

ARBORICULTURAL SURVEY

**SELWYN PRIMARY SCHOOL, 102 CAVENDISH ROAD,
HIGHAMS PARK, GREATER LONDON**

A Report to Mace Limited

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March 2014

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**SELWYN PRIMARY SCHOOL, 102 CAVENDISH ROAD,
HIGHAMS PARK, GREATER LONDON**

1 OF 2

01 MACE LIMITED
02 MIDDLEMARCH ENVIRONMENTAL LTD

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*This report is the responsibility of Middlemarch Environmental Ltd.
It should be noted that whilst every effort is made to meet the client's brief,
no site investigation can ensure complete assessment
or prediction of the natural environment.*

Contract Number C116284

March 2014

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1. INTRODUCTION

1.1 PROJECT BRIEF

In March 2014 Middlemarch Environmental Ltd was commissioned by Mace Limited to undertake an Arboricultural Survey in respect of trees growing on land at, and adjacent to, the site of Selwyn Primary School, Cavendish Road, London.

Middlemarch Environmental Ltd was also commissioned to compile the following report;

- Extended Phase 1 Habitat Survey, Report Number RT-MME-116284D-01.

1.2 SITE DESCRIPTION

The development site is located at Selwyn Primary School on Cavendish Road, in Highams Park, Greater London, at National Grid Reference TQ 381 915. The site is irregular in shape, measures approximately 1.1 ha in size and is situated in a predominantly residential area. At the time of the survey, the site was dominated by a main school building, with additional smaller buildings also present. Concrete and tarmac formed pathways and playgrounds around the buildings.

The site was dominated by a number of school buildings and associated hardstanding in the form of car parks and playground areas. Cavendish Road delineates the southern boundary and Halden Road makes up the eastern boundary of the site. The western boundary is formed of Nelson Road, and the northern boundary is delineated by Selwyn Avenue. Access to the study area can be gained from Selwyn Avenue and Cavendish Road. The majority of the site was contained within metal fencing and boundary walls.

Shrub beds were scattered throughout the site, predominately around the peripheries, and abutting the buildings. An area of scrub and self-set scattered trees dominated the south-western fringe of the site. A bifurcated mature Ash (*Fraxinus excelsior*) dominated the western boundary edge. Isolated groups of trees included species of Silver birch (*Betula pendula*) and Alder (*Alnus glutinosa*) trees framed the school along Selwyn Avenue. Cherry (*Prunus* sp.) and Silver birch adjacent to the boundary fence of Cavendish Road provided good visual separation from neighbouring properties.

The location of the trees surveyed can be found on Middlemarch Environmental Ltd Drawing Number C116284D-02-01.

2. ARBORICULTURAL SURVEY METHODOLOGY

2.1 DESK STUDY

A desk study was undertaken to identify if any of the trees present within or in close proximity to the site are covered by Tree Preservation Orders (TPOs) or if the site is situated within a Conservation Area. This involved consultation with the Local Planning Authority.

2.2 CONDITION STATUS

To determine the status of the trees within the site a full arboricultural survey has been undertaken, assessing the species and status of all trees present. This survey has been carried out in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.

All trees have been given a unique reference number. Individual trees above 75 mm (diameter at 1.5 m above ground level) have had their position plotted to a survey drawing. The trees were visually assessed and a schedule prepared listing tree number, species, trunk diameter at 1.5 m above ground level (or in accordance with Annex C of BS5837:2012), tree height, crown spread (cardinal points), crown clearance (cardinal points), height of first branch and growth direction, age class and estimated remaining years. Any specific observations or recommendations with regard to management were also noted. All these observations and measurements are summarised in Section 3.3.

Each tree was assessed and assigned to one of the following categories:

- Category A: Those trees of high quality and value with an estimated remaining life expectancy of at least 40 years.
- Category B: Those trees of moderate quality and value with an estimated remaining life expectancy of at least 20 years.
- Category C: Those trees of low quality and value with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150 mm.
- Category U: 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.

Categories A, B and C have further sub-categories with regards to the reasons for tree retention:

- 1: Mainly arboricultural qualities.
- 2: Mainly landscape qualities.
- 3: Mainly cultural values, including conservation.

2.3 ROOT PROTECTION AREA (RPA)

In order to avoid damage to the roots or rooting environment of retained trees, the RPA has been calculated for each of the Category A, B and C trees. This is a minimum area around a tree which is deemed to contain sufficient roots and rooting volume to maintain the trees viability. Protection of the roots and soil structure in this area should be treated as a priority.

Where trees are growing in proximity to structures or hard surfacing the default circle allowance for the RPA may have to be modified to allow for the impaired or deflected root growth around these obstructions.

These figures have been calculated utilising the formulas within Section 4.6 and Annex D of British Standard 5837:2012.

2.4 MEASUREMENTS

All stem measurements have been rounded up to the nearest 10mm. All other measurements have been rounded up to the nearest 0.5m.

3. RESULTS

3.1 DESK STUDY

Alan Palmer, Planning Support Officer, (2014), *Pers. Comm*, London Borough of Waltham Forest, confirmed in an email on the 27th March 2014 that no Tree Preservation Orders (TPO) apply to the trees on, or adjacent to, this site.

Alan also confirmed that the site is not situated within a Conservation Area.

3.2 WEATHER CONDITIONS AND PERSONNEL

The survey was completed on 26th March 2014 by Marco Bartolini, Arboricultural Consultant. The weather conditions at the time of the survey are shown in Table 3.1.

Conditions	Result
Temperature (°C)	7
Cloud Cover (%)	100
Precipitation	Sporadic showers
Wind Speed (Beaufort)	F1-2

Table 3.1: Weather Conditions at Time of Survey

3.3 SURVEY RESULTS

Tree, shrub and climber species recorded during the survey are listed in Table 3.2.

Common Name	Scientific Name
Alder	<i>Alnus glutinosa</i>
Ash	<i>Fraxinus excelsior</i>
Beech	<i>Fagus sylvatica</i>
Birch	<i>Betula</i> sp.
Bramble	<i>Rubus fruticosus</i> agg.
Cherry	<i>Prunus</i> sp.
Common lime	<i>Tilia x europaea</i>
Elder	<i>Sambucus nigra</i>
English oak	<i>Quercus robur</i>
Flowering cherry	<i>Prunus</i> sp.
Flowering current	<i>Ribes sanguineum</i>
Forsythia	<i>Forsythia</i> sp.
Foxglove tree	<i>Paulownia tomentosa</i>
Hazel	<i>Corylus avellana</i>
Honeysuckle	<i>Lonicera periclymenum</i>
Hornbeam	<i>Carpinus betulus</i>
Horse chestnut	<i>Aesculus hippocastanum</i>
Indian bean tree	<i>Catalpa bignonioides</i>
Ivy	<i>Hedera helix</i>
London plane	<i>Platanus x hispanica</i>
Maple	<i>Acer</i> sp.

Table 3.2: Tree, Shrub and Climber Species Recorded During Survey

Common Name	Scientific Name
Norway maple	<i>Acer platanoides</i>
Paper birch	<i>Betula papyrifera</i>
Pieris	<i>Pieris japonica</i>
Rowan	<i>Sorbus aucuparia</i>
Silver birch	<i>Betula pendula</i>
Snowy mespilus	<i>Amelanchier lamarckii</i>
Sycamore	<i>Acer pseudoplatanus</i>
Tulip tree	<i>Lirodenron tulipifera</i>
Turkish hazel	<i>Corylus colurna</i>
Viburnum	<i>Viburnum sp.</i>
Whitebeam	<i>Sorbus aria</i>

Table 3.2: Tree, Shrub and Climber Species Recorded During Survey

The full results of the Arboricultural Assessment are detailed in Table 3.3.

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	H't 1 st Branch (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
1	Cherry	1	160	4.0	2.0 W	1.0	2.0	0.5	1.0	3.0	3.0	3.0	3.0	EM	P	P	<10	U	<ul style="list-style-type: none"> Off-site street tree growing in a planting pit. Unidentified fungal fruiting body within crown. Poor past management. 	Remove infected dead branch with fungal fruiting body.
2	Rowan	1	180	4.0	2.0 S	2.0	2.0	2.0	2.0	4.0	4.0	4.0	4.0	EM	G	G	10+	C3	<ul style="list-style-type: none"> Off-site street tree growing in a planting pit. Bifurcated at 2.0m above ground level with tight forks at union. 	-
3	Horse chestnut	1	90	3.0	2.0 N	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0	Y	G	G	10+	C2,3	<ul style="list-style-type: none"> Growing in planting pit within hard surfacing (playground). Stake and tie present. No significant visual defects. 	-
4	Foxglove tree	1	110	4.0	2.5 S	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	EM	G	G	10+	A3	<ul style="list-style-type: none"> Growing in planting pit within hard surfacing (playground). Stake and tie present. No significant visual defects. Memorial tree of death of a pupil. 	-
5	Beech	1	80	5.0	2.0 S	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0	Y	G	G	10+	C2	<ul style="list-style-type: none"> Growing in planting pit within hard surfacing (playground). Stake and tie present. No significant visual defects. 	-
6	Tulip tree	1	210	6.0	2.0 S	2.5	2.0	2.5	2.0	2.0	2.0	2.0	2.0	EM	G	G	10+	C2	<ul style="list-style-type: none"> Growing in planting pit within hard surfacing (playground). Stake and tie present. No significant visual defects. 	-
7	Silver birch	1	140	8.0	3.0 S	2.0	2.5	3.0	2.0	2.0	2.0	2.0	2.0	EM	G	G	10+	C2	<ul style="list-style-type: none"> Growing in planting pit within hard surfacing (playground). No significant visual defects. 	-
8	Horse chestnut	1	370	7.0	2.0 N	3.0	<u>3.0</u>	3.0	3.0	4.0	4.0	4.0	4.0	M	G	G	10+	C1,2	<ul style="list-style-type: none"> Growing in planting pit within hard surfacing (playground). No significant visual defects. 	-
9	Alder	1	230	9.0	5.0 S	3.0	3.0	2.0	2.0	5.0	5.0	5.0	5.0	M	G	G	20+	B3	<ul style="list-style-type: none"> Growing in planting pit within hard surfacing (playground). Previously topped at approx. 8.0m above ground level. 	-

Table 3.3: Results of Arboricultural Survey (continues)

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	H't 1 st Branch (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
10	Alder	1	310	9.0	6.0 W	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	M	G	G	20+	B3	<ul style="list-style-type: none"> • Growing in planting pit within hard surfacing (playground). • Growing in proximity to existing building. • Previously topped at approx. 8.0m above ground level. 	-
11	Alder	1	270	9.0	6.0 S	2.5	3.0	3.5	3.0	5.0	5.0	5.0	5.0	EM	G	G	20+	B3	<ul style="list-style-type: none"> • Growing in planting pit within hard surfacing (playground). • Previously topped at approx. 8.0m above ground level. 	-
12	Ash	2	<u>670</u>	16.0	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>	6.0	6.0	6.0	6.0	M	G	G	20+	B1,2	<ul style="list-style-type: none"> • Restricted access prevents detailed assessment. • Bifurcated at approx. 0.5m above ground level. 	-
13	Silver birch	1	180	8.0	0.5 W	3.0	3.0	2.5	3.0	4.0	3.0	5.0	3.0	EM	G	G	10+	C1	<ul style="list-style-type: none"> • Off-site street tree growing in a planting pit. • No significant visual defects. 	-
14	Whitebeam	1	160	6.0	2.0 E	4.0	3.0	2.0	3.0	4.0	4.0	5.0	3.0	M	G	F	10+	C1	<ul style="list-style-type: none"> • Off-site street tree growing in a planting pit. • Bifurcated at approx. 2.0m above ground level with included bark within union. • Tree leans to north (natural). 	-
15	Rowan	1	220	9.0	2.0 W	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	EM	G	G	10+	C3	<ul style="list-style-type: none"> • Off-site street tree growing in a planting pit. • Exposed surface roots. • Trifurcated at approx. 2.0m above ground level. • Overhead services cable in crown. 	-
16	Whitebeam	1	150	5.0	2.0 S	2.5	2.5	2.5	2.5	4.0	4.0	4.0	4.0	EM	F	F	<10	U	<ul style="list-style-type: none"> • Off-site street tree growing in a planting pit. • Exposed surface roots and girdling around stem. • Roots disrupting hard surfaces. • Overhead services cable in crown. • Bark wound (vehicle strike) on stem at approx. 2.0m above ground level. 	-

Table 3.3 (cont'd): Results of Arboricultural Survey (continues)

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	H't 1 st Branch (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
17	London plane	1	100	8.0	3.0 N	1.0	1.0	1.0	1.0	4.0	4.0	4.0	4.0	Y	G	G	10+	C1	<ul style="list-style-type: none"> Off-site street tree growing in a planting pit. No significant visual defects. 	-
18	London plane	1	90	8.0	4.0 S	1.0	1.0	1.0	1.0	3.0	3.0	3.0	3.0	Y	G	G	10+	C1	<ul style="list-style-type: none"> Off-site street tree growing in a planting pit. No significant visual defects. 	-
19	Common lime	1	420	9.0	3.0 S	2.5	2.5	2.5	2.5	3.0	3.0	3.0	3.0	M	G	G	20+	B2,3	<ul style="list-style-type: none"> Off-site street tree growing in a planting pit. Previously pollarded to approx. 8.0m above ground level with good regrowth. No significant visual defects. 	-
20	Common lime	1	480	11.0	3.0 E	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	M	G	G	20+	B2,3	<ul style="list-style-type: none"> Off-site street tree growing in a planting pit. Previously pollarded to approx. 8.0m above ground level with good regrowth. No significant visual defects. 	-
21	Common lime	1	380	8.0	3.0 S	2.0	2.0	1.0	2.0	3.0	3.0	3.0	3.0	M	G	G	20+	B2,3	<ul style="list-style-type: none"> Off-site street tree growing in a planting pit. Previously pollarded to approx. 8.0m above ground level with good regrowth. No significant visual defects. 	-
22	Common lime	1	370	9.0	4.0 S	2.0	2.0	2.0	2.0	4.0	4.0	4.0	4.0	M	G	G	20+	B2,3	<ul style="list-style-type: none"> Off-site street tree growing in a planting pit. Previously pollarded to approx. 8.0m above ground level with good regrowth. No significant visual defects. 	-
23	Norway maple	1	440	9.0	3.0 W	3.0	3.5	3.0	3.0	4.0	4.0	4.0	4.0	M	G	G	20+	B2,3	<ul style="list-style-type: none"> Off-site street tree growing in a planting pit. Previously pollarded to approx. 8.0m above ground level with good regrowth. No significant visual defects. 	-

Table 3.3 (cont'd): Results of Arboricultural Survey (continues)

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	H't 1 st Branch (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
G1	Maple, Oak	2	200	5.0	2.0 W	4.0	4.0	4.0	4.0	1.0	1.0	1.0	1.0	Y, EM	G	G	10+	C2	<ul style="list-style-type: none"> • Growing within hard surfacing in planting pit. • Overhead services cable in crown. 	-
G2	Beech	1	60	2.0	1.0 E	0.5	0.5	0.5	0.5	1.0	1.0	1.0	1.0	Y	G	G	10+	C2	<ul style="list-style-type: none"> • 3 developing trees growing within hard surfacing in planting pit. • No significant visible defects. 	-
G3	Flowering cherry	1	70	3.0	2.0 S	0.5	0.5	0.5	0.0	2.0	2.0	2.0	2.0	Y	P	F	<10	U	<ul style="list-style-type: none"> • Growing within hard surfacing in planting pit. • Stake and tie present. • Bark wounds around base. • Topped and heavily pruned. • Poor past management.. 	-
G4	Silver birch, Indian bean tree	1	140	7.0	1.5 W	2.5	2.5	2.5	2.5	3.0	3.0	3.0	3.0	Y, EM	G	G	10+	C2	<ul style="list-style-type: none"> • Developing trees growing within hard surfacing in planting pit. • No significant visible defects. • Roots disrupting hard surfaces. 	-
G5	Turkish hazel, Horse chestnut, Maple	1	150	8.0	2.0 N	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	Y, EM	G	G	10+	C2	<ul style="list-style-type: none"> • Developing trees growing within hard surfacing in planting pit. • Roots disrupting hard surfaces. • Stake and ties present. 	-
G6	Alder	1	200	9.0	5.0 N	3.0	3.0	3.0	3.0	5.0	5.0	5.0	5.0	EM, M	G	G	20+	B2,3	<ul style="list-style-type: none"> • Group of 6 trees. • Growing within hard surfacing in planting pit and disrupting hard surfacing. • Previously topped to approx. 8.0m above ground level. 	-
G7	Paper birch	1	100	4.0	2.0 N	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	Y	G	G	10+	C1,2	<ul style="list-style-type: none"> • 3 developing trees growing within hard surfacing in planting pit. • No significant visible defects. 	-
G8	Hornbeam	1	150	5.0	2.0 N	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	Y, EM	G	G	10+	C1,2	<ul style="list-style-type: none"> • 5 developing trees growing within hard surfacing in planting pit. • No significant visible defects. 	-
G9	Birch	1	70	3.0	2.0 S	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0	Y	G	G	10+	C2	<ul style="list-style-type: none"> • 5 developing trees growing within hard surfacing in planting pit. • No significant visible defects. 	-

Table 3.3 (cont'd): Results of Arboricultural Survey (continues)

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	H't 1 st Branch (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
G10	Silver birch	1	170	7.0	2.0 W	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	EM	G	G	10+	C2	<ul style="list-style-type: none"> 7 developing trees growing within hard surfacing in planting pit. Previously topped at approx. 6.0m above ground level. 	-
G11	Flowering cherry	1	130	2.0 S	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	EM, M	F	F	<10	U	<ul style="list-style-type: none"> Linear group of trees growing within hard surfacing in planting pit. Roots disrupting hard surfacing. Cankers and necrosis on stem and in crown. 3 dead trees in group. 	Remove dead trees within group (school secretary informed on date of survey).
G12	Cherry, Sycamore, Ash, Bramble, Ivy	1	<u>250</u>	10.0	0.0 N	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.0	Y, EM, M	G	G	10+	C1,2	<ul style="list-style-type: none"> Restricted access limits detailed assessment. Self-set trees within shelterbelt. Ivy on stems and in crowns limits inspection. 	-

Key

Age Class

Y: Young = tree within first third of average life expectancy
 EM: Early mature = tree within second third of average life expectancy
 M: Mature = tree within final third of average life expectancy
 OM: Over mature = tree beyond average life expectancy

Physiological Condition

G: Good = no health problems
 F: Fair = symptoms of ill health that may be remedied
 P: Poor = poor health

Structural Condition

G: Good = no structural defects
 F: Fair = remedial structural defects
 P: Poor = significant structural defects

Major deadwood: branches in excess of 50 mm diameter
 Minor deadwood: branches/twigs less than 50 mm diameter

000: Estimated measurement due to access restrictions

Table 3.3 (cont'd): Results of Arboricultural Survey

Table 3.4 provides details of the shrub species present and the height of these shrub beds. The location of the shrub beds is provided on Drawing Number C116284D-02-01

Shrub Bed Reference	Species	Height (m)
S1	Forsythia, Elder, Hazel, Hornbeam	2.0
S2	Cherry, Snowy mespilus	1.5
S3	Hypericum, Snowy mespilus, Maple, Privet, Cherry	0.5
S4	Viburnum, Forsythia, Honeysuckle, Flowering current, Pieris japonica	2.0

Table 3.4: Shrub species survey results

3.4 ROOT PROTECTION AREA (RPA)

Table 3.5 provides details of the Root Protection Area (RPA) of all trees and groups surveyed which were classified as Category A, B or C specimens. This table also gives an approximate root protection radius for these trees.

Tree No.	Species	Diam (mm)	Approximate Root Protection Radius (m)	Root Protection Area (m ²)
2#	Rowan	180	2.4	18
3#	Horse chestnut	90	1.2	5
4#	Foxglove tree	110	1.5	7
5#	Beech	80	1.2	5
6#	Tulip tree	210	2.7	23
7#	Silver birch	140	1.8	10
8#	Horse chestnut	370	4.5	64
9#	Alder	230	3.0	28
10#	Alder	310	3.9	48
11#	Alder	270	3.3	34
12#	Ash	670	8.1	206
13#	Silver birch	180	2.4	18
14#	Whitebeam	160	2.1	14
15#	Rowan	220	2.7	23
17#	London plane	100	1.2	5
18#	London plane	90	1.2	5
19#	Lime	420	5.1	81
20#	Lime	480	6.0	113
21#	Lime	380	4.8	72
22#	Lime	370	4.5	64
23#	Norway maple	440	5.4	92
G1#	Maple, Oak	200	2.4*	18*
G2#	Beech	60	0.9*	3*
G4#	Silver birch, Indian bean tree, Rowan	140	1.8*	10*

Table 3.5: RPA and Approximate Root Protection Radius of Category A, B and C Trees and Groups Surveyed (continues)

Tree No.	Species	Diam (mm)	Approximate Root Protection Radius (m)	Root Protection Area (m ²)
G5#	Turkish hazel, Horse chestnut, Maple	150	1.8*	10*
G6#	Alder	200	2.4*	18*
G7#	Paper birch	100	1.2*	5*
G8#	Hornbeam	150	1.8*	10*
G9#	Birch	<u>70</u>	0.9*	3.0*
G10#	Silver birch	170	2.1*	14*
G12	Mixed species	<u>250</u>	3.0*	28*
<p><u>000</u>: Estimated measurement due to access restriction *: Around centre of each group #: Morphology of roots unlikely to be default circle due to proximity of hard structures</p>				

Table 3.5 (cont'd): RPA and Approximate Root Protection Radius of Category A, B and C Trees and Groups Surveyed

4. DISCUSSION AND CONCLUSIONS

4.1 DESK STUDY

The desk study confirmed that no Tree Preservation Order exists appertaining to this site and that the site is not situated within a Conservation Area.

4.2 TREE QUALITY

Twenty-three trees and twelve groups of trees have been inspected in accordance with BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.

- One tree present was considered to be Category A – Memorial Tree.
- Six trees and two groups of trees present were considered to be Category B – Trees of moderate quality and value.
- Fourteen trees and nine groups of trees present were considered to be Category C – Trees of low quality and value.
- Two of the trees and one group present were considered to be Category U – Trees whose immediate removal is advised.

A summary of the trees and groups in each of the four categories is given in Table 3.6.

BS 5837:2012 Category	Tree and Group Number
A	4.
B	12, 19, 20, 21, 22, 23, G6, G12.
C	2, 3, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 17, 18, G1, G2, G4, G5, G7, G8, G9, G10, G11.
U	1, 16, G3.

Table 3.6: Summary of Trees and Groups in BS5837:2012 Categories

4.2 TREE OF CONCERN

Tree 4 is a memorial tree in remembrance of previously serving pupil. Within BS5837:2012 guidelines it suggests that a commemorative tree should be deemed Category A, however, this tree is unlikely to survive the 40 years stated in the guidelines. This tree is suitably small enough to be considered for translocation should future development place a burden on this tree for removal.

Three trees within Group 11 are dead. These trees should be felled to ground level to make safe on the grounds of health and safety as the trees were growing within the school playground. (Secretary informed on date of survey).

5. RECOMMENDATIONS

The following site-specific recommendations are made:

- Retention of the Category A tree (Tree 4) is considered essential.
- The retention of the Category B trees across the site should be considered as a priority as these specimens are likely to make a substantial contribution to the continued landscape character of the site.
- The retention of the Category C trees should be considered where possible though it must be noted that these specimens have a low retention value and are likely to only offer a temporary contribution to the landscape character of the site.
- The majority of trees within the centre of the site are considered small enough to be translocated to other parts of the site if necessary.
- Carry out preliminary management recommendations in Table 3.3 and Section 4.3.
- The detailed layout of the proposed development should be designed so that works are not required within the RPA or canopy spread of any retained tree.
- Where any new development is proposed within the RPA or canopy spread of a retained tree it must be constructed in such a way that damage of the trees root system or crown can be avoided.
- Should new development require works within the RPA of any retained tree an Arboricultural Method Statement should be prepared to set out what steps are to be taken to protect the trees during the course of development.
- Any proposed new planting should consist of native and wildlife attracting species with a robust five year management plan to assist with the development proposal and to offer mitigation for any tree loss.
- This Arboricultural Survey is valid for a period of 12 months. If works are not commenced within this time period then it is advised that the trees are re-inspected to ensure no significant defects have developed since the original survey.

The following generic guidance should also be taken into account during the construction phase of any development, or significant engineering. The following proposals are made for this site:

- Any trees, hedges or woodlands that are to be retained should be adequately protected by Heras fencing, in line with BS5837:2012, extending at least to the Root Protection Radius, to prevent accidental damage by vehicles or contractors (see Table 3.5, pages 14 to 15, for RPA data for each tree).
- All tree works are to be carried out by a competent and qualified arborist to BS3998:2010 Trees work—recommendations, standards.
- Tree protection should be included in the induction and/or briefing sessions by the contractors to site personnel.
- Soil compaction, from the storage of large quantities of materials and plant tracking, may result in changes to soil permeability and local drainage. This may lead to waterlogging or loss of soil crumb structure. These effects may in turn lead to root asphyxiation and root death, a cause of instability and or mortality in trees. For this reason, heavy machinery and the storage of materials should be excluded from the crown and Root Protection Radius of all trees.

- The recommendations of BS5837:2012 and National Joint Utilities Group Volume 4 (Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees) (as appropriate to operations) should be followed when working close to trees.
- If works take place during the bird breeding season, usually from March to September inclusive, trees and hedgerows should be checked for nesting birds. If any trees are to be removed this should be done outside the breeding season or in the presence of a suitably qualified ecologist.

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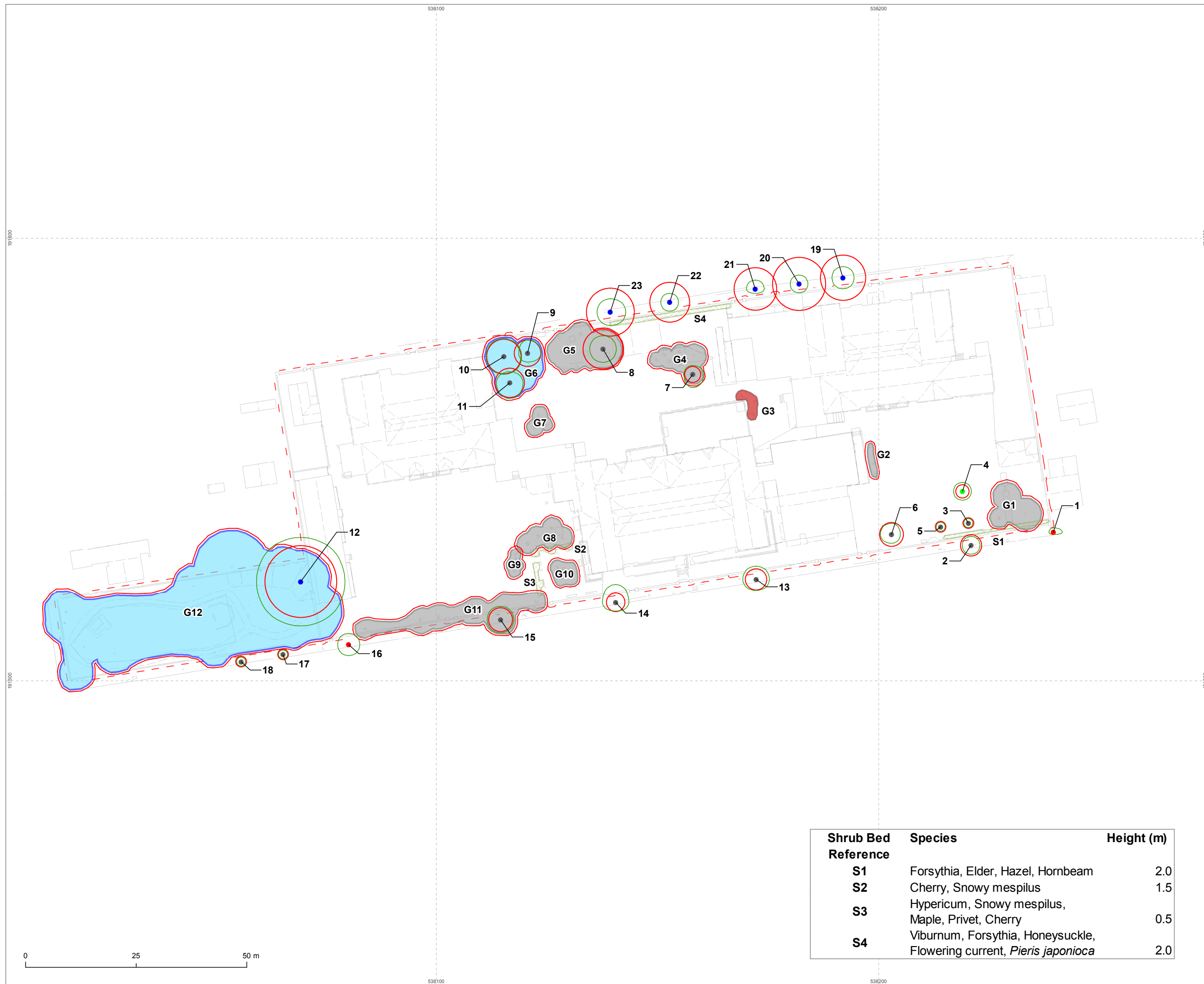
DRAWINGS

Middlemarch Environmental Ltd Drawing Number C116284D-02-01: Arboricultural Survey

Legend

- Category A tree
- Category B tree
- Category C tree
- Category U tree
- Current canopy extent
- Root Protection Area
- Category B group
- Category C group
- Category U group
- Shrub
- Site boundary

The original of this drawing was produced in colour - a monochrome copy should not be relied upon



Shrub Bed Reference	Species	Height (m)
S1	Forsythia, Elder, Hazel, Hornbeam	2.0
S2	Cherry, Snowy mespilus	1.5
S3	Hypericum, Snowy mespilus, Maple, Privet, Cherry	0.5
S4	Viburnum, Forsythia, Honeysuckle, Flowering current, <i>Pieris japonica</i>	2.0

Project Selwyn Primary School, Cavendish Road	
Drawing Arboricultural Survey	
Client Mace Limited	
Drawing Number C116284D-02-01	Revision 00
Scale @ A3 1:800	Date March 2014
Approved By MB	Drawn By RP

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QUALITY ASSURANCE

ARBORICULTURAL SURVEY

SELWYN PRIMARY SCHOOL, 102 CAVENDISH ROAD,
HIGHAMS PARK, GREATER LONDON

A Report to Mace Limited

Contract Number: C116284

Report Number: RT-MME-116284D-02

Revision Number: 00

Description: Final

Date: March 2014

Checked by:

Ed Lusk
Principal Arboricultural Consultant

Approved by:

Dr Philip Fermor
Managing Director