

# Maes Parcio Isaf Nant Gwrtheyrn, Nant Gwrtheyrn, Gwynedd

## Nant Gwrtheyrn Lower Car Park, Nant Gwrtheyrn, Gwynedd

Assesiad Archaeolegol / Archaeological Assessment



Ymddiriedolaeth Archaeolegol Gwynedd  
Gwynedd Archaeological Trust



# MAES PARCIO ISAF NANT GWRTHEYRN, NANT GWRTHEYRN, GWYNEDD

## NANT GWRTHEYRN LOWER CAR PARK, NANT GWRTHEYRN, GWYNEDD

### Assesiad Archaeolegol / Archaeological Assessment

Prosiect Rhif / Project No. G2313

Adroddiad Rhif / Report No.1208

Paratowyd ar gyfer / Prepared for: Nant Gwrtheyrn

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Ysgrifennwyd gan / Written by: Spencer Smith a / and Ken Owen

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

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Craig Beuno, Garth Road,  
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Cadeiryddes/Chair - Yr Athro/Professor Nancy Edwards, B.A., PhD, F.S.A.  
Prif Archaeolegydd/Chief Archaeologist - Andrew Davidson, B.A., M.I.F.A.

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# Contents

|                                                                            |    |
|----------------------------------------------------------------------------|----|
| 1. CRYNODEB .....                                                          | 4  |
| 1. SUMMARY .....                                                           | 6  |
| 2. RHAGARWEINIAD .....                                                     | 7  |
| 2. INTRODUCTION .....                                                      | 7  |
| 3. CEFNDIR ARCHAEOLEGOL .....                                              | 8  |
| 3. ARCHAEOLOGICAL BACKGROUND .....                                         | 8  |
| 4. DULLIAU A TECHNEG AU .....                                              | 9  |
| 4. METHODS AND TECHNIQUES .....                                            | 9  |
| 5. CANLYNIADAU Y COFNODI ARCHAEOLEGOL .....                                | 10 |
| 5. RESULTS OF THE ARCHAEOLOGICAL RECORDING .....                           | 10 |
| 6. CASGLIADAU .....                                                        | 11 |
| 6. CONCLUSIONS .....                                                       | 11 |
| 7. RHESTR O FFYNONELLAU A DDEFNYDDWYD / LIST OF SOURCES<br>CONSULTED ..... | 12 |
| ATODIAD I – ATGYNHYRCHIAD O CYNLLYN PROSIECT YAG MAI 2013<br>.....         | 13 |
| APPENDIX I – REPRODUCTION OF GAT PROJECT DESIGN MAY 2013<br>.....          | 13 |



# Ffigurau / Figures

Ffigur 01: Lleoliad y safle.  
Figure 01: Site Location.

Ffigur 02: Atgynhyrchiad o lluniad Capita Symonds 25402/GA/18 revision P4  
Figure 02: Reproduction of Capita Symonds drawing 25402/GA/18 revision P4.

# Platiau / Plates

Plat 01: Golygfa o'r mur o'r gorllewin. Graddfa 2x2m.  
Plate 01: View of wall from west. Scale 2x2m.

Plat 02: Golygfa o'r mur o'r gogledd dwyrain. Graddfa 2x2m.  
Plate 02: View of wall from north east. Scale 2x2m.

Plat 03: Darn o'r mur i'r de o'r bylchiad o'r uchder ac y lled gwreiddiol. Graddfa 2x2m.  
Plate 03: Section of wall south of breach which survives to the original height and width. Scale 2x2m.

Plat 04: Terfyn de y mur yn dangos yr uchder ac y lled gwreiddiol. Graddfa 2x2m.  
Plate 04: Southern terminal of the wall showing the original height and width. Scale 2x2m.

Plat 05: Mur cyn cloddio. Graddfa 1x1m.  
Plate 05: Wall prior to excavation. Scale 1x1m.

Plat 06: Mur wedi y gwaith cloddio. Graddfa 1x1m.  
Plate 06: Wall after excavation. Scale 1x1m.



## 1. CRYNODEB

*Comisynwyd Ymddiriedolaeth Archaeolegol Gwynedd (YAG) i gwblhau rhaglen o lleddfu archaeolegol yn ystod estynaid o maes parcio oedd eisioes yn bodoli yn y Canolfan Iaith a Treftadaeth Nant Gwrtheyrn, wedi ei lleoli ger Llithfaen, Gwynedd (canolwyd ar CGC **SH 35044489**). Bylchwyd mur cae, a oedd yn dyddio o'r 19<sup>eg</sup> ganrif, a cofnodwyd y proffil. gofnodwyd. Ni welwyd unrhyw nodweddion yn ystod y gwaith ac nid oedd unrhyw creiriau archeolegol.*

## 1. SUMMARY

*Gwynedd Archaeological Trust (GAT) was commissioned by Nant Gwrtheyrn to complete a programme of archaeological mitigation during the extension of an existing lower car park at the Nant Gwrtheyrn Welsh Language and Heritage Centre, located near Llithfaen, Gwynedd (centred on NGR **SH35044489**). A field wall, which dated to the 19<sup>th</sup> century, was breached and the profile recorded. No other features were found during the works and there were no archaeological finds.*

## 2. RHAGARWEINIAD

Comisynwyd Ymddiriedolaeth Archaeolegol Gwynedd (YAG) i gwblhau rhaglen o lleddfu archaeolegol yn ystod estynaid o maes parcio oedd eisioes yn bodoli yn y Canolfan Iaith a Treftadaeth Nant Gwrtheyrn, wedi ei lleoli ger Llithfaen, Gwynedd (canolwyd ar CGC SH 35044489; Ffigur 01). Mae'r prosiect yn darparu 52 o llefydd gorlif o fewn coetir sydd eisioes yn bresennol. I caniatáu hyn i ddigwydd, roedd rhaid creu mynedfa trwy mur adfeilliedig i'r gogledd dwyrain o'r Ganolfan Iaith a Treftadaeth (Plat 01; Plat 02). Mae'r lleoliad wedi manylu yn lluniad *Capita Symonds* **25402/GA/18 revision P4** (ail-cynnyrchwyd fel Ffigur 02). Mae'r mur rhwng "Bed E" and "Bed G" ar y lluniad a mynedfa o 3m o lled oedd yn cynnwys y ffordd.

Roedd yr lleddfu archaeolegol yn cydffurfio gyda'r canllawiau a manylwyd yn *Standard and Guidance for archaeological watching brief* (Institute for Archaeologists, 2008) mewn perthynas i'r gwaith torri trwy'r wal. Cwblhawyd cynllun prosiect ar gyfer y gwaith, a cyflwynwyd i Gwasanaeth Cynllunio Archaeolegol Gwynedd (GCAG) (08/05/13) a gafwyd cymeradwyaeth (08/05/13; gwelir Attodiad I).

## 2. INTRODUCTION

Gwynedd Archaeological Trust (GAT) was commissioned by *Nant Gwrtheyrn* to complete a programme of archaeological mitigation during the extension of an existing lower car park at the *Nant Gwrtheyrn Welsh Language and Heritage Centre*, located near Llithfaen, Gwynedd (centred on NGR SH35044489; Figure 01). The project provided 52 overflow parking spaces within an existing woodland area. To accommodate this, an access road breached a dilapidated field wall located to the northeast of the Welsh Language and Heritage Centre (Plate 01; Plate 02). The area is detailed in *Capita Symonds* drawings **25402/GA/18 revision P4** (reproduced as Figure 02). The field wall is located between "Bed E" and "Bed G" on the drawing and a breach of approximately 3m wide accommodated the road.

The archaeological mitigation adhered to the *Standard and Guidance for archaeological watching brief* (Institute for Archaeologists, 2008) in relation to the breaching of the wall. A project design was prepared for the work by GAT and this was presented to Gwynedd Archaeological Planning Service (GAPS) (08/05/13) and was approved (08/05/13; see Appendix I).

### 3. CEFNDIR ARCHAEOLEGOL

Mae YAG wedi cwblhau assessiad archaeolegol yn agos i'r cynllun: Adroddiad YAG **703** (Porth y Nant Quarry, Nant Gwrtheyrn, Llithfaen, Gwynedd). Roedd Adroddiad YAG **703** yn assessiad archaeolegol o 70ha. o dir i'r de o Canolfan Iaith a Treftadaeth Nant Gwrtheyrn, sydd yn cynnwys hen chwarel Porth-y-Nant ac yr amgylchoedd lleol. The adroddiad yn datgan "Between 1875 and 1878 the 24 houses which now form part of the Canolfan Iaith Nant Gwrtheyrn were built to house the expanding (granite) quarrying community for the three adjacent quarries of Cae'r Nant, Porth y Nant and Carreg y Llam" (Adroddiad YAG **703**: 05). Mae pedwar o'r adeiladau yn y cymhlyg wedi ei rhestru: **LB 21722** Trem y Mor (**SH 23501 34484**), **LB 21723** Trem y Mynydd (**SH 23497 34488**), **LB 21724** Capel Seilo (**SH 23502 34480**) and **LB 21725** Y Plas (**SH 23493 34487**). Roedd y diwydiant wedi seilio o gwmpas y brocess o greu setiau gwenithfaen ar gyfer wyneb ffyrdd yn y trefi a dinasoedd diwydianol roedd yn tyfu yn gyflym, yn enwedig Manceinion a Lerpwl (Adroddiad YAG **703**:05).

Dangosodd archwiliad o Map Degwm Pistyll 1841, sydd yn cynnwys y ardal lleddfu, yn dangos cae agored (#824) i'r gorllewin o Ty Ganol (Adroddiad YAG **703**: Ffigur 2). Mae Argraffiad Cyntaf map1 modfedd i 25 milltir Arolwg Ordnans Cyfres Sir ar gyfer yr ardal yma (Caernarvonshire Sheet XX5.1; Figure 04), yn dangos bythynod Nant Gwrtheyrn a parseli bach o dir o fewn y cae sydd wedi ei rhestru ar y map degwm fel cae agored rhif 824 (Ffigur 03). Mae hyn yn crybwyll bod y wal fydd yn cael ei bylchu fel rhan o'r estynaid i'r maes parcio wedi ei adeiladau wedi 1841 ar yr un pryd a bythynod Nant Gwrtheyrn. Tynnwyd Plat 03 a 04 yn bellach i'r de ar hyd yr mur i rhoi syniad o'r uchder a lled gwreiddiol.

### 3. ARCHAEOLOGICAL BACKGROUND

GAT has completed an archaeological assessment within close proximity to the scheme: GAT Report **703** (Porth y Nant Quarry, Nant Gwrtheyrn, Llithfaen, Gwynedd). GAT Report **703** completed an archaeological assessment of 70ha. of land to the south of the Nant Gwrtheyrn Welsh Language and Heritage Centre that included the disused Porth-y-nant quarries and the local environs. The report states that "Between 1875 and 1878 the 24 houses which now form part of the Canolfan Iaith Nant Gwrtheyrn were built to house the expanding (granite) quarrying community for the three adjacent quarries of Cae'r Nant, Porth y Nant and Carreg y Llam" (GAT Report **703**: 05). Four of the buildings in the complex are listed: **LB 21722** Trem y Mor (**SH 23501 34484**), **LB 21723** Trem y Mynydd (**SH 23497 34488**), **LB 21724** Capel Seilo (**SH 23502 34480**) and **LB 21725** Y Plas (**SH 23493 34487**). The industry was based around the production of granite setts for road surfaces in the burgeoning industrial towns and cities, in particular Manchester and Liverpool (GAT Report **703**: 05).

An examination of the 1841 Pistyll Tithe Map, which incorporates the mitigation area, locates an open field (#824) to the west of Ty Ganol (Figure 3). The First Edition 1 inch to 25 mile Ordnance Survey County Series map for this area (Caernarvonshire Sheet XX5.1; Figure 04), subsequently details the Nant Gwrtheyrn cottages and small enclosed parcels of land within the field listed on the tithe map as open field number 824 (GAT Report **703**: Figure 1). This suggests the wall to be breached as part of the overspill car park was constructed post-1841 in tandem with the Nant Gwrtheyrn cottages. Plates 03 and 04 were taken further south along the course of the wall and give an indication of the original height and width.

#### **4. DULLIAU A TECHNEG AU**

Tynnwyd 27 o lluniau yn defnyddio camera digidol SLR cyn ac yn ystod y gwaith archaeolegol a cofnodwyd proffil y mur ar pro-formas YAG. Cofnodwyd bylchiad y mur ar y 9<sup>fed</sup> o Fai 2013. Mae'r mur lle cafodd ei bylchu mewn cyflwr gwael iawn, ar ôl cwmpo yn flaenorol ac roedd cerrig ohono wedyn dwyn i ffwrdd. Mae'r archif yn cael ei cadw gan YAG o dan rhif prosiect **G2313**.

#### **4. METHODS AND TECHNIQUES**

A total of 27 images were taken using a digital SLR camera prior to and during the archaeological works and a record made of the profile of the wall on GAT pro-formas. The wall breach was recorded on the 9<sup>th</sup> of May 2013. The wall where it was breached was in a very poor condition, having previously collapsed and had stones from it subsequently robbed away. The archive is held by GAT under project number **G2313**.

## **5. CANLYNIADAU Y COFNODI ARCHAEOLEGOL**

Cofnodwyd bylchiad y mur ar y 9<sup>fed</sup> o Fai 2013. Roedd y mur yn mesur 0.45m o uchder a 1.10m o lled yn y fan lle bylchwyd (Plat 05). Gwneuthwyd y mur o cerrig sych, a adeiladwyd o rwbel mewn cyrsiau anwastad, gan ddefnyddio cerrig bach fel deunydd pacio. Adeiladwyd y mur yn uniongyrchol ar wyneb y tir presennol heb unrhyw sail o dan y ddaear, er bod pwysau'r wal wedi achosi i'r cyrsiau isaf i suddo i mewn i'r ddaear. (Plat 06) Doedd dim nodweddion eraill i'w cofnodi ar y cyd gyda'r mur a nid oedd unrhyw creiriau archaeolegol.

## **5. RESULTS OF THE ARCHAEOLOGICAL RECORDING**

The wall breach was recorded on the 9<sup>th</sup> of May 2013. The wall was 0.45m high and 1.10m wide at the point it was breached (Plate 05). The wall was of drystone construction, and built of unevenly coursed rubble, using small stones as packing material. The wall was constructed directly on the existing ground surface without any foundation below ground, although the weight of the wall had caused the lower courses to sink into the ground (Plate 06). No other features were recorded in association with the wall and there were no archaeological finds made.

## **6. CASGLIADAU**

Mae'r gwaith archaeolegol a oedd bylchu'r mur yn dangos ei fod wedi ei adeiladu yn uniongyrchol ar wyneb y tir presennol gyda deunyddiau sydd ar gael yn lleol. Mae'r dystiolaeth o'r map degwm a map yr Arolwg Ordnans yn awgrymu bod y wal ei hadeiladu ar y cyd ag adeiladu y grwp o dai ar gyfer y gymuned chwareli gwenithfaen, a'r diffyg darganfyddiadau archeolegol neu nodweddion cysylltiedig yn awgrymu bod y caeau, ac yn ddiweddarach y planhigfa Comisiwn Coedwigaeth, yr oedd y mur yn ei amgau, heb eu tarfu y tu hwnt i'w defnyddio naill ai fel porfa neu ofodau goedwigaeth.

## **6. CONCLUSIONS**

The archaeological works which breached the wall demonstrated that it had been built directly on the existing ground surface with locally available materials. The evidence from the tithe map and the Ordnance Survey map suggests that the wall was built in association with the construction of the group of houses for the granite quarrying community, and the lack of archaeological finds or associated features suggests that the fields, and later the Forestry Commission plantation, which the wall enclosed were not disturbed beyond their use as either pasture or forestry spaces.

## **7. RHESTR O FFYNONELLAU A DDEFNYDDWYD / LIST OF SOURCES CONSULTED**

Capita Symonds drawing 25402/GA/18 revision P4

Historic Environment Record - Gwynedd Archaeological Trust, Craig Beuno, Garth Road, Bangor, Gwynedd LL57 2RT.

Evans, R. and Davidson, A. 2007 Porth Y Nant Quarry, Nant Gwrtheyrn, Llithfaen, Gwynedd, Report Number 703, Gwynedd Archaeological Trust unpublished report.

*Standard and Guidance for archaeological watching brief* (Institute of Field Archaeologists, 2008 [http://www.archaeologists.net/sites/default/files/node-files/DBA2010working%20draft\\_0.pdf](http://www.archaeologists.net/sites/default/files/node-files/DBA2010working%20draft_0.pdf))

Tithe Map of the Parish of Pistyll 1841



Figur 01: Lleoliad y Safle. Map Sylfaenol wedi gymeryd o gyfres 1:10 000 Arolwg Ordnans. Taflen SH34. Ardal a Astudwyd wedi amlygu. Crown Copyright Licence  
 Figure 01: Site Location. Base Map taken from Ordnance Survey 1:10 000 series. Sheet SH34. Study Area highlighted. No. AL100020895  
 Graddfa 1: 5000 @A4. Scale 1:5000 @A4.

1. PRIOR TO THE COMMENCEMENT OF ANY PLANTING WORKS IT IS THE CONTRACTORS RESPONSIBILITY TO ASCERTAIN THE EXACT POSITION OF SERVICES ON SITE.
2. ANY REQUIREMENTS FOR CUTTING BACK TREES, SHRUBS, HEDGES AND VEGETATION TO FACILITATE CONSTRUCTION SHALL BE AGREED WITH THE ENGINEER.
3. ANY TREES, SHRUBS OR SEEDING WHICH IN A PERIOD OF 5 YEARS FROM THE COMPLETION OF PLANTING, ARE REMOVED, DEAD, DYING, DAMAGED OR DISEASED, SHALL BE REPLACED IN THE NEXT PLANTING OR SEEDING SEASON WITH SPECIES OF SIMILAR SIZE AND TYPE.
4. ALL PLANTING AND SEEDING SHALL BE CARRIED OUT IN PARTS OF THE SITE DURING THE SEEDING SEASON FOLLOWING THE COMPLETION OF THE DEVELOPMENT AND FOLLOWING THE REMOVAL OF THE TREE PROTECTION FENCING (i.e. PLANTING = NOVEMBER TO MARCH INCLUSIVE, SEEDING MARCH TO MAY INCLUSIVE OR SEPTEMBER TO OCTOBER INCLUSIVE).
5. ALL PLANTING AREAS SHALL BE TOPSOILED TO A DEPTH OF 300mm AND ALL SEEDING AREAS TO A DEPTH OF 150mm, UTILISING EX-SITE TOPSOIL WHERE POSSIBLE (TO RETAIN EXISTING PH LEVELS) OR IMPORTED TOPSOIL AS AGREED.
6. TREES AND SHRUBS SHALL BE PIT PLANTED AT 1M CENTRES. PITS TO INCORPORATE FERTILIZER, SOIL CONDITIONER AND ONE THIRD OF THE BULK OF THE PIT FILLED WITH ROOTING MEDIUM, INCORPORATED TO MANUFACTURERS RECOMMENDATIONS. PITS TO BE 300mm x 300mm x 300mm FOR ALL SEEDLINGS/TRANSPLANTS. PITS TO BE 750mm x 750mm x 600mm DEEP FOR ALL FEATHERED TREES (°).
7. SHRUB SHELTERS TO BE APPLIED TO ALL PRUNUS SPINOSA WITH A PROVISION MADE FOR CIRCA 30% OF ALL OTHER TREES AND SHRUBS WITHIN EXPOSED LOCATIONS TO HAVE TREE OR SHRUB SHELTERS APPLIED. EXACT NUMBERS AND LOCATIONS TO BE AGREED. TREE & SHRUB SHELTERS TO BE GREEN OR BROWN IN COLOUR, OF VARYING DIAMETERS TO ACCOMMODATE THE APPROPRIATE TREE OR SHRUB SPECIES.
8. ALL STANDARD TREES TO BE PLANTED WITHIN PITS, TO THE DIMENSIONS SHOWN ON DRAWING 25402/ENV/DET/01 AND DOUBLE STAKED. REFLECTIVE SHORT PEELED HAZEL OR CHESTNUT STAKE. STAKE TO BE 600mm ABOVE GROUND LEVEL. 50-75mm DIAMETER. TWO TREE TIE ('TOMS' OR SIMILAR APPROVED) TO BE SUPPLIED AND FIXED 50mm FROM TOP OF STAKE, AVOIDING ANY LATERAL BRANCHES.
9. ALL EVERGREEN SPECIES TO BE SPRAYED WITH ANTI-DESSICANT (S600) OR SIMILAR APPROVED, IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
12. EXISTING MATURE TREES TO BE PROTECTED IN ACCORDANCE WITH BS5837:2012.
13. ALL PLANTING BEDS TO BE ENCLOSED WITHIN STOCK PROOF FENCING, AS HIGHLIGHTED. EXACT LINE OF FENCING TO BE AGREED ON SITE.



Native Tree and Shrub Mix

| SPECIES              | SPECIFICATION     | % MIX | Bed A | Bed B | Bed C | Bed D | Bed E | Bed F | Bed G | Bed H | Bed I | Bed J | Bed K | Bed L | Bed M |
|----------------------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Pinus sylvestris (°) | 100 - 125 cm RB   | 10%   | 3     | 17    | 13    | 7     | 17    | 9     | 39    | 16    | 20    | 8     | 19    | 18    | 2     |
| Malus sylvestris     | 60 - 80 cm 1+1 Br | 5%    | 2     | 8     | 6     | 3     | 17    | 4     | 19    | 8     | 10    | 4     | 9     | 8     | 1     |
| Ainus glutinosa      | 40 - 60 cm 1+1 Br | 5%    | 2     | 8     | 6     | 3     | 8     | 4     | 19    | 8     | 10    | 4     | 9     | 8     | 1     |
| Betula pendula (°)   | 1.5 - 1.75 Br     | 5%    | -     | 8     | 6     | -     | 8     | 4     | 19    | 8     | 10    | 4     | 9     | 8     | -     |
| Betula pendula       | 40 - 60 cm Br     | 10%   | 3     | 17    | 14    | 7     | 17    | 9     | 39    | 16    | 20    | 8     | 19    | 18    | 2     |
| Corylus avellana     | 60 - 80 cm 1+1 Br | 10%   | 3     | 17    | 14    | 7     | 17    | 9     | 39    | 16    | 21    | 9     | 19    | 18    | 2     |
| Crataegus monogyna   | 60 - 80 cm 1+1 Br | 8%    | 3     | 13    | 11    | 5     | 14    | 7     | 31    | 13    | 16    | 7     | 15    | 14    | 1     |
| Sorbus aucuparia     | 60 - 80 cm 1+1 Br | 5%    | 2     | 8     | 7     | 3     | 9     | 4     | 20    | 8     | 10    | 4     | 9     | 9     | 1     |
| Ilex aquifolium      | 30 - 45 cm 2L Pot | 10%   | 3     | 17    | 14    | 7     | 17    | 9     | 39    | 16    | 21    | 9     | 19    | 18    | 2     |
| Prunus spinosa ~     | 40 - 60 cm 2L Pot | 7%    | 3     | 12    | 10    | 5     | 12    | 6     | 27    | 11    | 14    | 6     | 13    | 12    | 1     |
| Prunus spinosa (°)   | 1.25 - 1.5cm RB   | 5%    | -     | 8     | 6     | -     | 8     | 4     | 19    | 8     | 10    | 4     | 9     | 8     | -     |
| Quercus petraea      | 60 - 80 cm 1+1 Br | 10%   | 3     | 17    | 14    | 7     | 17    | 9     | 39    | 16    | 21    | 8     | 19    | 18    | 2     |
| Sambucus nigra       | 60 - 80 cm 1+1 Br | 5%    | 2     | 8     | 7     | 3     | 8     | 4     | 20    | 8     | 10    | 4     | 9     | 9     | 1     |
| Taxus baccata        | 40 - 60 cm 3x Br  | 5%    | 2     | 8     | 7     | 3     | 9     | 4     | 20    | 8     | 10    | 4     | 9     | 9     | 1     |

N.B. Planted at 1m centres, unless indicated, located around defined areas.  
Feathered trees / Pines (°) to be planted within pit centre and supported by a single short stake.  
Pinus spinosa to be planted in shrub shelters.

| Proposed Grass Seed Mix - for peripheral areas around planting and parking. Exact areas to be agreed. |                       |    |  |
|-------------------------------------------------------------------------------------------------------|-----------------------|----|--|
| COMMON NAME                                                                                           | LATIN NAME            | %  |  |
| Common Bent                                                                                           | Agrostis capillaris   | 60 |  |
| Red Fescue                                                                                            | Festuca rubra         | 5  |  |
| Rough Meadow Grass                                                                                    | Poa trivialis         | 10 |  |
| Sweet Vernal Grass                                                                                    | Anthoxanthum odoratum | 10 |  |
| Yorkshire Fog                                                                                         | Hoicus lanatus        | 5  |  |
| Heath Bedstraw                                                                                        | Gallium saxatile      |    |  |
| Tormentil                                                                                             | Potentilla erecta     | 10 |  |
| Foxglove                                                                                              | Digitalis purpurea    |    |  |
| Sown at a rate of 25 gms/m2                                                                           |                       |    |  |

| Standard Tree Planting |                                                              |
|------------------------|--------------------------------------------------------------|
| SPECIES                | SPECIFICATION                                                |
| Betula pendula (Bp)    | 8-10 cm girth, 2.5-3m overall height, 1.75-2m clear stem, RB |
| Quercus petraea (Qp)   | 8-10 cm girth, 2.5-3m overall height, 1.75-2m clear stem, RB |
| No:                    |                                                              |
| 2                      |                                                              |

| DR | CH                                                                       | PA  | DATE | REV       | NOTES |
|----|--------------------------------------------------------------------------|-----|------|-----------|-------|
| P1 | PRELIMINARY ISSUE                                                        | MBD | SG   | 07/12     |       |
| P2 | ISSUED TO DISCHARGE CONDITION 5                                          | SG  | JS   | MBD/17/13 |       |
| P3 | MINOR CHANGES FOLLOWING CLIENT COMMENTS                                  | SG  | JS   | MBD/03/01 |       |
| P4 | MINOR CHANGES FOLLOWING CLIENT COMMENTS & ISSUED TO PLANNERS ON 09.01.13 | SG  | JS   | MBD/04/01 |       |
| P5 | MINOR CHANGES FOLLOWING PLANNER COMMENTS (AS HIGHLIGHTED IN RED)         | SG  | JS   | MBD/17/01 |       |

|                                                                    |                                             |                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STANDARD TREE PLANTING WITHIN PITS AS DETAILED IN 25402/ENV/DET/01 | PROPOSED ACCESS ROAD TO PARKING             | RE-DIRECTED MOUNTAIN BIKES ROUTE                                                                                                                                                                                                          |
| EXISTING TREES                                                     | PROPOSED POCKETS OF PARKING WITHIN WOODLAND | AREA OF GROUND PROTECTION AND CELLWEAVE OR EQUIVALENT AS ARBORICULTURAL REPORT BELOW PROPOSED SURFACE CONSTRUCTION                                                                                                                        |
| EXISTING TARMAC ACCESS                                             | PROPOSED PICNIC AREAS WITH BENCHES          | TREE PROTECTION FENCING AS IDENTIFIED IN ARBORICULTURAL REPORT. TREES TO BE RETAINED WITHIN THIS AREA AND NO CONSTRUCTION WORKS TO TAKE PLACE WITHIN THIS AREA. TO BE REMOVED PRIOR TO PLANTING WORKS, FOLLOWING CONSTRUCTION COMPLETION. |
| EXISTING CAR PARK                                                  | PROPOSED TREE & SHRUB PLANTING MIX          | PROPOSED STOCK PROOF FENCING EXACT LOCATION TO BE AGREED                                                                                                                                                                                  |

|                               |            |           |         |                      |                |                |     |
|-------------------------------|------------|-----------|---------|----------------------|----------------|----------------|-----|
| NANT GWRTHEYRN                |            |           |         | NANT GWRTHEYRN TRUST |                |                |     |
| OVERFLOW CAR PARKS LOWER SITE |            |           |         | ISSUING OFFICE       |                |                |     |
| PROPOSED PLANTING PLAN        |            |           |         | COLWYN BAY           |                |                |     |
| DRAWN BY                      | CHECKED BY | PASSED BY | DATE    | SCALES @ A1          | ISSUING OFFICE | DRAWING NUMBER | REV |
| MBD                           | SG         | WDR       | JULY 12 | 1:250; 1:200         | COLWYN BAY     | 25402/GA/18    | P4  |



Plat 01: Golygfa o'r mur o'r gorllewin. Graddfa 2x2m.  
 Plate 01: View of wall from west. Scale 2x2m.



Plat 02: Golygfa o'r mur o'r gogledd dwyrain. Graddfa 2x2m.  
 Plate 02: View of wall from north east. Scale 2x2m.



Plat 03: Darn o'r mur i'r de o'r bylchiad o'r uchder ac y lled gwreiddiol. Graddfa 2x2m.

Plate 03: Section of wall south of breach which survives to the original height and width. Scale 2x2m.



Plat 04: Terfyn de y mur yn dangos yr uchder ac y lled gwreiddiol. Graddfa 2x2m.

Plate 04: Southern terminal of the wall showing the original height and width. Scale 2x2m.



Plat 05: Mur cyn cloddio. Graddfa 1x1m.  
Plate 05: Wall prior to excavation. Scale 1x1m.



Plat 06: Mur wedi y gwaith cloddio. Graddfa 1x1m.  
Plate 06: Wall after excavation. Scale 1x1m.

**ATODIAD I – ATGYNHYRCHIAD O CYNLLYN PROSIECT YAG MAI 2013**

**APPENDIX I – REPRODUCTION OF GAT PROJECT DESIGN MAY 2013**

NANT GWRTHEYRN LOWER CAR PARK  
EXTENSION, GWYNEDD

PROJECT DESIGN FOR  
ARCHAEOLOGICAL MITIGATION

*Prepared for*

NANT GWRTHEYRN

*May 2013*

Ymddiriedolaeth Archaeolegol Gwynedd  
Gwynedd Archaeological Trust

# **NANT GWRTHEYRN LOWER CAR PARK EXTENSION, GWYNEDD**

## **PROJECT DESIGN FOR ARCHAEOLOGICAL MITIGATION (G2313)**

Prepared for Nant Gwrtheyrn, May 2013

### **Contents**

|                                                                             |           |
|-----------------------------------------------------------------------------|-----------|
| <b>1 INTRODUCTION.....</b>                                                  | <b>3</b>  |
| <b>2 ARCHAEOLOGICAL BACKGROUND .....</b>                                    | <b>4</b>  |
| <b>3 METHOD STATEMENT – ARCHAEOLOGICAL MITIGATION.....</b>                  | <b>5</b>  |
| <b>3.1 Introduction.....</b>                                                | <b>5</b>  |
| <b>3.2 Mitigation – record/watching brief .....</b>                         | <b>5</b>  |
| <b>3.3 Mitigation – desk based research .....</b>                           | <b>5</b>  |
| <b>4 FURTHER ARCHAEOLOGICAL WORKS.....</b>                                  | <b>6</b>  |
| <b>5 DATA PROCESSING AND REPORT COMPILATION .....</b>                       | <b>7</b>  |
| <b>6 DISSEMINATION AND ARCHIVING .....</b>                                  | <b>8</b>  |
| <b>7 STAFF .....</b>                                                        | <b>9</b>  |
| <b>8 HEALTH &amp; SAFETY .....</b>                                          | <b>10</b> |
| <b>9 INSURANCE .....</b>                                                    | <b>11</b> |
| <b>10 REFERENCES.....</b>                                                   | <b>12</b> |
| <b>FIGURE 01.....</b>                                                       | <b>13</b> |
| <b>Reproduction of Capita Symonds drawing 25402/GA/18 revision P4 .....</b> | <b>13</b> |

# 1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) has been asked by *Nant Gwrtheyrn* to provide a cost and project design for completing a programme of archaeological mitigation during the extension of existing lower car park at the Nant Gwrtheyrn Welsh Language and Heritage Centre, located near Llithfaen, Gwynedd (centred on NGR **SH 35041 44897**). The project proposal is to provide 52 overflow parking spaces within an existing woodland area. To accommodate this, a proposed access road will breach a dilapidated field wall located to the northeast of the Welsh Language and Heritage Centre. The proposed development area is detailed in Capita Symonds drawings **25402/GA/18 revision P4** (reproduced in this design as **Figure 1**); the field wall is located between “Bed E” and “Bed G” and the plan indicates an area c.3.0m wide to be breached to accommodate the road.

The archaeological mitigation will be completed Condition #7 of planning decision notice **C12/1106/43/LL**. Gwynedd Archaeological Planning Service (GAPS) has requested archaeological mitigation comprising a programme of archaeological recording, supported by appropriate desk-based research. The archaeological mitigation will be completed during the groundworks for the overflow car park (cf. para. 3.0 for proposed GAT methodology).

Gwynedd Archaeological Planning Service (GAPS) must approve the content of this project design prior to the start of the mitigation programme.

GAT will adhere to the *Standard and Guidance for historic environment desk-based assessment* (Institute of Field Archaeologists, 2012 [http://www.archaeologists.net/sites/default/files/node-files/DBA2010working%20draft\\_0.pdf](http://www.archaeologists.net/sites/default/files/node-files/DBA2010working%20draft_0.pdf)) in relation to the desk-based research element and to the *Standard and Guidance for archaeological watching brief* (Institute of Field Archaeologists, 2008 [http://www.archaeologists.net/sites/default/files/node-files/DBA2010working%20draft\\_0.pdf](http://www.archaeologists.net/sites/default/files/node-files/DBA2010working%20draft_0.pdf)) in relation to the breaching of the wall.

## 2 ARCHAEOLOGICAL BACKGROUND

GAT has completed an archaeological assessment within close proximity to the scheme: GAT Report **703** (Porth y Nant Quarry, Nant Gwrtheyrn, Llithfaen, Gwynedd). GAT Report **703** completed an archaeological assessment of 70ha. of land to the south of the Nant Gwrtheyrn Welsh Language and Heritage Centre that included the disused Porth-y-nant quarries and the local environs. The report states that “Between 1875 and 1878 the 24 houses which now form part of the Canolfan Iaith Nant Gwrtheyrn were built to house the expanding (granite) quarrying community for the three adjacent quarries of Cae'r Nant, Porth y Nant and Carreg y Llam” (GAT Report **703**: 05). Four of the buildings in the complex are listed: **LB 21722** Trem y Mor (**SH 23501 34484**), **LB 21723** Trem y Mynydd (**SH 23497 34488**), **LB 21724** Capel Seilo (**SH 23502 34480**) and **LB 21725** Y Plas (**SH 23493 34487**). The industry was based around the production of granite setts for road surfaces in the burgeoning industrial towns and cities, in particular Manchester and Liverpool (*ibid.*).

An examination of the 1841 Pistyll Tithe Map, which incorporates the mitigation area, locates an open field (#824) to the west of Ty Ganol (GAT Report **703**: Figure 2). The First Edition 1-inch to 25 mile County Series map for this area (Caernafonshire Sheet XX5.1), subsequently details the Nant Gwetheryn cottages and small enclosed parcels of land within the field listed on the tithe map as open field #824 (GAT Report **703**: Figure 1). This suggests the wall to be breached as part of the overspill car park was constructed post-1841 in tandem with the Nant Gwrtheyrn cottages.

## 3 METHOD STATEMENT – ARCHAEOLOGICAL MITIGATION

### 3.1 Introduction

The archaeological mitigation will comprise a record of the upstanding wall targeted for breaching by the client and desk based research to compliment the record made. The client intends to breach the wall using a tracked excavator. The archaeological mitigation will be completed as a staged process: an initial record of the wall prior to breaching and a subsequent record during the breaching; the latter will be completed in the capacity of an archaeological watching brief, to allow the GAT site archaeologist to observe the breaching of the wall and the subsequent foundation level works to accommodate the new access road.

The client will complete the breaching on 09/05/13.

### 3.2 Mitigation – record/watching brief

- A photographic record of the wall will be completed using a digital SLR set to maximum resolution. The photographic record will record both sides of the wall and any visible profiles both in the current dilapidated state and during/after breaching. Any foundation level activity will also be recorded, along with any visible phasing, if identified. Photographic scales and a photographic ID board will be used.
- Notations will be completed on GAT pro-formas: these will record the length and width of the breached area (<3.0m), as well as a general description of the entire wall, summarising, form, function and material used. Any visible phasing will be recorded. If required based on observations during breaching, a plan will be completed to scale of the exposed foundation level.
- The archive will then be held by GAT under an appropriate project number (**G2313**).

### 3.3 Mitigation – desk based research

- To allow the recorded information to be appropriately contextualised, the site results will be complimented by desk based research, to elucidate the origin and function of the breached wall as wall. This will primarily involve an examination of historic map evidence, information within the regional historic environment record (HER, Gwynedd Archaeological Trust, Craig Beuno, Garth Road, Bangor LL57 2RT) and aerial photographs, as well as information from previous project work in the area. Direct reference will be made to GAT report **703** (cf. [para. 2.0](#)) and the results therein
- Notations will be completed on GAT pro-formas: these will record the length and width of the breached area (<3.0m), as well as a general description of the entire wall, summarising, form, function and material used. Any visible phasing will be recorded. If required based on observations during breaching, a plan will be completed to scale of the exposed foundation level.
- The archive will then be held by GAT under an appropriate project number (**G2313**).

## 4 FURTHER ARCHAEOLOGICAL WORKS

- If any earlier structural phasing is identified that requires additional recording or any other archaeological activity is identified during the foundation level works within the breaching zone, this T may necessitate further archaeological works and could require the submission of new cost estimates to the contractor. Any further mitigation required will be subject to an additional Further Archaeological Works Design (FAWD) to be approved by GAPS.
- This design does not include a methodology or cost for examination of, conservation of, or archiving of finds discovered during the watching brief, nor of any radiocarbon dates required, nor of examination of palaeoenvironmental samples. The need for these will be identified in the post-fieldwork programme (if required), and a new design will be issued for approval by the GAPS Archaeologist.

## **5 DATA PROCESSING AND REPORT COMPILATION**

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

1. Non-technical summary
2. Introduction
3. Archaeological Background
4. Methods and techniques, including details and location of project archive
5. Results of the archaeological recording
6. Results of the desk based research
7. Assessment of impacts
8. Conclusions
9. List of sources consulted.
10. Appendix I – reproduction of GAT project design May 2013

A draft copy of the report will be sent to Gwynedd Archaeological Planning Service (GAPS) for approval and to the client prior to production of the final report.

## **6 DISSEMINATION AND ARCHIVING**

A full archive including plans, photographs, written material and any other material resulting from the project will be prepared. All plans, photographs and descriptions will be labelled, and cross-referenced, and lodged in an appropriate place within six months of the completion of the project. The location is to be agreed with the Curatorial Archaeologist.

Copies of the report will be sent to the regional HER; archaeological curator (GAPS) and the client.

The results of the assessment will be published in a suitable journal (e.g. Archaeology in Wales) if relevant.

## **7 STAFF**

The project will be supervised by a Senior Archaeologist at GAT Contracts Section. The work will be carried out by fully trained Project Archaeologists who are experienced in conducting watching briefs and working with contractors and earth moving machinery. (Full CV's are available upon request).

## 8 HEALTH & SAFETY

The Trust subscribes to the SCAUM (Standing Conference of Archaeological Unit Managers) Health and Safety Policy as defined in **Health and Safety in Field Archaeology** (1999).

A site specific risk assessment will be completed prior to the start of the works.

## 9 INSURANCE

*Liability Insurance - Aviva Policy 24765101CHC/00045*

- Employers' Liability: Limit of Indemnity £10m in any one occurrence
- Public Liability: Limit of Indemnity £5m in any one occurrence
- Hire-in Plant Insurance: £50,000.00 any one item;  
£250,000.00 any one claim

The current period expires 21/06/13

*Professional Indemnity Insurance – RSA Insurance Plc P8531NAECE/1028*

- Limit of Indemnity £5,000,000 any one claim

The current period expires 22/07/13

## 10 REFERENCES

Capita Symonds drawing **25402/GA/18 revision P4**

Historic Environment Record - Gwynedd Archaeological Trust, Craig Beuno, Garth Road, Bangor, Gwynedd LL57 2RT.

Evans, R. and Davidson, A. 2007 Porth Y Nant Quarry, Nant Gwrtheyrn, Llithfaen, Gwynedd, Report Number **703**, Gwynedd Archaeological Trust unpublished report.

RCAHMW undated Cwm Gwrtheyrn; Ty-Uchaf, Settlement Features  
<http://www.coflein.gov.uk/en/site/302320/details/CWM+GWRTHEYRN%3BTY-UCHAF%2C+SETTLEMENT+FEATURES/>

RCAHMW 2003 *Enclosures and Huts, Nant Gwrtheyrn*  
<http://www.coflein.gov.uk/en/site/302322/details/ENCLOSURES+AND+HUTS%2C+NANT+GWRTHEYRN/>

*Standard and Guidance for historic environment desk-based assessment* (Institute of Field Archaeologists, 1994, rev. 2001, 2009 and 2011)  
[http://www.archaeologists.net/sites/default/files/node-files/DBA2010working%20draft\\_0.pdf](http://www.archaeologists.net/sites/default/files/node-files/DBA2010working%20draft_0.pdf)

*Standard and Guidance for archaeological watching brief* (Institute of Field Archaeologists, 2008 [http://www.archaeologists.net/sites/default/files/node-files/DBA2010working%20draft\\_0.pdf](http://www.archaeologists.net/sites/default/files/node-files/DBA2010working%20draft_0.pdf))

Tithe Map of the Parish of Pistyll 1841

## **FIGURE 01**

**Reproduction of Capita Symonds drawing 25402/GA/18 revision P4**

1. PRIOR TO THE COMMENCEMENT OF ANY PLANTING WORKS IT IS THE CONTRACTORS RESPONSIBILITY TO ASCERTAIN THE EXACT POSITION OF SERVICES ON SITE.
2. ANY REQUIREMENTS FOR CUTTING BACK TREES, SHRUBS, HEDGES AND VEGETATION TO FACILITATE CONSTRUCTION SHALL BE AGREED WITH THE ENGINEER.
3. ANY TREES, SHRUBS OR SEEDING WHICH IN A PERIOD OF 5 YEARS FROM THE COMPLETION OF PLANTING, ARE REMOVED, DEAD, DYING, DAMAGED OR DISEASED, SHALL BE REPLACED IN THE NEXT PLANTING OR SEEDING SEASON WITH SPECIES OF SIMILAR SIZE AND TYPE.
4. ALL PLANTING AND SEEDING SHALL BE CARRIED OUT IN PARTS 1 AND 2 OF THE SEEDING AND PLANTING SPECIFICATIONS AND FOLLOWING THE COMPLETION OF THE DEVELOPMENT AND FOLLOWING THE REMOVAL OF THE TREE PROTECTION FENCING (i.e. PLANTING = NOVEMBER TO MARCH INCLUSIVE, SEEDING MARCH TO MAY INCLUSIVE OR SEPTEMBER TO OCTOBER INCLUSIVE).
5. ALL PLANTING AREAS SHALL BE TOPSOILED TO A DEPTH OF 300mm AND ALL SEEDING AREAS TO A DEPTH OF 150mm, UTILISING EX-SITE TOPSOIL WHERE POSSIBLE (TO RETAIN EXISTING PH LEVELS) OR IMPORTED TOPSOIL AS AGREED.
6. TREES AND SHRUBS SHALL BE PIT PLANTED AT 1M CENTRES. PITS TO INCORPORATE FERTILIZER, SOIL CONDITIONER AND ONE THIRD OF THE BULK OF THE PIT FILLED WITH ROOTING MEDIUM, INCORPORATED TO MANUFACTURERS RECOMMENDATIONS. PITS TO BE 300mm x 300mm x 300mm FOR ALL SEEDLINGS/TRANSPLANTS. PITS TO BE 750mm x 750mm x 600mm DEEP FOR ALL FEATHERED TREES (°).
7. SHRUB SHELTERS TO BE APPLIED TO ALL PRUNUS SPINOSA WITH A PROVISION MADE FOR CIRCA 30% OF ALL OTHER TREES AND SHRUBS WITHIN EXPOSED LOCATIONS TO HAVE TREE OR SHRUB SHELTERS APPLIED. EXACT NUMBERS AND LOCATIONS TO BE AGREED. TREE & SHRUB SHELTERS TO BE GREEN OR BROWN IN COLOUR, OF VARYING DIAMETERS TO ACCOMMODATE THE APPROPRIATE TREE OR SHRUB SPECIES.
8. ALL STANDARD TREES TO BE PLANTED WITHIN PITS, TO THE DIMENSIONS SHOWN ON DRAWING 25402/ENV/DET/01 AND DOUBLE STAKED. REFLECTIVE SHORT PEELED HAZEL OR CHESTNUT STAKE. STAKE TO BE 600mm ABOVE GROUND LEVEL. 50-75mm DIAMETER. TWO TREE TIE ('TOMS' OR SIMILAR APPROVED) TO BE SUPPLIED AND FIXED 50mm FROM TOP OF STAKE, AVOIDING ANY LATERAL BRANCHES.
9. ALL EVERGREEN SPECIES TO BE SPRAYED WITH ANTI-DESSICANT (S600) OR SIMILAR APPROVED, IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
12. EXISTING MATURE TREES TO BE PROTECTED IN ACCORDANCE WITH BS5837:2012.
13. ALL PLANTING BEDS TO BE ENCLOSED WITHIN STOCK PROOF FENCING, AS HIGHLIGHTED. EXACT LINE OF FENCING TO BE AGREED ON SITE.



Native Tree and Shrub Mix

| SPECIES              | % MIX             | Bed A | Bed B | Bed C | Bed D | Bed E | Bed F | Bed G | Bed H | Bed I | Bed J | Bed K | Bed L | Bed M |
|----------------------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Pinus sylvestris (°) | 100 - 125 cm RB   | 3     | 17    | 13    | 7     | 17    | 9     | 39    | 16    | 20    | 8     | 19    | 18    | 2     |
| Malus sylvestris     | 60 - 80 cm 1+1 Br | 2     | 8     | 6     | 3     | 17    | 4     | 19    | 8     | 10    | 4     | 9     | 8     | 1     |
| Ainus glutinosa      | 40 - 60 cm 1+1 Br | 2     | 8     | 6     | 3     | 8     | 4     | 19    | 8     | 10    | 4     | 9     | 8     | 1     |
| Betula pendula (°)   | 1.5 - 1.75 Br     | -     | 8     | 6     | -     | 8     | 4     | 19    | 8     | 10    | 4     | 9     | 8     | -     |
| Betula pendula       | 40 - 60 cm Br     | 10%   | 3     | 17    | 14    | 7     | 17    | 9     | 39    | 16    | 20    | 8     | 19    | 2     |
| Corylus avellana     | 60 - 80 cm 1+1 Br | 10%   | 3     | 17    | 14    | 7     | 17    | 9     | 39    | 16    | 21    | 9     | 19    | 2     |
| Crataegus monogyna   | 60 - 80 cm 1+1 Br | 8%    | 3     | 13    | 11    | 5     | 14    | 7     | 31    | 13    | 16    | 7     | 15    | 14    |
| Sorbus aucuparia     | 60 - 80 cm 1+1 Br | 5%    | 2     | 8     | 7     | 3     | 9     | 4     | 20    | 8     | 10    | 4     | 9     | 1     |
| Ilex aquifolium      | 30 - 45 cm 2L Pot | 10%   | 3     | 17    | 14    | 7     | 17    | 9     | 39    | 16    | 21    | 9     | 19    | 2     |
| Prunus spinosa ~     | 40 - 60 cm 2L Pot | 7%    | 3     | 12    | 10    | 5     | 12    | 6     | 27    | 11    | 14    | 6     | 13    | 12    |
| Prunus spinosa (°)   | 1.25 - 1.5cm RB   | 5%    | -     | 8     | 6     | -     | 8     | 4     | 19    | 8     | 10    | 4     | 9     | 8     |
| Quercus petraea      | 60 - 80 cm 1+1 Br | 10%   | 3     | 17    | 14    | 7     | 17    | 9     | 39    | 16    | 21    | 8     | 19    | 2     |
| Quercus petraea      | 60 - 80 cm 1+1 Br | 5%    | 2     | 8     | 7     | 3     | 8     | 4     | 20    | 8     | 10    | 4     | 9     | 1     |
| Sambucus nigra       | 40 - 60 cm 3x Br  | 5%    | 2     | 8     | 7     | 3     | 9     | 4     | 20    | 8     | 10    | 4     | 9     | 1     |
| Taxus baccata        | 40 - 60 cm 3x Br  | 5%    | 2     | 8     | 7     | 3     | 9     | 4     | 20    | 8     | 10    | 4     | 9     | 1     |

N.B. Shaded in the seedling, raised seedlings, located around detailed trees. Feathered trees / Pines (°) to be planted within pit centre and supported by a single short stake. Prunus spinosa to be planted in shrub shelters.

| Proposed Grass Seed Mix - for peripheral areas around planting and parking. Exact areas to be agreed. |                       |    |  |
|-------------------------------------------------------------------------------------------------------|-----------------------|----|--|
| COMMON NAME                                                                                           | LATIN NAME            | %  |  |
| Common Bent                                                                                           | Agrostis capillaris   | 60 |  |
| Red Fescue                                                                                            | Festuca rubra         | 5  |  |
| Rough Meadow Grass                                                                                    | Poa trivialis         | 10 |  |
| Sweet Vernal Grass                                                                                    | Anthoxanthum odoratum | 10 |  |
| Yorkshire Fog                                                                                         | Hoicus lanatus        | 5  |  |
| Heath Bedstraw                                                                                        | Gallium saxatile      |    |  |
| Tormentil                                                                                             | Potentilla erecta     | 10 |  |
| Foxglove                                                                                              | Digitalis purpurea    |    |  |
| Sown at a rate of 25 gms/m2                                                                           |                       |    |  |

| Standard Tree Planting |                                                              |
|------------------------|--------------------------------------------------------------|
| SPECIES                | SPECIFICATION                                                |
| Betula pendula (Bp)    | 8-10 cm girth, 2.5-3m overall height, 1.75-2m clear stem, RB |
| Quercus petraea (Qp)   | 8-10 cm girth, 2.5-3m overall height, 1.75-2m clear stem, RB |
| No:                    |                                                              |
| 2                      |                                                              |

RE-DIRECTED MOUNTAIN BONE ROUTE

AREA OF GROUND PROTECTION AND CELLWEED OR EQUIVALENT AS ARBORICULTURAL REPORT BELOW PROPOSED SURFACE CONSTRUCTION

TREE PROTECTION FENCING AS IDENTIFIED IN ARBORICULTURAL REPORT. TREES TO BE RETAINED WITHIN THIS AREA AND NO CONSTRUCTION WORKS TO TAKE PLACE WITHIN THIS AREA. TO BE REMOVED PRIOR TO PLANTING WORKS, FOLLOWING CONSTRUCTION COMPLETION.

PROPOSED STOCK PROOF FENCING EXACT LOCATION TO BE AGREED

PROPOSED ACCESS ROAD TO PARKING

PROPOSED POCKETS OF PARKING WITHIN WOODLAND

PROPOSED PICNIC AREAS WITH BENCHES

PROPOSED TREE & SHRUB PLANTING MIX

STANDARD TREE PLANTING WITHIN PITS AS DETAILED IN 25402/ENV/DET/01

EXISTING TREES

EXISTING TARMAC ACCESS

EXISTING CAR PARK



Gwynedd Archaeological Trust  
Ymddiriedolaeth Archaeolegol Gwynedd

Craig Beuno, Ffordd y Garth, Bangor, Gwynedd. LL57 2RT  
Ffon: 01248 352535. Ffacs: 01248 370925. email: [gat@heneb.co.uk](mailto:gat@heneb.co.uk)

