



ArbTS - Arboricultural Technician Services

(Tree Consultancy Services)

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Arboricultural Report

Including:

Tree Survey Data &

Tree Constraints Plan (TCP)

To the British Standard 5837:2012
(Trees in relation to design, demolition
and construction. Recommendations)

Date – 16th October 2017

Site – Plot adjacent to Crossways, Cimla, Neath

Project Reference – ArbTS_409.1_Crossways

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1.0 Introduction

- 1.1 The purpose of this report is to give an assessment as to the quality and constraints of the trees at Plot adjacent to Crossways, Cimla, Neath. The findings of this survey will be used to inform future design proposals, to preserve and minimise damage to the important trees on or adjacent to this site.
- 1.2 This report identifies the quality of the trees on or adjacent to 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 this site. To illustrate the constraints identified trees pose to the design of future development a Tree Constraints Plan (TCP) has been drawn as found in Appendix 2.
- 1.3 Arboricultural constraints within the surveyed site relate primarily to the preservation of trees recommended for retention. Identified trees 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.
- 1.4 The trees' 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).
- 1.5 No Arboricultural Impact Assessment, Tree Protection Plan or Tree Protection Method Statement are included within this report. No assessment has been made regarding the suitability of the proposed development design within this report.

2.0 The Tree Survey

- 2.1 The tree survey was conducted by Stephen Lucocq *BSc (Hons), Tech Cert (ArborA), M.Arbor.A* on 9th October 2017.
- 2.2 Trees over 75mm were tagged where appropriate with numbered metal identification tags at around 2.0 metres above ground level.
- 2.3 All observations were made from the ground with the aid of an acoustic sounding hammer. No invasive decay detective instruments were used.
- 2.4 The survey was carried out in accordance to *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 surveying.
- 2.5 The survey was conducted with the aid of a topographical survey.

- 2.6 Preliminary management recommendations:** The survey has identified preliminary management recommendation for the trees on or adjacent to this site. Details regarding these identified operations are given in this report (See Appendix 1 - Tree Survey Data). Where work priority is stated to be H – High due to safety reasons these operations should be carried out as soon as practically possible. Where work priority is stated to be M/H – medium/high or higher these operations should be undertaken before commencement of any works on site.
- 2.7 Limitations of the tree survey:** Whilst every effort is made to ensure an accurate assessment of the tree's condition is made during survey, no responsibility can be taken for resultant damage or injury occurred by a failing tree. The survey only gives a snap shot of what is visible and is not obscured on the day of the survey. The survey identifies trees of varying quality and there above ground/below ground constraints. This survey does not constitute a full tree condition/tree risk assessment of the site and this report is only valid for 12 months from the date of the tree survey.

3.0 The Trees

- 3.1** The full tree survey data can be found in Appendix 1A Tree Survey Data.
- 3.2** Tree Survey Summary Table (See Appendix 3 for BS5837 category definitions).
(A more detailed Tree Survey Data Summary can be found in Appendix 1B)

BS5837:2012 Quality Category	Total Number of Individual Trees Surveyed	Total Number of Tree Groups Surveyed	Total Number of Tree Areas Surveyed	Total Number of Woodland Areas Surveyed	Total Number of Hedgerows Surveyed	Total
A (High - Most desirable for retention)	0	0	0	0	0	0
B (Moderate - Desirable for retention)	4	0	0	0	0	4
C (Low - Optional for retention)	0	1	0	0	1	2
U (Poor - Unsuitable for retention)	0	0	0	0	0	0
Total A,B,C,U	4	1	0	0	1	6

4.0 Tree Constraints Plan (TCP) Information

- 4.1** A Tree Constraints Plan (TCP) can be found at Appendix 2 of this report. An introduction to TCP can also be found at the start of this Appendix Section. For further information and details regarding TCP please see the *British Standard 5837:2012, Trees in relation to design, demolition and construction – Recommendations*.

5.0 Tree Protection Information

- 5.1 No Arboricultural Impact Assessment, Tree Protection Plan or Tree Protection Method Statement are included within this report for the proposed development design. An introduction to Tree Protection can be found at Appendix 4.

6.0 Conclusion

- 6.1 This site has potential to accommodate development whilst retaining the trees of value. The significant trees on or adjacent to this site should be given due consideration in the development design process.
- 6.2 If the health and stability of the trees are maintained, then with a suitable development design; tree protection methods; Arboricultural site supervision and tree after care, the process of construction could be conducted with no adverse impact onto the important trees on or adjacent to this site. Please note that no assessment has been made regarding the suitability of the proposed development design within this report.

7.0 Further Information & Qualifications

Stephen Lucocq has been involved in Arboriculture within South Wales for nearly twenty years. He has worked as an Arborist for many of these years and has a good working knowledge of the practical side of the profession. He has always taken an active interest in all areas of Arboriculture and kept up to date with current research and developments.

Qualifications

- First Class BSc (Hons) Degree – Combined Studies - Biology and IT
- Arboricultural Association Technicians Certificate – Level 4 - (Merit)
- PTI - Professional Tree Inspection (Lantra Awards)
- 2D Computer Aided Design (City and Guilds - Level 3)
- Quantified Tree Risk Assessment (QTRA) – Mike Ellison
- Visual Tree Assessment (VTA) – Mike Ellison
- Arboriculture and Bats (Lantra)
- Industrial Rope Access Trade Association (IRATA)
- Practical Arboriculture Qualifications (NPTC)

Membership

- Arboricultural Association Professional Member (*M.Arbor.A*)

8.0 Web Information & Bibliography

Web Information

- Arboricultural Association
<http://www.trees.org.uk/>
- Cellular Confinement System
GeoWeb - [GreenFix](#)
CellWeb - [Geosynthetics](#) [Cellweb](#)
- Underground Utilises Installation
<http://www.niug.org.uk/>

Bibliography

- British Standards 3998 (2010) Recommendations for Tree Work UK; British Standards Institution
- British Standard 5837:2012, Trees in relation to design, demolition and construction - Recommendations UK; British Standards Institution
- Coombes, A.J (1992) Trees London; Dorling Kindersley
- Lonsdale, D (1999) Principle of Tree Hazard Assessment and Management Edinburgh; Forestry Commission
- Mattheck, C (2007) Field Guide for Visual Tree Assessment Germany; Karlsruhe Research Centre
- Shigo, A.L (1991) Modern Arboriculture USA; Shigo and Trees, Association
- Sterry, P (2007) Collins Complete British Trees London; Collins
- Strouts, R.G (2000) Diagnosis of ill-health in trees Edinburgh; Forestry Commission
- Weber, K & Mattheck, C (2003) Manual of wood decay UK; Arboricultural Association

9.0 Appendix 1A -Tree Survey Data

Tree ID #	Tree Species	Age	Stems	Stem Diam (mm)	Cat	Height + (Lower Branch Height)	North	East	Stk	West	Phys Cond	Struc Cond	Est. Remain Contrib	Comments	Preliminary Management Recommendations	Work Priority	RPR (m)	RPA (m2)
G1	Fraxinus excelsior (Ash), Magnolia (Magnolia)	SM	1	100	C2	5(0)	1	1	1	1	F	F	10+	untidy group of young ash with signs of ash dieback disease and one small magnolia shrub			1.2	4.52
H1	X Cupressocyparis leylandii (Leyland Cyp)	EM	1	150	C2	6(0)	2	2	2	2	G/F	G/F	10+	high hedgerow of leyland			1.8	10.18
T1	Pinus nigra (Austrian Pine)	M	1	550	B2	18(12)	7	1	5	6	F	F	10+	tree of fair needle cover, forms part of a row of 4 pine trees as a group offer higher landscape value, ivy cover on trunk, pruned southern lower branch and dead upright northern stem noted			6.6	136.9
T2	Pinus nigra (Austrian Pine)	M	1	550	B2	18(12)	6	1.5	6	1	F	F	10+	Suppressed growth from surrounding trees. tree of fair needle cover, forms part of a row of 4 pine trees as a group offer higher landscape value, multistemmed upright in form, some stems compressing against each other, twisted cracked southern branch noted, dead stems noted in crown	remove twisted cracked branch and remove dead stems	M	6.6	136.9
T3	Pinus nigra (Austrian Pine)	M	1	500	B2	18(12)	7	1	7	1	F	F	10+	Suppressed growth from surrounding trees. tree of fair needle cover, forms part of a row of 4 pine trees as a group offer higher landscape value, deadwood noted in crown	remove dead branches over 30mm in diameter	M	6	113.1
T4	Pinus nigra (Austrian Pine)	M	1	600	B2	18(12)	5	1	7	2	F	F	10+	Suppressed growth from surrounding trees. tree of fair needle cover, forms part of a row of 4 pine trees as a group offer higher landscape value, ivy cover on trunk, eastern side of crown exposed from now removed adjacent eastern pine trees, dead branches noted in crown and pruned southern branches noted	remove dead branches over 30mm in diameter	M	7.2	162.9

9.0 Appendix 1B – Detailed Tree Survey Data Summary

(Please see Appendix 3 - Tree Survey Key)

Field Usage Results.		
Total Records: 6		
Type	Count	% of Total
T	4	66.7
G	1	16.7
H	1	16.7
Tree Species	Count	% of Total
<i>Pinus nigra</i> (Austrian Pine)	4	66.7
<i>X Cupressocyparis leylandii</i> (Leyland Cyp)	1	16.7
Age	Count	% of Total
SM	1	16.7
EM	1	16.7
M	4	66.7
Cat	Count	% of Total
B2	4	66.7
C2	2	33.3
Average Stem Diameter	Count	% of Total
<150	1	16.7
<250	1	16.7
<750	4	66.7
Height	Count	% of Total
<10	2	33.3
<20	4	66.7
Phy Cond	Count	% of Total
G/F	1	16.7
F	5	83.3
Stuc Cond	Count	% of Total

9.0 Appendix 3 - Tree Survey Data Key

- **Tree ID #** - Identifies the location of individual trees (T-ID Number), Groups of trees (G-ID Number), Area of trees (A-ID Number), Hedgerow (H-ID Number), Woodland (W-ID Number), Row of trees (R-ID Number) and tree Stumps (S-ID Number) on the accompanying plan. *(Please note: A group of trees here refers to two or more standing trees that form a visual whole, whereas an area of trees refers to dispersed individual trees standing within the site)*
 - **Tree Species** - Scientific names and common tree name in brackets are generally shown.
 - **Age**
 - (Y) Young – Less than 1/3 of life completed
 - (SM) Middle Aged - 1/3 - 2/3 of life completed
 - (EM) Early Mature – Just entering Maturity
 - (M) Mature – more than 2/3 of life completed
 - (OM) Over Mature - more than 3/3 of life completed and declining
 - (V) Veteran - (v) Veteran – Veteran trees have no precise definition but are trees considered to be of biological aesthetic or ecological value because of their age
 - **Stems** – Number of tree stems used to calculate the RPR/RPA
 - **Stem Diam (mm)** - Diameter of tree stem measured in millimetres for single stem trees or average stem diameter calculated for multi-stemmed trees as detailed in section 4.6 & Annex C of the British Standard 5837:2012, Trees in relation to design, demolition and construction - Recommendations. The height above ground level where the stem measurement was taken will be shown if not measured at 1.5 metres above ground level. *(Please note: that the stem diameter of certain trees will have to be estimated due to difficulties in taking measurements or for trees with a large number of stems)*
 - **Cat** – Tree Quality Category - British Standard 5837:2012 A, B, C, U + 1, 2, 3
- Based on BS5837:2012 categories A, B, C, U provides the basis of prioritising trees for retention:
- A – Those of high quality with an estimated remaining life expectancy of at least 40 years. (*Most desirable for retention*)
 - B - Those of moderate quality with an estimated remaining life expectancy of at least 20 years. (*Desirable for retention*)
 - C – Those of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm. (*Optional for retention*)
 - U – Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. (*Unsuitable for retention unless provides high conservation value*)

9.0 Appendix 5 – Tree Photographs

Tree ID#T1 – T4



Tree ID#H1



Tree ID#G1



Tree ID#T1 – T4 (From South)



