Tree Care Consultancy
ARBORICULTURAL CONSULTANTS

Arboricultural Impact Assessment
New Roundabout Project
A635, Barnsley Road
Goldthorpe

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1 Introduction

1.1 Instruction and Brief

1.1.1 Tree Care Consultancy were commissioned by Barnsley Metropolitan Borough Council (BMBC) to prepare an Arboricultural Survey and Impact Assessment to accompany a planning application for a proposed new roundabout at the above location. The report produced includes the following information:

- A tree survey, undertaken in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction' - Recommendations
- A Tree Constraints Plan which highlights the potential development limitations trees pose on site
- An Arboricultural Impact Assessment which evaluates any potential implications the proposal may have on surrounding trees.

1.1.2 This report is based on site observations and information provided. Conclusions have been made in light of the surveyor's experience and qualifications. A list of experience and qualifications in arboriculture are detailed below. The client may choose to accept or disregard the recommendations made in this report or seek additional advice.

1.1.3 This report is only concerned with trees in relation to construction. This report makes no attempt to provide a full safety inspection of the trees surveyed. It should not be seen as an alternative for a Tree Hazard Assessment which is specific to minimising the risk and liability associated with trees.

1.1.4 Climatic conditions including storms, drought and temperature-related factors can cause damage and failure in apparently healthy trees. It should be remembered that all trees do pose a risk and whilst every effort has been made to detect any major defects in inspected trees, no guarantee can be given as to their safety. Although the risk should be managed to an acceptable level, no tree can be guaranteed as safe at all times.

1.1.5 This report is based on Visual Tree Assessment (VTA) methodology, as devised by Mattheck (1991). V.T.A is a ground level visual assessment of a tree, which is carried out to identify obvious mechanical defects, signs of ill health, potential mechanical failure and the suitability of a tree to a site. The survey is compiled in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction' - Recommendations with Root Protection Areas (RPA's) based upon section 4.6 of the document.

1.2 Site Visit

1.2.1 The survey was undertaken by Mike Shackleton on 21st September 2021. Mike has over 20 years' experience within the Arboricultural Industry. He has a Higher National Diploma in Arboriculture and is a Professional member of the Arboricultural Association. He has been involved in dealing with proposed/active development sites, advice on trees in relation to structures, health and safety appraisals, tree inventories and planning appeals. As part of his continuing professional development he regularly attends seminars and training events on issues relating to Arboriculture, particularly with trees in relation to construction.

1.2.2 The weather conditions were dry and still with no visibility constraints.

1.2.3 Measurements were calculated using the necessary instruments or estimated where access could not be gained. No climbing inspections or decay detection analysis was undertaken.

1.2.4 Details explaining the criteria and methodology used in generating the tree survey schedule is included at Appendix 1 and 2. Trees were graded using table 1 of BS5837. The resulting tree survey data results are included within the tree survey schedule at Appendix 3.

1.2.5 This survey should be read in conjunction with the Tree Constraint Plans (TCP - existing and proposed located at appendix 4) which have been prepared by overlaying tree survey data onto a topographical drawing and proposed layout drawings. The author has relied on the accuracy of these drawings in the production of this report.

1.2.6 For ease of identification of trees on site, individual trees have been assigned a unique tag which has been included in the tree survey schedule located in appendix 3.

1.2.7 The majority of the material included in the survey consists of densely planted semi-mature material (G21, G25, G30 and G31), estimated to have been planted within the last 20-30 years. To aid in quantifying tree numbers in these areas trees have been separated into groups and the number of each species is detailed in the tree survey schedule at appendix 3.

1.3 Site Description

1.3.1 Please refer to accompanying design and access statement submitted as part of the planning application for site context and background information in support of the application.

1.4 Tree Status

1.4.1 It is understood none of the trees detailed in the report are subject of a Tree Preservation Order (TPO) and nor are they situated within a Conservation Area (CA). In the case of trees that are subject of TPO, Conservation Area controls or planning application procedures it is essential the Local Authority's advice is sought and where necessary consent obtained prior to undertaking any tree removal or pruning operations.

2 Tree Quality Assessment

2.1.1 As highlighted in table 1 below, the tree survey included 25No. individual trees, 7No. tree groups and 6No. hedgerows. Of these 1No. individual tree was identified as category "A". 13No. individual trees and 6No. tree groups were identified as retention category "B" material. 11No. individual trees, 2No. tree groups and 6No. hedgerows were identified as retention category "C" material. No trees were identified as a category "U" items.

Table1:

Category	Category Description	Tree Numbers
'A'	Trees of high quality, with life expectancy in excess of 40 years	1No. individual tree
'B'	Trees of moderate quality, with life expectancy in excess of 20 years	13No. individual trees & 6No. tree groups
'C'	Trees of low quality with life expectancy in excess of 10 years or young trees	11No. individual trees, 2No. tree groups & 6No. hedgerows
'U'	Seriously defective trees that cannot be retained in present context for longer than 10 years	None
Total number of trees:		25No. individual trees, 8No. tree groups & 6No. hedgerows

3 Arboricultural Impact Assessment

3.1.1 The following section evaluates the proposed layout in relation to trees on site. Any tree and design conflicts are highlighted and possible remedial action recommended. The assessment is based on the surveyor's findings and drawings provided by BMBC.

3.1.2 The proposed development seeks to incorporate a new roundabout into a section of the A635 (Barnsley Road) west of Goldthorpe.

3.2 Trees to be removed

3.2.1 The Local Planning Authority is likely to accept the removal of trees in a poor condition or those with a minimal, safe, useful life expectancy. This usually includes category 'U' and 'C' trees. The removal of category "A" and "B" grade trees may on occasions be viewed reasonable where an effective scheme of replacement planting can be provided.

3.2.2 The proposed scheme has undergone careful consideration to minimize tree removal whilst providing the required highway enabling works.

3.2.3 As identified in table 2 below, the removal of several category 'B' and category 'C' items would be required to accommodate the proposed scheme. The loss of these trees will have some impact on the local landscape. However the retention of the majority trees and hedgerow material detailed in the report, combined with the opportunity to carry out a scheme of additional planting will effectively mitigate for the proposed losses without causing demonstrable harm to the local landscape.

Table 2:

Tree categories A, B, C & U	Trees to be retained and protected	Trees to be removed for development	Trees to be removed for arboricultural management reasons
'A'	T1	Nil	Nil
'B'	T8, T9, T15, T18, T27, G20(90%*), G21(20%*), G25(80%*), G30, G31, T32, T33, G34, T36, T37 & T38	T10, T12, T14, G20 (10%*), G21 (80%*) & G25 (20%*)	Nil
'C'	H1(60%), T3, G4, G5, H6, H7, T17, H19, T26, T28, H29, H35 & T39	H1 (40%*), T11, T13, T16, T22, T23 & T24	T22, T23 & T24
'U'	Nil	Nil	Nil

*Percentages are an approximation based on area not specific tree numbers

3.2.4 The proposed development provides opportunities for replacement planting with sufficient space available to accommodate a variety of plant material, including larger growing tree species. It is presumed this is a matter the Local Planning Authority would be agreeable to conditioning as part of a detailed planning permission or should the need arise a detailed landscape scheme could be provided for consideration as part of the planning application process.

3.3 Below ground constraints

3.3.1 The area of roots that need to be protected around a tree to try to ensure it does not suffer damage during the construction process is called the Root Protection Area (RPA).

3.3.2 As recommended in BS5837 we have plotted the RPAs (in magenta) onto the attached Tree Constraints Plan (TCP) taking full account of the surrounding topographical factors, tree condition and root disposition.

3.3.3 The proposed development footprint and associated working areas will marginally encroach upon the RPAs of T15, T18, T36 and T37. Whilst there is potential for root severance and soil compaction to impact on these trees, with adequate tree protection measures put in place the works are unlikely to seriously impact on tree health and wider amenity of the area.

3.4 Above ground constraints

Whilst no facilitation pruning has been identified at this stage, it is highly likely that some pruning will be required once a construction method statement has been formulated. Pruning work is likely to be of minor nature and should not impact on tree health or the contribution trees afford to the local landscape.

3.5 Tree protection

3.5.1 A protective fence that meets the requirements of BS5837:2012 will be erected prior to the commencement of any site works e.g. before any materials are brought on site. The fence will have signs attached to it stating that this is a Construction Exclusion Zone (CEZ) and that NO WORKS are permitted within the CEZ. Any agreed tree protection will only be removed following completion of all construction works. It is presumed tree protection is a matter the Local Planning Authority would be agreeable to conditioning as part of a detailed planning permission or should the need arise an Arboricultural Method Statement could be provided for consideration as part of the planning application process.

3.6 Material Storage

3.6.1 No material storage or plant movement will be required within the Construction Exclusion Zone.

3.7 Services

3.7.1 No new services or soak-a-ways should be sited or constructed within the RPA of retained tree cover. Should however it become necessary to excavate within the RPA's of retained tree cover services must be installed using techniques and methods described at section 4.1 of the current edition of the National Joint Utilities Group (NJUG) Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (www.njug.org.uk) or if this is not practicable, trenches are to be opened by compressed air excavation tools and not mechanically dug.

3.8 Mitigation of Tree Loss

3.8.1 The wider development provides opportunities for replacement planting with space available to house a combination of structural planting, including larger growing forest tree species and hedgerow material. Planting will also serve to provide greater age and species diversity than currently exists, thus enhancing the future landscape.

4 Conclusions

4.1.1 From the tree survey findings, comments and observations, it will be seen the proposed development will require the removal of several moderate category "B" and low category "C" grade trees. However, the majority of trees detailed in the report can be retained ensuring the existing treescape remains largely intact.

4.1.2 Equally important the proposal provides an opportunity to carry out additional planting that will serve to enhance the local landscape and biodiversity for the enjoyment of future generations.

4.1.3 The protection of trees and their subsequent health and future potential is dependent upon all persons operating within the site. Communications are vitally important to ensure that all parties understand the reason for tree protection and its continued existence. Providing all necessary tree protection works are undertaken, retained trees and development alike will satisfactorily coexist.

4.1.4 It is hoped that this report and recommendations provides all necessary information, however, should there be any queries or should clarification of any points be required, please contact the report author.

Mike Shackleton HND Arb M.Arbor.A

Appendices

Appendix 1 - Explanation of Survey Details

Tree Id- Each tree/group has been given a unique number, which coincides with the drawings located in appendix 3.

Species & botanical name- where identifiable the full botanical name has been given. Where a cultivar, variety or species cannot be accurately given the genus name only will be given.

Height (m)- measured approximately to the nearest 1m. If height issues are critical, measurements can be collected accurately using optical instruments.

No of stems- the number of separate stems each individual tree has.

Stem Dia @1.5m (mm)- the diameter of the given tree at 1.5m above soil level, (on sloping ground taken on the up-slope side of the tree base). Where the tree is multi-stemmed measurements will be record for each stem.

Spread- indicates the crown radius from the base of tree in four compass directions, recorded to the nearest metre.

Crown height + direction (m)- recorded as the first significant branch and direction of growth.

Life stage- described as young, semi-mature, early mature, mature or over-mature.

Physiological condition (P)- an assessment of the tree's health. Considers vitality, die back and the presence of disease. Described as Good = no significant health problems Fair = symptoms of ill health that can be remediated Poor = significant ill health.

Structural condition (S)- an assessment of the trees structural condition. Described as Good = no significant defects Fair = significant defects that can be remediated Poor = significant defects no remedy.

Observations – negative and positive- narrative comments on general condition, significant defects and overall appearance (e.g. the presence of any decay).

Preliminary management recommendations- e.g. requires pruning or further investigation of suspected defects is needed.

Life expectancy- preliminary management recommendations, e.g. requires pruning or further investigation of suspected defects is needed.

Retention Category- Each tree/group is identified with a retention category in accordance with BS5837 (an in-depth explanation is provided on the following page)

RPA radius (m)- minimum area in metres which should be left undisturbed around each retained tree.

Appendix 2 - Cascade Chart for Tree Quality Assessment (Extract from BS5837 table 1)

Category and definition	Criteria (including subcategories where appropriate)			Identification on Plan
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 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			DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
Category and definition	**Criteria – Subcategories**			**Identification on Plan**
	1 Mainly arboricultural values	**2 Mainly landscape values**	**3 Mainly cultural values, including conservation**	
Category A **Trees of a 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 essential components of groups, or of 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)	LIGHT GREEN
Category B **Those of moderate quality** with and 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 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	MID BLUE
Category C **Those of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of a very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value; and/or trees offering low or only temporary/transient screening benefits	Trees with no material conservation or other cultural values	GREY

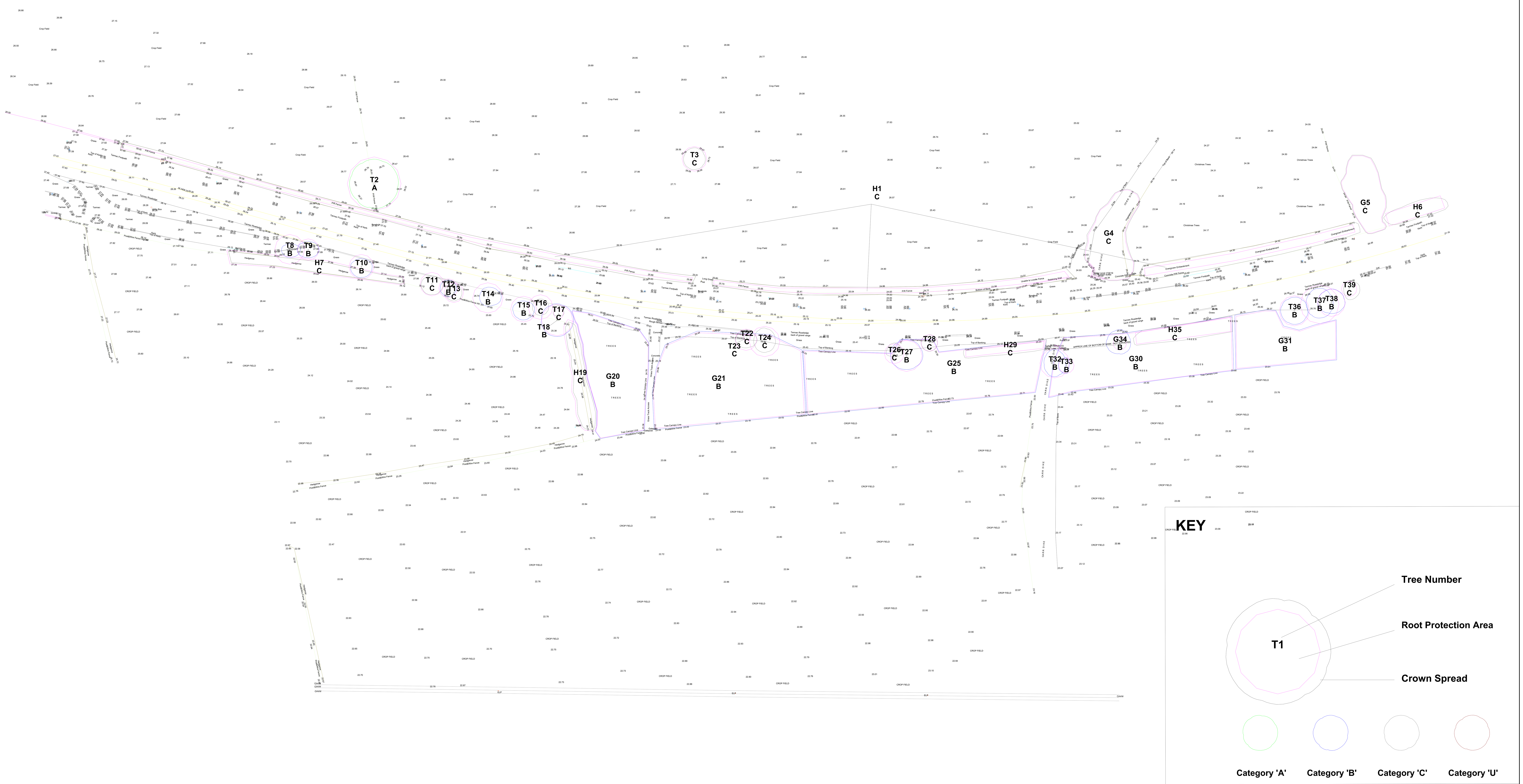
Appendix 3- Tree Survey Schedule

Tree ID	Tag Number	Species, Botanical Name	Height (m)	No of stems	Stem @ 1.5M (mm)	Spread - N,E,S,W				Crown height+ direction (m)	Life stage	Physiological (P) and Structural (S) condition. Observations- negative and positive	Recommendations	Life expectancy	Retention category	RPA Radius (m)
H1	n/a	Common Hawthorn, *Crataegus monogyna* , Goat Willow, *Salix caprea* , Ash, *Fraxinus excelsior*	2	1	100 average	1	1	1	1	0ar	Mature	P= Good, S= Good. Hawthorn hedge with occasional Willow and Ash sapling. Hosts new growth at time of survey but appears to be flail managed on a regular basis.	Partial removal to accommodate development. Replace within development context.	10 to 20 yrs	C2	1.2
T2	n/a	Common Ash, *Fraxinus excelsior*	13	1	800	9	9	9	9	4ar	Mature	P= Good, S= Good. Visually prominent field boundary tree supporting snags and dead wood.	Retain.	20 to 40 yrs	A1	9.6
T3	n/a	Common Ash, *Fraxinus excelsior*	7	6	150 average	4	4	4	4	1ar	Mature	P= Poor, S= Poor. Presumed to be a remnant hedgerow feature now occupying an arable field. Consists of a completely dead standing parent stem with multiple regenerative stems now growing from base of tree.	Retain.	10 to 20 yrs	C1	4.4
G4	n/a	English Elm, *Ulmus procera* , Hawthorn, *Crataegus monogyna* , Elder, *Sambucus nigra*	5	1	100 average	2	2	2	2	1ar	Early-mature	P= Fair, S= Fair. Group mainly consisting of low level Elm and Elder regeneration. Dead standing item present within group.	Retain.	10 to 20 yrs	C2	1.2
G5	n/a	Common Ash, *Fraxinus excelsior* , Hawthorn, *Crataegus monogyna,* Elder, *Sambucus nigra*	7	1	300 average	2	2	2	2	1ar	Semi-mature	P= Good, S= Good. Group of semi-mature items growing from bottom of embankment. Hawthorn developing into a continuation of neighbouring hedgerow material.	Retain.	10 to 20 yrs	C2	3.6
H6	n/a	Common Hawthorn, *Crataegus monogyna*	3	1	150 average	1	1	1	1	0ar	Mature	P= Good, S= Good. Hawthorn hedge made up of mature items. Unmaintained top with flail damage to sides.	Retain.	10 to 20 yrs	C2	1.8
H7	n/a	Common Hawthorn, *Crataegus monogyna*	2	1	50 average	1	1	1	1	0ar	Mature	P= Good, S= Good. Low level Hawthorn hedging maintained on top by flail.	Retain.	10 to 20 yrs	C2	0.6
T8	2577	Sycamore, *Acer pseudoplatanus*	9	5	280, 250, 150, 140, 120	2	4	3	3	1e	Early-mature	P= Good, S= Fair. Multi stemmed item with mechanical wounds and torn branches on layby side. Slightly biased canopy.	Retain.	20 to 40 yrs	B2	5.3
T9	2578	Field Maple, *Acer campestre*	9	2	280, 150	3	4	3	4	0.5s	Early-mature	P= Good, S= Good. Well formed balanced tree with no visible defects.	Retain.	20 to 40 yrs	B2	3.8
T10	2579	Norway Maple, *Acer platanoides*	9	1	370	3	4	4	4	0.5n	Early-mature	P= Good, S= Good. Well formed balanced tree with low crown. no visible defects. Development footprint involves RPA incursion.	Remove to accommodate development. Replace within development context.	20 to 40 yrs	B2	4.4
T11	2580	Norway Maple, *Acer platanoides*	9	1	350	3	4	4	4	0.5s	Early-mature	P= Good, S= Good. Leaning item with tight main union on lower limbs and main stem. *Phytophthora spp* to main stem and slight dieback on eastern crown. Development footprint involves RPA incursion.	Remove to accommodate development. Replace within development context.	20 to 40 yrs	C2	4.2
T12	2581	Common Ash, *Fraxinus excelsior*	9	2	190, 210	3	3	3	3	0.5n	Early-mature	P= Good, S= Good. Well formed item forking at 1.5m into codominant stems. Development footprint involves RPA incursion.	Remove to accommodate development. Replace within development context.	20 to 40 yrs	B2	3.4

Tree ID	Tag Number	Species, Botanical Name	Height (m)	No of stems	Stem @ 1.5M (mm)	Spread - N,E,S,W				Crown height+ direction (m)	Life stage	Physiological (P) and Structural (S) condition. Observations- negative and positive	Recommendations	Life expectancy	Retention category	RPA Radius (m)
T13	2582	Norway Maple, *Acer platanoides*	5	1	290	3	3	3	3	1ar	Early-mature	P= Good, S= Fair. Loss of anchorage in formative years, resulting in heavy lean. Subsequent suppression by closest neighbouring tree. Development footprint involves RPA incursion.	Remove to accommodate development. Replace within development context.	10 to 20 yrs	C2	3.5
T14	2583	Norway Maple, *Acer platanoides*	12	1	450	4	5	3	3	2ar	Mature	P= Good, S= Good. Well formed item with pruning to lower canopy on field side. Development footprint involves RPA incursion.	Remove to accommodate development. Replace within development context.	20 to 40 yrs	B2	5.4
T15	2584	Sycamore, *Acer pseudoplatanus*	11	2	300, 240	3	4	4	4	0.5ar	Mature	P= Good, S= Good. Well formed item with co-dominant stems. Minor pruning to canopy on field side. Development footprint involves RPA incursion though scope to retain.	Retain.	20 to 40 yrs	B2	4.6
T16	n/a	Common Hawthorn, *Crataegus monogyna*	7	6	150 average	3	3	3	3	0e	Mature	P= Good, S= Good. Multi stemmed item with low canopy. Development footprint involves RPA incursion.	Remove to accommodate development. Replace within development context.	10 to 20 yrs	C2	4.4
T17	2586	Common Hawthorn, *Crataegus monogyna*	5	1	150	3	2	1	2	0.5ar	Early-mature	P= Good, S= Good. Suppressed understory tree with biased canopy. Development footprint involves RPA incursion though scope to retain.	Retain.	10 to 20 yrs	C2	1.8
T18	2587	Common Ash, *Fraxinus excelsior*	12	4	160, 200, 290, 260	6	6	6	6	1e	Mature	P= Good, S= Good. Multi-stemmed item situated on boundary fence line. Development footprint involves RPA incursion though scope to retain.	Retain.	20 to 40 yrs	B2	5.6
H19	n/a	Common Hawthorn, *Crataegus monogyna*, Ash, Fraxinus excelsior	6	1	100 average	2	2	2	2	0.5ar	Mature	P= Fair, S= Fair. Line of unmaintained hedging material beginning to develop into standard trees.	Retain.	10 to 20 yrs	C2	1.2
G20	n/a	6 Hawthorn, *Crataegus monogyna*, 34 Ash, *Fraxinus excelsior* , 5 Oak, *Quercus robur*, 20 Field maple, *Acer campestre* , 1 Goat Willow, *Salix caprea* , 2 Alder, *Alnus glutinosa*, 7 Hazel, *Corylus avellana*, 3 Birch, *Betula pendula*, 3 Sycamore, *Acer pseudoplatanus*.	10	1	150 average	3	3	3	3	2ar	Semi-mature	P= Good, S= Good. Woodland type area consisting of establishing trees that provide collective value. Minor tree losses required to accommodate the proposal.	Partial removal to accommodate development. Replace within development context.	20 to 40 yrs	B2	1.8

Tree ID	Tag Number	Species, Botanical Name	Height (m)	No of stems	Stem @ 1.5M (mm)	Spread - N,E,S,W				Crown height+ direction (m)	Life stage	Physiological (P) and Structural (S) condition. Observations- negative and positive	Recommendations	Life expectancy	Retention category	RPA Radius (m)
G21	n/a	13 Hawthorn, *Crataegus monogyna* , 31 Ash, *Fraxinus excelsior*, 8 Oak, *Quercus robur*, 15 Field maple, *Acer campestre*, 6 Goat Willow, *Salix caprea* , 7 Alder, *Alnus glutinosa*, 10 Hazel, *Corylus avellana*, 11 Birch, *Betula pendula*, 3 Sycamore, *Acer pseudoplatanus*, 1 Elder, *Sambucus nigra*	10	1	150 average	3	3	3	3	2ar	Semi-mature	P= Good, S= Good. Woodland type area consisting of establishing trees that provide collective value. Proposed development will require removal of majority of tree group to accommodate the proposal.	Partial removal to accommodate development.	20 to 40 yrs	B2	1.8
T22	2588	Common Ash, *Fraxinus excelsior*	5	1	110	3	1	1	1	2n	Semi-mature	P= Fair, S= Good. Small suppressed item on woodland edge. Out with the development proposal the tree would be considered arboricultural management loss.	Remove to accommodate development. Replace within development context.	10 to 20 yrs	C2	1.3
T23	2589	Common Ash, *Fraxinus excelsior*	12	6	130 average	3	4	3	4	3ar	Early-mature	P= Fair, S= Fair. Multi stemmed coppice regrowth situated on boundary. Inonotus hispidus fruiting body present on central stem. Out with the development proposal the tree would be considered arboricultural management loss.	Remove to accommodate development. Replace within development context.	10 to 20 yrs	C2	3.8
T24	n/a	Common Ash, *Fraxinus excelsior*	12	8	160 average	5	4	4	4	2n	Early-mature	P= Fair, S= Fair. Multi stemmed coppice regrowth situated on boundary. Early symptoms of Ash Dieback present . Out with the development proposal the tree would be considered arboricultural management loss.	Remove to accommodate development. Replace within development context.	10 to 20 yrs	C2	5.4
G25	n/a	11 Hawthorn, *Crataegus monogyna*, 33 Ash, *Fraxinus excelsior*, 21 Oak, *Quercus robur*, 11 Field Maple, *Acer campestre* , 5 Goat Willow, *Salix caprea*, 4 Alder, *Alnus glutinosa, 5 Hazel, Corylus avellana, 8* Birch, *Betula pendula, 9* Sycamore, *Acer pseudoplatanus, 1* Rowan, *Sorbus aucuparia, 1* Elder, *Sambucus nigra*	10	1	150 average	3	3	3	3	2ar	Semi-mature	P= Good, S= Good. Woodland type area consisting of establishing trees that provide collective value. Minor tree losses required to accommodate the proposal.	Partial removal to accommodate development. Replace within development context.	20 to 40 yrs	B2	1.8
T26	2591	Common Hawthorn, *Crataegus monogyna*	7	6	120 average	4	3	1	3	0.5n	Mature	P= Good, S= Good. Multi stemmed item on woodland edge. Slightly biased canopy.	Retain.	10 to 20 yrs	C2	3.5
T27	2592	Sycamore, *Acer pseudoplatanus*	12	3	290, 310, 190	6	6	5	6	0.5n	Mature	P= Good, S= Good. Well formed item on woodland edge.	Retain.	20 to 40 yrs	B2	5.6

Tree ID	Tag Number	Species, Botanical Name	Height (m)	No of stems	Stem @ 1.5M (mm)	Spread - N,E,S,W				Crown height+ direction (m)	Life stage	Physiological (P) and Structural (S) condition. Observations- negative and positive	Recommendations	Life expectancy	Retention category	RPA Radius (m)
T28	2593	Common Hawthorn, *Crataegus monogyna*	5	6	100 average	3	3	3	3	0.5ar	Mature	P= Good, S= Good. Multi stemmed scrub like tree on woodland edge.	Retain.	10 to 20 yrs	C2	2.9
H29	n/a	Common Hawthorn, *Crataegus monogyna*	4	1	150 average	3	3	3	3	0.5ar	Mature	P= Good, S= Good. Planted Hawthorn hedge on boundary of woodland which lacks any recent management.	Retain.	10 to 20 yrs	C2	1.8
G30	n/a	2 Hawthorn, *Crataegus monogyna*, 47 Ash, *Fraxinus excelsior* , 22 Oak, *Quercus robur* , 25 Field Maple, *Acer campestre* , 9 Birch, *Betula pendula* , 14 Sycamore, *Acer pseudoplatanus* , 1 Rowan, *Sorbus aucuparia.*	10	1	150 average	3	3	3	3	2ar	Semi-mature	P= Good, S= Good. Woodland type area consisting of establishing trees that provide collective value.	Retain.	20 to 40 yrs	B2	1.8
G31	n/a	13 Ash, *Fraxinus excelsior* , 3 Oak, Quercus robur, 9 Field Maple, *Acer campestre* , 2 Birch, *Betula pendula,* 4 Sycamore, *Acer pseudoplatanus,* 2 Rowan, *Sorbus aucuparia,* 1 Alder, *Alnus glutinosa.*	10	1	150 average	3	3	3	3	2ar	Semi-mature	P= Good, S= Good. Woodland type area consisting of establishing trees that provide collective value.	Retain.	20 to 40 yrs	B2	1.8
T32	2594	Sycamore, *Acer pseudoplatanus*	12	6	180 average	5	4	5	4	1ar	Mature	P= Good, S= Good. Well formed item located on edge of watercourse.	Retain.	20 to 40 yrs	B2	5.3
T33	2595	Common Oak, *Quercus robur*	12	1	230	3	1	3	3	1.5ar	Early-mature	P= Good, S= Good. Well formed establishing tree.	Retain.	20 to 40 yrs	B2	2.8
G34	n/a	Sycamore, *Acer pseudoplatanus*	12	1	200 average	5	4	4	5	1ar	Early-mature	P= Good, S= Good. 4 Sycamores located on woodland edge providing collective value. Appears to have been part of managed hedgerow in early life but now outgrown.	Retain.	20 to 40 yrs	B2	2.4
H35	n/a	Common Hawthorn, *Crataegus monogyna*	4	1	150 average	3	3	3	3	0.5ar	Mature	P= Good, S= Good. Planted Hawthorn hedge on boundary of woodland which lacks any recent management.	Retain.	10 to 20 yrs	C2	1.8
T36	2596	Common Ash, *Fraxinus excelsior*	13	1	450	5	5	5	5	2w	Mature	P= Good, S= Good. Well formed tree on woodland edge. Ivy present on stem and minor deadwood within canopy.	Retain.	20 to 40 yrs	B2	5.4
T37	2597	Sycamore, Acer pseudoplatanus	12	3	270, 380, 340	6	5	5	5	0.5n	Mature	P= Good, S= Good. A well formed multi stemmed item with spreading lateral branches. Development footprint involves RPA incursion though scope to retain.	Retain	20 to 40 yrs	B2	6.9
T38	2598	Sycamore, Acer pseudoplatanus	12	4	210, 180, 200, 230	5	5	4	5	0.5ar	Mature	P= Good, S= Fair. Multi stemmed tree with tight union present though signs of included bark and fusing of stems.	Retain.	20 to 40 yrs	B2	4.9
T39	2599	Common Ash, *Fraxinus excelsior*	10	1	230	3	4	4	2	0e	Early-mature	P= Good, S= Good. Well formed single stemmed item with slightly biased canopy due to dominant neighbour.	Retain.	10 to 20 yrs	C2	2.8



Tree Constraints Plan

A635 Roundabout Proposal- Goldthorpe

SCALE :
1 : 500 @ A0

DATE :
26/09/2021

MAP FILENAME : 1461-1

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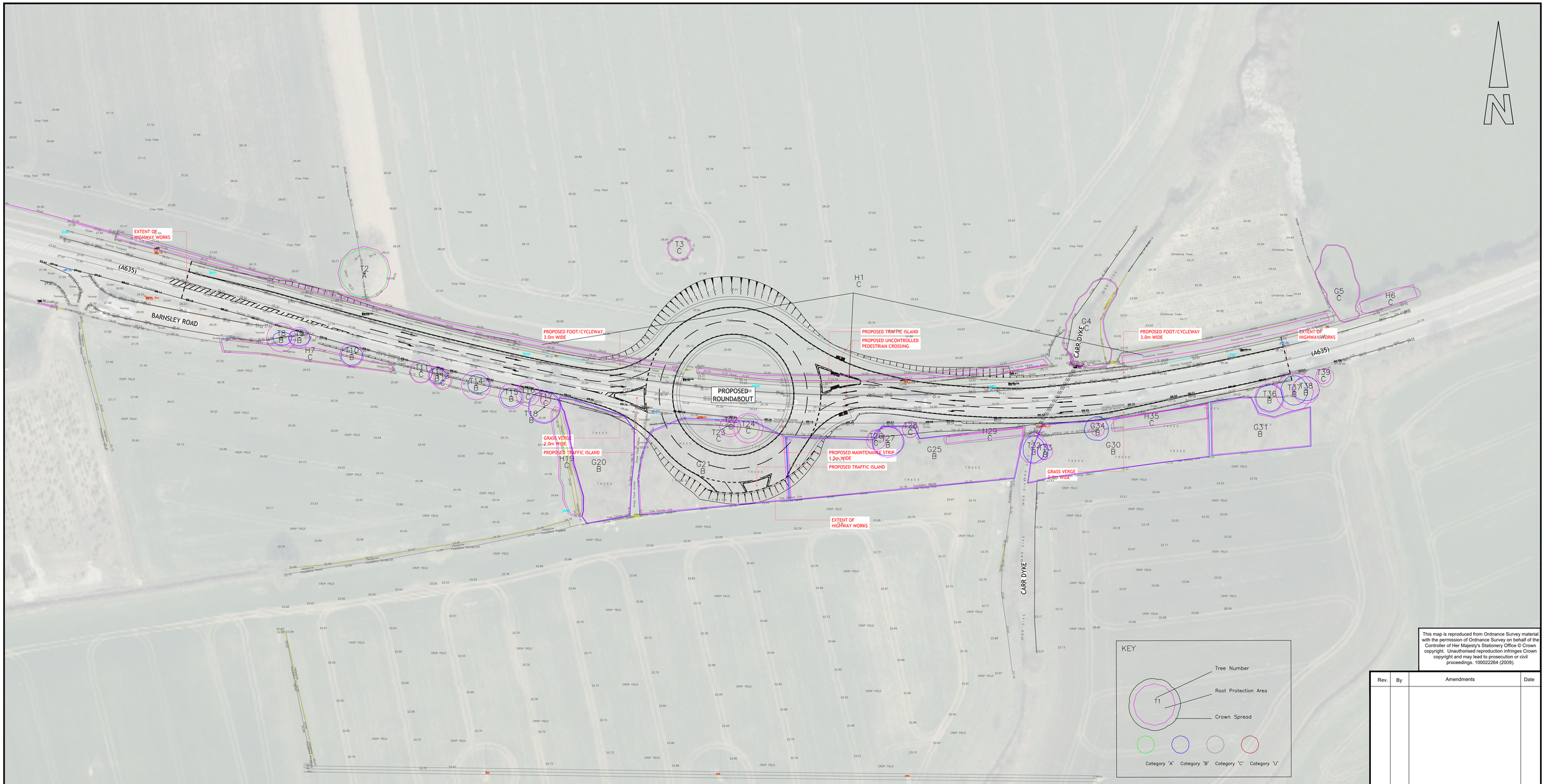

Rev.	By	Amendments	Date

BARNSLEY
Metropolitan Borough Council

Project
A635 Barnsley Road, Goldthorpe
Proposed Roundabout

Drawing title
General Arrangement
Tree Plan

Scale	Drawn	Checked	Date
1:500			Oct 21

Drawing No.	Revision	File
Hd/ES10/TP/1		

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