TREE REPORT

FAIRWATER SOCIAL CLUB
22 Plas-Mawr Road
Cardiff
CF5 3JP

Pre – Development BS5837
TREE SURVEY

February 2023

BROADWAY
TREE CONSULTANCY

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SUMMARY

The tree survey was carried out in August 2022 with an additional survey in January 2023 on behalf of Cardiff Council, the site owners, and the purpose of this report is to provide a tree condition and BS 5837 survey covering 56 individual trees and eight groups of trees at or adjacent to the above site (central grid reference for site – ST 13867 77852).

No site proposals have been provided at the time of this report, but it is likely that the existing building would be demolished prior to the site being re-used. This tree report is intended to give relevant tree information to assist and inform the site design process.

The trees have been evaluated for their quality, longevity and any immediate maintenance requirements. The arboricultural related implications of the development proposals are as follows:

1) **Implications on construction** – Unknown at the time of this report.
It is likely that some of the individual trees and groups of trees in the site centre would have to be removed to in order to facilitate any proposed site layout, but the loss of these could be mitigated by new tree planting.

There are a number of hard surfaces / retaining wall in close proximity to some of the trees, and care will be needed if these are to be removed to prevent damage to any trees roots in those areas.

2) **Remedial works to other trees** – Medium.
Two groups of trees containing Ash trees (Gp 5 and 6) and 6 dead trees (T12, T39, T43, T45, T49, T53) are recommended for removal regardless of whether development proceeds or not. Other trees on site may require crown lifting or pruning back works, and the self-sown saplings in groups 5 and 6 along the boundary fence would have to be removed if a new boundary treatment were put in place.

3) **Landscape implications** – Unknown at the time of this report.
Group 7 (trees 15 – 20) and trees 3, 4 and 21 – 38 are highly visible in the wider landscape to people passing the site. Where possible, they should be retained to protect the amenity of the current treescape and green infrastructure of the area.

4) **Post development implications** – Unknown at the time of this report.
Depending which trees are retained on site, there may be future conflict from perceived shading or overshadowing impact on new residential gardens.

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TREE SURVEY DETAILS TABLE

Tree Tag No.	Species	Height (m)	Calculated Stem diameter (mm)	Height crown clearance / (m)	Age Class	Branch spread (m)				Vitality	Structural condition notes	Recommended Works	Est remain years	Category grading	RPA radius (m)
						N	S	E	W						
1	Norway Maple	11	370	1.0	Mi	7.0	6.0	5.0	6.0	GOOD	• Located on raised area with path and low retaining wall to South and East at 2m from base • Minor dead wood in lower inner crown • Has been crown lifted South to give 3m clearance over path • Slightly suppressed to East by T2 • No other visible external defects	No works required	20 to 40	**B1**	4.4
2	Ash	15	420	2.0	Mi	5.0	6.0	7.0	4.0	GOOD	• Very minor Ash Dieback symptoms in upper crown centre • Has been crown lifted South to give 4m clearance over path • Located on raised area with path and low retaining wall to South at 2m • Minor dead wood in lower crown • No other visible external defects	No works required	20	**B1**	5.0
3	Ash	15	360	0.5	Mi	5.0	6.0	5.0	5.0	GOOD	• No Ash Dieback symptoms • Minor dead wood lower crown centre • Overhead telephone wires through mid outer crown West • Co-dominant stems from fork at 2m • Slightly suppressed to East by T4 • No other visible external defects	No works required	20	**B1**	4.3
4	Ash	15	460	0.5	Mi	6.0	8.0	8.0	5.0	GOOD	• Minor Ash Dieback symptoms in upper mid crown • Slightly suppressed to West by T3 • 3 large buttress surface roots visible in grass beneath crown spread • 4 co-dominant stems from branch / trunk union at 2m • Lower crown North recently cut back from pavement • No other visible external defects	No works required	20	**B1**	5.5

Tree Tag No.	Species	Height (m)	Calculated Stem diameter (mm)	Height crown clearance / (m)	Age Class	Branch spread (m)				Vitality	Structural condition notes	Recommended Works	Est remain years	Category grading	RPA radius (m)
						N	S	E	W						
Gp 1	Hawthorn x 2 Ash	8	250	0.0	Mi	3.0	3.0	3.0	3.0	GOOD	• No access to trees – behind building in fenced off area • Single line closely spaced • Ash Dieback to upper half of Ash • Appear to be on top of steep slope with high retaining wall at base • No other visible external defects	No works required	20	C2	3.0
Gp 2	Hawthorn x 2	8	120	3.0	Mi	2.0	3.0	3.0	2.0	FAIR / POOR	• Located just beyond boundary fence • North-most tree has partially uprooted and fallen onto fence • South tree twin-stemmed • Tarmac path at base at 1m to West • No other visible external defects	**Remove fallen tree off fence**	10	C2	1.4
Gp 3	Rowan Ash x 6 Norway Maple x 18 Goat Willow	6 (av)	120	1.0	Y	2.0	2.0	2.0	2.0	FAIR	• Scattered group of young trees • Some are multi-stemmed • Minor Ash Dieback symptoms to Ash • Dense Bramble understorey • Other young seedlings among group • No other visible external defects	No works required	10 to 20	C2	1.4
5	Norway Maple	12	600	1.0	M	9.0	5.0	8.0	8.0	GOOD	• Located on side of slope S of Gp 3 • 5 stems from branch / trunk union – 2 much larger than others • Slightly suppressed to South by row of tall conifers in adjacent park • No other visible external defects	No works required	20 to 40	B1	7.2
6	Goat Willow	8	350	1.0	Mi	4.0	1.0	4.0	3.0	FAIR / POOR	• Has uprooted and fallen to North, still alive with crown returned to vertical • 4 upright co-dominant stems from branch / trunk union • Overshadowed and suppressed by T5 to South and Gp 3 to West • No other visible external defects	No works required	10	C1	4.2

Tree Tag No.	Species	Height (m)	Calculated Stem diameter (mm)	Height crown clearance / (m)	Age Class	Branch spread (m)				Vitality	Structural condition notes	Recommended Works	Est remain years	Category grading	RPA radius (m)
						N	S	E	W						
7	Silver Birch	15	310	1.0	Mi	3.0	4.0	3.0	3.0	GOOD	• Lower crown North slightly suppressed by T8 • No other visible external defects	No works required	40	**B1**	3.7
8	Cherry Ash	10	160	0.5	Mi	5.0	4.0	4.0	5.0	FAIR	• Two multi-stemmed trees growing together as one crown • Slightly suppressed to South by T7 • Minor Ash Dieback to outer crown • Dense Ivy growth to mid crowns • Tarmac drive, path and low brick wall at immediate base West at 0.5m • No other visible external defects	No works required	10	**C1**	1.9
Gp 4	Norway Maple x 13	10 (av)	210	N-1	Y Mi	4.0	5.0	5.0	4.0	GOOD	• 5 of 13 trees much larger than others • Closely spaced linear group with co-dependent crowns • Smaller trees suppressed and over-shadowed • No other visible external defects	No works required	20	**C2**	2.5
Gp 5	Sycamore Ash x 18	8 (av)	250	1.0	Y	2.0	2.0	2.0	2.0	POOR	• Single line of closely spaced self-sown saplings along boundary fence • Most Ash dead from Ash Dieback – and other Ash have ADB symptoms • Some saplings growing through and around fence • Located on top of low retaining wall • No long term viable future	**Remove dead trees** Would all have to be removed if fence were to be replaced	<5	**U**	3.0
9	Hazel	6	200	0.5	Mi	2.0	2.0	3.0	3.0	FAIR / POOR	• Multi-stemmed x 5 • Growing through and around boundary fence • Base of tree on edge of kerb to South • Has been cut back from road to South • No other visible external defects	Would have to be removed if fence were to be replaced	10	**C1**	2.4

Tree Tag No.	Species	Height (m)	Calculated Stem diameter (mm)	Height crown clearance / (m)	Age Class	Branch spread (m)				Vitality	Structural condition notes	Recommended Works	Est remain years	Category grading	RPA radius (m)
						N	S	E	W						
Gp 6	Ash x 3	6	120	1.0	Y	1.0	2.0	2.0	1.0	POOR	• Mostly dead from Ash Dieback • Growing through and around boundary fence	**FELL**	0	**U**	0
10	Norway Maple	10	330	2.0	Mi	4.0	5.0	5.0	4.0	GOOD	• Located in raised verge area with low retaining walls and tarmac surfaces to North, South and West at 2m, 3m, 5m • Large surface roots visible to all sides beneath crown spread • 7 co-dominant stems from branch / trunk union at 2m • No other visible external defects	No works required	20 to 40	**B1**	4.0
11	Ash	18	480	6.0	M	9.0	7.0	9.0	10.0	GOOD	• Co-dominant stems from fork at 1.5m • West stem forks again at 2m • Has been crown lifted away from adj. house to North leaving 15 partially and fully occluded pruning wounds • Large 25cm x 25cm pruning wound lower trunk SW at 1m – wound wood growth of 6cm width around edge • No other visible external defects	No works required	20	**B1**	5.8
12	Ash	18	470	6.0	M	5.0	6.0	4.0	4.0	GOOD	• Widespread Ash Dieback symptoms to ends of twigs in mid outer crown • Co-dominant from fork at 2m • North stem forks again at 4m • Slightly suppressed West by T11 • No other visible external defects	No works required	<10	**C1**	5.6
13	Ash	12	350	1.5	Mi	4.0	6.0	4.0	4.0	GOOD	• No Ash Dieback symptoms • Large surface roots visible on all sides beneath canopy spread • 3 co-dominant stems from branch / trunk union at 2m • No other visible external defects	No works required	20	**B1**	4.2

Tree Tag No.	Species	Height (m)	Calculated Stem diameter (mm)	Height crown clearance / (m)	Age Class	Branch spread (m)				Vitality	Structural condition notes	Recommended Works	Est remain years	Category grading	RPA radius (m)
						N	S	E	W						
14	Ash	12	360	1.5	Mi	6.0	7.0	8.0	4.0	GOOD	• Minor Ash Dieback symptoms in lower outer crown • Slightly suppressed to West by T13 • Co-dominant stems from fork at 2m • South stem forks again at 4m • No other visible external defects	No works required	20	**B1**	4.3
Gp 7	Trees 16 - 20	10 to 18	680	1.5	Mi M	5.0	6.0	8.0	8.0	GOOD	• Single line of closely spaced trees along West boundary • T16 tallest and most dominant tree • Tarmac parking area to East of trees at approx. 2m – 3m from base of trees • Most have low hanging crown edges, particularly to West over gardens • Tree 20 has been crown lifted and pruned back from electric sub station • No other visible external defects	No works required	40	**B2**	8.2
15	Stump	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	• n/a	No works required	0	n/a	0
16	Lime	20	640	E-0 W-2	M	3.0	4.0	6.0	6.0	GOOD	• Dominant tree in group • Co-dominant stems from fork at 1.5m • Suppressed to North by T17 • Low hanging canopy edge over car park to East • No other visible external defects	No works required	40	**B1**	7.7
17	Ash	18	570	E-3 W-2	M	5.0	3.0	7.0	8.0	FAIR	• Ash Dieback in upper crown • 4 co-dominant stems from branch / trunk union at 2m • Suppressed to South by T16 • Large dead wood in lower crown • Low hanging crown edge West • No other visible external defects	No works required	20	**B1**	6.8

Tree Tag No.	Species	Height (m)	Calculated Stem diameter (mm)	Height crown clearance / (m)	Age Class	Branch spread (m)				Vitality	Structural condition notes	Recommended Works	Est remain years	Category grading	RPA radius (m)
						N	S	E	W						
18	Norway Maple	10	400	E-1	M	4.0	4.0	4.0	5.0	FAIR	• Tarmac surface at base to West 0.3m and to North 1m • 4 co-dominant stems from branch / trunk union at 2m • Suppressed to South by T17 • Minor dead wood in lower crown • No other visible external defects	No works required	20 to 40	**B1**	4.8
19	Lime	16	500	E-1.5	M	3.0	3.0	6.0	6.0	FAIR	• Suppressed to N & S by T18 and T20 • Tarmac at base to S, W and N at 1m • Low retaining wall cut into verge at 1m to base NW • Branch / trunk union at 2m with tight forks and included bark • No other visible external defects	No works required	20 to 40	**B1**	6.0
20	Ash	20	680	E-2 N-6	M	4.0	4.0	8.0	8.0	GOOD	• 5 large upright co-dominant stems from old pollard point at 3m • North edge of crown pruned back from adjacent electricity sub-station site • Suppressed to South by T19 • No other visible external defects	No works required	20	**B1**	8.2
21	Scots Pine	10	530	1.5	Mi	5.0	7.0	5.0	5.0	GOOD	• Broad flat topped crown with low hanging edges • No other visible external defects	No works required	40	**B1**	6.4
22	Scots Pine	12	500	3.0	Mi	5.0	4.0	3.0	3.0	GOOD	• Slightly suppressed S and E by T23 • Large dead wood stub 1.2m long upper trunk West • No other visible external defects	No works required	40	**B1**	6.0
23	Scots Pine	10	440	3.0	Mi	7.0	4.0	5.0	2.0	GOOD	• Suppressed to W and S by T22 • Crown out to North and North East • No other visible external defects	No works required	40	**B1**	5.3

Tree Tag No.	Species	Height (m)	Calculated Stem diameter (mm)	Height crown clearance / (m)	Age Class	Branch spread (m)				Vitality	Structural condition notes	Recommended Works	Est remain years	Category grading	RPA radius (m)
						N	S	E	W						
24	Scots Pine	14	340	10.0	Mi	3.0	3.0	2.0	2.0	GOOD	• Small high compact crown • No other visible external defects	No works required	40	B1	4.1
25	Scots Pine	12	490	8.0	Mi	3.0	6.0	3.0	5.0	GOOD	• Broken hung up branch lower crown South West resting on adj. tree • Suppressed to East by T24 • No other visible external defects	No works required	40	B1	5.9
26	Scots Pine	10	350	2.0	Mi	4.0	4.0	2.0	2.0	GOOD	• Over-shadowed by T25 • Low crown with medium dead wood • No other visible external defects	No works required	40	B1	4.2
27	Scots Pine	10	470	2.0	Mi	5.0	4.0	5.0	4.0	FAIR	• Some needle dieback throughout crown – no obvious cause • Medium dead wood lower inner crown • No other visible external defects	No works required	40	C1	5.6
28	Scots Pine	8	450	8.0	Mi	4.0	6.0	2.0	4.0	GOOD	• Low flat topped crown • Needle dieback to tips • Suppressed to East • No other visible external defects	No works required	40	B1	5.4
29	Scots Pine	12	460	2.0	Mi	5.0	5.0	8.0	6.0	GOOD	• Minor Ivy growth on trunk • Minor dead wood in lower crown • No other visible external defects	No works required	40	B1	5.5
30	Scots Pine	10	370	2.0	Mi	4.0	5.0	4.0	3.0	GOOD	• Dense Bramble growth up into lower crown canopy • Minor deadwood in lower inner crown • No other visible external defects	No works required	40	B1	4.4
31	Scots Pine	10	400	1.2	Mi	4.0	4.0	4.0	3.0	GOOD	• Dense Bramble growth up into lower crown canopy • Large deadwood in lower inner crown • No other visible external defects	No works required	40	B1	4.8

Tree Tag No.	Species	Height (m)	Calculated Stem diameter (mm)	Height crown clearance / (m)	Age Class	Branch spread (m)				Vitality	Structural condition notes	Recommended Works	Est remain years	Category grading	RPA radius (m)
						N	S	E	W						
32	Scots Pine	8	380	2.0	Mi	2.0	2.0	2.0	2.0	FAIR	• Main upper crown limb torn out in past leaving small lower live crown • Large deadwood in lower crown • No other visible external defects	No works required	20	C1	4.6
33	Scots Pine	12	480	1.0	Mi	2.0	7.0	4.0	7.0	GOOD	• (Old tag no. 1704) • Crown out to West • No other visible external defects	No works required	40	B1	5.8
34	Scots Pine	16	500	6.0	Mi	5.0	6.0	7.0	5.0	GOOD	• Medium deadwood in lower crown • No other visible external defects	No works required	40	B1	6.0
35	Scots Pine	18	440	12.0	Mi	5.0	7.0	8.0	6.0	GOOD	• Ivy growth on trunk • Medium deadwood upper trunk • High crown • No other visible external defects	No works required	40	B1	5.3
36	Scots Pine	18	520	4.0	Mi	5.0	5.0	8.0	5.0	GOOD	• Co-dominant limbs from fork at 10m • Medium deadwood stubs upper trunk • No other visible external defects	No works required	40	B1	6.2
37	Scots Pine	16	390	4.0	Mi	2.0	5.0	3.0	5.0	GOOD	• (Old tag no. 1709) • Suppressed to North, crown to SE • Medium deadwood upper trunk • No other visible external defects	No works required	40	B1	4.7
38	Scots Pine	18	580	2.0	Mi	4.0	6.0	5.0	5.0	GOOD	• Lower crown N suppressed by T27 • Low hanging crown edge South • Medium deadwood stubs on trunk • No other visible external defects	No works required	40	B1	7.0
39	Ash	6	156	2.0	Y	1.0	1.0	1.0	1.0	POOR	• 95% dead from severe Ash Dieback • Twin stemmed from base • No other visible external defects	**FELL**	0	U	1.9

Tree Tag No.	Species	Height (m)	Calculated Stem diameter (mm)	Height crown clearance / (m)	Age Class	Branch spread (m)				Vitality	Structural condition notes	Recommended Works	Est remain years	Category grading	RPA radius (m)
						N	S	E	W						
40	Norway Maple	4	80	1.0	Y	1.0	0.0	1.0	1.0	FAIR	• Suppressed to South by T41 • Young sapling • No other visible external defects	No works required	10	C1	1.0
41	Sycamore	8	350	1.5	Mi	4.0	4.0	3.0	3.0	FAIR	• Multi-stemmed x 4 • Extensive squirrel damage to crown • No other visible external defects	No works required	10 to 20	C1	4.2
42	Ash	12	320	2.0	Mi	4.0	5.0	5.0	4.0	GOOD	• Twin stemmed from 0.5m • Co-dominant, upright form • No Ash Dieback symptoms visible • No other visible external defects	No works required	10	B1	3.8
43	Apple	3	200	1.0	M	0.0	2.0	2.0	2.0	DEAD	• Twin stemmed at base • Leaning to South • Tree has died – no obvious cause	**FELL**	0	U	2.4
44	Hornbeam	10	530	5.0	M	5.0	6.0	6.0	5.0	GOOD	• Highway tree in verge on opposite side of road to site entrance • Crown lifted to give 5m clearance • In grass verge between road to NE and tarmac footway to SW • Large surface roots visible at base • No other visible external defects	No works required	20	B1	6.4
Gp 8	Leyland Cypress x 18	18 (av)	700	5.0	M	4.0	5.0	5.0	4.0	GOOD	• Closely spaced dense single line • Have been crown lifted to 5m leaving clear trunks to above fence height • No other visible external defects	No works required	20 to 40	B2	8.4
45	Elm	5	150	1.0	Y	1.0	1.0	1.0	1.0	DEAD	• Tree has died	**FELL**	0	U	1.8
46	Hawthorn, Elderberry x 2	5	100	0.5	M	2.0	3.0	3.0	2.0	FAIR	• Triangular group closely spaced • Ivy growth to mid crowns • No other visible external defects	No works required	10	C2	1.2

Tree Tag No.	Species	Height (m)	Calculated Stem diameter (mm)	Height crown clearance / (m)	Age Class	Branch spread (m)				Vitality	Structural condition notes	Recommended Works	Est remain years	Category grading	RPA radius (m)
						N	S	E	W						
47	Maple sp.	4	160	1	Mi	2.0	2.0	3.0	0.0	FAIR	• Leaning at a 45^{O} angle to East • One sided crown out to East • No other visible external defects	No works required	10	C1	1.9
48	Sycamore	6	130	1	Mi	1.0	4.0	3.0	1.0	POOR	• Extensive squirrel damage to crown • Suppressed to NW, crown to SE • No viable long term future	**FELL**	10	C1	1.6
49	Elm	6	220	2	Mi	1.0	2.0	2.0	1.0	**DEAD**	• Leaning to North at a 10^{O} angle • Tree had died	**FELL**	0	**U**	2.6
50	Field Maple	10	300	2	M	3.0	4.0	4.0	4.0	FAIR	• Central leader lost in past • Low broad crown with minor Ivy growth, located at top edge of slope • No other visible external defects	No works required	20	C1	3.6
51	Elderberry	8	150	2	OM	3.0	0.0	2.0	1.0	FAIR	• Twin stemmed, large dbh for species • West stem fallen to North • Suppressed to South by T6 • No other visible external defects	No works required	10	C1	1.8
52	Elderberry	8	150	2	OM	3.0	0.0	1.0	2.0	FAIR	• Twin stemmed from 1m • Suppressed to South • Ivy growth on trunk • No other visible external defects	No works required	10	C1	1.8
53	Hawthorn	5	200	n/a	M	n/a	n/a	n/a	n/a	**DEAD**	• Twin stemmed, tree has died	**FELL**	0	**U**	2.4
54	Holly	10	250	2	Mi	1.0	1.0	4.0	3.0	GOOD	• Twin stemmed, suppressed by T11 • No other visible external defects	No works required	10 to 20	C1	3.0
55	Hawthorn	6	310	2	OM	0.0	3.0	4.0	1.0	GOOD	• Co-dominant from fork at 2m • Crown to E, suppressed by T10 • No other visible external defects	No works required	10 to 20	C1	3.7
56	Holly	6	180	2	Mi	3.0	0.0	4.0	2.0	GOOD	• Triple stemmed, leaning at a 45O angle to E with brambles into crown • Suppressed to S and SW by T10 / T11 • No other visible external defects	No works required	10 to 20	C1	2.2

2.0 TREE DETAILS - Explanation of terms

Tree number:	Relates to tree number on attached plan/s	
Species:	Common name of tree	
Height:	Estimated and taken to nearest metre	
Diameter:	Measured at 1.5m above ground level for single or multi-stemmed trees, or at the narrowest point for trees that fork below 1.5m (mm)	
Branch spread:	Measured from the stem to the North, East, South and West (m)	
Crown clearance	Height of canopy clearance above adjacent ground level (m)	
Age class:	Young trees (Y)	age less than $^{1}/_{3}$ life expectancy
	Middle age trees (Mi)	$^{1}/_{3}$ to $^{2}/_{3}$ life expectancy
	Mature trees (M)	over $^{2}/_{3}$ life expectancy
	Over Mature (OM)	over $^{2}/_{3}$ life expectancy and in decline
	Veteran (V)	
Vitality:	Categorised to Good, Fair, Poor or Dead	
Structural Condition:	Description of the tree's condition and whether any decay or physical defects are present	
Estimated remaining Contribution in years:	Categorised to less than 10, 10-20, 20-40, 40+	
Category:	U, or A to C category grading, also recorded on the tree survey plan (See the BS5837 category explanation table at the end of the report).	
RPA radius m:	Root Protection Area given as the **radius** in metres around as the minimum area required by the tree roots	

(* - It is generally accepted that the majority of a tree's rooting system is within the top 600mm of soil, and as such can be easily damaged or altered by compaction during the construction process. An area known as the Root Protection Area (RPA) is shown around each tree and should be protected for the duration of the on-site construction phase).

Tree labeling

The trees have not been tagged on site and are labeled as T1 – T56 and Gp 1 – Gp 8 on the tree constraints plan accompanying this report.

Note – for illustration only.
Please refer to original A1 plan

3.0 PHOTOGRAPHS

T1 – View of path and retaining wall close to base of tree

T2 – View of path and retaining wall close to base of tree

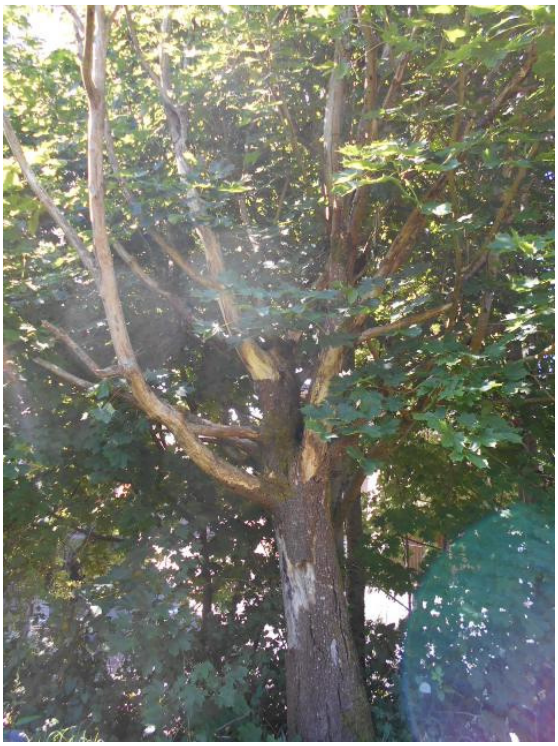
T3 – View of overhead wires through mid crown West

T6 – View of fallen tree, still alive

Gp 1 – View of position on top of retaining wall to East of existing building

Gp 2 – View of fallen Hawthorn resting on fence

Gp 3 – View of dense group of young trees



Gp 4 – View of dead tree at East end of group

Gp 4 – View of co-dependent crown of group

T8 – View of wall, path and drive at base of trees to West

Gp 5 – View of group growing on top of low wall and through and around fence

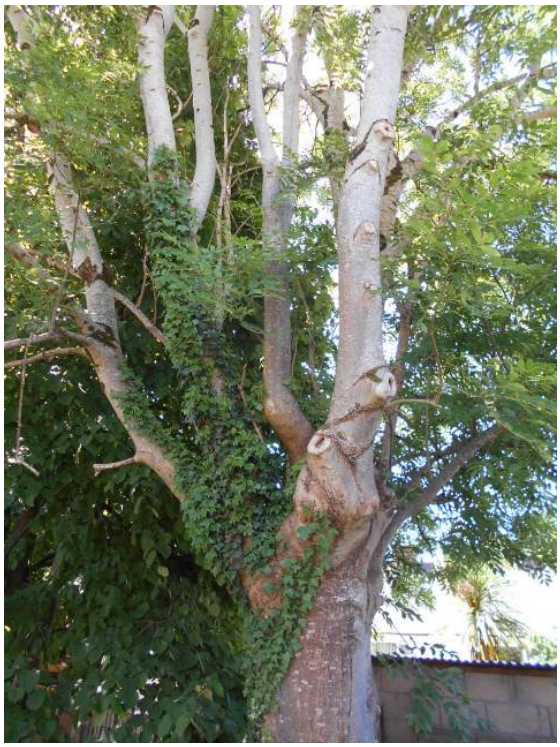
Gp 5 – View of dead Ash in group killed by Ash Dieback

T9 – View of proximity to road and stems growing through boundary fence

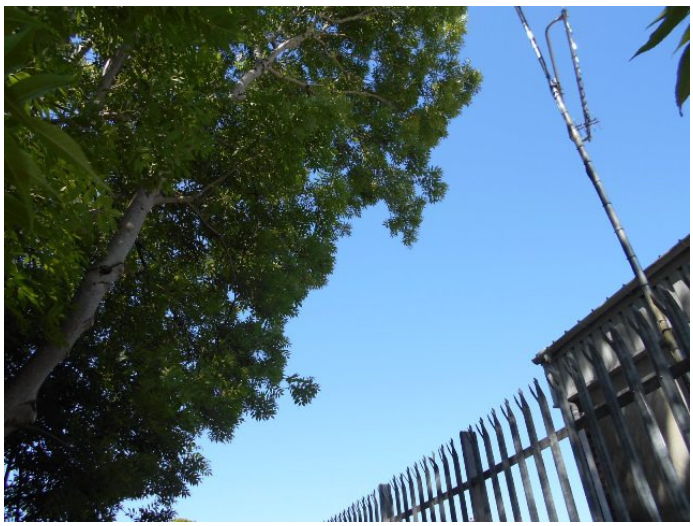
T11 – View of crown lifting clearance around adjacent house

T12 – View of Ash Dieback to upper outer edges of crown

T12 – T17 – view of other Ash trees with no Ash Dieback



T20 – View of upright stems from old pollard point



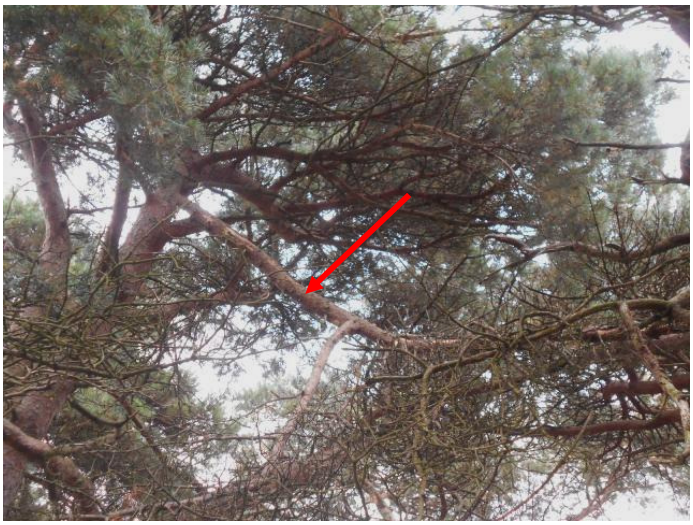
T20 – View of North side of crown pruned back from adjacent electricity sub station

T18 – View of proximity of kerb and tarmac area to base

T19 – View of tarmac drive, parking area and retaining walls to base of tree

T21 – T38 – View of closely spaced trees in P. O. S

T35 – T38 – view of taller trees at lower end of P. O. S



T25 – View of broken hung up branch mid crown

T32 – view of old wound from previous storm damage

T39 – View of most of crown dead from Ash Dieback

T41 – view of isolated dead branches within crown from squirrel damage

T44 – View of street tree opposite entrance to site

T44 – view of large surface roots within verge area

T45 – View of dead Elm covered in brambles

T46 – View of closely spaced triangular group

T47 – View of leaning small stunted Maple species

T48 – View of mis-shapen crown due to squirrel damage

T49 – View of dead Elm

T50 – View of low branch / trunk union

T51 – View of fallen North stem (red arrow)

T52 – View of leaning trunk

T53 – View of partially collapsed dead Hawthorn

T54 & T55 – View of close proximity of stems

T56 – View of smaller leaning stem

View of trees 45 – 56 among bramble covered overgrown area to North of pond and East of buildings

4.0 RECOMMENDATIONS

4.1 Any tree defects found are listed in the tree details table (pages 3 – 12). Of the 56 trees and eight groups surveyed, none are listed as category A, 33 individuals and two groups as category B, and the remainder as category C. Based upon their **condition at the time of the survey** five trees (T39, T43, T45, T49, T53) and the Ash in two groups (Gp 5, Gp 6) are listed as category **U** for removal.

4.2 At the current time, no proposed site plans are available, and the following plan was provided as a pdf file and AutoCAD drawing to form the basis for the attached tree constraints plan – Topographical survey, dated Aug 2021 – Rev 3

4.3 The Root Protection Area (RPA) shown on the Tree Constraints Plan is the theoretical ***minimum*** areas required by a tree of that size. But given that tree roots may not spread out consistently, the root protection area does not necessarily reflect the likely spread of roots on this site.

4.4 All of the trees are within the red or blue line boundaries with most of them around the edges of the site. Overall the site slopes downhill from North to South West, with a steep change in level to the immediate North of the existing building and again in the South East corner of the site.

4.5 Trees 1 and 2, 10 and 11 and Group 7 have part of their Root Protection Area (RPA) covered by some form of hard surfacing, kerb stones and / or retaining walls. These areas are marked with orange cross-hatching on the accompanying tree constraints plan. In order to minimize any damage to tree roots during the site demolition phase, any works within the RPA's must be carried out by hand digging only and under the supervision of an appointed aboriculturalist. If no tree roots are found after the initial lifting of hard surfacing, it may be possible to continue by mechanical means if adequate ground protection is used.

4.6 Groups 5 and 6 consist mostly of self-sown Ash saplings growing around and through the South boundary fence. Most of the Ash are infected with, or have died from, Ash Dieback. It will not be possible to retain these trees if the boundary fence is to be replaced, and they should not be considered a material constraint to development.

4.7 Any tree surgery works required should be undertaken by a contractor working in accordance with 'B. S. 3998 British Standard Recommendations for Tree Work 2010'.

4.8 Once the final proposed site layout is agreed, all trees that are being retained on or adjacent to the site should be protected by barriers as shown in section 10. Vertical barriers should be erected and ground protection installed **BEFORE** any materials or machinery is brought onto the site and before any demolition, development or stripping of soil commences. Areas of new or retained planting should be similarly protected. Once erected, all barriers and ground protection **must not** be removed or altered without prior recommendation by an arboriculturalist and approval of the local planning authority.

5.0 CAVEATS AND RESTRICTIONS

5.1 This report was commissioned by Beverley Bailey, Project Manager, on behalf of the site owners Cardiff Council. It provides a pre-development BS5837 tree survey report for 56 trees and eight groups of trees located on or adjacent to the site.

5.2 The report is based upon data collected on three site visits made on the 1st June 2020, the 23rd August 2022 and the 27th January 2023 by Bettina Broadway-Mann. Weather conditions were dry and visibility was more than adequate for the visual inspection carried out.

5.3 The tree assessment comprised a visual inspection carried out from ground level only. It was intended to identify distinct defects and other failure-prone characteristics of the trees, where these features might give rise to hazard within the coming twelve months. It must nevertheless be recognized that no tree is entirely safe, given the possibility that an exceptionally strong wind could damage or uproot even a mechanically 'perfect' specimen.

5.4 Please note the inspector's Terms & Conditions for Arboricultural Consultancy Work, as supplied. While every attempt has been made to provide a realistic and accurate assessment of the trees' condition at the time of inspection, no responsibility can be accepted for damage or injury sustained as a result of the failure of any tree due to faults not apparent upon a visual, ground level inspection carried out at this season, or to faults developing subsequent to the survey. Similarly, no liability can be accepted for the condition of trees that are obscured in part or in whole (e.g. by dense Ivy or other foliage), nor for any that proved inaccessible to the inspector. Certain features that might provide evidence of ongoing decay or decline (such as fungal fruiting bodies, damage to foliage, insect emergence holes etc.) may not have been in evidence: Only those features that ***are*** apparent at the time of inspection could be assessed.

5.5 The tabular format of the report records each tree individually with appropriate measurements. Distinct defects or other noteworthy characteristics where apparent have also been recorded, along with recommendations for immediate remedial works where necessary.

B. Broadway-Mann

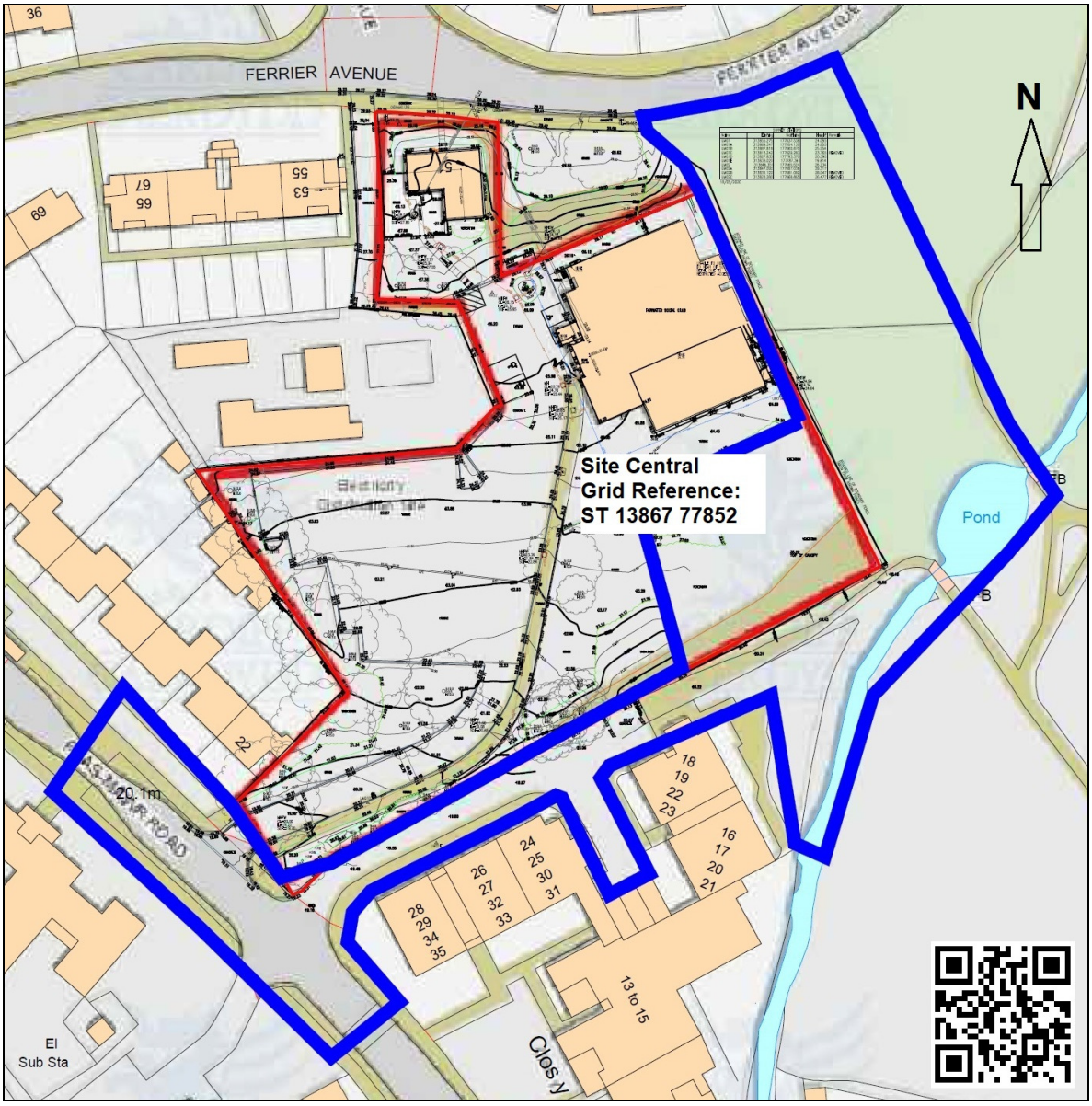
Bettina Broadway-Mann 7th February 2023
ARBORICULTURAL CONSULTANT

B.Sc. (Hons), M.Sc. Dip. Arb. (RFS), Tech. Cert (Arbor. A), M.Arbor.A.

6.0 SURVEY DETAILS

Client Name:	Cardiff Council County Hall Atlantic Wharf Cardiff CF10 4UW
Site:	Former Fairwater Social Club 22 Plas-Mawr Road Cardiff CF5 3JP (Central grid ref. of site ST 13867 77852)
Date of Inspection:	1st June 2020, 23rd August 2022 and 27th January 2023.
Surveyor:	Bettina Broadway-Mann.
Purpose of survey:	To carry out a pre-development tree survey as per 'BS 5837 Trees in Relation to Design, Demolition and Construction – Recommendations 2012' (with appropriate measurements) to trees within or adjacent to the site, and to make recommendations for immediate remedial works where necessary.
Survey method:	Visual inspection from ground level only, including measurements for height, stem diameter, and physiological and structural condition, and: • To look for visible defects of the trees • To comment on the condition of the trees and make recommendations for removal or retention, and remedial works where necessary.
Weather:	Breezy and dry, temp. varying between 4°C and 20°C.
Site Plan:	This report is accompanied by the following plan: 1) Tree Constraints Plan 2) Site location and approximate boundaries plan

6.1 **Site Location and approximate boundaries:** the red and blue outlines below, combined, indicate the approximate boundaries of the site and the extent of the survey area, and are for illustration purposes only.



7.0 LEGAL CONSIDERATIONS

7.1 **TPO'S** – Prior to any works commencing the client should check with the Local Planning Authority that the trees are not covered by a Tree Preservation Order, within a Conservation Area, or covered by a Planning Condition.

7.2 **FELLING LICENCE** – Even when no specific legal protection exists, it may be necessary to obtain a felling licence. These apply if the volume of timber created from felling works exceeds five cubic metres in any one quarter. Therefore site clearance of trees, even of small areas could exceed this quota. The Forestry Commission administers felling licences.

7.3 **BIRDS -** Works to trees should commence outside the bird-nesting season, generally taken to be between March and July, as disturbing nesting birds is a Criminal offence under the Wildlife and Countryside Act 1981, unless such works are necessary to preserve public health and safety. In practice, the tree surgeon must check for the presence of nests prior to commencing works.

7.4 **BATS** - The contractor must also thoroughly inspect the trees prior to carrying out works for evidence of bat activity. Bats are a protected species under Wildlife and Countryside Act 1981 (as amended) and the conservation of Habitats and Species Regulations 2010 making it an offence to kill or injure a bat, or destroy or significantly disturb a roost.

If evidence of bat activity is found, all works must cease and advice sought immediately from Natural Resources Wales before continuing.

7.5 **DUTY OF CARE -** Attention is drawn to the provisions of the Occupiers Liability Acts, which place a duty of care upon landowners / occupiers to ensure the safety of neighbours and others entering their land. There is a special responsibility to ensure the safety of children, who may be unaware of danger. Annual inspections of trees by a competent person, together with implementation of any recommendations, should ensure compliance with the legislation regarding tree safety.

8.0 GLOSSARY OF TERMS

Bark	all tissue on the outside of the trunk, roots, stems, branches and twigs.
Canopy	the part of the tree composed of leaves and twigs.
Cavity	an open wound characterized by the presence of decay and causing a hollow
Crown	the main foliage carrying part of the tree.
Crown Lifting	the removal of the lower branches up to a specified height to provide clearance under the crown.
Crown / Limb Reduction	a shortening of lateral and vertical branches that makes the entire crown or specified part smaller.
Crown Thin	the balanced removal of secondary, minor, live branch growth to reduce the leaf density evenly throughout the canopy or specified part without altering the tree's overall size and shape.
Decay	rot. The process of degradation of woody tissues by fungi and bacteria through decomposition.
Failure	a partial or total fracture of woody tissues or loss of cohesion between soil and roots.
Hazard	any thing with the potential to cause harm.
Included Bark	bark of neighbouring parts of the tree that are in face to face contact causing a weakness due to the lack of wood union.
Mature	a plant that will respond to flower inducing conditions.
Pruning	the removal or cutting of twigs, branches or roots, often used to describe all kinds of work involving cutting.
Risk	the likelihood of a potential harm from a hazard becoming actual harm.
Root	part of the tree that contains woody and non-woody tissues to absorb water and minerals from the soil, gases from the atmosphere, and support the trunk and crown.
Significant	relates to health and safety – describing a condition, state, hazard or risk that is deemed to exceed accepted standards, thereby requiring remedial or preventative action.
Stem	the principle portion of the woody structure (the trunk) or one of a number of such portions with similar size and status.
Suppressed	trees that have been over shadowed and whose crown development is restricted by neighbouring trees.
Tree	a woody plant that typically has a single self-supporting woody stem, attaining a height in excess of 4 metres in maturity with a stem diameter of at least 75mm.
Trunk	a single main self supporting stem of a tree.
Wound	an injury that induces the tree to compartmentalize internally.

8.1 BIBLIOGRAPHY

Principles of Tree Hazard Assessment – D. Longsdale

Collins Tree Guide 2004 – O. Johnson & D. More

Manual of Wood Decay in Trees. 2003. K. Weber, C. Mattheck. Arboricultural Association.

BS 5837:2012 – Trees in Relation to Design, Demolition and Construction – Recommendations

9.0 BIOGRAPHY

9.1 Qualifications

Royal Forestry Society Professional Diploma in Arboriculture	September 2003
Arboricultural Association Technicians Certificate in Arboriculture	September 2001
MSc Landscape Ecology, Design and Management	September 1997
BSc (Hons) Applied Biology, Forestry and Ecology	July 1995

9.2 Experience

I have worked in the arboricultural industry since 1998 and had a variety of roles in the public sector, before setting up Broadway Tree Consultancy full time in September 2006.

My role at Caerphilly County Borough Council was that of Assistant Tree Officer and responsible for the countywide tree survey of all council owned trees.

I have taught as an arboricultural lecturer at Merrist Wood College, Guildford, and focused mainly on tree law, trees on development sites and tree pests, diseases and disorders.

With Cardiff County Council I was a Tree Preservation Officer and dealt exclusively with Tree Preservation Order applications and planning applications (trees on development sites).

At Newport City Council I was an Arboricultural Officer and oversaw all aspects of surveying and caring for the Council's tree stock.

In addition to my consultancy work I have been a lecturer in arboriculture at Bridgwater College Cannington Campus, and Coleg Gwent, Usk Campus.

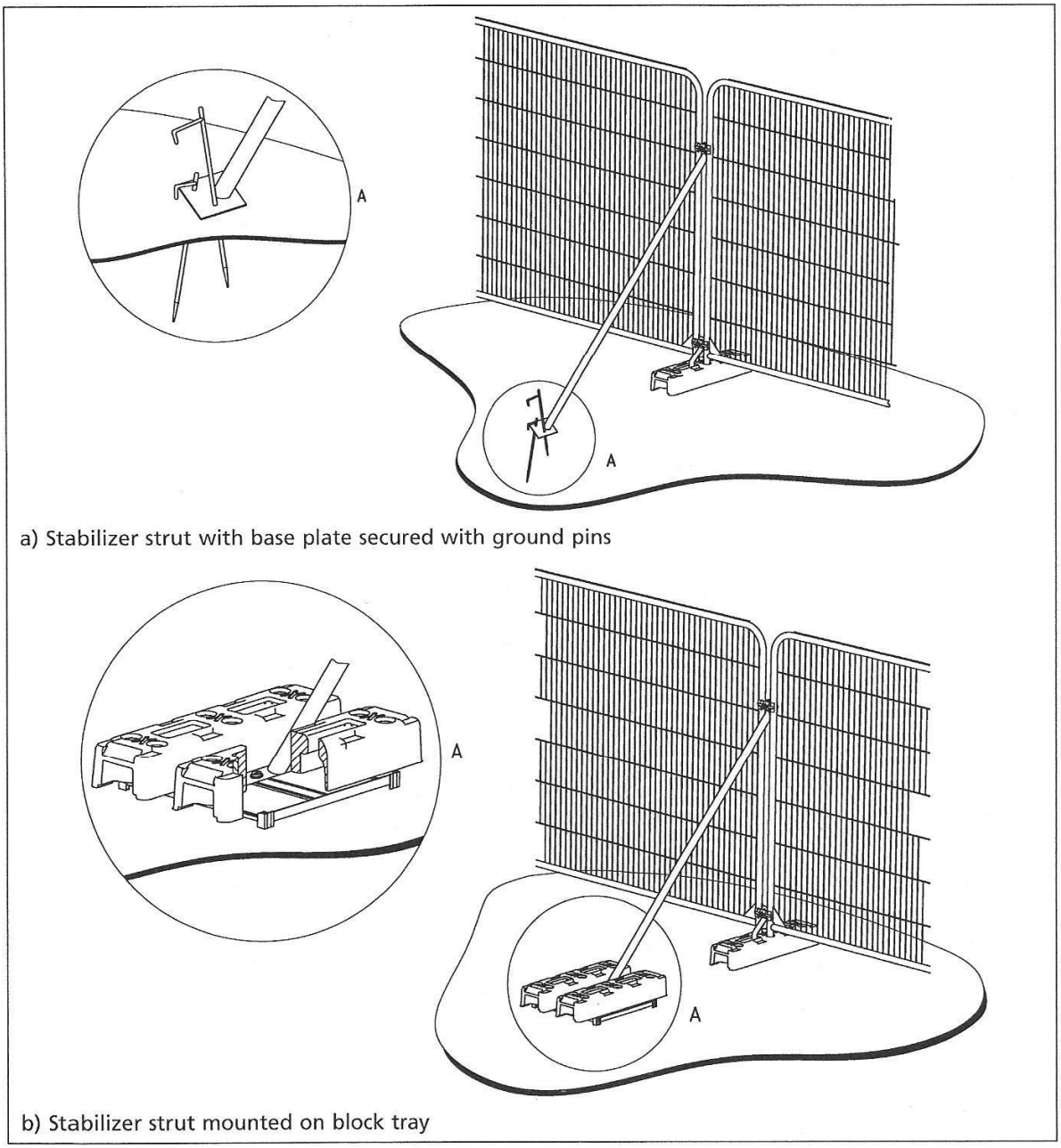
9.3 Membership

Professional member of the Arboricultural Association	March 2005 – to date
Member of the Royal Forestry Society	January 2002 – to date
Associate Member of the Institute of Chartered Foresters	January 2018 – to date

10.0 PROTECTIVE FENCING DETAIL

BS 5837:2012 Figure 3: Examples of above ground stabilising systems

Examples of above-ground stabilizing systems



a) Stabilizer strut with base plate secured with ground pins

b) Stabilizer strut mounted on block tray

11.0 BS 5837 TREE CATEGORISATION TABLE

BS5837:2012 Table 1 – Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• 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 of other category U 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; see [BS5837:2012] 4.5.7.*			
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
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 are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for 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 value	
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 150 mm	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 collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	

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