



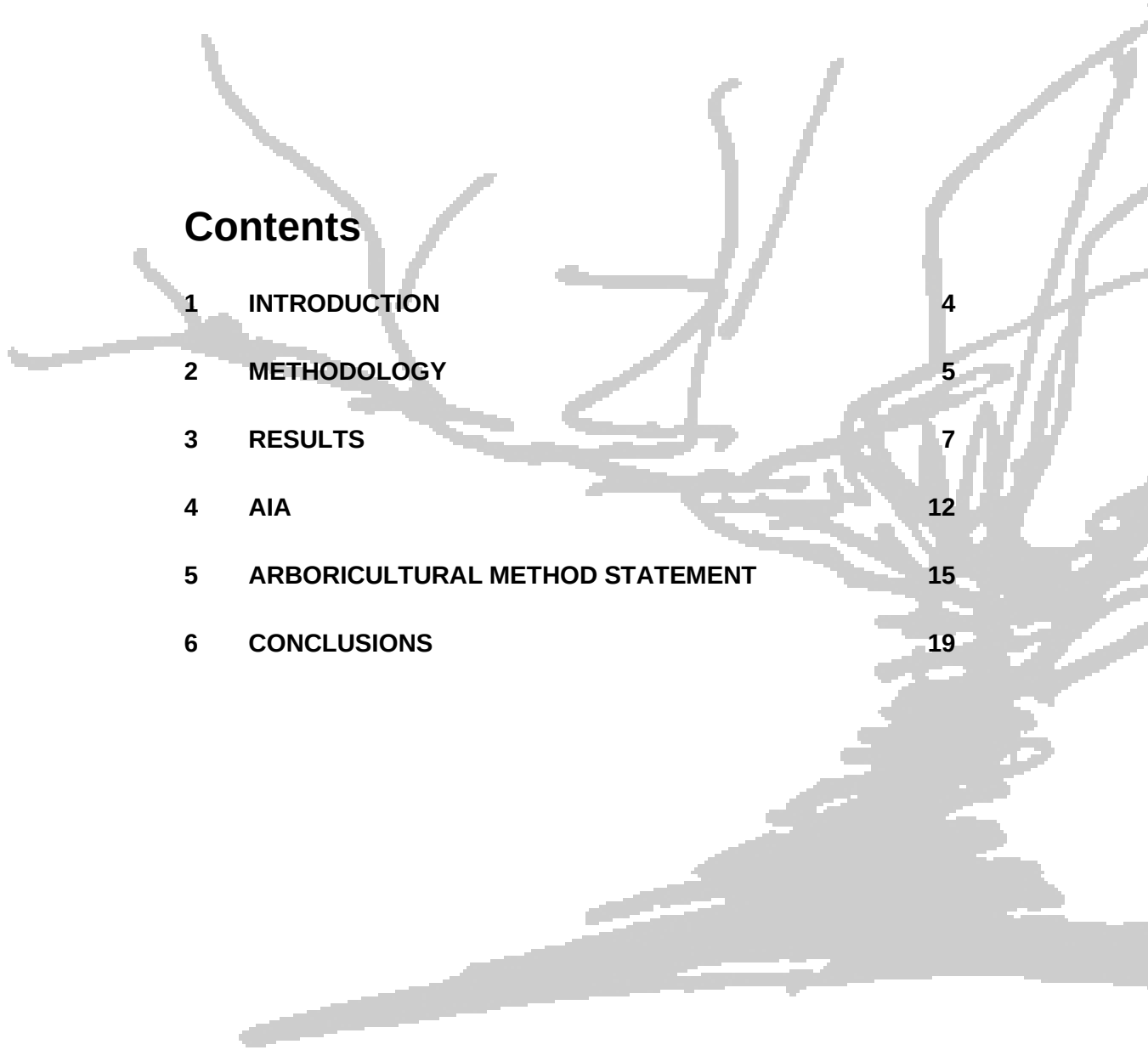
Sylvan Ecology

ARBORICULTURAL
REPORT:

BS 5837 – 2012

LAND OFF MAESTY
CANOL, BAGLAN

Project: LAND OFF MAES TY CANOL, BAGLAN		
Project Number	K069	
Title	Arb Report	
Document Number	K069- Arb Report-V1.3	
Client		
Issue Date	31-Oct-19	
Prepared by:	David Price / Jenny O'Neill	31-Oct-19
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1 INTRODUCTION

Background

- 1.1 Sylvan Ecology were commissioned to prepare a tree survey report, in order to inform the development design process as part of a proposed development planning application. The purpose of this report is to identify the quality and safety of the trees on this site, as categorised by the *British Standard 5837:2012, Trees in relation to design, demolition and construction – Recommendations*. The survey and findings, as reported here, represent an unbiased third-party opinion, offering professional advice as to the value of the trees on site. To illustrate the constraints trees pose to the design of future development, a tree constraint plan can be found in Appendix A.

Ecological Context

- 1.2 The site is approximately 1.6 acres and located to the northeast of Baglan. All associated land for the development (herein referred to as the site) is located at:
- Central OS grid reference: SS 75354 93060
 - Postcode: SA12 8US
- 1.3 The site is dominated by vast areas of continuous scrub, there is a small patch of semi improved grassland and some scattered trees and hedgerows along boundary. The site is bordered by woodland, a covered reservoir and residential properties.
- 1.4 The surrounding landscape is predominantly residential. There is a covered reservoir immediately to the west of site, and residential properties to the south and east. To the north there is a small section of woodland. The greater surrounding landscape to the north and east constitutes woodlands (some of which could be ancient), upland grasslands and a relatively intact network of hedgerows. The surrounding landscape has good potential for roosting, foraging and commuting protected species.

Proposed Development

- 1.5 The proposal is for a residential development. There is currently no design plan.



2 METHODOLOGY

Field Survey

- 2.1 The survey was carried out in accordance with the guidance set out in British Standard 5837:2012, *Trees in relation to design, demolition and construction – Recommendations*. This standard gives a systematic, consistent and transparent evaluation method to tree surveys. The survey was undertaken in accordance with standard methodology by David Price TechArborA in Aug 2019. Weather conditions on the day of the survey were suitable, dry, clear, with good visibility and a light breeze (Force 1 on the Beaufort Scale).
- 2.2 The survey involved a site walkover of the area falling within the site boundary shown on the map in *Appendix A* and approximately 12m beyond where appropriate. All observations were made from the ground using short focal range binoculars where appropriate. No invasive decay detecting instruments were utilised. Detailed notes were made in relation to any features considered important to the health, viability or ecology of the trees. This information was used to inform the associated classification system as per the guidance. All trees, where appropriate and accessible, were tagged with metal identification tags, on the north side of the tree at 2m.
- 2.3 The survey was extended to include assessment of the potential of the site to support protected and/or notable species. Although this approach supports an initial analysis of the likely presence of protected or notable species, a comprehensive assessment may require season-critical survey techniques, which fall beyond the scope of this study. The presence of protected species was noted where possible, but walkthrough surveys cannot usually confirm species presence or absence; only the likelihood of presence can be assessed.

Soil Assessment

- 2.4 A soil assessment is typically undertaken by a competent person to inform any decisions relating to:
- the root protection area (RPA);
 - tree protection;
 - new planting design; and
 - foundation design to take account of retained, removed and new trees.
- 2.5 The assessment should determine whether the soil is shrinkable. If it is,



trees and other vegetation have the potential to cause indirect damage to structures. In such cases, desiccation assessments should be carried out at a specialist laboratory to check the extent to which existing vegetation has dehydrated the soil.

- 2.6 Soil structure, composition and pH should be included in the assessment for the purpose of designing new planting and landscape proposals.

Limitations

- 2.7 The site is dominated by vast areas of dense continues scrub and many parts of the site were inaccessible so most measurements, species identification and feature inspections were done at a distance with high powered binoculars.

- 2.8 While every effort is made to ensure that an accurate assessment of the tree's condition is made during the survey, no responsibility can be taken for resultant damage or injury occurred by a failing tree. The survey only gives a snapshot of what is visible and not obscured on the day of survey.

Picture 1: An example of the continues scrub on site which limited access for inspections.





3 RESULTS

Arboricultural Summery

- 3.1 The site, though now dominated by dense scrub, was an agricultural field and therefore all trees are limited to the site boundary. The trees are predominantly mature/semimature ash, and ash dieback disease is prominent. There is a small hedge along the southern boundary, the hedge is unmanaged with spindly trees with limited arboricultural value.
- 3.2 The condition of these trees and the groups has been classified in line with B.S.5837; the table below, summarises the results of the survey.
- 3.3 There are two woodlands on site. A large broadleaved woodland to the north on the site boundary and a small linear woodland within the site on the southern boundary.

Species Diversity

- 3.4 Species diversity is high due to the presence of the woodlands and hedgerows on site



Tree No	Tree Tag ID	Spp	Diameter mm	Crown Spread (m)				Height (m)	Life stage	Remaining cont'	Category	Observations
				N	S	W	E					
1	1276	Ash	#300; 150; 300					16	M		U	The tree has ash dieback disease. Recommend removal.
2	1274	Oak	#500	7	6	2	6	16	M		U	The tree has sign of disease, with fungal growth on the trunk. Heavily impacted by neighbouring trees, has heavy lean.
3		Hazel	#75	1	1	2	2	9	SM	20-40	C1	Prominent from hedge
4		Ash	#200	3	3	3	3	13	SM	20-40	C1	Off site, may have ash dieback.
5		Birch	#150	3	3	3	3	12	SM	20-40	C1	Off site
6		Birch	#150	3	3	3	3	12	SM	10-20	C1	Off site
7		#Lawsons cypress	#100	4	6	4	5	11	SM	10-20	C1	Off site
8		#Oak	#400	3	3	3	4	14	SM	20-40	C1	Off site
9		Hazel	#75	4	1	5	3	11	SM	10-20	C1	Off site
10		Hazel	#75	3	2	4	1	12	M	10-20	C1	Off site
11	1264	Sycamore	#110	3	3	3	3	9	Y	20-40	C1	Bowed trunk
Group 1		Category A2	Large area of mature woodland. The woodland is dominated by mature and semi mature ash, with frequent oak, hazel, immature birch with hawthorn scrub; and occasional holly, sycamore, elder and field maple. The understorey is sparse and composed of locally dominant, cherry laurel, Himalayan balsam and hazel; holly saplings are rare. The ground cover is limited composed of occasional bramble and dog rose. The woodland has a high ecological value. The trees have high suitability for bats and there is evidence of nesting birds within the wood, and the woods have the potential to be used by badgers. There are however non native schedule 9 species within the woods.									
Group 2		Category B2	Small area of mature woodland. The woodland is limited in extent with most mature standards following the linear path of a previous hedge. The woodland is dominated by mature and semi mature ash, there are occasional immature oak, hazel, holly, sycamore and field									



		maple. The understorey is dominated by continuous bramble scrub and. The mature trees have some suitability for bats and there is evidence of nesting birds within the wood, and the woods have the potential to be used by badgers.
Group 3	Category C1	Small group off ash trees growing off site. The trees are all semimature
Group 4	Category C2	Hedge: Species rich hedgerow along the southern perimeter of the site, species dominated by hazel; with frequent blackthorn, sycamore, oak and bramble. The hedge also contains occasional holly, and field maple. The ground flora is dominated by stinging nettle; with occasional broad-leaved dock, common cleavers and bramble.



3.5

Trees

No individual trees on site are worthy of a *Category A* grade, the woodland group off site to the north has been designated *Category A*. On site one groups was deemed worthy of a *Category B* grade, the remainder of the trees and groups were *Category C*. Trees or groups of a *Category C* grade will not usually be retained where they would impose a significant constraint to development. Trees or groups of a B Category should be considered as constraints and any loss mitigated/compensated for appropriately. Trees of a *Category A* grade should be considered as constraints to development and every attempt should be made to incorporate them into any proposed development.

Picture 2: G2 woodland, with linear structure.



Picture 3: Picture of T1, T2 and T11..



**Lost trees**

- 3.6 As there is currently no design plan it is unsure at this stage which trees need to be lost to accommodate the development; however it is likely trees T1 and T2 will be lost to accommodate access, and G2 will be impacted by works.

Ecological Constraints

- 3.7 Birds' nests were noted within groups 1 and 2. Although no nests were noted within other groups, the wooded areas, the scrub and the hedges offer nesting opportunities for birds on site. Birds, their eggs and active nests are protected under the *Wildlife and Countryside Act 1981*, as amended, with the exception of a number of species considered as pests. This protection includes the birds themselves. Their nests are also protected from damage or destruction, both whilst the birds are constructing and using them.

Tree Protection

- 3.8 No detailed development design was available to produce an Arboricultural Impact Assessment. This report should be used to identify potential constraints and tree protection measures must be considered prior to any works being undertaken on site.

Tree constraints plan

- 3.9 The map below shows the locations of the trees on site.



4 AIA

Proposed Works

- 4.1 There is currently no set plan for the works on site, the following assessment details standard impacts that should be considered.

Legislation pertaining to trees

- 4.2 Tree preservation orders (TPO)/Conservation Orders – Select trees are protected under the *Town and Country Planning (Trees) Regulations 1999*. TPOs are intended to prevent the felling, lopping, topping, uprooting or otherwise wilful damaging of trees without the permission of the Local Planning Authority.
- 4.3 Protected species – Some of the trees/groups on site have the potential to support nesting birds and roosting bats.
- 4.4 Tree felling licence – In any calendar quarter*, you may fell up to 5 cubic metres on your property without a licence as long as no more than two cubic metres are sold. (*1 Jan to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October to 31 December.)

Constraints

- 4.5 Arboricultural constraints within the surveyed site relates primarily to the preservation of trees within and outside the site.
- 4.6 Trees recommended for retention must be protected during the construction phase through the employment of a combination of protective barriers, ground protection zones and tree safe construction methods designed by a suitably qualified Arboriculturist.
- 4.7 In addition to the protection of the tree, it is essential that ground works do not impact upon the root system. The tree root system and the associated soil structure is often over looked during the construction process and can be damaged or altered by compaction, causing major damage to the health of the tree. Generally, the entire root system of the tree is within the top 600mm of soil where it can be easily damaged. A calculated area of ground around the tree should be protected for the duration of the onsite construction phase. In this report it is referred to



as the Root Protection Area (RPA).

Impacts on Amenity Value on or Near the Site

- 4.8 Due to the nearby suburban areas, the loss of trees will have a negligible effect to the amenity value of the site.

Above and Below Ground Constraints

- 4.9 The construction of foundations or installation of services should not, where possible be scheduled to take place within the Root Protection Area (RPA) of any retained trees.
- 4.10 Tree felling works will be required to enable access to the site, all works will be undertaken to BS 3998 (*British Standard Recommendations for Tree Work 2010*).

Construction Processes of the Proposed Development

- 4.11 Development processes that lead to soil compaction in tree rooting zones and physical damage to trees can adversely affect long-term tree health. This can lead to unnecessary tree loss if not controlled properly on site during the access and then the construction phases.
- 4.12 Within the proposed development site no access to the RPAs of any retained tree will be permitted before or during construction activity. Potential also exists for machines to strike trees during construction activity. Mitigation will be put in place to ensure there is no risk of machinery causing damage to trunks and low branches.
- 4.13 The construction processes is highly unlikely to have a detrimental effect upon the health of the trees assuming recommendations made in this report are adhered to at all times by the contractors. e.g. the positioning of a stout fence between the retained trees construction activities is placed prior to commencement of works and remains intact and in position throughout the duration of the construction activities.

Infrastructure requirements

- 4.14 The installation of services within the rooting zones of trees can have a large detrimental impact on the long-term survival of retained trees leading to their unnecessary loss or root failure in



high winds. No services are to be installed within any tree RPAs of the trees.

- 4.15 Undisclosed siting of above ground services, CCTV cameras, electrical sub-stations, refuse stores, lighting and other infrastructure requirements can lead to unnecessary pruning of tree crowns or root loss during or post development. There are no such developments planned to take place adjacent or within the RPA of any retained trees.

Mitigating tree loss/new planting

- 4.16 A landscape plan will be drawn up. This will incorporate new planting sympathetic to the environment and to the benefit of the new development and the surrounding landscape. This will compensate for the loss of T1, T2 and likely G2.



5 ARBORICULTURAL METHOD STATEMENT

Phasing of operations

5.1 The arboricultural protection on this site must be carried out in the following order:

- Tree removal
- Accurate erection of tree protection measures
- Any demolition/site clearance
- Construction
- Removal of tree protection fencing
- Compensation – replanting plan

5.2 The above phasing must not be changed without approval from the project arboriculturist and agreement with the Council tree officer.

Construction Exclusion Zone

5.3 The Construction Exclusion Zone (CEZ) required by the current edition (2012) BS 5837 Trees in Relation to Construction relates to the stem diameter of each tree when measured at a height of 1.5 m from ground level. No works will be undertaken within any CEZ that causes compaction to the soil or severance of tree roots. The CEZs are to be afforded protection at all times and will be protected by fencing.

Protective Fences

5.4 A protective fence shall be erected prior to the commencement of any site works e.g. before any materials or machinery are brought on site, development or the stripping of soil commences. The fence shall have signs attached to it stating that "This is a Construction Exclusion Zone and that NO WORKS are Permitted" within the fence. The protected fence may only be removed following completion of all construction works.

5.5 They must ideally be constructed as per figure 2 in BS 5837 2012 and be fit for the purpose of excluding any construction activity. Any other fence/barrier used must be fit for the purpose.

**Precautions in respect of temporary works**

- 5.6 If temporary access is required to a CEZ then access may only be gained after consultation with the Local Planning Authority and following placement of materials such as a single thickness scaffold board on top of a compressible layer laid onto a geotextile fabric to prevent compaction to the soil from pedestrian movements.

- 5.7 No temporary access into RPAs is anticipated on this site.

Ground protection for access

- 5.8 Ground protection measures will be established when a better understanding of access, storage etc has been established

Site storage, parking, welfare facilities, etc.

- 5.9 Provisions will be stored within the development site, no provisions will be sited within RPAs of retained trees.

Additional Precautions

- 5.10 All demolition and construction machinery that could impact the trees off site will be supervised by a banks-men to ensure no damage to the trees occurs.

- 5.11 No mixing or storage of materials will take place up a slope where they may leak into an RPA of the offsite trees.

- 5.12 No fires will be lit within 20 metres of any tree stem and will take into account fire size and wind direction so that, no flames come within 5m of any foliage.

- 5.13 No notice boards, cables or other services will be attached to any tree.

On site Monitoring Regime

- 5.14 Arboricultural monitoring is to be employed on this site. It involves a monthly site visit and completion of standard pro forma that is signed by site manager (or representative) and the project arboriculturist, and copied to both the developer and The Council. A final sign-off visit will be carried out at the end of the development and a formal letter sent to both the client and Council indicating an end to the monitoring and ceasing the



responsibility of the monitoring arboriculturist.

- 5.15 The monitoring visit is to ensure that the approved tree protection measures are continually adhered to, and if remediation is required that this is promptly addressed and made clear to all parties.
- 5.16 Arboricultural supervision is to be carried out at all crucial stages throughout the development process to ensure detailed tasks are carried out as per the approved methodology, and during any other, unplanned incursions into protection areas, for whatever reason.
- 5.17 This supervision will require the arboriculturist to be present throughout any task, to ensure all the arboricultural objectives are met.
- 5.18 If any works are to take a long period of time, provided the arboriculturist is satisfied, and after an initial 'tool-box talk', the supervision may be reduced to telephone contact between the site foreman/contractor and arboriculturist.
- 5.19 The local authority arboriculturist will have free access to the site and pass any recommendations direct to the project arboriculturist.

Use of subcontractors

- 5.20 The main contractor will be responsible for ensuring subcontractors do not carry out any process or operation that is likely to adversely impact upon any tree on site.

Responsibilities

- 5.21 It will be the responsibility of the main contractor to ensure that the planning conditions attached to planning consent are adhered to at all times and that a monitoring regime in regards to tree protection is adopted on site.
- 5.22 The main contractor will be responsible for contacting the Local Planning Authority at any time issues are raised related to the trees on site.
- 5.23 If at any time pruning works are required permission must be sought from the Local Planning Authority first and then carried



out in accordance with BS 3998.

- 5.24 The main contractor will ensure the build sequence is appropriate to ensure that no damage occurs to the trees during the construction processes. Protective fences will remain in position until completion of all construction works on the site.
- 5.25 The fencing and signs must be maintained in position at all times and checked on a regular basis by an on-site person designated that responsibility.



6 CONCLUSIONS

- 6.1 There are no trees of high arboricultural value that need to be given due consideration on site. If the appropriate arboricultural mitigation is undertaken, then the process of demolition/construction should be completed with minimal impact upon the trees of importance off site.



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LEGEND

- Category A Woodland
- Category B Woodland
- RPA
- Canopy Spread
- Category C Hedge
- Category A Tree
- Category B Tree
- Category C Tree
- Category U Tree
- Building
- Site boundary

TREE PLAN

Land off Maes Ty Canol,
 Baglan, Port Talbot. SA12 8US

Date: Oct 2019

Drawn by: D.P.

Scale: 1:664 @ A4

Drawing N°: v1.1



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