



**TREE SURVEY,
ARBORICULTURAL IMPACT ASSESSMENT,
TREE PROTECTION PLAN &
ARBORICULTURAL METHOD STATEMENT
Rev:1,**

with regard to proposed development at:

**Land at Warwick Rise, New Road,
Wootton, PO33 4JL,**

for:

James & Emma Bradley.

Job no. MJC-21-0195

25th October 2022.

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1.0 Instruction

1.1 MJC Tree Services Limited have been instructed by James & Emma Bradley, as follows:

“Re: Development Site Tree Survey & Reports in Accordance With BS5837:2012 at Land at Warwick Rise, New Road, Wootton, PO33 4JL.

To visit the above site and carry to carry out the following:

- *To carry out a ground level and visual survey of trees on and adjacent to the site that are identified for survey and assessment under the criterion given in British Standard 5837:2012 ‘Trees in Relation to Design, demolition and Construction – Recommendations’ (BS5837:2012):*
- *To draw up a Tree Constraints Plan and tree survey schedule in accordance with BS5837:2012, using as a base plan a topographical survey plan (or similar) of the site showing all tree stems on and immediately adjacent to the site, existing site features and spot levels, that will need to be supplied, via email, as a .dwg (AutoCAD) file to the above office before the survey can be undertaken:*
- *To discuss the proposed development of the site with the design team and, if necessary, the Local Planning Authority in the light of the identified tree constraints with a view to arriving at a proposed layout and design that is acceptable in arboricultural planning terms:*
- *To draw up an Arboricultural Implications Assessment for the proposed development, using the tree constraints information for reference and a proposed site layout (including all access and service plan details) that will need to be supplied, via email, in an electronic (.dwg or AutoCAD) format to the above office before the report can be completed:*
- *To draw up a Tree Protection Plan and Arboricultural Method Statement for the proposed development. To discuss the content of the Statement with the design team and site contractor(s) as necessary to arrive at a workable solution to the tree protection requirements of the site:*
- *To combine these elements into a single report:*
- *To supply the completed report in an electronic format as a .PDF file, with the plans available as .dwg (AutoCAD) files.”*

2.0 Qualifications and Caveats

2.1 The author of this report is a:

- Fellow of the Institute of Chartered Foresters:
- Chartered Arboriculturist:
- Chartered Surveyor:
- Registered Consultant of the Institute of Chartered Foresters.
- Professional Member of the Arboricultural Association:

He also holds the Royal Forestry Society’s Professional Diploma in Arboriculture and has over 28 years experience in UK arboriculture. A full CV and CPD record are available as a .pdf file upon request to the above office.

- 2.2 The tree survey was preliminary in nature and was carried out from ground level using visual techniques only. No trees were climbed or internally investigated. Should a more detailed inspection be required then this will be highlighted in the recommendations.
- 2.3 Trees are living organisms whose health and condition can change rapidly. The health, condition and safety of trees in high use areas should be checked on a regular basis, preferably at least once every eighteen months. The conclusions and recommendations in this report are based only on the observations made by the author during the tree survey.
- 2.4 This report is for the sole use of the above named clients and refers only to those trees identified within. It may not be reproduced in whole or in part, or sold, lent, hired out or divulged to any third party not directly involved in the subject matter, without our consent. Use by any other person(s) in attempting to apply its contents for any purpose other than stated in this report renders the report invalid for that purpose.
- 2.5 This report is supplied subject to our terms and conditions in force at the time of our instruction by the client.

3.0 Introduction

- 3.1 This report is presented largely in the form of annotated plans with a tree survey schedule that are intended to be read in the sequence they are presented, cross referencing as instructed in the annotations.
 - 3.1.1 The reason for this graphical form of presentation is to make its interpretation easier by the greater design team and the demolition/construction team. These teams work in a graphical environment, and if the arboricultural reports involved in the design and demolition/construction processes are to be easily interpreted by these teams they must also be presented in a graphical environment. To do otherwise would create an unhelpful disconnect between the arboricultural information and the design and demolition/construction teams. It also allows the report and the proposed development to be assessed on site by officers of the Local Planning Authority (LPA) whilst referencing a small number of single page documents, thereby avoiding the need to keep flicking backwards and forwards through a written report whilst holding open a large site plan.
 - 3.1.2 The layout and order of the plans and schedule are intended to illustrate a logical progression from the existing site (Tree Survey Plan and Tree Survey Schedule), through the proposed development, its impact on the trees in terms of tree losses, the establishment of conflicts with the retained trees and how these conflicts will be resolved in principle (Arboricultural Impact Assessment), to the specific tree protection measures and methodologies required (Tree Protection Plan and Arboricultural Method Statement).

3.2 The tree works recommended on the schedule are based on the current context of the site, they are not works required as a result of any proposed development. This is to comply with section 4.4.1.1 of BS5837:2012 that states "...the tree survey should be completed and made available to designers prior to and/or independently of any specific proposals for the development". The tree works required as a result of the proposed development are detailed in the Arboricultural Impact Assessment plan.

4.0 Summary

4.1 It is proposed to construct a detached dwelling in the side garden of Warwick Rise that shares the existing access off New Road, as illustrated in the Arboricultural Impact Assessment plan.

4.2 There are no substantive arboricultural reasons for the Local Planning Authority (LPA) to object to the proposed development, providing the tree protection measures suggested in the Arboricultural Impact Assessment plan and detailed in the Tree Protection Plan and Arboricultural Method Statement are undertaken, along with adequate mitigation planting of new trees as proposed in the Arboricultural Impact Assessment plan. In order to ensure that these measures take place, it is likely that, if the LPA grant planning permission for the proposed development, they will make that permission conditional of the following:

- Adherence to the Tree Protection Plan & Arboricultural Method Statement ref: MJC-21-0195-03 rev1:
- The post completion planting of two new trees as detailed in the Tree Protection Plan & Arboricultural Method Statement ref: MJC-21-0195-03 rev1:
- The pre-commencement drawing up and approval of an underground service plan that avoids the RPA of retained trees.

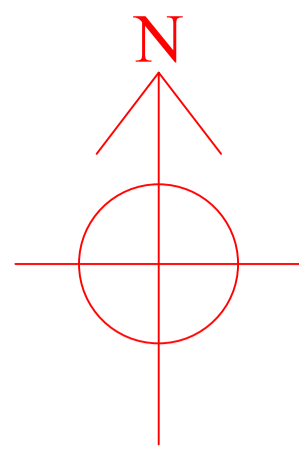
4.2.1 The use of these conditions is reasonable, necessary and commonplace. Therefore, the required use of these conditions should not form a legitimate reason for the LPA to object to the proposed development.

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5.0 Tree Constraints Plan



Tree Constraints Plan Notes

- 1.0 Introduction
- 1.1 The tree survey was carried out on the 30th November 2021.
- 1.2 The survey was carried out in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction – Recommendations' (BS5837:2012).
- 1.3 The survey was carried out from ground level using visual techniques only. No trees were climbed or internally investigated. Should a more detailed inspection be considered necessary then this will be highlighted in the recommendations section of the tree survey schedule.
- 1.4 The tree works recommended on the schedule are based on the current context of the site, they are not works required as a result of any proposed development. This is to comply with section 4.4.1.1 of BS5837:2012 that states "...the tree survey should be completed and made available to designers prior to and/or independently of any specific proposals for the development". Any tree works required as a result of the proposed development will be listed separately in the Arboricultural Impact Assessment plan (AIA).
- 2.0 The Trees
- 2.1 The details of the individual tree survey are provided on the following tree survey schedule.
- 2.2 The tree constraints have been calculated and are illustrated in accordance with BS5837:2012.
- 2.3 A number of trees included in the survey were omitted from the supplied site plan, namely tree nos. T1, T2 and T3. The positions of these has been estimated by eye while the author was on site. This issue is noted in the tree survey schedule. If the position of any of these trees becomes critical to any proposed development of the site, their position should be confirmed by a competent land surveyor and this plan adjusted accordingly.
- 2.4 Root Protection Areas (RPA)
- 2.4.1 The indicative and circular RPA of the surveyed trees has been derived by using the calculation provided at section 4.6.1 of BS5837:2012 and are illustrated either by a grey circle in this plan, or as an amalgamated RPA for groups and/or woodlands.
- 2.4.2 Section 4.6.2 of BS5837:2012 states "Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced. Modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distribution."
- 2.4.3 It was not considered likely that any of the pre-existing site conditions within the RPA of the surveyed trees had caused significant asymmetric rooting. Therefore, no modification of the RPA has been made.
- 2.5 The areas of potentially significant shade illustrated in this plan have been derived following the guidance provided at section 5.2.2 Note 1 of BS5837:2012. This area does not indicate an area where development may not take place, it merely indicates an area where tree shade may have an adverse impact on a proposed development if that part of the development has a need for high levels of direct and natural light e.g. patios and living room windows, and it may also reduce useable amenity space in gardens.
- 2.6 Some of the surveyed trees were considered to have significant potential for future growth. The potential and estimated mature crown spread of these trees is illustrated by a blue crown spread margin in this plan.
- 2.7 The online mapping system provided by the Local Planning Authority (LPA) was consulted on the 12th October 2021 in order to check on the protected status of the surveyed trees. This check indicated the following.
- 2.7.1 Tree nos. T6, T7, T8, T9 and T10 are protected by a Tree Preservation Order, therefore no works may be carried out on these trees without first obtaining written permission from the LPA, unless those works fall under a very limited number of exemptions written into the regulations.
- 2.7.2 The site is not in a Conservation Area.
- 2.8 The online Multi Agency Graphical Information for the Countryside (MAGIC) mapping system provided by DEFRA was consulted on the 2nd December 2021 in order to check whether any ancient woodlands were present on or close to the site. This check indicated that no ancient woodlands were present on the site, and the closest ancient woodland was 41 metres away from the eastern corner of the site in a south south easterly direction.
- 2.9 The tree survey has not identified any ancient and/or veteran trees on or close to the site.
- 3.0 The Site
- 3.1 The site comprised parts of the front and rear gardens, and the entire side garden of Warwick Rise, and it sloped down gently from the north west to the south east.
- 3.2 Surrounding land use was as follows: to the north was a mix of public highway with a wooded area beyond, and residential development; to the east was public highway with a mix of residential development and a wooded area beyond; to the south and west was residential development.
- 3.3 An online check with the British Geological Survey's Geology of Britain Viewer was made on the 12th October 2021.
- 3.3.1 This check indicated that the soils on site were likely to be made up of the following:
- Bedrock Geology: Bembridge Marls Member – Calcareous mudstone and limestone.
 - Superficial deposits: None recorded.
- 3.3.2 These types of soils are likely to be subject to significant and persistent volumetric changes in response to moisture content. Therefore, there could be a risk of tree root related subsidence on this site, and this risk must be allowed for and accommodated in any proposed development of the site.
- 3.3.3 The local topsoil will be prone to rapid compaction to the point that tree root growth is impeded. In areas where the existing soil structure needs to be protected i.e. in the RPA of retained trees or proposed new tree and shrub planting areas, the soil must be protected from demolition and construction activities and traffic by either tree protection barriers or adequate temporary ground protection.
- 3.3.4 No dig methods of hard surface and road/drive construction using a three dimensional cellular confinement sub base can be used on these types of soil over the RPA of retained trees, but in order to provide adequate protection to tree roots in these areas the sub base may need to be thicker than is routinely used, and it is recommended that the advice of the sub base manufacturer is sought before proposing such constructions.

MJC TREE SERVICES LIMITED

Site:
Land at Warwick Rise,
New Road, Wootton,
PO33 4JL.

TREE CONSTRAINTS PLAN

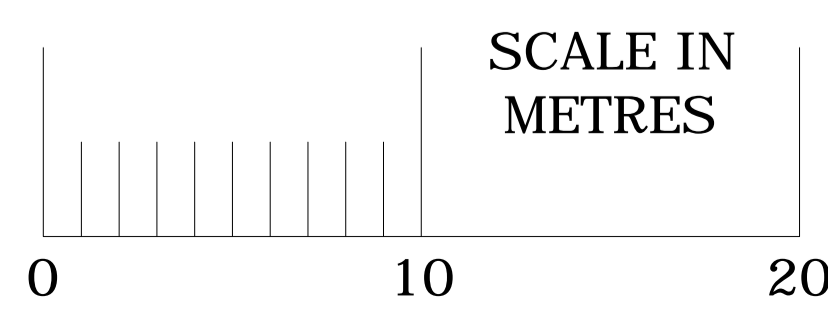
Plan no. MJC-21-0195-01
rev:0

This is based on the
Williams Land Surveys
topographical survey plan no.
WLS.BCM.104, amended by
MJC on 02/12/2021.

This plan was produced in
colour. A monochrome
version must not be relied
upon.

- KEY**
- T1 Category U tree and ref' no'
 - T1 Category A tree and ref' no'
 - T1 Category B tree and ref' no'
 - T1 Category C tree and ref' no'
 - Crown spread of surveyed trees
 - Noted shrubs and palm trees
 - Estimated mature crown spread for trees with significant potential for future growth
 - Indicative root protection area (RPA)
 - ➔ Direction of lowest significant branch, length of arrow indicates height i.e. the longer the arrow the higher the branch
 - Areas of potentially significant shade constraint for A, B & C grade trees and groups, based on surveyed heights

SCALE
1:200 @ A1



6.0 Tree Survey Schedule

TREE SURVEY SCHEDULE

Key:

- **Ht** = Height estimated in metres.
- **Stem Diam** = Stem or trunk diameter, measured and calculated in accordance with Annex C and section 4.6 of BS5837:2012.
 - **oi** = Measurement taken over ivy, which is likely to produce an exaggerated figure;
 - **cmb** = combined stem diameter value for multi stem trees.
- **Crown Spread** = Crown spread to the cardinal points in metres, measured by pacing.
- **1st significant branch ht' & direction** = First significant branch height in metres and direction of growth e.g. N = North.
- **Crown base ht'** = Minimum distance between surrounding ground level at the trunk base and the base of the main crown, estimated by eye in metres.
- **Life stage** is chosen from the four following categories;
 - Y = Young;
 - SM = Semi mature;
 - EM = Early mature;
 - M = Mature;
 - OM = Over Mature.
- **General observations** = Particularly of structural and/or physiological condition, significant features and defects, and the effect these may have on the health, stability and safe retention of the tree.
- **Preliminary management recommendations** = any significant works identified as necessary in the current context, and not taking into account any development of the site..
- **Rem' cont'** = an estimate, in years, of the remaining period over which the tree can be retained at an acceptable level of risk whilst still providing significant amenity benefits with no significant management intervention.
- **Reten' Cat'** = Desirability for retention category. Refers to BS5837:2012 which categorises trees on development sites into one of four categories – A, B, C or U, A being very good and U meaning that felling is appropriate regardless of any proposals. The suffix 1, 2 or 3 refers to a subcategory relating to tree, landscape or cultural/ecological values respectively.
- **AGL** = Above ground level
- **#** = Estimated dimension.
- **TYP** = Typical dimension where several are present.
- **n/a** = Not applicable.
- **n/k** = Not known.

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 st sig' branch ht' (m)	Direc- tion of 1 st sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T1	Mimosa	8#	200# @ base	1	3#	3#	4#	3#	0.2#	S#	0.2#	EM#	<ul style="list-style-type: none"> • The tree was offsite and inaccessible therefore all assessments and measurements used were estimates made from a distance. • The tree was not plotted on the supplied topographical survey plan and its position was estimated by eye whilst on site. If the position of this tree becomes critical to any proposed development of the site, the position of this tree should be confirmed by a competent land surveyor and this report amended accordingly. (Contd)	<ul style="list-style-type: none"> • No works currently identified. • RPA: radius = 2.4 metres; area = 18 square metres. 	10+#	C1#

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 st sig' branch ht' (m)	Direc- tion of 1 st sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T1	Mimosa (Contd)												(Contd) <ul style="list-style-type: none"> The tree was an attractive boundary feature but set well back from any public vantage point and therefore of very little public visual amenity value. 			
T2	Common Oak	13#	350#	1	6#	2#	3#	7#	4#	NE#	4#	EM#	<ul style="list-style-type: none"> The tree was offsite and inaccessible therefore all assessments and measurements used were estimates made from a distance. The tree was not plotted on the supplied topographical survey plan and its position was estimated by eye whilst on site. If the position of this tree becomes critical to any proposed development of the site, the position of this tree should be confirmed by a competent land surveyor and this report amended accordingly. The crown was heavily asymmetric as a result of competition for light and space with nearby trees. The tree was set well back from the public vantage point of the public highway but was still publicly visible. 	<ul style="list-style-type: none"> No works currently identified. RPA: radius = 4.2 metres; area = 55 square metres. 	40+#	B2#

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 st sig' branch ht' (m)	Direc- tion of 1 st sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T3	Common Oak	13#	350#	1	6#	6#	3#	5#	4.5#	W#	4.5#	EM#	<ul style="list-style-type: none"> The tree was offsite and inaccessible therefore all assessments and measurements used were estimates made from a distance. The tree was not plotted on the supplied topographical survey plan and its position was estimated by eye whilst on site. If the position of this tree becomes critical to any proposed development of the site, the position of this tree should be confirmed by a competent land surveyor and this report amended accordingly. The crown was heavily asymmetric as a result of competition for light and space with nearby trees. The tree was set well back from the public vantage point of the public highway but was still publicly visible. 	<ul style="list-style-type: none"> No work currently identified. RPA: radius = 4.2 metres; area = 55 square metres. 	40+#	B2#
T4	Common Oak	13#	500#	1	6#	7#	7#	6#	2.5#	SW#	2.5#	EM#	<ul style="list-style-type: none"> The tree was offsite and inaccessible therefore all assessments and measurements used were estimates made from a distance. The crown was heavily asymmetric as a result of competition for light and space with nearby trees. The tree was set well back from the public vantage point of the public highway but was still publicly visible. 	<ul style="list-style-type: none"> No works currently identified. RPA: radius = 6.0 metres; area = 113 square metres. 	40+#	B2#

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 st sig' branch ht' (m)	Direc- tion of 1 st sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T5	Mimosa	7	220	1	3	2	3	5	1.3	S	1	EM	<ul style="list-style-type: none"> The crown was asymmetric as a result of competition for light and space. The tree was publicly visible from the public highway but it was not a prominent individual and this species is not noted as being particularly long lived, therefore it was of very limited public visual amenity value. 	<ul style="list-style-type: none"> No works currently identified. RPA: radius = 2.6 metres; area = 22 square metres. 	10+	C1
T6	Common Oak	12	380 oi	1	4	4#	4#	6	4	W#	2.8	EM	<ul style="list-style-type: none"> The crown was asymmetric as a result of competition for light and space with nearby trees, some of which may have been removed in the past. The tree was clearly visible from the public highway and therefore had some public visual amenity value. 	<ul style="list-style-type: none"> No works currently identified. RPA: radius = 4.6 metres; area = 65 square metres. 	40+	B2
T7	Beech	11	210	1	3	3	3	4	2	NW	1	SM	<ul style="list-style-type: none"> The tree was becoming increasingly suppressed by nearby and larger Oaks. A large and flush cut branch removal wound was present on the southern side of the trunk at approximately 1.2 metres above ground level. The wood exposed was beginning to significantly decay and it was considered inevitable that this wound would form a large decay cavity that would cause the collapse of the tree within the next 10-20 years at least. 	<ul style="list-style-type: none"> Monitor and assess condition at 18-monthly intervals especially the extent of decay at the large and flush cut branch removal wound on the southern side of the trunk at approximately 1.2 metres above ground level. Be prepared to fell and replace with a healthier specimen tree. RPA: radius = 2.5 metres; area = 20 square metres. 	10+	C1

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 st sig' branch ht' (m)	Direction of 1 st sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T8	Common Oak	8	420 oi	1	3	4	5	6	3.2	SW	2.5	EM	<ul style="list-style-type: none"> The crown was heavily asymmetric as a result of suppression by nearby and larger Oaks. The tree was a roadside feature that had been of significant public visual amenity value. However, crown vitality was low with extensive crown dieback, limited epicormic growth and considerable quantities of deadwood present throughout the crown, especially the lower crown. It is clear that the tree is in significant decline and its long-term survival is not anticipated. 	<ul style="list-style-type: none"> Consider felling and replacing with a healthier specimen tree. RPA: radius = 5.0 metres; area = 80 square metres. 	10+	C1
T9	Common Oak	13	600 oi	1	5	8	6	5	2.5	W#	2	EM	<ul style="list-style-type: none"> The tree had a significant covering of Ivy which restricted the extent of visual survey possible. The tree was a prominent boundary and roadside feature of high public visual amenity value and generally good form. 	<ul style="list-style-type: none"> No works currently identified. RPA: radius = 7.2 metres; area = 163 square metres. 	40+	A2
T10	Common Oak	11	530 oi	1	5	7	6	6	3	NW	3	EM	<ul style="list-style-type: none"> The tree was a significant boundary and roadside feature of significant public visual amenity value and of generally good form. 	<ul style="list-style-type: none"> No works currently identified. RPA: radius = 6.4 metres; area = 127 square metres. 	40+	A2

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 st sig' branch ht' (m)	Direc- tion of 1 st sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T11	Western Red Cedar	17	350 + 4780 = 594 cmb	2	5	6	4	4	4	W	1	EM	<ul style="list-style-type: none"> The tree was a significant roadside and boundary feature of some public visual amenity value. However, the trunk bifurcated at approximately 0.6 metres above ground level with a wea included bark union and the dimensions of the north eastern side of the union were approaching the published intervention/failure criteria (Helliwell 2004). Localised swelling on either side of the bifurcation fork indicated significantly increased mechanical loading in this area. The north north western root buttress had been damaged, most likely by vehicular impact and the roots were beginning to disrupt the surface of the abutting and existing tarmac drive. The presence of the structurally weak bifurcation fork and the ongoing damage to the adjacent drive makes the long-term retention of this tree very unlikely. 	<ul style="list-style-type: none"> Monitor and assess condition at 18-monthly intervals especially the condition of the weak bifurcation fork at approximately 0.6 metres above ground level. Be prepared to fell and replace with a better formed specimen tree. RPA: radius = 7.1 metres; area = 160 square metres. 	10+	C1
T12	Leyland Cypress	8	270	1	3	4	3	3	4.5	E	4	SM	<ul style="list-style-type: none"> The tree was moribund as a result of suppression by nearby and larger trees and its long-term survival was not anticipated. 	<ul style="list-style-type: none"> No works currently identified. RPA: radius = 3.2 metres; area = 33 square metres. 	10+	C1

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 st sig' branch ht' (m)	Direc- tion of 1 st sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T13	Ash	15#	380#	1	5#	5#	5#	0#	6#	NW#	8#	SM#	<ul style="list-style-type: none"> The tree was offsite and inaccessible therefore all assessments and measurements used were estimates made from a distance. The crown was heavily asymmetric and the tree leant to the east as a result of suppression by the nearby and larger Oak. A small degree of peripheral crown dieback was present that could indicate the early stages of Chalara Ash Dieback caused by the fungus <i>Hymenoscyphus fraxineus</i>. This condition is invariably fatal for native Ash trees. The possible presence of Chalara Ash Dieback and the suppression of the tree makes its long-term survival unlikely. 	<ul style="list-style-type: none"> No works currently identified as the tree is offsite and therefore beyond the control and responsibility of my client. RPA: radius = 4.6 metres; area = 65 square metres. 	10+#	C1#

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 st sig' branch ht' (m)	Direc- tion of 1 st sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T14	Common Oak	18#	800#	1	4#	9#	12 #	5#	2#	W#	2#	EM#	<ul style="list-style-type: none"> The tree was offsite and inaccessible therefore all assessments and measurements used were estimates made from a distance. The tree was a significant boundary and roadside feature of significant public visual amenity value. The crown was significantly asymmetric as a result of competition for light and space with nearby trees. The two lowest side branches on the southern and south western side were becoming overlong and upswept, placing them at increased danger of hazard beam-type failure (Mattheck and Breloer 1994). One large and decaying branch stub was present on the northern side at approximately 3.5 metres above ground level. 	<ul style="list-style-type: none"> No works currently identified as the tree is offsite and therefore beyond the control and responsibility of my client. RPA: radius = 9.6 metres; area = 290 square metres. 	20+#	B2#

7.0 Arboricultural Impact Assessment Plan

1.0 Introduction

- 1.1 It is proposed to construct a detached dwelling in the side garden of Warwick Rise that shares the existing access off New Road.
- 1.2 In this plan, the proposed development layout is illustrated in magenta.
- 1.3 In order to provide context with the existing site, and highlight the proposed development, the existing site layout plan is also illustrated in pale grey in this plan.
- 1.4 The trees, their constraints, and areas where specific tree protection measures are required, are illustrated in accordance with the key.

2.0 Tree Works.

- 2.1 The proposed development requires the removal of tree nos. T11 and T12, and several shrubs and Palm tree. These trees, shrubs and Palm trees are illustrated with red crown margins in this plan. The required removal of these trees, shrubs and Palm trees is acceptable in arboricultural planning terms for the following reasons.
 - 2.1.1 Shrubs are not a material constraint in the planning application determination process therefore, the required removal of these shrubs should not form a substantive reason for the Local Planning Authority (LPA) to object to the proposed development.
 - 2.1.2 Palm trees are not trees in botanical terms, and they are more closely related to grasses than trees, but they can still be regarded as trees in arboricultural planning terms if they are large or publicly prominent. However, none of the Palm trees to be removed as a result of the proposed development are large or publicly prominent. Therefore, the required removal of these Palm trees should not form a substantive reason for the LPA to object to the proposed development.

- 2.1.3 Tree nos. T11 and T12 are both 'C' grade with regard to their quality assessment as defined in Table 1 of BS5837:2012. BS5837:2012 describes such trees as 'Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm'.
 - 2.1.3.1 Such trees cannot be considered to be of high public amenity value as individuals, although they may collectively accrue some public amenity value if they are present in sufficient numbers. The required removal of these trees is unlikely to form a substantive reason for the LPA to object to the proposed development, but the LPA is likely to take note of the collective loss of these roadside trees and to require the mitigation planting of new trees as part of the proposed development to compensate for this collective loss.
 - 2.1.3.2 New tree planting is proposed in this plan, and providing this new tree planting is carried out as part of the proposed development, the required removal of these trees should not form a substantive reason for the LPA to object to the proposed development.
 - 2.1.3.3 The LPA can ensure this tree planting is carried out by granting planning permission for the proposed development subject to a planning condition requiring the planting of new trees as set out in this plan.

3.0 Root Protection Areas (RPA).

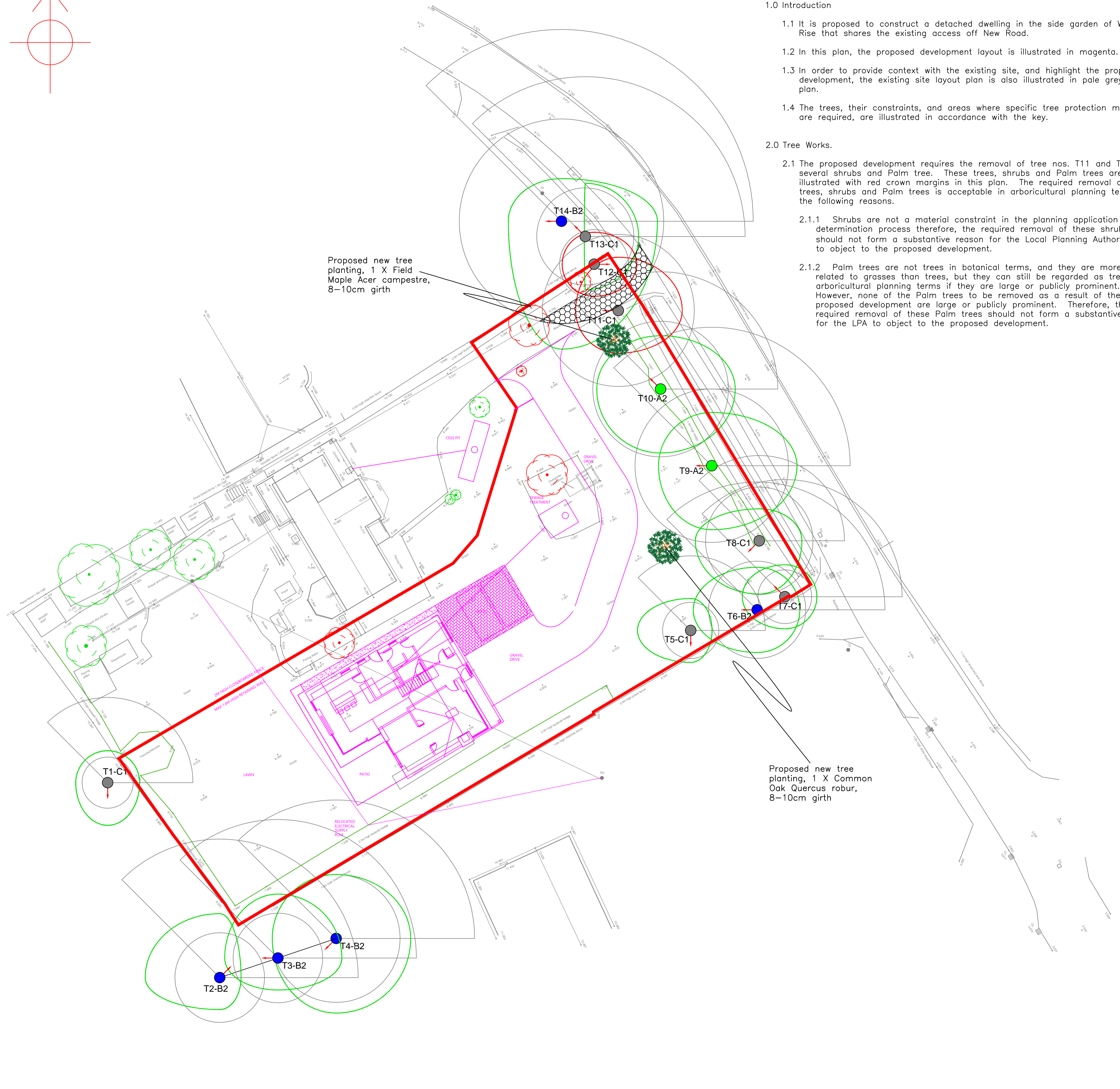
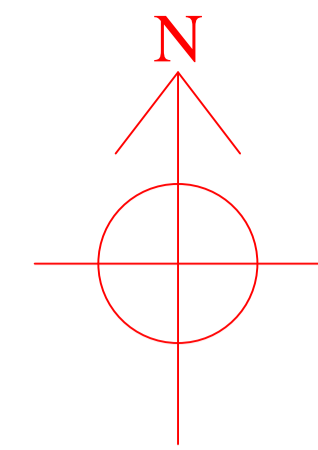
- 3.1 The proposed development footprint has avoided the RPA of all the retained trees, even when allowing for a working margin around the footprint of the proposed drive. Therefore, the proposed development does not have any direct impact on the RPA of the retained trees.
- 3.2 The existing drive passes over the RPA of retained tree no. T14, and the existing drive forms an effective protective layer over the underlying tree roots. In order to ensure that this protection is maintained, the existing drive surface in the 'Existing hard surface retention area', illustrated with black hexagonal hatching in this plan, will be retained intact.
- 3.3 Construction access, materials storage and other construction activities will extend beyond the proposed footprints and may encroach over the RPA of some retained trees. Therefore, it will be necessary to install appropriately constructed and located tree protection barriers before the construction works commence (see enclosed Tree Protection Plan & Arboricultural Method Statement for details). The LPA can ensure these barriers are erected by granting planning permission for the proposed development subject to a planning condition requiring compliance with the enclosed Tree Protection Plan & Arboricultural Method Statement.
- 3.4 No underground service or drain plan has been supplied, however, it is considered that sufficient space exists across the site that is not restricted by the RPA of retained trees for these to be routed around, and therefore avoid conflict with, the RPA. The LPA have the power to ensure this occurs by granting permission subject to a condition requiring the pre-commencement submission and approval of an underground service and drain plan.

4.0 Future Pressures to Unreasonably Prune or Fell Retained Trees

- 4.1 The inappropriate retention of trees within a new development can lead to future conflicts between the residents of the new development and the trees, thereby creating future pressures to unreasonably prune or fell trees that had been retained in the design and development process. Section 5.3.4 d) of BS5837:2012 requires this issue to be considered and avoided at the design stage of a proposed development. In order to comply with this requirement, the following considerations have been made.
 - 4.2 Crown proximity.
 - 4.2.1 The proposed development layout has maintained a minimum clearance between the dwelling and the crown edge of retained trees of 16 metres. This is considered to be more than sufficient to avoid the crowns coming into contact with or overtopping the dwelling, even when the trees are swaying in a storm event. Therefore, the proposed development has avoided placing the dwelling so close to the existing crown spreads of retained trees that legitimate feelings of overbearance and dominance will be created in the minds of future residents, and crown proximity should not create any legitimate pressures to unreasonably prune or fell the retained trees in the future.
 - 4.2.2 Parts of the proposed front garden is overhung by existing crown spreads. However, large areas of the front garden, and almost the entire rear garden, are not overhung, and it is considered that adequate useable amenity space that is not overhung is provided in the proposed gardens. Therefore, crown overhang of the gardens should not create any legitimate pressures to unreasonably prune or fell the retained trees in the future.
 - 4.2.3 The proposed parking bays are not overhung by any trees, and therefore the natural falling of tree related debris will not result in deposits being left on the parked cars, and the location and use of the parking bays will not result in any legitimate pressures to unreasonably prune or fell the retained trees in the future.
- 4.3 Tree shade.
 - 4.3.1 At the layout design stage, the indicative shade segment suggested at section 5.2.2 Note 1 of BS5837:2012 was used to assess the impact of shade on the proposed gardens and dwelling.
 - 4.3.2 This assessment indicated that the proposed dwelling patio would not experience any significant tree shade, and that the proposed garden would experience some tree shade, but well over half of the garden area would not experience any significant tree shade. Therefore, tree shade should not result in any legitimate pressures to unreasonably prune or fell the retained trees in the future.

5.0 Summary.

- 5.1 There are no substantive arboricultural reasons for the Local Planning Authority (LPA) to object to the proposed development, providing the tree protection measures suggested above and detailed in the enclosed Tree Protection Plan & Arboricultural Method Statement are undertaken, along with adequate mitigation planting of new trees as proposed in this plan. In order to ensure that these measures take place, it is likely that, if the LPA grant planning permission for the proposed development, they will make that permission conditional of the following:
 - 5.1.1 Adherence to the Tree Protection Plan & Arboricultural Method Statement ref: MJC-21-0195-03 rev1:
 - 5.1.2 The post completion planting of two new trees as detailed in the Tree Protection Plan & Arboricultural Method Statement ref: MJC-21-0195-03 rev1:
 - 5.1.3 The pre-commencement drawing up and approval of an underground service plan that avoids the RPA of retained trees.
- 5.2 The use of these conditions is reasonable, necessary and commonplace. Therefore, the required use of these conditions should not form a legitimate reason for the LPA to object to the proposed development.



Proposed new tree planting, 1 X Field Maple Acer campestre, 8-10cm girth

Proposed new tree planting, 1 X Common Oak Quercus robur, 8-10cm girth

MJC TREE SERVICES LIMITED

Site:
Land at Warwick Rise,
New Road, Wootton,
PO33 4JL.

ARBORICULTURAL IMPACT ASSESSMENT PLAN

Plan no. MJC-21-0195-02 rev:1

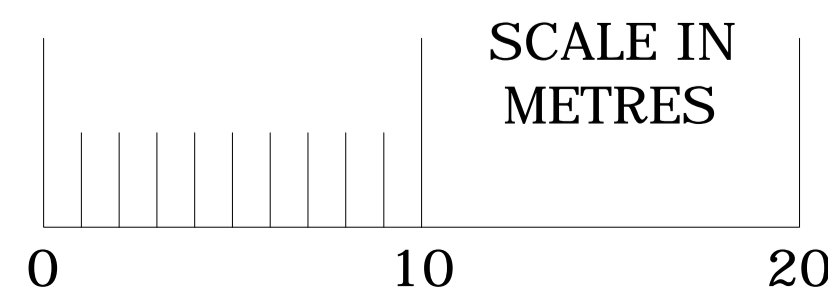
This is based on the Williams Land Surveys topographical survey plan no. WLS.BCM.104, and the Hox House Studio proposed layout plan no. 22-WR-010 revP1, amended by MJC on 25/10/2022.

This plan was produced in colour. A monochrome version must not be relied upon.

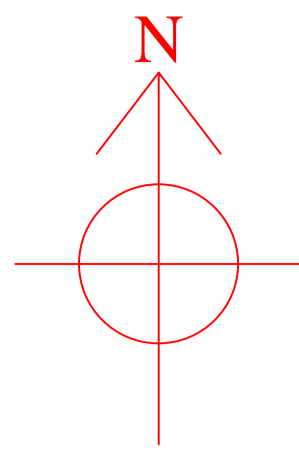
KEY

- Application site boundary (red line boundary)
- Existing site layout in grey
- Proposed site layout in magenta
- Category U tree and ref' no' T1
- Category A tree and ref' no' T1
- Category B tree and ref' no' T1
- Category C tree and ref' no' T1
- Crown spread of surveyed trees to be retained
- Crown spread of surveyed trees to be removed
- Noted shrubs and palm trees to be retained
- Noted shrubs and palm trees to be removed
- Indicative root protection area (RPA)
- Direction of lowest significant branch, length of arrow indicates height i.e. the longer the arrow the higher the branch
- Areas of potentially significant shade constraint for A, B & C grade trees and groups to be retained, based on surveyed heights
- Existing hard surface retention areas
- Proposed new tree planting, species as per annotations

SCALE
1:200 @ A1



8.0 Tree Protection Plan & Arboricultural Method Statement



Tree Protection Plan & Arboricultural Method Statement.

1.0 The proposed development will be carried out in strict accordance with the following Tree Protection Plan and Arboricultural Method Statement, and in the following sequence of events. This plan and statement will cover the following heads of terms, see separate notes below for the specific tree protection measures and methodologies for each head of terms:

- 1.0.1 Appointment of the Responsible Person:
- 1.0.2 Distribution of Tree Protection Plan and Arboricultural Method Statement:
- 1.0.3 General measures, including access, storage of materials etc.:
- 1.0.4 Tree works:
- 1.0.5 Tree protection barrier erection:
- 1.0.6 Soft landscaping in the RPA of retained trees.

1.1 Appointment of the Responsible Person.

1.1.1 Before any site works, including site clearance, take place, a person will be made responsible for the correct and full implementation of the plan and statement (the Responsible Person). The Responsible Person will typically be the project manager or site manager, but whoever is appointed they will be responsible for the full and correct implementation of this plan and statement, and will be deemed liable for any failure to correctly and fully implement this plan.

1.1.2 When appointed, the Responsible Person will inform the Local Planning Authority and the Project Arboriculturist of their appointment and will supply both with a full set of contact details.

1.2 Distribution of tree protection plan and arboricultural method statement.

1.2.1 It is the responsibility of the Responsible Person to ensure that all staff and contractors working on the development are aware of and abide by this Tree Protection Plan & Arboricultural Method Statement.

1.2.2 A scale copy of this plan will be attached to the site office notice board. Copies of this plan will always be available for taking out on site as necessary.

1.2.3 Reference to this Tree Protection Plan & Arboricultural Method Statement will form part of the standard induction briefing for all personnel coming onto site.

1.3 General measures, including access, storage of materials etc.

1.3.1 The following measures and restrictions will apply at all times.

1.3.2 No construction vehicles, materials or equipment, other than only those necessary for the erection of the tree protection barriers, will be permitted onto the site until the tree works are completed and the tree protection barriers have been erected.

1.3.3 All demolition/construction traffic access will be via the existing entrance and drive serving Warwick Rise.

1.3.4 The existing hard surface in the 'Existing hard surface retention area', illustrated with black hexagonal hatching in this plan, will be retained intact throughout the construction phase.

1.3.5 When any large and/or tall and/or jibbed vehicles/equipment are operating or manoeuvring close to the crowns of trees to be retained, a specific banksperson will be appointed to supervise the movement and ensure that no damage is caused to the crowns of these trees through impact.

1.3.6 All activities usually carried out in the compound area, e.g., the storage of materials and equipment, the mixing of concrete and mortar, the siting of rest cabins and the site office etc., will take place outside the construction exclusion zones created by the tree protection barriers.

1.3.7 Any facilities for the storage of oils, fuels or chemicals shall be located outside the construction exclusion zones created by the tree protection barriers, in tanks on impervious bases and surrounded by impervious bund walls. The volume of the bund compound shall be at least equivalent to the capacity of the tank plus 10%. If there is a multiple tankage, the compound shall be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%. All filling points, vents, gauges and sight glasses shall be located within the bund. The drainage system of the bund shall be sealed with no discharge to any watercourse, land or underground strata. Associated pipe-work shall be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets shall be detailed to discharge downwards into the bund.

1.3.8 All underground services will be carefully routed so as to avoid crossing the RPA of all the retained trees.

1.3.9 No fires will be permitted on site.

1.4 Tree Works.

1.4.1 Before any construction works commence, and before any construction vehicles, equipment and materials are delivered to site, the following tree works will be carried out.

1.4.1.1 Tree nos. T1 and T12 – fell close to ground level. If the stumps require removal, they will be ground out to a maximum of 300mm below ground level.

1.4.1.2 Fell close to ground level the shrubs and Palm trees illustrated in this plan with red crown margins.

1.4.2 All tree works will be carried out in accordance with the following stipulations.

1.4.2.1 All tree works will be carried out in accordance with BS3998:2010 wherever that Standard is applicable.

1.4.2.2 All works will be carried out in accordance with all applicable health & safety and environmental protection legislation.

1.4.2.3 All tree works will be carried out in such a way that no unintended collateral harm is caused to trees to be retained.

1.4.2.4 All arisings will be disposed of in an approved manner and off site unless otherwise instructed by the client or site manager.

1.5 Tree protection barrier erection

1.5.1 After the tree works are completed, but before any construction works commence, and before any construction vehicles, equipment and materials, other than only those necessary for the erection of the tree protection barriers, are delivered to site, the tree protection barriers will be erected at the positions illustrated in this plan.

1.5.2 This barrier will either comply with the recommendations in BS5837:2012 i.e., as a first choice the barrier design illustrated in this plan will be used. Where this design of barrier is not feasible the barrier will comply with the following specification.

1.5.2.1 The barrier will comprise a minimum 2 metres tall welded mesh fence panels on rubber or concrete feet secured with ground pins.

1.5.2.2 The fence panels should be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence.

1.5.2.3 The distance between the fence couplers should be at least 1 metre and should be uniform throughout the fence.

1.5.2.4 The panels should be supported on the inner side by stabilizer struts, which should normally be attached to a base plate secured with ground pins.

1.5.2.5 Where the fencing is to be erected 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.

1.5.3 The barrier will have an A3 size informative/warning notice attached on the construction site side, at approximately 1.6 metres above ground level, and at no more than 6 metres intervals. An example of a suitable notice follows this plan.

1.5.4 No construction access whatsoever will be permitted in the construction exclusion zones formed by the tree protection barriers.

1.5.5 The tree protection barriers will be retained in place and intact until all construction activities have been completed and all construction materials, equipment and vehicles have been removed from the site.

1.6 Soft landscaping in the RPA of retained trees.

1.6.1 Where soft landscaping works are to be carried out in the RPA of retained trees, they will be carried out as follows.

1.6.1.1 The soft landscaping works will be carried out as part of the post construction soft landscaping works.

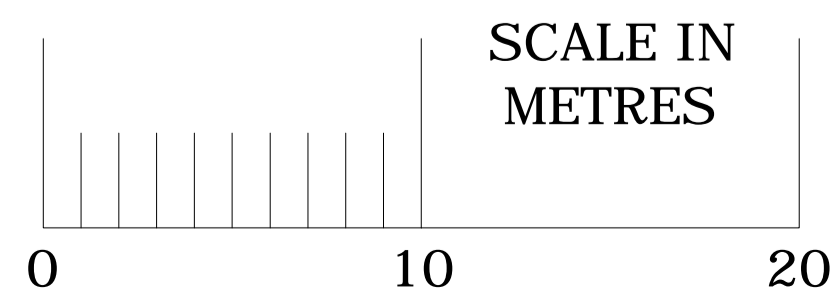
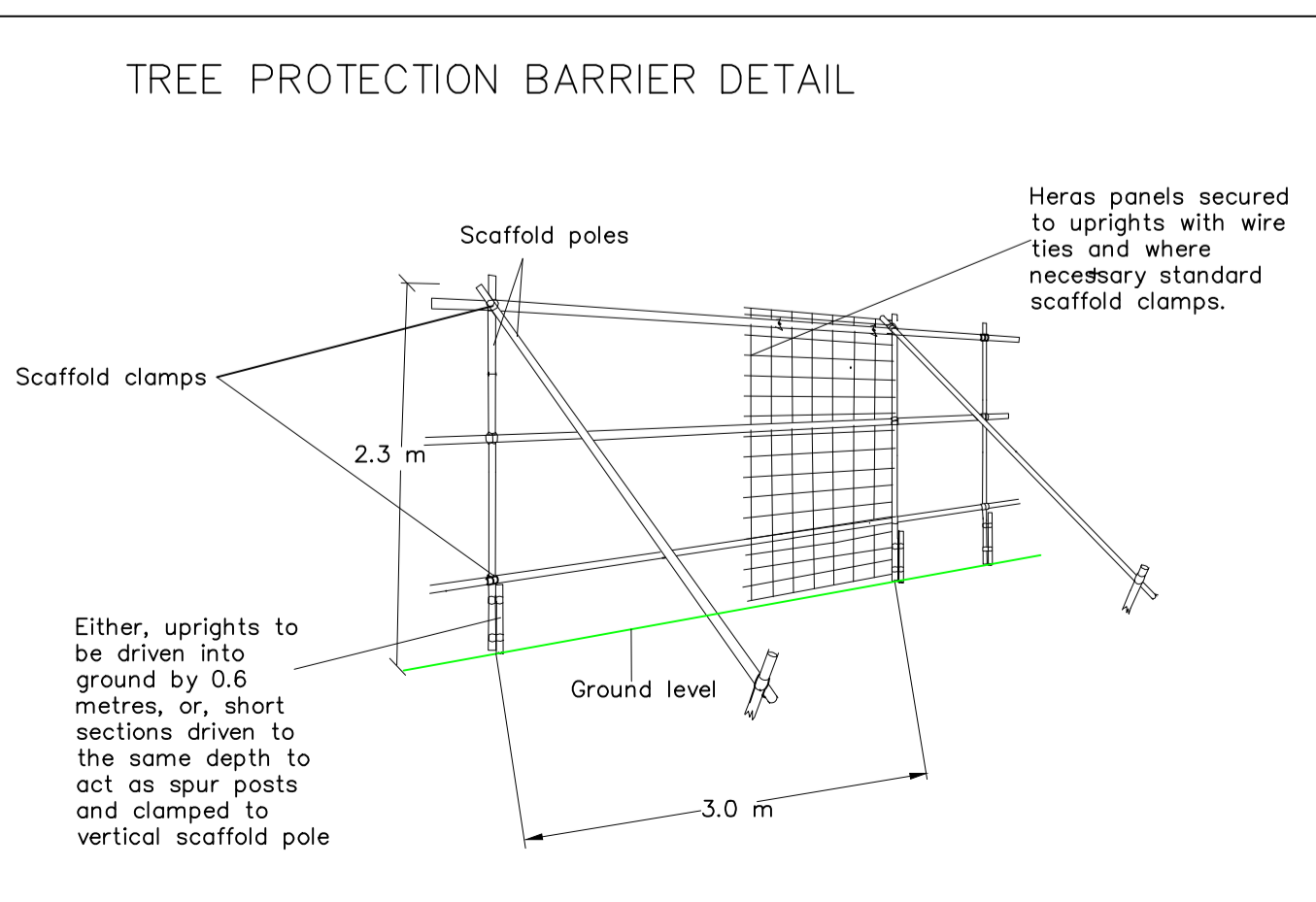
1.6.1.2 Excavations for landscaping works within the RPA will be carefully carried out with hand tools only, and with no cultivations below 300mm. If significant roots are encountered i.e., roots over 25mm in diameter, these will be dug around and left undamaged.

1.6.1.3 Powered cultivators will not be used in the RPA.

1.6.1.4 No vehicular access across the root protection areas will be permitted as part of these works beyond the existing hard surfaces.

Proposed new tree planting, 1 X Field Maple Acer campestre, 8-10cm girth

Proposed new tree planting, 1 X Common Oak Quercus robur, 8-10cm girth



MJC TREE SERVICES LIMITED

Site:
Land at Warwick Rise,
New Road, Wootton,
PO33 4JL.

TREE PROTECTION PLAN & ARBORICULTURAL METHOD STATEMENT

Plan no. MJC-21-0195-03
rev:1

This is based on the Williams Land Surveys topographical survey plan no. WLS.BCM.104, and the Hox House Studio proposed layout plan no. 22-WR-010 revP1, amended by MJC on 25/10/2022.

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 - Noted shrubs and palm trees to be retained
 - Noted shrubs and palm trees to be removed
 - Indicative root protection area (RPA) of retained trees
 - Existing hard surface retention areas
 - Tree protection barriers: dimensions in mm
 - Construction exclusion zone (CEZ)
 - Proposed new tree planting, species as per annotations
- SCALE**
1:200 @ A1

9.0 Tree Protection Barrier Sign



PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.



**TREE PROTECTION AREA
KEEP OUT !**
(TOWN & COUNTRY PLANNING ACT 1990)
**TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION**
ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

10.0 References

- Helliwell 2004 = Helliwell, R. (2004) Short Paper: A Discussion of the Failure of Weak Forks. *The Arboricultural Journal*. 27:3, pp245-249.
- BS5837:2012 = British Standard 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.
- BS3998:2010 = British Standard 3998:2010 'Tree work – Recommendations'.