Arboricultural ASSOCIATION
Professional Member
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ArbTS

ArbTS - Arboricultural Technician Services

(Tree Consultancy Services)

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Arboricultural Report

Including:

Arboricultural Impact Assessment

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

Date – 26th September 2019

Site – Pencoedtre High School, Barry

Project Reference – ArbTS_488.6_Pencoedtre High School

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1.0 Introduction

1.1 The purpose of this report is to assess the arboricultural impact of the proposed development design at Pencoedtre High School, Barry.

1.2 Please note that this tree report is to be read in conjunction with the original tree survey report *(Project Reference ArbTS_488.3_Pencoedtre High School)*.

2.0 Arboricultural Impact Assessment (AIA)

2.1 The following Arboricultural Impact Assessment has been made for the proposed development design. A Tree Impact Plan can be found in Appendix 2. This plan illustrates the arboricultural impact of the proposal.

2.2.1 Tree Loss - The following trees are required to be removed to facilitate the construction of the proposed development design.

2.2.2 Individual Tree Loss–

- TreeID#T346 – Rowan (C low quality)
- TreeID#T347 – Ash (B moderate quality)
- TreeID#T348– Ash (B moderate quality)
- TreeID#T349 – Field Maple (B moderate quality)
- TreeID#T353 – Ash (C low quality)
- TreeID#T354– Birch (B moderate quality)
- TreeID#T4 – Cypress (C low quality)
- TreeID#T5 – Silver Birch (C low quality)
- TreeID#T383 – Silver Birch (U poor quality)
- TreeID#T390 – Rowan (C low quality)

2.2.3 Grouped Tree Loss–

- TreeID#G1 – Small group of Wild Cherry (C low quality)
- TreeID#G2 – Small group of Wild Cherry and Silver Birch (C low quality)
- TreeID#G3 – Small group of Rowan (C low quality)
- TreeID#G21– Small group of Silver Birch (C low quality)

2.2.4 Overall Tree Loss –

A small number of trees are identified to be removed to facilitate the construction of the proposed development design (10 individual trees and 4 small tree groups). 6 of these individual surveyed trees identified for removal are low or poor quality trees (C/U Category). Further to this, all four tree groups identified for removal are low quality. These low or poor quality trees should not present a constraint on developing the site. The removal of the moderate quality trees (B Category = 4 Trees) can be readily mitigated for by suitable compensatory tree planting and surrounding practical woodland management (i.e. invasive species removal etc.).

2.3 Root Protection Area (RPA) – RPA potential damage can be managed through the installation of temporary ground protection, excavation method statement and tree protective fencing etc. as designed by an Arboriculturist will ensure that no significant long term adverse impact will occur to any of the retained trees' root system or associated soil structure.

2.4. Tree Surgery Work - Some minor branch reduction/branch lifting work will be required to facilitate this proposed scheme. This work is to be carried out to the *British Standard 3998:2010 tree work recommendations.* Adhering to this standard will ensure no adverse impact onto the long term health or visual amenity of these trees will occur.

2.5.1 AIA – Conclusion - The site has a number of Arboricultural constraints that needed to be considered in the development design phase. Six low quality, four moderate quality and 4 small low quality tree groups are identified to be removed to facilitate the proposed development design. Through suitable compensatory tree planting this loss can be readily offset.

2.5.2 This proposed development design has aimed to retain a very high proportion of the moderate value trees (B Category) that form part of the site whilst sustainably extending the site for educational development.

2.5.3 The proposal will not cause a long term adverse impact onto the local amenity of the area through tree loss or tree damage. Mitigative tree, hedgerow and shrub planting will be required for the loss of the trees on this site through a combination of different diverse tree/shrub species and varied nursery aged stock.

2.5.4 The construction of the proposed development design whilst complying to a suitable scheme for tree protection will ensure that no significant long term adverse Arboricultural impact occurs onto the health of any retained trees on or adjacent to this site or to the long term amenity of the area.

3.0 Tree Protection

3.1 No Tree Protection Plan or Tree Protection Method Statement are included within this report. An introduction to Tree Protection can be found in Appendix 1.

4.0 Conclusion

4.1 The proposal will not cause a long term adverse impact onto the local amenity of the area through tree loss or tree damage. Mitigative tree, hedgerow and shrub planting and aftercare will be required for the loss of the trees on this site through a combination of different tree/shrub species and diverse nursery aged stock. Further to this, tree protection methods must be designed and implemented by an Arboriculturist to ensure no adverse impact occurs onto all retained trees/shrubs during the entire construction phase.

5.0 Further Information & Qualifications

Stephen Lucocq has been involved in Arboriculture within South Wales for the last fifteen 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)

6.0 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.njug.org.uk/

Bibliography

- British Standards 3998 (2010) Recommendations for Tree Work UK; British Standards Intuition
- British Standard 5837:2012, Trees in relation to design, demolition and construction - Recommendations UK; British Standards Intuition
- 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

7.0 Appendix 1 – An Introduction to Tree Protection

For the purpose of this report an introduction is given to tree protection. If required a Tree Protection Plan and Tree Protection Methods Statement can be provided for the finalised development design.

Tree protection methods must be considered and designed by an Arboriculturist. These should then be implemented BEFORE any machinery or materials are bought onto site and before any demolition, development or stripping of soil commences. The Root Protection Area (RPA) (cyan circles/lines) indicated on the Tree Constraints Plan must be set out and the protective barriers and ground protection installed accordingly for retained trees. The protective barriers and ground protection areas shall be regarded as sacrosanct, and shall not be removed or altered without prior recommendation by an Arboriculturist and approval of the LPA.

The areas protected by barrier fencing and ground protection shall be subject to the following restrictions:

- Existing soil levels within the protected areas shall not be altered.
- No excavation of any kind shall take place within the protected areas.
- The protected areas shall not be used for storage of any kind.
- No vehicles or machinery shall be allowed into the areas protected by fencing.
- Should the developer require the above restrictions to be breached for unforeseen reasons, an appropriate method of works must be agreed with the Local Planning Authority prior to any works taking place within the protected areas.

Additional precautions outside protected barrier areas and ground protection:

- All underground services should be installed following NJUG Volume 4 Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees. The full document is available at http://www.njug.org.uk/.
- Building materials and fuels such as oil, bitumen or cement should not be stacked or discharged within 10 metres of the trees stem.
- Fires will not be lit beneath any tree or in a place where flames could extend to within 10 metres of the outer canopy of any tree.
- Trees that are to be retained and be protected should not be used as anchorage for services or equipment.
- The use of cranes and large machinery on site should be planned and care taken not to damage the tree during the process.

Visits by an Arboriculturist during the construction process should be conducted to ensure all of the above are being strictly adhered too.

7.0 Appendix 2 – Tree Impact Plan

Tree Impact Plan

Site - 488.6

Project Ref - Brynhafren School

Scale 1:1250 @ A2

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N

0 5 10 15 20 25 50
Metres

Key : Tree Impact

Trees to be removed to facilitate development design

KEY BS 5837:2012 Tree Quality (Colour Coded) *(Individual Trees)*

- **Category A (High)** (*Highly desirable for retention*)
- **Category B (Moderate)** (*Desirable for retention*)
- **Category C (Low)** (*Optional for retention*)
- **Category U (Poor)** (*Unsuitable for retention*)

Tree Key - Individual Trees

Root Protection Area (RPA) (*A layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.*)

Tree Key - Group/Area/Woodland/Hedgerow

Shade Pattern - shade pattern not shown on plan *(Early morning shade starting North West through to evening shade to the East)*

Definitions of BS5837:2012 Categories for Trees, Woodlands and Hedgerows (Colour Coded):

A - Those of high quality with an estimated remaining life expectancy of at least 40 years. (*Highly 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*)

Please Note:
Barriers and Ground Protection must be designed by an arboriculturist, installed before materials or machinery is bought onto site and before any demolition, development or stripping of soil commences. Once erected, barriers and ground protection should be regarded as sacrosanct, and should not be removed or altered without prior recommendation by an Arboriculturist and approval of the Local Planning Authority (LPA).