



Arborclimb  
Consultants

## Arboricultural Method Statement.

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





Arboricultural  
ASSOCIATION  

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Professional Member

**Project:** Portland Mews  
**Report:** 102jrNov23FV03\_AMS  
**Date:** November 2023

**Portland Mews**  
**Arboricultural Method Statement and Tree Protection Plan**  
**for Discharge of Planning Condition 9 (Planning**  
**Application 23/00086/FUL)**

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## 1.0 EXECUTIVE SUMMARY

- 1.1 Arborclimb Consultants were commissioned by Land Matters Development Ltd to prepare an Arboricultural Method Statement (AMS) at a site located at Elizabeth Cottage Rear Of 63, Portland Road, South Norwood, London, SE25 4UN in London Borough of Croydon in accordance with the *BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations*<sup>1</sup>.
- 1.2 The method statement has been drawn up in line with planning application 23/00086/FUL<sup>2</sup> for the refurbishment and extension of existing Elizabeth Cottage. Erection of 3 additional dwellings with associated amenity space, cycle and refuse storage at: Elizabeth Cottage Rear Of 63, Portland Road, South Norwood, London, SE25 4UN.
- 1.3 The AMS details all relevant tree works/removals, tree protection measures and special construction techniques to ensure all trees to be retained are adequately managed and protected throughout the works.
- 1.4 The Tree Protection Plan (Appendix 2) details all tree protection measures to be employed for retained site trees.
- 1.1 The AMS report has been specifically produced in pursuit of demonstrating that the following planning condition (9) attached planning application 23/00086/FUL<sup>2</sup>, can be discharged.

### **Planning Condition 9**

*Prior to the commencement of the development hereby permitted, an Arboricultural Method Statement and Tree Protection Plan, as well as replacement planting to mitigate against the proposed loss of trees, shall be submitted to and approved in writing by the Local Planning Authority. Once approved, the development shall be carried out in accordance with any recommendation made within this submission.*

*Reason: To ensure that existing trees to be retained are protected and sufficient replacement planting to mitigate the tree loss is secured*

## 2.0 BACKGROUND

### BS5837 TREE SURVEY

- 2.1 The tree survey<sup>3</sup> included with the application involved a ground level visual tree assessment to collect information about the existing tree stock within and immediately adjacent to the survey site. The survey included any trees within and adjacent to the proposed development site.
- 2.2 During the tree survey, all accessible (onsite) trees were measured according to the BS 5837 methodology; stem diameter measured at 1.5 m and used to calculate RPAs, crown spread measured at 4 cardinal points (NESW) to the nearest 0.5 m, as well as tree height measurements.
- 2.3 In line with best practice, a follow up site tree survey was undertaken on the 19 October 2023 to confirm tree locations and both the RPA and crown extents, the findings of which then forming the basis of the recommendations set out in this report and as presented within the Tree Protection Plan (Appendix 2).
- 2.4 The tree survey data are then given at Appendix 1.

### SITE LOCATION

- 2.5 The survey area extends to approximately 0.1 hectares (ha) and is centred on National Grid Reference TQ3428168265. The site is located to the rear of 63 Portland Road in an urban and predominantly residential area of South London. The existing garden is being redeveloped into 2 x 3 bedroom houses and the Elizabeth Cottage is being retained and refurbished.
- 2.6 The site itself comprises the existing Elizabeth Cottage, introduced shrub, amenity grassland, improved grassland, bare ground, and scattered trees, both on and adjacent to the site.

### DESCRIPTION OF DEVELOPMENT

- 2.7 Refurbishment and extension of existing Elizabeth Cottage. Erection of 3 additional dwellings with associated amenity space, cycle and refuse storage. at: Elizabeth Cottage Rear Of 63, Portland Road, South Norwood, London, SE25 4UN.

### SITE TREES

- 2.8 In line with the BS5837 guidelines, four trees either within or directly adjacent to the site were recorded within the original planning application documents, all of which were shown to be impacted to a varying extent by the development. With full details of all trees given in the Tree Schedule (Appendix 1), the Category mix included 3 Category C and 1 Category U specimens.



## **TREE LEGAL PROTECTION**

- 2.9 Trees within London Borough of Croydon can be protected by Tree Preservation Orders (TPOs) or by virtue of being in a Conservation Area, with the council generally requiring the retention of trees that contribute to the area's character and appearance.
- 2.10 As detailed within the Arboricultural Impact Assessment<sup>3</sup> report that accompanied the planning application<sup>2</sup>, it was concluded that whilst none of the trees are designated with TPOs, as the site sits within the South Norwood Conservation Area, they are covered by similar local protection.
- 2.11 If not detailed as part of a permitted planning application (or subsequently discharged planning condition), any proposed tree removals or tree works would require formal permission from the Local Planning Authority under the Town and Country Planning Act 1990 (TPO's) or under the Planning Act (Listed Buildings and Conservation Areas) 1990 for Conservation Areas.
- 2.12 For this development the current planning permission (23/00086/FUL) permits the removal of T1 and T3 Ash. With the stated planning permission then superseding the Conservation Area status of these trees.
- 2.13 In line with recently identified tree constraints against the approved development having been identified, additional tree works/removals not previously set out within the approved application, are now required. These then as detailed in Section 3 of this report.

### **3.0 ARBORICULTURAL METHOD STATEMENT**

- 3.1 The Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) sets out how site works will be carried out near trees to avoid accidental damage. In doing so, the statement details all recommendations for pre-development tree works, including tree removal, facilitation pruning and ground works for vehicle and pedestrian demolition access.
- 3.2 Works associated with demolition of this type can damage trees, threatening the survival of those that are to be retained. The following actions can have negative impacts upon tree health:
- Soil compaction;
  - Root damage (e.g. severance);
  - Soil coverage with impermeable material;
  - Alterations in ground level;
  - Leaks and spillages from stored materials; and
  - Vehicle and heavy plant collision.
- 3.3 As such, the RPAs and canopies that are shown in Appendix 2 should be protected and considered throughout the works in line with the detail of this report to prevent risks to the health of retained trees.
- 3.4 The proposed approach to tree protection (as set out in this report), has been drawn up based on the wording of Planning Condition 9.

#### **WORKS PHASING**

- 3.5 This method statement makes a number of recommendations for the proposed development. For convenience, all the key recommendations have been listed in Appendix 3. In order to ensure successful tree retention and development, it is imperative that all of these recommendations are carried out in accordance with the structure outlined.

#### **ARBORICULTURAL CLERK OF WORKS**

- 3.6 A suitably qualified arboriculturist is often appointed to act as an Arboricultural Clerk of Works (ACoW), engaged to monitor and oversee the implementation of the works required within the method statement.
- 3.7 In the case of this development, given no significant impacts on retained surveyed trees have been identified, the need for an ACoW is not deemed necessary provided all best practice tree protection measures as detailed are adhered to.

### Reporting Process

- 3.8 If during the construction phase any damage to either the trees or the RPA's is sustained, this should be reported to the site manager immediately. At the earliest possible time and in the absence of a project ACoW, the site manager will request advice from an arboriculturist, who may then undertake a site visit to assess the impact on the tree and make recommendations for any required works.
- 3.9 Possible damage to trees or RPAs can include from: collision damage to crowns of retained trees by site vehicles; excavation within RPA; dumping of soil/materials within the RPA; chemical/cement spillage into Root Protection Area's or fire damage to the crown/stem of the trees.

### TREE REMOVALS

- 3.10 In line with planning application 23/00086/FUL, T1 and T3 are shown as removed to facilitate the construction of the development.
- 3.11 With consideration to T2 Sycamore, the conclusions of the Greengage Arboricultural Impact Assessment<sup>3</sup> were as follows:

*"The approach will be to prune back (and target prune where appropriate), the lower crown sections of T2 to provide clearance space for both the proposed building and its construction (i.e the need for construction space).*

*The intention is though to leave intact those branch structures that will show natural building height clearance, (post construction) so to avoid over pruning and possibly unbalancing the tree. It is anticipated that detailed pruning proposals for T2 can be drawn up once the construction plan is fully understood".*

- 3.12 Following on from these conclusions, the construction plan for the house shows the northern façade to be in direct conflict with the mid stem structure of T2, and as a result is now proposed to be removed, (twin stem T2 as shown at Figure 3.1).
- 3.13 In reviewing the intention to remove this tree, consideration was also made to its condition with regards to the stem, as detailed in Section 3.23.
- 3.14 With consideration to mitigating both the arboricultural and visual amenity loss of this tree, the following site observations and/or recommendations are proposed:
1. With the retention of T4 Sycamore (that was not previously identified on the planning application tree survey and is as shown in Figure 3.1 and the Tree Protection Plan), the visual impact from the loss of T2 is significantly reduced. Furthermore, as T4 is a semi mature tree, it has substantial future growth potential and will therefore compensate for the T2 crown loss over future growing seasons.
  2. As indicated on the Tree Protection Plan, in addition to the planting proposals being draw up to meet with the requirements of planning condition 8, a further



tree can be planted in the north east corner of the site, which in turn will provide some additional privacy screening between the development and off site residential properties as it matures.

**Figure 3.1. Twin stem structure of T2**



### **Scaffolding erection**

- 3.15 In line with HSE legislation, the required minimum scaffold width would mean a scaffold zone of 875 – 1000mm wide, which will then be sufficient to allow for the retention of T4.

### **FACILITATION PRUNING OF TREE CROWNS**

- 3.16 With the proposed tree removals, no requirement for facilitation pruning has been identified.
- 3.17 Any future pruning should be undertaken in line with arboricultural best practice as set out in *BS:3998 Tree work – Recommendations*<sup>4</sup>.

## NEW BUILDINGS AND FOUNDATIONS WITH RPA'S

### Site Buildings

- 3.18 The provisional root protection areas for all site trees have been calculated via the methodology set out in BS5837 and are shown in the Tree Constraints Plan (Appendix 3).
- 3.19 In terms of providing constraints information for any future development, providing an accurate root zone is of great significance, as this defines the area that cannot be generally constructed over or disturbed without bespoke foundation and/or site design considerations.
- 3.20 Where it is considered that existing buildings or subterranean structures are likely to have formed a barrier to root spread, the calculated RPA as shown on the Tree Protection Plans can be modified to show this, whilst maintaining a similar total rooting area away from the obstacles.

### Exploratory Dig

- 3.21 To assess potential root spread from T2 and T4 onto the site, an exploratory dig along the perimeter and depth of the proposed foundation line to the west of the site, was undertaken to assess the presence and condition of any tree roots that may have crossed over.
- 3.22 As shown in Figure 3.2, (and as concluded from the Greengage AIA<sup>3</sup>), the unearthed old subterranean perimeter wall has prevented significant root spread onto the site. With the exploratory dig then having been undertaken down to a depth of 1m.
- 3.23 It was though noted that this tree may deteriorate over time given the apparent soil level change around the stem, as this can often result in bark necrosis and dysfunctional wood. Any level change here was however prior to the onset of site works.

**Figure 3.2. Subterranean perimeter retaining wall**



### **Root pruning**

- 3.24 Notwithstanding the above, should minor roots from retained trees be identified on site, then can be managed in line with BS5937, with roots of <25 mm being pruned back via a clean cut with a suitable sharp tool.
- 3.25 During these works (if not immediately re-covered), exposed roots that are not proposed to be pruned should immediately be wrapped or covered with a wet hessian sack (or similar), to prevent desiccation. Any wrapping should be removed prior to backfilling, which should take place as soon as possible.
- 3.26 Prior to backfilling, retained roots should be surrounded with topsoil or uncompacted sharp sand (builders' sand should not be used because of its toxic high salt content), or other loose inert granular fill, before soil is replaced.

### **NEW SOFT LANDSCAPING AND TREE PLANTING**

- 3.27 All proposed new tree planting will be set out within the site landscaping plan required to discharge Planning Condition 8. As part of these proposals an additional tree of suitable size and species will also be planted in the north east corner of the site to mitigate the loss of T2. The approximate location of which is indicated on the Tree Protection Plan.
- 3.28 In terms of species and structure, a suitable replacement tree is considered to be a multistem Himalayan Birch, an ornate garden feature tree with winter interest through foliage and bark.
- 3.29 In terms of size, this specimen can be planted at 3.5 m, with a potential mature size of 7 to 12 m, so with suitable pruning can provide some screening between the development and off site residential properties, whilst not being overly dominant in this location.

### **TREE PROTECTION**

- 3.30 Prior to any demolition/construction works taking place, all relevant tree protective measures will be in place around all retained trees within the demolition area of the site.
- 3.31 These protective measures ensure suitable protection of trees and associated soils, with the key method of tree protection being through the use of fencing and temporary ground protection.
- 3.32 Tree protection fencing shall be set out as per the detail on the Tree Protection Plan and identified as such using appropriate signage as shown.

### **Tree Protection Fencing**

- 3.33 Given the close proximity of the retained tree T4 to the site, and that root spread onto site is restricted behind the unearthed subterranean perimeter wall, standard specification tree protection fencing (1.8m Heras fencing around the whole of the RPA),



will not be practical or necessary. The key method of tree protection during the construction phase, will then be through stem box protection, to a height of 1.8 m.

- 3.34 The specification of this protective fencing is illustrated on the Tree Protection Plan (Appendix 2).
- 3.35 With the use of the stem boxes over standard RPA fencing, careful consideration must be given when planning site operations to ensure that wide or tall loads or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Any transit or traverse of plant in close proximity to trees should be conducted under the supervision of a banks person to ensure that adequate clearance from trees is maintained at all times.
- 3.36 A copy of the Tree Protection Plan(s) will be located within the site cabins throughout the course of development works. This will include details of the fencing specification and location for which the fence will be erected.

### **Temporary Ground Protection**

- 3.37 With root spread onto site shown to be restricted behind the unearthed subterranean perimeter wall, the need for specialist ground protection has not been identified.

### **Installation of subterranean utilities**

- 3.38 With root spread onto site shown to be restricted behind the unearthed subterranean perimeter wall, the need for specialist utility ground works is not required.

### **SITE OFFICE, DELIVERIES & TEMPORARY SITE STORAGE**

- 3.39 Only construction elements as detailed within this report and the approved planning application will be undertaken in and around the tree crown of T4, with any site storage to the south of the site perimeter.
- 3.40 Material that will contaminate the soil such as concrete mixing, diesel oil and vehicle washing should not be discharged within 10 m of the tree stems. Furthermore, no fire shall be lit or liquids disposed of within 10 m of the RPA's.

## 4.0 CONCLUSIONS

- 4.1 This method statement has been produced in support of an application to comply with planning condition 9 relating to the planning application for 23/00086/FUL.
- 4.2 As described within the Arboricultural Impact Assessment (AIA)<sup>3</sup> included within the main outline planning application<sup>2</sup>, two trees (T1 and T3 Ash) are proposed to be removed to allow for the construction of the development.
- 4.3 Furthermore, given the noted constraints of the proposed building on T2, this tree is also now shown as removed, with arboricultural mitigation presented.
- 4.4 T4 is then sought to be retained through the implementation of tree protection measures with respect to both its crown and rooting zone. This method statement provides detail of the measures and steps required to retain the tree throughout the construction phase.
- 4.5 If the recommendations in this report are adhered to, T4 will be suitably protected throughout the development to form a key part of the post development landscape.
- 4.6 It is therefore concluded in line with the stated recommendations that planning condition 9 can be discharged. Although in doing so specific reference should also be made to the tree planting plan as detailed for planning condition 8.

### References

1. BS 5837:2012 Trees in relation to design, demolition and construction Recommendation. (<https://shop.bsigroup.com/ProductDetail/?pid=0000000030213642>).
2. Planning application number: 23/00086/FUL. 19/05/2023  
<https://publicaccess3.croydon.gov.uk/onlineapplications/simpleSearch/Results.do?action=firstPage> (Elizabeth Cottage Rear Of 63 Portland Road South Norwood London SE25 4UN).#
3. Greenage Arboricultural Impact Assessment (551787mc28Oct21FV02\_AIA)
4. BS:3998 Tree work – Recommendations.  
<https://shop.bsigroup.com/ProductDetail/?pid=00000000030089960>



- END -

## **APPENDIX 1: TREE DATA TABLES**

a

Tree No	Species	Height (m)	Stem Diameter (mm)	Crown Spread				Crown Height	Hight of First Brach	Direction of First Branch	Age Class	Condition		Tree description	Estimated years remaining	Grade Category
				N	E	S	W					P	S			
T1	Ash (Now removed)	8	250	2	2	2	2	N/A	0.1	W	Y	P	P	Showing significant basal damage and decay. Recommended for removal	<10	U
T2	Sycamore	12	320	5	4	4	4	2.5	3	N	SM	F	F	Fork stem around 200mm from the ground. Stem nearest the site shown to be in conflict with the western development façade. Asymmetrical form as a result of clashing crown form with T4	>20	C2
T3	Ash (Now removed)	12	150	4	3	3	4	3	2	S	Y	F	F		>10	C1
T4	Sycamore	12	330	4	4	3	4	4	3	S	SM	F	F	Off site tree to the west with asymmetrical form as a result of clashing crown form with T2	>20	C2



## **APPENDIX 2: TREE PROTECTION PLAN**

# Tree Protection Plan for proposed layout against BS5837:2012 Tree Categories & Root Protection Areas

**BS5837 Categories**  
Canopy and stem colour denotes BS5837 category. Pink denotes Root Protection Area.

- Category A (Green)
- Category B (Blue)
- Category C (Grey)
- Category U (Dark Red)

- Category A**  
Trees of high quality with an estimated remaining life expectancy of at least 40 years.
- Category B**  
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
- Category C**  
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or a stem diameter below 150mm.
- Category U**  
Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.

**RPA Incursion**  
BS5837:2012 calculated root protection area with line showing root incursion

**Proposed Tree Removal**  
Replacement Tree  
Multistem Himalayan Birch to mitigate the loss of T2

**Site Boundary**  
**Tree Stem Box Protection (Figure 1)**

1	P102jNov23FV03_TPP_PC.dwg
No.	Revision/Issue



**Project Name and Address**  
Elizabeth Cottage  
Rear Of 63, Portland Road  
South Norwood  
London  
SE25 4UN

<b>Project</b> Portland Mews	<b>Sheet</b> 1 of 1
<b>Date</b> 01/11/2023	
<b>Scale</b> Not to scale	



Fig.1 Stem Box Protection

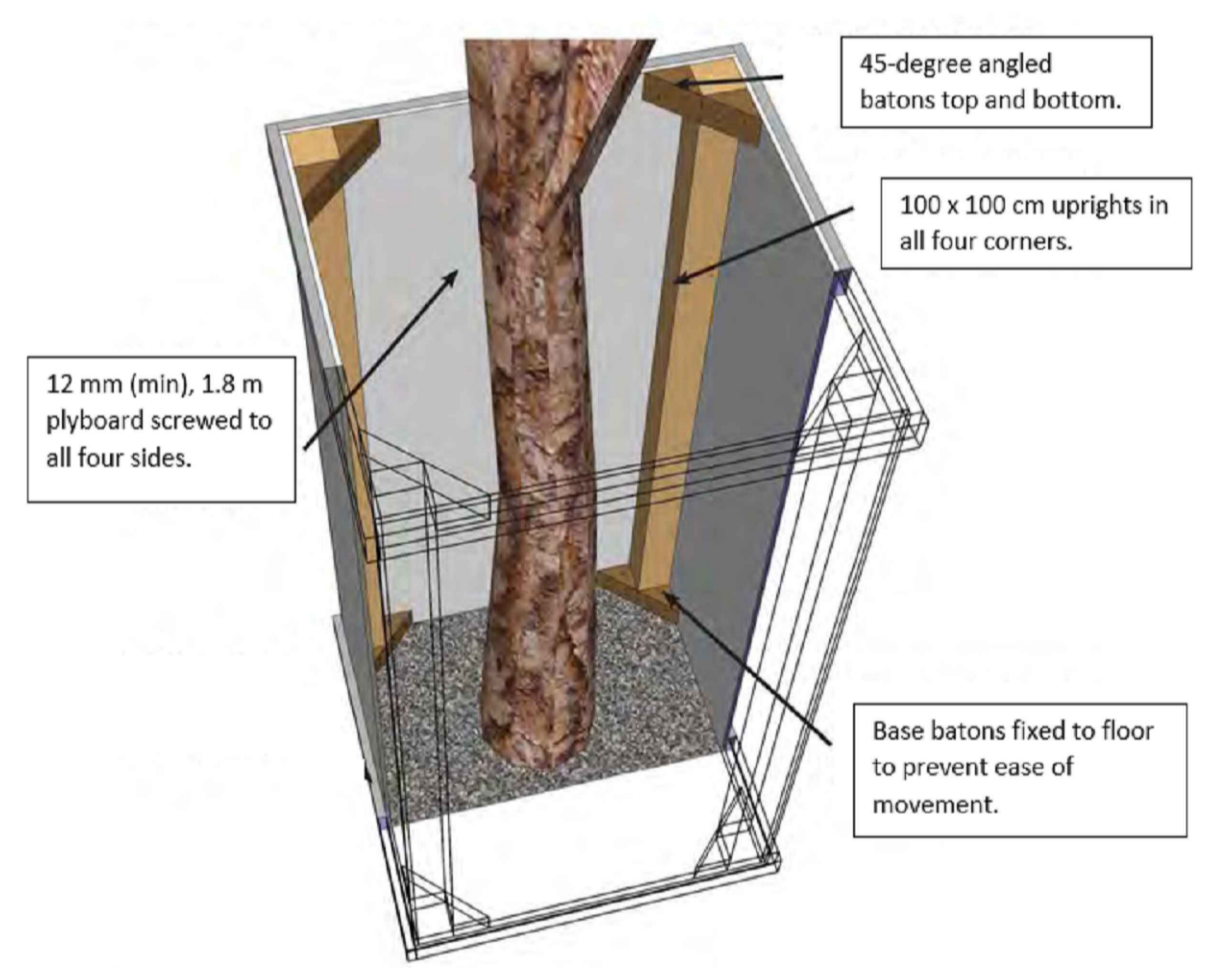


Fig.2 Tree Protection Signage





### APPENDIX 3: ARBORICULTURAL WORKS SHEDULE

Stage	Recommendation	Arboricultural Input
<b>Pre-commencement</b>		
S1	Removal T2 Sycamore	Use approved contractor from Arboricultural Association. <a href="http://trees.org.uk">Arboricultural Association - ARB Approved Contractor Directory (trees.org.uk)</a> Contact arboricultural consultant for advice as required.
S2	Erect stem box tree protection fencing. Stem box to be installed as shown in Tree Protection Plan (Appendix 2).	Contact arboricultural consultant for advice as required.
<b>During Construction Works</b>		
S3	Throughout works implement reporting progress for all unforeseen arboricultural incidents.	Prepare reporting document to keep on-site.
<b>Post Construction Works</b>		
S4	General maintenance remedial tree works if necessary.	Contact arboricultural consultant for advice as required.
S5	Tree fencing to be removed.	N/A