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**ARBORICULTURAL IMPLICATIONS ASSESSMENT
FOR PROPOSED RESIDENTIAL DEVELOPMENT**

AT

**LAND EAST OF ALBION ROAD
AND NORTH OF COOPER LANE
MARDEN
TONBRIDGE
TN12**

by

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1. INTRODUCTION

- 1.1 Broad Oak Tree Consultants Ltd. received instructions from Rydon Homes Ltd. to undertake an inspection of trees located on and immediately adjacent to the site referred to as Land east of Albion Road and North of Cooper Lane, Marden, Tonbridge, TN12. The purpose of the inspection was to produce a base inventory of the tree stock and an Arboricultural Implications Assessment of development proposals.
- 1.2 The proposals are for the formation of a new access onto Albion Road leading to a residential development of 117 units comprising flats, short terrace, semi detached and detached units with associated gardens, parking, landscaping and infrastructure. Existing tree features and ponds are to be retained, along with the access point onto Copper Lane. Details of the proposals will have been submitted by OSP Architecture and others.
- 1.3 The trees were inspected on 17th February 2022 by Tim Laddiman, BSc.(Hons) M.I.C.For. M.Arbor.A., Chartered Arboriculturist and Principal Consultant of Broad Oak Tree Consultants Ltd.
- 1.4 At the time of reporting online checks with Maidstone Borough Council's mapping system did not indicate the site to be located within a Conservation Area nor did it indicate the presence of any Tree Preservation Orders. However, the accuracy of these records/searches cannot be confirmed and more detailed checks with the Council may be necessary.

2. GENERAL SITE DESCRIPTION

- 2.1 The site primarily comprises a rectangular field located on the north side of Copper Lane with levels falling from north to south. To the north-west is an east/west orientated area of heavily overgrown land which extends westwards to Albion Road.
- 2.2 To the north of the main site is a new housing development, with more established houses to the north-east and north-west. To the east and west are grass fields with the boundaries defined by hedging of varying dimensions and levels of maintenance.
- 2.3 Within the main body of the site is a fruit orchard of compact, heavily pruned fruit trees in parallel rows with areas of open grass to the south and a number of ponds towards the road to the south. Within the overgrown area to the west the site is covered in dense brambles with scattered self seeded pioneer species, such as Elder, Ash and Hawthorn, particularly around a derelict building and cluster of collapsed corrugated iron lean to's/sheds.

3. SCOPE OF TREE SURVEY

- 3.1 All trees and shrubs of 75mm diameter or more at 1.5m above ground level were included in the survey. This included trees immediately adjacent to the site. The orchard trees were not individually inspected.
- 3.2 For the offsite trees estimates of location, dimensions and condition had to be made.

4. DATA COLLECTION

- 4.1 All trees were inspected from the ground and no climbing or specialist investigations were undertaken. Only those trees within the site boundary could be basally inspected, with the structural integrity of the trees located outside the site unconfirmed. Each tree was inspected to the requirements of Section 4.4 "Tree Survey" of BS 5837:2012 "Trees in Relation to Design, Demolition and Construction - Recommendations".
- 4.2 The tree survey followed the numbered sequence from G1 to G100 inclusive. Tree numbers, together with BS recommended colour coding of condition, have been added to the Tree Constraints Plan, our drawing no. J61.93/01 Rev. A in Appendix 2. This drawing also includes crown spreads based on four compass points and BS calculated root protection areas.
- 4.3 The following categories of information were obtained for each tree. Separate detailed tree survey sheets are attached in Appendix 1, together with comprehensive explanatory sheets which cover the details of the categories listed below.
- (1) Tree reference number
 - (2) Species
 - (3) Height in metres
 - (4) Stem count
 - (5) Stem diameter or equivalent in millimetres
 - (6) Branch spread in metres
 - (7) Age class
 - (8) Height of crown clearance in metres
 - (9) Physiological condition
 - (10) Estimated remaining contribution in years
 - (11) Category grading
 - (12) Structural condition
 - (13) Preliminary management recommendations
- 4.4 Within the assessment of physiological condition and remaining contribution, a visual inspection of each tree was undertaken to assess the crown and stem for any weak structures, deadwood, hollows, forks or other defects that might affect its stability and safety. The base of each tree was also visually inspected, together with tapping and probing, to search for signs of root lifting, bark death or decay. Where stems were heavily ivy clad, no full assessment of structural integrity could be undertaken. Clearance of the ivy would be necessary for confirmation of tree condition.

5. RISK ASSESSMENT - INFORMATIVES

- 5.1 Although the potential risk to someone passing beneath a tree when the tree or part of it fails is relatively remote, the risk is present. This increases significantly in areas of consistent and regular usage on a year round basis, such as footpaths, gardens and roadways. Where static structures exist, the risks become constant and an assessment is made as to whether complete or partial failure of a tree could potentially cause physical damage to such structures.
- 5.2 Within the scope of any tree survey it is a fact that not all risks of stem or crown failure can be covered, particularly in relation to freak occurrences of weather when even healthy trees can suffer stem snap or windblow. There is also a well known propensity for mature trees to occasionally shed limbs for no discernible reason, even on calm days. Although relatively rare, limbs may occasionally be shed and this should be acknowledged as a risk that cannot entirely be mitigated.

6. RESULTS OF TREE INSPECTIONS

- 6.1 A total of 100 individual trees, small groups, hedges and linear screens were inspected, ranging from self seeded trees of less than ten years of age through to mature boundary Oaks of upto 150 years of age.
- 6.2 Within the overgrown area to the west most of the self seeded trees are less than 20 years of age, except around the building where they are upto 35 years of age, suggesting the building/lean to's went out of use first, then the area surrounding them stopped being maintained.
- 6.3 Many of the Ash present within the hedgerows and self seeded in the area to the west have early signs of Ash Dieback. This disease could see most of the Ash present die within ten years.
- 6.4 The north-east and western boundaries are the oldest, containing mature Oak and Ash, with the former hedge to the west unmaintained for several decades, except for side flailing within the orchard area. To the south and east the tree belts are much younger and mostly reflect planting to reduce wind flow across the orchard.
- 6.5 The belt of maturing Silver Birch (G39 and G41) are also probably of similar origin although an unusual species choice.
- 6.6 Tree health varies considerably with some of the trees towards Copper Lane declining in condition, possibly due to water logging as the roadside ditch does not appear to drain away and the ponds are overflowing.
- 6.7 The orchard trees are typically of less than 2.5m height with compact, heavily pruned crowns, small stems and of variable health. They do not appear to be very old or of any historic value and are laid out to modern cultivation methods.
- 6.8 Of the trees inspected, the following is a breakdown of the various numbers of trees and groups in each BS category.

BS Category	Tree No.	Sub Total
A	90, 92, 94	3
B	6, 7, 22, 23, 24, 25, 29, G32, 35, 42, G69, 84, 88, 93, 97, G99	16
B/C	G39, G41	2
C	G1, G2, G3, G4, G5, 8, 10, G12, 16, G17, 19, 20, 21, G26, G27, 28, 30, G31, 33, G36, 37, G38, G40, G43, G44, G45, G46, G47, G48, G50, 51, 52, 53, G54, 55, 57, G58, G59, 62, 64, G66, G67, G68, G70, G71, G72, 73, 75, G76, G77, G78, 79, G80, 81, G82, G83, 85, G86, G87, G89, 91, 95, 96	63
C/U	G13, G15, G63	3
U	9, 11, 14, 18, 34, 49, 56, 60, 61, 65, 74, 98, G100	13
	TOTAL	100

6.9 *Interpretation of table*

Category A	Retention most desirable. Of high quality and value and in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).
Category B	Retention desirable. Of moderate quality and value and in such a condition as to make a significant contribution (a minimum of 20 years is suggested).
Category B/C	Groups of trees that include individuals of varying qualities that fall into the category B and C classifications or where individuals may be of Category C quality but as a whole they have a higher value.
Category C	Could be retained – of low quality and value. Poor crown form, heavily asymmetric, large numbers of similar species/size. Currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested) or young trees with a stem diameter below 150mm.
Category C/U	Trees that would be included in category C but have structural faults, areas of decay, etc. that require more detailed investigations or climbing inspections to ascertain whether or not they can be safely retained. Groups that include dead/dying/dangerous individuals.
Category U	Trees for removal. Dead/dying/dangerous trees due to structural defects, fungal decay or root plate uplift. Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management.

7. **BS CALCULATED ROOT PROTECTION AREAS (RPAs)**

- 7.1 To provide an indication of the critical areas of root plate necessary for tree survival and longevity, BS 5837:2012 requires the calculation of RPAs for trees in the BS Categories A, B and C. Calculations are not made for Category U trees which will require removal on safety grounds within 10 years.
- 7.2 The table in Appendix 3 has been calculated using the measured stem diameters and the formula as described in Section 4.6 in BS 5837:2012. These are represented as basic circles on the Tree Constraints Plan. Where buildings, walls, services and hard surfacing exist within the indicated RPAs it is likely that the architecture of root systems will have been affected. Foundations to walls and buildings can completely obstruct root development, depending on their depth and the nature of the underlying soils. In the absence of detailed site investigations the indicated RPA circles should be used for guidance only within any development proposals.

ARBORICULTURAL IMPLICATIONS ASSESSMENT

8. DEVELOPMENT PROPOSALS

- 8.1 The proposals are for the formation of a new access onto Albion Road leading to a residential development of 117 units comprising flats, short terrace, semi detached and detached units with associated gardens, parking, landscaping and infrastructure. Existing tree features and ponds are to be retained, along with the access point onto Copper Lane. Details of the proposals will have been submitted by OSP Architecture and others.
- 8.2 The supplied OSP Architecture "Tree Proximity Plan", drawing no. S105, has been used as the base for the Broad Oak Tree Consultants Ltd. Tree Protection Plan, drawing no. J61.93/02 Rev. A in Appendix 4. This indicates the trees to be removed and measures to protect retained trees in accordance with BS5837:2012 requirements.

9. TREE SAFETY WORK RECOMMENDATIONS

- 9.1 Based on the tree inspections the following tree safety works are recommended whether or not the site is developed. These works only relate to trees that represent a potential hazard to road users and adjoining land owners and do not reflect potential risks to users of the site.

Table: Tree safety work recommendations

Tree No.	Species	Works recommended	Comments
T14	Ash	Pollard both stems above tear wound.	Risk of failure into road. Maintain wildlife habitat.
G15	Hornbeam, Willow	Top at under 2m and maintain as hedge.	Overgrown hedge with drawn up top heavy stems at risk of failure into road.
T18	Common Oak	Fell.	Extensive dieback and deadwood. Hazard to road.

- 9.2 All tree work will need to be carried out by a competent tree surgeon to comply with BS3998:2010 "Tree Work - Recommendations".
- 9.3 All trees recommended for tree surgery works will need to be checked for the presence of bats or nesting birds prior to works commencing. Disturbance to bats or nesting birds could contravene the Wildlife and Countryside Act 1981 and result in prosecution.

10. TREES FOR REMOVAL – DEVELOPMENT

- 10.1 Based on the supplied proposed site layout the following trees will require removal for the development.

Table: Trees for removal – development

Tree No.	Species	BS Category	Comments
G1 (part)	Thorn	C	Maintained hedge. Sections either side of entrance to be removed for sight lines.
G2 (part)	Common Oak	C	6 of 7 young trees to be relocated within the site.
G3 (part)	Thorn, Oak, Elder	C	Compact screen. Northern section to be removed only.
T8	Ash	C	Young tree. Possible Ash Dieback. Limited lifespan.
T9	Hawthorn	U	Small tree. Dying.
G39	Silver Birch	B/C	Eastern end tree and western half to be removed. Overgrown windbreak.
G41	Silver Birch	B/C	Eastern end tree only. Overgrown windbreak.
G44	Field Maple, Thorn	C	Overgrown hedge. Recently topped and cut back to east.
G46	Thorn, Elder	C	Self seeded, small, low quality trees and shrubs.
G47	Prunus sp.	C	Dense, young, self seeded trees.
G48	2no. Elder	C	Small, self seeded. Overgrown shrubs. Leaning E/NE.
G54	3no. Thorn	C	Small. Collapse to E. with vertical regrowth.
T55	Hawthorn	C	Small. Weak stem unions. Lean to SE.
T56	Ash	U	Part collapsed. Decayed base.
T57	Ash	C	Self seeded. Potentially weak stem union.
T60	Elder	U	Part collapsed. Growing through old shed.
T61	Ash	U	Leaning N. Early Ash Dieback.
T62	Hawthorn	C2	Small tree. Leaning N.
G63	Ash	C/U	Self seeded. Short lifespan.
T64	Elder	C	Overgrown shrub.
T65	Ash	U	Small, young. Early Ash Dieback.
G66	Silver Birch, Thorn, Ash	C	Young, crowded. Self seeded.
G67	2no. Hawthorn	C	Overgrown shrubs. Self seeded.
G68	Ash, 1no. Oak	C	Young, crowded. Self seeded.
G69	Silver Birch	B	Linear group.
G70	2no. Ash	C	Crowded, young self seeded trees.
G71	Hawthorn	C	Overgrown short hedge.
T74	Pear	U	Virtually dead.
G83	Elder, Thorn	C	Small, crowded, overgrown shrubs.
T85	Field Maple	C	Small. Contorted stems leaning heavily N.

- 10.2 All but G69 of the above are BS category B/C, C or U and as such should not represent a constraint to the proposals, according to BS5837:2012. The majority are self seeded due to a lack of maintenance or are elements of commercial orchard screens.
- 10.3 All of the small orchard trees would also be removed. These are a commercial crop, heavily pruned and relatively young. These could be grubbed out by the farmer at any time if considered not commercially viable. As such they should not represent a planning constraint.
- 10.4 The trees for removal for the development are indicated as such with blue dashed crown outlines on the Tree Protection Plan.

11. TREE SURGERY REQUIREMENTS

- 11.1 Based on the proposed layout and past maintenance the following tree works are recommended to provide appropriate clearances and provide for ongoing maintenance of hedge/screen features.

Table: Tree Surgery Requirements

Tree No.	Species	Works required
G3	Thorn, Oak, Elder	Top at 2m.
G4	Thorn	Top at 2m.
G40	Hazel	Top at 2m and side trim to 1.5m radius.
General		Deadwood crowns where public access/structures/roads beneath.

- 11.2 All of the above works will be undertaken by a competent tree surgeon to comply with BS3998:2010 "Tree Work - Recommendations".
- 11.3 All trees recommended for tree surgery works or felling will need to be checked for the presence of bats or nesting birds prior to works commencing. Disturbance to bats or nesting birds could contravene the Wildlife and Countryside Act 1981 and result in prosecution.

12. POTENTIAL IMPACT OF PROPOSALS ON RETAINED TREES

- 12.1 The proposed layout has been designed with the benefit of tree constraints information to allow for trees to be retained within and surrounding the proposals, with minimal conflicts, to provide a mature setting to the development.
- 12.2 Building positioning and primary road infrastructure has avoided tree canopies and RPAs, where practical. As such only limited conflicts arise with a number of peripheral footpaths. As these are shallow excavation construction only the potential impact on tree root systems is minimal. Only the turf will be removed, by hand tools only, the paths retained with peg and board/aluminium strip edging. These measures to minimise any impacts from footpath installation are indicated on the Tree Protection Plan.
- 12.3 Overall, provided the trees are appropriately protected during the works, the arboricultural impact of the proposals on retained trees will be minimal.

13. TREE PROTECTION MEASURES – FENCING

13.1 *Location of fencing*

- 13.1.1 The Tree Protection Plan indicates the proposed location of protective fencing based on the calculated tree protection areas and space available.

13.2 *Design of fencing*

- 13.2.1 The protective fencing is to be constructed of scaffold uprights driven into the ground to a minimum depth of 0.6m and at no greater than 3m spacing. Uprights to be braced with angled scaffold poles and anchors. On to the uprights weldmesh panels such as “Heras” or a similar product will be securely mounted with all weather notices attached to every 5th panel reading “Keep Out – Protected Area”. The fencing will form enclosed areas to which no access will be allowed. This design of fencing is considered appropriate to the site and scale of development proposed.

- 13.2.2 Examples of the fencing specification and signage required are included in Appendix 5.

13.3 *Timing of fencing*

- 13.3.1 Protective fencing is to be erected prior to commencement of site works and remain in place until completion of construction. The location and suitability of the fencing can be confirmed to the local authority by an arboricultural consultant prior to commencement of construction. Any tree felling will need to be undertaken prior to fence installation to minimise risks to operatives. All tree surgeons’ vehicles will be kept outside the indicated protection zones utilising existing areas of hard standing and drive.

13.4 *Additional precautions*

- 13.4.1 Potentially injurious materials such as fuels, oils, chemicals and cement will be stored at least 20m from any stem, or in a bunded storage vessel. No fires will be lit within 5m of the drip line of any retained tree. No level changes will occur, either raising or lowering within the protected areas. A list of these additional precautions are included on the Tree Protection Plan.

14. GROUND PROTECTION MEASURES

- 14.1 In areas within the root protection zone of G43, where access around the new building footprint will be required during construction, specific ground protection measures will be necessary. For machinery access these should comprise interlocking, specifically designed load bearing temporary roadway plates, commonly made of steel or specialised plastics. They will minimise any risk of compaction whilst providing a running platform for machinery.
- 14.2 Where foot access only is required, ground protection measures should comprise a base layer of geotextile, over which 100mm of woodchip will be laid, topped by side butting scaffold boards or non-slip surfaced minimum 12mm thick OSB/plywood.
- 14.3 Installation of the ground protection measures should take place at the same time as the protective fencing and remain in place until completion of construction. The area requiring ground protection measures is indicated by cross hatching on the Tree Protection Plan.

15. SITE OPERATIONS AND MATERIALS STORAGE

- 15.1 Details of site zoning cannot be specified by an Arboriculturalist as these are commonly determined by contractors on the basis of Health & Safety Assessments. However, the robust protective fencing will define the remaining site space available for storage and operations.
- 15.2 It is anticipated that construction on the site will be phased and a construction compound will be formed and relocated as necessary. Site offices will presumably be located close to the main vehicle access to control deliveries/visitors.

16. SERVICES/DRAINAGE/SOAKAWAYS

- 16.1 Based on the supplied layout, any new services, drainage or soakaway alignments should be located outside root protection areas. If incursion into the protective areas of retained trees is unavoidable, then the routing should be obtained either by hand tool excavation or air spade, supervised by an arboricultural consultant. Any works within the protective areas will need to be undertaken to the requirements of NJUG Volume 4 "Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees".

17. ARBORICULTURAL METHOD STATEMENT

- 17.1 A separate Arboricultural Method Statement is not considered necessary for this site. Details of the protective fencing and ground protection specification, timing and location are indicated on the Tree Protection Plan, which can be referred to in a specifically worded condition.
- 17.2 Potential conflicts between retained tree RPAs and proposals are minimised by design and methodologies are indicated on the Tree Protection Plan to minimise potential root disturbance where footpaths do overlap with tree RPAs in limited locations.

18. SUMMARY

- 18.1 The proposed residential development of the site would require the removal of 12 individual trees and 18 groups (or parts of groups), all but one of which are BS category C or U. As such these should not limit the proposals, with the vast majority of the key boundary features retained.
- 18.2 Potential impacts on retained trees have been minimised by design with no proposed residential units impacting on retained tree RPAs or canopies.
- 18.3 Only limited RPA overlaps with proposed footpaths arise and these will be installed by hand tools only to minimal dig principles to avoid root disturbance.
- 18.4 Robust tree protection measures in accordance with BS5837:2012 specifications are proposed to ensure retained trees are appropriately protected during the development.
- 18.5 The Tree Protection Plan can be referred to as an approved drawing or in a specifically worded condition to ensure that the retained trees are appropriately protected during the construction works.

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Broad Oak Tree Consultants Ltd.

APPENDIX 1

TREE SURVEY EXPLANATORY SHEET

Height	in metres (estimated where ground uneven or access restricted).
Stem count	number of stems
Stem diameter	in mm. at 1.5m. above ground level.
Branch spread	radial spread in metres at four main compass points (estimated where no access).
Age class	Young - Y Semi Mature - SM Mature - M Over mature - OM Veteran - V
Height of crown clearance	in metres. Normally range of heights of outer branches above ground level, e.g. 2-4m.
Physiological condition	Good, Fair, Poor, Dead, Variable
Estimated remaining contribution	in years e.g. less than 10, 10-20, 20-40, 40+
Category grading	see attached sheet
Structural condition	comment on presence of defects, decay, crown form, past management, deadwood, other features worthy of note. N.B. If trees are ivy clad, no full structural assessment will have been possible.
Preliminary management recommendations	requirements of further investigations, works necessary to alleviate potential hazards based on current setting and levels of access. NB: Works that may be necessary in relation to development are not included here

CASCADE CHART FOR TREE QUALITY ASSESSMENT

TREES FOR REMOVAL				
Category and definition	Criteria			Identification on plan
Category U Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management	<ul style="list-style-type: none">Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other R category trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)Trees that are dead or are showing signs of significant, immediate and irreversible overall decline.Trees infected with pathogens of significance to the health and/or safety of other trees nearby (e.g. Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality <p>NOTE Habitat reinstatement may be appropriate (e.g. R category tree used as a bat roost: installation of bat box in nearby tree.)</p>			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 Those of high quality and value: in such a condition as to be able to make a substantial construction (a minimum of 40 years is suggested)	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)	Trees that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage)	Trees present in numbers, usually as groups or woodland, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (e.g. trees of moderate quality within an avenue that includes better, A category specimens), or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits	MID BLUE
Category C Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150mm.	Trees not qualifying in higher categories	Trees present in groups or woodland, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit.	Trees with very limited conservation or other cultural benefits	GREY
NOTE Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation				

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
G1	Thorn	<1.6	Multi	<100	<1	<1	<1	<1	M	0+	Good	40+	C2	Maintained hedge.	
G2	Common Oak	<6	1	<120	<2.5	<2.5	<2.5	<2.5	Y	0+	Good	40+	C2	Row of young trees of variable form.	
G3	Thorn, Oak, Elder	<4.5	Multi	<250	<1.5	<1.5	<1.5	<1.5	M	0+	Good	40+	C2	High maintained screen with vigorous regrowth. Most ivy clad.	
G4	Thorn	<4	Multi	<200	<1.5	<1.5	<1.5	<1.5	M	0+	Good	40+	C2	High maintained screen with vigorous regrowth. Most ivy clad.	
G5	Thorn	<3.5	Multi	<80	<1	<1.5	<1.5	<1.5	Y/SM	0+	Good	40+	C2	Maintained hedge.	
6	Common Oak	11	2	680	5.5	6.5	4.5	5.5	SM	2.6+	Good	40+	B2	Twin stemmed from under 1m. Multi stemmed above 4m. Topped in past.	
7	Common Oak	11	1	c550	5.5	5.5	5	7	SM	2.3+	Unconfirmed	20-40	B2	Part ivy clad stem. Multi stemmed at circa 3.5m. Possibly topped in past. Minor deadwood.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
8	Ash	9	1	c200	4	2.5	1	5.5	Y	2.6+	Unconfirmed	10-20	C1	Ivy clad. Lean to NW. Multi stemmed at 3.5m-4m. Possibly topped in past. Possibly early Ash Dieback.	
9	Hawthorn	5.5	1	c120	0	1.5	2	2	SM	2+	Unconfirmed	<10	U	Leaning SW. Heavily ivy clad. Canopy dieback.	
10	Ash	6.5	Multi	150	2	2	1.5	1	Y	2+	Poor	10-20	C1	Multi stemmed from ground level. In edge of pond.	
11	Ash	11	Multi	c700	3	4.5	3.5	4.5	SM	3+	Poor	<10	U	Growing in pond. Ivy clad base. Multi stemmed from under 1.7m. Ash Dieback.	
G12	2no. Silver Birch	<8	1	<150	<3	<2	<2	<2.5	Y	1.2+	Variable	20-40	C2	One heavily suppressed.	
G13	Willow	<7	Multi	<250	<4	<4	<2	<4	SM	0+	Poor	<10-20	C/U1	Collapsed stems within pond.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
14	Ash	8	2	350	2.5	1	1.5	2	SM	3+	Poor	<10	U	Twin stemmed near ground level. Large stem with decayed tearout 3m and snapped upper stem. Woodpecker hole to S. at 3m. Growing within pond.	Pollard both stems above tear wound.
G15	Hornbeam, Willow	<9	1/Multi	<150	<3	<2	<3	<2	Y	0+	Variable	<10-40	C/U1	Overgrown hedging. Flailed road side. Slender top heavy stems. Risks of failure.	Top at under 2m and maintain as hedge.
16	Common Oak	13	1	c350	2.5	2	4	2	Y	4+	Poor	10-20	C1	Heavily ivy clad. Deadwood. Base leans E. In edge of pond.	
G17	Willow	<10	Multi	<300	<5	<5	<1	<2	SM	0+	Variable	10-40	C2	Crowded. Multi stemmed near ground level. Growing in pond.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
18	Common Oak	10	1	c350	1	2.5	4.5	2	SM	4+	Poor	<10	U	In edge of pond. Part ivy clad. Dieback and extensive deadwood. Slight lean to S.	Fell.
19	Field Maple	9	2	330	2.5	4	3.5	3	SM	4+	Fair	20-40	C2	Twin stemmed from ground level. Part ivy clad. Minor deadwood.	
20	Field Maple	10	2	c400	2	4	3.5	3	SM	4+	Fair	10-20	C1	Twin stemmed at 1.6m. Part ivy clad. Minor dieback. Multi stemmed at under 3m. Potentially weak unions.	
21	Common Oak	13	1	240	2	3.5	3.5	3.5	Y	4+	Fair	20-40	C2	Crowded. Drawn up.	
22	Common Oak	12	1	510	6	7	6	4	SM	2+	Fair	20-40	B2	Waterlogged ground. Deadwood. Main leader lost in past.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
23	Common Oak	14	1	470	6	4	4	5.5	SM	4+	Fair	20-40	B2	Deadwood. Water logged ground. Ascending crown structure of long limbs.	
24	Common Oak	14	3	520	4.5	4.5	5.5	5	SM	3.5+	Fair	20-40	B2	Three stems from under 1m. Waterlogged ground.	
25	Common Oak	12	1	540	6	7	6.5	4	SM	2+	Fair	20-40	B2	Stem lean to S. Twin stemmed at 2.5m. On edge of pond.	
G26	Beech, Oak, Birch, Willow	<9	1/2	<120	<3	<3	<3	<3	Y	0+	Variable	20-40+	C2	Crowded. Drawn up.	
G27	Oak, Thorn, Hornbeam	<7	1/Multi	<150	<3	<2	<3	<2	Y	0+	Variable	20-40+	C2	Shelter belt planting 4m wide. Lower crowns flailed.	
28	Common Oak	8	1	220	4	3	2	2.5	Y	3.5+	Good	40+	C2	Ascending crown.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
29	Common Oak	12	1	c700	c6	6	6	5.5	M	3.5+	Unconfirmed	20-40	B2	Heavily ivy clad. Multi stemmed at circa 3m. Open dense crown. Reduced all over in past.	
30	Common Oak	8	1	c150	c3	0	2.5	4.5	Y	3.5+	Unconfirmed	20-40	C2	Heavily ivy clad. Crowded. Leaning W.	
G31	Thorn, occ. Oak	<6	Multi	<100	<3	<1	<1.5	<1	SM	0+	Good	20-40	C2	Variable height hedge. Flaied to S. Mostly ivy clad.	
G32	2no. Willow	<10	Multi	<600	<7	<4	<5.5	<5	M	3+	Unconfirmed	20-40	B2	Located in adjoining land. E. tree three stems near ground level. W. tree twin stemmed at ground level.	
33	Common Oak	8	1	160	0.5	1	3	3	Y	5+	Fair	40+	C2	Heavily crowded. High crown. Slight lean to S.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
34	Ash	19	Multi	1200	c10	9.5	6.5	8	M	3.5+	Poor	<10	U	Multi stemmed from under 1.5m with weak unions. Stems bowed to N. and E. crown raised to S. Early Ash Dieback.	
35	Common Oak	16	1	c550	6	5.5	5	6	SM	3.5+	Good	40+	B2	Twin stemmed at 2.5m. Ascending crown.	
G36	Hazel, Ash, Elder, Thorn, Holly	<7	Multi	<300	<1	<4	<1	<1.5	M	0+	Variable	10-40+	C2	Densely multi stemmed near ground level. Overgrown hedge.	
37	Ash, Field Maple	<10	1/Multi	<200	<2	<3	<3	<3	SM	0+	Variable	10-40+	C2	Overgrown hedge sections.	
G38	Field Maple	<6	1/Multi	<200	<1	<1	<1	<1	Y	0+	Good	40+	C2	Maintained high screen. All side cut and topped in last year except 8m section to E. on N. side where stems to 9m height.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
G39	Silver Birch	<13	1	<270	<3.5	<3.5	<3.5	<3	SM	2.5+	Variable	20-40+	B/C2	Row all topped in past at under 3.5m with regrowth. Variable form and heights.	
G40	Hazel	<6	Multi	<300	<4	<4	<2	<3	M	0+	Variable	10-40	C2	Densely multi stemmed near ground level. Previously topped. Smaller and poorer health to S.	
G41	Silver Birch	<14	1	<270	<3.5	<4	<4	<2	SM	2.5+	Variable	20-40	B/C2	Topped at under 3.5m in past. Variable form and heights.	
42	Common Oak	16	1	c600	6	6	6	6	SM	3+	Good	40+	B2	Part ivy clad.	
G43	Field Maple, Thorn	<9	Multi	<350	<5	<3.5	<2	<6	SM	0+	Variable	20-40	C2	Multi stemmed near ground level. Overgrown hedge section. Part overtopped.	
G44	Field Maple, Thorn	<8	Multi	<250	<3	<1.5	<2	<5	SM	0+	Variable	20-40	C2	Topped and side trimmed in last year with western element uncut. Overgrown hedge.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
G45	Thorn	<7	Multi	<250	<3.5	<3	<2	<3	M	0+	Variable	20-40	C2	Overgrown hedging of variable height.	
G46	Thorn, Elder	<5	Multi	<250	<2	<3	<4	<3	M	0+	Variable	10-40	C2	Heavily bramble clad trees.	
G47	Prunus sp.	<8	1/Multi	<150	<3	<3	<3	<3	Y	1+	Variable	20-40+	C2	Dense, drawn up self seeded young trees.	
G48	2no. Elder	<6	Multi	<250	<3.5	<3.5	<1.5	<2	M	0+	Fair	10-40	C2	Multi stemmed from under 1m. Leaning E/NE.	
49	Fruit	3.5	1	c450	2.5	3	3.5	c3	M	1+	Poor	<10	U	Multi stemmed at 1.6m. Extensive bark death on stems. Wire damage to E.	
G50	2no. Spruce	<14	1	<350	<3.5	<4	<4	<2.5	SM	0.5+	Fair	20-40	C2	Crowded.	
51	Hawthorn	6	Multi	160	2.5	2.5	3	3	SM	0+	Good	40+	C2	Multi stemmed near ground level.	
52	Cypress	15	1	c400	c4	3.5	5.5	4.5	SM	0.5+	Fair	20-40	C2	Several broken limbs in S. centre crown. Possibly topped in past.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
53	Hawthorn	6	2	210	c3	3	3	2.5	SM	1+	Fair	20-40	C2	Twin stemmed near ground level.	
G54	3no. Thorn	<5	Multi	<130	<2.5	<4	<0.5	<0	SM	0+	Poor	10-20	C1	Three stems collapsed to E. with vertical regrowth.	
55	Hawthorn	5.5	Multi	260	3	3.5	3.5	3	SM	0.6+	Fair	20-40	C1	Three stems from under 1m. Weak unions. Lean to SE.	
56	Ash	10	1	340	6	5	2	4	SM	2.5+	Poor	<10	U	Leaning N. Part collapsed. Decayed base.	
57	Ash	16	1	370	6	c6	1.5	7	SM	2+	Poor	10-20	C1	Twin stemmed at 2.1m. Self seeded. Lean to N. Potentially weak union.	
G58	2no. Hawthorn	<10	Multi	<150	<2	<4	<2	<4	SM	1.5+	Fair	20-40	C2	Multi stemmed near ground level. Heavily crowded. Drawn up.	
G59	2no. Cypress	<15	1	<550	<5	<5	<2.5	<5	SM	0+	Good	40+	C2	Overgrown screen planting.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
60	Elder	6	1	170	2.5	4	2	0	M	1.5+	Poor	<10	U	Part collapsed to NE. Growing through old shed.	
61	Ash	11	1	190	5	3.5	0	3.5	Y	1.3+	Poor	<10	U	Crowded. Leaning N. Early Ash Dieback.	
62	Hawthorn	4	1	140	3	2	1	2	SM	1.5+	Fair	20-40	C2	Crowded. Leaning N.	
G63	Ash	<16	1	<300	<5	<6	<3	<5	SM	2+	Variable	<10-20	C/U1		
64	Elder	6	Multi	300	3	5	2.5	2.5	M	0.5+	Fair	10-20	C2	Multi stemmed near ground level.	
65	Ash	7	1	140	2.5	1.5	2.5	1.5	Y	1+	Poor	<10	U	Extensive surface roots. Stem bowed to SW. Multi stemmed from circa 3m. Early Ash Dieback.	
G66	Silver Birch, Thorn, Ash	<10	1	<150	<2.5	<2	<2	<2.5	Y	0+	Variable	10-40	C2	Crowded. Drawn up stems.	
G67	2no. Hawthorn	<7	Multi	<200	<3	<3	<2.5	<3	SM	0+	Good	20-40	C2	N. stem dominant. Multi stemmed near ground level.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
G68	Ash, 1no. Oak	<12	1/Multi	<200	<3	<4	<3	<3	Y	2+	Variable	10-40	C1	Crowded. Drawn up. Variable condition. No access.	
G69	Silver Birch	<19	1/2	<550	<6	<6	<7	<5	M	3+	Unconfirmed	20-40	B2	Located in adjoining garden therefore no basal inspection. Most ivy clad.	
G70	2no. Ash	<11	1/2	<130	<3	<3	<3	<1.5	Y	1.3+	Unconfirmed	10-20	C1	Crowded.	
G71	Hawthorn	<6	Multi	<150	<2	<3	<4	<1	SM	0+	Fair	20-40	C2	Overgrown hedging.	
G72	3no. Ash	<8	1/Multi	<150	<2	<3	<1	<2	Y	0.5+	Poor	10-20	C1	Crowded. Topped at under 2m in past. Two ivy clad.	
73	Pear	7	1	c350	4	4	2.5	1.5	M	1+	Unconfirmed	10-20	C1	Heavily ivy clad. Upper limbs to E. Secondary lower growth.	
74	Pear	5	1	c350	0.5	1.5	3.5	1	M	2.5+	Poor	<10	U	Heavily ivy clad. Only one limb to S. Others torn stubs.	
75	Pear	6	1	c350	2.5	2	2	1	M	2.5+	Unconfirmed	10-20	C1	Heavily ivy clad.	
G76	Field Maple, Thorn	<1.5	Multi	<100	<1	<1	<1	<1	M	0+	Good	40+	C2	Maintained hedge. Mostly ivy clad.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
G77	Ash, Thorn	<2	Multi	<250	<1	<1	<1	<1	M	0+	Good	20-40	C2	Maintained hedge. Previously heavily overgrown. Mainly Thorn and higher to E. half.	
G78	Ash	<9	Multi	<300	<4	<3	<2	<3	M	2+	Fair	10-20	C1	Elements of G77 to N. side not reduced back to hedge.	
79	Ash	10	1	c350	4.5	4	1.5	4	M	1.6+	Fair	10-20	C1	Leaning N. Uncut element of G77 to N. Possibly Ash Dieback.	
G80	Ash	<13	1/1	<180	<3	<2	<3	<3	Y	2+	Variable	10-20	C1	Variable age and size. Crowded.	
81	Ash	15	2	c650	8	6	c7	5	M	3+	Unconfirmed	10-20	C1	Heavily ivy clad. Multi stemmed at under 2.5m. Deadwood. Possibly Ash Dieback.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
G82	Ash	<13	1/Multi	<300	<4	<4.5	<4	<2	SM	1.8+	Unconfirmed	10-20	C1	Part ivy clad. Heavily crowded. Lean to E. Multi stemmed near ground level. Possibly Ash Dieback.	
G83	Elder, Thorn	<5	Multi	<200	<4	<4	<1.5	<2	SM	0.6+	Variable	10-40	C2	Crowded. Thorn ivy clad. Multi stemmed.	
84	Common Oak	10	1	580	7	6.5	5	6.5	SM	1.2+	Fair	20-40	B2	Outgrown former hedge element. Stem right angle kink to N. at under 2m. Old tension split in stem. Multi stemmed at under 2.5m. Open crown of long slender limbs.	
85	Field Maple	6	2	210	4	3	0.5	3	Y	2+	Fair	20-40	C2	Contorted stems leaning heavily N. Twin stemmed from ground level.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
G86	Thorn, Elder	<3.5	Multi	<250	<2	<1	<2	<1	M	0+	Variable	10-40	C2	High maintained hedge. Some ivy clad.	
G87	Hawthorn	<8	Multi	<250	<1	<2.5	<1	<3	M	0+	Variable	10-40	C2	Overgrown hedge. Ivy clad. Variable height. Lower canopy failed to E.	
88	Field Maple	10	2	470	3	2.5	4	c6	M	4+	Fair	20-40	B2	Located on W. side of fence. Twin stemmed near ground level. One dominant. Lean to W. Part ivy clad.	
G89	Field Maple	<12	Multi	<300	<3	<4	<4	<3	M	4+	Unconfirmed	20-40	C2	Crowded. Overgrown hedge elements. Located in adjoining field.	
90	Common Oak	18	1	c550	6	4	6	c8	M	6+	Unconfirmed	40+	A2	High main crown. Located in adjoining field.	
91	Common Oak	12	1	c1000	12	6.5	7	c10	M	4+	Unconfirmed	40+	C2	Multi stemmed at under 2m. Overtopped. Long contorted limbs mainly to N. and W.	

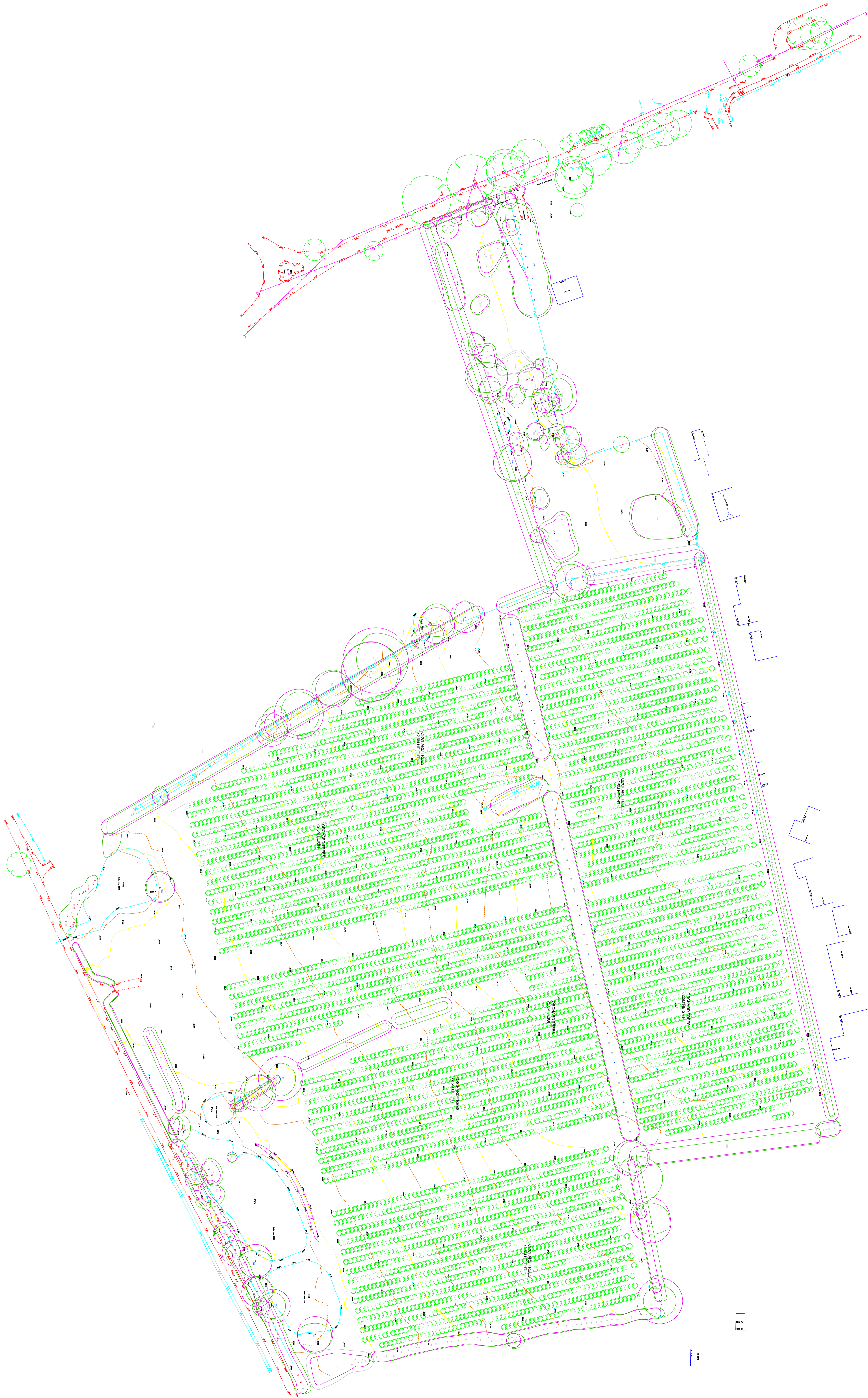
Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
92	Common Oak	20	1	c900	10	11	11	c11	M	3+	Unconfirmed	40+	A2	Slight lean to S. Deadwood.	
93	Common Oak	15	1	c550	5.5	6	8	c7	M	3.5+	Unconfirmed	20-40+	B2	Part ivy clad.	
94	Common Oak	17	1	c750	7.5	8	6.5	c8	M	3.5+	Unconfirmed	40+	A2	Part ivy clad. Twin stemmed at 3.5m. S. stem dominant. Minor deadwood.	
95	Common Oak	13	1	c400	4	6	6	c7	SM	4.5+	Unconfirmed	10-20	C1	Open crown of long limbs. Slightly sparse. Minor dieback and deadwood. Crowded.	
96	Common Oak	9	2	c500	1	4	4.5	c4	SM	4+	Unconfirmed	10-20	C1	Twin stemmed from under 1.5m. Heavily ivy clad. Crowded to N. Dieback.	
97	Field Maple	9	2	250	2.5	3	3	c4	SM	5+	Unconfirmed	20-40+	B2	Twin stemmed from ground level. Heavily ivy clad.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
98	Field Maple	5	Multi	250	6	8.5	1	0	SM	2.5+	Poor	<10	U	Part collapsed to NE. Multi stemmed near ground level. One stem dead.	
G99	Common Oak	8	Multi	c450	5.5	5	c5	6	Y	0.6+	Good	40+	B2	Multi stemmed at 1.3m.	
G100	Willow	<10	Multi	<300	<1	<3	<3	<2	SM	0+	Poor	<10	U	Multi stemmed near ground level. Drawn up. Most leaning S. Dead/dying.	

APPENDIX 2

- G1 - G100 Tree numbers
SS Category of Condition
T90 SS Condition A
T6 SS Condition B
T8 SS Condition C
T11 SS Condition U
Crown spread
SS Condition not
protection area

This tree protection plan has been
developed in accordance with the
requirements of the City of Edmonton
Tree Bylaw (2012). It is intended to
provide a visual representation of the
trees that are to be protected and the
areas that are to be protected. It is not
intended to be used as a legal document
and it is not intended to be used as a
basis for any legal action.



APPENDIX 3

TABLE OF BS CALCULATED ROOT PROTECTION AREAS (RPAS)
AT
LAND NORTH OF COPPER LANE AND LAND EAST OF ALBION ROAD, MARDEN, TONBRIDGE, TN12

Tree no.	Species	BS Category	Stem diameter or calculated equivalent (mm.)	BS calc. radial equiv. root protection area (m.)	BS calc. total RPA (m²)
G1	Thorn	C2	<100	<1.2	<5
G2	Common Oak	C2	<120	<1.4	<6
G3	Thorn, Oak, Elder	C2	<250	<3	<28
G4	Thorn	C2	<200	<2.4	<18
G5	Thorn	C2	<80	<1	<3
6	Common Oak	B2	680	8.2	211
7	Common Oak	B2	c.550	c.6.6	c.137
8	Ash	C1	c.200	c.2.4	c.18
9	Hawthorn	U	-	-	-
10	Ash	C1	150	1.8	10
11	Ash	U	-	-	-
G12	2no. Silver Birch	C2	<150	<1.8	<10
G13	Willow	C/U1	<250	<3	<28
14	Ash	U	-	-	-
G15	Hornbeam, Willow	C/U1	<150	<1.8	<10
16	Common Oak	C1	c.350	c.4.2	c.55
G17	Willow	C2	<300	<3.6	<41
18	Common Oak	U	-	-	-
19	Field Maple	C2	330	4	50
20	Field Maple	C1	c.400	c.4.8	c.72
21	Common Oak	C2	240	2.9	26
22	Common Oak	B2	510	6.1	117
23	Common Oak	B2	470	5.6	99
24	Common Oak	B2	520	6.2	121
25	Common Oak	B2	540	6.5	133
G26	Beech, Oak, Birch, Willow	C2	<120	<1.4	<6
G27	Oak, Thorn, Hornbeam	C2	<150	<1.8	<10
28	Common Oak	C2	220	2.6	21
29	Common Oak	B2	c.700	c.8.4	c.222
30	Common Oak	C2	c.150	c.1.8	c.10
G31	Thorn, occ. Oak	C2	<100	<1.2	<5
G32	2no. Willow	B2	<600	<7.2	<163
33	Common Oak	C2	160	1.9	11
34	Ash	U	-	-	-
35	Common Oak	B2	c.550	c.6.6	c.137
G36	Hazel, Ash, Elder, Thorn, Holly	C2	<300	<3.6	<41
37	Ash, Field Maple	C2	<200	<2.4	<18
G38	Field Maple	C2	<200	<2.4	<18
G39	Silver Birch	B/C2	<270	<3.2	<32
G40	Hazel	C2	<300	<3.6	<41
G41	Silver Birch	B/C2	<270	<3.2	<32
42	Common Oak	B2	c.600	c.7.2	c.163
G43	Field Maple, Thorn	C2	<350	<4.2	<55

TABLE OF BS CALCULATED ROOT PROTECTION AREAS (RPAS)
AT
LAND NORTH OF COPPER LANE AND LAND EAST OF ALBION ROAD, MARDEN, TONBRIDGE, TN12

Tree no.	Species	BS Category	Stem diameter or calculated equivalent (mm.)	BS calc. radial equiv. root protection area (m.)	BS calc. total RPA (m²)
G44	Field Maple, Thorn	C2	<250	<3	<28
G45	Thorn	C2	<250	<3	<28
G46	Thorn, Elder	C2	<250	<3	<28
G47	Prunus sp.	C2	<150	<1.8	<10
G48	2no. Elder	C2	<250	<3	<28
49	Fruit	U	-	-	-
G50	2no. Spruce	C2	<350	<4.2	<55
51	Hawthorn	C2	160	1.9	11
52	Cypress	C2	c.400	c.4.8	c.72
53	Hawthorn	C2	210	2.5	20
G54	3no. Thorn	C1	<130	<1.6	<8
55	Hawthorn	C1	260	3.1	30
56	Ash	U	-	-	-
57	Ash	C1	370	4.4	61
G58	2no. Hawthorn	C2	<150	<1.8	<10
G59	2no. Cypress	C2	<550	<6.6	<137
60	Elder	U	-	-	-
61	Ash	U	-	-	-
62	Hawthorn	C2	140	1.7	9
G63	Ash	C/U1	<300	<3.6	<41
64	Elder	C2	300	3.6	41
65	Ash	U	-	-	-
G66	Silver Birch, Thorn, Ash	C2	<150	<1.8	<10
G67	2no. Hawthorn	C2	<200	<2.4	<18
G68	Ash, 1no. Oak	C1	<200	<2.4	<18
G69	Silver Birch	B2	<550	<6.6	<137
G70	2no. Ash	C1	<130	<1.6	<8
G71	Hawthorn	C2	<150	<1.8	<10
G72	3no. Ash	C1	<150	<1.8	<10
73	Pear	C1	c.350	c.4.2	.55
74	Pear	U	-	-	-
75	Pear	C1	c.350	c.4.2	c.55
G76	Field Maple, Thorn	C2	<100	<1.2	<5
G77	Ash, Thorn	C2	<250	<3	<28
G78	Ash	C1	<300	<3.6	<41
79	Ash	C1	c.350	c.4.2	c.55
G80	Ash	C1	<180	<2.2	<15
81	Ash	C1	c.650	c.7.8	c.191
G82	Ash	C1	<300	<3.6	<41
G83	Elder, Thorn	C2	<200	<2.4	<18
84	Common Oak	B2	580	7	154
85	Field Maple	C2	210	2.5	20
G86	Thorn, Elder	C2	<250	<3	<28
G87	Hawthorn	C2	<250	<3	<28

TABLE OF BS CALCULATED ROOT PROTECTION AREAS (RPAS)
AT
LAND NORTH OF COPPER LANE AND LAND EAST OF ALBION ROAD, MARDEN, TONBRIDGE, TN12

Tree no.	Species	BS Category	Stem diameter or calculated equivalent (mm.)	BS calc. radial equiv. root protection area (m.)	BS calc. total RPA (m²)
88	Field Maple	B2	470	5.6	99
G89	Field Maple	C2	<300	<3.6	<41
90	Common Oak	A2	c.550	c.6.6	c.137
91	Common Oak	C2	c.1000	c.12	c.452
92	Common Oak	A2	c.900	c.10.8	c.366
93	Common Oak	B2	c.550	c.6.6	c.137
94	Common Oak	A2	c.750	c.9	c.255
95	Common Oak	C1	c.400	c.4.8	c.72
96	Common Oak	C1	c.500	c.6	c.113
97	Field Maple	B2	250	3	28
98	Field Maple	U	-	-	-
G99	Common Oak	B2	c.450	c.5.4	c.92
G100	Willow	U	-	-	-

APPENDIX 4

APPENDIX 5

BS5837:2012: FENCING SPECIFICATIONS

Figure 2 Default specification for protective barrier

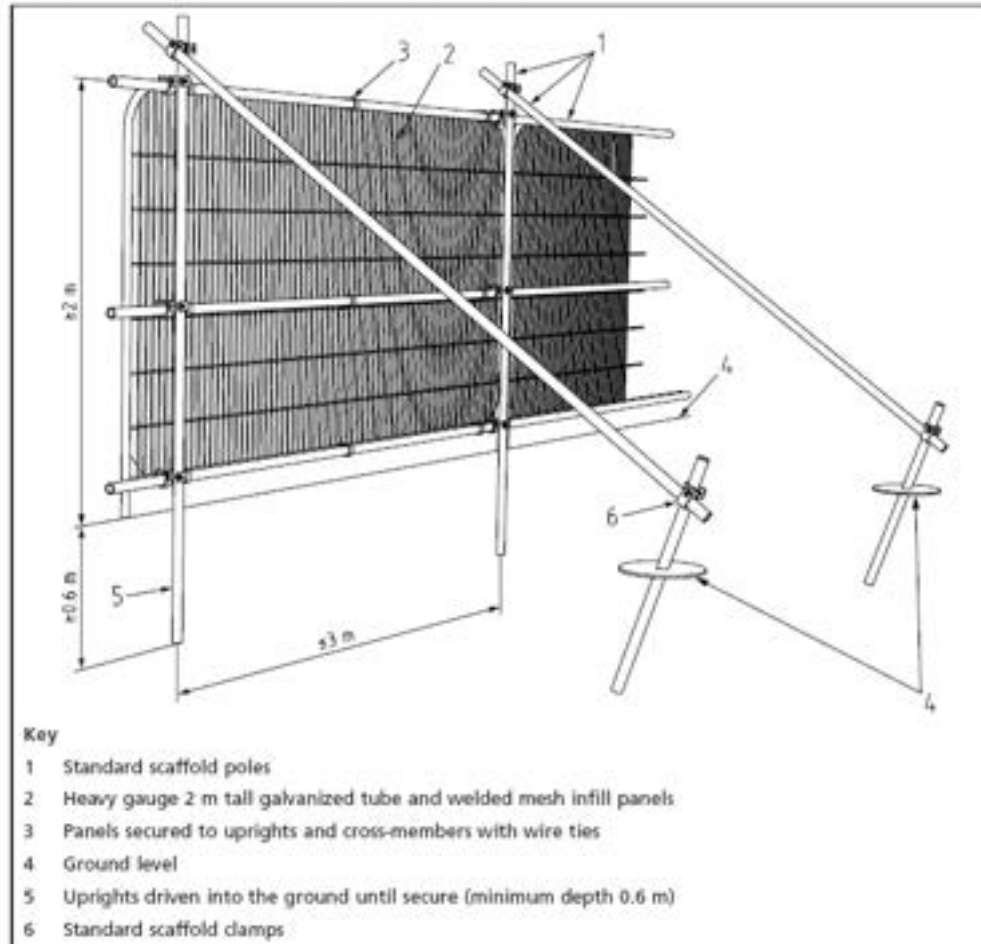
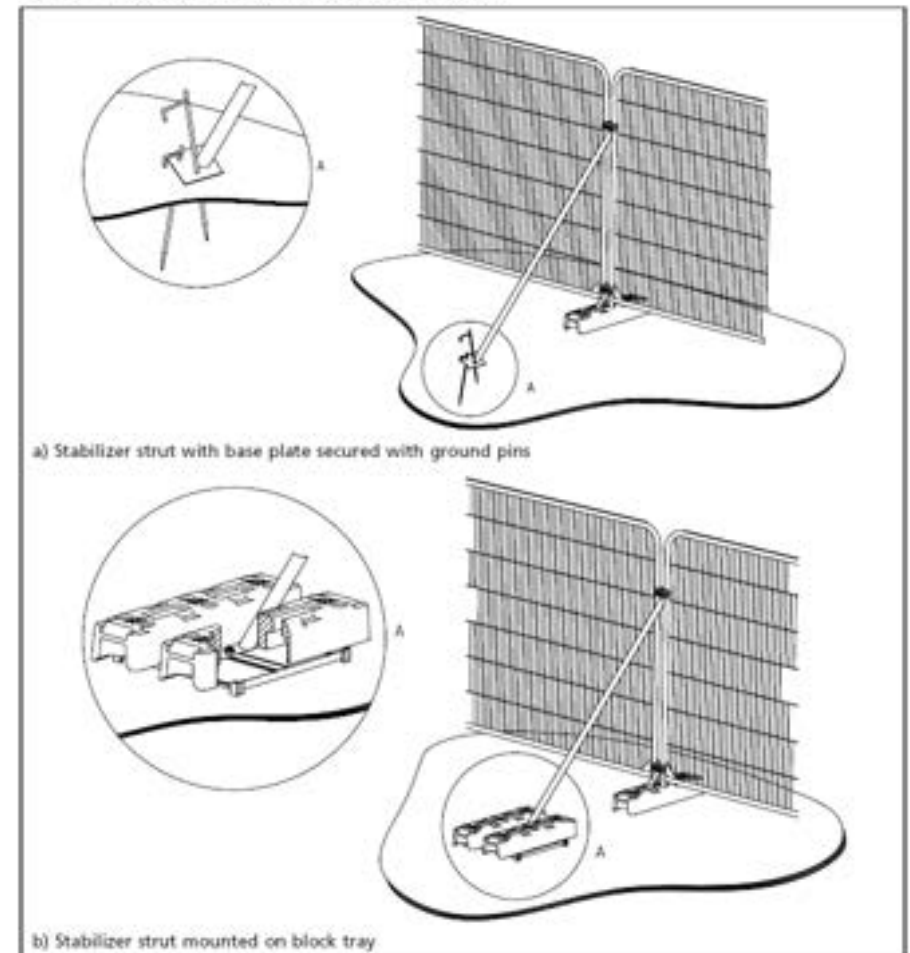


Figure 3 Examples of above-ground stabilizing systems



EXAMPLE OF FENCING SIGNAGE

