

**APPENDIX 7: Condition 31 –
Constraints**



**BACTON LOW RISE
TREE REMOVAL AND
REPLACEMENT STRATEGY**
December 2014

Our Ref: Q30150

Contents

1.	Introduction	1
2.	Justification for Tree Removal.	2
	a) Traffic Management Plan Constraints.....	2
	b) Scheme Drainage Constraints.....	4
	c) Sequencing of Construction Impacts	5
	d) Impact on Statutory Undertakers Services.....	6
	e) Quality of Trees.....	7
3.	Mitigation – Replacement Planting	8
4.	Conclusion.....	10

Appendix A - Tree Location Plan

Appendix B- Plan illustrating root diameters and the proposed depths of drainage and statutory undertaker's services

Appendix C - Correspondence with LB Camden Traffic Department regarding extension of parking suspension bays for the full length of the site boundary to the north side of Vicars Road

Appendix D- Proposed and agreed parking in Vicars Road and Prince of Wales Road

Appendix E - Drainage Proposals that have been discounted

Appendix F- Latest Drainage Proposals

Appendix G- Replacement Planting Details

1 INTRODUCTION

- 1.1 Following approval of application reference 2012/6338/P, the redevelopment of Bacton Low Rise has been progressing. Through the detailed design and construction process, it has come to light that the retention of four London Plane trees on Vicars Road are causing significant issues regarding the deliverability of the development.
- 1.2 Please see Appendix A which illustrates the location of the four trees.
- 1.3 This document explains the difficulties that the trees are causing, the options that the contractors have considered with regard to retaining the trees and finally the options that have been considered for their removal and replacement.

2 JUSTIFICATION FOR TREE REMOVAL

a) Traffic Management Plan Constraints

- 2.1 The following section of the report explains how traffic management issues have led to the proposal for the removal and replacement of the four trees.
- 2.2 The Bacton Low Rise Traffic Management Plan (TMP) has been produced with consideration to other development taking place in the locality. Namely, Apollo's Better Homes work at Bacton High Rise and also construction by Keir.
- 2.3 This resulted in changes being made to the original Bacton Low Rise TMP. These changes included:
- a) No longer unloading any vehicles in Wellesley Road outside proposed Block A;
 - b) No longer having an allocated unloading area to the north of proposed Block C (located in the section of road leading off Grafton Road owned by Network Rail).
 - c) Only one point of entry from Grafton Road (due to construction constraints, this could only be used for the first 30 weeks) and the remainder of deliveries coming on site from Vicars Road.
- 2.4 Seven parking bays north of Vicars Road and two further bays opposite (in front of 51 and 53 Vicars road) the site entrance, were requested to be suspended. This proposal was rejected by LB Camden Traffic Department (30 October 2014).
- 2.5 The parking bays are important as they would be used as follows:
- a) Holding area for vehicles;
 - b) Unloading of materials on to site aided by the tower crane; and
 - c) Allow access and egress for vehicles on to the site, where the four existing London Plane trees are at present, to service Block B1, Block C and B2 for materials and construction purposes.
- 2.6 With the closing of the North entrance gate the only physical way vehicles can access the site is from Vicars Road, through the area occupied at present by the four trees. Rydon have reviewed all options and has found that there are no other alternatives to removing the trees.

- 2.7 The traffic Swept Path Analysis using a 12m Rigid Vehicle Drawing 2013-1636-AT-205 demonstrates the route on to and off the site leaving no room for any of the trees to remain.
- 2.8 The discovery of ground anchors running into the site during the demolition of buildings resulted in a change to using the Cross Laminated Timber construction method. This resulted in a further amendment to the Bacton Low Rise TMP and reduced the amount of time that deliveries were available at the Grafton Road entrance to 25 weeks, with the remainder of all deliveries to the Vicars road entrance.
- 2.9 The above resulted in a revised TMP for Bacton Low Rise being submitted to LB Camden for approval. This was found generally acceptable however Rydon were requested to reduce the length of car parking bay suspensions (please see Appendix C for correspondence with LB Camden Traffic Department).
- 2.10 This resulted in further difficulties in terms of vehicles parking to unload materials and in getting vehicles from Vicars Road on to the site. Appendix D illustrates the proposed and agreed parking in Vicars Road and Prince of Wales Road.
- 2.11 Rydon submitted a further request for the suspension of parking bays to both Vicars Road and Prince of Wales Road from 21 December 2014. Irrespective of the Traffic Orders being in place, Rydon still require the trees to be removed to service the site with materials and allow them to construct the buildings to programme.
- 2.12 Despite Rydon's attempt at implementing a traffic management plan which would enable the retention of the four trees it is now considered that if they were to be removed, it would significantly ease construction traffic using Grafton and Vicars Road.
- 2.13 Our traffic consultants (TTP) have conducted an exercise to demonstrate the effect of the removal of the four trees.
- 2.14 Appendix C provides a TPP traffic plot drawing (ref: 2013-1636-AT-205) which demonstrates that 8 wheel 4 axle rigid lorries would be able to access the site from Vicars Road, come on site and exit again with minimal disruption to traffic on Vicars Road.

2.15 This would assist greatly on site with respect to construction and materials deliveries as well as easing construction traffic using Grafton and Vicars Roads.

b) Scheme Drainage Constraints

2.16 It is essential that the scheme drainage is connected and running to allow the only current site entrance to close so that the main drainage works can be completed in order for water testing for Block A to commence in January 2015 and also to allow the foundation works for Block C to be finalised, ready to commence with a concrete frame in the New Year.

2.17 Rydon have proposed a number of drainage solutions for the site. The first option would result in the scheme's drainage discharging out in to Vicars Road, going under the existing tree roots and effectively closing Vicars road whilst the drainage connection was made to the exiting TWA sewer within Vicars Road (please refer to Appendix E). Rydon have however discounted this option due to two reasons:

- a) Irrespective of the Traffic Order being in place this would have created serious problems for Rydon due to the stacking of vehicles and the unloading of materials to service the site; and
- b) It would have caused serious problems to the through flow of traffic using Vicars Road.

2.18 Rydon have carefully considered whether there are any further drainage strategies that could be implemented. Due to the confines and levels of the site along with the available existing levels of the TWA sewers, Rolton's engineers had no option but to design the scheme drainage to discharge in to the existing TWA drainage at the Eastern end of the site. To reverse the drainage and take it out in to Wellesley road would involve the use of a main drain pumping system which is not only costly to implement and run but would cause maintenance issues that could arise with a system of this nature.

2.19 It has therefore been decided to progress with a different route. Appendix F contains a drawing dated 22 October 2014 which was emailed to Nick Bell, LB Camden Tree Officer, showing the existing tree roots depth and diameter nearest Block C West services zone. To overcome the problem of running the scheme's main drainage out from the site under two of the existing trees roots in to the main TWA sewer in Vicars Road (this being problematic to both material deliveries, site production and the public using Vicars Road, as the road would have to be closed whilst the drainage works were carried out after Christmas 2014). To overcome these problems Rydon opted to take the scheme

main drainage from the site and connect on to the existing drainage within the Network Rail road demise. This option is however pending confirmation from both Network Rail and LB Camden solicitors in agreeing the wording and terms within the easement and way leave legal documents.

2.20 As explained above, the only achievable drainage strategy would result in the drainage passing straight under the four trees. It is therefore considered that the retention of the four trees is not feasible.

c) Sequencing of Construction Impacts

2.21 At present it is not possible to close the only entrance in to the site (Grafton Road) as Rydon are using it to service the site with materials. In the New Year Rydon will need to close this entrance and move in to Vicars Road (where Rydon will require the temporary traffic orders allowing them to park vehicles and unload).

2.22 The entrance to the north of the site will need to close in the new year to allow for the following works to be carried out namely;

a) The completion of Block B1 CLT structure;

b) The construction of the deep external main drainage manhole and associated drainage from the scheme to the existing TWA manhole connection; and

c) The completion of Block C foundation works. With these works being completed and commencing will mean no vehicles will have any access or egress to the site until such time Rydon can have the four trees taken down and the new entrance formed in their place.

2.23 It is anticipated to enter the site from Vicars Road through the area where the four trees are located (please refer to Appendix A –Please see item 3.4 above). This will allow the construction of Block B1 to be completed, commence the concrete frame on Block C and finally construct Block B2 with less disturbance and disruption to the site neighbours and the public along Vicars Road.

2.24 By allowing vehicles to be taken off the road and on to the site, this would not only help Rydon to complete the construction of Block B1 but also commence the construction of Block C (Concrete Frame) and Block B2 (Timber Frame). It should also be noted that without Rydon being able to gain

any access for vehicles and plant on to the site, it would make it impossible to complete the construction of the buildings, carry out the finishes and complete all the external works. By allowing Rydon access on to the site, this would also benefit the neighbours and general public by Rydon not applying for temporary road closures for cranes and other related works along with minimising general disruption to the public and road users by having vehicles parking all day every day in Vicars Road being loaded and unloaded, which in the long term would have an impact on the community at the same time have an impact on the scheme programme of works. This will also allow Rydon to work within their timing programme for development delivery.

2.25 Rydon have considered all options for constructing the site which don't involve the removal of the trees. In the event that the trees were to remain then Rydon would have to re programme all the remaining works. This would involve as mentioned above in item 3.20 all vehicles being parked in Vicars Road for unloading and loading as necessary by the tower crane and then distributed around the site to aid the construction of the buildings and loading out. Rydon would also have to deploy more small forklifts and machinery for the moving and loading out of materials whilst the tower is busy working on the building construction There will be times when the tower crane is taken down for Rydon to bring to site mobile cranes and these would have to be sited in Vicars Road involving road closures for the day. Everything that Rydon do on the site would have to be loaded in to and out of the site by using cranes this would not only become very expensive and have serious ramifications on the programme but would also be extremely disruptive to the neighbours, residents and general public wishing to use Vicars Road.

2.26 Therefore to ensure that the construction work can commence and that it keeps to programme it is considered that the four trees on Vicars Road cannot be retained.

d) Impact on Statutory Undertakers Services

2.27 Rydon have confirmed that it is likely that the incoming Statutory Undertakers services from Vicars Road which run within the pavement west of Block C and the four trees could have an effect on the tree roots. With limited space these services could be too close to the tree roots for the Statutory Undertakers approval. Rydon are currently awaiting their final comments and approval for this.

2.28 In the interim the M&E consultant Rolton's are in discussions with the main Statutory Undertakers to see whether or not Rydon can run all the main services in to the site (in already congested footpaths) from Wellesley Road through the undercroft of Block A or to see if Rydon can run the services North of Block C within the site demise adjacent the Network Rail road, albeit this option looks unlikely to proceed due to lack of space.

e) **Quality of Trees**

2.29 Local Authorities preserve and protect trees from removal if it appears that they are expedient in the interests of amenity and provide special value. It should be noted however that the four trees located on Vicars Road are not protected by Tree Preservation Orders.

2.30 We do appreciate the amenity value that the trees provide and their impact on the character of Vicars Road. The trees were previously surveyed as being Category B trees (Tree Survey, Implications Assessment and Constraints, Nov 2012).

2.31 A number of replacement options have therefore been considered and are detailed in the following sections of this document. We consider that the replacement planting proposed is more than sufficient for reproviding the quality of street scene currently provided by the existing four trees.

3 MITIGATION – REPLACEMENT PLANTING

- 3.1 Although the four trees located on Vicars Road are not protected by Tree Preservation Orders, their amenity value and impact on the character of the road are understood. A suitable replacement planting strategy is therefore proposed to be implemented.
- 3.2 A Landscape Architect has been appointed to produce three landscape options showing alternative trees and low level planting. Please see Appendix G for options of replacement planting.
- 3.3 London planes are considered a valuable component of London’s urban forest, both environmentally and in terms of character. The trees in Vicars Road are rated category B so therefore don’t offer the same levels of environmental benefit as it they were grade A, and planes with unbalanced crowns are more susceptible to disease and increasing levels of necessary maintenance.
- 3.4 The proposed replacement species has a number of advantages over the plane trees in this location:-
- 3.5 Size: Mature height of 10-15m, canopy spread of 8m;
- 3.6 Growth Rate: Medium to fast growing (60cm in a growing season) with symmetrical oval crown;
- 3.7 Colour: Dark green foliage above, whitish beneath in summer. Brilliant crimson foliage held on branches for several weeks in autumn. Flowers crimson on bare branches in early spring, followed by seeds.
- 3.8 Maintenance: Low maintenance, will require little pruning as the size is more suited to the location. The *Platanus x hispanica* (London Plane) grows to 20m+ and requires regular maintenance to manage growth and to monitor for *Massaria* disease of Plane.
- 3.9 Biodiversity Value: *Acer rubrum* provide a food source for squirrels, birds and small mammals. Flower attract butterflies and moths.
- 3.10 Relationship to other trees in the area and effect on streetscape: The semi-mature *Acer rubrum* will be planted at a height of 5.0-5.5m to create an immediate feature to the DHO site entrance. Planted

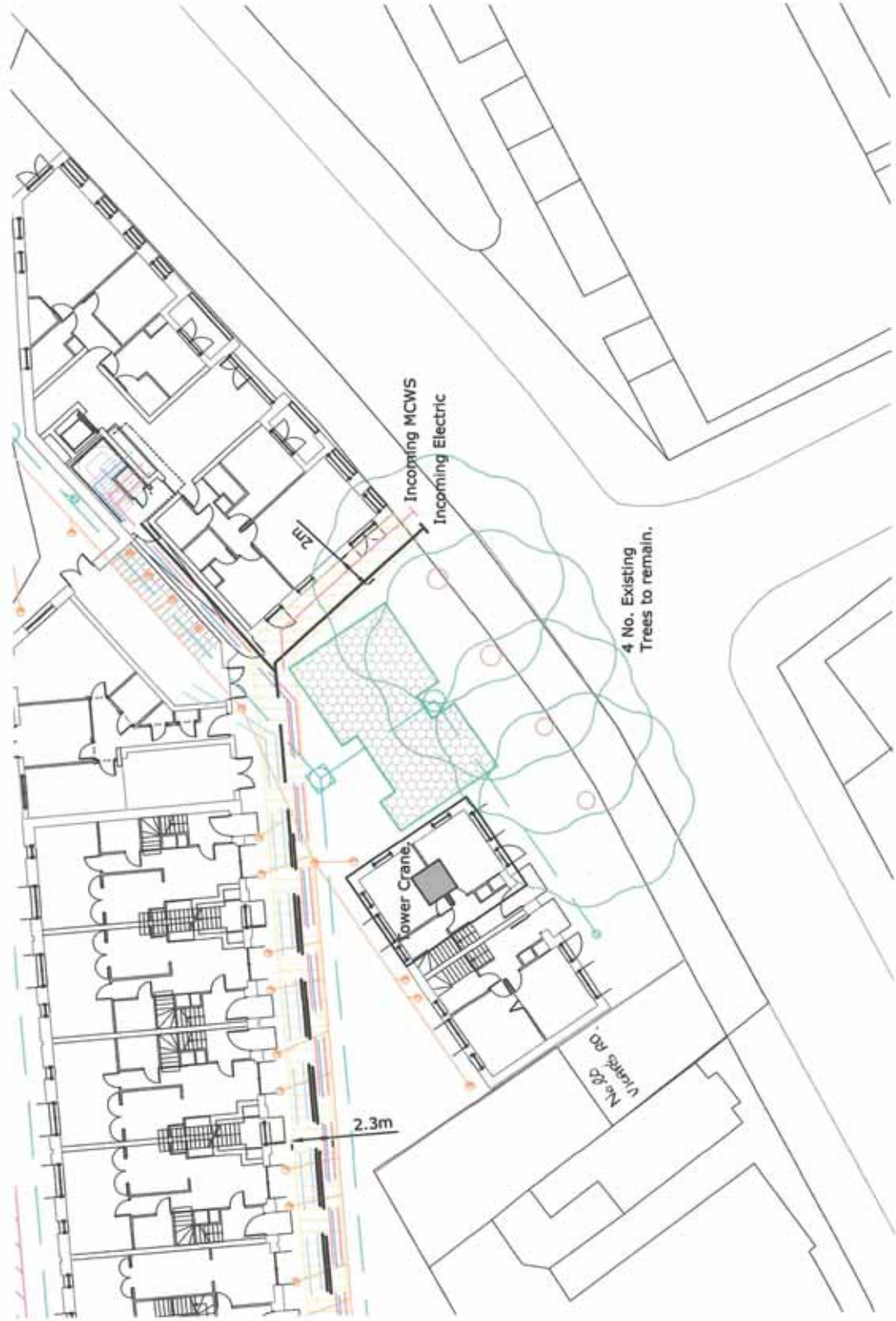
in a group they will be a positive addition to the streetscape, especially in autumn when the foliage colour is striking. Planting semi-mature specimens will provide balance to the other mature trees on Vicars Road and the introduction of a different species, in addition to tree planting proposals throughout the development, will increase levels of biodiversity in the local area. The proposed under planting further enhances the visual aesthetic and also increases permeability in the streetscape.

- 3.11 Effect on air quality- The newly planted *Acer rubrum* 'October Glory' will develop a canopy of 8m+ with dense foliage for efficient trapping of pollutants. The existing *Platanus x hispanica* (London Plan), categorised in the tree report as grade B trees, have developed unbalanced crowns due to pruning to maintain their size. This lighter canopy will reduce the trees overall ability to trap particulates. An i-Tree search which prioritised air pollutant removal, low VOC emissions, carbon storage and air temperature reduction rated the *Acer rubrum* in its top 10% of recommended species.
- 3.12 The *Acer Rubrum* 'October Glory' tree is the proposed option for replacement planting should it be agreed that the four trees should be removed. We consider that this option provides enhanced amenity value and an improved street scene.
- 3.13 Subject to no major changes to the construction programme the new landscape and tree planting works will follow on behind the erection of the ornamental gates and railings in August 2015.

4 CONCLUSION

- 4.1 Rydon have worked hard to date to progress matters on site with the four trees on Vicars Road in place.
- 4.2 As explained in the sections above, the retention of the four trees is causing significant issues with respect to delivering the development and we consider that there are strong reasons justifying their removal. These reasons include:
- 4.3 The requirement to close Grafton Road Entrance which necessitates moving the site entrance to Vicars Road;
- 4.4 The only viable drainage solution passes straight under the trees which would in turn damage the root protection areas;
- 4.5 It is likely that other statutory undertakers services could have a negative impact on the root protection areas of the four trees; and
- 4.6 The trees are not protected by Tree Preservation Orders and we have proposed an appropriate strategy for replacement trees which has equal benefits in terms of the street scene and amenity value.
- 4.7 If the four trees are not removed, the ability of Rydon to construct the development is jeopardised therefore halting the much needed delivery of new homes for the Borough.
- 4.8 We trust the enclosed is helpful in your consideration of our proposals and we would welcome your comments on the proposed replacement planting options.

APPENDIX A-G



APPENDIX A' QUAD DOG.

Rev. Date	Description of Issue	Chkd
CI 05.12.13	Construction Issue	GB
		Chkd
Revisions		

Rev	Details	Drawn	Checked	Date
A	Holding area added.	HW	MB	03.04.14
B	Finishing area and parking updated.	HW	MB	21.04.14

APPENDIX C QUAD POC

2

Notes:
1. This is not a construction drawing and is intended for submission purposes only.

Client
Rydon Construction

Project
Bacton Low Rise

Drawing Title
Proposed Vicar's Road Parking, Waiting & Loading Restrictions

Scale
1:250

Drawn
1807 MB
13.03.14

Checked
MB
13.03.14

111 - 113 Great Portland Street
London
W1W 6QQ
Tel. No. 0207 1000 155
Drawing Number
2013-1636-DWG-102
Rev
B

