
Arboricultural Report and Arboricultural Implications

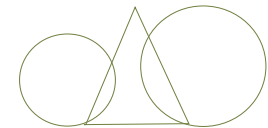
Site – The Fox PH, Haverhill Road,

Client – M P Architects LLP

Contact – M P Architects, Gt Basons, Basons Lane, Ongar, Essex, CM5 9AR

Date - 26-01-2020

To be read in conjunction with – Tree Survey Plan Drawing No. MP/FOX /01



Moore Partners Ltd

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BS5837:20012 Tree Assessment and AIA

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Prepared by

J M Moore BSc Dip Arb (RFS) M Arbor A

Moore Partners Ltd, Blue House Cottage, Maldon Road, Bradwell on Sea, Essex, CM0 7HR

01621 776590

www.moorepartners.co.uk

judith.moore@moorepartners.co.uk

1.0 Instruction and client brief

- 1.1 M P Architects have requested a survey of the trees around The Fox pub. The survey is to support the planning application for the new building on the plot. The report should be read in conjunction with the tree constraints and protection plan, drawing number MP/FOX/01
- 1.2 The report was to:
 - assess the trees in line with BS5837:2012
 - advise of the arboricultural implications that the proposed building works will have on the existing trees, in line with BS5837:2012 based on the site layout provided.

2.0 Scope of works and survey method

- 2.1 The trees were surveyed in line with the process laid out in BS5837:2012. Trees under 75mm in diameter were not recorded in line with BS5837 guidance. The details of the trees as required under BS5837:012 were recorded in section 6 of this report. Implications resulting from the proposed development are given in section 7 of the report and the tree constraints and protection plan.
- 2.2 The report is based on a ground level visual tree assessment, using recognised non-invasive techniques, (Matthcek). Condition of the tree was assessed only on date of inspection; it remains valid only if no environmental changes occur around the tree. If any changes should occur, re-inspection should be carried out. Physiological and structural assessments are valid for a period of 12 months. It is an external inspection only. Environmental changes around the tree will render the report invalid.
- 2.3 No internal diagnostic equipment was used, and no pest and disease samples were taken or sent away for analysis. No soil samples were taken for testing. If Soil analysis is required, a soil engineer should be employed.
- 2.4 There has been a check with the local authority of the tree protection status of the site. It remains the responsibility of the tree owner to check TPO status, prior to carrying out any works on the tree.
- 2.5 Any works to the trees should comply with BS3998:2010 Tree Work
- 2.6 No topographical survey was available for the site. The tree protection plan has been based on measurement taken using simple triangulation techniques. Though care is taken discrepancies can occur and if greater detail is required a topographical survey should be commissioned.

3.0 Site

- 3.1 The site is a large derelict public house and associated car parking accessed from Haverhill road. There is an over grown garden area to the rear consisting of rough grass and a dense stand of blackberry. Around the boundary of the site are hedges but there are no significant trees in the site. To the south of the site is an area of secondary woodland. There is a water ditch and stream approximately 1m lower than ground level running along the boundary and the woodland. The majority of the trees are over 8m from the stream but there are a small number of trees along the bank. These are included in the survey and several were of poor quality. The stream at 1m deep would be expected to act as a root barrier or at least partial root barrier along the boundary. The ground water level under the stream, would result in the soil being at a permeant field capacity. This would result in low air levels within the soil structure which would not be conducive with good root growth.
- 3.2 The northern section of the site is currently tarmac car park with an early mature thorn hedges along the boundary.
- 3.3 The levels in the site are relatively level.

4.0 Proposed Development

- 4.1 The proposal is to demolish the existing building. Construction of a new public house, car parking and pub beer garden to the rear, as per drawing 2234-12 rev by M P Architects LLP.
- 4.2 There are no significant trees within the site. The trees within the woodland will not be impacted on and tree protection fencing will protect these and the existing native hedges for the duration of the build.

5.0 Tree assessment

No.	Species English & Latin	Approx Height (M)	Dia. @ 1.5 (CM)	Spread (M)	Height Crown Clearance (m)	Age Class	Physiological condition	Structural condition	Preliminary management recommendation	Years remaining	Category grading
H1	<i>Laurel</i> <i>Prunus laurocerasus</i>	2.2	<10	as plan	0	em	fair	fair	na	20-40	C2
H2	<i>Blackthorn</i>	2.5	<10	as plan	0	y	fair	fair	na	20-40	C2
H3	<i>Blackthorn</i> <i>Hawthorn</i> <i>Blackberry</i>	3-4	max 15	as plan	0	em-ma	fair	fair	na	20-40	C2
T1	<i>Goat willow</i> <i>salix caprea</i>	4	esti 48	N 4 S 4 E 4 W 2.5	3	om	fair/poor	fair/poor	na	10-20	C3
short lived species with limited value in the wider landscape.											

No.	Species English & Latin	Approx Height (M)	Dia. @1.5 (CM)	Spread (M)	Height Crown Clearance (m)	Age Class	Physiological condition	Structural condition	Preliminary management recommendation	Years remaining	Category grading
W1	<i>Elm</i> <i>Lawson cypress</i> <i>Field maple</i> <i>sycamore</i>	10-20	various	as plan not over site	npt over site	ma	fair	fair	na	40	B23
a band approximately 8m wide, between the edge of the woodland and the stream, has no trees present. The largest trees are at the south east corner away from the proposed building area.											
T2	<i>Ash</i> <i>field maple</i>	6	21	N 3 S 1.5 E 1.5 W 1.5	2.2	em	fair/poor	fair/poor	remove the dead damaged limb over the site	10-20	C/U
T3	<i>Field maple</i> <i>acer campestre</i>	6	28	N 4 S 3 E 2 w 1	3.5	em	fair	fair dense ivy will swamp the crown if left unchecked	na	10-20	C3
T4	<i>Elm</i> <i>Ulmus spp</i>	7	32	N 2.5 S 2.5 E 1.5 W 2.5	5.5	em	fair	fair	na	10-20	C/U
Elm can be susceptible to Dutch Elm Disease as it matures											
T5	<i>Elm</i> <i>Ulmus spp</i>	4	18	N 1 S 1 E 1 W 1	5	y	dead	dead	fell	0	U
Most likely infected by Dutch elm disease											

No.	Species English & Latin	Approx Height (M)	Dia. @1.5 (CM)	Spread (M)	Height Crown Clearance (m)	Age Class	Physiological condition	Structural condition	Preliminary management recommendation	Years remaining	Category grading
T6	<i>Elm</i> <i>Ulmus spp</i>	5	18	N 2 S 1 E 1 W 1	5	y	dead	dead	fell	0	U
Most likely infected by Dutch elm disease											
T7	<i>Norway maple</i> <i>Acer platanoides cvr</i>	3.5	9	N 1 S 1 E 1 W 1	1.8	y	fair	fair	na	20-40	C/U
A small young tree with limited value in the landscape and could be easily replaced.											
T8	<i>Ash</i> <i>Fraxinus excelsior</i>	10	33	N 5 S 2.7 E 2.5 W 4.5	6	ma	fair	fair	na	20-40	C23
T9	<i>Horse chestnut</i> <i>Aesculus hippocastanum</i>	5	29	N 5 S 0 E 2 W 3	0	y	fair	fair suppressed by T8	na	20-40	B23

No.	Species English & Latin	Approx Height (M)	Dia. @1.5 (CM)	Spread (M)	Height Crown Clearance (m)	Age Class	Physiological condition	Structural condition	Preliminary management recommendation	Years remaining	Category grading
G1	<i>Elm x 3</i> <i>Ulmus spp</i>	5	av 15	as plan	not over site	em	fair	fair	na	10-20	C/U
Elm can be susceptible to Dutch Elm Disease as it matures											
G2	<i>Elm x 3</i> <i>Ulmus spp</i>	5	av 15	as plan	not over site	em	fair	fair	na	10-20	C/U
Elm can be susceptible to Dutch Elm Disease as it matures											

Key to survey schedule

Tree number on plan

T1 individual tree on the site

BS 5837:2012 Age class

Y – Young first third of life expectancy

EM – Early mature second third of life expectancy

Ma – Mature final third of life expectancy

OM – Over mature showing signs of senescence

V – Veteran over mature and of special conservation value

Remaining years in age bands

<10, 10-20, 20-40, >40

Physiological or structural condition

Good no significant health problems, or no significant structural problems

Fair some symptoms of ill health, or currently insignificant or remediable structural problems

Poor significant symptoms of ill health, or significant structural problems

Moribund (physiological only) in serious and irreversible decline

Dead (physiological only) not alive

Other Abbreviations.

Esti estimated

M/S multi stem the number of stems and diameter are given in line with BS5837:2012 requirements.

HCV high conservation value

N north, E east, S south, W west

BS 5837:2012 Category of quality/retention

Category	Description
A Green	Trees of high quality A1 – Mainly arboricultural value A2 - Mainly landscape value A3 – Mainly cultural value, including conservation
B Blue	Trees of moderate quality B1 – Mainly arboricultural value B2 - Mainly landscape value B3 – Mainly cultural value, including conservation
C Grey	Trees of low quality C1 – Mainly arboricultural value C2 - Mainly landscape value C3 – Mainly cultural value, including conservation
U red	Trees that are in a poor condition, so that any existing value will be lost in the next 10 years, and should, for reasons of sound arboricultural management, be removed.

6.0 Arboricultural Impact Assessment

6.1 The arboricultural impact is based on the following parameters

- All trees that are to be retained will be protected by tree protection fencing in line with BS5837:2012 section 6.2
- Should be read in conjunction with Tree Constraints and Protection Plan drawing number MP/FOX/01.

6.2 The root protection area (RPA) is an area of ground around the tree that should be retained, undisturbed, for the benefit of the tree roots. The RPA is calculated, as set out in BS5837:2012. This determines the square metres of ground area that should be retained. This is often shown as a circle, with a radius as determined by the calculation. However, it is not always essential that this is a circle and, in some situations, the geography of the site can make an alternative shape more appropriate. It must still equate to the same area as the circle calculated under the approved calculation.

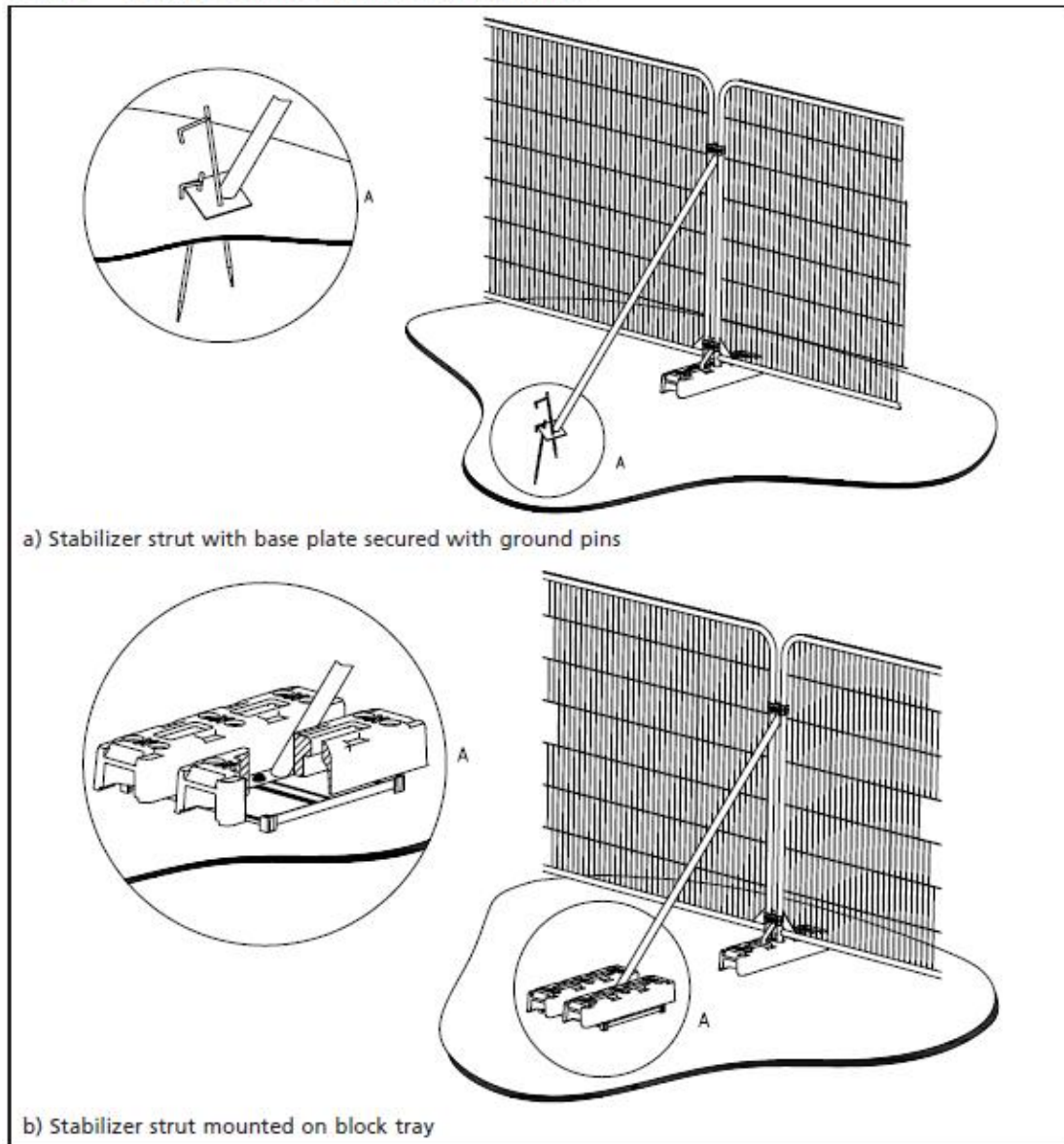
Tree no.		RPA m/sq	Radi of RPA (M)	Tree implications assessment	Mitigation
H1	<i>Laurel</i>		1.1	remove and replace with a new hedge in the landscape scheme	
H2	Blackthorn		1.2	Distant enough from the proposals not to be affected.	Protect the hedge with an exclusion zone, for the duration of the build, enclosed with tree protection fencing in line with BS5837:2012, appendix 1 of this report and drawing number MP/FOX/01
H3	Blackthorn		1.8	Distant enough from the proposals not to be affected.	Protect the hedge with an exclusion zone, for the duration of the build, enclosed with tree protection fencing in line with BS5837:2012, appendix 1 of this report and drawing number MP/FOX/01
T1	Goat willow	92	5.4	Distant enough from the proposals not to be affected.	Protect the tree with an exclusion zone, for the duration of the build, enclosed with tree protection fencing in line with BS5837:2012, appendix 1 of this report and drawing number MP/WSF/01
T2	Ash	18	2.4	Distant enough from the proposals not to be affected. The stream will act as a root barrier along the site boundary	Protect the crown with an exclusion zone, for the duration of the build, enclosed with tree protection fencing in line with BS5837:2012, appendix 1 of this report and drawing number MP/FOX/01

T3	Field maple	34	3.3	Distant enough from the proposals not to be affected. The stream will act as a root barrier along the site boundary	Protect the crown with an exclusion zone, for the duration of the build, enclosed with tree protection fencing in line with BS5837:2012, appendix 1 of this report and drawing number MP/FOX/01
T4	Elm	48	3.9	Distant enough from the proposals not to be affected. The stream will act as a root barrier along the site boundary	Protect the crown with an exclusion zone, for the duration of the build, enclosed with tree protection fencing in line with BS5837:2012, appendix 1 of this report and drawing number MP/FOX/01
T5	Elm	u	u		
T6	Elm	U	U		
T7	Norway maple	5	1.2	remove and replace with a new tree in the landscape scheme	
T8	Ash	48	3.9	Distant enough from the proposals not to be affected. The stream will act as a root barrier along the site boundary	Protect the crown with an exclusion zone, for the duration of the build, enclosed with tree protection fencing in line with BS5837:2012, appendix 1 of this report and drawing number MP/FOX/01
T9	Horse chestnut	41	3.6	Distant enough from the proposals not to be affected. The stream will act as a root barrier along the site boundary	Protect the crown with an exclusion zone, for the duration of the build, enclosed with tree protection fencing in line with BS5837:2012, appendix 1 of this report and drawing number MP/FOX/01
G1	Elm		1.8	Distant enough from the proposals not to be affected. The stream will act as a root barrier along the site boundary	Protect the crown with an exclusion zone, for the duration of the build, enclosed with tree protection fencing in line with BS5837:2012, appendix 1 of this report and drawing number MP/FOX/01
G2	Elm		1.8	Distant enough from the proposals not to be affected. The stream will act as a root barrier along the site boundary	Protect the crown with an exclusion zone, for the duration of the build, enclosed with tree protection fencing in line with BS5837:2012, appendix 1 of this report and drawing number MP/FOX/01

T15	Silver birch	48	3.9	Distant enough from the proposals not to be affected.	Protect the crown with an exclusion zone, for the duration of the build, enclosed with tree protection fencing in line with BS5837:2012, appendix 1 of this report and drawing number MP/WSF/01
H1	Leylandi		3.6	Distant enough from the proposals not to be affected.	Protect the crown with an exclusion zone, for the duration of the build, enclosed with tree protection fencing in line with BS5837:2012, appendix 1 of this report and drawing number MP/WSF/01
T16	Cork oak	72	4.8	Distant enough from the proposals not to be affected.	Protect the crown with an exclusion zone, for the duration of the build, enclosed with tree protection fencing in line with BS5837:2012, appendix 1 of this report and drawing number MP/WSF/01

Appendix 1 – Protective fencing

Figure 3 Examples of above-ground stabilizing systems



Tree protection fencing should be installed in the position as shown in the tree constraints and protection plan for the site.



Appendix 2 – Temporary ground protection

If the drive is removed the root area within it, shown on drawing MP/FOX/01, will be protected using additional ground protection, prior to commencing building and demolition works.

This will protect the roots, and the soil around them, from damage by compaction, spillage and excavation.

For pedestrian access, only, a single thickness of scaffold board either suspended on a driven scaffold frame to form a suspended walkway, or on a non compressible layer (eg 100mm layer of bark mulch) laid over a geotextile.

For pedestrian operated plant, up to a gross weight of 2 ton, proprietary inter linked ground protection boards, placed on a non compressible layer (e.g. 100mm layer of bark mulch) laid over a geotextile.

For wheeled or tracked plant over 2 ton is gross weight, an alternative system (e.g. proprietary system or pre-cast reinforced concrete slabs) to an engineering specification designed to accommodate the likely load it will be subject to.

Appendix 3 – Report Caveats

1. The report is based on a ground level visual tree assessment (Mattheck).
2. No soil samples were taken for testing. If Soil analysis is required a soil engineer should be employed.
3. No pest and disease samples were taken or sent away for analysis.
4. It remains the responsibility of the tree owner to check TPO status prior to carrying out any works on the tree.
5. Physiological and structural assessments are valid for a period of 12 months. It is an external inspection only.
6. VTA of the tree was assessed only on date of inspection; it remains valid only if no environmental changes around the tree. If any changes should occur re-inspection should be carried out.
7. Environmental changes around the tree will render the report invalid.
8. No internal diagnostic equipment was used.
9. Any works to the trees should comply with BS3998:2010 Tree Work

Appendix 4 – References

BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.

NHBC Chapter 4.2 Building near trees

D Lonsdale 'Principles of Tree Hazard Assessment and Management'
Forestry Commission 2007

Strouts and Winter 'Diagnosis of ill health in trees'
Forestry Commission 2007

C Mattheck and H Breloer 'Body Language of Trees'