



PATRICK STILEMAN LTD

ARBORICULTURAL CONSULTANCY



Principal Consultant: Patrick Stileman BSc(Hons), MICFor, MRICS, Dip. Arb (RFS), CUEW, RC.Arbor. A

9 Chestnut Drive, Berkhamsted, Hertfordshire, HP4 2JL • Tel: 01442 866112
Email: patrick@treeconsulting.co.uk • www.treeconsulting.co.uk

ARBORICULTURAL IMPACT ASSESSMENT & ARBORICULTURAL METHOD STATEMENT

Project

Swindon Motorway Rest Area

Client

Moto Hospitality Ltd

Prepared by

Patrick Stileman BSc(Hons), MICFor, MRICS, Dip. Arb (RFS), RC.Arbor.A

Date

18th September 2023

Project reference

DS03072301

Table of Contents

	Page no
1. INTRODUCTION_____	1-3
2. BRIEF SITE DESCRIPTION_____	3
3. RELEVANT POLICY_____	4-5
4. THE TREES_____	5-6
5. PRINCIPAL ARBORICULTURAL IMPACTS_____	6-9
6. SUMMARY OF TREE WORK PROPOSED_____	10
7. TREE PLANTING_____	10
8. STORAGE OF MATERIALS AND WELFARE CABINS_____	10
9. SERVICES AND DRAINAGE_____	11
10. PROTECTION OF RETAINED TREES _____	11
11. CONCLUSIONS_____	11-12
12. REFERENCES_____	12
ARBORICULTURAL IMPACT PLAN_____	13
APPENDIX 1: Tree Survey Data and Key_____	14-18
APPENDIX 2: Arboricultural Method Statement for tree protection during development_____	19-24
TREE PROTECTION PLAN_____	25
APPENDIX 3: Qualifications and experience of Patrick Stileman_____	26

1 INTRODUCTION

1.1 I am Patrick Stileman, Director of Patrick Stileman Ltd. We are acting on instruction of the client, Moto Hospitality Ltd. I have qualifications and experience in arboricultural consultancy and I have given details of this in Appendix 3.

1.2 **Brief:** Patrick Stileman Ltd is instructed to appraise the impact to trees by the construction of a proposed motorway rest area adjacent to the west-bound carriageway at Junction 16 of the M4. In addition, we are to prepare details setting out how retained trees shall be protected through the development process.

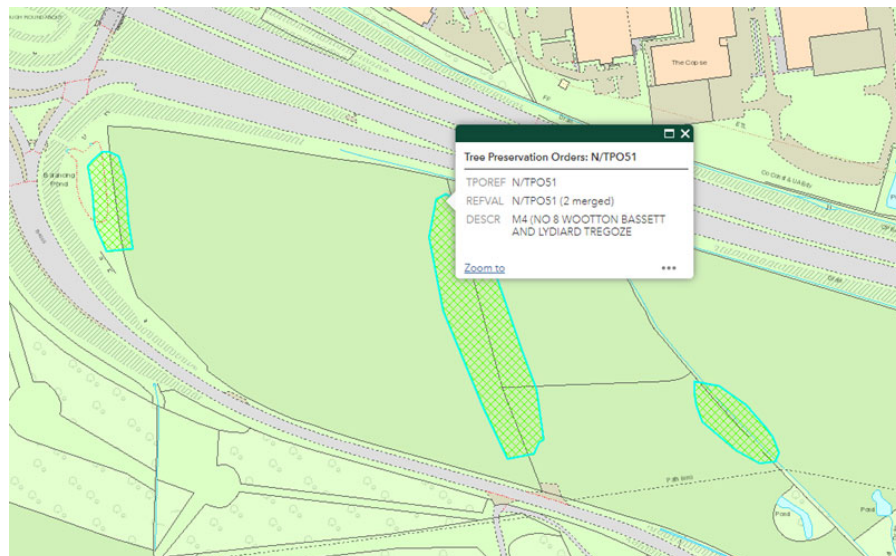
1.3 **Tree survey:** Trees at this site were surveyed in accordance with guidelines set out in British Standard 5837: 2012 '*Trees in relation to design, demolition and construction – Recommendations*' (hereafter referred to as BS5837) on 10th July 2023 by Andrew Colebrook MICFor, MRICS, Dip.Arb (RFS).

The Tree Survey Data is included as Appendix 1 of this report. The locations of trees and tree groups are based on the topographic survey and are shown on the Arboricultural Impact Plan (AIP) included within this report.

1.4 **Legal status of trees:**

1.4.1 The interactive GIS map on Wiltshire Council's website shows the presence of trees at the site which are protected by a tree preservation order (TPO) in three groups. See Figure 1 below.

Figure 1. Image taken from Wiltshire Council's GIS mapping



- 1.4.2 A copy of the TPO document has been obtained. The TPO reference is 51, and it was made in 1975.
- 1.4.3 The TPO plan shows the three protected groups on or adjacent to the site as G22, G23, and G24. See Figure 2 below.

Figure 2. Extract of plan from TPO 51



- 1.4.4 The TPO schedule states that group G22 comprises five elms; group G23 comprises two elms; G24 comprises two elms and one oak.

Figure 3. Extract of schedule from TPO 51

G.22	Group consisting of 5 English Elms	In Western boundary of O.S. Parcel 4564 NGR-SU 103 827
G.23	Group consisting of 2 English Elms	In Eastern boundary of O.S. Parcel 4564 NGR-SU 106 826
G.24	Group consisting of 2 English Elms and 1 Oak	In Western boundary of O.S. Parcel 8263 NGR-SU 107 826

- 1.4.5 **G22** is in the vicinity of H1 and Trees 3-7 of our survey. H1 is a hedgerow which includes semi-mature elms with a maximum stem diameter of 170mm. Trees 3-7 are all elms, with stem diameters of approximately 250mm.

G23 is in the vicinity of hedge H3 and Trees 11-13 of our survey. H3 includes semi-mature slender elms with maximum stem diameters of 200mm, and Tree 11 is a small elm (dying from Dutch elm disease) with a diameter of 200mm. Trees 12 and 13 are oak and willow respectively.

G24 is in the vicinity of hedges H6 & H7, and Tree 15 of our survey. There are no oaks, and the only elms are semi-mature with maximum stem diameters of 200mm.

- 1.4.6 The existing elm trees are younger than 48 years and are clearly not the original trees on which the TPO was made (which would almost certainly have been lost to Dutch elm disease). However, there is a chance that the existing trees have generated as suckers of the trees originally protected, in which event a case could possibly be made that they are protected by the TPO. I consider it unlikely that sufficient evidence exists to take this position, and consequently I consider that trees on site are probably not protected by the TPO.

- 1.5 **Proposed development:** The proposed development is as follows:

Outline application (with Access to be determined) for development of a new Motorway Rest Area (MRA) to provide up to 241 car parking spaces; up to 63 Heavy Goods Vehicle (HGV) parking spaces; coach and caravan parking; amenity building; fuel filling station; new access from B4005; and associated landscaping, infrastructure and ancillary works."

2 BRIEF SITE DESCRIPTION

- 2.1 The site is relatively flat and comprises two irregularly-shaped connecting open fields abutting the M4 Motorway along their northern boundary. The largest field, on the west side, has a length of approximately 250 metres and a width of approximately 190 metres. The smaller field to the east has dimensions of approximately 150m x 110 metres.
- 2.2 The western field has a short section of vegetation close to its western boundary. Elsewhere, the principal vegetation forms a hedge with occasional trees along its eastern boundary. The eastern field has vegetation comprising grown-out hedges, with occasional trees along all its boundaries, though this is gappy in places along its northern side. There are no trees within the fields – all woody vegetation is confined to the boundaries.

3 RELEVANT POLICY

3.1 National Planning Policy Framework (July 2021)

3.1.1 The National Planning Policy Framework (NPPF) has at its heart, a presumption in favour of sustainable development that is set out in Paragraph 11.

3.1.2 At 170 b) the NPPF requires that policies and decisions should contribute to and enhance the natural environment by recognizing the benefits and ecosystem services provided by (amongst other things) trees and woodland.

3.1.3 The NPPF refers specifically to trees at 131 and at 180 c). These state as follows:

131. Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined [50](#), that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.

180 (c) 'development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists'

3.2 Local plan policies

3.2.1 The current development plan adopted by Wiltshire Council (relevant to this application) comprises the Wiltshire Core Strategy adopted in 2015, and saved policies from the North Wiltshire Local Plan 2011 not replaced by the Core Strategy. The Council is currently consulting to inform the development of a new Local Plan.

3.2.2 Policy CP51 and CP57 of the Core Strategy references trees.

CP51 (Landscape) states that certain aspects of landscape character must be preserved and, where possible, enhanced. These aspects of landscape character are listed and at i. this includes: *'The locally distinctive pattern and species composition of natural features such as trees, hedgerows, woodland, field boundaries, watercourses and waterbodies'*.

CP57 (Ensuring high quality design and place shaping) requires at ii. *‘The retention and enhancement of existing important landscaping and natural features (e.g. trees hedges banks and watercourses)...’*

- 3.2.3 Policy N14 is a saved policy from the North Wiltshire Local Plan 2011. This relates to trees and states as follows:

NE14 TREES, SITE FEATURES AND THE CONTROL OF NEW DEVELOPMENT

Permission will not be granted for proposals that would result, or be likely to result, in the loss of trees, hedges, lakes/ponds or other important landscape or ecological features that could be successfully and appropriately incorporated into the design of a development.

Planning conditions will be imposed and Tree Preservation Orders made, for safeguarding single and small groups of trees in the interests of public amenity.

4 THE TREES

- 4.1 **Condition:** In total 17 individual trees, 3 tree groups, and 7 hedges were included in the survey. Their condition has been classified in line with BS 5837:2012, and the survey data has been included as Appendix 1.

The grading system is as follows:

U = Trees unsuitable for retention. Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. These trees are shown on the tree plans with dark red centres.

A = Trees of high quality. Trees of high quality with an estimated remaining life expectancy of at least 40 years. These trees are shown on the tree plans with green centres.

B = Trees of moderate quality. Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. These trees are shown on the tree plans with blue centres.

C = Trees of low quality. Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm. These trees are shown on the tree plans with grey centres.

- 4.2 Category A and Category B trees are divided further into sub-categories. Sub-category 1 is allocated where it is assessed that the tree has significant arboricultural value. Sub-category 2 is allocated where it is assessed that the tree has significant landscaping or screening value. Sub-category 3 is allocated where it is assessed that the tree has significant cultural or conservation value.
- 4.3 Trees may be allocated more than one sub-category. All sub-categories carry equal weight, with for example an A3 tree being of the same importance and priority as an A1 tree.
- 4.4 We do not allocate sub-categories to Category C trees.
- 4.5 The number of trees or groups of trees included in the survey under each BS5837 classification is as follows:

Classification (BS5837)	Number
U	4
A	0
B	13
C	10

5 PRINCIPAL ARBORICULTURAL IMPACTS

- 5.1 **Root Protection Areas:** The Arboricultural Impact Plan shows the position of the Root Protection Area (RPA) for trees being retained. BS5837 (section 3.7) defines the RPA as a '*layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority*'. The RPA is an area based on a circle with a radial distance of 12x the stem diameter at 1.5 metres in the case of single-stemmed trees, or 12x the combined stem diameter (calculated in accordance with a formula set out in BS5837) in the case of multi-stemmed trees.
- 5.2 In situations where the site conditions clearly prevent consistent rooting around trees I modify the shape of the RPA to take this into account. At this site I have not considered it necessary to adjust the RPA shape for any tree, and RPAs shown are all based on circles.

For a visual overview of the arboricultural impacts across the site refer to the Arboricultural Impact Plan (AIP) included on Page 13 of this report.

Specific impacts of the scheme on trees which I consider warrant further discussion are as follows:

5.3 **Trees 3-7 and H1**

- 5.3.1 This vegetation is located along the western boundary of the site, and comprises a young hedgerow predominantly English elm, with small grown-out standard elm trees of which one (Tree 4) has died due to Dutch elm disease and shall be removed.
- 5.3.2 It is proposed that the vegetation shall be retained - sufficient off-set is provided between the edge of the vegetation and the 'abnormal load' parking bay proposed adjacent to it to facilitate retention of the vegetation without causing damage to it.

Photograph 1. *Vegetation along the western boundary*



5.4 **Tree 12 – Pedunculate oak**

- 5.4.1 This is a hedgerow tree growing on the eastern boundary of the largest field. Although relatively small with a height of 12 metres it is the largest on site, and as such is prominent in the context of the site. It is proposed that Tree 12 shall be retained.
- 5.4.2 Tree 12 has two stems from ground level which combine to give an RPA radius of 6.9 metres. The proposed access road is the closest built development from the tree, at a distance of 8.7 metres which is comfortably beyond the tree's RPA.

Photograph 2. Tree 12 within the hedgerow H3



5.5 **Tree 13 – Crack willow**

- 5.5.1 This tree is located approximately 10m to the south of Tree 12 within the same boundary vegetation.
- 5.5.2 Tree 13 is in poor condition – it has extensive crown dieback, damage from past limb failures, and has extensive basal decay. There is a foreseeable hazard of the tree failing to the west (over the site). We have graded the tree Category U, and it is proposed to be removed for reasons of sound management.

Photograph 3. Tree 13



5.6 Hedge H3

- 5.6.1 This is a mature un-managed hedge along the eastern boundary of the largest field, separating it from the smaller one. H3 has a length of 230 metres.
- 5.6.2 The vast majority of hedge H3 shall be retained. The layout has been designed to provide sufficient off-set from the hedge to facilitate its retention without damage being caused to it.
- 5.6.3 In two locations it is proposed that new access points for agricultural purposes shall be created to connect with fields to the east of the main part of the site. Where these are required, localised hedge removal is proposed. The combined length of hedge loss required for the two access points is approximately 20 metres.

6. SUMMARY OF TREE WORK PROPOSED

6.1 The following tree work is proposed (refer also to the Arboricultural Impact Plan):

Tree No	Species	BS5837 Cat	Work required
4	Elm (dead)	U	Remove for reasons of sound management
11	Elm (dying)	U	Remove for reasons of sound management
13	Crack willow (see 5.5)	U	Remove for reasons of sound management
G1	Blackthorn	C	Remove to facilitate development
H3	Various species	B2	Remove two sections to facilitate farm access to fields adjacent

6.2 All work specified must be undertaken in accordance with BS3998 (2010).

6.3 Wildlife

6.3.1 Nesting birds, bats and bat roosts are protected by law. It is the duty of the contractors to satisfy themselves prior to commencement that neither these, nor any protected species shall be adversely affected by the proposed work. Work should be undertaken in accordance with BS8596:2015: *Surveying for bats in trees and woodland – Guide*.

7 TREE PLANTING

7.1 The proposed development includes areas of open space throughout the motorway rest area on which new tree planting can be provided. Details of proposed tree planting can reasonably be provided via a planning condition.

8 STORAGE OF MATERIALS, WELFARE CABINS, AND CONSTRUCTION DETAILS

8.1 At this stage full construction details have not been worked up and the methodology for construction, location of site welfare cabins and areas for material storage have not been provided. However, there is adequate scope for this across the site without impacting on retained trees or hedges and details can reasonably be provided as part of a comprehensive Construction Management Plan via planning condition if required, prior to work commencing on site.

9 SERVICES AND DRAINAGE

- 9.1 Outside the areas that will be protected by Tree Protection Fencing (see Tree Protection Plan on Page 25) there are no restrictions from a tree perspective for the installation of services and drainage. Surface water run-off shall be captured by drainage features across the site which are indicated on the site layout plan.
- 9.2 **There shall strictly be no excavation for service installation within the RPA of retained trees unless approved and supervised by the project arboriculturist.** If excavation for this is ultimately required in proximity to trees, they shall be installed in accordance with guidelines set out in National Joint Utilities Group (NJUG) Volume 4 (2007). This can be downloaded at no charge from the following website: <http://www.njug.org.uk/publication/51>

10 PROTECTION OF THE RETAINED TREES

- 10.1 Providing the recommendations set out in the Arboricultural Method Statement and Tree Protection Plan (see Appendix 2) are adhered to, I am satisfied that the trees to be retained will be adequately protected during the development process.
- 10.2 Work must be undertaken in accordance with the Arboricultural Method Statement and Tree Protection Plan.

11 CONCLUSIONS

- 11.1 Trees were surveyed prior to the layout design, and the constraints posed by the trees have informed the design process.
- 11.2 No trees are proposed for removal to facilitate the development – the three trees to be removed shall be for reasons of sound management. For the purpose of development facilitation only one area of scrubby blackthorn shrubs (G1) and two short sections of hedge shall be removed. As a consequence, I assess that the arboricultural impact is very low, with scope to significantly improve the tree canopy cover across the site through new tree planting.

- 11.3 I consider that the scheme proposed is acceptable from an arboricultural perspective, and is compliant with national and local policy relating to trees. I do not consider that there are reasonable grounds for planning consent to be refused due to impact on trees.

12 REFERENCES

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

BSI BS3998:2010: *Tree Work - Recommendations*

BSI BS8596:2015: *Surveying for bats in trees and woodland – Guide.*

National Planning Policy Framework 2021.

NJUG (2007): Publication no. 10 *Guidelines for the planning, installation and maintenance of utility services in proximity to trees.* National Joint Utilities Group, London



PATRICK STILEMAN BSc(Hons), MICFor, MRICS, Dip.Arb(RFS), RC.Arbor.A
Chartered Arboriculturist. Arboricultural Association Registered Consultant

This drawing must be
viewed in colour

ARBORICULTURAL IMPACT PLAN

PROJECT

Junction 16, M4

CLIENT

Moto Hospitality Ltd

JOB REF

DS03072301

DRAWING NO

DS03072301.02-A

DATE

29/08/2023

Patrick Stileman Ltd
9 Chestnut Drive, Berkhamsted, Herts,
HP4 2JL 01442 866112



KEY

Tree / tree group for retention

Tree / tree group for removal to facilitate development

Tree / tree group for removal for reasons of sound management

Root Protection Area (RPA) for retained tree / tree group

BS 5837 category key

Category U tree

Category A tree

Category B tree

Category C tree

SCALE

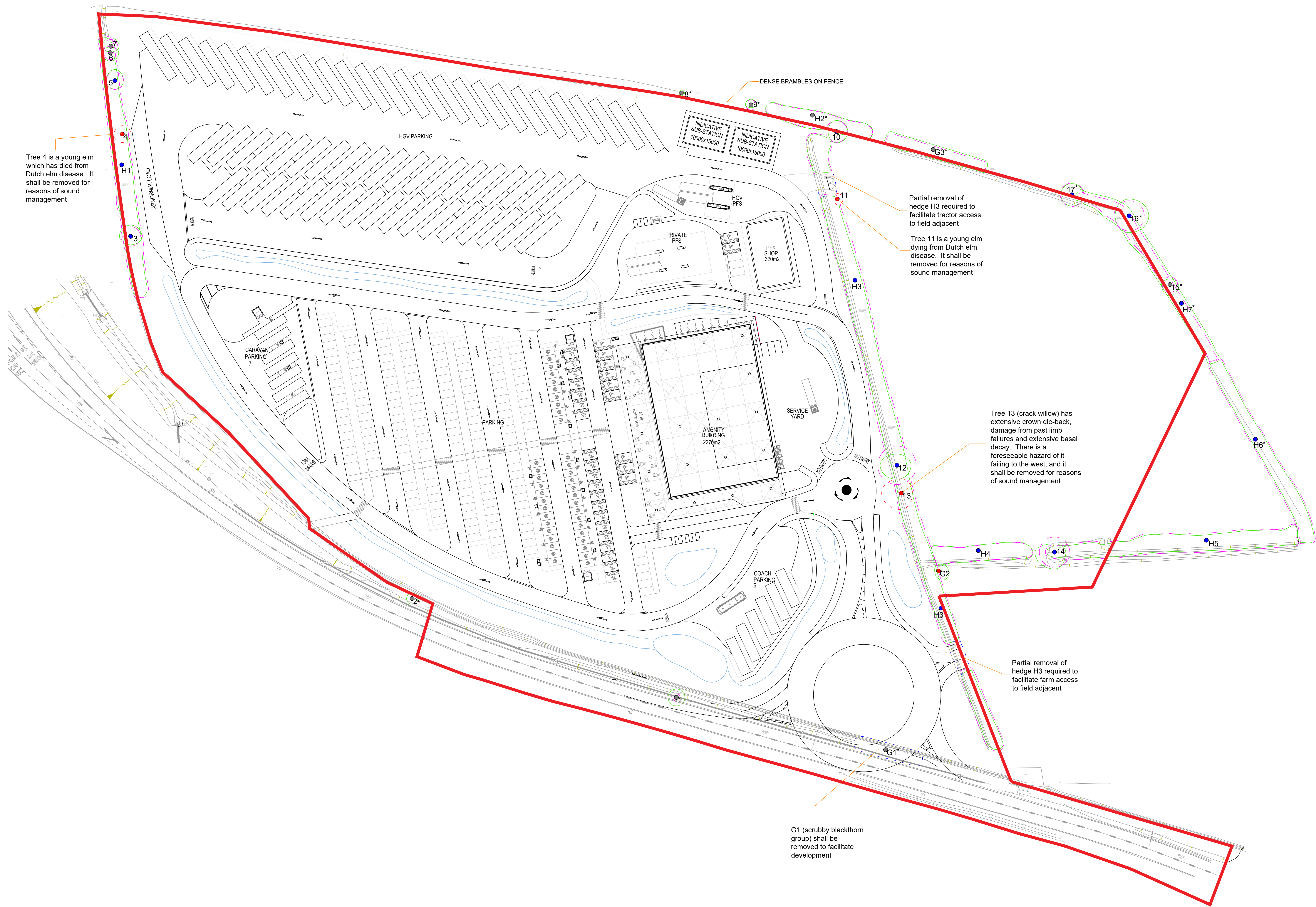
1:500 @ A0

0 10m 20m 30m 40m

NOTE:

Stem diameters are not drawn to scale. See schedule for dimensions.

This drawing is based on a topographic survey provided by the client. Tree and tree group positions marked with a* were not shown on the topographic survey and their positions shown on this plan are indicative only.



APPENDIX 1

TREE SURVEY DATA AND KEY

For the schedule of tree work proposed, refer to Section 6 of this document

KEY TO TREE SURVEY DATA

Tree / Group reference: Tree numbers as shown on the Tree Survey Plan. Where trees form a coherent group, they have been assessed as a group, and are shown in the survey and on the plan prefixed with the letter G.

Species: These are listed in the schedule by their common name. The botanical names of the principal species present are as follows:

Hawthorn: *Crataegus monogyna*

Crack willow: *Salix fragilis*

Elm: *Ulmus procera*

Ash: *Fraxinus excelsior*

Pedunculate oak: *Quercus robur*

Blackthorn: *Prunus spinosa*

Dogwood: *Cornus sanguinea*

Elder: *Sambucus nigra*

Field maple: *Acer campestre*

Goat willow: *Salix caprea*

Ht. (m): The height of the tree is measured or estimated to the nearest metre.

Crown spread – NSWE: Radial crown spread measured or estimated, rounded up to the nearest metre, for north, south, west and east.

Crown base: The height above ground level and orientation of the lowest permanent crown base (excluding basal, and small epicormic growth).

Stem count: For trees recorded as individuals, the number of stems recorded for the purpose of RPA calculation (where stem numbers exceed 5 an average diameter is assessed).

Stem dia: In the first column the stem diameter is recorded for trees with a single stem, or the first measured stem where there are fewer than five, or the average stem diameter for trees with more than 5 stems. The diameter of individual stems for trees with up to five stems is recorded in columns 2-5. Measurements are shown in mm, rounded to the nearest 10. In some situations it is not possible to measure the diameter of stems, and for these estimates are made. When stem diameters have been estimated they are written in *italics*. Measurements are taken in accordance with BS5837 Annex C. For tree groups, stem measurements are recorded for the largest tree in the group.

RPA Rad: This shows the radius of the notional RPA circle in metres to be centered on the tree, based on the calculation made using the stem diameter.

RPA Area: This shows the calculated RPA in m² for each tree (as individuals or within groups). If the notional RPA circle is adjusted (see 4.6) the area must be maintained. The RPA area is capped at 707 m², equivalent to a circle with a radius of 15m.

Life Stage: An assessment of the tree's stage of life, where: Y = young, SM = semi-mature, EM = early-mature, M = mature, and OM = over-mature.

Phys. Condition: The physiological condition of the tree, reflecting the condition of the vascular system as indicated by leaf and shoot vitality. The physiological condition is not a comment on the tree's structural condition. The physiological condition codes used are G = good; F = fair; P = poor; D = dead.

Condition and observations: Description of general tree condition, including structural integrity, the presence of hazards, pests and diseases which may affect the tree's retention span.

Preliminary management recommendations: Work required to trees for reasons of sound arboricultural management only, **not for development facilitation** (for this refer to Section 6 of AIA). This is not to be taken as a list of tree work required prior to development activity, but provides management recommendations for trees in their current context.

Ret span: Estimated remaining likely retention span based on species, condition & context. The following longevity bands are used: <10; 10-20; 20-40; >40. The retention span assessment is based on trees in their current context.

Grade: Quality & Value classification according to BS 5837:2012 (see 4.1).

TREE SURVEY DATA : JUNCTION 16, M4

Tree / Group reference	Species	Ht. (m)	Crown Spread (m)				Crown base (m)	Stem Count	Stem Dia. (mm)					RPA Rad. (m)	RPA Area (m2)	Life Stage Y-SM-EM- M-OM	Phys. Condition G-F-P-D	Condition and observations	Work proposed	Ret. Span <10, 10+ 20+, >40	Grade U-A-B-C
			N	S	W	E			1 / mean	2	3	4	5								
1	Hawthorn	3.5	3	3	3	3	0.5 N	0.5	3	70	60	60		1.33	6	SM	G	Scrubby multi-stemmed specimen outside of field boundary fence in highway verge. Tree of relatively low significance.	No action required at time of survey	40+	C
2	Crack willow	5	2	2	2	2	1 W	1	10	80				0.97	3	SM	F	Multi-stemmed specimen outside field boundary fence. Low arboricultural merit.	No action required at time of survey	40+	C
3	Elm	7	4	3	4	4	2 E	2	2	230	180			3.51	39	EM	G	Twin-stemmed specimen located in centre of hedge.	No action required at time of survey	20+	B1
4	Elm	7	3	3	3	3	1 E	1	1	210				2.53	20	EM	P	Upright specimen. Typical foliage desiccation and crown decline associated with infection by Dutch elm disease.	No action required at time of survey	<10	U
5	Elm	8	4	3	3	3	2 N	3	1	260				3.13	31	EM	G	Upright stem. Principal branch structure and unions in satisfactory condition.	No action required at time of survey	20+	B1
6	Elm	7	2	3	3	3	1.6 E	2	1	200				2.41	18	SM	F	Upright stem. Specimen shares close companion shelter with adjacent elm. Satisfactory condition. Tree of relatively low significance.	No action required at time of survey	20+	C
7	Elm	7	3	2	3	3	1.1 W	1.2	1	200				2.41	18	SM	F	Upright stem. Specimen shares close companion shelter with adjacent elm. Satisfactory condition. Tree of relatively low significance.	No action required at time of survey	20+	C
8	Hawthorn	3.5	1	1	1	1	1 S	1	1	80				0.97	3	Y	F	Remote assessment. Small tree in brambles outside field boundary fence.	No action required at time of survey	40+	C
9	Ash	5	2	1	2	2	2 W	2	1	150				1.81	10	SM	F	Remote assessment. Small tree in brambles outside field boundary fence.	No action required at time of survey	40+	C
10	Elm	8	4	4	3	4	1.2 S	1.2	1	320				3.85	47	EM	G	Stem and principal branch structure and unions in satisfactory condition.	No action required at time of survey	20+	B1
11	Elm	8	2	2	1	2	1.5 N	1	1	200				2.41	18	SM	P	Slender stem. Onset of foliage desiccation and decline associated with Dutch elm disease.	No action required at time of survey	<10	U
12	Pedunculate oak	12	4	5	6	5	2 W	2	2	410	400			6.88	149	M	G	Twin-stemmed from ground level with relatively minor old wound near ground level west associated with loss of historic former stem. Stems twist into contact at ca. 4 metres. Satisfactory overall condition.	No action required at time of survey	40+	B1
13	Crack willow	10	5	6	7	4	2 W	2	1	840				10.09	320	OM	F	Stout lower stem, now substantially decayed as revealed by sounding with nylon mallet. Multiple major scaffold limb failures leaves a substantially consolidated crown comprising a few residual limbs and vigorous young growth upon remaining structure. Remaining crown is substantially weighted to west, which is likely to exacerbate the poor structural condition of the lower stem. Whilst the condition provides features of habitat potential, the basal condition increases the likelihood of major collapse, considered likely in the short-term.	No action required at time of survey. Reassess management if occupancy increases within fall radius to west of tree.	<10	U
14	Pedunculate oak	9	3	6	7	4	1.6 S	2	2	420	170			5.44	93	M	G	Ditch to south. Small secondary stem suppressed at east. Principal stem 8nitially swept to south. Crown bias to south. Satisfactory overall condition.	No action required at time of survey	40+	B1
15	Ash	8	2	4	3	3	1 S	1	3	170	130	80		2.75	24	SM	F	Remote assessment. Multi-stemmed specimen beyond fence within hedgerow. Minor scattered distal decline possibly onset of ash dieback.	No action required at time of survey	10+	C

Tree / Group reference	Species	Ht. (m)	Crown Spread (m)				Crown base (m)	Stem Count	Stem Dia. (mm)					RPA Rad. (m)	RPA Area (m2)	Life Stage Y-SM-EM- M-OM	Phys. Condition G-F-P-D	Condition and observations	Work proposed	Ret. Span <10, 10+ 20+, >40	Grade U-A-B-C
			N	S	W	E			1 / mean	2	3	4	5								
16	Pedunculate oak	9	6	6	5	7	2 E	2	1	450				5.41	92	M	G	Stem located ca. 2 metres beyond boundary fence. Low squat form. Satisfactory overall condition.	No action required at time of survey	40+	B1
17	Pedunculate oak	7	4	4	4	4	2 S	2	1	350				4.21	56	EM	G	Remote assessment. Stem located ca. 1.5 metres beyond boundary fence. Low squat form. Satisfactory overall condition.	No action required at time of survey	40+	B1
G1	Blackthorn	5	2	2	2	2	0.5 N	0.5	1	130				1.57	8	SM	G	Close-set thicketting lozenge shaped cluster on field boundary. Scrubby specimens, becoming smaller to either end. Low arboricultural merit.	No action required at time of survey	40+	C
G2	Elm	8	2	2	2	2	1.2 S	1.3	1	210				2.53	20	SM	F	Close-set pair share common crown profile. Onset of foliage desiccation and decline associated with Dutch elm disease.	No action required at time of survey	<10	U
G3	Dogwood, pedunculate oak, blackthorn	4	2	2	2	2	0.5 S	0.5	1	125				1.51	7	SM	G	Remote assessment. Dispersed small trees and saplings beyond boundary fence. Generally scrubby trees largely obscured by dense brambles upon fence.	No action required at time of survey	40+	C
H1	Elm, blackthorn, hawthorn, elder	4-5	2	2	2	2	0.5 N	0.5	1	170				2.05	13	SM	F	Hedgerow comprising thorn species from former hedgerow now with frequent scrubby elms becoming dominant, of which some display typical decline and occasional dead specimens due to Dutch elm disease. Scrubby overall condition albeit effective screening.	No action required at time of survey	20+	B2
H2	Elm, field maple, blackthorn, hawthorn	7	2	2	2	2	0.5 S	0.5	1	150				1.81	10	SM	F	Most specimens beyond boundary fence. Slender elms over scrubby blackthorn and occasional hawthorn. This hedge appears to be a later origin and resulting from lack of management. Hedgerow of relatively low significance.	No action required at time of survey	20+	C
H3	Elm, blackthorn, hawthorn, goat willow	8	2	2	2	2	0.5 W	0.5	1	200				2.41	18	SM	F	Slender elms over scrubby blackthorn and occasional hawthorn. scattered elms display typical decline and occasional dead specimens. Goat willow recorded at south end. Unremarkable individuals but collectively providing an effective screening function. Sides periodically flailed.	No action required at time of survey	20+	B2
H4	Elm, blackthorn, hawthorn, pedunculate oak	4-7	2	2	2	2	0.5 S	0.5	1	150				1.81	10	SM	F	Ditch to south. Scattered elms over thorn species. Elms in varying condition, some dead and dying. Sides periodically flailed.	No action required at time of survey	20+	B2
H5	Hawthorn, blackthorn, elm,	5-8	2	2	2	2	0.5 S	0.5	1	210				2.53	20	SM	F	Ditch to south. Scattered elms over thorn species. Elms in varying condition, some dead and dying. Sides periodically flailed.	No action required at time of survey	20+	B2
H6	Hawthorn, blackthorn, elm,	5-7	2	2	2	2	0.5 W	0.5	1	200				2.41	18	SM	F	Scattered elms over thorn species. Elms in varying condition, some dead and dying. West side periodically flailed.	No action required at time of survey	20+	B2
H7	Blackthorn, hawthorn	4	2	2	2	2	0.5 W	0.5	1	100				1.21	5	SM	F	Flailed hedgerow, no elm component. Relatively compact/homogenous dimensions.	No action required at time of survey	20+	B2

APPENDIX 2

ARBORICULTURAL METHOD STATEMENT FOR TREE PROTECTION DURING DEVELOPMENT

SITE

Swindon Motorway Rest Area

18th September 2023

1 INTRODUCTION

- 1.1 **Brief:** Patrick Stileman Ltd is instructed to prepare an Arboricultural Method Statement (AMS) setting out how retained trees shall be protected during the construction of a proposed motorway rest area adjacent to the west-bound carriageway at Junction 16 of the M4.
- 1.2 This Method Statement is to be made available to all operatives on site.
- 1.3 This AMS is to be read in conjunction with the Tree Protection Plan (TPP) dated 23rd August 2023, drawing number DS03072301.03 included on Page 25 of this report.
- 1.4 This Method Statement has been written taking into account requirements set out in British Standard 5837:2012 '*Trees in relation to design, demolition and construction – Recommendations*' (hereafter referred to as BS5837).

2 TIMING OF OPERATIONS

- 2.1 The timing of operations is essential if trees are to be effectively protected. Figure 1 in BS 5837:2012 provides guidance for the sequential order of events on development sites. At this site, operations are to occur in the following sequence:
 1. Tree work contractors to be shown vegetation for removal, and the appropriate work subsequently undertaken.
 2. **Hold pre-commencement site meeting with project arboricultural consultant and site contractors prior to the commencement of any development work on site. The purpose of this meeting is to ensure that the contractors are fully briefed and understand the requirements of this method statement.**
 3. Erect Tree Protection Fencing (TPF) in the locations shown on the TPP by the solid red line. See Section 3.
 4. Install services and drainage – see Section 4.
 5. Undertake landscaping work – see Section 5.

3 TREE PROTECTION FENCING (TPF)

- 3.1 **Before** the commencement of any work on-site, TPF is to be erected to protect the trees being retained in the positions shown on the TPP by the solid red lines.
- 3.2 Once erected, the protective fencing is to be regarded as sacrosanct. There is to be no access by pedestrians into the area protected by the TPF and no works carried out whatsoever in this zone including: the storage of materials, any form of excavation, or changes in levels. The protective fencing is to be maintained in good order so that it is fit for purpose throughout the construction process. The fencing will not be altered in any way, or prematurely removed without prior agreement from the project arboriculturalist.
- 3.3 **Specification of TPF**
- 3.3.1 TPF is to be constructed of 2.2 metre height weldmesh (Herras type) panels, as set out on the insert on the TPP. The panels are to be fixed to a scaffold framework either with wire ties or with scaffold clamps. The scaffolding shall comprise a vertical and horizontal framework, well braced to resist impacts, with vertical tubes spaced at a maximum of 3 metres or alternatively at panel width, and driven into the ground by 0.6 metres. It is not sufficient to place the panels in rubber or concrete 'boots' alone.

Photograph showing example of TPF



4 SERVICES AND DRAINAGE

- 4.1 Outside the areas that will be protected by TPF there are no restrictions from a tree perspective for the installation of services and drainage. Surface water run-off shall be captured by drainage features across the site which are indicated on the site layout plan.
- 4.2 **There shall strictly be no excavation for service installation within the RPA of retained trees unless approved and supervised by the project arboriculturist.** If excavation for this service installation is ultimately required in proximity to trees, they shall be installed in accordance with guidelines set out in National Joint Utilities Group (NJUG) Volume 4 (2007). This can be downloaded at no charge from the following website: <http://www.njug.org.uk/publication/51>

5 LANDSCAPING WITHIN THE RPA OF RETAINED TREES

- 5.1 Landscaping shall be undertaken after all other development work has been completed. Prior to landscaping commencing the project arboriculturist shall meet the landscape contractors on site to discuss what is proposed and precautions required around trees. TPF shall be removed prior to landscape work commencing to enable access across the site.
- 5.2 The following principles shall be followed where work is proposed within the RPA of retained trees:
- No machinery shall pass over the ground unless protected by ground protection
 - If excavation is required this shall be localised and undertaken with hand tools only ensuring that roots are preserved
 - There shall be no changes in levels unless agreed by the project arboriculturist

6 GENERAL PRECAUTIONS

- 6.1 **Storage of materials:** No materials or spoil are to be stored over the RPA of trees unless the ground is protected either with the existing hard surfacing, or temporary ground protection.

- 6.2 **Levels:** There is to be no alteration of ground levels within the RPA of trees unless previously specified.
- 6.3 **Excavation:** There shall be no excavation within the RPA of trees unless previously specified.
- 6.4 **Above ground damage to trees:** Care must be taken in planning the location and operation of machinery to avoid above ground damage to trees. BS5837 (2012) Section 6.2.4.1 states *‘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. Such contact can result in serious damage to trees and might make their safe retention impossible. Consequently, any transit or traverse of plant in proximity to trees should be conducted under the supervision of a banksman, to ensure that adequate clearance of trees is maintained at all times. Access facilitation pruning should be undertaken where necessary to maintain this clearance.*

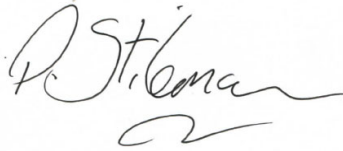
7 ARBORICULTURAL SUPERVISION

- 7.1 A project arboriculturist shall be appointed to oversee work and to ensure that contractors fully understand the requirements for the protection of retained trees, as set out in this document.
- 7.2 All work shall be undertaken in accordance with details shown on the TPP within this document, and included in this Arboricultural Method Statement.
- 7.3 **Pre-commencement site meeting.** Prior to any work commencing on the site (following specified vegetation removal) there shall be a pre-commencement site meeting between the project arboriculturist and the site contractors.

During this meeting the following shall be established and discussed:

- A person (who shall attend the pre-commencement meeting) shall take personal responsibility to ensure that all workers on the site understand the requirements for tree protection as set out on the TPP and AMS. This person is likely to be the site foreman.
- The position and specification of the TPF.
- The prohibitions associated with land protected by TPF, general principles for tree protection during work, and the requirement to maintain communication with the project arboriculturist.

- 7.4 **Supervision schedule.** Following the initial pre-commencement meeting the project arboriculturist shall attend the site at the following times:
- Following installation of the TPF
 - Immediately prior to the commencement of landscaping.
 - Once every two months during the construction process to ensure compliance with the measures set out for tree protection.
- 7.5 **Procedure for dealing with variations / incidents.** In the event that there are breaches in the tree protection procedure these shall be reported back to the project arboriculturist by the appointed person immediately on becoming apparent.
- 7.6 **Reporting.** Following each site visit a site monitoring report shall be prepared, describing what was seen and discussed with regards to tree protection measures. The site monitoring report shall include any breaches and mitigation specified.



PATRICK STILEMAN BSc(Hons), MICFor, MRICS Dip.Arb(RFS), RC.Arbor.A
Chartered Arboriculturist. Arboricultural Association Registered Consultant

LANDSCAPING WITHIN RPAs

After construction has been completed the tree protection fencing shall be removed as required to facilitate access for landscaping.

The following principles shall be applied during the landscaping stage

Within the RPA of retained trees:

- No machinery shall pass over the ground unless the ground is protected by temporary ground protection
- If excavation is required, this shall be localised and undertaken carefully by hand tools only ensuring that roots are preserved
- No changes in levels, unless agreed by the project arboriculturist

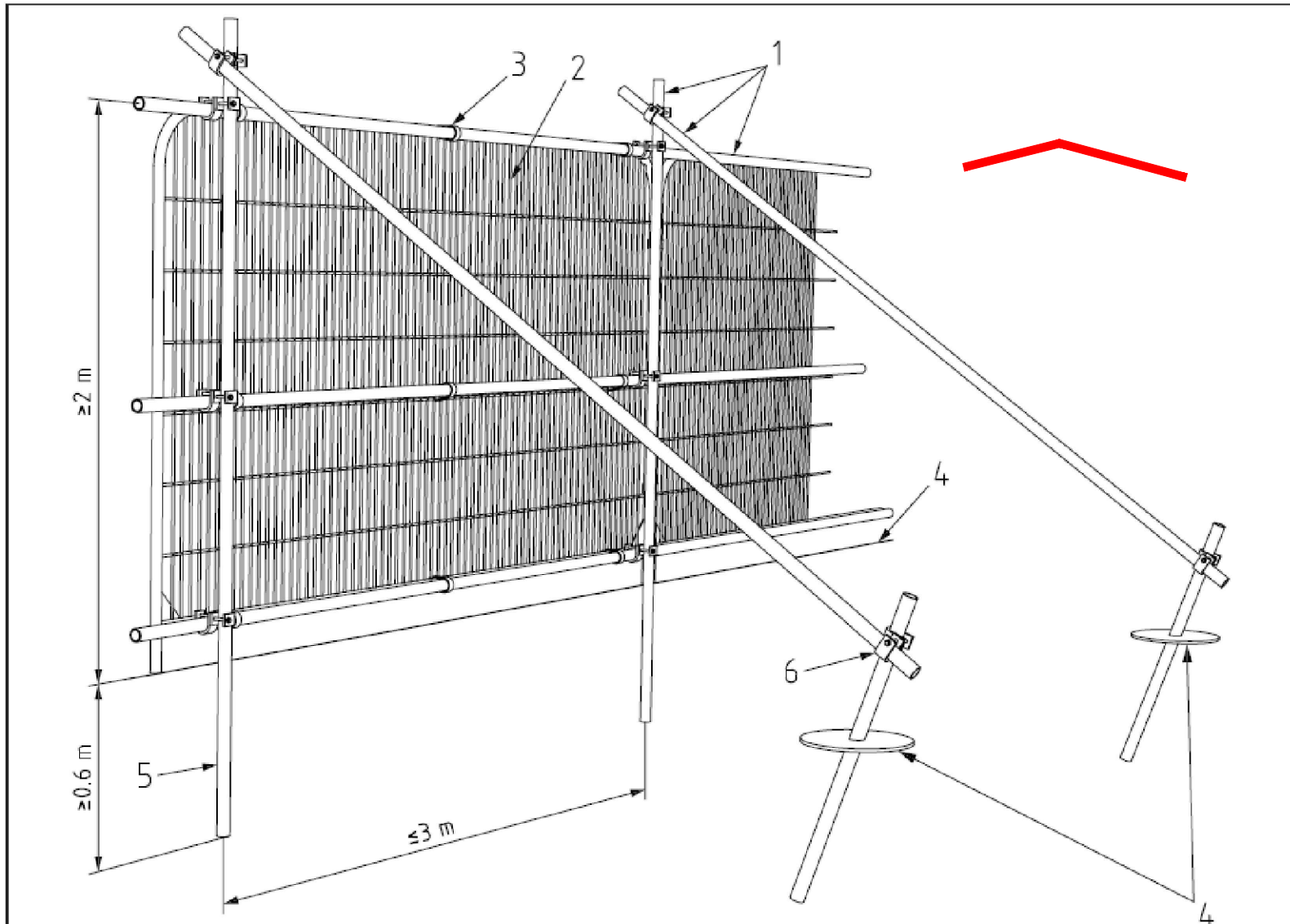
ARBORICULTURAL SUPERVISION

A qualified arboriculturist shall provide on-going site supervision during work at this site.

The critical times when site supervision is required are:

- Prior to construction work starting, hold a pre-commencement site meeting. This meeting shall be attended by site managers and contractors to discuss what is required to ensure that retained trees are protected throughout the construction process. During this meeting a site supervisor will be appointed to take responsibility for tree protection and to report any breaches.
- Following installation of TPF (solid red lines)
- Immediately prior to the commencement of landscaping work

TPF SPECIFICATION



- Key
- Standard scaffold poles
 - Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
 - Panels secured to uprights and cross-members with wire ties
 - Ground level
 - Uprights driven into the ground until secure (minimum depth 0.6 m)
 - Standard scaffold clamps

This drawing must be viewed in colour

NOTE:

No work shall commence on site until an arboricultural pre-commencement meeting has taken place

NOTE:

The construction exclusion zone (CEZ) is the area protected by tree protection fencing. Within the CEZ the following exclusions shall apply:

- No excavation (including trenching for services)
- No storage of materials or equipment over unprotected ground
- No changes in levels
- No access

The fencing shall be maintained in a condition fit for purpose throughout the construction process

TREE PROTECTION PLAN

PROJECT

Junction 16, M4

CLIENT

Moto Hospitality Ltd

JOB REF

DS03072301

DRAWING NO

DS03072301.03

DATE

23/08/2023

Patrick Stileman Ltd
9 Chestnut Drive, Berkhamsted, Herts,
HP4 2JL 01442 866112

KEY

Tree / tree group for retention

Root Protection Area (RPA) for retained tree / tree group

Position of Tree Protection Fencing (TPF) to be erected prior to the commencement of any work on site and retained in-situ until completion, or immediately prior to landscaping work if access for this is required (see also landscaping box)

BS 5837 category key

- Category U tree
- Category A tree
- Category B tree
- Category C tree

SCALE

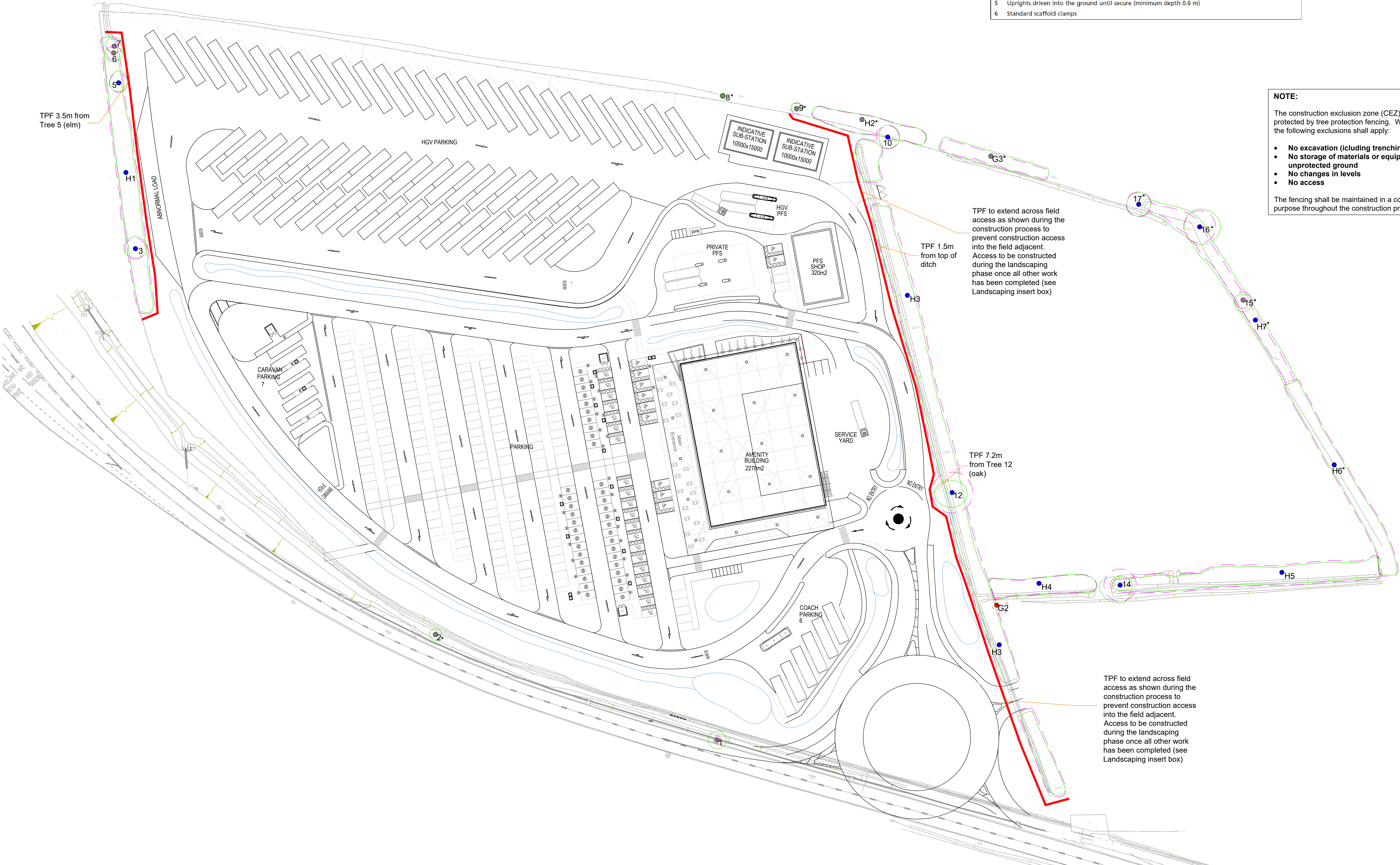
1:500 @ A0

0 10m 20m 30m 40m

NOTE:

Stem diameters are not drawn to scale. See schedule for dimensions.

This drawing is based on a topographic survey provided by the client. Tree and tree group positions marked with a* were not shown on the topographic survey and their positions shown on this plan are indicative only.



APPENDIX 3

Qualifications and experience of Patrick Stileman BSc(Hons), MICFor, Dip.Arb(RFS), RC.Arbor.A

I am Patrick Stileman, Director of Patrick Stileman Ltd Arboricultural Consultancy.

My qualifications in arboriculture are as follows:

National Certificate in Arboriculture *Nch(arb)*

The Arboricultural Associations Technicians Certificate *Tech.Cert (Arbor.A)*

The Royal Forestry Society's Professional Diploma in Arboriculture *Dip.Arb(RFS)*

In addition to the qualifications listed above which are specific to the field of arboriculture, I also hold an Honours degree in Environmental Science *BSc(Hons)*.

I hold chartered status, being a Chartered Arboriculturist and professional member of the Institute of Chartered Foresters *MICFor*. I am a professional member of the Royal Institution of Chartered Surveyors *MRICS*.

I am a Registered Consultant with the Arboricultural Association, a scheme for which I am also an assessor.

I am a trained expert witness, and hold the Cardiff University Bond Solon Expert Witness Certificate.

I am a member of the Royal Forestry Society.

I have been working in the arboricultural industry since 1994 and as a consultant since 2001. I am frequently instructed by professionals to provide advice and assistance relating to trees within the planning process; I have a wide client base in this field including developers, architects, planning consultants, and Local Planning Authorities. I am experienced with providing arboricultural input in planning appeals as written representation, informal hearing and public local inquiry.

I am regularly instructed to assist with tree risk assessments, and to provide guidance relating to tree safety. Past clients for this work include local authorities, schools, residents associations, large organisations including zoos and estates, and private individuals.

I provide advice in relation to alleged tree-related damage to buildings. Clients for this work are typically domestic homeowners, but have also included local authorities. Other work that I undertake involves the provision of tree planting schemes; and advice relating to the general management of trees.

I have worked as an arboricultural expert witness for public and private sector clients in both civil and criminal cases.

Prior to running my current consulting practice, I was a partner in an arboricultural contracting business in which I was involved with the practical aspect of organising, and execution of contract tree work.