

JCLA

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St Pancras Commercial Centre
Landscape Management Plan

SP108_Doc07_MP

25.03.21

Revision: T2

Rev	Date	Description
T1	09.11.20	Issued for Tender
T2	25.03.21	Updated for S106

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General

Key Objectives

The key objective of the landscape management plan is to ensure the successful establishment and long term upkeep of the hard and soft landscape proposed for St Pancras Commercial Centre.

Implementation of the management plan will ensure:

- A maintained attractive and robust landscape setting to the development
- That the value of the green infrastructure on site is maintained
- That the proposed planting establishes successfully and continues to thrive, maintaining good visual interest and biodiversity values
- That invasive and undesirable species are controlled
- That health and safety requirements to all areas of public open space are maintained for both residents and visitors

This landscape management plan should be read primarily in conjunction with the following drawings, but relevant details should be referred to where necessary:

General arrangement:

- SP108_01_GP
- SP108_02_GM
- SP108_03_RF

Hard landscape:

- SP108_04_HL & relevant architect's information

Soft landscape:

- SP108_31_PP_1-4
- SP108_32_PT_1-5
- SP108_33_PC
- SP108_41_PM

This document contains maintenance for areas within the site boundary line only; maintenance of the landscape in the public realm, outside of the site boundary, is not covered within this document.

General

Note: The following relates to general maintenance tasks by the management team, and on-going maintenance for the hard & soft landscape; maintenance during the Defects Liability Period is the responsibility of the Contractor.

Maintenance task – refer to following sections	J	F	M	A	M	J	JY	A	S	O	N	D	Number of visits
General tasks													
Visual inspections	X	X	X	X	X	X	X	X	X	X	X	X	Once per month
Litter pick	X	X	X	X	X	X	X	X	X	X	X	X	Once per week
General sweeping/cleaning	X	X	X	X	X	X	X	X	X	X	X	X	Once per week
Removing fallen leaves/ plant material	X	X	X	X	X	X	X	X	X	X	X	X	Once per week, as necessary
Regular deep clean – annually, and after large events*		X	X										Once per year, or after events
Surface cleaning – refer to following sections for detail	X	X	X	X	X	X	X	X	X	X	X	X	As necessary
Winter specific													
Clear fallen snow	X	X	X								X	X	As necessary
De-ice if necessary	X	X	X								X	X	As necessary
Planting specific – refer to SP108_41_PM													
Watering				X	X	X	X	X	X	X			As necessary
Weeding by hand			X	X	X	X	X	X	X	X	X	X	4x per year
Check for health of tree and for any dead/damaged limbs	X	X	X					X	X	X	X	X	Once per year
Tree pruning, if required	X										X	X	Once per year
Check tree ties and stakes if necessary			X	X					X	X			Once per year
Planting pruning/cut/tidy, as maintenance plan		X	X						X	X	X		2x per year
Top-up mulch, as specified	X											X	Once per year
Apply fertiliser, as specified			X										Once per year

*Deep clean of paving in late winter/early spring and one deep clean of the works in its entirety after any scheduled event. Washing can be carried out using a portable pressure washer (up to 150bar rating) to remove dirt, grime and moss unless surface manufacturers advise otherwise. Inspect joints post pressure washing for any adverse effects. Chemical products should not be used unless deemed absolutely necessary, and should be agreed with the building management and/or maintenance team prior to application.

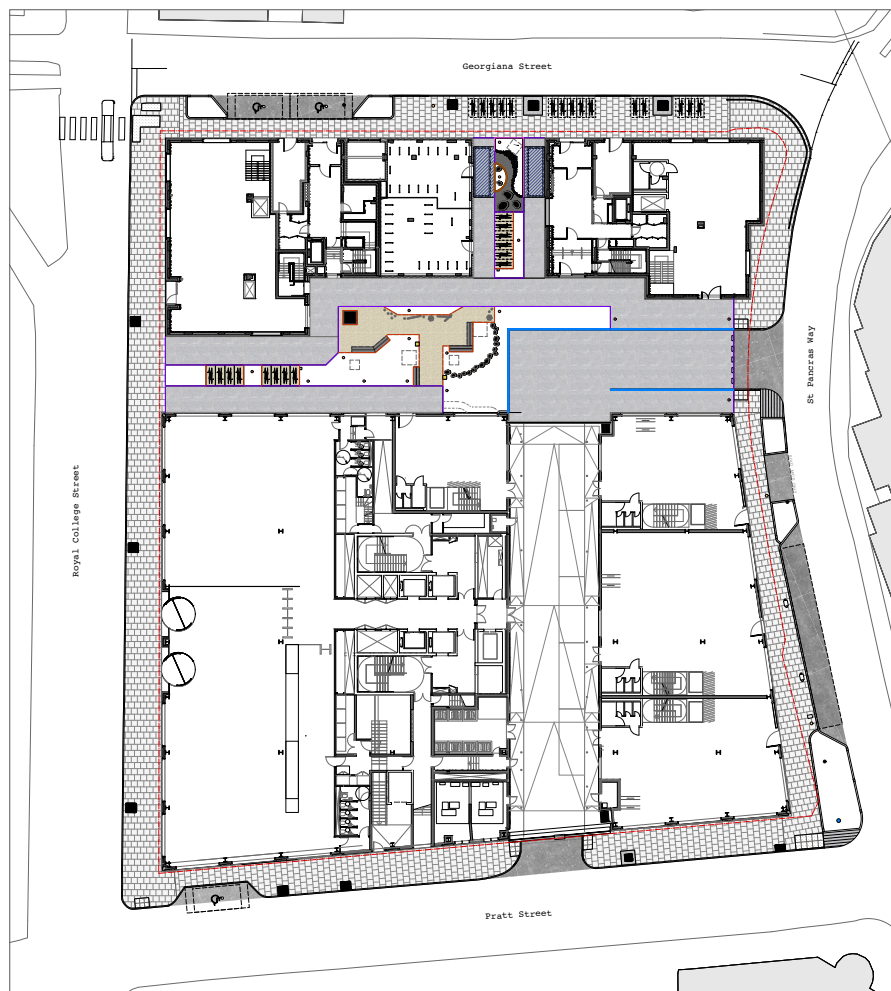
Hard Landscape

General

- Regular visual inspection for damage to surfaces, furniture and play equipment.
- Litter pick as required (allow for a minimum of a weekly visit)
- Paving to be swept as part of a general site visit, using a stiff bristle brush to remove dirt, wet leaves and debris. Remove arisings from hard surfaces.
- Remove fallen leaves, twigs and branches as required. A reasonable amount of leaf litter may be left as a natural mulch within planting beds.
- Keep drainage covers and drains clear of debris. Refer also to engineer's specification/information.
- Allow for one annual deep clean of paving in late winter/early spring and one deep clean of the works in its entirety after any scheduled event. Washing can be carried out using a portable pressure washer (up to 150bar rating) to remove dirt, grime and moss unless surface manufacturers advise otherwise. Inspect joints post pressure washing for any adverse effects.
- Permeable paving joints: Regular visual inspection for and removal of build-up of litter within joints.
- Moss, algae and weed growth: Regular cleaning and weeding of surfacing and furniture should provide sufficient suppression of moss, algae, lichen and weeds. Chemical products should not be used unless deemed absolutely necessary, and should be agreed with the building management and/or maintenance team prior to application.
- Clear snow on hard surfacing, when reaching a depth of 10mm or more.
- De-ice vehicular routes with Rock salt to BS 3247 when freezing temperatures is forecast. Spread Rock salt evenly, following manufacturer's guidelines. Wash area thoroughly with water after frost to remove any traces of salt. Ensure no salt or salty water enters planting beds or tree pits. If de-icing is required on primary pedestrian routes, a suitable sand/grit is to be used (no salt).
- Chewing gum removal: Remove individual pieces by treating with a freezing spray and then scraping off the hardened gum with a wall/paint scraper. Seek advice from specialist cleaning contractor if appropriate.
- Repairs, damage or marks on surface: As per surface manufacturer's guidelines, or seek advice from specialist cleaning company.
- If new services are installed or access required to existing services under a paved area, the paving should be lifted carefully, cleaned and stockpiled for relaying. Any replacement paving should be done using the same product, mixing the new pavers with the existing to avoid a patchy appearance.
- Whenever a cleaning product is used, ensure it is thoroughly washed off on completion of the cleaning, ensuring no water drains into planting beds or tree pits.
- While cleaning operation is in progress, provide suitable signage and mark off area as necessary.






Hard Landscape

Key Plan








Key:

Surfaces: Within site boundary

-  Stone setts; square format (bound); refer to detail **SP108_71_SD**
-  Timber cobbles (unbound); refer to detail **SP108_71_SD**
-  Asphalt to match existing roadway; refer to detail **SP108_71_SD** & engineer's spec.
-  Wetpour rubber surface around play elements; refer to detail **SP108_71_SD**
-  20mm thickness granite pavers within smoke vent outlet panels, subject to mock-up panel and breakout test witnessed by LFB; refer to detail **SP108_71_SD**

NOTE: Covered street (asphalt) under office building to architect's spec.

Edges: Within site boundary; refer to details where noted

-  **ED1 - Timber edge;** flush treated (tanalised) softwood timber edge to path, allow for natural stain to match colour of adjacent timber setts; refer to detail **SP108_72_ED_A**
-  **ED2 - Timber edge;** raised treated (tanalised) softwood timber edge to planting area within play garden; refer to detail **SP108_72_ED_A**
-  **ED3, ED4, ED5, ED6, ED7 - Metal edge;** angled metal edge suitable for use within public realm - AluExcel (120x4mm or 100x4mm) by Kinley systems; refer to detail **SP108_72_ED_B**
-  Timber play edge; treated softwood timber edge to planting areas, as detailed; refer to detail **SP108_77_PT**
-  Solid granite kerb; 150mm width, varies in height as detailed. Granite to match adjacent granite setts in type/colour; refer to detail **SP108_79_KD**

Hard Landscape

Surface Materials

Granite Surface – setts and pavers, on ground floor and roof terraces

- Sweep regularly with a broom to keep surface free from dirt and debris.
- If required, pressure wash or scrub surface using a suitable cleaning product, following the manufacturer's guidelines.
- Regular cleaning of the surface should ensure no growth of moss, lichen and/or algae occurs. Chemical products should not be used unless deemed absolutely necessary, and should be agreed with the building management and/or maintenance team prior to application.
- If staining occurs, e.g. from rust, oil, or beverages, promptly remove by washing the surface with a suitable cleaning product, following the manufacturers guidelines. Refer to manufacturer's *Guidelines for the maintenance of areas of granite paving* in the appendix for further details on stain removal.
- Winter maintenance: refer to specific sections on page 4 of this document (SP108.Doc07.MP).

Timber Cobbles

- Sweep regularly with a broom to keep surface free from dirt and debris.
- Regularly pressure wash or scrub surface using a suitable cleaning product, following the manufacturer's guidelines.
- Weathering will occur over time, and a change in colour from pale yellow/honey to a light grey is natural. Splits and cracks may also occur over time, as a result of the weathering process. If significant cracks develop, consult the manufacturer for their advice.
- Regular cleaning of the surface should ensure no growth of moss, lichen and/or algae occurs. Chemical products should not be used unless deemed absolutely necessary, and should be agreed with the building management and/or maintenance team prior to application.
- Staining or marking can occur, if deemed to be a problem consult the manufacturer for advice.
- Winter maintenance: refer to specific sections on page 4 of this document (SP108.Doc07.MP).

Hard Landscape

Surface Materials

Wetpour Rubber Crumb Surface

- Sweep regularly with a stiff broom to keep surface free from dirt and debris, and to ensure the pores of the material do not become clogged – as this negatively affects the fall safety capacity.
- If required, pressure wash or scrub surface using a suitable cleaning product, intended for use on wetpour rubber play surfacing, following the manufacturers guidelines.
- Regular cleaning of the surface should ensure no growth of moss, lichen and/or algae occurs. **Chemical products should not be used unless deemed absolutely necessary, and should be agreed with the manufacturer prior to application – certain products can significantly damage the surface.** Note that special care is needed in its application due to the possible hazard to children. Mark off the area as appropriate during the works, and ensure all remnants of chemicals are sufficiently cleaned away following completion.
- Regular check for damage to the surface, especially where meeting play equipment and edging. Minor damage to the surface can be repaired using a repair kit from the original supplier. If repair is required, ensure the same bespoke colour mix is used as originally specified, to avoid a patchy appearance.
- Winter maintenance: In frosty conditions vacuum dried salt or salt in solution can be applied. Do not use grit or rock salt as this will increase the wear on the surface and reduce its porosity. Ensure no salt or salty water drains into planting beds or tree pits.

Edges and Kerbs

- Regular visual inspection to be carried out to ensure no damage to any edges.
- Relay/replace edges that are damaged, loose or have become proud due to settlement of surrounding surfaces.
- Annual deep clean to ensure no growth of moss, algae etc. Washing can be carried out using a portable pressure washer (up to 150bar rating) to remove dirt, grime and moss unless surface manufacturers advise otherwise. Inspect joints post pressure washing for any adverse effects.

Loose Gravel (within tree pit)

- Regular visual inspection for litter, fallen leaves etc. and removal as necessary.
- Ensure material is maintained within bounds of tree pit, and sweep any escaped loose gravel back to its place with a broom.
- Ensure the loose gravel area is maintained weed free, as part of the planting maintenance regime outlined in this following section of this document.

Hard Landscape

Furniture

Timber benches

- Regularly inspect for damage and tighten loose fittings. If required sand down the surface to avoid the risk for splinters, for example where small cracks have occurred.
- Regularly clean the surface of the bench by brushing off dirt and debris.
- Deep clean surface if required, to remove chewing gum, bird droppings, graffiti or similar, using a suitable cleaning product, following the manufacturer's instructions.
- Regular cleaning should be implemented to avoid the growth of moss, lichen, mould and/or algae on the surface of the bench. If despite this growth occurs, jet wash as required.
- Inspect all timber elements regularly to ensure rot or other damage is detected. If it occurs, consult a timber specialist for advice on treatment. Replace damaged parts.
- Wood is a natural material and weathering as well as some cracking is natural. Normally cracks will have no appreciable effect on the strength of the material, they should however not exceed **10mm** in width or be positioned so that water can remain and soak into the wood. Replace split pieces of timber if the cracks are larger than 10mm; replacement of timber to be agreed with the building management and/or maintenance team, with designer/client input as necessary.

- Oak contains tannins that might leach during the first period after installation. This is a temporary condition, and in time (from 8 months to a year from exposure to weathering) the timber will turn grey/silver and the tannin staining will weather off.

Tannin leaching from the benches is considered likely to be visually unobtrusive on the surrounding timber cobble surface, due to the similar nature of the materials. Staining of clothing is however a risk, and care should be taken to ensure the benches are regularly checked and cleaned with a suitable non-chemical means (eg. pressure washing) to remove any tannins from the surface as required.

The potential for tannin leaching has been considered in the design by specifying air-dried oak with an appropriate moisture content.

Timber play elements: timber stepping stones, balancing beams and play garden edge

- Weekly routine inspection for damage to ensure continued safe use of the play equipment. Tighten any loose fittings.

- Inspect all timber elements regularly to ensure rot or other damage is detected. If it occurs, consult a timber specialist for advice on treatment. Replace any infected parts. To ensure the safe use of the play area mark off the affected equipment until replacement has been installed.

- Regularly clean the surface of the timber elements by brushing off dirt and debris. Ensure that no build-up of moss, lichen, mould or algae is allowed at any point.

- Deep clean surface if required, to remove chewing gum, bird droppings, graffiti or similar, using a suitable cleaning product, following manufacturers instructions.

- Repair and replacement of damaged parts: Wood is a natural material and weathering and cracking is normal. Normally cracks will have no appreciable effect on the strength of the material, they should however not exceed 10mm wide (in which case they can be a "finger trap" as defined by EN 1176) or be positioned so that water can remain and soak into the wood. Replace damaged parts immediately and fence off the area until complete if this is the case.

- Sand down any sharp edges or splinters as required to ensure continued safe use of the equipment.

Stone play elements

- Weekly routine inspection to ensure stones are not loose or damaged. Relay any loose stones and smooth off any sharp edges to ensure continued safe use of the play equipment.

- Regularly clean the surface of the stones by brushing off dirt and debris. Ensure no build-up of moss, lichen or algae growth is allowed on surfaces used for stepping or climbing, to minimise the risk for slipping.

- Deep clean surface if required, to remove chewing gum, graffiti or similar, using a suitable cleaning product, following manufacturers instructions.

Hard Landscape

Furniture

Lighting columns and bollards

- Operational inspections to be carried out to manufacturer's / lighting engineer's recommendations.
- Regularly inspect for damage and tighten loose fixings.
- Repair or replace any missing or damaged parts with matching parts from same original source as specified. Promptly replace any broken lamp fittings to ensure the public realm remains well lit.
- Deep clean surface if required, to remove chewing gum, graffiti or similar, using a suitable cleaning product, following manufacturers instructions.

Cycle stands

- Regularly inspect for damage and tighten loose fixings.
- Repair or replace any missing or damaged parts with matching parts from same original source as specified.
- Deep clean surface if required, to remove chewing gum, graffiti or similar, using a suitable cleaning product, following manufacturers instructions.
- If abandoned bikes/locks are identified on the cycle racks, the building management team should remove if unclaimed within a specified period of time, while giving due notice.

Litter bins

- Regularly inspect for damage and tighten loose fixings.
- Empty bins as required (allow for a minimum of once a week).
- Allow for an annual deep clean of the bins to remove build-up of dirt. Further to this, deep clean as required to remove graffiti or similar, using a suitable cleaning product, following manufacturers instructions.
- Note that bins are lockable, management team to manage accordingly.

Irrigation stand points

- Operational inspections to be carried out to manufacturer's recommendations – refer also to M+E information
- Regularly inspect for damage and tighten loose fixings.
- Repair or replace any missing or damaged parts with matching parts from same original source as specified.
- Clean if required, to remove chewing gum, graffiti or similar, using a suitable cleaning product, following manufacturers instructions.

Bird boxes

- Regular visual inspection for damage, and tightening of loose fixings.
- Annually check and adjust the tree friendly fixings to allow for the growth of the tree.
- Clean out annually after end of nesting season, using appropriate cleaning product, following manufacturer's guidelines. Check for any occupants in the nest boxes before cleaning and do not disturb if any are found.

Soft Landscape - Ground Level

General

- During the establishment period, planting including all trees is to be watered as required to ensure all plants survive and establish well.
- Ongoing maintenance from year 2: During periods of prolonged drought, water as required to ensure continued survival and thriving of all planting.
- Litter picking as required (minimum once a week).
- Remove fallen leaves, twigs and other plant material as required. A reasonable amount of leaf litter can be left as a natural mulch within planting beds.
- Granite sett footpath to be kept free from encroaching vegetation by cutting back plants overgrowing the edge of the planter. A 'soft' edge is however to be allowed to the timber cobble surface, by allowing planting to overhang the planter edge.
- Trees and shrubs are to be maintained through species appropriate pruning to ensure that they do not cause nuisance or obstruct roads, pavements and pedestrian zones.
- Regular check of health and removal of dead plants/replacement planting to be carried out as necessary.
- Top up mulch once a year, in winter or early spring.
- Maintenance access path to the ground floor windows of light industry unit 02 (as noted on SP108_31_PP_2) is to be maintained as open bark chippings, to blend with surrounding bark mulch areas.
- All pruning work to be species appropriate and to be carried out in accordance with good horticultural practice. Tree work to be maintained in line with good arboricultural practice BS 3998.
- Collect and compost all non-diseased plant material.
- Weeding of all soft surfaces to be carried out as required, by hand weeding. Weeding with mechanically powered tools or through the use of chemicals should be avoided, **unless deemed absolutely necessary**. Use of weed killer should be agreed with the building management and/or maintenance team prior to application.
- Picking of edibles & fruit should be encouraged to make the most of the planting and to avoid potential issues associated with fallen fruit. Any fallen fruit to be cleared promptly to avoid potential nuisance issues.

Plant replacement:

If any plants fail to establish, or fail during subsequent years, they will be replaced by planting of an equivalent species and size as those specified on the approved drawings. Replacement will take place as soon as possible, or within the next correct planting season, depending on the time of year.

Soft Landscape – Ground Level

Ground level key plan



Proposed trees
- refer to SP108_01_GP



Existing tree to be retained
- refer to SP108_01_GP



Textural mix planting
- grasses, ferns, spilling
perennials,
splashes of colour and texture



Taller, structural planting
- shrubs, tall grasses, moments of
intensity and height



Multi-stem shrubs providing
framework

Soft Landscape - Ground Level

Maintenance Operations

Trees

- Tree work to be maintained in line with good arboricultural practice BS 3998.
- Regular check and removal of dead and/or damage/ill plants or limbs; Check tree ties and stakes (for first 2-3 years then to be removed); formative pruning if required - twice per year.
- Compost mulch topping; check and top up (if required) - once a year.
- Watering; irrigation of trees during adverse weather conditions - up to once a month in hot summers.

Shrubs

- Regular check and removal of dead and/or damage/ill plants or limbs; formative pruning if plants growing to obstruct paths etc.- twice per year.
- Evergreen plants; annual tidy & rake out old leaves - once per year.
- Deciduous plants; annual pruning to maintain shape & form, or cut back after flowering, depending on species - once per year.
- Compost mulch topping; check and top up (if required) - once a year.
- Watering; irrigation of planting during adverse weather conditions - up to once a month in hot summers.

Climbers

- Regular check and removal of dead and/or damage/ill plants or limbs; formative pruning if required eg. if plants are growing to obstruct windows - twice per year.
- Evergreen plants; annual tidy & rake out old leaves - once per year.
- Deciduous plants; annual trim to maintain shape & form - once per year.
- Compost mulch topping; check and top up (if required) - once a year.
- Watering; irrigation of planting during adverse weather conditions - up to once a month in hot summers.

Herbaceous perennials & grasses

- Regular check and removal of dead and/or damage/ill plants or limbs; formative pruning if plants growing to obstruct paths etc.- twice per year.
- Evergreen plants; annual tidy & rake out old leaves - once per year.
- Deciduous plants; annual pruning to maintain shape & form, or cut back after flowering, depending on species - once per year.
- Compost mulch topping; check and top up (if required) - once a year.
- Cut around flowering bulbs - do not cut bulbs while still green.
- Watering; irrigation of planting during adverse weather conditions - up to once a month in hot summers.

Bulbs

- Do not cut while foliage is green - remove only after flowers and foliage has faded to yellow/brown.

Opportunity for participation:

There will be 24hr onsite Landlord team, located at the main reception of the office building. An annual event can be held once a year in late Summer or Autumn, giving an opportunity for those living or working on site to participate in the upkeep of the retained landscape with the Landlord team, in an 'open day' type scenario. The Landlord team will communicate with residents and businesses throughout the course of the year in organising this.

Soft Landscape - Office Terraces

General

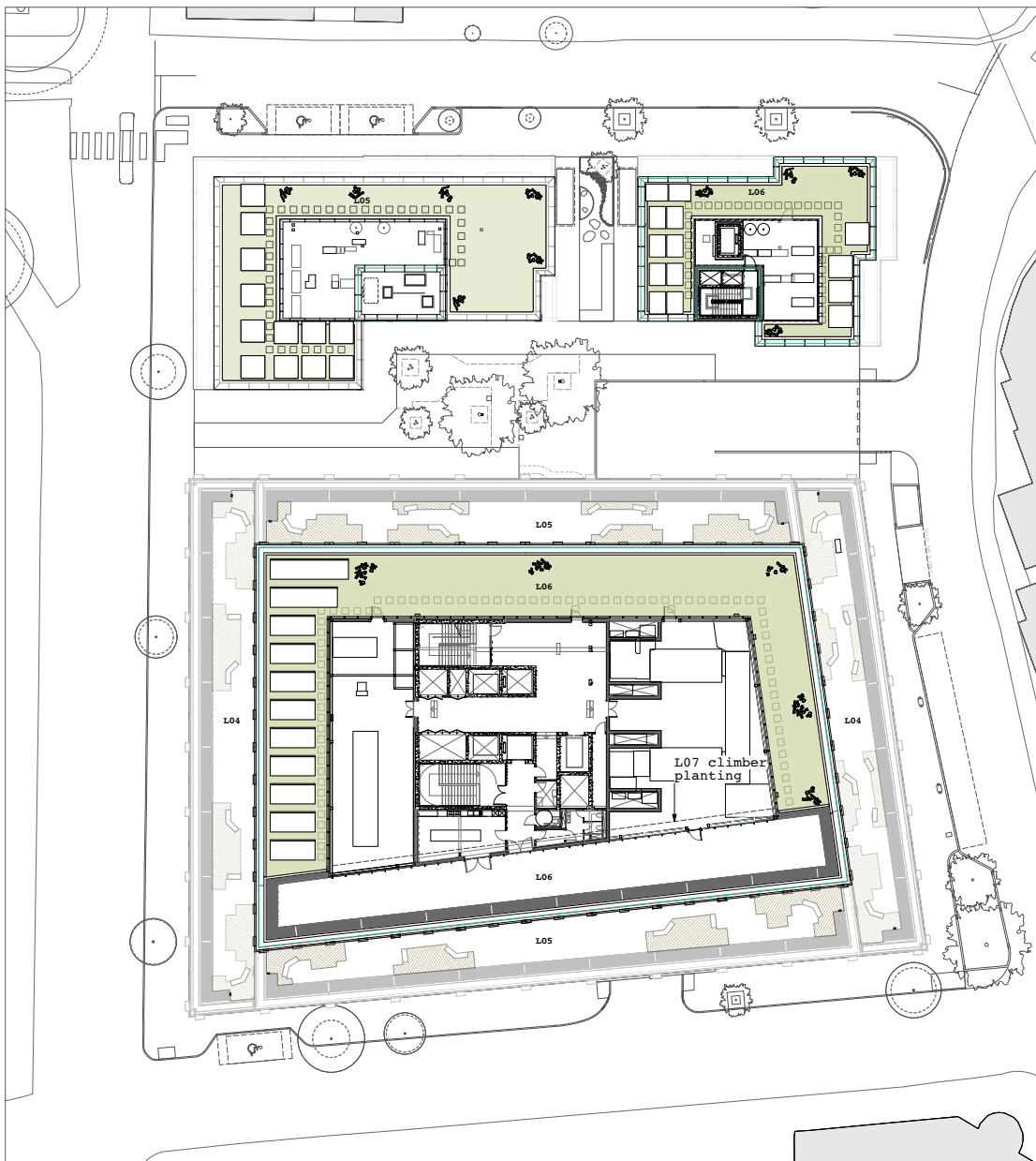
- During the establishment period, planting including all trees is to be watered as required to ensure all plants survive and establish well.
- Ongoing maintenance from year 2: During periods of prolonged drought, water as required to ensure continued survival and thriving of all planting.
- Litter picking as required (minimum once a week).
- Remove fallen leaves, twigs and other plant material as required. A reasonable amount of leaf litter can be left as a natural mulch within planting beds.
- Trees and shrubs are to be maintained through species appropriate pruning to ensure that they do not cause nuisance or obstruct pedestrian movement.
- A 'soft' edge is to be allowed between the terrace planting areas and the granite pavers, by allowing planting to overhang the planter edge.
- Regular check of health and removal of dead plants/replacement planting to be carried out as necessary.
- Top up mulch once a year, in winter or early spring.
- All pruning work to be species appropriate and to be carried out in accordance with good horticultural practice. Tree work to be maintained in line with good arboricultural practice BS 3998.
- Collect and compost all non-diseased plant material.
- Weeding of all soft surfaces to be carried out as required, by hand weeding. Weeding with mechanically powered tools is not to be used. Weeding through the use of chemicals should be avoided, **unless deemed absolutely necessary**. Use of weed killer should be agreed with the building management and/or maintenance team prior to application.
- Picking of edibles & fruit should be encouraged to make the most of the planting and to avoid potential issues associated with fallen fruit. Any fallen fruit to be cleared promptly to avoid potential nuisance issues.


Plant replacement:


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
Soft Landscape - Office Terraces


Roof / terrace level key plan



 Biodiverse green roof; vegetated roof with aggregate areas and habitat enhancements, integrated with PV panels

 Accessible office roof terrace; level 04 - intensive & perimeter planting

 Accessible office roof terrace; level 05 - intensive & perimeter planting

 Accessible office roof terrace; level 06 - perimeter planting

Soft Landscape - Office Terraces

Maintenance Operations

Trees

- Tree work to be maintained in line with good arboricultural practice BS 3998.
- Regular check and removal of dead and/or damage/ill plants or limbs; Check tree ties and stakes (for first 2-3 years then to be removed); formative pruning if required - twice per year.
- Compost mulch topping; check and top up (if required) - once a year.
- Watering; irrigation of trees during adverse weather conditions - up to once a month in hot summers.

Shrubs

- Regular check and removal of dead and/or damage/ill plants or limbs; formative pruning if plants growing to obstruct paths etc.- twice per year.
- Evergreen plants; annual tidy & rake out old leaves - once per year.
- Deciduous plants; annual pruning to maintain shape & form, or cut back after flowering, depending on species - once per year.
- Compost mulch topping; check and top up (if required) - once a year.
- Watering; irrigation of planting during adverse weather conditions - up to once a month in hot summers.

Climbers

- Regular check and removal of dead and/or damage/ill plants or limbs; formative pruning if required eg. if plants are growing to obstruct windows - twice per year.
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- Compost mulch topping; check and top up (if required) - once a year.
- Cut around flowering bulbs - do not cut bulbs while still green.
- Watering; irrigation of planting during adverse weather conditions - up to once a month in hot summers.

Bulbs

- Do not cut while foliage is green - remove only after flowers and foliage has faded to yellow/brown.

Opportunity for participation:

There will be 24hr onsite Landlord team, located at the main reception of the office building. An annual event can be held once a year in late Summer or Autumn, giving an opportunity for those living or working on site to participate in the upkeep of the retained landscape with the Landlord team, in an 'open day' type scenario. The Landlord team will communicate with residents and businesses throughout the course of the year in organising this.

Soft Landscape – Roof Levels

Maintenance Operations

Biodiverse green roofs

Green roof maintenance consists of:

- Installation; ensure correct installation of green roof system, according to manufacturer's instructions
- Establishment maintenance; Year 1, or until planting has rooted into growing medium, adapted to its location and can be considered established
- Ongoing maintenance; Year 2 onwards

General notes:

- Safe access to be provided for green roof maintenance
- All maintenance to be carried out by competent professionals
- All dead vegetation/unwanted leaf debris/general litter that has been removed to be lowered to ground and disposed of in a safe manner
- Disturb biodiversity areas (log piles, pond areas etc.) as little as possible during maintenance to avoid disturbing micro-habitats that have formed

1. Installation

- Water supply at roof level required during installation; substrate to be levelled and watered to point of saturation; blanket installed; blanket heavily watered to saturate plants and substrate
- On completion of installation, organic slow release fertiliser is applied and watered in
- Immediately after installation, a post-installation irrigation period of 10 weeks should be given, where blankets should not be allowed to dry out
- If followed by warm, dry spell of weather, irrigate further
- Begin to cut back watering from early September

2. Establishment maintenance (Year 1, or until established)

1. Plant encroachment: Remove vegetation that has encroached into drainage outlets, inspection chambers, walkways and vegetation barrier.

2. Plant maintenance: watering and litter clearance visits, as tabled
a. Irrigation – allow for 5no. visits per year, as tabled. Check planting on regular building maintenance visits, and water if required. Allow for increased watering in periods of prolonged drought.
b. Litter picking – remove any blown-in litter, including plastic bags etc.

3. Plant cutting: Strim back vegetation to 50-70mm height in late autumn, once seeds have fallen, remove arisings.

4. Weeding: Remove saplings and invasive weeds by hand only. Typical invasive species include Buddleia and sycamore seedlings.

5. Fertiliser: Apply an 80g/m² dressing of slow release organic fertiliser to vegetated surface in late March/April.

6. Access across establishing areas: Use knee boards or similar to prevent damage to vegetation during maintenance procedures

3. Ongoing Maintenance (Year 2 onwards)

- Requirements can be achieved by seasonal visits, with a combined visit (including pruning/checkup) in the winter.
- Watering to be subject to weather conditions; external taps have been provided for the purpose.
- Litter picking and weeding.

Soft Landscape

Irrigation systems

Ground level

- External stand points are provided for the purpose of watering the planting at ground level, and for general maintenance purposes.
- Stand points have been located so that all planting areas can be reached with a hosepipe of 15-20mm length.
- Storage of watering equipment is to be confirmed with the building management and/or maintenance team.

Office Terraces

- Perimeter planters have an integrated automatic dripline system, which can be controlled via the Building Management System. Watering times and frequency is to be agreed between the building and planting maintenance teams, to meet the requirements set out in the specification.
- A porous leaky pipe system is installed within the terrace planting areas. This is connected to external taps via non-porous feeder pipes. Watering times and frequency is to be agreed between the building and planting maintenance teams, to meet the requirements set out in the specification.
- External tap points have been located at regular intervals on the office terraces; refer to MEP drawings for more information.
- Storage of watering equipment is to be confirmed with the building management and/or maintenance team.

Level 7 Climber Planting

- Climber planting at level 7 is to be irrigated via a hosepipe lance, connected to external taps on level 6.
- Storage of watering equipment is to be confirmed with the building management and/or maintenance team.

Roof level

- External stand points are provided for the purpose of watering the green roofs, and for general maintenance purposes.
- Refer to MEP drawings for more information.
- Storage of watering equipment is to be confirmed with the building management and/or maintenance team.

Accessway Management

The Accessways within the site as defined by the S106 agreement provide pedestrian, cycle and maintenance access within the landscape of the development.

They have been designed to meet clear widths suitable for these activities, while recognising the particularities of this site, and taking into account requirements for the building facade access strategy.

The diagram opposite shows the clear widths of the Accessways. The clear widths will be maintained by management and monitoring of the landscape within the site. It is not anticipated to position any loose items, such as furniture, within the Accessways. Fixed cycle stands and bench seats have been provided in the landscape to maintain the clear width of the Accessways.

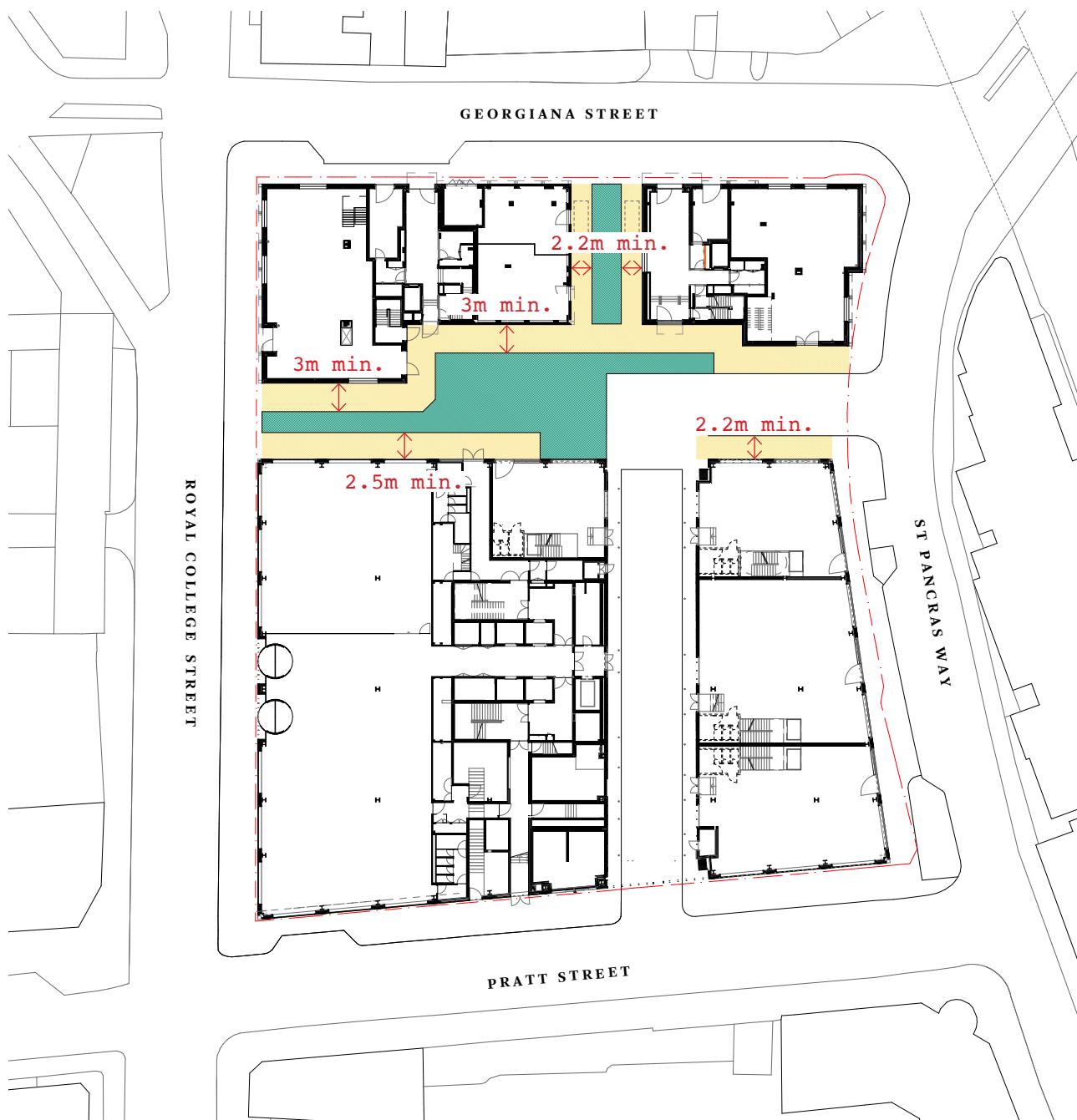


Diagram of Accessways with clear widths shown



- Accessways



- Retained Landscape

Waste Control & Servicing

An outline Delivery and Servicing Plan (DSP) has been submitted as part of the planning application for this scheme, which outlines initial responses to delivery and servicing for the site. A full Delivery and Servicing Plan (DSP), which will include a Servicing and Maintenance Scheduling Plan and waste collection measures will be prepared prior to occupation and will include revised frequencies once end uses are known. This is required as a pre-occupation condition.

Refuse

Waste from the office, light industrial and retail uses will be collected using the internal servicing street. Residential bin collection will be carried out from Georgiana Street.

Waste store areas are shown in Figure 3.4 with access routes also shown.

Retail waste will be stored in each individual unit in the residential blocks and shared with the office bin store for the unit in the main office block. Light industrial waste will be stored in each individual unit, reflecting the different activity and potential waste that could be generated.

Waste removal will be coordinated among the development's and nearby occupiers.

Waste bins will be pre-positioned for collection, and, if required, appropriate mechanical handling equipment ready for large deliveries. This will help to reduce and minimise the time servicing vehicle needs to spend on site. This could include the use of waste compactors to compress rubbish reducing the physical space it takes up, meaning it needs to be disposed of less frequently.

Both residential waste stores have been designed with space for refuse, recycling, bulky items, WEEE, food waste and textiles. Georgiana Street which means there are dropped kerbs of greater than 2.0m width within 10m of both the residential stores

The office building has its own dedicated ground floor waste store, but the waste produced by the light industrial tenants will vary enormously according to the use and we have assumed that they contain their own waste within their demise and make their own arrangements for collection. The commercial waste store can be serviced from Pratt Street, which is within 15m, in which case a dropped kerb will be required, or from the internal street. The slope of the internal street is relatively gentle; however the headroom of 4.0m at the entrance means a commercial refuse collection provider will be selected who can operate within this limitation.

Fly tipping/waste dumping:

There will be 24hr onsite Landlord team who will be able to identify any form of fly tipping or miscellaneous waste dumping. In the event of fly tipping the Landlord team will arrange for removal at the earliest opportunity. Additionally, residents and occupiers will be encouraged to report any occurrences of fly tipping to the Landlord team who will be located at the main reception of the office building.

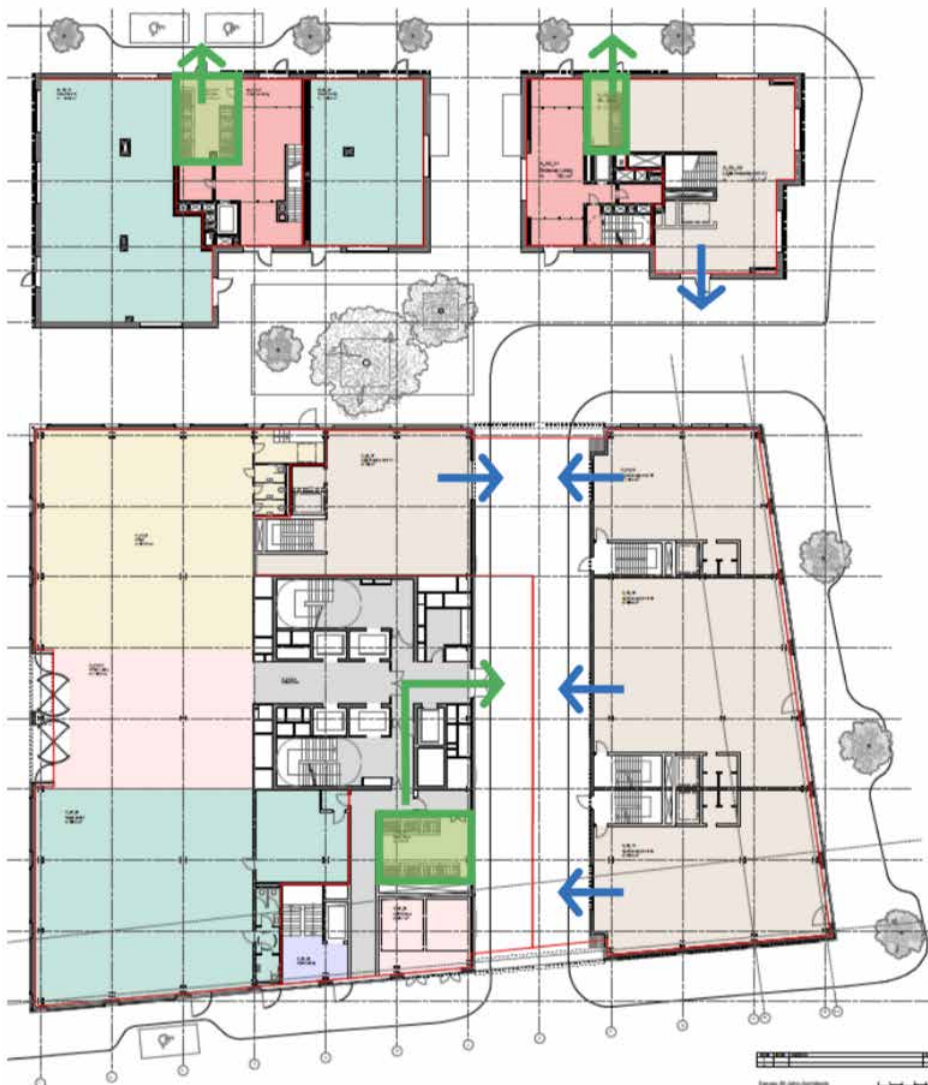


Figure 3.4 Waste stores and access routes (specific areas highlighted green)

Diagram from outline Delivery and Servicing Plan

Safety & Security Measures

The Landscape Management Plan (LMP) considers safety and security measures in the landscaping and accessway provisions between the buildings, as well as the interface between the property and the public highway.

The Security Needs Assessment (SNA) of 11/1/2019, prepared by QCIC, informs the landscape design's consideration of passive security. In terms of active surveillance, the SNA has passed through recommendations from the local police's Design Out Crime Officer (DOCO), that CCTV be installed to the perimeter of the development and entry/exit points on site. CCTV is also a Secure By Design (SBD) requirement. CCTV has been provided to the entire perimeter, and spaces between all buildings. It will promote security of the pedestrian development but is not intended as a public surveillance measure. CCTV camera locations have been coordinated with potential obstructions such as trees.

From a fire safety perspective, the building and landscape design has considered layout and materials to discourage anti-social behaviour. The external lighting design provides sufficient illumination for safe emergency egress. Dry fire hydrant mains inlets are in close proximity to each building to fire brigade approval. There are fire hydrants located in the public highway within 90 m of building entrances which will provide sufficient coverage to landscaped areas.

External Lighting

The landscape lighting scheme for the public realm will create a new green heart within the site.

At night, lighting plays an enhanced role in assisting legibility, wayfinding and orientation. The space is to be lit by contemporary and unobtrusive lighting columns which will provide good quality horizontal and vertical illumination.

This scheme provides safely lit routes through the site. Additional wall-mounted lighting ensures all building entrances can be lit throughout the night also. While maintaining a safe environment throughout, unnecessary illumination during rest hours is avoided by careful control of the lighting via the lighting control system. The lighting scheme has been developed in compliance to the following standards and guidance:

- BS EN 12464-2:2014 Light and lighting – Lighting of work places. Outdoor work place
- BS 5489-1:2013 Lighting of Roads and Public Amenity Areas
- BS EN 13201-2:2015 Road lighting. Performance requirements
- BS 8300:2009 Design of buildings and their approaches to meet the needs of disabled people
- CIBSE SLL Lighting Guide 6: The Exterior Environment (2016)
- ILP GN01:2011 Guidance Notes for the Reduction of Obtrusive Light
- ILP 2011 Lighting Against Crime – A Guide for Crime Reduction Professionals

Further details on the external lighting strategy will be submitted to discharge the planning condition, prior to above-ground works.

Review & Amendment

The Landscape Management Plan (LMP) will be subject to an annual review once a year by the Landlord team. In addition, it will be reviewed:

- On practical completion of the development
- On final completion of the development, after the rectification period
- Yearly, thereafter during operation.

The annual review will ensure that:

- The Landscape Management Plan is being followed by the Landlord team
- The Landscape Management Plan is suited for purpose
- Any amendments to be made as a result of changes or amendments to the landscape will be captured in a revision to the document.

A review of the LMP will take place with Camden Council every 5 years on the basis that the annual reviews have not resulted in any amendments.

END