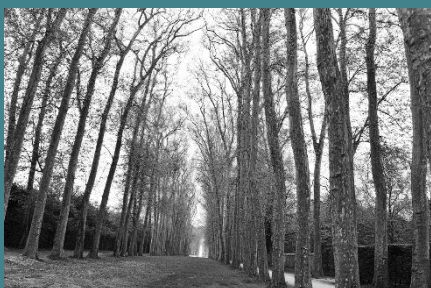


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& design



ARBORICULTURAL ASSESSMENT

Client

Sirius

Project

**HPF Central Avenue,
Port Talbot**

Date

March 2025

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APPENDICES

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Rev	Issue Status	Prepared/Date	Approved/Date
-	Draft	LES / 05.03.25	TEP / 07.03.25
A	Final	LES / 11.03.25	TEP / 12.03.25
B	Final	RG / 27.03.25	AW / 27.03.25

1.0 INTRODUCTION

- 1.1 This Arboricultural Assessment, herein referred to as the Report, has been prepared by FPCR Environment and Design Limited on behalf of Protium Green Hydrogen Supply Limited (Applicant) to present the findings of an Arboricultural Assessment and survey of trees which surround land off Central Avenue, Port Talbot (hereafter referred to as the Site), OS Grid Ref SS 743 923.

Site Description

- 1.2 The Site, outlined in red on Drawing No. PRO1013/01/02 which accompanies the planning application, is situated within an industrial estate off Central Avenue in Port Talbot. The Site itself is surrounded by other industrial business with the primary access being from Central Avenue.
- 1.3 Whilst there are no trees within the development area, an Arboricultural Assessment was undertaken for robustness to establish root protection areas for woodland surrounding the development area and to inform the design of the Proposed Development.
- 1.4 A detailed description of the Site is outlined in Chapter 2 of the Planning Statement.

Planning History

- 1.5 The Site is identified within the Local Plan for Neath Port Talbot under Policy EC2 for Existing Employment Areas and is afforded significant weight.

Scope of Assessment

- 1.6 Whilst no trees are located within the development area of the Site, a tree survey and assessment of existing trees surrounding the development area was carried out by FPCR Environment and Design on **Monday 3rd February 2025** in accordance with guidance contained within British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations' (hereafter referred to as BS5837).
- 1.7 This report has been produced to accompany a planning application for a Hydrogen Production Facility (HPF), herein referred to as the Proposed Development.
- 1.8 *The Proposed Development will consist of:*
- *An Electrolytic Hydrogen Production Facility and associated compression and storage; and*
 - *A Hydrogen Tube-Trailer Filling Bays.*
- 1.9 *The Proposed Development will produce up to 960kgs of green hydrogen per day, which will be transported offsite to regional customers. It is estimated that the hydrogen produced will abate approximately 3,000 tonnes of CO2 per year.*
- 1.10 *A detailed description of the Proposed Development can be found within Chapter 3 of the Planning Statement accompanying the planning application.*
- 1.11 The purpose of this report is therefore to firstly, present the results of this assessment of the existing trees' arboricultural value, based on their current condition and quality and to secondly, provide an assessment of impact arising from the proposed development of the Site.

2.0 PLANNING POLICY

Planning Policy Wales Edition 12 (February 2024)

- 2.1 National Planning Policy is defined by the Planning Policy Wales (PPW). This sets out the Government's most current and up to date land use planning policies for Wales and how these should be applied.
- 2.2 Paragraph 12 of the PPW states that the primary objective of the policy is to "ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales, as required by the Planning (Wales) Act 2015, the Well-being of Future Generations (Wales) Act 2015 and other key legislation and resultant duties such as the Socio-economic Duty."
- 2.3 In relation to arboriculture, the PPW also states that:
- *6.4.27 Trees, hedgerows, groups of trees and areas of woodland are of great importance for biodiversity. They are important connecting habitats for resilient ecological networks and make an essential wider contribution to landscape character, culture, heritage and sense of place, air quality, recreation and local climate moderation. They also play a vital role in tackling the climate emergency by locking up carbon, and can provide shade, shelter and foraging opportunities, wider landscape benefits such as air and diffuse pollution interception, natural flood management, and building materials. The importance of trees, in particular urban trees, in creating distinctive and natural places which deliver health and well-being benefits to communities, now and in the future should be promoted as part of plan making and decision taking¹. Planning authorities must promote the planting of new trees, hedgerows, groups of trees and areas of woodland as part of new development.*
 - *6.4.39 Planning authorities must protect trees, hedgerows, groups of trees and areas of woodland where they have ecological value, contribute to the character or amenity of a particular locality, or perform a beneficial green infrastructure function². Planning authorities should consider the importance of trees and woodland, particularly native woodland and valued trees, and should have regard to local authority tree strategies or SPG and the Green Infrastructure Assessment. Planning authorities should adopt appropriate, locally relevant, time sensitive, minimum tree canopy cover targets for their authority area to guide the protection and where appropriate the expansion of canopy cover. The Green Infrastructure Assessment and tools such as NRW's Tree Cover in Wales' Towns and Cities study and Forest Research's i-Tree Eco tool will help establish a baseline of canopy cover and guide the identification of appropriate and measurable canopy targets³. Tools to help with design and species choice in urban areas are also available⁴.*

¹ Tree Cover in Wales' towns and cities see www.naturalresources.wales/media/4123/tree-cover-in-wales-towns-and-cities-2014-study.pdf

² British Standard – BS5837:2012 Trees in relation to design, demolition and Constructions – Recommendations.

³ www.naturalresources.wales/about-us/what-we-do/our-roles-and-responsibilities/green-spaces/urban-trees/?lang=en

⁴ www.naturalresources.wales/urbantrees?lang=en

www.naturalresources.wales/guidance-and-advice/environmental-topics/woodlands-and-forests/?lang=en

www.naturalresources.wales/about-us/what-we-do/our-roles-and-responsibilities/green-spaces/?lang=en www.tdag.org.uk/our-guides.html

- 6.4.43 Ancient woodland, semi-natural woodlands, individual ancient, veteran and heritage trees and ancient hedgerows are irreplaceable natural resources, and have significant landscape, biodiversity and cultural value. Such trees, woodlands and hedgerows are to be afforded protection from development which would result in their loss or deterioration unless very exceptionally there are significant and clearly defined public benefits; this protection must prevent potentially damaging operations and their unnecessary loss. In the case of a site recorded on the Ancient Woodland Inventory, authorities should consider the advice of NRW. Planning authorities should also have regard to the Ancient Tree Inventory, work to improve its completeness and use it to ensure the protection of trees and woodland and identify opportunities for more planting as part of the Green Infrastructure Assessment, particularly in terms of canopy cover.
- 6.4.44 The protection and planting of trees and hedgerows should be delivered, where appropriate, through locally-specific strategies and policies, through imposing conditions when granting planning permission, and/or by making Tree Preservation Orders (TPOs)¹⁴⁰. They should also be incorporated into Green Infrastructure Assessments and plans

- 2.4 Future Wales: The national Plan 2040 also applies in addition to PPW. The 'Future Wales' document sets out the "national development framework, setting the direction for development in Wales to 2040⁵".

Local Planning Policy

- 2.5 Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that planning applications are determined in accordance with the provisions of the adopted Development Plan unless material considerations indicate otherwise. The Site falls within the boundary of Neath Port Talbot County Borough Council.
- 2.6 Within the context of the Local Development Plan 2011 - 2026 for Neath Port Talbot Council. Policy EN7 relates to trees and states the following:

Policy EN 7 Important Natural Features

Development proposals that would adversely affect ecologically or visually important natural features such as trees, woodlands, hedgerows / field boundaries, watercourses or ponds will only be permitted where:

1. *Full account has been taken of the relevant features in the design of the development, with measures put in place to ensure that they are retained and protected wherever possible; or*
2. *The biodiversity value and role of the relevant feature has been taken into account and where removal is unavoidable, mitigation measures are agreed.*

⁵Welsh Government (2021). Future Wales: The national Plan 2040. Available at: <https://gov.wales/future-wales-national-plan-2040-0> (Accessed 18.10.2022).

3.0 SURVEY METHODOLOGY

- 3.1 Whilst no trees are located within the development area of the Site, a tree survey and assessment of existing trees surrounding the development area has been carried out in accordance with the criteria set out in Chapter 4 of BS5837. The survey has been undertaken by a suitably qualified and experienced arboriculturist and has recorded information relating to all those trees adjacent to the application boundary which may be of influence to any proposals. Trees were assessed for their arboricultural quality and benefits within the context of the Proposed Development in a transparent, understandable, and systematic way.
- 3.2 Trees have been assessed as groups where it has been determined appropriate.
- The term group has been applied where trees form cohesive arboricultural features either aerodynamically, visually or culturally including biodiversity or habitat potential for example parkland or wood pasture.
 - For the purposes of this assessment, a hedgerow is described as any boundary line of trees or shrubs less than 5m wide at the base and are managed under a regular pruning regime.
 - For the purposes of this assessment woodland is described as a habitat where 'trees are the dominant plant form. The individual tree canopies generally overlap and interlink, often forming a more or less continuous canopy'⁶. Woodlands however, are not just formed of trees and generally include a great variety of other plants. These will include 'mosses, ferns and lichens, as well as small flowering herbs, grasses and shrubs'⁷.
- 3.3 An assessment of individual trees within groups, hedgerows and woodland has been made where a clear need to differentiate between them, for example, to highlight significant variation between attributes including physiological or structural condition or where a potential conflict may arise.

BS5837 Categories

- 3.4 Trees groups have been divided into one of four categories based on Table 1 of BS5837, 'Cascade chart for tree quality assessment'. For a tree to qualify under any given category it should fall within the scope of that category's definition (see below).
- 3.5 Category U trees are those which would be lost in the short term for reasons connected with their physiology or structural condition. They are, for this reason not considered in the planning process on arboricultural grounds.
- 3.6 Categories A, B and C are applied to trees that should be of material consideration in the development process. Each category also having one of three further sub-categories (i, ii, iii) which are intended to reflect arboricultural, landscape and cultural or conservation values accordingly.
- 3.7 **Category (U) – (Red):** Trees which are unsuitable for retention and are 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. Trees within this category are:

⁶ Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

⁷ http://www.countrysideinfo.co.uk/woodland_manage/whatis.htm

- Trees that have a serious irremediable structural defect such that their early loss is expected due to collapse and includes trees that will become unviable after removal of other category U trees.
- Trees that are dead or are showing signs of significant, immediate or irreversible overall decline.
- Trees that are infected with pathogens of significance to the health and/ or safety of other nearby trees or are very low quality trees suppressing adjacent trees of better quality.
- Certain category U trees can have existing or potential conservation value which may make it desirable to preserve.

3.8 **Category (A) – (Green):** Trees that are considered for retention and are of high quality with an estimated remaining life expectancy of at least 40 years with potential to make a lasting contribution. Such trees may comprise:

- Subcategory (i) trees that are particularly good examples of their species, especially if rare or unusual, or are essential components of groups such as formal or semi-formal arboricultural features for example the dominant and/or principal trees within an avenue.
- Subcategory (ii) trees, groups or woodlands of particular visual importance as arboricultural and / or landscape features.
- Subcategory (iii) trees, groups or woodlands of significant conservation, historical, commemorative or other value for example veteran or wood pasture.

3.9 **Category (B) – (Blue):** Trees that are considered for retention and are of moderate quality with an estimated remaining life expectancy of at least 20 years with potential to make a significant contribution. Such trees may comprise:

- Subcategory (i) trees that might be included in category A but are downgraded because of impaired condition for example the presence of significant though remediable defects, including unsympathetic past management and storm damage.
- Subcategory (ii) trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.
- Subcategory (iii) trees with material conservation or other cultural value.

3.10 **Category (C) – (Grey):** Trees that are considered for retention and are of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm. Such trees may comprise:

- Subcategory (i) unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.
- Subcategory (ii) trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value or trees offering low or only temporary / transient screening benefits.
- Subcategory (iii) trees with no material conservation or other cultural value.

Ancient and Veteran Trees

- 3.11 Various published methodologies are currently available for the identification of Ancient and Veteran trees which, due to the complexity and subjectivity of the process of defining and assessing these trees, often have conflicting definitions.

- 3.12 This Arboricultural Assessment has used the criterion for defining a veteran tree based upon the definition within BS:5837.

"Tree that, by recognized criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned".'

NOTE These characteristics might typically include a large girth, signs of crown retrenchment / reorganisation and hollowing of the stem.

- 3.13 Stem girth is the most reliable guide when determining the age of trees and in normal growing conditions, ancient and veteran trees are those which have a large girth by comparison with other trees of the same species. To inform the assessment of chronological age reference has been made to the chart provided within Lonsdale (2013) (shown below in Figure 1).

- 3.14 BS:5837 does not provide a definition for ancient trees and therefore the assessment and the criterion being used for identifying ancient trees is based upon government guidance on, Ancient Woodland, ancient trees and veteran trees: advice for making planning decisions⁸ which states.

"All ancient trees are veteran trees, but not all veteran trees are ancient. The age at which a tree becomes ancient, or veteran will vary by species because each species ages at a different rate."

⁸ Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

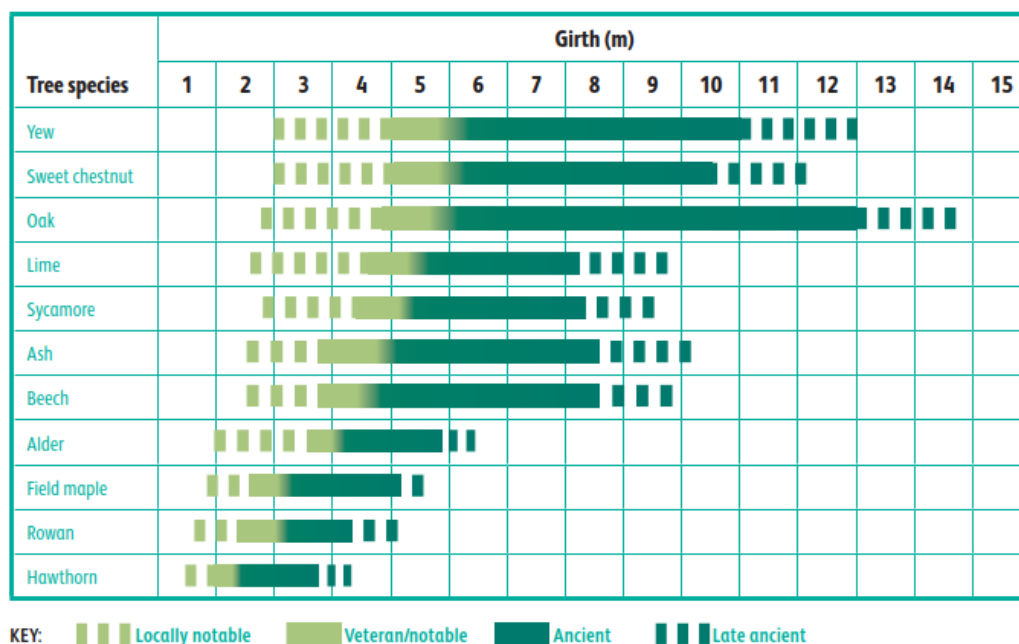


Figure 1: The chart of girth in relation to age and development classification of trees, as shown in Lonsdale (2013)⁹.

- 3.15 Ancient and veteran trees are also material considerations within the planning process and their importance is specifically recognised within the Planning Policy Wales Edition 12 (February 2024), which includes its own definition of ancient and veteran trees. This Arboricultural Assessment has also considered any potential candidates against the below definition:

*'A tree which, because of its age, size, and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient but are old relative to other trees of the same species. Very few trees of any species reach the ancient life-stage.'*¹⁰

- 3.16 RAVEN 2 (Recognition of Ancient, Veteran & Notable trees) Julian Forbes-Laird (2023)¹¹ has been adopted for gathering survey information for this Report as this provides a standardised framework for recording characteristic ancient/veteran features and this Arboricultural Assessment has also considered any potential candidates against this framework.

Considerations and Limitations of the Tree Survey

- 3.17 The survey was completed from ground level only and from within the boundary of the Site. Aerial tree inspections or an assessment of the internal condition of the stem/s or branches were not undertaken at this stage as this level of survey is beyond the scope of the initial assessment.

⁹ Lonsdale, D. (Ed.). 2013). Ancient and other veteran trees: further guidance on management. London: The Tree Council.

¹⁰ Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

¹¹ Recognition of Ancient, Veteran & Notable Trees – RAVEN 2 (2023) – Julian Forbes-Laird Consultancy.

- 3.18 The statements made in this Report regarding the assessment applies to the date of survey and cannot be assumed to remain unchanged. It will be necessary to review all comments and observations made within this report, in accordance with sound arboricultural practice, within two years of the date of survey (unless explicitly stated elsewhere within this report). Further review may also be necessary where site conditions change or works to trees are carried out which have not been specified in detail within this report.
- 3.19 The design of the Proposed Development has been undertaken to avoid root protections areas to the adjacent woodland plantation.

4.0 RESULTS

- 4.1 A total of five groups of trees were surveyed as part of the Arboricultural Assessment. Trees were surveyed as individual trees, groups, hedgerows and woodland as per the survey methodology.
- 4.2 Appendix A presents details of all tree groups recorded during the assessment including heights, diameters at 1.5m from ground level, crown spread (given as a radial measurement from the stem), age class, comments as to the overall condition at the time of inspection, BS5837 category of quality and suitability for retention and the root protection area (RPA), calculated in accordance with Annex C, D and Section 4.6 of BS5837:2012.
- 4.3 General observations particularly of structural and physiological condition for example the presence of any decay and physical defect and preliminary management recommendations have also been recorded where appropriate.
- 4.4 The positions of tree groups have been shown on the Tree Survey Plan. The positions of trees are based on a topographical / land survey, as far as possible, supplied by the Applicant. Where topographical information has not identified the position of trees these have been plotted using a global positioning system and aerial photography to provide approximate locations. The crown spread, root protection area and shade pattern (where appropriate) are also indicated on this plan.

Results Summary

- 4.5 Tree stock adjacent to the application boundary consisted mainly of formally planted ornamental species, the majority of which were located on the verge off Central Avenue with several self-set trees located surrounding the Site.
- 4.6 Species identified adjacent to the application boundary are as follows:
- | | |
|---|--|
| Austrian pine – <i>Pinus nigra ssp. Nigra</i> | goat willow – <i>Salix caprea</i> |
| buddleia – <i>Buddleia davidii</i> | grey poplar – <i>Populus x canescens</i> |
| common pear – <i>Pyrus communis</i> | Norway maple – <i>Acer platanoides</i> |
| dogwood – <i>Cornus sanguinea</i> | silver birch – <i>Betula pendula</i> |
| elder – <i>Sambucus nigra</i> | |
- 4.7 Table 1 below summarises the trees assessed and several of the trees have been discussed in more detail following the table, owing to their physical condition or arboricultural significance.

Table 1: Summary of Trees by Retention Category

	Individual Trees	Total	Groups of Trees	Total
Category U - Unsuitable	-	0	-	0
Category A (High Quality / Value)	-	0	G3	1
Category B (Moderate Quality / Value)	-	0	G4	1
Category C (Low Quality / Value)	-	0	G1, G2, G5	3

G1

- 4.8 Consisted of three self-seeded goat willow trees, regarded as category C on the basis of being small unremarkable trees. G1 is located within the application boundary but outside of the development area.

G2

- 4.9 Outside the application boundary and situated on the verge to the east of Site, this was a group of formally planted ornamental trees. The group provided an effective screen; and the mix of deciduous and coniferous trees provided year-round visual appeal. However, the trees themselves are unremarkable in nature and lack maturity for high categorisation.

G3

- 4.10 Located outside the application boundary, G3, a high-quality arboricultural feature group of trees due to the size and maturity of the grey poplars within the group. These trees made an excellent arboricultural feature and screen within the context of the existing landscape and displayed the potential to remain as such an asset in the future.

G4

- 4.11 This group was located outside the application boundary and more mature than G2 but lacked the large prominent trees which made G3 excel from an arboricultural perspective. However, this group was still regarded as good arboricultural feature in its own right and merited category B on that basis.

G5

- 4.12 Located outside the application boundary, G5, consisted of sporadically self-seeded trees between the site and the adjacent property to the north. As with G1, category C was warranted due to being small unremarkable trees.

Ancient and Veteran Trees

- 4.13 None of the assessed trees were considered as ancient or veteran trees in accordance with our veteran survey methodology.

Statutory Considerations

- 4.14 Local authorities have a Duty under the Town and Country Planning Act to create Tree Preservation Orders (TPO) to protect and preserve specific trees and woodlands that bring significant amenity benefit to a particular site or location.
- 4.15 Under a TPO it is a criminal offence to cut down, top, lop, uproot or wilfully destroy a tree protected by that Order, or to cause or permit such actions, if carried out without the prior written consent of the acting LPA.
- 4.16 It is understood following consultation with the Local Planning Authority, Neath Port Talbot County Borough Council, that there are no Tree Preservation Orders or Conservation Area designations that would apply to any trees present on, or in proximity to the assessment Site and therefore no statutory constraints would apply to the Proposed Development in respect of trees.

- 4.17 Information provided on Tree Preservation Orders and Conservation Areas is accurate to the date of this assessment and cannot be assumed to remain unchanged. The last check was carried out on the Wednesday 26th February 2025.

5.0 ARBORICULTURAL IMPACT ASSESSMENT

- 5.1 The following paragraphs present a summary of the tree survey and discussion of particular trees and groups recorded in the context of any Proposed Development in the form of an Arboricultural Impact Assessment (AIA) in accordance with section 5.4 of BS5837.
- 5.2 The AIA has been based upon the drawing "PRO1013 01 03 R0" and seeks to outline the relationship between the Proposed Development and the existing trees and hedgerows. The drawing shows the Hydrogen Production Facility.
- 5.3 An overlay of the layout has been incorporated in the Tree Retention Plan to assist in identifying the relationship and any potential conflicts between the Proposed Development and the existing trees and hedgerows. The plan also identifies which trees would be required to be removed or retained as part of the Proposed Development.
- 5.4 Table 2 below summarises the impact on tree stock and these impacts have been discussed in more detail following the table.

Table 2: Summary of Impact on Tree Stock

	Trees to be Retained	Total	Trees to be Removed in full or part	Total
Category U - Unsuitable	-	0	-	0
Category A (High Quality / Value)	G3	1	-	0
Category B (Moderate Quality / Value)	G4	1	-	0
Category C (Low Quality / Value)	G1, G2, G5	3	-	0

Required Removals

- 5.5 The proposals show no requirement for removal of any tree stock throughout the Site.

Impacts to Arboricultural Features

- 5.6 Pruning may be required regarding G3 in the form of crown raising to a suitable height, 5.5m above ground level to allow for adequate clearance for vehicles using the access road.
- 5.7 Likewise regarding G1, pruning will be required for the continuation of clear access in and out of the entrance to the Proposed Development.

Discussion

- 5.8 In conclusion for arboriculture, the Proposed Development is considered to meet the aims and objectives of local and national policy through careful consideration of the design and retention of all trees surrounding the development area. The Proposed Development uses the existing private access road with the HPF being strategically positioned to the furthest extent from any arboricultural features.
- 5.9 From an arboricultural perspective the Proposed Development fully meet with the criteria stated in **Policy EN 7 Important Natural Features** through the retention of all tree stock on Site.

6.0 GENERAL INFORMATION AND RECOMMENDATIONS

- 6.1 All trees retained on site should be protected by suitable barriers or ground protection measures around the calculated RPA, crown spread of the tree or other defined constraints of this assessment as detailed by section 6 and 7 of BS5837.
- 6.2 Barriers should be erected prior to commencement of any construction work and once installed, the area protected by fencing or other barriers will be regarded as a construction exclusion zone.
- 6.3 Any trees that are not to be retained as part of the proposals should be felled prior to the erection of protective barriers. Particular attention needs to be given by site contractors to minimise damage or disturbance to retained specimens.
- 6.4** Construction access may take place within the root protection area if suitable ground protection measures are in place. This may comprise single scaffold boards over a compressible layer laid onto a geo-textile membrane for pedestrian movements. Vehicular movements over the root protection area will require the calculation of expected loading and the use of proprietary protection systems.

Protection outside the exclusion zone

- 6.5 Wide or tall loads etc should not come into contact with retained trees. Banksman should supervise transit of vehicles where they are near retained trees.
- 6.6 Oil, bitumen, cement or other material that is potentially injurious to trees should not be stacked or discharged within 10m of a tree stem. No concrete should be mixed within 10m of a tree. Allowance should be made for the slope of ground to prevent materials running towards the tree.
- 6.7 Notice boards, telephone cables or other services should not be attached to any part of a retained tree.

7.0 TREE MANAGEMENT

- 7.1 All retained trees within the application boundary should be subjected to sound arboricultural management as recommended within section 8.8.3 of BS5837 Post Development Management of Existing Trees, where there is a potential for public access to satisfy the landowner's duty of care.
- 7.2 Landowners responsible for trees, especially those within the public domain, have a legal 'duty of care' to ensure that visitors and neighbours of their land are reasonably safe and that nobody comes to harm or injury, by his or her negligence, through taking measures to reduce risks as far as is 'reasonably practical' (The Health and Safety at Work Act 1974).
- 7.3 To ensure that risks are reduced as far as is 'reasonably practicable' it will be necessary that, a review of the relationship between retained trees and the new development should be undertaken by a qualified arboriculturist to assess the retained tree cover and prepare a schedule of tree works.
- 7.4 The Occupiers Liability Act (1957 and 1984) also places a 'duty of care' to ensure that no reasonably foreseeable harm takes place due to tree defects. That duty of care should be reasonable, proportionate, and reasonably practicable when managing the risk¹².
- 7.5 It is currently expected that a suitably qualified Arboriculturist or tree surveyor should inspect trees with an appropriate level of regularity. The purpose of the inspections is to determine whether a tree could foreseeably cause harm by virtue of its size and physical condition.
- 7.6 All tree works undertaken should comply with British Standard 3998:2010 and should therefore be carried out by skilled tree surgeons. It would be recommended that quotations for such work be obtained from Arboricultural Association Approved Contractors as this is the recognised authority for certification of tree work contractors.
- 7.7 All vegetation and, particularly, woody vegetation proposed for clearance should be removed outside of the bird-breeding season (March - September inclusive) as all birds are protected under the Wildlife and Countryside Act, 1981 (as amended) whilst on the nest. Where this is not possible, vegetation should be checked for the presence of nesting birds prior to removal by an experienced ecologist.

¹² The Health and Safety at Work Act 1974

8.0 CONCLUSION

- 8.1 The Site is located off Central Avenue in Port Talbot and forms part of the wider industrial estate.
- 8.2 Whilst no trees are located within the development area of the Site, tree stock consisted mainly of formally planted road verge trees. Most of which were ornamental species with the intention to provide screening and visual amenity. Only G1 is located within the application boundary which is located near to the development area access gates and is to be retained.
- 8.3 No removals are necessary to facilitate the Proposed Development; with impacts limited to minor pruning works.
- 8.4 The Proposed Development has been designed to avoid roost protection areas and minimal excavation is required during the construction / installation phase. Given this no tree protection measures are considered necessary. In conclusion for arboriculture, the Proposed Development is considered to satisfy the aims and objectives of local and national policy through careful consideration of the design and retention of all of the existing tree cover.

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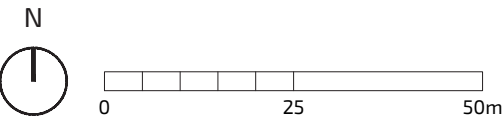
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FIGURES

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Notes:

All dimensions to be verified on site. Do not scale this drawing, use figure dimensions only. Drawing to be read in conjunction with Arboricultural Assessment and Appendix A - Tree Schedule.
The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified site prior to and decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculation foundation depths.



- 

Category A - Trees / Groups of High Quality (BS5837:2012)
- 

Category B - Trees / Groups of Moderate Quality (BS5837:2012)
- 

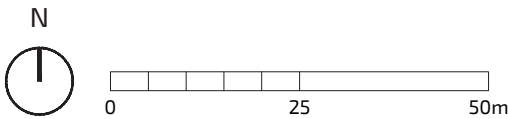
Category C - Trees / Groups of Low Quality (BS5837:2012)
- 

Root Protection Area
- T1(A)
G1(A)

Individual/Group number and BS5837:2012 Category
- 

Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

-	06.02.25	First Issue	LES / TEP
rev	date	description	drwn/chkd
client			
Sirius			
project			
HPF Central Avenue, Port Talbot			
title			
TREE SURVEY PLAN			scale
			1:1000 @ A3
number			
13164-T-01		status	rev
		-	-

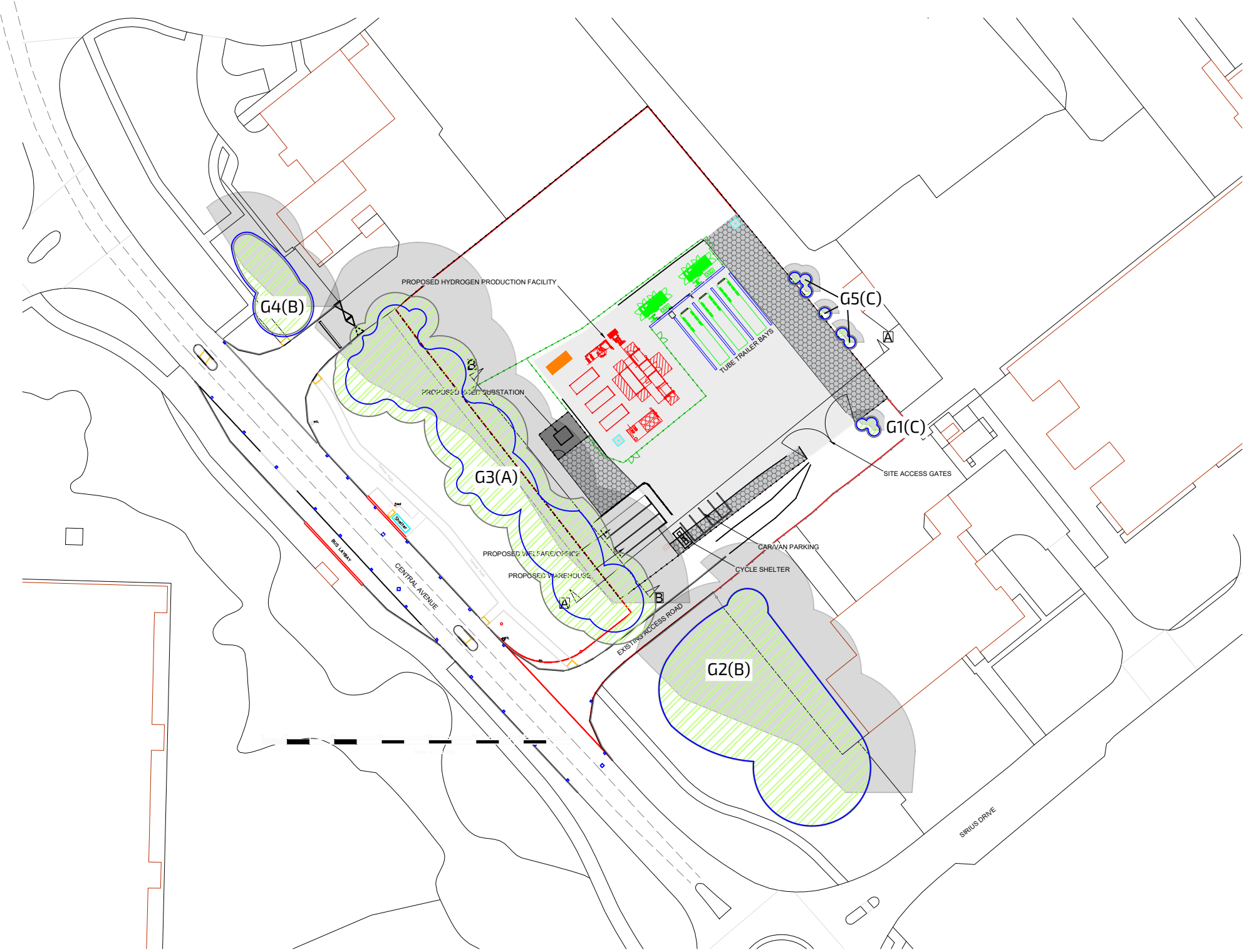


Notes:

All dimensions to be verified on site. Do not scale this drawing, use figure dimensions only. Drawing to be read in conjunction with Arboricultural Assessment and Appendix A - Tree Schedule.

The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified site prior to and decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculation foundation depths.

- Tree/Group to be Retained
- Root Protection Area (Shown for retained trees only)
- Individual / Group Number and BS Category
- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)



-	05.03.25	First Issue	LES / TEP
A	27.03.25	Update Layout	RG / AW
rev	date	description	drwn/chkd

client

Sirius

project

**HPF Central Avenue,
Port Talbot**

title

TREE RETENTION PLAN

scale

1:1000 @ A3

number

13164-T-02

status

-

rev

A

APPENDICES

Appendix A - Tree Schedule

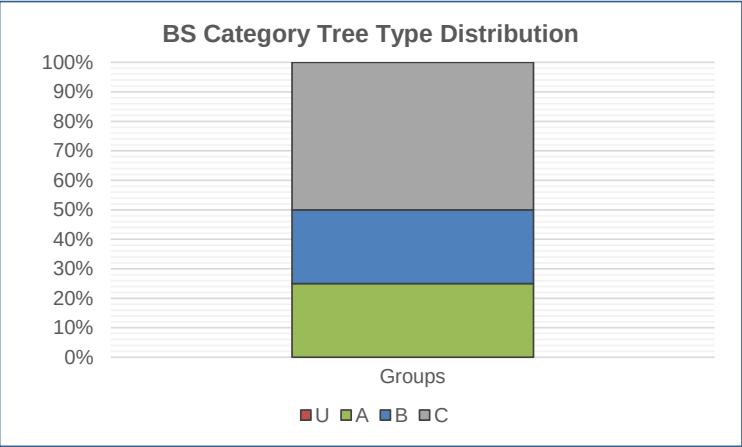
Measurements	Age Classes	Quality Assessment of BS Category	ULE (relates to BS Category)
Height - Measured using a digital laser clinometer (m)	YNG: Establishing, typically with good vigour and fast growth rates and strong apical dominance; c. less than 1/3 life expectancy	Category U - Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	<10 years
Stem Dia. - Diameter measured (mm) in accordance with Annex C of the BS5837	SM: Semi-mature trees less than 1/3 life expectancy	Category A - Trees of high quality with an estimated remaining life expectancy of at least 40 years.	40+ years
Crown Radius - Measured using a digital laser clinometer radially from the main stem (m)	EM: Established, typically vigorous and increasing in apical height and lateral spread; 1/3 - 2/3 life expectancy. Offers landscape significance	Category B - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	20-40 years
Abbreviations est - Estimated stem diameter avg - Average stem diameter for multiple stems upto - Maximum stem diameter of a group	M: Fully established over 2/3 life expectancy, generally good vigour and achieving full height potential with crown still spreading	Category C - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.	10-20 years
	OM: Fully mature, at the extremes of expected life expectancy, vigour decreasing, declining or moribund	Sub-categories: (i) - Mainly arboricultural value (ii) - Mainly landscape value (iii) - Mainly cultural or conservation value	
	V: biological, cultural or aesthetic value comprising niche saproxylic habitat. Individuals of large proportions (stem girth) in comparison to trees of the same species/surviving beyond the typical age range for their species.	The BS category particular consideration has been given to the following: • The presence of any structural defects in each tree/group and its future life expectancy • The size and form of each tree/group and its suitability within the context of a proposed development • The location of each tree relative to existing site features e.g. its screening value or landscape features • Age class and life expectancy	

Structural Condition	Physiological Condition	Root Protection Area (RPA)
Good - No significant structural defects	Good - No significant health problems	• The RPA Radius column provides the extent of an equivalent circle from the centre of the stem (m). • The RPA is calculated using the formulae described in paragraph 4.6.1 of British Standard 5837: 2012 and is indicative of the rooting area required for a tree to be successfully retained. Tree roots extend beyond the calculated RPA in many cases and where possible a greater distance should be protected. • Where veteran trees have been identified the RPA has been calculated in accordance with Natural England guidance i.e. 15x the stem diameter, uncapped.
Fair - Structural defects that can be remediated	Fair - Symptoms of ill-health that can be remediated	
Poor - Significant defects beyond remediation, present a risk of failure in the foreseeable future	Poor - Significant ill-health. Unlikely the tree will recover in the long term	
Dead - Dead tree with structural integrity of tree severely compromised	Advanced Decline / Dead - Advanced state of decline and unlikely to recover or Dead	

Appendix Summary

	Individual Trees	Totals	Tree Groups and Hedgerows	Totals
Category U		0		0
Category A		0	G3,	2
Category B		0	G4	1
Category C		0	G2, G5,	3
	Total	0	Total	6

BS Category Tree Type Distribution displays the proportion of trees assessed in each type to enable a better understanding of the category distribution.



Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
GROUPS OF TREES										
G1	Goat Willow Salix caprea	3	upto 100	1.5	SM	F	Located just outside of the development area to the east. 3 multi-stemmed self seeded individuals with large boulders within root protection area. Shallow rooting is likely due to surfaced area. Small in stature and unremarkable feature within landscape.	5	1.2	C (ii)
G2	Elder Sambucus nigra Norway Maple Acer platanoides Silver Birch Betula pendula Austrian Pine Pinus nigra ssp. Nigra Common Pear Pyrus communis Dogwood Cornus sanguinea	14	avg 240	3	SM	F	Group of formally planted trees on verge offset entrance to the Site by 4.5m Trees have established but have not matured beyond semi mature at the time of surveying. Group consists of ornamental species and provide benefit as screen and visual amenity.	26	2.9	C (ii)
G3	Elder Sambucus nigra Silver Birch Betula pendula Grey Poplar Populus x canescens Austrian Pine Pinus nigra ssp. Nigra Butterfly bush Buddleia davidii Dogwood Cornus sanguinea	16	avg 450	8	Yng / SM / EM / M	F	Group of formally planted ornamental trees which run across the entire southern aspect of the Site. Scrubby understory. Provides buffer between site and road pedestrian footpath. Small break within group without presence of stems but canopy still present. Canopy cover overhangs site by up to 10m. Poplars increase arboricultural value of group due to size and presence.	92	5.4	A (ii)
G4	Austrian Pine Pinus nigra ssp. Nigra Silver Birch Betula pendula	12	avg 280	3	SM	F	Group of formally planted trees on verge offset entrance to the Site by 3m. Dense canopy creates good screen. Coniferous tree brings year round visual appeal. Recorded due to proximity to site.	35	3.4	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G5	Goat Willow Salix caprea Butterfly bush Buddleia davidii	3	upto 100	1.5	SM	F	Located just outside of the development area to the north Multi-stemmed self seeded individuals located behind fencing and between lots. Shallow rooting is likely due to surfaced area. Small in stature and unremarkable feature within landscape. Established in an awkward location.	5	1.2	C (ii)

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