



ARBORICULTURAL IMPLICATIONS ASSESSMENT

PROPOSED DEVELOPMENT

AT

AGEAS
GOLF CLUB HOUSE

Author: C. Salisbury
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Mulberry

Adamson House, Towers Business Park, Wilmslow Road, Didsbury, M20 2YY

T 0161 955 3628

F 0161 955 4201

E info@mulberrytmc.co.uk

www.mulberrytmc.co.uk

1.0 Introduction

- 1.1 Mulberry Tree Management were instructed by Land Advisory, to carry out an arboricultural survey of trees at their site at the Ageas Bowl, Southampton.
- 1.2 This report details the arboricultural implications of developing the site, including:
 - a survey of the trees on and near the development which may impact the proposal from ground level, noting their location, species and all relevant parameters, i.e. stem diameter, height, crown spread, condition etc;
 - providing advice on the removal, retention and management of trees;
 - assessment of the potential effects of the proposal on retained trees and vice versa;
 - assessment of the requirement for tree protection for the duration of the works;
 - mitigation for any loss;
 - preparation of a tree schedule;
 - and report on the above matters.
- 1.3 The survey was carried out by Alderwood Consulting Ltd by means of inspection from ground level by an experienced and qualified arboriculturalist. The inspection can be restricted in cases where trees were Ivy clad or surrounded by vegetation.
- 1.4 Under *BS5837: 2012 Trees in Relation to Construction - Recommendations*, the assessment of trees is made objectively. The tree categorisation method identifies the quality and value of the existing tree stock, allowing informed decisions to be made concerning development design layout.
- 1.5 The following documents have been made available by the client:
 - Drawing- A002_Plans_23102023 (2).dwg
- 1.6 The supplied drawing included some tree positions plotted. Any dimensions regarding tree positions and protective fencing must be checked on site.
- 1.7 The survey was carried out noting the conditions of the trees at the time of inspection. As trees are part of the natural environment, conditions can naturally change; therefore the contents of this report are valid for one year only. After this period, re-inspection may be necessary.

2.0 Survey Methodology

- 2.1 The trees were surveyed (prefixed T, or G for group) and recorded in the tree schedule in appendix one. Where groups are recorded, average height and diameter at breast height (DBH) of the trees in the group are reported. Where access to the base of any trees was limited, stem size was estimated.
- 2.2 All the trees were assessed using: a grading A to C (retention) and U (removal); condition and age class as defined in appendix two.
- 2.3 Where appropriate, canopy spread for each tree was recorded at four cardinal points in order to reproduce an accurate representation of the crown shape of the tree on the tree plan in appendix three.
- 2.4 The survey included all trees within the proposal area and trees near to the proposal.

3.0 Development Proposals

- 3.1 Due to the proposed development and its associated infrastructure there are a number of locations where the proposals are in close proximity to the trees surveyed. The Site Layout Plan within appendix three identifies the trees in relation to the proposed development.
- 3.2 In order to fully assess the impact of the proposals an Impact Table has been created detailing each tree, which shows the proximity of the associated works to the tree.
- 3.3 This can then be assessed in accordance with BS 5837:2012 to determine whether the development will have a detrimental impact on the health of each tree. Once this has been determined remedial measures can be detailed to reduce the impact the proposals will have on the treescape.

3.4 Impact Table:-

Tree No.	Root Protection Area identified in Table 2 of BS 5837:2012	Distance to Proposed Hard Standing (m)	Distance to Proposed Development (m)	Can the Tree/s be Successfully Retained
1208	Not Assessed as the Tree Requires Removal Due to its Condition			
1209	Not Assessed as the Tree Requires Removal Due to its Condition			
1214	319m ²	17.30	17.30	Yes
1215	Not Assessed as the Tree Requires Removal Due to its Condition			
1216	72m ²	18.60	18.60	Yes
1217	142m ²	20.50	20.50	Yes
1218	Not Assessed as the Tree Requires Removal Due to its Condition			
1219	400m ²	24.20	24.20	Yes
1220	235m ²	26.40	26.40	Yes
1221	142m ²	21.70	21.70	Yes
1222	49m ²	14.70	14.70	Yes
1223	55m ²	14.10	14.10	Yes
1224	104m ²	12.80	12.80	Yes
1225	92m ²	8.10	8.10	Yes
1226	137m ²	7.30	7.30	Yes
1227	Not Assessed as the Tree Requires Removal Due to its Condition			
1228	96m ²	6.20	6.20	Yes
1229	104m ²	7.30	7.30	Yes
1231	163m ²	7.10	7.10	Yes
1232	80m ²	5.90	5.90	Yes
1233	Not Assessed as the Tree Requires Removal Due to its Condition			
1234	62m ²	7.60	7.60	Yes
1235	49m ²	5.50	5.50	Yes
1236	707m ²	7.70	7.70	Yes as outlined in section 5.0
1237	707m ²	9.30	9.30	Yes as outlined in section 5.0
1238	707m ²	18.20	16.40	Yes
T1	46m ²	27.10	6.20	Yes
T2	163m ²	27.40	5.50	Yes
T3	33m ²	31.30	3.10	Yes
T4	55m ²	32.40	4.90	Yes
T5	96m ²	34.60	3.10	Yes as outlined in section 5.0
T6	18m ²	39.50	9.90	Yes
T7	24m ²	49.40	3.30	Yes
T14	707m ²	58.10	16.00	Yes as outlined in section 5.0
T15	588m ²	44.60	19.80	Yes
G1	Not Assessed as the Trees Require Removal Due to their Condition			

4.0 Impact Assessment

- 4.1 To assess the implications of the Impact Table each tree can be categorised in the following way: -

	Trees to be retained		Trees Requiring Removal	
	With No Impact	With detailed construction	Due to Condition	Due to Development
Tree No.	1214, 1216, 1217, 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226, 1228, 1229, 1230, 1231, 1232, 1345, 1346, 1347, 1348, T1, T2, T3, T4, T5, T6, T7, T14 & T15	N/A	1208, 1209, 1215, 1218, 1227, 1233 & G1	N/A

5.0 Mitigation Proposals

5.1 Compensatory Planting

- 5.1.1 It is proposed that along with the general soft landscaping for the development, further supplementary tree planting will support the application.
- 5.1.2 This will have a number of benefits for the development and the character of the area. These being:-
- Give a greater diversity of age class on the site; increasing sustainability.
 - Give a greater diversity of species and therefore wildlife habitat.

5.2 Development Construction

- 5.2.1 The impact table below shows the proposed development having a minor encroachment into the root protection area of 1236, 1237, T5 & T14. It is felt that due to the species, condition and limited extent of encroachment the proposal will not have a detrimental impact on the safe useful life expectancy of these trees.
- 5.1.2 Section 7.5.3 of BS 5837:2012 advises that where a slab or minor structure is to be formed within the RPA it should not exceed 20% of any existing unsurfaced ground. The table below details the amount of encroachment within the RPA.

Tree No	Total Area m2 of RPA	Total m2 of Structure within the RPA	Percentage of Structure within the RPA
1236	707	108.60	15.40%
1237	707	44.40	6.30%
T5	96	6.70	7.00%
T14	707	3.60	0.50%

5.1.3 As you can see from the table above the proposed structure does not exceed 20% of the RPA. It is therefore felt that the proposed development will not have a detrimental impact upon the existing trees.

6.0 Conclusions and Arboricultural Recommendations

- 6.1 The tree categorisation method identifies the quality and value of the existing tree stock but it is not meant to be interpreted rigidly and is presented in order to form a balanced judgement on tree retention and removal.
- 6.2 A precautionary method of working near trees is detailed in the accompanying Arboricultural Method Statement.
- 6.3 Following site development, regular (annual or biannual) inspections of all retained trees should be undertaken by a qualified Arboricultural Consultant.
- 6.4 It is considered that in following the advice in this document, any negative factors affecting trees on the site will be minimised.

Appendix One

Tree Survey Schedule

Appendix 2
Proposed clubhouse at Boundary Lakes Golf Course, West End
Tree Schedule and Explanatory Notes

Tree No	Species	Height (m)	Trunk Diameter (cm)	Crown spread (m)		Crown height above ground	Life stage	General observations	Estimated contribution in years	BS 5837 cat	Root protection distance (m)
1208 694	Sycamore	13	68	2 5	5 8	3	EM	Extensive dead wood and die-back	<10	U	8.1
1209 696	Beech	17	100?	5 5	5 5	3	M	Dead	<10	U	12.0
G1 (1210)	Sycamore	10	28	5 5	5 5	3	SM	Die-back, basal wire ligatures	<10	C/U	3.3
G1 (1211)	Sycamore	11	24	5 5	5 5	1	SM	Trunk deformed round adjacent structure	<10	C/U	3.0
G1 (1212)	Sycamore	14	32	2 4	4 6	3	SM	One-sided, poor form	<10	C/U	3.9
G1 (1213)	Sycamore	14	27+22	5 5	5 5	3	SM	Two stems from ground level, one-sided, poor form	<10	C/U	4.2
1214 692	Oak	17	84+47	9 7	7 6	2.5	M	Two stems from ground level, leans 20° to east	40+	A	11.4
1215 691	Beech	18	82	7 7	7 7	2	M	Thin in crown, extensive middle / upper crown damage	<10	U	9.9
1216	Beech	15	40	7 7	7 7	4	EM		40+	A	4.8

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Tree No	Species	Height (m)	Trunk Diameter (cm)	Crown spread (m)		Crown height above ground	Life stage	General observations	Estimated contribution in years	BS 5837 cat	Root protection distance (m)
1217	Beech	20	56	7	7	5	EM		40+	A	6.6
1218	Beech	20	96	8	8	5	M	One-sided and leaning slightly towards road to west - fungal fruiting bodies (<i>Ganoderma</i> sp) at base	<10	U	11.4
				8	8						
1219	Beech	20	94	9	9	5	M		40+	A	11.4
1220	Scots pine	17	72	1	6	11	M	One-sided, dead wood, die-back	10+	C	8.7
				6	6						
1221	Oak	16	56	3	5	4	EM	One-sided	20+	B	6.6
				5	7						
1222	Sycamore	15	33	5	5	4	EM	Poor form	10+	C	3.9
				5	5						
1223	Sycamore	15	35x2	5	5	5	EM	Two stems from ground level, poor form, thin crown	10+	C	6.0
				5	5						
1224	Sycamore	15	48	5	5	3	EM	One-sided, poor form	10+	C	5.7
				5	5						
1225	Sycamore	15	45?	6	6	5	EM	Poor form, die-back, dense ivy	10+	C	5.4
				6	6						

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Tree No	Species	Height (m)	Trunk Diameter (cm)	Crown spread (m)		Crown height above ground	Life stage	General observations	Estimated contribution in years	BS 5837 cat	Root protection distance (m)
1226	Sycamore	15	55+30	4	4	5	EM	One-sided, poor form, thin crown, ivy	10+	C	7.5
				4	4						
1227	Sycamore	11	33	3	3	2	SM	Leans, one-sided, 50% dead	<10	U	3.9
				3	3						
1228	Turkey oak	15	46	5	5	4	SM	Leans, one-sided, ivy	10+	C	5.7
				5	5						
1229	Sweet chestnut	16	48+44	6	6	6	EM	Two stems from 1m, larger stems with storm damage and dead wood	10+	C	7.8
				6	6						
1230	Beech	16	31	8	6	1	EM	One-sided, poor form	10+	C	3.6
				6	2						
1231	Sycamore	18	60	9	9	5	EM	Forms one crown with 1232	40+	A	7.2
				9	9						
1232	Sycamore	18	42	2	6	2	EM	Forms one crown with 1231	20+	B	5.1
				6	6						
1233	Sweet chestnut	14	98	4	4	4	M	Dead	<10	U	12.0
				4	4						
1234	Oak	14	37	4	4	6	EM	Thin crown, reduced vigour	10+	C	4.5
				4	4						
1235	Sycamore	13	33	7	7	1	EM	Poor form	20+	B	3.9
				7	7						

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Tree No	Species	Height (m)	Trunk Diameter (cm)	Crown spread (m)		Crown height above ground	Life stage	General observations	Estimated contribution in years	BS 5837 cat	Root protection distance (m)
1236	Oak	22	146	10	10	4	M	Thin crown, die-back, dead wood, damage to root buttresses, large old branch loss	20+	B	15.0
				10	10						
1237	Turkey oak	22	150?	13	13	0	M	Slightly thin crown - access hampered by hedge growth	20+	B	15.0
				13	13						
1238	Horse chestnut	18	100?	9	9	2	M	Access hampered by hedge growth	20+	B	12.0
				9	9						
1281 T14	Oak	17	135	13	13	1	M		40+	A	15.0
				18	11						
1282	Oak	15	101	8	8	2	M	Lower trunk leans 45°	20+	B	12.0
				8	8						
1283 T15	Oak	17	114	12	12	3	M	Large primary branch from 1.2m. Occasional dead wood and die-back.	20+	A	13.8
				12	12						
T1	Holly	10	32	5	5	0.5	M	Leans 20°, one-sided, diminished vigour	10+	C	3.9
				5	5						
T2	Cherry	9	60?	N/A		N/A	N/A	Dead tall stump	N/A	N/A	N/A
T3	Sycamore	11	27	5	5	2	SM	Basal damage	10+	C	3.3
				5	5						

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Tree No	Species	Height (m)	Trunk Diameter (cm)	Crown spread (m)		Crown height above ground	Life stage	General observations	Estimated contribution in years	BS 5837 cat	Root protection distance (m)
T4	Sycamore	11	35	5	5	5	EM	Lower trunk damage	20+	B	4.2
				5	5						
T5	Sycamore	13	46	6	6	2	EM	Minor basal damage	20+	B	5.4
				6	6						
T6	Sycamore	9	M<20	6	6	2	SM	Multi-stemmed form ground level, poor form, basal damage	10+	C	3.5
				6	6						
T7	Sycamore	7	23	4	4	1	SM	Minor basal damage, poor trunk form	10+	C	2.7
				4	4						

Appendix Two

Tree Survey Key

Trees for removal				
Category and definition		Criteria		
Category U Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management		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 R category trees (i.e. 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 (e.g. Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality Note – Habitat reinstatement may be appropriate (e.g. R category tree used as a bat roost: installation of bat box in nearby tree).		
Trees to be considered for retention				
Category and definition		Criteria - Subcategories		
		1 Arboriculture values	2 Landscape values	3 Conservation values
Category A Those of high quality and value: in such a condition as to be able to make a substantial contribution (a minimum 40 years is suggested)		Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboriculture features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood pasture)
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)		Trees that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage)	Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboriculture features (e.g. trees of moderate quality within avenue that includes better, A category specimens), or trees situated mainly internally to the site, therefore individually having little impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits
Category C Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150 mm		Trees not qualifying 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 very limited conservation or other cultural benefits
		Note - Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150 mm should be considered for relocation		

Age Class

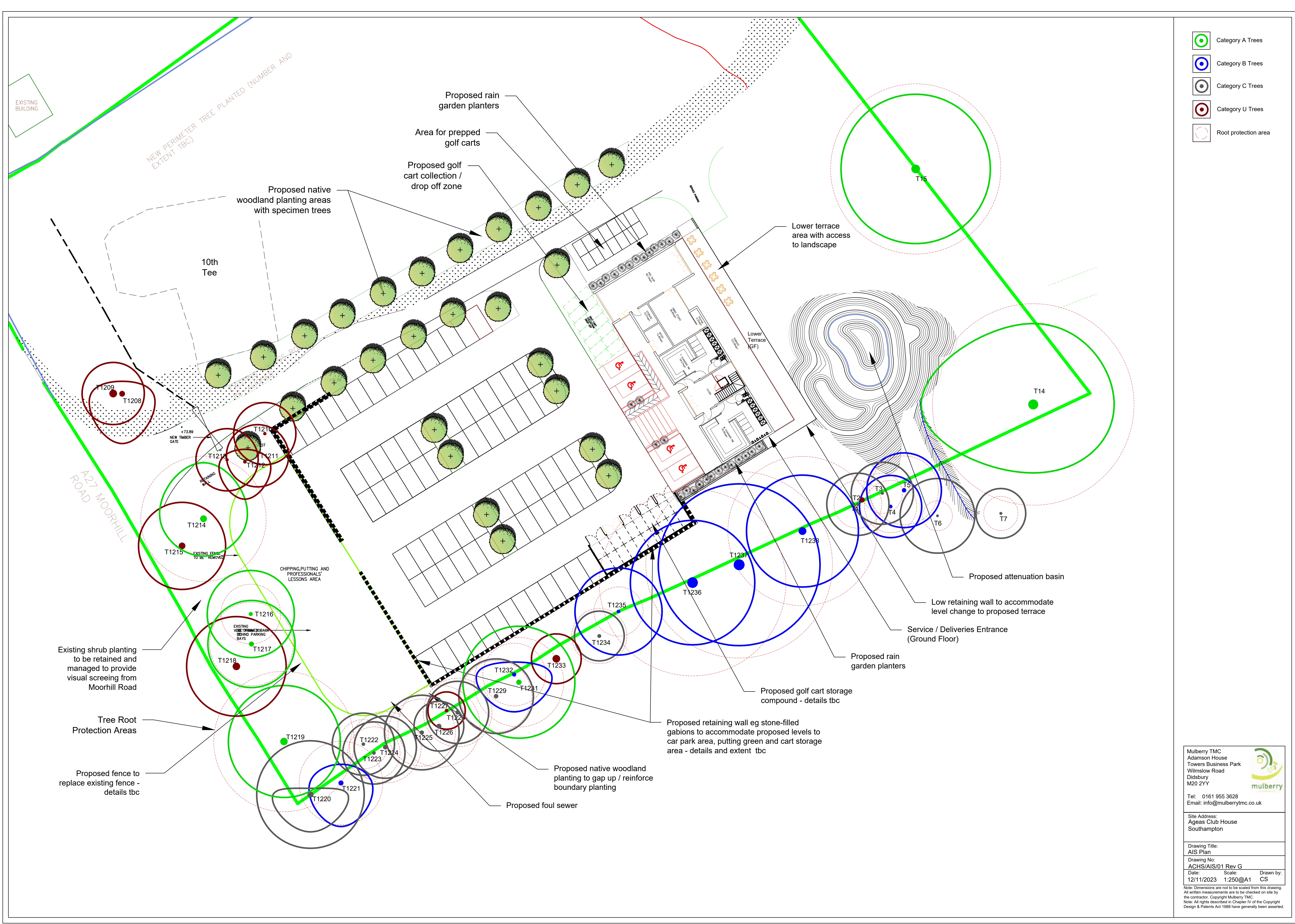
Y	Young	Trees that have not yet established
SM	Semi-Mature	Established trees up to 1/3 of expected height and crown
EM	Early mature	Between 1/3 and 2/3 expected height and crown
M	Mature	Between 2/3 and full expected height and crown
FM	Fully Mature	Full expected height and crown
OM	Over-Mature	Crown beginning to break up and decrease in size
S	Senescent	Crown in advanced stage of break-up

Condition

A	Good
B	Fair
C	Poor
D	Dead

Appendix Three

Plans



- Category A Trees
- Category B Trees
- Category C Trees
- Category U Trees
- Root protection area

Mulberry TMC
Adamson House
Towers Business Park
Wilmslow Road
Didsbury
M20 2YY

Tel: 0161 955 3628
Email: info@mulberrytmc.co.uk

Site Address:
Ageas Club House
Southampton

Drawing Title:
AIS Plan

Drawing No:
ACHS/AIS/01 Rev G

Date: 12/11/2023
Scale: 1:250@A1
CS

Drawn by:

Note: Dimensions are not to be scaled from this drawing.
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