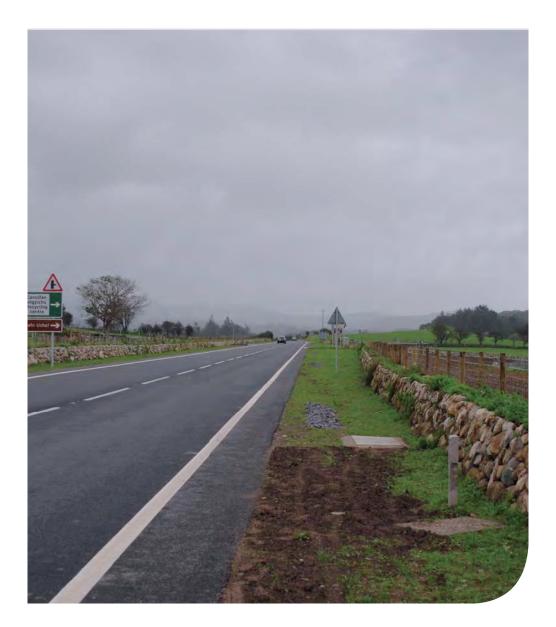
The A487 (T) Ty Cerrig, Garndolbenmaen improvements

Archaeological Record and Watching Brief





Ymddiriedolaeth Archaeolegol Gwynedd Gwynedd Archaeological Trust

The A487 (T) improvement works: Ty Cerrig, Garndolbenmaen

Archaeological Record and Watching Brief

Project No. 2095

Prepared for the: Gwynedd Consultancy

October 2011

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Cyhoeddwyd gan Ymddiriedolaeth Archaeolegol Gwynedd Ymddiriedolaeth Archaeolegol Gwynedd Craig Beuno, Ffordd y Garth, Bangor, Gwynedd, LL57 2RT

Published by Gwynedd Archaeological Trust Gwynedd Archaeological Trust Craig Beuno, Garth Road, Bangor, Gwynedd, LL57 2RT

> Cadeiryddes/Chair - Yr Athro/Professor Nancy Edwards, B.A., Ph.D, F.S.A. Prif Archaeolegydd/Chief Archaeologist - Andrew Davidson, B.A., M.I.F.A.

Report No.989

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TY CERRIG, GARNDOLBENMAEN (G2095)

ARCHAEOLOGICAL RECORD AND WATCHING BRIEF

Summary

The Gwynedd Archaeological Trust has carried out an archaeological record in advance of, and a watching brief during, the improvement of a 650m long stretch of the A487 (T) road in proximity to the villages of Ty Cerrig and Garndolbenmaen. The archaeological record involved a basic descriptive and photographic record of twenty-six sites prior to the commencement of works. These were mostly field boundary walls which would be impacted upon by the scheme, but also included a copse of conifers, a barn, and a stone clearance cairn which would be destroyed in their entirety by the works. The watching brief element of the project focused on the inspection of the archaeological sites as they were breached, the monitoring of newly stripped areas either side of the road in case of unknown buried archaeological features, and the inspection of field boundary walls once they had been reinstated.

1. INTRODUCTION

The Gwynedd Archaeological Trust (GAT) has been commissioned by Ymgynghoriaeth Gwynedd/Gwynedd Consultancy to undertake an archaeological record and intermittent watching brief as part of a mitigation strategy to help negate the affects of an improvement and widening scheme to the current A487 (T) at Ty Cerrig, Garndolbenmaen (located between SH49204330 and SH49704320; as detailed in Ymgynghoriaeth Gwynedd/Gwynedd Consultancy 1424_GA_04 Alignment Option 2 Plan LS A1 (1)). The road improvement measures 650.0m in length and is orientated on a general east-west alignment, following the route of the existing A487 (T) (fig .1).

2. BACKGROUND AND AIMS

2.1 Scheme description

The scheme was located south of Garndolbenmaen between the villages of Bryncir and Dolbenmaen between SH 49204330 and SH 49704320 on both the north and south sides of the A487(T), between Bryncir to the northwest and Dolbenmaen to the east. Following a safety assessment of the road between these two points, it was determined that a stretch some 650.0m in length no longer met the relevant safety standards. Therefore, the aim of the scheme was to improve the safety of road users at this location by widening the said stretch of road.

The works affected a corridor approximately 20.0m in width; 10.0m on the north side and 10.0m on the south side of the A487 (T), and was intended to increase the flow of traffic by widening the road throughout the study area. The land adjacent to the scheme is not included within any designated areas, and falls outside the Snowdonia National Park boundary.

Three minor roads currently join the A487 (T) within the study area. To the west of the scheme a road to the farmstead of Rhwngddwyryd joins the road from the north, while to the south of this and forming a cross-road, the road to Ty-Cerrig joins the A487 (T). Further to the east a third minor road joins the A487 (T) from the south which leads to the waterworks plant. All of these junctions have been redesigned into the proposed scheme, and as a result will be widened at their intersections with the main road. There will also be an underpass installed at Chainage (Ch.) 320-360 to allow livestock to be more easily moved between either side of the A487.

GAT completed an assessment of archaeological receptors in and around the proposed improvement area as detailed in GAT report 824 (August 2009). The assessment focused upon a 20.00m corridor centered upon the current A487 (T), as well as utilising the Historic Environment Record (HER housed in GAT) to identify areas of archaeological significance within proximity to the scheme. Lastly, the historic character unit of the area was assessed using LANDMAP (Land Assessment and Decision-Making Process), the methodology promoted and supported by Countryside Council for Wales (CCW).

A project design was compiled by GAT (G2095 PD October 2010) for carrying out an archaeological record and watching brief in accordance with The Gwynedd Archaeological Planning Service's (GAPS) recommendations for a programme of archaeological works to be carried out prior to and during the proposed works (0716ab01/D1338).

3. METHODS AND TECHNIQUES

3.1 Archaeological record

The archaeological assessment (GAT report 824) identified twenty-seven sites within, or very close to, the 20.0m wide development corridor including one structure (Barn feature 27) and site 26 (sites of unknown buried archaeology). Based upon designs provided by Gwynedd Consultancy, it was likely that twenty-four of these sites would be affected by the proposed works in some way. Moreover, the assessment identified ten sites considered to be under a major or moderate impact threat from the scheme prior to mitigation. These sites consisted of a hedgerow and field boundary wall (features 25 and 17 respectively) which would be moderately impacted upon, and a stone clearance cairn (feature 24), a copse of conifers (feature 4), a barn (feature 27), and five field boundary walls (features 3, 9, 10, 15, and 23) which would be majorly impacted upon. The recommended mitigation in all cases was to be recording in advance of destruction ensuring preservation by record. Furthermore, it was recommended that the five field boundary walls be reinstated as close to their original location as possible. The significance of effects with mitigation was expected to range from neutral/slight to slight.

The remaining sixteen archaeological sites were considered to be potentially under threat from ancillary or access works, and thus it was recommended that a basic record be taken of these features prior to the commencement of works. None of the features identified required any further assessment.

3.2 Watching Brief

An intermittent watching brief was maintained throughout the road improvement works on the A487 (T). This ensured not only that the mitigation design was upheld in respect to the archaeological heritage of the site, but also ensured that the very process and logistics of implementing the improvement scheme was carried out with the archaeology having been protected in the most suitable way. The archaeological assessment (GAT report 824) ascertained that the probability of discovering unknown archaeological remains at the site was *slight* due to the development corridor running through an area previously disturbed by the construction of the current A487(T), and thus intermittent visits were made when areas of land either side of the current road were stripped of soil.

4. GEOLOGICAL AND ARCHAEOLOGICAL BACKGROUND

(reproduced from GAT report 824, Cooke.R. 2009)

4.1 Topographic description

The A487 (T) and the land to the south of the road is located on the flat flood plain of the Afon Dwyfor, with the current road standing at a consistent 95.0m above sea level throughout the study area. The land to the immediate south of the road is flat pasture land, incorporating enclosed sheep and cattle grazing. The sides of the road are overgrown with brambles, interspaced occasionally with young trees, gorse bushes, and long grass. To the north of the road the topography gently undulates and slopes uphill away from the flood plain.

The floodplain cuts through an area of primarily Ordovician rocks, and are 'contiguous with the complex syncline of Snowdonia which extends north-eastwards in the upland areas above Penmaenmawr and Conwy, and westwards to form the greater part of the Llyn peninsula' (Bassett & Davies, 1977). The study area also lies close to areas of contemporaneous igneous rocks to the east and a small band of intrusive igneous rocks to the west.

4.2 Archaeological background

4.2.1 Prehistoric and Roman (up to 400AD)

To the southeast and approximately 1.2km from the western end of the proposed scheme stands the probable bronze-age standing stone of Beudy Cil-Haul (PRN 192 (302,488). The stone is an elongated glacial boulder measuring some 1.8m in height and 0.8m square, secured in place with packing stones.

Further evidence of prehistoric activity can be found to the northwest of the western end of the scheme, a prehistoric burnt-mound known as Glan-Dwyfach (PRN 154 (NPRN 302,420) is located on the eastern bank of the Afon Dwyfor, and approximately 1.33km from the proposed works. Burnt mounds are generally regarded as being bronze-age in date; however their utilisation carries through to the medieval period. It is believed that they were used as a form of cooking food, although the possibility of a ritualistic purpose exists.

There are known settlement sites of the prehistoric period in the vicinity of the proposed scheme. Approximately 670.0m to the north of the scheme is a stone built prehistoric hut circle (PRN 150 (NPRN 302,459) measuring approximately 25 feet in diameter. The hut is cut into the slope to the north and terraced out to the south, and a hollow in the ground 33 yards to the west-north-west may in fact be a second robbed out hut. Further to the northeast, approximately 560.0m from the A487 (T) on the northeast slope of an isolated knoll is a prehistoric stone built rectangular hut platform (PRN 188 (PRN 15,203) measuring 8.6m by 5.0m. The platform is orientated east-north-east by west-south-west and despite some stones existing within the wall face, the majority of the feature has been robbed.

To the north and approximately 740.0m away from the centre of the scheme is the remains of a prehistoric hut circle (PRN 150 (NPRN 57,178), measuring 25.0 feet in diameter and being in close proximity to the modern St. David's church of Garndolbenmaen. The hut is cut into the slope to the north and terraced out to the south, with only some stones remaining of the wall on the southern edge. A hollow some 33 yards to the west-north-west may in fact represent a second, robbed out hut circle.

There is a fair amount of archaeological evidence indicating Roman remains within the area, including four separate locations of domestic hut groups. The closest site is the enclosed hut group of Tyn y Caeau (PRN 145 (NPRN 302,459) located approximately 280.0m to the north of

the road, and comprising a rectangular stone building heavily robbed to the northeast, and two hollows representing round huts. Further to the northeast and approximately 620.0m from the current road is the stone built hut circle of Craig y Llan (PRN 172 (15,092), the walls of which have collapsed to approximately 2.0m in width, with the entrance being located either to the north-north-east or south-south-west.

To the southeast of the scheme are two hut group locations, the closest being approximately 510.0m away from the road and comprising two heavily robbed circular huts (PRN 170 (302,487), measuring 3.3m and 5.0m in diameter. Various earthwork hollows in proximity to the huts suggests the presence of other heavily robbed roundhouses. Further to the southeast lies the enclosed Roman hut group of Craig y Tyddyn, situated 740.0m from the eastern end of the proposed scheme (PRNs 165 (NPRNs 302,486). The site has the slight remains of an enclosure wall measuring 30.0m in diameter, and enclosing two roundhouses measuring 8.3m and 4.0m in diameter, to the west and southeast of the enclosure respectively.

Approximately 790.0m to the southeast of the western limit of the proposed road improvement and in close proximity to the Craig y Tyddyn hut group (PRNs 165 (NPRNs 302,486), is the site of a Roman fortlet (PRN 164 (NPRN 95,306 (SAM CN046) on the side of a steep sided narrow ridge. The west end is occupied by a roughly trapezoidal enclosure, while on the east a bank of earth and rubble measuring 2.6m in height exhibits the remains of an external revetment cutting across the ridge. The remainder of the defences is formed by a rubble wall faced on both sides with laid blocks, measuring generally 4.0m in thickness but increasing to 5.30m to the west, and surviving up to 6.0m in height.

The current A487 (T) may follow the line of the original Roman Road from Segontium to Pen Llystyn to Tomen Y Mur (PRN 17558).

4.2.2 Medieval (400AD – 1485 AD)

The study area lies within the medieval cantref of Dolbenmaen in the commote of Eifionydd, and formed part of the medieval township of Dolbenmaen (PRN 7,341 (NPRN 64,408). To the east of the village and approximately 800.0m east of the western end of the proposed scheme is the grade II listed medieval parish church of St. Mary (PRN 2.367 (NPRN 43.776 (listed building no. 4278). The church lies on a small by-passed section of the main road and stands within an irregularly shaped graveyard, and is approached through a grade II listed lych gate (listed building no. 21522). The medieval history of Dolbenmaen is further demonstrated by the castle mound (motte) (PRN 161 (NPRN 93,540 (SAM no. CN063) located to the south of the village and lying some 800.0m to the east of the western end of the proposed scheme. The castle mound and ditch stand on a low ridge running parallel to the river Dwyfor at a fordable crossing point on an important route way. 'Its architects may have been Norman or Welsh and its early history is uncertain. Later it formed the maerdref (administrative centre) of the commote of Eifionnydd and is thought to have been one of the royal residences of the Welsh Princes until it was abandoned by Llywelyn Fawr around 1230 in favour of the newly constructed Criccieth Castle. The motte itself is 36m in diameter and about 6m high. Some loose masonry is all that remains to indicate the presence of any buildings on the flattened top of the mound. The possible site of a bailey, if one existed, is now covered by farm buildings and Plas Dolbenmaen which itself dates to the 16th to 18th centuries (GAT HER).

The surviving traces of medieval settlement are characterised by the presence of rectangular long hut platforms. One of these has been recorded (Craig y Llan) approximately 670.0m due northeast of the western end of the proposed scheme (PRN 184 (NPRN 15,092). The walls of this domestic building are faced with large stones and average 0.7m in thickness, parts of which have been rebuilt as a modern sheep-fold.

4.2.3 Post-Medieval and later (1485 AD to the present day)

The 1840's tithe schedule registers some of the land to the north of the proposed scheme as belonging to a local tenant farmer of Rhwngyddwyryd called John Williams, however the majority of the land was owned by William Ormsby-gore of Glyn Cywarch and Brogyntyn. The said gentleman acquired the lands through his marriage to Mary Jane Ormsby in 1815, who was the sole heiress of the Brogyntyn estate situated in the parish of Selatyn near Oswestry, who in turn inherited the lands from her grandfather William Owen, who is documented as purchasing the lands around Bryncir in 1736 (Brogyntyn estate records, 1951).

To the east of the proposed scheme in the village of Dolbenmaen are several post-medieval buildings of note. The closest is situated approximately 700.0m to the east of the western end of the scheme, and is Plas Holland, the old rectory affiliated with the medieval church of St. Mary. The building is mostly modern but has a northern wing dating to circa. 1700 and has gabled dormers and a very large chimney. Further post-medieval buildings within the village include the vicarage (PRN 5,259) and domestic dwellings, as well as Plas Dolbenmaen (PRN 5,257 (NPRN 16,741 (listed building no. 4280), a two-storey early 18th Century house and associated barns (PRN 12,603 (NPRN 31,429 (listed buildings no. 4281).

To the north of the scheme lies the post-medieval farmstead of Rhwngyddwyryd (NPRN 16,802), and further to the north again (approximately 470.0m) lies the Welsh Calvinistic Methodist Jerwsalem Chapel of Garndolbenmaen (NPRN 6,814). This building was founded and built in 1780, and was altered or rebuilt in 1874/75 and 1915, being constructed in the simple round-headed style with gable entry (RCAHMW).

4.2.4 Industry

The vast majority of industry to have taken place in the vicinity of the study area is farming. The flat and fertile lands to the north and south of the improvement scheme are particularly well suited to grazing pasture, and the field systems are depicted as having changed very little between the 1840's tithe map, first (1889), second (1900) and third (1915) OS maps and the modern day OS maps. Indeed, the 1840's tithe schedule lists the common usage of the lands around the scheme as being occupied by either meadow or arable land, as can be seen today.

Approximately 840.0m to the southeast of the western end of the proposed scheme is the Tyddyn Mawr post-medieval slate quarry (PRN 20,201), and further gravel quarries have been excavated up to the present day to the north at Bryncir. To the southeast and approximately 1.2km from the western end of the scheme is the post-medieval mine of Beudy Cil-Haul (PRN 21,533) and the post-medieval quarry of Ysgubor Gerrig (PRN 20,204), responsible for the extraction of manganese and slate respectively.

4.2.3 Conclusions

Much of the area within and around the proposed scheme comprises the featureless flood plain of the Afon Dwyfor. There are consequently no known medieval or earlier settlements or ritual sites closer than 280.0m to the road, however the wealth of prehistoric, Roman and medieval sites spread across the landscape within 2.0km of the proposed scheme significantly increases the chances of unknown archaeological material within the area. Indeed, the existence of water-courses in the area also increases the chances of finding prehistoric features such as burnt mounds. However, the construction of the existing A487(T) may well have impacted upon a greater width than currently utilised, and this might have affected the potential for the survival of remains within the development area.

4.3 Statutory and non-statutory designations

No listed buildings are located within the 20.0m north to south buffer zone along the study area, however the following listed buildings lie within 500.0m of the A487 (T) study area:

• Ty-Newydd Farmhouse grade II (listed building no. 21563)

No Scheduled Ancient Monuments lie within 500.0m of the proposed scheme.

The eastern part of the scheme lies within 300.0m of the official Snowdonia National Park boundary.

5. RESULTS OF THE BASIC RECORD

Prior to the commencement of the improvement works, a basic photographic and descriptive record was taken of all twenty-five archaeological features within the 20.0m wide survey zone (see figure 3).

1. Drainage ditches NGR: SH 49294 43181 PRN: 31015 Plate 1 *Archaeological value: Negligible*

Three drainage ditches run northeast to southwest across the field, measuring approximately 1.50m in width, 0.60m in depth and in the region of 300.00m in length. The ditches are filled with long grass and are first depicted on the 1970-80's 1:10,000 Ordnance Survey map, however clear evidence can be seen of their existence on aerial photographs from 1946 and 1972 (106G/UK/1467.3173 and 72-269.151 respectively). The ditches appear to form a network of drainage gullies with feature 2, undoubtedly introduced because of the inherent problems of deluge with being situated on the floodplain of the nearby watercourse to the west. Some shallow striations can be seen between the drains and running parallel to them, but these appear to be fairly modern plough scars rather than ridge and furrow marks. The drains become shallow and fade out as they approach the A487 (T) and it is likely that they were filled in with the up-cast material during construction of the road. This feature is unlikely to be impacted upon by the proposed scheme.

2. Drainage gullies NGR: SH 49298 43245 PRN: 31016 Plate 2

Archaeological value: Negligible

At least four drainage gullies can be identified on both the 1946 and 1972 aerial photographs (106G/UK/1467.3173 and 72-269.151 respectively), running northwest to southeast across the field. Although, only one could be identified during the field evaluation stage measuring approximately 1.20m in width, 0.10m in depth and 70.00m in length, the aerial photographs depict the gullies as running the entire width of the field, some 200.00m. These gullies appear to form a network of drainage channels with feature 1, although the exact relationship between the two sets of drains could not be ascertained. The gullies most likely represent drainage channels introduced because of the inherent problems of deluge with being situated on the floodplain of the nearby watercourse to the west. The drains peter out within the limits of the field and are unlikely to be impacted upon by the scheme.

3. Field boundary NGR: SH 49412 43272 PRN: 31017 Plates 3, 27, 28, 29 *Archaeological value: Low*

A field boundary wall is located to the south of the current A487 (T) and measures approximately 1.20m in height and 0.70m in width. The wall is far shorter on its northern face, and in sections is flush with the A487 (T) road. The wall runs from east to west and then turns slightly to run from

northeast to southwest before terminating at a galvanized gate, with the boundary continuing as a wood post and wire fence at this point. It is constructed of large sub-rounded and sub-angular cobbles, comprising 60-70% of the wall's composition bonded by earth. A modern wood post and wire fence is set into the top of the wall. The boundary is first depicted on the 1840's tithe map for the parish of Dolbenmaen and later on the 1889 OS county series map, although the actual age of the boundary and indeed of the wall is unknown. This feature is likely to be severely impacted upon by the proposed works, and it is recommended that it be reinstated as close to its original location once the improvement works are complete.

4. Conifer plantation NGR: SH 49433 43261 PRN: 31018 Plates 4, 30 *Archaeological value: Negligible*

NGR: SH 49428 43200

A small plantation of approximately fifteen Scots Pines is located in the northeast corner of the field, immediately adjacent to barn feature 5 and to the south of the current A487 (T) (feature 10). The tallest trees in the copse measure approximately 20m in height. Such small plantations are traditionally indicative of old drovers' routes, however it seems unlikely that these trees are of adequate antiquity to be so. This feature will require felling to allow room for the road improvement scheme.

5. Field boundary wall

Plates 5, 6, 31, 32 Archaeological value: Low

A clawdd wall of earth and stone runs northeast to southwest across the field. The wall measures 0.90m in height and 1.0m in width, and is constructed from medium sized sub-rounded local river cobbles and medium sized sub-rounded glacial boulders. The wall is bonded by soil and is overgrown with vegetation. A 1m high wood post and wire fence is set into the top of the wall and is interspersed with mature hawthorn trees and gorse bushes. The wall joins clawdd wall feature 3 at its northern end. This wall terminates to the north with a substantial stone gate pier, no longer in use. The stone stands 1.2m high and 0.6m wide at the base, with two drilled holes on its eastern face at the top and bottom. On its northern face drilled notches are visible which are probably from when the stone was split. The field boundary is first depicted on the 1889 OS county series map, and appears to have been created post 1840's as it is not represented on the tithe map for the parish of Dolbenmaen. This feature is likely to be impacted upon by the improvement works and should be reinstated, including gate pier stone, as close to its original location as possible.

6. Field boundary wall

ary wali nok.

NGR: SH 49607 43189 PRN: 31020

PRN: 31019

Plates 7, 33, 34

Archaeological value: Low

A clawdd field wall runs from north to south and joins a field boundary wall (feature 3) to the north. The wall measures 0.90m in height and 1.20m in thickness and is constructed from 80% medium sized sub-rounded river cobbles bonded by earth, and is heavily overgrown with grass. A wood post and wire fence is set into the top of the wall. The boundary divides a field from a single carriage lane (feature 14) leading to Ty-Cerrig and is first depicted on the 1840's tithe map and later on the 1889 first edition county series OS map, although the actual age of the boundary and field wall is unknown. The wall will only be affected marginally at its northern extremity by the road improvement scheme, and should be reinstated as close to its original location as possible.

7. The current A487 NGR: SH 49585 43234

PRN: 31021 Plate 8

Archaeological value: Negligible

The current road is first depicted on the 1840's tithe map for the parish of Dolbenmaen, however

the road may possibly follow the line of the Roman Road from Segontium to Pen Llystyn to Tomen Y Mur (PRN 17558), and despite the modern road having probably disturbed any archaeological remains in the vicinity, it provides an opportunity to test this theory and as such archaeological personnel should be present during ground-works.

8. Field boundary wall NGR: SH 49619 43194 PRN: 31022

Plates 9, 35.

Archaeological value: Low

A clawdd field wall runs northeast to southwest measuring 1.2m in height and 1.80m in width, constructed from medium and large sized sub-rounded and sub-angular cobbles bonded by earth with a 1m high wood post and wire fence set into the top. The wall divides the field from a single carriage lane (feature 14) leading to Ty-Cerrig and joins dry-stone wall feature 9 to the north. The boundary is first depicted on the 1840's tithe map, and later on the 1889 first edition county series OS map. The actual age of the boundary and the wall is unknown. Only the very northern extremity of this wall will be affected by the road improvement scheme.

9. Field boundary wall NGR: SH 49704 43202 PRN: 31023

Plates 10, 36, 37.

Archaeological value: Low

A dry-stone single-skin wall runs northeast to southwest and divides the southern edge of the current A487 with the fields. The boundary terminates to the west with clawdd wall feature 8, and to the east with field wall feature 8. It measures 1.10m in height and is 1.0m wide at its base, tapering to 0.50m in width at its apex. The wall is constructed from medium sized sub-rounded river cobbles and is capped with concrete, which secures wooden posts holding wire fencing in place. In places the wall has collapsed and measures only 0.5m in height on the road side, most likely due to the raising of the road level. The field boundary is first depicted on the 1840's tithe map and later on the 1889 first edition county series OS map, however the actual age of the wall and boundary is unknown, although the wall appears to be a fairly modern rebuild. The wall is likely to be largely affected by the proposed works, and it is recommended that the wall be reconstructed in its new location to resemble its original form.

10. Field boundary wall NGR: SH 49770 43173

PRN: 31024

Plates 11, 38, 37.

Archaeological value: Negligible

A field-wall runs northeast to southwest and measures 1.10m in height and 0.40m in width. The wall divides the field from a single carriage lane which leads to the modern waterworks building, and joins dry-stone wall feature 9 to the north. The wall is constructed of large angular cobbles cemented in place, and has a 0.6m high wood post and wire fence set into the top. The wall is approximately 40.0m in length and butts onto an earlier field boundary wall which runs northwest to southeast, and follows the line of the original field boundary as first depicted on the first edition 1889 OS county series map. However, this wall does not follow the original boundary line and appears to be contemporary with the single carriage lane (feature 14) to the east, which is first depicted on the 1970-80's 1:10,000 OS map. This feature is a modern wall, and despite the probability of being largely affected by the proposed works, is of negligible archaeological value.

11. Current road to waterworks NGR: SH 49782 43131 PRN: 31025

Plate 12.

Archaeological value: Negligible

A single-carriage tarmac lane runs northeast to southwest for approximately 40.0m, before turning to run northwest to southeast for approximately 230.0m. The track is 4.0m in width and leads to the modern waterworks building to the south of the study area. A wooden gate limits

access from the A487 and a cattle grid is located some 10m along the road. This feature is not depicted on any maps until the 1970-80's 1:10,000 OS map, and appears to be a modern track constructed for the sole purpose of access to the waterworks building. The track is likely to be affected negligibly by the proposed works, and is also of negligible archaeological value.

12. Field boundary wall NGR: SH 49814 43230

PRN: 31026

Plates 13, 39.

Archaeological value: Low

A dry-stone field-wall runs southwest to northeast away from the current A487, measuring 0.70m in height and 1.0m in width. The wall is constructed from medium and large sized angular cobbles, and has wooden stakes with wire fencing driven into it. A part of the wall has suffered from collapse, and is overgrown in places with vegetation and fairly mature trees. The wall divides two fields and joins clawdd wall feature 15 to the southwest. It is first represented on the 1840's tithe map and later on the first edition 1889 OS county series map, although the actual age of the boundary and wall is unknown. The proposed works will likely only affect the southern extremity of this feature.

13. Current road to Rhwngddwyryd NGR: SH 49662 43300 PRN: 31027

Plate 14.

Archaeological value: Medium

A single-carriage tarmac lane runs southwest to northeast away from the current A487. The lane leads to Rhwngddwyryd farm, and measures 3.0m in width and is flanked on either side by cloddiau walls features 16 and 17. A small drainage ditch runs parallel to the road on its eastern side. The lane is first depicted on the 1840's tithe map for the parish of Dolbenmaen, although the actual age of the track is unknown it is probably contemporary with the farm buildings which are believed to originate from the early 18th Century (www.coflein.gov.uk). It is likely that the proposed works will only affect a small part of the southern extremity of the track.

14. Current road to Ty Cerrig NGR: SH 49608 43183 PRN: 31028

Plate 15.

Archaeological value: Medium

A single-carriage tarmac lane runs northeast to southwest away from the current A487. The lane leads to the village of Ty-Cerrig, and measures 4.5m in width. The road is flanked on either side by cloddiau walls features 6 and 8. A 0.5m wide and 0.4m deep drainage ditch runs parallel with the road located between it and feature 6 to the west. The lane is first depicted on the 1840's tithe map, however the actual age of this feature is unknown. The road will only be affected negligibly at its northern extremity where it joins the current A487 road.

15. Field boundary wall NGR: SH 49716 43206 PRN: 31029

Plates 16, 40, 41.

Archaeological value: Low

A field wall runs northwest to southeast and divides the current A487 road from the fields to the north. The wall runs parallel with the road and measures 1.2m in height and 1.0m in width, but measures only 0.9m high on the road side most likely due to the raising of the road level. The wall is constructed from medium and large sized sub-rounded cobbles, bonded by an earth core. A wooden post and wire fence has been set into the top of the wall, and only one small hawthorn tree has established itself upon the wall. The boundary terminates to the southeast with the junction of wall feature 12 and to the northwest with wall feature 16. A narrow drainage gulley some 0.5m wide and 0.25m deep starts approximately at the half way point of this wall, and continues under the road feature 13 to the northwest into the adjacent field, where it becomes waterlogged. The boundary is first depicted on the 1840's tithe map, although the actual age of

the wall is unknown. It appears likely that the proposed works will have a significant affect upon the wall, and it is recommended that the boundary is reconstructed in its new location to resemble the form of the original boundary.

16. Field boundary wall NGR: SH 49648 43245 PRN: 31030

Plates 17, 42, 41.

Archaeological value: Low

A clawdd wall runs southwest to northeast away from the current A487, measuring 1.0m in height and 1.2m in width. The boundary separates the road feature 13 from fields to the east. The wall is constructed from medium sized sub-angular cobbles and small sized sub-rounded glacial boulders bonded by an earthen core and heavily overgrown with grass. A 1m high wood post and wire fence is set into the top, with some gorse encroachment. The wall is in a good state of repair and divides the road to Rhwngddwyryd farm from the fields to the east. The boundary is first depicted on the 1840's tithe map along with the road (feature 17), although the actual age of the wall is unknown. The proposed scheme is likely to only affect the southern extremity of this feature.

17. Field boundary wall NGR: SH 49634 43237

PRN: 31031

Plates 18, 43, 41.

Archaeological value: Low

A field boundary clawdd wall runs southwest to northeast away from the current A487, measuring 1.0m in height and 1.20m in width and separates the road feature 13 from fields to the west. The wall is constructed from an earth bank and medium sized sub-rounded cobbles overgrown with grass, and runs for approximately 25.0m before being replaced by a modern drystone wall. This boundary divides the road to Rhwngddwyryd farm from the fields to the west and is first depicted on the 1840's tithe map along with the road (feature 17), although the actual age of the boundary and clawdd wall is unknown. The proposed scheme will likely affect up to 40% of this feature, and thus an archaeologist should be present during removal of the wall, and a basic record should be taken. It is also recommended that any parts of the boundary to be replaced are done so with the original clawdd wall being reinstated.

18. Field boundary wall NGR: SH 49469 43309

PRN: 31032

PRN: 31033

Plates 19, 20, 44, 45.

Archaeological value: Low

A field clawdd wall runs southwest to northeast away from the current A487, measuring 1.0m in height and 1.0m in width. The wall is constructed from large and medium sized sub-rounded cobbles bonded by earth, and is overgrown with grass and vegetation. The wall terminates to the south with the junction of clawdd wall feature 23. A 1.0m high wood post and wire fence is set into the top of the wall, with several fairly mature hawthorn trees having established themselves. This boundary divides two fields and is first represented on the 1840's tithe map, although the actual age of the boundary and wall is unknown. The wall will only be affected negligibly at its southern extremity.

19. Current road to Garndolbenmaen NGR: SH 49286 43355

Plate 21.

Archaeological value: Medium

A tarmac road which runs southwest to northeast away from the current A487, it begins as a twincarriage road narrowing to a single-carriage road. The track measures approximately 6.0m in width as a single-carriage, and has undoubtedly been widened upon the junction with the current A487. The track is first depicted on the 1840's tithe map, however it leads to the Jerusalem Chapel of the Welsh Calvinistic Methodist denomination (NPRN 6,814), which was constructed in 1780 (RCAHMW) and is approximately 450.0m north of the current A487. It is very probable that this road is either contemporary with, or predates this chapel. The proposed works will only affect the junction between this feature and the current A487 and thus any archaeological deposits will most likely have already been disturbed during road widening.

20. Trackway NGR: SH 49611 43118 PRN: 31034

Archaeological value: Medium

A trackway is depicted on the first edition 1889 OS map running north to south away from the current road to Ty-Cerrig (feature 18), and terminating at a stone farm building some 180.0m to the south of the A487. The track is labeled as a footpath, and its dimensions are depicted as being 2.0m in width and 155.0m in length. This feature appears to have gone out of use at the end of the 19th century as it is not depicted on either the second (1900) or third (1915) edition OS maps. Indeed, no visible remains could be observed of this feature during the field search. This feature is depicted as being approximately 20.0m from the current A487 and as such should not be disturbed by the proposed works.

21. Trackway NGR: SH 49610 43339 PRN: 31035

Plate 22.

Archaeological value: Medium

A trackway is depicted on the first edition 1889 OS map running southeast to northwest, connecting the current road to Rhwngddwyryd farm (feature 17) with the farmstead itself. This track is labelled as a footpath and appears to have been intended to create a shortcut from the farmstead to the A487 across the field. The 1889 OS map depicts the track as being 1.0m in width and 240.0m in length, however the feature appears to have gone out of use before the end of the 19th Century as it is not shown on the second (1900) or third (1915) edition OS maps, and no visible evidence could be seen of its existence during the field search. This feature is depicted as being approximately 15.0m from the current A487 and thus any remains of it should not be affected by the proposed works.

22. Trackway NGR: SH 49484 43360 PRN: 31036

Plate 23.

Archaeological value: Medium

A trackway is depicted on the first (1889), second (1900) and third (1915) edition county series OS maps running southwest to northeast, connecting the current A487 with the farmstead at Rhwngddwyryd. The track is depicted as being 4.0m in width and 215.0m in length, but is not shown on the 1970-80's or modern OS maps suggesting it went out of use at some point in the mid 20th Century, indeed no visible signs of the track could be identified during the field search. If any remains of this feature exists then approximately 10.0m of its southern extremity will be affected by the proposed works, and thus archaeological personnel should be present at this point during ground-works to watch for any trace of its existence.

23. Field boundary wall NGR: SH 49538 43250 PRN: 31037

Plates 24, 41, 45.

Archaeological value: Low

A field clawdd wall runs northwest to southeast and divides the current A487 road from the fields to the north. The wall runs parallel with the road and measures 1.8m in height on the field side and 0.5m on the road side, most probably due to the raising of the road level. The wall measures 1.3m in width. The wall is constructed from medium and large sized angular cobbles, bonded by an earth core overgrown with grass. Further to the western extremity of the wall there is an increase in the frequency of large sub-rounded glacial boulders incorporated into, and on top of, the main wall. A 1.0m high wood post and wire fence is set into the top of the wall, and a

drainage ditch measuring 1.8m in width and 0.6m in depth follows the wall on its northern side and is a continuation of the same drain recorded by feature 15. The boundary terminates at the junction with wall 17 to the southeast and road feature 19 to the northwest. At the junction with wall boundary feature 18 there is a large stone gate pier measuring 1.0m high and 0.5m wide with drilled holes on its northern side. The gate pier has gone out of use and been replaced by a modern iron gateway. The boundary is first depicted on the 1840's tithe map, although the actual age of the wall is unknown. It appears likely that the proposed works will have a significant affect upon the wall, and it is recommended that the boundary and stone gate pier be reinstated in its new location to resemble the form of the original boundary.

24. Stone clearance cairn NGR: SH 49387 43297 PRN: 31038

Plate 25.

Archaeological value: Low

To the north of the road at the western end of the proposed scheme is a cairn comprised of loosely piled large angular and sub-rounded glacial boulders some 8.0m in length and 6.0m in width. The largest stone measures 1.0m in height, 0.9m in width, and 0.5m in depth. The feature appears to be a field clearance cairn and has no apparent form or arrangement. It is likely that the proposed works will result in the complete removal of the stones.

25. Hedgerow	NGR: SH 49815 43187	PRN: 31039
Plates 26, 46.		

Archaeological value: Low

To the north of the road at the eastern end of the scheme is a hedge running northwest to southeast, comprised mainly of hawthorn trees, occasionally interspersed with bramble, nettle, bracken, yarrow and fern. At the south-western end the hedgerow is within a ditch some 0.5m deep, which was possibly the height of the original road before the level was heightened. A wood post and wire fence runs along parts of the northern side. The hedge is approximately 2.5-3.0m high, and although the actual age of the hedge is unknown, under The Hedgerow Regulations 1997 a hedgerow is considered "important" if it is greater than 30 years old and is recorded in a document held at the relevant date at a Record Office as an integral part of a field system predating the Inclosure Acts. The hedgerow itself is not identified on any of the early maps, however the boundary with the road is depicted as far back as the 1840's tithe map, and as such the hedgerow must be considered to be of historical significance. It seems likely that the proposed works will require the removal of up to 60.0m of the hedgerow.

26. Sites of unknown archaeological potential

Archaeological value: Unknown

There is some potential for the discovery of previously unknown buried archaeological sites in proximity to the proposed works, and an intermittent watching brief is recommended during ground-works to observe for these.

27. Barn NGR: SH 49440 43258 PRN: 31040

Archaeological value: Negligible

A small barn measuring approximately 6.0m by 3.5m by2.0m to the eaves and constructed of an oak frame and corrugated iron sheet is located to the south of the current A487 (feature 10). The structure is in a fairly advanced state of disrepair, and is close to collapse. The northern section has already collapsed and the iron sheeting is heavily rusted. A wire fence has been erected around the barn to keep livestock out. Some of the structural timbers appear to have been reused, and a wooden hatch situated at the top of the eastern wall probably permitted access to stored hay or fodder. The barn is not depicted on any maps until the modern Ordnance Survey map and is of negligible archaeological value. However, if the structure is to be demolished in its entirety by the

scheme, it is recommended that a basic record be taken prior to demolition.

5.1 Summary of the basic record

The programme of road improvement works to the A487 (T) road at Ty Cerrig involved the demolition of barn feature 27, cairn feature 24, and the copse of conifers feature 4. These features were recorded in advance of destruction and thus the overall significance of effect of the scheme upon them was reduced from *slight adverse* to *neutral/slight adverse* as anticipated in assessment report 824).

A basic record was taken of the remaining twenty-three known archaeological sites, which in the case of fifteen of the features reduced the significance of effect of the works from *slight adverse* to *neutral* as anticipated in assessment report 824.

The overall significance of effect after mitigation upon trackway features 20 and 21 and hedgerow feature 25 did not alter due to the scheme having little or no impact upon them.

6. RESULTS OF THE WATCHING BRIEF

The improvement works to the Ty Cerrig section of the A487 (T) began on 1st November 2010 and lasted forty-nine weeks. Intermittent visits were made by an archaeologist from GAT to inspect the removal of the archaeological features identified in the assessment, to inspect features which had been reinstated, and to monitor the stripping of soils either side of the current road in case unknown buried archaeological deposits were found in accordance with the archaeological project design submitted by GAT (*Roberts J. Project Design for Archaeological Watching Brief and Basic Record. October 2010*).

A photographic record was taken of all archaeological features as they were breached and features were inspected to see if any further description could be added to the basic records taken for each. In all cases the revealed sections through features confirmed that recorded in the basic record, and no further additions were made to individual descriptions. A visit was made during the removal of cloddiau boundary walls features 18 and 5 to ensure the secure storage of the stone gate piers prior to reinstatement.

An inspection was made of the survey area once the barn, conifer plantation, and stone cairn (features 27, 4, and 24) were entirely removed. No additions to the basic descriptions were required and no other features were found beneath them.

Visits were made to inspect the stripping of the land take either side of the current A487 (T) (see below). Stripping was carried out by a 360° excavator with a toothless ditching bucket.

North of the A487 (T) feature 19 to feature 13 (chainage 10m to 360m) (see plates 47 and 48) A strip of land some 14.0m wide located immediately north of the current A487 (T) and parallel to it was stripped of soil to permit the widening of the A487 (T) to the north. A 0.2m deep mid brown-grey silt-clay topsoil was removed onto a mid/dark brown clay-silt subsoil. No new archaeological features were observed, however it was possible that more discreet features would have been obscured by the subsoil horizon.

North of the A487 (T) feature 13 to feature 12 (chainage 360m to 550m) (see plate 49) A strip of land some 14.0m wide located immediately north of, and parallel to the current A487 (T), between the road to Rhwngddwyryd (feature 13) and field boundary wall (feature 12) was stripped of soil to permit the widening of the A487 (T) to the north. A 0.15m deep dark greybrown clay-silt topsoil was removed onto a slightly lighter brown-grey silt-clay-sand subsoil. No new archaeological features were observed, however it was possible that more discreet features would have been obscured by the subsoil horizon.

South of the A487 (T) feature 14 to feature 5 (chainage 360m to 195m) (see plate 50) A strip of land some 10.0m wide located immediately south of, and parallel to the current A487 (T), between the road to Ty Cerrig (feature 14) and field boundary wall (feature 5) was stripped of soil to permit the widening of the road to the south. A 0.35m deep mid to light brown silt-clay topsoil was removed onto a mid red-brown clay-silt. No new archaeological features were observed, however it was possible that more discreet features would have been obscured by the subsoil horizon.

7 POST CONSTRUCTION MONITORING

The four field boundary walls (features 3, 9, 15, and 23) running parallel with the A487 (T) were required to be demolished across the length of the scheme and reinstated alongside the widened limits of the road. The basic record and reinstatement mitigation was intended to reduce the overall significance of the effect, and in the case of field boundary walls features 9 and 15 this has reduced the significance of effect of the scheme from *moderate adverse* to *neutral/slight adverse*. However, the western limits of field walls features 3 and 23 were not reinstated but were replaced with a wood post and wire fence. This has resulted in the significance of effect for these features not being reduced as much as originally conceived in the assessment report (GAT report 824), and thus the significance of effect for these two features remains at *slight adverse*.

The reinstatement of the field boundary walls parallel with the A487 (T) (features 3, 9, 15, and 23) and the reinstatement of the terminuses of field walls at right angles to the road (18, 17, 16, 12, 10, 8, 6, and 5) utilised the stones removed from the original walls, but required the addition of extra stone as well. This was sourced like for like from the nearby Graeanog quarry at Pantglas. The reinstated cloddiau walls running parallel with the road (features 3, 9, 15, and 23), although reinstated as close to their original positions as possible, differ somewhat from the original boundary walls as they are of equal height on both the road and field sides. The original walls (see GAT report 824) were significantly shorter on the road side, thus visually opening up the historic landscape unit either side of the road. Moreover, the gate pier from field boundary wall feature 5, although retained, was not reinstated as recommended in assessment report 824.

This has a further impact upon the Ty-Cerrig Historic Landscape Unit (PRN: 31041), which is primarily experienced by drivers from the A487 (T) road. The widening of the road and the replacing of the western section of boundary walls features 3 and 23 with a wood post and wire fence, coupled with the difference in form between the original and reinstated walls parallel with the road, changes the way in which the landscape is experienced. This impacts upon the dominant cultural context within the area which is rural faming, primarily enclosed sheep and cattle farming. Despite this, the mitigation strategy of recording and reinstating the boundary walls has reduced the overall significance of effect of the scheme upon the historic landscape unit from *slight adverse* to *neutral/ slight adverse* as envisaged in the desk-based assessment report.

8. SUMMARY OF IMPROVEMENT WORKS TO THE A487 (T) AT TY CERRIG

The programme of improvement works to the A487 (T) at Ty Cerrig was completed by the end of

October 2011. In total 650m of the road was improved to current design standards, including the on-line full construction of the carriageway, improved vertical alignment, hard strips and verges and the improvement of two junctions (features 11 and 14). Furthermore, an underpass was installed beneath the road to allow the movement of livestock from fields either side of the road.

9. CONCLUSIONS AND SUMMARY OF FINDINGS

The programme of road improvement works to the A487 (T) road at Ty Cerrig involved the demolition of three features, and limited impact upon a further twenty-three known archaeological sites. A basic descriptive and photographic record was taken of these features prior to the start of works.

A watching brief was maintained across approximately 80% of the stripped areas to the immediate north and south of the A487 (T). No new archaeological features were identified during the topsoil strip. This was due in part to disturbance caused during the original construction of the A487 (T), but there is also the possibility that subtle features may have been masked by the remaining layer of subsoil.

The watching brief element of the works also inspected field boundary walls which had been reinstated. Although this had generally been of a high standard, the western limits of field walls 3 and 23 had not been reinstated, and the overall design of the reinstated walls did not as closely resemble the original walls as it could have. This has impacted upon the discreet historic character unit of Ty Cerrig, although the actual visual impact is limited and thus the impact of the scheme as a whole upon the landscape is considered to be *slight adverse*.

10. THE ARCHIVE

The archive consists of notes, maps and digital images taken using a Nikon DSLR. The paper archive will be held by Gwynedd Archaeological Trust (project code G2095), and the digital photographs will be curated by the National Monument Record (NMR), Royal Commission on the Ancient and Historic Monuments of Wales, Aberystwyth. Copies of the bound report will be sent to the regional Development Control archaeologist, to the Historic Environment Record (HER) Archaeologist at the curatorial division of Gwynedd Archaeological Trust, Bangor, for deposition in the Regional HER, and to the NMR after approval by the client.

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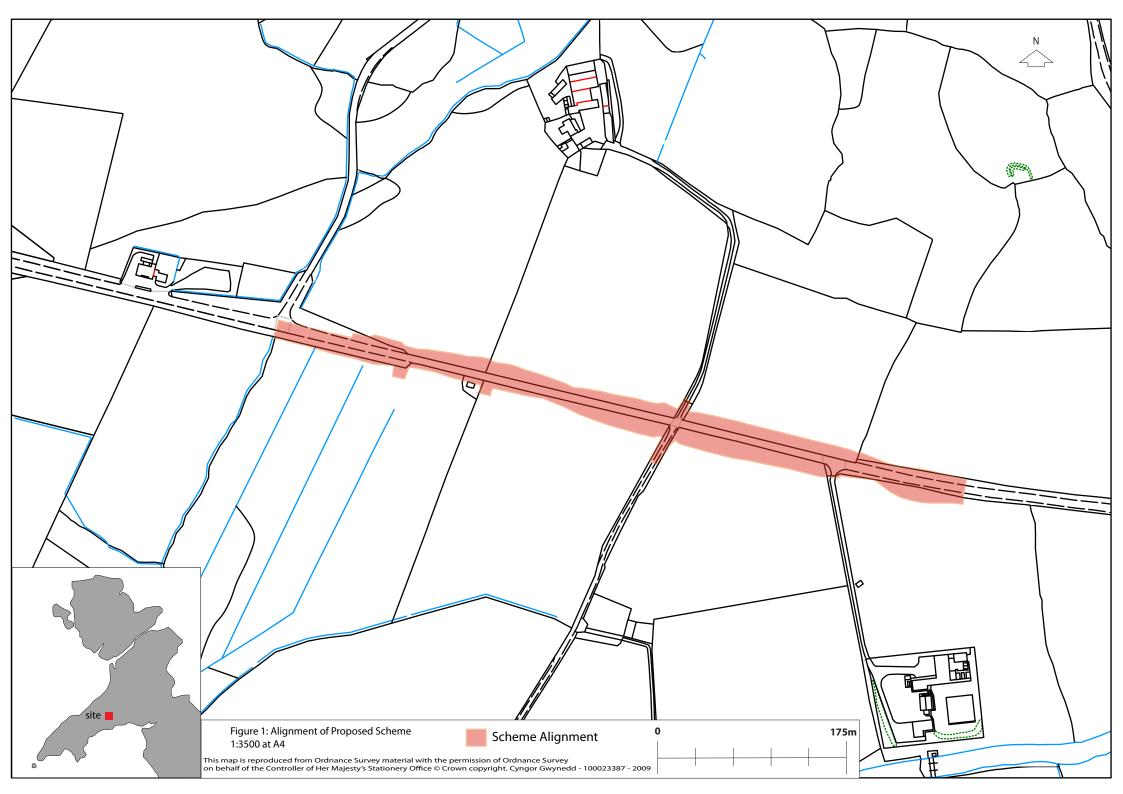
11.3 Cartographical sources

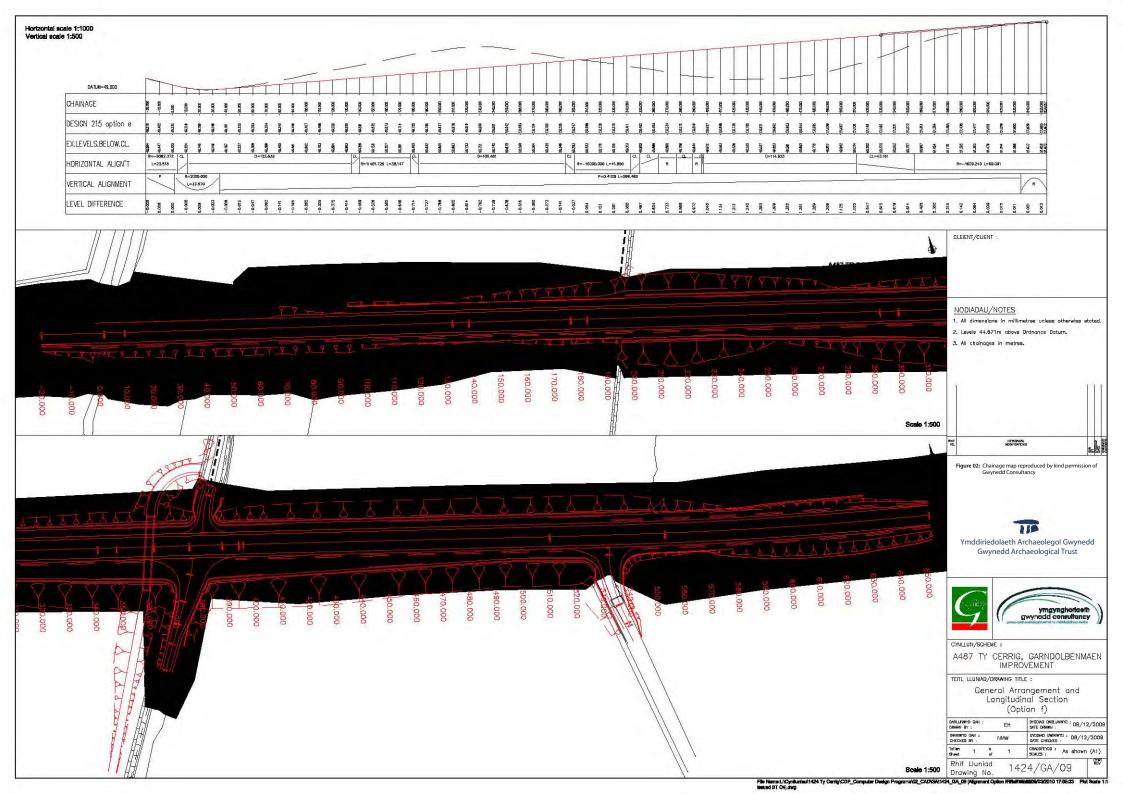
Ordnance Survey maps:

1889 First Edition County Series XXXIV.01.11900 Second Edition County Series XXXIV.01.21915 Third Edition County Series XXXIV.01.3

11.4 Aerial Photographs

Sortie: 106G/UK/1467 Date: 03/05/1946 Frames: 3173 Sortie: 106G/UK/1469 Date: 04/05/1946 Frames: 4266 Sortie: Cardiff 72-269 Date: 18/07/1972 Frames 151





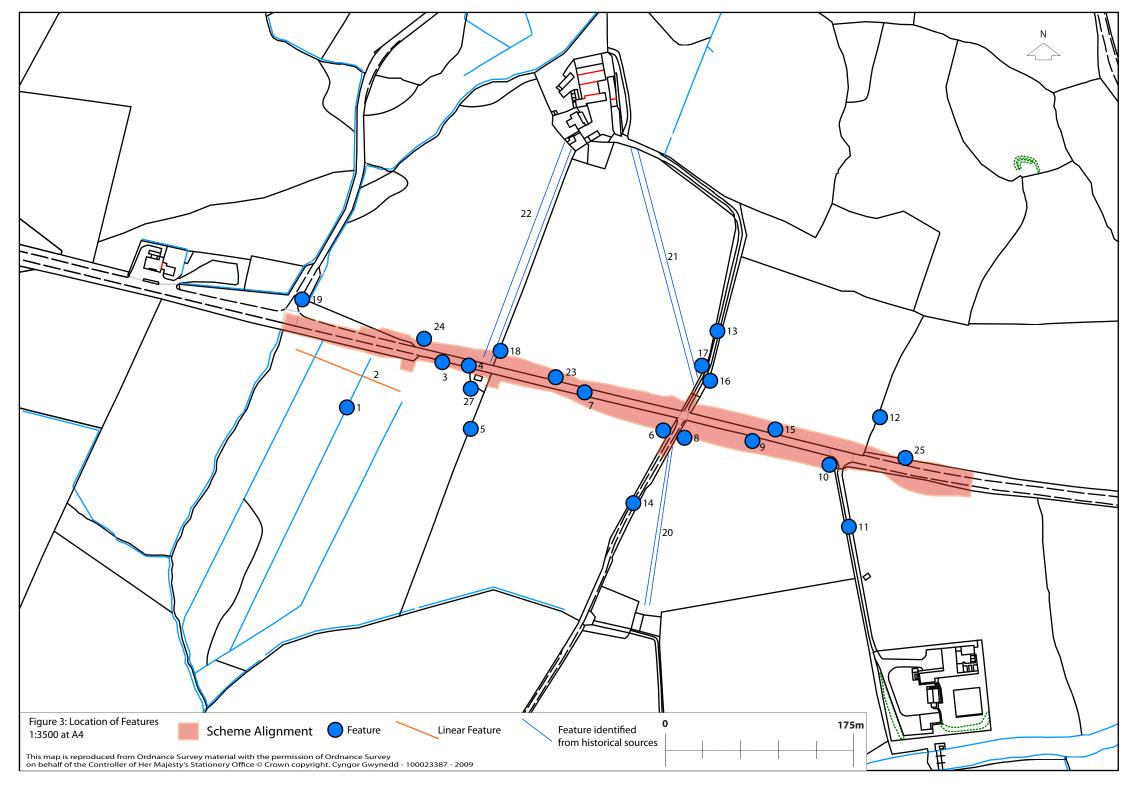




Plate 01: Drainage ditches (feature 1). Photograph taken from the north



Plate 02: Drainage ditches (feature 2). Photograph taken from the north west



Plate 03: Clawdd wall (feature 3). Photograph taken from the south



Plate 04: Conifer plantation (feature 4). Photograph taken from the south west



Plate 05: Clawdd wall (feature 5). Photograph taken from the east





Plate 07: Clawdd wall (feature 6). Photograph taken from the west



Plate 08: The current A487(T) (feature 7). Photograph taken from the west



Plate 09: Clawdd wall (feature 8). Photograph taken from the east



Plate 10: Field boundary wall (feature 9). Photograph taken from the south



Plate 11: Field boundary wall (feature 10). Photograph taken from the west



Plate 12: Road to waterworks (feature 11). Photograph taken from the south



Plate 13: Field boundary wall (feature 12). Photograph taken from the east



Plate 14: Road to Rhwngddwyryd (feature 13). Photograph taken from the south



Plate 15: Road to Ty Cerrig (feature 14). Photograph taken from the north



Plate 16: Clawdd wall (feature 15). Photograph taken from the north



Plate 17: Clawdd wall (feature 16). Photograph taken from the east



Plate 18: Clawdd wall (feature 17). Photograph taken from the south east



Plate 19: Clawdd wall (feature 18). Photograph taken from the west



Plate 20: Clawdd wall gate pier (feature 18). Photograph taken from the east



Plate 21: Road to Garnddbenmaen (feature 19). Photograph taken from the north



Plate 22: Trackway (feature 21). Photograph taken from the south east



Plate 23: Trackway (feature 22). Photograph taken from the south



Plate 24: Clawdd wall (feature 23). Photograph taken from the east



Plate 25: Stone clearance cairn (feature 24). Photograph taken from the north



Plate 26: Hedgerow (feature 25). Photograph taken from the south west

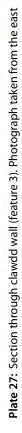






Plate 28: Clawdd wall removed (feature 3). Photograph taken from the east



Plate 29: Clawdd wall reinstated (feature 3). Photograph taken from the north



Plate 30: Conifer plantation and barn removed (feature 4 & 27). Photograph taken from the north east



Plate 31: Section through clawdd wall (feature 5). Photograph taken from the north



Plate 32: Clawdd wall reinstated (feature 5). Photograph taken from the north west



Plate 33: Section through clawdd wall (feature 6). Photograph taken from the north



Plate 34: Clawdd wall reinstated (feature 6). Photograph taken from the north east



Plate 35: Section through clawdd wall (feature 8). Photograph taken from the north



Plate 36: Field wall removed (feature 9). Photograph taken from the west



Plate 37: Field wall reinstated (feature 9). Reinstating field wall (feature 10). Photograph taken from the north west





Plate 39: Clawdd wall reinstated (feature 12). Photograph taken from the south east



Plate 40: Removal of clawdd wall (feature 15). Photograph taken from the west



Plate 41: Cloddiau walls reinstated (feature 15, 16, 17 & 23). Photograph taken from the south west



Plate 42: Section through clawdd wall (feature 16). Photograph taken from the south



Plate 43: Section through clawdd wall (feature 17). Photograph taken from the south



Plate 44: Section through clawdd wall (feature 18). Photograph taken from the south



Plate 45: Cloddiau walls reinstated (feature 18 & 23). Photograph taken from the south west



Plate 46: Removed hedgerow (feature 25). Photograph taken from the west



Plate 47: Topsoil stripped area between features 19 & 18. Photograph taken from the west



Plate 48: Topsoil stripped area between features 18 & 13. Photograph taken from the west



Plate 49: Topsoil stripped area between features 13 & 12. Photograph taken from the west



Plate 50: Topsoil stripped area between features 14 & 5. Photograph taken from the east



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