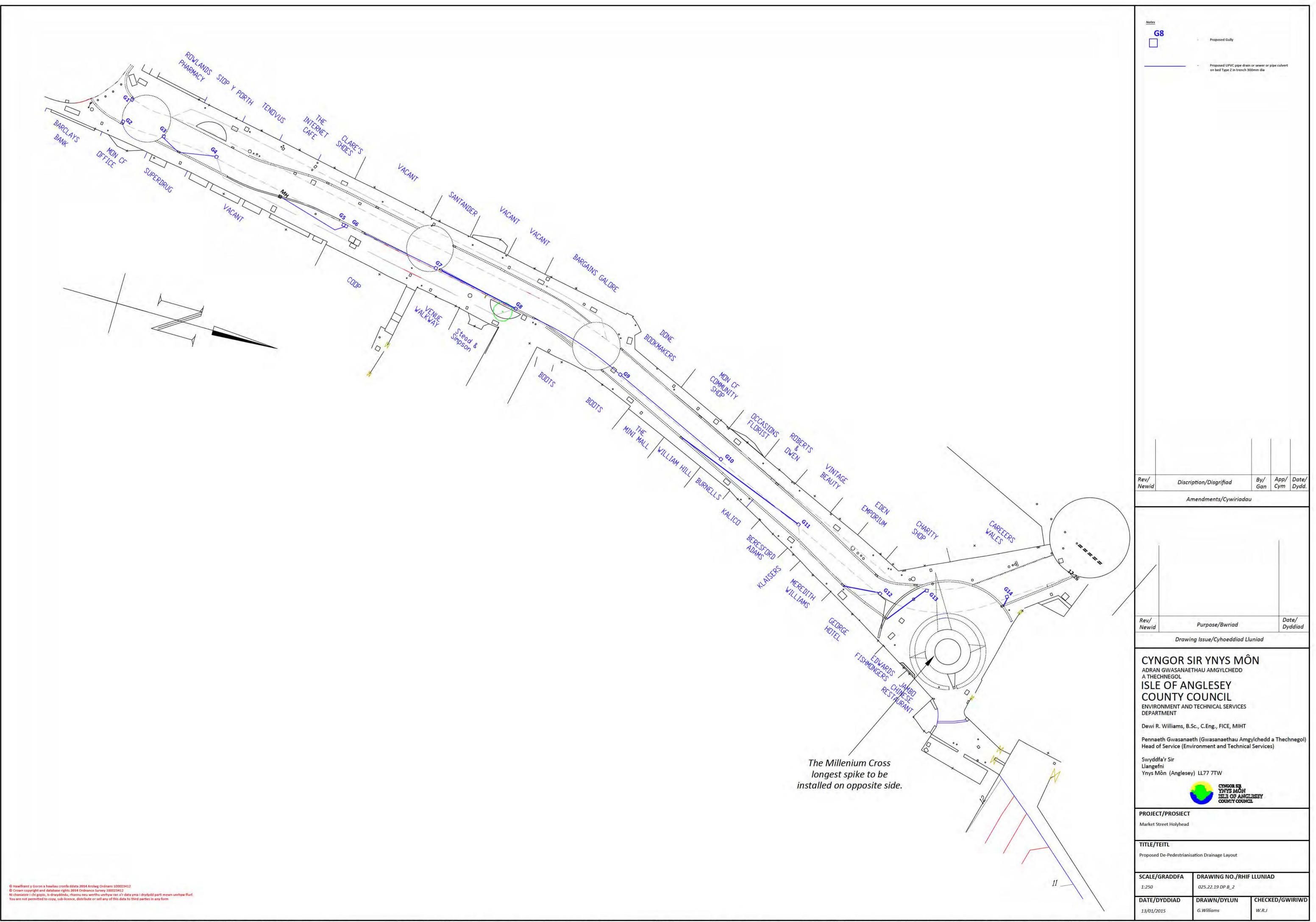


Figure 01: Scheme location map, based on Ordnance Survey County Series 1:10000 map sheet SH28SW.

The scheme route is outlined in red and is based on the route defined on Cyngor Ynys Mon Council drawing no. 025.22.19 DP B_2 (reproduced as Figure 02). Note the Scheduled Ancient Monument to teh immediate north (red hachure). Scale 1:1250@A4



GWYNEDD ARCHAEOLOGICAL TRUST

HAZARD IDENTIFICATION AND RISK ASSESSMENT

MARKET STREET, HOLYHEAD: WATCHING BRIEF

This assessment identifies the Health and Safety issues associated with maintaining a watching brief in urban surroundings. In addition to this document staff will also be familiar with the Health and Safety Policy of the Trust.

The project is an archaeological watching brief during groundworks associated with a water drainage scheme at Market Street, Holyhead (centred on NGR SH24728253).

The scheme measures on a c.90.0m length and is located between NGR SH 24668249 and SH24688256, within the footprint of the Market Street Road in an area containing shops, public house and private properties; the scheme terminates to the immediate south of St. Cybi's churchyard wall.

The groundworks include the removal of the present road surface, underlying deposits and services, to a width of 300mm and a depth of c. 750mm. All services are to be renewed, as well as a larger service trench for storm-water which is expected to be roughly 1m deep from the present road surface. The current road surface will be replaced by a tarmacadam surface, slightly lowered from the height of the existing road surface, within a paved pedestrian area on both sides of the road. The site contactor is *Amey/S.G. Williams*. The current phase of the WB is expected to start on the 9th of February 2015, with a duration of 2 weeks.

Lone working is not expected to be an issue as the archaeologist will be working with contractor staff during the project.

Project No	G2412	Project Name	Market Street, Holyhead			
Site Name	Ysgubor Fawr	First aid kit	In company vehicle/on site			
Project Officer	Ken Owen (KO) (First Aider)	Project Manager	John Roberts (JR)			
Other Trust members present	Anne Marie Oattes (AMO) (First Aider)	Staff mobile phone numbers	JR - 01248 366957 KO - 07825 540285 AMO - 07867 170174			
Dates of work	9 th February 2015; for two weeks					
Client	Cyngor Ynys Mon Council	Client contact	Wyn Jones 01248752325 07747118595			
Site Contractor	Amey/S.G. Williams	Contact Names and phone numbers	Wyn Jones 01248752325 07747118595			

GENERAL RULES

Work in the vicinity of the contractors staff and ensure that they are aware of your presence. In exceptional circumstances lone working may be possible and if so follow the Trust Lone Working system.

Essential General Safety Equipment

First aid kit: This should be close to hand, and not kept in a vehicle some distance away. *Mobile telephone*: This should be kept on your person at all times. You should check at the start of work that a service is available, and familiarize yourself with areas of good signal.

Essential Personal Protective Equipment

Safety helmet: To be worn at all times when near the mechanical excavator or in trenches where the side is above the level of your head when working (e.g. when kneeling down trowelling). Ensure it is less than three years old, and in good condition. If the helmet suffers a blow it must be replaced. **Safety footwear**: To be worn at all times when on site. They must have steel toe-cap protection and mid-sole protection.

High visibility jacket. To be worn at all times when on site.

Gloves: to be used to protect the hands against dirt. The gloves must be strong enough for the purpose and must fit comfortably. For other identified hazards, including unhygienic material such as when working in cess pits, rubbish pits or sewage deposits use disposable gloves. For human or animal remains use disposable gloves. If chemicals are to be handled, a separate risk assessment will be required. If gloves are worn against cold, they must be compatible with the work you are doing.

Clothing: This must be fit for its purpose, and capable of protecting against likely levels of cold or wet. If protection against chemicals or hazardous waste is needed, then a separate risk assessment will be required.

Other PPE equipment

The following may be required:

Eye protection: To be used if there is a risk of eye injury from machine, or from dust or chemicals. There are different types of eye protector, and it is important to ensure the correct type is worn. *Hearing protection*: To be used in the event of exposure to noise at work. There is a separate risk assessment for noise at work, which you should consult. There are different types of hearing protection, and you need to be familiar with the properties and uses of each, particularly that between ear plugs (for protection against noise levels not exceeding 105 dB(A), and ear defenders for noise levels exceeding 105 dB(A).

Respiratory protective equipment: To be used where identified under COSHH regulations. Separate assessments will need to be carried out if there is a need for RPE. If dust from excavations is the identified hazard, and there are no known additional hazardous implications, a suitable dust mask conforming to BS 7356 is to be used.

Basic on site rules

Report to the Site Manager, ask about site induction, ask about any specific hazards.

Ensure the workmen are aware of your presence, particularly machine drivers.

Eat food off-site, and wash prior to eating.

Remain alert at all times, and be aware of the potential dangers of open excavations and operating machinery.

Hazard identification and risk assessment

Include all site specific hazards

Hazard	Nature of risk	Severity of risk	Probability of risk	Persons exposed	Protective/preventative measure	Risk after application of control measures
Travelling to site	Road accident	L-H	L	All	Ensure vehicle is in roadworthy condition. Do not drive when too tired.	L
Working at roadside	Road accident	Н	Н	All	Wear high visibility clothing with full jacket, not just waistcoat. Work only within safety barriers.	L
Working with mechanical excavator:	Direct blow Material dropped from bucket	L-H L-H	L-H	All	Wear high visibility clothing. Wear safety helmet. Wear goggles if dusty. Make sure all machine operators know of your presence. Keep clear of operating circle of excavator arm. Be constantly alert to the location of machines and buckets. Remember mechanical failure can result in rapid and violent movement of hydraulic arm or bucket. Keep clear of bucket. Beware of stones ricocheting from beneath machine tracks or bucket.	L
Machines and other vehicles travelling around site	Danger of collision or contact with plant, vehicles and machinery.	L-H	M	Staff	Be aware at all times, avoid areas where plant and machinery is active. Always wear high visibility clothing, hard hat and safety boots.	L

Underground Services	Electric shock Gas leak	M-H M-H	M	Staff and contractors Staff and contractors	Familiarise yourself with the location of all service cables. If a cable is exposed, do not touch, but get contractor to check it. Where there is any doubt about the identity of an exposed service it should be treated as an electricity cable or gas pipe until proved otherwise. Be careful with mattock and spade. Do not work alone if there is any danger of locating unknown services. Familiarise yourself with the risk assessment for gas leaks. Be aware of risk of health risk from sewage/waste water pipes.	L
Collapse of sections	Buried by falling section. Falling into excavation	M-H L-M	M	All	Do not enter any excavation which looks unsafe. Do not enter any excavation if you are on your own. Do not enter any excavation deeper than 1.2m	L
Contaminated ground This can include bacteria, chemicals, metals, sewage	Risk to health from bacteria, chemicals, metals, sewage, sharp objects, explosive objects.	L-H	M-H		Obtain all information possible about the deposits being excavated. Remain alert. If you have any reason to believe the ground is contaminated in any way which may be harmful to your health do not proceed without undertaking a new risk assessment and deciding upon preventative measures. Ask advice from your Project Manager or Health and Safety Officer.	L
Contamination from soils	Disease from soil	L-H	M-H		Wear gloves. Wash hands before eating.	L
Environmental risks	Road vehicles, people	L-H	L-M	All	Inform police when traffic control needed. Use of safety markers/barriers. Provision of public information and careful public relations	L

All GAT staff and any other person involved in the archaeological side of the project (e.g. machine drivers) should sign below. Keep the signed copy of the risk assessment with the site records.							
Risk assessment read a	and understood by:						
Name	Signature	Date					

RISK ASSESSMENT UPDATE

Once on site risks not previously recognized may come apparent or tasks or conditions may change. If there are any changes the risk assessment must be up-dated on site. All site staff are responsible for doing this and should contribute to the identification and mitigation of risks.

On site write the hazard and mitigations in the table below, ensure all team members sign to demonstrate that they are aware of the changes. In the office scan the paper document and save with the original risk assessment.

STOP WORK AND REPORT TO YOUR SUPERVISOR/LINE MANAGER IF YOU ARE UNABLE TO RECTIFY ANY UNSAFE CONDITION OR IF SOMETHING CHANGES THAT TAKES YOU OUTSIDE THE AGREED SAFE PLAN, RISK ASSESSMENT OR PERMIT

Guidance for identifying Hazards

Look around, above, behind and inside for anything in the environment that could cause an incident during the task such as;

- Anything moving e.g. machinery, plant, vehicles
- Chemicals or biological agents
- Electrical equipment or services
- Things that could fall or cause you to fall
- Anything that could burn hot or cold
- Stored energy or pressure
- Animals, minerals or vegetation

IF IT'S UNSAFE DON'T DO IT.

Update of Hazards

Hazard changed or not previously identified	Safe Plan to mitigate new hazard

Team Members' signatures

Print	Sign	Date	Sign	Print	Date

Signatures confirm that the team engaged in the development of the updated risk assessment and understand its content.

Appendix II

File reference	Project name	Project phase	Description	View from	Scale (s)	Туре	Date	Originating perso	Originating organisation
G2412_001	Market Street Holyhead	Watching Brief	View from SW along open cut trench	SW	•	Photograph	10/02/15	Anne Marie Oattes	Gwynedd Archaeological Trust
G2412_002	Market Street Holyhead	Watching Brief	Shot of stony area in open cut trench with services	NW		Photograph	10/02/15		Gwynedd Archaeological Trust
G2412_003	Market Street Holyhead	Watching Brief	Shot of stony area in open cut trench with services	NW	-	Photograph	10/02/15	Anne Marie Oattes	Gwynedd Archaeological Trust
G2412_004	Market Street Holyhead	Watching Brief	Length of open cut trench showing stony area	SW	-	Photograph	10/02/15	Anne Marie Oattes	Gwynedd Archaeological Trust
G2412_005	Market Street Holyhead	Watching Brief	Shot of stony area cleaned revealing bedrock	NW	1x1m	Photograph	10/02/15	Anne Marie Oattes	Gwynedd Archaeological Trust
G2412_006	Market Street Holyhead	Watching Brief	Bedrock in open cut trench with services	NW	1x1m	Photograph	10/02/15	Anne Marie Oattes	Gwynedd Archaeological Trust
G2412_007	Market Street Holyhead	Watching Brief	Bedrock in open cut trench with services	SW	1x1m	Photograph	10/02/15	Anne Marie	Gwynedd Archaeological Trust
G2412_008	Market Street Holyhead	Watching Brief	SW facing section of pit excavated in open cut trench for drainage scheme	SW	1x1m	Photograph	10/02/15		Gwynedd Archaeological Trust
G2412_009	Market Street Holyhead	Watching Brief	SW facing section of open cut trench showing paving, sand, concrete and sub-base	SW	1x1m	Photograph	10/02/15	Anne Marie Oattes	Gwynedd Archaeological Trust
G2412_010	Market Street Holyhead	Watching Brief	NW facing section of open cut trench showing dark grey sub-base associated with gas main	NW	1x1m	Photograph	11/02/15	Anne Marie Oattes	Gwynedd Archaeological Trust
G2412_011	Market Street Holyhead	Watching Brief	Length of open cut trench showing gas main	NW	1x1m	Photograph	11/02/15	Anne Marie Oattes	Gwynedd Archaeological Trust
G2412_012	Market Street Holyhead	Watching Brief	Length of open cut trench showing gas main	NW	-	Photograph	11/02/15	Anne Marie Oattes	Gwynedd Archaeological Trust
G2412_013	Market Street Holyhead	Watching Brief	General working shot	NW	-	Photograph	23/02/15	Ken Owen	Gwynedd Archaeological Trust
G2412_014	Market Street Holyhead	Watching Brief	General working shot	NW	-	Photograph	23/02/15	Ken Owen	Gwynedd Archaeological Trust
G2412_015	Market Street Holyhead	Watching Brief	General working shot	SE	-	Photograph	23/02/15	Ken Owen	Gwynedd Archaeological Trust
G2412_016	Market Street Holyhead	Watching Brief	Length of opencut trench between Bereford Adams and William Hill	SSW	1x1m	Photograph	25/02/15		Gwynedd Archaeological Trust
G2412_017	Market Street Holyhead	Watching Brief	Section of opencut trench between Bereford Adams and William Hill	WNW	1x1m	Photograph	25/02/15	Laura Wilson	Gwynedd Archaeological Trust
G2412_018	Market Street Holyhead	Watching Brief	Section of removed upper street layers	WNW	1x1m	Photograph	25/02/15	Laura Wilson	Gwynedd Archaeological Trust
G2412_019	Market Street Holyhead	Watching Brief	Trenches for setting roadside kerbs	SE	1x1m	Photograph	06/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_020	Market Street Holyhead	Watching Brief	Trenches for setting roadside kerbs	NW	1x1m	Photograph	06/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_021	Market Street Holyhead	Watching Brief	Trenches for setting roadside kerbs	SE	1x1m	Photograph	06/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_022	Market Street Holyhead	Watching Brief	Trenches for setting roadside kerbs	SE	1x1m	Photograph	06/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_023	Market Street Holyhead	Watching Brief	Pre-ex shot of area before lamp post removal	SW	1x1m	Photograph	24/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_024	Market Street Holyhead	Watching Brief	Shot of lamp post to be removed outside of fort entrance	WSW	1x1m	Photograph	24/03/15	Ken Owen	Gwynedd Archaeological Trust

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G2412_025	Market Street Holyhead	Watching Brief	Road bricks removed from base of lamp post	NW	-	Photograph	24/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_026	Market Street Holyhead	Watching Brief	Possible mettling at base of lamp post post-hole	NE	1x1m+ trowel	Photograph	24/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_027	Market Street Holyhead	Watching Brief	Possible mettling at base of lamp post post-hole	SW	1x1m+ trowel	Photograph	24/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_028	Market Street Holyhead	Watching Brief	Possible mettling at base of lamp post post-hole	SW	1x1m+ trowel	Photograph	24/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_029	Market Street Holyhead	Watching Brief	Wall outside solicitors office showing the depth of lamp post post-hole	NW	1x1m	Photograph	24/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_030	Market Street Holyhead	Watching Brief	Post-ex of lamp post post-hole	NE	1x1m	Photograph	24/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_031	Market Street Holyhead	Watching Brief	Post-ex of post-hole showing possible mettling at base	NE	1x1m	Photograph	24/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_032	Market Street Holyhead	Watching Brief	Close-up of mettling	NE	1x1m+ trowel	Photograph	24/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_033	Market Street Holyhead	Watching Brief	Concrete foundation of former lamp post showing mettling	SE	-	Photograph	24/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_034	Market Street Holyhead	Watching Brief	Mettling at base with bedrock (to right side in photo) at base of post-hole	NW	trowel	Photograph	24/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_035	Market Street Holyhead	Watching Brief	Mettling at base with bedrock (to right side in photo) at base of post-hole	NW	trowel	Photograph	24/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_036	Market Street Holyhead	Watching Brief	General post-ex shot	SW	-	Photograph	24/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_037	Market Street Holyhead	Watching Brief	General shot of area before removal of road bricks	SW	-	Photograph	27/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_038	Market Street Holyhead	Watching Brief	View from fort wall showing the new paving slabs	NE	-	Photograph	27/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_039	Market Street Holyhead	Watching Brief	Road brick and bedding sand removed, to concrete floor	W	•	Photograph	27/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_040	Market Street Holyhead	Watching Brief	Cobbles below modern stone setts	SW	•	Photograph	27/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_041	Market Street Holyhead	Watching Brief	New paving slabs set into bedding sane	SW	•	Photograph	27/03/15	Ken Owen	Gwynedd Archaeological Trust
G2412_042	Market Street Holyhead	Watching Brief	New paving slabs set into bedding sane	WSW	-	Photograph	27/03/15	Ken Owen	Gwynedd Archaeological Trust



