

Appendix A Tree Survey Schedule



Tree Ref. No.	Species	Tree Height (m)	Stem Ø (mm)	Protective Linear Radius (m)	RPA m²	Branch Spread (m)				FSB & Crown Height (m)		Life Stage	Condition, General Observations and Preliminary Management Recommendations (In bold).	Estimated Remaining Contribution	Category
						N	E	S	W	Significant Branch	Canopy				
T1	<i>Acer pseudoplatanus</i> (Sycamore)	9	225	2.7	23	4	1	1.5	5.5	2SW	2	M	Fair condition. Peripheral tree. Unbalanced crown shape and form. Suppressed crown development. No works necessary.	10+	C3
T2	<i>Salix caprea</i> (Goat Willow)	12	320	5.4	93	7	6.5	2.5	5	1.5NW	2	M	Fair condition. Peripheral tree. Stem divides below 1.5m. Included bark present in fork. Suppressed crown development. No works necessary.	10+	C2
T3	Goat Willow	13	220	5.9	109	6	6.5	4	4.5	0.5	2	M	Fair condition. Peripheral tree. Major bark wounding on stem. Stem divides below 1.5m. Dense Ivy cover obscuring assessment of main stem and branch unions. Suppressed crown development. Overhead services pass through crown. No works necessary.	10+	C2
G4	<i>Betula pendula</i> (Silver Birch), Sycamore, <i>Aesculus hippocastanum</i> (Horse Chestnut), <i>Prunus</i> spp. (Cherry), <i>Buddleja davidii</i> (Butterfly Bush), <i>Ilex aquifolium</i> (Holly) & <i>Crataegus monogyna</i> (Hawthorn)	11	250	3.0	28	4.5	4.5	4.5	4.5	-	0	M	Fair condition. 'Scrubby' understorey with some established trees along its length. Sever ivy to facilitate its removal and allow future inspection. Remove fragile dead wood in proximity of target areas.	10+	C2



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						N	E	S	W	Significant Branch	Canopy				
G5	<i>Picea abies</i> (Norway Spruce), Silver Birch & <i>Alnus glutinosa</i> (Common Alder)	14	380	4.6	65	4.5	4.5	4.5	4.5	1SE	1	M	Fair condition. Linear group. Unbalanced crown shape and form. Pruning of lower branches evident. Linear group of spruce with suppressed birch and alder in the centre. Notable amount of disruption to adjacent drive, indicative of root damage, limiting potential use of no-dig surfacing. Average stem diameter applied to group. Crown lift to 4m.	10+	C2
T6	Horse Chestnut	12	405	4.9	74	4.5	5	4	5.5	2SE	0	M	Fair condition. Balanced crown shape and form. Resinous exudations on stem. Stem divides above 1.5m. Suppressed crown development. Vertical wound on main stem extending into FSB. Crown lift to 3m.	10+	C3
T7	<i>Malus spp.</i> (Apple)	8	230	2.8	24	2.5	1.5	3	2	0.8	1	OM	Fair condition. Stem divides below 1.5m. Included bark present in fork. Suppressed crown development. Remove plastic guard/shelter.	10+	C3
T8	Apple	3.5	100	1.2	5	0.5	2	2	1	0.3SE	0	M	Poor condition. Leaning South. Unbalanced crown shape and form. Suppressed crown development. Consider removal to facilitate landscaping and grounds maintenance.	10+	C3
G9	Apple	3.5	200	2.4	18	2.5	2.5	2.5	2.5	-	0.5	M	Fair condition. Crown distorted due to group pressure. Typically managed orchard trees, now lapsed and requiring management to facilitate equal development amongst group. Remove plastic shelters.	10+	C3
T10	<i>Tsuga spp.</i> (Hemlock)	14	495	5.9	111	5.5	5.5	4	5.5	2SW	0	M	Fair condition. Overhead services pass through southern aspect of crown. Crown lift to 4m.	20+	B2



Tree Ref. No.	Species	Tree Height (m)	Stem Ø (mm)	Protective Linear Radius (m)	RPA m²	Branch Spread (m)				FSB & Crown Height (m)		Life Stage	Condition, General Observations and Preliminary Management Recommendations (In bold).	Estimated Remaining Contribution	Category
						N	E	S	W	Significant Branch	Canopy				
G11	Norway Spruce, <i>Juniperus communis</i> (Common Juniper), <i>Prunus laurocerasus</i> (Cherry Laurel), <i>Quercus spp.</i> (Oak), Apple, Butterfly Bush, Silver Birch, <i>Chamaecyparis lawsoniana</i> (Lawson Cypress) & <i>Sequoiadendron giganteum</i> (Wellingtonia)	11	400	4.8	72	4	4	4	4	-	0	M	Fair condition. Primarily coniferous and evergreen group with occasional broadleaf amongst the group. Closed canopy limiting available light. Average stem diameter of larger species recorded. Management plan required. Remove dead near greenhouse.	10+	C2
G12	Cherry Laurel, <i>Ribes sanguinem</i> (Redflower Current) & <i>Sambucus nigra</i> (Elder)	3.5	100	1.2	5	3.5	3.5	3.5	3.5	-	0	M	Fair condition. Multiple stems at ground level. Sprawling, unmanaged shrub bed. Bring under management.	10+	C3
T13	<i>Corylus avellana</i> (Hazel)	5	60	1.4	7	2	2	1.5	2	-	0	M	Fair condition. Tree located within hard surface area. Limited rooting environment. Multiple stems at ground level. Dense Ivy cover obscuring assessment of main stem and branch unions. Sever Ivy to facilitate its removal and allow future inspection.	10+	C3



Tree Ref. No.	Species	Tree Height (m)	Stem Ø (mm)	Protective Linear Radius (m)	RPA m ²	Branch Spread (m)				FSB & Crown Height (m)		Life Stage	Condition, General Observations and Preliminary Management Recommendations (In bold).	Estimated Remaining Contribution	Category
						N	E	S	W	Significant Branch	Canopy				
T14	Hazel	5	60	1.4	7	1.5	3.5	4.5	2.5	-	0	M	Fair condition. Tree located within hard surface area. Limited rooting environment. Multiple stems at ground level. Dense Ivy cover obscuring assessment of main stem and branch unions. Sever Ivy to facilitate its removal and allow future inspection.	10+	C3
T15	Silver Birch	11	135	1.6	8	3	1.5	2	2.5	2.5W	2	EM	Fair condition. Tree located within hard surface area. Limited rooting environment. Branches encroaching upon building. Pruning of lower branches evident. No works necessary.	10+	C2
T16	<i>Acer campestre</i> (Field Maple)	6	180	3.1	29	3	4	4	4.5	1.2S	0.5	M	Fair condition. Stem divides below 1.5m. Included bark present in fork. Crown lift to 3m.	10+	C3
T17	Horse Chestnut	11	60	1.4	7	1	1.5	1.5	1.5	-	0.5	M	Fair condition. Limited rooting environment. Multiple stems at ground level. Included bark present in fork. Suppressed crown development. Removal required to repair adjacent wall.	10+	C3
T18	Horse Chestnut	11	320	3.8	46	5	5.5	3	4.5	-	0	M	Poor condition. Major bark wounding on stem. Included bark present in fork. Suppressed crown development. Subdominant stems below 1m. No works necessary.	10+	C3
T19	<i>Prunus avium</i> (Wild Cherry)	7	125	1.5	7	1.5	1	3	1.5	1.5S	1.5	M	Fair condition. Limited rooting environment. Suppressed crown development. No works necessary.	10+	C3
T20	<i>Fraxinus excelsior</i> (Ash)	12	250	4.3	57	4	6	4.5	6.5	3NW	2.5	M	Fair condition. Stem divides below 1.5m. Included bark present in fork. Suppressed crown development. Pruning of lower branches evident. Deadwood in lower branches. Remove dead wood >30mm diameter.	10+	C2
T21	<i>Cupressus spp.</i> (Cypress)	8	80	1.4	6	1.2	1.2	1.2	1.2	-	0	M	Fair condition. Stem divides below 1.5m. Suppressed crown development. Eastern stem dominates crown structure. No works necessary.	10+	C3



Tree Ref. No.	Species	Tree Height (m)	Stem Ø (mm)	Protective Linear Radius (m)	RPA m²	Branch Spread (m)				FSB & Crown Height (m)		Life Stage	Condition, General Observations and Preliminary Management Recommendations (In bold).	Estimated Remaining Contribution	Category
						N	E	S	W	Significant Branch	Canopy				
G22	<i>Corylus avellana</i> 'Contorta' (Corkscrew hazel), Hazel & Cherry Laurel	5	60	1.6	8	2.5	2.5	2.5	2.5	-	0	M	Fair condition. Tree located within raised bed. Located in mature shrub bed. Limited rooting environment. Multiple stems at ground level. Branches encroaching upon building. Prune branch tips clear of building.	10+	C3
G23	Norway Spruce & Cypress	12	200	2.4	18	2	2	2	2	-	0	M	Fair condition. Narrow, etiolated shape and form. Crown distorted due to group pressure. Average stem diameter applied. No works necessary.	10+	C3
G24	Norway Spruce, Cypress, <i>Cedrus atlantica</i> 'Glauca' (Atlas cedar) & Pinus spp. (Pine)	13	250	3.0	28	3	3	3	3	-	0	M	Fair condition. Crown distorted due to group pressure. Average stem diameter applied. Low branches limiting access and development of individual trees. No works necessary.	10+	C3
W25	Hazel & <i>Salix</i> spp. (Willow)	12	100	1.2	5	4	4	4	4	-	0	EM	Fair condition. Narrow, etiolated shape and form. Multiple stems at ground level. Dense stand of trees in pond basin. No works necessary.	10+	C3
G26	Cherry Laurel	5	100	1.7	9	2	2	3	2	-	0	M	Fair condition. Linear group. Multiple stems at ground level. No works necessary.	10+	C3
T27	<i>Sorbus aucuparia</i> (Rowan)	9	200	2.4	18	2	1	4	1	1SE	1.5	M	In Decline condition. Decay present on stem. Stem divides below 1.5m. Sparsely foliated crown. Dieback in crown. Unbalanced crown shape and form. Suppressed crown development. Remove tree; unsuitable for retention in proximity of new development.	<10	U
T28	Silver Birch	14	240	2.9	26	4	1	1.5	2.5	2.5NW	3	M	Fair condition. Part of group. Peripheral tree. Suppressed crown development. Crown distorted due to group pressure. No works necessary.	10+	C3



Tree Ref. No.	Species	Tree Height (m)	Stem Ø (mm)	Protective Linear Radius (m)	RPA m ²	Branch Spread (m)				FSB & Crown Height (m)		Life Stage	Condition, General Observations and Preliminary Management Recommendations (In bold).	Estimated Remaining Contribution	Category
						N	E	S	W	Significant Branch	Canopy				
T29	Norway Spruce	12	240	2.9	26	3	1	1	1.5	2.5N	4.5	M	Fair condition. Group tree. Suppressed crown development. Crown distorted due to group pressure. No works necessary.	10+	C3
T30	Norway Spruce	14	370	4.4	62	1.5	1.5	5	3.5	1.2SW	0	M	Fair condition. Peripheral tree. Unbalanced crown shape and form. Suppressed crown development. Crown distorted due to group pressure. Crown lift to 4m.	10+	C2
T31	Horse Chestnut	10	290	3.5	38	5	3	3	4.5	2E	2	M	Fair condition. Group tree. Suppressed crown development. Crown distorted due to group pressure. Crown lift to 3m.	10+	C3
T32	<i>Eucalyptus gunnii</i> (Cider Gum)	18	905	10.9	371	9	7	11	5	1N	1.5	M	Fair condition. Suppressed crown development. Crown distorted due to group pressure. Crown lift to 4m.	20+	B2
T33	Atlas cedar	8	430	5.2	84	7	4	3	7	2SW	4	M	Fair condition. Sparsely foliated crown. Unbalanced crown shape and form. Suppressed crown development. Crown distorted due to group pressure. Hazel understorey limiting growth. Remove hazel form around base and RPA.	20+	C3
G34	Norway Spruce & <i>Gleditsia triacanthos</i> (Honey Locust)	14	200	2.4	18	3	3	3	3	NE	3.5	M	Fair condition. Branches encroaching upon building. Average stem diameter applied. Prune branch tips clear of building.	10+	C3
T35	Norway Spruce	16	410	4.9	76	3	7	5	4	4.5NE	3.5	M	Fair condition. Part of group. Peripheral tree. Unbalanced crown shape and form. Crown distorted due to group pressure. Branches encroaching upon building. Prominent surface roots. Prune branch tips clear of building.	20+	C2
T36	Honey Locust	5	270	3.2	33	0.5	1	4.5	0.5	3S	2.5	M	Poor condition. Unbalanced crown shape and form. Suppressed crown development. Significant past pruning/stem removal evident. No works necessary.	10+	C3



Tree Ref. No.	Species	Tree Height (m)	Stem Ø (mm)	Protective Linear Radius (m)	RPA m²	Branch Spread (m)				FSB & Crown Height (m)		Life Stage	Condition, General Observations and Preliminary Management Recommendations (In bold).	Estimated Remaining Contribution	Category
						N	E	S	W	Significant Branch	Canopy				
W37	<i>Tilia</i> spp. (Lime), <i>Fagus sylvatica</i> (Beech), <i>Pinus sylvestris</i> (Scots Pine), <i>Larix decidua</i> (European Larch), Oak, Ash, Hemlock, <i>Carpinus betulus</i> (Hornbeam), Field Maple, Hazel, Willow & Common Alder	16	400	4.8	72	4.5	4.5	4.5	4.5	-	0	M	Fair condition. Predominantly broadleaf woodland with some conifers. Evidence of mammal damage in places. Average stem diameter of larger specimens recorded; unable to plot individual trees. Sparse understorey; opportunity to improve. No works necessary.	20+	B2
W38	Sycamore, Norway Spruce, Ash & Hawthorn	15	400	4.8	72	5	5	5	5	-	0	M	Fair condition. Narrow, etiolated shape and form. Unsurveyed woodland, limited in species range. Dense vegetative understorey. No works necessary.	10+	C3
T39	Hawthorn	6	120	2.5	20	4.5	3.5	3	3	2.5	0	M	Fair condition. Limited rooting environment. Multiple stems at ground level. Branches encroaching upon building. Crown lift to 3m. Prune branch tips clear of building.	10+	C3
G40	Hazel, Cypress, Juniper, Alder, Field Maple & False cypress	5	100	1.2	5	1.5	1.5	1.5	1.5	-	0	M	Fair condition. Unmanaged group, primarily amenity conifers. Bring under management.	10+	C3
G41	Beech, Cherry Laurel, Norway Spruce, Silver Birch & <i>Acer platanoides</i> (Norway Maple)	14	200	2.4	18	4	4	4	4	-	0	M	Fair condition. Unmanaged with little definition of areas resulting in eclectic planting with no structure. Requires management plan to include selective thinning to allow planting of more UK native species.	10+	C2



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						N	E	S	W	Significant Branch	Canopy				
G42	Beech	13	200	2.4	18	1	1	1	1	-	0	M	Fair condition. Linear group. Narrow, etiolated shape and form. L-shaped group, planted as plot/compartiment bound but no evidence of management. Bring under management.	10+	C3
G43	Norway Spruce	16	360	4.3	59	3	3	3	3	-	0	M	Fair condition. Linear group. No works necessary.	10+	C3
T44	<i>Salix fragilis</i> (Crack Willow)	15	550	9.3	274	12	7	10	8	2S	5	M	Fair condition. Access limited; diameter estimated. Dieback in crown. Sprawling, twin stemmed tree, growing beyond water course. Manage as a pollard.	10+	C3
T45	Common Alder	13	310	3.7	43	6	5	3	6.5	NW	2	M	Fair condition. Stem divides above 1.5m. Suppressed crown development. Pruning of lower branches evident. No works necessary.	10+	C3
T46	<i>Prunus 'Kanzan'</i> (Flowering Cherry)	6.5	420	5.0	80	6.5	5	5	5	1.5NW	2	M	Poor condition. Cavity on stem. Stem divides below 1.5m. Included bark present in fork. Dieback in crown. Pruning of lower branches evident. No works necessary.	10+	C3
T47	Wild Cherry	7	150	1.8	10	3	1.5	2	1.5	2S	2	EM	Fair condition. Stem divides below 1.5m. Included bark present in fork. No works necessary.	10+	C3
T48	Crab Apple	6	100	2.1	14	1	1	4	3.5	-	3	M	Poor condition. Stem divides below 1.5m. Included bark present in fork. Dieback in crown. Unbalanced crown shape and form. Suppressed crown development. Mildew blankets main stem. Remove tree; unsuitable for retention in proximity of new development.	<10	U
T49	Horse Chestnut	12	440	5.3	88	7	6	4.5	7	2NW	1.5	M	Fair condition. Crown distorted due to group pressure. Crown lift to 4m.	20+	B3
T50	<i>Taxus baccata</i> (Yew)	6.5	100	2.4	18	3	3	3	4.5	-	0	M	Fair condition. Poor shape & form. Stem divides at ground level. Included bark present in fork. Sprawling, unmanaged tree. No works necessary.	20+	C3



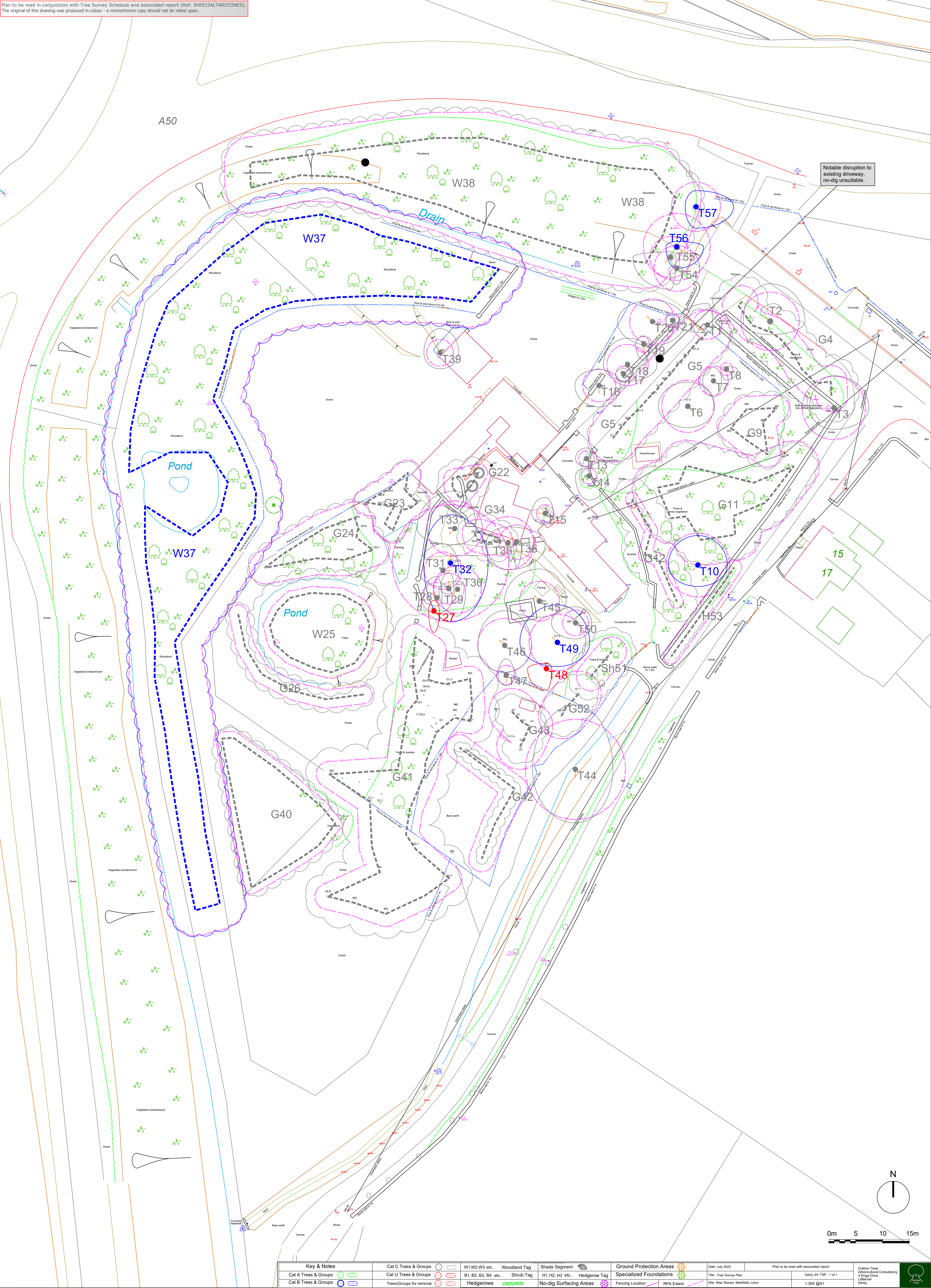
Tree Ref. No.	Species	Tree Height (m)	Stem Ø (mm)	Protective Linear Radius (m)	RPA m²	Branch Spread (m)				FSB & Crown Height (m)		Life Stage	Condition, General Observations and Preliminary Management Recommendations (In bold).	Estimated Remaining Contribution	Category
						N	E	S	W	Significant Branch	Canopy				
Sh51	Cherry Laurel	4	100	2.7	23	4	4	4	3	-	0	M	Fair condition. Multiple stems at ground level. No works necessary.	10+	C3
G52	Larch & Scots Pine	15	360	4.3	59	3.5	3.5	3.5	3.5	6	5	M	Fair condition. Linear group of 3 conifers. Largest stem diameter (larch to north) recorded. No works necessary.	10+	C2
H53	Hawthorn & Holly	4	120	1.4	7	1.5	1.5	1.5	1.5	-	0	M	Fair condition. Unmanaged linear group with 'topping' evident near overhead services to the south. No works necessary.	10+	C3
T54	Scots Pine	15	355	4.3	57	0.5	1	3	1.5	-	9	M	Fair condition. Peripheral tree. Narrow, etiolated shape and form. Suppressed crown development. Deadwood in lower branches. Remove dead wood >30mm diameter.	10+	C2
T55	Norway Maple	15	320	3.8	46	1	1	6	7	1SW	1.5	M	Fair condition. Peripheral tree. Unbalanced crown shape and form. Suppressed crown development. Crown distorted due to group pressure. No works necessary.	20+	C2
T56	Sycamore	16	300	6.2	122	1	5	4	2	1.5SE	2	M	Fair condition. Part of group. Peripheral tree. Dense Ivy cover obscuring assessment of main stem and branch unions. Suppressed crown development. Crown distorted due to group pressure. Sever Ivy to facilitate its removal and allow future inspection.	20+	B2
T57	Sycamore	15	220	4.6	66	3	7	4	2	1.5SE	2	M	Fair condition. Part of group. Peripheral tree. Multiple stems at ground level. Dense Ivy cover obscuring assessment of main stem and branch unions. Suppressed crown development. Crown distorted due to group pressure. Sever Ivy. Remove Ivy.	20+	B2



Appendix B Current Layout & Tree Survey Plan



Plan to be read in conjunction with Tree Survey Schedule and associated report (Ref: JH0923ALTARSTONES).
The original of this drawing was produced in colour - a monochrome copy should not be relied upon.



Appendix C Proposed Layout & Tree Protection Plan



Plan to be read in conjunction with Tree Survey Schedule and associated report (Ref: JH0923ALTARSTONES). The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

Suggested specification for protective fencing, which will be erected prior to commencement of construction and at the same time as the pre-construction tree works.



The planting of new UK native tree and shrub species will be specified as part of the separate Landscape Framework Strategy, which amongst other aspects, will enhance the retained wooded areas, whilst also improving the diversity of species in the wooded areas and their structures, by introducing and/or enhancing the existing ground, field and shrub levels.

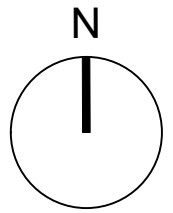
The new avenue of trees along the improved access drive, will consist of tree species, which will be appropriate for their location whilst also having regard to their future size, shape and management requirements. Species considered to be appropriate for this specific element are suggested in Section DS10.

Table 5.1: Summary of Tree Works

Tree Ref. No's.	Species	BS Category	Nature of tree works and reason.
T1	Sycamore	C	Remove tree to implement creation of improved access.
T2	Goat Willow	C	Remove tree to facilitate creation of improved access.
G4	Silver Birch, Sycamore, Horse Chestnut, Cherry, Butterfly Bush, Holly & Hawthorn	C	Remove approx. 94m ² of group tree to implement creation of improved access.
G5	Norway Spruce, Silver Birch & Common Alder	C	Remove tree group to implement creation of improved access road, creation of parking bays and allow unobstructed development of retained horse chestnut T6.
T7	Crab Apple	C	Remove tree to facilitate unobstructed grounds maintenance of currently neglected area.
T8	Crab Apple	C	Remove tree to facilitate unobstructed grounds maintenance of currently neglected area.
G12	Cherry Laurel, Redflower Currant & Elder	C	Remove shrub group to implement creation of improved access road.
T13	Hazel	C	Remove tree to implement creation of improved access road & creation of parking bays.
T14	Hazel	C	Remove tree to implement creation of improved access road & creation of parking bays.
T15	Silver Birch	C	Remove tree to implement creation of improved access road.
T16	Field Maple	C	Remove tree to implement creation of improved access road.
T17	Horse Chestnut	C	Remove tree to implement creation of improved access road.
T18	Horse Chestnut	C	Remove tree to implement creation of improved access road.
T19	Wild Cherry	C	Remove tree to implement creation of improved access road.
T20	Ash	C	Remove tree to implement creation of improved access road.
T21	Cypress	C	Remove tree to implement creation of improved access road.
G22	Hazel & Cherry Laurel	C	Remove group to implement new layout.
G23	Norway Spruce & Cypress	C	Remove tree group to facilitate/implement construction of building A.
G24	Norway Spruce, Cypress, Atlas cedar & Pine	C	Remove tree group to facilitate/implement construction of building A.
T27	Rowan	U	Remove Cat U tree: unsuitable for retention.
T28	Silver Birch	C	Remove tree to allow unobstructed development of retained tree T32.
T29	Norway Spruce	C	Remove tree to allow unobstructed development of retained tree T32.
T30	Norway Spruce	C	Remove tree to allow unobstructed development of retained tree T32.
T33	Atlas cedar	C	Remove tree to allow unobstructed development of retained tree T32.
G34	Norway Spruce & Honey Locust	C	Remove group to implement new layout.
T35	Norway Spruce	C	Remove tree to implement new layout.
T36	Honey Locust	C	Remove tree to implement new layout.
W37	Lime, Beech, Scots Pine, Larch, Oak, Ash, Hemlock, Hornbeam, Field Maple, Hazel, Willow & Alder	B	Selective removal of trees necessary (approx. 1280m ²) to implement construction of building A and facilitate new woodland edge planting.
T39	Hawthorn	C	Remove tree to implement new layout.
G41	Beech, Cherry Laurel, Norway Spruce, Silver Birch & Norway Maple	C	Selective removal of trees (primarily spruce) to implement construction of building B and lessen any potential shading cast by southern section of the group.
G42	Beech	C	Remove tree group to facilitate/implement construction of building B.
G43	Norway Spruce	C	Remove tree group to facilitate/implement construction of building B.
T44	Crack Willow	C	Pollard tree to promote longevity, manage spread and provide more desirable layout juxtaposition.
T45	Common Alder	C	Remove tree to implement construction of building B.
T46	Flowering Cherry	C	Remove tree to implement construction of building B.
T47	Wild Cherry	C	Remove tree to implement construction of building B.
T48	Crab Apple	U	Remove tree to implement construction of building B.
T49	Horse Chestnut	B	Remove tree to implement construction of building B.
T50	Yew	C	Remove tree to implement construction of building B.
Sh51	Cherry Laurel	C	Remove shrub to facilitate construction of building B.
G52	Larch & Scots Pine	C	Remove shrub to facilitate construction of building B.

Any demolition and where necessary, the removal of existing hard surfacing, concrete and stone walls within the projected RPA of tree T32, will be carried out by hand and with the use of an Air Ex tool. Subsequent landscaping will retain existing ground levels and topography where practical and be carried out in accordance with Sections D7, DS10 & DS11.

Suggested specification for protective fencing, which will be erected prior to commencement of construction and at the same time as the pre-construction tree works.



0m 5 10 15m

Key & Notes	Cat C Trees & Groups	W1,W2,W3 etc...	Woodland Tag	Shade Segment	Ground Protection Areas	Date: September 2023	Plan to be read with associated report.	Outline Trees Arboricultural Consultancy 4 Kings Drive Lutterworth
Cat A Trees & Groups		B1, B2, B3, B4 etc...	Shrub Tag	H1, H2, H3 etc...	Hand-dig Areas	Title: Proposed Layout & Tree Protection Plan	DWG: JH_TSP - 1 of 1	
Cat B Trees & Groups		Trees/Groups for removal	Hedgerows	No-dig Surfacing Areas	Fencing Location	Site: Alter Stones, Markfield, Leics.	1:300 @A1	

Appendix D Protective Fencing Signage





**PROTECTIVE FENCING. THIS
FENCING MUST BE
MAINTAINED IN ACCORDANCE
WITH THE APPROVED PLANS
AND DRAWINGS FOR THIS
DEVELOPMENT.**



**TREE PROTECTION AREA
KEEP OUT !**

**(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY
PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A
TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY
LEAD TO CRIMINAL PROSECUTION**

**ANY INCURSION INTO THE PROTECTED AREA MUST BE
WITH THE WRITTEN PERMISSION OF THE LOCAL
PLANNING AUTHORITY**



Appendix E References

British Standards Institute (BSi) BS 5837:2012, Trees in relation to design, demolition and construction – Recommendations.

(BSi) BS 3998:2010, Tree Work - Recommendations.

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Appendix F Life Stage & Condition Key

Condition	Life Stage *
Good	Newly Planted
Those trees that are relatively free from defects and any visible signs of structural defects, which also exhibit normal signs of vitality and vigour when compared with trees of a similar species in a similar environment.	Those trees that have been planted in the past 5 years.
Fair	Young
Those trees that exhibit some minor/manageable defects or display evidence of minor remedial pruning, which also exhibit normal signs of vitality and vigour when compared with trees of a similar species in a similar environment.	Those trees that are considered to be in the first third of their life expectancy.
Poor	Semi to Early Mature
Those trees that exhibit a high level of defects and/or significant past pruning works, which also exhibit relatively low signs of vitality and vigour when compared with trees of a similar species in a similar environment.	Those trees that have not yet reached maturity and can be considered to be in the second third of their life expectancy.
In Decline	Mature
Those trees that are close to the end of the useful life expectancy and displaying associated symptoms of branch die back and low vigour.	Those trees that can be described as being in the final third of their life expectancy.
	Over Mature
	Those trees that can be described as having exceeded their life expectancy that have yet to replicate those features typical of Veteran trees.
	Veteran
	A tree that exhibits typical signs and characteristics of such as described in the introduction of Veteran Trees: A guide to risk and responsibility (Davis, Fay & Mynors 2000)

* Typical useful life expectancy of common trees. (Taken from Helliwell's Amenity Tree Valuation notes)

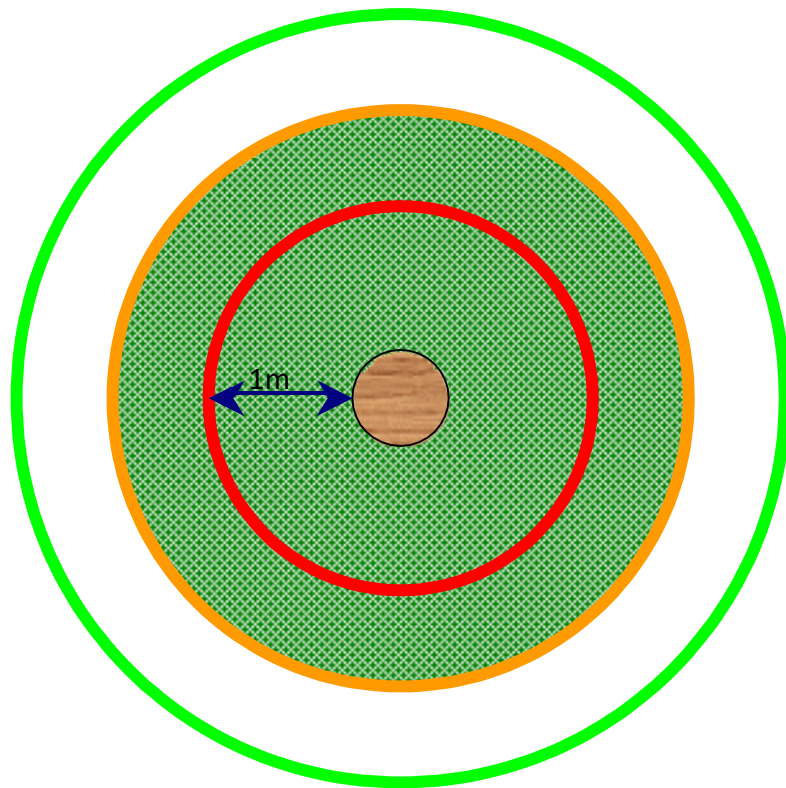
300+	- Yew
200-300	- Oak, Sweet Chestnut, Plane, Sycamore, Lime
150-200	- Scots Pine, Hornbeam, Beech, Tulip tree, N Maple, Lebanon Cedar
100-150	- Ash, Spruce, Walnut, Red Oak, Horse Chestnut, Field Maple, Monkey Puzzle, Mulberry, Pear
70-100	- Rowan, Whitebeam, Apple, Wild Cherry, Catalpa, Robinia, Ailanthus
50-70	- Poplars, Willows, Cherries, Alders, Birches



Appendix G NJUG Operatives Hand Out



NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees – Issue 2

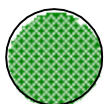


TREE PROTECTION ZONE

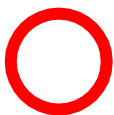
Key to Diagram



Trunk of Tree



Spread of canopy or branches



PROHIBITED ZONE – 1m from trunk. Excavations of any kind must not be undertaken within this zone unless full consultation with Local Authority Tree Officer is undertaken. Materials, plant and spoil must not be stored within this zone.



PRECAUTIONARY ZONE – 4 x tree circumference. Where excavations must be undertaken within this zone the use of mechanical excavation plant should be prohibited. Precautions should be undertaken to protect any exposed roots. Materials, plant and spoil should not be stored within this zone. Consult with Local Authority Tree Officer if in any doubt.



PERMITTED ZONE – outside of precautionary zone. Excavation works may be undertaken within this zone however caution must be applied and the use of mechanical plant limited. Any exposed roots should be protected.

DAMAGE TO TREES

Tree roots keep a tree healthy and upright. Most roots are found in the top 600mm of soil and often grow out further than the tree's height. The majority of these roots are very fine; even close to a tree few will be thicker than a pencil. Most street tree roots grow under the footway but may also extend under the carriageway. If roots are damaged the tree may suffer irreversible harm and eventually die.

PROTECTING ROOTS - **DO'S** and **DON'TS**

There are three designated zones around a tree each of which has its own criteria for working practices.

THE PROHIBITED ZONE

Don't excavate within this zone.

Don't use any form of mechanical plant within this zone.

Don't store materials, plant or equipment within this zone.

Don't move plant or vehicles within this zone.

Don't lean materials against, or chain plant to, the trunk.

Do contact the local authority tree officer or owner of the tree if excavation within this zone is unavoidable.

Do protect any exposed roots uncovered within this zone with dry sacking.

Do backfill with a suitable inert granular and top soil material mix as soon as possible on completion of works.

Do notify the local authority tree officer or the tree's owner of any damage.

THE PRECAUTIONARY ZONE

Don't excavate with machinery. Where excavation is unavoidable within this zone excavate only by hand or use trenchless techniques.

Don't cut roots over 25mm in diameter, unless advice has been sought from the local authority tree officer.

Don't repeatedly move / use heavy mechanical plant except on hard standing.

Don't store spoil or building material, including chemicals and fuels, within this zone.

Do prune roots which have to be removed using a sharp tool (*e.g. secateurs or handsaw*). Make a clean cut and leave as small a wound as possible.

Do backfill the trench with an inert granular material and top soil mix. Compact the backfill with care around the retained roots. On non-highway sites backfill only with excavated soil.

Do protect any exposed roots with dry sacking ensuring this is removed before backfilling.

Do notify the local authority tree officer or the tree's owner of any damage.

THE PERMITTED ZONE

Don't cut roots over 25mm in diameter, unless advice has been sought from the local authority tree officer.

Do use caution if it is absolutely necessary to operate mechanical plant within this zone.

Do prune roots which have to be removed using a sharp tool (*e.g. secateurs or handsaw*). Make a clean cut and leave as small a wound as possible.

Do protect any exposed roots with dry sacking ensuring this is removed before backfilling.

Do notify the local authority tree officer or the tree's owner of any damage.



Appendix H BS5837:2012 Cascade Chart for Tree Quality Assessment



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 (<i>e.g., where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning</i>). • 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. <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see BS5837 Sect. 4.5.7.</i>			Colour; Red 
	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 (<i>e.g., the dominant and/or principal trees within an avenue</i>).	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 (<i>e.g., veteran trees or wood-pasture</i>).	Colour; Mid Green 
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 (<i>e.g., presence of significant though remediable defects, including unsympathetic past management and storm damage</i>), 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.	Colour; Mid Blue 
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.	Colour; Grey 



Appendix I Glossary of Terms & Definitions

Arboriculturist - person who, through relevant education, training and experience, has gained recognized expertise in the care of trees.

Branch/Crown Reduction - operation that results in an overall reduction in the height and/or spread of the crown of a tree by means of a general shortening of twigs and/or branches, whilst retaining the main framework of the crown.

Canopy/Crown - that part of a tree which is composed of the branches and foliage.

Cavity - hole in a tree resulting from decay or damage.

Crotch/Fork - forked region formed by the junction of a branch and the stem, or by two branches.

Crown Lifting - removal of lower branches to achieve a stated vertical clearance above ground level or other surface.

Epicormic Shoot - growth from dormant or adventitious buds on the stem or main branches.

Facilitation Pruning - tree pruning works, the nature and effects of which are without significant adverse impact on tree physiology or amenity value, which is anticipated as being necessary to provide access for construction associated activities on site.

Hazard Beam – a type of structural defect present on a branch, which has internal, longitudinal cracks present (see image below).



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Heartwood - central core of mature and hardened timber.

Included Bark - bark tissue lodged in the union between a branch and the parent stem, in the crotch of two branches, or between the bases of co-dominant stems, indicating potential weak attachment.

Minor Deadwood - deadwood which appears to have a stem diameter <30mm.

Root Protection Area (RPA) - layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.

Stem - principal above-ground structural component of a tree that supports the branches;

- 'Stem' is synonymous with 'trunk' for single-stemmed trees, particularly those of a large diameter.
- This either extends throughout most of the height of the tree (primary stem), or is one of a number of such components (secondary stems) which divide from each other either near the ground or at a higher level.
- Trees comprising two or more stems arising from, or immediately above, ground level are commonly referred to as 'twin-stemmed' or 'multi-stemmed'.

Stub - broken or severed short remaining section of a branch extending beyond a crotch.

Wound - injury to a tree caused in a biotic or abiotic manner.



Appendix J Arboricultural Supervision Record



Development Stage (DS) Audit Record

Record to be maintained throughout duration of project by Site Arboriculturalist, Site Manager or other appointed persons. See examples provided below for assisting subsequent completion.

[illegible]