Arboricultural Impact Assessment to BS5837:2012

Garob Oswald Road Ltd.

The Cooperative,
Well Street,
Cefn Mawr
Wrexham,
LL14 3YE.

14 June 2025

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Introduction

Arbtech Consulting Limited (Arbtech) received written instruction on the 21st April 2025 from Garob Oswald Road Ltd to attend The Cooperative, Well Street, Cefn Mawr, Wrexham LL14 3YE; grid reference, SJ 28252 42441 (site) to undertake an arboricultural survey to BS5837:2012 guidance to assess trees, hedges and major shrub groups growing on and within influencing distance of the site and to produce a Schedule of Trees, Tree Constraints Plan, and Arboricultural Impact Assessment.

Executive Summary

This report describes the extent and effect of the proposed development at the site on individual trees and groups of trees within and adjacent to the site.

Trees within the site were surveyed; using a methodology guided by British Standard 5837:2012 ‘Trees in relation to design, demolition and construction – Recommendations’ (“BS5837”).

Site Location

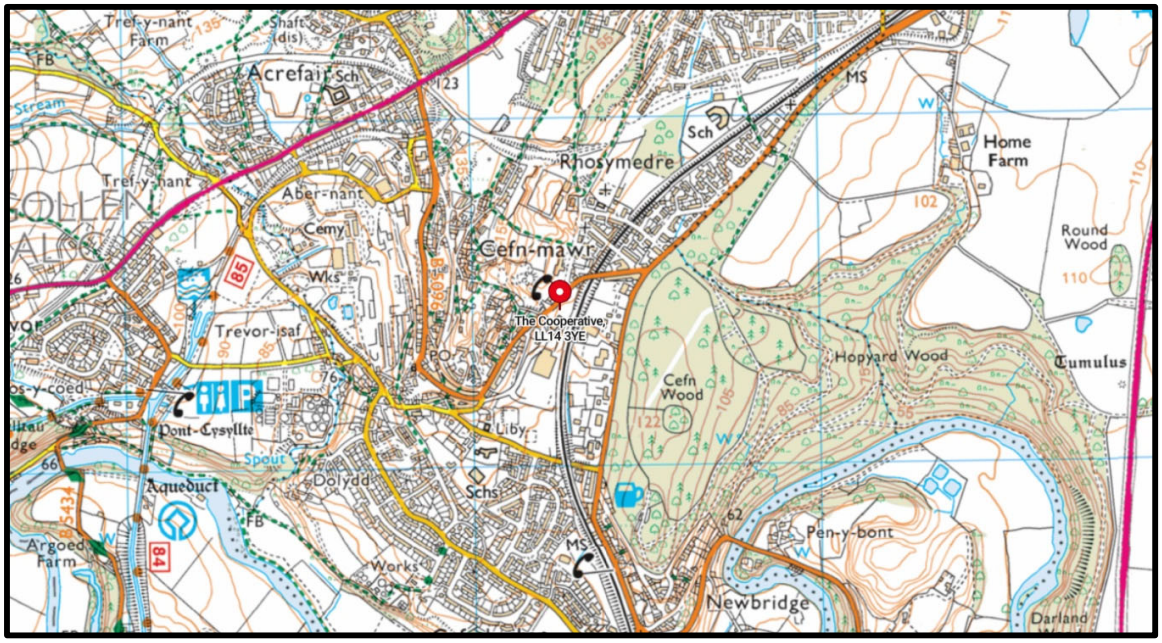


Figure 1: OS Map (Bing Maps)



Figure 2: Aerial Image of site with approximate red line boundary (Google Maps)

General Information

Client: Garob Oswald Road Ltd

Site: The Cooperative, Well Street, Cefn Mawr, Wrexham LL14 3YE

Proposal description: Construction of 5 No. new build industrial units with associated parking & landscaping.

Table 1: Documents referred to.

Document	Reference No.
Topographical Survey	GDL\CO OP\01
Proposed layout drawing	A079 – PL – 003 Rev A
Landscape master plan drawing	N/A
LPA pre-app comments	N/A
British Standard 5837:2012	"BS5837"
Arboricultural Impact Assessment	Arbtech AIA 01



Proposal

Tree Survey

Survey: An arboricultural survey to BS5837 of all trees within impacting distance of the site was undertaken by Shaun Rowe of Arbtech Consulting on 25th May 2025. Details for each of the trees surveyed are provided in the Schedule of Trees (see Appendix 1)

Table 2: Documents upon which this tree survey has been based

Document	Originator	Reference Number	Title
Survey base drawing	Compass Land Surveys	GDL\CO OP\01	Topographical Survey

Limitations: The survey was made at ground level using visual observation only. Detailed examinations, such as climbing inspections and decay detection equipment were not employed, though may form part of the survey's management recommendations. Measurements were taken using specialist tapes, laser and GPS devices. Where this was not possible, measurements are estimated.

Scope: Pre-development tree surveys make arboricultural management recommendations based exclusively upon the individual tree or group of trees condition relative to their present context (*i.e. not in relation to the proposed development*).

Legal Status: No statutory protection check has been performed. BS5837 does not draw any distinction between trees subject to statutory protection, such as a Tree Preservation Order ("TPO"), and those trees without. This is principally because a detailed planning consent overrides any TPO protection. Consequently, we do not seek to offer any comparison between or infer any difference in the quality or importance of TPO trees and other trees.

* For more information on the surveyed trees please see Arbtech Consulting Ltd, Tree Survey Schedule (Appendix 1), Tree Survey Report and Tree Constraints Plan.

Arboricultural Impact Assessment

Table 3: Documents upon which this assessment has been based

Document	Originator	Reference Number	Title
Survey base drawing	Compass Land Surveys	GDL\CO OP\01	Topographical Survey
Proposals	Aubourn Architecture	A079 – PL – 003 Rev A	Proposed Site Plan

There are a number of issues that may need to be addressed in an arboricultural impact assessment between the trees and the proposed development, these are as follows:

- The effect and extent of the proposed development within the root protection areas (RPAs) of retained trees;
- The potential conflicts of the proposed development with canopies of retained trees; and
- The likelihood of any future remedial works to retained trees beyond which would have been scheduled as a part of usual management.

Table 4: Impacts upon the RPAs of retained trees

These impacts can be seen on the Arboricultural Impact Assessment drawing number Arbtech AIA 01.

Tree Number	Species	Structure	Incursion
T02	Sycamore	Industrial Units	0.5% of RPA

Foundations for proposed industrial units cause a small incursion within the RPA of tree no. T02. Excavations within the RPA are to be carried out under arboricultural supervision.

Trees to be removed

The proposal does not require the removal of any trees. A breakdown of all tree removals and pruning works can be seen in Table 7: Summary of Tree Works.

Table 5: Number of individual trees to be removed.

U	A	B	C
0	0	0	0

Table 6: Number of groups to be removed. () indicates partial removal.

U	A	B	C
0	0	0	0

Tree Works

For reasons of public safety, all tree works referred to herein must be carried out prior to any site personnel commencing works or any building materials being delivered.

Table 7: Summary of Tree Works

No.	Species	Works	Category
T02	Sycamore	Prune to canopy to give 2m clearance from proposed industrial units.	B1

Notes

All tree work is to be undertaken in accordance with British Standard BS 3998:2010, Recommendations for tree work. All arising's are to be removed and the site is to be left as found. Care is to be taken of the ground around retained trees to make sure that it does not become compacted as a result of tree surgery operations. No equipment or vehicles such as timber Lorries, tractors, excavators or cranes shall be parked or driven beneath the crowns of any retained trees, to prevent subsequent compaction and root death.

Protected Species

Conservation Status of British Bats

The general consensus in Britain and Europe is that virtually all bat species are declining and vulnerable. Our understanding of population status is poor as there is very little historical data for most bat species. Certain species, such as the horseshoe bats, are better understood and have well documented contractions in range and population size.

Given this general picture of decline in UK Government within the UK Biodiversity Action Plan has designated five species of bats as priority species (greater and lesser horseshoe bats, barbastelle, Bechstein's and pipistrelle). These plans provide an action pathway whereby the maintenance and restoration of the former populations levels are investigated.

Legal Status of British Bats

Given the above position all British bats as well as their breeding sites and resting places enjoy national and international protection.

All bat species in the UK are fully protected under the Wildlife and Countryside Act 1981 (as amended) through inclusion in Schedule 5. All bats are also listed on Annex IV (and some on Annex II) of the EC Habitats Directive giving further, European protection. Taken together the act and Conservation of Habitats and Species Regulations 2012 (as amended)* make it an offence to; intentionally or deliberately kill, injure or capture (take) bats;

- Deliberately disturb bats (whether in a roost or not);
- Damage, destroy or obstruct access to bat roosts;
- Possess or transport a bat or any part of a bat, unless acquired legally;
- Sell, barter or exchange bats, or parts of bats

The legislation although not strictly affording protection to foraging grounds does protect roost sites. Bat roosts are protected at all times of the year whether or not bats are present. Any disturbance of a roost due to development must be licenced.

**the regulations that delivered by the UK's commitments to the Habitats Directive.*

Breeding birds

All nesting birds are protected under the Wildlife and Countryside Act (as amended) 1981, which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. Furthermore a number of birds enjoy further protection under that Act and are listed on Schedule 1 of the Act. These further protected birds are also protected from disturbance and it may be necessary to operate “no-go” buffer zones around such nests – typically out to 100m.

Planning policy guidance on the treatment of species identified as priorities under the biodiversity action programme suggests that local authorities should take measures to protect the habitats of these species from further decline through policies in local development documents and should ensure that they are protected from the adverse effects of development, where appropriate, by using planning conditions or obligations.

Appendix 1: Arboricultural Impact Assessment Plan

Tree Categories

Trees are categorised in accordance with the cascade chart in Table 1 of the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'

Category 'U' - Trees in such condition that they cannot realistically be retained as living trees in context of the current land use for longer than 10 years.
Category 'A' - Trees of high quality with an estimated remaining life expectancy of at least 40 years.
Category 'B' - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
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.

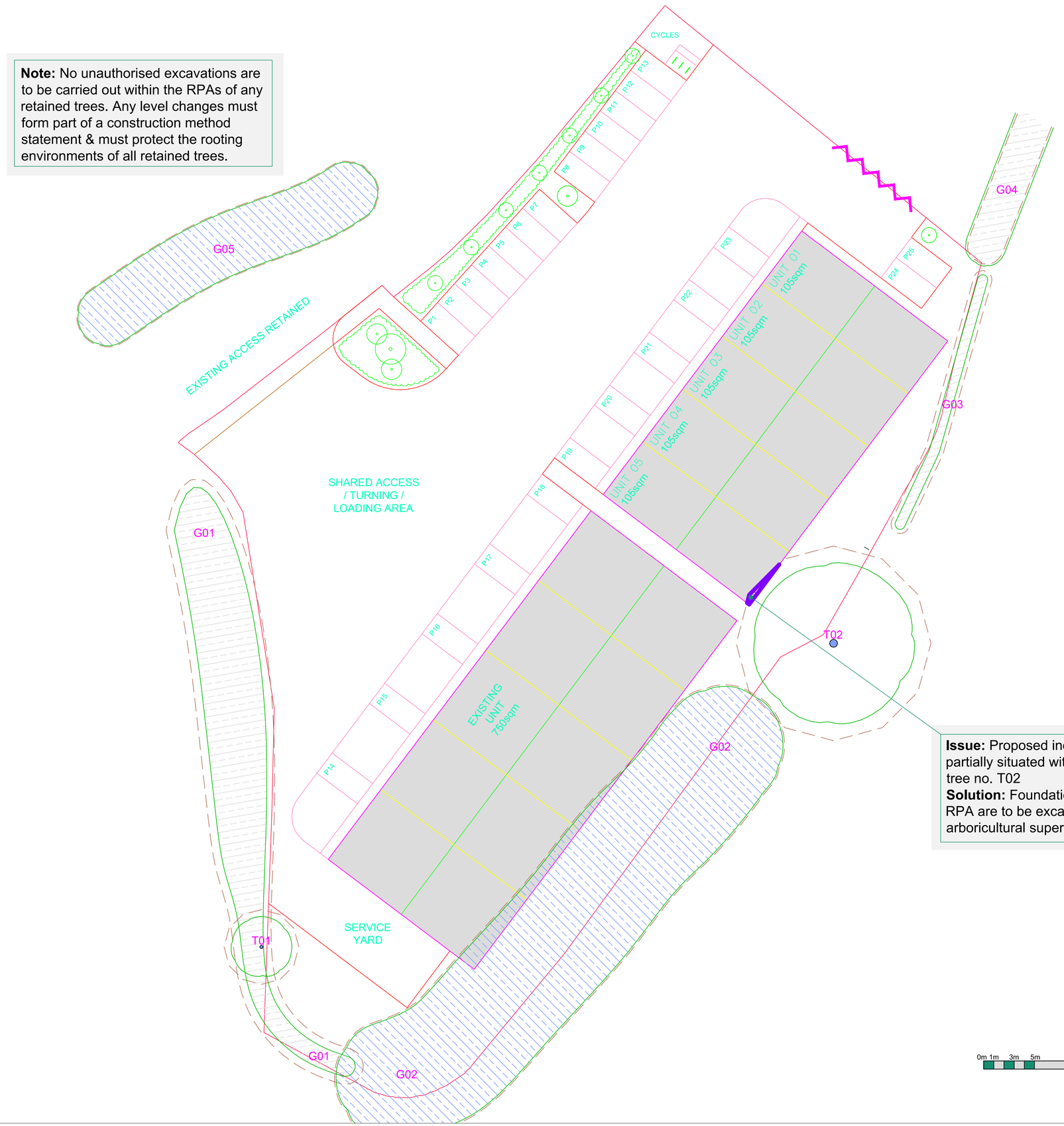
Root Protection Area

In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Areas (RPAs) should be plotted around each of the category A, B and C trees. This is a minimum area in m² which should be left undisturbed around each retained tree.

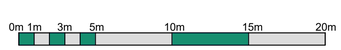
The RPA is calculated using the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations.

The calculated RPA is capped to 707m², which is the equivalent to a circle with a radius of 15m. Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.

Note: No unauthorised excavations are to be carried out within the RPAs of any retained trees. Any level changes must form part of a construction method statement & must protect the rooting environments of all retained trees.



Issue: Proposed industrial units are partially situated within the RPA of tree no. T02
Solution: Foundations within the RPA are to be excavated under arboricultural supervision.





Indicative only

Arboricultural Impacts

Impacts	Nos. of trees
Trees to be removed	0
Groups / Hedges to be removed (Partial removal of groups)	0 (0)
Trees with proposed incursions into RPAs	1
Groups / Hedges with proposed incursions into RPAs	0
Trees that will require pruning	1
Groups / Hedges that will require pruning	0
Trees to be transplanted	0
Groups / Hedges to be transplanted	0

No.	Species	Proposed structure	Incursion
T02	Sycamore	Proposed Units	RPA

Tree Work Schedule

No.	Species	Works	Category
T02	Sycamore	Prune canopy to give 2m clearance from proposed structure	B

All tree work is to be undertaken in accordance with British Standard BS 3998:2010 Tree work - Recommendations.
All arising's are to be removed and the site is to be left as found.
Care is to be taken of the ground around retained trees to make sure that it does not become compacted as a result of tree surgery operations. No equipment or vehicles such as timber lorries, tractors, excavators or cranes shall be parked or driven beneath the crowns of any retained trees, to prevent subsequent compaction and root death.

No. of individual trees to be removed

U	A	B	C
0	0	0	0

No. of groups / hedges to be removed

U	A	B	C
0 (0)	0 (0)	0 (0)	0 (0)

( ) = Partial removal of a groups

Arboricultural Method Statement

All tree work is to be undertaken in accordance with British Standard BS 3998. Please refer to Arbtech Consulting Ltd. Tree Schedule, Arboricultural Method Statement and Tree Protection Plan, for full details of all surveyed trees and how all aspects of the development maybe implemented without detriment to retained trees.

arb'tech
Unit 3, Well House Barns, Chester, CH4 0DH
https://arbtech.co.uk, 01244 661170

Project:
The Cooperative,
Well Street,
Cefn Mawr,
Wrexham
LL14 3YE

Client:
Garob Oswald Road Limited

Drawing:
Arboricultural Impact Assessment

Based on:
A079-PL-003 Rev A

Drawing No:	Rev:
Arbtech AIA 01	

Date:	Scale:	Drawn:
Jun 2025	1:200 @ A1	AST

Key:

Tree Nos.:	T1	Tree Canopies:		Trunks:	
RPAs:		Category 'B' trees:		Category 'B' groups:	
Category 'C' trees:		Category 'C' groups:		RPA Incursion - Structures:	
Proposed tree planting:					

All dimensions should be checked on site. No dimensions are to be scaled from this drawing.
Please notify us of any discrepancies found. Arbtech Consulting Ltd. cannot be held responsible for inaccuracies in the base drawing in which this plan is based.
This drawing is designed to reflect the principles of the layout or design only, and relates only to the protection of retained trees.
This drawing is not to be read as a definitive part of the engineering or construction designs or method statement. An architect or structural engineer should be contacted over any matters of construction, detailing or specification and for any standards or regulatory requirements relating to proposed structures, hard surfacing or underground services.
This drawing was produced in colour - a monochrome copy should not be relied upon.

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Appendix 2: Tree Survey Schedule

BS5837:2012 Tree Survey

Arbtech Consulting Ltd.
Chester Road
Chester
Cheshire
CH4 0DH
Phone: 01244661170
Mobile: N/A

Client: Garob Oswald Road Limited
Project: The Cooperative, Well Street, Cefn Mawr, Wrexham LL14 3YE
Survey Date: 12/05/2025
Surveyor: Shaun Rowe

Tree and Tag No / Species	Hght (m)	Stems No	Stems Ø (mm)	Crown Spread (m)	Crown Clear (m)	Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations / Survey Comment	Cat ERC
G01										Estimated Measurements	
A Group *See comments for details*	8	1	150	N 1 E 1 S 1 W 1	0 0 0 0	SM	A: 10.2 R: 1.8	Good	C: Good S: Good B: Not visible	Group located along site boundary. Shrub group containing semi mature self set trees. No access due to boundary fence. Species include hazel, ash, silver birch, sycamore and London plane. Unmanaged, dense group. Stem diameter is a maximum estimate.	**C.2** 10+ yrs
G02										Estimated Measurements	
Various *See comments for details*	12	1	500	N 6 E 6 S 6 W 6	0 0 0 0	EM	A: 113.1 R: 6	Good	C: Good S: Not visible B: Not visible	Group located to east of existing building. Trees located either side of boundary fence. No access. Limited visibility of group. Visible species include sycamore and goat willow. All share one aerodynamic crown. Stem diameter is a maximum estimate.	**B.2** 20+ yrs
G03										Estimated Measurements	
Various *See comments for details*	4	1	75	N 0.5 E 0.5 S 0.5 W 0.5	0 0 0 0	Y	A: 2.5 R: 0.89	Good	C: Good S: Good B: Not visible	Off site group along top of railway embankment adjacent to site boundary fence. Predominantly unmanaged shrub with young self set trees within. Species include ash and sycamore with dense brambles throughout. Stem diameter is a maximum estimate.	**C.2** 10+ yrs
G04										Estimated Measurements	
Various *See comments for details*	7	1	150	N 2 E 2 S 2 W 2	0 0 0 0	EM	A: 10.2 R: 1.8	Good	C: Good S: Not visible B: Not visible	Off site group along top of railway embankment adjacent to site boundary fence. Predominantly unmanaged shrub with semi mature self set trees within. Species include ash and sycamore with dense hawthorn throughout. Stem diameter is a maximum estimate.	**C.2** 10+ yrs

Age Classifications: N Newly planted; Y Young; SM Semi-mature; EM Early Mature; M Mature; OM Over Mature

Condition: C Crown; S Stem; B Basal area

Stems: Ø Diameter; (Eq) Equivalent stem diameter using BS5837:2012 definition

ERC: Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems No	Stems Ø (mm)	Crown Spread (m)	Crown Clear (m)	Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
G05										Estimated Measurements	
Various *See comments for details*	10	1	250	N 3 E 3 S 3 W 3	2 2 2 2	EM	A: 28.3 R: 3	Good	C: Good S: Good B: Not visible	Group location plotted indicatively to GPS and site features. Off site group. Species include birch, beech and ash. Stem diameter is a maximum estimate. Good landscape value.	**B.2** 20+ yrs
T01										Estimated Measurements	
Silver Birch *Betula pendula*	10	1	300	N 3 E 3 S 3 W 3	4 4 4 4	SM	A: 40.7 R: 3.59	Good	C: Good S: Good B: Not visible	Tree located within fenced off area to south of existing building. No access. Good landscape value.	**B.1** 20+ yrs
T02										Estimated Measurements	
Sycamore *Acer pseudoplatanus*	14	2	781 (Eq)	N 8 E 8 S 8 W 8	2 2 2 2	M	A: 276 R: 9.37	Good	C: Good S: Ivy B: Not visible	Off site tree located beyond boundary fence on railway embankment. Dense ivy from base. Beginning to spread to outer crown layer. Good landscape value.	**B.1** 20+ yrs

Age Classifications: N Newly planted; Y Young; SM Semi-mature; EM Early Mature; M Mature; OM Over Mature

Condition: C Crown; S Stem; B Basal area

Stems: Ø Diameter; (Eq) Equivalent stem diameter using BS5837:2012 definition

ERC: Estimated Remaining Contribution

Appendix 3: Contact Details

Name	Position	Company	Contact
	Client	Garob Oswald Road Ltd.	
	Tree Officer		
Alan Thompson	Arboricultural Consultant	Arbtech Consulting Ltd.	07703 676216 at@arbtech.co.uk
	Site Manager		
	Main contractor		
	Architect	Aubourn Architecture	

Document Production Record

Document number	Editor	Signature	Position	Issue number	Date
Arbtech AIA 01	Alan Thompson		Arboricultural Consultant	1	14/06/2025

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