SELWYNTREES

ARBORICULTURAL CONSULTANTS

ARBORICULTURAL IMPACT ASSESSMENT

Elsecar Heritage Centre, Wath Road, Elsecar, Barnsley, S74 8HJ

21 May 2025

REF: 0634 Rev. A

Prepared By:

Rachel Selwyn

Arboricultural Consultant

Prepared For

Barnsley Metropoliton Borough Council

Our Ref: 0634 Rev. A

Author:

Rachel Selwyn
Arboricultural Consultant

Reviewer:

Celia Selwyn
Selwyn Trees

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

Version Control

Issue	Revision No.	Date Issued	Page No.	Description	Reviewed By
A	1	21 May 2025	All	AIA	Celia Selwyn

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

1 Contents

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

2 Introduction

2.1.1 Barnsley Metropolitan Borough Council engaged Selwyn Trees to carry out an Arboricultural Impact Assessment for a site at **Elsecar HeritageCentre, Wath Road, Elsecar, Barnsley S74 8HU**

2.1.2 The purpose of this Arboricultural Impact Assessment report was to advise on any Arboricultural issues which relate to a proposed development. An initial Arboricultural Survey site visit was carried out on the 12th May 2025 by Selwyn Trees. The survey was carried out in accordance with BS5837: 2012- 'Trees in relation to Design, Demolition and Construction.

2.1.3 An application has been made to Barnsley Metropolitan Borough Council, for proposed new and amended drainage at the above site.

2.1.4 The following documents were provided:

Table 1- Reference documents

Document	Reference number
Proposal	084010-CUR-00-ZZ-D-C-92201_P07 Site Wide Drainage Option B
Proposal	084010-CUR-00-ZZ-D-C-92201_P07 Site Wide Drainage Option B-ModelBound250428
Topogrpahical survey	Topo-utilities survey MGS50100-UT-RevC

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

3 Policy and Guidance

National Planning Policy Framework (NPPF)

3.1.1 The following paragraphs within the NPPF[1] set out policies which guide the planning policy and decision-making process of Local Planning Authorities in relation to trees. These are:

3.1.2 **Paragraph 136:** "Trees make an important contribution to the character and quality of urban environments and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users."

3.1.3 **Paragraph 187:** "Planning policies and decisions should contribute to and enhance the natural and local environment by:

3.1.4 a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

3.1.5 b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

3.1.6 d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;

3.1.7 e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans;

3.1.8 **Paragraph 188**: "Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework65; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries

3.1.9 **Paragraph 192:** To protect and enhance biodiversity and geodiversity, plans should:

[1] https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

3.1.10 b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

3.1.11 **Paragraph 193:** When determining planning applications, local planning authorities should apply the following principles:

3.1.12 a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

3.1.13 c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

3.1.14 d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Guidance Documents

3.1.15 This AIA had been written making reference to, and in accordance with, the following guidance documents:

3.1.16 BS5837:2012 'Trees in relation to design, demolition and construction – recommendations'

3.1.17 BS3998:2010 Tree work – recommendations

3.1.18 NJUG 4 – National Joint Utilities Group "Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees. Volume 4, issue 2. London: NJUG 2007" To include Operatives Hand-out Guidance

3.1.19 BGS Open Source Soil Data http://www.bgs.ac.uk/nercsoilportal/maps.html

3.1.20 Cranfield University Soilscapes LandIS Land Information: http://www.landis.org.uk/services/soilscapes.cfm

3.1.21 'Guidance Note 12: The Use of Cellular Confinement Systems Near Trees: A Guide to Good Practice', by the Arboricultural Association (2020)

3.1.22 Ground Protection Practice Note GPPN8/21, Tree Root Protection using Temporary Access Trackways, By M J Oliver, Product Development Manager, GroundGuards

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

4 Desk-based Study

Statutory Tree Protection and Designation

TPO (Tree Preservation Order) and Conservation Area Status

4.1.1 According to the interactive map on the Barnsley Metropolitan Borough Council website, the site is within in a Conservation Area, and there are no TPOs (Tree Preservation Orders) on the site.

Physical Site Information

4.1.2 The site surveyed is at indicated below:

Figure 1- An aerial view of the site from Google Maps ©. The indicative site boundaries are approximately outlined in red.

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

4.1.3 The site is a Heritage centre with art & craft workshops, plus historic exhibits, shops & a kids' play areas. A day care centre, Railway Children Day Care, is situated within the site boundary to the North.

4.1.4 The main access into the site is via the north from Distillery Side and Wath Road.

4.1.5 A car park borders the site to the North. Wath Road borders the site to the West, and Forge Lane borders the site to the South. A woodland and Wentworth Road Car Park border the site to the South and Southwest. Buildings on the site are listed.

4.1.6 According to the Soilscapes Application (LANDIS) from the Cranfield Soil and Agrifood Institute (2024), the soil type within the site area is **"Slowly permeable seasonally wet acid loamy and clayey soils"**

4.1.7 The Bedrock geology of the site is "Pennine Middle Coal Measures Formation - Mudstone, siltstone and sandstone. Sedimentary bedrock formed between 318 and 309.5 million years ago during the Carboniferous period." according to BGS Geology Viewer: BGS Geology Viewer - British Geological Survey

4.1.8 Flood Risk and flood zone:

4.1.9 The Majority of the site is located within Flood Zone 1. Land within Flood Zone 1 has a low probability of flooding from rivers and the sea. The small section in the west of the site is located within Flood Zone 2. Areas within Flood Zone 2 have between a 1 in 1000 (0.1%) and 1 in 100 (1%) annual probability of flooding in any given year. Flood Zone 2 is considered a medium risk.

https://flood-map-for-planning.service.gov.uk/map?cz=466915.7,399030.3,19.66168

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

5 BS5837 Tree Survey & Tree Schedule

Survey Summary

5.1.1 An initial Arboricultural Survey site visit was carried out by Selwyn Trees on the 12th May 2025. The data was collected and report compiled by Rachel Selwyn, BSc (Hons) in Arboriculture and Urban Forestry, who has 10 years of experience working for Selwyn Trees and is a professional member of the Arboricultural Association.

5.1.2 The survey was carried out and the information provided in this report has been compiled in accordance with the relevant British Standard- BS5837:2012- 'Trees in relation to design demolition and construction recommendations. The purpose of this impact assessment report is to advise on any Arboricultural issues which relate to a proposed development.

5.1.3 The majority of the trees surveyed are situated within the northern and southern sections of the site. Two main groups consisting mostly of Sycamore, Maple, Ash, Alder, Silver Birch and Rowan are situated within the North of the site adjacent to the road, Distillery Side. These provide moderate amenity and screening value.

5.1.4 Around 4 Silver birch trees are situated within the southern section of the site. These provide some amenity value, situated adjacent to existing buildings.

5.1.5 A woodland is present offsite to the south of the site. Branches of this woodland group extend over Forge Lane and towards and over buildings on site. This woodland has high wildlife, arboricultural and amenity value, and was assigned retention Category A2.

5.1.6 The BS5837:2012 Arboricultural Survey with Schedule is shown on the following pages:

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

BS 5837 (v2012) - Tree Survey

SELWYNTREES
ARBORICULTURAL CONSULTANTS

BS5837 Retention Category:

- **A -** High Quality (40 years remaining contribution)
- **B -** Moderate Quality (20 years remaining contribution)
- **C -** Low Quality (10 years remaining contribution)
- **U -** Unsuitable for retention

RPA= Root Protection Area

Sub Category:

1- Mainly Arboricultural Qualities
2- Mainly Landscape Qualities
3- Mainly Cultural Qualities

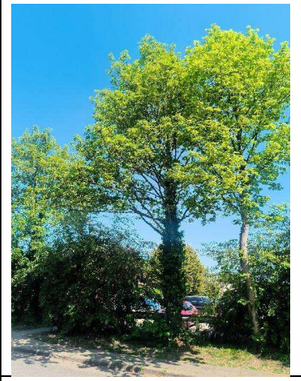
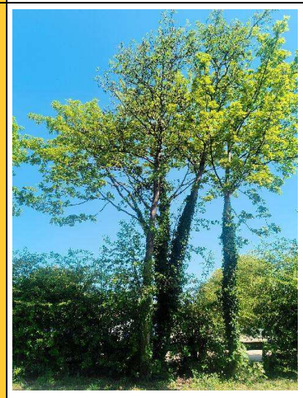
Caveats & Limitations:

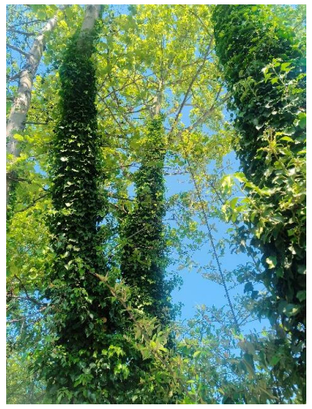
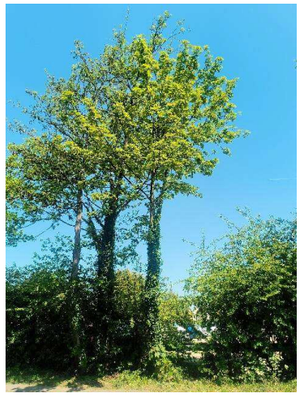
- This tree survey is to be limited to planning purposes only.
- This tree survey is not a tree risk assessment.
- This survey was undertaken from ground level using visual assessment.
- Where access was restricted attributes and dimensions were estimated.
- The weather condition on the day of the survey was: Dry

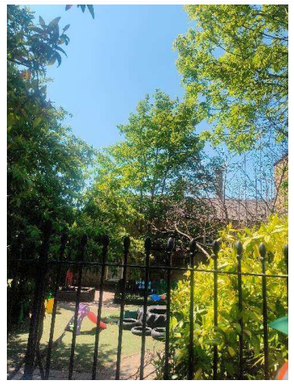
All trees should be inspected annually unless otherwise stated

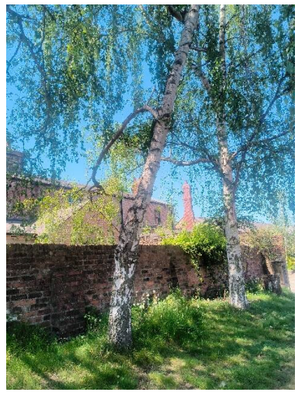
DATE OF SURVEY - 12 May 2025
CLIENT- Barnsley Metropolitan Borough Council
SITE- : Elsecar Hertiage Centre, Barnsley
REFERENCE- 0634- Tree Data Table- A
SURVEYOR- Rachel Selwyn

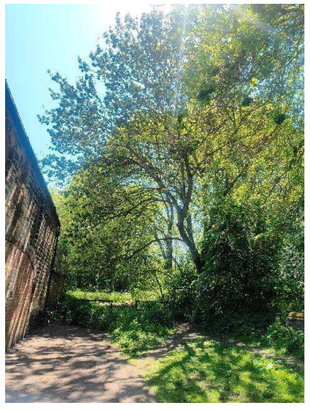
Tree Number	Tree, Stump or Group	Photo	Crown Clearance (m)	1st Branch (h) + Growth Dir + 1st Branch (l)	Species	Height (m)	Tree Trunk Diameter (mm) (Estimated)	RPA (m^2)	Root Radius (m)	Branch Spread (m)				Age Class	Comments	Recommendations	Estimated Remaining Years	Category Grade
										N	E	S	W					
T1	Tree		1.90	2.5m.South.2m	WHITEBEAM Sorbus aria	8.50	350 (Yes)	55	4.20	5.50	5.50	4.50	5.00	Mature (M)	Tree is situated adjacent to car park and pedestrian entrance way into the site. Tree has a spreading crown and good amenity value. Physiological condition is good. The tree has multiple stems at approximately 2- 2.5m. The unions are relatively tight and V-shaped and branches extend over parking areas. This is typcial of the species but the tight unions may pose an elevated risk of failure. Structure is fair. Branches extend over and are resting on the roof. Tree has good amenity value at the entrance way into the site	Monitor unions for cracking or decay annually	20 - 40 Years	B1
T2	Tree		1.30	2m.North East.1m	ROWAN [MOUNTAIN ASH] Sorbus aucuparia	4.00	129 (No)	7	1.50	2.50	2.00	1.50	2.00	Semi-Mature (SM)	Tree leans Northeast. The tree is not particularly large but does have some amenity value as it is adjacent to the main road. Physiological condition is good. Structural condition is fair. The crown is somewhat busy with some crossing and merging branches. Tree provides moderate amenity value.	No preliminary work recommended	20 - 40 Years	B2
T3	Tree		5.20	3m.South West.4m	NORWAY MAPLE Acer platanoides	13.00	288 (No)	41	3.60	3.00	3.50	4.00	3.00	Semi-Mature (SM)	Tree is situated North of road in verge. Understory shrubs around the trees. Tree is growing over pedestrian path, car park and road. Physiological condition is good. Tree has 2 stems and the smaller the stem has been reduced. Tree has some amenity value and arboricultural value. It is growing as part of a group line of trees which screen the car park from the road.	No preliminary work recommended	20 - 40 Years	B2

Tree Number	Tree, Stump or Group	Photo	Crown Clearance (m)	1st Branch (h) + Growth Dir + 1st Branch (l)	Species	Height (m)	Tree Trunk Diameter (mm) (Estimated)	RPA (m^2)	Root Radius (m)	Branch Spread (m)				Age Class	Comments	Recommendations	Estimated Remaining Years	Category Grade
										N	E	S	W					
T4	Tree		4.50	3.5m.North West.4m	SYCAMORE Acer pseudoplatanus	14.00	360 (No)	55	4.20	4.00	4.00	5.50	5.00	Semi-Mature (SM)	Tree is situated within verge between road and car park. It is growing as part of a group line of trees. Ivy restricted inspection Physiological condition appears good and structural condition appears good. Tree provides screening and amenity value as part of a group.	No preliminary work recommended	20 - 40 Years	B2
T5	Tree		4.00	4m.South West.4m	SYCAMORE Acer pseudoplatanus	12.50	257 (No)	28	3.00	4.00	3.00	5.00	2.00	Semi-Mature (SM)	Tree is situated growing in a verge between the car park and road. It is growing as part of a line of trees and is affected by group pressure. Physiological condition is good. Structural condition is good. Future growth can be expected of this tree. Tree provides screening and amenity value as part of a group.	No preliminary work recommended	20 - 40 Years	B2
T6	Tree		5.50	4.5m.West.5m	COMMON ALDER Alnus glutinosa	14.00	448 (Yes)	92	5.40	3.00	4.00	5.00	3.50	Mature (M)	Tree a situated growing in a line of trees. It has two stems joined at the base. One stem leans South towards the road but this does broadly correct. Ivy is present on all stems limiting inspection to some extent. Physiological condition is good. Structural condition is fair. Tree provides screening and amenity value as part of a group.	Remove the ivy and inspect union at a base.	20 - 40 Years	B2

Tree Number	Tree, Stump or Group	Photo	Crown Clearance (m)	1st Branch (h) + Growth Dir + 1st Branch (l)	Species	Height (m)	Tree Trunk Diameter (mm) (Estimated)	RPA (m^2)	Root Radius (m)	Branch Spread (m)				Age Class	Comments	Recommendations	Estimated Remaining Years	Category Grade
										N	E	S	W					
T7	Tree		6.00	5m.North West.5m	SYCAMORE Acer pseudoplatanus	14.00	330 (Yes)	48	3.90	5.50	4.00	3.00	6.00	Semi-Mature (SM)	Tree is situated in close proximity to a twin stemmed Alder (T6) Tree is significantly affected by group pressure and crown appears slightly sparse Physiological condition is fair. Structural condition is good. Ivy limited inspection. Tree has modertae amneity value growing as part of a group	Remove the ivy	20 - 40 Years	B2
T8	Tree		5.00	5m.South West.4m	SYCAMORE Acer pseudoplatanus	13.00	290 (No)	41	3.60	4.00	4.00	5.00	2.00	Semi-Mature (SM)	Tree is ivy clad and is situated growing as part of a group line of trees between car park and road. Ivy limited inspection. Tree has quite a high crown. Physiological condition appears good structural condition appears fair. Future growth can be expected. Tree provides screening and amenity value as part of a group.	No preliminary work recommended	20 - 40 Years	B2
T9	Tree		4.50	5m.South East.3m	COMMON ALDER Alnus glutinosa	14.00	330 (No)	48	3.90	3.00	4.00	4.00	2.00	Semi-Mature (SM)	Tree is situated on verge between car park and road. The tree has an edge structure and a high crown. Ivy present limiting inspection. Minor dieback visible on the Northeast side of the crown and at the top of the crown. Physiological condition is fair, structure is good.Tree provides some amenity value as part of a group.	Sever ivy	20 - 40 Years	B2

Tree Number	Tree, Stump or Group	Photo	Crown Clearance (m)	1st Branch (h) + Growth Dir + 1st Branch (l)	Species	Height (m)	Tree Trunk Diameter (mm) (Estimated)	RPA (m^2)	Root Radius (m)	Branch Spread (m)				Age Class	Comments	Recommendations	Estimated Remaining Years	Category Grade
										N	E	S	W					
T10	Tree		3.50	1.9m.South.5m	COMMON ASH Fraxinus excelsior	11.00	207 (No)	18	2.40	4.50	4.00	4.50	4.50	Semi-Mature (SM)	A street tree situated within a planting pit within the pavement. Physiological condition is reduced with Ash Dieback Disease suspected. Canopy appears slightly sparse and total canopy deadwood estimated to be around 30%. Deadwood diameter maximum is at around 30mm.	Monitor for Ash Dieback Disease progression	10 - 20 Years	C2
T11	Tree		2.00	1.9m.East.4m	SYCAMORE Acer pseudoplatanus	12.00	300 (Yes)	41	3.60	3.50	4.00	4.00	4.00	Semi-Mature (SM)	Access was restricted. Inspection was limited and measurements were estimated. Tree is situated within Day Care Nursery playground, against building. Physiological condition appears good. Significant future growth can be expected of this tree. Structure appears good but can be expected to grow larger in size and may affect the building in future.	No preliminary work recommended	20 - 40 Years	B2
T12	Tree		1.60	1.7m.South East.3m	SILVER BIRCH Betula pendula	11.00	113 (No)	7	1.50	3.00	3.00	3.00	1.00	Semi-Mature (SM)	A relatively young tree situated in a a raised plant bed adjacent to building. Significant future growth can be expected of this tree. Physiological condition is good. Structural condition is good.	No preliminary work recommended	10 - 20 Years	C2

Tree Number	Tree, Stump or Group	Photo	Crown Clearance (m)	1st Branch (h) + Growth Dir + 1st Branch (l)	Species	Height (m)	Tree Trunk Diameter (mm) (Estimated)	RPA (m^2)	Root Radius (m)	Branch Spread (m)				Age Class	Comments	Recommendations	Estimated Remaining Years	Category Grade
										N	E	S	W					
T 13	Tree		2.50	2.5m.South East.3m	SILVER BIRCH Betula pendula	16.00	300 (No)	41	3.60	4.50	3.50	4.50	2.00	Mature (M)	Tree is situated in a raised banking growing as part of the group of trees. A tree to the North of this tree has previously been removed. This tree is slightly unbalanced, likely as due to the presence of a previous tree. But overall physiological condition is good. Structural condition is good. Tree provides amenity value as part of a group.	No preliminary work recommended	20 - 40 Years	B2
T 14	Tree		2.00	4m.West.3.5m	SILVER BIRCH Betula pendula	13.00	265 ()	34	3.30	3.50	3.00	3.00	5.00	Mature (M)	Tree is growing on a raised banking as part of a group of trees. It is affected by group pressure and is distorted North from 2m upwards. The upper section of the tree does correct to some extent. A cavity is present on the main stem on the East side at around 3m. Physiological condition is good. Structural condition is fair. Tree provides amenity value as part of a group.	No preliminary work recommended	20 - 40 Years	B2
T15	Tree		2.00	3.5m.West.3m	SILVER BIRCH Betula pendula	16.00	390 (Yes)	72	4.80	4.00	3.50	3.00	5.00	Mature (M)	Tree is the edge tree of a line of trees situated on a raised banking. The physiological condition appears good. Structural condition appears good. Minor ivy is present on the main stem. Tree provides amenity value as part of a group.	No preliminary work recommended	20 - 40 Years	B2

Tree Number	Tree, Stump or Group	Photo	Crown Clearance (m)	1st Branch (h) + Growth Dir + 1st Branch (l)	Species	Height (m)	Tree Trunk Diameter (mm) (Estimated)	RPA (m^2)	Root Radius (m)	Branch Spread (m)				Age Class	Comments	Recommendations	Estimated Remaining Years	Category Grade
										N	E	S	W					
T16	Tree		2.00	1.5m.East.4m	COMMON ASH Fraxinus excelsior	18.00	650 (Yes)	191	7.80	9.00	9.00	5.00	7.00	Mature (M)	Tree is situated off-site on the edge of woodland group G3. It is situated on a rasied banking adjacent to the stone bridge. The crown extends over pedestrian footpath and towards and over one of the Heritage buildings on site. The overhang over this building is approximately up to 1.5m. This is a large tree. The crown appears slightly thin and Ash Dieback Disease is suspected. Current canopy deadwood is probably at around 10 to 20%. Low hanging branches are present on the East side with canopy clearance approximately 2.2m. Maximum diameter deadwood estimated at around 40mm. This is the largest tree in proximity to the Heritage centre.	Monitor for Ash Dieback Disease progression	20 - 40 Years	B2
Trees should be re-inspected on an annual basis unless otherwise specified; by a suitably qualified Arboriculturist, providing up to date tree survey recommendations.							**Notes:**											

BS 5837 (v2012) - Tree Survey- Groups

SELWYNTREES
ARBORICULTURAL CONSULTANTS

BS5837 Retention Category:

A - High Quality (40 years remaining contribution)

B - Moderate Quality (20 years remaining contribution)

C - Low Quality (10 years remaining contribution)

U - Unsuitable for retention

RPA= Root Protection Area

Sub Category:

1- Mainly Arboricultural Qualities

2- Mainly Landscape Qualities

3- Mainly Cultural Qualities

Caveats & Limitations:

- This tree survey is to be limited to planning purposes only.
- This tree survey is not a tree risk assessment.
- This survey was undertaken from ground level using visual assessment.
- Where access was restricted attributes and dimensions were estimated.
- The weather condition on the day of the survey was: **Dry**

All trees should be inspected annually unless otherwise stated

DATE OF SURVEY - 12th May 2025

CLIENT- Barnsley Metropolitan Borough Council

SITE- : Elsecar Heritage Centte Barnsley

REFERENCE-0 634- Tree Data Table- A

SURVEYOR- Rachel Selwyn

Tree Group	Photo	Tree Count	Average Height (m)	Average DBH (mm)	Root Protection Area (RPA) (m^2) (For individual trees within the group)	RPA radius (For individual trees within the group)	Area (sq m)	Predominant Species	Comments	Recommendations	Estimated Remaining Years	Category Grade
G1		8	10.00	230	24	2.8m	188.42	Betula pendula SILVER BIRCH Sorbus aucuparia ROWAN (MOUNTAIN ASH)	A group consisting of approximately 4 x Silver birch and 4 x Rowan trees. Access was restricted to inspect and measure. All measurements estimated. All are growing in a line and have a similar diameter, of up to 230mm. Minimum height 8m. Maximum height 13m. Physiological condition and is good. Ivy is present on some stems limiting inspection. Branches overhang the pedestrian pavement by up to 3m at the furthest extent. Canopy clearance on the North side over the pavement is currently at around 2m. Canopy clearance on the South side is at around 2m. Branches on the South side extends towards and slightly over temporary cabins. The trees in this group provide amenity value as part of a group.	No preliminary work recommended	20 - 40 Years	B2
G2		4	9.00	150,150,180,180,130	57	4.3m	110.62	Fraxinus excelsior COMMON ASH ALDER Prunus spp.	A group consisting of approximately 4 x trees in the grounds of the nursery. Access was restricted to inspect. Species consist of 2 x Ash, 1 x Alder and 1 x Prunus spp. . Minimum height 6m. Maximum height 11m. Branches of this group overhang the pavement by up to 3m. Clearance of the lowest branches are at around 2.2m on the north and north-east side. Physiological condition is generally good apart from the Ash which are showing minor dieback. Ash Dieback Disease is suspected. Current deadwood percentage is estimated at less than 10%. Group provides screening value for the Day Care nursery.	Monitor for Ash Dieback Disease Progression	20 - 40 Years	B2
G3		20	17.00	500	113	6m	1,525.44	Fraxinus excelsior COMMON ASH	A woodland group situated adjacent to a public footpath and the Heritage Centre site. Group predominantly consists of Ash but understory Hawthorn and Laburnum are also present. Tarmac of Forge Lane is present between this woodland trees and the site. Maximum diameter is approximately 600mm. Minimum diameter is 7m. Maximum diameter is 17m. This group from part of a larger woodland group whihc extends south adn east around Elsecar Heritage Centre. It has high Wildlife, Arboricuultural and amenity value	No preliminary work recommended	40 + Years	A2
Trees should be re-inspected on an annual basis unless otherwise specified; by a suitably qualified Arboriculturist, providing up to date tree survey recommendations.							**Notes:**					

Landscape context images.

Photo 1: Looking North/ Northwest towards trees T3- T9.

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

Photo 2 Looking West towards G1

Photo 3: Looking South towards G2 and T10

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

Photo 4: Looking South/ Southwest towards G3

Photo 5: Looking Southeast towards T16 and G3

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

Photo 6: Looking Southwest towards trees T13, T14 & T15

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

Photo 7: Looking Southwest towards group G1.

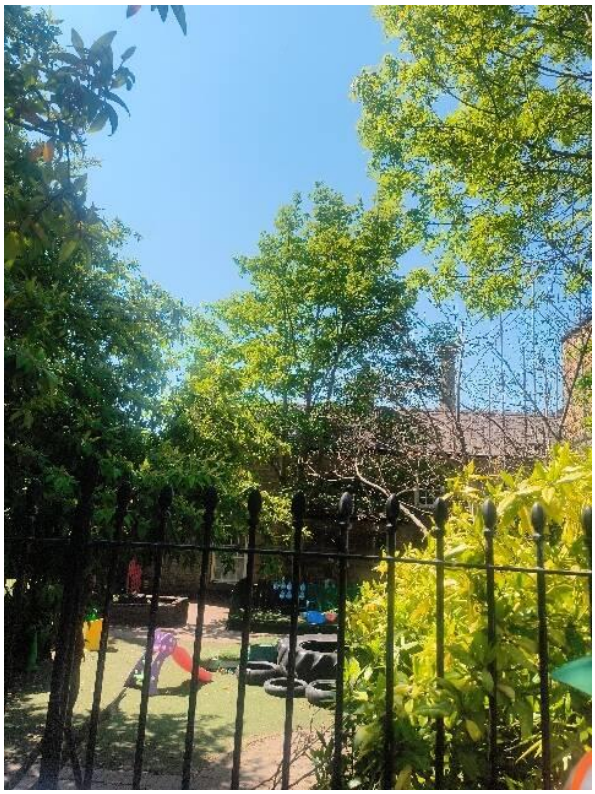


Photo 8: Looking Southwest towards tree T11, situated within Daycare paly area.

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

Photo 9: Looking west towards tree T10

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

6 Tree Constraints Plan:

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

Photo 1: Looking west towards G1:

Photo 2: Looking northwest towards trees T3-T9:

The default position as outlined in BS5837:2012 is that all new development should be located outside of RPAs, and crown spreads of trees to be retained.

All new utilities and service runs need to be located outside of RPAs of retained trees.

Within RPAs of retained trees and hedges, there must be no excavation, no soil piling, no storage of materials, no spillage of construction waste and no spoil thrown out on or near RPAs. Site operations with regards to protecting trees need to take into account the RPAs.

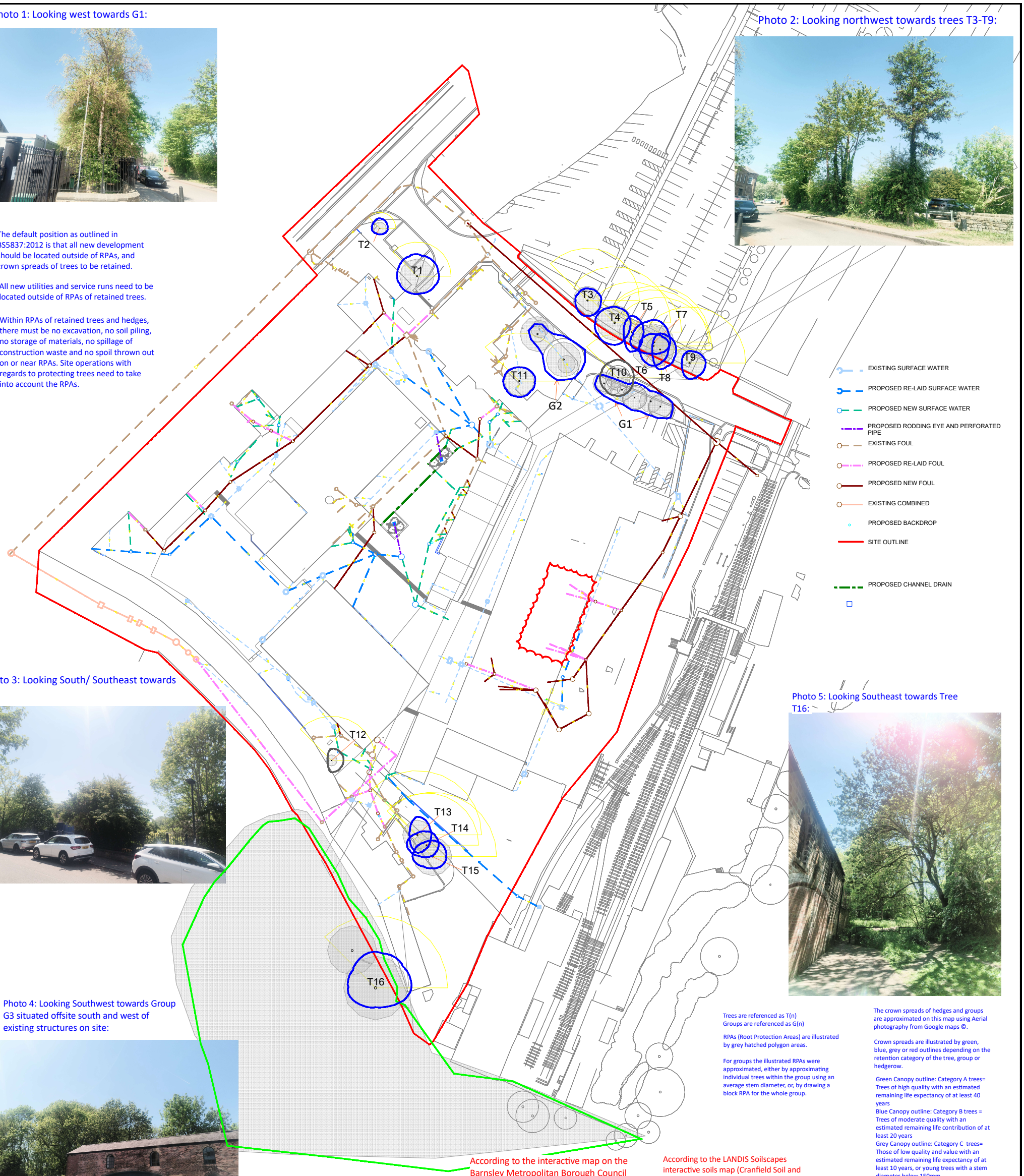


Photo 3: Looking South/ Southeast towards G2:

Photo 5: Looking Southeast towards Tree T16:

Photo 4: Looking Southwest towards Group G3 situated offsite south and west of existing structures on site:

Trees are referenced as T(n)
Groups are referenced as G(n)

RPAs (Root Protection Areas) are illustrated by grey hatched polygon areas.

For groups the illustrated RPAs were approximated, either by approximating individual trees within the group using an average stem diameter, or, by drawing a block RPA for the whole group.

The crown spreads of hedges and groups are approximated on this map using Aerial photography from Google maps ©.

Crown spreads are illustrated by green, blue, grey or red outlines depending on the retention category of the tree, group or hedgerow.

Green Canopy outline: Category A trees= Trees of high quality with an estimated remaining life expectancy of at least 40 years
Blue Canopy outline: Category B trees = Trees of moderate quality with an estimated remaining life contribution of at least 20 years
Grey Canopy outline: Category C trees= Those of low quality and value with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm
Red Canopy outline: Category U trees = Those in such a condition that cannot realistically be retained as living trees in the context of the current land use for longer than 10 years

According to the interactive map on the Barnsley Metropolitan Borough Council website, the site is within a Conservation Area and there are no TPOs (Tree Preservation Orders) on site.

According to the LANDIS Soilscapes interactive soils map (Cranfield Soil and Agrifood Institute 2025), the soil type in the area of the site is "Slowly permeable seasonally wet acid loamy and clayey soils".

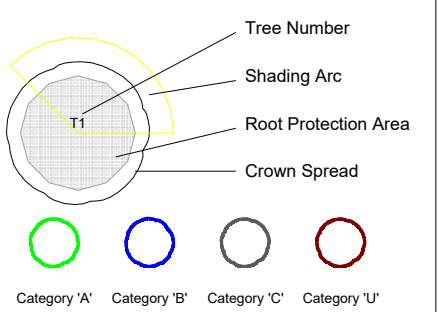


Photo 6: Looking Northwest towards G1:

Trees were plotted on an existing topographical survey.

Some trees were not shown on the topographical survey. These trees and groups were positioned and plotted using a GPS receiver. However, there may be error margins with GPS receivers. Therefore, these tree & group positions are APPROXIMATE ONLY. If accurate tree positioning is required for these trees, the topographical survey will require updating.

Do not scale from these drawings. All measurements should be checked on site. If in doubt, ask.

SELWYNTREES
ARBORICULTURAL CONSULTANTS

30 Tickhill Road Doncaster
South Yorkshire DN4 8QE

01302 816850
info@selwyntrees.co.uk

Tree Constraints Plan, Elsecar Heritage Centre, Wath Rd, Elsecar, Barnsley, S74 8HJ

SCALE : 1 : 950 @ A3

DATE : 21/05/2025

N

MAP FILENAME : TCP Elsecar Heritage Centre- Rev. A

7 Arboricultural Impact Assessment

7.1.1 The proposal is for amended and new drainage on the site. The plan "084010-CUR-00-ZZ-D-C-92201_P07 Site Wide Drainage Option B" shows the proposed drainage routes and amendments. .

Direct conflicts and Impacts

Tree removals and pruning for development:

7.1.2 No trees require removing for this proposal

Tree pruning required:

7.1.3 Clearance is currently over 4.5m for most trees lining the road Distillery Side. No tree pruning is envisaged to be required to excavate for new or re-laid drainage routes.

RPA (Root Protection Area) encroachments

7.1.4 The Proposed Re-Laid Surface Water routes, do not encroach into RPAs of any existing trees.

7.1.5 The Proposed New Surface Water routes, do not encroach into RPAs of any existing trees.

7.1.6 The Proposed Rodding Eye and Perforated Pipes, do not encroach into RPAs of any existing trees.

7.1.7 The Proposed Re-laid Foul routes do not encroach into RPAs of any existing trees.

7.1.8 The Proposed New Foul routes do not encroach into RPAs of any existing trees.

7.1.9 The Proposed Channel Drain does not encroach into RPAs of any existing trees.

7.1.10 See the Tree Constraimnts Plan and document "084010-CUR-00-ZZ-D-C-92201_P07 Site Wide Drainage Option B" which show the proposed drainage routes.

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

Indirect conflicts and Impacts

Access close to RPAs during development by construction traffic.

7.1.11 The Proposed New Foul would be adjacent to the edge of the RPA of group G1. Whilst it does not encroach into the RPA, sensitive working using air excavation is recommended for excavation of this drainage route, to minimise any overspill into the RPA during excavation.

7.1.12 Construction traffic, including pedestrians and machinery, have the potential to compact the soil within RPAs. Soil compaction reduces pore spaces which are necessary or water and oxygen availability for tree roots. Construction traffic including foot traffic can reduce these pore spaces, which can reduce the health of trees.

Preventing access within RPAs and preventing accidental mechanical damage to crowns of trees during Development

7.1.13 Construction machinery, plant and vehicles may cause physical damage to trees during construction. Such plant may also cause compaction to the rooting areas of trees in the surrounding areas. Compaction reduces pore spaces in the soil, suffocating tree roots, which can lead to root death and the decline of trees.

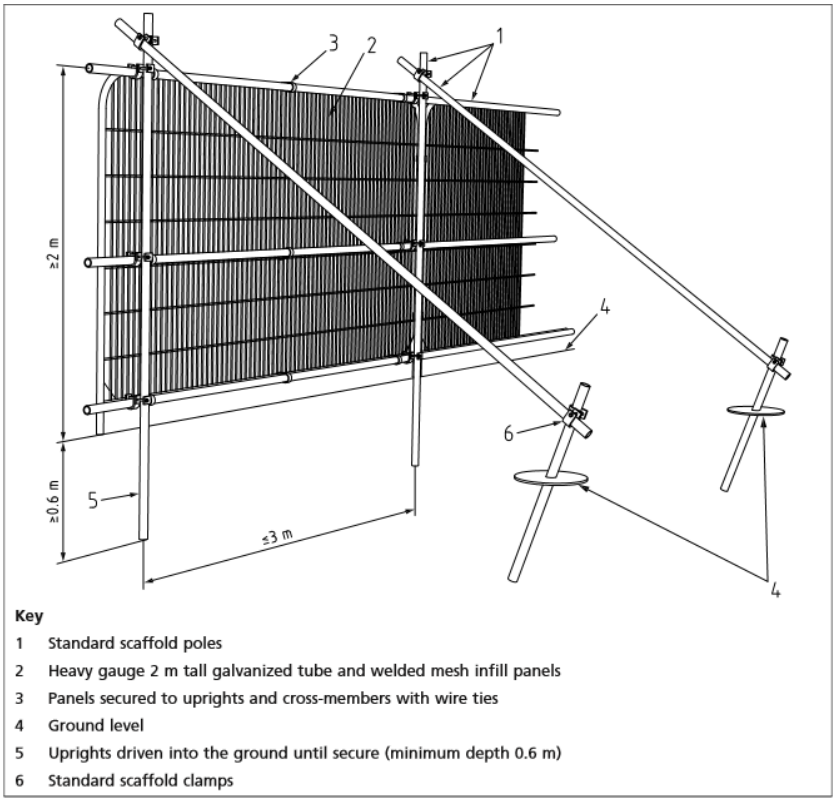
7.1.14 Tree Protection Fencing shall be installed to prevent access within the RPAs of retained trees during development.

7.1.15 Protective fencing will be strong enough to withstand accidental strikes by machinery, plant or booms to prevent mechanical damage or compaction damage to trees to be retained.

7.1.16 No materials or construction debris shall be stored within the protective fencing around the RPAs of any retained trees on site.

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

7.1.17 The areas within the Tree Protection fencing shall be known as the Construction Exclusion Zone. The type of tree protection fencing that shall be used is shown below:



Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Figure 2- The type of protective fencing to be used is shown above taken from BS5837:2012 'Trees in relation to Design, Demolition and Construction- recommendations'

Figure 4- Tree Protection Signs attached to tree protection fencing

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

7.1.18 Fixed to the outside of the fencing will be words such as 'TREE PROTECTION AREA – NO ACCESS OR WORKING WITHIN THIS AREA'. These notices will be fixed to the fencing using suitable fixings such as tie wires and should be at least A3 in size and laminated

7.1.19 Tree Protection fencing shall be installed before the development commences and remain in place throughout development, only being removed once development has been completed and all machinery and materials have been removed from the site.

Storage of materials, car parking and welfare areas

7.1.20 Construction working parking can be accommodated within the existing car park areas to the north and within the existing hard surfacing areas within the east of the site.

7.1.21 Some material storage can be accommodated within the eastern areas of the site. Storing materials within the RPAs of trees must be avoided. Tree Protection Fencing shall be installed to restrict access to RPAs for materials storage.

Construction Access ways

7.1.22 The access road Distillery side, is envisaged to be the main access way for construction access. This includes transporting materials into the site and removing any material from the site.

7.1.23 All materials and debris shall be transported in and out of the site via this access way.

7.1.24 Materials shall not be stored within RPAs of any trees on site.

Future pressure to prune trees:

7.1.25 Clearance is currently over 4.5m over Distillery Side, for trees T3-T10, G1 & G2. It is possible future growth can be expected of pendulous branches of these trees over this road, but if so, it would be unlikely to become a significant impediment for vehicular access.

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

Onsite consultation and Supervision

7.1.26 An onsite meeting will be held with all relevant parties; including the developer, appointed Arboricultural supervisor and Local Planning Authority (LPA) representative to outline the methods of **construction.**

Report compiled by:

Rachel Selwyn
Signed…… Date 21 May 2025

The following appendices give some further general information including tree categorisation, protective fencing and ground root protection for trees within RPAs

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

Appendix A- Tree Works Schedule

No tree work is required for this development.

Appendix B- Arboricultural Survey information & Key

This report takes into account the findings from this visit. Quantitative data is provided on tree species, height, diameter, age class, crown spread, British Standard category, crown clearance, and a brief assessment of tree condition and future potential. Trees found to be structurally dangerous or in poor condition are identified.
The location of the trees with their calculated Root Protection Area (RPA) is shown in the tree constraints plan in the next chapter.

All data for each tree is presented in table format. The survey includes the information below:

Tree Survey Table Key:

Survey Reference number- Trees were tagged.
Species- Species identification is based on visual observation with the common English name given first and the botanical name given in italics. If the species was not identified it is marked as Unidentified.
Tree Heights - These were measured in metres using laser technology. Where access was limited or there was little visibility due to overcrowding, heights were estimated.
Stem no. – Number of stems
Ø (mm)= Stem diameter measured at 1.5m above ground level - Measured using diameter tape in mm at 1.5m above ground level. In the case of grouped trees, the largest diameter was recorded.
Stem Diameters -
Crown Spread - The crown spread was measured in metres in the North, South, East, and West directions. Where access was limited crown spread was estimated.
Crown Clearance - the height of the first significant branch was measured. Where access or visibility is limited, this was estimated.
Age class - trees were recorded as young, semi-mature, early mature, mature, and over-mature as prescribed in BS 5837:2012.
RP - Root Protection

- **A (m^2)=** Area
- **R (m)=** radius

Condition – tree condition was recorded particularly concerning structural and/or physiological conditions (eg. The presence of decay, physical defects, and/or preliminary management recommendations)
Where trees are grouped or in the case of woodlands, the condition stated will be typical of the feature. Groups of trees and woodlands are represented and the RPA will be included in the total area shown. The RPA will be calculated by taking an average measurement of stem diameter.
Deadwood -
Minor deadwood- less than 25mm in diameter
Moderate deadwood- 25-50mm in diameter
Major deadwood – Greater than 50mm in diameter
P = Physiological condition
S = Structural Condition
Those trees marked 'Good' can generally be classed as having good overall structural and physiological condition. They usually contribute significantly to the local or site amenity.

Those trees marked 'Fair' can generally be classed as having reasonable structural and physiological condition. They may contain smaller areas of included bark within either major or minor fork junctions. They may be subject to single or multiple fungal invasions, bacteria or viruses. They may be subject to minor crown dieback, unusually pale or smaller

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

foliage or have been subjected to outside influences such as restriction of rooting spread, vandalism or mechanical damage, but should be viewed as in generally good overall condition.

Those trees marked 'Poor' can generally be classed as having poor overall structural or physiological condition. They may contain large areas of included bark either within major fork junctions. They may be subject to single or multiple fungal invasions, bacteria or viruses. They may contain splits or cracks throughout the branching structure. They may be subject to significant crown dieback or exhibit unusually pale or small foliage. They may be subject to outside influences such as restriction of rooting spread, vandalism or mechanical damage and are costly to retain.
Estimated Remaining Contribution/ Life Expectancy – estimated (eg. Less than 10 years, 10-20 years, 20 – 40 years, 40+ years)

Root Protection Area (RPA)

An RPA is a calculation which estimates the area of soil around a tree needed to ensure the survival of retained trees.

By considering the RPAs and existing site features (including natural and man-made topography) and by adopting construction and tree protection techniques that minimise root disturbance, successful construction projects can be achieved

Root Protection Area (RPA) Calculations
All trees in retention categories A, B, C and U have their RPA calculated and the RPA figure given represents the radial distance, from the tree's trunk, at which barriers should be erected. The calculation for the RPA is as per section 4.6 of BS 5837:2012.

For single-stem trees, the RPA should be calculated as an area equivalent to a circle with a radius 12 times the stem diameter. For trees with more than one stem, one of the two calculation methods below should be used. In all cases, the stem diameter(s) should be measured in accordance with Annex C, and the RPA should be determined from Annex D. The calculated RPA for each tree should be capped at 707 m2.

a) For trees with two to five stems, the combined stem diameter should be calculated as follows:

$$\sqrt{(Stem\ diameter\ 1)^2 + (Stem\ diameter\ 2)^2 \ldots + (Stem\ diameter\ 5)^2}$$

b) For trees with more than five stems (not illustrated in Annex C), the combined stem diameter should be calculated as follows:

$$\sqrt{(mean\ stem\ diameter)^2\ x\ number\ of\ stems}$$

N.B. Where all stem diameters were not accessible, this averaging formula has been adopted.
The RPA for each tree should initially be plotted as a circle centred on the base of the stem. Modifications to the shape of the RPA should reflect a soundly based Arboricultural assessment of likely root distribution.

Any deviation in the RPA from the original circular plot should take account of the following factors whilst still providing adequate protection for the root system: a) the morphology and disposition of the roots, when influenced by past or existing site conditions (e.g. the presence of roads, structures and underground apparatus); b) topography and drainage; c) the soil type and structure; d) the likely tolerance of the tree to root disturbance or damage, based on factors such as species, age, condition and past management.

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

Appendix C: Caveats and Limitations

This survey has been undertaken in compliance with BS5837:2012; it is not intended to be a tree safety survey. Tree inspection was carried out from ground level using the Visual Tree Assessment methodology. The survey did not include any climbing or investigation beyond what was visible from access points. Digital Scanning Software and other decay detection methods were not available to detect internal decay. No soil samples were taken. Any structural defects present may not be visible, for example being masked by vegetation, whether the tree's foliage, plants growing around the base of the tree, or climbing plants growing on the stem and into the crown.

This report includes an evaluation of the tree(s) on the day the site visits were made. Where access was limited, measurements were estimated. This report takes into account findings from these visits. Where similar trees are growing in large groups, their height and diameter may be estimated. Trees were surveyed if they affected the site and if their diameters at 1.5m exceeded 150mm in a woodland setting (75mm for individual trees).

This Arboricultural survey is valid only for typical weather conditions. Healthy trees, or parts of healthy trees, may fail at any time. Structural failures occur when the stresses due to the forces acting on a tree exceed the strength of the tree structure or the tree–soil connection supporting the tree. Even a structurally strong tree, free of defects, will fail when a load is applied that exceeds the load-carrying capacity of one or more of its parts. Most tree structural failures involve a combination of structural defects or conditions, such as the presence of decay or poor structure and an unusual or extreme loading event, such as strong wind. Every effort has been made to identify defects or hazards but no guarantee can be given for their safety. Healthy trees may fail in unusually high or unpredictable winds or violent storms and as the consequences of such weather phenomena are unforeseeable, Selwyn Trees cannot be held liable for any such failures.

Unless otherwise stated, the survey data should be considered time-limited for planning purposes to a maximum of 1 year.

Any legal descriptions stated or given by the consultant are understood to be accurate. Selwyn Trees will not assume responsibility for legal matters that arise from this survey, and will not be required to act as a legal witness to give testimony or attend court unless agreed arrangements are subsequently made.

Land managers are responsible for any work on surveyed trees or for carrying out any recommendations.

Appendix D: Author's Qualifications and experience

Rachel Selwyn BSc (Hons) Arboriculture and Urban Forestry, MArborA, QTRA registered.
Rachel is a consultant at Selwyn Trees and has 10 years of experience working in the role. She has a BSc Hons degree in Arboriculture & Urban Forestry from the University of Central Lancashire. She is a professional member of the Arboricultural Association and is a registered user of the Quantified Tree Risk Assessment methodology. Her work ranges from detailed tree assessment using specialist technology to producing a range of tree reports for development projects and providing tree protection solutions to BS5837 standards.

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

Appendix D: British Standard BS 5837:2012 Table 1 Cascade chart for Tree Quality Assessment:

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE

Trees for Removal			
Category and definition	**Criteria**		
Category U Those in such a condition that cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal or other U category trees (e.g where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline. Trees infected with pathogens of significance to the health and /or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality. *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve*		
Trees to be considered for retention			
Category and definition	**Criteria- sub categories**		
	1 Mainly Arboricultural Values	**2 Mainly landscape values**	**3 Mainly Cultural values**
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual, or those that area essential components of groups, or of formal or semi-formal Arboricultural features (e.g. the dominant and/ or principle trees within an avenue)	Trees, groups or woodlands of particular visual importance and /or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (eg. Veteran trees or woodland pasture)
Category B Trees of moderate quality with an estimated remaining life contribution of at least 20 years	Trees that might be included in the high category but are downgraded because off impaired condition (e.g. presence of remedial defects including unsympathetic management and storm damage), such that they are unlikely to be beyond retention for beyond 40 years; or trees lacking the special quality necessary to merit the Category A designation	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	Trees with material conservation or other cultural benefits
Category C Those of low quality and value with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit	Trees with no material conservation or other cultural benefits

t. 01302 816850 info@selwyntrees.co.uk - Selwyn Trees 30 Tickhill Rd, Doncaster DN4 8QE