HOUNSLOW HIGHWAYS
ANNUAL LANDSCAPE POLICY AND OPERATIONAL PLAN 2025 V1

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1	30th Nov 2012	B Wood	Mike Smith	Stephen Child	Phil Jackson	Sept 2013

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1 Introduction

Capitalised terms are as defined within the Project and Service Agreements.

As required by the Contract this Plan is submitted for a review under Reviewable Item B of Schedule 6. This Annual Landscape Policy and Operational Plan, (the 'Plan') describes the processes, methods and programmes that the Service Provider (SP) will put in place to meet the Performance Targets and requirements of the Schedule 3 Output Specification for Contract Year 2025. The Plan reflects the requirements of Performance Standard 3, including Annex 1, which requires an Inventory, Maintenance Plan and Development Plan for:

- Horticultural Maintenance Services
- Tree Management and Maintenance and
- Weed Control.

In meeting the above requirements, the Plan incorporates the contractual requirements, industry good practices and relevant Authority policies. The Plan encompasses the management and maintenance of the Project Network soft estate and the control of weeds on hard paved surfaces including:

- Verges and grassed amenity areas
- Tree management and new tree planting
- Hedges
- Shrubs and roses
- Seasonal planting
- Weed Control.
- Planters on the highway
- Horticultural schemes and improvements (rain gardens)

In addition, the Plan describes the general approach to management of the highway soft estate, covering matters such as:

- Asset management of soft landscape/highway trees
- Sustainability
- Green waste
- Biodiversity
- Structure of the maintenance teams
- Training
- Welfare
- Plant and equipment
- Management & Scheduling systems
- Health and Safety
- Other general information

It should be noted that this Plan is a working document that may be subject to change.

1.1 Landscape policy

Consider rewording:

The Service Provider is responsible for managing landscape elements such as arboriculture, horticulture, and weeds in line with statutory, contractual, and policy requirements. Key responsibilities include:

- Compliance & Standards: Adhering to national, regional, and local policies, and following current industry best practices.
- Asset Surveys: Conducting regular surveys to inform management schedules.
- Sustainable Management: Ensuring appropriate planting locations and promoting species diversity to reduce disease risk.
- Problem Reporting: Referring unresolved asset issues (excluding urgent safety risks) to the Authority for further action.
- Safety Risks: Immediately removing any trees or plants posing significant safety risks and notifying the Authority.
- Pest & Disease Control: Managing threats in consultation with the Forestry Commission and staying updated on emerging risks.
- Third-Party Property: Not responsible for natural debris or damage (e.g., leaves, seeds, droppings) on neighboring properties.

1.2 Web pages

The relevant Service Provider web pages have been reviewed and will be updated as necessary during the year providing information for and educating residents. This includes information on work schedules and Frequently Asked Questions (FAQs). A Street Tree Strategy was uploaded onto the Service Provider website in 2021, this will be reviewed and updated in 2025. This will give members of the public more access to information on the current management of the street trees within the borough. The Service Provider Tree Strategy will be connected to some of the FMS categories for ease of access of information.

Information for the new Defra process for Duty to Consult is available On our web page. I

Ezytreev

Ezytreev is an asset data management system that captures all of the current tree asset data on the Project Network. Ezytreev is designed/built to support local authorities, public and private sector organisations to fulfil their commitment to manage and maintain their trees in woodland and streets, in public parks and green spaces, urban and rural estates, along highways, public roads. The system is used to record every tree in detail and is used to carry out survey record defects and condition and help arrange pruning maintenance schedules.

1.3 Horticulture

Esri is used for all horticultural assets maintained by the Service Provider on the Project Network.

Esri

Esri is a leading geographic information system (GIS) technology. Built by Esri, ArcGIS integrates and connects data through the context of geography. It provides world-leading capabilities for creating, managing, analysing, mapping, and sharing all types of data.

It is used for surveys inspections, scheduling, mapping and recording data for Horticultural services. Included within ESRI mapping and scheduling are:

- Grass cutting
- Hedge maintenance.
- Shrub maintenance
- Basal/epicormic pruning.
- Tree watering
- Ivy removal
- Planters on the highway
- Wildflower sites
- Weed spraying

Due to the seasonal nature of this service, it is important to capture each horticultural asset during the growing season. In the street scene context, green areas such as grass, shrubs and hedges:

- Soften the urban environment.
- Produce oxygen and absorb carbon dioxide.
- Filter, absorb and reduce pollutant gasses including ozone, sulphur dioxide. carbon monoxide and nitrogen dioxide improving local air quality.
- Provide a food source and habitats for a broad range of wildlife.
- Form "green corridors" connecting urban habitats with each other and the countryside.
- Increase amenity value for families, communities and individuals.

The Service Provider provides a horticultural service that complies with the Performance Standard (PS3) as amended and maintain the assets in a sustainable way. The grass maintenance specification changed in April 2018 from an output to an input specification with a fixed number of cuts and edging per annum. Full details are provided in Appendix E. A further one-year maintenance specification is taking place, this will be 6 grass cuts from April-October, with I shrub and hedge cut throughout the year.

Electric tools are being used by the Horticultural teams, where possible. After a week's trial of an electric ride on lawn mower with very good reviews from the teams and management, further investigation is ongoing for supply of the trial vehicle as they are still not yet available. The trial was a fully electric Toro ride on mower and was the first of its kind in the UK and fresh from the production line, also being the first one to be used on the public highway, therefore very limited availability and timeline. The service provider was offered the use of this first before any other contractor. Further investigation to be carried out during 2025 for longer hire.

Electric vehicles, Hedge cutters, strimmer's, blowers are being used routinely, and the Service Provider is in discussion with the supplier to ensure the Service provider has access to new tools when they come onto the market.

The supply chain will be encouraged to utilise electric tools and equipment to reduce the Service Provider's carbon footprint.

The Service Provider is responsible for the management and maintenance of grass verges, shrub beds, hedges, rose beds, seasonal planting including weed control, ensuring people can use the Project Network safely. For areas of over-run, including rutting and uneven ground the Service Provider will reinstate to appropriate herbage standard.

Issues such as sustainability and biodiversity are considered, and relevant management activities implemented to comply with current industry good practice for an urban area. If the presence of any protected species or habitats are identified the Service Provider will advise the Authority and Natural England immediately and work with the appropriate bodies to manage these sites in the most appropriate manner.

Hedges & Shrub Beds

Hedges are an important horticultural element of the network and have many functions in the design of the built landscape, including.

- Providing visual interest
- Introducing vertical scale
- Defining boundaries
- Delineating spaces of differing proportions and geometry
- Providing screening, shelter belts, noise barriers and
- Providing a suitable wildlife habitat for nesting birds.

Appropriate maintenance will ensure hedges not only remain functional but continue to provide a strong structural/formational element to the urban landscape.

Shrubs and rose beds also help provide structure, form and texture as well as colour to the built environment. Appropriate maintenance will ensure year-round visual appearance, health and sustainability.

The Service Provider will rehabilitate and maintain hedges, shrubs and rose beds to good industry standards within the parameters of the Contract and look for opportunities to improve and augment the current asset where it is appropriate to do so.

Abatement of Nuisance

Where it is discovered that a horticultural asset on the Project Network is causing a Category 1 Defect, affecting sightlines, or causing an impediment with potential adverse impact compromising the desired levels of service on the Project Network or associated assets, including damage to 3rd party assets, the horticultural asset will be removed following approval from the local authority or pruned as appropriate.

Third Party Vegetation

To enable the Service Provider to comply with the Highways Act (Section 154) the Authority agreed in 2015 to the drafting of letters being sent out to owner/occupiers(s) to deal with

overgrown vegetation causing an obstruction or a danger to the users of the Project Network; and provided guidance on how to deal with trees on private properties subject to Tree Preservation Orders under the Town and Country Planning Act 1990.

Where the Service Provider incurs costs in removing privately owned overgrown vegetation the Service Provider will make reasonable endeavours to recover the cost from the owner/occupier(s) in the form of a green claim.
To assist local residents in this process. The service provider has reviewed the section 154 process and applied realistic costs to offer to residents a reliable means to carry out the required work, this is a no profit gain to the service provider.

- One of job if they contact us before notice expires for smaller one-off jobs, such as clear a lamp column (not climbing) clear signs, small encroachment £70.00.
- Small job up to 5m for a hedge £100.00
- Medium job up 5-10m £140.00
- Large job £250.00 or price on assessment
- Tree pruning price on assessment.

However, in the event of non-payment it is proposed that the cost is settled by the Authority who in turn can place a charge on the property.

1.4 Street Trees

The aim is to explain the overarching principles behind the management of the street tree population that influence arboriculture management decisions, particularly in relation to pruning, planting and removal of street trees.

Urban street trees are an important part of the urban landscape and have many benefits which are not always obvious. Trees are regarded as positive for the environment. However, there are locations within the borough where trees have been vandalised or damaged by vehicles in a manner that would suggest that they are not wanted at that location. The Service Provider receives enquiries every year questioning why there are trees in streets and not just kept in a park, forest or woodland. The reasons for maintaining an urban tree population are more than just aesthetic and include:

- Trees produce oxygen and absorb carbon dioxide
- Trees filter, absorb and reduce pollutant gasses including ozone, sulphur dioxide carbon monoxide and nitrogen dioxide improving local air quality
- Trees contribute to lowering dust and noise pollution levels
- Trees provide a food source and habitats for a broad range of wildlife
- Trees help reduce skin cancers by providing shade from harmful ultra-violet radiation and keep cars cooler when parked underneath
- Trees reduce localised extremes in temperatures – cooling in the summer and warming in the winter
- Trees reduce wind speeds helping to reduce heat loss from buildings

- Trees mark the changing of the seasons with leaf changes and floral displays
- Trees form "green corridors" connecting urban habitats with each other and with the countryside
- Trees increase property prices (the presence of trees can increase the value of commercial and residential property by 5-18%)
- According to research, trees improve concentration levels in schools and reduce stress level for adults at work.
- Trees add amenity value for families and communities

In many ways, maintaining a healthy urban tree population is integral to maintaining a healthy human population. However, it is often not an easy partnership and so the challenge is always to try and maximise the environmental benefits of trees, while minimising possible areas of conflict.

The safety of the highway user and protecting the structural integrity of the Project Network Area shall always take priority in the case of conflict over the amenity or utility contribution to the overall environment. The management of tree stock on the Network is aligned with the Code of Practice for Well- Managed Highway Infrastructure,

The Service Provider will maintain an urban street tree population for future generations that is fit for purpose and in context with its immediate surroundings with the focus on three guiding principles.

- Safety of the Project Network
- The right tree in the right place
- Maintaining a balance between the needs of the tree and the needs of people nearby and surrounding assets.
- Working with the local authority and its departments, such as Planning, Hounslow Housing and Lampton green space

Every year 33% of the street tree population is surveyed on a ward-by-ward basis. This survey forms the programme of works for the following 12 months. This cyclical programme ensures that every 3 years, appropriate work is undertaken to street trees on the Project Network.

The main reason for this cyclical pruning programme is to contain the size of trees and to reduce the water requirements and growth of tree roots, and consequently any possible effect on adjacent buildings and structures, therefore trees will only be pruned when it is required. Appropriate pruning helps to maintain the trees dimensions in context with its surroundings thereby mitigating possible, actionable nuisance. In undertaking these cyclical works, the Service Provider is fulfilling its obligation to manage and maintain the Authority’s Street tree stock as any responsible and reasonable tree owner would do.

The Service Provider appreciates there may be a desire by residents to have some works undertaken sooner. However, the Service Provider will only consider pruning works outside of the cyclical programme as part of essential Health and Safety works to remedy a recognised defect or to abate a legally defined actionable nuisance, such as:

- Dangerous trees or parts of trees (determined by an Arboriculturist).
- Actual damage to property, such as direct physical damage by roots or touching branches.

All work to trees in the Service Provider's care, including removal, are prioritised with Dead, Dying Diseased and Dangerous trees taking precedence. If the roots of a street tree are causing a trip hazard, making the footway or carriageway unsafe and the tree is healthy, the Service Provider will look for an engineering or pruning solution to ensure that the roots no longer pose a hazard. However, in cases where this is not achievable, the only option may be to consider the removal of the tree. These assessments are made on a case-by-case basis and any case put forward to the Authority to remove such "discriminatory" trees would be made only after all other options had been exhausted.

Abatement of Nuisance: The Service Provider understands that there are many aspects of trees that can be perceived as problematic. Leaf-fall can be a temporary inconvenience during the autumn, trees on boundaries can shade adjacent properties when in leaf. However, fallen leaves are not themselves defined as an actionable nuisance and contrary to popular belief, there is no legal "right-to-light" relating to broadleaf trees. Furthermore, it is important to note that owners of trees, whether they are private individuals or Local Authorities, are not legally obliged to cut back branches because they overhang neighbouring properties. Therefore, the Service Provider will not consider pruning trees for the following reasons.

- Loss of light / reduced light to properties
- Effects on TV reception weather satellite or terrestrial television
- Obstruction of views
- Interference with private vegetation
- Obstruction of Utility Cables (these are the responsibility of the statutory undertaker)
- Minor or seasonal 'inconveniences'
- Honeydew which is the sticky substance caused by aphids feeding on leaves of certain trees
- Bird droppings
- Squirrels allegedly gaining access to properties from trees
- Leaf, fruit or flowers fall
- Smells generated by trees
- Hay fever/allergies from pollen.

The Service Provider appreciates these issues, but the benefits trees bring throughout the year outweigh any temporary inconvenience and so therefore removing a tree to alleviate seasonal or naturally occurring problems will not be considered.

The Service Provider is acutely aware of the importance of trees to the street scene and to residents, and the concerns of residents when there is a requirement to remove and replace trees.

The decision to remove any tree is never one that is taken lightly. Each tree is inspected and assessed on an individual basis, not only for its health, safety and condition but also its

sustainability, its safe useful life expectancy and the effect it may be having on nearby buildings, structures as well as the condition of the streetscape itself. The Service Provider will take a holistic approach when examining and evaluating trees, taking everything into consideration.

If a tree is scheduled for removal, it will have been thoroughly assessed by the Service Providers Arboriculturist on its health, condition, size, root system, age and potential hazards to footway and carriageway users. A comprehensive approach will be taken when examining and evaluating trees and every option will be considered to retain a tree where possible. Industry recognised alternatives to removal may be employed at locations where accessibility is restricted, or a more natural aspect is prevalent. In such cases, it may be appropriate to "Coppice" or reduce a tree to a standing trunk or "Pollard" to retain a tree safely as a viable and sustainable asset for the future. Such determinations will be made by the Arboriculturist. Unfortunately, in some cases, there are trees which cannot be saved.

It is the policy and contractual obligation of the Service Provider to maintain the borough's street tree stock. When replacing a street tree, it is often necessary to replant in an entirely different location as the existing site may not be immediately viable. There are many constraints in an urban street where it is not possible to plant at any given location.

Where suitable the tree will be replanted as close as possible to the original position. However, if this is not feasible due to constraints, the Service Provider will plant a replacement at an appropriate location elsewhere within the Project Network.

Replacement trees will be planted in the first available planting season (November to April, dependant on climatic factors) with a species suitable for that location following the principle of "The right tree in the right place".

The season for planting can be elongated into May if the seasonal conditions allow and watering pipes are fitted.

During the planning and implementation to fell a tree there are new guidelines and requirements implemented by DEFRA, this is called Duty to Consult.

Duty to Consult

The duty to consult on felling street trees ("Duty to Consult') has been introduced to ensure local people can express their views over the proposed management of street trees in their locality. The duty will ensure the decision-making process is more transparent and considers the views of local people.

Local highway authorities are the decision makers over the management of street trees and should ensure they have sufficient evidence to make an appropriate decision regarding felling. During the decision-making process local highway authorities should give consideration and weight as they see fit to all representations and views made by respondents to the consultation. A local highway authority can still decide to fell a street tree if it believes this is required (for example, upon the advice of professional arboriculturists, or because the cost of retaining the tree could be disproportionate). Whether or not there is opposition to a street tree being felled,

local highway authorities should consider engineering and tree management solutions as an alternative to felling a street tree.

Exemptions

This duty does not apply to street trees that are:

1. of a diameter not exceeding 80mm (measured over the bark, at a point 1.3 metres above ground level).
2. . a dead tree no longer produces leaves or foliage (where it should). the stem's outer bark and cambial tissue layers are dead.
3. required to be felled under the Plant Health Act 1967. Under this Act, statutory plant health notices can be issued that require the owner or manager.
4. to eradicate or contain notifiable pests and diseases.
5. tree and failure to comply can result in enforcement action and prosecution.
6. an order must be received under this Act for the removal of the tree/trees for this
7. exemption to apply.
8. required to be felled under any enactment on the basis that the tree is
9. dangerous. In deciding whether a street tree is dangerous, local highway
10. authority tree officers should consider whether the tree represents an immediate or impending risk to persons or property. A tree can be considered
11. dangerous if it is expected to become dangerous prior to the next scheduled inspection.

required to be felled in order to comply with a duty to make reasonable

12. adjustments in the Equality Act 2010 because the tree is causing an
13. obstruction (see section 20 of that Act). Under this act, trees can be required
14. to be felled if the authority considers that this is necessary in order to comply with its duties under the act because the tree is causing an obstruction. This
15. exemption does not apply where appropriate and proportionate engineering solutions can remedy the obstruction, and felling is not required to meet these duties
16. required to be felled in order to comply with a duty in section 29 of the Equality Act 2010 (prohibitions on discrimination etc in the provision of services) because the tree is causing an obstruction. Under this act, trees
17. can be required to be felled if the authority considers that this is necessary in order to comply with its duties under the act because the tree is causing an obstruction. This exemption does not apply where appropriate and
18. proportionate engineering solutions can remedy the obstruction and felling is not required to meet these duties.
19. required to be felled for the purpose of carrying out development
20. authorised by planning permission granted under section 70, 73, 76D, 77
21. or 79 of the Town and Country Planning Act 1990. Provided that the

22. planning permission specifically permits the felling of the street tree or trees in question.
23. required to be felled for the purpose of carrying out development
24. authorised by outline planning permission granted under section 92 of the Town and Country Planning Act 1990. Provided that the planning permission specifically permits the felling of the street tree or trees in question.
25. subject to other exemptions. A Statutory Undertaker undertaking emergency operational works that require the felling of a street tree.

Having a large street tree population means that trees and buildings are often in close proximity. This can be of concern to both property owners and tree owners alike. The Service Provider will maintain the Authority's street tree stock as part of a regular 3 yearly cycle, in line with the London Tree Officers Association Risk Limitation Strategy for Tree Root Claims May 2008 3rd Edition a 4th Edition is under review. This helps to mitigate the risk of damage to 3rd party buildings & structures.

All 3rd Party claims arising from tree related damage will be investigated and settled, where appropriate, in accordance with the Contract as detailed in Method Statement 14-Appropriate Third-Party Claims and Administration.

If a tree from land under the control of the Authority is overhanging the highway causing a highway safety issue the Service Provider will inform the Authority requesting, they take appropriate action within the required timescales.

Permitting

The Service Provider adheres to the concepts and guidance of the London Permit Scheme (LoPS) and the Traffic Management Act 2004 (TMA).

Where tree work such as tree pit reinstatement is to be carried out, the Service Provider will ensure that all measures are taken to ensure that necessary permits are obtained for works to be carried out on the Project Network.

2. Structure of the Plan

The Plan addresses the Contract requirements in the following Sections:

- **Section 3**: Inventory
- **Section 4**: General Information in relation to Horticulture Maintenance, Weed Control and Tree Management and Maintenance
- **Section 5**: Maintenance Plan for Horticultural Management
- **Section 6**: Maintenance Plan for Weed Control
- **Section 7**: Maintenance Plan for Tree Management and Maintenance.
- **Section 8**: Development Plan for the three areas covering Horticulture Maintenance, Tree Management and Maintenance and Weed Control
- **Section 9**: Green Waste Strategy
- **Section 10**: Service Development and Proposed Service Provider Change
- **Section 11**. Tree root zone strategy
- Notices

3. Inventory

a. Tree Stock

- At Service Commencement Date 1st Jan 2013, the Inventory/Stock was deemed to be 11198 Street Trees owned by the Authority on the Project Network.
- During the Payment Year 2014/2015 through the London Mayor's Street Tree Initiative the Authority received capital funding to plant 200 street trees. This initiative was completed in March 2015 and the Inventory/Stock increased to 11398 Street Trees.
- Subsequently the Service Provider as part of its Green Agenda sponsored planting of 149 Street Trees which represented one tree per employee and the Inventory/Stock increased to 11547 Street Trees.
- As part of the Commercial Settlement 2020-351, 8 additional Street Trees were absorbed into the Project Network as amended and the Inventory/Stock increased to 11555 Street Trees
- Based Highway Register (referenced as adopted Highway maintainable at the public expense by the Authority) the Inventory/Stock is now established to be 12669 Street Trees owned by the Authority on the Project Network which are currently populated and accessible on Ezytreev and Confirm with attributes of each Street Tree.
- The tree asset inventory on the Project Network is 12,629 highway trees including 149 trees planted for each member of HH staff including 213 additional trees planted for The London Borough of Hounslow in 2022 and 200 trees in 2023. The Service Provider continues to maintain this number by replacing any trees removed from the Project Network.
- This number 12,629 is 1282 trees above the contract start date number of trees which was 11,198.
- 12,629 minus 149 staff trees = 12,480 minus contract start trees 11,198 = 1,282 additional.
- Any additional trees that are planted within the Project Network following sponsorship or grants will need to be accrued onto the Project Network in accordance with Schedule 14 Accrual and De-Accrual Process. This will include the accrual of 1282 trees above the specified contract amount.

b. Horticultural Stock

The Horticultural adopted amenity is 517,463sq.m. This breaks down into grassed verges 386 770sq. m, 2234 polygons hedges 35,684sq.m, 103 polygons shrubs, rose bed and combined hedge and shrub 95,009 sq. m. 315 polygons.

4. Horticultural Maintenance and Weed Control, and Arboriculture Maintenance – General Information

a. Horticultural and Weed Control General Working Procedures

On arrival at site and prior to works commencing the lead operative will:

- Confirm site boundaries and parameters match instructions
- Assess the work to be undertaken
- Determine site protection, measures for public exclusion and signing requirements
- Assess potential interaction with public, utilities equipment and identify assets present
- Review risk assessment and Method Statements against site parameters to determine and record a safe plan of action
- Decide the appropriate equipment to be used and the allocation of tasks to operatives
- Determine emergency procedures
- Check traffic management measures are in place as appropriate including adequate access for users of the Project Network
- Brief team on the above
- Make photographic record before and after work if appropriate.
- Liaise with adjoining landowners (where applicable)
- Ensure PPE is appropriate and in use

b. Hazard and Risk Identification

Generic site-based hazards and risks will be identified prior to making site visits. Any site-specific hazards or risks will be identified and assessed on arrival at site by the lead operative to determine a safe plan of action. Significant hazards and risks include:

- Use of machinery and hand tools e.g.– ride on and pedestrian mowers, strimmer's, rotovators, hedge trimmers, chain saws, chipper, blower, etc.
- Chemicals
- Public utility equipment – overhead and below ground
- Weather
- Traffic
- Obstructions and restricted working space
- Members of the public
- Protected species and habitats.
- Location such as outside schools and hospitals
- Working at height

c. Risk Assessments

Risk assessments and COSHH sheets will be available for all operations, e.g. mowing equipment, strimmer, chippers, blowers, hedge trimmers, weed spraying equipment, all-terrain vehicles (ATV), stump grinders and MEWP's etc., and will be carried by each gang. PPE

requirements will be determined by the risk assessments. Site specific risk assessments will be undertaken for each site to determine and record control measures to be applied safely.

- Travel to work sites will be in vehicles appropriately branded which will carry all necessary tools and equipment to complete the required work and will be suitably marked and identified for highway maintenance work
- Seat belts shall be worn in all vehicles
- Each vehicle will be equipped with a flashing warning beacon - this shall be turned on whenever the vehicle is in operation
- Where traffic management measures in place are considered inadequate due to changed local circumstances, the lead operative shall, through the Contracts Manager, request a review to assess the appropriate management system
- Where the lead operative/ arborist cannot establish a safe plan of action the matter will be referred to the Operations Manager and no work will be undertaken until appropriate revised arrangements are made.

d. Housekeeping

On completion, the works and the area around the works will be inspected by the lead operative with appropriate competence in New Roads and Street Works Act (NRSWA) and Traffic Management to check that the:

- Requirements of the specification have been met
- Specific instructions and client acceptance criteria have been delivered
- Rubbish and arising's have been collected for disposal off site
- Site is left in a safe and clean condition.
- Records of the work will be completed on site. Any shortfalls or outstanding works will be remedied before departing the site (where practical) or will be recorded for rectification. The Service Provider continues to work with the sub-contractor to record information using a PDA which is then linked into the MIS. Prior to works commencing all communications required with third parties, e.g. adjoining landowners, permits to dig, protected species licences etc. will be identified and obtained by the Service Provider or the sub-contractor as appropriate and the lead operative briefed accordingly
- Where liaison with adjoining landowners is required, this will be undertaken by the Service Provider prior to works commencing on site
- In addition to arrangements made for traffic management, an assessment will be made by the site foreman as to the safety requirements for members of the public where operatives are working above or alongside publicly accessible areas – the assessment will take account of the proximity of the public to work and the dangers from equipment, trip hazards etc.
- Where the assessment identifies a need to protect pedestrians a pedestrian management plan will be implemented

- Work areas will be clearly defined and warning notices erected to the requirements of Traffic Management Act 2004 when necessary.
- Members of the public will be diverted and excluded from all work areas where overhead work is undertaken – due account will be taken and works suspended if members of the public gain access to the works area and/or interfere with operations.

e. Public Interface

- Prior to works commencing all communications required with third parties, e.g. adjoining landowners, permits to dig, protected species licences etc. will be identified and obtained by the Service Provider or the sub-contractor as appropriate
- Where liaison with adjoining landowners is required, this will be undertaken by the Service Provider prior to works commencing on site
- In addition to arrangements made for traffic management an assessment will be made by the Service Provider as to the safety requirements for members of the public where operatives are working above or alongside publicly accessible areas – the assessment will take account of the proximity of the public to work and the dangers from equipment, trip hazards etc.
- Where the assessment identifies a need to protect pedestrians a pedestrian management plan will be implemented
- Work areas will be clearly defined and warning notices erected to the requirements of New Roads and Street Works Act 1991 when necessary.
- Members of the public will be diverted from and excluded from all work areas where overhead working is undertaken – due account will be taken and works suspended if members of the public obtain access to the works area and/or interfere with operations.
- Duty to consult on tree removals, information shared with residents on possible tree felling. Leaflet posted and placed on the tree to inform of the tree felling and the reason, Lay assessors and Councillor also informed

f. Environmental Management and Protection

The following will form the basis of the Service Providers' working practices and programming:

- All works will be planned and programmed to minimise waste and environmental impacts
- Interaction with and potential for interaction with conservation areas and protected species will be established by reference to the MIS during the works planning stage and will be notified to the lead operative at the briefing.
- The Service Provider is not currently aware of any asset on the Project Network that contains a protected species.
- Environmental consents and permissions (where required) will be obtained during planning and prior to execution of the works
- Works will be arranged and routes planned between depots, works sites and other locations to minimise journey time and fuel consumption where possible

- Waste generation will be minimised, and all waste will be removed from site for recycling and/or environmentally acceptable disposal in accordance with the Green Waste Strategy. Average tonnage recycled per year to date was 320 tonnes and sent to landfill 11 tonnes.
- The transport of waste will be conducted in a safe manner ensuring that the load is securely fastened to the vehicle using straps and cargo nets supplied specifically for this purpose
- Empty chemical containers will be returned to the supplier or to a specialist waste management company for correct disposal
- All vehicles will carry a spill kit designed to contain and collect spilt chemicals, oil or petrol – in the event of a spill reference will be made to the COSHH sheets and risk assessments for the required action. The used Spill Kit would be taken for disposal to an appropriate site where the specific chemicals are accepted for disposal.
- Purchasing will be undertaken in accordance with our standard process/control which will where appropriate source materials and equipment locally, maximise recycled content and select low carbon alternatives
- Except where safety considerations overrule all work will be undertaken in normal working hours to minimise noise and other impacts
- Use and timing of machine operations will be carefully considered and planned to minimise noise, dust, smoke and lighting impacts
- No fires will be lit for any purpose on the Project Network and all operations will be conducted mindful of the need to minimise the risk of fire arising from dry vegetation or any other flammable material used in the delivery of the works in accordance with the Output Specification Part 3A 1.1.8
- All operations will be conducted in a manner that will not disturb nesting birds and will be sympathetic and consistent with protected species and wildlife habitats – in accordance with Output Specification 3A 1.1.10 and Wildlife and Countryside Act 1981. This may mean that works need to be delayed until the season is over.
- It is recognised that with the decision to transition from fuel-based plant / equipment & vehicles to electric powered plant / equipment & vehicles that this continues to have a positive environmental impact towards “Carbon Reduction”.
- HVO fuels used where possible in non-electric vehicles. HVO stands for hydrotreated or hydrogenated vegetable oil. It's classed as a paraffinic diesel fuel, which means it's a synthetic diesel that has been made from a feedstock — for HVO, this is a form of renewable vegetable oil, animal oil or fat.

g. Sustainability

The following sustainability measures are incorporated into our working practices and procedures:

- Vehicles and equipment to appropriate European standard.

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- Control of noxious, injurious and invasive weeds. The Service Provider will control these weeds by treating and removing them.
- Local sourcing of plants and trees, using native species when appropriate. Where planning of the works allows, these are grown to a size suitable for urban planting.
- Alternative delivery options to source locally, using approved supply chain
- Future proofing of soft estate is done by careful selection of plants & trees using disease resistant indigenous varieties suitable for the location planted
- The Service Providers practices sustainable environmental management promoting local investment and jobs, with appropriate investment and management of equipment, technology, vehicles and buildings to minimise the carbon footprint. Examples include Innovative solutions to reduce the use of chemicals, removing issues such as residents suspicion of the use of herbicides, keeping up to date with changes to the law and future recommendations.
- The Service Provider is now offering a in house horticultural service, this commenced on 01/05/2023.
- Growing our own plants from bulbs and seeds in our Depot Greenhouse to be used on the Network for planters and schemes or replacements to dead plants.
- 80% of all arboricultural arising's are taken away by our subcontractor who have the facility to have them collected and therefore would be used for Biofuel or similar alternatives
- Arisings from in house arboricultural team are chipped and used on all shrub beds as a mulch and weed prevention. Plan to use on tree pits to supress weeds
- Future proofing of soft estate by careful selection of trees using disease resistant varieties and containerised stock to maximise establishment and minimise transplant shock.
- Carbon production is monitored by reviewing vehicle fuel consumptions. However, the Service Provider continue to look at alternatives such as electric vehicles for certain activities where practicable.

h. Biodiversity

The soft estate is managed to conserve and enhance biodiversity. To promote biodiversity the Service Provider uses locally occurring native species where possible when new planting is required, provides areas of suitable new habitat and other provision for protected species. This helps the overall biodiversity loss and supports healthy well-functioning ecosystems establish coherent ecological networks, these provide more and better places for nature benefiting wildlife and people. The Service Provider is a National Highway Sector Scheme, (NHSS) Sector 18 certified company and as such, run the contract under Sector 18 controls including the identification and protection of protected species. To improve biodiversity the service provider installed and is managing 30 wildflower sites throughout the Borough, the self-delivery will help improve these with limited cost to the authority.

The Service Providers' teams identify and treat invasive non-native plant species on the network which do not have a natural predator or fungus to control them. The Service Provider encourages the use of employee volunteering days to key areas, where invasive species need removing following the correct guidelines. Working in partnership provides the Service Providers' employees with both a sense of giving back to the community, and a feeling of real achievement.

The Service Provider supports the on-going development of plant species removal by providing training to all relevant employees through interactive toolbox talks, visual displays and field trips. This helps identify not only weed species, but other wildlife too. The street tree stock is managed to conserve and enhance biodiversity.

To promote biodiversity the Service Provider uses native species where appropriate when new tree planting is required. However, changes in climate, local environmental conditions, new pests and diseases, industry guidance and best practice will be the main considerations in determining suitable species for planting at any given location. In all cases the final decision on species for planting is made by the Arboriculturist.

The Service Provider will continue to learn from new initiatives in partnership with the Authority such as the planting of wildflower within the grass verges. In 2024 and 2025 in conjunction with the Authority we carried out no mow may on the network, this is an initiative devised by Plant Life and endorsed by Country file. During autumn 2024 further wildflower sites was identified in 2024/5, and seeding has taken place to support the Greener Cleaner programme and enhance biodiversity within the highway. To improve biodiversity the service provider installed and is managing the 30 wildflower sites throughout the Borough, the self-delivery will help improve these with limited cost to the authority. The service provider will review more appropriate longer lasting areas to replace some wildflowers with longer lasting perennials such as a cornfield annual mix that includes plants like cornflower, corn poppy, corn marigold and corncockle or using wildflower turf as an alternative.

i. Self-Delivery Horticulture

- The service provider as taken Horticulture maintenance in-house; this change took place on 01/05/2023 and no longer uses the contractor PGSD for this type of work. This new in-house service will involve all Horticultural work on the public highway/Project network. To also include scheme works as specified by The London Borough of Hounslow and external contacts. Objective of the change is offering a multi-year all contract, covering the horticultural services (Grass cutting, shrubs, hedges, planting, watering, basal growth removal). we believe that this will be a better more robust and efficient service that will offer lots of visual benefits and improvements for the London Borough of Hounslow and its residents, such as improved wildflower planting and the upgrade of seasonal plants on the Network, in the form of planters and high-profile areas.
- The following list shows personnel and employee numbers of the Service Providers in house Horticultural team

Role	Number
Arboricultural and Horticultural Manager	1
Contract Manager	1
Arboricultural officer	1
Grass Verge & Shrub Maintenance Teams with dedicated lead operative,	8
Grass Verge & Shrub Maintenance Teams seasonal variation of numbers	2 plus 6

Esri scheduling and mapping system

For the new in-house service, the Service provider is using Esri scheduling and mapping system which is implemented to programme, plan and monitor grass cutting, shrub and hedge maintenance, basal epicormic growth and tree watering. The data used for this is taken from Confirm to include all public highway green assets.

The information included in the Esri system has a daily dash update as work is progressed with areas attended with a date and time associated to the attendance, with photograph for before and after. It can monitor daily out puts, track schedule and performance and can be used to clearly and immediately highlight any problems to supervisors. The platform also allows supervisors to use the data to create and support discussions with their teams about the way they work and to identify problem locations, ideal work maintenance routes, train new members, more easily reallocate areas, create trends and new best practices.

As part of the information added into Esri it was found that the service provider has been maintaining 22,000 m2 of areas that are not part of the public highway network, these are believed to belong to Hounslow Housing.

Also 20 locations identified as not showing any green assets even though it is highway, 18 of these show as yellow highway on the map, polygons have been added to Esri for these and will be transferred to Confirm. 2 locations show as white therefore they are not highway to maintain.

Location	Map
BENEDICT DRIVE	Yellow
BOSTON GARDENS	Yellow
CONVENT WAY	Yellow
GARTH ROAD	Yellow
GLENHURST ROAD J/W WINDMILL ROAD	White
NETLEY ROAD O/S 28 AND 34	Yellow
PARK CLOSE	Yellow

Park Road	Yellow
Roseberry Road	Yellow
PATES MANOR DRIVE	Yellow
ROSEBERRY ROAD	Yellow
SHIRLEY CLOSE	Yellow
SHIRLEY DRIVE	Yellow
STAMFORD BROOK AVENUE, CHISWICK	Yellow
VICARAGE FARM ROAD	Yellow
WILMINGTON AVENUE	Yellow
Berkeley Square (TH/Umme) – diff colour in Esri	Pale Green
Beaconsfield Close	Yellow
Heathfield Terrace	Yellow
North Street	White/Yellow

The following list shows the organisational structure of the Service Providers' sub-contract partner for Arboriculture maintenance, currently Tree Associates Ltd.

Role	Number
General Manager	1
Supervisors/ Team leaders	4
Stump Grinding Team	1x2 dependent on appropriate work
Arboriculture Team	upto 4 dependant on work

Tree planting is completed by the Service Providers' maintenance operatives who have been trained to complete this task as part of their development and the Service Providers' commitment to upskilling operatives.

The tree watering is completed by the Service Providers' maintenance operatives and programmed as appropriate during the late spring to late summer depending on rain fall. Esri is used for watering with all new trees plotted so we can attend monitor and record each visit.

j. Self-delivery Arboricultural team

The Service Provider is continuing to develop its own arboricultural team this is increasing the work that can be carried out on larger trees, with the intention of 4.operatives so some work can be carried out in teams of 2 such as epicormic growth.

Its primary function is to complete planned cyclical maintenance work to the street trees including:

- Crown reduction
- General prune

- Low branch and basal (epicormic growth)

The team has given the Service Provider the flexibility to react to work on a day-to-day basis whilst continuing to have a programmed approach.

The Supply Chain Provider provides a resource to work on the larger trees such as the large London Planes and felling work where specialist equipment and larger teams are required.

Role	Number
Arboricultural and Horticultural manager	1
Arboriculture and Horticulture Network Steward	1
Arboriculture Team Leader	1
Climber Basic Climber (junior) Junior	1 1 1

k. Training

Competence, awareness and training include the following:

- All staff selected for each contract will have the necessary qualifications, knowledge, skills and experience to carry out their duties and responsibilities effectively. Competence for the environmental, ecological and landscape activities are identified in the Method Statement. The required training and experience requirements for personnel can be provided by the supply chain partners.
- Training Matrix. The records include details of the way the individual has obtained practical experience.
- All operations shall be carried out by teams of personnel lead by an identified supervisor or lead operative / arborist. The composition of operational teams shall be determined by both generic and site-specific risk assessment and Method Statement.

Registration / Skills Cards, Operational Team Guidelines, Operatives and Supervisors are required to carry a copy of their Registration / Skills Card(s) as verification whenever they are carrying out works on site and always when engaged in work covered by the appropriate Sector Scheme. The issue of a new or renewed Registration / Skills Card is recorded in the Training Matrix. The validity of all skills cards is monitored on an annual basis and skills cards held by new starters and/or subcontract labour is verified prior to starting work.

Horticultural operatives will attend

- Traffic management training
- Safe dig

- Cat and jenny
- City and guilds in Horticulture
- Level 1 NVQ in Horticulture
- CPCS cards or equivalent to operate plant/tools and equipment

l. Welfare

The Supply Chain partner's depots in Hounslow provide centralised welfare facilities for the contract.

The depots provide the standard welfare facilities as per HSE requirements.

. A truck wash facility is in place at the Service Provider, Jubilee House depot.

m. Plant and Equipment

The principal items of plant, vehicles and equipment are hired and utilised in the delivery of the Horticultural service are under Capex for replacement, this when possible will be utiliesing electric,for fleet and plant, The current vehicles and plant are:

- Ride on mowers - Kubota F251 x4
- Pedestrian mowers - Honda engine Etesia pro 46 x2
- Hedge Cutters - Stihl HS82 x2 Stihl HL94C Long Reach x1 Stihl HLA 135 long reach electric x1
- Strimmer's - Stihl FS410 x3 Stihl FSA135 x2 (Electric)
- Blowers - Stihl BS600 x3 BGA200 x3 (Electric)
- YE23 FTD Renault Master 3.5t
- KX70 NAO Sprinter 3.5t
- HN23 LPO Traffic 3.5t
- HN23 ZZJ Transit 3.5t
- WP24 DJU Transit 3.5t
- WR22 TTZ Transit 3.5t
- Towable water bowser
- 750 litre bowser for the back of vehicles
- Hand tools: secateurs, loppers, silky saws, rakes etc.
- Cooper Pegler CP15 knapsack sprayer x2

The following vehicles, machinery and equipment are available for use.

The depot for the arboriculture work is Tree Associates Ltd Sundown cottage, Guildford Road, Westcott, Surrey RH4 3QE

- 1 x 7.5-ton tipper lorries

- 2 x 3.5-ton tipper van (Transit type)
- A mobile elevated work platform (MEWP) either 22-metre track-mounted, one 20-metre van-mounted to be hired if needed, purchase in 2022
- 1 x 18-ton lorry, Euro IV Emission class, with hydraulic loading arm – used for extracting heavy timber as required, to be hired if needed
- 3 x brushwood chippers
- 3 x stump grinding machine
- 1 x tracked chipper

Self-delivery Arboriculture Team, Service Provider Tree Team

- Timberwolf TW230HB chipper
- Stihl MSA 220TC chainsaw electric
- Stihl MSA 161tc chainsaw electric x2
- Stihl MSA 300 chainsaw electric
- Long pole Stihl chainsaw electric
- 3x AP300S Batteries
- AP500S Batteries
- Hedge-cutters HLA 86 electric
- Blower BGA 100 x2
- AR 3000 Battery
- Petrol 362C Chainsaw
- Stein Carbon poles (long handle pruning)
- Hand tools (saws, loppers, secateurs)
- FN25 WGE IVECO 7.2T tipper lorry
- RJ27 YLE IVECO 3.5T tipper

The principal materials utilised in the delivery of the service, (excluding consumables) are:

- Root barriers Greenleaf re-root
- Shrubs and hedging plants Type as per location
- Bedding plants Type as per location
- Bulbs Type as per location
- Topsoil commercial grade
- Grass and other seed Type as per location
- Fertilizer Slow release Enmag or equivalent mix to match location
- Compost PAS100
- Herbicide – Glyphosate – limited use but required for invasive weeds
- Mulch. – Recycled
- Summer plants grown from seed for seasonal planting
- Summer bedding as may be specified for a particular scheme
- Plug plants of varying species as required
- Replacement trees - specific species and size to suit locality.

- Tree stakes, ties, guards, tubes for planting
- Wildflower mix as requested appropriate to location
- Rain garden planting, species recommendation as per each scheme or as specified.

5. Maintenance Plans

a. Inspections and Surveys

Inspections and surveys are carried out to meet the identified priorities for safe management of the Project Network in accordance with Contract Schedule 7 Inspections and Surveys.

In general terms, there is considerable flexibility in the timing of horticultural works. Implementation can be significantly affected by weather conditions which may preclude certain works due to health & safety considerations, weather conditions also influence growth rates, e.g. timing and amounts of rainfall, occurrence of drought conditions etc. necessitating revision to timing of works for best effect and to comply with specifications.

Seasonal variation is taken into account in scheduling seasonal and cyclical maintenance work, and the Service Provider has prepared the schedule of work which is not date specific to provide the necessary flexibility.

Inspection of assets on the Project Network is carried out by the Horticultural contract manager, Horticultural teams, Network stewards and Highways staff plus the supply chain partners. This can be planned or part of normal everyday activities to identify overgrown shrubs and vegetation that may need maintenance in accordance with Schedule 7.

b. Methodology

General

- All works will be implemented in compliance with the Contract, relevant codes and standards, and good industry practice.
- Traffic management requirements will be identified, applied for and placed on any site where a threat to the safety of operatives and/or members of the public exists.
- Sufficient breaks in the working day will be permitted to minimise the risk-impaired judgment resulting from heat stress
- Members of the public will be diverted and excluded from all work areas where practical – due account will be taken and work suspended if members of the public gain access to the work area and/or interfere with operations
- All routine maintenance and interventions will include the collection from the work areas and immediate surroundings of all arising's with exception of grass cuttings which are 'blown' and waste generated by the work for recycling and/or disposal off site, and the collection of rubbish, paper, debris etc. found on arrival within the work area which will be bagged for proper disposal at the end of each job.
- Esri dash to monitor and record all grounds maintenance operations.
- Ezytreev dash to monitor and record all tree related data.
- Confirm to monitor Highway location, FMS and Cllr resident enquiries

Briefing

- All staff will receive a briefing from the Contracts Manager/Senior Supervisor/senior arborist regularly including site-based hazards and risks, Methods statement and programme, public liaison arrangements, interaction with other site works, traffic management arrangements and toolbox talks.
- The work programme, related documents, consents and permissions obtained (where applicable) and any specific instructions and client acceptance criteria will all be provided to the site lead before works commence
- All staff will sign to confirm receipt and understanding of the briefing and method statements and to confirm skilled worker cards are on site

c. Horticultural Maintenance and Weed Control

- Weed control in soft landscape will consist of hand removal methods and mulch to act as a suppressant.

d. soft landscape

Planned seasonal works:

- Seasonal planting (including removal and replacement)
- Bulb planting including spring bulb planting
- Formative pruning of shrubs and roses
- Trimming of hedges
- Weed control within planted areas and hedgerow bases
- Winter and summer bedding to be planted at War memorials and in Troughs.
- Replanting of failed hedging, shrubs and roses
- Wildflower planting
- Rain gardens
- Seasonal flowers in planters

Planned cyclical works:

- Grass cutting
- Trimming of hedges
- Shrub maintenance and pruning

Other interventions:

- Control of injurious weeds (manually or use of pesticides)
- Control of pests and diseases (manually or use of pesticides)
- Reinstatement of verge damage or other misuse of the soft estate.

Depending on circumstances (species, location, height etc.), hedge trimming may fall in to both seasonal and cyclical categories.

Appendix A contains the Horticultural Maintenance Programme of works for 2025 under the revised Contract.

e. Maintenance of Grassed Verges

Mowing – General

- The landscaped areas will be maintained at no more than 6 cuts per annum timed to achieve the best outcome, during the months April-October. See appendix E for details on Authority Savings and Stage 2 response. The change in specification was implemented in April 2018, with a follow up change in 2025, this was a reduction to 6 cuts per annum.

Grass Verge Reinstatement

- Areas of damaged verge e.g. due to vehicle over-run and parking misuse will be escalated for reinstatement proposals by localised cultivations and reseeding at the appropriate time of year – in compliance with amended Performance Target 3a.1.5a and 3a.1.5b
- A programme of reinstatements to an appropriate herbage standard for the specific locations is provided in areas of persistent misuse, this will be co-ordinated with other measures– in accordance with Output Specification PS 3 and Network Safety and Integrity Improvements PS 6.
- Verge protection using waste logs to be placed at the location to prevent overrun, logs used from the tree felling programme. If in a high-profile location, the logs will have reflectors attached for night visibility.

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Current locations of logs

- The Avenue Cranford x 1
- Avenue Cres Cranford x1
- Park L:ane Cranford x 8
- Salisbury Road Hounslow x 3
- Roseheath/Wellington road south x 4

Naturalised Bulbs in Grass Verges

- Naturalised bulbs on public highway grass verge are left uncut during the growing season as per the requirements of the performance regime; however, some areas have bulbs which are not naturalised and may have been planted without permission by residents. Acceptable smaller amounts are planted which can be cut around during the normal grass maintenance programme until the bulbs die back period which is normally May/June; some areas are planted to such an extent that it prevents regular maintenance of the grass verge and complete cutting of the grass is prevented until the dieback period of the bulbs. This consequently causes the standard of the grass to deteriorate due to the height when cut.

- The Highways Act 1980 (Section 141/142) makes it an offence to plant trees/shrubs along the public highway. In addition, this section permits the Service Provider on behalf of the Authority to require, by notice, the removal of a tree or shrub planted on the public highway within a period of 21 days from the serving of the notice. The notice will be served on either the owner or the occupier of the property. Limited planting at the discretion of the Authority as the Highway Authority may however be considered for licensing under Section 141/142 of The Highway Act 1980. In these cases, planting licenses can be issued retrospectively with Authority consent for planting directly into the ground and these will become highway property via the Accrual process; but this does not apply to plants in containers placed on the public highway.

Wildflower Planting to Encourage Wildlife

Allowing open habitats such as wildflower meadows within public highway spaces in an urban setting, offers a diverse and attractive habitat for native or naturalised grasses, wildflowers and flowering plants. The Service Provider is investigating the possibility of making difficult to maintain areas attractive, such as embankments, roundabouts, country lanes and large grassed areas.

The introduction of wildflower and natural habitation areas offer several advantages including:

- Plant diversity attracting insects and other invertebrates (including butterflies, bees, spiders and millipedes), birds and mammals.
- Provision of bat boxes encourages bats to the urban areas.
- Flowering species add a changing palate of colour to the urban environment throughout the seasons.
- Opportunities for education and recreation (ranging from nature studies to art lessons).
- Even small plots of wildflower planting can change the feel of a setting, i.e. the creation of a wildflower areas as part of an urban greenspace can bring a little piece of countryside into the town.
- Opportunities for local involvement and studies to promote a feeling of community.

Current locations for bat boxes are:

- Mogden Lane roundabout (Tesco) in the oak tree
- Hartington Road Chiswick outside Roco
- Jersey Road Isleworth raised bed in a large cedar
- Woodland Gardens in min woodland central reservation

Current locations for wildflower planting are:

Road Name	Location	Ward
Staines Road	Verges	Bedfont
Staines Road	Verges	Bedfont
High Street	Albany Parade opposite Goat Wharf	Brentford
Strand on the Green	opposite Hearne Road	Chiswick
Bedfont Road	corner with Redford Close	Feltham

Heron Way	Verge at j/w A312	Feltham
Snakey Lane	just before the Texaco garage	Feltham
Staines Road	Verges	Feltham
Sunbury Road	just before the junction with Snakey Lane	Feltham
Almorah Road	verges	Heston
Browning Way	roundabout	Heston
Channel Close	Entire road	Heston
Guernsey Close	Entire road	Heston
Vicarage Farm Road	j/w Cranford Lane	Heston
Lampton Road	along the A4/Lampton Road corner, outside the Park Grand London Heathrow Hotel	Hounslow
Bath Road	Rosemary Avenue to roundabout	Hounslow West
Twickenham Road	just down from the A316, behind bus stop, just across from Cole Park Allotments.	Isleworth
Dukes Avenue	top verge	Chiswick
Hartington Road	outside Ridgemead Court	Isleworth
Riverside Walk	In verge	Isleworth
Syon Lane	Outside Tesco	Isleworth
Craneswater Park	In central verge	Cranford
The Glen	In central verge	Cranford
Nall Head Road	In last verge	Hanworth
Sunbury Way	In verge	Hanworth
Chertsey Road	In verge	Feltham
Dalmeny Crescent	In central verge	Hounslow
Central Avenue	In central verge	Hounslow
Feltham High Street	In verge	Feltham
Meadowbank Gardens	In verge	Cranford
Fern Lane	In verge	Heston

These locations will continue to be monitored, and the Service Provider will be identifying more areas that may be suitable for bat boxes or wildflower planting and agreeing with the Authority before implementing more.

An ecological survey may be required on some sites, that are used for redevelopment or a change to the highway or in general for Horticultural work. An ecological survey is the process whereby a proposed development site is assessed to establish any environmental impact the development may have. With any potential new land development, along with cost estimates, insurance, structural warranty, and planning permission, you will need to conduct various site surveys, including an ecological survey.

A new development may be:

- A personal residential build

- A new commercial site
- An addition to an existing development

An ecological site survey will assess all areas of your site, and will likely encompass any considerations, issues or problems that will need to be addressed from an ecological standpoint.

An ecology survey considers the site's immediate environmental impact on existing habitats and will help developers established the necessary next steps to ensure the development can continue.

Developers will also need to consider environmental legislation, to ensure they are abiding by the law throughout development and land planning.

The Service Provider continues to work with Keep Britain Tidy and would like to extend the project and continue the existing areas. It was difficult to say if the project did reduce littering, however the area has given the team insight and experience in managing wildflower areas adjacent to highways. The Service Provider will continue to work with the Authority on such projects and assist in the Authorities ambition to extend wildflower planting.

Further initiatives to enhance the highway are Blue hearts scheme, this has been used very successfully in other borough and a relevant thing to adopt.

The blue campaign was founded in 2014 by wildlife filmmaker Fergus Beeley in response to the State of Nature report published that year which showed a dramatic decline in Biodiversity in the UK.

The Blue Campaign works under a simple message; **step back and let nature take a bit more control in your green spaces.** You do not need 100s of acres of land to make a difference, simply creating variation through reduced/staggered mowing, allowance of wildflower and weed growth, stopping pesticide use, and establishing wild habitats helps create a space for wildlife to flourish.

The **Blue Campaign** encourages councils and the public to re-wild their green spaces. Residents are involved by helping to identify land such as verges and roundabouts which are suitable to be left uncut. These areas can feature a blue heart, indicating why the grass and flowers are growing longer there.

Residents are encouraged to:

- Identify suitable grass verges near where they live.
- Gain local resident support to rewild this area (especially people whose properties are directly in front of the proposed verge).
- Contact us for an assessment to ensure this verge is suitable for being left uncut.
- Service provider to install a blue heart in the selected location.

f. Maintenance of hedges, shrubs and rose beds

General

- Failed hedging, shrubs and roses will be removed and replaced unless there is a horticultural benefit for its exclusion, e.g. plant has been crowded out by others, scheduled thinning etc.
- No living hedge, shrub and/or rose area will be removed without prior written approval from the authority - in compliance with Performance Targets 3a.4.2 and 3a.5.1
- Proposals for the removal without replacement of individual living plants will be referred to the Authority for approval on an ad hoc basis stating reasons for proposed removal

Cultivations

- Work will commence at one end and progress systematically along the verges or designated work areas
- Cultivation of the planted areas / shrub beds may involve hand weeding and raking and covering with bark mulch.

Pruning and Trimming

- Hedges, shrubs, bushes and overhanging tree branches will be pruned and trimmed as required to maintain shape and appearance consistent with the species and to remove interference with pedestrians or vehicles. Pruning will be in accordance with good industry practice given the age, genus, species, required form, flowering period and maintaining the characteristic natural shape of the plant – in compliance with Performance Targets 3a.4.4 and 3a.5.3.
- Hedges will be maintained by hand or by mechanical means as appropriate to the species and in conformance with good industry practice so that the maximum dimensions do not exceed 1.5 metres height and 1.0 metre width unless with the prior written approval of LBH – in compliance with Performance Target 3a.4.5. Hedges that cannot be maintained at this height for reasons such as not best horticultural practice will be recorded, and the Authority will be advised.

Treatment of weeds in soft landscape areas and TLRN

- Proactive measures such as mulching, will be carried out to minimise the incidence of weeds in soft landscape areas
- Eradication of incidental and wider outbreaks of weeds will wherever feasible be by hand or mechanical means in accordance with Output Specification PS 3C.
- Incidental weeds within grassed areas that are not controlled by regular mowing will be controlled in compliance with amended Performance Targets 3a.1.5a and 3a.1.5b.
- Hedge bases, shrub and rose areas will be maintained to control any weed growth to less than 10% ground coverage and no more than 50mm in height in compliance with Performance Targets 3a4.3 and 3a.5.2

For avoidance of doubt the dead weeds treated by others on the hard surfaces of the TLRN will be removed during the normal cleansing cycle.

5.7.4 Arboriculture Management and Maintenance Programme

Planned seasonal works:

- Pruning of London Plane trees (Platanus species).
- Pruning of pollard trees such as Limes (Tilia species) etc.
- Tree planting.
- Tree surveying.
- Removal of Epicormic growth

Planned cyclical works:

- Cyclical pruning programme (Derived from survey data).
- Borough Clean Sweep, low branches and epicormic work
- Young tree maintenance and watering.

Other interventions:

- Removal of dangerous trees.
- Control of pests and diseases.
- Emergency works due to exceptional weather conditions.

Depending on circumstances (location, height, crown spread etc.), the pruning of London Plane trees and Pollards may fall in to both seasonal and cyclical categories.

Appendix B contains the Arboricultural Maintenance Programme of works for 2025.

6. Invasive weed Control on Hard Surfaces

Following the decision in 2020 to cease using the chemical Glyphosate on the highway, the Service Provider has now adopted a manual approach to removing weeds. There is a trialled re start for 2025 of Glyphosate usage on hard surfaces

As part of invasive weed control the Service Provider will use herbicide such as glyphosate where weeds are recognised as invasive species. Invasive species are non-native species that have colonised a new area to the point of damaging the surrounding environment and are seen as one of the top five major threats to our ecosystem today.

The ones we are concerned about are a risk to the highway are

- Japanese knotweed
- Giant Hog weed
- Mares Tail
- Bamboo
- Himalayan balsam
- Hemlock

Other species that may become known in the borough.

Locations treated.

Invasive Weeds

Street Name	Location	Weed Type
Westmacott Drive	Grass verge right hand side J/W Beattie Close	Japanese Knotweed
Felthambrook Way	in shrubs and on roundabout	Japanese Knotweed
Groveley Road	fenceline LHS car repair	Japanese Knotweed
The Gardens	Footway near no.62-58	Japanese Knotweed
Warwick Road	lifting footway	Japanese Knotweed
Pevensey Close	along fence	Japanese Knotweed
Wood Lane	in hedge row on bridge	Japanese Knotweed
Layton Road	Fenceline opp no.2-15	Japanese Knotweed
The Butts	in tree pit os 38a	Japanese Knotweed
Anderson Place	Cross lances car park	Japanese Knotweed
Chiswick High Road	Facing Hayloft Entrance	Japanese Knotweed
Vine Place	next to no.3	Japanese Knotweed
NorthDrive Alley	in grass verge near bus garage	Japanese Knotweed
Riverside Walk	in shrub beds near river	Hemlock
North Hyde Lane	On banked grass area	Hemlock
Woodlands Road	Along the wall opp entrance to school	Marestail
Park Lane	off network on river	Giant Hogweed

Herbicide treatment application are made with a knapsack and lance sprayer containing Glyphosate or another suitable herbicide.

The details of the Project to manage weed growth manually are included in appendix E.

The Service Provider uses Glyphosate products for the treatment of weeds as per COSHH guidelines and the manufacturer's recommendations for the usage and the correct application. In recent years the use of Glyphosate has been reviewed and glyphosate as a product has been extended for usage in the UK. The Service Provider will continue to monitor for potential changes in guidance and legislation.

There has been use of glyphosate to control invasive weeds in the year 2024 and this will continue to be monitored.

Trained Horticultural operatives will complete any work in the next 12 months if glyphosate or herbicide is the only option available to treat invasive weed species.

a. Control of injurious or invasive weeds (This is also applicable to outbreaks occurring in paved areas)

Injurious weeds will be controlled subject to the following:

- All outbreaks or occurrence of injurious weeds will be recorded on the MIS
- Fencing/barriers/markers will be erected where appropriate and the grass cutting programme will be adjusted locally to avoid potential inadvertent spreading of the injurious weed through maintenance operations
- The most common outbreak is likely to be Japanese knotweed/Mares' tale however other injurious weeds may also occur
- The Environment Agency currently recommends chemical treatment of Japanese knotweed rather than to continuously cut re-growth
- The most effective time to apply herbicide to Japanese knotweed is from May to September or until the first frosts cause leaf fall – herbicide applications will take place over three visits typically May, July and September and will typically require repeated applications over a three-year period to complete eradication, however this could be a longer period for persistent locations.
- Japanese Knotweed sites are treated with 'Roundup' Glyphosate or other similar available products.
- The current applicable advice on treatment of injurious weeds will always be applied
- Some outbreaks may require treatment other than herbicide application, e.g. the hand pulling of ragwort and bindweed.
- Incidents of Scottish thistle have been observed and continuing to grow after treatment, further investigation of a suitable removal procedure is being considered.

- Brown Tail Moth is treated using Dimilin Flo. The areas affected are secured using barriers for public safety and treated. Treatment is then monitored to establish if the moth has been destroyed.
- Alternative treatment includes removing the vegetation from site to incineration if the area is completely infested in line with best industry practice
- Mare's tail is treated with specific herbicide to limit the growth and spread as quickly as possible.

7. Tree Maintenance and Management

a. Tree Management and Maintenance Programme

The Tree Management and Maintenance Programme of works is included in Appendix B also see Appendix D for Terminology of Arboricultural Horticultural Maintenance Terms.

b. Hazardous Trees and Tree Removal

The service provider will carry out a survey of one third of the borough each year, from the survey any trees that are dead, dying or dangerous that require removing will be recorded for removal in the Ezytreev system. This removal will have an estimated time for removal by the surveyor based on the condition and location of the tree.
This removal will be on written approval by the authority and have a maximum removal period of 3 months from the date of the survey, unless the tree as intervention to reduce any associated highway risk, this could be in the form of a monolith, therefore a tree can be on the network longer than the 3-month period before complete removal is carried out.
For trees recorded as a Diameter at Breast Height (DBH) of 20cm or below and do not require a stump grind to remove will be on a sperate programme to remove (grub out) and replant at the same time.

Defra duty to consult procedure will be followed if required or not within any exemptions during any felling process.

To mitigate the risk of potentially hazardous trees on the Project Network, the following will be undertaken:

- Surveys and inspections will be carried out and a report will be compiled detailing all trees in poor condition, have fungi, basal or crown decay. These trees will be targeted for a more focused safety survey.
- Surveys must be undertaken when the trees are in leaf as it is difficult to accurately determine the physiological condition of a tree when it is dormant
- The Service Provider is reviewing in-house capabilities and will be developing an in-house training programme to expand the scope of our Routine Inspections to include the identification and recording of dead trees Highway inspectors and Community Environment Officers will now identify potential dead assets and report to the Arboriculturist for confirmation.
- If a tree has been identified for removal and is not considered a Category 1 Defect, permission will be sought from the Authority to remove. Information will be provided to the Authority in tabular format explaining the rational for the tree removal. This will include location, inspection details and the reason for proposing its removal including what is the proposed action.

- If a tree is removed subject to a Category 1 Defect, the Service Provider will notify the Authority of the removal within 24 hours and record its removal in the next Monthly Monitoring Report.

i. Tree Stump Removal and Treatment

There are some species of tree that grow vigorously from the roots (vegetative propagating). When felled these can lead to new growth pushing up through the footway or surrounding surfaces, causing damage and creating trip hazards.

To overcome this, the tree stump must be poisoned; to do this, the tree stump must be left in situ for the poison to take effect. Once the tree is dead the stump can be removed.

An exception could be made in cases where a vegetative propagating species must be removed. Under these circumstances the stump should remain in-situ until it and its root system are judged to have died. This can only be determined by an Arboriculturist.

Vegetative propagating species would include, but not be limited to:

- Willow -Salix,
- Poplar -Populus,
- False Acacia - Robinia,
- Honey Locust - Gleditsia,
- Silver Maple - Acer Saccherinum,
- Tree of Heaven - Ailanthus,
- Star Horn Sumac - *Rhus Typhina.*

To mitigate the risk these stumps may present as an obstacle to pedestrians, all stumps remaining in-situ will be left at a height of 1m above ground level, and the cut edges at the top of the stump chamfered to remove any sharp edges.

Tree Roots

A common feature of older planting is that maturity can result in significant disruption of hard surfacing close to the trunk by large structural roots. Roots are very small when they start growing into base layers then increase in diameter. When lifting is excessive, a trip hazard may be created. Resurfacing the area affected by root damage using flexible materials and raising the localised level of the footway will be considered to alleviate or remediate root damage.

The removal of roots will have negative impact on tree health and stability and will only be considered as a last resort if an intervention level defect is identified by a highways inspector which compromises the integrity of the network and poses a health and safety hazard to its users.

c. Monolith

The reduction of a tree to a “Monolith” is part of a managed process of tree removal for dying or dead trees where it is reduced in stages over an unspecified period. The tree will remain as an asset and be programmed for felling as appropriate with the necessary authority to do so. Adhering to the new agreed time scale on SPCN 0062

d. Summer Survey

Each year a third of the street tree stock is surveyed to assess their condition and to make works recommendations with the express intent of minimising root activity and moisture uptake from the soil as per the Risk Limitation Strategy for Tree Root Claims, published by the London Tree Officers Association (LTOA) May 2008 3rd Edition Revised. Where necessary, works recommendations have been assigned to each tree to ensure it does not outgrow its surroundings and to mitigate potential “Actionable” nuisance. These recommendations have been used as the basis of the ongoing programmed

e. Tree replacement

Regarding the replacement of street trees, the Service Provider is tasked with maintaining the street tree population at the agreed level. As a result, the Service Provider has an obligation to replace any trees that are removed on a 1 for 1 basis.

If a street tree is lost for whatever reason the following will take place.

- The tree stump and its immediately adjoining roots are removed.
- The tree pit is reinstated to maintain the safety of the footway.
- The location is assessed by the Arboriculturist to see if it meets the current criteria for planting a street tree.
- If the location is suitable, a replacement tree is scheduled for planting during the next available planting season (November to April).

- If the location is not suitable, a replacement tree is planted, at an appropriate location that meets the street tree planting criteria.

Street tree planting criteria.

When replacing a street tree, it is often necessary to replant in an entirely different location, as the existing site may not be viable.

The surrounding environment of some historic tree locations have changed so dramatically over the lifespan of that tree, that they no longer meet the criteria for suitable and sustainable planting.

There are many constraints in an urban street that prevent the Service Provider from planting. The following are some of the criteria that determine where a street tree can or cannot be planted;

- The old location is not viable due to residual roots from the old tree which limit the excavation of a tree pit sufficiently to accommodate the large, containerised root-ball of a new street tree.
- A minimum width of usable footway is a Disability Discrimination Act requirement for people with mobility impartments. To ensure accessibility it is not acceptable to install a tree-pit or plant a tree at a location which would reduce the width of the footway below 1.5mt.
- The impact of tree roots on adjacent underground services (Electricity, Gas, Water, Drains, Phone & Fibre optic cables etc.) due to issues with future tree growth on the integrity of such services. Often these services would not have been present when the original tree was planted and their close proximity along with the risk of a service strike prohibit the excavation of a tree pit for street tree planting.
- Planting where a street tree would obstruct street and road signs, traffic lights and associated sight lines by approaching vehicles and where they would shade or obstruct street lighting.
- It is vital that newly planted trees are allowed room for growth. Planting locations must have sufficient clearance between 3rd party buildings and structures. The ultimate size of a street tree at maturity must be given due consideration.
- Where appropriate a root barrier or deflector will be installed on newly planted trees, this is for trees near to properties, kerb lines, underground services on hard surfaces.
- Proximity to existing 3rd party trees and significant vegetation in private gardens that would overshadow and outcompete the new tree planting affecting its shape and potential for growth. Competition can make the street tree grow out into the carriageway where it can become an obstruction and result in the tree damaging or being damaged by high-sided vehicles.
- Planting directly outside of one property is to be avoided in favour of planting on the boundary of two properties where the position is furthest from doorways, front gates and driveways, thereby minimising obstructions and sightlines.

- The high growth in vehicle use and ownership means that there is increasing pressure in residential streets for off-street parking and driveway access. The planting of trees needs to be balanced against residents parking needs and the damage that new planting often sustains when in close proximity to cars parked near or on the footway.

- The Service Provider appreciates that some residents may wish to have a tree planted outside their property despite such constraints. However, it is important that the Service Provider considers inevitable changes in householders in any given street over the life span of a tree,
- The fact that such factors may not have been given due consideration in the past should not mean they can be disregard in the present.
- Tree planting process for operatives
- Trees should be watered prior to planting and planted on day of collection

  Statutory access plans for underground services to be obtained and consulted prior to any digging operations. **CAT/Genny scanning should be carried out prior to any digging operations and throughout the digging process**

  - Identify any underground services through visual check
  - Check lamp columns are “lit”, if not then call HUB 020 8538 5680 who will turn them on.
  - Pits should be of a minimum dimension of 900mm x 600mm. They shall be at least 100mm deeper than the root ball height. The pit bottom to be forked over to a depth of 100mm, to break up the subsoil. Pit sides should be roughened
  - Tree pits to be square unless specifically stated otherwise
  - Install root barriers to required specification prior to placing tree
  - Once a tree is planted, the soil level of the finished pit (not including mulch) should be 50mm below the surrounding ground level to create a water catchment area.
  - Organic planting medium should be mixed with approximately 30% of the excavated soil
  - Back fill ratio mix:
  - Soft plant - 1/3 bag SF60 Soil fixer – plus back fill from excavation
  - Hard plant – 1/2 bag SF60 Soil fixer – plus back fill from excavation
  - Containers should be gently opened to expose the root ball
  - Trees should be held securely by a 2no. 80mm diameter stakes positioned vertically. **Base of tree pit must be CAT scanned before stakes are driven into the ground**
  - Tree ties to be neatly nailed to the stake using 25mm galvanised nails. The ties should be positioned within 50mm of the top of the stake with 2 spacers per tie
  - 50mm of composted wood chip to be spread across the tree pit area leaving a level surface
  - Watering bag installed, all trees to receive 20 litres of water on completion of planting
  - Photo and location of completed work to be posted in tree planting WhatsApp group

  Tree removal reinstatement process

  All trees removed from the highway will be replanted, if they cannot be in the same position a reinstatement will be carried out.

- On the day the grinding of the tree is completed a picture is sent to the Arboricultural officer.
- FMS is raised.
- Hub assign to Network steward
- Network stewards assess the size and surface type
- Job is raised to close within specified time period
- Replacement tree will be planted in new location

1.5 Tree Sponsorship Adoptions and Grants

The Service Provider is keen to involve residents, community groups and businesses with an interest in trees and will encourage these groups to sponsor tree planting.

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The service provider is also on board with the government tree planting scheme in which we are providing highway locations for the bid submitted by the authority. Each tree planted via sponsorship is an additional asset to the Inventory and therefore a mechanism for Call Off for tree planting connected to sponsorship needs to be agreed with the Authority as any new asset and accrual on the network which incurs a lifecycle cost that is borne by the Authority.

The Service Provider will support the Authority in encouraging tree sponsorship and will work to ensure that the process is developed effectively.

The process for tree sponsorship is on the Service Provider website and will include a life cycle cost at the time of planting.

It is not always possible to plant a tree in the residents' preferred location due to constraining factors as listed above.

- Once planted, the tree becomes the responsibility of the Service Provider and therefore any works and maintenance to the tree must be completed by the Service Provider.
- If the tree fails in the first three years, Service Provider will not replant the tree in but after three years of survival the tree will be Accrued and maintained as part of the stock.
- Tree sponsorship costs per tree and annual fee for maintenance is provided in the Annual Fees and Charges list updated each April to reflect RPiX.
- Trees can only be planted during the tree planting season (October-April).

The Service Provider will actively look for any opportunities to apply for grants for further tree planting to enhance the number of trees on the Project Network in agreement with the Authority and the availability of lifecycle funding.

The Service provider will review the number of trees per kilometre of road and the number of trees per head of population and then benchmark this information with other London Boroughs' tree maintenance and management.

The Service Provider offers members of the public the opportunity to adopt a tree, however the current cost appears to be prohibitive and there has been zero interest in sponsorship.

Tree Adoption is due for review as part of the Authorities Cleaner Greener Programme and will be updated within this Plan as appropriate.

f. Oak Processionary Moth

The Service Provider carries out continued spraying of Oak trees that have Oak Processionary Moth (OPM) present on the Public Highway. The spread of OPM as increased significantly to include almost all oak trees within the Core area managed by the service provider.

Performance Target 3b.11 and 3b.12 was agreed 16th March 2016 008-Service Provider Change Notice (SPCN).

LBH is located within the “Core Zone” of Oak Processionary Moth (OPM) infestation in the UK and as such, has a responsibility to deal with cases of OPM on public land. The Service Provider responds to identified incidences of OPM on the Project Network by employing “Best Industry Practice” (BIP) as advised by the Forestry Commission and the London Tree Officers Association (LTOA).

Treatment of OPM can only commence once the larvae have hatched and the leaf coverage of the infested tree has reached 40%-60%. This varies from year to year due to climatic variation. Therefore, the timing of treatment must be dictated by the phenology of the outbreak for that year. These timings are supplied by the Forestry Commission annually.

It is important to recognise that OPM is of serious concern to tree owners within the Core Zone of infestation due to its impact on public health. The hairs of the caterpillar cause severe skin rash and respiratory problems when inhaled. In addition, the nests left by the larvae remain in the tree and the hairs contained within can remain active for up to 10 years, retaining a health issue to the public should they fall to the ground. By comparison, the effects on the tree are minimal and are a secondary consideration.

As the name suggests the caterpillar favours oak trees of which there are only recorded 251 on the Project Network. However, there are many Oak Trees on Housing Land and many more in the Parks, Cemeteries, and Wooded areas maintained by the Authority, and private gardens/properties that are also affected.

The Service Provider only treats those trees within the Project Network.

Consequently, the Service Provider will not be held responsible for the re-infestation of trees on the Project Network from Oak trees growing on adjacent land either private or maintained by the Authority that have not been treated as per IBP. In such cases, the Service Provider would seek relief from any associated performance standards and look to recover additional costs of treatment from the owners of the source trees.

8. Development Plan

a. The way forward for Horticulture, Weeds, hard paved surfaces and Street Trees.

The Cleaner Greener Programme will identify areas for development and improvement and the Service Provider is fully engaged in this process. Information that is gained from the surveys, general maintenance, enquiries and inspections will be utilised as appropriate to further improve the Cleaner Greener Programme work. This is a key area for the Service Provider, and these plans continue to evolve and become the strategic focus for maintaining all horticultural and arboricultural assets on the Project Network.

b. Horticulture

Grass

Grass verges are viewed as green extensions of the parks and open spaces in urban streets. They improve the visual amenity of a street, provide a good rooting medium for street trees as well as being important in capturing water runoff from paved areas.

Nevertheless, they are often damaged by habitual parking, vehicles overriding tight corners or accessing nearby properties.

Where grass verges are being consistently damaged the Service, Provider looks at the following measures to mitigate further damage:

- Mapping areas constantly overrun
- Identifying root cause of damage
- Change of surface to asphalt, paving or verge strengthening as appropriate.
- Use of grass reinforced paving solutions.

Shrubs & Hedges

Where appropriate, when planting new areas or changing a scheme to replace dead, dying or diseased shrubs and plants. The Service Provider seeks to plant native species to provide a food source for native birds and insects to support biodiversity.

These proposed improvements for grass, shrubs and hedges outside the scope of the Contract are identified in the Annual Network Safety and Integrity Report PS 6.

Seasonal planting

As part of the ongoing horticultural review the Service Provider shall identify areas for seasonal planting including, where suitable, long-term gaps in the horticultural Project Network in accordance with Schedule 3 Performance Standard 3.

Seasonal Planting could be plants that are readily available and flower only during summer or winter periods for example Geranium during the summer and Viola during winter. Other varieties will also be used according to location and availability through the planned planting periods.

c. Weeds and hard surfaces

Currently each road is manually treated in the spring / summer using the ward-based teams and areas that have heavy weed growth will be programmed to receive a full removal by the manual weed team. The street cleansing operatives in high streets and main routes will remove any weeds as part of their routine maintenance. Continued efforts to minimise detritus by street cleansing reduces the potential for weed growth.

With contract and Network experience established over the past 5 plus years, weeds are continuing to be a problem and initial assumptions that resurfaced highways and footways would reduce the volume of weeds has not had the impact expected.

The service continue to treat weeds regularly and remove detritus through the deep cleanse programme. A further review of this service will take place, and new technologies trialled such as using hot water, lasers, fire, electricity or foam-based weed treatment, a system where a sterilising foam coats the footway and channel and removal by mechanical equipment such as weed rippers and multi-use sweepers. There is no system currently available which delivers a mechanical chemical free methodology for weed removal. Therefore, the labour-intensive manual technique will remain as the main operational technique for removal in 2024.

For 2025 there will be an ongoing trial for the use of herbicides again in the form of Glyphosate on the public highway. This will be two weed spraying treatments carried out by Knapsack and quad bikes to all public highway footways.

d. Trees

Where individual trees have been identified as;

- Causing irreparable and hazardous damage to the Project Network.
- Being an unsuitable species for an urban street (Gleditsia's, Raywood ash, Female Ginkgo's etc.)
- Proven to be causing damage to 3rd party property or structures and have grown beyond the point where they can be effectively managed by regular maintenance.
  A review will take place with Network Management to establish is there is further work that can reduce damage or hazards on the Network. If a solution is not possible the Arboriculturist will complete a report of the issues, damage and potential further implications of the tree remaining in situ to the Authority for review and decision.
    - Defra duty to consult guidelines will be followed when are where required.

Tree renewal and replanting programmes are created favouring species that are fit for purpose and specific to their local environment. This is a key area for the Service Provider, these renewal schedules now become the strategic focus for maintaining all tree assets.

Trees and Development

Requests for tree works and/or removal of trees from the Project Network for new developments shall be considered by the elected Members as part of the planning application.

The Service Provider is not empowered to make this decision but will advise the Authority as Network Stewards.

The Cleaner Greener Programme is developing strategies for tree planting and the Service Provider will review in line with contractual obligations. The Service Provider is progressing ideas to support the Programme, such as the planting of 144 Ringway Hounslow Highways street trees, to represent one for each member of the Operating Company.

9. Green Waste Strategy

The green waste generated by Arboriculture and Grounds Maintenance Operations is predominantly managed in two ways as it is considered as a resource

a. Composting

i. Composting presents a viable long-term option for the management of green waste. There are clear environmental benefits that accrue from composting, including the reduction of waste to landfill and the potential economic benefits. Critical to the success of any composting operation, however, is the quality or purity of the organic material produced, and significant financial outlays are required to establish the composting infrastructure with the capacity to deliver a high-grade product.

ii. All the green waste produced in Grounds maintenance operations on the Project Network is delivered to a recycling facility in Hounslow. This has reduced the Service Providers' carbon output by minimising vehicular journeys within the Borough boundary.

b. Chipping

i. Chipping sometimes referred to as mulching or shredding, is an effective and reasonably cost-effective method of dealing with green and tree waste. Not only does it reduce the mass and volume of green waste, but it also constitutes the first step in any larger-scale composting operation, like composting the quality and purity of the material dictates its usability.

c. Uses for Wood Chippings

i. The Service Providers' chippings are applied to shrub beds when appropriate, as mulch to minimise weeds and help retain moisture in the soil during dry spells.

d. Producing Biomass

i. Tree surgery work from the maintenance of municipal trees yields large quantities of arising's and residues, most of the chippings produced on the Project Network goes to producing biomass fuels.

e. Processing arising's and residues

i. A large proportion of the arising's come from the low density, branches and brash. The Service Provider uses a chipper as it reduces the volume of material to be removed off site.

ii. While the caveats (below) on the storage and handling of green wood chips apply, when handled correctly chips from arboriculture arising's can be either dried as chips, or used in appropriate locations as green chips.

f. Storing and handling of green wood chips

i. There are potential problems with composting chips in heaps that can lead to loss of biomass, raised temperatures within the heaps can cause spontaneous ignition if not managed correctly.

ii. Heaps of chips are not constructed greater than 10 m high to prevent excessive heat build-up. With careful management the heat from composting can help to drive moisture out from a heap.

iii. Storage of wood chips with high moisture content can also lead to the formation of mould which can lead to health problems deriving from the spores. All operatives wear appropriate PPE when working with stores or deliveries of chips.

g. Uses for Large timber;

i. Sometimes it is necessary to remove large trees because they are dead, diseased or dangerous. In these circumstances the main trunk is left in-situ so it can be felled using a vehicle mounted Timber Crane, the trunk can then be used in the following ways.

Anti-parking Measure

Large trunks are useful as anti-parking measures in green spaces helping to avoid damage to the grass. This can also help minimise compaction of soil around tree roots caused by heavy vehicles, trees breathe through their roots and the weight of a vehicle can cause damage in this area. These can also be used in cases of overrun on the highway or areas for illegal crossover, preventing access in this way allows enforcement action to be taken and any damaged areas to be repaired.

Natural Play

Tree trunks can be used in parks, play areas or local schools for natural play as a climbing frame or a seat or just as a natural sculpture. Smaller trunks can be cut into rounds and sunk into the ground to create wooden stepping stones. All timber provided for these purposes will be of a size and weight that will ensure they are immobile, and care will be taken to either remove or round off any sharp edges.

This is a sustainable use for old trees especially when used within the Hounslow Borough Boundaries and extends their usefulness beyond their normal lifespan.

h. Waste management methodologies

To ensure it is appropriate to the nature, scale and environmental impacts of the Service Providers' activities, products and services.

The Service Provider is committed to Complying with all applicable legal requirements, other requirements and prevention of pollution.

i. Promoting environmental principles throughout the supply chain.

- The Service Provider will maintain open communication links within the company, its customers and the public about environmental issues concerning its operations.
- Recycling all reusable wood.
- Ensuring efficient use of energy, water and other natural resources.
- Operating its business in the most environmentally beneficial way

Implementation – Management of Waste Carriers/Waste Carriers License

Only approved suppliers that have been evaluated are used for the collection and transportation of waste. Supplier evaluation ensures that the waste contractor/skip operator is registered as a waste carrier with the Environment Agency. The sub-contractor maintains records of waste carrier registrations and copies forwarded to the Service Provider on request.

Waste Transfer Notes (WTNs) are provided as a record for each collection of waste by the waste contractor and these WTNs are kept for a minimum of 2 years (or 3 years in the case of Hazardous Waste Consignment Notes).

Signing of the WTNs or for hazardous waste the Waste Consignment Notes (WCNs) confirms the Service Providers 'declaration that it has applied and complied with the required legislation in dealing with controlled waste streams.

Implementation – Waste Collection

Competent employees are responsible for overseeing waste collection and delivery activities including: -

- Any necessary supervision of the contractor during waste collection
- Checking that details on waste transfer notes are correct
- Signing waste transfer notes on behalf of the Service Provider
- Retaining copies of waste transfer notes as appropriate.

10. Service development

a. Service Provider Change Notices.

Service Provider Change Approved

Service Provider Change Notice 025A

Scope of Services relevant to Cleansing of Transport for London Road Network

Cleansing of TLRN Road Section Lengths and Footway Section Lengths will be limited to sweeping, removal of detritus including general litter, illegally dumped waste, and removal of dead weeds treated by others (as part of street cleansing only).

- Effective date 1st April 2016
- Agreed date 19th Oct 2016

11. Tree Root Zone Strategy

Tree root zones are the areas around the base of the tree and the starting point of the roots vascular system. Water and nutrients are pulled up from the oxygenated soil around the root zone.

The root zone starter is a document that was devised to protect these areas during maintenance, along with areas that could potentially be damaged by root growth.

It is devised as an Arboricultural and Engineering solution to maintaining a healthy and thriving tree stock in the streets of Hounslow, while trying to provide a safe, long lasting and maintainable footway.

As a result, asphalt has been used as a surface solution by Highway Authorities around street trees due to its flexibility which adapts to incremental tree root growth without producing a trip hazard. It also has the advantage that it can be laid in various thicknesses which is often necessary around trees due to the variability of tree root depth, position, and diameter. In addition, it is particularly suitable when the level of the pavement needs to be raised too, as it produces a seamlessly graduated profile that is compliant with British Standards.

Appendix A - Horticultural Maintenance Programme

Grounds Maintenance Plan

Grass Verge Maintenance

Grass verges will be addressed during the active growing season which starts in spring and culminates in autumn. Reducing the number of grass cuts to 6 per annum and reducing the grass verge edging to 1/3rd per annum are the two key elements contributing to meet the Authority saving proposal thus the service delivery for these two elements are input based as from 1st April 2025.

Grounds Maintenance yearly programme												
	January	February	March	April	May	June	July	August	September	October	November	December
Grass Cutting												
Hedges												
Shrubs												
Invasive weeds												
Lime basal												
Young tree maintenance												
Watering												
Defined edge												
PROW												

Strimming at times is not the most suitable solution as it can be a safety hazard, causing damage to property including increased liability claims.

Wildflower areas will be cut once or twice a year as appropriate.

Shrubs and Rose Beds

Shrubs and rose beds will continue to be addressed at the start of the growing season just prior to spring, this will be to remove any obstructions, improve sightlines, and remove any new growth to maintain their shape and height.

As part of the yearly maintenance programme there will be further follow-up visits throughout the growing season to specifically remove weeds and litter and pruning conducted to maintain their profile and height, and if needed to improve sightlines and clear obstructions.

Reshaping prune will be carried out if needed in August/ September/ October to coincide with the Wildlife and Countryside Act 1981 in relation to nesting birds, this prune will be to remove any obstructions, improve sightlines and to carry out and maintain these assets as fit for purpose over the following winter months.

Dead vegetation will be replaced with new plants at the appropriate time. Gaps are not filled as part of the Output Specification but where the ongoing maintenance of an area will be improved by planting the Service Provider will complete this work.

Hedges

Hedges will continue to be addressed at the start of the growing season just prior to spring, this will be to remove any obstructions, improve sightlines, and remove any new growth to maintain their shape and height.

As part of the yearly maintenance programme there will be further follow-up visits throughout the growing season to specifically remove weeds and litter and pruning conducted to maintain their profile and height, and if needed to improve sightlines and clear obstructions.

Reshaping prune will be carried out if needed in August/ September/ October to coincide with the Wildlife and Countryside Act 1981 in relation to nesting birds, this prune will be to remove any obstructions, improve sightlines and to carry out to maintain these assets as fit for purpose over the following winter months.

In some locations within the Project Network due to lack of maintenance prior to service commencement the rehabilitation of these hedges to standards will continue to be done in gradual phases in accordance with good industry practice to avoid causing stress and damage.

Weed Spraying

Weeds in shrub beds/soft landscape will be removed by the Horticultural teams for ground maintenance and weeds in hard surface will be removed by the Service Provider using the Street Cleansing teams manually by means of hand tools and sweepers.

Planters

Raised planters will be planted with annual bedding and maintained with regular weeding. The Service Provider will consider placing signs on certain planters with a view to encouraging community engagement by residents for watering during the year in dry periods. The sponsorship of planters has not been formally accepted but many residents' waters and weed the planters informally. In addition, we also explore sponsorship by local businesses in areas of high footfall such as high streets, again this has not been formally taken up and further work to promote this could be beneficial. The area is currently being reviewed as part of the Cleaner Greener Programme to maximise community involvement.

Public Rights of Way

Vegetation encroachment on PRoW are inspected annually by Network Management and any required work to remove vegetation encroachment to meet the service delivery standards of Schedule 3

Appendix B Arboricultural Maintenance Programme of Works

Horticultural Maintenance Programme of Works

Tree survey and tree works by ward 2023-2026

Area	Ward		Year			
			2025	2026	2027	2026
Hounslow	Hounslow South	Survey				
		Recommended works				
	Hounslow west	Survey				
		Recommended works				
	Hounslow Heath	Survey				
		Recommended works				
	Hounslow esat					
	Hounslow central	Survey				
		Recommended works				
Chiswick	Chiswick Gunnersbury	Survey				
		Recommended works				
	Chiswick Homefield	Survey				
		Recommended works				
	Chiswick Riverside	Survey				
		Recommended works				
/Isleworth/B	Osterley & Spring grove	Survey				
		Recommended works				
	Syon Brentford Lock	Survey				
		Recommended works				
	Brentford west	Survey				
		Recommended works				
	Brentford east	Survey				
		Recommended works				
	Isleworth	Survey				
		Recommended works				
ham/ Hanwo	Bedfont	Survey				
		Recommended works				
	Hanworth Park	Survey				
		Recommended works				
	Hanwoth Village	Survey				
		Recommended works				
	Feltham North	Survey				
		Recommended works				
	Feltham west	Survey				
		Recommended works				
ston/Cranfo	Cranford	Survey				
		Recommended works				
	Heston East	Survey				
		Recommended works				
	Heston West	Survey				
		Recommended works				
	Heston central	Survey				
		Recommended works				

Appendix C: Terminology and Methodology for Arboricultural and Horticultural Maintenance

All works to street trees carried out by the Service Provider will be in accordance with British Standard BS: 3998:2010 Recommendations for tree work. These include a variety of pruning tasks, however the most common used in Hounslow are detailed below.

Tree Pruning Operations

- These works will be carried out by staff experienced in this type of work. All staff will have received chainsaw training to N.P.T.C. or equivalent or will be working under the direct supervision of trained staff. There will be a minimum of two people on site always.
- On arrival on the operatives will complete a Site-Specific Risk Assessment on the day to take account of the weather and any change of circumstances during the operations, brief the team and review in the event of significant site changes.
- Trees will be climbed by certificated workers with the aid of a rope and harness, or work will be carried out from a mobile elevated work platform following industry best practice
- Aerial rescue arrangements will be implemented as per agreed emergency
- Procedures including installation of rescue line and positioning of ladders and 'rescue kit' adjacent to tree being worked.
- Arising's from pruning operations will be lowered to ground level in a controlled manner or allowed to free fall where safe to do so, where ground staff will process into manageable sizes.
- All arising's will then be chipped into the rear of the vehicle. Large branches or trunks that cannot be chipped will be cut up into manageable logs or lifted by hydraulic grab and removed from site.
- Trees to be felled will be section felled to leave a stump approximately 1 meter above ground level or coppiced as appropriate with arising's processed as above.
- The stems cut up in to manageable pieces and loaded onto a lorry by hand.
- The area will then be tidied and signage and bunting loaded onto vehicles

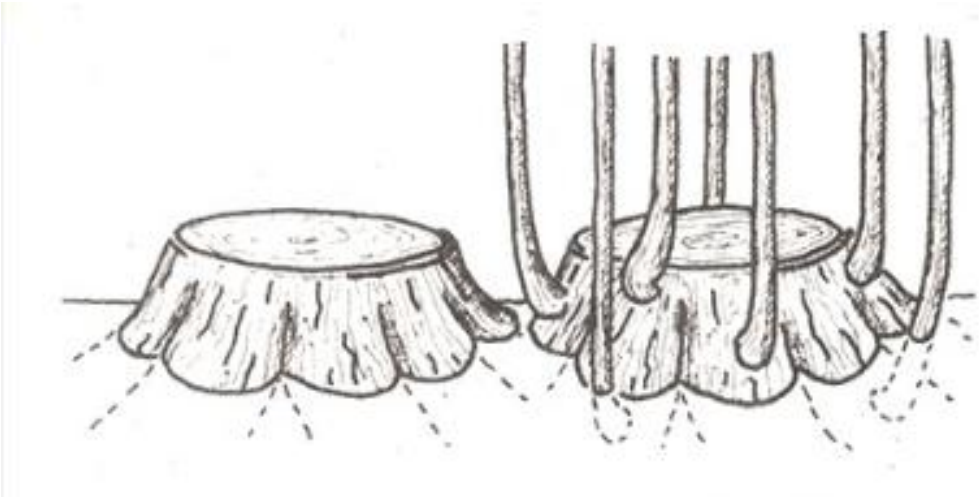
Stump Removal

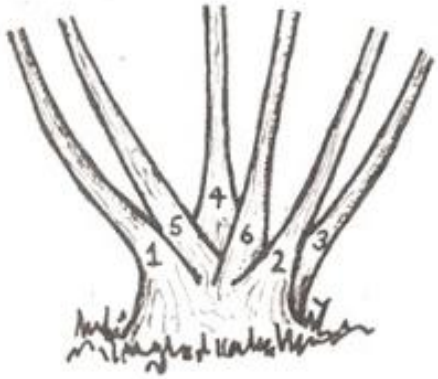
- Stump removal consists of the complete removal of the stump and root ball of the tree and may be undertaken either using hand tools or machine.
- Grubbing out stumps (Removal by hand tools) involves the complete removal of the stump by digging around and under the stump and cutting all roots adjoining to it, by use of spades, shovels etc. This method will usually be employed in the case of small trees and saplings.
- Stump grinding (Removal by machine) involves the removal of stump and root ball to a specified depth, generally between 150mm and 300mm (Dependent on prevailing site conditions). Upon completion of stump removal, the remaining holes will be reinstated with topsoil in the case of grass or bituminous or modular paving to match the existing surroundings of the footway in the case of a hard-surfaced footway.
- Stumps will normally be removed within 24 hours for planned operations. However, there are circumstances where this will not be possible. These include where roots of the tree(s) grow around services, therefore preventing further work until the services have been removed. Emergency fells or

where a tree has failed and fallen, service plans need to be obtained before works to grind the stump can commence. Some tree species vegetative propagate and need further treatment before the stump can be removed, see 7.2.

Coppicing

This is a traditional method of tree management which takes advantage of the fact that many trees make new growth from the base of the trunk or roots if cut down. Trees that are decayed but not dead often still have a viable rootstock and can be Coppiced to encourage regrowth from dormant and/or adventitious buds so they can be retained as a multi-stemmed tree and sustainable asset in the future. Regrowth from domant buds





Regrown Coppice

Herbicide Application to Stumps

- Trees that vegetative propagate will require the application of an herbicide via an Eco plug system to mitigate the production of sucker growth from the root system.
- This is done by drilling holes into the living tissue of the tree, placing a small, self-contained, plastic plug into the hole and hammering it into the hole until it is flush with the surface thereby forming a complete seal.
- The design of the plug integrates engineering controls, thus replacing the need for PPE normally advised when in contact with the herbicide.

- Although the operator exposure is effectively reduced because of the enclosed delivery system, the product is still an herbicide and comes under all the same regulations as other forms of herbicide this means that operator certification is required for use in public or amenity areas by professional users.
- All operatives who are be PA1/6 qualified should be covered. Anyone who wishes to use only this product and has no need to use sprays could take PA6 D (Hand held applicators requiring minimal calibration).

Monolith

The reduction of a tree to a “Monolith” is part of a managed process of tree removal for dying or dead trees where it is reduced in stages over an unspecified period.

When used in an Arboricultural Context it is defined as follows;

“Retained standing trunks have been termed ‘Monoliths’ (Alexander, Green & Key 1993) and are defined as those trees where tree removal would normally be required but are retained as standing trunks in reduced and stabilised form.”

This usually entails the reduction of a tree to the Main Stem by removing the Crown at a predetermined height expressed in metres or a point near where the Main Stem and the Crown meet. The final reduction height will always be at a point where it can be safely reduced by the climbing Arborist during the pruning works. The monolith will be safely retained in-situ until the Street Tree is ready for removal and stump grinding. These Street tree removal works will be undertaken as a separate operation

Target Pruning

The art of good pruning position is known as ‘Target Pruning’ and is a skill of the competent arborist who works to British Standard BS 3998 (2010) gives general recommendations for tree work. The shape of a tree is dictated by the structural framework of the main branches. If those are pruned, then the shape of the tree will be changed.

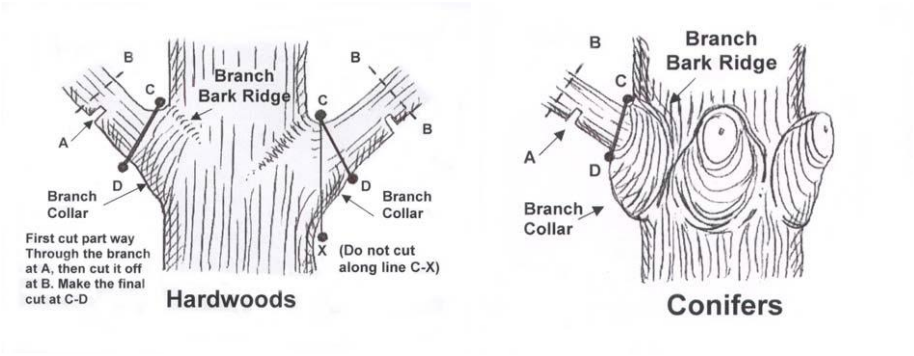
The practice of natural target pruning makes use of the branch collar to identify the proper location to remove a branch. But there is a three-cut process that must be used to remove branches to preserve the bark tissue and the branch collar.

The Three Cut Process

The first cut (marked A in figures below) is an undercut about 1/4 through the branch made upward from the bottom of the branch about one or two inches farther out than the collar.

The second cut (marked B in figures below) is a downward cut just outside the undercut that removes the entire branch, eliminating the weight of the branch before making the final natural target cut.

The third cut (marked C-D in figures below) is the natural target cut. The remaining portion of stub is removed with a cut made just outside of the branch collar tissue.



Working on or near Banks, Slopes and Cuttings

Attention will be paid to weather conditions and slip hazards - appropriate footwear will be worn and the operator will constantly assess the risk from slipping

Work will be suspended where slippery surfaces are encountered or where weather events produce slippery surfaces during the works

Where there is a risk to operator or public safety due to the steepness of a bank, an alternative specification may be sought to the recommended works.

No ride on mowers to be used on sloping verges

Strimming

Where instructed, strimming will be undertaken in areas where the base of trees has become inaccessible due to prevailing ground conditions and to improve visibility when undertaking inspections

The rotational speed of the strimmer can cause debris and stones to be ejected at high speeds, with the possibility of causing damage and or injury - care will be taken to minimise this risk wherever possible by ensuring that the guard is facing any vulnerable areas i.e. people or the carriageway

The operator will be aware of direction when strimming in areas of light stones which could cause injury or damage

The operator will ensure if loose material is present that the strimmer is not brought into contact with the ground to minimise the potential for material to be ejected.

Grass Verge Reinstatement

Areas of damaged verge because of arboricultural works will be reinstated by localised cultivations and reseeding at the appropriate time of year – in compliance with Performance Target 3a.1.5

Crown Lifting

Crown Lifting operations are to adhere to BS 3998 2010 (Recommendations for tree works) where Crown lifting involves pruning to achieve a desired vertical clearance above ground level or another surface.

If crown lifting involves the removal of branches which form a substantial proportion of the lower crown of a mature or old tree, the resulting wounds on the stem(s) have the potential to become the seat of extensive decay, which could lead to mechanical failure. Failure could also become likely in the short term, since branch removal can cause an immediate impairment of biomechanical properties. In addition, crown lifting that involves cutting back branches to the stem(s) should preferably not result in the removal of more than 15% of the live crown height. Also, the remaining live crown should make up at least two-thirds of the height of the tree.

Clearance heights are specified to each tree at the time of inspection and executed by operatives at the time of pruning in accordance with the British Standard.

Crown Reduction

This is a reduction of the crown size, by height, spread and to some extent density. The reduction is measured from the top of the crown-to-crown base. It is not a just a reduction of the overall height of the tree. An assessment is made from ground level, measurement will be approximate and expressed either in meters or as a percentage of the crown.
NB. The crown of a tree is the branch structure which grows upwards and outwards from the upper part of the trunk. Recommended works that mention the crown pertain solely to this area of the tree and not the trunk.

Crown Thinning

Often carried out in conjunction with crown reduction, this is the removal of a portion of the secondary and live branch growth throughout the crown to produce a well-balanced branch structure of an even density. The volume of timber removed will be approximate and expressed as a percentage.

General Prune

General Prune shall include crown thinning, crown lifting to statutory minimum heights above the highway, removal of epicormic and basal growth, removal of all dead, dying, damaged, diseased, rubbing branches and stubs, removal of any redundant stakes, ties and or guards, clearance of branches from street infrastructure such as street lights, traffic lights, road signs and overhead services such as phone wires and electrical cables.

It will also include the removal of all objects in or on the tree, such as but not limited to, wires, clamps, boards, corrugated iron, unwanted climbing plants or similar, and pruning the tree(s) to the prescribed clearances.

Pollarding

Pollarding is defined as the removal of all the live growth of a tree or shrub back to a truncated crown framework, on or close to the main stem to a specified height above the ground with the objective of

producing a quantity of epicormic growth adventitious buds from this point of pruning. It is only suitable for certain tree species, i.e. Limes & London Planes.

London Plane Pruning

The maintenance of the boroughs street trees is a year-round activity. However, there are certain species where pruning is suspended at certain time of the year. The most noticeable example is of this is the London Plane trees which are only pruned during the winter months once the leaves have dropped.

This is because London Plane trees have hairs on the back of their leaves, which are dislodged during pruning activities; this causes irritation to the climbers. Consequently, they cannot be pruned as part of a regular maintenance cycle during the summer when in leaf. Pruning them when in leaf would contravene COSHH legislation (Control of Substances Hazardous to Health).

Borough Clean Sweep

As part of the “Clean Sweep” scheduled programme of works, every street in the borough will be visited by a dedicated tree gang who will check the tree stock and undertake the following works where necessary.

- Pruning low branches to improve pedestrian access and visibility.
- Removing basal sucker and low growth from ornamentals (once a year).
- Replacing stakes, ties and guards where necessary and removing redundant ones.
- Identifying dead or vandalised young trees and scheduling them for replacement in the next planting season.
- Watering newly planted trees.
- Treating weeds in tree-pits

The bus companies liaise regularly with both the Service Provider and TFL directly regarding any potential issues regarding low branches on the networks that may adversely affect the normal operation of their bus routes

Epicormic Growth

This is the growth from adventitious buds under the bark of a tree, usually found growing from the base and trunk that can cause an obstruction to the footway and highway.

Due to their high growth rate and propensity to produce epicormic growth, the Service Provider will pay attention to Lime trees (Tilia species) on the project network, which will receive the following works.

- Basal epicormic growth removed.
- Low branches lifted to improve pedestrian access.

These works will now be undertaken twice a year across the borough as part of a programme of works as opposed to once a year as it was previously. This will significantly reduce the amount of epicormic growth present during the growing season while ensuring that there is very little residual growth left during the winter months.

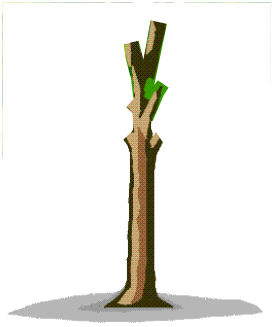
Tree Pests & Diseases

As part of the cyclical tree survey all street trees will be inspected for signs of disease, decay, disorders and dysfunction, also any dead dying and dangerous trees will be identified and appropriate remedial works undertaken to mitigate any potential hazards. When pests such as Brown Tail Moth or Oak Processionary Moth are identified either through survey or customer enquiry, they will be dealt with as per the industry prescribed method.

High Hedge.

A high hedge is defined in the Anti-Social Behaviour Act 2003. For the purposes of this contract, the definition is as a line of two or more evergreen or semi-evergreen trees or shrubs higher than 2 metres above ground level which wholly or predominantly form a barrier to sound, light or access. Their management should consider their height, length, previous maintenance, proximity to nearby buildings & structures, function and impact on surrounding residents both positive and negative. These are single, linear landscape features which require specific management and are not classified as groups of single trees nor managed as such under this contract. All recommendations for works are to be specified by an experienced and competent arboriculturist.

Coppice Stool



Monolith

Tree Stump

Appendix D: Terminology and Methodology for Arboricultural and Horticultural Maintenance

Hounslow Highways - Operations Project Brief		
Project	Weed control program	
Cost Code		Operations Cleansing

TEAM

	Name	Title	Role
Key Contact	Tim Hurley	Operations Manager	Sponsor
	Sabeel Khan	Contracts Manager (LBH)	Customer
	Keith Evans	Contract Manager - Cleansing	Supplier
	Andrew Budd	Cleansing Supervisor	PM

Project Status (Update at min two stages)

Status	**Inception, ,**	**Initiation**	**Implementation**	**Close**
Background	The process with the current contracted out methodology was to spray the network over two periods known as Tranches. This method is now considered as contentious due to the increased pressure from residents reacting to the reports by International Agency for Research Cancer (IARC) and Pesticide Action Network (PAN) of Glyphosate being related to Cancer i.e. carcinogenic. Most London boroughs and others in the UK have or are considering the complete removal or reduction of the use of this chemical on hard standing areas including and local amenities but are also acting on the guidelines set out by of the HSE and DEFRA who state the contrary. Weed treatment is a Project Network requirement and so does not include the TLRN across the borough which is the responsibility of TfL. The previous treatment and methods implemented were based on a two tranche (starting April and August) chemical spray with removal by ward base sweeping operatives once the weed was identified as being dead. Delivery was undertaken with two quad bikes on a trailer with vehicle and two operatives which enabled speed of delivery. Although the operatives had the ability to use back packs the deployment by quad bikes resulted in the treatment range being adversely impacted by obstructions such as parked cars, lamp columns and narrow footways which resulted in weeds not being treated at the backs of footways and channels in roads of a high-density car use.			

In addition, feedback from residents (weed growth enquiries have increased by 22% on last year) and operatives is that the current regime is less effective than previously. The reasons are unclear but issues with the current treatment regime are:

- Wet / rainy weather will have a negative effect on the treatment process whereby rain fall will dilute the chemical that then will be in affective to killing off the weed
- In the same instance very, hot weather will also prevent effective weed treatment as the chemical requires time to soak in to the weed
- Ineffective weed treatment has put pressure on the street cleansing operatives responsible for the manual removal of the weed rendering it to re grow even after the removal
- Also taking in to account Public perception is negative for the application of chemicals such as Glyphosate
- The division of treatment and removal created a lack of accountability when weed removal was not achieved successfully

Weed growth is influenced primarily by the following factors and so internal delivery will seek to address the first two points and compensate for the third through the timing of resource deployment:

- Footway/ carriageway condition
- Detritus
- Weather

Objectives

1. Adherence to the following performance targets

3a.1.5	Verges and Grassed Areas	Grassed areas shall be free from litter, debris and weeds effectively treated within 28 days. For areas of over-run, including rutting and uneven ground the Service Provider shall provide programmed reinstatement proposals to appropriate herbage standard. Managed by in house teams
3a.4.3	Hedges	Hedge bases in the Project Network that are not free from weed growth, or which have more than 10% weed coverage or weeds that are taller than 50mm shall be rectified within 10 days. Managed by in house teams
3a.5.2	Shrubs and Roses	Shrub areas and rose areas in the Project Network that are not free from weed growth or has more than 10% weed coverage or weeds that are taller than 50mm shall be rectified within 10 days. Managed by in house teams
3c.13	Weed Control	The Service Provider shall ensure that Vegetation on hard paved surfaces within the Project Network is treated effectively. Managed by Highway Operations

2. Ensure the treatment of weeds on hard surfaces is managed by Cleansing Operations as effectively as possible in line with the agreed methodology.
3. Meet the requirements of the Annual Landscape Policy and Plan.
4. Weed free hard surfaces
5. Work within the current proposed budget of £90k per annum
6. 6 month and annual review informing options treatment to address the root cause of weed growth

Desired Outcome	1. The desired outcome is for a weed free network which will not only enhance the look of the borough but also improve on public perception of how the standard of cleansing can be perceived 2. The removal of chemical treatment as an option to deal with weed growth in all but a few exceptional locations (Japanese knotweed). The removal of chemical treatment as a general method of treatment would be a more favourable with the wider general public support and reduced risks around the training, storing and handling of chemicals. 3. An improved understanding and treatment regime and plan of mitigation treatment to include identified top ten roads per ward that would benefit from improvement in the surface condition to remove weed growth locations. 4. Feedback after 3 months of the use of electric strimmer's with weed rippers
Inputs required	• Costings on options • Analysis of enquiries • Understanding of tools/ chemical use and necessary RAMS, training and environmental impacts
Delivery Method	Weeds on soft surfaces to remain under the managed sub-contractor through the PGSD contract Hedge bases in the Project Network to also remain under the supervision of sub-contractor PGSD contract Asphalt sealing. The removal off weed on hard surfaces will be undertaken by Cleansing Operations. Having considered the following options, the recommendation is taken proceed with Option xxx **<u>Options for hard surface removal 1 to 3</u>** **Option 1** Do nothing and Remain contracted out to PGSD treating with Glyphosate and supervised by cleansing management with a structured daily report on road completion and inspection through LAMS. Not preferred due to the disadvantages of the current system listed in the background section. **Option 2** Utilise additional 2 reactive teams of 2 attending the areas with foam or hot water housed in a bowser unit (potentially depending on logistics) removal by ward base operatives once treatment has killed off weed. Similar cost to the preferred option. The training risks and costs would make this inefficient and difficult to manage from a performance management perspective as intelligence on the worst effected roads would need to be available on a daily basis. In addition, it would take 12 weeks to complete a single treatment and reduce the immediacy of the visual impact. **Option 3** Increase ward base routes by 4 and adjust the sweeping schedule to include weeding and the removal of leaf fall annually. This would not guarantee a sufficient resource to treat weeds on a routine basis. 15% higher cost than preferred option. The risk is that the operatives would fall back to routine cleansing and ignore weed removal. **Option 4 PREFERRED OPTION**. Deploy 6-9 additional operatives on ward-based cleansing to double man all routes. Mechanical removal would be trialled using 2 battery powered strimmer tool with weed ripper

	attachment with 6 additional operatives in support of ward base sweeping routes. It has the following advantages: • This would put all operatives in a managed programme managed by a specific supervisor and supported by two team leaders to manage cleansing performance. • Each tranche would have a potential 6 attendances to remove weeds improving quality assurance. • The whole street cleanse would be improved as more resource would be employed on a specific street • Attended sites would be transparent as they are on a published route improving assurance by residents and supervisors • Deep Cleanse to work in conjunction with ward based to target heavily obstructed roads • Resource to divert to leafing after the cycle is complete • Main routes to continue to address high profile/ high frequency roads • Traffic Island Team to target section requiring specialist Traffic Management
Programme/ milestones	• February 2020 – Approval • March 2020 – Instructions to agency. Training of Supervisors and agreement of the performance management matrix • April 2020 – Start first tranche
Assumptions/ Constraints	• Weather conditions have been more clement in recent years which has had an adverse effect on the timing of weed treatment. There is also a reliance on cold snaps towards the winter period to also assist with the treatment of weeds after spraying • Laborious and time-consuming method by adopting manual removal • Danger of rapid weed growth due to the lack of chemical treatment in the prevention of weeds.
Risks	If chemical spraying was to part of the weed removal process, there are risks to this method in terms of weather conditions required for the successful impact on chemical treatment. I.e... • Wet / rainy weather will have a negative effect on the treatment process whereby rain fall will dilute the chemical that then will be in affective to killing off the weed • In the same instance very, hot weather will also prevent effective weed treatment as the chemical requires time to soak in to the weed • Ineffective weed treatment would put pressure on the manual removal of the weed rendering it to re grow even after the removal • Also taking in to account Public perception is negative for the application of chemicals such as Glyphosate
Stakeholders/ comms	• LBH communications • Street Cleansing operatives • CET • Lay Assessors
Cost	Glyphosate = £120k per annum with third party contractor

	1. Foam application with X 2 Cage tipper with operatives 24-week removal via ward base operatives 2. Increase ward base routes by 8 and adjust the sweeping schedule to include weeding and the removal of leaf fall annually 3. Additional 6 operatives (Agency) supporting ward base for two 12-week periods running from April to June and August to October. 4. Cost of x 2 battery operated Strimmer's 5. Cost of x 2 Weed ripper head 6.
Next steps	• Approve the recommended option • Procure additional materials and strimmer's • Develop and train performance management and training matrix to operatives and supervisors • Monitor weed related enquiries from FMS and scoring via the LAMS application.
Authorisation Received to PROCEED	Approved by E Griffiths & S Khan 28 Feb 20
Annexes	Appendix A Enquiries related data.

Appendix E: Tree Root Zones

Tree root zones around trees came about as an Arboricultural and Engineering solution to maintaining a healthy and thriving tree stock in the streets of Hounslow, while trying to provide a safe, long lasting and maintainable footway.

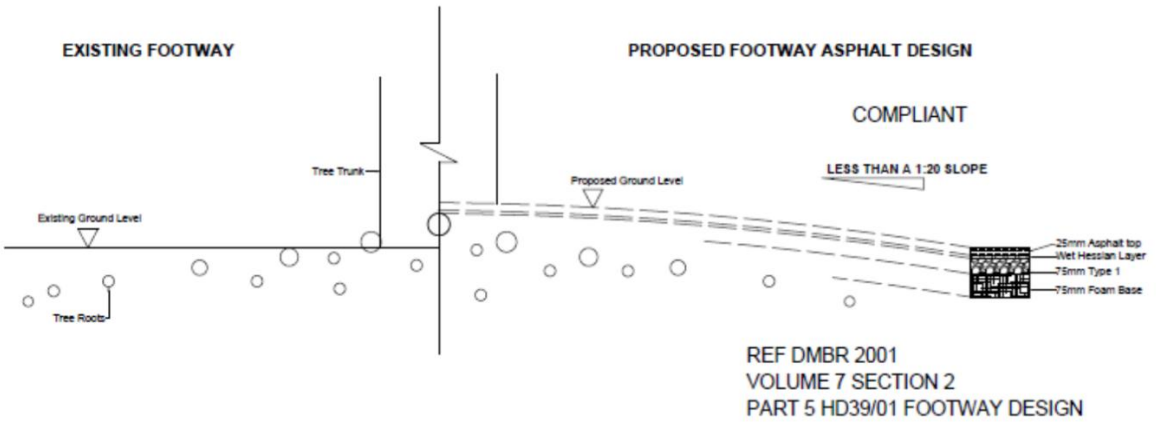
If the roots of the tree are causing a trip hazard, making the footway unsafe to pedestrians and the tree is healthy, the first option is to look for an engineering or pruning solution to ensure that the roots are no longer a trip hazard. This could include raising the footpath levels, undertaking some root or crown pruning and using a flexible surface around the base of the tree.

As a result, asphalt has been used as a surface solution by Highway Authorities around street trees due to its flexibility which adapts to incremental tree root growth without producing a trip hazard. It also has the advantage that it can be laid in various thicknesses which is often necessary around trees due to the variability of tree root depth, position and diameter. In addition, it is particularly suitable when the level of the pavement needs to be raised too, as it produces a seamlessly graduated profile that is compliant with British Standards.

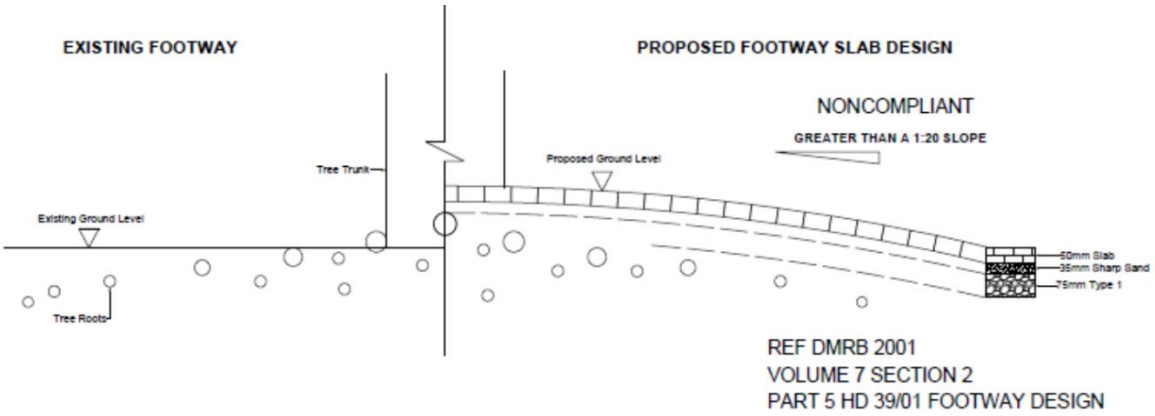
This is extremely difficult to achieve with a paved surface as this leads to an angular profile and the thickness of the block paving in particular would require a pronounced deflection of the footway to accommodate tree roots. In the majority of situations, this would lead to a noticeable undulation of the footway along its length which is not desirable. Both of these options would also be vulnerable to movement from root activity leading to unstable blocks and slabs which would produce trip hazards and necessitate increased maintenance.

From the trees perspective, this greater frequency of disturbance to the trees roots is something we wish to avoid as it will have a detrimental effect on the trees health, meaning that the life expectancy of the tree will suffer. Conversely the flexibility of asphalt gives us considerable leeway when attempting to provide a long-term footway solution around trees and allows us to retain more trees in streets that would otherwise have to be removed if we used blocks or paving.

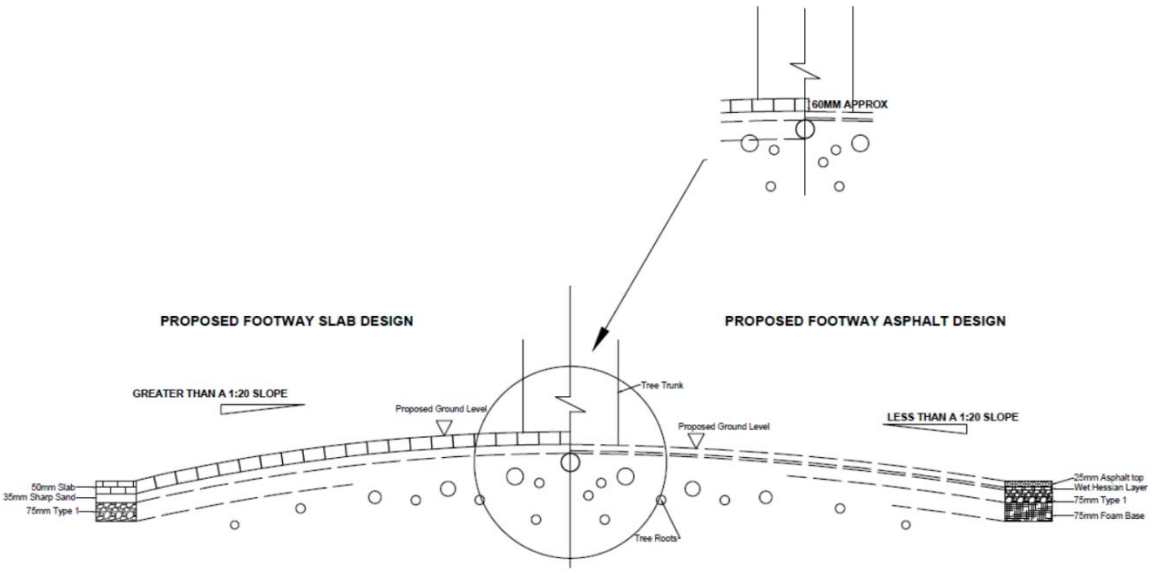
Tree root zone profile (Asphalt) British Standard compliant



Tree root zone profile (Modular Block) Non-British Standard compliant

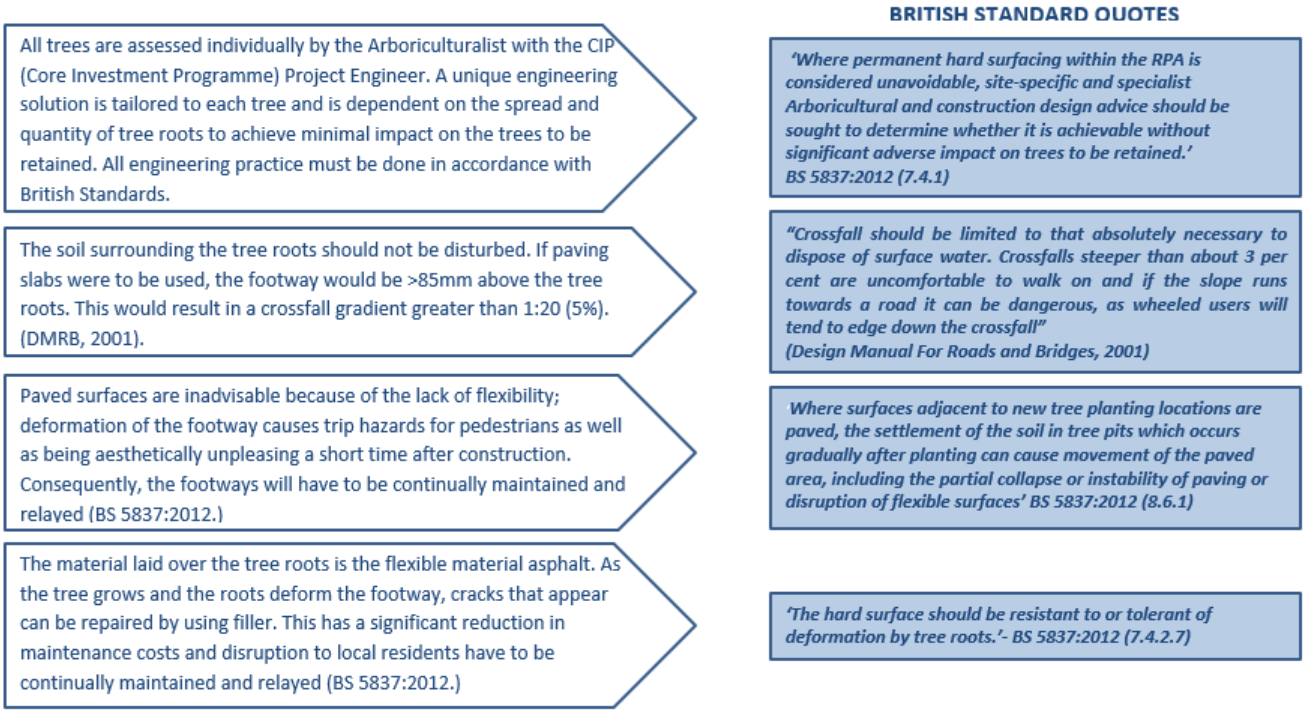


Tree root zone profile (Asphalt/Modular Block comparison)



British Standard Compliance

In a conservation area, footways have to be built around existing trees. Constructing in the Root Protection Area (RPA) requires decisions to be made regarding the type of construction in the tree zone. The conservation of trees and tree work recommendations are as per British Standard 3998:2010.



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[online] Available at: < http://www.dft.gov.uk/ha/standards/dmrb/> [Accessed 11th July 2013]

Tree Root Zones, street by street

Thornton Ave, Junction with Turnham Green Terrace (Before & After CIP)

55/57 Wavendon Ave, (Before & After CIP)

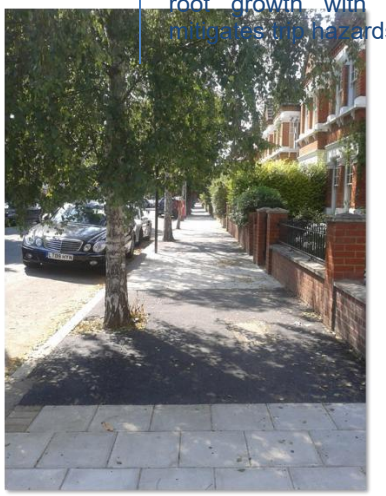
Surface damage

Paving slabs lifted and cracked forming trip hazard, footway deflected upward by presence of surface roots. Tarmac cracked and pushed into the carriageway

Tree root Zone (Temporary until approved by LBH)

Tree pit to be cut & topsoil added plus “Streetbond” colour optional at request of LBH.

Asphalt laid and footway level raised to accommodate future root growth with flexible, maintainable surface which mitigates trip hazards and is British Standard compliant.



Surface damage

Paving slabs lifted and cracked forming trip hazard, footway deflected upward by presence of surface roots. Tarmac cracked and lifting

Tree root Zone (Temporary until approved by LBH)

Tree pit to be cut & topsoil added plus “Streetbond” colour optional at request of LBH.

Asphalt laid and footway level raised to accommodate future root growth with flexible, maintainable surface which mitigates trip hazards and is British Standard compliant.

Determining factors when assessing Tree Root Zones.

- Size of tree.

- Spread, depth and proliferation of tree roots.
- Width of footway.
- Crossfall (Slope) of footway over roots to meet British Standards.
- Presence depth and number of underground utilities (Cable TV, electricity Cable etc).
- Alignment with Street infrastructure (BT boxes, Water mains etc.).
- Proximity of vehicle crossovers.
- Alignment with 3rd party structures for aesthetic considerations (Garden footpaths, driveways etc.)
- Pooling of water and water flow into adjacent properties.

Appendix G (F) : Tree Root Zones V5

Appendix G Tree Root Zone Strategy V

Appendix G : Planters Installed against Change or Call Off Schemes

Planters installed under Change or Call-Off Schemes

PM	Scheme Ref	Location	Location	Installation date	Planter type	Planting	Maintenance agreement	Accrual Status	Location detail	Comment
RC	LVC 16 024	Thornton Av, Chiswick	Near jct with Chiswick High Rd	2016	2 x wooden planters	Small Olive trees	Understand maintained by residents	Not accrued	On small buildouts	Not accrued as planter were originally installed on the Cway against HH advice at the time
RC	LVC 16 024	Thornton Av, Chiswick	Near jct with Turnham Green Terrace	2016	2 x wooden planters	Small trees	Understand maintained by residents	Not accrued	On the footway	Not accrued as planter were originally installed on the Cway against HH advice at the time
RC	LVC 16 024	Mayfield Av, Chiswick	Near jct with Orchard Pl	2016	2 x wooden planters	Small trees	Understand maintained by residents	Not accrued	On the footway	Not accrued as planter were originally installed on the Cway against HH advice at the time
EK	HVC 2 15 002	Church St, Isleworth	os 34 Church St	2016	2 x wooden planters	Small trees	Understand maintained by residents	Not accrued	On central island at closure	
GK	HVC 3 13 008	Berkley Av, Cranford	at jct with Chaucer Av	2016	2 x wooden planters	Small Plants	Understand maintained by residents	Not accrued	On footway	Additional planter added by others at a later date
PF	HVC 1 15 002	Bedfont Lane	Opposite McDonalds	2020	3 x Recycled planters	Small trees	Maintained for 12 months after planting	Accrued if within LCC	On footway	From Govaplast via PGSD
PF	HVC 1 15 002	Bedfont Lane	S/O 22-27 Sydney Road	2020	3 x Recycled planters	Small trees	Maintained for 12 months after planting	Accrued if within LCC	On footway	From Govaplast via PGSD
AW	LVC 22 039	White stile Rd	jct with Enfield Rd	Jun-23	2 x concrete planters	Small Plants/shrub	Initial planting and 24 watering interventions	Not accrued	On small buildouts	
	LVC23 023	Birch close			plastic	shrubs				
	Not to be	Church street outside shop	entrance to communal area	private	2 large terracotta/plastic	Yucca style tree	installed by residents	Not accrued		
		Feltham high street	On high street outside shops	2022	6 tiered planters	seasonal plants	LBH annual payment to plant	Not accrued		
		Wellesley road	junction of high road Chiswick	TFL 2020	1 planters	shrubs	no maintenance	closing road	v	
		Syon lane	man v food	2018	3 planters	weeds	no maintenance	Not accrued		
		Staines road Bedfont	Bedfont High street		6 concrete planters	flowers	we plant	Accrued		
		Channel close	near garages	2018	1 wooden planter	flowers	we plant	Not accrued		
		Renfrew road	Along grass verg	2024	Suds	flowers/shrubs	no maintenance	Not accrued		
		London road Brentford	Junction Eailing road	2024	Suds	flowers/shrubs	no maintenance	Not accrued		
		College road	Junction the Grover	2024	Suds	flowers/shrubs	no maintenance	Not accrued		
		Clayponds ave	Junction Occupation Lane	2024	Suds	flowers/shrubs	no maintenance	Not accrued		
		Grove park Terrace	Outside Shops	2024	Suds	flowers/shrubs	no maintenance	Not accrued		
		Wigley road	Various	2016	about 15 buildouts	trees flowers	no maintenance	Not accrued		
		Chiswick High Road	Opp Burlington Road	?	approx 30 planters	hedge	Previously maintained by Chiswick Park	Not accrued		
		Wellington Road	Junction Staines Road	Pre contract	Horse trough	flowers	we plant	Accrued		
		South Street Islewroth	Memorial + junction North Street	Pre contract	2 horse troughs	flowers	we plant	Accrued		
		Heston War memorial	Heston Road	Pre contract	Horse trough	flowers	we plant	Accrued		
		Stamford Boook Ave	Junction Bath Road	Pre contract	Horse trough	flowers	we plant	Accrued		
		Burlington Road Chiswick	Outside shops/Station	Pre contract	concrete planters	flowers	private planting	Accrued		