

Survey results and consultancy opinion regarding trees surrounding site of proposed garden building at 15 Rondou Road, Cricklewood NW2 3HB, giving consideration to BS5837:2012 ‘Trees in relation to design, demolition and construction: Recommendations’.



Photo 1: Site of proposed summerhouse at back of rear garden of 15 Rondou Road NW



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Introduction

I have been asked by Bonnie Siu to survey the trees close to the site of a proposed new garden building at the rear of her back garden at 15 Rondu Road, Cricklewood. I have visited the site, surveyed the trees, and have discussed the proposals with Tim Evans, the architect of the project, and with Bonnie Siu. The survey report and my opinions and recommendations follow below.

The legislative framework concerning the development

Rondu Road is not in a Conservation Area, and there are no Tree Preservation Orders in force concerning the trees around the proposed site.

BS 5837 (2012) and its relevance to this proposal

The British Standard known as BS5837 recognises the importance of trees, particularly in the urban landscape, and endeavours to provide a reasonable protocol for their healthy survival during and after the processes of construction and demolition. Apart from ensuring the protection of the obvious, visible, above ground parts of trees, the crowns and trunks, it recognises the crucial roles that the root systems provide. In particular it protects the most sensitive roots, those that spread radially close to the surface around a tree, that require access to the atmosphere and to water in order for the biochemical processes that support the tree to function. Thus BS5837 determines Root Protection Areas (RPAs) around each tree close to a construction site, within which construction activity such as the passage of heavy plant, materials storage and processes such as cement mixing should be prohibited. The RPAs are related to the size of the tree in question by a simple formula based on the dbh, the diameter of the tree at 1.5m from the ground.

I suggest that BS 5837 provides useful guidelines for the management of the trees during construction in this case.

The trees around the proposed construction site at 15 Rondu Road

Tree No.	Specific and common name	Height m Approx.	Dbh cm	RPA radius m	Crown N m approx	Crown E m approx	Crown S m approx	Crown W m approx	Retention category
T.1	<i>Berberis thunbergia</i> Berberis	5	15	1.8	1	1	1	1	B
T.2	<i>Cupressus spp</i> Cypress	10	40	4.8	3	4	4	4	B
T.3	<i>Fraxinus excelsior</i> Ash	7	33	4	3	2	3	3	B
T.4	<i>Juniperus spp</i> Juniper	5	12	1.5	2	2	1	2	B
T.5	<i>Cupressus spp</i> Cypress	4	10	1.2	3	1	3	4	B
T.6	<i>Cupressus spp</i> Cypress	7	4	1	1	1	1	1	B
T.7	<i>Cupressus spp</i> Cypress	4	4	1	1	1	1	1	B

Table 1: Tree data relevant to construction proposals at 15 Rondu Road NW

Notes:

Dbh refers to 'Diameter at breast height' ie 1.5m from ground

RPA is 'Root Protection Area' as defined by BS5837, a circle of radius (say 4.5m) centred on tree stem

Retention Category is defined by BS5837: Category A trees are of high quality with a expected remaining life of at least 40 years, Category B trees are of moderate quality with an estimated remaining life expectancy of at least 20 years

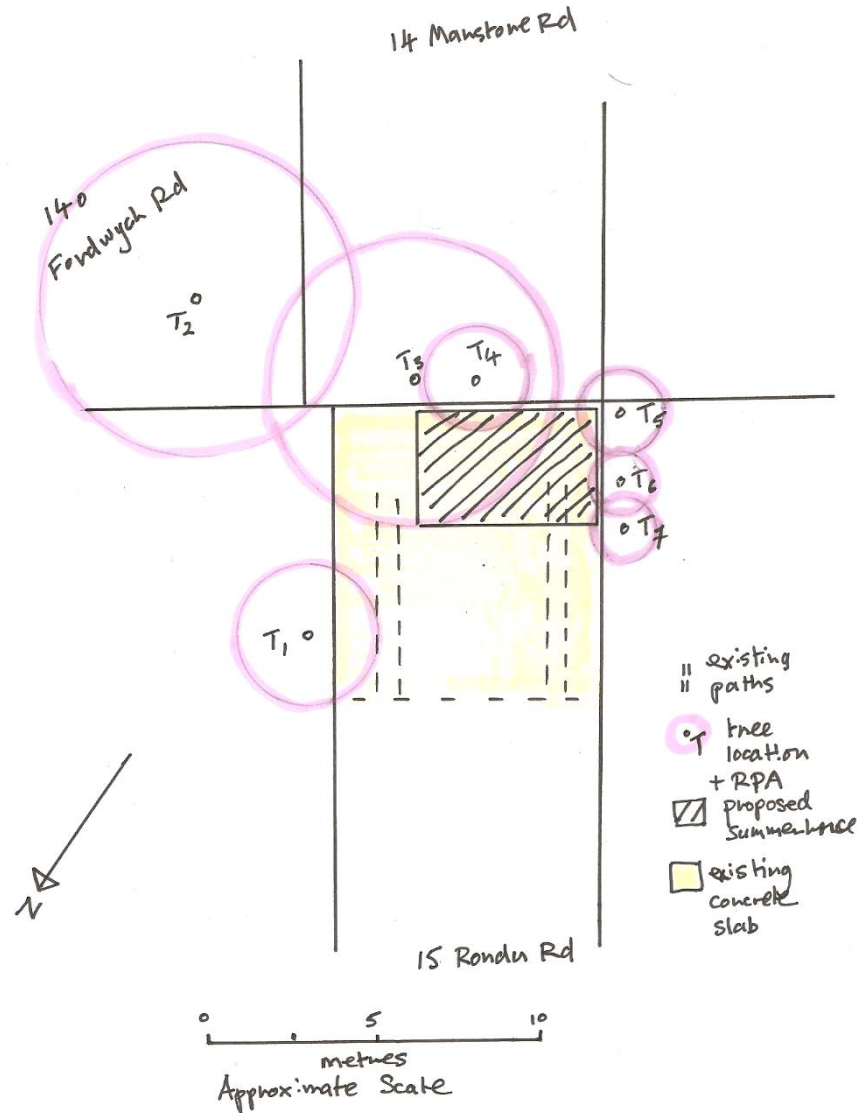
CA and **TPO** refer to legislative protection: Conservation Area or Tree Preservation Order

e indicates estimated measurement if tree is inaccessible, **μ** indicates mean value of many stems in a coppice group

The proposed site, the trees and their RPAs

The proposed site of the summerhouse is at the Southwestern corner of the rear garden at 15 Rondu Road, and is shown on Sketch 1, below. This end of the garden is almost entirely covered by an existing concrete slab of approximately 150mm depth, broken only by two existing pathways running along the length of the garden.

The trees around the proposed site are all in neighbouring gardens: in 142 and 140 Fordwych Road, 14 Manstone Road and 13 Rondu Road. None of the trees are exceptional arboricultural specimens, but perform useful urban functions as visual and aural barriers and wildlife habitats among the multifarious goods that trees provide in the city. The Root Protection Areas of all the trees surrounding the proposed summerhouse are shown on Sketch 1.



Sketch 1: Rear garden of 15 Rondou Road with surrounding gardens, trees, location of proposed summerhouse

Tree Protection Plan

BS 5837 (2012) calls for the provision of a Tree Protection Plan (TPP) where trees and their Root Protection Areas (RPAs) are within the vicinity of Construction Works. In the case of the proposal at 15 Rondou Road, a TPP would normally be a necessity, as the RPAs of Trees 3, 4, 5, 6 and 7 impinge on the footprint of the summerhouse. In normal circumstances, excavations for the foundations of any structure might disturb the delicate rooting systems of these trees; however as noted above, the rear of the garden is covered by a concrete slab.150mm deep.

This concrete slab will provide the dual function of protection to the existing roots and foundation to the proposed lightweight wooden structure, which I gather may be placed either directly on to the concrete slab or onto timber sleepers laid on the slab.

Should the requirement for foundations extend beyond the existing concrete slab, the exact outline of which is difficult to determine without extensive excavation, the sleepers will be laid onto concrete paving slabs laid on the existing ground surface.

Excavation will be required for the provision of electricity to the summerhouse. The cable trench will be sited away from the fence lines, along the line of the path currently unconcreted, away from the RPAs of any of the trees. In the event of roots being discovered during the hand excavation, the protocol described in BS5837 (2012) will be followed.

Any working area required for pre-assembly of the summerhouse will be provided within the existing concrete slab: there will be no requirement for further ground protection measures, as no mixing of cement is necessary using this construction technique.

The second purpose of the TPP is to ensure that damage does not occur to the above ground parts of the nearby trees: the trunk, bark and crown. At 15 Rondu Road all of the trees are in neighbouring gardens inaccessible to construction activity, as the gardens are well fenced from each other by close-boarded fences approximately 2m high.

No branches of the surrounding trees impinge on the space to be occupied by the proposed summerhouse: there will be no requirement for corrective surgery to the trees.

Conclusion

It is my opinion that the summerhouse may be constructed as proposed at the Southwestern end of the garden at Rondu Road without causing any damage to the surrounding trees, and that the existing fences and concrete slab provide the protection required to protect the roots and above-ground parts of these trees.

If any further information is required please do not hesitate to contact me by phone or email.