ARBORICULTURAL IMPACT ASSESSMENT

Site:
Concrete Access Cul-de-Sac
North of

The Hexagon,
Fitzroy Park,
London,
N6 6HR.

Presented to:
FPRA, Dancers End, Fitzroy Park
and
Mr B Carnell on behalf of Hexagon Residents

Planning Reference: 2016/3252/P

By:

Landscape Planning Limited
4 The Courtyards
Wyncolls Road
Colchester
CO4 9PE

26/07/2016

Job ref: 68925

CONTENTS

1.0 EXECUTIVE SUMMARY

The proposal, seeking planning permission under Camden Council reference 2016/3252/P, is to demolish No. 4 The Hexagon and replace it with a design that includes an extended lower ground floor. A consequence of the extended ground floor is that a contiguous wall of piles will have to be formed along the north east of the new build line. Furthermore, underpins will also be constructed to the south east and south west of the site.

1.1 The existing house is part of a particular spatial layout: the development dates from the 1960s and consists of six detached houses designed by the RIBA architect Leonard Michaels. Pevsner describes the Hexagon as *"a cul de sac with six restrained brick and timber clad houses"*.

1.2 The trees within the re-development site have been addressed in an Arboricultural Impact Assessment by Crown Consultants dated June 2016, commissioned by the applicant.

1.3 The proposal is to re-develop the property with associated impacts on the garden curtilage of No. 4. The submission drawings and plans show the limited area of the 1960s concrete access cul-de-sac owned by No. 4, who otherwise only have rights to pass and repass over the concrete cul-de-sac.

1.4 A significant issue that has not been addressed in the submission by the applicants under consideration is that of the wholly disproportionate impact of 1,000 HGV movements on the access cul-de-sac laid down in the 1960s and the tree roots below.

1.5 A summary of the affected trees largely to the north is detailed in the table below:

Impact	Reason	A	B	C	U
Trees to be removed	To facilitate the development or due to their condition (U cat)	None	None	None	None
Trees with RPA encroachment	To facilitate construction	T19 and T21	T22, T25, T15 and T16	T17, T18, T20, T23, T24 and T14	None
Retained trees to be pruned	To address identified defects / facilitate construction	None	T22	T23	None

Contact Details

Name	Company	Position	Tel. No.
Margaret MacQueen Margaret.MacQueen@oca-arb.co.uk	Landscape Planning Ltd.	Principal Consultant Arboriculturist	T: 01206 224787 M: 07717 836594

2.0 REPORT PROCEDURES

2.1 This Report has been prepared in accordance with Landscape Planning Ltd.'s quality system procedures as follows:

Methodology relating to Arboricultural Impact Assessments

2.2 File creation, field survey, data capture procedures and report production follow the specific methodologies, technical approach and quality systems of Landscape Planning Ltd. The aim is to provide "fit for purpose" deliverables based on the client brief. Our approach broadly follows the guidance contained in "Trees in relation to Demolition, Design and Construction – Recommendations" (BS 5837:2012); however, the use of any terms or concepts contained therein does not imply Landscape Planning Ltd.'s acceptance of their accuracy or scientific validity and the use of any section or concept contained within the standard is on the principle of its advisory status as guidance.

Report and Findings

2.3 The Report and Findings have been quality checked prior to issue to the client.

Signed,

Paul Allen DipArb(RFS) MICFor MAE
Principal Consultant Arboriculturist
For and on behalf of
Landscape Planning Ltd

Dated: 26/07/2016

3.0 PREFACE

3.1 The Scope of Survey and Reporting

3.2 Landscape Planning Ltd. has surveyed the key trees adjacent to the concrete cul-de-sac and has provided guidance within this report on the significant measures necessary to ensure tree retention.

3.3 LPL has visited the site and completed a survey of trees, shrubs, hedgerows and other vegetation that may materially be of interest relative to the concrete cul-de-sac.

3.4 We have assessed the likely impacts of the development on the trees and made 'in principle' recommendations relating to tree retention and tree protection during any proposed development of No. 4 The Hexagon.

3.5 We have carried out an arboricultural impact assessment on the effect of the proposed development on the concrete cul-de-sac, identifying the significant constraints associated with establishing any construction exclusion zones (CEZ).

3.6 Because we are dealing with a cul-de-sac, the proximate relationship locations of the trees and normal requirements for tree protective fencing cannot be met.

3.7 The ground protection required will mean that the cul-de-sac would have to be entirely re-engineered. The entire access length would be one contiguous 'No-Dig' zone for RPAs shown outside of CEZs. But which would first have to be excavated and then relayed.

3.8 We are instructed to produce a tree constraints plan (TCP), showing the location of surveyed trees, their BS5837:2012 categorisation and the theoretical Root Protection Areas (RPAs).

3.9 We will also make any other observations or recommendations as required based on the survey

4.0 PLANS AND REFERENCE DOCUMENTS

4.1 BS5837:2012 'Trees in relation to design, demolition and construction – recommendations'

4.2 BS3998:2010 'Tree work – recommendations'

4.3 NJUG 4 – National Joint Utilities Group "Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees. Volume 4, issue 2. London: NJUG 2007"

4.4 We understand that the scheme is currently at planning submission stage.

4.5 Crown Consultants BS5837 Arboricultural Report and Plans

5.0 DESCRIPTION OF SITE GEOLOGY AND ACCESS CONSTRUCTION

5.1 We refer to the report by Soil Consultants dated May 2016.

5.2 We refer to the report by WSP Consultants dated July 2016.

5.3 All comments regarding soils have been verified with onsite geotechnical investigations and laboratory testing.

6.0 THE TREES NORTH OF THE CUL-DE-SAC

6.1 There were 10 individual trees to the north and 2 trees to the south surveyed immediately adjacent to the cul-de-sac.

6.2 By BS5837:2012 Categorization, the trees can be summarised as follows:

BS 5837 Cat	A	B	C	U
Specific Trees	T19 and T21	T22, T25, T15 and T16	T17, T18, T20, T23, T24 and T14	None
Total Number	2	4	6	0

6.3 These trees' locations and a summary of their visual contributions can be summarised as follows:

BS 5837 Cat	A	B	C
Northern Boundary Contributing to the seclusion between Highfields Grove and The Hexagon	T19 and T21	T22, T25, T15 and T16	T17, T18, T20, T23, T24 and T14

6.4 The amenity hedgerows identified on the site are not likely to be classified as 'important' within the Hedgerow Regulations 1997; however, the managed understorey of Box, Laurel, Eleagnus and evergreen Honeysuckle makes a very positive contribution to reinforcing the screening of the cul-de-sac from the properties to the north in Highfields Grove.

6.5 Our detailed check with the Local Planning Authority has confirmed that the following trees are subject to statutory protection:

	A	B	C	U
Tree Preservation Order				
Conservation Area	T19 and T21	T22, T25, T15 and T16	T17, T18, T20, T23, T24 and T14	
Planning Condition				

7.0 ARBORICULTURAL IMPACT ASSESSMENT

7.1 ROOT PROTECTION AREA (RPA) INCURSIONS

7.1.1 The following incursions into the RPAs of trees to be retained have been identified:

BS 5837 Cat	A	B	C
No RPA Incursion			
RPA Incursion	T19 and T21	T22, T25, T15 and T16	T17, T18, T20, T23, T24 and T14

7.2 CONCRETE CUL-DE-SAC

7.2.1 The development will require the installation of a new surface entirely within the RPA of all of the twelve trees surveyed: the LPL survey numbering commences adjacent No. 2 the Hexagon, with two trees in the ownership of No. 2 (T17 and T18).

7.2.2 All of the remaining ten trees are found on Highfields Grove verge land immediately to the north of the concrete cul-de-sac.

7.2.3 T14, T15 and T16 of the LPL access AIA survey are also trees T14, T15 and T16 of the Crown Consultants development AIA.

7.2.4 Where the existing hard concrete surface within the RPAs of Highfields Grove trees to the north of the access would have to be replaced, ordinarily they should be removed by controlled methods to avoid compaction of the underlying ground and avoid direct damage to roots

7.2.5 The disruption to these trees, which under all circumstances must be retained, cannot be minimised. Any installation of a 'reduced / no-dig' surface in the area on the concrete access strip would mean that these surfaces sit above ground level only *after* the concrete has been broken up and surface vegetation removal has been undertaken. It would not be possible to ensure that no tree roots are severed during the installation.

7.2.6 See the WSP Report, which identifies what degree and extent of re-engineered surface is suggested. A 300-400mm depth would damage, if not sever, key roots of all trees on the northern side of the cul-de-sac.

7.2.7 This process will sever the roots on the windward side of all 10 trees (T19 to T25 and T14 to T16).

7.3 SERVICES

7.3.1 The route of any services needs to be carefully considered so as to avoid unnecessary encroachment into retained trees' RPAs. Our site assessment has confirmed that the main services currently approach the development area from the concrete access track.

8.0 CONCLUSIONS

8.1 The concrete cul-de-sac is to the south-west of Highfields Grove. The boundary fence is chain link mesh but is masked by some intensively managed mixed evergreen hedging within which are located ten trees.

8.2 The Hexagon, formed around a cul-de-sac in a dip in the land, consists of 6 flat-roofed two-storey houses in brick with timber cladding by the architect Leonard Michaels, dating from c1960.

8.3 The re-development of No. 4 the Hexagon requires that the concrete strip accessing the site of No 4 will have to be utilised for at least a year to facilitate the anticipated 1,000 HGV movements.

8.4 The disproportionate intensification of use would automatically require the existing cul-de-sac, with a CBR ratio of only 4%, to be re-engineered to bear the 4,500 tonne movements.

8.5 Given that there is only one way in and one way out, this project will arguably involve 1,000 return journeys (albeit with unloaded vehicles) passing the 10 surveyed trees to the north, 60% of which are 'A' and 'B' category trees.

8.6 Any ground protection measures within retained tree RPAs, including some form of sub-base systems for the construction of the proposed access road, will cause adverse impacts in the form of root severance / damage.

8.7 Therefore, it will not be possible to adequately or sustainably protect the trees' RPAs.

8.8 Overall, it is concluded that the development at No. 4 cannot be implemented without undue impact on the Highfield Grove trees.

Signed,

Margaret MacQueen BSc CBiol MRSB MICFor CEnv MAE
Principal Consultant Arboriculturist
Expert & Legal Services
OCA UK Limited
For and on behalf of Landscape Planning Group - Dated: 26/07/2016

9.0 APPENDICES

APPENDIX 1 Key To Tree Tables

APPENDIX 2 Tree Survey Tables

APPENDIX 3 Tree Constraints Plan

APPENDIX 4 Tree Works Schedule

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APPENDIX 7 Report Caveats

APPENDIX 8 MMQ Professional Profile

APPENDIX 1

KEY TO TREE TABLES

Key

BS 5837 Cat	Description
A	Those of high quality and value: in such a condition as to be able to make a substantial contribution (> 40 years)
B	Those trees of moderate quality and value: those in such a condition as to make a significant contribution (> 20 years)
C	Those trees of low quality and value: currently in adequate condition to remain until new planting could be established (> 10 years)
U	Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed regardless of development

Note: Sub categories are denoted in the tree survey data (A1, B1, C2 etc.). You are referred to the BS for further detail if required.

Tree No.	T (tree), G (group), H (hedge), W (woodland) + Ref No.
Species	Common Name
Ht (m)	Measured height in metres
DBH (m)	Diameter at 1.5m above ground level
Branch Spread	In m to cardinal points
Cr Ht Clearance (m)	Overall height of lowest branches from the ground level on side of proposed development
Life Stage	Young, Semi-Mature, Early-Mature, Mature, Over-Mature
General Observations	Observations on the condition of the tree(s)
Tree Work Specification	Proposed tree works in accordance with BS3998
BS Cat	See above
Life Exp	Estimated remaining contribution in years.
RPA Radius(m)	Radius of the trees Root Protection Area measured from the trunk to the edge of the RPA circle in metres
RPA (m2)	Overall Root Protection Area in m2
*	Indicates where tree data may have been estimated as tree was offsite / restricted access / dense vegetation hindering full inspection

Age Range	**YO**	Trees from seedling, up to Advanced Nursery Stock size (14/16cm girth)
	SM	More than 10 years post-establishments but capable of being moved using a large tree spade (up to 22/24cm diameter).
	EM	Early indictors of maturity in bark tissue, reproductive tissue, leaf and crown morphology may be present. (Notably, excurrent shoot growth, not readily transplantable and still likely to increase significantly in size).
	MA	Strong indicators of maturity in bark tissue, reproductive tissue, leaf and crown morphology will be present. Shoot growth decurrent. (Middle aged phase of growth when the tree has effectively reached up to 90% of its ultimate size for the species and location).
	FM	Bark tissue, reproductive tissue, leaf and crown morphology will all exhibit mature characteristics. Strongly decurrent shoot growth and reduced shoot extension. No specific signs of senescence. (A tree that has now achieved over 90% of its ultimate life for the species and location).
	OM	Trees in senescence. Although not directly in decline from disease, decay, root death, structural or stability. Problems are primarily resulting from old age. (Senescence is an age related category, i.e. a younger tree subject to disease and decay because of, for example, an impact injury would not be senescent. Characteristically, senescent trees are likely to be reducing in mass and becoming stag headed.

APPENDIX 2

TREE SURVEY TABLES

ARBORICULTURAL IMPACT ASSESSMENT
TREE SURVEY TABLES
Surveyor: Margaret MacQueen
Date Surveyed: 19/07/2016

Tree No.	Species (English) Latin if any doubt	Age Range	Height (m)	Crown Radius (m) N – S – E – W				Stem Diam @ 1.5m (mm)	BS RPR (m)	Comments (incl. Structural condition)	Recommendations	Remaining contribution (Yrs)	Amenity
T17	Hawthorn	Early Mature	3.5	2	4	4	3	380	4.56	Average form, shape and condition. No significant recent crown management. Dense crown, low crown dead wood. Tree located near to site access. 3 stemmed specimen with basal included unions. 3rd party offsite boundary tree with overhanging branches.	No works.	10-19	C
T18	Birch	Young	3	1	2	2	2	80	0.96	Average form, shape and condition. No significant recent crown management. Dense crown, low crown dead wood. Tree located near to site access roadway. 3rd party offsite boundary tree with overhanging branches.	No works.	10-19	C
T19	Lime (Common)	Mature	25	4	5	4	4	800	9.6	Good form, shape and condition. No significant recent crown management. Dense crown, moderate crown dead	No works.	40+	A

Job ref:

ARBORICULTURAL IMPACT ASSESSMENT
TREE SURVEY TABLES
Surveyor: Margaret MacQueen
Date Surveyed: 19/07/2016

Tree No.	Species (English) Latin if any doubt	Age Range	Height (m)	Crown Radius (m) N – S – E – W				Stem Diam @ 1.5m (mm)	BS RPR (m)	Comments (incl. Structural condition)	Recommendations	Remaining contribution (Yrs)	Amenity
										wood. Tree located near to 3rd party site access. Offsite boundary tree with overhanging branches. Basal / trunk epicormic growth.			
T20	Hawthorn	Young	7	2	2	2	2	160	1.92	Poor form (asymmetric canopy), shape and condition. No significant recent crown management. Sparse crown. Tree located near to site access. 3rd party offsite tree, notably tied back to fenceline by large rope.	No works.	<10	C
T21	Horse Chestnut	Mature	20	5	5	5	5	550	6.6	Good form, shape and condition. No significant recent crown management. Dense crown, low crown dead wood. Tree located near to site access.3rd party offsite boundary tree with overhanging branches.	No works.	20-39	A
T22	Sycamore	Early Mature	15	2	3	5	2	450	5.4	Average form, shape and condition. Subject	Cut back failed limb to suitable growth	20-39	B

Tree No.	Species (English) Latin if any doubt	Age Range	Height (m)	Crown Radius (m) N – S – E – W				Stem Diam @ 1.5m (mm)	BS RPR (m)	Comments (incl. Structural condition)	Recommendations	Remaining contribution (Yrs)	Amenity
										to limited historic crown management. Showing minor signs of 'stress' within crown. Tree subject to previous localised history of limb failure. Tree located near to site access. 3rd party offsite boundary tree with overhanging branches.	point.		
T23	Lime (Common)	Early Mature	12	2	2	2	2	600	7.2	Poor form (asymmetric canopy), shape and condition. Sparse crown showing signs of 'stress' with crown retrenchment. Tree subject to previous history of limb failure/'s. Tree located near to access road. 3rd party offsite boundary tree with overhanging branches. Central leader lost in past.	Crown reduce and reshape by 20-30% crown volume.	10-19	C
T24	Holly	Semi-Mature	4.5	2	2	2	2	60	0.72	Average form, shape and condition. Subject to historic crown management -	No works.	10-19	C

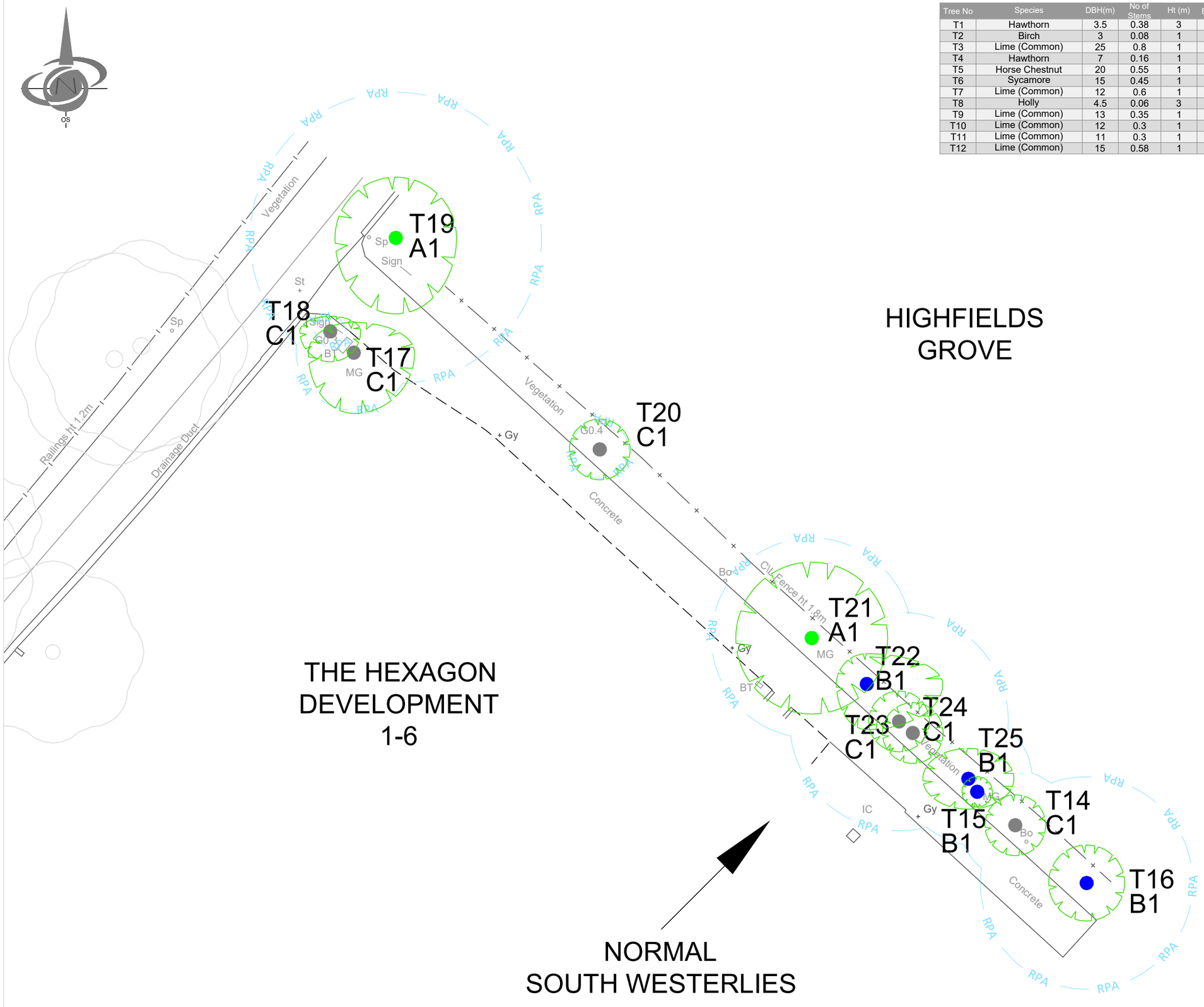
Tree No.	Species (English) Latin if any doubt	Age Range	Height (m)	Crown Radius (m) N – S – E – W				Stem Diam @ 1.5m (mm)	BS RPR (m)	Comments (incl. Structural condition)	Recommendations	Remaining contribution (Yrs)	Amenity
										intensively managed by pruning back to verge edge. Tree located near to site access. 3rd party offsite multiple stemmed tree.			
T25	Lime (Common)	Semi-Mature	13	2	2	3	3	350	4.2	Average form, shape and condition. No significant recent crown management. Dense crown, low crown dead wood. Tree located near to site access. 3rd party offsite boundary tree.	No works.	20-39	B
T15	Lime (Common)	Semi-Mature	12	1	1	1	1	300	3.6	Average form, shape and condition. No significant recent crown management. Sparse / narrow crown. Tree located near to site access. 3rd party offsite boundary tree.	No works.	20-39	B
T14	Lime (Common)	Early Mature	11	2	2	2	2	300	3.6	Average form, shape and condition. No significant recent crown management. Sparse crown. Tree located near to site access. 3rd party	Possible decay detection by non-invasive device.	10-19	C

ARBORICULTURAL IMPACT ASSESSMENT
TREE SURVEY TABLES
Surveyor: Margaret MacQueen
Date Surveyed: 19/07/2016

Tree No.	Species (English) Latin if any doubt	Age Range	Height (m)	Crown Radius (m) N – S – E – W				Stem Diam @ 1.5m (mm)	BS RPR (m)	Comments (incl. Structural condition)	Recommendations	Remaining contribution (Yrs)	Amenity
										offsite boundary tree. Tree 'topped' @ approx. 7m. Stem / trunk wound at 3m on south side with evidence of weeping.			
T16	Lime (Common)	Early Mature	15	2.5	2.5	2.5	2.5	580	6.96	Average form, shape and condition. No significant recent crown management. Dense crown, low crown dead wood. Tree located near to site access. 3rd party offsite boundary tree.	No works.	20-39	B

APPENDIX 3

TREE CONSTRAINTS PLAN



HIGHFIELDS GROVE

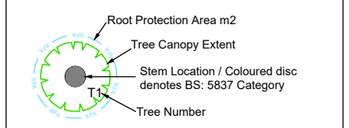
THE HEXAGON DEVELOPMENT 1-6

NORMAL SOUTH WESTERLIES

Tree No	Species	DBH(m)	No of Stems	Ht (m)	BS Cat
T1	Hawthorn	3.5	0.38	3	C1
T2	Birch	3	0.08	1	C1
T3	Lime (Common)	25	0.8	1	A1
T4	Hawthorn	7	0.16	1	C1
T5	Horse Chestnut	20	0.55	1	A1
T6	Sycamore	15	0.45	1	B1
T7	Lime (Common)	12	0.6	1	C1
T8	Holly	4.5	0.06	3	C1
T9	Lime (Common)	13	0.35	1	B1
T10	Lime (Common)	12	0.3	1	B1
T11	Lime (Common)	11	0.3	1	C1
T12	Lime (Common)	15	0.58	1	B1

DO NOT SCALE FROM THIS DRAWING

Tree Survey Drawing Key



See Landscape Planning Tree Survey for Individual Tree Details

KEY

Please refer to Landscape Planning report for details

- Category A - high quality and value
- Category B - moderate quality and value
- Category C - low quality and value
- Category U - removal

RPA - root protection area as defined by Table 2 BS 5837:2012

Category U - removal

REVISIONS

No	Description	By	Date	Chkd

LANDSCAPE PLANNING LTD

ISSUE: -

CLIENT: Bernard Carnell

LOCATION: 4 The Hexagon, Fitzroy Park, London, N6 6HR

DRAWING TITLE: Tree Constraints Plan (TCP)

SCALE: 1:250 @ A3 | DATE: 22nd July 2016

DRAWN BY: S Blackwell | CHKD BY: P Allen | DRAWING No: 689251-01 | REV: -

Y:\Customer Drawings\L-006 - Landscape Planning\68295 - 4 The Hexagon\68925-01TCP v1.1

APPENDIX 4

TREE WORKS SCHEDULE

NOTE: All tree works to be undertaken in accordance with BS 3998:2010 'Treework - Recommendations'. All pruning cuts to be made at suitable growing points, in line with the principles of natural target pruning.

Trees To Be Pruned

Tree No.	Species	Proposed Tree Works	BS Cat
T22	Sycamore	Cut back failed limb to suitable growth point.	B1
T23	Lime (Common)	Crown reduce and reshape by 20-30% crown volume.	C1

APPENDIX 5

PHOTOGRAPHS

	
Close managed understorey edge.	Hawthorn tied back to fenceline.
	
Mixed understorey of Yew, Box and Laurel.	Sycamore and Horse Chestnut left view.

	
T16 (Lime) centre view.	View east to west along The Hexagon.
	
View east.	

APPENDIX 6

2016/3252/P CRITIQUE

Report to Mr B Carnell, No 1 The Hexagon. Also on behalf of No's 2, 3, 5 & 6 The Hexagon

4 The Hexagon, Fitzroy Park

Erection of a 3 storey 3 bed dwelling following demolition of existing 3 storey dwelling and associated works

Camden ref: 2016/3252/P

Brief

Landscape Planning Group have been appointed by Mr Bernard Carnell and on behalf of his immediate neighbours at Nos 2, 3, 5 and 6 The Hexagon to carry out a review of tree related issues in connection with the redevelopment proposals at No 4 The Hexagon, including the impact on trees lining the privately concrete track approach to No 4.

I am to carry out a desk based study and site visit: The desk based review is to be of all the documentation provided, as well as a review of all other relevant material to this instruction to be found on Camden Council's website. I have therefore in particular reviewed:

1] The Crown Consultants AIA dated 8th June 2016

2] The Soup Architects Planning and Heritage Statement dated June 2016

3] The Soup Architects Sustainability Statement dated June 2016

4] The LBH Wembley BIA dated June 2016

5] The LBH Wembley Hydrological, Geotechnical and Ground Movement Assessment dated June 2016

6] The Alan Baxter Associates report to the Fitzroy Park Residents Association dated July 2016

7] The Motion CTMP v2.0 dated 26 May 2016

8] The e-mail exchanges between Damian Tungatt of Motion and Karen Beare of FPRA 6th to 16th June 2016

9] The Elliott Wood Structural and Civil Engineering planning report dated June 2016

10] The Soil Consultants report on the CBR's and borehole data for FP and The Hexagon dated May 2016

11] The WSP critique of the draft CMP by Motion dated July 2016

4 The Hexagon, Fitzroy Park

Erection of a 3 storey 3 bed dwelling following demolition of existing 3 storey dwelling and associated works

Camden ref: 2016/3252/P

The site visit was carried out on Tuesday 19 July specifically to survey various trees that mostly line the northern edge of the concrete access track known as The Hexagon.

Specifically T17 and T18 are in the ownership of No 2 the Hexagon and are found at the junction with Fitzroy Park on the south side.

T19 to T25 and T14 to T16 are in the ownership of Highfields Grove and are found lining the northern boundary of The Hexagon approach with Highfields Grove.

No access to No 4 the Hexagon was requested because the core reason for the tree survey was in order to gather information on the trees lining the access track not surveyed by Crown Consultants on behalf of the applicants.

I am asked to give an opinion on the impact of an estimated 4,500T quantum weight loading caused by the proposed development on these trees and the trees' roots that are growing beneath the track. Soil investigations commissioned by FPRA have shown there to be a maximum 4% CBR [see Soil Consultants report, May 2016].

The trees in question are located in verge land owned by properties within Highfields Grove. The verge is marked by a fence line and simply meets the edge of The Hexagon concrete access track in an informal way. There is no inset kerb because The Hexagon concrete approach track is private land.

BS 5837 2012 as key reference document

BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations says in its forward:

"this British Standard provides recommendations and guidance for arboriculturists ,architects, builders, engineers and landscape architects"

and

"Any user claiming compliance with this British Standard is expected to be able to justify any course of action that deviates from its recommendations"

4 The Hexagon, Fitzroy Park

Erection of a 3 storey 3 bed dwelling following demolition of existing 3 storey dwelling and associated works

Camden ref: 2016/3252/P

Discussion

Under section 3 of the BS " Terms and definitions" and 3.7, on the definition of the root protection area, it says *" layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree`s viability and where the protection of the roots and soil structure is treated as a priority".*

Observation 1: We read in the Crown Consultants AIA that *"a significant portion of the root system of the Yew tree T1 shall be affected by the installation of foundations and steps leading down to the building entrance"* such that there will have to be *"extensive pruning of the canopy"*.

The impact of a range of development pressures on Yew T1 will cumulatively be considerable [loss of rooting area; loss of canopy mass; new surfacing within the RPA] and its successful retention is integral to maintaining privacy for those residents located to the west.

There is no indication of how or where any stated loss due to foundation encroachment is to be found elsewhere "*contiguous with its rpa".*

Observation 2: Under section 4 of the BS "Feasibility: surveys and preliminary constraints" and 4.2 on the topographical survey 4.2.4 c) confirms that "*the position of trees with an estimated stem diameter of 75mm or more that overhang the site or are located beyond the site boundaries within a distance of up to 12 times their estimated stem diameter"* should be recorded.

Observation 3: The Crown Consultants AIA fails in this regard [in the absence of providing justification for why they have deviated from what is recommended]. As a basic minimum to fulfil what is recommended by the British Standard, all trees with a stem diameter of 75mm or above x 12 their stem diameters should be shown on the AIA plan.

Under section 5.4 of the BS "Arboricultural Impact Assessment" and in particular 5.4.2, I note we read *"account should be taken of the buildability of the scheme in terms of access, adequate working space and provision for the storage of material including topsoil*".

Observation 4: In my opinion, it is a serious omission by anyone advising the applicant if proper regard has not been taken for every off site tree that could be impacted on by the "buildability" demands of the extensive redevelopment proposals, which in terms of the most basic requirements of facilitating the development mean those trees lining the private concrete access track as well as those trees located within the redevelopment site.

4 The Hexagon, Fitzroy Park

Erection of a 3 storey 3 bed dwelling following demolition of existing 3 storey dwelling and associated works

Camden ref: 2016/3252/P

Observation 5: I would ask parties involved in advising the applicant to remind themselves of section 4.4 of BS 5837 2012 and recommendations on the "tree survey":

"for this reason the tree survey should be completed and made available to designers prior to and/or independently of any specific proposals for development" 4.4.1.1

"a tree survey should be regarded as an important part of the evidence base underpinning the design and access statement" 4.4.1.3

"the tree survey should include all trees included in the topographical survey as well as any that might have been missed" 4.4.2.1

The omission of **all** trees (3 have been surveyed) located in the verge to the north of The Hexagon access is a significant omission: the impact on the sustainable retention of these trees has been completely omitted from the applicant's submission.

The fundamental issue of site access has to be addressed as a prerequisite of engaging the immediate community of the Hexagon and the fact that No 4 owns only a very small section of the private access road.

A CBR ratio of 4% cannot sustain the weight and frequency of HGV vehicles that is proposed over the twelve months which the project is said to take. This is a matter that must be addressed by the applicant now and cannot be reserved as a matter to discharge through the BS 5837 AMS after Planning permission has been granted.

The WSP critique of the Motion CMP indicates how the concrete access will need to be re engineered to bear the intensification of use. The outcome is self defeating given the tree rooting under the concrete access that would have to be broken up, which would be severed causing irreparable damage.

The local community is facing a wholly contrived situation with 2.5m wide heavy goods vehicles reversing down the Hexagon through pinch points that are only 500mm wider than the HG vehicle [on either side].

The sylvan character of the access track will be irreparably harmed as a result of the weight and frequency of vehicular movements, which will occur at levels not previously experienced.

The lack of integration between the various reports and their objectives is again only underlined by paragraph 3.1.1 of the Crown Consultants AIA which says "*only trees with a stem diameter over 75mm were included which lie within the site boundary or relatively close to it".*

4 The Hexagon, Fitzroy Park

Erection of a 3 storey 3 bed dwelling following demolition of existing 3 storey dwelling and associated works

Camden ref: 2016/3252/P

Observation 6: As already stated, this does not comply with the BS5837 2012 requirement at 4.2.3 which says that c*)" the position of trees with an estimated diameter of 75mm or more that overhang the site or are located beyond the site boundaries within a distance of up to 12 times their estimated stem diameter"* must be surveyed.

Observation 7: There is no obvious integration on one master plan of the location of drainage runs within the garden curtilage of No 4.

Observation 8: This same point in terms of a master plan of impacts needs to show how the materials storage area would be located free of any impacts on trees to be retained.

Observation 9: The increased footprint of No 4 will place direct pressure on the sustainable retention of the trees on the western boundary of No 6.

Observation 10: We believe the southern garden boundary wall between No 4 and No 10 is a Victorian curtilage listed wall. The anticipated pressure of ground disturbance to the north in association with the redevelopment of No 4 on maintaining the stability of the wall has not been addressed.

4 The Hexagon, Fitzroy Park

Erection of a 3 storey 3 bed dwelling following demolition of existing 3 storey dwelling and associated works

Camden ref: 2016/3252/P

Conclusions:

There are significant unknowns about the proposition to demolish and rebuild No 4 the Hexagon:

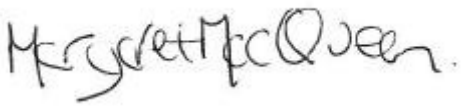
1] From the unquantified pressures on the trees on the southern boundary of Highfields Grove.

2] Impacts or root incursions both on key trees within the curtilage of No 4 and on the safe and sustainable retention of trees located on the boundaries of No 6 and No 10.

3] The material storage area within the garden of No 4: how is it to be reached and used with zero harm caused to tree retention within the curtilage of No 4?

4] Drainage excavations within the curtilage of No 4: quantifying the harm to tree roots.

5] Impacts on the Victorian listed wall to the south.



Margaret MacQueen BSc CBiol MRSB MICFor CEnv MAE
Principal Consultant Arboriculturist
Expert & Legal Services
OCA UK Limited

APPENDIX 7

REPORT CAVEATS

General - Trees

Unless otherwise stated tree observations have been undertaken from ground level and using non-invasive techniques only. Comments contained within the report on the condition and risk associated with any tree relate to the condition of the tree at the date and time of survey. Please note that the condition of trees is subject to change. This change may occur, but is not limited to biological and non-biological factors as well as mechanical/ physical changes to conditions in the proximity of the tree. Trees should be inspected at intervals relative to identified site risks and in accordance with relevant HSE and Central Government guidance. Landscape Planning Group Ltd can provide further information on this matter if required.

Unless otherwise specified, no checks have been carried out in respect of statutory controls that may apply, e.g. Tree Preservation Orders, Conservation Areas or planning conditions. In addition, prior to undertaking any tree works, it is necessary to ensure due diligence is followed in respect of protected species and habitats.

Where tree surgery works have been identified these works are based on the assumption that planning is approved, no tree works should be undertaken prior to determination of this application without up to date confirmation of the Tree Preservation Order / Conservation Area Status of the vegetation. All works should be undertaken in accordance with the appropriate Duty of Care. This should include, for example, site specific risk assessments and due diligence inspections for the presence of protected species.

Any comment relating to 3rd party trees has been made without full access to the tree(s). Should these trees have any impact on the proposed development we would advise you to instruct us to contact the 3rd party and undertake further inspection work.

Not a Design Statement or Method Statement

This report has been prepared in respect of development impacts on trees. The report provides details and makes in principle recommendations relating to tree protection, which may have implications for design, construction, materials and methods to be employed in the development. Any such recommendations should be approved by the relevant designer / competent person.

APPENDIX 8

MARGARET MACQUEEN
PROFESSIONAL PROFILE

Professional Profile

NAME: Margaret MacQueen

POSITION: Principal Consultant Arboriculturist

SPECIALIST FIELD: Tree Preservation Orders; Conservation Area Regulations; Appeals Procedure; tree related Planning and Subsidence cases; tree related Personal Injury cases; CPR & Section 202e cases.

LENGTH OF SERVICE: From February 2004

QUALIFICATIONS:
- BSc (Open.)
- HND Horticulture and Landscape Technology
- Royal Forestry Society Certificate in Arboriculture
- Arboricultural Association Technician's Certificate
- Chartered Biologist
- Chartered Forester
- Chartered Environmentalist

MEMBERSHIPS:
- Member of the Royal Society of Biology
- Member of the Institute of Foresters
- Member of the Society for the Environment
- Member of the Academy of Experts

EXPERIENCE:

Margaret first qualified in 1977 and worked within the private sector, managing both forestry and amenity trees for 12 years. Following this Margaret worked in Local Government, firstly as an Assistant Conservation Officer and then as a Conservation Officer for 14 years. During this time Margaret dealt with all statutory tree applications and notifications, landscape planning issues, and the formulating of policies for tree retention and management. Margaret managed all the Council owned amenity trees and areas of woodland, attended regular Highway Authority Utility Committee meetings and organised training for voluntary groups such as the Parish Tree Wardens.

Since joining OCA UK Limited Margaret has been instrumental in the development of all services relating to protected trees and planning matters associated with tree related subsidence.

Margaret is currently employed as lead Consultant within the OCA UK Limited Expert, Legal and Consultancy Team, dealing with complex & high net worth claims, TPO Appeals, TPO Objections, s.202 claims, method statements relating to repair/construction adjacent protected trees, and Expert Witness statements. In addition, Margaret has overall responsibility for audit and training for all matters relating to statutory procedures and subsidence.

Margaret is also a member of the Landscape Planning Limited review group who are responsible for consultation and comment on changes to legislation and developments affecting trees and landscape.

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