

**Arboricultural &
Planning Integration Report**

at

**15 Rudall Crescent
London
NW3 1RR**

September 2016

Arbortrack Systems Ltd

jwmb/rpt1/15rudallcrescent/PI

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Arboricultural & Planning Integration Report

Location	15 Rudall Crescent, London NW3 1RR.	Ref jwmb/rpt1/15rudallcrescent/PI
Client & Instructions From	Mr Bernard Shapero, 15 Rudall Crescent, London, NW3 1RR.	Date 13 th September 2016
Terms of Reference	To survey the subject trees in order to assess their general condition and to provide a planning integration statement for the proposed development that safeguards the long term well being of the retained trees in a sustainable manner.	
Report Prepared by	James Bell BSc (Hons.), MSc, Arbor. A. Tech. Cert.	<i>Page N^o 1 of 9</i>

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Summary

The proposals are for a ground floor rear extension with associated hard landscaping. See Appendix A for layout detail and accompanying material for full details.

The site is the rear garden of 15 Rudall Crescent in Hampstead: surfaces are currently either of a synthetic grass or paving. The rear garden is set at a single level over the great majority of its extent with steps down to the rear of the existing kitchen area.

There are three surveyed trees near the site—none are ‘A’ (high quality) category, one is ‘B’ (moderate quality) category i.e. 1, and two are ‘C’ (low quality) category i.e. 2 & 3. See section 4 and Appendix B for details.

Surveyed trees are offsite and no works are required to them to allow or facilitate development.

Given the position of significant trees in adjoining plots beyond well defined boundaries, with existing level changes, the use of fencing on this site is not appropriate, necessary or possible.

The orientation of the retained trees to the proposed development is unaltered and the scope for unacceptable post development pressure is as already experienced. The large sycamore (T1) is clearly routinely reduced and thinned and the proposals are unlikely to oblige Camden Council (CC) to give consent to inappropriate tree works.

On this basis the proposed scheme is sound in arboricultural terms and the long term well being of the retained trees can be safeguarded in a sustainable manner.

Documents Supplied

- Site plan drawing from smerinarchitects, The Studio, 28 Killyon Rd, London SW8 2XT.

1.0 Scope of Survey

- 1.1 The survey is concerned with the arboricultural aspects of the site only. Whilst all the significant trees have been assessed, this report does not include discussion in respect of all vegetation, including some small and insignificant trees such as shrubs and understorey in adjoining space.
- 1.2 No discussions took place between the surveyor and any other party.
- 1.3 The trees were inspected on the basis of the Visual Tree Assessment method expounded by Mattheck and Breloer (The Body Language of Trees, DoE booklet Research for Amenity Trees No. 4, 1994).
- 1.4 The survey was undertaken on 9th August 2016 by James Bell in accord with British Standard 5837:2012 Trees in relation to design, demolition and construction—Recommendations (BS5837:2012).
- 1.5 The survey does not cover the detailed arrangements that may be required in connection with the laying or removal of underground services.

2.0 Survey Method

- 2.1 The survey was conducted from ground level with the aid of binoculars.
- 2.2 No tissue samples were taken nor was any internal investigation of the subject trees undertaken.
- 2.3 No soil samples were taken.
- 2.4 The height of each subject tree was estimated by eye.
- 2.5 The stem diameters (SD) were measured in centimetres at 1.5 metres above ground level for single stems, and just above the root flare for multi-stemmed trees. Where access was difficult the diameters were estimated and marked as such (#) on the tree survey schedule in Appendix B.
- 2.6 The crown spreads were estimated by pacing or by using a Bosch DLE 50 Professional Laser Measure where deemed necessary.
- 2.7 The positions of the subject trees are plotted at Appendix A in a tree protection plan. Please note that the attached plan is for indicative purposes only.

3.0 The Site

- 3.1 The site is the rear garden of 15 Rudall Crescent in Hampstead: surfaces are currently either of a synthetic grass or paving.
- 3.2 The rear garden is set at a single level over the great majority of its extent with steps down to the rear of the existing kitchen area.
- 3.3 Data from the iGeology app from the British Geological Survey suggests that it is likely that the site has a bedrock geology: of Claygate Member-Clay, Silt & Sand. No superficial geology is recorded. The prevailing soil conditions evidently provide a reasonable medium for tree growth. Any potential for soil compaction (highly deleterious to root function) during development will depend on the proportion of clay present in the upper profile-the presence of clay in some areas of the site is indicated. Further to confirmation of the precise soil type present a structural engineer may be able to advise further on the local geology and its implications, if any, for development.

4.0 Subject Trees

- 4.1 The BS5837:2012 categorisation of trees is explained in the key to the survey schedule in Appendix B, which provides full detail on surveyed trees. Three trees were surveyed—all standing in adjoining land—tree 1 stands approximately 2.3m from the boundary whilst trees 2 & 3 stand on the boundary.
- 4.2 Of the three surveyed trees near the site—none are ‘A’ (high quality) category, one is ‘B’ (moderate quality) category i.e. 1, and two are ‘C’ (low quality) category i.e. 2 & 3.
- 4.3 Tree 1 is an approximately 15m tall mature sycamore with an average crown spread of 4.5m. The crown clearance over the site was estimated at 7.5m. The tree has a stem diameter at 1.5m of 64cm. No obvious major defects were noted but minor decay at entry wounds is present. The crown has been routinely reduced and thinned as a response to the tree’s location in this densely populated area. The tree is of moderate quality (‘B’ category) with a likely useful life expectancy of twenty plus years.
- 4.4 Tree 2 is an early mature triple stemmed Japanese maple that stands approximately 6.5m tall, close to the boundary, in an adjoining garden. The crown spread is circa 3.5m, as is the clearance over the site. The roots of this garden ornamental are unlikely to have penetrated the site to a marked extent given the extant topography.
- 4.5 Tree 3 is 4.5m tall semi mature apple that also stands offsite close to the boundary. The tree is in poor condition with a sparser than normal crown and is clad in ivy.
- 4.6 See Appendix B for full detail of surveyed trees.

5.0 The Proposal

- 5.1 The proposals are for a ground floor rear extension with associated hard landscaping. See Appendix A for layout detail and accompanying material for full details.

6.0 Planning Integration

- 6.1 Surveyed trees are offsite and no works are required to them to allow or facilitate development.

7.0 Post Development Pressure

- 7.1 The orientation of the retained trees to the proposed development is unaltered and the scope for unacceptable post development pressure is unaltered from existing. The large sycamore (T1) is clearly routinely reduced and thinned and the proposals are unlikely to oblige CC to give consent to inappropriate tree works.

8.0 Tree Protection Measures

- 8.1 BS5837:2012 gives a root protection area (RPA) for each retained tree by reference to section 4.6. The RPA is usually described as a circle with a radius (Root Protection Area Radius (RPR) of the prescribed distance within which no activity should occur, *though the shape and position of the RPA can be modified by the arboriculturist to meet individual site conditions according to the probable distribution of tree roots.* Intrusion into the RPA can usually take place only where the ground is adequately protected in accord with the requirements of section 7 of BS5837:2012 but on this site the level change between the base of the large sycamore (T1) and the proposals suggests that the rooting area of this tree is unlikely to include the site (see Appendix A for probable distribution of tree 1's roots.
- 8.2 Given the position of surveyed trees in adjoining plots beyond well defined boundaries, with existing level changes, the use of fencing on this site is not appropriate, necessary or possible.

- 8.3 No specialist foundations are required for extension footprints.
- 8.4 The surface water runoff and soil drainage have not been studied. Given the site topography and soil type on site I do not foresee any likely detrimental effects on the retained trees in hydrological terms caused by the proposed development.
- 8.5 It is assumed that service runs will be extended from the property as required.
- 8.6 Any changes to surface treatments to the rear of the proposed extension should be effected ensuring that the depth of the existing sub base is not exceeded.

9.0 Conclusion

- 9.1 The proposals are for a ground floor rear extension with associated hard landscaping. See Appendix A for layout detail and accompanying material for full details.
- 9.2 The proposals are likely to have minimal to no impact on the retained trees.
- 9.3 Given the existing layout and tree locations there is no scope for conventional tree protection measures such as fencing.
- 9.4 The scope for unacceptable post development pressure is unaltered and is very unlikely to oblige CC to give consent to inappropriate tree works: tree 1 is routinely reduced and thinned and this will no doubt continue to be the case.
- 9.5 I have taken account of the information given to me and my own observations on site and I am satisfied that this outline scheme is arboriculturally sound and that the long term well being of the retained trees can be safeguarded in a sustainable manner.

10.0 Recommendations

10.1 The successful integration of the proposal with the retained trees will need to take account of the following points:

- i) Plan of underground services.
- ii) Schedule of tree protection measures, including the management of harmful substances.
- iii) Method statements for constructional variations with regard to tree proximity (e.g. foundations, surfacing and scaffolding) if applicable
- iv) Site logistics plan to include storage, plant parking/stationing, materials handling if applicable.
- v) Tree works –n/a
- vi) Site supervision – an individual e.g. the Site Agent, must be nominated to be responsible for all arboricultural matters on site. This person must:
 - a) be present on site for the majority of the time
 - b) be aware of the arboricultural responsibilities
 - c) have the authority to stop any work that is causing, or has the potential to cause harm to any tree
 - d) be responsible for ensuring that all site operatives are aware of their responsibilities toward trees on site and the consequences of the failure to observe these responsibilities.
 - e) make immediate contact with the local authority and/or a retained arboriculturist in the event of any tree related problems occurring, whether actual or potential.

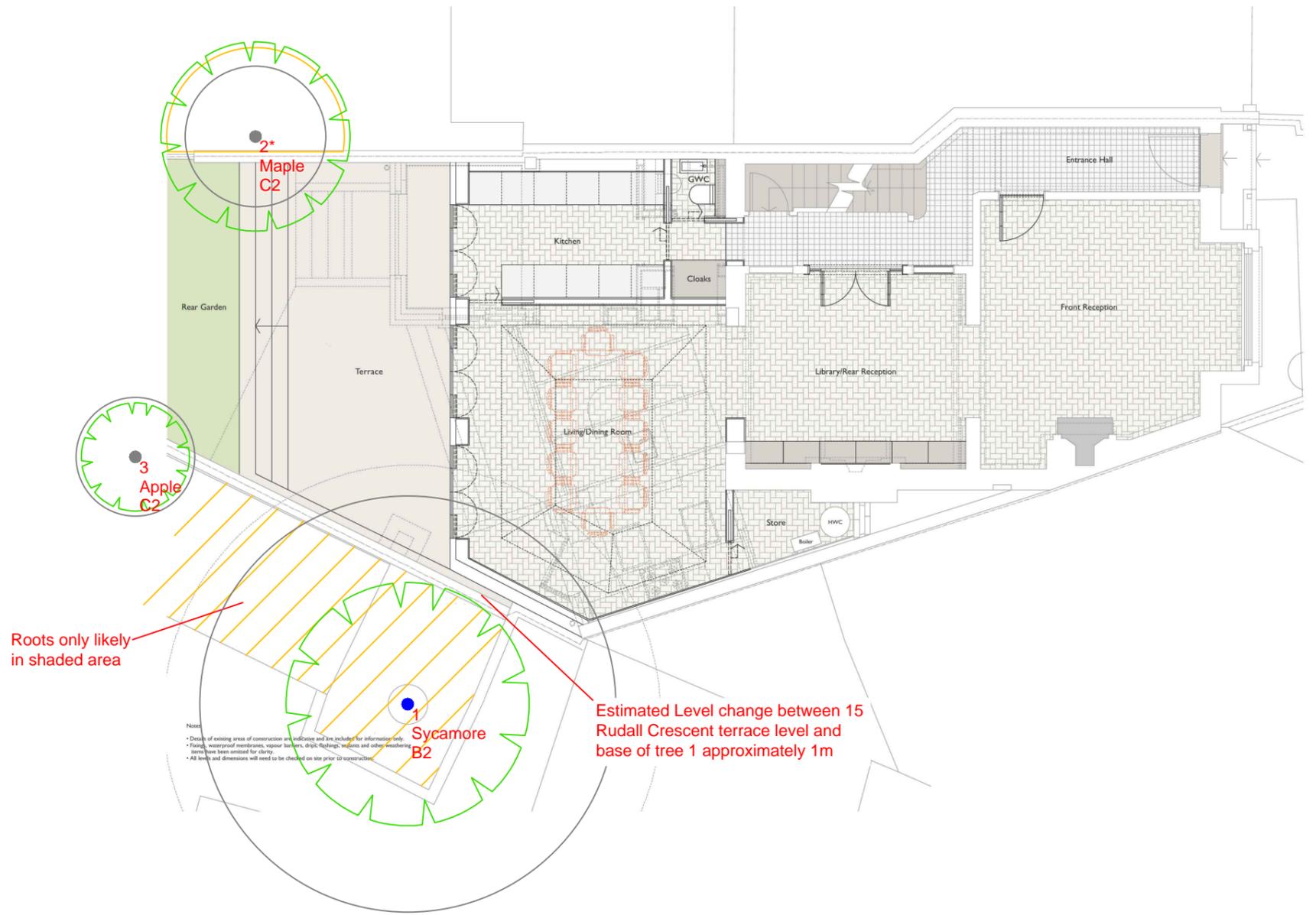
10.2 As a matter of course these points will be resolved in consultation with and subject to the approval of the planning authority through their arboricultural officer.

11.0 References

- **British Standards Institute.** 2012. Trees in relation to design, demolition & construction-recommendations BS5837:2012 HMSO, London.
- **British Standards Institute.** 2010. Tree work-Recommendations BS3998:2010 HMSO, London.
- **Barlow J.F. & Harrison G.** 1999. Shade By Trees, Arboricultural Practice Note 5, AAIS, Farnham, Surrey.
- **Lonsdale D.** 1999. Research for Amenity Trees No.7: Principles of Tree Hazard Assessment and Management, HMSO, London.
- **Matheny N; Clark, J. R.**1998. Trees and Development: A Technical Guide to Preservation of Trees during Land Development, International Society of Arboriculture, Champaign, Il.
- **Mattheck C. & Breloer H.** 1994. Research for Amenity Trees No.4: The Body Language of Trees, HMSO, London.

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Roots only likely in shaded area

Estimated Level change between 15 Rudall Crescent terrace level and base of tree 1 approximately 1m

Notes:
 • Details of existing areas of construction and site are included for information only.
 • Plans, waterproof membranes, vapor barriers, drips/flashings, radon and other weathering items have been omitted for clarity.
 • All levels and dimensions will need to be checked on site prior to construction.

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Site: 15 Rudall Crescent

Drawing Title: Arboricultural Impact Assessment	1-200@A3
Appendix: A	Rev A, Sept 2016

Key:

<ul style="list-style-type: none"> ● Category A ● Category B ● Category C ● Category U 		<ul style="list-style-type: none"> Crown Spread Tree Number Species Category
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NOTE: Tree/group numbers marked with an * have approximate locations.

Root Protection Area Morphed to Reflect Probable Site Conditions



Site: 15 Rudall Crescent

Date: 8th August 2016

Appendix B BS5837:2012 Tree Survey Schedule

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt1/15rudallcrescent/PI



Tree No.	English Name	Height	Crown Spread	Ground Clearance	Stem Diameter	Protection Radius	Age Class	Growth Vitality	Structural Condition	B.S. Cat	Sub Cat	Useful Life	Comments
1	Sycamore	15	4.5	7.5	640	7.7	Mature	Normal	Good	B	2	20+	Previously reduced; thinned crown; good clearance off proposals; entry wounds on trunk
2	Maple, Japanese	6.5	3.5	3.5	220	2.6	Early Mature	Normal	Good	C	2	20+	Garden ornamental
3	Apple, Cultivated	4.5	2	2.5	180 #	2.2	Semi-mature	Moderate	Fair	C	2	10+	A sparser than normal canopy Ivy clad Offsite; 2.9m from edge of paving