1-38-3816/2

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R E P O R T

on the impact on trees

of proposals for development

at

5 Templewood Avenue, London, NW3 7UY

(24th January 2017)

Registered Consultant of the Arboricultural Association
John Cromar, Dip. Arb. (RFS), F.Arbor A.

REGISTERED
CONSULTANT

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01
Introduction and Instructions

I am instructed by Brod Wight Architects on behalf of clients to make an assessment of tree amenity value and condition of trees at 5 Templewood Avenue, London, NW3 7UY and of the impact of a proposal for development (basement and extensions) on such trees. Accordingly, I visited the property on 12th August 2015 in order to carry out an inspection.

02
Copyright

02.01
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03
Notes

03.01
PLANS
1-38-3816/P1Av4 gives an approximate representation (in plan) of actual crown form, and is intended to indicate the relationship of neighbouring trees to each other, and should be read with the comments on crown shape and tree value in TREE DETAILS appended. The plan gives a quick reference assessment of value as per section 4, table 1, of BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'. Assessment of value in the TREE DETAILS table appended is, in accordance with British Standard 5837:2012 related mainly but not exclusively to the criterion of *visual value to the general public*. The Standard recommends a way of classifying trees when assessing their potential value in relation to proposed development. Some surveys may not include any trees of one or more categories. Table 1 suggests categories 'U', 'C', 'B' and 'A' , in ascending merit. 'U' **(RED crown outline on plan)** category trees are dangerous \ low value trees that could require removal for safety or arboricultural reasons. 'C' **(GREY or black/uncoloured crown outline on plan)** category trees are of no particular merit, but in adequate condition for retention. 'A' category trees **(GREEN crown outline on plan)** are trees of high vitality or good form, or of particular visual importance: 'B' **(BLUE crown outline on plan)** category are good trees but may be of slightly poorer form or be not sited as importantly as 'A' category trees. See TREE DETAILS appended. Category Assessment appears in column 10. This standard also provides a way of determining an area (see TREE DETAILS column 7) – the **RPA** – root protection area - around the trunk of the tree in which protective measures should be used in order to prevent significant damage to trees. There are various ways of achieving this. A simple way is to use exclusion fencing, but other methods have been shown by established use to be very effective.

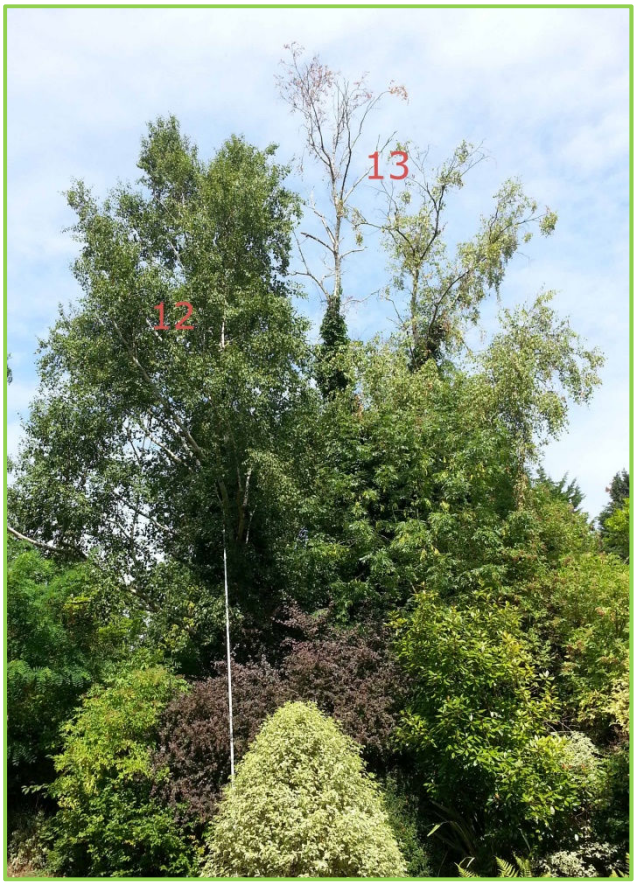
03.02
1-38-3816/P2Av5 is colour-coded to indicate where arboricentric methods are proposed during the demolition and construction processes.

04
Sources and Documents

Ground level inspection.
Supplied plans : Survey Solutions drg. no: 1046-S01 (existing)
Brod Wight Architects drg. no: 1046-AP01 (proposed)
ME7 Ltd. drg. no: 625 D1-P2 (drainage proposal)

05
Appraisal

05.01
AMENITY / SCREENING BY TREES AND SHRUBS
Oak 1 is of significant general public amenity value, as it is prominent on Templewood Avenue. The trees in the back garden are partly visible from public viewpoints as 'glimpse' or 'skyline' features. One is in advanced decline (see picture left). Most of these trees are of some strictly local amenity value to owners / users of the site, and to those of adjoining properties.



05.02
TREES AND LAYOUT - POTENTIAL FOR CONFLICT WITH ROOTS
(Details appear in the tree detail table appended.) The figures in columns 6 and 7 in the tree details table appended indicate the root protection area ('RPA'), and typically the basic exclusion fence position. New materials and methods have been developed and continue to be developed that assist in promoting the successful retention of trees in association with constructed features. It should be noted that BS 5837:2012 (section 7.4.2) supports 'up and over' methods of construction where appropriate. The design principle of this method is outlined within Arboricultural Practice Note 12 (Through the Trees to Development, - a revision of APN 1, 1996, published by AAIS / Tree Advice Trust). This method has been used for many years on the recommendation of John Cromar's Arboricultural Co. Ltd. and has successfully allowed the retention of mature trees very close to construction activities.

05.03
An assessment as per BS5837:2012 section 4.6.2 has been carried out in connection with all trees to be retained. (This section requires that site conditions, tree mechanics, etc., are taken into account in determining the likely position of roots.) This is of some relevance in connection with this site where tree 1 has been regularly reduced. Reduction or pollarding promotes shrinkage of the root system, in accordance with established knowledge of tree physiology, e.g. in 'Crown Pruning Effects on Roots' *Coder*, (1997) found:

> A decline in carbohydrate from failing photosynthesis (as in green wood pruning) allows carbohydrates to be preferentially held in the shoot. The result is a greater allocation of carbohydrate to shoot production and less to roots. After a time of internal nitrogen reallocation, the smaller allocation of carbohydrate to roots means less nitrogen uptake. As pathogens, damage, toxins, stress, etc. limit photosynthesis, less root area is generated.

Thus decline of the root system to somewhat below the orthodox extent of the RPA is now likely to have occurred. The tree requires (at least) recurrent pruning to maintain in reasonably safe condition. This is further likely to limit the extent of the root system. This fact has however not been relied upon in determining appropriate degrees of tree protection on the site : all due measures are proposed for implementation.

05.04
ROOTS and DESIGN
SRP is an acronym for *static root plate*, (after *Mattheck*, 1991, etc.) a radial dimension derived from trunk diameter based on studies of wind-thrown trees and thus a guide to where structurally significant roots are likely to be located. RPA is an acronym used in BS5837:2012 and signifying the *root protection area*. The RPA is a guide to where systemically significant roots are likely to be located.

No encroachment on the SRP of any retained tree is entailed and only minor encroachment on the RPA of certain retained trees is entailed, as analysed in the table below :

No.	Tree	RPA in sq.m.	Area sq.m affected	Percentage affected	Notes
1	English oak	706.86	13.98	1.98	Proposed structure / lightwell / steps / sheet piling area
1	English oak	706.86	1.25	0.18	Proposed gate piers
1	English oak	706.86	22.14	3.13	Proposed car lift
1	English oak	706.86	3.46	0.49	Proposed new manholes
11	false acacia	107.73	0.93	0.86	Proposed rear garden steps

In the writer's now extensive experience gained over more than a third of a century in arboriculture, controlled, limited-extent, vertical root cutting is of little or no significance to tree health. (None is here directly proposed.) The actually damaging operations are those that degrade or compact the ground surface within the RPA, for example by uncontrolled access by mechanical excavators, dumpers, etc. It should be noted that the very limited root cutting entailed in this proposal is, by an order of magnitude, far less than that entailed in the

commercial moving of maturing and even mature trees, which has been practised successfully for centuries.

In view of the above I conclude that no special footings are needed from the arboricultural perspective. In this case all trees to be retained can be adequately protected by exclusion fencing and other measures as indicated. The position of drainage services has been agreed between drainage engineers and arboriculturist as flexible, thus further promoting protection of trees. Methods are proposed below to reduce impacts on root systems of retained trees.

05.05
PERCEPTION OF TREES
The majority of the significantly-sized retained trees are located mainly to the north-west and east of the proposed basemented and extended dwelling. The proposed layout is in a closely similar position to the existing structure : the existing structure's position in relation to the existing trees has not generated any obvious or reported requirement to prune trees inappropriately. The proposed basement will be partly artificially lit; lightwells also feature in the design. In view of the above I conclude that shading by and perception of trees has been considered (as sections 5.3.4 and 5.6.2.6 of BS 5837:2012 recommend) and appear not to be negative factors.

05.06
Processing by the LPA of any due application from future owners for permission to carry out tree work will no doubt be carried out with due regard for good arboricultural practice and according to British Standard 3998:2010 'Tree Work – Recommendations'. In any appeal that might arise against refusal of LPA consent to reduce inappropriately, or fell trees, common arboricultural criteria to those of the LPA would be used by any specialist tree inspectors of the Planning Inspectorate, and thus the trees would in my view be thus protected against inappropriate work. I consider that any such notional issues are very likely to be dealt with appropriately as no doubt in the past they have been within the Borough, as such tree/building juxtapositions are far from rare.

05.07
SUPERSTRUCTURE AND TREE APPRAISAL - TREE PRUNING
I note from the elevation drawings supplied that no encroachment on the crowns of retained trees will occur. Other tree surgery in accordance with BS5837:2012 and British Standard 3998:2010 'Tree work – Recommendations' is proposed. A schedule for the use of a contractor appears below.

05.08
TREE REMOVAL APPRAISAL and REPLACEMENT PLANTING
Please see section **08** for comments on the individual trees proposed for removal. Overall, appropriate replacement tree planting will play some role in providing for future mainly local amenity. The British Geological Survey information for the area indicates that the underlying sub-soil is the Claygate beds; silt and fine-grained sand. This places no constraints on species selection for tree and other planting. See plan for locations:

A= oriental hawthorn (*Crataegus orientalis*) 10-12cm girth 45 L pot
or Japanese maple (*Acer palmatum* 'Osakazuki') 2-2.5m 45L pot

B= dawn redwood (*Metasequoia glyptostroboides*) 16-18cm girth 85L pot
C= holly (*Ilex aquifolium* 'JC van Tol') 2-2.5m 85L pot

05.09
SUPERVISION
Supervision by an arboriculturist is a desirable (but not always essential) element of site development where trees are present and to be retained. Good communication between site agent and arboriculturist can reduce the need for such a measure. I propose that this takes place at key points in the construction process, and additionally whenever required by the architect or LPA. These key stages are as per method 1 in section 06.02 below.

05.10
PUBLISHED GUIDANCE IN RELATION TO TREES AND DEVELOPMENT
In conserving trees on development sites, expected best practice is as in B.S. 5837 : 2012. Section 5.1.1 notes :

"Certain trees are of such importance and sensitivity as to be major constraints on development or to justify its substantial modification : attempts to retain too many or unsuitable trees on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal."

05.11
The above advice appears to have been considered in formulating proposals for development.

05.12
CONCLUSION
I conclude that the construction proposed, subject to precautionary measures as outlined above and as per the recommendations outlined below, will not be injurious to trees to be retained, nor will require any trees of significant public amenity value to be removed. Any tree losses will be satisfactorily addressed by proposed planting.

06
Tree Protection Proposals

06.01
TREE PROTECTION - GENERAL
It is highly important to tree health and vitality that construction activities are carried out strictly in accordance with the tree protection methods specified. A single traverse of a root protection area by a mechanical excavator can cause SIGNIFICANT and PERMANENT (albeit temporarily invisible) damage to trees. Such machinery, including piling rigs, shall be kept at ALL times outside the root protection areas as indicated in the tree details table appended, and/or shall be subject to SPECIAL METHODS below. Fences to protect trees shall be respected as TOTAL EXCLUSION fences. Hence, before any site activity, including demolition, the fence lines shall be complete. Protective fencing and any temporary protection of ground surfaces will have to be removed in due course to allow finishing of landscaping, paving, etc., but this shall not take place until

all need for vehicular access to the site has passed, and shall be agreed with arboriculturist / planners on site during progress of works.

06.02
TREE PROTECTION – ARBORICENTRIC METHODS 1-12
PLEASE READ WITH PLAN REFERENCES 1-38-3816/P1Av4 and P2Av5, APPENDED.
The Methods shall be implemented in the order given unless it is stated to the contrary.

Method 1 : Supervision by an arboriculturist shall take place at key points in the construction process, and additionally whenever required by the architect or LPA. These key stages are :

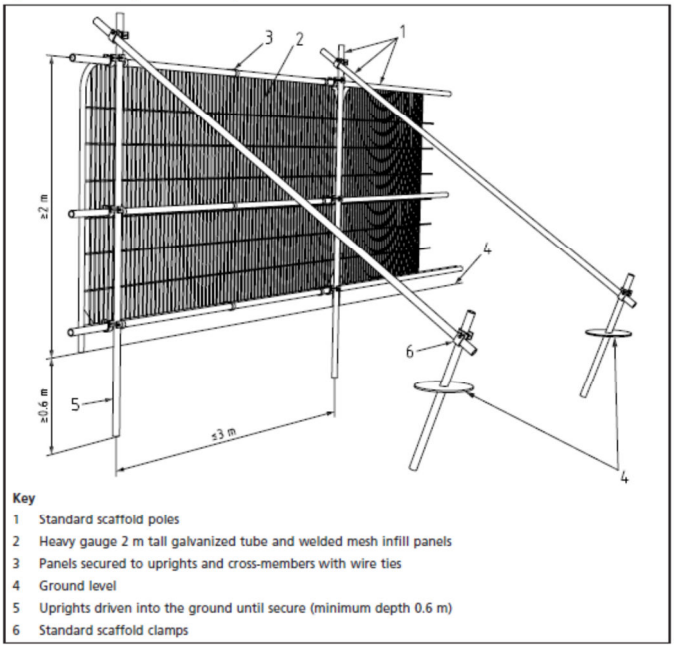
1) **At site possession by contractor, outline all tree protection measures with site agent and resolve any issues arising. Ensure remedial tree work including any minor accommodatory tree work required for erection of scaffolding near trees is carried out to specification and sign off. Ensure protective fencing is erected and completed as proposed. Ensure any site cabins, mixing sites for mortars, disposal-to-skip sites, etc., are located appropriately, and sign off.**
2) **Supervise lifting of hard surfacing near trees.**
3) **Supervise laying of temporary ground protection and sign off.**
4) **Attend as required to supervise digging for and the laying of lighting cable ducts, services or drains.**
5) **Approve timing of removal of protective fencing (post main phase) and sign off.**

Method 2 : TREE WORK
Tree work shall be in accordance with the provided specification and good arboricultural practice, and to BS 3998:2010 'Tree Work - Recommendations'. The stumps of certain trees (see SCHEDULE appended) shall be removed by mechanical stump grinder, not by mechanical excavator. Arisings shall be chipped and removed from site, or stockpiled outside RPAs for later use as mulch at landscape phase. No vehicles shall stand or operate in any of the RPAs of retained trees. Any traversing of RPAs shall be preceded by laying of temporary trackway, such as Zigma Ground Solutions Euromat Ground Guards. The temporary trackways shall be fixed together with manufacturers' approved fixings. This protective layer shall stay in place throughout arboricultural site preparation phase.

Method 3 : TREE PROTECTION FENCING

This method shall apply where indicated by pink lines. Tree protection fencing shall be erected, in accordance with the heavy-duty specification - BS5837:2012 section 6.2.2.2., Figure 2 (left). No ground levels reduction or excavation shall take place within (=the tree side of) the fence lines. The fencing shall include, as indicated on plan, the protection of an area where planting is proposed. Pedestrian access 0.7m wide shall be formed as indicated.

Figure 2 Default specification for protective barrier



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

Method 4 : TEMPORARY ACCESS - INTENSIVE SITE

This method shall apply in zone gridded green on plan. No reduction of levels shall take place. No wheeled or tracked machinery shall be used, except if standing on completed formation as outlined below. An HDPE impermeable membrane shall be laid over the surface ; 50-100mm depth sharp sand shall be laid over membrane ; edge restraint shall be of timber formwork around the entire perimeter of the zone ; such edge restraint shall stand 50mm above finished concrete-pour level to prevent concrete leaching into the soil ; concrete shall be poured to a depth of 150mm over sharp sand layer. The concrete shall be re-inforced with weld-mesh. On completion of construction phase or when all need for vehicular access to the zone has ceased, slab / sand /membrane shall be removed using only hand-held tools or hand-held power tools. Any subsequent works in this zone shall be carried out as per Methods 6, 7 and 9.

Method 5 : ROOT PRUNING

This method shall apply within any RPA (orange shapes around tree locations), for example in the magenta fill zone (proposed steps/lightwell at front) and the cyan crosses zone (car lift at front). Any roots encountered shall be trimmed to the edge of excavation using a sharp edge tool such as handsaw or secateurs; the cuts shall be made at right angles to the long axis of the root, and in accordance with BS3998:2010, 8.6. An HDPE membrane shall be placed between any root-bearing soil and any wet concrete to be poured. Impermeable sheeting (to exclude wet concrete) shall be laid and secured locally by temporary weighting as required. Any concrete casting shall take place without disturbing this protective layer.

Method 6 : SERVICE TRENCHES

N.B. -This applies to ALL services : Electricity, gas, water, etc. Existing services shall be utilised wherever possible.

These methods shall apply generally wherever proposed within any RPA (orange shapes around tree locations) and specifically for areas of orange fill .

1) The trench shall be opened with an air-spade to required depth. The work shall proceed cautiously. No roots over 20mm diameter shall be cut. Roots 20mm or more in diameter unearthed shall be immediately protected with bubble-wrap and insulating or gaffer tape while rest of trench is dug.
OR
2) Services shall be thrust-bored using trenchless techniques (compressed air-driven 'mole') at a depth of 700mm or more below ground level, entailing no surface excavation. Starter pits for rams shall be outside any RPA, or reception/starter pits shall be opened according to 1) above.

The position of drainage services has been agreed between drainage engineers and arboriculturist as flexible.

Method 7 : PIERS for SLIDING GATE / GATE CONSTRUCTION
This method shall apply in zone of cyan fill on plan. Footings shall be confined to isolated pads, dug initially to trial positions. The trial pits to determine pad locations shall be dug with hand tools only, or opened with an air-spade to required depth. N.B. The precise location of pads is flexible within a dimension to be determined by retained engineer. If hand digging is adopted, probes such as screwdrivers or steel rod <10mm diameter to determine root presence ahead of digging shall be used. THE WORK SHALL PROCEED CAUTIOUSLY. No roots over 20mm diameter shall be cut. Roots 20mm or more in diameter unearthed shall be temporarily protected with bubble-wrap and insulating or gaffer tape while rest of hole is dug. It shall be borne in mind that the presence of large numbers of roots >20mm in diameter may effectively prevent completion of trial pit, as this would be sufficient reason to terminate the operation and consider its purpose complete or would entail the moving of the trial pit to a different location. If a root > 20mm diameter is inadvertently damaged, it shall be retained *in situ* for appraisal by the arboriculturist. Where roots more than 20mm diameter are unearthed in the pad locations and a pad cannot be re-located, the roots shall be wrapped in bubble wrap. The wrap shall not be wound very tightly against the root. All edges shall be sealed with insulating or gutter tape (not packing tape). (This sleeving both protects the root and forms a compressible layer when wet concrete is poured.) The sleeving shall be chased into the sides of the pit (where the root enters the soil face) for a distance of about 50mm and the entry point ring-sealed with expanding foam. A 25mm minimum thickness of wrap shall be fixed around the roots to be preserved. This protection shall be carried out progressively as the pad pit is dug, so as to protect roots from casual damage during excavation. A continuous HDPE membrane shall be placed to prevent contact between wet concrete when pads are cast or mortar when constructing the proposed pier. Any joins shall be sealed with gutter or gaffer tape.

Method 8 : This method shall apply after completion of main build only, within zone gridded green on plan. The driveway shall be refurbished as follows : the temporary concrete protection shall be removed with hand tools or hand-held power tools only. The underlying sub-base shall be left undisturbed : no excavation below the underside of the existing sub-base shall take place, except as per Methods 6 and 7. Any excavation or grading in the existing sub-base shall be by hand tools or hand-held power tools only. The proposed bound-gravel finish shall where required be laid over a separating layer of non-woven geotextile such as 'Treetex' or similar, with a blinding of 5-10mm granite chippings (no fines) to correct levels.

Method 9 : PLANTER
This method shall apply in magenta hatch zone. Retaining walls shall entail no cut into the existing soil (which is within the RPA of tree 1) and shall be formed from timber baulks (e.g. modern railway sleepers) pinned to substrate with 25mm dia. re-bar or similar and the holes sealed with hardwood pegs. The base of the planter shall be open to the parent soil at existing ground level.

Method 10 : ACOUSTIC ENCLOSURE
This method shall apply in the zone solid brown fill on plan. All construction of the proposed acoustic enclosure shall be carried out without the use of powered wheeled plant. The foundation slab for the unit shall be laid above ground on impermeable sheeting. Edge restraint shall be formed from tanalised timber, timber-pegged to substrate.

Method 11 : GROUND PREPARATION FOR TREE PLANTING AREAS
This method shall apply after completion of main build only. Ground preparation for tree planting areas shall entail removal of hard surfacing using hand tools or hand-held power tools only, the removal of degraded or compacted or contaminated soil to a depth of at least 0.6m below finished surrounding ground level. The base and sides of the pit shall be forked over to at least one hand fork's spit in depth. Screened topsoil (to BS3882 : 2012 topsoil) shall be laid to replace soil volume removed and to a minimum depth of 0.6m within 1.3m of the trunk location of each tree to be planted. Soil handling of any kind shall take place only after a minimum of 3 days after heavy rain, and shall where possible be carried out 7 days or more after such rainfall. Tree planting shall be in accordance with British Standard 8545:2014 'Trees : from nursery to independence in the landscape - Recommendations'. This enshrines good arboricultural practice: the tree shall be planted so that the root collar lies at finished ground level, shall be short-staked and tied with proprietary tree tie. Any hedging whips shall be staked and protected with proprietary growing tube. The ground surface shall be mulched within 0.75m of the trunk location to a depth of 100mm with composted organic material or proprietary mulch mat.

Method 12 : In addition to the above, careful general operation and site handling shall be observed as outlined at 06.03 below.

06.03
GENERAL TREE PROTECTION METHODS

A) No fires shall be made on any part of the site, or within 20m of any tree to be retained.

B) No spilling or free discharge of wet mortar, concrete, fuels, oils, solvents, or tar shall be made on any part of the site.

C) No storage of wet materials shall be made within the protective fences.

D) No breaching or moving of the protective fences shall take place without the approval of an arboriculturist.

06.04
It is recommended that acceptance of the recommendations in this report is demonstrated by, for example, the architect specifying in writing to the building contractor that tree care conditions apply in execution of the contract, and by an estimate or written undertaking from the contractor to the architect demonstrating that the practical aspects of observation of such recommendations have been priced in.

07
General

If conflicts between any part of a tree and the building(s) arise in the course of development these can often be resolved quickly and at little cost if a qualified arboriculturist is consulted promptly. Lack of such care is often apparent quickly and decline and death of such trees can spoil design aims and can of course affect saleability, and reflect poorly on the construction and design personnel involved. Trees that have been the recipients of careful handling during construction add considerably to the appeal and value of the finished development.

24th January 2017
Signed:

John C. M. Cromar, Dip.Arb.(RFS) F.Arbor A. 01582 808020 / 07860 453072

APPENDICES

08
Tree Data

Tree number	Tree type	Height	Stem diameters	Radius of RPA if circle (mm)	RPA (m^2)	Comments	Life expectancy (years)	Assessed BS5837 value category
1	English oak	12	1280	15000	707	Substantial veteran. Strip cavities in main stems arising from short trunk 1.5m in height. Possible bat roost tree. Tap test indicates decayed base. Resistograph confirms very low wood strength at two diametrically opposite points at base of trunk. History of reduction; requires maintenance at about 9m in height and 9m in spread. Clearance is 4m to lowest branch.	40+	B3
2	birch	9	150	1800	10	Unthrifty	<10	U
3	horse chestnut	9	250	3000	28	Unthrifty*; Cameraria ohridella* noted	10+	C1
4	*Yucca*	4	120	1440	7		10+	C1
5	holly	3.5	80	960	3		20+	C1
6	London plane	9	180	2160	15		40+	B1
7	Norway maple	11	470	5640	100	Just visible from street; not important in street scene.	40+	C1
H8	Thuja plicata	2	<75	900	3	Any plants lost to land drainage installation can easily be replaced at landscaping phase.	10+	C2
H9	Cotoneaster	5	<120	1440	7	Minor screening value only. Any plants lost to land drainage installation can easily be replaced at landscaping phase.	10+	C2
10	false acacia	15	405	4860	74	Reduced to 11m in 2013. Maintain at around 11m on a 3 year cycle	40+	B1

Tree number	Tree type	Height	Stem diameters	Radius of RPA if circle (mm)	RPA (m^2)	Comments	Life expectancy (years)	Assessed BS5837 value category
11	false acacia	15	488	5856	108	Reduced to 11m 2013. Slight decay at base. Maintain at around 11m on a 3 year cycle	40+	B1
12	Himalayan birch	15	393	4716	70	Ivy infested (writer cut stems at base)	40+	B1
13	silver birch	15	<300	3600	41	No access; in major decline	<10	U
G14	Irish yew	6	100, 120	1874	11	Screening value	40+	B2
15	crab apple	6	250	3000	28	In decline	10+	C1
16	Lawson cypress	9	110	1320	5		20+	C1
17	Lawson cypress	9	110	1320	5	Hemmed in	20+	C1
18	Lawson cypress	11	275	3300	34		40+	B1

In all cases, in the absence of negative comment on vitality, normal physiological condition applies.

09
Schedule

Trees at 5 Templewood Avenue, London, NW3 7UY

Please read in conjunction with plans 1-38-3816/P1Av4 and P2Av5.

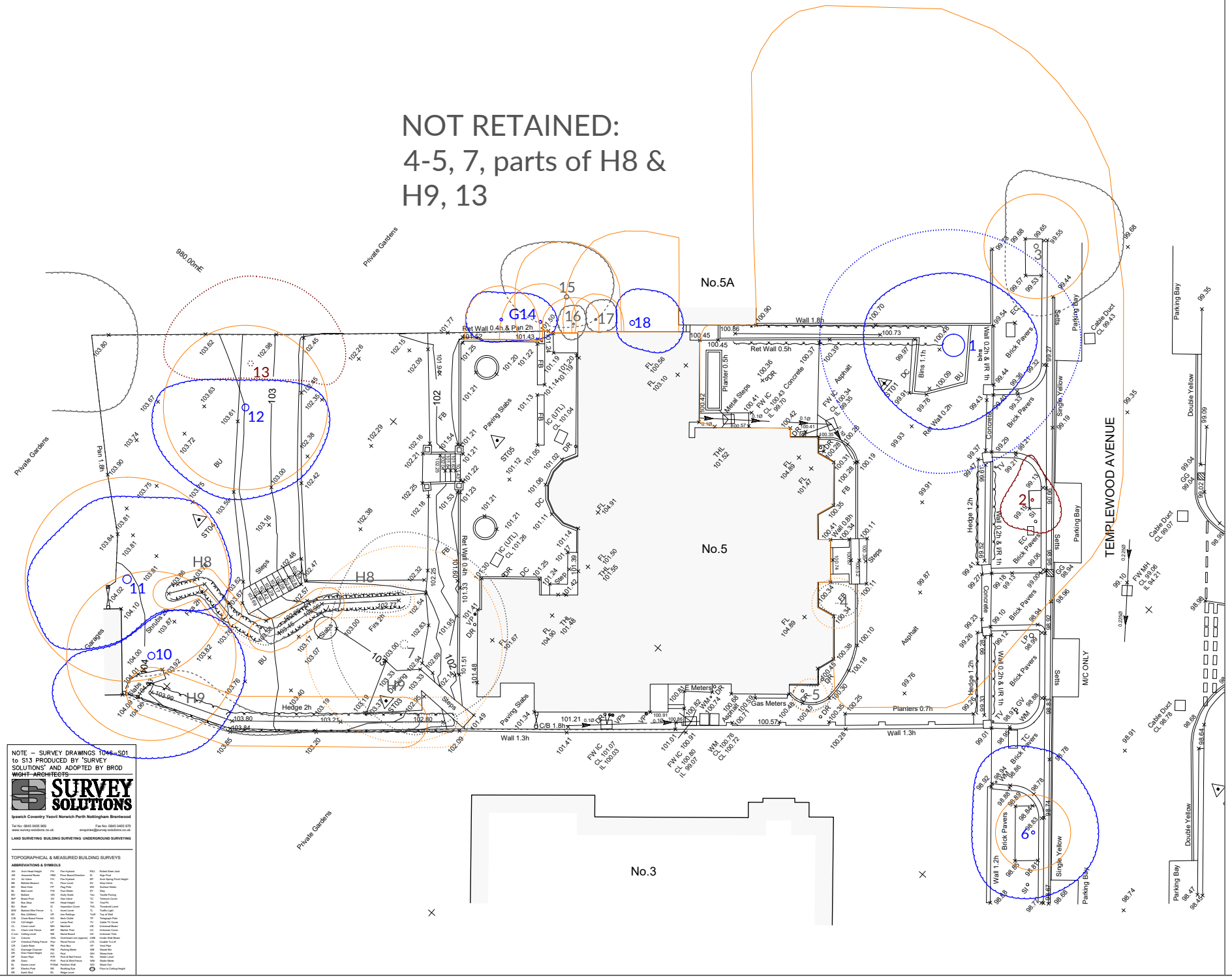
Tree number	Tree type	Height	Stem diameters	Comments
1	English oak	12	1280	N.B. Possible bat roost tree. Reduce to about 9m in height and 9m in spread.
4	*Yucca*	4	120	Remove including stumps.
5	holly	3.5	80	
7	Norway maple	11	470	
H8	Thuja plicata	2	<75	Remove sections as shown on plan.
H9	Cotoneaster	5	<120	Hedge to be trimmed back to line shown on plan.
13	silver birch	15	<300	Remove, grind stump to 300mm below ground level.

NOTES:
All tree work should be carried out to BS 3998 : 2010 'Tree Work - Recommendations'. The Wildlife and Countryside Act 1981 protects with certain exceptions all birds and their nests. It is an offence to destroy such nests or take or injure such birds in the course of tree works operations. If a tree is a bat-roost, a licence to work on the tree must first be obtained from the relevant Statutory Nature Conservation Organization (in England : Natural England 0845 601 4523.) Acting without a licence is likely to be justifiable only in acute emergencies threatening human life and where all other legally available option such as footpath diversion, fencing and warning signs cannot be applied.

Ivy and dead wood can be important ecological features. Ivy where specified in the work schedule should be treated as per BS3998 section 7.12. In summary this means trimming back (e.g. with a hedge cutter or secateurs) to near the line of the trunk or branches, and/or removing selected stems so that the structure of the tree can be inspected. In practice this may need to be done outside the bird-nesting season. Treatment of dead wood shall be as per section 7.3.2 – essentially shorten if possible, thus retaining some resource for invertebrates, etc.

10
Plans

1-38-3816/P1Av4
1-38-3816/P2Av5



NOTE – SURVEY DRAWINGS 1046–S01 to S13 PRODUCED BY 'SURVEY SOLUTIONS' AND ADOPTED BY BROD WIGHT ARCHITECTS

SURVEY SOLUTIONS

Ipswich Coventry Yeovil Norwich Perth Nottingham Brentwood

Tel No: 0845 0405 969 Fax No: 0845 0405 970
www.survey-solutions.co.uk enquiries@survey-solutions.co.uk

LAND SURVEYING BUILDING SURVEYING UNDERGROUND SURVEYING

TOPOGRAPHICAL & MEASURED BUILDING SURVEYS

ABBREVIATIONS & SYMBOLS

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KEY TO COLOURS/LINETYPES USED IN RELATION TO TREES

GREEN - High Value
BLUE - Moderate Value
BLACK - Low Value
RED - Remove/Very short life expectancy
ORANGE SHAPES: Root Protection Areas

TOOTHED LINE: Tree spread line

DASHED LINE: Understorey spread line

DOTTED LINE: Removed tree spread

NOTES

Do not use for setting out purposes.
All dimensions to be checked on site.

DRG. NAME
TREE VALUE ASSESSMENT AS PER BS 5837:2012, ROOT PROTECTION AREAS & TREE REMOVALS

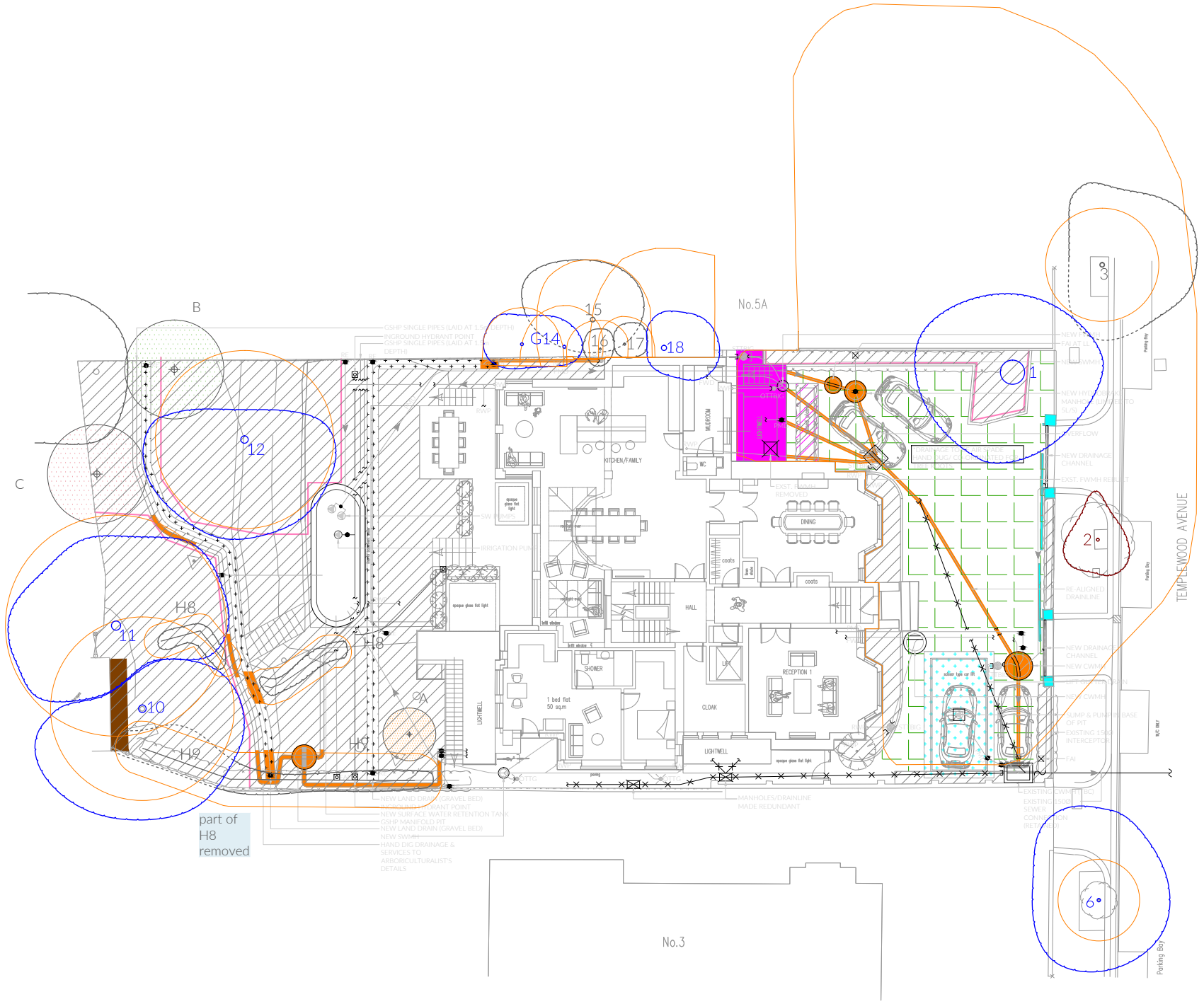
TEXT
FOR FULL DETAILS OF TREE VALUE PLEASE SEE REPORT REF. 1-38-3816/2

BASED ON
SURVEY SOLUTIONS DRG. NO.: 1046-S01 SUPPLIED

SITE ADDRESS
5 Templewood Avenue, London, NW3 7UY

DRG. REF.	REV. NO.
1-38-3816/P1A	v4
SCALE & SIZE	**DATE**
1:100 @ A1	24-Jan-17

0 5



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KEY TO PLAN SYMBOLS/COLOURS USED IN RELATION TO TREES

- PINK LINES: Tree Protection Fencing
- ORANGE SHAPES: Root Protection Areas
- GREEN HATCH: ground protection
- MAGENTA HATCH: method applies
- MAGENTA FILL: method applies
- CYAN FILL: method applies
- BROWN FILL: method applies
- 'A': Proposed replacement planting
- 'B': Proposed replacement planting
- 'C': Proposed replacement planting
- CYAN CROSSES: method applies
- ORANGE FILL: method applies

NOTES
Do not use for setting out purposes.
All dimensions to be checked on site.

DRG. NAME
TREE RETENTION & TREE PROTECTION MEASURES

TEXT
FOR FULL METHOD DETAILS PLEASE SEE REPORT REF. 1-38-3816/2

BASED ON
BROD WIGHT ARCHITECTS DRG. NO.: 1046-AP01 May16, ME7 LTD. DRG. 625 D1-P2 SUPPLIED

SITE ADDRESS
5 Templewood Avenue, London, NW3 7UY

DRG. REF.	REV. NO.
1-38-3816/P2A	v5
SCALE & SIZE	**DATE**
1:100 @ A1	24-Jan-17

0 5