Supplementary Arboricultural Information, Land at The Old Vicarage

AVA/2025/0504, comprising AIA, TPP and AMS



Dr. Stefan Bodnar MCIEEM

Ecologist and Arboricultural Consultant

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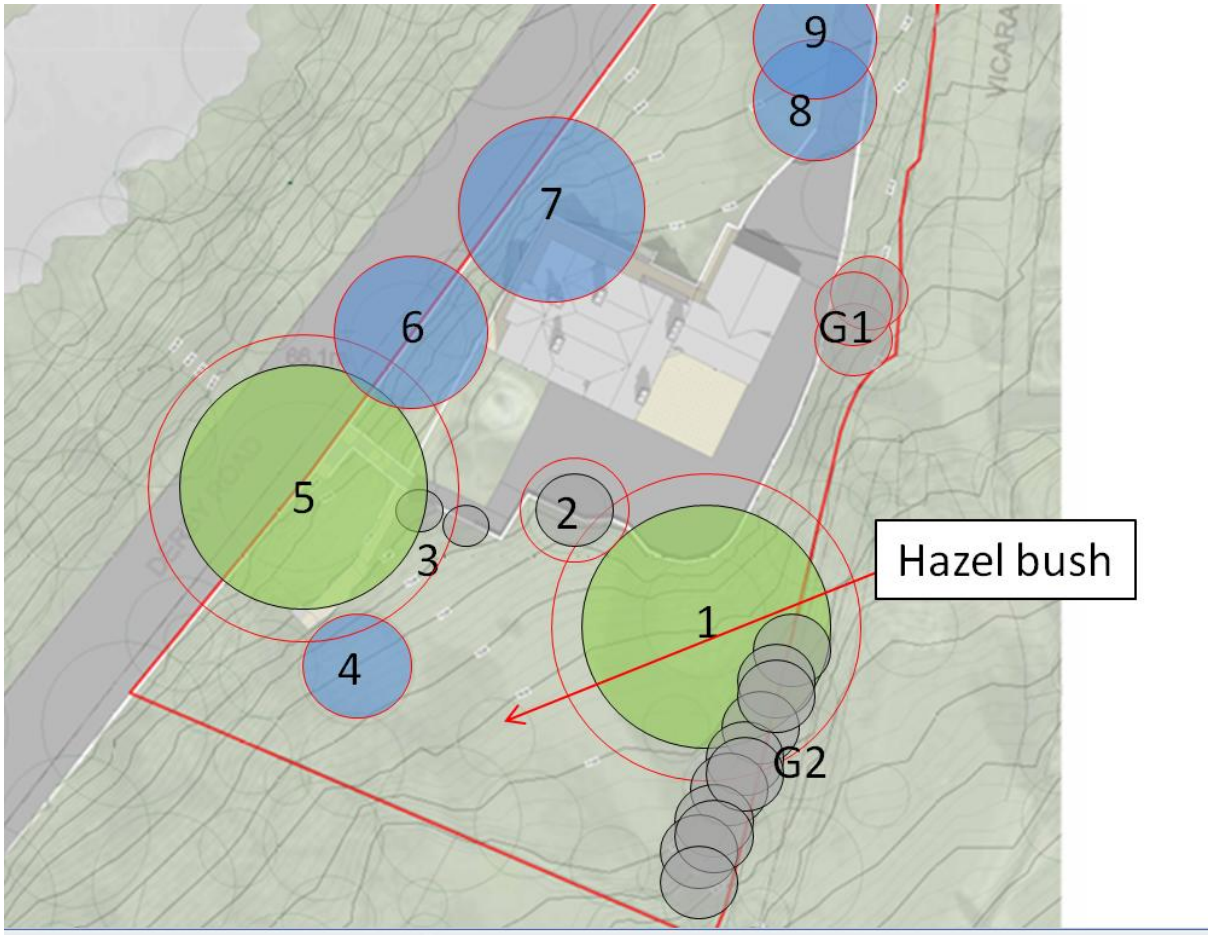
Report to: Aliks Galstjans

Summary:

This Report aims to provide the level of arboricultural information required for the following planning development AVA/2025/0504(Outbuilding)

1.0 Existing tree information:

The latest arboricultural information, comes from the BS5837 Arboricultural Report by Dr. Stefan Bodnar undertaken in 2025 which covers the site. The tree plan and schedule is shown below, which indicated the RPZ's of each individual tree.



Tree no.	Species	Stem diam (mm) DBH	Crown N (m)	Crown S (m)	Crown E (m)	Crown W (m)	Height (m)	Age Class	Estimated remaining contribution (years)	Physiological and Structural Condition	Category	Radius of nominal circle	Root Protection area (m^2)
1	Common lime	1500	12	12	12	12	20+	Mature	40+	Important landscape tree	A2	15	707
2	Spruce	350	3	3	3	2	12	EM	10-15		C1	4.2	55
3	2 x Cypress	200	1	1	1	1	6	Y	10-15		C1	2.4	18
4	Silver birch	325	4	4	4	4	9	EM	20+		B1	3.9	48
5	Beech	1500	15	15	15	15	20+	Mature	40+	Important landscape tree	A2	15	707
6	Purple plum	750	7	7	7	7	10	Mature	20+		B2	7.8	191
7	Ash	750	9	9	9	9	20	Mature	20+		B2	9	255
8	Yew	500	6	6	6	6	11	EM	20+		B1	6	113
9	Holly	400	5	5	5	5	11	EM	20+		B1	4.8	72
G1 (3 trees)	Blue fir and Cypress	275	3	3	3	3	10	EM	10-15		C1	3.3	34
G2 (11 trees)	Leyland cypress	300	3	3	3	3	11	Outgrown hedge	10-15		C2	3.6	41

G = Group H = Hedge T = Tree

1.1 The Development:

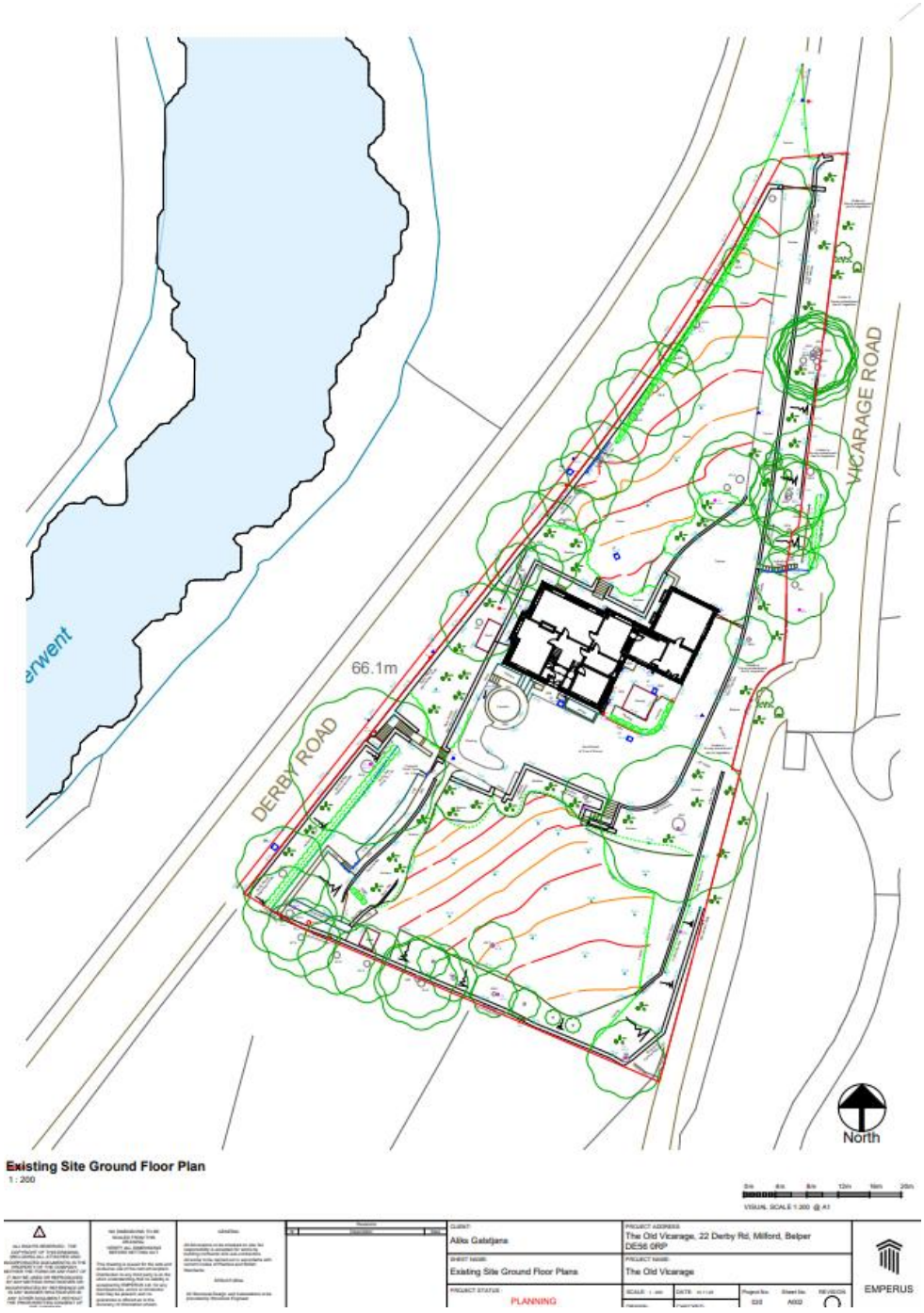
The development which requires discharge of Condition is shown on the Previous plans. Aerial photograph below:

1.2 Layout and Aerial photograph below:



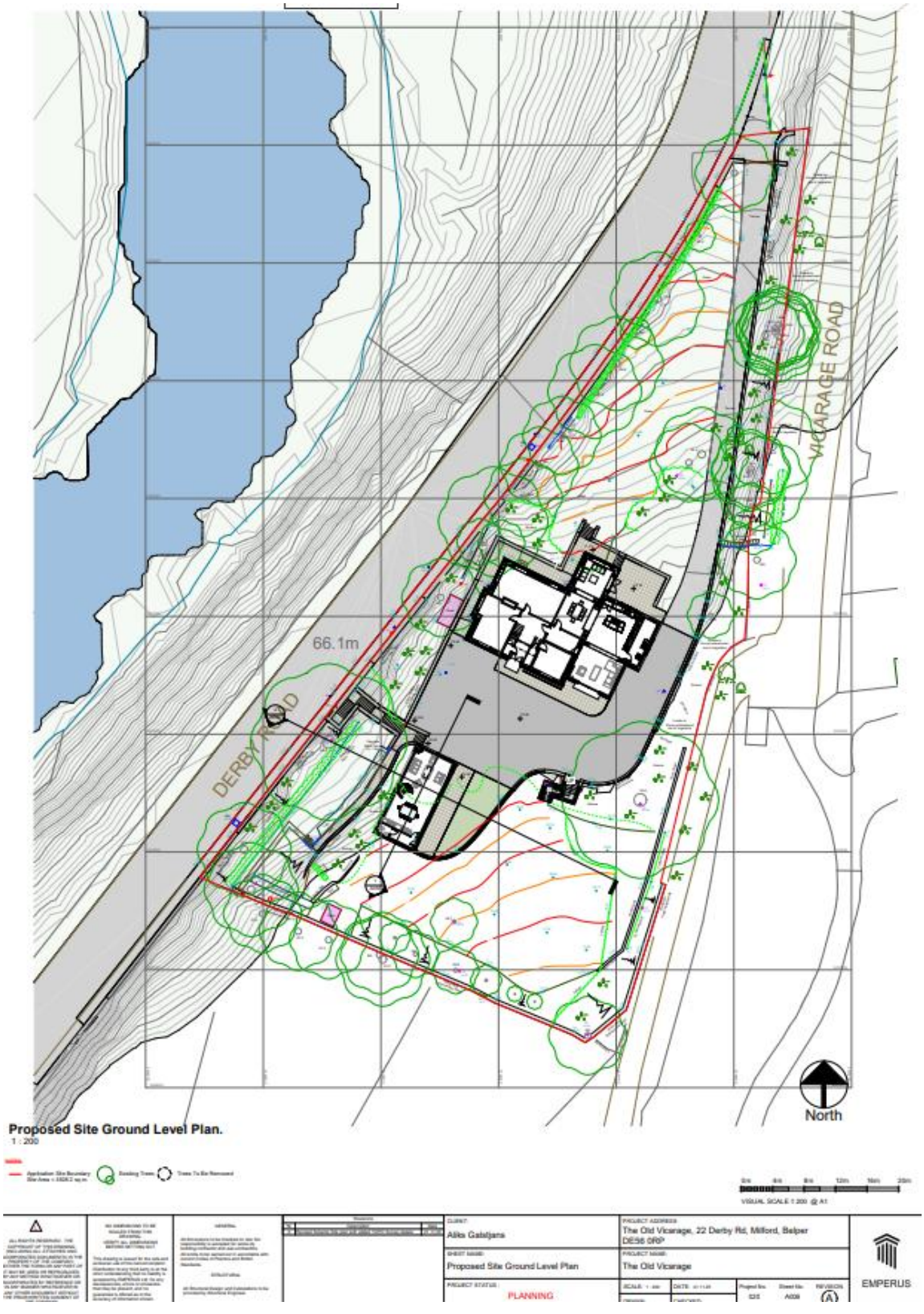
Map data 2025 © Google.

Works proposed: The plans below show the works proposed:



Existing shown above

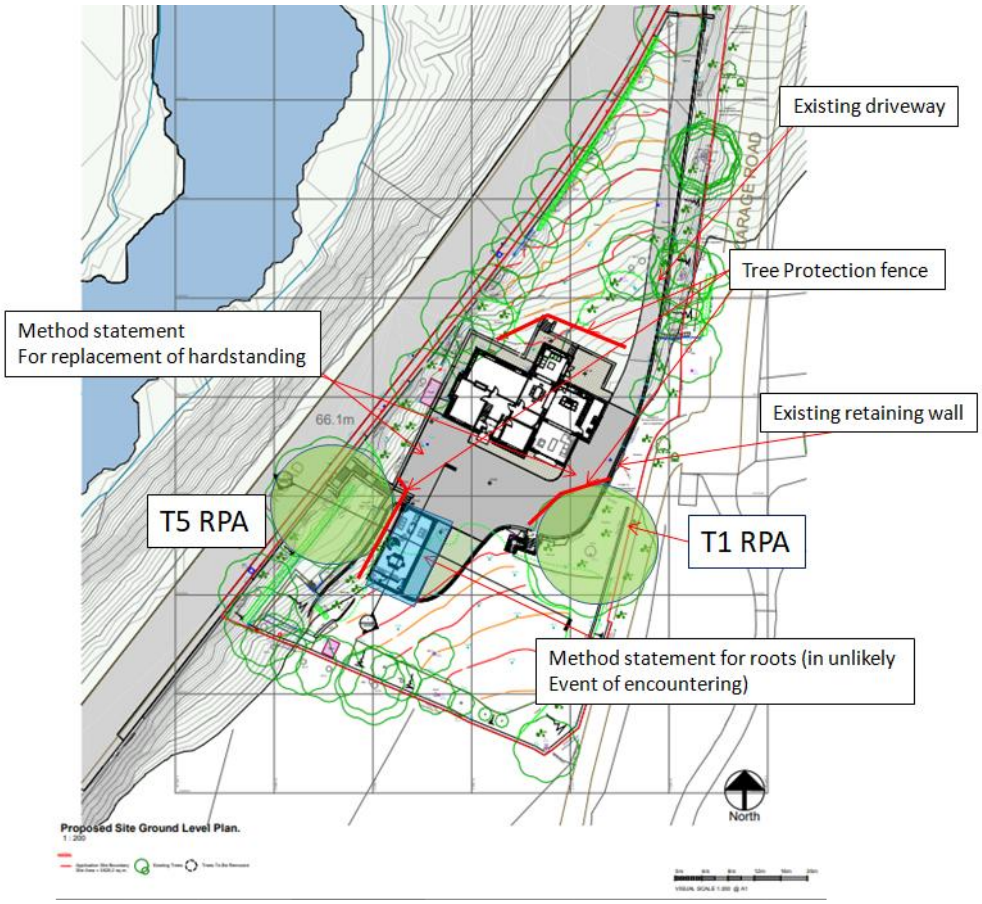
Proposed below:



2. Tree Protection Plan and Arboricultural Method Statement

Impacts on trees of development:

- Direst loss: Trees 2 and 3 (2 trees) are directly lost, all C category, also hazel bush (not within BS5837 size definition)
- RPA impacts: trees 1, G1, 4, 6, 7, 8, 9 are unaffected by the proposed works, as there is no new build or hardstanding within the RPAs of these trees
- Tree 5 has a nominal Root Protection Area that extends into the area of build, however, there are two factors which minimize any impact. The first is that the tree is on a significant slope running to the road, such that the tree centre is approximately 2.5-3 m below the level the floor of the new building. Also there is an extended hardstanding area within this area already with garden walls and footings, which exist within the outer section of the root area. It is considered that no facilitation pruning will be required for the scheme as the lower branches are at a considerable height from the base. The development to the south is a single storey outbuilding on existing landscape garden. In the unlikely event of encountering roots in this area during construction a working method statement is provided for minimising any root damage. Other hardstanding shown is on existing hardstanding areas and a method statement is provided for replacement of existing hardstanding. See below:



Whilst T1 and T5 are significant and very large landscape trees, in good health and structure and with a significant lifespan, they are considered neither ancient nor veteran.

Veteran trees are (UK gov guidance):

A veteran tree may not be very old, but it has significant decay features, such as branch death and hollowing. These features contribute to its exceptional biodiversity, cultural and heritage value.

All ancient trees are veteran trees, but not all veteran trees are ancient. The age at which a tree becomes ancient or veteran will vary by species because each species ages at a different rate.

An ancient tree is exceptionally valuable. Attributes can include its:

- great age
- size
- condition
- biodiversity value as a result of significant wood decay and the habitat created from the ageing process
- cultural and heritage value

Very few trees of any species become ancient.

Lime trees over 5m girth (circumference) are considered potential ancient trees, the girth of T1 the Lime tree here is 4.71m. Age estimate between 153 and 217 years.

Copper beech over 4.5m girth (circumference) are considered potential ancient trees, the girth of T5 Copper beech here is 4.71m. Estimated age 177-197 years old.

Age estimation: Ref Wokingham District Veteran Tree Association www.wdvta.org.uk.

The following table show more detailed calculations of the ages of certain species. An extended version is on the WDVTA Yahoo site. Additional species included in that version are: Austrian Pine, Beech, Black Mulberry, Cedar of Lebanon, Monkey Puzzle, Robinia, Tulip Tree, Turkey Oak and Walnut. ['Most large trees' calculated from Mitchell's generalisation described above. Specific species calculated from White's epidemiologically derived formulae. Although the age-girth relationship is not linear, a linear approximation exists over half metre ranges and so it is valid to extrapolate (within half-metre ranges) on a pro-rata basis. Eg: approximate age of an oak, growing in average conditions, with a girth of 2.75m is (115+143)/2 = 129 yrs.]

References:

Mitchell, Alan (1974) "A Field Guide to the Trees of Britain and Northern Europe" pub Collins ISBN 0 00 212035 6

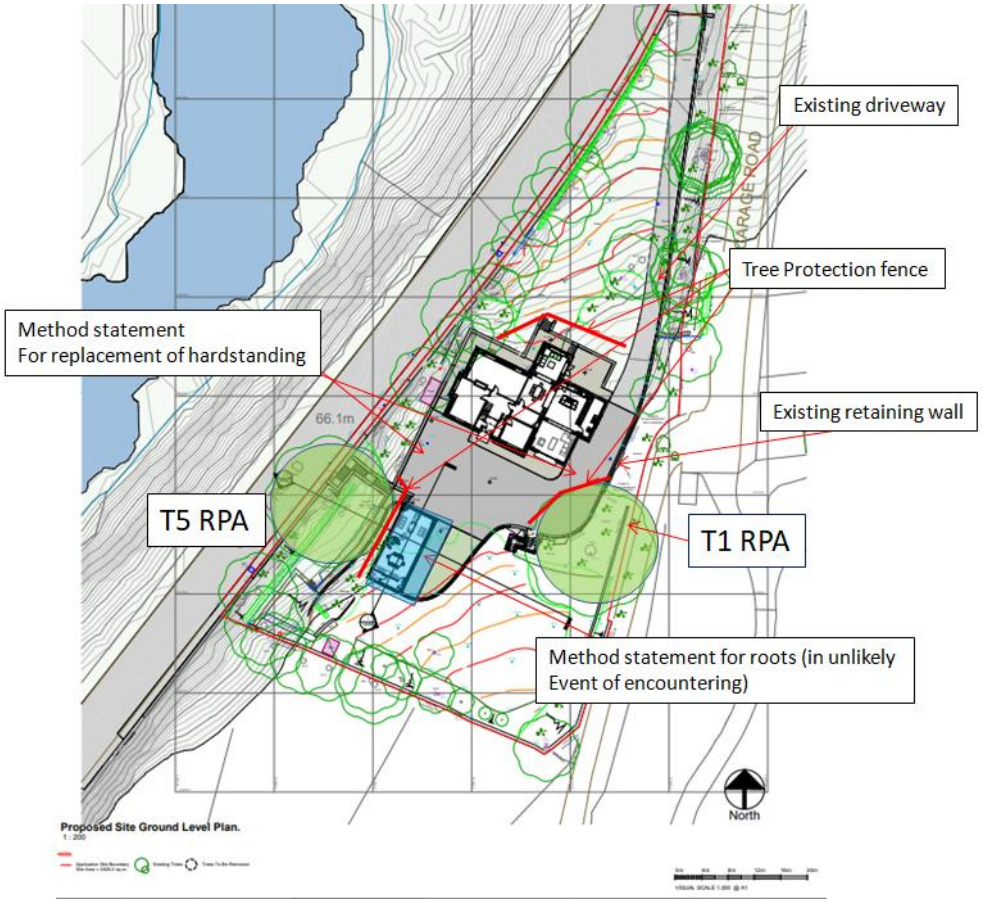
Rural Development Service (2006) "Environmental Stewardship: Farm Environment Plan Guidance 009"

White, John (1998) "Estimating the Age of Large and Veteran Trees in Britain" Information Note 12 pub Forestry Commission129

Estimates of age for certain tree species with girth 2.5m - 5.0m

	Girth (m)	2.5	3.0	3.5	4.0	4.5	5.0
		Estimated age (years)					
Most large trees	Growing in good conditions	98	118	138	157	177	197
broad-leaved & coniferous	Growing in an avenue	153	184	215	245	276	307
	Growing in a wood	205	246	287	328	369	410
Coppiced trees	Oak, Lime, Ash, Hazel	270	320	370	430	480	530
	Field Maple	220	270	310	360	400	450
	Sweet chestnut, Sycamore	110	130	160	180	200	220
English and Sessile Oak	Champion tree potential (ideal site conditions)	80	100	124	151	182	217
Quercus robur	Good site, open grown, sheltered	102	129	162	199	241	289
Quercus petraea	Average site, garden, parkland	115	143	177	216	260	310
	Poor ground and/or some exposure	133	166	204	248	298	354
	Woodland boundary pollard, or open woodland	115	143	177	216	260	310
	Inside woodland	217	297	392	501	625	764
Ash	Good site, open grown, sheltered	89	117	150	188	232	281
Fraxinus excelsior	Average site, garden, parkland	106	137	174	217	265	319
	Woodland boundary pollard, or open woodland	172	244	328	425	536	659
	Inside woodland	138	177	223	276	336	403
Austrian Pine	Champion tree potential (ideal site conditions)	67	83	102	124	149	178
Pinus nigra ssp nigra	Good site, open grown, sheltered	80	100	124	151	182	217
	Average site, garden, parkland	80	100	124	151	182	217
	Poor ground and/or some exposure	83	106	134	166	202	243
Black Mulberry	Good site, open grown, sheltered	242	340	456	590	741	910
Morus nigra	Average site, garden, parkland	313	444	599	778	981	1207
Common Lime	Champion tree potential (ideal site conditions)	82	96	112	131	153	177
Tilia x europaea	Good site, open grown, sheltered	80	97	118	142	169	199
	Average site, garden, parkland	80	100	124	151	182	217
	Churchyard	80	97	118	142	169	199
Deodar Cedar	Champion tree potential (ideal site conditions)	51	65	81	100	121	145
Cedrus deodara	Good site, open grown, sheltered	57	72	89	108	130	155
	Average site, garden, parkland	69	89	112	138	169	202
Holly	Inside woodland	113	149	193	243	299	362
Ilex aquifolium							
Horse Chestnut	Good site, open grown, sheltered	89	117	150	188	232	281
Aesculus hippocastanum	Average site, garden, parkland	100	135	177	225	279	340
	Churchyard	89	117	150	188	232	281
Plane	Champion tree potential (ideal site conditions)	72	82	93	106	121	138
Platanus sp.	Good site, open grown, sheltered	67	83	102	124	149	178
	Average site, garden, parkland	80	100	124	151	182	217
	Churchyard	80	100	124	151	182	217
Red Oak	Champion tree potential (ideal site conditions)	67	83	102	124	149	178
Quercus rubra	Good site, open grown, sheltered	80	100	124	151	182	217
	Average site, garden, parkland	102	129	162	199	241	289
Sweet Chestnut	Good site, open grown, sheltered	80	100	124	151	182	217
Castanea sativa	Average site, garden, parkland	83	106	134	166	202	243
	Poor ground and/or some exposure	100	135	177	225	279	340
Sycamore	Good site, open grown, sheltered	67	80	94	111	129	150
Acer pseudoplatanus	Average site, garden, parkland	67	83	102	124	149	178
	Churchyard	67	83	102	124	149	178
	Poor ground and/or some exposure	83	106	134	166	202	243
Yew	Average site, garden, parkland	113	149	193	243	299	362
Taxus sp.	Churchyard	189	260	344	440	550	673
	Poor ground and/or some exposure	242	340	456	590	741	910

The age estimates suggest that both trees are from between 175 and 200 years old and likely planted around the same time, in the early to mid 19th Century. Both species are relatively fast growing in good conditions and they have developed to be old and important landscape trees but neither veteran or ancient. In that case the nominal RPA calculated in the original BS5837 Tree report is accurate, (rather than an enlarged RPA that is considered for ancient and veteran trees), along with considerations of existing hardstanding and reasonable assumptions on roof extension in line with height level that the trees are at compared with the build level Tree Protection Plan. See below:



In addition to these measures, the following is included as it will be necessary to protect the on-site retained trees:

It is essential to safeguard a pre-determined volume of soil around the base of the retained trees to ensure that then ongoing biological functioning of the root system along with the interaction with the soil is not impaired. This requires, that prior to the commencement of development activity on site that a robust protective barrier is erected.

The specifications for this barrier should be as per the British Standard 5837 of 2012 (Trees in Relation to Construction – recommendations). In brief, this consists of 2.3m high panels attached to an adequately braced scaffold structure to deter un-authorized dismantling and robust enough to rebut physical impacts from site plant and machinery. In practice Heras, weld-mesh type panels perform well when attached to the above mentioned scaffold structure.

Bird breeding season: All tree works should ideally take place outside of the peak bird breeding season. Peak bird breeding season is between mid March and mid July, although certain species can breed outside these months and if breeding birds are found then work should cease and the advice of an ecologist sought. If clearance is undertaken within the peak bird breeding season then all site features should preferably be checked immediately prior to clearance by a suitably qualified ecologist.

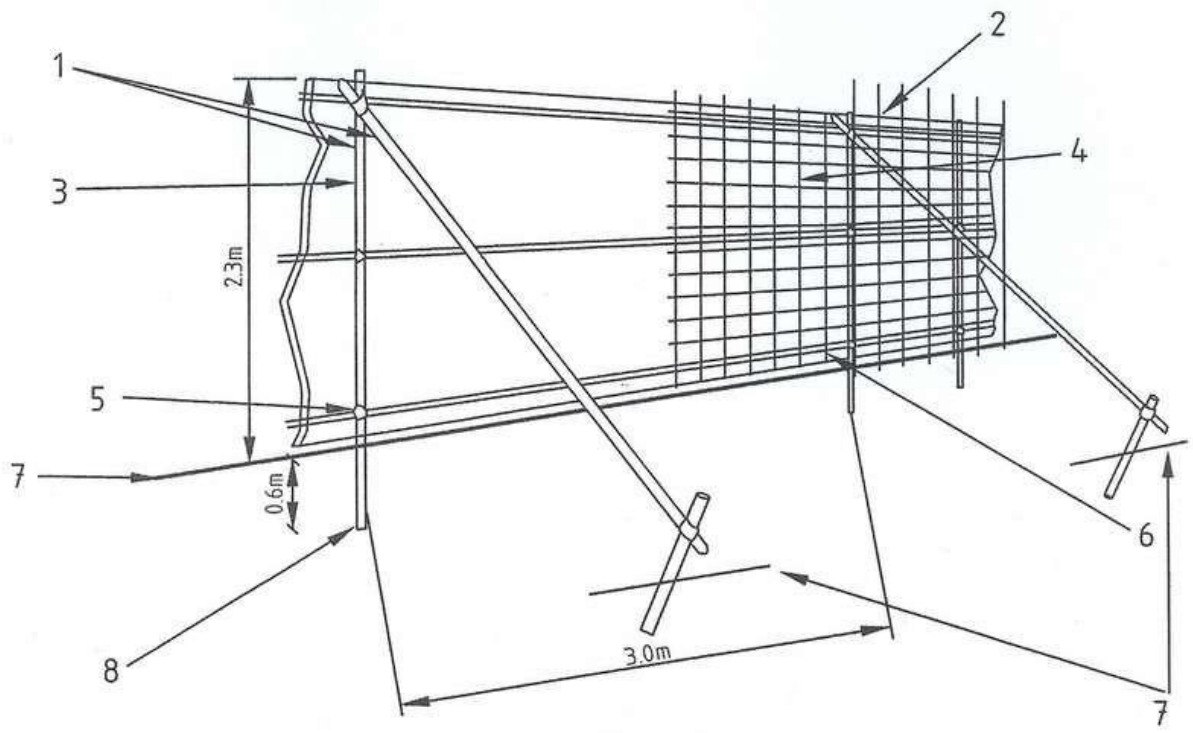
Tree Protection & Ground Protection

All trees that are being retained on site are to be protected by barriers and/or ground protection before any materials or machinery are brought onto the site, and before any demolition, development or stripping of soil commences. Where all activity can be excluded from the RPA, vertical barriers are to be erected to create a construction exclusion zone. The default barrier specification is to be in accordance with Figure 2. Of BS 5837:2012 'Trees in Relation to Design, Demolition and Construction – Recommendations' as illustrated below.

The protected area is to be regarded as sacrosanct, and, once installed, barriers and ground protection is not to be removed or altered without prior recommendation by the project arboriculturist and, where necessary, approval from the local planning authority.

All weather tree protection posters (an example is detailed below) are to be securely fixed to the tree protection fencing in plain view.





1 Standard scaffold poles
2 Uprights to be driven into the ground
3 Panels secured to uprights with wire ties and, where necessary, standard scaffold clamps
4 Weldmesh wired to the uprights and horizontals
5 Standard clamps
6 Wire twisted and secured on inside face of fencing to avoid easy dismantling
7 Ground level
8 Approx. 0.6m driven into the ground

Figure 2. – Protective fencing for RPA

The tree protection fencing to the retained trees is to be erected as detailed above.

Care is to be exercised when locating the vertical poles to avoid underground services and, in the case of the bracing poles, also to avoid contact with structural roots. If the presence of underground services precludes the use of driven poles, an alternative specification that provides an equal level of protection is to be prepared in conjunction with the project arboriculturist as illustrated within Figure 2 above.

Where the set-back of the tree protection barrier exposes unmade ground to construction damage, temporary ground protection is to be installed as part of the implementation of physical tree protection measures prior to work starting on site.

Temporary ground protection is to be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil. Detail is shown in Figure 3 below: Scaffolding and root protection within the RPA.

a) for pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression- resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane;

b) for pedestrian-operated plant up to a gross weight of 2t, proprietary, inter-linked ground

protection boards placed on top of a compression resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane;

c) for wheeled or tracked construction traffic exceeding 2t gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.

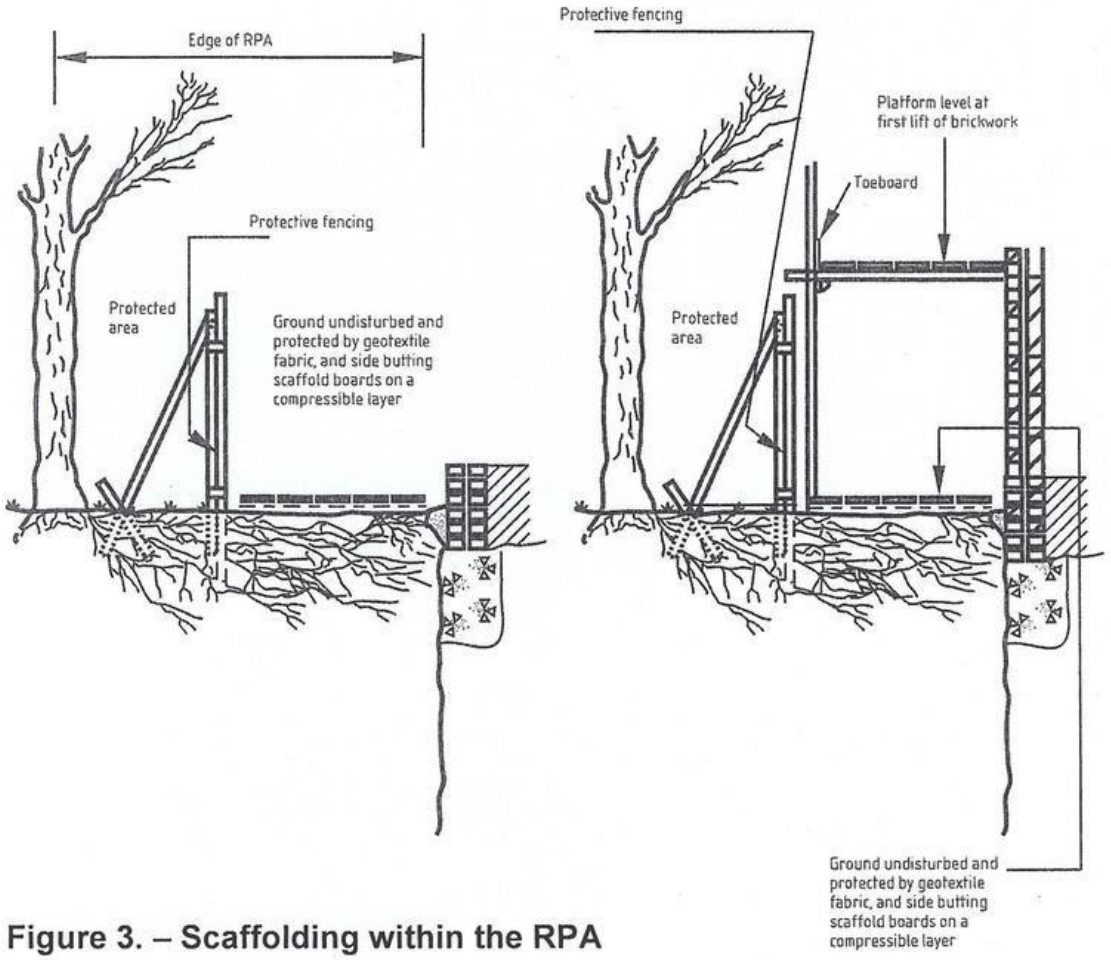


Figure 3. – Scaffolding within the RPA

Incoming services are routed away from the RPAs of all off site trees. In terms of the programme of works, this will be provided. If the services are routed along the new access road, this will require location of the services to the southern edge of the access route rather than in the centre of the road.

The following provides for the methods of working within the RPZ retained trees. In respect of the works, it is agreed that:

1. Location of services: these are to be outside the RPZs of retained trees

2. Landscaping and fencing within the RPZs of the retained trees to be minimal.

4.0 Excavations within the RPA

There are to be no excavations within the nominal RPA's of existing trees on site, other than as shown for T5 (though the level of the tree on site and the development indicates that roots from this trees are very unlikely to be impacted by the works). In addition, existing hardstanding is to be replaced under a presented method statement.

5.0 Site Compound and Working Area

5.1 The works are to be restricted to within the site boundary which is to incorporate an area for the site compound, site offices and associated contractors staff parking.
5.2 The site compound, site offices and associated contractors staff parking areas are to be located outside of any RPA's of retained trees. The exact location for these facilities during the construction period is to be detailed by the contractor and approved prior to any site works commencing.

6.0 Haul Routes

6.1 The route for the haulage, site access and egress is to be via the existing site access driveway only. To limit offsite ground compaction and damage to the main drive, a temporary track way system is to be provided if weather conditions dictate, should these conditions occur during any resurfacing works. This should be agreed with the LPA tree officer if required.

6.2 The planning of site operations should take sufficient account of wide loads, tall loads and plant with booms, jibs and counterweights (including drilling rigs), in order that they can operate without coming into contact with retained trees. Any transit or traverse of plant in proximity to trees should be conducted under the supervision of a banksman, to ensure that adequate clearance from trees is maintained at all times. Access facilitation pruning is not required.

7.0 Temporary Topsoil Storage
7.1 The stripped topsoils are to be stored in temporary mounds outside of the construction exclusion zones of the retained areas within Tree protection fencing. In accordance with BS 4428 topsoil heaps should not exceed 3m in height.

8.0 Underground Services

In general it is considered that all services will be routed away from the Root Protection Zones of retained trees. All underground service runs will be placed outside the RPA of the trees on or adjacent to the site, in particular tree 5, where services should be routed entirely outside the protected RPA which is shown in the tree protection plan. This will require:

8.1 There may be instances where the proposed underground services impact on the RPA's of existing trees and hedgerows (refer to the project engineer's services plan). Particular care should be taken in the routing and installation of all underground services.
8.2 Excavations for proposed services within or immediately adjacent to the RPA's of retained trees are to be excavated using hand-held tools or compressed air soil displacement in accordance with clause 7.2 of BS 5837:2012;
8.3 The installation of underground service routes within the RPA's of existing trees to be retained are to be installed using trenchless solutions such as micro-tunnelling, surface launched directional drilling or impact moling as per Table 3 within clause 7.7 of BS5837:2012, with entry and retrieval pits being sited outside of the RPA.
8.4 Shallow service runs are to be excavated using hand held tools being careful to protect and cause minimal damage to retained tree roots.
8.5 Where utility operations do not require planning permission, including those performed by statutory undertakers, they are still be undertaken in accordance with these principles. As a minimum standard, such operations are be undertaken in accordance with NJUG Volume 4, issue 2 [N1].

9.0 Removal Of Existing Hard Surfacing

9.1 Prior to the removal of the existing hard surfacing, appropriate tree protection fencing and ground protection is to be installed to protect the existing trees in accordance with BS 5837:2012.
9.2 Care is to be taken not to disturb tree roots that might be present beneath the existing surfacing. Handheld tools or appropriate pedestrian operated machinery is to be used (under arboricultural supervision) to remove the existing surface, working backwards over the area, so that the machine is not moving over the exposed ground.
9.3 Any exposed tree roots are to be treated in accordance with section 7.2 of BS5837:2012 and as detailed above.
9.4 Any sections of the existing hard surface construction that are within the RPA's of any tree to be retained and fall within the proposed parking / access roads areas are to be assessed for their suitability of reuse, thus negating the need for deep excavations. Such areas of existing hard surfacing that are suitable for reuse are to be reduced and additional base and wearing courses installed as necessary.

10. Tree Surgeons Qualifications

The tree surgery works detailed below are to be undertaken by a qualified Arboricultural Contractor who must be listed in the Arboricultural Association's Approved Contractors Directory (ref: www.trees.org.uk).

- The Contractor shall hold NPTC (National Proficiency Training Council) Certification.
- The Contractor shall have Chapter 8 Traffic Management Certification.

 The Contractor shall demonstrate at the time of tendering an understanding of Health & Safety Site Specific Risk Assessments & Method Statements for Tree Work. This assessment shall be completed prior to appointment to undertake the works.

11. Compensation for trees lost to accommodate the scheme:

No loss of trees is shown and there will be no requirement for compensation planting.

12. Specification for working within nominal RPZ of tree 5

It is considered highly unlikely that any roots of T5 will extend into the nominal RPA of tree 5 due to the very significant level difference between this trees and the build area, as an additional precaution however the below method statement is presented should any roots be encountered from this tree.

Minimising impacts:

The following methods general principles were agreed to minimise impacts:

1. Use an air-spade to expose roots by removing soil for the area concerned

2. Up to 25mm roots can be severed.

3. Roots above 25mm diameter will be re-aligned. This will require some minimal soil removal to accommodate these (again by air spade) outside the area to be removed.

4. There is to be no major root pruning within 3m of the main stem.

BS3998:2010

This will be carried out in accordance with BS3998:2010. BS3998:2010 is a document, revised in 2010, which lays out the way in which all tree work should be carried out. The tree surgeons employed to undertake the arboricultural work will be trained and aware of these procedures.

Root pruning

Root pruning shall be done with a sharp tool, in such a way that does not pull on the roots, but leaves smooth cuts. It is preferable to expose the roots prior to root pruning. After pruning, fill the area with quality topsoil and water until thoroughly soaked. Once exposed, roots must be covered within 8 hours. If roots will be left exposed for longer than 8 hours, they must be kept moist. The project arborist must be onsite during the entirety of root pruning.

Details:

1) Root pruning is when tree roots are cleanly severed from the tree in order to prevent damage which would be caused by excavation

2) The soil around the roots is removed by hand or utilizing an air knife so the roots can be seen before pruning. This is called making a "root pruning trench"

3) Once exposed, the roots are cleanly cut, then top soil is put into the root pruning trench to encourage root regrowth in that area

4) The most important stability roots are found at 3x the diameter of the tree. This is called a tree's "structural root plate"

5) The location of the root pruning trench will be marked on the ground

6) The pruning trench should be cleared in a way that exposes the roots while leaving them intact. I) Use hand tools

7) If a root larger than 25mm is exposed, leave this root intact.

8) Once the roots are exposed, use a SHARP tool (Root Pruning Saw) to cleanly cut all roots which are up to 25mm diameter to the depth of the proposed disturbance

9) Post Pruning: Tree roots must be kept moist. If roots ends will be left exposed for more than 8 hours, cover the hole with moist burlap. Fill the hole with high quality top soil, mulch the area with triple shredded hardwood to a depth of 3", and water well.

Removal of all Temporary Tree Protective Fencing

Tree Protective fencing will only be removed upon completion of all construction work and once all machinery associated with the works has left site.

Landscaping within the RPA of trees

1. Landscaping works will be implemented in accordance with a scheme approved by the LPA

2. There shall be no rotovation of ground within any area designated as a Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) and enclosed by Temporary Protective Fencing.

3. No hard landscaping works or excavation for cables or any other service should be installed within the Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) without the written consent of the Local Planning Authority.

13 Facilitation pruning and Crown lifting:

It is considered that this will not be required to implement the scheme.