Arboricultural Assessment

for

Land at
Badminton Road
Old Sodbury

Prepared by

Tim Pursey

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1.0 Date of survey

1.1 April 2021

2.0 Surveyor

2.1 Tim Pursey

3.0 Instructions

3.1 As a result of a planning application, I am instructed to undertake an arboricultural assessment and to prepare a report assessing the impact that the proposed development will have on trees growing at the site.

3.2 The report includes:

- An indication of the constraints placed on the design by the trees on site
- A schedule indicating the tree survey results
- A preliminary arboricultural method statement
- A tree constraints plan – drawing TP 2760/2104/TCP appended
- A tree protection plan – drawing TP 2760/2104/TPP appended

4.0 Report limitations

4.1 All inspections were made from ground level, using binoculars where necessary. Should a more detailed inspection, by climbing or by elevated platform, be required then this will be highlighted within the survey recommendations.

4.2 The legal status of trees either at or adjacent the property has not been verified with the local authority

4.3 Trees are living, dynamic organisms. Their health and overall condition changes as the trees grow and can be affected by external conditions. For this reason the condition survey and any recommendations given are valid for a period not exceeding one calendar year from the date of issue of this report.

5.0 Proposals

5.1 It is proposed to construct a number of new dwellings on land currently used for grazing.

5.2 A low quality Field Maple and sections of woody vegetation/hedgerow are proposed to be removed to facilitate new works.

6.0 Tree survey

6.1 See schedule of tree survey results.

7.0 Assessment of Impact

7.1 A number of new dwellings is proposed to be constructed. Field Maple T2 and group G7 is to be removed as part of the scheme.

7.2 Removed trees/vegetation is easily compensated by additional planting to be completed following completion of construction works.

7.3 Retained trees are easily protected using appropriate fencing and some ground protection.

7.4 Oak T1 is by far the most impressive tree and it grows on adjacent land. It is extremely important this tree is adequately protected during construction works.

7.5 Design of the new scheme has deliberately sited the nearest dwelling and garages just outside the root protection area (RPA) so provided protective measures are properly employed, no detriment to the tree should result from the works.

8.0 Preliminary Method Statement to Mitigate Impact

8.1 **Tree Works**
Trees T2 and group G7 will be removed. Works will be completed by persons both qualified and experienced to do so and in accordance with BS3998:2010 *Recommendations for Tree Work.*

8.2 **Protective Fencing**
Retained trees will be protected from the impact of construction by protective fencing to be erected in accordance with BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations.

8.3 This fencing is designed to protect all parts of the trees, both above and below ground. It will be erected using Heras panels erected in a conventional fashion with supporting feet pinned to the ground to prevent movement. It is particularly important that the fencing be completely rigid and immobile.

8.4 The fence will be erected in the positions shown on the attached plan, TP 2760/2103/TPP and will be erected to protect the trees before any work commences. It will be inspected by the project arboriculturist prior to any works starting on site. The protective fencing will remain in situ until all construction works are completed.

8.5 The protective fencing will be clearly marked indicating its purpose to all persons on site. Signs will be minimum A3 in size and will clearly state that the protective fencing will not be moved under any circumstances. The protected area behind the fencing will be considered sacrosanct and no entry into this area will be permitted for *any* reason except to maintain the protective fencing. No excavation is permitted, no changes in ground level, no plant will track across this area at any time, and no storage of any materials within this area will be permitted.

8.6 **Ground Protection**
Ground protection will consist of plywood boards 25mm thick laid upon a compressible layer eg woodchip. The purpose of the ground protection is to prevent soil being torn up by machine or overly compacted during the works.

8.7 Ground protection will be installed at the same time as the protective fencing and similarly inspected by the project arboriculturist prior to commencement of works on site. It will similarly remain until all substantive works are completed.

8.8 **Services**
New services will be installed outside the RPAs of any retained tree. Given the amount of space available, this is easily achieved.

8.9 **Ground Levels**
Ground levels within the rooting area of any retained tree will remain unaltered unless otherwise specified by the project arboriculturist.

8.10 **General**
No storage or mixing of cement/concrete will be permitted anywhere within 10 metres of any retained tree. Account will be taken of any slopes in order to avoid the possibility of cement washings running into the rooting areas of retained trees.

8.11 Oil, bitumen or other material likely to be injurious to a tree should not be stacked or discharged within 10 metres of the trunk. Materials generally should not be stacked or discharged within 5 metres of the trunks.

8.12 **Arboricultural Supervision**
A pre-commencement on-site meeting will be held between the project arboriculturist and site manager. The purpose of such a meeting will be to finalise protective measures and to ensure that both protective fencing and ground protection is adequate and erected in the correct positions. It is also to ensure contractors are fully aware of the need to comply with the contents of this document.

8.13 It is particularly important that this meeting take place prior to works commencing on site.

22nd April 2021
Tim Pursey
Chartered Arboriculturist

Tree Survey

Key:

Height:	Estimated in metres.
Stem diameter:	Measured at 1.5m above ground level.
Branch spread:	Estimated in metres at four cardinal points.
Height of crown Clearance:	Height in metres (estimated) above adjacent ground level to inform on ground clearance, crown stem ratio and shading.
Age class:	**Y**oung tree in first third of its life expectancy **Mid**dle age tree **Mat**ure trees **O**ver **Mat**ure **Vet**eran
Category grading:	**A**/**B**/**C**/**U** – In accordance with BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations.* Category A – High Quality Category B – moderate quality Category C- low quality Category U – trees for removal All surveys and inspections made from ground level unless otherwise stated.

Tree No.	Species	Height (m)	Stem Dia.(mm)	Crown Radius (m)				Crown Ht. (m)	Age Class	Remaining Contribution	Structural and Physiological Condition	Preliminary Management Recommendations	Retention Category
				N	E	S	W						
T1	Oak	16	Est 1450	10	10	9		3	Mat	40+	Good example of an old tree. Some ivy growth. Inspected from one side only	Sever ivy to check growth.	A1 A2 A3
T2	Field Maple	7.5	225	2.5	2.5	2.5	2.5	2.5	Mid	40+	Normal	None	C1
T3	Ash	8	675	6	6		6	3	Mat	20-40	Normal multistemmed tree. Likely outgrown coppice. No obvious dieback at present	None	C1
G4	Elm x4	6-7	200-225	2.5	2.5	2.5	2.5	2	Mid	<10	Group of suckering Elms. Likely to succumb to Dutch Elm Disease in the shorter term	None	U
T5	Horse Chestnut	14	Est 775		6	6	7.5	3	Mat	40+	Normal. No signs of obvious disfunction. Growing in adjacent rear garden	None	B1 B2
T6	Silver Birch	9	Est 325	3	3	3	3	2.5	Mat	10-20	Tree appears dead	None	U
G7	Mixed vegetation	3-5	75-200						Mat	40+	Mix of Prunus, Field Maple, Hawthorn etc. Currently unmanaged	None	C1
G8	Native hedgerow	2.5	~50						Y-Mid	40+	Primarily Hawthorn. Relatively young hedgerow	None	C1

Bibliography

British Standard 3936-1:1992 Nursery Stock- Specification for Trees and Shrubs
British Standard 3998:2010 Recommendations for Tree Work
British Standard 4428:1989 Code of Practice for General Landscaping Operations
British Standard 5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations

Tree Preservation Orders: A Guide to The Law and Good Practice 2000

Subsidence of Low-Rise Buildings 2000 Institution of Structural Engineers
Standards-Chapter 4.2 Building Near Trees 2003 National House Building Council

Guidelines for The Planning, Installation and Maintenance of Utility Services in Proximity to Trees 1995 National Joint Utilities Group

Controlling Water Use of Trees to Alleviate Subsidence Risk 2004 Horticulture Link Project 212

Inspection of Highway Trees Roads 52/75 1975 Department of the Environment Circular

Forestry Commission Information Notes
Phytophthora Pathogens of Trees: Their Rising Profile in Europe FCIN030 1999
Forests, Carbon and Climate Change: the UK Contribution FCIN048 2003

Forestry Commission Bulletin Climate Change: Impact on UK Forests FCBU125 2002

Essential Soil Science 2003 Ashman, M.R. & Puri, G.
Visual Amenity Valuation of Trees and Woodlands 2003 Helliwell, D.R.
The Hillier Manual of Trees and Shrubs 2004 Hillier, J. & Coombes, A.
The Arboriculturalist's Companion 1990 James, N.D.G.
Collins Tree Guide 2004 Johnson, O. & More, D.
Habitat Management for Invertebrates 2001 Kirby, P.
Dead Wood Matters: The Ecology and Conservation of Saproxylic Invertebrates in Britain 1992 Kirby, K.J. & Drake, C.M.
Physiology of Woody Plants 1979 Kramer, P.J. & Kozlowski, T.T.
Hazards from Trees: A General Guide 2000 Lonsdale, D.
Principles of Tree Hazard Assessment and Management 2001 Lonsdale, D.
The Body Language of Trees 2003 Mattheck, C. & Breloer, H
Trees of Britain and Northern Europe 1978 Mitchell, A.
Fungal Strategies of Wood Decay in Trees 2004 Schwarze, F., Engels, J, Mattheck, C.
Modern Arboriculture 2003 Shigo, A.L.
Diagnosis of Ill-Health in Trees 2000 Strouts, R.G. & Winter, T.G.
Soil Types: A Field Identification Guide 1989 Trudgill, S.
Manual of Wood Decays in Trees 2003 Weber, K. & Mattheck, C.
Reducing Infrastructure Damage by Tree Roots 2003 Costello L.R. & Jones K.S.

Tree Roots in the Built Environment	2006	Roberts, Jackson, Smith
Publications from Arboricultural Advisory and Information Service		
APN1 Driveways Close to Trees		Patch, D. & Dobson, M.
APN12 Through the Trees to Development		Patch, D.
ARIN 130/95/ARB Tree Root Systems		Dobson, M.

COMMONMEAD LANE

BADMINTON ROAD

BADMINTON ROAD

T1

Bramble with occasional Elm

Elm hedge 5-6m with bramble

Brambly hedge with occasional Elm 6-8m

Elms

Bramble

Mixed native shrubbery
with Elm and bramble

G7

T2

T3

G7

T6

T5

G4

G8

G8

Railway Line

Category A trees
Category C trees
Category U trees
Root protection area

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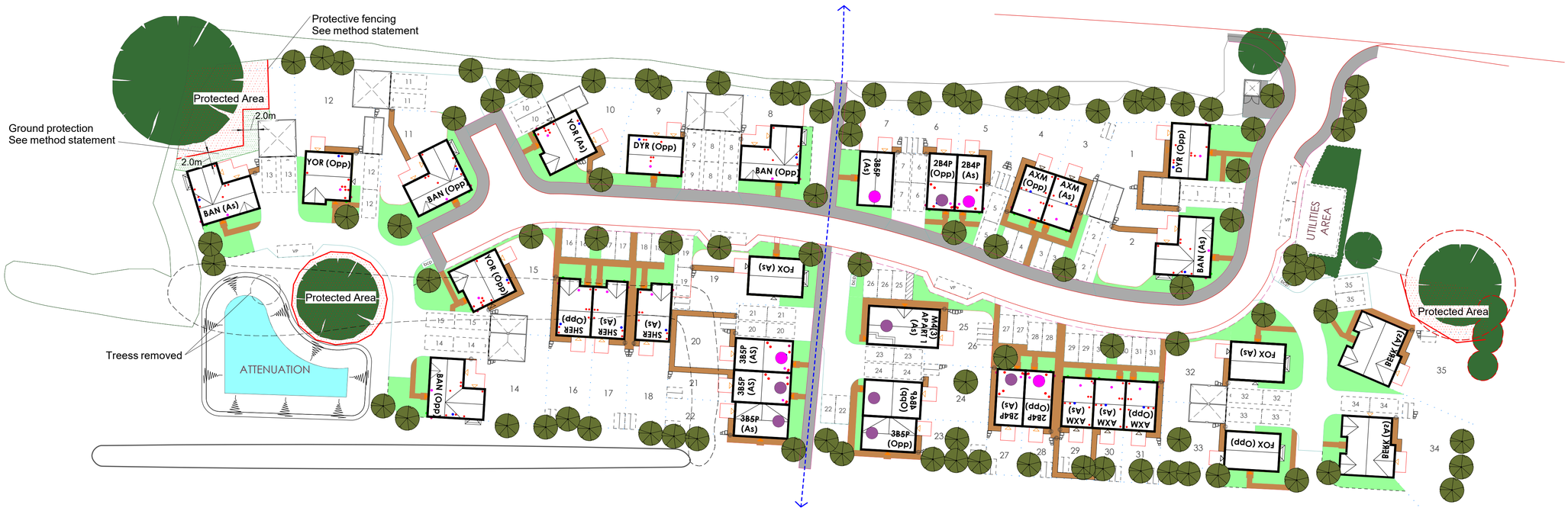
TIM PURSEY

TITLE

Tree Constraints Plan
Land at Badminton Road

SIZE	CAGE CODE	DWG NO	REV
A1		TP 2760/2103/TCP	
SCALE 1:400	22 Apr 2021	SHEET	

All tree protection measures will be inspected prior to commencement of ANY works on site. There will be no works whatsoever until protective measures have been inspected and approved by the project arboriculturist/



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TITLE
Tree Protection Plan
Land at Badminton Road

SIZE	CAGE CODE	DWG NO	REV
A1		TP 2760/2103/TPP	
SCALE 1:400	20 Apr 2021	SHEET	