



**Patrick Stileman Ltd**

Arboricultural Consultancy

 Institute of  
Chartered Foresters  
Registered Consultant

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## TREE SURVEY REPORT

In accordance with British Standard 5837 2012 '*Trees in Relation to design, demolition and construction – Recommendations*'

### Project

Hempland Primary School, Whitby Avenue, York, YO31 1ET

### Client

Mott MacDonald Limited

### Prepared by

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### Date

9<sup>th</sup> February 2022

### Project reference:

D S05102101

# 1 INTRODUCTION

1.1 I am Patrick Stileman, Director of Patrick Stileman Ltd. I am acting on instruction of the client, Mott MacDonald. I have qualifications and experience in arboricultural consultancy and I have given details of this in Appendix 2.

## 1.2 Brief:

1.2.1 Patrick Stileman Ltd is instructed by the client to undertake a survey of trees which could potentially be affected by proposed development at Hempland Primary School, Whitby Avenue, York YO31 1ET.

1.2.2 The survey is to be undertaken in accordance with British Standard 5837:2012 '*Trees in relation to design, demolition and construction – Recommendations*' (hereafter referred to as BS5837). We are to survey all trees which could potentially be affected with stem diameters in excess of 75 mm at a height of 1.5 metres.

1.2.3 The purpose of the information provided at this stage is to give advice on the principal tree constraints in relation to development in order to assist the design process towards the preparation of an arboriculturally defensible scheme.

## 1.3 Caveats:

1.3.1 The survey must not be substituted for a tree risk assessment report, though where tree work was seen to be required for reasons of safety, this has been recommended in the data.

1.3.2 The trees were viewed from public vantage points and within the site boundaries only. I had no access to third-party property.

1.3.3 This Tree Survey Report comprises Stage 1 of a five-stage arboricultural process relating to planning. Stage 2 is the arboricultural input required during layout design taking account of arboricultural features and constraints; Stage 3 is the preparation of an Arboricultural Implication Assessment detailing what impact the proposed development will have to trees; Stage 4 is the preparation of an Arboricultural Method Statement specifying how trees will be physically protected during the development process; and Stage 5 is the implementation, supervision and on-going monitoring of the works during development.

1.4 **Survey date:** Trees were surveyed by me, Patrick Stileman, on 1<sup>st</sup> December 2021.

## 2 TREE SURVEY

2.1 **Tree identification:** Individual trees have been allocated a number and groups of trees have been allocated a number prefixed by the letter G. Their locations are shown on the Tree Survey Plan dated 9<sup>th</sup> December 2021, drawing no: DS05102101.01, included on Page 19 of this report. Data pertaining to each tree is included in the Tree Survey Data on Pages 10-18 of this report.

2.2 **Tree data:** In carrying out the survey I assessed the following for each tree and group of trees:

- Dimensions (height, crown spread, stem diameter, and height of crown base).
- Root protection area, based on stem diameter.
- Life stage and physiological condition.
- Structural defects of significance, and general condition. Assessment of the value that the tree provides from a wider landscaping perspective.
- An assessment of the likely remaining useful contribution in years.

Based on the above information, I have allocated a category (A, B, C, U) indicating the quality and value for each tree or tree group (in accordance with BS5837), to be taken into account when planning any future development.

## 3 STATUTORY PROTECTION

3.1 I have received email confirmation from Daniel Calvert, Environment Technician at City of York Council, that there are no trees at Hempland Primary School which are protected by a tree preservation order (TPO) and that the site is not located within a conservation (which would impose provisional protection to trees if applicable).

3.2 The school is not an exempt site from provisions within the Forestry Act 1967, which requires that a felling licence be obtained from the Forestry Commission for the felling of more than 5 cubic metres of timber per calendar quarter. There are exceptions to this, including work that is required to implement planning consent.

## 4 PLANNING CONSTRAINTS

4.1 DEFRA's Multi Agency Geographic Information for the Countryside map (MAGIC) shows that there is no ancient woodland present at or adjacent to the school, and that there is no priority habitat deciduous woodland present.

4.2 The City of York Local Plan ('*City of York Draft Local Plan Incorporating the 4<sup>th</sup> set of changes Development Control Local Plan*' 2005) sets out the council's policy relating to trees at NE1, which states as follows:

### NE1: Trees, Woodlands and Hedgerows

Trees, woodlands and hedgerows, which are of landscape, amenity, nature conservation or historical value, will be protected by:

- a) refusing development proposals which will result in their loss or damage; and
- b) requiring trees or hedgerows which are being retained on development sites to be adequately protected during any site works; and
- c) making tree preservation orders for individual trees and groups of trees which contribute to the landscape or local amenity; and
- d) making hedgerow retention notices where appropriate to protect important hedgerows and;
- e) ensuring the continuation of green/wildlife corridors

All proposals to remove trees or hedgerows will be required to include a site survey indicating the relative merits of individual specimens. An undertaking will also be required that appropriate replacement planting with locally indigenous species will take place to mitigate against the loss of any existing trees or hedgerows. Developments should make proper provision for the planting of new trees and other vegetation including significant highway verges as part of any landscaping scheme. In addition, other proposals to bring forward such provision will be actively encouraged.

4.3 The National Planning Policy Framework 2021 (NPPF) has specific policies relating to trees.

Policy 180 (c) of the NPPF relates to ancient woodland and veteran trees, neither of which are present at Hempland Primary School, so this does not apply.

Policy 131 of the NPPF relates specifically to trees, and this states 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 <sup>50</sup>, 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.

## 5 TREE CONSTRAINTS PLAN

- 5.1 Based on the information obtained by the tree survey I have prepared a Tree Constraints Plan (TCP), dated 9<sup>th</sup> December 2021, drawing no: DS DS05102101.02, included on Page 20 of this report.
- 5.2 On the TCP I have used different colours indicating tree crowns to distinguish between trees which could defensibly be removed in order to facilitate development (broken blue); and trees with a higher retention priority which should, initially, be considered for retention (solid green).
- 5.3 Category C trees are classified as trees of low quality; they should not impose significant constraints to design layout, and if necessary can defensibly be shown for removal in order to facilitate good design. If Category C trees can be satisfactorily retained within the proposed layout then consideration should be given for this.
- 5.4 Category B trees are classified as trees of moderate quality, which covers a large range. Some Category B trees are of insufficient value to impose significant design constraints, such that their removal can be justified in order to promote good design.
- 5.5 Category A trees are classified as trees of high quality and there should be an initial presumption for retention of these trees.

- 5.6 The TCP shows the position of the Root Protection Area (RPA) for trees with a higher retention priority as broken pink lines. 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*'. In other words, the RPA represents the **minimum** area around each tree in which the ground should remain largely undisturbed. 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) for trees with more than one stem.
- 5.7 In situations where the site conditions clearly prevent consistent rooting around the tree (for example the presence of roads or buildings within the notional RPA circle) I modify the shape of the RPA to take this into account. At this site I have not adjusted the RPA shape for any tree, and RPAs shown are all based on circles.
- 5.8 At the design stage (Stage 2 –see Section 1.3.3), detailed advice should be given by the arboriculturalist, specifically in relation to the above ground constraints, namely:
1. Future growth predictions for the key retention trees where this is likely to be significantly different to their existing dimensions.
  2. The effects of dominance and shading posed by trees in a) their current context, and b) taking account their future likely growth.

This level of detailed advice is beyond the scope of this report which is preliminary in nature.

## 6 SOIL

- 6.1 I am not aware if a detailed soil analysis has been undertaken at this site. I did not take soil samples while on site however I have looked at the British Geological Survey plan to establish the likely nature of the soil present. This indicates that the bedrock geology comprises the Sherwood Sandstone Group with superficial deposits above recorded as Aine Glacioacustrine Formation (clay and silt).
- 6.2 The Cranfield University 'Soilscapes' website indicates that the soil associated with the prevailing geology comprises poorly drained slightly acidic, base-rich loams with moderate fertility. There may be local anomalies not shown in the British Geological Survey maps and a more detailed site-specific soil assessment should be undertaken if required.

## 7 KEY TO TREE SURVEY DATA

7.1 **Tree / Group / Hedge 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. Managed hedges are shown with the prefix H.

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

Elder: *Sambucus nigra*  
English elm: *Ulmus procera*  
Silver birch: *Betula pendula*  
Pear: *Pyrus communis*  
Whitebeam: *Sorbus aria*  
Maidenhair tree: *Ginkgo biloba*  
Downy birch: *Betula pubescens*  
Rowan: *Sorbus aucuparia*  
Fastigate hornbeam: *Carpinus betulus* 'Fastigiata'  
Maple sp: *Acer sp*  
Himalayan birch: *Betula utilis*  
Hornbeam: *Carpinus betulus*  
Italian cypress: *Cupressus sempervirens*  
Cherry: *Prunus avium*  
Ash: *Fraxinus excelsior*  
Italian alder: *Alnus cordata*  
Pedunculate oak: *Quercus robur*  
Common lime: *Tilia x europaea*  
Orchard apple: *Malus domestica*  
Hawthorn: *Crataegus monogyna*  
Weeping willow: *Salix x sepulcralis* 'Chrysocoma'  
Beech: *Fagus sylvatica*  
Goat willow 'Kilmarnock': *Salix caprea*  
Bird cherry: *Prunus padus*  
Snowy mespilus: *Amelanchier lamarckii*  
Flowering cherry: *Prunus sp*  
Ornamental apple: *Malus sp.*  
Norway maple: *Acer platanoides*  
Leyland cypress: *x Cupressocyparis leylandii*  
Elder: *Sambucus nigra*  
Cherry-Plum: *Prunus cerasifera*  
Privet: *Ligustrum vulgare*  
Field maple: *Acer campestre*  
Pyracantha sp

- 7.3 **Ht. (m):** The height of the tree is measured or estimated to the nearest half metre for dimensions up to 10 m, and to the nearest whole metre for dimensions over 10 m.
- 7.4 **Crown spread –NSWE:** Radial crown spread measured or estimated, rounded up to the nearest metre, for north, south, west and east.
- 7.5 **Crown base:** The height above ground level and orientation of the lowest permanent crown base (excluding basal, and small epicormic growth).
- 7.6 **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).
- 7.7 **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.
- 7.8 **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.
- 7.9 **RPA Area:** This shows the calculated RPA in m<sup>2</sup> 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 m<sup>2</sup>, equivalent to a circle with a radius of 15m.
- 7.10 **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.
- 7.11 **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.



- 7.12 **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.
- 7.13 **Preliminary management recommendations:** Work required to trees for reasons of sound arboricultural management only, **not for development facilitation**. 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. This may include the further investigation of suspected defects. Where trees are located in neighbouring property, this is usually not applicable. Tree work identified as being required for reasons of safety is indicated with **red text**.
- 7.14 **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.
- 7.15 **Category:** BS5837:2012 Category where:
- 7.15.1 **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.
- 7.15.2 **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.
- 7.15.3 **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.
- 7.15.4 **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.
- 7.15.5 Trees of notable quality are graded as Category A or Category B. These trees are divided further into sub-categories. Sub-category 1 is allocated where it has been assessed that the tree has mainly arboricultural qualities. Sub-category 2 is allocated where it is assessed that the tree has mainly landscape qualities. Sub-category 3 is allocated where it is assessed that the tree has mainly cultural qualities, including conservation.

7.15.6 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.

7.15.7 I do not allocate sub-categories to Category C trees.



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Director Patrick Stileman Ltd

TREE SURVEY DATA : HEMPLAND SCHOOL, YORK

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	Preliminary management recommendations	Ret. Span <10, 10+20+, >40	Grade U-A-B-C
			N	S	W	E			1 / mean	2	3	4	5								
1	Elder	3	2	2	2	2	1m N	1	150					1.80	10	SM	P	Small, suppressed tree. Appears to be off-site.	No action required at time of survey	10+	C
2	Elm	8	3	3	3	3	2m W	1	150					1.80	10	SM	D	Dead tree with ever-increasing failure hazard.	Remove for reasons of sound arboricultural management	< 10	U
3	Silver birch	12	3	3	3	3	2m S	1	270					3.24	33	EM	G	Good form. No defects seen of apparent structural significance. Tree of moderate quality and value.	No action required at time of survey	20+	B1
4	Pear	10	4	4	4	4	1.5m N	1	370					4.44	62	M	G	Multi-stemmed from 2 metres. Tight unions developing which might restrict long-term retention span. Attractive, well-balanced tree.	No action required at time of survey	20+	B1
5	Whitebeam	7	4	4	4	4	2m W	1	300					3.60	41	M	G	Multi-stemmed from 2 metres. Tight unions developing which might restrict long-term retention span. Attractive, well-balanced tree.	No action required at time of survey	20+	B1
6	Maidenhair tree	13	2	2	2	2	2m W	1	200					2.40	18	SM	F	Slender, upright form. Tree of relatively low significance.	No action required at time of survey	> 40	C
7	Maidenhair tree	7	1	1	1	1	2.5m W	1	100					1.20	5	SM	F	Slender, upright form. Tree of relatively low significance.	No action required at time of survey	>40	C
8	Silver birch	12	4	3	3	4	2m S	1	350					4.20	55	EM	G	Component of linear group. Reasonable form. No defects seen of apparent structural significance.	No action required at time of survey	20+	B2
9	Downy birch	9	3	3	3	5	1m W	1	260					3.12	31	EM	F	Component of linear group. Suppressed tree with stunted form.	No action required at time of survey	20+	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	Phys. Condition	Condition and observations	Preliminary management recommendations	Ret. Span	Grade
			N	S	W	E			1 / mean	2	3	4	5								
10	Silver birch	15	4	4	4	4	2m W	1	470					5.64	100	EM	G	Component of linear group. Dominant tree with good form.	No action required at time of survey	20+	B2
11	Downy birch	11	2	3	3	4	2m E	1	300					3.60	41	EM	F	Component of linear group. Reasonable form. No defects seen of apparent structural significance.	No action required at time of survey	20+	B2
12	Silver birch	10	3	2	3	4	2m W	1	320					3.84	46	EM	F	Component of linear group. Reasonable form. No defects seen of apparent structural significance.	No action required at time of survey	20+	B2
13	Silver birch	14	2	6	4	6	2m W	1	450					5.40	92	EM	G	Component of linear group. Dominant tree with good form. Broken hanging branch in crown.	Remove broken hanging branch	20+	B2
14	Rowan	6	3	4	2	4	2m E	1	210					2.52	20	EM	F	Small, partially suppressed tree of relatively low significance.	No action required at time of survey	20+	C
15	Rowan	6	3	4	3	3	1m E	1	270					3.24	33	EM	F	Compact form. Tree of relatively low significance.	No action required at time of survey	20+	C
16	Silver birch	13	5	5	5	4	3m S	1	410					4.92	76	EM	F	Located in courtyard area with buildings in close proximity on three sides. Prominent tree of moderate quality and value.	No action required at time of survey	20+	B1
17	Fastigate hornbeam	6	2	2	1	2	0.5m S	1	180					2.16	15	SM	G	Component of linear group. Slight crown asymmetry from competition. Small tree of relatively low significance.	No action required at time of survey	>40	C
18	Silver birch	8	3	2	2	2	1m S	1	230					2.76	24	SM	G	Component of linear group. Tree of moderate quality and value just crossing B grade threshold.	No action required at time of survey	20+	B1
19	Maple sp	2.5	0.5	0.5	0.5	0.5	1.5m S	1	30					0.36	0	Y	F	Component of linear group. Very small tree (below size threshold for inclusion). Significant wound at base likely to limit retention span.	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	Phys. Condition	Condition and observations	Preliminary management recommendations	Ret. Span	Grade
			N	S	W	E			1 / mean	2	3	4	5								
20	Himalayn birch	5	3	2	2	2	1m N	1	110					1.32	5	SM	F	Component of linear group. Small tree of relatively low significance.	No action required at time of survey	20+	C
21	Fastigate hornbeam	4	2	2	2	2	1m S	1	130					1.56	8	SM	G	Component of linear group. Small tree of relatively low significance.	No action required at time of survey	>40	C
22	Hornbeam	4	3	3	3	3	1m N	1	250					3.00	28	SM	G	Wide, spreading form with no central leading stem. Good vitality.	No action required at time of survey	>40	C
23	Italian alder	18	6	6	4	6	2m N	1	560					6.72	142	EM	G	Component of linear group. Dominant tree. Twin-stemmed from 4 metres - union could become hazardous in future.	No action required at time of survey	20+	B2
24	Whitebeam	9	5	2	4	5	1m N	1	280					3.36	35	EM	F	Component of linear group. Partially suppressed tree. No defects seen of apparent structural significance.	No action required at time of survey	20+	B2
25	Cherry	16	6	5	4	3	2m E	1	380					4.56	65	EM	G	Component of linear group. Dominant tree. No defects seen of apparent structural significance.	No action required at time of survey	> 40	B2
26	Rowan	5	2	1	2	2	1m N	1	100					1.20	5	EM	F	Component of linear group. Small, suppressed and stunted tree.	No action required at time of survey	10+	C
27	Cherry	13	2	1	3	1	2m W	1	180					2.16	15	EM	F	Component of linear group. Small, suppressed and stunted tree.	No action required at time of survey	10+	C
28	Ash	12	6	3	4	4	2m N	1	380					4.56	65	EM	F	Component of linear group. No indication of ash die-back. Moderate-sized dead wood on south side.	Remove dead wood	20+	B2
29	Italian alder	17	3	4	3	5	5m W	1	400					4.80	72	EM	F	Component of linear group. Numerous low dead branches. Major stem wound at 9 metres likely to limit retention span.	Remove dead wood	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	Preliminary management recommendations	Ret. Span <10, 10+20+, >40	Grade U-A-B-C
			N	S	W	E			1 / mean	2	3	4	5								
			30	Cherry	12	4			2	4	4	2m N	1								
31	Ash	16	5	5	4	5	5m N	1	390					4.68	69	EM	F	Component of linear group. Numerous low dead branches. No signs of ash die-back.	No action required at time of survey	20+	B2
32	Rowan	7	3	2	3	3	1m N	1	210					2.52	20	EM	F	Component of linear group. Suppressed tree with distorted form. Major stem wound likely to limit retention span.	No action required at time of survey	10+	C
33	Pedunculate oak	15	8	2	2	2	3m N	1	330					3.96	49	EM	F	Component of linear group. Partially suppressed with crown asymmetry from competition. No defects seen of apparent structural significance.	No action required at time of survey	> 40	B2
34	Whitebeam	10	4	3	3	4	1m N	1	280					3.36	35	EM	F	Component of linear group. Suppressed tree. Leaning lower stem.	No action required at time of survey	20+	B2
35	Ash	18	5	7	7	7	6m N	1	500					6.00	113	EM	F	Component of linear group. Multi-stemmed from 2 metres. Tight union with bark inclusion developing. Currently not considered unstable, but likely to become so soon.	Remove for reasons of sound arboricultural management	<10	U
36	Common lime	11	6	6	3	6	1m N	1	480					5.76	104	EM	F	Component of linear group. Leaning lower stem corrected by upright growth from 2 metres.	No action required at time of survey	> 40	B2
37	Rowan	4	1	2	1	2	2m S	1	80					0.96	3	EM	F	Component of linear group. Small, suppressed tree.	No action required at time of survey	10+	C
38	Hornbeam	11	5	5	4	5	1m N	1	310					3.72	43	EM	G	Component of linear group. Compact form. No defects seen of apparent structural significance.	No action required at time of survey	> 40	B2

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	Preliminary management recommendations	Ret. Span <10, 10+20+, >40	Grade U-A-B-C
			N	S	W	E			1 / mean	2	3	4	5								
39	Pedunculate oak	17	7	3	4	6	2m E	1	340					4.08	52	EM	F	Component of linear group. Slight asymmetry from competition. No defects seen of apparent structural significance.	No action required at time of survey	> 40	B2
40	Rowan	7	3	3	2	3	1m N	1	160					1.92	12	EM	F	Component of linear group. Small, suppressed tree.	No action required at time of survey	10+	C
41	Ash	17	5	5	5	5	6m N	1	440					5.28	88	EM	F	Component of linear group. Low dead branches. No signs of ash die-back.	Remove dead wood	20+	B2
42	Cherry	14	7	6	4	5	3m N	1	480					5.76	104	EM	F	Component of linear group. Dominant tree.	No action required at time of survey	20+	B2
43	Hornbeam	10	3	4	4	1	2m N	1	340					4.08	52	EM	G	Component of linear group. Suppressed tree. No defects seen of apparent structural significance.	No action required at time of survey	> 40	B2
44	Pedunculate oak	14	7	7	4	3	2m N	1	420					5.04	80	EM	F	Component of linear group. Dominant tree. No defects seen of apparent structural significance.	No action required at time of survey	> 40	B2
45	Common lime	13	4	6	4	3	2m W	1	350					4.20	55	EM	F	Component of linear group. Tight forking developing which could limit future retention span.	No action required at time of survey	10+	C
46	Rowan	5	3	3	2	4	0m N	1	200					2.40	18	EM	F	Component of linear group. Small, suppressed tree. Multiple basal suckers.	No action required at time of survey	10+	C
47	Apple	5	1	3	2	3	2m N	1	130					1.56	8	EM	F	Small tree of relatively low significance.	No action required at time of survey	10+	C
48	Ash	12	5	6	5	5	3m S	1	420					5.04	80	EM	G	Good form. No defects seen of apparent structural significance. No sign of ash die-back yet.	No action required at time of survey	20+	B1
49	Ash	10	3	4	4	4	2m W	1	220					2.64	22	EM	G	Good form. No defects seen of apparent structural significance. No sign of ash die-back yet.	No action required at time of survey	20+	B1

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	Preliminary management recommendations	Ret. Span <10, 10+20+, >40	Grade U-A-B-C
			N	S	W	E			1 / mean	2	3	4	5								
			50	Ash	13	5			5	5	5	2m E	1								
51	Italian alder	7	4	4	4	4	2m E	1	300					3.60	41	EM	G	Slightly compact form. No defects seen of apparent structural significance.	No action required at time of survey	> 40	B1
52	Hawthorn	3	3	3	3	3	2m W	1	200					2.40	18	M	D	Entirely dead.	Remove for reasons of sound arboricultural management	<10	U
53	Fastigate hornbeam	14	4.5	4.5	4.5	4.5	2m N	1	510					6.12	118	EM	G	Prominent tree with good form and no defects seen of apparent structural significance.	No action required at time of survey	> 40	B1
54	Italian alder	12	5	5	4	5	2m S	1	490					5.88	109	EM	G	Reasonable form. No defects seen of apparent structural significance.	No action required at time of survey	> 40	B1
55	Ash	11	4	4	2	4	2m N	1	250					3.00	28	SM	F	Distorted form from asymmetry. 3 metres from adjacent house.	No action required at time of survey	10+	C
56	Weeping willow	14	7	6	8	6	3m S	1	830					9.96	311	M	G	In raised planter - roots have visibly extended beneath surrounding tarmac with significant damage in places extending to 8 metres from tree. Large prominent tree re-growing from heaving past reduction.	No action required at time of survey	20+	B1
57	Hawthorn	5	2	2	3	2	2m N	4	100	80	80	80		2.06	13	EM	P	Small scrappy tree with low vitality.	No action required at time of survey	10+	C
58	Beech	7	3	2	3	4	3m W	1	240					2.88	26	SM	F	Small, suppressed tree of relatively low significance.	No action required at time of survey	20+	C
59	Beech	9	4	5	6	4	2m W	1	410					4.92	76	SM	F	Distorted form suppressed by Tree 61 which limits prospects.	No action required at time of survey	20+	C
60	Apple	2	0	2	1	2	1m S	3	150	150	100			2.82	25	M	P	Small, stunted tree with low vitality.	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	Phys. Condition	Condition and observations	Preliminary management recommendations	Ret. Span <10, 10+ 20+, >40	Grade U-A-B-C
			N	S	W	E			1 / mean	2	3	4	5								
61	Beech	13	6	7	7	7	2m S	1	610					7.32	168	EM	G	Good form. No defects seen of apparent structural significance. Good future prospects.	No action required at time of survey	>40	A1
62	Goat willow 'Kilmarnock'	1.8	2	2	1	1	0.5m N	1	200					2.40	18	M	F	Weeping form. Previously collapsed, but re-rooted. Curiosity, but tree of relatively low significance.	No action required at time of survey	10+	C
63	Cherry	5	3	4	4	3	2m S	1	420					5.04	80	EM	G	Scraggy tree with low vitality.	No action required at time of survey	10+	C
64	Silver birch	14	5	4	6	5	2m S	1	420					5.04	80	EM	G	Good form. No defects seen of apparent structural significance.	No action required at time of survey	20+	B1
65	Bird cherry	9	5	5	5	5	2m N	1	290					3.48	38	EM	G	Reasonable form. No defects seen of apparent structural significance.	No action required at time of survey	> 40	B1
66	Rowan 'Kashmiriani'	2.5	0.5	1	1	0.5	1m S	2	100	80				1.54	7	SM	P	Small, scraggy tree with poor form.	No action required at time of survey	10+	C
67	Snowy mespilus	4	1	2	1	2	1.5m E	1	90					1.08	4	SM	F	Small tree of relatively low significance.	No action required at time of survey	20+	C
68	Beech	12	7	6	5	8	2m S	1	570					6.84	147	EM	G	Low height, spreading crown. No defects seen of apparent structural significance. Good future prospects.	No action required at time of survey	>40	A1
69	Flowering cherry	6	5	4	4	5	2m N	1	300					3.60	41	EM	F	Suppressed tree with relatively poor form..	No action required at time of survey	10+	C
70	Ornamental Apple	4	4	4	1	5	2m N	1	230					2.76	24	M	F	Suppressed tree with relatively poor form..	No action required at time of survey	20+	C
71	Unidentified	5	3	3	3	2	2m W	1	180					2.16	15	EM	P	Small, scraggy tree of relatively low significance. Numerous low dead branches.	No action required at time of survey	10+	C
72	Hawthorn	7	5	5	5	5	2m S	1	320					3.84	46	M	G	Growing as standard tree. Good form. No defects seen of apparent structural significance.	No action required at time of survey	> 40	B1

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	Phys. Condition	Condition and observations	Preliminary management recommendations	Ret. Span <10, 10+ 20+, >40	Grade U-A-B-C
			N	S	W	E			1 / mean	2	3	4	5								
73	Apple	8	4	3	3	3	2m E	1	320					3.84	46	M	G	Upright habit. Good form, prolific crop. Tree of moderate quality and value.	No action required at time of survey	> 40	B1
74	Flowering cherry	7	4	3	3	4	2m S	1	250					3.00	28	M	F	Slightly low vitality. Tree of relatively low significance.	No action required at time of survey	10+	C
75	Flowering cherry	4	2	2	2	3	2m E	1	120					1.44	7	EM	P	Small, suppressed tree with low vitality.	No action required at time of survey	10+	C
76	Norway maple	14	5	3	4	4	2m N	1	490					5.88	109	EM	G	Growing as companion with Tree 77. No defects seen of apparent structural significance.	No action required at time of survey	> 40	B1
77	Norway maple	11	3	4	4	5	2m E	1	380					4.56	65	EM	G	Growing as companion with Tree 76. No defects seen of apparent structural significance.	No action required at time of survey	> 40	B1
78	Weeping willow	15	8	8	7	6	3m W	1	720					8.64	234	M	G	Reasonable form. Wide, spreading crown. Moderate-sized dead wood throughout.	Remove dead wood	20+	B1
G1	Leyland cypress, ash, elder	4	1.5	1.5	1.5	1.5	0m N	1	100					1.20	5	EM	F	Scrappy linear group growing as hedge with central gap.	Reduce height by 0.5 - 1 metre and maintain as hedge	20+	C
G2	Cherry-plum, cherry, elder	3	2	2	2	2	0m W	7	100					3.18	32	EM	F	Four trees either side of boundary. Scrappy form. Multi-stemmed from ground level. Trees of relatively low significance.	No action required at time of survey	20+	C
G3	Hawthorn, elm, leyland cypress, privet	3 to 6	3	3	3	3	2m W	1	120					1.44	7	SM	F	Scrappy group on boundary with vegetable area. Elm currently healthy, but likely to die in next few years.	No action required at time of survey	20+	C
G4	Beech	1.6	1	1	1	1	0m N	1	80					0.96	3	SM	F	Clipped hedge forming three sides of a square. Group of relatively low significance.	No action required at time of survey	>40	C
G5	Cherry-plum, pear	7	3	3	3	3	0m W	1	150					1.80	10	EM	F	Small scrappy tree group of relatively low significance.	No action required at time of survey	20+	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	Preliminary management recommendations	Ret. Span <10, 10+20+, >40	Grade U-A-B-C
			N	S	W	E			1 / mean	2	3	4	5								
			G6	Hawthorn	7	3			3	3	3	2m E	1								
G7	Elder	3	1	3	1	3	1m S	2	120	120				2.04	13	EM	P	Multi-stemmed from ground level. Suppressed group of low quality and value. Short retention span.	Remove for reasons of sound arboricultural management	<10	U
G8	Hawthorn, privet	3 to 5	2	2	2	2	1m S	1	250					3.00	28	M	F	Small scrappy group of relatively low significance.	No action required at time of survey	10+	C
G9	Leyland cypress, hawthorn, ornamental apple	3	1	1	1	1	0m S	1	300					3.60	41	M	F	Managed as hedge with clipped side and top. Useful screening function.	No action required at time of survey	20+	B2
G10	Pear, apple, cherry-plum	6	3	3	3	3	0m W	1	200					2.40	18	SM	F	Small orchard area comprising generally small, scrappy trees.	No action required at time of survey	> 40	C
G11	Elder, hawthorn, privet	4 to 9	3	3	3	3	0m S	1	250					3.00	28	EM	F	Scrappy boundary vegetation on both sides of boundary fence. Group includes one near-dead hawthorn on school side recommended for removal.	Remove ivy-covered, near-dead hawthorn as indicated on plans	10+	C
H1	Elder, field maple, norway maple, hawthorn	1.8	0.5	0.5	0.5	0.5	0m E	1	150					1.80	10	M	G	Located off-site. Clipped hedge on boundary.	No action required at time of survey	> 40	B2
H2	Hawthorn	1.6	0.5	0.5	0.5	0.5	0m S	1	80					0.96	3	EM	G	Short clipped hedge section of relatively low significance.	No action required at time of survey	20+	C
H3	Pyracantha	1.8	0.5	0.5	0.5	0.5	0m E	1	80					0.96	3	M	F	Clipped hedge adjacent to entrance boundary.	No action required at time of survey	20+	C
H4	Pyracantha	1.8	0.5	0.5	0.5	0.5	0m E	1	80					0.96	3	M	F	Clipped hedge adjacent to entrance boundary.	No action required at time of survey	20+	C

This drawing must be viewed in colour

### TREE SURVEY PLAN

**PROJECT**  
Hempland Primary School, Whitby Avenue, York, YO31 1ET

**CLIENT**  
Mott Macdonald Limited

**JOB REF**  
DS05102101

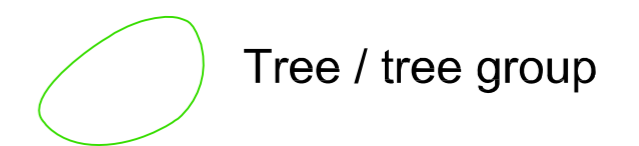
**DRAWING NO**  
DS05102101.01

**DATE**  
09/12/2021

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



### KEY



### BS 5837 category key

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

### SCALE

1:500 @ A1

0 10m 20m 30m 40m

### NOTE:

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

Tree positions are based on the topographic survey provided by the client. Trees marked with a \* were not included in the topographic survey and their locations shown are indicative only.



This drawing must be viewed in colour

### TREE CONSTRAINTS PLAN

**PROJECT**  
Hempland Primary School, Whitby Avenue, York, YO31 1ET

**CLIENT**  
Mott Macdonald Limited

**JOB REF**  
DS05102101

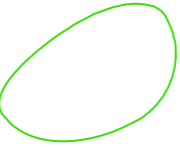
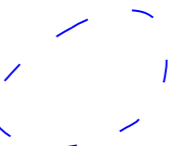


**DRAWING NO**  
DS05102101.02

**DATE**  
09/12/2021





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



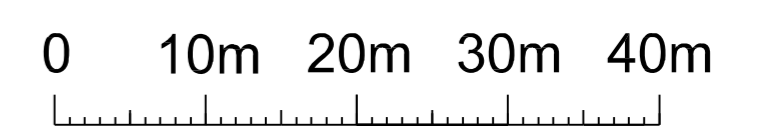
### KEY

-  Tree / tree group initially suggested for retention
-  Tree / tree group which could initially be considered for removal to facilitate development
-  Root Protection Area (RPA) for tree / tree group initially suggested for retention
-  Root Protection Area (RPA) for tree / tree group initially shown for removal

### BS 5837 category key

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

**SCALE**  
1:500 @ A1



### NOTE:

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

Tree positions are based on the topographic survey provided by the client. Trees marked with a \* were not included in the topographic survey and their locations shown are indicative only.



# APPENDIX 1

## Photographs of principal trees

Photograph 1



Photograph 2



Photograph 3



Photograph 4



Photograph 5



Photograph 6



Photograph 7





**Photograph 8**



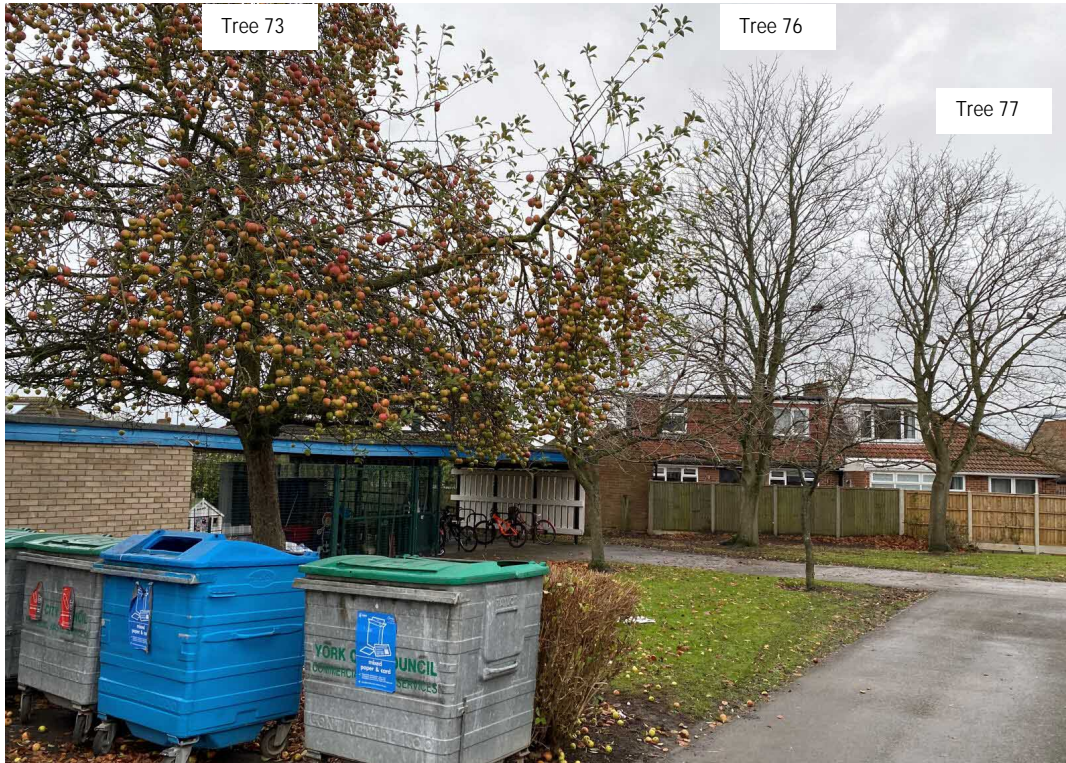
**Photograph 9**



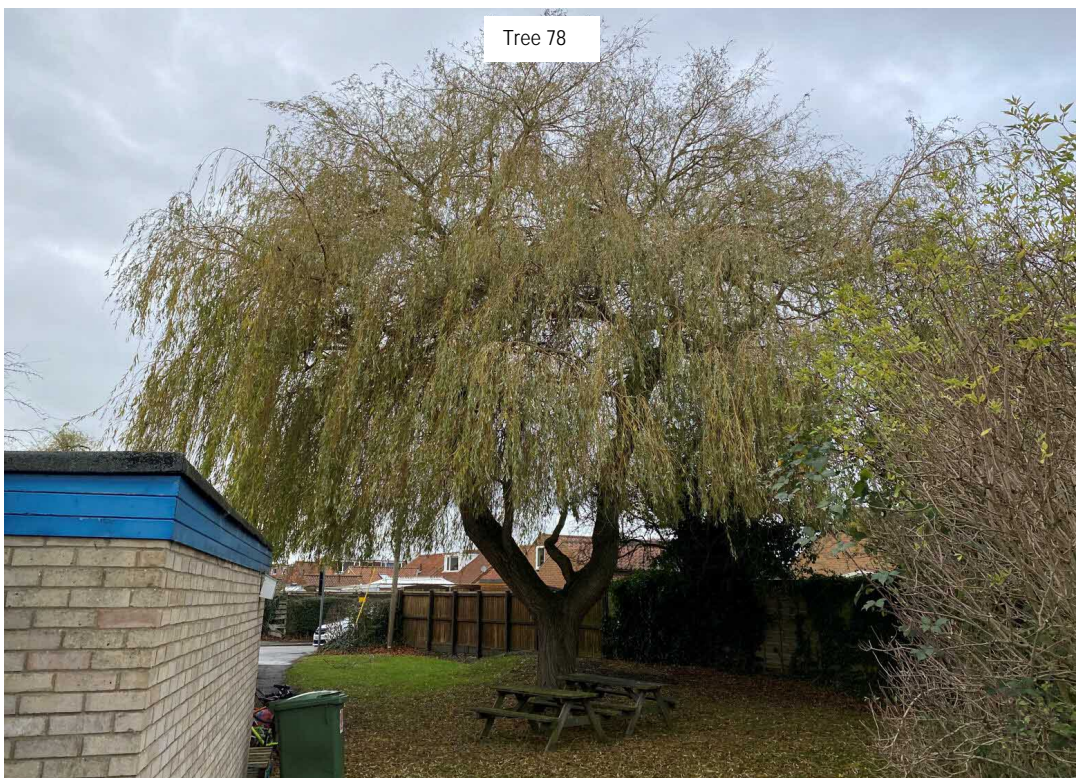
**Photograph 10**



Photograph 11



Photograph 12



## APPENDIX 2

### Qualifications and experience of Patrick Stileman *BSc(Hons), MICFor, Dip.Arb(RFS), M.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.