

Received 14/03/2012.

Simon Pryce Arboriculture

Report

Client: St Thomas More RC Church

Site: St Thomas More, RC Church, Maresfield Gardens, London, NW3
5SU

Subject: Trees and proposed building and landscaping work

Inspection date: 29 February 2012

Report date: 6 March 2012

Reference: 11/151

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I Introduction

- 1.1 This report has been prepared on the instructions of Arthurell & Kirkland Architects, who are acting for the Diocese of Westminster in connection with proposed building work at St Thomas More RC Church.
- 1.2 I have been asked to inspect trees growing on or near the site and to provide a report on them and the implications of the proposal, as set out in British Standard 5837: 2005, Trees in Relation to Construction.
- 1.3 The site was visited and the trees inspected on 29 February 2012. The inspections were visual and made from ground level, with no climbing or test boring as these were not warranted.
- 1.4 The trees were measured, their maturity, health and structural condition assessed and each one was assigned to one of the four retention categories [A,B,C,R] specified by BS5837. The individual descriptions and other relevant information are contained in the attached schedule and they have been numbered on the attached site plan, based on an original supplied by Arthurell & Kirkland.

2 Background

The site

- 2.1 The site is bounded to the west and south by Maresfield Garden and is about 50m north - south by 70m east - west along the south frontage. The main building is a modern church which is oval in plan and occupies most of the central part of the site, with the presbytery and other associated buildings along most of the south side. Those at the eastern end are little used at present. There is an open area of grass to the north and east of the church and a small garden in the south west corner near the presbytery.

Proposal

- 2.2 This is shown on the plans produced by Arthurell & Kirkland and involves the demolition of the buildings on the south frontage to the east of the church and replacement with a new smaller building forming a Parish Centre. The eastern end of the site is to be soft landscaped to form a new garden and play area. In addition the southern end of the car park to the west of the church is to be resurfaced to provide two disabled parking spaces and a new fence and gate are erected north west of the church.

Trees

- 2.3 These are described individually in the schedule and shown on the site plan. The most significant specimens are six London planes growing in the pavements next to the site. Some have been reduced lightly but they are relatively young specimens that have not been pollarded. The most significant tree within the site is in the north east corner of the garden behind the church and is an early middle aged oak with good potential. Others include a Lawson cypress near the east side of the garden and a yew with sparse foliage behind the building in the south eastern corner of the site, none of them particularly good or notable specimens.

- 2.4 The local planning authority is Camden Council and the site is in the Fitzjohns & Netherhall Conservation Area. A telephone enquiry to the council indicates that a false acacia is covered by a tree preservation order [TPO], although they were not able to confirm the exact location except that it is at the front. The only false acacia within the site is tree 1, which is not a very significant specimen. Tree 3 is more likely to have been made the subject of a TPO, although it appears to be in the adjacent front garden to the north. That could be clarified by checking the TPO plan, but neither of these trees is affected significantly by the proposed work and they are all subject to the conservation area restrictions so it is not a critical matter at this stage.

3 Appraisal and discussion

General comments

- 3.1 The two main functions of tree roots are 1) physical support and 2) the supply of water and nutrients from the soil. Roots will grow wherever conditions are favourable i.e. there is a suitable supply of air and water, so most tend to be in about the upper 600mm of the soil and even shallow excavation or minor level changes can be harmful. Construction near trees can also be harmful in less direct ways, such as soil compaction caused by heavy machinery and spillage of toxic materials such as diesel oil and cement.
- 3.2 British Standard 5837: 2005, Trees in Relation to Construction – Recommendations, specifies measures to avoid or minimise damage to trees that are retained on or near construction sites. One of the more important recommendations is that root protection areas [RPAs] are established round retained trees and that no ground work takes place within them. These are normally enclosed by suitable fencing such as weld mesh sections supported by scaffold poles driven into the ground.
- 3.3 The size of the RPA is based on the size of the tree concerned. The starting point is that for a single trunked tree it has an area equivalent to a circle with a radius 12 times the trunk diameter at 1.5m, while with multiple trunked trees it is 10 times the diameter just above the root collar. The shape and layout of the RPA can be modified, if this is deemed appropriate, particularly where there is evidence that root spread is uneven.

Implications for this case

Direct losses

- 3.4 The only tree removed as a direct result of the proposal is no.15, the Lawson cypress next to the east side of the garden, which is taken out in order to build steps from the new building up into the garden. It can be seen from other buildings to the rear, but is not a significant specimen and the church and other buildings hide it completely from the street in front, so its loss would not have a significant impact on the character of the site or the wider area. It is to be replaced with two trees next to the new steps, which will compensate for its loss. These continue a line of three new trees planted in front of the new building, which will also enhance the character of the area.

Indirect effects

- 3.5 This is a small scale project and most of the work takes place well away from trees, so the likelihood of incidental losses or damage is low. The yew, tree 14, could be damaged when the nearby building is demolished and has sparse foliage indicating poor vitality, which makes it more vulnerable to indirect damage, particularly if the roots are disturbed. However it is a naturally resilient species and conversion of the nearby area to a garden will improve growing conditions in the longer term, so it is worth protecting and retaining.

- 3.6 The existing car park to the west is near tree 6, one of the street plane trees, which could have roots under that part of the site. However ground level within the site is higher than the pavement and the work consistent only of levelling the existing uneven surface, so it is not likely to be affected unduly.
- 3.7 The only other work near trees is a the erection of the new fence at the north west corner of the church. That is within the RPA of tree 1, but the only ground work will be the sinking of fence posts which is highly unlikely to affect the tree adversely if done with due care.

Tree protection

- 3.8 Given the nature and scale of this project the only tree protection needed is a short run of fencing to protect the yew from incidental damage when the building is demolished and another to prevent access to the rear garden while work is in progress. That should be sectional mesh fence or plywood sheet on an anchored scaffold frame. It would also be prudent to box in the lower trunks of the two street planes near the demolition area in order to protect them from possible damage by vehicles or plant. That would need to be heavy duty plywood on a timber frame formed round the trunks over padding to protect the bark. These measures could be detailed in a method statement, but it is a straightforward matter and sufficiently detailed layouts have been shown on the site plan.

Other matters

- 3.9 Two of the cherries in the south west corner are in poor condition and need to be removed, but that is not related to this proposal. They are too small for their loss to have any significant impact and the other two will grow on, but each was planted in an individual open bed in the garden, so it would be appropriate to replace them.

Tree work

- 3.10 Any treework should be carried out in accordance with BS 3998: 2010, Recommendations for Treework, and any other relevant standards. It is essential that the contractor doing the work has appropriate third party and public liability insurance. The Arboricultural Association has a list of approved contractors, published in the Tree Services section of their web site at www.trees.org.uk or they can be contacted on 01242 522152.
- 3.11 Where any trees or other woody plants are removed it is advisable to remove the stumps and main roots, if possible, in order to avoid colonisation by honey fungus [*Armillaria* sp.]. This can spread and infect other vegetation nearby, either killing plants or decaying structural roots and making them unstable.

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Site:

St Thomas Moore RC Church, Maresfield Gardens, London, NW3

Inspection date:

29 February 2012 by Simon Pryce

Tree no.	Species	Age / vigour	Ht. m	Spread				Dia. mm	RPA rad m	RPA area m ²	Crwn ht. m	Comments and recommendations		Cat
				N	S	E	W							
The trees are described in order, starting to the north of the church and going round anti clockwise. Asterisks denote those in other ownership, with [c] denoting council owned trees.														
1	False acacia <i>Robinia pseudoacacia</i>	MA/N	15	5	5	5	2	370	4.4	61	5	One sided due to growing close to the deodar, otherwise good. • No work needed.		C 2
2	Deodar cedar <i>Cedrus deodara</i>	MA/N	17	5	2.5	2	4	300	3.6	41	3	Lower trunk curves and crown is slightly one sided, but the tree is sound and healthy with good potential. • No work needed.		C 2
3 *	False acacia <i>Robinia pseudoacacia</i>	M/L	14	7	7	6	8	500	6.0	114	6	In the adjacent site to the north, so could not be inspected closely and is heavily covered in ivy, but the visible twig growth is very sparse indicating that the tree is in decline. • No work needed at present, but should be monitored. Could be improved by cutting the ivy		C 1 [R]
4 *[c]	London plane <i>Platanus x hispanica</i>	MA/N	17	6	8	6	9	490	5.9	110	5	Street tree, leans over the road but is sound and healthy. • No work needed at present.		B 1
5 *[c]	London plane <i>Platanus x hispanica</i>	MA/N	16	3	9	5	6	430	5.1	82	5	Similar to tree 4, slightly more one sided and some branches over the car park have been cut back but is sound and healthy. • No work needed at present.		B 1
6 *[c]	London plane <i>Platanus x hispanica</i>	MA/N	15	5.5	7.5	5	8	710	6.1	117	5	Similar to the others, has also had some branches overhanging the site cut back but is sound and healthy. • No work needed at present.		B 1
7 *[c]	London plane <i>Platanus x hispanica</i>	MA/N	15	6	3	5	5	530	6.3	125	5	Leans over the road. Crown has recently been reduced all over and the tree is growing on vigorously. • No work needed at present.		B 1
8	Flowering cherry <i>Prunus serrula</i> var.	Y/N	5	2.5	2.5	2.5	2.5	100	1.2	4.7	1.8	One sided due to shade from the plane nearby, but healthy otherwise. Still on the planting stake. • Remove planting stake.		C 2
9	Flowering cherry <i>Prunus serrula</i> var.	Y/L	3	0	1	2	0	60	0.7	1.2	1.8	Dying. • Remove		R
10	Flowering cherry <i>Prunus serrula</i> var.	Y/N	5	2	2	3	3	70	0.8	2.2	1.8	Has some dead stumps, but is in reasonable condition otherwise. • Remove stake, trim dead stumps.		C 2

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				N	S	E	W						
11	Flowering cherry <i>Prunus serrula</i> var.	Y/N	2.5	2	2	1.5	2	60	0.7	1.2	1.8	Poor and in decline, has minimal potential. • Remove	R
12 *[c]	London plane <i>Platanus x hispanica</i>	MA/N	14	5	5	5	5	570	6.9	148	4	Crown reduced recently and is growing on. • No work needed.	B I
13 *[c]	London plane <i>Platanus x hispanica</i>	MA/N	14	5	5	5	5	490	5.9	110	5	Also crown reduced recently, possibly in connection a crack in the wall nearby. Has a scar from passing vehicle at about 3.5m on the trunk, otherwise good. • No work needed.	B I
14	Yew <i>Taxus baccata</i>	MA/L	8	2.5	6	5	5	300	3.6	41	2.5	Leans north away from the building, but appears sound and stable. However the foliage is sparse and slightly yellow, possibly due to poor rooting conditions near the building. • No work needed at present, but should be monitored.	C I
15	Lawson cypress <i>Chamaecyparis lawsoniana</i>	MA/N	9	2	2	2	2	190	2.3	16	2	Base of the trunk sweeps, otherwise healthy, but not an outstanding specimen. • No work needed.	C I
16	Crab apple <i>Malus</i> variety	MA/N	6	1.5	2	2	2	200	2.4	18	1.5	Healthy specimen. • No work needed.	C I
Between this tree and the next are two large pyracanthas growing next to the fence. They are not outstanding individual specimens but provide some greenery and screening on the boundary.													
17	Holly <i>Ilex aquifolium</i>	M/N	9	3	4	4	4	3 x 140	3.0	28	2.5	Under the oak but is shade tolerant and not being unduly suppressed. • No work needed.	C I
18	Oak <i>Quercus robur</i>	MA/N	13	7	7	7	7	490	5.9	110	5	Healthy, relatively young specimen with good potential. • No work needed.	B I
19	5 no. Lime <i>Tilia x europaea</i>	M/N	10 - 12	2 avg.				220 - 290	3.4	37	3	Row of nearly identical trees, all pollarded at about 3m in the past. They have been left to grow on for some years and been reduced lightly in the last 1 - 2 years. • No urgent work needed, but new growth should be recut or thinned every 2 - 4 years.	C 2
20	2 no. Lime <i>Tilia x europaea</i>	M/N	6 & 5	1.5 avg.				320 - 250	3.8	46	3	Similar to the others but have been reduced right back to the 3m pollard points in the last 1 - 2 years and are also growing on vigorously. • No urgent work needed, though if left to grow on they could be improved by thinning out periodically to produce fewer but better formed branches.	C 2

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				N	S	E	W						
21	Torbay palm <i>Cordyline australis</i>	MA/N	6m	I	I	I	I	90	1.1	3.6	5	Slender drawn up specimen. • No work needed.	C I

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Notes

Observations are made from ground level unless stated otherwise.

Trunk diameters are measured in millimetres at 1.5m above ground or at the narrowest point between the root buttresses and branch flare in multiple trunked trees; in such cases this is indicated by [c].

Crown spreads are taken from the trunk centre to the end of the longest live branches in the directions indicated [usually the four cardinal compass points]

Crown height is the clearance under the lowest significant branches.

Tree ages are estimated as below, based on the normal life expectancy of a tree of the species concerned on the site:

Immature.	[IM]	Newly planted or self-set tree.
Young	[Y]	Young tree that is established but has not yet attained the size or form of a fully developed example of its type.
Middle aged	[MA]	Between one third and two thirds of its estimated lifespan.
Mature	[M]	Over two thirds of it's estimated life span.
Over mature	[OM]	Declining and/or approaching the end of it's natural lifespan.
Dying/Dead	[D]	Dead/dying or so badly decayed that it should be removed without delay if a potential threat.

Vigour is assessed on the basis of what is normal for that the species concerned as:

High	[H]
Normal	[N]
Low	[L]
Dead / dying	[D]

Root protection areas [RPAs] – BS5837:2005

For single trunked trees these are calculated as an area equivalent to a circle with a radius 12 times the trunk diameter at 1.5m

This is to be assessed by an arboriculturalist taking into account the following factors. It may change its shape but not the overall area, whilst still providing adequate protection to the root system.

- The likely tolerance of the tree to root disturbance based on factors such as species, age and condition and the presence of other trees. [For individual open grown trees it may be acceptable to offset the distance up to 20% in one direction]
- The shape and disposition of the root system when known to be influenced by past or existing site conditions, such as the presence of roads, structures and underground services
- The soil type and structure
- Topography and drainage.

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Tree categories – based on BS5837: 2005, Trees in relation to Construction - Recommendations

Trees for removal				
Category and definition				Identification on plan
Category R				Dark Red
Tree so poor that any existing value would be lost within 10 years and which should, in the current context, be removed as sound arboricultural management	<ul style="list-style-type: none">• Trees that have a serious, irremediable structural defect and are likely to collapse in the foreseeable future, including any that would become unviable after the removal of other R category trees.• Trees that are dead or showing signs of significant immediate and irreversible decline.• Trees infected with pathogens significant to the health and/or safety of other trees nearby, or low quality trees suppressing better ones nearby. <p>NOTE: Habitat reinstatement might be appropriate, e.g. bat boxes in other trees nearby.</p>			
Trees for retention				
Category and definition	Criteria – sub categories			Identification on plan
	1 – mainly arboricultural values	2 – mainly landscape values	3 – mainly cultural / conservation values	
Category A				
Trees of high quality and value, capable of making a positive contribution for at least 40 years	Particularly good examples of their species, especially if rare or unusual. Essential components of groups or arboricultural features, whether formal or semi formal.	Trees that provide a definite screening or softening effect to the locality in relation to views in or out of the site or those of particular visual importance	Trees, groups or woodlands of significant historical, commemorative or conservation value.	Light green
Category B				
Trees of moderate quality and value, capable of making a significant contribution for at least 20 years.	Trees that might be A category but are downgraded due to impaired condition such as remediable defects including poor past management and minor storm damage.	Trees present in such numbers or in groups or woodlands such that they form distinct landscape features, attracting a higher rating than they might as individuals, e.g. moderate quality trees in avenues with other A category trees, or trees that make little contribution to the wider area outside the site.	Trees with clearly identifiable conservation or other cultural benefits.	Mid blue
Category C				
Trees of low quality and value, currently in adequate condition to remain until new planting could be established [useful life of at least 10 years] Trees under 150mm diameter	Trees not qualifying in higher categories	Trees in groups or woodlands but without this giving them significantly greater landscape value and/or trees offering temporary screening.	Trees with limited conservation or other cultural benefit.	Grey
	NOTE: While C category trees will not usually be retained where they would impose a significant constraint on development young trees with a stem diameter of less than 150mm diameter should be considered for relocation.			