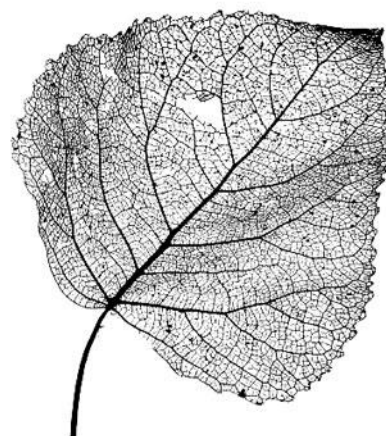




Sharon Hosegood

ASSOCIATES

ARBORICULTURAL METHOD STATEMENT REPORT

BS 5837:2012 '*Trees in relation to design, demolition, and construction*' - recommendations

ams

PURSUANT TO DISCHARGE CONDITION 2 OF
CONSENT REFERENCE 191422

SITE:

Crossway Point, Norwood Road, Reading RG1 3LF

CLIENT:

Higgins Construction

Philippa Roberts

FdSc, M Arbor A

Checked by

Sharon Durdant-Hollamby

FICFor FArborA BSc (Hons) Tech Cert (ArborA)

DATE: 3 Feb 2020

OUR REF: SHA 1140

OUR CONTACT DETAILS: 01245 210 420
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Executive summary

This report provides information in accordance with the tree related planning condition 2 of consent reference 191422 for the replacement of the existing high level wall cladding and cladding to the eaves detail with new non-combustible cladding. All information provided is in accordance with BS 5837:2012 '*Trees in relation to design, demolition and construction – Recommendations*'.

The trees are protected by a Tree Preservation Order (TPO 139/01), which relates to most of the trees subject of this survey. The protected trees are shown cross referenced on the tree protection plan SHA 1140 at appendix 2, and the TPO plan at appendix 7. The site is not located within a designated Conservation Area.

The purpose of this report is not only to provide information for the discharge of planning conditions, but importantly, to provide clear recommendations during construction. The key areas of information are the following:

- The tree protection plan (appendix 2) and specification (appendix 3)
- The tree surgery schedule (appendix 4)
- The method statements at section 5

Arboricultural site supervision is recommended at the following key stages:

- Initial site meeting - following completion of the tree surgery and installation of the tree protection barriers, before construction works commence.

Visits will be recorded and the site supervision notes will be sent to Reading Borough Council, via the client, as an audit trail.

CONTENT

1	Introduction	4
2	The issues addressed and a statement of instructions	4
3	The trees	4
4	The approved development and construction programme	8
5	Arboricultural method statement	9
6	Arboricultural site supervision	10
7	Conclusions	11
8	Recommendations	11

Appendices

1	Tree survey sheets	13
2	Tree protection plan SHA 1140 TPP	16
3	Tree protection specification	17
4	Tree surgery schedule	22
5	Statement of methodology and reference material	24
6	Caveats & Exclusions	26
7	Tree related legislation affecting the site	28
8	Glossary	33
9	Experience and qualifications	37

1.0 Introduction

- 1.1 This report is for the purpose of providing information to comply with the requirements of planning condition 2 for the replacement of the existing high level wall cladding and cladding to the eaves detail with new non-combustible cladding planning reference application number 191422. It is intended for submission to Reading Borough Council and for use by the contractor on site.

2.0 Statement of instructions and issues discussed

- 2.1 Sharon Hosegood Associates are instructed by Nicola Thomas on behalf of Higgins

Construction to carry out the following:

- To review the planning condition (2) and construction logistics plan
- To produce relevant arboricultural method statements where required
- A tree protection plan and tree protection specification

All works are to BS 5837:2012 '*Trees in relation to design, demolition and construction – recommendations*' (BS).

- 2.2. The issues discussed are the condition of the trees on site, the impact from the approved development and the long term retention of the trees on site.

3.0 The trees

- 3.1 *Generally:* There are eighteen trees which form the subject of this survey, two of which are off site. Full details are found in the survey sheets at appendix 1 and their location on the tree protection plan *SHA 1140 TPP* at appendix 2.

- 3.2 *Summary:* The majority of trees are located within raised planting beds to the south of the site, and fronting Kings Road. With the exception of the mature London Plane tree (T13), they are all semi-mature trees, likely to have been planted within the last 10-15 years. To the rear of the building there is a relatively newly planted Sweet gum (*Liquidamber* sps.) tree within the car park, and a mature walnut tree located offsite within the garden space of a Norwood Road property.

- 3.3 Details of the trees can be found in the tree survey sheets at appendix one. The tree protection plan (*SHA 1140 TPP*) shows trees to be retained, tree protection measures and site storage and accommodation areas. The tree surgery schedule at appendix 4 lists works needed to facilitate consent.

3.4 T1- T5

These are three semi-mature trees located within a raised, sloping shrub bed. They have no major defects and reasonable condition, but still have a significant amount of growing to do before they mature.



Photo 1 – T1 & T2 are located the far side of the footbridge, with T3-T5 in the foreground

Arboricultural impact: T3 & T4 will require a modest level of pruning to provide sufficient clearance from the building to enable the approved construction to be carried out.

3.5 T6 and T7

These are two young trees which have sustained damage, and loss, of their original leaders. The trees are adapting to the damage with side branches taking on dominance. The impact of the damage to the future structure of the tree will need to be monitored.



Photo 2 – Trees T6 & T7, arrows indicating point of damage and loss of original leaders

Arboricultural impact: There are no foreseeable impact to these trees

3.5 T8 - T11

These are three semi-mature trees located within a raised, sloping shrub bed. They have no major defects and reasonable condition, but still have a significant amount of growing to do before they mature.



Photo 3 – T8 (left) and T11 (right), viewed from the opposite side of Kings Road

Arboricultural impact: T8, T9 & T10 will require a modest level of pruning to provide sufficient clearance from the building to enable the approved construction to be carried out.

3.6 T12 – T16

T13 is the only mature tree located to the front of the building, and is a visually important feature. Unfortunately, the dominance of T13 has rather suppressed all the adjacent trees (T12 & T14-T16). In addition, T16 is located very close to the building and has had to be heavily pruned to prevent conflict, and as such consideration should be given to its long-term retention.



Photo 4 – T13 dominating the centre of the picture, with T12 (left) & T14-T16 (right)

Arboricultural impact: T13, T14 & T16 will require a modest level of pruning to provide sufficient clearance from the building to enable the approved construction to be carried out.

3.7 T17

This is a young tree located in a shrub bed within the car park to the rear of the building. It is a well-chosen species for the confined growing location.



Photo 5 – T17 looking south, towards the rear of the building

Arboricultural impact: There are no foreseeable impact to this tree.

3.8 T18

This is a mature offsite tree located close to the boundary wall of the rear car park. Although it was only inspected from a distance and from the east, it appears to be in

reasonable health and condition. There is a modest overhang of the crown on the east, over the car park, and south, over a garden area.



Photo 6 – Offsite T18 looking west

Arboricultural impact: Providing the site office and welfare structures are single storey there is no foreseeable impact to this tree. Should the welfare structures be more than single storey a modest level of pruning will be necessary to the overhanging branches on the east of the tree.

4.0 The approved development and construction programme

- 4.1 Planning consent for the replacement of the existing high level wall cladding and cladding to the eaves detail with new non-combustible cladding was granted on 25th October 2019 from Reading Borough Council (Reference 191422).
- 4.2 Planning condition 2 requires the following pre-commencement detail (summary)
- '2. No development shall take place until an Arboricultural Method Statement and Tree Protection Plan in accordance with the relevant recommendations of appropriate British Standards or other recognised Codes of Good Practice for all existing trees that are not shown as being removed on the approved drawings, both within and adjacent to the site, has been submitted to and been approved in writing by the local planning authority. The development shall not be carried out other than in accordance with the approved Arboricultural Method Statement and Tree Protection Plan.'*

Reason: to ensure that appropriate protection is given to trees of amenity value within and adjacent to the site in accordance with Policy CS38.'

- 4.3 This report analyses the impact of the approved development and recommends measures for tree protection to ensure that condition 2 is complied with.

5.0 Arboricultural method statement

5.1 Generally

Development can harm trees if not carried out carefully. Tree's crowns and trunks can be damaged by machinery or scorched by fire or chemicals. Trees roots can be asphyxiated and die if the rooting zone becomes compacted and the soil structure damaged. This can happen very easily, particularly on clay soils, even with the passage of light vehicles. Tree roots can be damaged by raising or lowering the ground level. In some cases, it can take several years for the damage to become apparent. This report details how the approved development will take place whilst ensuring that the trees shown for retention can be protected, and for the protection of the soil in the areas for new planting.

5.1.1 Fires: Fires on site should be avoided if possible. If unavoidable, they should be situated far enough so that there is no risk of damage to the trees, taking into consideration the wind direction.

5.1.2 Site and fuel storage, cement mixing and washing points: All site storage areas, cement mixing and washing points for equipment and vehicles and fuel storage areas should be outside root protection areas unless otherwise agreed with the Local Planning Authority. No discharge of potential contaminants should occur within 10m of a retained tree stem or where there is a risk of run off into Root Protection Areas.

5.1.3 Temporary buildings for site use: Site cabins, trailers and other temporary buildings can sometimes be used in root protection area if consent is agreed by the local planning authority. This can be very useful if there is a robust existing hard surfacing in place. The method for installing the buildings, and assessment of whether ground protection is needed is to be agreed with the Arboriculturist and specified prior to installation.

5.1.4 Protection of tree canopies: Piling rigs and cranes are often used close to trees. Work must be carefully planned so that there is sufficient room to avoid hitting the canopy during transportation or operation. Arboricultural supervision may be required, however it is the responsibility of the contractor to assess and plan the work. Any access facilitation pruning required is detailed in the tree surgery schedule.

5.2 The following method statements are in chronological order:

5.3 Tree surgery

Recommendations for tree works can be found in the tree surgery schedule in Appendix 3. All works shall be in accordance with BS 3998:2010 Tree work. Recommendations'. The use of a competent tree surgery contractor is necessary to comply with this. The main contractor and tree surgery contractor must ensure that any necessary consents have been received from the local authority and that no protected species are harmed whilst carrying out site clearance or tree surgery works. Within root protection areas, stumps, shrubs and other vegetation must be removed by hand or using stump grinding machinery to minimize root damage of retained trees. Where poisoning of stumps is specified, this must be carried out by competent operatives. Only chemicals approved for this purpose and used in accordance with the manufacturer's instructions will be used.

The following information must be sought:

- Current employers, public and product liability insurance
- Waste carriers licence
- Qualification and experience of key personnel, including relevant NPTC certificates
- COSHH assessment
- Tool and task based risk assessment, including a Working at Height Risk Assessment
- Site specific risk assessment
- Emergency procedure plan
- Method Statement

A list of suitable tree surgeons is found at: <http://www.trees.org.uk/find-a-professional/Directory-of-Tree-Surgeons>

Bio security measures are important and found at <https://www.forestry.gov.uk/biosecurity>

5.4 Tree protection during works

The tree protection fencing is to be erected in the locations shown on the tree protection plan (appendix 2) to a specification found at appendix 3. At the front of the building the fencing is to be erected at the base of the small retaining wall to the shrub bed.

6.0 **Arboricultural site supervision**

An initial site meeting:

Before works have started, but after the tree surgery and tree protection measures are in place. At this meeting the site manager, contractor, arboricultural consultant should discuss methodology and the tree protection measures will be examined. A 'What you need to know

about working near trees at Crossway Point, Norwood Road, Reading RG1 3LF sheet will be issued which includes contact details.

After each site supervision, a short report will be sent to the contractor, client and local authority as a record of compliance within 5 days of the visit.

7.0 Conclusions

- 7.1 This report provides information required for condition 2 of planning consent the replacement of the existing high level wall cladding and cladding to the eaves detail with new non-combustible cladding.
- 7.2 A number of trees fronting Kings Road require a modest level of pruning to provide sufficient clearance from the building, to enable scaffolding to be erected and the approved cladding works to be completed. In addition, and should welfare & accommodation facilities be in excess of single storey layout, T18 will require a modest level of pruning works.
- 7.3 The following works will be subject to site supervision which will be reported to Reading Borough Council Arboricultural Officers within 5 days of inspection –
 - The initial site meeting – to check protective barriers and pruning works are adequate before cladding replacement works begin.

8.0 Recommendations

- 8.1 That a copy of the report, including the site specific method statement and tree protection plan is kept on site at all times, is part of the site induction, and is sent to the contractor.
- 8.2 That the arboricultural method statement is observed by all site personnel and supervised at key stages by the project arboricultural consultant. Short supervision reports are to be written after each inspection as a record of compliance and audit trail to the Local Authority.
- 8.3 That there is no ingress or material storage within the area shown on the plan by tree protection fencing.
- 8.4 That no tree works take place until the conditions are discharged.
- 8.5 That the tree protection fencing is installed before machinery enters the site and remains in place until the cladding works are complete and scaffolding has been removed.

Philippa Roberts

FdSc (arb), MArbor A

Sharon Hosegood Associates Ltd

Appendix 1

Tree survey sheets

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations
T1	Fraxinus excelsior (Ash)	SM	150	1	6(3)	14	3	3	3	3	Fair	20+	C1	1.8	10.18	Offsite tree located close to site boundary	
T2	Platanus X hispanica (London Plane)	SM	150	1	6(3)	14	4	3	3	3	Fair	20+	C1	1.8	10.18	Located 6m from building in raised bed. No major defects, reasonable form and condition.	
T3	Betula utilis Jacquemontii (Jacquemontii Birch)	SM	160	1	6(3)	14	4	4	4	3	Fair	20+	C1	1.92	11.58	Located 5.25m from balcony in raised bed. No major defects, reasonable form and condition.	
T4	Betula utilis Jacquemontii (Jacquemontii Birch)	SM	160	1	6(3)	14	4	3	3	3	Fair	20+	C1	1.92	11.58	Located 5.3m from building in raised bed. No major defects, reasonable form and condition.	
T5	Betula utilis Jacquemontii (Jacquemontii Birch)	SM	160	1	6(3)	14	3	4	3	4	Fair	20+	C1	1.92	11.58	Located 6.7m from building and 5.7m from balcony in raised bed. No major defects, reasonable form and condition.	
T6	Platanus X hispanica (London Plane)	SM	90	1	6(3)	14	1	1	1	1	Fair	20+	C1	1.08	3.66	Located 6.3m from building in raised bed. Leader has been lost with associated open tear wound on south of stem. Average form and condition.	
T7	Platanus X hispanica (London Plane)	SM	110	1	6(3)	14	1	1	1	1	Fair	20+	C1	1.32	5.47	Located 6m from building in raised bed. Leader has been lost. Average form and condition.	
T8	Betula utilis Jacquemontii (Jacquemontii Birch)	SM	200	1	8(2)	14	3	3	4	4	Fair	20+	C1	2.4	18.1	Located 4.3m from building in raised bed. No major defects, reasonable form and condition.	

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations
T9	Betula utilis Jacquemontii (Jacquemontii Birch)	SM	190	1	8(2.5)	14	4	3	4	3	Fair	20+	C1	2.28	16.33	Located 4.85m from building and 5.7m from balcony in raised bed. No major defects, reasonable form and condition.	
T10	Platanus X hispanica (London Plane)	SM	240	1	8(2.5)	14	4	4	5	5	Fair	20+	C1	2.88	26.06	Located 6.3m from building in raised bed. No major defects, reasonable form and condition.	
T11	Betula utilis Jacquemontii (Jacquemontii Birch)	SM	140	1	7(2.5)	14	1	3	3	3	Fair	20+	C1	1.68	8.87	Located 7.8m from building in raised bed. No major defects, but rather suppressed by adjacent tree to north. Average form and condition	
T12	Betula utilis Jacquemontii (Jacquemontii Birch)	SM	150	1	7(2.5)	14	3	2	3	3	Fair	20+	C1	1.8	10.18	Located 4.9m from building in raised bed. No major defects, but rather suppressed by adjacent tree to east. Average form and condition	
T13	Platanus X hispanica (London Plane)	M	640	1	18(5)	20	5	8	8	8	Fair	20+	A2	7.68	185.32	Located 5.6m from building in raised bed. No major defects, some pruning to clear building. Reasonable form and condition.	
T14	Betula utilis Jacquemontii (Jacquemontii Birch)	SM	140	1	7(3)	10	3	2	4	1	Fair	20+	C1	1.68	8.87	Located 3.3m from building in raised bed. No major defects, but rather average form and condition	
T15	Betula utilis Jacquemontii (Jacquemontii Birch)	SM	250	1	7(2.5)	14	2	5	4	1	Fair	20+	C1	3	28.28	Located 4.3m from balcony in raised bed. No major defects, but rather average form and condition. Pruned over footpath, resulting in large stubs	

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations
T16	Betula utilis Jacquemontii (Jacquemontii Birch)	SM	210	1	7(2.5)	14	3	5	3	3	Fair	20+	C1	2.52	19.95	Located 1.9 m from balcony in raised bed. No major defects, but rather average form and condition. Heavily pruned away from building and over side footpath	
T17	Liquidambar styraciflua (Sweet Gum)	SM	110	1	5(2)	12	2	1	1	1	Fair	20+	C1	1.32	5.47	Located in centre of planting bed. No major defects, reasonable form and condition.	
T18	Juglans regia (Walnut)	M	600	1	10(2.5)	12	6	5	8	6	Fair	20+	B1	7.2	162.88	Offsite tree located 1.7m from boundary wall. 3m crown overhang but at at reasonable height over car park, and approximately 3.5m height over garden. Reasonable form and condition.	

Explanation of the tree survey sheets

The tree survey has been carried out in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. Below is an annotation of the abbreviations in the sheet and their meanings.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15			
Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m²)	Comments	Recommendations

1 Tree

T - Tree, **G** - Group of trees, **H** - Hedge and **S** -shrub mass

2 Species - Botanical name and (Common name)

3 Age

NP – Newly planted, **Y** – Young - an establishing tree that could be easily transplanted

SM - Semi-mature - an established tree still to reach its ultimate height and spread with considerable growth potential.

EM – Early mature – a tree reaching its ultimate height and whose growth is slowing, however it will still increase considerably in stem diameter and crown spread.

M – Mature – a tree with limited potential for further significant increase in size, although likely to have a considerable safe useful life expectancy

OM – Over-mature – a senescent or moribund tree with a limited safe useful life expectancy

V – Veteran – a tree older than typical for the species and of great ecological, cultural or aesthetic value.

4 Dia (mm)

Diameter of the stem in millimetres at 1.5m above ground level for single stemmed tree or in accordance with Annex C of BS 5837 for multi-stemmed trees or trees with low forks or irregular stems.

5 Stems

Number of stems. Multi-stemmed is m/s

6 Height (Crown height)

Height in metres from the ground to the top of the crown

(Crown height) – height of canopy above ground level

7 Ult ht (m)

Height in metres that could be reasonably expected for the species given its condition, past management and location.

8 NSEW

The crown spread from the trunk to the tips of the crown at the four cardinal points

9 Cond

Physiological condition. Good, fair, poor or dead

10 Life Exp

Estimated remaining contribution in years; <10, 10+, 20+ and 40+.

11 BS Cat

Category in accordance with Table 1 and section 4.5 of BS

U – unsuitable for retention. Existing condition is such that they cannot be realistically retained as living trees in the context of the current land use for longer than 10 years. Note, category U trees can have existing or potential conservation value which might be desirable to preserve.

A – high quality and value (non-fiscal) with at least 40 years remaining life expectancy

B – moderate quality and value with at least 40 years remaining life expectancy

C – low quality and value with at least 10 years remaining life expectancy, or young trees with a stem diameter below 150mm

A, B and C category trees are additionally graded into: 1 – mainly arboricultural values, 2 – mainly landscape values and 3 – mainly cultural values including conservation

12 RPR (m)

RPR – Root protection area radius (m)

13 RPA – Root protection area (m²)**14 Comments**

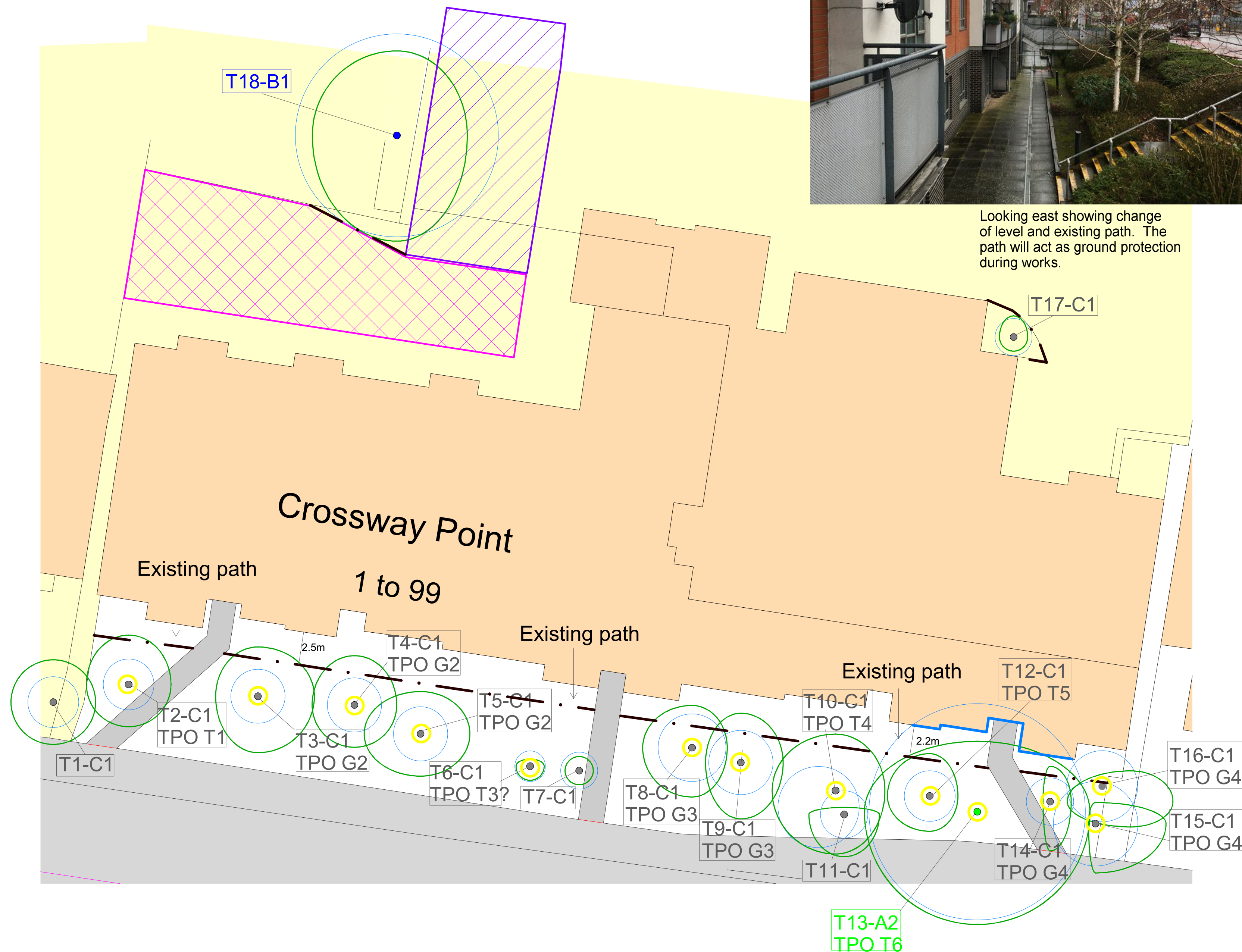
Detailed comments about the tree

15 Preliminary recommendations

Recommendations based on the tree's conditions and its current surroundings.

Appendix 2

Tree protection plan SHA 1140 TPP



- T1-A Category A - high quality and value
- T1-B Category B - moderate quality and value
- T1-C Category C - low quality and value
- Crown spread of trees to be retained
- RPA - root protection area as defined by Table 2 BS 5837:2012
- Building acting as a root barrier to T13
- Tree protection fencing comprising braced Heras panels for construction phase
- Welfare & accommodation
- Secure material storage area

Please note this is not based on a topographical drawing, and therefore tree locations need to be checked on site

Notes

- Contractors to check all dimensions on site
- Discrepancies must be reported to the Arboricultural Consultant before proceeding
- The original of this drawing was produced in colour, a monochrome copy should not be relied upon.
- It is the responsibility of the contractor to ensure necessary consents for tree works are in place
- This drawing is copyright © Sharon Hosegood Associates Ltd

Rev :	Description :	Authorized :
		
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t: 01245 210420 www.sharonhosegoodassociates.co.uk		

Client

Higgins Construction

Site Address

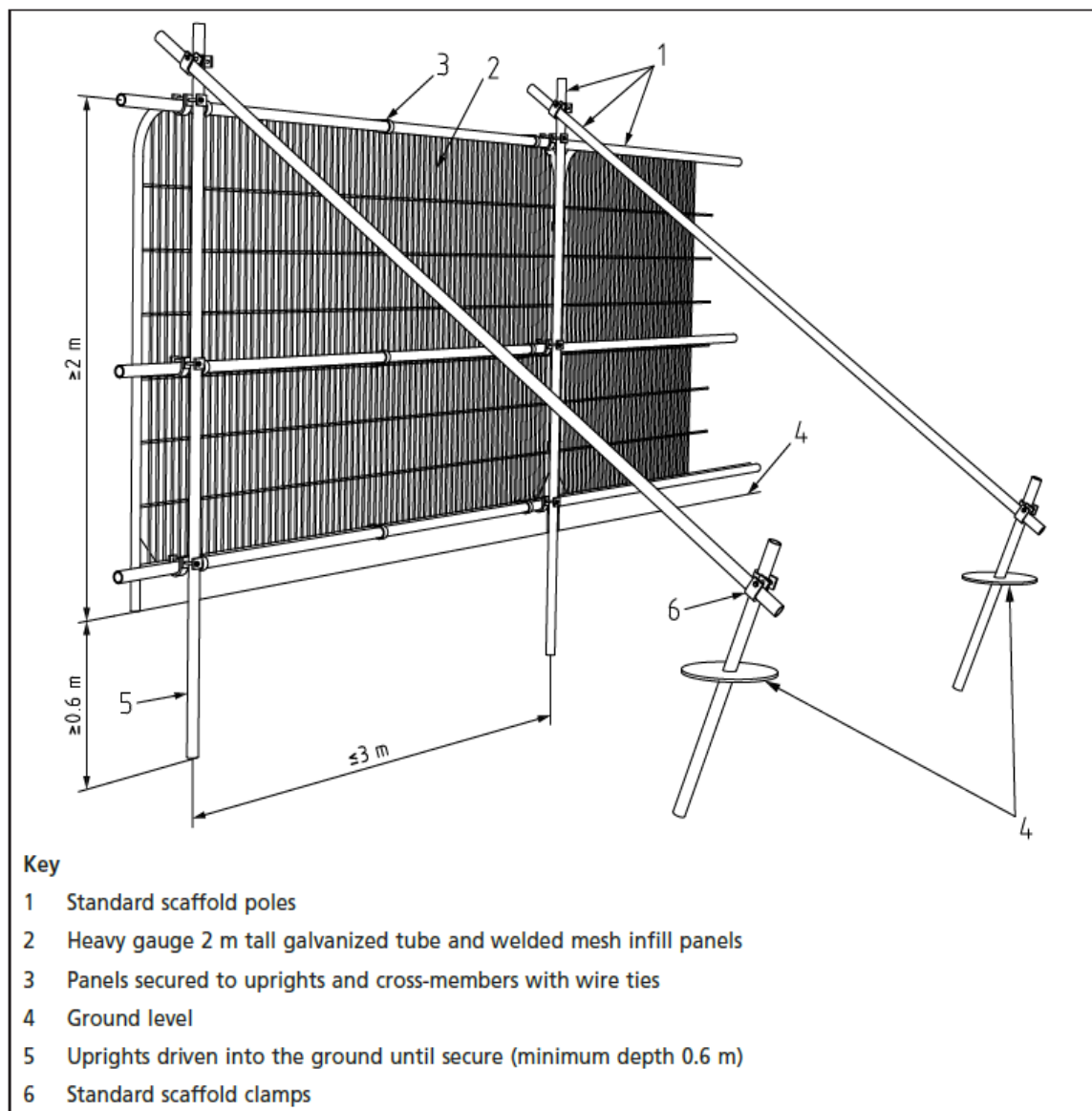
Crossway Point, Reading

Drawing Title	Orientation	Drawn	Authorized
Tree Protection Plan	I	PJR	SMH
Date	Drawing Number	Scale	Drawing Status
01.02.20	SHA 1140 TPP	1:200@A2	For Issue
Revision			
-			

Appendix 3

Tree protection specification

Figure 2 Default specification for protective barrier



Tree protection fencing specification from BS 5837:2012 Figure 2

Section 6.2.2 of BS.

Barriers should be fit for purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained trees(s). Barriers should be maintained to ensure that they remain rigid and complete.

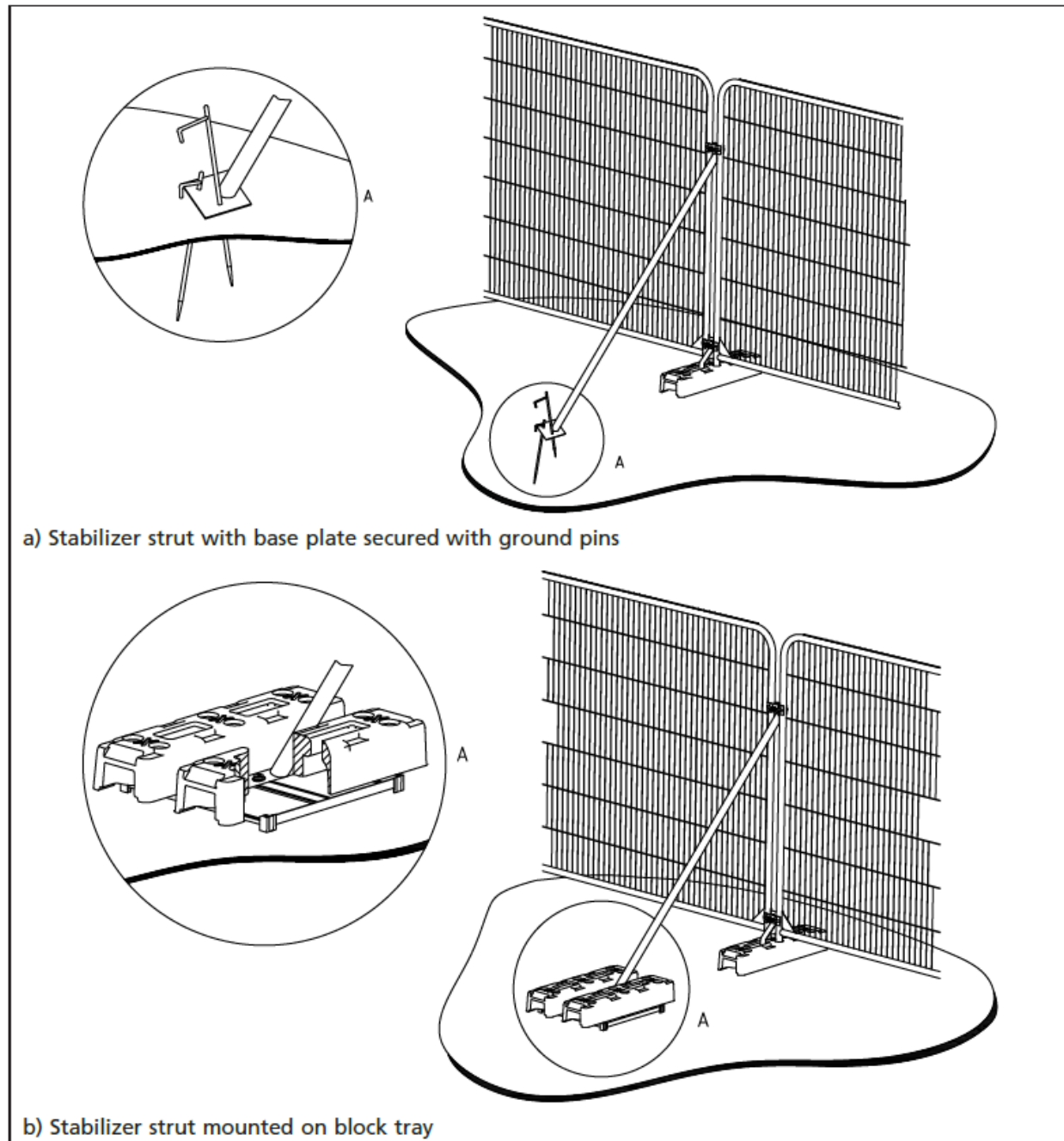
The default specification is shown above at Figure 2. Care should be taken when locating the vertical poles to avoid underground services and structural roots. Where it is not possible to drive a pole into the ground, for example on hard surfacing, figure 3 overleaf, applies.

The location for the tree protection fencing is shown on the tree protection plan delineated by a black dashed line. The location of the fencing is out the outer edge of the root protection area and the dimensions from fixed points are shown on the drawings. All weather signs should be affixed to the barriers, no more than 12m apart.

BRITISH STANDARD

BS 5837:2012

Figure 3 Examples of above-ground stabilizing systems



Suggested site warning sign format



Ground protection during demolition and construction

Where working space 'temporary access' is needed within the root protection area during works, fencing should be set back the minimum amount to achieve the required room. If there is existing hard surfacing in this area, it should remain during the works as ground protection. The suitability of this surfacing for ground protection, and whether it needs to be reinforced to bear the weight of machinery, should be assessed by an engineer and discussed with an arboriculturist.

Where the set back of the fencing exposes unmade ground, the ground must be protected before any works take place on site. This is to prevent root damage and soil compaction.

The ground protection might comprise of one of the following: (section 6.2.3.3 of BS)

- A) For pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100mm depth of woodchip), laid onto a geotextile membrane;
- B) For pedestrian-operated plant up to a gross weight of 2 tonnes, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150mm depth of woodchip), laid onto a geotextile membrane;
- C) For wheeled or tracked construction traffic exceeding 2 tonnes gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.

The location for ground protection is shown on the tree protection plan by diagonal hatching, identified in the key.

Appendix 4

Tree Surgery Schedule

Tree surgery schedule

All works to be carried out in accordance with BS 3998:2010 'Tree works – Recommendations'. All pruning cuts to be made at suitable growing points in the line with the principles of 'Natural target pruning' to the branch collar.

Tree no.	Species	Proposed works	Reason
T3 TPO G2	Jacquemontii birch	Laterally reduce northern crown spread by 1m	To provide 2.5m clearance from building
T4 TPO G2	Jacquemontii birch	Laterally reduce northern crown spread by 1m	To provide 2.5m clearance from building
T8 TPO G3	Jacquemontii birch	Laterally reduce northern crown spread by 1.5m-2.0m	To provide 2.5m clearance from building
T9 TPO G3	Jacquemontii birch	Laterally reduce northern crown spread by 1.5m-2.0m	To provide 2.5m clearance from building
T10 TPO T4	London Plane	Laterally reduce northern crown spread by 1m	To provide 2.5m clearance from building
T13 TPO T6	London Plane	Laterally reduce northern crown spread by 1.5m-2.0m	To provide 2.5m clearance from building
T14 TPO G4	Jacquemontii birch	Laterally reduce northern crown spread by 1.5m	To provide 2.5m clearance from building
T16 TPO G4	Jacquemontii birch	Laterally reduce northern crown spread by 0.5m-1.0m	To provide 2.5m clearance from building
T18 TPO G4	Walnut	Laterally reduce eastern overhang, back to site boundary	To provide clearance of welfare facilities/site office if two storey layout used

All pre-commencement conditions must be cleared before commencing works.

Appendix 5

Statement of methodology and reference material

Statement of methodology

Review of construction logistics plans

Survey carried out on 30th January 2020 by Philippa Roberts

Tree survey using Visual Tree Assessment carried out in accordance with BS 5837:2012 '*Trees in relation to design, demolition and construction – Recommendations*' (BS). All investigations were from ground level only and binoculars were used when necessary. All trees with a trunk diameter of 75mm or above were surveyed. Obvious hedges and shrub masses were identified where appropriate. Information collected is in accordance with recommendations in subsection 4.4.2.5 of BS and include species, height, diameter, branch spread, crown clearance, age class, physiological condition, structural condition and remaining contribution. Each tree was then allocated one of four categories (U, A, B or C).

Received material

191422 - Crossway Point - Decision Notice

Crossway Point Logistics Plan 200122 - WORK IN PROGRESS

Tree Locations

Works to trees subject to TPOs

TPO 139 -01 from Sarah Hansen, Natural Environment Officer from Reading Borough Council

Reviewed documents and text

BSI. BS 3998:2010 *Tree work-Recommendations*.

BSI. BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*

C. Mattheck 'The body language of trees' 2015

Appendix 6

Caveats & Exclusions

Specific report caveats

1. At the time of writing this report, the protected tree status is correct, however, this can change. Therefore, it is advised that a further check is made with Reading Borough Council before any works to trees takes place.
2. No internal diagnostic equipment was used other than a sounding mallet and probe and all inspections where from ground level only, with the aid of binoculars where necessary.
3. The survey is concerned solely with arboricultural issues.
4. Any changes in ground level, or excavations near to tree roots not discussed within this report may change the stability and condition of the trees and a further examination would be required.
5. As trees are a dynamic living organism this report is only valid for a period of 12 months, in respect to their health and condition.
6. Only the trees listed in this report have been examined.
7. The measure of offsite trees have been estimated, except any crown within the site overhang which is measured. Where the crown of an onsite tree overhangs the boundary, the crown spread in this direction is also estimated.
8. The base and trunk of the offsite trees could not be examined, and therefore a full assessment of the trees condition could not be made.
9. Dense ivy and undergrowth prevent a full condition survey being carried out. The vegetation may be hiding structural defects.
10. The tree information is from the time of the survey. Some pests, diseases and fungi only appear seasonally, therefore it is possible not all issues that may affect the health of the trees could be observed.

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Appendix 7

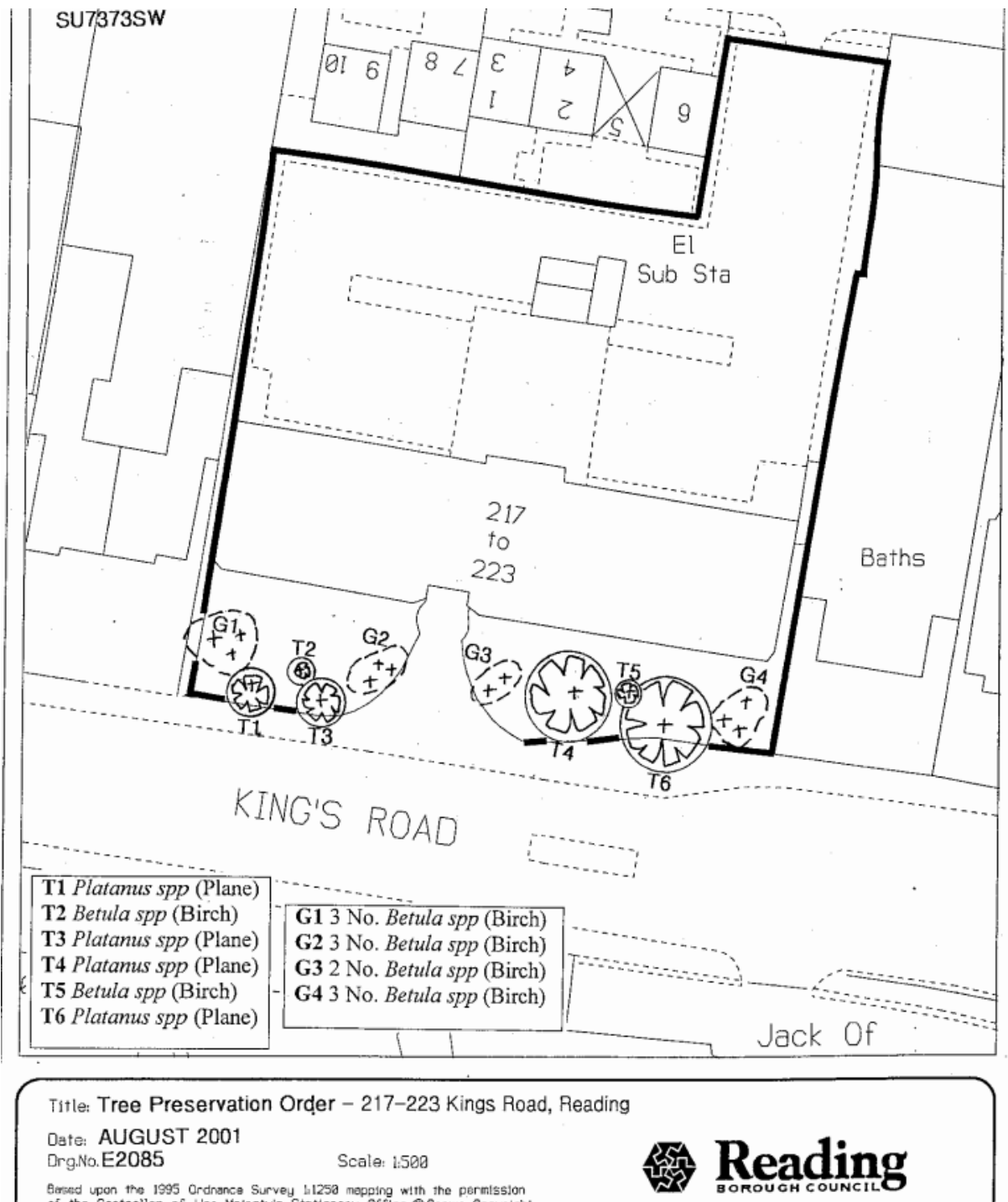
Tree related legislation affecting the site

Tree preservation orders

The Town and Country Planning (Tree Preservation) (England) Regulations 2012.

Tree Preservation Order (TPO) 139/01 affects the site. This means that no work to the trees can take place (other than listed in this report) without consent from the Local Planning Authority.

Applications typically take eight weeks to process. Works listed in this report do not require separate consent, provided that all the pre-commencement conditions have been discharged from a full planning approval relating to this report. The exception to this is works which are not required to facilitate planning consent. These are clearly identified within the tree surgery schedule and will need separate consent.



Conservation Area:

The site does not lie in a conservation area.

Ecological considerations

The Wildlife and Countryside Act 1981, as amended, The Conservation of Habitats and Species Regulations 2010 and the Countryside and Rights of Way Act 2000, provide statutory protection to species of flora and fauna including birds, bats and other species that are associated with trees.

Occupiers Liability Act 1957 and 1984

The Occupiers Liability Act (1957 and 1984) places a duty of care to ensure that no reasonably foreseeable harm takes place due to tree defects. Therefore, this report includes recommendations within the tree tables for work required for safety reasons. 'Common sense risk management of tree (National Tree Safety Group 2012)' states that *'The owner of the land on which a tree stands, together with any party who has control over the tree's management, owes a duty of care at Common Law to all people who might be injured by the tree. The duty of care is to take reasonable care to avoid acts or omissions that cause a reasonably foreseeable risk of injury to persons or property'*.

Common law

This enables pruning back to the boundary line providing the work is reasonable.

The owner of a tree is not obliged to trim their trees or hedges to prevent them from crossing over a boundary. Whilst the tree owner is not obliged to cut back the branches, the person whose property is overhung has the right to cut back the branches to the boundary providing there are no planning or legal restrictions on the trees such as Tree Protection Orders or if they are located in a church yard, in which case suitable consent must be obtained. Such pruning works must be undertaken to a suitable standard and must not cause damage to the tree.

The resulting debris remains the property of the tree owner, but you must not cause any damage to their property when returning it back to them and you do not have the right to trespass on the tree owner's property in carrying out the works. In the interests of good neighbourly relations, we would encourage neighbours to discuss their intentions with each other before carrying out such works, providing the work is reasonable and that the trees are not subject to TPO or Conservation Area protection.

Felling licence

A felling licence is required to fell more than 5 cubic metres of timber in a calendar quarter.

Applications typically take 13 weeks to process and are administered by the Forestry Commission.

Exemptions include:

- Tree surgery other than felling
- Trees smaller than 8cm at 1.3m
- Trees growing in a garden, orchard, and churchyard or designated open space.
- Works to facilitate planning permission once all pre-commencement conditions are discharged
- Works to dangerous trees

The National Planning Policy Framework February 2019

Section 175 states that:

- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons exists; and a suitable compensation strategy

- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

Appendix 8

Glossary

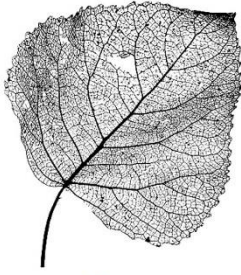
Access facilitation pruning	One-off tree pruning operation, the nature and effects of which are without significant adverse impact on tree physiology or amenity value, which is directly necessary for operations on site.
Arboriculture	Formerly all aspects of the culture of trees, especially for forestry. Latterly, the art and science of cultivating and managing trees as groups and individuals, primarily for amenity and other non-forestry purpose.
Arboricultural method statement	Methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained.
Arboriculturist	Person who has, through relevant education, training and experience in the field of trees in relation to construction.
Architecture	In a tree, a term describing the pattern of branching of the crown or root system.
Backfill medium	Material used for refilling an excavated planting hole.
Bark	A term usually applied to all the tissues of a woody plant lying outside the vascular cambium, thus including the phloem, cortex and periderm.
Biodiversity	The variability among all living organisms of an ecological complex.
Biomechanical	Pertaining to the mechanical functions and properties of living organisms, such as trees.
Body language	In trees, the outward display of growth responses and/or deformation in response to mechanical stresses.
Branch	A limb extending from the main stem or parent branch of a tree.
Branch bark ridge	The raised arc of bark tissues that forms the acute angle between a branch and its parent stem
Branch collar	The swelling or roughened bark often found at the base of a branch which should be left intact if the branch is to be pruned off.
Buttress zone (root flare)	The basal part of a tree, where the major lateral roots join the stem with buttress-like formations on the upper sides of the junctions.
Canker	A lesion in which bark and cambium have been killed, sometimes exposing the wood and often showing a swollen appearance owing to the encircling growth of new tissues.
Canopy	The topmost layer of twigs and foliage in a tree.
Co-dominant	In trees, a similarity between two or more stems or branches with regard to their size and their position within the canopy.
Column	In the wood or phloem of a tree, an axially elongated zone of tissue that is distinguished from the surrounding tissue; e.g. Live versus dead or decayed versus non-decayed.
Construction exclusion zone	An area based on the root protection area from which access is prohibited for the duration of the project.
Compartmentalise	The confinement of disease or other dysfunction within an anatomically discrete region of plant tissue, due to passive and/or active defenses operating at the boundaries of the affected region.
Crown	In arboriculture, the main foliage-bearing portion of a tree.
Crown lifting	The removal or shortening of the branches that form the lower part of the crown of a tree.

Crown reduction	Pruning in order to reduce the size of the crown of a tree.
Crown thinning	Pruning inside the crown of a tree in order to reduce its density.
Defect	In relation to tree hazards, any feature of a tree which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment.
Dessication	The state of extreme dryness, the drying out of roots.
Dieback	The death of part of a plant, usually starting from a distal point and often progressing proximally in stages.
Direct damage	Direct physical damage to a structure of surface from pressure exerted by the trunk or growing roots.
Epicormic	Pertaining to shoots or roots which are initiated on mature woody stems; shoots can form in this way from dormant buds or they can be adventitious.
Failure	In connection with tree hazards, a partial or total fracture within woody tissues or loss of cohesion between roots and soil.
Flush cut	A pruning cut close to the parent stem which removes part of the branch bark ridge.
Foreseeable	In hazard assessment, pertaining to failure and associated injury of damage which are predictable on the basis of evidence from a tree and its surroundings.
Fungi	Organisms of several evolutionary origins, most of which are multicellular and grow as branched filamentous cells within dead organic matter or living organisms.
Hazard	A thing, a process or a potential event that has the potential to cause harm.
Heartwood	The dead or predominantly dead central wood of various tree species whose outer living wood, sapwood, has a finite and pre-determined lifespan.
Included bark	Bark of adjacent parts of a tree (usually forked stems, acutely joined branches or basal flutes) which is in face-to-face contact; i.e. without a woody connection. Such a structure lacks inherent strength but is in many instances strongly reinforced by a surrounding 'shell' of wood.
Mulch	Material laid down over the rooting area of a tree or other plant to help conserve moisture, suppress weeds and encourage a beneficial microflora.
Retrenchment	Progressive reduction in the size of the crown of an old tree, by means of the dieback or breakage of twigs and small branches, accompanied by the enhanced development of the lower or inner parts of the crown.
Risks	The likelihood of the potential harm from a particular hazard becoming actual harm.
Root protection area	A layout tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. BS 5837:2012 ' <i>Trees in relation to design, demolition and construction – Recommendations</i> '.
Root flare	Thickened and expanded base of a tree stem at ground level from which buttress roots form.

Rootplate	The central part of the root system of a tree, consisting of the large-diameter main roots and a dense mass of smaller roots and soil.
Service	In construction, any above-or below-ground structure or apparatus for utility provision.
SULE	Safe useful life expectancy of a tree (Barrell)
Stress	In plant physiology, a condition under which one or more physiological functions are not operation within their optimum range, for example owing to lack of water, inadequate nutrition or extremes of temperature.
Stub cut	A pruning cut which is made at some length distal to the branch bark ridge.
Target pruning	The pruning of a twig or branch so that tissues recognisably belonging to the parent stem or branch are retained and not damaged.
Tree Preservation Order	In Great Britain, an order made by a local authority, whereby the authority's consent is generally required for the cutting down, topping or lopping of specified trees.
Tree protection plan	Scale drawing, informed by descriptive text where necessary, based upon the finalized proposal, showing trees for retention and illustrating the tree and landscape protection measures.
Utility	An undertaker by statute that has a legal right to provide customer services (e.g. communication, electricity, gas and water).
Veteran tree	<i>'A tree that has passed beyond maturity and is old, or aged, in comparison with other trees of the same species'</i> . Ancient Tree Guide No. 4 (ATF, 2008).
Vigour	In tree assessment, an overall measure of the rate of shoot production, shoot extension or diameter growth.
Vitality	In tree assessment, an overall appraisal of physiological and biomechanical processes, in which high vitality equates with near-optimal function, in which high vitality equates with healthy function.
Visual Tree Assessment (VTA)	In addition to the literal meaning, a system expounded by Matlack and Breloer (1995) to aid the diagnosis of potential defects through visual signs and the application of mechanical criteria.

Appendix 9

Experience and Qualifications



Sharon Hosegood
ASSOCIATES



Arboricultural
ASSOCIATION

Professional Member

Philippa Roberts

FdSc, MArbor A

Profile

Philippa attained the National Diploma in Arboriculture, with distinction, from Merrist Wood College in 2005. She worked as a junior consultant for two years before joining the London Borough of Croydon, as a Tree Officer, where she worked for six years.

Since 2012 she has worked as a consultant, becoming a senior consultant in 2015. Whilst working full time as a consultant Philippa also completed a correspondence course with the University of Central Lancashire, attaining a Foundation Degree in Arboriculture with distinction.



Sharon Hosegood
ASSOCIATES

ARBORICULTURAL METHOD STATEMENT REPORT
BS 5837:2012 '*Trees in relation to design, demolition, and construction*' - recommendations

PURSUANT TO DISCHARGE CONDITION 2

SITE:

Crossway Point, Norwood Road, Reading RG1 3LF

CLIENT:

Higgins Construction

Philippa Roberts
FdSc, M Arbor A

DATE: 3 Feb 2020
OUR REF: SHA 1140

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