



ARBORICULTURAL IMPACT ASSESSMENT

**SITE: Corner of Fore Street and High Road, Eastcote,
Pinner HA5 2ET**

CLIENT: Watervale Property Ltd



ENVIROARB SOLUTIONS

Paul Allen DipArb (RFS) MICFor MarborA

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1.0 EXECUTIVE SUMMARY

- 1.1 'The site' is bounded by Eastcote High Road to the southeast, Eastcote petrol filling station to the north east, Fore Street to the south west and the River Pinn to the north west. At the corner of the site, at the junction of High Road and Fore Street (outside of the red line plan) is an area of public open space which is well managed and includes benches, ornamental trees and a lawn area.
- 1.2 The trees surveyed on the site are located predominantly around the site boundaries and consist of mature trees located within boundary scrub adjacent to public open space, highways, private residential gardens, and the river.
- 1.3 'The landowner' has commissioned Enviroarb-Solutions Ltd (EAS) to undertake a tree condition survey at and adjacent to the identified subject land at 'The Site'. We have assessed the likelihood of tree failures and associated risks and, where appropriate, have made recommendations to control those risks.
- 1.4 The site is private land and has never been used for public use. The surrounding area is predominately residential albeit the Black Horse Public House (Grade II listed) and a small shopping parade are located approximate 150m northeast along the High Road.
- 1.5 The site lies within Eastcote Village Conservation Area and 17 individual trees on site are protected by a Tree Preservation Order (TPO) Ref Number: Ruislip-Northwood TPO/ No.7 / 1964. The TPO identifies both individual trees and groups of trees on the subject site, albeit these are mainly located on the site boundaries.
- 1.6 The development proposal is for the erection of a new nursery (childcare) building, with associated site access, parking, and landscaping.
- 1.7 The primary tree related issues are:
 - The removal of the 10 dead / dangerous 'U' category trees. For Health & Safety reasons and TG1 scrub within the centre of the site.
 - The construction of the site access drive and parking within the RPA of T5 & T33, using 3D cellular confinement 'reduced-dig' sub-base systems.
 - The construction of a pedestrian footpath and new bust stop within the RPAs of retained trees T8 & T9.
 - Shading issues from T6, T7, T8 & T9
 - Correct installation of Tree Protection measures including protection fencing and temporary ground protection.

1.8 A summary of the affected trees is detailed in the table below:

Arboricultural Impact	Reason for Impact	A	B	C	U
Trees to be removed: - Poor Condition	To facilitate the development or due to their condition (U cat)	None	None	TG1	T1, T2, T3, T4, T10, T14, T15, T23, T27 and T30
Trees with RPA encroachment	To facilitate construction	T13	T9	T5, T8, T21, T26, T29, T33, TG5,	/
Retained trees to be pruned	To address identified defects / facilitate construction	T13	T6, T9	T5, T7, T8, TG2, T11, TG3, T12, T24, T25, T26, T28, T29, TG4, TG5, T31, T32, T33	/

Project Team Contacts List

CONTACTS	Company	Position	Contact No.
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2.0 REPORT METHODOLOGY

2.1 EnviroArb-Solutions Ltd (EAS) aim is to provide “fit for purpose” field survey, data capture and report based on the client brief. EAS approach broadly follows the guidance contained in “Trees in relation to demolition, design and construction – Recommendations” (BS5837:2012); however, the use of any terms or concepts contained within it does not imply EnviroArb-Solutions Ltd acceptance of their validity or accuracy and the use of any section or concept contained within the standard is on the principle of its advisory status as guidance.

3.0 SCOPE

3.1 EnviroArb-Solutions Ltd. has surveyed the key trees on and adjacent to the site and has provided guidance within this report on the measures necessary to ensure successful tree retention during any development, with recommendations for tree removal and / or tree works as necessary. The scope was as follows:

3.2 To visit the site and complete a survey of trees, shrubs, hedgerows, and other vegetation that may materially be of interest relative to development proposals.

3.3 To assess the likely impacts of the development on the trees and make ‘in principle’ recommendations relating to tree removals, tree retention and tree protection during development.

3.4 To carry out an arboricultural impact assessment on the effect of the new development at the site, identifying the Construction Exclusion Zones (CEZ) that are shown on the Tree Protection Plan (TPP). This plan will also show the locations for tree protective fencing and any temporary ground protection required, as well as identifying ‘No-Dig’ zones for any RPAs shown to be outside of CEZs.

3.5 To produce a Tree Constraints Plan (TCP), showing the locations of surveyed trees, their BS5837:2012 categorisation, the theoretical Root Protection Areas (RPAs) and any shading arcs required to be shown for those trees south of the development window.

3.6 To make any other observations or recommendations required based on the survey.

4.0 PLANS AND REFERENCE DOCUMENTS

- 4.1 BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'
- 4.2 BS3998:2010 'Tree work – recommendations'
- 4.3 NJUG 4 – National Joint Utilities Group "Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees. Volume 4, issue 2. London: NJUG 2007"
- 4.4 Information from the London Borough Hillingdon Council local plan and website
- 4.5 BGS Open-Source Soil Data <http://www.bgs.ac.uk/nercsoilportal/maps.html>
- 4.6 We understand that the scheme is currently at the application stage.

5.0 DESCRIPTION OF SITE GEOLOGY

- 5.1 The site is bounded by Eastcote High Road to the southeast, Eastcote petrol filling station to the north east, Fore Street to the south west and the River Pinn to the north west. The center of the site is bare ground with tree and scrub vegetation around the site boundaries. The immediate and distant landscape character is sub-urban residential. The topography of the site is mostly level.

Site Location (OS)	Site Location (BGS Soil)
British Geology Survey – Soils Summary: Lambeth Group - Clay, Silt and Sand	

- 5.2 The underlying site soil has been identified as sand and gravel with pockets of clay. This decreases the risk of damage to the trees by way of site compaction, as this soil type is less prone to compaction. Trees in this soil type generally explore a greater depth of soil horizons, etc.
- 5.3 All comments regarding soils should be verified with on-site geotechnical investigations and laboratory testing, with foundation depth and design determined by a structural engineer in accordance with the requirements of NHBC Chapter 4.2.

6.0 THE TREES

- 6.1 There were 41 individual trees and 6 tree groups surveyed on-site or immediately adjacent to the site boundary.
- 6.2 By BS5837:2012 Categorisation, the individual trees can be summarised as follows:

BS 5837 Cat	A	B	C	U
Specific Trees	T13	T6, T9, T16, T17, T22, T34, T35, T36, T37, T38, T39, T40, T41	T5, T7, T8, T11, T12, T19, T20, T21, T24, T25, T26, T28, T29, T31, T32, T33, T18	T1, T2, T3, T4, T10, T14, T15, T23, T27, T30
Total Number	1	13	17	10

- 6.3 By group and woodland area, there were 6 'C' category groups. In total, there were 10 'U' category individual and group trees that were identified as being in poor condition or dead / in decline with less than ten years' useful life expectancy. These should be felled and replaced, regardless of any impact of the development proposal.
- 6.4 These trees' locations and a summary of their visual contributions can be summarised as follows:

BS 5837 Cat	A	B	C
Northern Boundary - Contributing to boundary screening from Celandine Route public footpath and rear gardens of Mount Park Road	/	T16, T17, T22	T18-T21, T24-T28, TG5 & TG6

BS 5837 Cat	A	B	C
Western Boundary - Contributing to the street scene from Fore Street	/	/	T5 & T31-T34
Eastern Boundary - Contributing to the street scene from High Road, Eastcote	T13	/	T11, T12
Southern Boundary - Contributing to the street scene from Fore street, High Road and public open space		T6, T9, T39, T40, T41	T5, T7, T8, T11, TG2, TG3

6.5 Our detailed check with the Local Planning Authority Tree Preservation Order documents has confirmed that the following trees are subject to statutory protection:

	A	B	C	U
Tree Preservation Order	T13 (G4-Oak)	T6 – (G3)	T8 (T2 – Oak) T25 (G1 – Ash) T26 & T28 (G1 – False Acacia) T29 (G1 – Oak) T31 (G2 – Ash) T32 (G2 – Ash) T33 (G2 – Ash) T34 (G2 – Ash) TG2 (G3) T5 (G3) T7 (G3) T12 (G4-Oak) TG4 (G4 - x5 Elm)	T15 (G1 – Ash) T27 (G1-False Acacia) T30 (G1-Ash)
Conservation Area	All trees on site over 75mm in diameter			

6.6 TPO Ref Number: Ruislip-Northwood Tree Preservation Order / No.7 / 1964

7.0 ARBORICULTURAL IMPACT ASSESSMENT

7.1 Tree Removals

7.1.1 The following trees will be removed due to their dead or dangerous condition:

Arboricultural Impact	Reason for Impact	A	B	C	U
Trees to be removed: - Poor Condition	To facilitate the development or due to their condition (U cat)	None	None	TG1	T1, T2, T3, T4, T10, T14, T15, T23, T27 and T30

7.1.2 Every effort has been made to reduce the number of trees removed from the site. Most tree works are, however, of low landscape significance and can be adequately mitigated as part of the overall landscaping of the site. Significant impacts requiring specific mitigation are as follows:

7.1.3 Recommended tree works are detailed within the Tree Works Schedule at Appendix 5.

7.1.4 Three of the 'U' category trees, T15, T27 & T30, identified to fell due to their dead / dangerous condition are protected by the TPO on the site and will need to be replaced by TPO condition, separate to any tree replacement conditions that may be subject to any planning decision.

7.2 ROOT PROTECTION AREA (RPA) INCURSIONS

7.2.1 The following incursions into the RPAs of trees to be retained have been identified:

Arboricultural Impact	Reason for Impact	A	B	C
Trees with RPA encroachment	To facilitate construction of new surfacing	T13	T9	T5, T8, T21, T26, T29, T33, TG5,

7.2.1 The most significant RPA incursions are for the new access drive, car parking, a pedestrian footpath to the proposed re-positioned bus stop on site and part of the children's play area within the RPA of T13.

7.3 FOUNDATIONS

7.3.1 The foundations of the proposal will not encroach into the RPA of retained trees. Please refer to the Tree Protection Plan for further information.

7.3.2 To minimise the potential impact on the trees and due to the removal of trees on site it is expected that the foundation design will be specialised ie. pile and beam, as specified by the structural engineer / architect.

7.3.3 In instances where soil conditions are known to be of a shrinkable clay the retained and removed trees have the potential to constrain the foundation design for any adjacent new buildings within influencing distance. Final decisions as to the risks presented by retained / removed trees upon adjacent new buildings should be subject to detailed site geotechnical information being available, assessed by a structural engineer.

7.4 HARD SURFACES

7.4.1 The development requires the installation of new surfaces within the RPA of retained trees as follows:

- T5 & T33 at the site entrance
- T26 & T29 – proposed new car parking
- T8 & T9 – pedestrian footpath & bus stop
- T13 – part of the proposed children's play area.

7.4.2 Where existing hard surfaces within the RPAs of trees to be retained are to be replaced, they should be removed by controlled methods to avoid compaction of the underlying ground and direct damage to roots.

7.4.3 To minimise the disruption on the retained trees, it is proposed that a 'reduced / no-dig' cellular confinement sub-base surface is installed in the areas indicated on the Tree Protection Plan. These surfaces sit above ground level after surface vegetation removal and ensure that no tree roots are severed during their installation.

7.4.4 Ideally, the profile of new surfaces within the RPAs of trees to be retained should be kept within the depth of profile for existing surfaces. Where existing profile depths are insufficient or there is no existing hard surface, the depth of sub-base to hard surfaces might be minimised by use of a 3D cellular confinement system, e.g. GeoWeb, details of which are included at Appendix 9.

7.4.5 Please refer to the relevant Arboricultural Protection Methods (APMs), for full details on the proposed installation.



Photograph of 'Reduced-dig' 3D webbing system ground protection – 'GeoWeb' with a paver finish and kerbing installed within the sub-base cells

7.5 SERVICES

7.5.1 The route of any services needs to be carefully considered to avoid unnecessary encroachment into retained trees' RPAs. These should, where possible, not encroach within the RPAs of retained trees. Where excavations slightly encroach into adjacent trees' RPAs, the excavation should only be considered when supervised by the consultant arboriculturist from EnviroArb-Solutions Ltd and may need to be undertaken using a Vacuum Excavator and / or 'Airspade' hand tools combination.

7.6 GROUND LEVELS

7.6.1 Ground level changes may be required within the RPAs of some retained trees, mainly for new site access. Where changes in levels, mounding, retaining walls, slopes and hard landscaping features apply close to retained tree RPAs the impact of any alterations to levels and protection methods to be employed should be detailed within the relevant APM.

7.7 SHADING

7.7.1 Trees to the south and west of the proposal, T7-T9 have the capacity to cast shade onto the development. The Tree Protection Plan therefore details the potential shading arcs that could fall over the proposed footprint of the new buildings. However, as these trees have not been maintained historically and works for arboricultural reasons are already proposed it is unlikely there will be a pressure to prune from these trees.

7.8 SITE SUPERVISION / MONITORING

7.8.1 Most damage to trees on development sites is caused inadvertently, and to ensure continued protection during development, a system of site monitoring is proposed.

7.8.2 Basic checks will ensure that protective fencing remains intact. Any unforeseen issues can also be identified and discussed before damage to the tree(s) occurs.

7.8.3 The number of proposed visits is driven by the scale of the proposal. A more detailed explanation of what will be assessed during the proposed monitoring visits is contained in Appendix 6.

7.9 DEMOLITION

7.9.1 There is no demolition required for any existing structures.

8.0 RECOMMENDATIONS

- 8.1 The preliminary tree works we have recommended are contained within the tree works schedule at Appendix 5.
- 8.2 Our additional recommendations are as follows:
 - 8.2.1 That during the construction build phase, following current consultation with the arboriculturist from Enviroarb-Solutions Ltd, adequate provision is made for the protection of existing trees on site and the areas to be planted with new trees and shrubs.
 - 8.2.2 That by liaison with the council, formal agreement should be sought regarding the tree pruning required and tree protection methods employed to protect retained trees. These will be via the production of the relevant APMs and will include:
 - Tree protective fencing as shown on the tree protection plan.
 - No ground excavations within tree RPAs, unless supervised by the project arboricultural consultant
 - Any anti-compaction measures required to be taken.
 - The specific locating of services trenches to avoid excavations within RPAs where possible, or if necessary being undertaken by hand dig only.
 - Specific Arboricultural Protection Methods (APMs) for construction of site access routes close to or within retained trees' RPAs.
 - 8.2.3 That pre-commencement site meetings should be arranged to discuss the recommendations in this and subsequent reports and method statements, and that copies of all relevant arboricultural reports should be available on site.
 - 8.2.4 That the APMs should be developed further with the contractor through the development process to include comments made by them, the client, and the design team, as well as council officers. A copy of the tree report, including the APMs and tree protection plan, should always be kept on site.
 - 8.2.5 That details of site inspection / supervision visits by the consultant arboriculturist are recorded and sent to the council tree officer, with copies retained by the site manager.

9.0 CONCLUSIONS

- 9.1 The site is located within a sub-urban landscape setting. There are some trees of modest to high amenity value on site, most of which are 'B' and 'C' category standard trees. The dominant individual tree species on this site is English Oak, with Ash, Robinia, Sycamore, Cherry and Elm as the other trees present. All the trees are protected by their location within a Conservation Area and 17 individually by Tree Preservation Orders, ref. TPO / No.7 / 1964, located within the site. Most of the trees need some basic crown pruning works due to their lack of recent management.
- 9.2 There is only the central scrub group TG1 required to fell considering the development proposal. The remaining 10 trees are identified as 'U' category due to their dead / dangerous condition and therefore should be felled regardless of the proposed development. Any trees or groups felled because of the development proposal will be mitigated by replacement planting to at the least the same percentage canopy cover as that removed.
- 9.3 Retained trees will be fully protected by at least sturdy tree protection fencing, as described at Appendix 8. Where encroachment into theoretical RPA is unavoidable temporary ground protection measures will be used which can utilise 3D 'Reduced-Dig' cellular confinement sub-base systems. All tree protection measures are detailed according to construction drawings as part of an APMs which will include protection methods and supervision by a consultant arboriculturist from EnviroArb-Solutions Ltd. Sufficient development room will be available after protection measures are instigated as described within this report.
- 9.4 Overall, it is concluded that, subject to appropriate controls, the development can be implemented without undue impact on retained trees. These should be detailed within the APMs that should be submitted to and agreed in writing by the Local Planning Authority prior to the commencement of the development.



Paul Allen MICFor Dip Arb (RFS) MAE

Consultant Arboriculturist

17th January 2023

10.0 APPENDICES

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APPENDIX 1

KEY TO TREE TABLES

Key

BS 5837 Cat	Description
A	Those of high quality and value: in such a condition as to be able to make a substantial contribution (> 40 years)
B	Those trees of moderate quality and value: those in such a condition as to make a significant contribution (> 20 years)
C	Those trees of low quality and value: currently in adequate condition to remain until new planting could be established (> 10 years)
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 regardless of development

Note: Sub categories are denoted in the tree survey data (A1, B1, C2 etc.). You are referred to the BS for further detail if required.

Tree No.	T (tree), G (group), H (hedge), W (woodland) + Ref No.
Species	Common Name
Ht (m)	Measured height in metres
DBH (m)	Diameter at 1.5m above ground level
Branch Spread	In m to cardinal points
Cr Ht Clearance (m)	Overall height of lowest branches from the ground level on side of proposed development
Life Stage	Young, Semi-Mature, Early-Mature, Mature, Over-Mature
General Observations	Observations on the condition of the tree(s)
Tree Work Specification	Proposed tree works in accordance with BS3998
BS Cat	See above
Life Exp	Estimated remaining contribution in years.
RPA Radius(m)	Radius of the trees Root Protection Area measured from the trunk to the edge of the RPA circle in metres
RPA (m2)	Overall Root Protection Area in m2
*	Indicates where tree data may have been estimated as tree was offsite / restricted access / dense vegetation hindering full inspection

APPENDIX 2
TREE SURVEY TABLES

ARBORICULTURAL IMPACT ASSESSMENT

TREE SURVEY TABLES

Surveyor: Paul Allen

Date Surveyed: 20/09/2022

TREE TABLES

Land at Corner of Fore St & High Rd

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	Can Cov m2	BS Cat	Age Class	Life Expect	Observation	Recommendations
T1	Ash (Common)	9	4	4	0	2	180	1	15	2	19	U	Early Mature	<10	Poor form (asymmetric canopy), shape and condition. Sparse lower crown showing signs of stress with major deadwood. Ivy cut.	Fell to ground level and treat.
T2	Ash (Common)	13	2	5	4	4	390	2	69	5	42	U	Early Mature	10-19	Poor form (asymmetric canopy), shape and condition. Sparse crown showing signs of stress with major deadwood. Infected with Ash dieback disease. Basal trunk wounding.	Fell to ground level and treat.
T3	Ash (Common)	7	1	3	4	4	170	1	13	2	27	U	Semi-Mature	<10	Poor form (asymmetric canopy), shape and condition. Sparse lower crown showing signs of stress with major deadwood. Wood nailed to tree. Too close to service manhole.	Fell to ground level and treat.
T4	Ash (Common)	9	3	2	1	3	180	1	15	2	16	U	Semi-Mature	<10	Poor form, shape and condition. Self-set pioneer tree. Asymmetric form. Moderate deadwood infected with Ash dieback disease. Large basal wound with associated decay.	Fell to ground level and treat.

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TREE TABLES

Land at Corner of Fore St & High Rd

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	Can Cov m2	BS Cat	Age Class	Life Expect	Observation	Recommendations
T5	Ash (Common)	18	5	5	6	10	720	2	235	9	130	C2	Mature	10-19	Poor asymmetric canopy shape and condition. Major crown deadwood. Infected with Ash dieback. Leans heavily over highway. BT wires in crown. Codominant tree with severe included basal and trunk unions. In dense vegetation unable to fully inspect.	Crown reduce and reshape by 4m to West to balance crown over highway. Remove major deadwood. Sever ivy at 2m from ground level and remove section. Re-inspect. Insert flexible restraint system between co-dominant stems.
TG1	Mixed species group; Hawthorn, Birch, Sweet Chestnut, Ash	9	4	4	4	4	250	m/s	28	3	50	C2	Semi-Mature	10-19	Poor form, shape and condition self-sown trees. Sparse crowns showing signs of stress with crown retrenchment and major deadwood. X1 Dead standing tree.	Fell to ground level and treat.
T6	Oak (English)	13	6	6	7	6	550	1	137	7	123	B2	Mature	20-39	Good form, shape and condition. Dense crown, moderate dead wood. History previous limb failure. Debris piled within rooting zone with dense vegetation unable to fully inspect.	Remove major dead wood. Remove basal vegetation and re-inspect root crown.

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TREE SURVEY TABLES

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Date Surveyed: 20/09/2022

TREE TABLES

Land at Corner of Fore St & High Rd

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	Can Cov m2	BS Cat	Age Class	Life Expect	Observation	Recommendations
T7	Oak (English)	13	3	5	8	4	990	1	443	12	78	C2	Mature	10-19	Poor suppressed asymmetric form, shape and condition. Growing as one crown with adjacent Oak. Dense low crown over highway. Moderate dead wood. Trunk epicormic growth. Debris piled within rooting zone. Within dense vegetation. Ivy clad trunk unable to fully inspect.	Remove major dead wood. Cut back over highway by 2m. Crown lift over footpath by 4m. Prune trunk epicormic growth to 4m. Remove basal vegetation. Sever Ivy at 2m from ground level and remove section. Re-inspect.
T8	Oak (English)	24	5	7	9	6	1100	1	547	13	143	C2	Mature	10-19	Poor asymmetric form, shape and condition. Sparse upper crown showing signs of stress with crown retrenchment and major deadwood. Tree adjacent to and overhangs highway. Tree subject to previous history of limb failures. Ivy clad crown and stem, unable to fully inspect. Trunk epicormic growth	Sever Ivy at 2m from ground level and remove section. Re-inspect. Remove dead wood. Remove epicormic growth to a height of 6m.

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TREE SURVEY TABLES

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TREE TABLES

Land at Corner of Fore St & High Rd

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	Can Cov m2	BS Cat	Age Class	Life Expect	Observation	Recommendations
T9	Oak (English)	13	5	6	7	5	680	1	209	8	104	B2	Mature	20-39	Average suppressed form, shape and condition. Dense crown, moderate dead wood, overhangs highway. Basal and Trunk epicormic growth. Ivy clad crown and stem, unable to fully inspect.	Remove dead wood. Remove basal vegetation and re-inspect root crown. Sever Ivy at 2m from ground level and remove section. Prune epicormic growth to 4m. Crown lift to 6m over highway
TG2	Mixed species group; Blackthorn, Hawthorn, Holly, Ash seedlings, Cherry	9	4	4	4	4	200	m/s	18	2	50	C2	Early Mature	10-19	Average form, shape and condition boundary mixed species group. No significant recent crown management. Dense crowns, minor dead wood. Multiple-stemmed. Ash infected with Ash dieback.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Crown lift to 6m over public footpath highway. Fell Ash seedlings.
T10	Ash (Common)	16	3	3	3	3	1100	m/s	547	13	28	U	Mature	<10	Poor form, shape and condition. Old Multiple-stemmed highway boundary tree with included unions with all previous stems pollarded. Epicormic trunk regeneration. Ivy clad stump.	Re-pollard all regenerated stems. Fell stump closer to ground level and treat to prevent regrowth.

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TREE SURVEY TABLES

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TREE TABLES

Land at Corner of Fore St & High Rd

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	Can Cov m2	BS Cat	Age Class	Life Expect	Observation	Recommendations
T11	Ash (Common)	14	5	5	5	5	400	2	72	5	79	C2	Early Mature	10-19	Average form, shape and condition. No significant recent crown management. Thinning crown. Moderate dead wood. Infected with Ash dieback. BT wire in crown. Co-dominant with moderate included union. Ivy clad crown and stem, unable to fully inspect.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Crown lift to 6m over public highway. Remove dead wood
TG3	Mixed species group; Blackthorn, Hawthorn, Holly, Ash seedlings, Cherry, Elm, Hazel	10	4	4	4	4	200	m/s	18	2	50	C2	Early Mature	10-19	Poor form, shape and condition boundary mixed species group. Sparse crowns. Moderate dead wood. Multiple-stemmed coppice. Some dead standing Elm and Ash. Ash infected with Ash dieback.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Crown lift to 6m over public highway. Fell dead and dying Elm and Ash trees. Re-coppice Hazel.
T12	Oak (English)	18	5	8	10	8	720	1	235	9	188	C2	Mature	10-19	Poor suppressed form, shape and condition. Dense crown with moderate deadwood. Tree adjacent to and suppressed by close large Oak. Ivy clad crown and stem, unable to fully inspect.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Remove dead wood.

ARBORICULTURAL IMPACT ASSESSMENT

TREE SURVEY TABLES

Surveyor: Paul Allen

Date Surveyed: 20/09/2022

TREE TABLES

Land at Corner of Fore St & High Rd

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	Can Cov m2	BS Cat	Age Class	Life Expect	Observation	Recommendations
T13	Oak (English)	30	11	11	11	11	1240	1	696	15	380	A1	Mature	40+	Good form, shape and condition. Dense crown and moderate deadwood. Tree subject to previous history of limb failures. Ivy clad crown and stem, unable to fully inspect. Trunk epicormic growth.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Remove dead wood. Remove epicormic growth to a height of 6m.
T14	Pissard Plum	8	2	1	2	3	170	1	13	2	13	U	Early Mature	<10	Poor suppressed form (asymmetric canopy), shape and condition. Top snapped out of tree. Sparse crown. Moderate deadwood.	Fell to ground level and treat.
T15	Ash (Common)	16	6	6	7	6	670	1	203	8	123	U	Mature	10-19	Tree subject to multiple previous history of limb failures. Sparse thin crown with crown retrenchment and major deadwood. Infected with Ash dieback. X 2 old <i>Innonotus hispidus</i> brackets on ground under tree. Ivy clad crown and stem, unable to fully inspect.	Fell to ground level and treat.

ARBORICULTURAL IMPACT ASSESSMENT

TREE SURVEY TABLES

Surveyor: Paul Allen

Date Surveyed: 20/09/2022

TREE TABLES

Land at Corner of Fore St & High Rd

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	Can Cov m2	BS Cat	Age Class	Life Expect	Observation	Recommendations
T16	Oak (English)	30	12	12	12	12	1200	1	651	14	452	B1	Mature	20-39	Average form, shape and condition. Dense crown and moderate deadwood. Tree subject to recent history of major limb failures. Ivy clad crown and stem. 3rd party off site tree over stream and footpath, unable to fully inspect with overhanging branches.	Recommend to tree owner to inspect.
T17	Alder (Common)	18	7	7	7	7	700	m/s	222	8	154	B2	Mature	20-39	Standard form with basal stems. Ivy clad crown and stem, unable to fully inspect. Dense crown and moderate deadwood. 3rd party off site tree on stream bank over footpath, unable to fully inspect.	Recommend to tree own to treat ivy inspect.
T18	Cherry	14	5	5	5	5	300	1	41	4	79	C2	Mature	10-19	Average form, shape and condition. Ivy clad crown and stem, unable to fully inspect. Dense crown and moderate deadwood. 3rd party off site tree over stream and footpath.	No works

ARBORICULTURAL IMPACT ASSESSMENT

TREE SURVEY TABLES

Surveyor: Paul Allen

Date Surveyed: 20/09/2022

TREE TABLES

Land at Corner of Fore St & High Rd

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	Can Cov m2	BS Cat	Age Class	Life Expect	Observation	Recommendations
T19	Alder (Common)	13	6	6	6	6	500	1	113	6	113	C2	Mature	10-19	Average form, shape and condition. Ivy clad crown and stem. Dense crown. Moderate deadwood. 3rd party off site tree over stream and footpath. Unable to fully inspect. Basal trunk wound with associated decay.	Recommend to 3rd party tree owner to inspect.
T20	Alder (Common)	19	4	5	7	5	800	2	290	10	86	C2	Mature	10-19	Average form, shape and condition. Ivy clad crown and stem. Dense crown and major deadwood. 3rd party off site tree over stream. Basal trunk wound with associated decay. Tree subject to previous history of limb failures. Unable to inspect.	Recommend to 3rd party tree owner to remove ivy and deadwood and inspect.

ARBORICULTURAL IMPACT ASSESSMENT

TREE SURVEY TABLES

Surveyor: Paul Allen

Date Surveyed: 20/09/2022

TREE TABLES

Land at Corner of Fore St & High Rd

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	Can Cov m2	BS Cat	Age Class	Life Expect	Observation	Recommendations
T21	Ash (Common)	21	8	8	8	8	1000	1	452	12	201	C2	Mature	10-19	Poor form, shape and condition. Ivy clad crown and stem. Sparse crown and major deadwood. Infected with Ash dieback. 3rd party off site tree over stream and footpath, unable to fully inspect. Basal trunk wound with associated decay. Tree subject to previous history of limb failures.	Recommend to 3rd party tree owner to remove ivy and deadwood and inspect.
T22	Oak (English)	21	7	6	8	8	800	1	290	10	165	B2	Mature	20-39	Average form, shape and condition. Ivy clad crown and stem. Dense crown and major deadwood. 3rd party off site tree over stream and footpath, unable to fully inspect. Tree subject to previous history of limb failures.	Recommend to 3rd party tree owner to remove ivy and deadwood and inspect.
T23	Pissard Plum	6	2	2	5	3	200	1	18	2	27	U	Early Mature	<10	Poor suppressed asymmetric canopy. Poor condition. Sparse crown showing signs of stress with upper crown retrenchment and major deadwood.	Fell to ground level and treat.

ARBORICULTURAL IMPACT ASSESSMENT

TREE SURVEY TABLES

Surveyor: Paul Allen

Date Surveyed: 20/09/2022

TREE TABLES

Land at Corner of Fore St & High Rd

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	Can Cov m2	BS Cat	Age Class	Life Expect	Observation	Recommendations
T24	Cherry	13	6	6	6	6	420	1	80	5	113	C2	Mature	10-19	Poor form, shape and condition. Thinning crown, moderate dead wood. Still suffering effects of Summer heat stress. Ivy clad crown and stem, unable to fully inspect.	Remove dead wood. Sever Ivy at 2m from ground level and remove section. Re-inspect.
T25	Ash (Common)	11	6	6	6	6	600	1	163	7	113	C2	Mature	10-19	Average form, shape and condition low pollard on stream bank. No significant recent crown management. Thinning low crown. Moderate dead wood. Infected with Ash dieback. Ivy clad crown and stem, unable to fully inspect.	Remove dead wood. Sever Ivy at 2m from ground level and remove section. Re-inspect. Crown lift to 4m over site.
T26	False Acacia	14	5	5	5	4	250	1	28	3	71	C2	Early Mature	10-19	Poor form, shape and condition. No significant recent crown management. Sparse crown. Moderate dead wood. Large basal trunk wound with associated decay. Wire around trunk. Sucker from parent tree.	Remove dead wood.

ARBORICULTURAL IMPACT ASSESSMENT

TREE SURVEY TABLES

Surveyor: Paul Allen

Date Surveyed: 20/09/2022

TREE TABLES

Land at Corner of Fore St & High Rd

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	Can Cov m2	BS Cat	Age Class	Life Expect	Observation	Recommendations
T27	False Acacia	14	2	4	4	4	230	1	24	3	38	U	Early Mature	<10	Poor form, shape and condition. Sparse crown. Moderate dead wood. Snapped hanging branch. Large linear trunk wound with associated decay. Wire around trunk. Sucker from parent tree.	Fell to ground level and treat.
T28	False Acacia	15	6	5	4	6	410	1	76	5	86	C2	Mature	10-19	Poor leaning form, shape and condition. No significant recent crown management. Dense crown, moderate dead wood. Sucker from parent tree overhanging stream.	Remove dead wood.
T29	Oak (English)	22	7	8	6	7	770	1	268	9	153	C1	Mature	10-19	Average condition. Asymmetric canopy. Thinning crown. Major dead wood. Tree subject to previous history of limb failures. Ivy clad crown and stem, unable to fully inspect.	Remove dead wood. Sever Ivy at 2m from ground level and remove section. Re-inspect.

ARBORICULTURAL IMPACT ASSESSMENT

TREE SURVEY TABLES

Surveyor: Paul Allen

Date Surveyed: 20/09/2022

TREE TABLES

Land at Corner of Fore St & High Rd

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	Can Cov m2	BS Cat	Age Class	Life Expect	Observation	Recommendations
T30	Ash (Common)	17	7	3	5	8	465	1	98	6	104	U	Early Mature	<10	Poor form, shape and condition. Sparse crown, major dead wood. <i>Inonotus hispidus</i> brackets previously observed on stem. Infected with Ash die back. Tree within falling distance of bridge. Tree subject to previous history of limb failures.	Fell to ground level and treat.
TG4	Mixed species group; Hazel, Blackthorn, Hawthorn, Holly, Ash seedlings, Cherry, Elm	10	4	4	4	4	200	m/s	18	2	50	C2	Early Mature	10-19	Poor form, shape and condition boundary mixed species group. Sparse crowns. Moderate dead wood. Multiple-stemmed coppice. Some dead standing Elm and Ash. Ash infected with Ash dieback.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Fell dead Ash and Elm trees. Re-coppice Hazel.
TG5	Mixed species group; Blackthorn, Hawthorn, Holly, Ash seedlings, Cherry, Elm	10	4	4	4	4	200	m/s	18	2	50	C2	Early Mature	10-19	Poor form, shape and condition boundary mixed species group over stream. Thinning Ash crowns. Ash infected with Ash dieback. Moderate dead wood. Multiple-stemmed. Some dead standing Elm.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Fell dead trees.

ARBORICULTURAL IMPACT ASSESSMENT

TREE SURVEY TABLES

Surveyor: Paul Allen

Date Surveyed: 20/09/2022

TREE TABLES

Land at Corner of Fore St & High Rd

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	Can Cov m2	BS Cat	Age Class	Life Expect	Observation	Recommendations
TG6	Mixed species group; Sycamore, Ash, Elm	15	6	6	6	6	450	m/s	92	5	113	C2	Early Mature	10-19	Average form, shape and condition stream bank mixed species group. No significant recent crown management. Dense crowns. Moderate dead wood. Multiple-stemmed. 3rd party off site trees, unable to fully inspect with overhanging branches over footpath.	Recommend to tree owners to deadwood trees and inspect.
T31	Ash (Common)	23	7	8	7	6	770	2	268	9	154	C2	Mature	10-19	Asymmetric canopy over highway. Poor condition. Thinning crown. Major deadwood. Infected with Ash dieback. Lifted over highway.	Remove dead wood overhanging the Highway
T32	Ash (Common)	21	5	5	6	8	550	1	137	7	112	C2	Mature	10-19	Asymmetric canopy over highway. Poor condition. Thinning crown. Major deadwood. Infected with Ash dieback. Lifted over highway. Low branches over road. Ivy clad crown and stem, unable to fully inspect.	Remove dead wood overhanging the Highway. Sever ivy at 2m from ground level and remove section. Re-inspect. Crown lift to 6m over public highway.

ARBORICULTURAL IMPACT ASSESSMENT

TREE SURVEY TABLES

Surveyor: Paul Allen

Date Surveyed: 20/09/2022

TREE TABLES

Land at Corner of Fore St & High Rd

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	Can Cov m2	BS Cat	Age Class	Life Expect	Observation	Recommendations
T33	Ash (Common)	20	5	4	8	7	550	1	137	7	112	C2	Mature	10-19	Asymmetric canopy over highway. Poor condition. Thinning low crown. Major deadwood. Infected with Ash dieback. Lifted over highway. Ivy clad crown and stem, unable to fully inspect.	Remove dead wood overhanging the Highway. Sever Ivy at 2m from ground level and remove section. Re-inspect. Crown lift to 6m.
T34	Replacement tree	4	0.5	0.5	1	1	50	1	1	1	B2	Semi-Mature	10-19	Newly planted tree	Replace with new tree	
T35	Replacement tree	1	0.5	0.5	1	1	50	1	1	1	B2	Semi-Mature	10-19	Newly planted tree	Replace with new tree	
T36	Replacement tree	1	0.5	0.5	1	1	50	1	1	1	B2	Semi-Mature	10-19	Newly planted tree	Replace with new tree	
T37	Holly	1	0.5	0.5	1	1	50	1	1	1	B2	Semi-Mature	10-19	Newly planted tree. Some Crown scorching. Likely hot summer.	No works.	
T38	Holly	1	0.5	0.5	1	1	50	1	1	1	B2	Semi-Mature	10-19	Newly planted tree. Some Crown scorching. Likely hot summer.	No works.	
T39	Replacement tree	4	0.5	0.5	1	1	50	1	1	1	B2	Semi-Mature	10-19	Newly planted tree	Replace with new tree	
T40	Maple (Field)	2	0.5	0.5	1	1	50	m/s	1	1	1	B2	Semi-Mature	10-19	Newly planted tree. Scorched leaves. Likely hot summer. New foliage growth.	No works.

ARBORICULTURAL IMPACT ASSESSMENT

TREE SURVEY TABLES

Surveyor: Paul Allen

Date Surveyed: 20/09/2022

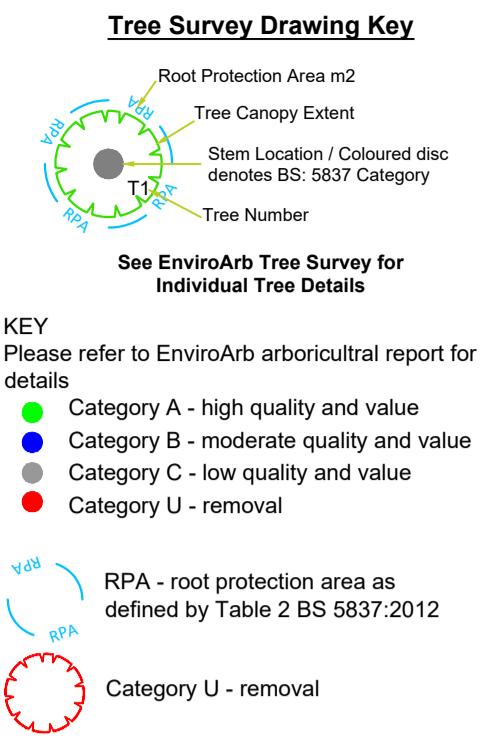
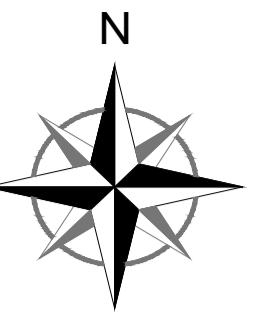
TREE TABLES

Land at Corner of Fore St & High Rd

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	Can Cov m2	BS Cat	Age Class	Life Expect	Observation	Recommendations
T41	Replacement tree	6	0.5	0.5	1	1	50	1	1	1	1	B2	Semi-Mature	10-19	Newly planted tree	Replace with new tree

APPENDIX 3
TREE CONSTRAINTS PLAN

Tree No	Species	DBH (m)	No of Stems	Ht (m)	BS Cat
T1	Ash (Common)	0.18	1	9	U
T2	Ash (Common)	0.39	2	13	U
T3	Ash (Common)	0.17	1	7	U
T4	Ash (Common)	0.18	1	9	U
T5	Ash (Common)	0.72	2	18	C2
T6	Oak (English)	0.55	1	13	B2
T7	Oak (English)	0.99	1	13	C2
T8	Oak (English)	1.1	1	24	C2
T9	Oak (English)	0.68	1	13	B2
T10	Ash (Common)	1.1	m/s	16	U
T11	Ash (Common)	0.4	2	14	C2
T12	Oak (English)	0.72	1	18	C2
T13	Oak (English)	1.24	1	30	A1
T14	Pissard Plum	0.17	1	8	U
T16	Oak (English)	1.2	1	30	B1
T15	Ash (Common)	0.67	1	16	U
T17	Alder (Common)	0.7	m/s	18	B2
T19	Alder (Common)	0.5	1	13	C2
T20	Alder (Common)	0.8	2	19	C2
T21	Ash (Common)	1	1	21	C2
T22	Oak (English)	0.8	1	21	B2
T23	Pissard Plum	0.2	1	6	U
T24	Cherry	0.42	1	13	C2
T25	Ash (Common)	0.6	1	11	C2
T26	False Acacia	0.25	1	14	C2
T27	False Acacia	0.23	1	14	U
T28	False Acacia	0.41	1	15	C2
T29	Oak (English)	0.77	1	22	C1
T30	Ash (Common)	0.465	1	17	U
T31	Ash (Common)	0.77	2	23	C2
T32	Ash (Common)	0.55	1	21	C2
T33	Ash (Common)	0.55	1	20	C2
T18	Cherry	0.3	1	14	C2
T34	Replacement tree	0.05	1	4	U
T35	Replacement Yew tree	0.05	1	1	U
T36	Replacement Yew tree	0.05	1	1	U
T37	Holly	0.05	1	1	C2
T38	Holly	0.05	1	1	C2
T39	Replacement tree	0.05	1	4	U
T40	Maple (Field)	0.05	m/s	2	C2
T41	Replacement tree	0.05	1	6	U
TG1	Mixed species group: Hawthorn, Birch, Sweet Chestnut, Ash	0.25	m/s	9	C2
TG2	Mixed species group: Blackthorn, Hawthorn, Holly, Ash seedlings, Cherry	0.2	m/s	9	C2
TG3	Mixed species group: Blackthorn, Hawthorn, Holly, Ash seedlings, Cherry, Elm, Hazel	0.2	m/s	10	C2
TG4	Mixed species group: Hazel, Blackthorn, Hawthorn, Holly, Ash seedlings, Cherry, Elm	0.2	m/s	10	C2
TG5	Mixed species group: Blackthorn, Hawthorn, Holly, Ash seedlings, Cherry, Elm	0.2	m/s	10	C2
TG6	Mixed species group: Sycamore, Ash, Elm	0.45	m/s	15	C2



REVISIONS				
No	Description	By	Date	Chkd
A	Recreated from new survey data	SPB	23-09-22	PA

EnviroArb-Solutions Ltd
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www.enviroarb-solutions.co.uk

Drawing Title: Tree Constraints Plan (TCP)
 Client: Watervale Property Limited
 Site Address: Land at corner of Fore Street and High Road
 Project No.: EAS-062
 Drawn: S Blackwell
 Checked: P Allen
 Approved: P Allen
 Date: 05-09-20
 Scale: 1:250

scale bar 1:250 2m 0 10m 20m

A1

APPENDIX 4
TREE PROTECTION PLAN



APPENDIX 5
TREE WORKS SCHEDULE

NOTE: All tree works to be undertaken in accordance with BS 3998:2010 'Tree work - Recommendations'. All pruning cuts to be made at suitable growing points, in line with the principles of natural target pruning.

Trees To Be Pruned

Tree No	Species	Ht (m)	DBH (mm)	BS Cat	Age Class	Observation	Recommendations
T5	Ash (Common)	18	720	C2	Mature	Poor asymmetric canopy shape and condition. Major crown deadwood. Infected with Ash dieback. Leans heavily over highway. BT wires in crown. Codominant tree with severe included basal and trunk unions. In dense vegetation unable to fully inspect.	Crown reduce and reshape by 4m to West to balance crown over highway. Remove major deadwood. Sever Ivy at 2m from ground level and remove section. Re-inspect. Insert flexible restraint system between co-dominant stems.
T6	Oak (English)	13	550	B2	Mature	Good form, shape and condition. Dense crown, moderate dead wood. History previous limb failure. Debris piled within rooting zone with dense vegetation unable to fully inspect.	Remove major dead wood. Remove basal vegetation and re-inspect root crown.
T7	Oak (English)	13	990	C2	Mature	Poor suppressed asymmetric form, shape and condition. Growing as one crown with adjacent Oak. Dense low crown over highway. Moderate dead wood. Trunk epicormic growth. Debris piled within rooting zone. Within dense vegetation. Ivy clad trunk unable to fully inspect.	Remove major dead wood. Cut back over highway by 2m. Crown lift over footpath by 4m. Prune trunk epicormic growth to 4m. Remove basal vegetation. Sever Ivy at 2m from ground level and remove section. Re-inspect.
T8	Oak (English)	24	1100	C2	Mature	Poor asymmetric form, shape and condition. Sparse upper crown showing signs of stress with crown retrenchment and major deadwood. Tree adjacent to and overhangs highway. Tree subject to previous history of limb failures. Ivy clad crown and stem, unable to fully inspect. Trunk epicormic growth	Sever Ivy at 2m from ground level and remove section. Re-inspect. Remove dead wood. Remove epicormic growth to a height of 6m.

Tree No	Species	Ht (m)	DBH (mm)	BS Cat	Age Class	Observation	Recommendations
T9	Oak (English)	13	680	B2	Mature	Average suppressed form, shape and condition. Dense crown, moderate dead wood, overhangs highway. Basal and Trunk epicormic growth. Ivy clad crown and stem, unable to fully inspect.	Remove dead wood. Remove basal vegetation and re-inspect root crown. Sever Ivy at 2m from ground level and remove section. Prune epicormic growth to 4m. Crown lift to 6m over highway
TG2	Mixed species group; Blackthorn, Hawthorn, Holly, Ash seedlings, Cherry	9	200	C2	Early Mature	Average form, shape and condition boundary mixed species group. No significant recent crown management. Dense crowns, minor dead wood. Multiple-stemmed. Ash infected with Ash dieback.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Crown lift to 6m over public footpath highway. Fell Ash seedlings.
T10	Ash (Common)	16	1100	U	Mature	Poor form, shape and condition. Old Multiple-stemmed highway boundary tree with included unions with all previous stems pollarded. Epicormic trunk regeneration. Ivy clad stump.	Re-pollard all regenerated stems. Fell stump closer to ground level and treat to prevent regrowth.
T11	Ash (Common)	14	400	C2	Early Mature	Average form, shape and condition. No significant recent crown management. Thinning crown. Moderate dead wood. Infected with Ash dieback. BT wire in crown. Co-dominant with moderate included union. Ivy clad crown and stem, unable to fully inspect.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Crown lift to 6m over public highway. Remove dead wood
TG3	Mixed species group; Blackthorn, Hawthorn, Holly, Ash seedlings, Cherry, Elm, Hazel	10	200	C2	Early Mature	Poor form, shape and condition boundary mixed species group. Sparse crowns. Moderate dead wood. Multiple-stemmed coppice. Some dead standing Elm and Ash. Ash infected with Ash dieback.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Crown lift to 6m over public highway. Fell dead and dying Elm and Ash trees. Re-coppice Hazel.
T12	Oak (English)	18	720	C2	Mature	Poor suppressed form, shape and condition. Dense crown with moderate deadwood. Tree adjacent to and suppressed by close large Oak. Ivy clad crown and stem, unable to fully inspect.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Remove dead wood.

Tree No	Species	Ht (m)	DBH (mm)	BS Cat	Age Class	Observation	Recommendations
T13	Oak (English)	30	1240	A1	Mature	Good form, shape and condition. Dense crown and moderate deadwood. Tree subject to previous history of limb failures. Ivy clad crown and stem, unable to fully inspect. Trunk epicormic growth.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Remove dead wood. Remove epicormic growth to a height of 6m.
T24	Cherry	13	420	C2	Mature	Poor form, shape and condition. Thinning crown, moderate dead wood. Still suffering effects of Summer heat stress. Ivy clad crown and stem, unable to fully inspect.	Remove dead wood. Sever Ivy at 2m from ground level and remove section. Re-inspect.
T25	Ash (Common)	11	600	C2	Mature	Average form, shape and condition low pollard on stream bank. No significant recent crown management. Thinning low crown. Moderate dead wood. Infected with Ash dieback. Ivy clad crown and stem, unable to fully inspect.	Remove dead wood. Sever Ivy at 2m from ground level and remove section. Re-inspect. Crown lift to 4m over site.
T26	False Acacia	14	250	C2	Early Mature	Poor form, shape and condition. No significant recent crown management. Sparse crown. Moderate dead wood. Large basal trunk wound with associated decay. Wire around trunk. Sucker from parent tree.	Remove dead wood.
T28	False Acacia	15	410	C2	Mature	Poor leaning form, shape and condition. No significant recent crown management. Dense crown, moderate dead wood. Sucker from parent tree overhanging stream.	Remove dead wood.
T29	Oak (English)	22	770	C1	Mature	Average condition. Asymmetric canopy. Thinning crown. Major dead wood. Tree subject to previous history of limb failures. Ivy clad crown and stem, unable to fully inspect.	Remove dead wood. Sever Ivy at 2m from ground level and remove section. Re-inspect.
TG4	Mixed species group; Hazel, Blackthorn, Hawthorn, Holly, Ash seedlings,	10	200	C2	Early Mature	Poor form, shape and condition boundary mixed species group. Sparse crowns. Moderate dead wood. Multiple-stemmed coppice. Some dead standing Elm and Ash. Ash infected with Ash dieback.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Fell dead Ash and Elm trees. Re-coppice Hazel.

Tree No	Species	Ht (m)	DBH (mm)	BS Cat	Age Class	Observation	Recommendations
	Cherry, Elm						
TG5	Mixed species group; Blackthorn, Hawthorn, Holly, Ash seedlings, Cherry, Elm	10	200	C2	Early Mature	Poor form, shape and condition boundary mixed species group over stream. Thinning Ash crowns. Ash infected with Ash dieback. Moderate dead wood. Multiple-stemmed. Some dead standing Elm.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Fell dead trees.
T31	Ash (Common)	23	770	C2	Mature	Asymmetric canopy over highway. Poor condition. Thinning crown. Major deadwood. Infected with Ash dieback. Lifted over highway.	Remove dead wood overhanging the Highway
T32	Ash (Common)	21	550	C2	Mature	Asymmetric canopy over highway. Poor condition. Thinning crown. Major deadwood. Infected with Ash dieback. Lifted over highway. Low branches over road. Ivy clad crown and stem, unable to fully inspect.	Remove dead wood overhanging the Highway. Sever Ivy at 2m from ground level and remove section. Re-inspect. Crown lift to 6m over public highway.
T33	Ash (Common)	20	550	C2	Mature	Asymmetric canopy over highway. Poor condition. Thinning low crown. Major deadwood. Infected with Ash dieback. Lifted over highway. Ivy clad crown and stem, unable to fully inspect.	Remove dead wood overhanging the Highway. Sever Ivy at 2m from ground level and remove section. Re-inspect. Crown lift to 6m.

Trees To Be Removed

Tree No	Species	Ht (m)	DBH (mm)	No of Stems	BS Cat	Observation	Recommendations
T1	Ash (Common)	9	180	1	U	Poor form (asymmetric canopy), shape and condition. Sparse lower crown showing signs of stress with major deadwood. Ivy cut.	Fell to ground level and treat.
T2	Ash (Common)	13	390	2	U	Poor form (asymmetric canopy), shape and condition. Sparse crown showing signs of stress with major deadwood. Infected with Ash dieback disease. Basal trunk wounding.	Fell to ground level and treat.
T3	Ash (Common)	7	170	1	U	Poor form (asymmetric canopy), shape and condition. Sparse lower crown showing signs of stress with major deadwood. Wood nailed to tree. Too close to service manhole.	Fell to ground level and treat.
T4	Ash (Common)	9	180	1	U	Poor form, shape and condition. Self-set pioneer tree. Asymmetric form. Moderate deadwood infected with Ash dieback disease. Large basal wound with associated decay.	Fell to ground level and treat.
TG1	Mixed species group; Hawthorn, Birch, Sweet Chestnut, Ash	9	250	m/s	C2	Poor form, shape and condition self sown trees. Sparse crowns showing signs of stress with crown retrenchment and major deadwood. X1 Dead standing tree.	Fell to ground level and treat.
T10	Ash (Common)	16	1100	m/s	U	Poor form, shape and condition. Old Multiple-stemmed highway boundary tree with included unions with all previous stems pollarded. Epicormic trunk regeneration. Ivy clad stump.	Re-pollard all regenerated stems. Fell stump closer to ground level and treat to prevent regrowth.
T14	Pissard Plum	8	170	1	U	Poor suppressed form (asymmetric canopy), shape and condition. Top snapped out of tree. Sparse crown. Moderate deadwood.	Fell to ground level and treat.

Tree No	Species	Ht (m)	DBH (mm)	No of Stems	BS Cat	Observation	Recommendations
T15	Ash (Common)	16	670	1	U	Tree subject to multiple previous history of limb failures. Sparse thin crown with crown retrenchment and major deadwood. Infected with Ash dieback. X 2 old <i>Inonotus hispidus</i> brackets on ground under tree. Ivy clad crown and stem, unable to fully inspect.	Fell to ground level and treat.
T23	Pissard Plum	6	200	1	U	Poor suppressed asymmetric canopy. Poor condition. Sparse crown showing signs of stress with upper crown retrenchment and major deadwood.	Fell to ground level and treat.
T27	False Acacia	14	230	1	U	Poor form, shape and condition. Sparse crown. Moderate dead wood. Snapped hanging branch. Large linear trunk wound with associated decay. Wire around trunk. Sucker from parent tree.	Fell to ground level and treat.
T30	Ash (Common)	17	465	1	U	Poor form, shape and condition. Sparse crown, major dead wood. <i>Inonotus hispidus</i> brackets previously observed on stem. Infected with Ash die back. Tree within falling distance of bridge. Tree subject to previous history of limb failures.	Fell to ground level and treat.

APPENDIX 6

SITE INSPECTION & MONITORING SCHEDULE

General Tree Protection Methods

1. Site Inspections and Supervision of construction works close to, within or adjacent to retained tree RPAS will avoid potentially costly breach of tree protection conditions.
2. We recommend the arboricultural consultant from EnviroArb-Solutions Ltd is retained to undertake inspections and supervision and work with the site manager to ensure compliance with tree protection conditions and advise where appropriate.
3. Both scheduled and unannounced site visits is often the most effective as these will serve to identify any damage to the Tree Protection Fencing, poor working practices, potential problems and points of conflict between the construction process and the health of the trees. The associated reports will include recommendations for remedial action.
4. During these instructed visits, any changes to the proposed works will be discussed, their impact assessed and recommendations for best practice will be outlined. After each of these visits, a copy of the report should be sent to the Site Agent, Local Authority Tree Officer and Client. The remedial action undertaken will be recorded on the next visit.
5. It is essential to the successful implementation of the principles set out in this report that effective supervision and remedial actions are implemented from the outset, as detailed in the site supervision schedule below:

Constraints Item	Site Monitoring Required?	Visits No.	Timing of Site Visits	Actual Visit Date
Approved Tree works tree mark up	Yes	Visit 1	Prior to construction	
Pre-commencement meeting with site manager to discuss CEZ, tree protection methods etc.	Yes	Visit 1	Prior to site clearance	
Establishment and protection of Root Protection Areas (RPAs) for retained trees, to 'sign off' installed tree protection fencing and temporary ground protection	Yes	Visit 1	Prior to site clearance	
Supervision of any changes in soil levels near retained trees	Yes	Visit 2	During site clearance phase	
Location of temporary access route through / adjacent to the retained trees and for access for construction vehicles and avoidance of compaction to the RPAs of retained trees	Yes	Visit 2	During construction phase	
Protection and prevention of damage to retained tree canopies during construction	Yes	Visit 2	During construction phase	
Supervision of the Installation of any 'Reduced-dig' special surfacing within / through retained tree RPAs	Yes	Visit 3	During construction phase	
Supervision of the excavation of services trenches near retained trees	Possible	Visit 4	During construction phase	
Generic construction site constraints: 1 Site office / welfare unit location 2 Temporary toilets 3 Siting of fuel tanks / mortar silos 4 Location of contaminant storage and washout areas 5 Location of stripped topsoil	Yes	Visits 1-5	During construction phase	
Post construction site assessment for any required remedial tree works operations recommendations	Yes	Visit 5	Post construction	

APPENDIX 7

BS5837: 2012 TREE CONSTRAINTS & PROTECTION METHODS

1 Pre-Construction / Tool-Box Talk Meeting

Prior to commencement of demolition / construction, an onsite meeting will be held with all relevant parties, including the site manager and appointed arboricultural consultant from EnviroArb-Solutions Ltd. The purpose of this meeting is to ensure features on site match those in the approved Tree Protection Plan and CMS.

2 Installation of Tree Protection Measures

Usually in conjunction with 1. Above the tree protection fencing should be inspected to ensure it is installed at the correct locations prior to any demolition or ground-works commencing and remain in place throughout construction and be removed only after completion of construction works on the site. The demolition and construction process should not be commenced until the tree surgery works have been completed and the protective areas have been fenced off. Clear notices are to be fixed to the outside of the fencing with words such as 'TREE PROTECTION AREA – NO ACCESS OR WORKING WITHIN THIS AREA'.

3 Installation of Temporary Ground Protection

Within the fenced off area (or Construction Exclusion Zone – CEZ), no materials or chemicals should be stored at any time, no fires should be lit and no pedestrian or vehicle traffic should be allowed. Level changes within these areas should be kept to an absolute minimum. Every effort should be taken to protect a maximum possible area of the root system. No level changes or excavation within the RPAs should be undertaken without the consent of the Council. Where ingress is unavoidably required suitable temporary ground protection may be laid as approved in writing by the Council, as described at Appendix 9.

The site manager, all contractors and other relevant personnel are to be informed of the role of all the tree protection measures installed and their importance. A copy of the approved Tree Protection Plan will be displayed on site at all times during construction.

4 - Locations of Site Offices Compound and Storage Area

The site office, welfare facilities, storage yard and contractors' parking area need to be located within an area of the site that is outside the Root Protection Areas (RPAs). The compound will remain at least 1 metre outside the RPAs, with access from the main access road. All fuel storage and Mortar silos are stored in the designated compound area and bunded to prevent overspill into protected CEZ's.

5 - Groundworks, Level Changes and Foundations

With regard to the approved drawings provided, the construction of foundations for the new build is ideally located beyond the Root Protection Areas (RPAs) of retained trees. Where close to or slightly within RPA's specialised low impact foundation design should be used as recommended by a structural engineer and approved by the council tree officer. If the subsoil is found to be plastic, the foundations will be specified to take into account the potential influence of the vegetation on the moisture content and volume of the subsoil.

6 - Services

We recommend that all drainage and underground service routes are located beyond the RPAs of all the retained trees. If the service runs are to be located within an RPA, we recommend that this matter is dealt with by the approved SSAMS secured by planning condition. If services are located within an RPA, special implementation techniques such as moling, airspade, Vacuum Excavator, or hand digging may be required by the LPA. In the majority of cases, however, careful excavation with a low tonnage mechanical excavator, supervised by the consultant arboriculturist from EnviroArb-Solutions Ltd, can adequately undertake services excavations. When tree roots are encountered, hand digging, and root protection can then be undertaken as and when they are observed.

7 - Dismantling Protection Barriers & Post Construction Site 'Sign Off'

Dismantling the protection barriers around retained trees may be required to allow completion of final surface treatments and landscaping. Supervision of this exercise and control of the landscaping thereafter will be administered by the appointed arboricultural consultant from EnviroArb-Solutions Ltd. The removal of the Tree Protection Fencing is not an opportunity for machinery to access the previously fenced off area.

No further excavation will be carried out during this process and soils levels will not be raised above that existing by greater than 100mm and not within 4m of the trunk. Any removal of existing structures within the Root Protection Areas, including gardens type walls or paths, will be carried out by hand.

APPENDIX 8

TREE PROTECTION FENCING SPECIFICATION

on retained hard surfacing or it is otherwise unfeasible to use ground pins, e.g. due to the presence of underground services, the stabilizer struts should be mounted on a block tray (Figure 3b).

NOTE 1 Examples of configurations for steel mesh perimeter fencing systems are given in BS 1722-18.

NOTE 2 It might be feasible on some sites to use temporary site office buildings as components of the tree protection barriers, provided these can be installed and removed without damaging the retained trees or their rooting environment.

6.2.2.4 All-weather notices should be attached to the barrier with words such as: "CONSTRUCTION EXCLUSION ZONE – NO ACCESS".

Figure 2 Default specification for protective barrier

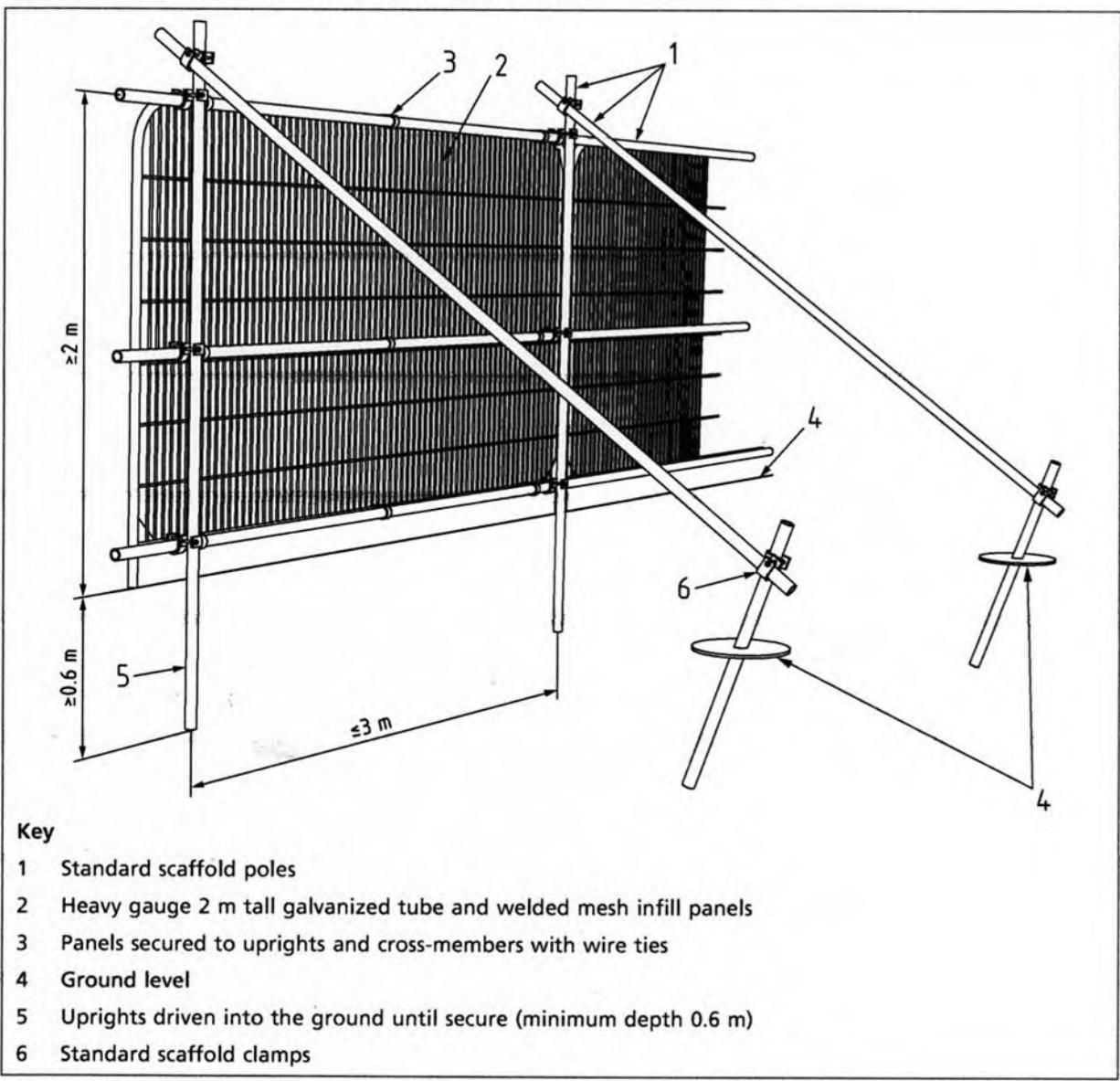
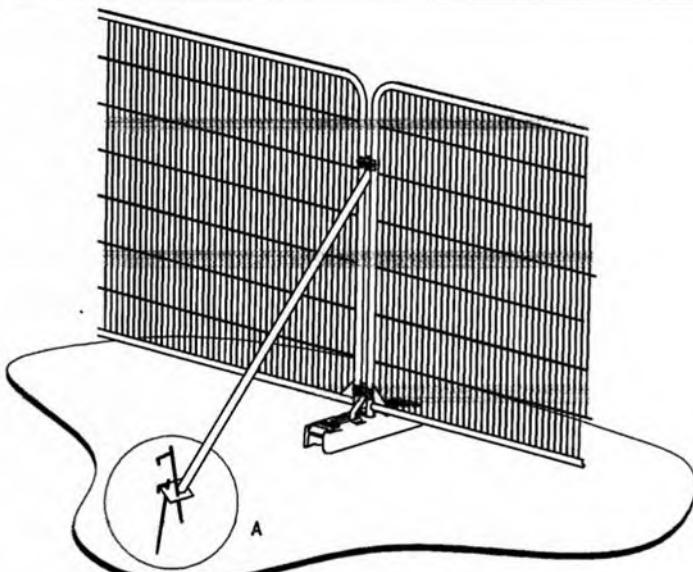
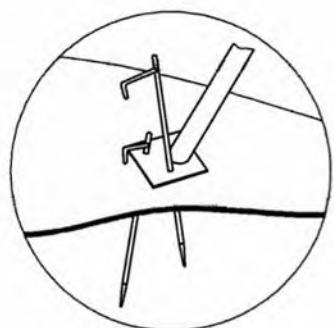
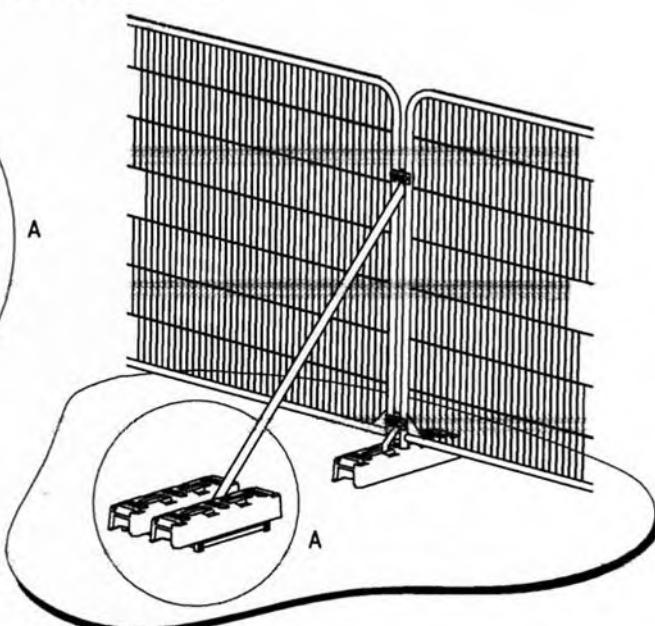
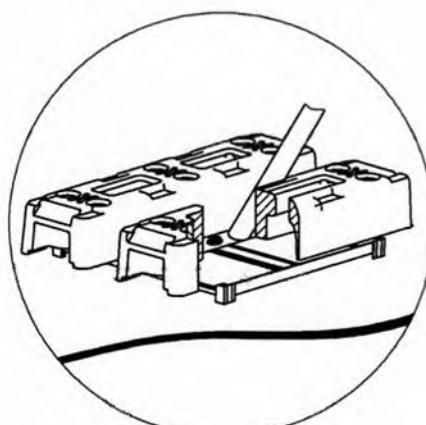


Figure 3 Examples of above-ground stabilizing systems



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

6.2.3 Ground protection during demolition and construction

6.2.3.1 Where construction working space or temporary construction access is justified within the RPA, this should be facilitated by a set-back in the alignment of the tree protection barrier. In such areas, suitable existing hard surfacing that is not proposed for re-use as part of the finished design should be retained to act as temporary ground protection during construction, rather than being removed during demolition. The suitability of such surfacing for this purpose should be evaluated by the project arboriculturist and an engineer as appropriate.



**Tree
protection
zone**



**Keep
out**

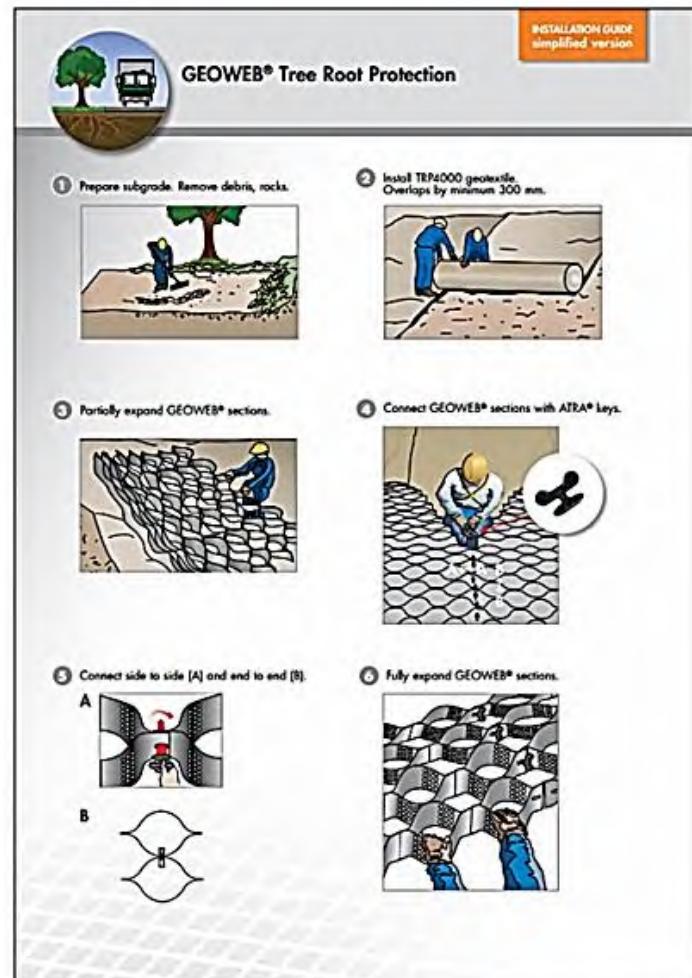
THE TREES PROTECTED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS IF

YOU REQUIRE ACCESS INTO THIS AREA PLEASE CONTACT THE SITE MANAGER AND

CONSULTANT FROM [EnviroArb-Solutions Ltd](#) FOR ADVICE ON M: 07734 715337

APPENDIX 9

PROPRIETARY INFORMATION FOR 'REDUCED-DIG' SUB-BASE



For assistance on correct 4-20mm clean angular stone infill specification, please contact Greenfix technical team.

APPENDIX 10 - PHOTOGRAPHS

	
T1 - Ash (Common)	T3 - Ash (Common)
	
T2 - Ash (Common)	T4 - Ash (Common)



T4 - Ash (Common) (1)

T5 - Ash (Common)



T5 - Ash (Common) (1)

T7 - Oak (English)



T6 - Oak (English)

T8 - Oak (English)



T9 - Oak (English)



T17 - Ash (Common)



T18 - Ash (Common)



T13 - Oak (English)



T14 - Pissard Plum



T15 - Ash (Common)



<p>T15 - Ash (Common) – Innonotus bracket on ground</p>	<p>T16 - Oak (English)</p>
	
<p>T17 - Alder (Common)</p>	<p>T18 - Cherry</p>
	
<p>T19 - Alder (Common)</p>	<p>T20 - Alder (Common)</p>



T20 - Alder (Common) (1)

T21 - Ash (Common)



T21 - Ash (Common) (1)

T22 - Oak (English)



T23 - Pissard Plum

T24 - Cherry



T25 - Ash (Common)



T26 - False Acacia



T27 - False Acacia



T28 - False Acacia



T29 - Oak (English)



T30 - Ash (Common)



T31 - Ash (Common)



T32 - Ash (Common)



T33 - Ash (Common)



TG1 - Mixed species group; Hawthorn, Birch, Sweet Chestnut, Ash

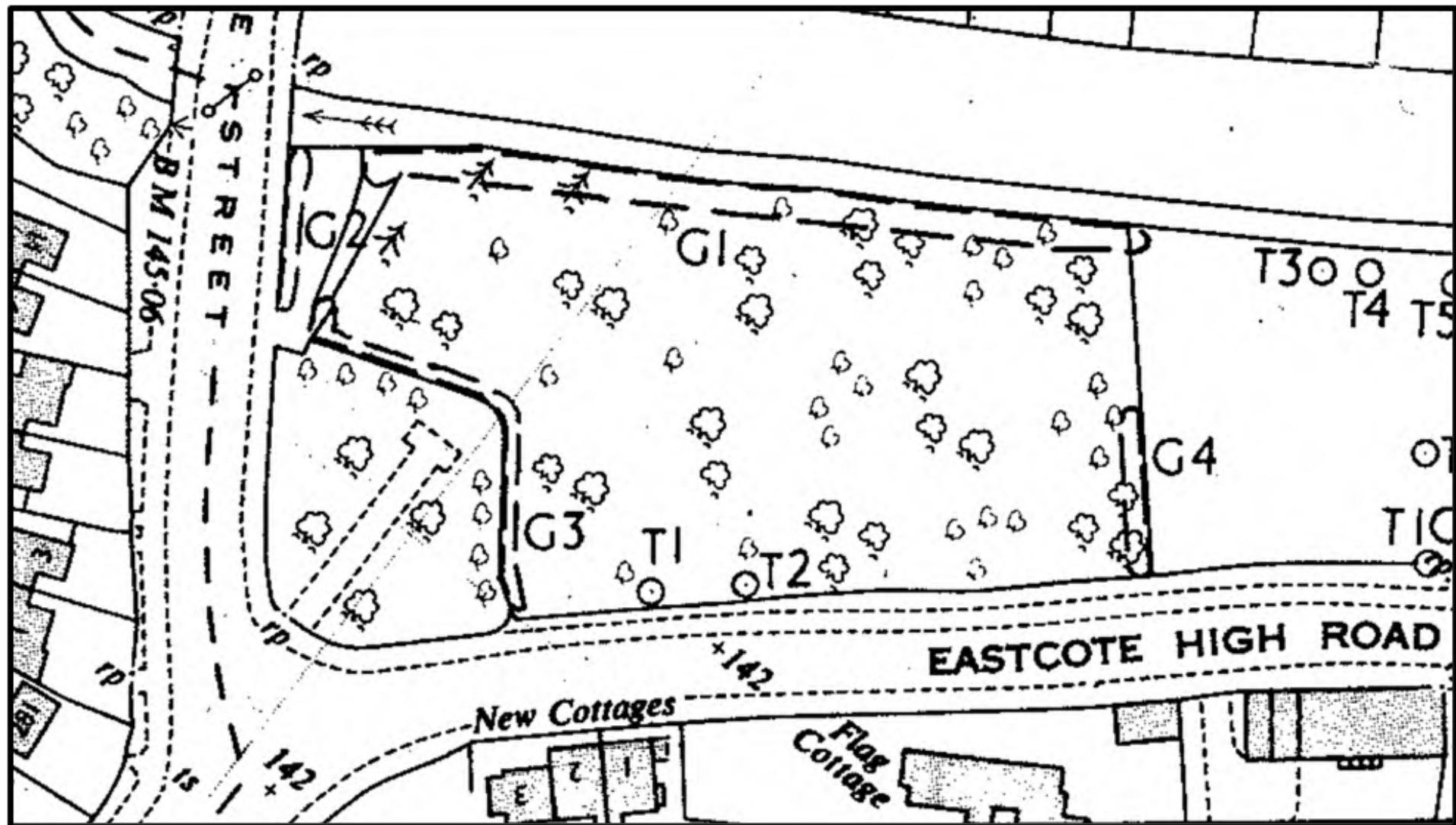


<p>TG2 - Mixed species group; Blackthorn, Hawthorn, Holly, Ash seedlings, Cherry</p>	<p>TG3 - Mixed species group; Blackthorn, Hawthorn, Holly, Ash seedlings, Cherry, Elm</p>
	
<p>TG4 - Mixed species group; Hazel, Blackthorn, Hawthorn, Holly, Ash seedlings, Cherry, Elm</p>	<p>TG5 - Mixed species group; Blackthorn, Hawthorn, Holly, Ash seedlings, Cherry, Elm</p>
	
<p>TG6 - Mixed species group; Sycamore, Ash, Elm</p>	

APPENDIX 11

TPO INFORMATION

TPO Ref Number: Ruislip-Northwood Tree Preservation Order / No.7 / 1964



FIRST SCHEDULE

Land at Eastcote High Road
and part Joel Street

Trees Specified Individually

Uncoloured and

(Encircled in black on the map.)

No. on Map	Description	Situation
T.1	Ash	Eastcote Motor Services Ltd., Eastcote High Road.
T.2	Oak	"
T.3	Birch	"
T.4	Birch	"
T.5	Thorn	"
T.6	Elm Replace with Alder.	"
T.7	Alder	"
T.8	Dead ^a Cedar	"
T.9	"	"
T.10	Ash	"
T.11	" fallen 1/4th decayed.	"
T.12	"	"
T.13	labeled along driveway Oak Repl.	"
T.14	labeled in the Reserve Repl.	"
T.15	Crab	The Rosery, Eastcote High Road.
T.16	Scots Pine	Forge Cottage, Eastcote High Road.
T.17	Thorn	Vacant Land. (Standard Estates Ltd.)
T.18	Elm	Sunnyside, Joel Street, Eastcote
T.19	"	"
✓ T.20	Horse Chestnut	<i>Laurel Cottage, Joel Street, Eastcote.</i>
✓ T.21	Yew	"
✗ T.22	Ash	<i>Sunnyside, Joel Street, Eastcote</i>
T.23	"	"
✓ T.24	" (on Repl.)	"
✓ T.25	Yew	"

Groups of Trees
(within a broken black line on the map)

G.1	Group consisting of 6 Scots Pine, 5 Ash, 1 Oak, 1 Alder, 1 False Acacia	Eastcote Motor Services Ltd., Eastcote High Road.
G.2	Group consisting of 4 Ash	"
G.3	Group consisting of 8 Oak, 1 Ash, 1 Thorn	"
G.4	Group consisting of 5 Elm, 2 Oak	"
G.5	Group consisting of 3 Alder, 3 Ash, 2 Willow.	"

APPENDIX 12

REPORT CAVEATS

Full Legal Disclaimer

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Specific - Trees

All tree inspections, unless specified, have been undertaken from ground level and using non-invasive techniques. Comments contained within the report on the condition and risk associated with any tree relate to the condition of the tree at the date and time of survey. Please note that the condition of trees is subject to change. This change may occur but is not limited to biological and non-biological factors as well as mechanical/ physical changes to conditions in the proximity of the tree. Trees should be inspected at intervals relative to identified site risks and in accordance with relevant HSE and Central Government guidance. EnviroArb Solutions Ltd can provide further information on this matter if required. Please note no statutory control checks have been undertaken (unless specified). Where tree surgery works have been identified these works are based on the assumption that planning is approved, no tree works should be undertaken prior to determination of this application without up to date confirmation of the Tree Preservation Order / Conservation Area Status of the vegetation. All works should be undertaken in accordance with the appropriate Duty of Care. This should include, for example, site specific risk assessments and due diligence inspections for the presence of protected species.

Any comment relating to 3rd party trees has been made without full access to the tree(s). Should these trees have any impact on the proposed development we would advise you to instruct us to contact the 3rd party and undertake further inspection work.



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