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Client: Clarion Regeneration Limited

Project: High Path Phases 3B and 3C

Report: Arboricultural Impact Assessment and Method Statement

QUALITY ASSURANCE

Issue/Revision:	Draft	Final
Date:	November 2022	December 2022
Comments:		
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File Reference:	551315JR15Nov22DV02_ARB.docx	551315JR15Nov22FV04_ARB.docx

CONTENTS

Tables

Figures

1.0 EXECUTIVE SUMMARY

This Arboricultural Impact Assessment and Method Statement (AIA and AMS) has been prepared by Greengage in support of an application for the approval of details required by condition 20 of the outline permission for Phase 3B & 3C of the High Path Estate regeneration pursuant to the Outline Planning Permission granted in April 2019 (ref. 17/P1721), and subsequently amended in 2022 (ref: 21/P2806 and 22/P1740). The application is made by Clarion Regeneration Limited (hereafter referred to as 'the Applicant').

The purpose of this survey is to provide an assessment of the arboricultural value of the trees based on their current quality and to provide recommendations, to help inform site design and construction.

A visit was made to the site on 10 January 2022 to survey trees, hedges and vegetation following guidance in BS5837. The crowns and stems were inspected from the ground using the 'Visual Tree Assessment' (VTA) method; no invasive techniques were used at this stage.

During the site survey for Phase 3B, 32 individual trees and 1 tree group (46 trees in total as the group contained 14 individual trees) were identified within the scope of this report, with 44 individuals noted for Site Phase 3C. The Category mix then shown in Table 1.1 and Table 1.2 respectively below, with both onsite trees and those directly adjacent to, having been included within the survey.

Table 1.1 Category mix (Phase 3B)

Category	Individual Trees	Tree Group/Hedge	Total
A	0	0	0
B	11	0	11
C	17	0	17
U	4	1 (14 individual trees)	5 (18 individual trees)
Total	32	1 (14 individual trees)	33 (46 individual trees)

Table 1.2 Category mix (Phase 3C)

Category	Individual Trees	Tree Group/Hedge	Total
A	0	0	0
B	17	0	17
C	26	0	26
U	1	0	1
Total	44	0	44

1.1 ARBORICULTURAL IMPACT ASSESSMENT

The Arboricultural Impact Assessment (AIA) was drawn up based on the identified constraints of the existing on and off-site trees on the Proposed Development. It details any works to either the trees or

the design proposals required to mitigate these constraints or undesired impacts of trees on buildings and/or buildings on trees.

This report also indicates any trees to be removed on the grounds of sound arboricultural management and those that may be required to be removed to allow for site development.

The subsequent Tree Constraints Plan (Appendix C) shows the constraints to the development from those trees to be retained and presents the locations, crown spreads, root protection areas (RPAs) and BS5837 Categories of all surveyed trees.

The Tree Schedule (Appendix B) contains details of all the surveyed trees falling within the scope of this report e.g. those that occur within or are impacted by Phases 3B & 3C of the Proposed Development.

As a result of the identified constraints between the Proposed Development and the existing site trees, there are shown to be a loss of 28 trees and 1 tree group in Phase 3B and 30 trees in Phase 3C. This comprises 11 Category B trees, 13 Category C trees and 5 Category U in Phase 3B and 6 Category B trees, 23 Category C trees and 1 Category U. The tree removals and retention strategy remain consistent with that shown in the Overarching Arboricultural Method Statement by Oisin Kelly, which accompanied the Phase 2 reserved matters application, which was approved in October 2019 (ref. 19/P1852).

All trees to be retained will be protected in accordance with BS5837. 18 trees are to be retained (5 in Phase 3B and 13 in Phase 3C). The Proposed Development will compensate for the loss of the 28 trees and 1 tree group within the Phase 3B Site and 30 trees within the Phase 3C Site, through the planting of 90 new trees. The Proposed Development will result in a net gain of 18 trees on site (90 trees in total pre development, which includes the 14 trees in group 1 plus the 76 individual trees, with 18 trees retained and a further 90 trees planted).

1.2 ARBORICULTURAL METHOD STATEMENT (PHASES 3B & 3C)

The Arboricultural Method Statement (AMS) has then been produced detailing any proposed tree works and special construction techniques to ensure all trees to be retained are adequately managed and protected throughout the Proposed Development. The AMS also confirms the need for any tree removals as stated in the AIA.

The Tree Protection Plan (Appendix E) details all trees to be removed and the tree protection measures to be employed for those to be retained, including the need for any facilitation pruning or arboricultural works.

The AMS section of this report has been produced in pursuit of discharging Condition 20 (having regard also to the requirements of condition 27 and 28) of the Outline Planning Permission (ref: 22/P1740), in relation Phases 3B & 3C.

2.0 INTRODUCTION

This Arboricultural Impact Assessment and Method Statement (AIA and AMS) has been prepared by Greengage in support of an application for the approval of details required by condition 20 of the outline permission for Phase 3B & 3C.

2.1 PLANNING BACKGROUND

Outline Planning Permission (ref: 17/P1721), with all matters reserved, was granted in April 2019 for the phased regeneration of High Path for the delivery of up to 1,570 new homes and up to 9,900 sqm of non-residential floorspace, together with associated open space, landscaping, highways works etc. Minor-material amendments (ref: 21/P2806 and 22/P1740) were approved in 2022, in relation to changes to the maximum parameters for Phase 3C and a revised greener energy strategy for the masterplan. Phase 1 (approved via a separate full planning permission (ref: 16/P3738)) is complete, and has delivered 134 new homes. Phases 2A, 2B and 3A, are yet to commence, but have Reserved Matters approval (ref: 19/P1852 and 22/P2199) for 113 new homes, 187 sqm of non-residential floorspace and a multi-use games court.

The AMS section of this report has been produced in pursuit of discharging the following Planning

Conditions of the Outline Planning Permission (ref: 22/P1740), in relation Phases 3B & 3C. The details also take into account the requirements of conditions 27 and 28. The wording of these conditions are copied below.

Planning Condition 20 – Arboricultural Method Statement / Tree Protection Plan

The first applications for approval of Reserved Matters submitted pursuant to this permission shall be accompanied by an overarching Arboricultural Method Statement and Tree Protection Plan in accordance with BS 5837:2012 for all phases.

For each phase of development, an updated and detailed Arboricultural Method Statement and Tree Protection Plan shall be submitted to and approved in writing by the Local Planning Authority prior to the commencement of that relevant phase. The approved measures for the protection of the existing retained trees shall be installed prior to the commencement of site works and shall be retained and maintained until the completion of all site operations in that phase. If any trees are proposed for removal or have any tree work, a full justification must be provided in the Arboricultural Statement. Any tree work shall accord with BS 3998:2010.

The Arboricultural Statement shall also explain the total number of trees to be removed, together with details of the proposed replacement planting, to ensure an overall increase in the number of trees across the site.

REASON: To safeguard the character and appearance of the area and to enhance the appearance of the development, in accordance with Policy D8 of the London Plan 2021, Policy DM O2 of the SPP Local Plan 2014, Policy CS13 of the Core Planning Strategy 2011 and Policy EP H7 of the Adopted Estates Local Plan 2018.

NOTE: The first element of planning condition 20 has been discharged following the production of an Overarching Arboricultural Method Statement by Oisin Kelly, which accompanied the Phase 2 reserved matters application, which was approved in October 2019 (ref. 19/P1852).

Planning Condition 27 – Existing Trees

The existing Sycamore and London Plane trees located in the open landscaped areas adjacent to Merton High Street shall be retained and protected in accordance with the approved Arboricultural Method Statement and Tree Protection Plan. Should any tree become seriously damaged, diseased, dead or dying as a result of this development or within 5 years following the completion of this development, shall be replaced with a semi-mature London Plane tree of a minimum 30 - 35 cms girth in the same or similar position to be approved in writing by the LPA.

REASON: So as to restore the amenity provided by the trees and enhance the appearance of the development in the interest of the amenities of the area, to ensure the provision of sustainable drainage surfaces and to comply with the following Development Plan policies for Merton: Policies SI 2, G5, D5 and D8 of the London Plan 2021, Policies CS13 and CS16 of Merton's Core Planning Strategy 2011 and Policies DM D2, F2 and O2 of Merton's Sites and Polices Plan 2014, and Policy EP H7 of the Estates Local Plan.

NOTE: Two sycamores (*Acer pseudoplatanus*), previously identified as Norway Maple (*Acer platanoides*), and one London Plane Tree (*Platanus x hispanica*) along Merton High Street and within Phase 3B, are to be removed as a result of the Proposed Development. This is in line with the approved Overarching Arboricultural Method Statement submitted with the first Reserved Matters Application (RMA) on the 3rd October 2019 (ref. 19/P1852), as per Condition 20. This sets the baseline for tree retention and removal.

PLANNING CONSDITION 28 - Site Supervision (Trees)

The details of the Arboricultural Method Statement and Tree Protection Plan shall include the retention of an arboricultural expert to monitor and report to the Local Planning Authority not less than quarterly the status of all tree works and tree protection measures throughout the course of the demolition and site works. The works shall be carried out strictly in accordance with the approved Arboricultural Method Statement and Tree Protection Plan.

REASON To protect and safeguard the existing retained trees in accordance with the following Development Plan policies for Merton: Policy D8 of the London Plan 2021, Policy CS13 of Merton's Core Planning Strategy 2011 and Policy O2 of Merton's Sites and Polices Plan 2014, and Policy EP H7 of the Estates Local Plan.

2.2 STRUCTURE AND PURPOSE OF THIS REPORT

This AIA and AMS has been prepared to provide an assessment of the arboricultural value of the trees based on their current quality and to provide recommendations, to help inform site design and construction, having regard to site specific considerations, including the Outline Planning Permission, and the national, regional and local planning policy framework as follows:

The Development Plan for the Site comprises:

- London Plan (2021);
- LBM Core Planning Strategy (2011);
- LBM Sites and Policies Plan and Policies Map (2014);
- South London Waste Plan (2014); and
- LBM Estates Local Plan (2018).

Material considerations include:

- National Planning Policy Framework (NPPF) (2021);
- Planning practice guidance (PPG);
- Adopted and emerging local and Mayor of London Supplementary Planning Guidance; and
- Any relevant industry guidance.

The London Borough of Merton is also preparing a new Local Plan which is a material consideration. It is envisaged for adoption in Summer 2023 and its draft policies have been considered in preparing the development proposals.

The following sections of this report provide the following:

- Section 1 Executive Summary
- Section 2 Introduction
- Section 3 Methodology
- Section 4 Results
- Section 5 Arboricultural Impact Assessment
- Section 6 Arboricultural Method Statement
- Section 7 Summary and Conclusions

2.3 THE AIMS OF THE ASSESSMENT

The purpose of this survey is to provide an assessment of the arboricultural value of the trees based on their current quality and to provide recommendations regarding design and construction.

2.4 SITE DESCRIPTION

The two phases (Phases 3B & 3C) together occupy two parcels of land. The first parcel surrounds South Wimbledon Underground Station in the north western part of the masterplan fronting Merton High Street and Morden Road. This is currently occupied by residential properties along Merton High Street, Morden Road, Rowland Way, Hayward Close, Stane Close, and Dowman Close which will be demolished in Phase 3B and replaced with new build development in Phase 3C. The second parcel lies in the north east part of the masterplan comprising residential properties along Abbey Road, Hilsborough

Close and Nelson Grove Road, where only demolition and site clearance is proposed in Phase 3C. The site area is as follows:

- Land for demolition 2.86 ha
- Land for construction 1.5 ha
- Total 2.86 ha

High Path Estate is bound to the north by Merton High Street; to the east by Abbey Road; to the south by High Path; and to the west by Morden Road (A219). The Estate is located within the South Wimbledon/Colliers Wood Opportunity Area and is located within an area characterised by a mix of uses, with Merton High Street predominantly formed of commercial/retail ground floor uses with residential above, and terraced housing beyond and also to the east along Abbey Road and beyond. To the south of the Estate on the opposite side of High Path is Merton Abbey Primary School and the Harris Academy secondary school; beyond this is Merton Industrial Park with warehouse and industrial building's predominantly two storeys in height and further to the east is a Sainsbury's superstore and retail park. Morden Road is characterised by higher density development with non-residential uses at ground with residential above.

2.5 DESCRIPTION OF THE PROPOSED DEVELOPMENT

The Proposed Development comprises the demolition and site clearance and the construction of buildings for residential dwellings (and associated communal open space and play space), non-residential floorspace and an energy centre; public open space comprising a new public square, public realm and landscaping works; cycle and car parking spaces together with associated highways and utilities works including Underground Refuse Stores.

Phase 3B will comprise demolition and site clearance only in the north west part of the masterplan.

Phase 3C will comprise new build development in the north west part of the masterplan, providing the following, and demolition and site clearance in the north east part of the masterplan:

- 374 new homes in a mix of housing sizes together with associated communal and private amenity spaces;
- 1,895sqm of non-residential floorspace;
- An energy centre which will also serve the wider Estate;

Public realm and landscaping, including new public open space comprising a Public Square which will form the northern part of the new Neighbourhood Park.

3.0 TREE SURVEY METHODOLOGY

3.1 DESK REVIEW

Tree Legal Protection

Trees within London Borough of Merton may be protected under the Town & Country Planning Act by a Tree Preservation Order (TPO) or by virtue of being within a Conservation Area.

A TPO makes it an offence to wilfully damage or destroy a protected tree and written permission from the Council must be obtained prior to undertaking any works to the tree. Similarly, if any stem on any tree in a Conservation Area is larger than 75mm diameter when measured at 1.5 metres above ground level it is automatically protected and required by law to notify the Council of any proposed works.

To determine whether any of the trees are protected by TPOs a search of the readily available data on London Borough of Merton Council's website was undertaken.

Additionally, the interactive map was reviewed to identify any local Conservation Areas that would add additional protection to the trees.

Geological Conditions

A review of the readily available Geology of Britain interactive map by the British Geological Society[1] was undertaken to identify the bedrock geology and superficial deposits at the site.

3.2 SITE VISIT

A site survey was undertaken on 10 January 2022 to survey trees, hedges and vegetation following guidance in the British Standard. The crowns and stems were inspected from the ground using the 'Visual Tree Assessment (VTA)' method; no invasive techniques were used at this stage. For consistency, the tree numbers used in this assessment are the original survey numbers included within the previously submitted Arboricultural Impact Assessment report 2017 (Report ref: 17P1721_Arboricultural Impact Assessment) and the Overarching Arboricultural Method Statement 2019 (Report Ref: 19P1852_Overarching Arboricultural Method Statement).

The survey followed the methodology outlined in BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations.

The site visit was undertaken in mild, winter weather conditions with trees in the winter bud stage. Full details on the methodology can be found at Appendix A.

3.3 LIMITATIONS

This report includes information on only the trees that were inspected and the condition they were observed in at the time of survey. The condition of trees can change, and as such any findings from this report should be held valid to inform for purposes of development for no longer than 12 months from

the survey date. No guarantee can be given for the structural integrity of any trees on site as a full hazard assessment has not been made.

There were no significant constraints to the assessment; all areas of the site were fully accessible to survey. The survey was completed at a suitable time of year for species identification and condition assessment. Any constraints over winter identification techniques are not applicable in this instance.

4.0 RESULTS OF SURVEY

4.1 DESK REVIEW

Tree Legal Protection

A review of London Borough of Merton Council's TPO data (available from www.merton.gov.uk) has confirmed there to be no protected trees within or adjacent to the site.

Furthermore, the area under assessment is not within a local Conservation Area that would afford additional protection to the trees.

Accordingly, there is no additional legal protection covering any of the trees within the scope of this report.

Geological Conditions

The BGS interactive map indicates the underlying geology to be London clay, sand and gravel which is generally considered to contain shrinkable clay.

It is recommended that a geotechnical specialist / structural engineer undertake a detailed soil investigation to determine the actual underlying geology and Plasticity Index which may then inform foundation design. The design of any new planting and landscape proposals should be based upon a soil analysis which considers the pH and nutrient composition of localised conditions.

4.2 SITE VISIT

During the site survey for Phase 3B, 32 individual trees and 1 tree group (46 trees in total as the group contained 14 individual trees) were identified within the scope of this report, with 44 individuals noted for Site Phase 3C. No Category A trees were noted. The Tree Schedule (Appendix B) provides all relevant details of trees within the scope of the survey for both Phase 3B and Phase 3C Sites.

Phase 3B Site

Most of the site trees are either fronting Merton High Street or are slightly set back adjacent to the residential properties in Dowman Close and Haywood Close.

The most prominent trees in terms of size, arboricultural quality and landscape and visual amenity value, are the Category B mature London plane trees (T2 and T8), that front the northern edge of the site, directly to the south of Merton High Street.

With both growing within a mixed grass and hard standing area (in terms of the calculated RPA), T8 is growing within a raised landscaped section (above the adjacent pavement level), which may well have influenced root spread to the south, when compared to T2.

Within this raised landscaped area are a number of other trees of mixed quality including 2 Category B Sycamores (T11 and T12), a Category C Norway maple (T10) and a very poorly structured and declining Category U Hornbeam (T9).

Running north to south either side of Haywood Close are then a number of Category B Narrow leaved ash trees T23 to T27 and T37 to T38, that whilst showing extensive pruning and asymmetrical form (in some cases), are visually well structured within the existing landscape street setting.

The remaining site trees are a mix of Category C and Category U. With Category C trees generally presenting as smaller or poorer quality trees, often with lower future growth potential, or that offer little either as specimens in their own right, or to the wider landscape. Again, these are then either fronting Merton High Street or are slightly set back adjacent to the residential properties in Dowman Close and Haywood Close.

Depending on the proposed site layout, Category C trees are though still viable with future potential, so should always be a considered on a case-by-case basis within any landscaping design plans. It's also key to note that Category C trees also represent specimens that have become well established, so may need little in the way of arboricultural maintenance in the early stages of a development, post construction.

Finally, of very little arboricultural value are the self-seeded specimens of Ash and Elder growing behind the garages to the west of the site (G1), although they do have the potential (in the case of the Ash), to develop into poorly structured larger specimens over time. Overall however, these trees have no significant retention value either within their current form or as part of the future development proposals.

In general, it is advisable to remove all the Category U trees and replace them with more robust specimens regardless of the site development, as many are now showing dead sections with the onset of active fungal decay in some cases.

Phase 3C Site

By far the most visually prominent landscape trees within the survey area, are the large group of primarily London Plane fronting Merton High Street (T99 to T116), with most other less prominent trees then set back adjacent to the residential properties within the central area of the site.

Largely made up of mature London planes (interspersed with other broadleaved species), T99 to T116 are growing relatively close together and as a result show typical tree group characteristics. These then including, shared and asymmetrical crown forms, uneven and sometimes erratically structured branch formations, and leaning stems.

Key to this though is that despite what appear to be impeded structural forms with unbalanced crowns, these trees are in fact generally well adapted to the space within the groups in which they have developed, and generally complement each other in their natural form.

Other Category B trees of note are then the central site pairing of T152 and T154, that are now well established and form important arboricultural and visual amenity features within the existing setting.

As with the Phase 3B Site area, the remaining site trees are a mix of Category C and Category U. With Category C trees generally presenting as smaller or poorer quality trees, often with lower future growth potential, or that offer little either as specimens in their own right, or to the wider landscape.

The Tree Constraints Plan found at Appendix C shows the full layout of the existing tree stock with reference to BS5837 Category and survey data.

5.0 ARBORICULTURAL IMPACT ASSESSMENT

5.1 INTRODUCTION

The purpose of this Arboricultural Impact Assessment (AIA) is to assess the potential below and above ground impacts to existing trees from the proposed development, and to highlight the need for the pruning, removal or retention and protection of specific trees during construction.

Works associated with development of this type can damage trees, threatening the survival of those that are to be retained. Whilst not exhaustive, 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 levels; and
- Overshading from new buildings

As such, where possible, the RPAs and canopies that are defined in Appendix C should be protected and considered throughout works to prevent risks to the health of the trees.

5.2 SITE LAYOUT

Proposals and existing drawings provided for the assessment of the potential constraints that exist include:

- Existing layout/ topographical survey (drawing ref. MGS46186); and
- Proposed layout (drawing ref. Stage 2 MAX PARAMETER MASTERPLAN Roof Plan_V1.dwg).

The TCP can be found at Appendix C.

5.3 SITE TREE RETENTION

All proposed trees to be retained within the site landscaping scheme are listed in Table 5.1 and Table 5.2.

Table 5.1 Proposed trees to be retained (Phase 3B)

Category	Quantity	Tree Reference (see Appendix B)
A	0	There are no Category A trees on site.
B	1	T2 London plane
C	4	T13 to T16 London plane
U	0	All Category U trees and tree groups are to be removed.

Table 5.2 Proposed trees to be retained (Phase 3C)

Category	Quantity	Tree Reference (see Appendix B)
A	0	There are no Category A trees on site.
B	12	T99 to T104 and T106, London plane, T107 Alder, T110, T114, T115 and T116 Norway maple.
C	2	T105 London plane and T108 Lime.
U	0	All Category U trees and tree groups are to be removed.

All other trees not listed above in Table 5.1 and Table 5.2 are then proposed for removal as described below.

The tree removals and retention strategy remain consistent with that shown in the Overarching Arboricultural Method Statement by Oisin Kelly, which accompanied the Phase 2 reserved matters application, which was approved in October 2019 (ref. 19/P1852).

Nature of Tree Constraints and Removals

All trees shown as removed on the Tree Constraints Plan (proposed) are as a result of their retention being overly constrained by the Proposed Development with respect to the following key build elements of the site design:

- New buildings (either direct or significant indirect constraints).
- New or significantly realigned access roads and pavements.
- Revised hard and soft landscaping design.
- Unavoidable changes in site levels.
- Significant and unavoidable construction related activities.
- Poor condition of existing trees (Category U).
- Within working area of proposed demolition.

5.4 FACILITATION PRUNING

As all Phase 3C demolition works will take place from on site to the south, no requirement for facilitation pruning is anticipated for any of the retained trees. Should the need for any minor works be identified at the pre commencement meeting, works will be undertaken by a suitably qualified tree surgeon in line with BS3998:2010 'Tree work - Recommendations.

5.5 LOCAL PLANING POLICY

With full details of the relevant LBM Estates Local Plan Feb 2018 policy and the emerging Local Plan Policy given in Appendix H, the overriding considerations for the application of the policy to the Proposed Development and the proposed tree losses, are as follows:

London Borough of Merton Estates Local Plan Feb 2018 EP H7 Landscape

a) Retention, where appropriate, of the existing mature tree groups and street trees indicated on the diagram for Policy H7 should form the basis of new open spaces, a network of biodiversity enhancing green corridors across the estate, and assist with managing air and noise pollution, slowing rainfall runoff and mitigating the urban heat island effect.

... c) Street trees must be located to enable the creation of well defined on-street parking spaces. This will soften the visual impact of vehicles and enhance the appearance of the street.

... e) Tree species must be specified to mitigate against pollution and noise. Planting layout and species need to be considered to ensure an attractive street scene whilst taking care not to restrict light or cause overshadowing to adjacent buildings.

Policy O15.4. Protection of Trees

Only permit development if it will not damage or destroy any tree which:

i. is protected by a Tree Preservation Order;

ii. is within a conservation area; or,

iii. has significant amenity value.

"e).....development may be permitted when:

v. the benefits of the development outweigh the tree's amenity value".

"In circumstances where e) v. applies, suitable high-quality re-provision of equal value must be provided on site. Where on site provision is demonstrably not possible, as agreed with the Council, a financial contribution of the full cost of appropriate re-provision will be required."

5.6 LANDSCAPE PROPOSALS

In line with the above Policy and in recognising the need to mitigate the identified tree removals as a result of the proposed development, the landscaping and planting plans will deliver a planting strategy that includes a mix of species, accompanied by a landscape management plan to ensure all new planting is successfully established.

Full details of all tree planting (which includes an additional 90 trees) throughout the Proposed Development area), are contained in the Landscaping Strategy. A summary of which is though shown in Appendix G.

The proposed landscaping should be subject to a 5-year management plan to ensure long-term deliverance of the proposals. Any trees or shrubs that die, are removed or severely damaged within the first 5-years should be replaced with a similar specimen.

5.7 ARBORICULTURAL METHOD STATEMENT

In order to ensure the retained trees are protected throughout the construction phase, all relevant best practice as set out within BS5837 2012: Trees in relation to design, demolition and construction, will need to be adhered to.

In line with Planning Conditions 20, 27 and 28 the exact methodology and approach to protection for the proposed development is then as set out within the Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) at Section 6.0.

6.0 ARBORICULTURAL METHOD STATEMENT

This Arboricultural Method Statement makes a number of recommendations for the site. For convenience, all of the recommendations in this report have been listed in Table 6.1.

In order to ensure a successful tree retention and development it is critical that all of these recommendations are carried out in a similar order to that outlined below.

Table 6.1 Works phasing

Recommendation	Phase / Timing	Arboricultural Consultant Input
Appoint Arboricultural Clerk of Works (ACoW) to oversee all arboricultural issues on site.	Pre-commencement	NA
On-site meeting(s) to discuss and mark out tree protection measures/ any site issues with construction team, site manager, (Tree Officer) etc.	Pre-commencement	Site attendance Liaison with team
Undertake facilitation pruning and felling (contractor).	Not required at the stage but shall be reviewed at the pre-commencement meeting.	N/A
Erect tree protection fencing to BS5837:2012 specifications as appropriate.	Before plant machinery enters the site	Site attendance to sign off
Implement reporting progress for all unforeseen arboricultural incidents.	During Construction	Prepare reporting document to keep on-site
Monitoring site visits every 3 months) by ACoW to ensure continued compliance.	During Construction	Site attendance, production of file notes and circulation to team / LPA – every quarter
Utilities construction within RPA's.	During Construction	Site attendance to oversee key site activities as required.
Works within the RPA of retained trees will be observed.	During Construction	Site attendance to oversee key site activities with respect to hard and soft landscaping changes.
Post development inspection/ completion meeting to identify any required remedial actions.	Post Construction	Site attendance and recommendations

6.1 ARBORICULTURAL CLERK OF WORKS

In line with Planning Condition 28, a suitably qualified arboriculturalist will be appointed to act as an Arboricultural Clerk of Works (ACoW). The ACoW will be engaged to monitor and oversee the implementation of the works required in this method statement.

The role of the ACoW is a formal one with onsite presence and site visits to make decisions to be implemented quickly. In the case of this development the following occasions are where the ACoW will be required:

- Initial meeting (usually the pre-commencement meeting) – to ensure all required tree protection is in place, and to discuss any required amendments with the Site Manager to which the local planning officer or Tree Officer will be invited to attend;
- Monitoring visits – Regular informal inspections to ensure that all tree protection measures are being maintained, and to inform the Site Manager where appropriate measures are not in place;
- Supervision during works within the RPAs of retained trees as detailed within the tree protection plan; and
- Completion meeting – To inspect trees to assess for any required works and to confirm that the development has been sufficiently completed, and the tree protection measures can be removed.

The ACoW will also be the first contact for arboricultural advice for any issues that arise which are not detailed in this report, such as extra tree works, any required work within the Root Protection Areas (RPAs) of the trees onsite, any damage that has occurred to any of the trees or any breach of the tree protection measures onsite.

Pre-Commencement Site Meeting

A pre–commencement site meeting will be undertaken prior to any onsite works commencing. This meeting will enable the Site Manager and the ACoW to review the tree works undertaken and the tree protection fencing to ensure all parties are satisfied that the proposals will not impact the trees to be retained onsite and that the measures are feasible with the construction works. The Tree Officer will be invited to attend the meeting if desired.

Monitoring Visits

Regular informal site visits will then be undertaken by the ACoW to ensure protective measures are in place. It is recommended these monitoring visits are completed on a 3 monthly basis, as required by Condition 28, for the duration of the construction process.

On each visit, the ACoW will conduct a site walkover to check the maintenance of the tree protection measures and to assess the condition of the trees. These visits will also give the opportunity for the Site Manager/construction staff to discuss any arboricultural issues with the ACoW.

Following each visit, a short file note will be produced by the ACoW and circulated to the team for a record of best practice. The short file note will also be provided to the LPA Tree Officer, as required under Condition 28.

Supervision of Works within RPA's

In addition to the routine monitoring visits described above, the ACoW will be required to oversee any potentially invasive works with the RPA's of retained trees. In the case of this development, this then relates to the landscaping phase and specifically the hardstanding and soft landscaping around all retained trees, although most significantly within the RPA of T2 London plane.

Reporting Process

If during the construction any damage to either the tree or the RPA is sustained, this should be reported to the Site Manager immediately. At the earliest possible time the Site Manager will inform the ACoW, who will undertake a site visit to assess the impact on the tree and make recommendations for any required works.

Possible damage to the tree or RPAs could be: 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 or fire damage to the crown / stem of the trees.

6.2 PRE-DEVELOPMENT WORKS

All tree works are to be undertaken in accordance with BS3998:2010 'Tree work - Recommendations[2].

Enabling Felling

All trees identified on the Tree Protection Plan (Appendix E), shall be removed by a suitably qualified tree surgeon prior to any demolition or construction traffic entering the site.

The ACoW will meet with the contractor and Site Manager to ensure all parties are fully informed on the enabling felling and retention strategy, (the pre commencement meeting).

Facilitation Pruning

No requirement for facilitation pruning is anticipated for any of the retained trees. Should the need for any minor works be identified at the pre commencement meeting, works will be undertaken by a suitably qualified tree surgeon in line with BS3998:2010 'Tree work - Recommendations.

Tree Protection

Following any tree works and prior to any demolition/construction or vehicular movement, tree protective measures will be in place around all retained trees. The ACoW will check this prior to the commencement of works. It shall be set out as per the detail on the Tree Protection Plan (TPP) located at Appendix E

These protective measures ensure suitable protection of trees and associated soils. The key method of tree protection is through the use of fencing and ground protection, where required.

Tree protection shall be set out as per the detail on the tree protection plan; it shall be identified as such using signage (Appendix F).

Tree Protection Fencing

The location of tree protection fencing is shown on the Tree Protection Plan (TPP) at Appendix E.

T2, T13, T14 Phase 3B and T99 to T104, T106, T107 and T114 to T116 Phase 3C

For these trees, the tree protection fencing will primarily comprise 2m weldmesh panels around the existing soft landscaping sections of the RPA's and secured in place with uprights driven into the ground, or fixed in place. Once erected, this will not be moved or relocated without prior approval from the ACoW, or unless specified in this report.

The tree protection area behind the tree protection fencing (the Construction Exclusion Zone) will remain sacrosanct throughout development and no access will be allowed to this area including for example the storage of or moving of materials or machinery.

In the Construction Exclusion Zone, there will be no excavations or increases in soil level unless specified in this report or agreed with the AcoW or Council.

The fencing will be secured with uprights driven into the ground to prevent movement of the protective fencing and ensure its rigid installation.

There will be clear and visible signs attached to the protective fencing (see Appendix F) and the area will be regarded as sacrosanct by everyone. This will be checked prior to the commencement of work by the ACoW and throughout the course of development during regular informal monitoring visits.

The tree protection fencing denotes the Construction Exclusion Zone. Therefore, the following must be carefully considered 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.

Material that will contaminate the soil such as concrete mixing, diesel oil and vehicle washing should not be discharged within 10m of the tree stems.

No fire shall be lit, or liquids disposed of within 10m of an area designated as being fenced off or otherwise protected in the scheme.

At the end of the project the fencing will be removed on completion of site works and after confirmation by the ACoW.

A detailed TPP (Appendix E) will be located within the site cabins throughout the course of development. This will include details of the fencing specification and location for which the fence will

be erected. This plan will be printed at no less than A1 in size to ensure easy reading of all the detail contained within.

T15 and T16 London plane

Given the location of T15 and T16 within the public pavement area, and that much of the trees RPA's are within existing hard surfacing, standard specification tree protection fencing (2 m Heras fencing around the whole of the RPA), will not be practical or effective. The key method of tree protection during the construction phase, will then be through stem box protection, to a height of 2 m.

The specification of this protective fencing is illustrated on the Tree Protection Plan (Appendix E).

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.

Ground Protection

No requirements for temporary or permanent ground protection as a protection measure at the site have been identified within this method statement as all trees can be fully protected by fencing as described above.

Avoiding Crown and Stem Damage

Care and vigilance must be taken to avoid crown and stem damage when working with machinery near the retained trees, both on and offsite. Plant machinery with booms, jibs and counterweighs/ tall or wide loads should be controlled by banksman to maintain adequate clearance. Machinery will remain outside of the Construction Exclusion Zone as denoted by fencing and signage.

6.3 CONSTRUCTION PHASE

Construction Management and Site Logistics

Demolition and Construction Management Plans (CMPs) are required by condition 23 for approval prior to the commencement of development. These documents will give details on several matters that are key in ensuring the protection of trees, including site construction access, storage of materials and location of site offices. These items are discussed below with recommendations from an arboricultural perspective.

Site Construction Access

In accordance with section 5.5.6 of the BS5837, all site access routes will be outside of the RPAs of retained trees and all tree protection measures will remain in place throughout the demolition and/or construction phase as applicable.

Storage of Materials

An area outside of the RPAs of any on and offsite trees will be allocated for storage of materials. Materials will only be stored in the designated areas and there will be no storage of materials within the RPAs of retained trees. Tree protection measures will remain in place throughout the relevant phase.

Site Offices and Welfare

In accordance with section 5.5.6 of the BS5837, all site offices and welfare facilities will be located outside of the RPAs of retained trees.

Services and Utilities

The services and utilities plan for this scheme has been reviewed to ensure any proposed above and below ground routes are considered in the context of the existing trees.

On review it is shown that any new utilities will be routed through existing run spaces. Where new trenches and insertions are required, they will be done so in line with the National Joint Utilities Group (NJUG)[3] and overseen by the project ACoW.

The need for any minor root pruning and backfilling (as required by any utility works), will be undertaken as set out in this report.

Proposed Works Within Root Protection Areas

Building Construction

With the proposed tree removals, no conflicts between new buildings and retained trees have been identified.

Hard Standing Construction and New Soft Landscaping

Modifications to existing hard surfacing and soft landscaping is proposed adjacent to all retained trees. The new hard surfacing will either replace existing hard surfaces or result in only very minor changes to the existing soft landscaping layout and therefore have no significant impact. Accordingly, there will be no impact upon water availability, gaseous exchange or soil compaction, assuming the following methods are adhered to.

Hard Standing Construction

Ground preparations and installation of the new and/replaced hard surfacing will need to be carried out in a sensitive way with regards to the adjacent trees. This will be performed under watching brief of the appointed ACoW to ensure any potential impacts upon the trees are avoided.

If required, tree protection fencing will be temporarily moved to allow works to be completed adjacent the construction exclusion zone.

In line with section 7.3.6 of BS5837, existing hard surfaces within RPA's will be broken up manually (using hand tools or a ground breaker).

There will be no excavation into the sub materials or reduction in levels; if levelling to the ground is required, this will be achieved through filling in gaps with up to 100mm of good quality topsoil and levelling with hand tools.

Soft Landscaping Areas

As shown on the Tree Protection Plan (Appendix E), other than those areas of modified hardstanding, most of the retained trees RPA's will remain as soft landscaping areas. The proposals should not therefore negatively impact the long-term health of retained trees, provided the existing root structure is not significantly impacted during planting.

Ground preparations for soft landscaping will need to be carried out in a sensitive way with regards to the adjacent retained trees. This will be performed under the guidance of the appointed ACoW to ensure any potential impacts upon the trees are avoided.

Tree protection fencing will be temporarily moved to allow works to be completed within the construction exclusion zone.

Where possible, all existing surface vegetation should be removed using hand tools. Where this is deemed to be impractical then slow controlled scraping of this top surface layer can be undertaken by a JCB bucket, although only under the guidance of the project ACoW. This then with any machinery crucially working from outside the RPA's.

Once surface vegetation has been removed, there will be no excavation into the sub materials or reduction in levels; if levelling to the ground is required, this will be achieved through filling in gaps with up to 100mm of good quality topsoil and levelling with hand tools.

In preparing the final top layer for planting or relaying of grass, heavy mechanical cultivation such as rotavating should be avoided, with no more than 100 mm of new top soil added in a location with the RPA's of retained trees. Any such cultivation operations should be undertaken carefully by hand in order to minimize damage to tree roots.

Any need for minor root pruning will be undertaken in line with the best practice methodology as result below.

Root Pruning

Whilst it has been shown that conflict with significant roots is unlikely, any smaller roots from retained trees identified during, will need to be managed in line with the relevant best practice.

In line with BS5937, roots of <25 mm (other than where they occur in clumps) will be pruned back via a clean cut with a suitable sharp tool.

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.

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.

Landscape Management

A comprehensive landscaping strategy has been designed for the scheme which includes extensive new tree planting, as described in the previous chapter.

All new tree planting shall be implemented following appropriate guidance in the *BS8545: 2014 Trees: from necessary to independence in the landscape – Recommendations*[4]. We recommend any new trees that fail within the first 5 years following development are replaced to ensure the long-term maintenance of the planting strategy.

7.0 SUMMARY AND CONCLUSIONS

This Arboricultural Impact Assessment and Method Statement (AIA and AMS) has been prepared by Greengage in support of an application for the approval of details required for approval by condition 20 for Phases 3B & 3C of the High Path Estate regeneration pursuant to the Outline Planning Permission granted in April 2019 (ref. 17/P1721), and subsequently amended in 2022 (ref: 21/P2806 and 22/P1740). The application is made by Clarion Regeneration Limited (hereafter referred to as 'the Applicant').

During the site survey for Phase 3B, 32 individual trees and 1 tree group (46 trees in total as the group contained 14 individual trees) were identified within the scope of this report, with 44 individuals noted for Site Phase 3C. No Category A trees were identified.

Through the subsequent Arboricultural Impact Assessment, it has been confirmed that 28 trees and 1 tree group are proposed to be removed on the Phase 3B Site and 30 trees within the Phase 3C Site as a result of direct or significant in direct constraint against proposed new building and landscaping elements, or within the working area for demolition, with all other trees then retained. The tree removals and retention strategy remain consistent with that shown in the Overarching Arboricultural Method Statement by Oisin Kelly, which accompanied the Phase 2 reserved matters application, which was approved in October 2019 (ref. 19/P1852).

In recognising the need to mitigate the identified tree removals as a result of the proposed development, the landscaping and planting plans will deliver a planting strategy that includes a mix of species, accompanied by a landscape management plan to ensure all new planting is successfully established.

Finally, an Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) have been produced to ensure all retained trees are adequately managed and protected throughout the construction phase.

The AMS section of this report has been produced in pursuit of discharging Condition 20 (having regard also to the requirements of condition 27 and 28) of the Outline Planning Permission (ref: 22/P1740), in relation Phases 3B & 3C.

If the recommendations within this report are adhered to, a positive contribution to local amenity will be delivered through incorporation of new tree planting and other green infrastructure elements in line with local policy.

APPENDIX A TREE SURVEY METHODLOGY

Trees, tree groups and woodlands have been considered following evaluation into one of four categories (U, A, B, C) based on tree quality as outlined in British Standard 5837 (2012) which has been followed. Categorisation of trees, following the British Standard, gives an indication as to the trees' importance in relation to the site and the local landscape and also, the overall value and quality of the existing tree stock on site. This allows for informed decisions to be made concerning which trees should be removed or retained, should development occur.

For a tree to qualify under any given category it should fall within the scope of that category's definition. In the categories A, B, C which collectively deal with trees that should be a material consideration in the development process, there are three sub-categories which are intended to reflect arboricultural, landscape and cultural values respectively. Category U trees are those which would be lost in the short-term for reasons connected with their poor physiological or structural condition. They are, for this reason, not usually considered in the planning process.

In assigning trees to the A, B or C categories the presence of any serious disease or tree related hazards are taken into account. If the disease is considered fatal and / or irremediable, or likely to require sanitation for the protection of other trees it may be categorised as U, even if they are otherwise of considerable value.

Category (A) – trees whose retention is most desirable and is of high quality and value. These trees are considered to be in such a condition as to be able to make a lasting contribution (a minimum of 40 years) and may comprise:

- Trees which are particularly good examples of their species especially rare or unusual, or essential components of groups or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue);
- Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups); and
- Trees or groups or woodlands of significant conservation, historical, commemorative or other value (e.g. Veteran or wood-pasture trees).

Category (B) – are trees whose retention is considered desirable and are of moderate quality and value. These trees are considered to be in such a condition as to make a significant contribution (a minimum of 20 years) and may comprise:

- Trees that might be included in the high category but because of their numbers or slightly impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage), are downgraded in favour of the best individuals;
- Trees present in numbers such that they form distinct landscape features and attract a higher collective rating than they would as individuals. Individually these trees are not essential

components of formal or semi-formal arboricultural features, or trees situated mainly internally to the site and have little visual impact beyond the site; and

- Trees with clearly identifiable conservation or other cultural benefits.

Category (C) – are trees that could be retained and are considered to be of low quality and value. These trees are in an adequate condition to remain until new planting could be established (a minimum of ten years) or are young trees with a stem diameter below 150mm and may comprise:

- Trees not qualifying in higher categories;
- Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value and or trees offering low or only temporary screening benefit; and
- Trees with very limited conservation or other cultural benefits.

Category (U) – trees for removal are those trees in such a condition that any existing value would be lost within 10 years and which should in the current context be removed for reasons of sound arboricultural management. Trees within this category are:

- Trees that have a serious irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees;
- Trees that are dead or are showing signs of significant, immediate or irreversible overall decline; and
- Trees infected with pathogens of significance to the health and or/safety of other trees nearby trees or very low quality trees suppressing adjacent trees of better quality.

Species has been recorded by common name and recorded as such in the Tree Schedule. Height has been estimated in metre and stem diameters have been measured at 1.5 metres above ground level and recorded in millimetres (unless otherwise stated). Crown spreads have been measured in half metres and taken to the point of greatest spread unless the crown has presented a pronounced asymmetrical form and therefore measurements have been taken for the four cardinal points. The measurements have always been considered in the following sequence, North, East, South, and West, and therefore appear as such within the Tree Schedule.

In the assessment particular consideration has been given to the following when deciding the most appropriate British Standard Category and Sub-Category allocation:

a. the health, vigour and condition of each tree;
b. the presence of any structural defects in each tree and its life expectancy;
c. the size and form of each tree and its suitability within the context of the proposed scheme; and
d. the location of each tree relative to existing site features, e.g. its value as a screen or as a skyline feature.

Age class is assessed according to the age class categories referred to in BS 5837.

- Y: Young trees up to five years of age;

- SM: Semi-mature, trees less than 1/3 life expectancy;
- EM: Early mature, trees 1/3 – 2/3 life expectancy;
- M: Mature trees over 2/3 life expectancy;
- OM: Over mature – declining or moribund trees of low vigour; and
- V: Veteran - characteristics have been noted where a tree exhibits certain characteristic features of veteran trees.

The overall condition of the tree, or group of trees, has been referred to as one of the following. A more detailed description of condition has been noted in the Tree Schedule and discussed in the main text of the report.

- Good: A sound tree, trees, needing little, if any, attention;
- Fair: A tree, trees, with minor but rectifiable defects or in the early stages of stress, from which it may recover;
- Poor: A tree, trees, with major structural and physiological defects or stressed such that it would be expensive and inappropriate to retain; and
- Dead: A tree, trees, no longer alive. However, this could also apply to those trees that are dying and will be unlikely to recover, or are / have become dangerous.

Major defects or diseases and relevant observations have also been recorded under Structural Condition. The assessment for structural condition has included inspection of the following defects:

- The presence of fungal fruiting bodies around the base of the tree or on the stem, as they could possibly indicate the presence of possible internal decay;
- Soil cracks and any heaving of the soil around the base indicating possible root plate movement;
- Any abrupt bends in branches and limbs resulting from past pruning, as it may be an indication of internal weakness and decay;
- Tight or weak 'V' shaped unions and co-dominant stems;
- Hazard beam formations and other such biomechanical related defects (as described by Claus Mattheck, Body Language of Trees HMSO Research for Amenity Trees No. 4 1994);
- Cavities as a result of limb losses or previous pruning;
- Broken branches;
- Storm damage;
- Canker formations;
- Loose bark;
- Damage to roots;
- Basal, stem or branch / limb cavities;

- Crown die-back;
- Abnormal foliage size and colour;
- Any changes to the timing of normal leaf flush and leaf fall patterns; and
- Other pathological diseases affecting any part of the tree.
- Major defects or diseases and relevant observations have also been recorded. Dead wood has been defined as the following:
    - Twigs and small branch material up to 5cm in diameter;
    - Minor dead wood 5cm to 10cm in diameter; and
    - Major dead wood 10cm in diameter and above.

The survey was completed from ground level only, aerial inspection of trees was not undertaken. Investigations as to the internal condition of a tree have not been undertaken. Further investigations of this type can be made and have been recommended where it has been considered necessary, within the report although these investigations are beyond the scope of this report.

Evaluation of the trees condition given within this assessment applies to the date of survey and cannot be assumed to remain unchanged. It may be necessary to review these within 12 months, in accordance with sound arboricultural practice.

The individual positions of trees and groups of trees recorded in the Tree Schedule have been shown on the Tree Constraints Plan. The positions of trees are based on a topographical / land survey supplied by the client in dwg. format for the purpose of plotting the trees.

The Root Protection Areas (RPA) to be required by the individual and groups of trees are indicated by the Tree Constraints element of the above plans. The Root Protection Areas are formulated as described below.

Below ground constraints to future development is represented by the area surrounding the tree that contains sufficient rooting volume to ensure survival of the tree, which need protecting in order for the tree to be incorporated into any future scheme, without adverse harm to the tree or structural integrity of buildings. This is referred to as the RPA and is shown as a circle of a given radius.

The circle may be modified in shape to maintain a similar total area depending on the presence of surrounding obstacles. Where groups of trees have been assessed, the RPA has been shown based on the maximum sized tree in any one group and so would automatically exceed the RPA's required for many of the individual specimens within the group. The RPA is equivalent to a circle with a radius 12x the stem diameter for single stem trees and 10x the basal diameter for trees with more than one stem arising less than 1.5 meters above ground level.

APPENDIX B TREE DATA TABLES

Table B.1 Tree Table Phase 3B

Tree No.	Species	Height (m)	Stem Diameter (mm)	Crown Spread				Age Class	Condition		General Notes	Est. Yrs Remaining	Grade / Category
				N	E	S	W		P	S			
T2	London Plane	14	710	6	7	7	6	EM	G	F	Well-structured multistem tree from 3m. Numerus semi occluded pruning points within the mid stem area. Crown regrowth from previous reduction.	>20	B1
T3	Purple plum	5	340	4	4	4	4	EM	P	P	Multistem from 2 m with decay showed on many stems with some snap outs within the crown. Notable cushion fungus around the base.	<10	U
T4	Purple plum	5	250	3	3	4	4	EM	G	F	Multistem stem from 2.5 m. Numerous areas of cushion fungus noted within the mid crown, with large tear outs on the western side and small hazard beam split.	>10	C1
T5	Purple plum	5	250	4	3	3	3	EM	G	F	Growing in raised planting strip with congested multistem crown structure.	>10	C1
T7	Cherry	6	400	5	7	5	5	M	F	F	Tri-stem from 3 m with very erratic, asymmetrical and clustered crown structure, with heavy pruning history. Shows a cracked tarmac path and manhole cover within the RPA. Notable active decay from observed Ganoderma sp.	>10	C1
T8	London Plane	14	110	10	10	7	7	M	G	F	Tri stem from 1 m which then breaks into the multistem crown structure and shape. Numerous semi occluded pruning points within the mid stem area. Crown regrowth from previous reduction. Growing in raised planting area, supported by brick retaining wall.	>20	B1
T9	Hornbeam	4	140	1	3	5	3	SM	F	P	Poorly structured and asymmetrical tree that is heavy smothered by the mature growth of the adjacent mature London plane.	<10	U
T10	Norway maple	8	380	6	4	8	7	SM	P	P	Single stem to 3 m when it breaks into a multistem crown structure. Asymmetrical structure as a result from mature adjacent London place. Small and medium dead wood as a result of this over shadowing.	>10	C2
T11	Sycamore	8	390	4	4	6	5	SM	F	F	Single stem structure, asymmetrical as a result of adjacent trees. Numerous instances of small and medium dead wood.	>20	B2
T12	Sycamore	7	460	5	3	6	6	SM	F	F	Single stem structure, asymmetrical as a result of adjacent trees. Numerous instances of small and medium dead wood.	>20	B2
T13	London Plane	7	220	4	4	3	3	SM	G	G	Small street tree planted in soft landscaping strip. Semi occluded open bark wound strip from 1.5 m to ground.	>10	C1
T14	London Plane	6	210	4	4	4	4	SM	G	G	Small street tree planted in soft landscaping strip.	>10	C1
T15	London Plane	6	250	5	5	4	5	SM	G	F	Small tree growing in planting pit. Multistem from base with two included bark unions from 1.5m. Minor damage to stem with some self-bracing in the crown.	>10	C1
T16	Whitebeam	6	240	4	4	4	4	SM	G	G	Street tree with typically clustered multi stem crown structure from 2 m, growing in planting pit	>10	C1
T17	Purple plum	6	240	5	5	5	5	EM	G	G	Growing within small landscaping strip with residential front garden. Typically clustered multi stem crown structure from 2 m. Major lower stem damage from	>10	C1

Tree No.	Species	Height (m)	Stem Diameter (mm)	Crown Spread N	E	S	W	Age Class	Condition P	S	General Notes	Est. Yrs Remaining	Grade / Category
											having been girdled from old planting tie that has since been removed or snapped off.		
T18	Purple plum	6	200	3	3	3	3	EM	P	P	Growing within small landscaping strip within residential front garden. Typically clustered multi stem crown structure from 2 m. Shows lower crown damage from tear out.	<10	U
T19	Norway maple	5	120	2	2	2	2	D	D	D	Tree now dead.	<10	U
T20	Norway maple	6	250	3	4	3	3	S	G	G	Multistem structure from 2.5 m with a wide well shaped crown. Slight clash with the adjacent building.	<20	C
T21	Whitebeam	4	270	2	3	2	2	SM	F	F	Growing within small landscaping strip with residential front garden. Typically clustered multi stem crown structure from 2 m. Shows lower stem damage from vehicle impacts.	>10	C1
T22	Whitebeam	6	420	5	5	5	5	EM	G	F	Growing within small landscaping strip with residential front garden. Typically clustered multi stem crown structure from 2 m.	>10	C1
T23	Narrow leaved ash	12	420	6	7	6	7	S	G	F	Growing within a parallel linear group (either side of the road) of the same species that shows significant pruning history to both the upper and lower crown areas to maintain building and road clearance. Originally a pollarded tree, has formed a mature crown from the re-growth. Large open heartwood wound at 1 m	>20	B
T24	Narrow leaved ash	12	300	6	6	5	2	S	G	F	Growing within a parallel linear group (either side of the road) of the same species that shows significant pruning history to both the upper and lower crown areas to maintain building and road clearance. Originally a pollarded tree, has formed a mature crown from the re-growth.	>20	B
T25	Narrow leaved ash	12	350	6	6	6	5	S	G	F	Growing within a parallel linear group (either side of the road) of the same species that shows significant pruning history to both the upper and lower crown areas to maintain building and road clearance. Originally a pollarded tree, has formed a mature crown from the re-growth.	>20	B
T26	Narrow leaved ash	12	300	6	5	7	3	S	G	F	Growing within a parallel linear group (either side of the road) of the same species that shows significant pruning history to both the upper and lower crown areas to maintain building and road clearance. Originally a pollarded tree, has formed a mature crown from the re-growth.	>20	B
T37	Narrow leaved ash	12	380	6	5	6	5	S	G	F	Growing within a parallel linear group (either side of the road) of the same species that shows significant pruning history to both the upper and lower crown areas to maintain building and road clearance. Originally a pollarded tree, has formed a mature crown from the re-growth.	>20	B
T38	Narrow leaved ash	12	340	6	6	5	4	S	G	F	Growing within a parallel linear group (either side of the road) of the same species that shows significant pruning history to both the upper and lower	>20	B

Tree No.	Species	Height (m)	Stem Diameter (mm)	Crown Spread N	E	S	W	Age Class	Condition P	S	General Notes	Est. Yrs Remaining	Grade / Category
											crown areas to maintain building and road clearance. Originally a pollarded tree, has formed a mature crown from the re-growth.		
T39	Hornbeam	8	350	5	5	5	5	S	G	G	Single stem well-structured tree, sat within adjacent linear group of Narrow leaved ash	>20	B
T40	Hornbeam	7	320	4	4	4	3	S	G	G	Slightly asymmetrical tree with no noted defects.	<20	C
T70	Bay	6	270	2.5	2.5	2.5	2.5	M	G	G	Located in rear garden of residential flats, behind the perimeter fence. Well structured with uniform crown shape. Base is now pushing through fence and path.	>10	C1
T71	Sycamore	4	210	3	3	3	3	SM	F	F	Small self-seeded tree within located in rear garden of residential flats, behind the perimeter fence.	>10	C1
T72	Elder	4	210	3	3	3	3	SM	F	F	Small self-seeded tree within located in rear garden of residential flats, behind the perimeter fence.	>10	C1
T73	Goat willow	6	200	3	4	4	3	SM	F	F	Located in rear garden of residential flats, behind the perimeter fence. Has had recent crown reduction.	>10	C1
G1	Elder and ash	8	100	6	7	7	6	SM	P	P	Strip of self seeded small multistem trees growing within the narrow strip between the fence and garages.	<10	U

G: Good F: Fair

P: Poor

SM: Semi mature

EM: Early mature

Table B.2 Tree Table Phase 3C

Tree No.	Species	Height (m)	Stem Diameter (mm)	Crown Spread				Age Class	Condition		General Notes	Est. Yrs Remaining	Grade / Category
				N	E	S	W		P	S			
T99	London plane	15	670	9	5	6	7	E	G	G	Forms part of linear group of roadside mature trees of the same species. Collectively forms an important arboricultural and landscaping feature although this and many of the trees with the group are individually asymmetrical as a result of adjacent suppression from other trees. Formed from pollard regrowth from 3 m.	>20	B
T100	London plane	15	540	8	6	8	6	E	G	G	Forms part of linear group of roadside mature trees of the same species. Collectively forms an important arboricultural and landscaping feature although this and many of the trees with the group are individually asymmetrical as a result of adjacent suppression from other trees. Formed from pollard regrowth from 3 m. Slight northern learn to stem	>20	B
T101	London plane	15	720	9	7	9	6	E	G	G	Forms part of linear group of roadside mature trees of the same species. Collectively forms an important arboricultural and landscaping feature although this and many of the trees with the group are individually asymmetrical as a result of adjacent suppression from other trees.	>20	B
T102	London plane	15	700	9	9	8	6	E	G	G	Forms part of linear group of roadside mature trees of the same species. Collectively forms an important arboricultural and landscaping feature although this and many of the trees with the group are individually asymmetrical as a result of adjacent suppression from other trees.	>20	B
T103	London plane	15	640	9	6	8	7	E	G	G	Forms part of linear group of roadside mature trees of the same species. Collectively forms an important arboricultural and landscaping feature although this and many of the trees with the group are individually asymmetrical as a result of adjacent suppression from other trees. Formed from pollard regrowth from 3 m.	>20	B
T104	London plane	15	640	9	5	7	6	E	G	F	Forms part of linear group of roadside mature trees of the same species. Collectively forms an important arboricultural and landscaping feature although this and many of the trees with the group are individually asymmetrical as a result of adjacent suppression from other trees. Significant lean to stem that straightens up in the upper crown.	>20	B
T105	London plane	15	390	9	4	0	3	S	G	P	Forms part of linear group of roadside mature trees of the same species. Collectively forms an important arboricultural and landscaping feature although this and many of the trees with the group are individually asymmetrical as a result of adjacent suppression from other trees. Shows a dramatic northern jutting out crown section from 4 m.	<20	C
T106	London plane	15	790	9	8	7	7	M	G	G	Forms part of linear group of roadside mature trees of the same species. Collectively forms an important arboricultural and landscaping feature although	>20	B

Tree No.	Species	Height (m)	Stem Diameter (mm)	Crown Spread N	E	S	W	Age Class	Condition P	S	General Notes	Est. Yrs Remaining	Grade / Category
											this and many of the trees with the group are individually asymmetrical as a result of adjacent suppression from other trees..		
T107	Alder	15	440	8	6	1	2	M	G	P	Poorly structured tree as a result of its tall fastigiate growth away from the dominant adjacent London plane.	>20	B
T108	Lime	15	280	4	3	2	2	E	F	P	Fairly suppressed structure as a result of dominant adjacent mature tree group.	<20	C
T109	Lime	15	330	3	3	3	4	E	F	F	Fairly suppressed structure as a result of dominant adjacent mature tree group.	<20	C
T110	Norway maple	15	520	7	6	8	6	E	G	F	Dense crown, low crown dead wood. Co-dominant tree.	>20	B
T111	Apple	7	280	3	3	3	3	E	G	G	Well-structured fastigiate tree growing within front garden landscape section of roadside fronting house.	<20	C
T112	Apple	7	300	3	3	3	3	E	G	G	Well-structured fastigiate tree growing within front garden landscape section of roadside fronting house	<20	C
T113	Apple	7	250	4	4	4	4	E	G	G	Well-structured fastigiate tree growing within front garden landscape section of roadside fronting house	<20	C
T114	Norway maple	9	420	4	6	6	6	E	G	G	Well-structured single stem tree with large southern lateral limb	>20	B
T115	Norway maple	11	450	2	6	6	5	E	G	F	Dense crown, low crown dead wood. Co-dominant tree. Wounding to buttress roots – mower / strimmer damage.	<20	C
T116	Norway maple	8	390	6	6	6	4	E	G	G	Dense crown, low crown dead wood. Co-dominant tree. Wounding to buttress roots – mower / strimmer. Root girdle.	>20	B
T133	Silver birch	7	240	3	3	6	5	M	G	P	Erratically structured crown that is in the process of recovering from having historically lost its leader.. Growing in hard paving slab covered planting pit.	<20	C
T134	Silver birch	8	290	3	4	5	3	E	G	P	Erratically structured crown that is in the process of recovering from having historically lost its leader. Growing in hard paving slab covered planting pit.	<20	C
T135	Silver birch	6	200	3	3	4	2	E	G	P	Erratically structured crown that is in the process of recovering from having historically lost its leader. Growing in hard paving slab covered planting pit.	<20	C
T136	Silver birch	7	280	3	4	4	2	E	G	P	Erratically structured crown that is in the process of recovering from having historically lost its leader. Growing in hard paving slab covered planting pit.	<20	C
T137	Silver birch	8	250	3	4	5	3	E	G	P	Erratically structured crown that is in the process of recovering from having historically lost its leader. Growing in hard paving slab covered planting pit.	<20	C
T138	Silver birch	9	230	3	3	3	4	E	G	P	Part of linear group of same species in this location. Growing in hard paving slab covered planting pit.	<20	C
T139 is no longer present on site.													
T140	Paper bark birch	4	100	2	3	2	2	S	G	G	Recently planted well-structured young street tree.	<20	C
T141A	Paper bark birch	4	100	2	2	2	2	S	G	G	Recently planted well-structured young street tree.	<20	C
T141B	Paper bark birch	4	100	2	2	2	2	S	G	G	Recently planted well-structured young street tree.	<20	C

Tree No.	Species	Height (m)	Stem Diameter (mm)	Crown Spread N	E	S	W	Age Class	Condition P	S	General Notes	Est. Yrs Remaining	Grade / Category
T142	Paper bark birch	4	100	2	2	2	2	S	G	G	Recently planted well-structured young street tree.	<20	C
T143	Field maple	6	190	4	4	4	4	S	G	G	Good form, shape and condition.	>20	B
T144	Field maple	5	110	1	1	1	1	S	G	G	Good form, shape and condition.	<20	C
T145	Field maple	7	160	2	2	2	2	S	G	G	Good form, shape and condition.	<20	C
T146	Elder	4	100	3	3	2	3	E	G	G	Small self-seeded shrub specimen.	<20	C
T147	Lime	9	500	4	4	4	4	E	G	F	Included bark twin stem structure from ground level. Shows heavy reduction and cyclical pruning in the upper crown. Crown now formed from epicormic regrowth. Large split noted from 0.5 m to 1.5 m- semi occluded.	<20	C
T148	Lime	7	610	3	2	3	3	M	G	F	Tri stem from 2.5 m with crown now formed from pollard regrowth.	<20	C
T150	Cherry	5	170	3	3	3	3	E	F	F	Fair form, shape and condition, have seem upper crown reduction.	<20	C
T151	Norway maple	8	410	4	4	5	2	S	G	F	Very asymmetrical as a result of adjacent tree and has a history of crown rise and reduction. Growing in hard standing planting pit.	<20	C
T152	Norway maple	9	550	4	4	4	4	E	G	F	Well-structured multistem stem tree growing in hard standing planting pit. Crown now formed from a historic pollard. Crown reduction history noted.	>20	B
T153 is no longer present on site.													
T154	Norway maple	7	500	5	4	5	5	E	G	F	Well-structured multistem stem tree growing in hard standing planting pit.	>20	B
T155	Norway maple	7	150	4	3	1	2	E	G	F	Phototropically developing a heavily growth lean away from the building.	<20	C
T156	Sycamore	8	490	6	6	4	6	S	G	F	Included bark twin stem from 2m with multistem stem upper crown.	<20	C
T157	Silver birch	5	210	2	3	2	1	S	P	P	Tree now dead.	<10	U
T158	Silver birch	8	230	3	4	4	4	E	G	F	Good physiological condition with a distinctive southern lean.	>20	B
T159	Purple plum	6	460	6	7	5	4	M	G	F	Good specimen despite its lower erratically formed and leaning stem structure. A key amenity tree within the small garden area.	>20	B
T160	Cherry	6	270	5	5	5	5	E	G	G	Single stem with a typically wide-open spaced crown with no notable defects.	>20	B

G: Good F: Fair

P: Poor

SM: Semi mature

EM: Early mature

APPENDIX C TREE CONSTRAINTS PLAN

Tree Constraints Plan showing existing 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 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.

Redline Boundary Areas

No.	Revision/Issue
1	551315jrNov22_TCPex_FV2_HP3.dwg

Greengage
9 Holyrood Street, SE1 2EL
Tel: 0203 544 4000

Project Name and Address
High Path Phase 3B and 3C.

Project	Sheet
High Path	1 of 1
Date 16/11/2022	
Scale 1 to 500 at A2	

Tree Constraints Plan showing Phase 3C Demolition Area 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 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.

Tree Removals

3C Redline Demolition Area

No.	Revision/Issue
1	551315jrNov22_TCPdemo_FV3_HP3.dwg

Greengage
9 Holyrood Street, SE1 2EL
Tel: 0203 544 4000

Project Name and Address
High Path Phase 3B and 3C.

Project	Sheet
High Path	1 of 1
Date 02/12/2022	
Scale 1 to 500 at A2	

Tree Constraints Plan showing Phase 3B 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 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.

Tree Removals

Redline Boundary Areas

No.	Revision/Issue
1	551315JrNov22_TCPpr_FV3_HP3.dwg

Greengage

9 Holyrood Street, SE1 2EL
Tel: 0203 544 4000

Project Name and Address

High Path Phase 3B and 3C.

Project	Sheet
High Path	1 of 1
Date	
16/11/2022	
Scale	
1 to 500 at A2	

APPENDIX D SITE PHOTOS

Figure D.1 T2 London Plane

Figure D.2 T3 Purple Plum

Figure D.3 T4 Purple Plum

Figure D.4 T5 Purple Plum

Figure D.5 T7 Cherry

Figure D.6 T8 London Plane

Figure D.7 T9 to T12 (Hornbeam, Norway maple, Sycamore, Sycamore)

Figure D.8 T13 and T14 London Plane

Figure D.9 T15 and T16 London Plane

Figure D.10 T17 Purple Plum

Figure D.11 T18 Purple Plum

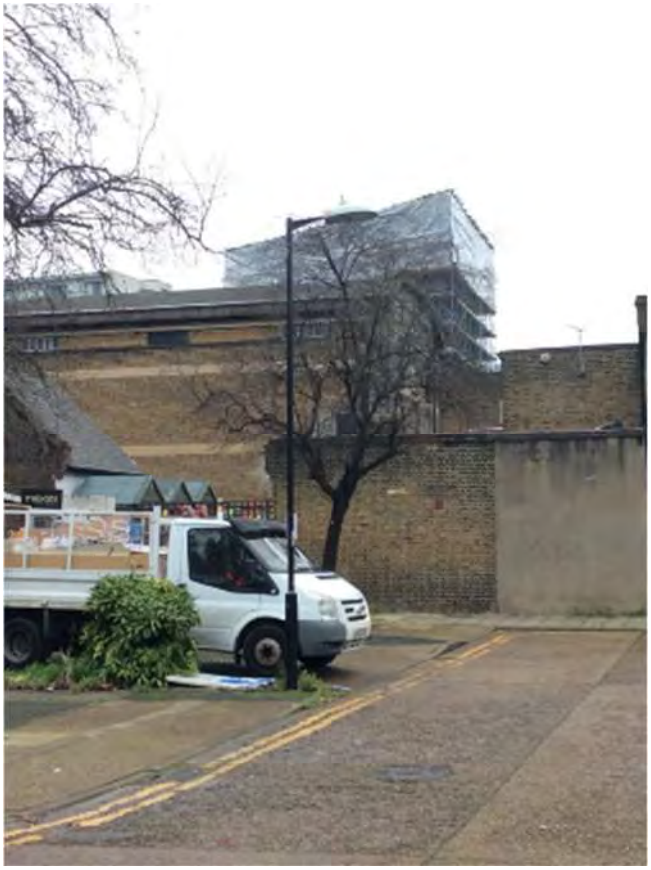


Figure D.12 T19 and T20 (Norway maple)

Figure D.13 T21 Whitebeam

Figure D14 T22 Whitebeam

Figure D15 T23 to 26, T37 to T39 Narrow leaved ash, T40 Hornbeam

Figure D.16 T70 Bay

Figure D.17 T73 Goat willow

Figure D.18 G1 Ash and Elder

APPENDIX E TREE PROTECTION PLAN

Arboricultural Method Statement

(to be read in conjunction with details contained in main report 551315JR15NOV22FV03_ARB)

ACoW- A suitably qualified arboriculturist should be appointed to act as an Arboricultural Clerk of Works (ACoW). The ACoW will be engaged to monitor and oversee the implementation of the works required in the method statement. These work stages include:

1) Pre-commencement site meeting.
2) Erect tree protection fencing.
3) 3 monthly formal site inspections.
4) Site sign off and fencing removal.

Tree Removals- all proposed tree removals are shown on the Tree Constraints Plan (proposed) at Appendix E of this report.

Tree Fencing- For the demolition phase, BS5837 tree protection fencing should be installed around the existing soft landscaped RPA's of all retained trees along Merton High Street (Fig 1). In line with the best practice approach as set out below, this fencing should not be removed until all demolition works have been completed.

The tree protection area behind the tree protection fencing (the Construction Exclusion Zone) will remain sacrosanct throughout demolition and no access will be allowed to this area including for example the storage of or moving of materials or machinery.
The fencing will be secured with uprights driven into the ground to prevent movement of the protective fencing and ensure its rigid installation.

The tree protection fencing denotes the Construction Exclusion Zone. Therefore, the following must be carefully considered 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.

Material that will contaminate the soil such as concrete mixing, diesel oil and vehicle washing should not be discharged within 10m of the tree stems.
No fire shall be lit, or liquids disposed of within 10m of an area designated as being fenced off or otherwise protected in the scheme.

At the end of the project the fencing will be removed on completion of site works and after confirmation by the ACoW.

A copy of this plan will be located within the site cabins throughout the course of demolition. This will include details of the fencing specification and location for which the fence will be erected. This plan will be printed at no less than A1 in size to ensure easy reading of all the detail contained within.

Tree Fencing Signage- Clear and visible signage (Fig. 2) will be attached to the protective fencing. This area will be checked prior to the commencement of works and throughout the course of development.

Tree Pruning
As all Phase 3C demolition works will take place from on site to the south, no requirement for facilitation pruning is anticipated for any of the retained trees. Should the need for any minor works be identified at the pre commencement meeting, works will be undertaken by a suitably qualified tree surgeon in line with BS3998:2010 'Tree work - Recommendations.

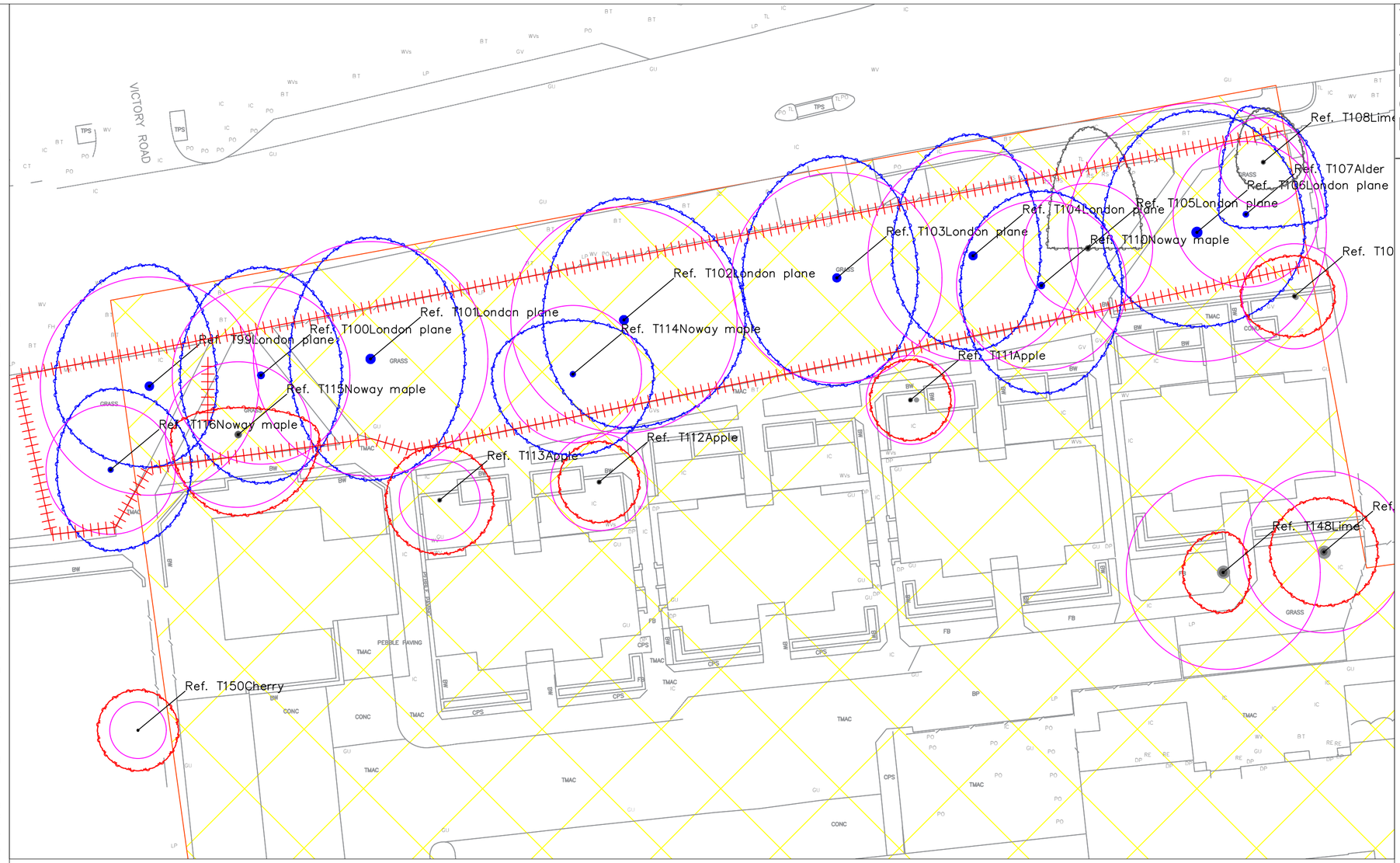


Figure 1. BS5837 Tree Protection Fencing

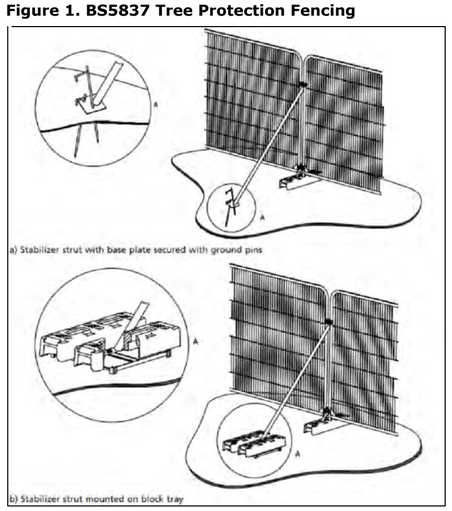


Figure 2. Tree Protection Fencing Signage

Tree Protection Plan for Phase 3C Demolition 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 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.

Tree Removals

BS5837 Tree Protection Fencing (Fig. 1)

No.	Revision/Issue
1	551315jrNov22_TPPdemo_FV1_HP3.dwg

Greengage
9 Holyrood Street, SE1 2EL
Tel: 0203 544 4000

Project Name and Address
High Path Phase 3B and 3C.

Project High Path	**Sheet** 1 of 1
Date 02/12/2022	
Scale 1 to 500 at A2	

Arboricultural Method Statement

(to be read in conjunction with details contained in main report 551315JR15NOV22FV03_ARB)

ACoW- A suitably qualified arboriculturist should be appointed to act as an Arboricultural Clerk of Works (ACoW). The ACoW will be engaged to monitor and oversee the implementation of the works required in the method statement. These work stages include:

1) Pre-commencement site meeting.
2) Erect tree protection fencing.
3) Hard and soft landscaping within RPA's.
4) Utility installation within RPA's (if required).
5) 3 monthly formal site inspections.
6) Site sign off and fencing removal.

Tree Removals- all proposed tree removals are shown on the Tree Constraints Plan (proposed) at Appendix E of this report.

Tree Fencing- For the demolition and construction phases, BS5837 tree protection fencing should be installed around the existing soft landscaped RPA's of T2, T13 and T14 (Fig 1). In line with the best practice approach as set out below, this fencing should only be removed at the start of the relevant landscaping work phases in these locations. Given the need to keep the pavement clear and with the existing hard surfacing, stem box protection (Fig 2) should be installed to the specification shown around T15 and T16.

Tree Fencing Signage- Clear and visible signage (Fig. 3) will be attached to the protective fencing. This area will be checked prior to the commencement of works and throughout the course of development.

Tree Pruning

No requirement for facilitation pruning is anticipated for any of the retained trees. Should the need for any minor works be identified at the pre commencement meeting, works will be undertaken by a suitably qualified tree surgeon in line with BS3998:2010 'Tree work - Recommendations.

Hard landscaping within RPA's

If required, tree protection fencing will be temporarily moved to allow works to be completed adjacent the construction exclusion zone. In line with section 7.3.6 of BS5837, existing hard surfaces within RPA's will be broken up manually (using hand tools or a ground breaker). There will be no excavation into the sub materials or reduction in levels; if leveling to the ground is required, this will be achieved through filling in gaps with up to 100mm of good quality topsoil and leveling with hand tools.

Soft Landscaping within RPA's

Tree protection fencing will be temporarily moved to allow works to be completed within the construction exclusion zone. Where possible, all existing surface vegetation should be removed using hand tools. Where this is deemed to be impractical then slow controlled scraping of this top surface layer can be undertaken by a JCB bucket, although only under the guidance of the project ACoW. This then crucially working from outside the RPA's. Once surface vegetation has been removed, there will be no excavation into the sub materials or reduction in levels; if levelling to the ground is required, this will be achieved through filling in gaps with up to 100mm of good quality topsoil and levelling with hand tools. In preparing the final top layer for planting or relaying of grass, heavy mechanical cultivation such as rotavating should be avoided, with no more than 100 mm of new top soil added in a location with the RPA's of retained trees. Any such cultivation operations should be undertaken carefully by hand in order to minimize damage to tree roots.

Management of Tree Roots

Should root pruning be required then anything smaller than 25 mm diameter may be pruned back, making a clean cut with a suitable sharp tool (secateurs or pruning saw), except where they occur in clumps. During any of the stated demolition works, any exposed roots of retained trees (if not immediately re-covered), should be wrapped or covered with a wet hessen sack (or similar), to prevent desiccation. Any wrapping should be removed prior to backfilling, which should take place as soon as possible. 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.

Figure 1. BS5837 Tree Protection Fencing

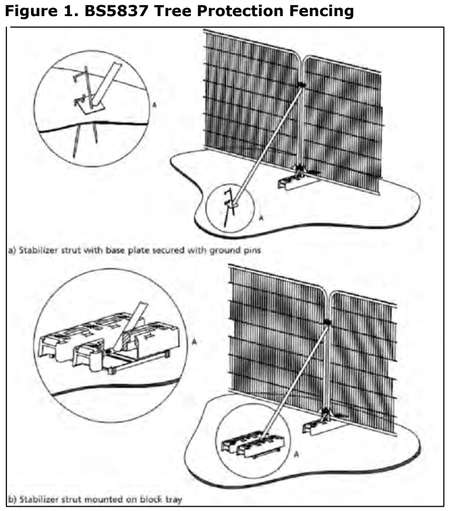


Figure 2. Stem Box Tree Protection

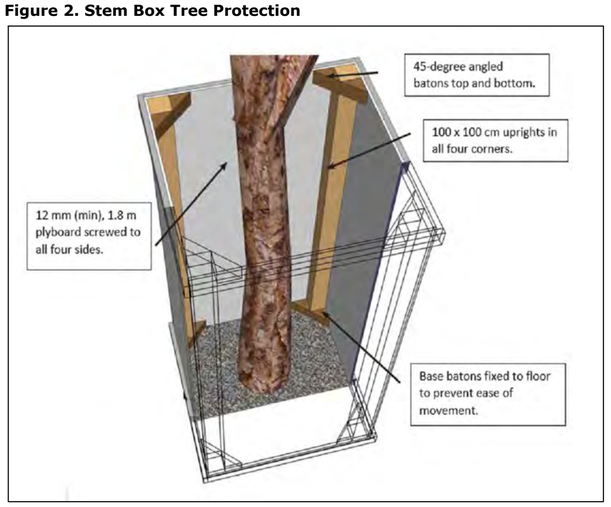


Figure 3. Tree Protection Fencing Signage

Tree Protection Plan showing 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 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.

BS5837 Tree Protection Fencing (Fig. 1)

Stem Box Tree Protection Fencing (Fig. 2)

No.	Revision/Issue
1	551315jrNov22_TPP_FV1_HP3.dwg

Greengage

9 Holyrood Street, SE1 2EL
Tel: 0203 544 4000

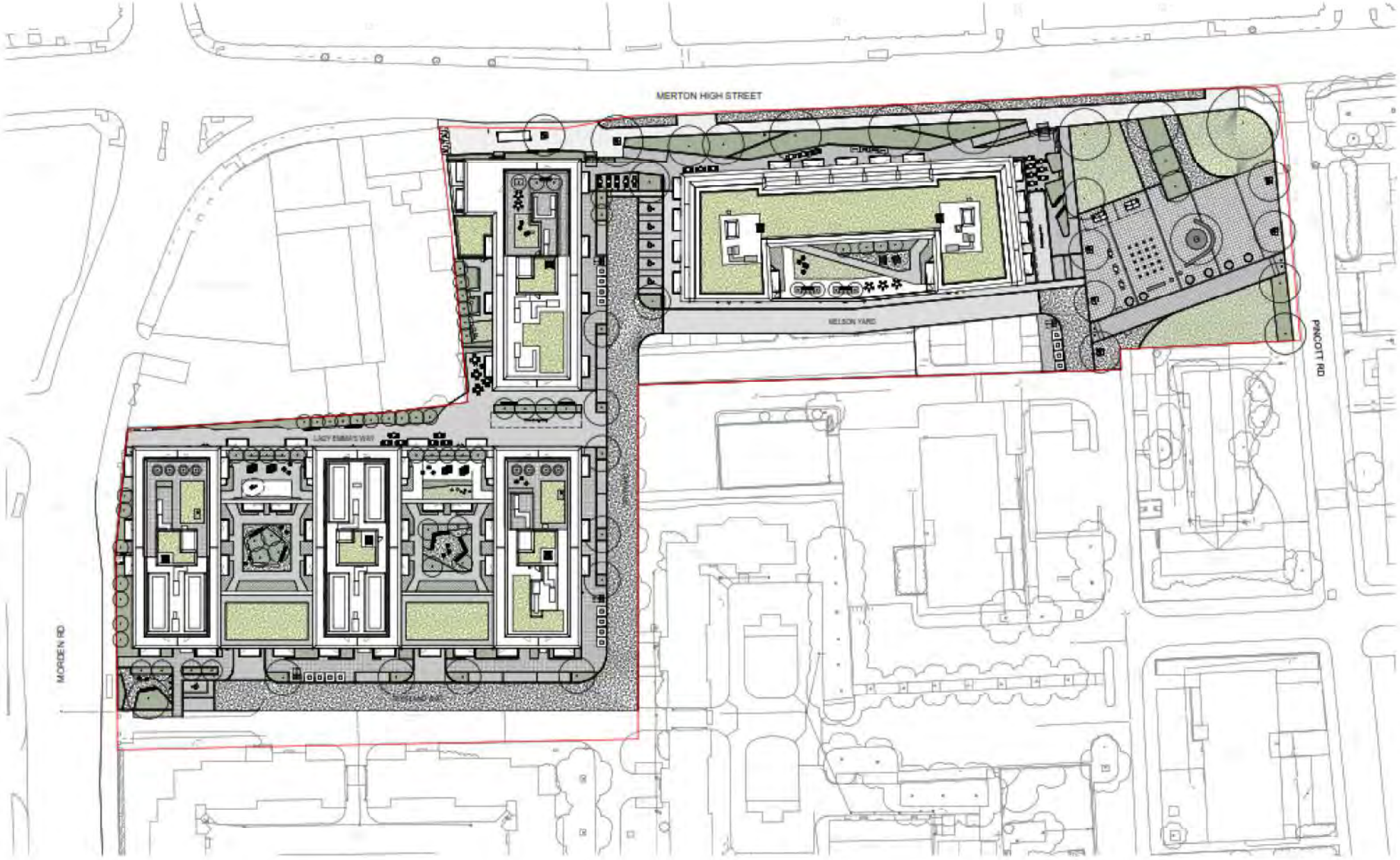
Project Name and Address

High Path Phase 3B and 3C.

Project	Sheet
High Path	1 of 1
Date 16/11/2022	
Scale 1 to 500 at A2	

APPENDIX F TREE PROTECTION SIGNAGE

APPENDIX G LANDSCAPE PLANTING PLAN



AL4556(PH2) High Park Phase 3C

Landscape Masterplan

HP3-PRP-ZZ-ZZ-DR-L-42000

FOR PLANNING

PRP

APPENDIX H LEGISLATION AND POLICY CONTEXT

H.1 LEGISLATION

The Town and Country Planning (Tree Preservation) (England) Regulations (2012)[5]

A Tree Preservation Order is an order made by a local planning authority in England to protect specific trees, groups of trees or woodlands in the interests of amenity. An Order prohibits, without the local planning authority's written consent, the following works to trees:

- Cutting down

1) Topping

- Lopping

2) Uprooting

- Wilful damage

3) Wilful destruction

Similarly, trees in a Conservation Area that are not protected by an Order are protected by the provisions in section 211 of the Town and Country Planning Act 1990. These provisions require issue of a section 211 notice six weeks before carrying certain work on such trees. This notice period gives the authority an opportunity to consider whether to make an Order on the tree.

H.2 PLANNING POLICY

National

National Planning Policy Framework

The National Planning Policy Framework (NPPF) 2021[6] sets out the Government's planning policies for England, including how plans and decisions are expected to apply a presumption in favour of sustainable development. Chapter 15 of the NPPF focuses on conservation and enhancement of the natural environment, stating plans should 'identify and pursue opportunities for securing measurable net gains for biodiversity'.

It goes on to state: 'if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused'. Alongside this, it acknowledges that planning should be refused where irreplaceable habitats such as ancient woodland are lost.

Regional

The London Plan[7]

Policy G1 Green infrastructure

1. London's network of green and open spaces, and green features in the built environment such as green roofs and street trees, should be protected, planned, designed and managed as integrated features of green infrastructure.
2. Boroughs should prepare green infrastructure strategies that integrate objectives relating to open space provision, biodiversity conservation, flood management, health and wellbeing, sport and recreation.
3. Development Plans and Opportunity Area Planning Frameworks should:
    1. identify key green infrastructure assets, their function and their potential function
    2. identify opportunities for addressing environmental and social challenges through strategic green infrastructure interventions.
4. Development proposals should incorporate appropriate elements of green infrastructure that are integrated into London's wider green infrastructure network.

Policy G5 Urban greening

1. Major development proposals should contribute to the greening of London by including urban greening as a fundamental element of site and building design, and by incorporating measures such as high-quality landscaping (including trees), green roofs, green walls and nature-based sustainable drainage.
2. Boroughs should develop an Urban Greening Factor (UGF) to identify the appropriate amount of urban greening required in new developments. The UGF should be based on the factors set out in Table 8.2, but tailored to local circumstances. In the interim, the Mayor recommends a target score of 0.4 for developments that are predominately residential, and a target score of 0.3 for predominately commercial development. (excluding B2 and B8 uses).
3. Existing green cover retained on site should count towards developments meeting the interim target scores set out in (B) based on the factors set out in Table 8.2.

Policy G7 Trees and woodlands

1. London's urban forest and woodlands should be protected and maintained, and new trees and woodlands should be planted in appropriate locations in order to increase the extent of London's urban forest – the area of London under the canopy of trees.
2. In their Development Plans, boroughs should:

a. Protect 'veteran' trees and ancient woodland where these are not already part of a protected site

b. Identify opportunities for tree planting in strategic locations

3. Development proposals should ensure that, wherever possible, existing trees of quality are retained [Category A and B]. If planning permission is granted that necessitates the removal of trees, there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, i-tree or CAVAT or another appropriate valuation system. The planting of additional trees should generally be included in new developments – particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy.

Local

Local Plan

London Borough of Merton Estates Local Plan Feb 2018 EP H7 Landscape

a) Retention, where appropriate, of the existing mature tree groups and street trees indicated on the diagram for Policy H7 should form the basis of new open spaces, a network of biodiversity enhancing green corridors across the estate, and assist with managing air and noise pollution, slowing rainfall runoff and mitigating the urban heat island effect.

b) Landscaping must be a key feature in the provision of private space fronting houses and blocks of flats (defensible space). Frontages must be designed to incorporate, where feasible, soft landscaping, appropriate planting and permeable surfaces.

c) Street trees must be located to enable the creation of well defined on-street parking spaces. This will soften the visual impact of vehicles and enhance the appearance of the street.

d) To optimise the look and feel of High Path, landscaping in the public open spaces and communal gardens must be well designed, consistently well maintained and fully accessible for people with a range of needs.

e) Tree species must be specified to mitigate against pollution and noise. Planting layout and species need to be considered to ensure an attractive street scene whilst taking care not to restrict light or cause overshadowing to adjacent buildings.

f) Ensure appropriate provision of private gardens or amenity space to all new dwellings (houses and flats), having regard to relevant standards and the character of the development

Merton Core Planning Strategy Adopted July 2011

Policy CS 13 Open space, nature conservation, leisure and culture

We will:

c. Expect development to incorporate and maintain appropriate elements of open space, play areas and landscape features such as trees which makes a positive contribution to the wider network of open spaces. Where this is not feasible, planning contributions will be sought to do so;

g. Nature Conservation: To improve opportunities for our residents and visitors to experience nature we will: … 5. Protect street trees and use Tree Preservation Orders to safeguard significant trees.

Merton Sites and Policies Plan and Policies Maps 09 July 2014

Policy DM 02 Nature conservation, trees, hedges and landscape features

Policy aim: To protect and enhance biodiversity, particularly on sites of recognised nature conservation interest. To protect trees, hedges and other landscape features of amenity value and to secure suitable replacements in instances where their loss is justified.

b) A development proposal will be expected to retain, and where possible enhance, hedges, trees and other landscape features of amenity value.

c) Development will only be permitted if it will not damage or destroy any tree which:

i. is protected by a tree preservation order;

ii. is within a conservation area; or,

iii. has significant amenity value.

d) However, development may be permitted when:

i. the removal of the tree is necessary in the interest of good arboricultural practice; or,

ii. the benefits of the development outweighs the tree's amenity value

e) In granting permission for a proposal that leads to the loss of a tree, hedge or landscape feature of amenity value, replacement planting or landscape enhancement of a similar or greater value to that which has been lost, will be secured through the use of conditions or planning obligations.

f) Proposals for new and replacement trees, hedges and landscape features should consist of appropriate native species to the UK.

DM D2 Design considerations in all developments

a) Proposals for all development will be expected to meet all the following criteria:

ix. Ensure trees and other landscape features are protected

DM F2 Sustainable urban drainage systems (SUDS) and; wastewater and water infrastructure

The council will require all developments to reduce water consumption, the pressures on the sewer network and the risk of flooding by:

iv) Requiring developers, where feasible, to incorporate soft landscaping, appropriate planting (including trees) and permeable surfaces into all new developments including non-residential developments.

Emerging Local Plan

Policy O15.4. Protection of Trees

We are committed to protecting trees and enhancing other features of the natural environment. We will:

a. Encourage and support the protection of street trees, and secure replacements utilising current technological advancements for the successful growth and establishment of trees;

b. Ensure that development proposals protect and retain trees, hedges and other landscape features of amenity value, on site and on adjoining land, wherever possible, and secure suitable replacements in instances where their loss is justified;

c. Expect development proposals, where appropriate, to plant additional trees on site in a coordinated way to maximise the green infrastructure network and to increase the borough's tree canopy;

d. Use Tree Preservation Orders to safeguard significant trees of amenity value;

e. Only permit development if it will not damage or destroy any tree which:

i. is protected by a Tree Preservation Order;

ii. is within a conservation area; or,

iii. has significant amenity value.

However, development may be permitted when:

iv. The removal of the tree is necessary in the interest of good arboricultural practice; or

v. The benefits of the development outweigh the tree's amenity value.

In circumstances where e) iv. or v. applies, suitable high-quality re-provision of equal value must be provided on site. Where on site provision is demonstrably not possible, as agreed with the council, a financial contribution of the full cost of appropriate re-provision will be required.

f. Expect proposals for new and replacement trees, hedges and landscape features to consist of appropriate native species to the UK.

g. Require developers to ensure that bio-security measures are adhered to for trees, shrubs and herbaceous plants to prevent accidental release of pests and diseases.

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