## **Conwy Valley Flood Alleviation Scheme**



## Archaeological Assessment

GAT Project No. 1877 Report No. 618 November 2005

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Report No. 618

Prepared for The Environment Agency

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## CONWY VALLEY FLOOD ALLEVIATION SCHEME

## **ARCHAEOLOGICAL ASSESSMENT (G1877)**

#### Summary

An archaeological assessment has been undertaken of an area of land alongside the R Conwy between Llanrwst and Trefriw. The work has been undertaken in advance of a flood alleviation scheme. Five sites of national importance have been identified, including Gwydir Castle and grounds and the bridge at Llanrwst. It is recommended that the proposals are undertaken in a manner to avoid direct impact upon these sites. Eight sites of regional importance, which include a number of buildings listed grade II, and seven sites of local importance have been identified. It is recommended that sites of regional importance are preserved in situ, or recorded in detail prior to any impact. Sites of local importance or to be recorded by photograph and written description, with measured survey where appropriate, prior to impact. The location of two sites, the Roman road and medieval court at Trefriw, are not known with certainty, so are classified Category E, though both have the potential to preserve finds of national importance. A general watching brief is recommended during new construction works in order to identify and record any below ground archaeology not previously recognised, and attention is drawn to the potential for the recovery of timber remains in waterlogged deposits.

## 1. INTRODUCTION

The Environment Agency has asked Gwynedd Archaeological Trust to undertake an archaeological assessment of an area of land lying on the west side of the River Conwy between Llanrwst and Trefriw (see fig. 1). The assessment is to be undertaken in advance of a proposed flood alleviation scheme which will alter the location and height of existing flood defence banks.

A brief was prepared for this project by the Environment Agency. The assessment has been conducted according to the brief and guidelines specified in *Standard and Guidance for Archaeological Desk-based Assessment* (Institute of Field Archaeologists, 1994, rev. 1999).

Gwynedd Archaeological Trust is very grateful for help received from Peter Welford of Gwydir Castle, and Ed Wilson of the Environment Agency during the compilation of this report.

## 2. SPECIFICATION AND PROJECT DESIGN

An initial report was requested from Gwynedd Archaeological Trust, assessing the likely archaeological impact of the plans and suggesting mitigatory measures.

The basic requirement was for a desk-top survey of the area of interest in order to assess the likely impact of the scheme on the archaeological and heritage features within the area. The importance of known archaeological remains was to be assessed and areas of archaeological potential to be identified. Measures to mitigate any impact on the archaeological resource were to be suggested.

Gwynedd Archaeological Trust's proposals for fulfilling these requirements were as follows:

a) to identify and record the cultural heritage of the area to be affected;
b) to evaluate the importance of what was identified (both as a cultural landscape and as the individual items which make up that landscape);
c) to recommend ways in which damage to the cultural heritage can be avoided or minimised.

## 3. METHODS AND TECHNIQUES

## 3.1 Desk-top Study

Consultation of maps, computer and written records and reference works relating to the study area and its environs, which make up the Historic Environment Record, was undertaken at Gwynedd Archaeological Trust. Records (including early Ordnance Survey maps, tithe maps and schedules, estate maps and papers and reference works - see bibliography) were also consulted in the library and the archives of the University of Wales, Bangor,

and the county archives at Llandudno. Aerial photographs which make up the collection held by Countryside Council for Wales were examined. A LIDAR survey provided by the Environment Agency was examined for archaeological potential. This survey showed a number of former water courses underlying the present field system, some of which were followed by the earlier 18<sup>th</sup> century field boundaries. No readily identifiable archaeological sites have been noted, though interpretation of the features shown on the survey is not always straightforward.

## 3.2 Field visit

The site was visited on 5 October and 14 October, 2005. This part of the assessment involved visiting the study area and its environs, assessing any sites identified during the desk-based study, and assessing any other sites which may exist as above ground features. All sites noted were photographed and their present condition recorded.

## 3.3 Report

All available information was collated, and, where relevant, sites were allocated to a category of importance as defined below. Recommendations for further evaluation are given in the relevant sections of this report.

The categories listed below follow the guidelines given in *Planning and the Historic Environment: Archaeology* (Welsh Office circular 60/96). The allocation of a site to a category defines the importance of the archaeological resource of that site.

## 4 RESULTS OF ASSESSMENT

## 4.1 Topographic description

The Conwy Valley is some 25 Km in length from its confluence with the River Llugwy at Betws y Coed to the sea, and is typically 1Km to 1.5 Km wide. It is a relatively broad glacial valley, with the mountains of the Carneddau to the west and the inhospitable but less dramatic Denbigh Moors to the east. The river follows the fault line between the Ordovician rocks of Snowdonia on the west, and the Silurian rocks of Denbighshire to the east. The river is tidal for much of this length, to a point between Trefriw and Llanrwst, and the valley floor is little more than 10m above OD north of Betws y Coed. The river flows in wide sweeps from one side of the valley bottom to the other, though in two places between Llanrwst and Trefriw there are former bends of the river now isolated where the river has been deliberately cut across the isthmus. These are called on the map Llyn Bwrw Eira and Llyn Bwrw Eira Pellaf. Hyde Hall claims that, a little below Llanrwst, the river had been 'compelled to flow through the isthmus, where it is confined by a strong and well built embankment' (Hyde Hall, 121).

The river forms the traditional boundary between the counties of Denbighshire to the east and Caernarfonshire to the west following the formation of these counties by Edward I, though it was always a well recognised territorial boundary, with the lands being described as Gwynedd Uwch Conwy (west side) and Gwynedd Is Conwy (east side) during rule under the native princes (Richards 1969).

The study area lies principally on the west side of the river, within the valley bottom, between the settlements of Llanrwst and Trefriw. Throughout this stretch the river lies close to the east side of the floor plain, though flows to the west side on the north edge of the study area. On the west side of the valley, just to the south of Llanrwst, lies the historic house and estate of Gwydir.

The river was navigable to Trefriw by larger ships, and on a flood tide, as far as Llanrwst, where a field called 'Cae Llong' (ship field) may refer to a small ship-building industry. Tradition states that Sir John Wynn improved the river to allow boats to reach Gwydyr, and remains of a stone quay may exist there (see gazetteer entry below). River boats are known to have been built in the late 17<sup>th</sup> century for transporting timber to Conwy, or at least as far as Tal y Cafn where they were trans-shipped on to larger sea-going vessels (see Williams 1980; Linnard 1981, and Williams 1979 for details of the timber trade). Shipping along the river remained a regular feature into the early years of the 20<sup>th</sup> century, by which time steam ships had taken over from sail (for details of 19<sup>th</sup> century shipping see Thomas 1972, and for the steamships see Evans 1989), and tourists became the principal cargo.

The town of Llanrwst developed at the first major river crossing that did not require a ferry. Roads from Denbigh, Abergele and Shropshire led here, though the approach from the west was more convoluted because of the high Snowdonian mountains, and access was down the valley from Betws y Coed, or south from Conwy and Rowen.

#### 4.2 Archaeological and historical background (Note: numbers following site names are the Primary Reference Number (PRN) of the Historic Environment Record held at Gwynedd Archaeological Trust).

#### 4.2.1 Prehistoric and Roman archaeology

The prehistoric archaeology of the valley is principally confined to the uplands on either side, with little known archaeology along the valley bottom. Whilst this is, in part, a result of danger from flooding, it may also be the case that former settlements have been subsequently leveled and ploughed flat, so no archaeology is visible. It is certainly the case that in other river valleys, such as the Tanat Valley north of Welshpool, aerial photography has revealed substantial numbers of archaeological sites from the earlier prehistoric period, though no similar sites have yet been noted in the Conwy Valley.

However, there are two Neolithic chambered tombs, both in slightly raised valley lowland, one at Hendre Waelod south-west of Llansanffraid Glan Conwy, the other, Porth Llwyd, now destroyed, at Dolgarrog. Two other possible chambered tombs in the valley, recorded in the 18<sup>th</sup> and 19<sup>th</sup> century at Tal-y-cafn and Ty'n y groes no longer exist and may have been natural groups of stones.

Burial monuments of the second millennium BC are quite frequent in the uplands to the west of the Conwy Valley and a number are also known on the plateau to the east. None are known within the valley itself apart from a possible tumulus at Bryn yr Odyn, south of Llanrwst.

Settlement activity in the dating from the Iron Age and Roman periods in this area can be found on the higher land around the valley with only two examples known from the lower ground of the valley. These are not on the valley floor but on ground raised slightly at about 75m OD near Rowen. The absence of settlement remains on the plateau to the east is notable, where it might be expected. However, the presence of three defended enclosures of that period there suggest that evidence of accompanying open settlements may be masked by the result of prolonged cultivation . One of the defended enclosures, a major hillfort at Cefn Coch, Maenan, has been totally levelled, and other sites may well exist as below ground archaeology, with no upstanding features remaining. Use of the better land in the valley bottom for arable cultivation would have similarly masked any archaeological remains.

The valley floor was occupied in the Roman period with a major auxiliary fort at Caerhun (Caonvium), occupied in the 1<sup>st</sup> and 2<sup>nd</sup> centuries AD, close to the R. Conwy. The site seems to have been chosen to take advantage of the river for transport. Recent geophysical survey (see Hopewell 2003) has demonstrated the presence of a considerable attendant civilian settlement outside the fort and it can be presumed that the valley was well used in that period. It is clear that there must have been a Roman road down the west side of the valley providing a link to the fort at Bryn y Gyfeiliau, Capel Curig. It has also been suggested that there was a road down the east side of the valley via Capel Garmon and Pentrefoelas leading to Wroxeter. This may be indicated by the discovery of an important Roman period find from Capel Garmon.

## 4.2.2 Medieval and later periods

The study area lies within the parishes of Llanrwst, Trewydir and Trefriw. Llanrwst, on the east side of the Conwy, lay in the commote of Is Dulas, in the Cantref of Rhos. Trewydir and Trefriw lay within the commote of Nantconwy in the cantref of Arllechwedd. The parish of Trewydir later lay under that of Llanrwst, even though the two were to lie in the separate counties of Caernarfonshire and Denbighshire (see Carr 1992 for a history of the Cantref of Rhos).

The principal settlements within this part of the valley are Llanrwst and Trefriw. The former tended to look east, whilst the latter served the population on the west side of the river.

Llanrwst lies at a distance of 1.5km and is the major historic settlement of the area with medieval origins and records from the first half of the 14<sup>th</sup> century although earlier settlement is assumed as the town lay at the head of

navigation and perhaps the first fording point of the river. However, it was partially destroyed by Owain Glyndwr about 1400 and did not recover fully for two centuries (Soulsby 1983, 172-3). From the 17<sup>th</sup> century it became an important and prosperous market town as a centre for the local wool trade. The town lies at a crucial crossing point, at the head of the navigable section of the Conwy. The existing bridge, built in 1636, replaced an earlier one that was recorded as being in a precarious state. The town's fortunes were tied up closely with the Gwydir Estate and the Wynn family from the end of the 16<sup>th</sup> century. The church, situated close to the river bank, was rebuilt in the later medieval period, perhaps following destruction during the Lancastrian wars. It was largely rebuilt in 1633-4 by Sir John Wynn. During the 18<sup>th</sup> and 19<sup>th</sup> centuries the town developed significantly. New industries were established, including a foundry, tannery, brewery, dye works and rope works. The town was also known for its makers of clocks and harps. In the early 19<sup>th</sup> century, much of the housing stock was renewed (for the development of Llanrwst see Tucker 2002 and Williams 1830).

The town of Trefriw, to the north of Llanrwst, benefited from being located within the tidal reaches of the River Conwy, which allowed ships of some 60 tons burden to travel there on spring tides (Lewis 1833). Trefriw was one of the courts of the Welsh Princes, associated particularly with Llywelyn ap Iorwerth, who, according to tradition, built the church there c. 1230 to avoid his wife Princess Joan having to walk to the parish church of Llanrhychwyn (Pennant 1781, 154). The church has been much rebuilt, and the earliest parts of the double nave church are the 15<sup>th</sup> century roof trusses in the south aisle, so the original church, if the tradition is correct, must have been rebuilt, possibly following damage during the Glyndwr uprising. The court was probably situated south-east of the church on the site called Gardd y Neuadd (see Johnstone 2000, 188-9). During the 13<sup>th</sup> and 14<sup>th</sup> centuries Trefriw was the established market town for the commote of Nanconwy (Lewis 1912, 180 and 194). River trade continued to play an important role in the fortunes of the small town, from where timber was regularly shipped in the  $16^{th}$  and  $17^{th}$  centuries, as well as lead ore from the early mines developed by Gwydyr estate. In the early 19<sup>th</sup> century Hyde Hall describes two quays from which were shipped slate, lead ore, timber and bark together with corn, whilst the chief imports were coal and lime, which was burnt at the quayside (Jones 1952, 127). From the mid 19<sup>th</sup> century into the early decades of the 20<sup>th</sup> century paddle steamers carrying holiday passengers ran from Deganwy and Conwy (Evans 1989). The popularity of the town as a tourist attraction was encouraged by the development of the spa springs north of the town, particularly in the late 18<sup>th</sup> century and early 19<sup>th</sup> century by the construction of a bathhouse, and later a pump room and spa house.

South of Llanrwst, on the west side of the river, lies the estate and house of Gwydir. The origins of the estate are obscure, though a manorial house was in existence by the 14<sup>th</sup> century. In the later 15<sup>th</sup> century Meredith ap Ieuan ap Robert obtained land within the valley, and about 1500 built the present hall block at Gwydyr. This was the start of the Wynn dynasty that dominated the area through the 16<sup>th</sup> and 17<sup>th</sup> centuries. Meredith was followed by his son John Wynn ap Meredith, his son Maurice Wynn, and his son Sir John Wynn, who was responsible for much of the later building at Gwydir. Sir John's younger son, Richard, inherited following the death of the older brother. Sir Richard was responsible for building the memorial chapel at Llanrwst church, and the bridge across the Conwy (dated 1636). The Baronetcy now passed to his younger brother Sir Owen, and then to his son Sir Richard, who became embroiled within the Civil War. He was later responsible for the construction of the chapel at Gwydir Uchaf. At Sir Richard's death in 1674 the estates passed to his daughter, and so to the Duke of Ancaster. It now descended through the Willoughby D'Eresby family, who held the estate throughout the 18<sup>th</sup> and 19<sup>th</sup> centuries, and were responsible for much of the agricultural and industrial development, particularly the lead mines and slate quarries (for a history of Gwydir and the Wynn family see Jones 1995 and Welford 2000; for a description and history of the gardens and grounds see Cadw 1998).

Lead mining was undertaken by the Wynn's in the 17<sup>th</sup> century, and continued by the D'Eresby family in the 18<sup>th</sup> and 19<sup>th</sup> centuries. The mines lay within the woods west of the Conwy, and the ore was shipped from Trefriw, often to the smelters that developed at Holywell. One of the principal landscape features within the study area, a long straight ditch, is frequently called the 'old canal' on early maps, and it would appear that this was intended to be used for carrying ore to Trefriw, though was apparently never completed (see further below). Lead mining continued in operation into the later 20<sup>th</sup> century, though none of the mines are currently active (for a history of lead mining in the area see Bennett and Vernon 1989-95). Slate quarries were also developed west of the Conwy by the estate and other private adventurers, and though the slate was not of the best quality, it formed a significant industry in the late 18<sup>th</sup> and 19<sup>th</sup> centuries, and was also often shipped from Trefriw (for a history of the slate quarries of the area see Williams and Lewis 1989).

From medieval times onwards timber had been one of the principal exports from the valley, and the Gwydir woods were renowned for the extent and productivity. In the 1920's some 6,000 acres were leased by the estate to the Forestry Commission for new planting, and over the next few decades many more acres were to be leased

and planted in the valley. The closure of the slate quarries (Cwm Penmachno was one of the last, closing in 1962) meant the Commission now became one of the largest employers in the area. The work of the Forestry Commission over the intervening period has had a profound affect on the development of the landscape, and remains of the significant industries of the area (see Shaw 1971 for a history of the development of Gwydir forest by the Forestry Commission).

## 4.3 The study area

#### 4.3.1 Statutory protection and environmental designations

#### Listed buildings

There are two listed buildings that lie fully within the study area, namely the raised walk (also known as the 'Chinese Walk') at Gwydir (site A2 below), and the bridge crossing the Conwy at Llanrwst (site B1). The latter is also a Scheduled Ancient Monument. There are several other listed buildings at Gwydir, Llanrwst and Trefriw that lie immediately adjacent to the study area, and where these may be impacted upon by the scheme they are listed in the gazetteer below.

#### Scheduled Ancient Monuments

Apart from the bridge at Llanrwst (site B1) there are no scheduled ancient monuments within the study area, though one other, the chapel at Gwydir Uchaf, lies close by.

#### **Conservation Areas**

The centre of Llanrwst is a conservation area.

#### Historic Landscapes

The area does not lie within a historic landscape as defined within the 'Register of Landscapes of Outstanding historic interest in Wales' (CCW *et al*, 1998 and 2001), though the north part of the study area lies adjacent to the 'Lower Conwy Valley' defined landscape (HLW (Gw) 4), which includes the area north of Trefriw to Henryd, and the accompanying uplands to the west.

#### Historic Parks and Gardens

The gardens at Gwydir are listed Grade 1 within the *Register of Parks and Gardens in Wales* (Cadw *et al*, 1998). This is a non-statutory designation, but is to be taken into account when making planning decisions. The reference number is PGW (Gd) 4 (CON). This includes within its essential setting the parkland to the north and west that lies within or immediately adjacent to the study area, and the raised, or Chinese, walk from the garden to the river.

#### Historic Environment Record

There are no sites additional to those listed or scheduled within the study area that form part of the HER, though several lie immediately adjacent to the area, and where these may be impacted upon by the scheme they are listed in the gazetteer below.

## 4.3.2 Archaeology of the study area

#### **Introduction**

The study area forms the flood plain of the River Conwy, starting from Gwydir at the southern end, and incorporating Llanrwst on the east side and the town of Trefriw on the north-west side. The settlements of Trefriw and Llanrwst and the development of the Gwydir estate have been discussed above. This section will look in greater detail at the sites lying on the flood plain.

The principal features now visible on the ground relate to flood protection and agricultural improvements. The earliest dateable features belong to the 17<sup>th</sup> century, and to improvements initiated by the Gwydir Estate. The two principal features from this period are the raised walk leading from Gwydir to the river (site A2), and the road leading to the bridge (site A6). The bridge was built in 1636, on the site of an earlier structure, and on the site of a ford. A footpath leads south from the west side of the bridge towards Gwydir and alongside the river. After some 60m this runs alongside the remains of a strong stone wall that is of the same build as the raised walk leading from Gwydir to the river, and though it is relatively fragmentary in places, it is possible to trace its course to the point where the wall from Gwydir reaches the river. The raised walk appears to have been designed to act as a flood defence system, a wall-walk, and the southern edge to a deer-park. Masonry remains

by the river, where the river bank is heavily revetted, may indicate the remains of a former quay (see below for description).

The road that leads from the west side of the valley to the bridge built in 1636 was almost certainly constructed at the same time or just after construction of the bridge. The road is clearly indicated on the earliest known estate map of c. 1780, and little major building and estate development was undertaken between the mid-17<sup>th</sup> century and the late 18<sup>th</sup> century. The walls on either side are overgrown and partially rebuilt, however some remnants of better quality walling are visible in patches, particularly on the north side towards the east end.

The remainder of the study area is primarily former parkland and fields. Whilst the majority of the field boundaries are 19th century in date, some, particularly those towards the south end of the study area and north of the road leading to the bridge, belong to an earlier phase, and are certainly 18<sup>th</sup> century in date, and possibly earlier. The earlier boundaries are most clearly identified by a combination of the 1785 estate map and the nature of the trees growing on the boundaries, many of which are large oak or sycamore. Other large trees, now standing in open fields, mark the site of former field boundaries. To the north of the study area, closer to Trefriw, the field boundaries are largely 19<sup>th</sup> century in date, and the new boundaries were aligned on preexisting landscape features, in particular the ditch that is referred to on maps as the 'old canal'. This ditch is clearly marked on the 18<sup>th</sup> century estate map, and is referred to by Hyde Hall in 1810 in the following passage when discussing the parish of Trefriw 'The chief article of export is lead, of which large quantities are sent to the neighbouring parish of Trefriew, to facilitate which a canal to the Conway was once begun, but for some obstacle unknown to me was soon discontinued, and a huge wet ditch remains as a memorial of the speculation'. Close by the start of the 'canal' was a mill, later a saw mill, but formerly called Felin Blwm or lead mill, and it is thought that the intention was to treat the ore from the mines in the vicinity of Nant, and take them down the canal for shipping at Trefriw. Further work was started on the canal in 1820, when two men were contracted to cut the old canal '7ft wide at the top, 4ft wide at the bottom and 3ft deep, for 1s every eight yards', but little actual work seems to have been completed (Bennett and Vernon 1991, 35-6). Considerable effort had already been made to avoid the turnpike charges by constructing new roads around the existing gates, including several through the forests.

The flood defences presently consist of a series of strong earth and stone banks, approximately 2m high and some 6m wide at the base and just under 2m wide at the top. They are designed to constrain the R Conwy on the west side, whilst other banks are constructed to constrain the feeders into the Conwy that run down from the hills on the west side of the valley. They were originally constructed within the early 19<sup>th</sup> century by the Gwydyr estate, but have since been regularly maintained and occasionally altered.

The tracks and roads in the area date largely from the 19<sup>th</sup> century, though many are based on earlier routeways. The western route from Conwy to Betws y Coed may well have been used in Roman times, though the present road is largely based on the 19<sup>th</sup> century turnpike road, with the exception of a length a short distance north of Gwydir, where the road formerly ran to the west, past the tithe barn and the cottage called Hen Dyrnpeg. The present road can only have been built after the construction of the flood defences in the early 19<sup>th</sup> century. The road from the west side of the valley to the bridge has been discussed above, and is considered to be mid 17<sup>th</sup> century in date. Across the low lying lands, joining the bridge at Llanrwst with Trefriw and also with Tan Lan to the north of Llanrwst are the remains of several tracks, and though these are not possible to date, they are marked on the 1785 map, and may well be the line of medieval trackways, though they would have been vulnerable to flooding until the construction of the flood defence banks. A new right-of-way, based partly on the earlier track system, was created from Trefriw to Llanrwst called Gower road, with a new bridge over the Conwy (the latter initially a toll bridge) to allow access to the railway station at Llanrwst. The road clearly post-dates the earlier 19<sup>th</sup> century field systems, and it cuts across the field boundaries and the old canal. The original trestle bridge has been replaced by a modern suspension bridge.

4.3.4 List of sites

## A. GWYDIR AND ASSOCIATED FEATURES

#### A1. Gwydir Castle and gardens

Category A; Listed Grade I (Ref. 146/A/17(2)); Gardens Register PGW (Gd) 4 (CON).

The remains of a significant estate centre dating back to the 14<sup>th</sup> century. The earliest of the existing buildings comprise the solar tower and adjacent hall erected c. 1500 by Meredith ap Ieuan ap Robert, and later

Renaissance additions include the north wing and courtyard entrance (for a full description see RCAHMW 1956, 185-8, though much of this is now outdated, and needs to be read in conjunction with Welford 2000 and Cadw Listed Building description). In addition to the castle, the former coachhouse of c. 1820 (though on earlier foundations) is listed grade II, the terrace arch and associated garden walls are listed grade I, and the knot-garden with associated courtyard walls are listed grade II (references 146/A/18(2), 146/A/19(2), 146/A/20(2)). All these are encompassed within the complex of the castle, but outside this lies the park and raised walk (see sites A2 and A3 below).

Recommendations for further assessment: None.

Recommendations for mitigatory measures: Avoid any impact.

## A2. Chinese walk and related structures within Gwydir grounds SH 79736098

Category A; Listed Grade II\* (146/A/21(2)); Gardens Register PGW (Gd) 4 (CON).

A stone wall, approximately 2m high and 1.5m wide, runs from the south end of Gwydir gardens west to the river. The top of the wall is of large flat slabs, and at the Gwydir end steps lead up to the wall top. It was therefore designed to be walked along, and is marked as a footpath on the later Ordnance Survey maps (on the 1913 map described as 'F.P. on top of wall'. In style the wall and steps are late 16<sup>th</sup> century, contemporary with much of the other work at Gwydir, and therefore probably built by Sir John Wynn during other improvements in the 1590's. A drawing by Colt Hoare c. 1810 shows a pyramidal roofed structure within the garden close to the steps leading up to the walk, though the structure no longer stands, and its exact location is difficult to ascertain. It is likely the wall served several purposes, including flood defence, deer park boundary and raised access to the river. The wall turns to the north when it reaches the river, and runs towards Llanrwst, for a distance of about 120m, when it terminates, and is replaced by a 19<sup>th</sup> century photographs show a rough cobbled track here, that is probably still visible as terraces alongside the river bank. It is possible the 16<sup>th</sup> century wall once continued to the bridge. Though much of the main stretch of wall from Gwydir to the river is in good condition, a gap has been created at the river end for allowing tractors through, and a large gap towards the centre section was created by flooding during the last couple of years. The length along the river is in much poorer condition, though one relatively good short length survives towards the north end.

*Recommendations for further assessment:* Evaluation excavation between the current end of the wall and the bridge to ascertain former existence and location of this feature.

*Recommendations for mitigatory measures:* Avoid direct impact. Detailed record in advance of any works that may impact.

## A3. Stone revetment on south bank of R. Conwy SH79916100

#### Category B

At the point where the Chinese walk meets the R Conwy, the side of the river is revetted in stone for a length of some 50m. The top of the revetment is marked by long stone blocks now largely buried in the grass. It has been suggested that this was once a quay, perhaps built by Sir John Wynn in the 16<sup>th</sup> century, as there is a tradition that he improved the navigability of the river as far as Gwydir. However, only very small boats could ever have made it this far up river – it is some way beyond the tidal reaches, and if there were sufficient depth of water in the river to allow boats to travel up, then it is probable the speed of the flow down river would have been prohibitive. The stones are more likely to be a revetment to prevent erosion of the river bank onto the parkland, though small, flat-bottomed boats may have been used for transporting goods in a very localized area. The date of the stone revetment is not known, and though it has not quite the same characteristics of the 16<sup>th</sup> century masonry, it could have been built at any point between the late 16<sup>th</sup> century and the 19<sup>th</sup> century. *Recommendations for further assessment:* None.

*Recommendations for mitigatory measures:* Avoid any impact. Detailed record in advance of any works that may impact.

## A4. Garden boundary to Gwydir

Category B; Gardens Register PGW (Gd) 4 (CON).

The northern boundary of the garden is a ha-ha, now supplemented by stock fencing. The boundary apparently follows the same line as shown on the 1785 estate map, though the date of construction of the ha-ha is not known, and is most likely to be of early 19<sup>th</sup> century date.

*Recommendations for further assessment:* None.

*Recommendations for mitigatory measures:* Avoid any impact. Detailed record in advance of any works that may impact.

A5. Pwll Du, Gwydir Category D The estate map of 1785 shows a small oval enclosure, almost tear-shaped. This is thought to be Pwll Du, a former pool which Hyde Hall describes in the following manner 'Before the house is a small piece of water, which like many others is pronounced to be bottomless...'. The lidar survey indicates a similar shape, though it is not known with certainty if this Pwll Du. The 1785 estate map marks the field immediately alongside the river as Pwll Du, and calls the field closer to the house Linog Ucha. If this is correct, Pwll Du may have been closer to the river, and under the present playing fields, where the lidar survey indicates a large curving boundary. *Recommendations for further assessment:* None.

Recommendations for mitigatory measures: Watching brief.

#### A6. Road from Gwydir to Llanrwst bridge

## Category B

The road that leads from the west side of the valley at the north end of the gardens of Gwydir castle to Pont Fawr built in 1636 was almost certainly constructed at the same time or just after the bridge. The road is clearly indicated on the earliest known estate map of c. 1780, and little major building and estate development was undertaken between the mid-17<sup>th</sup> century and the late 18<sup>th</sup> century. The walls on either side are overgrown and partially rebuilt, however some remnants of better quality walling are visible in patches, particularly on the north side towards the east end.

Recommendations for further assessment: None.

*Recommendations for mitigatory measures:* Detailed record prior to any impact, and watching brief during disturbance.

## **B. LLANRWST**

#### B1. Pont Fawr (Llanrwst Bridge) SH79856149

Category A; SAM (ref. D025); Listed Grade I (Ref. 41/C/34(2))

A bridge of three segmental arches, with cut waters continued upwards to form triangular refuges. It is built of roughly coursed local slate and gritstone rubble (RCAHMW 1956, 191). The two eastern arches have voussoirs of sandstone, but the western arch was rebuilt in 1675-6 and again in 1703. There are stone panels in the apex of each parapet over the central arch, both dated 1636, and one with the Prince of Wales feathers, the other with the Stuart arms. (see RCAHMW 1956, 191 and Cadw Listed Building description).

Recommendations for further assessment: None.

Recommendations for mitigatory measures: Avoid any impact.

## B2. Bridge approach walls on east side of river

Category B; LB II

The north and south approach walls on the east side of Pont Fawr are both listed Grade II. The south wall is approximately 94m long, the north wall some 37m long. Both are rubble walls with flat slate copings. *Recommendations for further assessment:* None.

Recommendations for mitigatory measures: Avoid any impact.

B3. Pen y Bont Inn SH79856154

Category A; LB II

ЗП/9830134

An 18<sup>th</sup> century inn, of two storeys, situated at the south end of Bridge Street. The listed building description says 'probably C18 with alterations of later C19. Two storeys, five windows. Roughcast with raised horizontal, vertical and plinth bands in smooth render; slate roof with brick chimneys'.

Recommendations for further assessment: None.

Recommendations for mitigatory measures: Avoid any impact.

#### B4. Church of St Grwst

Category A: LB 1 (ref. VV 41/C/44(2))

Situated alongside the R Conwy, with the cemetery reaching down to the river. In its present form it is late 15<sup>th</sup> century, with considerable 19<sup>th</sup> century restoration and building. Alongside is the Gwydir Chapel built 1633-4 (see Cadw listed building description and Hubbard 1986 for a description and history). The presence of an earlier chapel within the churchyard mentioned in a 17<sup>th</sup> century source, and the persistent traditions relating to sanctuary associated with the church would suggest an origin in the early medieval period, perhaps as a *clas* or mother church (see entry in Thomas 1911, 332-6). In which case, other buildings may be present within the cemetery.

Recommendations for further assessment: None. Recommendations for mitigatory measures: Avoid any impact.

## C. FLOOD PLAIN BETWEEN LLANRWST AND TREFRIW

#### C1. Ruined structure

#### Category C

A ruined rectangular stone structure, orientated north-west to south-east, and lying west of the gardens at Gwydir. It measures some 15m by 5.5m, and the walls remain some 1m high. It is present on the 1780 estate map, and on the 1889 OS county sheet it is marked 'Capel'. It is depicted as roofed on the 1900 and 1913 OS maps.

## Recommendations for further assessment: None.

Recommendations for mitigatory measures: Detailed record if there is to be any direct impact.

## C2. Flood defence banks

#### Category C

The flood defences presently consist of a series of strong earth and stone banks, approximately 2m high and some 6m wide at the base and just under 2m wide at the top. They are designed to constrain the R Conwy on the west side, whilst other banks are constructed to constrain the feeders into the Conwy that run down from the hills on the west side of the valley. Similar banks constrain the Conwy on the east side. They were originally constructed within the early 19<sup>th</sup> century by the Gwydyr estate, but have since been regularly maintained and occasionally altered.

## Recommendations for further assessment: None.

*Recommendations for mitigatory measures:* Basic record prior to removal of banks, to include detailed cross sections at selected points in order to determine method, and if possible date, of construction.

#### C3. Old Canal ditch

#### Category B

Though now visible as a long straight ditch, this feature is marked on early maps as 'old canal'. Construction must have started in the late 18<sup>th</sup> century, but it was never completed, despite further work undertaken in 1820 (see Jones (ed) 1952, 121, Bennet and Vernon 1991, 36). The canal starts from the ruins of a former mill which may have been an early smelting site (see C4 below).

Recommendations for further assessment: None.

*Recommendations for mitigatory measures:* Detailed record in advance of any direct impact, to include cross-section drawings.

#### C4. Felin Blwm

#### Category B

The site of a former water mill is now partially used as a car park for walkers. The name is Felin Blwm (lead mill), though it is described on early Ordnance Survey maps as a saw mill. The remains of the mill are very overgrown, though upstanding masonry can be found amongst the undergrowth by the river. This may be the site of an early lead mill, perhaps where ore was crushed and subsequently smelted, and may originally be linked to the canal that was started in the field adjacent to ship the ore to Trefriw, in which case it was converted to a saw mill in the 18<sup>th</sup> or 19<sup>th</sup> centuries. The timber trade was very important to the area, and saw mills certainly existed here from at least the 17<sup>th</sup> century.

#### Recommendations for further assessment: None.

Recommendations for mitigatory measures: Detailed survey and record in advance of any direct impact.

#### C5. Gower road and bridge

## Category C

A road and bridge built in the second half of the 19<sup>th</sup> century, primarily to link Trefriw with the railway station at Llanrwst. The track is now tarmaced, and the bridge, formerly a wooden trestle bridge, has been replaced with a modern suspension bridge.

#### Recommendations for further assessment: None.

*Recommendations for mitigatory measures:* Watching brief during any direct impact in order to try and determine phases and date of construction.

## C6. Early track from Llanrwst bridge to Trefriw

#### Category C

This track runs from Tu-hwnt-i'r-bont in a westerly direction winding between fields, before turning to the south-west to cross a footbridge and join the B5106 Trefriw to Bettws y Coed road by the former tithe barn. At

the point where it turns south-west, a footpath continues west towards Trefriw, which links onto Gower Road. This latter, however, was preceded by another track (see C6 below) that branched north towards a former quarry and quay north of Llanrwst, as well as south-east towards Llyn Bwrw Eira Pella. This road may be one of the earliest tracks leading from Trefriw to the ford (later bridge) across the Conway at Llanrwst, and perhaps medieval or earlier in origin.

Recommendations for further assessment: None.

*Recommendations for mitigatory measures:* Watching brief during any direct impact in order to try and determine phases and date of construction.

C7. Track from Trefriw

## Category C

This track forms part of that mentioned in C6 above. It leaves Trefriw in a south-east direction, but branches to the north-east to Tan Lan quarry and limekiln, where there was a ford across the Conway (at the highest tidal point) and also the site of a small quay. It also runs south-west to link in, via a footpath, with the track from Tu-hwnt i'r Bont (C6 above).

Recommendations for further assessment: None.

*Recommendations for mitigatory measures:* Watching brief during any direct impact in order to try and determine phases and date of construction.

#### C8. Field systems

Category C

The field boundaries vary greatly in age across the study area. Some are certainly early, and probably 17<sup>th</sup> century in origin, though they could be late medieval or earlier. These tend to be curving, with large oak or sometimes sycamore growing in the hedge. The principal group of early boundaries, and those that concord with boundaries on the 1785 estate map, lie immediately west of Tu-hwnt i'r Bont, with the track weaving through them. The majority of the remainder date from the early 19<sup>th</sup> century, probably when the flood defence banks were built, though it has not been possible to confirm this.

Recommendations for further assessment: None.

*Recommendations for mitigatory measures:* Watching brief during direct impact in order to record construction method, and try to determine date of original construction.

## **D. TREFRIW**

D1. Milestone south of Trefriw

Category B; Listed Building Grade II (Ref. 146/A/10(6))

A milestone lying between Pant y Carw and Ysgubor Gerrig. A relatively simple stone slab with an arched top, and the inscription 'Conway 10' and underneath '2 Llanrwst'. Late 18<sup>th</sup> or early 19<sup>th</sup> century date. *Recommendations for further assessment:* None.

Recommendations for mitigatory measures: Avoid or record and re-instate.

D2 Roman road, Trefriw PRN 17701 and PRN 17711

#### Category E

The exact location of the Roman road along the Conwy Valley is not known with certainty. However, the most likely route for a road from Canovium to Tomen y Mur is along the west side of the valley, though no lengths of Roman road have been identified with certainty along here.

Recommendations for further assessment: None.

*Recommendations for mitigatory measures:* Watching brief during principal new works to try to ascertain the presence and alignment of the road.

D3. Tan y Celyn PRN 11496

Category B; Listed Building Grade II (Ref. 146/A/9(6))

The former home of the Welsh poet and scholar Evan Evans (1795-1855 Bardic name Ieuan Glan Geirionydd), who was born and brought up in the cottage. A 17<sup>th</sup> century building, with later alterations and additions. *Recommendations for further assessment:* None. *Recommendations for mitigatory measures:* Avoid direct impact.

<u>D4. Pont Trefriw PRN 11721</u> Category B; Listed Building Grade II (Ref. 146/A/8(4)). A single span bridge over the Afon Crafnant, just below Trefriw Woollen Mills. Built c. 1800. A single segmental arch of rough-dressed voussoirs recessed below a plain arch ring of narrow stones (see Listed Building description).

Recommendations for further assessment: None. Recommendations for mitigatory measures: Avoid direct impact.

#### D5. Gardd y Neuadd PRN 900

Category E

The site of the court of the Welsh princes, usually associated with Llywelyn ap Iorwerth (d. 1240). The location of the court is not known with certainty, but the placename 'Gardd y Neuadd (trans. Garden of the Hall)' opposite the church and close to the river has been identified as the most likely site (see Johnstone 2000). *Recommendations for further assessment:* None.

*Recommendations for mitigatory measures:* Watching brief during any works in the vicinity of the medieval court.

D6. Trefriw quay

Category C

The site of the former quay at Trefriw lies at the north end of the village, opposite the Prince's Arms Hotel. The quays have a long history, but the present remains are principally associated with the pleasure boats that ran between Conwy and Trefriw during the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. In addition to the remains of the quay there is good potential for the recovery of early wooden boats preserved in the silts alongside. *Recommendations for further assessment:* None.

*Recommendations for mitigatory measures:* Avoid any impact. Detailed record in advance of any works that may impact. Watching brief during any dredging of river silts.

#### General impact and recommendations

The proposals include the removal of a number of the existing flood defence banks, the construction of a new bank, and the lowering of the road leading to Bont Fawr. The principal impact is therefore on sites A6 (road) and C2 (flood defence banks), for which a detailed record is recommended for A6 and a basic record for C2 (though with detailed cross-section drawings at a number of points). In addition to the above site specific recommendations, it is recommended that a watching brief be maintained during major new works to ensure any archaeological features revealed during the construction process are identified and recorded, and that linear sites such as field boundaries and tracks are recorded if a section is cut through them during construction works. There is potential for the preservation of timber remains, of boats or other structures, within waterlogged soils and river silts, and a watching brief should be maintained during operations that affect these deposits.

#### 5. LIST OF SOURCES

#### A. Maps

Estate survey of c. 1785; GAS XM/Maps/5663 Ordnance Survey 2" to the mile c. 1820 manuscript edition in UWB archives Ordnance Survey 1" to the mile c. 1830 David and Charles reprint Sheet 24 Tithe maps for Trewydir, Llanrwst, Trefriw c. 1840 Ordnance Survey County Series Caernarfonshire 1889 Sheets XIX.1; XIX.5 Ordnance Survey County Series Caernarfonshire 1900 Sheets XIX.1; XIX.5 Ordnance Survey County Series Caernarfonshire 1913 Sheets XIX.1; XIX.5

#### **B.** Other primary sources

Aerial photographs at CCW – 1986 coverage LIDAR Survey by Environment Agency

#### C. Secondary works

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Williams, G. H., 1980 'The building of a Conwy River Boat, 1685', Maritime Wales, 5, 5-15.

Williams, J., 1830 Faunula Grustensis: being an outline of the natural contents of the Parish of Llanrwst.

Williams, M., & Lewis, M., 1989 Gwydir Slate Quarries

## APPENDIX I: DEFINITIONS OF TERMS USED IN THE REPORT

#### Category of Importance

The following categories have been used to define the importance of the archaeological resource.

#### Category A - Sites of National Importance.

This category includes Scheduled Ancient Monuments (SAM's), Grade I and II\* (and some Grade II) Listed Buildings and sites of similar quality, i.e. those which would meet the requirements for scheduling or listing at the top two grades. There is a presumption in favour of preservation of all such sites and their settings should they come under threat. Such sites might include those that survive principally as buried remains.

#### Category B - Sites of Regional Importance

This includes sites that would fulfill the criteria for listing at grade II (if a building), and other sites considered to be of regional importance. Preservation *in situ* is the preferred option for Category B sites, but if damage or destruction cannot be avoided, appropriate detailed recording might be an acceptable alternative.

#### Category C - Sites of District or Local Importance

These sites are not of sufficient importance to justify a recommendation for preservation if threatened, but nevertheless merit adequate recording in advance of damage or destruction.

#### Category D - Minor and Damaged Sites

These are sites which are of minor importance, or are so badly damaged that too little remains to justify their inclusion in a higher category. For these sites, rapid recording either in advance or during destruction, is considered sufficient.

#### Category E - Sites needing further investigation

Sites, the importance of which is as yet undetermined and which will require further work before they can be allocated to categories A-D, are temporarily placed in this category, with specific recommendations for further evaluation. By the end of the assessment there should be no sites remaining in this category.

## Definition of field evaluation techniques

Field evaluation is necessary to allow the reclassification of the category E sites, and to allow the evaluation of areas of land where there are no visible features, but for which there is potential for sites to exist. Two principal techniques can be used for carrying out the evaluation: geophysical survey and trial trenching.

#### Geophysical survey

This technique involves the use of a magnetometer, which detects variation in the earth's magnetic field caused by the presence of iron in the soil. This is usually in the form of weakly magnetised iron oxides, which tend to be concentrated in the topsoil. Features cut into the subsoil and back-filled or silted with topsoil contain greater amounts of iron and can therefore be detected with the gradiometer. Strong readings can be produced by the presence of iron objects, and also hearths or kilns.

Other forms of geophysical survey are available, of which resistivity survey is the other most commonly used. However, for rapid coverage of large areas, the magnetometer is usually considered the most cost-effective method. It is also possible to scan a large area very rapidly by walking with the magnetometer, and marking the location of any high or low readings, but not actually logging the readings for processing.

#### Trial trenching

Buried archaeological deposits cannot always be detected from the surface, even with geophysics, and trial trenching allows a representative sample of the development area to be investigated. Trenches of an appropriate size can also be excavated to evaluate category E sites. These trenches typically measure between 20m and 30m long by 2m wide. The turf and topsoil is removed by mechanical excavator, and the resulting surface cleaned by hand and examined for features. Anything noted is further examined, so that the nature of any remains can be understood, and mitigation measures can be recommended.

#### **Definition of Mitigatory Recommendations**

Below are the measures that may be recommended to mitigate the impact of the development on the archaeology.

#### None:

No impact so no requirement for mitigatory measures.

#### Detailed recording:

Requiring a photographic record, surveying and the production of a measure drawing prior to commencement of works.

Archaeological excavation may also be required depending on the particular feature and the extent and effect of the impact.

#### Basic recording:

Requiring a photographic record and full description prior to commencement of works.

#### Watching brief:

Requiring observation of particular identified features or areas during works in their vicinity. This may be supplemented by detailed or basic recording of exposed layers or structures.

#### Avoidance:

Features, which may be affected directly by the scheme, or during the construction, should be avoided. Occasionally a minor change to the proposed plan is recommended, but more usually it refers to the need for care to be taken during construction to avoid accidental damage to a feature. This is often best achieved by clearly marking features prior to the start of work.

#### Reinstatement:

The feature should be re-instated with archaeological advice and supervision.

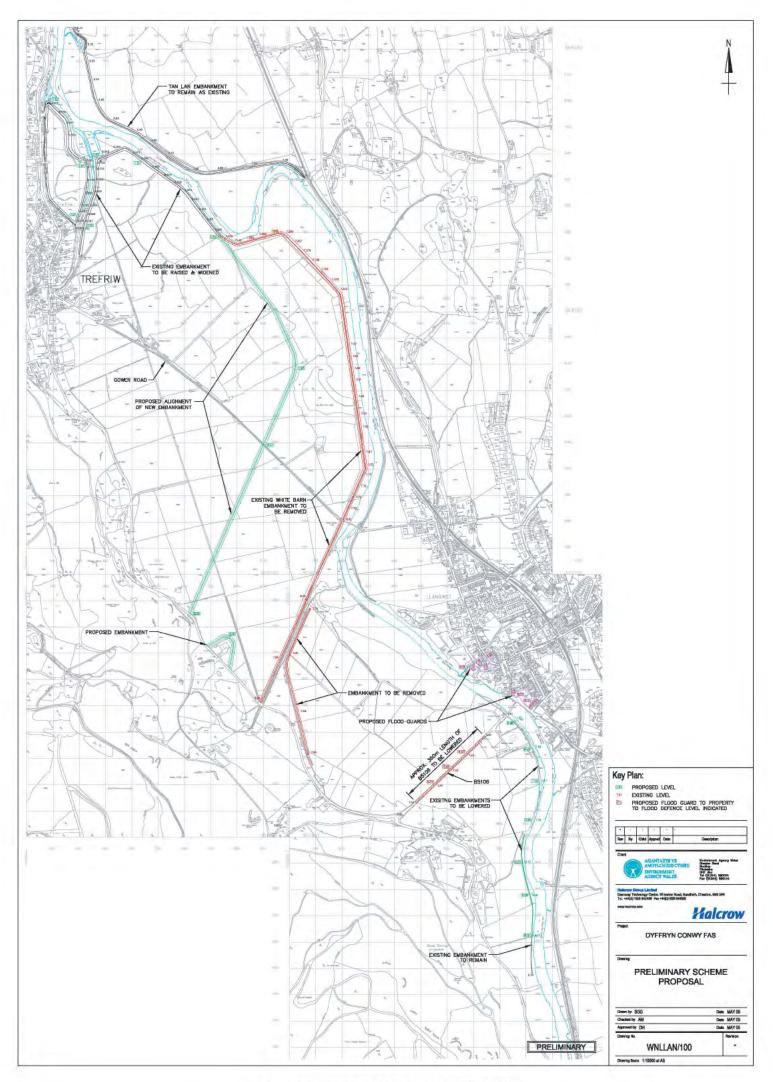
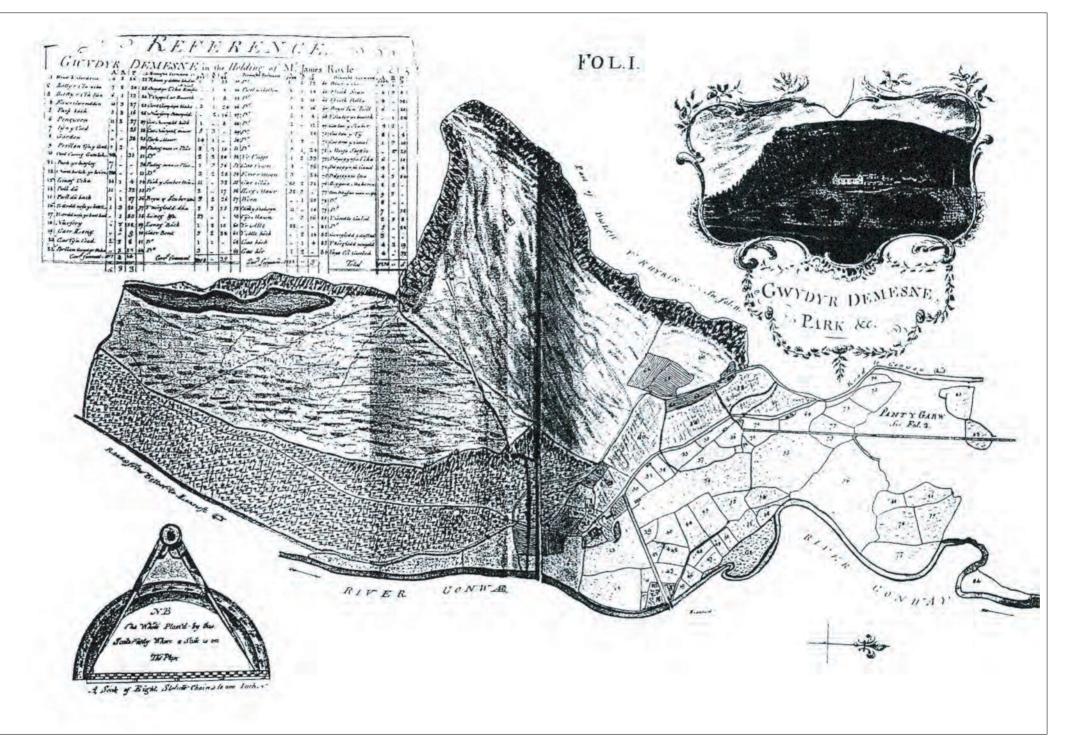


Figure 1. Preliminary Scheme Proposal (Scale 1:20000)



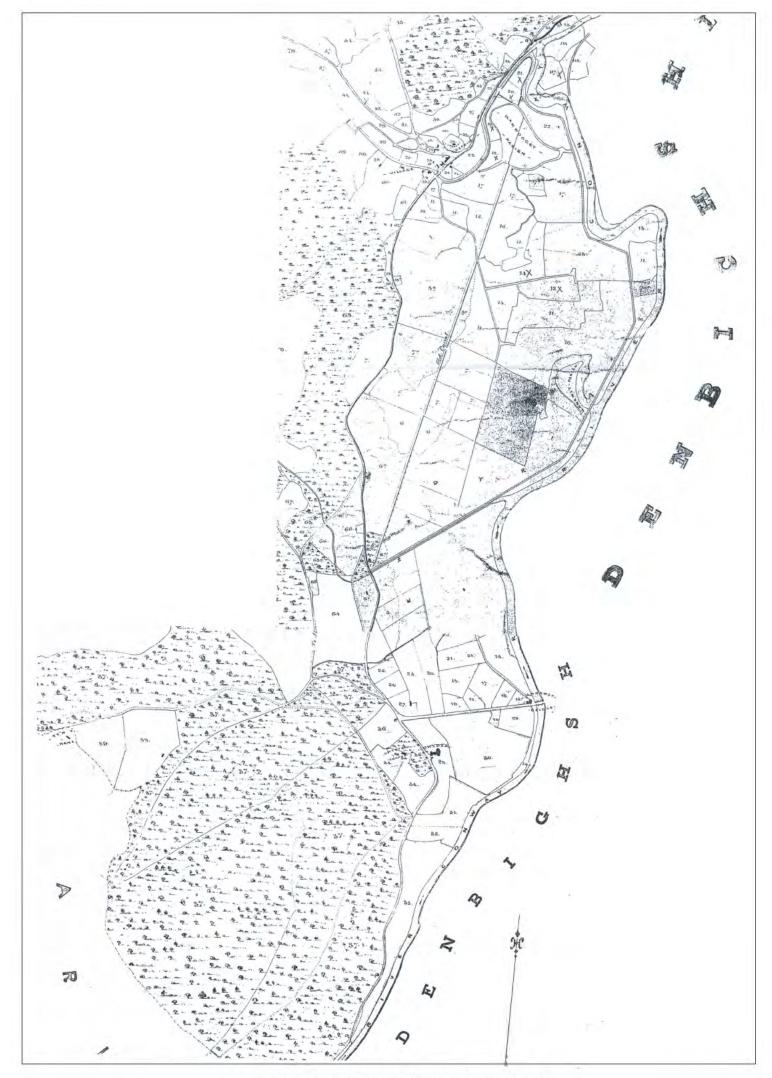


Figure 3. Tithe maps of Trewydir, Llanrwst and Trefriw. 1840-45

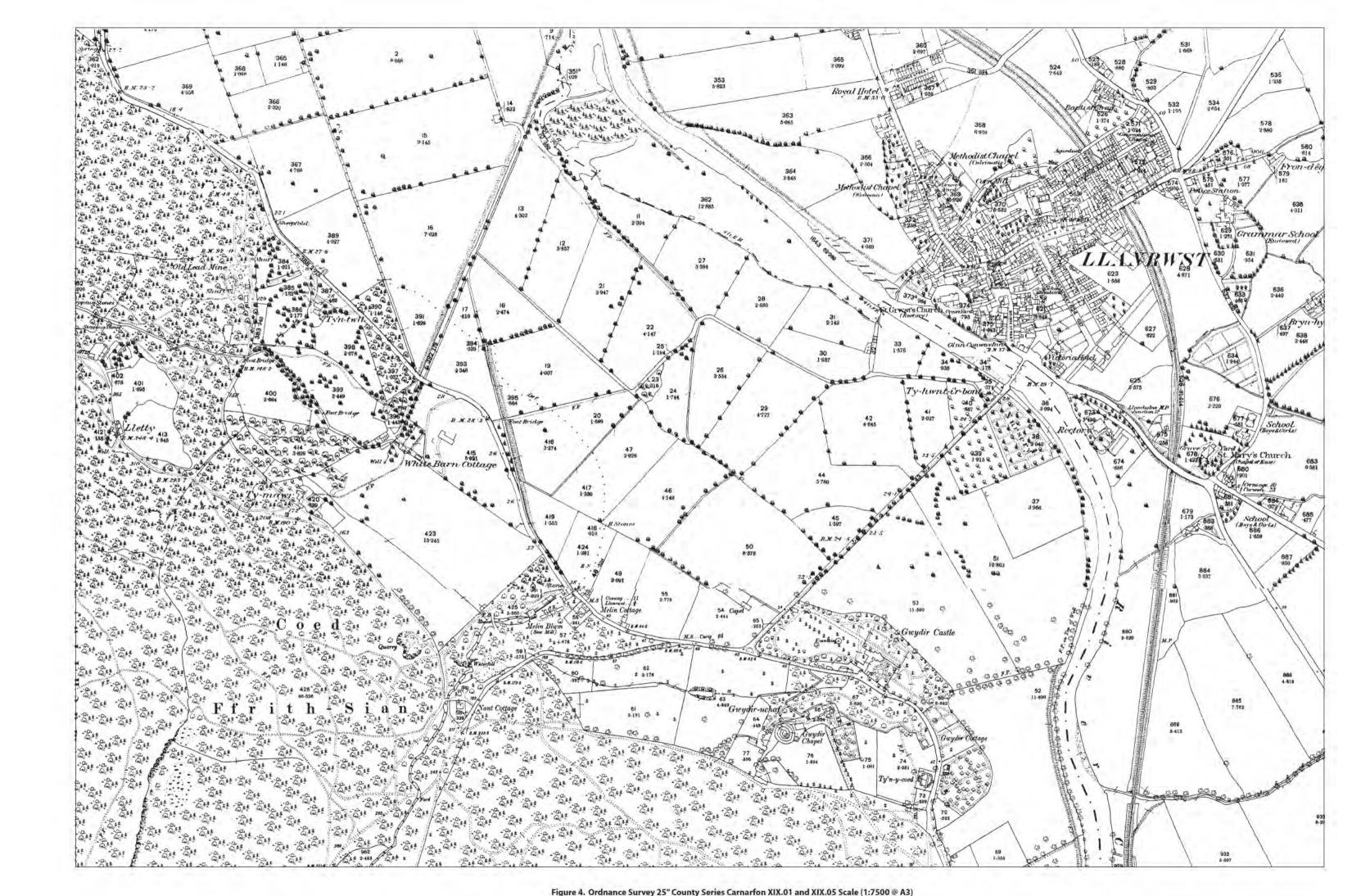


Figure 4. Ordnance Survey 25" County Series Carnarfon XIX.01 and XIX.05 Scale (1:7500 @ A3)

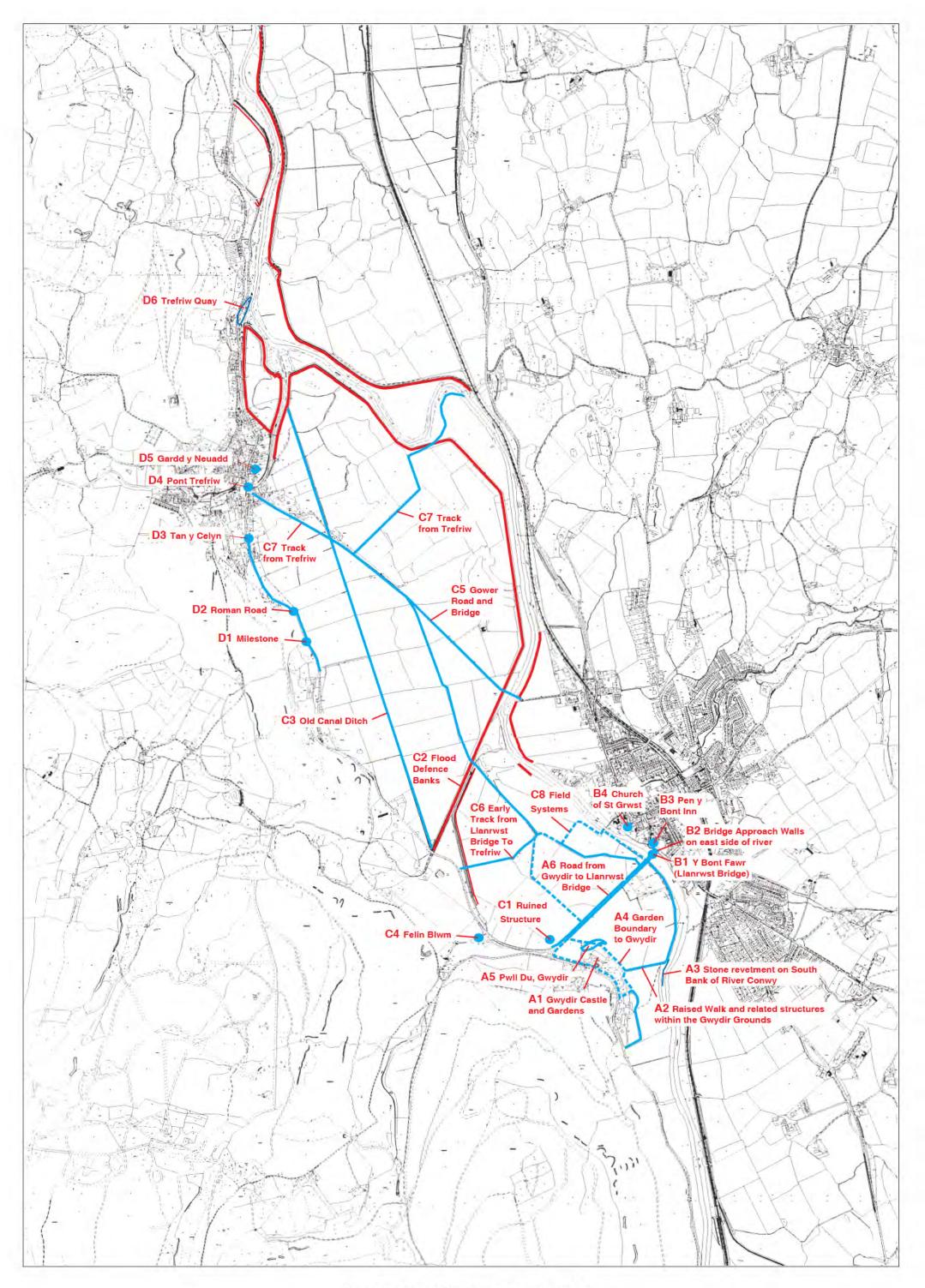


Figure 5. Location of archaeological sites (Scale 1:15000 @ A3)



Plate 1. Site D1. Pont Fawr (Llanrwst Bridge) in 1780

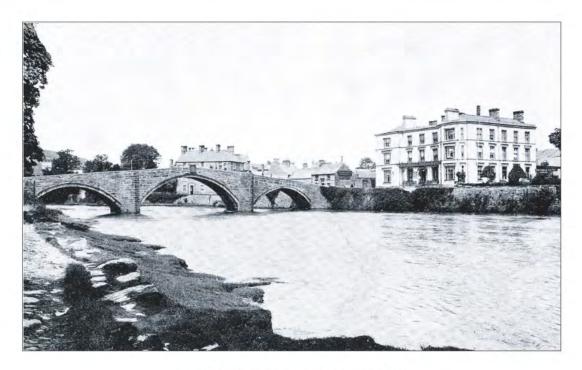


Plate 2. Site D1. Pont Fawr (Llanrwst Bridge). c.1900



Plate 3. Site D6. Trefriw quay late 19th century



Plate 4. Site D6. The steamer service at Trefriw quay early 20th century



Plate 5. Site A2. Raised walk



Plate 6. Site A2. Steps to raised walk



Plate 7. Site A3. River revetment



Plate 8. Site C2. Flood defence banks



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