August 2020
CBA11305 v1

Brackley Investments Ltd

ARBORICULTURAL DEVELOPMENT STATEMENT

Site:
Bartons Road
Havant

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The Complete Arboricultural Consultancy

ARBORICULTURAL DEVELOPMENT STATEMENT

Arboricultural Implications Assessment and Method Statement
guided by recommendations within BS5837:2012

Client:	Brackley Investments Ltd
Site:	Bartons Road, Havant
Arboricultural Consultant:	Stefan Rose *BSc (Hons), TechCert (Arbor.A), TechArborA*
Date:	August 2020

SUMMARY

There is a development proposal for a 64 bed care home, associated off road car parking and outdoor space at land off Bartons Road, Havant. The impact of these works have been assessed broadly in accordance with BS5837:2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"*.

This Arboricultural Development Statement (ADS) will demonstrate the protection measures for the retained trees and should be read in association with the Tree Protection Plan CBA11305.02 TPP that identifies the trees to be retained, their protection measures and trees for removal. It follows the initial tree survey and implications assessment.

The emphasis of the report is predominantly that of preservation and tree protection. It identifies methodologies to provide protection for trees, to ensure their healthy and safe retention during and post development, as guided by BS5837:2012 and current best practice.

The tree survey exercise identified 48 (forty-eight) individual trees, 7 (seven) groups of trees with 69 (sixty-nine) noted trees within and 1 (one) hedge.

The development proposal has been designed to retain 31 (thirty one) individual trees, the retention or partial retention of 6 (six) groups of trees and the 1 (one) hedge.

CBA Trees believes that the trees highlighted for retention within this report can be retained without undue stress on their long-term health.

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CB2 Root Protection Area Schedule
CB3 Tree Protection Plan CBA11305.02 TPP
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GUIDING PRINCIPLES/APPENDICES:

CB5 Tree Protection Guidance Leaflet
Construction Exclusion Zone Site Notice
Common Causes of Damage During Construction Works
CB6 Qualifications and Experience

1.0 INTRODUCTION

1.1 There is a development proposal for a 64 bed care home, associated off road car parking and outdoor space at land off Bartons Road, Havant. The impact of these works has been assessed broadly in accordance with BS5837:2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"*.

1.2 Document disclosure provided by Brackley Investments Ltd:

- Proposed Landscape Plan - drawing number M9347_APL005_D
- Proposed Site Plan Plan - drawing number M9347_APL003_J

1.3 The client and project architects provided the original site plans and locations of the trees, and these have been the basis for the production of subsequent plans. Whilst CBA Trees has had a limited input in defining the contents of the development plan, it broadly conforms to the requirements of BS5837:2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"* and current best practice advice.

1.4 Our advice has been sought on the principles of the development works in relation to the potential impact on the existing tree stock, to inform and to facilitate the development layout.

2.0 CLIENT'S BRIEF

2.1 In line with our written quotation and verbal instructions, information has been compiled in accordance with BS5837:2012 and current best practice advice.

- To undertake a Tree Survey, appended at CB1.
- To produce a Tree Survey Plan that relies on the accuracy of the topographical survey provided by the client (plan CBA11305.01C TSP appended with the Tree Survey Schedule at CB1).
- To produce a schedule of Root Protection Areas in accordance with BS5837:2012 Annex D, appended at CB2.
- To undertake an Arboricultural Implications Assessment (AIA) of the proposed development provided by the client to identify which trees will be lost, which can be retained and suggest mitigating build techniques in order to retain trees.
- Based on the above and further on-going discussions, to provide an Arboricultural Development Statement detailing the methodologies for the retention of the tree stock where feasible, in relation to the development layout including a Tree Protection (CBA11305.02 TPP) appended at CB3.

2.2 The advice provided has been formulated without discussion with the main ground or construction contractors who at this stage have not been appointed. Once the main contractors are appointed, amendments to this statement may be required for construction purposes. All amendments will be assessed by the retained

arboricultural consultant and approved in writing by Havant Borough Council Planning Officer/Tree Officer.

3.0 DESCRIPTION OF THE SITE

3.1 The site is currently an area of garden space to the eastern side of Helmsley House with direct access via a gate to the northern boundary onto Bartons Road. New development has been built to the east and south of the site.

3.2 Trees stand around the perimeter of the site, with one Oak that stands slightly more centrally to the western side of the site.

3.3 The site is generally flat in its appearance but does slope from north to south.

4.0 THE TREE STOCK

4.1 CBA Trees undertook a tree survey on 14th November 2019 which was updated on 30th July 2020. The tree survey exercise identified 48 (forty-eight) individual trees, 7 (seven) groups of trees with 69 (sixty-nine) noted trees within and 1 (one) hedge. The Tree Survey Schedule and Tree Survey Plan (CBA11305.01C TSP) are appended at CB1.

4.2 ***Tree Categorisation Method***

Category U = Trees in such a condition that any value would be lost within 10 years, or should be removed for reasons of sound arboricultural management.

Individual Tree: 2, 5, 6, 7, 19, 27, 28, 31 and 34
Noted trees in Groups: G4.15, G4.21, G4.24 and G6.8

Note: BS5837:2012 states -
"Category U trees are those 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."

Category A = Trees of high quality and value: in such a condition as to make a substantial contribution, (40 years or more is recommended). There were no individual 'A' grade trees, groups of trees or hedges on or adjacent to the site at the time of surveying.

Category B = Trees of moderate quality and value, capable of making a significant contribution for in excess of 20 years.

Individual Tree: 3, 4, 9, 15, 26, 35, 42, 47 and 48
Group: 6
Noted trees in Groups: G6.1

Category C = Trees of low quality and value which might remain for a minimum of 10 years or young trees with stems of less than 150mm diameter.

Individual Trees: 1, 8, 10, 11, 12, 13, 14, 16, 17, 18, 20, 21, 22, 23, 24, 25, 29, 30, 32, 33, 36, 37, 38, 39.1, 39.2, 40, 41, 43, 44, 45 and 46
Group: 1, 2, 3, 4, 5 and 7
Noted trees in Groups: G4.1-G4.14, G4.16-G4.20, G4.22, G4.23, G4.25-G4.31, G5.1-G5.9, G6.2-G6.7, G6.9-G6.17 and G7.1-G7.12
Hedge: 1

Note:
Trees under these categories are trees that should be a material consideration in the development process; the subcategories are intended to reflect arboricultural, landscape and cultural values respectively.

4.3 For more details of the existing tree stock, refer to the Tree Survey Schedule (appended at CB1).

5.0 TREE PRESERVATION ORDER/CONSERVATION AREA

5.1 A Tree Preservation Order (reference: TREE PRESERVATION ORDER (2105) 2020 - Helmsley House, Bartons Road, Havant, Hampshire) served and administered by Havant Borough Council protects Trees 4, 9, 15 and 35.

5.2 As trees can be legally protected at any time, checks with the Havant Borough Council should be made prior to carrying out any tree works to check whether a Tree Preservation Order has been served.

6.0 PROPOSED TREE RETENTION AND TREE LOSS

6.1 In accordance with the recommendations contained within BS5837:2012, an experienced arboriculturist has assessed the requirements for tree protection and the Root Protection Area (RPA). The implications of the proposed development are detailed below, along with any mitigating measures to ensure the retention of these trees.

6.2 As part of the assessment, dimensions have been scaled from the Proposed Site Plan - drawing number M9347_APL003_J provided by Brackley Investments Ltd prepared and modified, to include the relevant Tree Survey data appended at CB3.

7.0 SUMMARY OF ARBORICULTURAL IMPLICATIONS

7.1 The following is a summary of arboricultural implications as indicated on Tree Protection Plan CBA11305.02 TPP.

Table 1: Arboricultural Implications

Tree No.	Species	BS 5837:2012 Cat	Potential cause of harm	Implication	Mitigation
1	Cherry Laurel *Prunus laurocerasus*	C1	• Unaffected by development	• Retained	• Away from the area of development
2	Elm *Ulmus spp*	U	• -	• Retained	• Outside of application boundary and therefore the responsibility of land owner
3	Flowering Cherry *Prunus spp*	B1+2	• Unaffected by development	• Retained	• Away from the area of development
4 TPO T1	Pedunculate Oak *Quercus robur*	B1+2	• Unaffected by development	• Retained	Away from the area of development
5	Common Elder *Sambucus nigra*	U	• -	• Retained	• Outside of application boundary and therefore the responsibility of land owner
6	Turkey Oak *Quercus cerris*	U	• -	• Retained	• Outside of application boundary and therefore the responsibility of land owner
7	Apple *Malus spp*	U	• -	• Retained	• Outside of application boundary and therefore the responsibility of land owner
8	Common Ash *Fraxinus excelsior*	C1+2	• Unaffected by development	• Retained	• Away from the area of development
9 TPO T2	Pedunculate Oak *Quercus robur*	B1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new access road • Installation of new services and drainage • Installation of boundary fence	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
10	Goat Willow *Salix caprea*	C1	• Working space and contractor movements damaging root system and rooting environment • Construction of new access road • Installation of new services and drainage • Installation of boundary fence • General site construction activity, material storage and mixing	• Removed	• Replacement planting
11	Common Ash *Fraxinus excelsior*	C1+2	• Underfoot print of development	• Removed	• Replacement planting
12	Common Sycamore *Acer pseudoplatanus*	C1	• Working space and contractor movements damaging root system and rooting environment • Construction of new access road • Installation of new services and drainage • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below

Tree No.	Species	BS 5837:2012 Cat	Potential cause of harm	Implication	Mitigation
13	Wild Cherry *Prunus avium*	C1	• Working space and contractor movements damaging root system and rooting environment • Construction of new access road • Installation of new services and drainage • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
14	Common Ash *Fraxinus excelsior*	C1+2	• New road access, services and drainage causing loss of roots	• Removed	• Replacement planting
15 TPO T3	Pedunculate Oak *Quercus robur*	B1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new access road • Installation of new services and drainage • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
16	Common Sycamore *Acer pseudoplatanus*	C1	• Working space and contractor movements damaging root system and rooting environment • Construction of new access road and parking bays • Installation of new services and drainage • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
17	Common Ash *Fraxinus excelsior*	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new access road and parking bays • Installation of new services and drainage • Installation of boundary fence • General site construction activity, material storage and mixing	• Removed	• Replacement planting
18	Common Ash *Fraxinus excelsior*	C1	• Underfoot print of development	• Removed	• Replacement planting
19	Crack Willow *Salix fragilis*	U	• -	• Removed	• Removed for sound arboricultural management • Replacement planting
20	Pedunculate Oak *Quercus robur*	C1+2	• Underfoot print of development	• Removed	• Replacement planting

Tree No.	Species	BS 5837:2012 Cat	Potential cause of harm	Implication	Mitigation
21	Common Ash *Fraxinus excelsior*	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of new services and drainage • Installation of boundary fence • General site construction activity, material storage and mixing	• Removed	• Replacement planting
22	Common Ash *Fraxinus excelsior*	C1+2	• Underfoot print of development	• Removed	• Replacement planting
23	Common Ash *Fraxinus excelsior*	C1	• Underfoot print of development	• Removed	• Replacement planting
24	Common Ash *Fraxinus excelsior*	C1	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
25	Pedunculate Oak *Quercus robur*	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
26	Common Yew *Taxus baccata*	B1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
27	Crack Willow *Salix fragilis*	U	• -	• Removed	• Removed for sound arboricultural management • Replacement planting
28	Crack Willow *Salix fragilis*	U	• -	• Removed	• Removed for sound arboricultural management • Replacement planting
29	Crack Willow *Salix fragilis*	C1	• Working space and contractor movements damaging root system and rooting environment • Construction of retaining wall • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below

Tree No.	Species	BS 5837:2012 Cat	Potential cause of harm	Implication	Mitigation
30	Common Ash *Fraxinus excelsior*	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of retaining wall • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
31	Crack Willow *Salix fragilis*	U	• -	• Removed	• Removed for sound arboricultural management • Replacement planting
32	Common Ash *Fraxinus excelsior*	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of retaining wall • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
33	Common Ash *Fraxinus excelsior*	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of retaining wall • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
34	Wild Cherry *Prunus avium*	U	• -	• Removed	• Removed for sound arboricultural management • Replacement planting
35 TPO 4	Pedunculate Oak *Quercus robur*	B1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new care home • Installation of drainage and services • Installation of landscaping features and planting • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
36	Common Ash *Fraxinus excelsior*	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new care home • Installation of drainage and services • Installation of landscaping features and planting • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below • Footpaths and Gazebo will need to be built up on existing ground levels • Use of narrow scaffolding on southern side

Tree No.	Species	BS 5837:2012 Cat	Potential cause of harm	Implication	Mitigation
37	Pedunculate Oak *Quercus robur*	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new care home • Installation of drainage and services • Installation of landscaping features and planting • Installation of retaining wall • General site construction activity, material storage and mixing	• Removed	• Replacement planting
38	Common Sycamore *Acer pseudoplatanus*	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new care home • Installation of drainage and services • Installation of landscaping features and planting • Installation of retaining wall • General site construction activity, material storage and mixing	• Removed	• Replacement planting
39.1	Common Ash *Fraxinus excelsior*	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new care home • Installation of drainage and services • Installation of landscaping features and planting • Installation of retaining wall • General site construction activity, material storage and mixing	• Removed	• Replacement planting
39.2	Common Ash *Fraxinus excelsior*	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new care home • Installation of drainage and services • Installation of landscaping features and planting • Installation of retaining wall • General site construction activity, material storage and mixing	• Removed	• Replacement planting
40	Common Ash *Fraxinus excelsior*	C1	• Unaffected by development	• Retained	• Away from the area of development
41	Common Ash *Fraxinus excelsior*	C1	• Unaffected by development	• Retained	• Away from the area of development

Tree No.	Species	BS 5837:2012 Cat	Potential cause of harm	Implication	Mitigation
42	Scots Pine *Pinus sylvestris*	B1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new care home • Installation of drainage and services • Installation of landscaping features and planting • Installation of retaining wall • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
43	Common Ash *Fraxinus excelsior*	C1+2	• Unaffected by development	• Retained	• Away from the area of development
44	Lawson Cypress *Chamaecyparis lawsoniana*	C1+2	• Unaffected by development	• Retained	• Away from the area of development
45	Common Ash *Fraxinus excelsior*	C1+2	• Unaffected by development	• Retained	• Away from the area of development
46	Common Ash *Fraxinus excelsior*	C1+2 Interim	• Unaffected by development	• Retained	• Offsite • Away from the area of development
47	Gum *Eucalyptus spp*	B1+2 Interim	• Unaffected by development	• Retained	• Offsite • Away from the area of development
48	Flowering Cherry *Prunus spp*	B1+2 Interim	• Unaffected by development	• Retained	• Offsite • Away from the area of development
Grp 1	Myrobalan Plum	C2	• Unaffected by development	• Retained	• Offsite • Away from the area of development
Grp 2	Hawthorn x2 Elder x2	C2	• Working space and contractor movements damaging root system and rooting environment • Construction of new access road • Installation of new services and drainage • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
Grp 3	Common Hawthorn	C2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of new services and drainage • Installation of boundary fence • General site construction activity, material storage and mixing	• Removed	• Replacement planting

Tree No.	Species	BS 5837:2012 Cat	Potential cause of harm	Implication	Mitigation
Grp 4	Common Ash Common Hawthorn Pedunculate Oak Holm Oak	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of new services and drainage • Installation of boundary fence • General site construction activity, material storage and mixing	• See below for specific trees within group	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below • Replacement planting
G4.1	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.2	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.3	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.4	Common Ash	C1+2	• Under footprint of development	• Removed	• Replacement planting
G4.5	Common Ash	C1+2	• Under footprint of development	• Removed	• Replacement planting
G4.6	Common Ash	C1+2	• Under footprint of development	• Removed	• Replacement planting
G4.7	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.8	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below

Tree No.	Species	BS 5837:2012 Cat	Potential cause of harm	Implication	Mitigation
G4.9	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.10	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.11	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.12	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.13	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.14	Holm Oak	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.15	Common Ash	U	• -	• Removed	• Removed for sound arboricultural management • Replacement planting
G4.16	Common Ash	C1+2	• Under footprint of development	• Removed	• Replacement planting
G4.17	Common Ash	C1+2	• Under footprint of development	• Removed	• Replacement planting

Tree No.	Species	BS 5837:2012 Cat	Potential cause of harm	Implication	Mitigation
G4.18	Pedunculate Oak	C1+2	• Under footprint of development	• Removed	• Replacement planting
G4.19	Common Ash	C1+2	• Under footprint of development	• Removed	• Replacement planting
G4.20	Common Ash	C1+2	• Under footprint of development	• Removed	• Replacement planting
G4.21	Common Ash	U	• -	• Removed	• Removed for sound arboricultural management • Replacement planting
G4.22	Common Hawthorn	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.23	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.24	Common Ash	U	• -	• Removed	• Removed for sound arboricultural management • Replacement planting
G4.25	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.26	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.27	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below

Tree No.	Species	BS 5837:2012 Cat	Potential cause of harm	Implication	Mitigation
G4.28	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.29	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.30	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new parking bays • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G4.31	Common Hawthorn	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of boundary fence • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
Grp 5	Myrobalan Plum Wild Cherry Common Hawthorn Crack Willow	C2	• Working space and contractor movements damaging root system and rooting environment • Installation of retaining wall • Installation of boundary fence • Landscaping works • General site construction activity, material storage and mixing	• See below for specific trees within group	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G5.1	Myrobalan Plum	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of retaining wall • Installation of boundary fence • Landscaping works • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below

Tree No.	Species	BS 5837:2012 Cat	Potential cause of harm	Implication	Mitigation
G5.2	Wild Cherry	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of retaining wall • Installation of boundary fence • Landscaping works • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G5.3	Wild Cherry	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of boundary fence • Landscaping works • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G5.4	Common Hawthorn	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of boundary fence • Landscaping works • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G5.5	Common Hawthorn	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of boundary fence • Landscaping works • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G5.6	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of boundary fence • Landscaping works • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G5.7	Common Hawthorn	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of boundary fence • Landscaping works • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below

Tree No.	Species	BS 5837:2012 Cat	Potential cause of harm	Implication	Mitigation
G5.8	Common Hawthorn	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of retaining wall • Installation of boundary fence • Landscaping works • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G5.9	Common Hawthorn	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of boundary fence • Landscaping works • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
Grp 6	Goat Willow Leyland Cypress Cherry Laurel Portugal Laurel Scots Pine Lawson Cypress Common Ash Bamboo	B2	• Working space and contractor movements damaging root system and rooting environment • Installation of retaining wall • Installation of boundary fence • Landscaping works • General site construction activity, material storage and mixing	• See below for specific trees within group	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G6.1	Atlas Cedar	B1+2	• Unaffected by development	• Retained	• Away from the area of development
G6.2	Goat Willow	C1+2	• Unaffected by development	• Retained	• Away from the area of development
G6.3	Portugal Laurel	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of retaining wall • Landscaping works • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G6.4	Portugal Laurel	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of retaining wall • Landscaping works • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G6.5	Lawson Cypress	C1+2	• Unaffected by development	• Retained	• Away from the area of development
G6.6	Portugal Laurel	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of retaining wall • Landscaping works • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below

Tree No.	Species	BS 5837:2012 Cat	Potential cause of harm	Implication	Mitigation
G6.7	Common Ash	C1+2	• Unaffected by development	• Retained	• Away from the area of development
G6.8	Common Ash	U	• Unaffected by development	• Retained	• Offsite and therefore the responsibility of land owner
G6.9	Portugal Laurel	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of retaining wall • Landscaping works • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G6.10	Portugal Laurel	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of retaining wall • Landscaping works • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G6.11	Portugal Laurel	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of retaining wall • Landscaping works • General site construction activity, material storage and mixing	• Removed	• Replacement planting
G6.12	Holm Oak	C1+2	• Unaffected by development	• Retained	• Away from the area of development
G6.13	Portugal Laurel	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of retaining wall • Landscaping works • General site construction activity, material storage and mixing	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G6.14	Portugal Laurel	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of retaining wall • Landscaping works • General site construction activity, material storage and mixing	• Removed	• Replacement planting
G6.15	Portugal Laurel	C1+2	• Working space and contractor movements damaging root system and rooting environment • Installation of retaining wall • Landscaping works • General site construction activity, material storage and mixing	• Removed	• Replacement planting
G6.16	Portugal Laurel	C1+2	• Unaffected by development	• Retained	• Away from the area of development
G6.17	Leyland Cypress	C1+2	• Unaffected by development	• Retained	• Away from the area of development

Tree No.	Species	BS 5837:2012 Cat	Potential cause of harm	Implication	Mitigation
Grp 7	Common Ash	C1+2	• Unaffected by development	• Retained	• Away from the area of development
G7.1	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new retaining wall • Installation of new services and drainage • Installation of boundary fence	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G7.2	Common Ash	C1+2	• Unaffected by development	• Retained	• Away from the area of development
G7.3	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new retaining wall • Installation of new services and drainage • Installation of boundary fence	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G7.4	Common Ash	C1+2	• Working space and contractor movements damaging root system and rooting environment • Construction of new retaining wall • Installation of new services and drainage • Installation of boundary fence	• Retained	• Protected as shown on CBA11305.02 TPP and as detailed in Part 2 below
G7.5	Common Ash	C1+2	• Unaffected by development	• Retained	• Away from the area of development
G7.6	Common Ash	C1+2	• Unaffected by development	• Retained	• Away from the area of development
G7.7	Common Ash	C1+2	• Unaffected by development	• Retained	• Away from the area of development
G7.8	Common Ash	C1+2	• Unaffected by development	• Retained	• Away from the area of development
G7.9	Common Ash	C1+2	• Unaffected by development	• Retained	• Away from the area of development
G7.10	Common Ash	C1+2	• Unaffected by development	• Retained	• Away from the area of development
G7.11	Common Ash	C1+2	• Unaffected by development	• Retained	• Away from the area of development
G7.12	Common Ash	C1+2	• Unaffected by development	• Retained	• Away from the area of development
H1	Privet	C2	• Unaffected by development	• Retained	• Away from the area of development

8.0 PRE-COMMENCEMENT SITE MEETING

8.1 It is recommended that a pre-commencement site meeting is be held prior to any works commencing on site, to agree all approved processes with the arboricultural consultant, the construction personnel and Havant Borough Council Tree Officer. This meeting could be used to formally agree the methods of work, position of site offices, material storage, compounds, parking and tree protection measures prior to commencement of the development and the associated clearance work. It is advised that a pre commencement meeting is held prior to the start of site clearance and demolition works.

9.0 ADDITIONAL ARBORICULTURAL ADVICE FOR SITE PERSONNEL

9.1 To provide site personnel with additional information regarding the requirements of Tree Protection, a leaflet (appended at CB5) shall be issued to all staff at the time of their site induction. Spare copies of this leaflet shall be available in the site office as replacements.

9.2 In order to inform site personnel of the purpose of the barriers, information notices shall be fixed to the barriers at 5m intervals. These notices shall be of all-weather construction and shall be substantially in the form of the specimen provided at appendix CB5 and replaced as and when necessary.

10.0 PRE-DEVELOPMENT TREE WORKS

10.1 All tree works will be undertaken prior to the commencement of site preparation and construction works.

10.2 **All permitted or approved tree work** should be carried out in accordance with the British Standard *"Recommendations for Tree Work"* BS3998:2010, by suitably qualified and experienced professional arborists. Under no circumstances shall site personnel undertake any tree pruning operations. All tree surgery works should be carried out prior to the development of the site, and erection of protective barriers.

10.3 If additional tree works are required during the development works, a written notification must be made to Havant Borough Council prior to the works being programmed/commenced and are subject to the Council considering the works and allowing the tree works before the works are carried out.

10.4 Consideration should be given to the timing of any tree works to avoid the active growing period of trees. Therefore, all tree work should ideally be carried out during the dormant period from November through to February and then again from June to August.

10.5 Due to the bird-nesting season, considered to be from 1st March through to the 31st July (Natural England) depending on weather conditions, consideration must also be

given to the potential for nesting birds. Therefore, where tree work is to be carried out within these months the project ecologist must be consulted to:

- Complete or advise on a pre-works survey that needs to be carried out by a suitably competent person. As a general rule, it should be assumed that birds will be nesting in trees, and it is down to contactors to assess, record and confirm that any works carried out in the management of trees and other vegetation has not disturbed actively nesting birds.

- Ground vegetation, and therefore ground nesting birds, can often be overlooked by tree workers so additional care and controls should be taken when access and egress to the work site may also cause disturbance or damage to a nesting site. This is also true for retained trees on site as the removal of adjacent trees or remedial works on a tree may lead to an established nest being abandoned, exposed to the elements or predation. This action is also a breach of the Act and therefore could lead to prosecution due to the infringement of the Wildlife and Countryside Act 1981 and breaching the Conservation of Habitats and Species Regulations 2010 (as amended).

10.6 Although not apparent at the time of the site visit, consideration should also be given to the presence of bats, and a full visual assessment should be undertaken before any works are carried out on the trees. Where bats are identified as a serious concern, a bat survey should be undertaken by qualified and trained personnel to identify the needs of the bats (roosts, resting place etc) and no tree works can be carried out until the 'all clear' is given, or a programme of recommendations is received in writing.

10.7 Should additional tree works become apparent during the construction process; written consent will be required from Havant Borough Council prior to these additional works being undertaken.

10.8 All tree works that are required to facilitate the development works are detailed within the Tree Works Schedule appended at CB4.

11.0 TREE PROTECTION MEASURES

11.1 All site operations will be planned, implemented and supervised to prevent the following unless otherwise agreed within this report:

- Root severance
- Damage to the bark, branches and trunks
- Compaction of the soil within the Construction Exclusion Zone
- Alterations in soil level
- Soil contamination by phytotoxic materials such as herbicides, petrol, oils, diesel, cement and concrete washings or other construction additives

11.2 Before starting any site preparation, demolition, ground or construction works in relation to this development proposal; tree protection will be installed in accordance

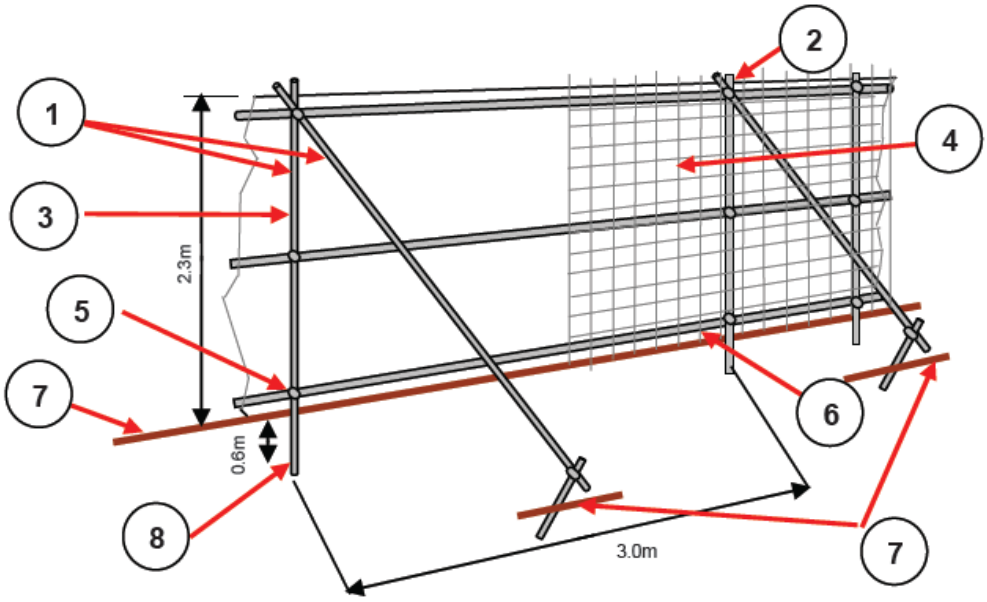
with Tree Protection Plan CBA11305.02 TPP (appended at CB3). This will occur immediately following the completion of tree works and prior to any site preparation works starting.

A copy of the Tree Protection Plan will be displayed in the site office and canteen as a point of reference for all site operatives.

11.3 *Standard Protective Barrier*

Installing the following protective barrier as indicated on Tree Protection Plan CBA11305.02 TPP will protect retained trees. The barrier is to comprise of a vertical and horizontal framework, well braced to resist impacts, with vertical tubes spaced at a maximum interval of 3m. Onto this, weldmesh panels should be securely fixed with wire or scaffold clamps.

Figure 1: Protective Barrier



1. Standard scaffold poles
2. Uprights to be driven into the ground
3. Panels secured to uprights with wire ties and where necessary standard scaffold clamps
4. Weldmesh wired to the uprights and horizontals
5. Standard clamps
6. Wire twisted and secured on inside face of barriers to avoid easy dismantling
7. Ground level
8. Approximately 0.6m driven into the ground

Example of tree protection:

11.4 The use of narrow scaffolding will be required adjacent to the southern side of T36. This will prevent vehicular access in this area once the foundations are laid and the scaffolding is erected.

11.5 Once the barriers and ground protection are in place it must remain *in-situ* throughout the following list:

- Contractor occupancy
- Plant and materials delivery
- Construction works
- Installation of porous surfacing
- Utility installation
- Completion of development
- Landscaping

11.6 The areas protected by barriers, fencing and ground protection will be regarded as **sacrosanct**, and the tree protective barriers shall not be taken down or relocated at any time without the written approval of Havant Borough Council. An example of a CEZ notice is appended at CB5.

12.0 EXISTING SERVICES

12.1 No information has been provided on the location and size of existing services. Given the site, existing services are considered unlikely. However, if there are any existing services within the RPA and CEZ of retained trees will not be chased out, but cut at the edge of any structure and left *in- situ.*

12.2 Cabling will only be recovered from beneath a CEZ where it is located in ducting, and can be removed by winching from an existing service manhole beyond the CEZ.

12.3 Service pipes and ducts, where they are located within the CEZ or RPA of retained trees, will be made redundant either by pipe bursting or by filling with an inert material such as foamed concrete.

13.0 AVOIDING DAMAGE TO STEMS AND BRANCHES

13.1 Care shall be taken when planning site operations, to ensure that wide or tall loads or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Such contact could result in serious damage to them, and might make their safe retention impossible. Consequently, any transit or traverse of plant in close proximity to trees, will be conducted under the supervision of a banksman, in order to ensure adequate clearance from trees is maintained at all times.

14.0 VEHICULAR MOVEMENTS

14.1 There should be minimal vehicular movement in the potential rooting zone and outside the CEZ identified on plans CBA11305.02 TPP.

14.2 It is not anticipated that there will be a need for excess vehicular movement near the retained trees for works relating to this development given the locations of the trees.

15.0 SITING OF TEMPORARY OFFICES, TOILETS AND MATERIAL STORAGE COMPOUNDS

15.1 It is anticipated that all storage materials and deliveries shall make use of the open space outside of the RPAs of retained trees and the construction exclusion zone in order to avoid unnecessary damage to tree roots.

15.2 The locations shall be agreed in writing with Havant Borough Council prior to the commencement of works on site, and will remain in only those agreed locations throughout the construction phases. If an alternative location is required, this must be agreed in writing with Havant Borough Council. This will also include the delivery; storage and movement of all essential facilities, as well as aspects such as temporary contractor vehicle parking and site location of chemical mixing (e.g. concrete). All such locations will be outside of the RPAs, and avoid areas where 'run off' of chemicals may flow into RPAs.

15.3 To reduce the impact on the retained trees, the new access must be constructed and utilised as soon as practically possible to reduce vehicle movement on the existing access for the site.

15.4 ***Site Huts***

All site huts that are to be situated on ground soft ground, shall have appropriate footings or be situated on a temporary surface, which will aid in reducing the potential for compaction of the ground, where they are in close proximity to the existing tree protective barrier line. Site huts can be used as part of the protective barrier boundary, and in some cases, can be beneficial where installation does not conflict with the aerial parts of the tree.

If it is proposed that site huts, ground protection or stores are to be located within the RPA of retained trees for more than 3 months, a temporary irrigation and aeration system will be installed to ensure that the rooting environment is maintained in a good condition. The system will include a compressible layer of composted wood chip or forest bark over a geotextile separation layer, on which ground protection or site huts can be placed. Watering will depend on permeability of the soil, weather conditions, and the extent of the area covered, but should include weekly watering from April to September, when no rainfall has occurred for more than four consecutive days.

15.5 ***Material Storage***

This shall be accommodated outside of the CEZ, particularly to avoid harmful spillages of fuel, or phytotoxic substances that may damage the health of retained trees.

16.0 GENERAL CONSIDERATIONS WITHIN AND OUTSIDE THE CONSTRUCTION EXCLUSION ZONE (CEZ)

16.1 Inside the CEZ formed by the tree protective barrier measures, the following prohibitions shall apply:

- No construction activity will occur within the CEZ unless otherwise stated in this report, or agreed in writing with Havant Borough Council prior to the specific activity taking place.

16.2 In addition to the above, further precautions are necessary adjacent to trees outside the CEZ:

- Materials which will contaminate the soil e.g. concrete mixing, diesel oil and vehicle washings, shall not be discharged within 10 metres of the tree stem. This should take into consideration the topography of the site and slopes, to avoid materials such as concrete washings running towards trees.

- Fires shall not be lit in a position where their flames can extend to within 5 metres of foliage, branches or trunk. This will depend on the size of the fire and the wind direction.

- Notice boards, telephone cables or other services shall not be attached to any part of the tree (see appendix CB5 Common Causes of Damage During Construction Works).

17.0 UTILITY SERVICE CONNECTIONS

17.1 Full details of all service location proposals have not been forwarded to CBA Trees at the time of compiling this assessment. It is however assumed, given the location of the trees to be retained, that any new services will be installed outside the root protection areas of retained trees in particular centrally to the site where T35 is located.

17.2 Further advice on the installation of services is set out in NJUG Publication Volume 4 2007, and Section 7.7 of BS5837:2012.

18.0 FOUNDATION DESIGN AND CONSTRUCTION

18.1 Traditional foundations for the care home and parking bays can be used.

18.2 To reduce the impact on the retained Tree 36, the footpaths and gazebo will need to be constructed with a minimal excavation and built up on existing ground levels to avoid excessive root loss.

19.0 GROUND LEVEL ALTERATIONS

19.1 There will be no increases or decreases to the ground levels within the root protection areas of the retained trees other than those that are detailed within this report.

20.0 INSTALLATION OF BOUNDARY TREATMENT

20.1 The proposal indicates that new boundary treatments are proposed within or on the perimeter of the root protection areas of retained trees. Tree roots can extend well in excess of the RPA of retained trees and are mainly located in the upper 600mm of soil. As such, even minor levelling and excavation can result in extensive damage to the root system. Inappropriate access within the CEZ for fence construction purposes can result in soil compaction and deterioration of the soil structure. Concrete used to support the posts is poisonous to plants and, if not controlled, can leach into the surrounding soil.

20.2 Fencing will be constructed in accordance with the following specification:

- Fencing will be designed so as to minimise the need for excavation and allow minor variations between post spacings to allow repositioning of posts to permit the retention of all roots where possible, that are greater than 25mm, which are discovered during the excavation of postholes within the RPA of retained trees.

- Fencing will be installed during period of dry weather so as to maintain soil structure and prevent compaction of the rooting environment.

- Fit for purpose ground protection will be placed along the line of construction within the trees root protection area to prevent compaction of the rooting environment of retained trees. This may take the form of robust plywood boards.

- New post holes will be carefully excavated by hand to avoid damage to roots greater than 25mm in diameter.

- Although postholes lined with heavy gauge polythene to prevent contamination of the rooting environment from drying concrete is the best option for the tree. It does not allow for the concrete to cure adequately against the surrounding soil. It is therefore imperative that fresh concrete is poured as dry as possible to avoid excessive leaching into the soil. If tree roots are exposed in post holes, then heavy gauge polythene must be used to avoid direct contact between root and concrete.

- Bracing of posts off retained trees will not be permitted under any circumstances

21.0 SOFT LANDSCAPING WORKS

21.1 Any soft landscaping works within the development site will be in accordance with all approved landscape plans, and any specification of such works approved by Havant Borough Council.

21.2 Landscaping will accord with following requirements where in close proximity to retained trees:

- Where landscaping works are to be carried out within the CEZ of retained trees after the main phase of construction has been completed. At this stage, it will be necessary to alter the line of/remove protective barriers in order to facilitate the landscaping works.

- The CEZ will remain off limits for all site plant and machinery unless fit for purpose ground protection is installed. Pedestrian traffic must be kept to an absolute minimum only permitted for the ground preparation and landscape installation works.

- Contractors will utilise existing or newly created areas of hand standing for vehicle access. Where plant and/or vehicles are to be used within the root protection areas of trees, fit for purpose ground protection or specific load spreading tyres on light weight vehicles will be used to avoid excessive compaction of the ground.

- The landscaping works will need to be undertaken in such a way as to avoid level changes, deep digging or mechanical rotovating. Excavation of planting pits with the RPA can cause serious harm the root system of retained trees. Planting pits within the RPA of retained trees will be excavated by hand to avoid roots greater than 25mm and masses of smaller roots.

- If any planting pits are required within the CEZ of retained trees, these will be dug by hand and with care avoiding roots greater than 25mm diameter or masses of smaller roots.

Figure 2:
Root severance as a result of planting within RPA

Planting Trees and Shrubs. Watson G. W. and Himelick E. B. 1997

- Where there are stumps of removed trees or shrubs, these will be ground out to 300mm below ground level and resulting holes filled with sharp horticultural sand to provide a stable base for laying of the new turf.

21.3 Any surface mulch will consist of well-composted material such as bark or wood chips. This is necessary to avoid potential nutrient loss from the soil, such as Nitrogen, as the mulch breaks down, as nutrient loss can be detrimental to the health and longevity of retained trees.

22.0 SITE MONITORING AND SUPERVISION

22.1 To ensure that the tree protection measures are maintained correctly and as per the approved documents (subject to any written approval for amendments where required), arboricultural supervision will be completed.

22.2 As part of this process, photographic records will be taken and kept by the client. An email copy of the photographs will be sent to the Havant Borough Council Tree Team and CBA Trees showing works during each phase and stage of onsite works:

- This will take the form of the client signing off in a weekly logbook, that the agreed protection measures are in situ and fit for purpose as per the approved documents and as agreed by the representative of Havant Borough Council.

- The tree protection measures will be photographed and emailed to the Tree Team in the planning department with a request to visit site and confirm that the protection measures are acceptable by an appointed person of the main contractor for the site works. The Havant Borough Council representative will then sign off the protective measures:

- Following tree works
- Setting out and erection/establishment of tree protection measures
- Removal of existing built form
- Excavation for ground works and establishment of drainage and service runs
- Reinstatement of garden space to lawn

22.4 CBA Trees will be retained throughout the project to enable tree related concerns for the site to be discussed and acted upon quickly and efficiently to ensure that any tree related issue that may arise on site during the project can be dealt with, without detriment to the long-term health of the trees.

Example pro-forma:

Date	Activity	Checked	Comments/ damage noted	By whom	Signed	Action taken
	Pre commencement meeting					
	Erection of protective measures					
	Tool box talk with appointed contractors advising on the importance of the protection of the trees					
	Weekly inspection of protective barriers					
	Removal of driveway and reinstatement to garden					

23.0 REPORT DAMAGE TO TREES AND TREE PROTECTION BARRIERS

23.1 Should any damage be caused to trees noted for retention, either by the above works or as the result of any other action, the damage should be reported to the site supervisor immediately. The site supervisor shall report up the chain of responsibility to the retained consultant arboriculturist, or in the absence of such an appointment, to an appropriately qualified arboriculturist, to enable remedial measures to be implemented as necessary and as agreed with Havant Borough Council Tree Officer.

23.2 Should damage occur to a protective barrier to impair its function in protecting trees, all work will cease near the damage, until the barrier has been returned to standard.

24.0 REMOVAL OF PROTECTIVE BARRIERS

24.1 When each development phase is complete, all drainage and service runs are in place, all site machinery has been removed and any landscaping for the principal area of the site has been implemented, the protective measures where they have been installed will be dismantled/removed.

24.2 This dismantling/removal of the tree protection measures must be undertaken with great care and will need to be supervised to avoid heavy machinery being used within the Root Protection Areas. Hoarding, scaffolding and other barrier materials will need to be removed from site immediately.

25.0 CONCLUSIONS

25.1 There is a development proposal for a 64 bed care home, associated off road car parking and outdoor space at land off Bartons Road, Havant. The impact of the works

have been assessed broadly in accordance with BS5837:2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"*.

25.2 The tree survey exercise identified 48 (forty-eight) individual trees, 7 (seven) groups of trees with 69 (sixty-nine) noted trees within and 1 (one) hedge.

25.3 The development proposal will require the removal of 17 (seventeen) low grade individual trees, 1 (one) low grade group of trees and 14 (fourteen) low grade noted trees within the groups. A further 9 (nine) individual trees and 4 (four) noted trees within groups may be removed as these were identified as poor quality trees with a limited useful life expectancy.

25.4 All legally protected trees will be retained within the development.

25.5 It is our opinion that the trees identified for retention can be afforded due respect and provided adequate protection throughout each stage and phase of works on site, ensuring their safe and healthy retention during the development process and have been fully considered throughout the design of the site development.

25.6 Provided the recommendations included within this report are strictly adhered to, CBA Trees believes the trees highlighted for retention within this report can be retained without undue stress on their long-term health.

26.0 CONTACT LIST

26.1 It is advised that the site supervisor establishes their own listing of contact details It is suggested that points of contact and lines of communication are established prior to commencement of the works on site.

27.0 BIBLIOGRAPHY

- British Standard 5837:2012 –
  "Trees in Relation to Design, Demolition and Construction - Recommendations"
- British Standard 3998:2010 –
  "Recommendations for Tree Work"
- National Joint Utilities Group Publication Volume 4 –
  "Guidelines for the planning, installation and maintenance of utility services in proximity to trees"
- Wildlife and Countryside Act 1981
- Conservation of Habitats and Species Regulations 2010 (as amended)
- Town and Country Planning Acts

CB1

The Professional Arboricultural Consultancy

TREE SURVEY NOTES

This Tree Survey has been undertaken within the recommendations of British Standards 5837:2012 and current arboricultural best practice.

- Each tree has been numbered and, where instructed, for future identification on site, has been tagged using small durable metal or plastic tags.
- Due to variations of existing ground levels through the site, height dimensions are estimated and are given in metres. Accurate heights, measured with the aid of optical instruments can be provided where instructed.
- Trunk/stem diameters are measured in mm at 1.5 metres above ground level, using a standard measuring tape as defined by British Standards, unless otherwise stated.
- Estimated branch spread is taken in metres from the centre of the trunk, at the four cardinal points of a compass, to achieve an accurate representation of the crown shape which will be recorded on the tree survey plan.
- An assessment of a tree's age classification is made in terms of its maturity within the site's landscape and defined as:

  Y = young trees
  SM = semi-mature trees
  EM = early mature trees
  M = mature trees
  OM = over-mature trees

- An assessment of a tree's physiological condition is defined as:

  Good = fully functioning biological system showing average vitality i.e. normal bud growth, leaf size, crown density and wound closure
  Fair = fully functioning biological system showing below average vitality i.e. reduced bud growth, smaller leaf size, lower crown density and reduced wound closure
  Poor = a biological system with limited functionality showing significantly below average vitality i.e. limited bud growth, small and chlorotic leaves, low crown density and limited wound closure
  Dead = dead

- An assessment of a tree's structural condition is defined as:

  Good = no significant structural defects
  Fair = structural defects which could be alleviated through remedial tree surgery or management practices
  Poor = structural defects which cannot be alleviated through tree surgery or management practices
  Dead = dead

- An assessment of a tree's future life expectancy is defined as: **<10, 10+, 20+ or 40+ years.**

Categorisation of Trees

The category for each tree is assessed using the recommendations of BS5837:2012. The assessment has not considered any site-specific development proposals, but will have considered any changes on or off-site which may have an effect on the conditions surrounding the surveyed trees.

The trees have been classified into one of the following categories (and one or more sub-categories [this will however not increase the value of the tree]) and are indicated on the associated drawings by colours as indicated.

Category U				Identification colour on plan
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	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality			**DARK RED**
Category A	1 – Mainly arboricultural values	2 – Mainly landscape values	3 – Mainly cultural values	Identification colour on plan
Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands, of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	**LIGHT GREEN**
Category B	1 – Mainly arboricultural values	2 – Mainly landscape values	3 – Mainly cultural values	Identification colour on plan
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are down-graded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation value or other cultural value	**MID BLUE**
Category C	1 – Mainly arboricultural values	2 – Mainly landscape values	3 – Mainly cultural values	Identification colour on plan
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	**GREY**

Clients are advised that Tree Surveys are a basic data collection exercise and record of tree condition at the time of survey. This will identify any visible signs of ill-health or major defects, advising a further detailed investigation where appropriate. This will most often take the form of a request for either "*full ground level inspection*" or "*climbing inspection required*". There may also be a further reference to the need for "*decay detection equipment*" to aid diagnosis. A tree survey does not include a comprehensive schedule or specification of remedial tree works, but may contain a guide to the work which might be undertaken by a prudent tree owner, purely for reasons of health and safety.

A Tree Survey should not be confused with a Tree Inspection or Arboricultural Implication Assessment, which are totally separate exercises.

TREE SURVEY REPORT (BS5837:2012)	
Site:	Bartons Road, Havant
Date:	30th July 2020 (revised following tree removals carried out on this date)
Consultant:	Stefan Rose *BSc (Hons), TechCert (Arbor.A), Tech.Arbor.A*
Tagged:	No

Notes:-

1. It may be advised that some trees should have the ivy removed to enable a re-survey to be carried out. This would also alleviate the tree from becoming suppressed; carrying additional weight that increases the chance of windthrow due to a larger dense crown area; and only receiving restricted light. Unless otherwise stated, in order to prevent regrowth, it is only necessary to remove a 300mm section of ivy and clear around the base.
2. It may be advised that it was only possible to estimate the diameter of some trees because of ivy smothering, dense vegetation, or trees located off-site with no access.
3. The estimated remaining contribution in years, and the tree grading category have been calculated for the current situation and may alter where further investigation works are advised.
4. Some trees or groups may have been given an interim grade. The reason for the interim grading is addressed in the timescales given as this may have a bearing on health and safety and/or any development proposals.
5. Tree Groups have been assessed with estimated and representative data.
6. This is not a Tree Works Schedule. Any preliminary management recommendations are listed in the interests of health and safety and should be carried out by a prudent tree owner.
7. Any management recommendations are suggested for reasons of health and safety only, regardless of development proposals at this stage. However, the defects requiring remedial tree surgery are by their very nature potential wildlife habitats, including protected species which needs consideration prior to any tree surgery works commencing.

TREE PRESERVATION ORDER:

A Tree Preservation Order (reference: TREE PRESERVATION ORDER (2105) 2020 - Helmsley House, Bartons Road, Havant, Hampshire) served and administered by Havant Borough Council protects Trees 4, 9, 15 and 35 (see trees annotated in red below).

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
1	Cherry Laurel *Prunus laurocerasus*	5	MS>6	220	3.0	3.0	3.0	1.5	0.0	0.0	0.0	0.0	EM	Fair	Fair Multi-stemmed at ground level Low hanging branches Minor deadwood in crown Old pruning wounds on trunk	No works required at time of survey	10+	C1
2	Elm *Ulmus spp*	11	S	210	3.5	3.0	2.0	5.0	3.0	2.0	1.0	2.5	SM	Fair	Poor Low hanging branches Low crown density	Advise removal	<10	U

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
3	Flowering Cherry *Prunus spp*	7	S	170	4.0	4.0	4.0	4.0	1.0	1.0	1.0	1.0	SM	Good	Good Developing tree Low hanging branches Minor deadwood in crown Trunk shape distorted at base	No works required at time of survey	20+	B1+2
4 TPO T1	Pedunculate Oak *Quercus robur*	19	S	580	7.0	7.0	7.0	7.0	2.0	5.0	4.0	4.0	EM	Good	Fair Ivy on trunk and in crown Recent soft landscaping to east side Major deadwood in crown Old pruning wounds on trunk Epicormics on trunk and in crown Bifurcated at 4m above ground level	Sever ivy Remove deadwood if target changes	40+	B1+2
5	Common Elder *Sambucus nigra*	5	MS<5	240	4.0	3.0	3.0	2.0	1.0	1.0	1.0	1.0	EM	Poor	Poor Multi-stemmed at ground level Dead stems Bark wounds on live stems Poor quality tree	Advise removal	<10	U
6	Turkey Oak *Quercus cerris*	18	S	550	7.0	6.0	5.0	7.0	1.0	1.0	5.0	1.0	EM	Poor	Fair Bark wound at base on trunk on south west side Low crown density In decline Major deadwood in crown	Advise removal	<10	U
7	Apple *Malus spp*	9	S	280	6.0	1.0	1.0	5.0	1.0	4.0	4.0	1.0	M	Fair	Poor Trunk and crown shape distorted due to group pressure Major cavity on south side of trunk	Advise removal	<10	U
8	Common Ash *Fraxinus excelsior*	18	S	550	6.0	6.0	7.0	7.5	4.0	3.0	2.0	2.0	M	Fair	Fair Bifurcated at 3.5m above ground level Old pruning wounds on trunk and in crown Low hanging branches Major deadwood in crown	Remove deadwood if target changes	10+	C1+2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
9 TPO T2	Pedunculate Oak *Quercus robur*	18	S	460	6.0	7.0	8.0	7.0	4.0	4.0	3.0	5.0	EM	Good	Fair Bifurcated at 3.5m above ground level Soft landscaping works recently occurred to east Epicormics on trunk and in crown Major deadwood in crown	Remove deadwood if target changes	20+	B1+2
10	Goat Willow *Salix caprea*	7	MS>6	350	5.0	4.0	3.5	4.0	0.0	1.0	1.5	1.0	EM	Good	Fair Trifurcated at ground level Multi-stemmed by 1m above ground level Minor deadwood in crown Low hanging branches	No works required at time of survey	10+	C1
11	Common Ash *Fraxinus excelsior*	19	MS<5	660	10.0	12.0	6.0	7.0	4.0	3.0	2.0	1.0	M	Fair	Fair Two trees growing as one Ivy on trunks and in crowns South trunk heavily distorted North trunk bifurcated at 8m above ground level Major deadwood in crowns	Sever ivy Remove deadwood if target changes	10+	C1+2
12	Common Sycamore *Acer pseudoplatanus*	8	S	90	3.0	2.0	1.0	3.0	1.0	2.0	2.0	2.0	Y	Good	Fair Natural regeneration Trunk and crown shape distorted due to group pressure Bifurcated at 2m above ground level Of limited value	No works required at time of survey	10+	C1
13	Wild Cherry *Prunus avium*	9	S	200	4.0	2.0	1.0	2.0	3.0	3.0	3.0	3.0	SM	Fair	Fair Leans and weighted north Ivy on trunk and in crown Of limited value	No works required at time of survey	10+	C1
14	Common Ash *Fraxinus excelsior*	18	S	430	5.0	5.0	5.0	8.0	4.0	5.0	4.0	4.0	EM	Fair	Poor Bark necrosis on west side of trunk Storm damage in crown Branch tear wound in crown Ivy on trunk and in crown Major deadwood in crown	Sever ivy Remove deadwood if target changes	10+	C1+2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
15 TPO T3	Pedunculate Oak *Quercus robur*	21	S	1060	11.0	11.0	12.0	10.0	5.0	5.0	5.0	5.0	M	Good	Good Recent soft landscaping to east Major deadwood in crown Epicormics in crown	Remove deadwood	20+	B1+2
16	Common Sycamore *Acer pseudoplatanus*	17	MS<5	420	5.0	4.0	5.0	6.0	2.0	2.0	2.0	2.0	EM	Good	Fair Bifurcated at ground level Ivy on trunk and in crown Basal suckers Epicormics on trunk and in crown Crown shape distorted due to group pressure Minor deadwood in crown	No works required at time of survey	10+	C1
17	Common Ash *Fraxinus excelsior*	19	S	330	6.0	3.0	4.0	8.0	6.0	6.0	4.0	4.0	EM	Fair	Fair Trunk and crown shape distorted due to group pressure Leans north east Old pruning wounds on trunk Major deadwood in crown	Remove deadwood if target changes	10+	C1+2
18	Common Ash *Fraxinus excelsior*	20	MS<5	470	6.0	4.0	6.0	7.0	5.0	5.0	5.0	5.0	M	Fair	Fair Bifurcated at 1.3m above ground level Tight forks with included bark Ivy on trunk and in crown Major deadwood in crown Crown shape distorted due to group pressure Weighted west	Remove deadwood if target changes	10+	C1
19	Crack Willow *Salix fragilis*	9	S	500	6.0	4.0	5.0	6.0	3.0	1.0	3.0	1.0	M	Fair	Poor Major decay and trunk collapsed	Advise removal	<10	U
20	Pedunculate Oak *Quercus robur*	17	S	310	5.0	4.0	4.5	9.0	8.0	6.0	1.5	1.0	SM	Good	Fair Trunk and crown shape distorted due to group pressure Weighted north west Epicormics on trunk and in crown Minor deadwood in crown	No works required at time of survey	20+	C1+2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
21	Common Ash *Fraxinus excelsior*	18	S	330	5.0	5.0	2.0	8.0	4.0	5.0	4.0	4.0	SM	Fair	Fair Trunk and crown shape distorted due to group pressure Ivy on trunk Major deadwood in crown	Remove deadwood if target changes	10+	C1+2
22	Common Ash *Fraxinus excelsior*	18	S	320	4.0	6.0	4.0	7.0	5.0	5.0	5.0	5.0	EM	Fair	Fair Crown shape distorted due to group pressure Major deadwood in crown Old pruning wounds in crown	Remove deadwood if target changes	10+	C1+2
23	Common Ash *Fraxinus excelsior*	11	S	200	6.0	1.0	3.0	6.0	2.0	2.0	2.0	2.0	SM	Fair	Fair Trunk and crown shape distorted due to group pressure Heavily weighted north west Of limited value Poor shape and form	No works required at time of survey	10+	C1
24	Common Ash *Fraxinus excelsior*	13	S	240	5.0	5.0	1.5	1.0	5.0	5.0	5.0	5.0	SM	Fair	Fair Trunk and crown shape distorted due to group pressure Weighted east Major deadwood in crown	Remove deadwood if target changes	10+	C1
25	Pedunculate Oak *Quercus robur*	15	MS<5	510	6.0	9.0	8.0	3.0	3.0	3.0	1.0	3.0	EM	Good	Fair Bifurcated at ground level Crown shape distorted due to group pressure Weighted east Recent soft landscaping to east Epicormics in crown Major deadwood in crown	Remove deadwood if target changes	20+	C1+2
26	Common Yew *Taxus baccata*	5	S	210	6.0	4.0	3.0	4.0	1.0	1.0	1.0	1.0	SM	Good	Fair Trunk and crown shape distorted due to group pressure Leans north	No works required at time of survey	40+	B1+2
27	Crack Willow *Salix fragilis*	7	S	360	-	-	-	-	-	-	-	-	EM	Dead	Dead tree	Advise removal	-	U
28	Crack Willow *Salix fragilis*	7	S	400	-	-	-	-	-	-	-	-	EM	Dead	Dead tree	Advise removal	-	U

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
29	Crack Willow *Salix fragilis*	12	S	440	7.0	12.0	5.0	1.0	1.0	1.0	1.0	1.0	EM	Good	Fair Previously wind blown Leans and weighted east Ivy on trunk and in crown Minor deadwood in crown	Sever ivy	10+	C1
30	Common Ash *Fraxinus excelsior*	18	S	400	5.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	EM	Fair	Fair Ivy on trunk Crown shape distorted due to group pressure Weighted west Old pruning wounds in crown Major deadwood in crown	Remove deadwood	10+	C1+2
31	Crack Willow *Salix fragilis*	18	S	530	11.0	8.0	4.0	5.0	2.0	3.0	3.0	4.0	M	Good	Poor Cavity in north side of trunk at 1m above ground level Trunk and crown shape distorted due to group pressure Leans and weighted north Major deadwood in crown Old pruning wounds on trunk	Advise removal	<10	U
32	Common Ash *Fraxinus excelsior*	16	MS<5	490	3.0	6.0	6.0	6.0	7.0	6.0	6.0	6.0	M	Fair	Fair Bifurcated at ground level Ivy on trunk Crown shape distorted due to group pressure Weighted south Bark wounds in crown Major deadwood in crown	Remove deadwood	10+	C1+2
33	Common Ash *Fraxinus excelsior*	14	S	490	5.0	6.0	7.0	4.0	4.0	2.0	2.0	2.0	M	Fair	Fair Ivy on trunk and in crown Bifurcated at 3m above ground level Old pruning wounds on trunk and in crown Major deadwood in crown	Sever ivy Remove deadwood	10+	C1+2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
34	Wild Cherry *Prunus avium*	9	MS<5	360	5.0	5.0	3.0	2.0	6.0	6.0	1.0	1.0	EM	Poor	Poor Bifurcated at ground level Trifurcated by 1m above ground level One stem snapped out Major deadwood in crown	Advise removal	<10	U
35 TPO 4	Pedunculate Oak *Quercus robur*	12	S	390	6.0	6.5	5.0	5.0	3.0	2.5	2.5	3.0	SM	Good	Fair Bifurcated at 2.5m above ground level Old pruning wounds on trunk Epicormics in crown Minor deadwood in crown	No works required at time of survey	40+	B1+2
36	Common Ash *Fraxinus excelsior*	22	MS<5	700	7.0	10.0	11.5	7.0	4.0	3.0	2.0	5.0	M	Fair	Fair Bifurcated at ground level Crown shape distorted due to group pressure Weighted west Epicormics in crown Minor deadwood in crown	No works required at time of survey	10+	C1+2
37	Pedunculate Oak *Quercus robur*	12	S	220	5.0	0.0	6.0	6.0	4.0	6.0	3.0	3.0	Y	Fair	Fair Leans and heavily weighted west Crown shape distorted due to group pressure Minor deadwood in crown	No works required at time of survey	20+	C1+2
38	Common Sycamore *Acer pseudoplatanus*	15	MS>6	900	7.0	8.0	10.0	7.0	1.0	2.0	2.0	1.0	M	Good	Fair Multi-stemmed at ground level Basal suckers Epicormics on trunk and in crown Old pruning wounds in crown Major deadwood in crown Tight forks with included bark	Remove deadwood if target changes	10+	C1+2
39.1	Common Ash *Fraxinus excelsior*	17	S	270	7.0	7.0	6.0	3.0	2.0	2.0	2.0	3.0	EM	Fair	Fair Two trees growing as one (with 39.2) Crown shape distorted due to group pressure Weighted east Epicormics in crown Major deadwood in crown	Remove deadwood if target changes	10+	C1+2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
39.2	Common Ash *Fraxinus excelsior*	-	-	340	-	-	-	-	-	-	-	-	-	-	Fair Two trees growing as one (with 39.1) Crown shape distorted due to group pressure Weighted east Epicormics in crown Major deadwood in crown	Remove deadwood if target changes	10+	C1+2
40	Common Ash *Fraxinus excelsior*	12	S	180	3.0	4.0	2.5	4.0	4.0	4.0	4.0	4.0	SM	Fair	Fair Trunk shape distorted at base Crown shape distorted due to group pressure	No works required at time of survey	10+	C1
41	Common Ash *Fraxinus excelsior*	13	S	210	2.5	4.0	3.0	4.0	4.0	4.0	4.0	4.0	SM	Fair	Fair Trunk and crown shape distorted due to group pressure Growing at base of outbuilding	No works required at time of survey	10+	C1
42	Scots Pine *Pinus sylvestris*	18	S	600	5.0	5.0	4.0	5.0	6.0	6.0	6.0	6.0	M	Good	Good Offsite tree Deadwood and stubs in crown	No works required at time of survey	20+	B1+2
43	Common Ash *Fraxinus excelsior*	18	S	410	8.0	7.0	8.0	4.0	3.0	3.0	3.0	3.0	EM	Fair	Fair Offsite tree Trunk and crown shape distorted due to group pressure Weighted north east	No works required at time of survey	10+	C1+2
44	Lawson Cypress *Chamaecyparis lawsoniana*	19	MS<5	430	4.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	EM	Good	Fair Offsite tree Bifurcated at 1m above ground level Crown shape distorted due to group pressure Minor deadwood in crown	No works required at time of survey	10+	C1+2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
45	Common Ash *Fraxinus excelsior*	19	MS<5	800	8.0	11.0	14.0	7.0	4.0	4.0	2.0	4.0	M	Fair	Fair Bifurcated at ground level South trunk leans south North trunk trifurcated at 2m above ground level Epicormics on trunk and in crown Old pruning wounds Major deadwood in crown	Remove deadwood	10+	C1+2
46	Common Ash *Fraxinus excelsior*	17	S	Est 450	6.0	5.0	6.0	6.0	3.0	3.0	3.0	3.0	EM	Fair	Fair Offsite tree Unable to verify health and safety due to no access Major deadwood in crown	Gain access and resurvey	10+	C1+2 Interim
47	Gum *Eucalyptus spp*	21	MS	Est 1250	8.0	8.0	5.0	8.0	6.0	7.0	7.0	7.0	M	Good	Fair Offsite tree Unable to verify health and safety due to no access Tight forks with included bark at base	Gain access and resurvey	20+	B1+2 Interim
48	Flowering Cherry *Prunus spp*	6	S	Est 350	4.0	6.0	4.0	4.0	2.0	2.0	2.0	2.0	EM	Good	Fair Offsite tree Unable to verify health and safety due to no access	Gain access and resurvey	20+	B1+2 Interim
Grp 1	Myrobalan Plum	3	S	75	-	-	-	-	-	-	-	-	SM	Fair	Fair Smothered in brambles Low hanging branches	No works required at time of survey	10+	C2
Grp 2	Hawthorn x2 Elder x2	6	S	230	-	-	-	-	-	-	-	-	EM	Fair	Fair Growing beneath crown of T9 Trunks and crown shapes distorted due to group pressure Low hanging branches Minor deadwood in crowns	No works required at time of survey	10+	C2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
Grp 3	Common Hawthorn	6	S	200	-	-	-	-	-	-	-	-	SM	Fair	Fair Dominated by ivy and brambles Trunks and crown shapes distorted due to group pressure Low hanging branches Minor deadwood in crowns Poor quality trees	No works required at time of survey	10+	C2
Grp 4	Common Ash Common Hawthorn Pedunculate Oak Holm Oak	18	S/MS	See below	-	-	-	-	-	-	-	-	SM	Fair	Fair Trunks and crown shapes distorted due to group pressure Some trees tall and etiolated due to group pressure Canker present in some trees Major deadwood in crowns	Sever ivy Remove deadwood	10+	C1+2
G4.1	Common Ash	-	S	250	-	-	-	-	-	-	-	-	SM	Fair	Fair Weighted north	-	10+	C1+2
G4.2	Common Ash	-	S	230	-	-	-	-	-	-	-	-	SM	Fair	Fair	-	10+	C1+2
G4.3	Common Ash	-	S	100	-	-	-	-	-	-	-	-	Y	Fair	Fair	-	10+	C1+2
G4.4	Common Ash	-	S	180	-	-	-	-	-	-	-	-	Y	Fair	Fair	-	10+	C1+2
G4.5	Common Ash	-	MS<5	250	-	-	-	-	-	-	-	-	SM	Fair	Fair Basal suckers growing at base	-	10+	C1+2
G4.6	Common Ash	-	S	190	-	-	-	-	-	-	-	-	SM	Fair	Fair	-	10+	C1+2
G4.7	Common Ash	-	S	180	-	-	-	-	-	-	-	-	SM	Fair	Fair	-	10+	C1+2
G4.8	Common Ash	-	S	320	-	-	-	-	-	-	-	-	SM	Fair	Fair	-	10+	C1+2
G4.9	Common Ash	-	MS<5	400	-	-	-	-	-	-	-	-	SM	Fair	Fair Bifurcated at 1m above ground level	-	10+	C1+2
G4.10	Common Ash	-	S	330	-	-	-	-	-	-	-	-	SM	Poor	Poor Ivy on trunk and in crown - unable to verify health and safety	Sever ivy	10+	C1+2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
G4.11	Common Ash	-	S	160	-	-	-	-	-	-	-	-	Y	Fair	Fair Canker on trunk	-	10+	C1+2
G4.12	Common Ash	-	S	300	-	-	-	-	-	-	-	-	SM	Fair	Fair Ivy on trunk and in crown - unable to verify health and safety	Sever ivy	10+	C1+2
G4.13	Common Ash	-	S	150	-	-	-	-	-	-	-	-	Y	Fair	Fair Canker on trunk	-	10+	C1+2
G4.14	Holm Oak	-	S	90	-	-	-	-	-	-	-	-	SM	Fair	Fair	-	20+	C1+2
G4.15	Common Ash	-	S	110	-	-	-	-	-	-	-	-	Y	Fair	Poor Cavity at base	Advise removal	<10	U
G4.16	Common Ash	-	S	200	-	-	-	-	-	-	-	-	SM	Fair	Fair	-	10+	C1+2
G4.17	Common Ash	-	S	200	-	-	-	-	-	-	-	-	SM	Fair	Fair	-	10+	C1+2
G4.18	Pedunculate Oak	-	S	160	-	-	-	-	-	-	-	-	SM	Good	Fair	-	20+	C1+2
G4.19	Common Ash	-	S	120	-	-	-	-	-	-	-	-	Y	Fair	Fair Ivy on trunk and in crown	Sever ivy	10+	C1+2
G4.20	Common Ash	-	MS<5	310	-	-	-	-	-	-	-	-	SM	Fair	Fair One stem dead and snapped out at 3m above ground level	-	10+	C1+2
G4.21	Common Ash	-	S	230	-	-	-	-	-	-	-	-	SM	Fair	Poor Inonotus hispidus and canker on trunk	Advise removal	<10	U
G4.22	Common Hawthorn	-	S	120	-	-	-	-	-	-	-	-	SM	Good	Fair	-	20+	C1+2
G4.23	Common Ash	-	S	220	-	-	-	-	-	-	-	-	SM	Fair	Fair	-	10+	C1+2
G4.24	Common Ash	-	S	230	-	-	-	-	-	-	-	-	SM	Fair	Poor Bark wounds on trunk	Advise removal	<10	U
G4.25	Common Ash	-	S	230	-	-	-	-	-	-	-	-	SM	Fair	Fair Basal suckers and Hawthorn growing at base	-	10+	C1+2
G4.26	Common Ash	-	S	330	-	-	-	-	-	-	-	-	SM	Fair	Fair Basal suckers	-	10+	C1+2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
G4.27	Common Ash	-	S	170	-	-	-	-	-	-	-	-	Y	Fair	Fair Ivy on trunk	Sever ivy	10+	C1+2
G4.28	Common Ash	-	S	270	-	-	-	-	-	-	-	-	SM	Fair	Fair Ivy on trunk Basal suckers form subsidiary stem	Sever ivy	10+	C1+2
G4.29	Common Ash	-	S	350	-	-	-	-	-	-	-	-	SM	Fair	Fair Basal suckers Ivy on trunk - unable to verify health and safety	Sever ivy	10+	C1+2
G4.30	Common Ash	-	S	170	-	-	-	-	-	-	-	-	SM	Fair	Fair Ivy on trunk	-	10+	C1+2
G4.31	Common Hawthorn	-	MS<5	210	-	-	-	-	-	-	-	-	SM	Fair	Fair Bifurcated at ground level Multi-stemmed by 1m above ground level Ivy on trunks	Sever ivy	20+	C1+2
Grp 5	Myrobalan Plum Wild Cherry Common Hawthorn Crack Willow	7	S/MS	See below	-	-	-	-	-	-	-	-	SM	Fair	Fair Sporadic growth Trunks and crown shapes distorted due to group pressure Low hanging branches Minor deadwood in crowns	-	10+	C2
G5.1	Myrobalan Plum	-	S	120	-	-	-	-	-	-	-	-	SM	Fair	Fair	-	10+	C1+2
G5.2	Wild Cherry	-	S	190	-	-	-	-	-	-	-	-	SM	Good	Fair	-	20+	C1+2
G5.3	Wild Cherry	-	MS<5	120	-	-	-	-	-	-	-	-	Y	Fair	Fair Bifurcated at ground level Ivy on trunk	-	10+	C1+2
G5.4	Common Hawthorn	-	MS<5	200	-	-	-	-	-	-	-	-	SM	Fair	Fair Multi-stemmed at 1m above ground level Ivy on trunk and in crown	-	10+	C1+2
G5.5	Common Hawthorn	-	S	180	-	-	-	-	-	-	-	-	SM	Fair	Fair	-	10+	C1+2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
G5.6	Common Ash	-	S	130	-	-	-	-	-	-	-	-	Y	Fair	Fair Ivy on trunk	-	10+	C1+2
G5.7	Common Hawthorn	-	S	80	-	-	-	-	-	-	-	-	Y	Fair	Fair Ivy on trunk and in crown	-	10+	C1+2
G5.8	Common Hawthorn	-	MS<5	170	-	-	-	-	-	-	-	-	SM	Fair	Fair Bifurcated at ground level	-	10+	C1+2
G5.9	Common Hawthorn	-	S	80	-	-	-	-	-	-	-	-	SM	Fair	Fair	-	10+	C1+2
Grp 6	Goat Willow Leyland Cypress Cherry Laurel Portugal Laurel Scots Pine Lawson Cypress Common Ash Bamboo	8	S/MS	See below	-	-	-	-	-	-	-	-	EM	Good	Fair Offsite group Many trees multi-stemmed at various heights Trunks and crown shapes distorted due to group pressure Low hanging branches Minor deadwood in crowns Old pruning wounds Bark wounds Provides good separation	-	20+	B2
G6.1	Atlas Cedar	-	S	810	-	-	-	-	-	-	-	-	M	Good	Fair	-	20+	B1+2
G6.2	Goat Willow	-	MS>6	600	-	-	-	-	-	-	-	-	M	Good	Fair Multi-stemmed at ground level	-	10+	C1+2
G6.3	Portugal Laurel	-	S	270	-	-	-	-	-	-	-	-	M	Good	Fair	-	10+	C1+2
G6.4	Portugal Laurel	-	S	230	-	-	-	-	-	-	-	-	M	Good	Fair	-	10+	C1+2
G6.5	Lawson Cypress	-	S	440	-	-	-	-	-	-	-	-	EM	Fair	Fair Bifurcated at 2m above ground level Tight forks with included bark Dieback in western trunk	-	10+	C1+2
G6.6	Portugal Laurel	-	S	320	-	-	-	-	-	-	-	-	M	Good	Fair Bifurcated at 1.6m above ground level	-	10+	C1+2
G6.7	Common Ash	-	S	270	-	-	-	-	-	-	-	-	M	Fair	Fair Regrowth from old stump	-	10+	C1+2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
G6.8	Common Ash	-	MS	730	-	-	-	-	-	-	-	-	M	Fair	Fair Multi-stemmed at ground level Two stems on west side pulled apart	Advise removal	<10	U
G6.9	Portugal Laurel	-	S	320	-	-	-	-	-	-	-	-	M	Good	Fair	-	10+	C1+2
G6.10	Portugal Laurel	-	S	360	-	-	-	-	-	-	-	-	EM	Fair	Good	-	10+	C1+2
G6.11	Portugal Laurel	-	MS<5	210	-	-	-	-	-	-	-	-	SM	Fair	Fair Multi-stemmed at ground level	-	10+	C1+2
G6.12	Holm Oak	-	S	430	-	-	-	-	-	-	-	-	EM	Good	Fair Heavily weighted south east	-	20+	C1+2
G6.13	Portugal Laurel	-	MS<5	150	-	-	-	-	-	-	-	-	EM	Fair	Fair	-	10+	C1+2
G6.14	Portugal Laurel	-	MS>6	220	-	-	-	-	-	-	-	-	SM	Fair	Fair	-	10+	C1+2
G6.15	Portugal Laurel	-	MS<5	230	-	-	-	-	-	-	-	-	EM	Fair	Fair	-	10+	C1+2
G6.16	Portugal Laurel	-	MS>6	490	-	-	-	-	-	-	-	-	M	Good	Fair Multi-stemmed at ground level	-	10+	C1+2
G6.17	Leyland Cypress	-	S	840	-	-	-	-	-	-	-	-	M	Good	Fair Bifurcated at 1.7m above ground level	-	20+	C1+2
Grp 7	Common Ash	18	S/MS	See below	-	-	-	-	-	-	-	-	SM	Fair	Fair Trunks and crown shapes distorted due to group pressure Some trees multi-stemmed at various heights Major deadwood in crowns Old pruning woundson trunks and in crowns Tight forks with included bark	Remove deadwood if target changes	10+	C1+2
G7.1	Common Ash	-	S	240	-	-	-	-	-	-	-	-	SM	Fair	Fair	-	10+	C1+2
G7.2	Common Ash	-	MS>6	640	-	-	-	-	-	-	-	-	EM	Fair	Fair Multi-stemmed at ground level	-	10+	C1+2

Tree No	Species	H't (m)	Single/ Multi-Stemmed (S or MS)	Stem Diam (mm)	Branch Spread (m) N	E	S	W	H't of Crown AGL (m) N	E	S	W	Life Stage	Physio-logical Condition	Structural Condition and General Observations	Preliminary Management Recommendations	Est. Rem. Contrib. (Yrs)	Cat
G7.3	Common Ash	-	S	300	-	-	-	-	-	-	-	-	SM	Fair	Good	-	10+	C1+2
G7.4	Common Ash	-	S	270	-	-	-	-	-	-	-	-	SM	Fair	Good	-	10+	C1+2
G7.5	Common Ash	-	MS<5	300	-	-	-	-	-	-	-	-	SM	Fair	Fair Trifurcated at ground level	-	10+	C1+2
G7.6	Common Ash	-	S	430	-	-	-	-	-	-	-	-	EM	Fair	Fair Bifurcated at 3m above ground level	-	10+	C1+2
G7.7	Common Ash	-	S	400	-	-	-	-	-	-	-	-	EM	Fair	Fair Bifurcated at 2m above ground level	-	10+	C1+2
G7.8	Common Ash	-	S	360	-	-	-	-	-	-	-	-	EM	Fair	Fair Bifurcated at 2m above ground level	-	10+	C1+2
G7.9	Common Ash	-	S	110	-	-	-	-	-	-	-	-	Y	Fair	Fair	-	10+	C1+2
G7.10	Common Ash	-	S	130	-	-	-	-	-	-	-	-	Y	Fair	Fair Trunk shape distorted	-	10+	C1+2
G7.11	Common Ash	-	S	110	-	-	-	-	-	-	-	-	Y	Fair	Fair Trunk shape distorted	-	10+	C1+2
G7.12	Common Ash	-	S	190	-	-	-	-	-	-	-	-	SM	Fair	Good Ivy on trunk	-	10+	C1+2
H1	Privet	2	S	75	-	-	-	-	-	-	-	-	SM	Good	Fair Offsite Well maintained boundary hedge	No works required at time of survey	10+	C2

CBA Trees

East Lodge, Leylands Business Park,
Colden Common, Winchester, SO21 1TH
Tel: 02380 986229
Email: info@cbatrees.co.uk
Web: www.cbatrees.co.uk

TREE PRESERVATION ORDER:
A Tree Preservation Order (reference: TREE PRESERVATION ORDER (2105) 2020 - Helmsley House, Bartons Road, Havant, Hampshire) served and administered by Havant Borough Council protects Trees 4, 9, 15 and 35.

CBA11305
Bartons Road, Havant
Tree Survey Plan

SCALE :	DATE :
1 : 250 @ A1	25/08/2020
MAP FILENAME : CBA11305.01C TSP	**BASE PLAN:** 170652

N

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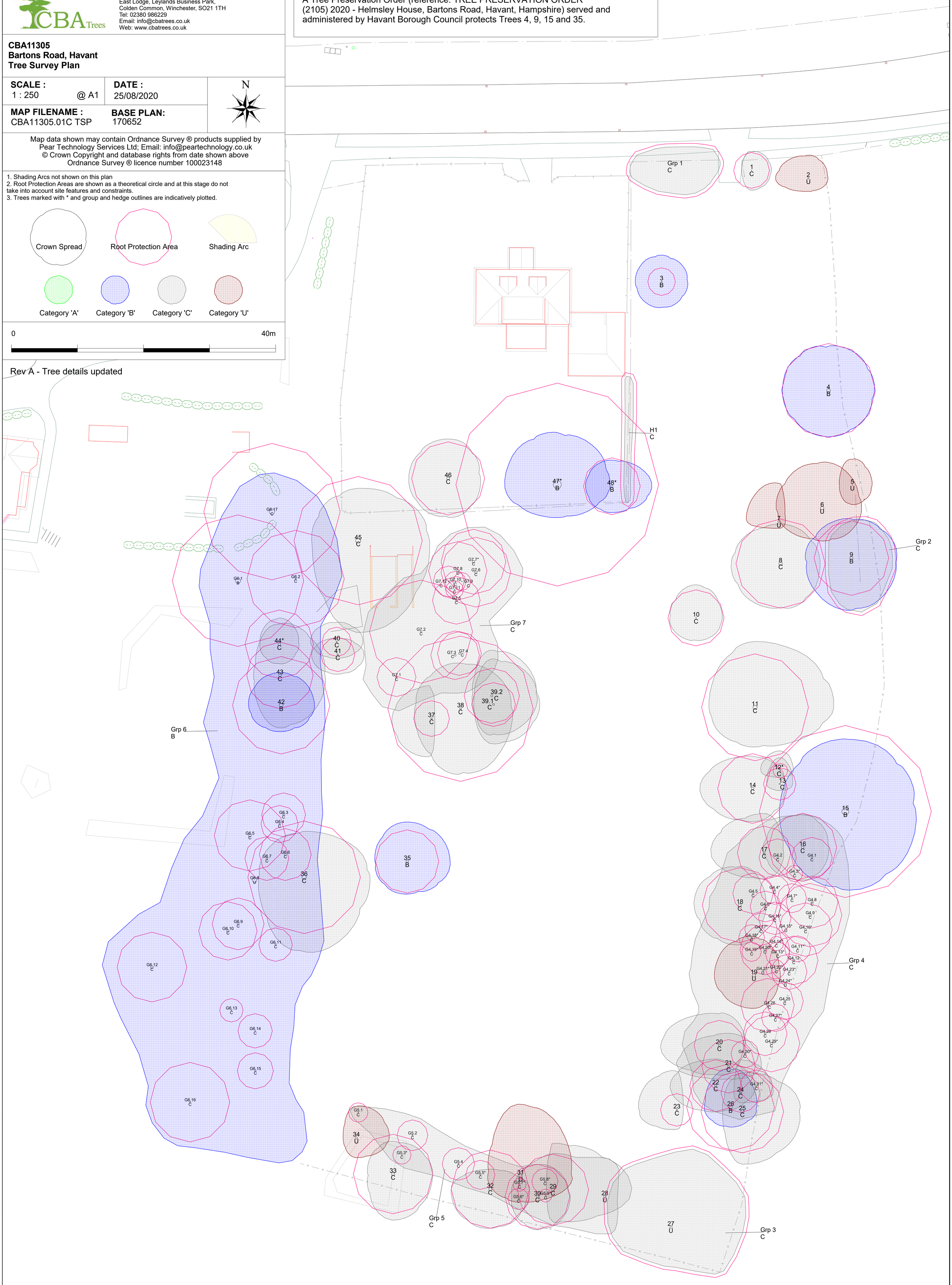
1. Shading Arcs not shown on this plan
2. Root Protection Areas are shown as a theoretical circle and at this stage do not take into account site features and constraints.
3. Trees marked with * and group and hedge outlines are indicatively plotted.

Crown Spread | Root Protection Area | Shading Arc

Category 'A' | Category 'B' | Category 'C' | Category 'U'

0 — 40m

Rev A - Tree details updated



CB2

BS5837:2012 TREE ROOT PROTECTION AREA SCHEDULE

Site:	Bartons Road, Havant
Date:	30th July 2020 (revised following tree removals carried out on this date)
Consultant:	Stefan Rose *BSc (Hons), TechCert (Arbor.A), Tech.Arbor.A*

Notes:
1. This is an assessment of the Root Protection Area (RPA) required, based on the individual tree data collected and Section 4.6.1 of BS5837:2012.
2. At this juncture this document is for your sole guidance and ongoing discussions purposes only and is not intended for general circulation, as it assumes that all but the 'U' trees will be retained, which clearly may not be the case.
3. For all single stem trees with a stem diameter greater than 1250mm, and multi-stem trees with a stem diameter greater than 1500mm, the calculated RPA has been capped at 707m2 in accordance with Section 4.6.1 of BS5837.2012.

TREE PRESERVATION ORDER:
A Tree Preservation Order (reference: TREE PRESERVATION ORDER (2105) 2020 - Helmsley House, Bartons Road, Havant, Hampshire) served and administered by Havant Borough Council protects Trees 4, 9, 15 and 35 (see trees annotated in red below).

Tree No	Species	Category	Single/ Multi-Stemmed (S or MS)	Stem Diameter (mm)	Initial Linear Root Protection Distance (Radius m)	Root Protection Area (m2)
1	Cherry Laurel Prunus laurocerasus	C1	MS>6	220	2.64	21.90
2	Elm Ulmus spp	U	S	210	-	-
3	Flowering Cherry Prunus spp	B1+2	S	170	2.04	13.08
4 TPO T1	Pedunculate Oak Quercus robur	B1+2	S	580	6.96	152.20
5	Common Elder Sambucus nigra	U	MS<5	240	-	-
6	Turkey Oak Quercus cerris	U	S	550	-	-
7	Apple Malus spp	U	S	280	-	-
8	Common Ash Fraxinus excelsior	C1+2	S	550	6.60	136.87

Tree No	Species	Category	Single/ Multi-Stemmed (S or MS)	Stem Diameter (mm)	Initial Linear Root Protection Distance (Radius m)	Root Protection Area (m2)
9 TPO T2	Pedunculate Oak Quercus robur	B1+2	S	460	5.52	95.74
10	Goat Willow Salix caprea	C1	MS>6	350	4.20	55.42
11	Common Ash Fraxinus excelsior	C1+2	MS<5	660	7.92	197.09
12	Common Sycamore Acer pseudoplatanus	C1	S	90	1.08	3.66
13	Wild Cherry Prunus avium	C1	S	200	2.40	18.10
14	Common Ash Fraxinus excelsior	C1+2	S	430	5.16	83.66
15 TPO T3	Pedunculate Oak Quercus robur	B1+2	S	1060	12.72	508.37
16	Common Sycamore Acer pseudoplatanus	C1	MS<5	420	5.04	79.81
17	Common Ash Fraxinus excelsior	C1+2	S	330	3.96	49.27
18	Common Ash Fraxinus excelsior	C1	MS<5	470	5.64	99.95
19	Crack Willow Salix fragilis	U	S	500	-	-
20	Pedunculate Oak Quercus robur	C1+2	S	310	3.72	43.48
21	Common Ash Fraxinus excelsior	C1+2	S	330	3.96	49.27
22	Common Ash Fraxinus excelsior	C1+2	S	320	3.84	46.33
23	Common Ash Fraxinus excelsior	C1	S	200	2.40	18.10
24	Common Ash Fraxinus excelsior	C1	S	240	2.88	26.06
25	Pedunculate Oak Quercus robur	C1+2	MS<5	510	6.12	117.68

Tree No	Species	Category	Single/ Multi-Stemmed (S or MS)	Stem Diameter (mm)	Initial Linear Root Protection Distance (Radius m)	Root Protection Area (m2)
26	Common Yew Taxus baccata	B1+2	S	210	2.52	19.95
27	Crack Willow Salix fragilis	U	S	360	-	-
28	Crack Willow Salix fragilis	U	S	400	-	-
29	Crack Willow Salix fragilis	C1	S	440	5.28	87.59
30	Common Ash Fraxinus excelsior	C1+2	S	400	4.80	72.39
31	Crack Willow Salix fragilis	U	S	530	-	-
32	Common Ash Fraxinus excelsior	C1+2	MS<5	490	5.88	108.63
33	Common Ash Fraxinus excelsior	C1+2	S	490	5.88	108.63
34	Wild Cherry Prunus avium	U	MS<5	360	-	-
35 TPO 4	Pedunculate Oak Quercus robur	B1+2	S	390	4.68	68.82
36	Common Ash Fraxinus excelsior	C1+2	MS<5	700	8.40	221.70
37	Pedunculate Oak Quercus robur	C1+2	S	220	2.64	21.90
38	Common Sycamore Acer pseudoplatanus	C1+2	MS>6	900	10.80	366.48
39.1	Common Ash Fraxinus excelsior	C1+2	S	270	3.24	32.98
39.2	Common Ash Fraxinus excelsior	C1+2	S	340	4.08	52.30
40	Common Ash Fraxinus excelsior	C1	S	180	2.16	14.66
41	Common Ash Fraxinus excelsior	C1	S	210	2.52	19.95

Tree No	Species	Category	Single/ Multi-Stemmed (S or MS)	Stem Diameter (mm)	Initial Linear Root Protection Distance (Radius m)	Root Protection Area (m2)
42	Scots Pine Pinus sylvestris	B1+2	S	600	7.20	162.88
43	Common Ash Fraxinus excelsior	C1+2	S	410	4.92	76.06
44	Lawson Cypress Chamaecyparis lawsoniana	C1+2	MS<5	430	5.16	83.66
45	Common Ash Fraxinus excelsior	C1+2	MS<5	800	9.60	289.57
46	Common Ash Fraxinus excelsior	C1+2 Interim	S	450	5.40	91.62
47	Gum Eucalyptus spp	B1+2 Interim	MS	1250	15.00	706.95
48	Flowering Cherry Prunus spp	B1+2 Interim	S	350	4.20	55.42
Grp 1	Myrobalan Plum	C2	S	75	0.90	2.55
Grp 2	Hawthorn x2 Elder x2	C2	S	230	2.76	23.93
Grp 3	Common Hawthorn	C2	S	200	2.40	18.10
Grp 4	Common Ash Common Hawthorn Pedunculate Oak Holm Oak	C1+2	S/MS	See below	-	-
G4.1	Common Ash	C1+2	S	250	3.00	28.28
G4.2	Common Ash	C1+2	S	230	2.76	23.93
G4.3	Common Ash	C1+2	S	100	1.20	4.52
G4.4	Common Ash	C1+2	S	180	2.16	14.66
G4.5	Common Ash	C1+2	MS<5	250	3.00	28.28
G4.6	Common Ash	C1+2	S	190	2.28	16.33
G4.7	Common Ash	C1+2	S	180	2.16	14.66

Tree No	Species	Category	Single/ Multi-Stemmed (S or MS)	Stem Diameter (mm)	Initial Linear Root Protection Distance (Radius m)	Root Protection Area (m2)
G4.8	Common Ash	C1+2	S	320	3.84	46.33
G4.9	Common Ash	C1+2	MS<5	400	4.80	72.39
G4.10	Common Ash	C1+2	S	330	3.96	49.27
G4.11	Common Ash	C1+2	S	160	1.92	11.58
G4.12	Common Ash	C1+2	S	300	3.60	40.72
G4.13	Common Ash	C1+2	S	150	1.80	10.18
G4.14	Holm Oak	C1+2	S	90	1.08	3.66
G4.15	Common Ash	U	S	110	-	-
G4.16	Common Ash	C1+2	S	200	2.40	18.10
G4.17	Common Ash	C1+2	S	200	2.40	18.10
G4.18	Pedunculate Oak	C1+2	S	160	1.92	11.58
G4.19	Common Ash	C1+2	S	120	1.44	6.52
G4.20	Common Ash	C1+2	MS<5	310	3.72	43.48
G4.21	Common Ash	U	S	230	-	-
G4.22	Common Hawthorn	C1+2	S	120	1.44	6.52
G4.23	Common Ash	C1+2	S	220	2.64	21.90
G4.24	Common Ash	U	S	230	-	-
G4.25	Common Ash	C1+2	S	230	2.76	23.93
G4.26	Common Ash	C1+2	S	330	3.96	49.27
G4.27	Common Ash	C1+2	S	170	2.04	13.08
G4.28	Common Ash	C1+2	S	270	3.24	32.98

Tree No	Species	Category	Single/ Multi-Stemmed (S or MS)	Stem Diameter (mm)	Initial Linear Root Protection Distance (Radius m)	Root Protection Area (m2)
G4.29	Common Ash	C1+2	S	350	4.20	55.42
G4.30	Common Ash	C1+2	S	170	2.04	13.08
G4.31	Common Hawthorn	C1+2	MS<5	210	2.52	19.95
Grp 5	Myrobalan Plum Wild Cherry Common Hawthorn Crack Willow	C2	S/MS	See below	-	-
G5.1	Myrobalan Plum	C1+2	S	120	1.44	6.52
G5.2	Wild Cherry	C1+2	S	190	2.28	16.33
G5.3	Wild Cherry	C1+2	MS<5	120	1.44	6.52
G5.4	Common Hawthorn	C1+2	MS<5	200	2.40	18.10
G5.5	Common Hawthorn	C1+2	S	180	2.16	14.66
G5.6	Common Ash	C1+2	S	130	1.56	7.65
G5.7	Common Hawthorn	C1+2	S	80	0.96	2.90
G5.8	Common Hawthorn	C1+2	MS<5	170	2.04	13.08
G5.9	Common Hawthorn	C1+2	S	80	0.96	2.90
Grp 6	Goat Willow Leyland Cypress Cherry Laurel Portugal Laurel Scots Pine Lawson Cypress Common Ash Bamboo	B2	S/MS	See below	-	-
G6.1	Atlas Cedar	B1+2	S	810	9.72	296.85
G6.2	Goat Willow	C1+2	MS>6	600	7.20	162.88
G6.3	Portugal Laurel	C1+2	S	270	3.24	32.98

Tree No	Species	Category	Single/ Multi-Stemmed (S or MS)	Stem Diameter (mm)	Initial Linear Root Protection Distance (Radius m)	Root Protection Area (m2)
G6.4	Portugal Laurel	C1+2	S	230	2.76	23.93
G6.5	Lawson Cypress	C1+2	S	440	5.28	87.59
G6.6	Portugal Laurel	C1+2	S	320	3.84	46.33
G6.7	Common Ash	C1+2	S	270	3.24	32.98
G6.8	Common Ash	U	MS	730	-	-
G6.9	Portugal Laurel	C1+2	S	320	3.84	46.33
G6.10	Portugal Laurel	C1+2	S	360	4.32	58.64
G6.11	Portugal Laurel	C1+2	MS<5	210	2.52	19.95
G6.12	Holm Oak	C1+2	S	430	5.16	83.66
G6.13	Portugal Laurel	C1+2	MS<5	150	1.80	10.18
G6.14	Portugal Laurel	C1+2	MS>6	220	2.64	21.90
G6.15	Portugal Laurel	C1+2	MS<5	230	2.76	23.93
G6.16	Portugal Laurel	C1+2	MS>6	490	5.88	108.63
G6.17	Leyland Cypress	C1+2	S	840	10.08	319.25
Grp 7	Common Ash	C1+2	S/MS	See below	-	-
G7.1	Common Ash	C1+2	S	240	2.88	0.03
G7.2	Common Ash	C1+2	MS>6	640	7.68	185.32
G7.3	Common Ash	C1+2	S	300	3.60	40.72
G7.4	Common Ash	C1+2	S	270	3.24	0.04
G7.5	Common Ash	C1+2	MS<5	300	3.60	40.72
G7.6	Common Ash	C1+2	S	430	5.16	83.66

Tree No	Species	Category	Single/ Multi-Stemmed (S or MS)	Stem Diameter (mm)	Initial Linear Root Protection Distance (Radius m)	Root Protection Area (m2)
G7.7	Common Ash	C1+2	S	400	4.80	72.39
G7.8	Common Ash	C1+2	S	360	4.32	58.64
G7.9	Common Ash	C1+2	S	110	1.32	5.47
G7.10	Common Ash	C1+2	S	130	1.56	0.02
G7.11	Common Ash	C1+2	S	110	1.32	5.47
G7.12	Common Ash	C1+2	S	190	2.28	0.03
H1	Privet	C2	S	75	0.90	2.55

CB3

1. Shading Arcs not shown on this plan
2.Trees marked with * and group and hedge outlines are indicatively plotted.

TREE PRESERVATION ORDER: A Tree Preservation Order (reference: TREE PRESERVATION ORDER (2105) 2020 - Helmsley House, Bartons Road, Havant, Hampshire) served and administered by Havant Borough Council protects Trees 4, 9, 15 and 35.

KEY

ROOT PROTECTION AREA (RPA)
CROWN SPREAD
TREE NUMBER
CATEGORY

TREES TO BE RETAINED AND PROTECTED

TREE TO BE REMOVED TO FACILITATE DEVELOPMENT

TREE ADVISED TO BE REMOVED FOR REASONS OF SOUND ARBORICULTURAL MANAGEMENT

TREE PROTECTION BARRIER LOCATION

JOB TITLE
Bartons Road, Havant

DRAWING TITLE
Tree Protection Plan

CBA DRAWING No.
CBA11305.02 TPP

BASE PLAN DRAWING No.
170652

SCALE 1:200 @ A0

DRAWN NB & AM

DATE August 2020

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CBA Trees
East Lodge, Leylands Business Park, Colden Common, Winchester, SO21 1TH
A Tel: 02380 986229

CB4

CBA Trees	**TREE WORKS SCHEDULE**			
	Site:	Bartons Road, Havant		
	Date:	August 2020	**Consultant:**	Stefan Rose *BSc (Hons), Tech Cert ArborA, TechArborA*

Tree No.	Species	Recommended Works
1	Cherry Laurel *Prunus laurocerasus*	• No works required for planning application
2	Elm *Ulmus spp*	• No works required for planning application
3	Flowering Cherry *Prunus spp*	• No works required for planning application
4 TPO T1	Pedunculate Oak *Quercus robur*	• No works required for planning application
5	Common Elder *Sambucus nigra*	• Offsite, responsibility of tree owner
6	Turkey Oak *Quercus cerris*	• Offsite, responsibility of tree owner
7	Apple *Malus spp*	• Offsite, responsibility of tree owner
8	Common Ash *Fraxinus excelsior*	• No works required for planning application
9 TPO T2	Pedunculate Oak *Quercus robur*	• No works required for planning application
10	Goat Willow *Salix caprea*	• Fell to ground level and grind out stump
11	Common Ash *Fraxinus excelsior*	• Fell to ground level and grind out stump
12	Common Sycamore *Acer pseudoplatanus*	• No works required for planning application
13	Wild Cherry *Prunus avium*	• No works required for planning application
14	Common Ash *Fraxinus excelsior*	• Fell to ground level and grind out stump
15 TPO T3	Pedunculate Oak *Quercus robur*	• Remove major deadwood with a branch attachment of >50mm
16	Common Sycamore *Acer pseudoplatanus*	• No works required for planning application
17	Common Ash *Fraxinus excelsior*	• Fell to ground level and grind out stump
18	Common Ash *Fraxinus excelsior*	• Fell to ground level and grind out stump
19	Crack Willow *Salix fragilis*	• Fell to ground level and grind out stump
20	Pedunculate Oak *Quercus robur*	• Fell to ground level and grind out stump
21	Common Ash *Fraxinus excelsior*	• Fell to ground level and grind out stump
22	Common Ash *Fraxinus excelsior*	• Fell to ground level and grind out stump
23	Common Ash *Fraxinus excelsior*	• Fell to ground level and grind out stump
24	Common Ash *Fraxinus excelsior*	• Remove major deadwood with a branch attachment of >50mm

25	Pedunculate Oak *Quercus robur*	• Remove major deadwood with a branch attachment of >50mm
26	Common Yew *Taxus baccata*	• No works required for planning application
27	Crack Willow *Salix fragilis*	• Fell to ground level and grind out stump
28	Crack Willow *Salix fragilis*	• Fell to ground level and grind out stump
29	Crack Willow *Salix fragilis*	• Sever and remove 1.8m section of ivy from round base of trunk
30	Common Ash *Fraxinus excelsior*	• Remove major deadwood with a branch attachment of >50mm
31	Crack Willow *Salix fragilis*	• Fell to ground level and grind out stump
32	Common Ash *Fraxinus excelsior*	• Remove major deadwood with a branch attachment of >50mm
33	Common Ash *Fraxinus excelsior*	• Remove major deadwood with a branch attachment of >50mm • Sever and remove 1.8m section of ivy from round base of trunk
34	Wild Cherry *Prunus avium*	• Fell to ground level and grind out stump
35 TPO 4	Pedunculate Oak *Quercus robur*	• No works required for planning application
36	Common Ash *Fraxinus excelsior*	• No works required for planning application
37	Pedunculate Oak *Quercus robur*	• Fell to ground level and grind out stump
38	Common Sycamore *Acer pseudoplatanus*	• Fell to ground level and grind out stump
39.1	Common Ash *Fraxinus excelsior*	• Fell to ground level and grind out stump
39.2	Common Ash *Fraxinus excelsior*	• Fell to ground level and grind out stump
40	Common Ash *Fraxinus excelsior*	• No works required for planning application
41	Common Ash *Fraxinus excelsior*	• No works required for planning application
42	Scots Pine *Pinus sylvestris*	• No works required for planning application
43	Common Ash *Fraxinus excelsior*	• No works required for planning application
44	Lawson Cypress *Chamaecyparis lawsoniana*	• No works required for planning application
45	Common Ash *Fraxinus excelsior*	• No works required for planning application
46	Common Ash *Fraxinus excelsior*	• No works required for planning application
47	Gum *Eucalyptus spp*	• No works required for planning application
48	Flowering Cherry *Prunus spp*	• No works required for planning application
Grp 1	Myrobalan Plum	• No works required for planning application
Grp 2	Hawthorn x2 Elder x2	• No works required for planning application
Grp 3	Common Hawthorn	• Fell to ground level and grind out stumps
Grp 4	Common Ash Common Hawthorn Pedunculate Oak Holm Oak	• See below for specific trees within group
G4.1	Common Ash	• No works required for planning application
G4.2	Common Ash	• No works required for planning application

G4.3	Common Ash	• No works required for planning application
G4.4	Common Ash	• Fell to ground level and grind out stumps
G4.5	Common Ash	• Fell to ground level and grind out stumps
G4.6	Common Ash	• Fell to ground level and grind out stumps
G4.7	Common Ash	• No works required for planning application
G4.8	Common Ash	• No works required for planning application
G4.9	Common Ash	• No works required for planning application
G4.10	Common Ash	• Sever and remove 1.8m section of ivy from round base of trunk
G4.11	Common Ash	• No works required for planning application
G4.12	Common Ash	• No works required for planning application
G4.13	Common Ash	• No works required for planning application
G4.14	Holm Oak	• No works required for planning application
G4.15	Common Ash	• Fell to ground level and grind out stump
G4.16	Common Ash	• Fell to ground level and grind out stumps
G4.17	Common Ash	• Fell to ground level and grind out stumps
G4.18	Pedunculate Oak	• Fell to ground level and grind out stumps
G4.19	Common Ash	• Fell to ground level and grind out stumps
G4.20	Common Ash	• Fell to ground level and grind out stumps
G4.21	Common Ash	• Fell to ground level and grind out stump
G4.22	Common Hawthorn	• No works required for planning application
G4.23	Common Ash	• No works required for planning application
G4.24	Common Ash	• Fell to ground level and grind out stump
G4.25	Common Ash	• No works required for planning application
G4.26	Common Ash	• No works required for planning application
G4.27	Common Ash	• Sever and remove 1.8m section of ivy from round base of trunk
G4.28	Common Ash	• Sever and remove 1.8m section of ivy from round base of trunk
G4.29	Common Ash	• Sever and remove 1.8m section of ivy from round base of trunk
G4.30	Common Ash	• No works required for planning application
G4.31	Common Hawthorn	• Sever and remove 1.8m section of ivy from round base of trunk
Grp 5	Myrobalan Plum Wild Cherry Common Hawthorn Crack Willow	• See below for specific trees within group

G5.1	Myrobalan Plum	• No works required for planning application
G5.2	Wild Cherry	• No works required for planning application
G5.3	Wild Cherry	• No works required for planning application
G5.4	Common Hawthorn	• No works required for planning application
G5.5	Common Hawthorn	• No works required for planning application
G5.6	Common Ash	• No works required for planning application
G5.7	Common Hawthorn	• No works required for planning application
G5.8	Common Hawthorn	• No works required for planning application
G5.9	Common Hawthorn	• No works required for planning application
Grp 6	Goat Willow Leyland Cypress Cherry Laurel Portugal Laurel Scots Pine Lawson Cypress Common Ash Bamboo	• See below for specific trees within group
G6.1	Atlas Cedar	• No works required for planning application
G6.2	Goat Willow	• No works required for planning application
G6.3	Portugal Laurel	• No works required for planning application
G6.4	Portugal Laurel	• No works required for planning application
G6.5	Lawson Cypress	• No works required for planning application
G6.6	Portugal Laurel	• No works required for planning application
G6.7	Common Ash	• No works required for planning application
G6.8	Common Ash	• Offsite, responsibility of tree owner
G6.9	Portugal Laurel	• No works required for planning application
G6.10	Portugal Laurel	• No works required for planning application
G6.11	Portugal Laurel	• Fell to ground level and grind out stump
G6.12	Holm Oak	• No works required for planning application
G6.13	Portugal Laurel	• No works required for planning application
G6.14	Portugal Laurel	• Fell to ground level and grind out stump
G6.15	Portugal Laurel	• Fell to ground level and grind out stump
G6.16	Portugal Laurel	• No works required for planning application
G6.17	Leyland Cypress	• No works required for planning application
Grp 7	Common Ash	• See below for specific trees within group
G7.1	Common Ash	• No works required for planning application

G7.2	Common Ash	• No works required for planning application
G7.3	Common Ash	• No works required for planning application
G7.4	Common Ash	• No works required for planning application
G7.5	Common Ash	• No works required for planning application
G7.6	Common Ash	• No works required for planning application
G7.7	Common Ash	• No works required for planning application
G7.8	Common Ash	• No works required for planning application
G7.9	Common Ash	• No works required for planning application
G7.10	Common Ash	• No works required for planning application
G7.11	Common Ash	• No works required for planning application
G7.12	Common Ash	• No works required for planning application
H1	Privet	• No works required for planning application

- It is advised that all remedial tree works such as pruning is carried out between July and September or November and February. Tree works should also avoid the season for nesting birds.

- All tree works should be carried out in accordance with current best practice guidelines and BS3998: 2010 – Tree Works. Only natural target pruning method to be used.

- We recommend the use of an Arboricultural Association Approved Contractor or an ISA Certified Arborist/Tree Worker suitably insured and experienced to carry out the tree works.

CB5

SUMMARY OF

TREE PROTECTION MEASURES

Introduction

This leaflet shall be issued to all site personnel as part of their induction briefing.

It describes in summary form, the precautions that site personnel shall at all times follow, to ensure that the existing trees on the site come to no harm.

The precautions described are neither arbitrary nor reducible and must be adhered to in full.

These precautions are necessary because unprotected trees are very vulnerable to damage during demolition and construction works.

Furthermore, many of the trees on the site are under LEGAL PROTECTION and damaging them can result in heavy fines.

Two common misconceptions about trees:

MYTH: Trees have deep taproots and so shallow excavations will not harm the tree.
FACT: 90% of all tree's roots are found in the top 600mm of soil; all excavations near to trees are likely to cause root damage which can kill the tree.
MYTH: Trees will quickly heal over any bark wound, with no ill effect.
FACT: Bark wounds take years to heal and larger ones never do; missing bark can lead to disease and even the death of the tree.

Tree Protection

All trees adjacent to unsupervised work areas have been protected by fencing.

This fencing must be respected at all times and no attempts shall be made to damage, bypass or ignore it.

In areas designated for supervised working, no works shall be undertaken without the supervisor being present or without him/her issuing a "carry on" chit.

Prohibitions Adjacent to Trees

Inside the exclusion area of the tree protection, the following prohibitions shall apply.

- No digging or scraping
- No storage of plant or materials
- No vehicular access
- No fire lighting
- No handling, discharge or spillage or any chemical substance
- No water-logging

In addition to the above, further precautions shall be taken near to trees.

- A 10m separation distance shall be observed between trees and any substance injurious to their health, including fuels, oil, bitumen, cement (including washings) builders' sand, concrete mixing and other chemicals.

- No fire shall be lit such that flames come within 5m of any foliage; this shall be taken to mean a fire separation distance to the leaves of 20m.

Avoiding Damage to Stem and Branches

Care shall be taken when planning site operations to ensure that wide or tall loads or plant with booms, jibs and counterweights, can operate without coming into contact with trees.

Consequently, any transit or traverse of plant in proximity to trees shall be conducted under the supervision of a spotter to ensure that adequate clearance is at all times maintained.

In some circumstances, it may be impossible to achieve this, necessitating the pruning of the tree.

If this is necessary, a specialist team shall be called in following referral to the project Arboriculturist.

No tree pruning shall be undertaken by demolition or construction personnel.

Asking for Help

If you see any damage to a tree or its protective fencing, or if you need a tree pruning for plant clearance, contact **CBA Trees** as follows:

Office Telephone: 02380 986229

REMEMBER:
ALL TREE DAMAGE IS AVOIDABLE – SO AVOID IT!

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

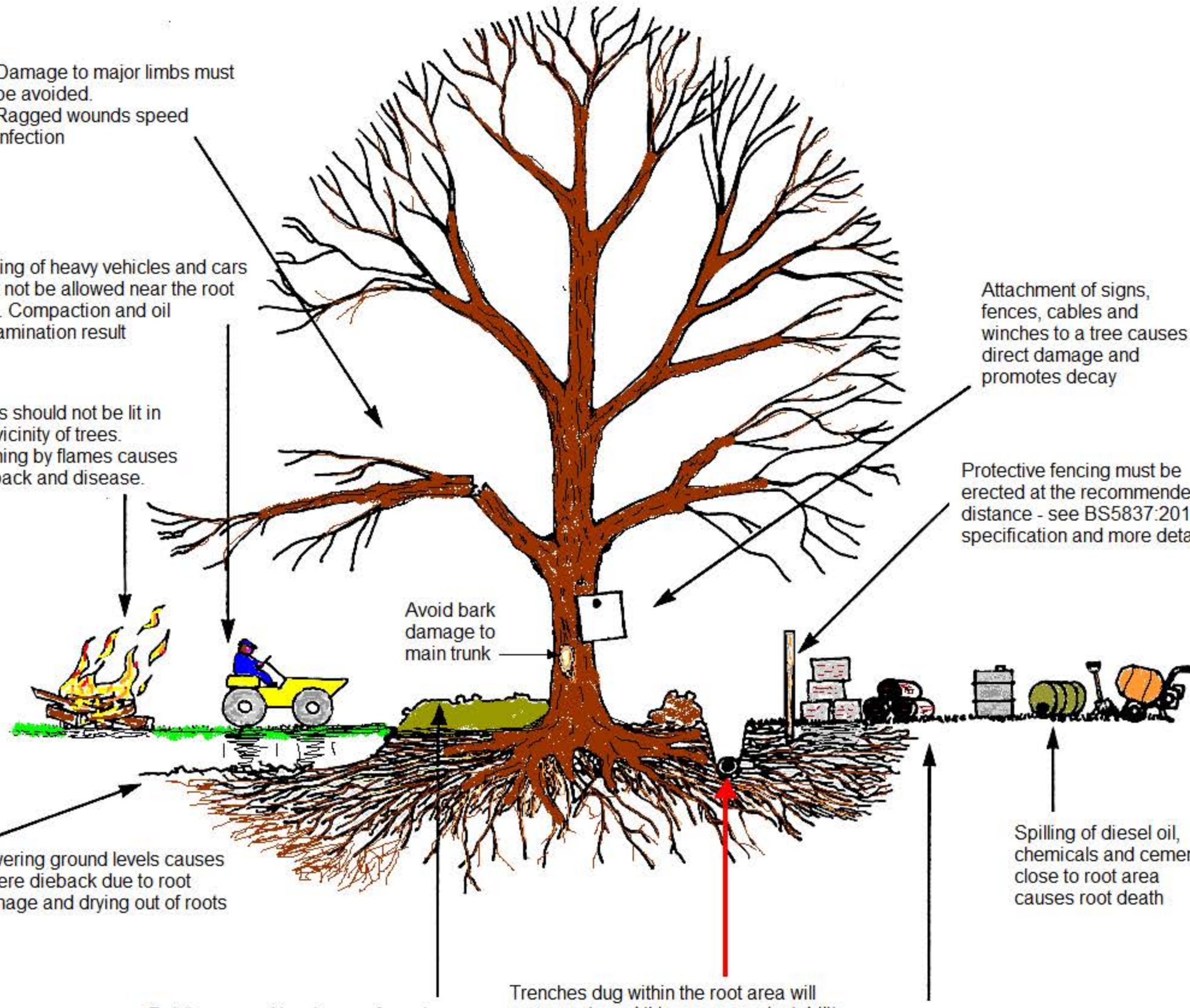
TREE PROTECTION AREA
KEEP OUT !

(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

COMMON CAUSES OF TREE DEATH

The use of properly positioned protective barriers can prevent tree deaths occurring.



CB6

The Professional Arboricultural Consultancy

Qualifications of
Stefan Rose
Principal Consultant

Stefan Rose *BSc (Hons), TechCert (Arbor.A), TechArbor.A* joined CBA Trees in 1998 as a junior surveyor and having gained extensive knowledge and a wealth of experience over the years, has progressed to Principal Consultant. He has considerable experience in working as a locum for Local Authorities, assessing new and extant Tree Preservation Orders, and continues to work on a number of major development projects nationwide.

As our Principal Consultant Stefan undertakes a full range of arboricultural services from health and safety audits to BS5837:2012 tree surveys, providing expert advice and guidance on initial feasibility site assessments to full scale planning applications. He is accomplished at producing implication assessments and method statements for the submission of planning applications, working with both individual home owners and within multi-disciplinary teams to achieve successful arboricultural outcomes.