

WEIR HOUSE
50 RIVERSIDE WAY
UXBRIDGE

ARBORICULTURAL
IMPACT
ASSESSMENT &
METHOD
STATEMENT

for

MR ANDY GULLETT



Ecology
Archaeology
Arboriculture
Landscape Architecture

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Checked By:	A Bigg
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1. Executive Summary

- 1.1. The Arboricultural Report has been amended to reflect a revised site layout and updated tree survey. The arboricultural impact is no greater than previously assessed.
- 1.2. The site is currently an office building with a parking area to the north. The site is sandwich between the River Colne and the Grand Union canal with a spillway between the two along the southern flank. The proposed is the construction of a multi-occupancy building in a similar footprint to the existing with garden spaces around the proposed.
- 1.3. This Arboricultural Report is intended to evaluate the direct and indirect effects of the proposed design on the trees on-site, and where necessary recommends mitigation.
- 1.4. The development proposals are in accordance with BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. Adequate protection can be provided to ensure all retained trees are protected throughout development in the form of barriers and/or ground protection.
- 1.5. All of the A and B category trees are to be retained and protected throughout the development. With all the trees proposed for removal are in the lower two categories, C and U, that are not of a quality that should represent any constraint to development.
- 1.6. Several areas of existing hard surfacing are to be removed and returned to soft landscaping.
- 1.7. Roots on this site have been constrained by the existing building and the retaining walls of the rivers and canal. The RPAs have been adjusted with a polyline of equal area to a circular RPA to account for these restrictions.
- 1.8. The proposed is sited further away from the trees than the existing. However, several trees will be pruned to implement a greater crown clearance.
- 1.9. As good arboricultural practice, the additional removal of T7 and T9 is recommended.
- 1.10. The relationship between the buildings and retained trees is sustainable and does not result in any situations which may result in unreasonable pressure to prune requests from future occupants.
- 1.11. The Arboricultural Method Statement (AMS) has been compiled in conjunction with the Tree Protection Plan (TPP) for the purpose of feasibility and planning, as per Figure 1 of BS5837:2012. These detail any mitigation which will be necessary to ensure the protection of retained trees throughout the development.

2. Introduction

- 2.1. ACD Environmental was instructed in November 2019 to prepare the following Arboricultural Impact Assessment and Method Statement by Shepherds Bush Housing Association. Reference should be made to the appended Tree Protection Plan (PRI22688-03_A).
- 2.2. This Method Statement is to be made available to all operatives on-site during the construction process, so that they understand the scope and importance of the measures set out for tree protection. Implementation of the protection methods and other details within this report are integral to ensuring protection for the retained trees.
- 2.3. For details of trees to be retained, and locations and types of special protection methods, reference should be made to the latest revision of Tree Protection Plan (ref: PRI22688-03), which should be displayed prominently on-site for all staff to see.
- 2.4. The Tree Protection Plan has been split into two sheets for this project. The first shows the protection needed for the demolition phase, the second for the construction phase of the project.
- 2.5. To ensure accuracy and avoid future costly adjustments, the Tree Protection Fence must be set out by a surveyor/engineer with all node points being marked clearly on site for the fencing contractor to work to. The AutoCAD version of the Tree Protection Plan is available on request.
- 2.6. This report is based on the recommendations given in BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.
- 2.7. There are no TPO's and the site is not in a Conservation Area according to Hillingdon's mapping systems on the 23rd of October 2019
- 2.8. The controlling authority is London Borough of Hillingdon Council who can be contacted at: Civic Centre, High Street, Uxbridge, Middlesex, UB8 1UW, Tel: 01895 250230.
- 2.9. Any questions relating to the content of this report should be directed in the first instance to: ACD Environmental, Courtyard House, Mill Lane, Godalming, Surrey GU7 1EY, 01483 425 714/07796 832 490, quoting the site address and report reference number.
- 2.10. The following abbreviations have been used throughout this document:
 - Root Protection Area – RPA
 - Construction Exclusion Zone- CEZ
 - Tree Protection Plan – TPP
 - Tree Protection Fencing – TPF

3. Arboricultural Impact Assessment

- 3.1. The site is currently an office building with a parking area to the north. The site is sandwich between the River Colne and the Grand Union canal with a spillway between the two along the southern flank. The proposed is the construction of a multi-occupancy building in a similar footprint to the existing with garden spaces around the proposed.
- 3.2. This impact assessment is intended to evaluate the direct and indirect impacts on the trees on the site in relation to the proposed development. Any potential tree impacts are identified as per BS5837:2012 section 5.4, and details are given of proposed mitigation.
- 3.3. Any potentially damaging activities proposed in the vicinity of retained trees are identified, such that mitigation to significantly reduce or avoid this impact can be detailed in the Arboricultural Method Statement and Tree Protection Plan as recommended in BS5837:2012 section 5.4.2.
- 3.4. The development proposals are in accordance with BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. Adequate protection can be provided to ensure all retained trees are protected throughout the development.
- 3.5. The tree survey for the site is at Appendix 2 of the Tree Report for the site ACD reference PRI22688tr_A.
- 3.6. This assessment is based upon the supplied layout drawing ref: 26001-MEPK-ZZ-ZZ-D-A-90000_Site Plan.
- 3.7. **Evaluation of impact of proposed tree losses**

Table 1: Trees to be removed as a direct consequence of the development

BS Category	Number of individual trees	Tree Groups
U	0	0
A	0	0
B	0	0
C	9	2

- 3.7.1. Those trees which are to be removed are shown with a red dashed canopy outline, and a dashed cross over the trunk on the Tree Protection Plan demolition phase, ACD reference PRI22688-03-A.
- 3.7.2. All the trees proposed for removal are in the two lower categories (C & U) and as such, it is judged that they are not of a quality that should present any constraint to the development of the site.

- 3.7.3. In terms of the effects of the tree loss required to implement the design, the trees to be removed are all unremarkable trees of very limited merit, such that they can be replaced with tree planting as part of the landscape proposals.
- 3.7.4. In relation to the conception and design of development proposals, BS5837:2012 section 5.1.1 states: The constraints imposed by trees, both above and below ground should inform the site layout design, although it is recognised that the competing needs of development mean that trees are only one factor requiring consideration. Certain trees are of such importance and sensitivity as to be major constraints on development or to justify its substantial modification. However, care should be taken to avoid misplaced tree retention; attempts to retain too many or unsuitable trees on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal.
- 3.7.5. It is therefore deemed acceptable to remove the listed trees and, as part of the detailed landscape design for the scheme, include suitable and sustainable replacements as and where appropriate.
- 3.7.6. Replacement trees will be proposed through landscape design and will more than mitigate for their removal by providing robust long-term tree cover in keeping with the proposal and surrounding properties.
- 3.7.7. Within the site further tree removals are proposed as good arboricultural practice. These trees (T7 & T9) are all U category and have a very limited life expectancy. This work would be carried out as part of good property maintenance, regardless of any development on the site.

3.8. Trees to be pruned

3.8.1. At this time the following tree surgery works are proposed;

Tree number	Species	Operation
T3	Willow	Reduce back to boundary line
T4	Willow	Reduce back to boundary line
T8	Sycamore	Reduction to north side of crown by 2.5m
T10	Sycamore	Reduction to north side of crown by 2m
T13	Sycamore	Reduction west side of crown by 2m
T14	Sycamore	Reduction west side of crown by 3m
T15	Sycamore	Reduction west side of crown by 2m

3.8.2. Trees proposed to be pruned are currently growing close to or in contact with the existing building. The proposed building is to be positioned a few meters further away from the trees. However, to produce a better clearance and reduce future pressure to prune the trees listed in the table above will be reduced up to 3m.

3.8.3. Should any further become necessary it should comply with BS3998:2010 Tree Work or more recently accepted arboricultural good practice and be approved by the LPA and project arboriculturist prior to any commencement.

3.9. Protection for retained trees

3.9.1. BS5837:2012 section 6.2.1. states: 'All trees that are being retained on site should be protected by barriers and/or ground protection (see 5.5) before any materials or machinery are brought onto the site, and before any demolition, development or stripping of soil commences. Where all activity can be excluded from the RPA, vertical barriers should be erected to create a construction exclusion zone. A specification for protective fencing is given on the Tree Protection Plan. This consists of interlocking weld-mesh panels (e.g. heras) well braced by attachment to scaffold pole uprights driven firmly into the ground. Should any alternative method of barrier construction be proposed, the design should be approved by the local planning authority.

3.9.2. The tree protection fencing will need to be set out before demolition as per the demolition phase of the tree protection plan. Before starting construction, the tree protection fencing will need to be brought to the construction location as per the construction phase of the tree protection plan.

3.10. Ground protection

In certain areas, space required to construct buildings will require encroachment into RPAs. Potential damage caused by foot traffic and associated works can be mitigated by the use of ground protection as specified in BS5837:2012 section 6.2.3. To ensure the ongoing survival of the retained trees, this is detailed in the Arboricultural Method Statement and indicated on the Tree Protection Plan where required.

- 3.10.1. Two meters of working room has been allowed to construct the proposed building, this has resulted in a small incursion into adjacent trees, the largest being into the RPA of T14 of 7.5% of the notional rooting area. Potential damage caused by foot traffic and associated works can be mitigated by the use of ground protection as specified in BS5837:2012 section 6.2.3. To ensure the ongoing survival of the retained trees, this is detailed in the Arboricultural Method Statement and indicated on the Tree Protection Plan construction phase where required.

3.11. Demolition & Groundworks

- 3.11.1. The existing building foundations are likely to have acted as a barrier to root growth so will not need specialist demolition procedures for them to be removed. However, surrounding the existing building are areas of hard surfacing, these are to be removed and returned to soft landscaping. Following the sensitive removal of the hard surfacing the tree protection fencing will be brought forward (as per the construction phase of the tree protection plan) to protect the newly exposed ground.

3.12. New Hard Surfaces within RPAs

- 3.12.1. The construction of two patios are to be located within the RPA's of several trees. The incursions for these trees is small at less than 2% of the notional rooting and all located within areas of existing hard surfacing, therefore unlikely to have an impact on the retained trees.
- 3.12.2. The construction of the parking encroaches slightly into existing soft ground in the RPA of adjacent tree, T13. This encroachment is considered marginal (<3.1% of the advised sq/m) of the unsurfaced ground and will not be to the detriment of the tree. Therefore, special construction measures or adjustment of the plans are NOT required.

3.13. Construction within RPAs

- 3.13.1. Predominantly the construction of the proposed building is within the footprint of the existing, however, there is one section shown beyond the existing footprint into the RPA of T14. This encroachment has been measured accurately in cad as being 0.7% of the RPA. This is considered to be a marginal encroachment, and the retention of the tree is still viable without the need of specialist construction methods.

- 3.13.2. Within the garden spaces, there are small domestic cycle stores shown within the RPAs of retained trees. An example of sensitive cycle store construction is shown within the method statement.
- 3.13.3. Several approaches can be used to achieve the desired results. For small structures such as this a cast slab base, situated on hand-dug pads or sheathed mini (or screw) piles will suffice. The remaining structure can then be built above. Allowing for minimal disturbance to the soil beneath and therefore minimal impact on the roots of the adjacent tree (as advised in BS5837:2012 section 7.5).
- 3.13.4. Alternatively, a timber structure with hand dug support posts and a no-dig surface, such as a cellular confinement system can also achieve the desired results.
- 3.13.5. The adopted design must be approved for use by the project arboriculturist, detailed in the arboricultural method statement, and installed under their supervision

3.14. Shade and future pressure to prune

- 3.14.1. Currently, the existing has a close proximity relationship to the trees, with many being in contact with the building. The proposed building is located further away from the trees combined with the proposed pruning works will result in minimum 2.5m crown clearance to the buildings.
- 3.14.2. Given the species involved and the proximity to the buildings, it is probably the trees will need to be pruned again within 10 years of buildings construction.
- 3.14.3. Perceived risk is often cited by the Local Planning Authority . This is typically an issue when trees are adjacent to dwellings. However, this is usually addressed through the imposition of a TPO, thus allowing the LPA to 'administer' pruning consents as they see fit. Additionally, such fear of harm can often be managed through education.

3.15. Services

It is fundamental to tree protection that infrastructure design is sensitively approached, as trenching close to trees may damage roots and affect tree health and stability. Details of services have not been provided at the time of writing. The Tree Protection Plan, showing the constraints posed by retained trees will be passed to the infrastructure engineers to inform their design, ensuring that all services avoid areas of potential conflict. As per BS5837:2012 Figure 1, once further details become available as part of the detailed/technical design for the site, the TPP and AMS will be revised to incorporate these details for services for inclusion in the Tender documentation.

3.16. Levels and Landscaping

Full details of any changes in ground levels on site remain to be finalised. However, given the urban nature of the site levels changes are not anticipated. Any alterations to levels close to trees may damage roots and affect tree health and stability, therefore finalised levels plan should be reviewed by the project arboriculturist.

3.17. Boundaries

All plot boundaries will need to be designed, positioned and installed to avoid damage to retained trees. When within RPAs, this will include hand excavation of all post holes, and the lining of any post holes with a non-porous membrane to stop leachates from the concrete damaging tree roots.

4. Arboricultural Method Statement

TO BE READ IN CONJUNCTION WITH THE APPENDED TREE PROTECTION PLAN REFERENCE: PRI22688-03 A

4.1. Phasing of operations for tree protection

4.1.1. Implementation of tree protection measures on the site must be carried out in the following order

- 1) Tree removals and tree surgery
- 2) Line of tree protection fence for demolition phase installed
- 3) Site accessible to demolition traffic
- 4) Demolition/site clearance
- 5) Fence moved to construction phase
- 6) Ground protection installed
- 7) Construction
- 8) Removal of tree protection fencing
- 9) Remedial tree surgery (if required)

4.1.2. The above phasing must not be changed without approval from the project arboriculturist and agreement with the Council.

4.2. Restrictions within tree protection areas

4.2.1. Inside the exclusion area of the fencing, the following shall apply:

- No mechanical excavation whatsoever
- No excavation by any other means without arboricultural site supervision
- No hand digging without a written method statement having first been approved by the project arboriculturist.
- No lowering of levels for any purpose (except removal of grass sward using hand tools)
- No storage of plant or materials
- No storage or handling of any chemical including cement washings
- No vehicular access
- No fire lighting

4.2.2. In addition to the above, further precautions are necessary adjacent to trees:

- No substances injurious to tree health, including fuels, oil, bitumen, cement (including cement washings), builders sand, concrete mixing and other chemicals shall be stored or used within or directly adjacent to the protection area of retained trees
- No fire shall be lit such that flames come within 5m of tree foliage.

4.3. Tree protection fencing

4.3.1. The Tree Protection Plan (see the latest revision of: PRI22688-03_A) shows the alignment of Tree Protection Fencing (TPF), for demolition and construction which is to be installed prior to any of the following taking place:

- Demolition
- Plant and material delivery
- Soil stripping
- Utility installation
- Construction works
- Landscaping

4.3.2. Stages for installation of TPF for demolition:

- 1) Hand clearance of any vegetation to allow clear working access.
- 2) Setting out of fencing points
- 3) Fencing erected
- 4) Site accessible to demolition traffic

4.3.3. Stages for installation of TPF for Construction:

- 1) Setting out of fencing points
- 2) Fencing moved and re-erected
- 3) Site accessible to construction traffic

4.3.4. To ensure accuracy and avoid future costly adjustments, the Tree Protection Fence must be set out by a surveyor with all node points being marked clearly on site for the fencing contractor to work to.

4.3.5. Once erected, all TPF will be regarded as sacrosanct, and will not be removed or altered without prior recommendation by the project arboriculturist and approval of the local planning authority.

4.3.6. The typical TPF construction is suitable for areas of high intensity development, and shall comprise of interlocking weld-mesh panels, well braced to resist impacts by attachment to a scaffold framework that is set firmly into the ground. A detailed specification can be found on the TPP.

4.3.7. Should any alternative method of barrier construction be proposed, consultation with the project arboriculturist will be obtained to clarify the efficacy of the revised design prior to informing the local planning authority and obtaining their consent.

4.3.8. Once the exclusion zone has been protected by barriers and/or ground protection, construction work can commence.

4.3.9. All weather notices should be erected on the barriers.

4.4. Ground protection

- 4.4.1. The specification for Ground Protection is shown on the Tree Protection Plan. Any alternative specification to be installed must be capable of supporting the expected loads and avoiding rutting, compaction and damage to the soil. As advised in BS5837:2012 section 6.2.3:
- 4.4.2. New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil. The ground protection might comprise one of the following:
- 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. 100 mm depth of woodchip), laid onto a geotextile membrane;
 - b) for pedestrian-operated plant up to a gross weight of 2 t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane;
 - c) for wheeled or tracked construction traffic exceeding 2 t 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.
- 4.4.3. Stages for ground protection installation¹:

No plant machinery to be used in the area of ground protection for whatever reason

- 1) Discuss procedure with project arboriculturist
 - 2) Any shrubs, saplings or trees to be removed, are to be cut, or ground out to just below ground level rather than grubbed or winched out, which can damage roots of retained trees.
 - 3) Lay woven geotextile over existing ground surface by hand
 - 4) Cover the area with compressible layer, woodchip for example, using hand tools only
 - 5) Cover compressible layer with side butting scaffold boards or plywood boards
 - 6) Confirm surface is acceptable for use with project arboriculturist
 - 7) Area ready for construction access
- 4.4.4. To ensure accuracy and avoid future costly adjustments, the Ground Protection must be set out by a surveyor with all node points being marked clearly on site for the fencing contractor to work to.
- 4.4.5. There is to be no-excavation within ground protection area whatsoever. This includes installation of services and associated utilities.

¹For protection from foot traffic only

4.5. Tree surgery and removal

- 4.5.1. Those trees which are to be removed are shown with a red dashed canopy outline, and a dashed emblem around the trunk on the Tree Protection Plan ACD reference PRI22688-03 Demolition phase.
- 4.5.2. All tree surgery works proposed for this application are listed at appendix 1
- 4.5.3. All trees to be removed are indicated on the Tree Protection Plan.
- 4.5.4. If any further tree surgery works are required, a proposed specification will be submitted to, and approved by the Local Planning Authority before any works are carried out.
- 4.5.5. All work will be carried out in accordance with BS 3998:2010 Recommendations for Tree Work, industry best practice and in line with any works already agreed with the Council.
- 4.5.6. The tree surgery contractor is responsible for carrying out any relevant health and safety risk assessment, and insurance, prior to any work being carried out.
- 4.5.7. The statutory protection afforded by the Wildlife and Countryside Act and Countryside and Rights of Way Act will be adhered to. If further advice is required, particularly if bats are discovered during tree work, it will be obtained from Natural England or other competent persons and recommendations adhered to.
- 4.5.8. The stumps of any trees removed from within the Construction Exclusion Zone or the RPAs of retained trees will be either; cut flush to ground level and left in situ or ground out using a stump grinder. They will not be winched out.
- 4.5.9. All operations shall be carefully carried out to avoid damage to the trees being treated or neighbouring trees. No trees to be retained shall be used for anchorage or winching purposes.

4.6. Soft landscaping within RPA

- 4.6.1. All landscaping and associated ground preparation within exclusion zones will be carried out sensitively to ensure root damage is mitigated as much as is practicable. At no time is any heavy plant to be used within any protected area. Removal of existing vegetation will be carried out by hand; turf may be removed using a mechanical turf stripper or by hand.

Turfing

- 4.6.2. Stages for turfing gardens and open spaces:

No plant machinery² to be used in the area for whatever reason

- 1) Remove TPF to allow access to area.
- 2) Do not reduce any high spots or excavate in any way.
- 3) Existing poor-quality turf may be removed with a turf stripper.
- 4) Use good quality topsoil to level any low-lying areas and hollows, and provide a fine tilth to lay turf on. This imported soil must not result in a level increase of more than 100mm in any area.
- 5) Import turves by hand in wheelbarrow
- 6) Lay turves

Planting

- 4.6.3. Should the soil be compacted or have a poor structure which may hinder the development of any new planting, soil decompaction techniques may be used upon consultation with the project arboriculturist.

- 4.6.4. Stages for planting within tree protection areas:

No plant machinery to be used in the area for whatever reason

- 1) Remove TPF to allow access to area.
- 2) Remove existing vegetation by hand, turf may be removed using a mechanical turf stripper.
- 3) Do not reduce any high spots or excavate in any way.
- 4) Import good quality topsoil by hand (with wheelbarrow) into area.
- 5) Level to a depth of no more than 100mm with hand tools
- 6) Dig individual planting pits for each plant by hand (including hedging which must not be trench planted)
- 7) Any mulch should also be imported and spread by hand.

- 4.6.5. No works will be carried out within any protected areas if the soil moisture is of a level likely to allow compaction to occur.

² Including rotovators

4.7. Hard surface removal

4.7.1. All TPF to be installed as per approved Tree Protection Plan Demolition Phase prior to any plant arriving on site.

4.7.2. Stages for hard surface removal within tree protection areas:

No plant machinery to be sited on any exposed rooting area

- 1) Plant machinery to run only on existing hard surfaces or from within the footprint of the existing building.
- 2) Plant may be used to carefully peel up existing tarmac and concrete
- 3) Other surfaces are to be removed by hand (paving etc.)
- 4) Where any subbase is not likely to contain roots, and only on approval from project arboriculturist, it may also be carefully removed.
- 5) Underlying ground levels to be retained. No excavation to occur
- 6) Any exposed roots³ and surrounding newly exposed areas to be covered with up to 100mm of topsoil, from elsewhere on site, or imported top soil (to BS3882:1984). Soil may be placed in area by plant but must be spread by hand.
- 7) Tree protection fencing to be erected in final position as shown on plan

4.7.3. If the area around the retained trees is to be left following the removal of the existing hard surface, before a new hard surface is laid or soft landscaping implemented, then the line of protective fencing MUST be correctly re-established immediately the hard surface removal work has been completed.

4.7.4. If, for whatever reason there is a delay before the area is left exposed prior to awaiting a new surface, then a temporary surface must be implemented, or the area fenced off.

³Should any roots over 25mm diameter, have grown above the final soil level and be a hindrance to any new surface installation, their removal will only be carried out under arboricultural supervision and with the approval of the LPA.

4.8. No-dig cycle store construction

4.8.1. Structure to be installed as per engineers approved specification.

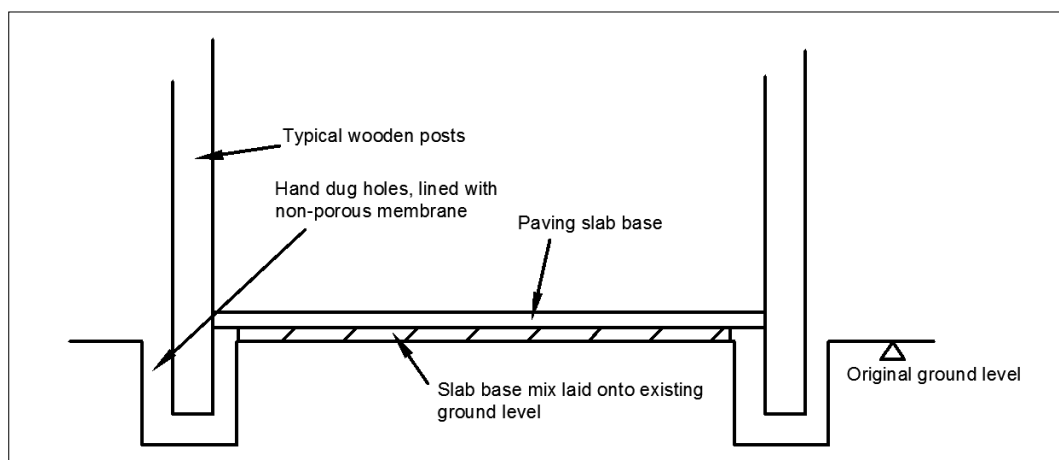


Figure 1: Indicative section of no-dig construction

4.8.2. Stages for construction:

- 1) Contact project arboriculturist to hold pre-start site meeting and 'toolbox' talk before starting work
- 2) Dismantle TPF to allow access (TPF to be taken down only when commencement of work is imminent)
- 3) Excavation to establish root post holes. To be carried out by hand or with an air excavation tool.
- 4) Line holes with non-porous membrane (black polythene bag)
- 5) Insert posts and fill holes with concrete
- 6) Lay non-porous membrane over ground to be covered by base slabs
- 7) Spread slab mix on top of membrane and lay slabs.
- 8) Re-erected TPF to protect area until concrete is set
- 9) When post and slabs are dry dismantle fencing and finish off structure.

4.9. Arboricultural supervision will be employed during all work within RPAs.

4.10. Installation of proposed paving within RPA

4.10.1. The proposed paving is partly within the root protection area (RPA) for the trees located offsite adjacent to the northern boundary. Where within RPAs of these trees the following methodology will be adhered to:

4.10.2. All contractor personnel to be working within the area are to be made aware of the extent and nature of the tree protection areas as per Tree Protection Plan PRI22688-03.

4.10.3. Stages for installation of proposed paving within tree protection areas:

No plant machinery to be sited on any exposed rooting area

- 1) Remove Tree Protection Fence to allow access to area.
- 2) All works to be undertaken using hand tools only, with no plant or machinery to be used within RPAs
- 3) Remove existing vegetation using hand tools only.
- 4) Level soil using landscaping rake, retaining original ground levels after vegetation removal, with no further excavation.
- 5) Install a non-woven Geotextile (such as Fibretex F4M) directly over soil grade level (levelled where necessary, by non-compacted washed sand) and fix in place.
- 6) Lay 100mm well graded grit sand (sharp sand).
- 7) Gently compact using manual roller, or edge of a 75mm section of e.g. scaffold board
- 8) Lay stone slabs 2 – 5mm apart
- 9) Fill joints with kiln dried fine sand

4.11. Installation of boundary fencing within protected areas

4.11.1. Stages for installing wooden fence posts:

No plant machinery to be used in the area for whatever reason

- 1) Contact project arboriculturist to hold pre-start site meeting and 'toolbox' talk before starting work.
- 2) Remove TPF to allow access to area.
- 3) Dig post holes using hand tools, avoiding damage to the protective bark covering larger roots. Roots smaller than 25mm diameter may be pruned back using either secateurs or a hand saw, leaving a clean cut.
- 4) Damage or severance of roots above 25mm diameter must be avoided. If roots of this size are discovered, the hole should be relocated. If there are a large number of such roots it may be necessary to relocate the hole by half a fence panels length and adjust the fence panels accordingly.
- 5) Line hole with non-porous lining, for example durable polythene bag.
- 6) Insert post and fill post hole with concrete to ground level.
- 7) Trim polythene to ground level

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Arboriculturist

25 November 2019

Revised 27th July 2026 ~ revised site layout

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Appendix 1: Tree Work Schedule

No.	Name	Operation	BS Cat
G2	Corylus avellana (Hazel), Crataegus monogyna (Hawthorn), Fraxinus excelsior (Ash), Cornus sanguinea (Dogwood)	Remove trees within group	C2
T3	Salix fragilis (Crack Willow)	Prune tree back to boundary line	C2
T4	Salix fragilis (Crack Willow)	Prune tree back to boundary line	C2
T8	Acer pseudoplatanus (Sycamore)	Reduce north side of crown by 2.5m leaving a crown radius to the north of 3m. Sever ivy on lower stem	B2
T10	Acer pseudoplatanus (Sycamore)	Reduce north side of crown by 1.8m leaving a crown radius to the north of 2.7m. Sever ivy on lower stem	B2
T13	Acer pseudoplatanus (Sycamore)	Reduce west side of crown by 2m leaving a crown radius to the west of 3.6m	B2
T14	Acer pseudoplatanus (Sycamore)	Reduce west side of crown by 2.5m leaving a crown radius to the west of 3.5m	B2
T15	Acer pseudoplatanus (Sycamore)	Reduce west side of crown by 2m leaving a crown radius to the west of 2.5m	B2
T16	Prunus avium (Wild Cherry)	Remove tree	C2
T17	Prunus subhirtella (Spring Cherry)	Remove tree	C2
T18	Prunus 'Kanzan' (Pink Cherry)	Remove tree	C2
T19	Fraxinus excelsior (Ash)	Remove tree	C2
T20	Fraxinus excelsior (Ash)	Remove tree	C2
T21	Fraxinus excelsior (Ash)	Remove tree	C2
T22	Fraxinus excelsior (Ash)	Remove tree	C2
T23	Sorbus aria (Whitebeam)	Remove tree	C2
T24	Fraxinus excelsior (Ash)	Remove tree	C2
G35	Corylus avellana (Hazel), Crataegus monogyna (Hawthorn), Cornus sanguinea (Dogwood), Fraxinus excelsior (Ash), Acer campestre (Field Maple)	Remove trees within group	C2



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