

Habitat Management Plan

Land at 277A Gray's Inn Road, London

Prepared for:

Regal GI Limited

Prepared by:
ENVIRON

Date:
April 2015

Project or Issue Number:
UK11-21465

ENVIRON

Contract No:	UK11-21465
Issue:	3
Author	Laura Sanderson CEnv MCIEEM
	
Project Manager/Director	Denise Wright
	
Date:	April 2015

This report has been prepared by ENVIRON with all reasonable skill, care and diligence, and taking account of the Services and the Terms agreed between ENVIRON and the Client. This report is confidential to the client, and ENVIRON accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known, unless formally agreed by ENVIRON beforehand. Any such party relies upon the report at their own risk.

ENVIRON disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the Services.

Version Control Record				
Issue	**Description of Status**	**Date**	**Reviewer Initials**	**Author Initials**
1	Final	14th April 2015	DW	LS

Contents

1 Introduction

1.1 Background

ENVIRON UK Limited (ENVIRON) was commissioned by Regal Homes GI Ltd (the Client) to produce a Habitat Management Plan (HMP) to be implemented at Land at 277A Gray's Inn Road, London (the Site).

This HMP has been informed by an ecological Site visit undertaken on the 7th April 2014 and resulting ecological appraisal (ENVIRON report reference RUK11-19893_2). BREEAM and Code for Sustainable Homes Assessments for the Site have been carried out, which included Ecology Reports (ENVIRON report references R-UK11-19893_1_BREEAM_ Ecology_Report and R-UK11-19893_1_CSH_Ecology_Report), also used to inform this HMP. In addition, the landscape proposals prepared by Tyréns UK (report reference 055_Landscape Report_Planning Conditions621_2015 03 17 small) were reviewed.

The redevelopment of the Site was granted Planning Permission (application reference:2014:4267/P) by Camden London Borough Council in October 2014 The proposals include the development of existing buildings and comprehensive redevelopment with residential units.

Planning Permission was subject to a number of Planning Conditions. The objective of this report is to discharge planning condition 22 which requires:

"*The development shall be implemented in accordance with the ecological enhancements recommended in the ecology appraisal hereby approved, including the implementation of a Habitat Management Plan prepared by a suitably qualified ecologist.*

Prior to commencement on the development (other than site clearance & preparation, relocation of services, utilities and public infrastructure and demolition), details of bird and bat box locations and types and indication of species to be accommodated shall be submitted to and approved in writing by the local planning authority. The boxes shall be installed in accordance with the approved plans prior to the occupation of the development and thereafter retained.

Reason: In order to secure appropriate features to conserve and enhance wildlife habitats and biodiversity measures within the development, in accordance with the requirements of the London Plan and policy CS15 of the London Borough of Camden Local Development Framework Core Strategy."

1.2 Legislation and Policy Framework

There are several different acts of legislation and planning policies which refer to the protection of wildlife. These are summarised in Annex A; this is a brief summary of the legislation and policies and is not to be regarded as a definitive legal opinion. When dealing with individual cases, it is advised to consult the full texts of the relevant documents and obtain further legal advice.

1.3 Management Plan - Context and General Aims

This HMP for the Site is written to cover a period of up to five years beyond completion of construction. In Section 2, key information is presented with regard to the Site setting and its existing ecological features. Section 3 of the HMP relates to the management of habitat at

the Site after completion of the development. The HMP will ensure that the habitats provided by the development of the Site are retained and enhanced as required. Management Objectives and Management Prescriptions are presented with regard to the methodology and timing of specified prescriptions.

After five years, it is recommended that the plan be fully evaluated (and revised where necessary) in order to take into account relevant changes in the ecology of the Site.

1.4 Biodiversity Action Plans

In 1994, the Government produced the UK Biodiversity Action Plan (BAP), a national strategy for the conservation of biodiversity. This led to the creation of the UK Biodiversity Steering Group, which has since published 391 Species Action Plans and 45 Habitat Action Plans.

From July 2012, the UK Post-2010 Biodiversity Framework[1] succeeds the UK BAP and Conserving Biodiversity – the UK Approach, and is the result of a change in strategic thinking following the publication of the Convention on Biological Diversity's Strategic Plan for Biodiversity 2011–2020 and its 20 'Aichi targets' at Nagoya, Japan in October 2010, and the launch of the new EU Biodiversity Strategy (EUBS) in May 2011.

The Framework demonstrates how the work of the four countries and the UK contributes to achieving the 'Aichi targets', and identifies the activities required to complement the country biodiversity strategies in achieving the targets.

Following the publication of the new Framework, the UK BAP partnership no longer operates. However, many of the tools and resources originally developed under the UK BAP remain of use. The UK list of priority species has been used to help draw up statutory lists of priorities in England, Scotland, Wales and Northern Ireland. For England, this is in line with the NERC Act 2006[2] Section 41.

Local BAPs form a national series with each Plan usually covering one geographic area. They link with regional and with the National BAP, and with individual Habitat Action Plans (HAPs) and Species Action Plans (SAPs).

London Biodiversity Action Plan, 2007

The overarching BAP for the Greater London area is contained within the London BAP[3]. This sets out the priority habitats and species for the area and provides 24 Action Plans for important habitats and species as listed in Table 1.

Table 1: London Biodiversity Action Plans and Other Important Habitats and Species

	Habitats	**Species**
Action Plan Habitats and Species	acid grassland chalk grassland heathland	bats black poplar house sparrow

[1] JNCC and Defra (on behalf of the Four Countries' Biodiversity Group), 2012. UK Post-2010 Biodiversity Framework. July 2012. jncc.defra.gov.uk/pdf/UK_Post2010_Bio-Fwork.pdf

[2] Natural Environment and Rural Communities Act 2006. HMSO

[3] London Biodiversity Partnership, 2007. London Biodiversity Action Plan [online]. Available at http://www.lbp.org.uk/.

Table 1: London Biodiversity Action Plans and Other Important Habitats and Species		
	Habitats	**Species**
	parks & urban greenspaces private gardens reedbeds rivers & streams standing water tidal Thames wasteland woodland	mistletoe reptiles sand martin stag beetle water vole
Other Important Habitats and Species	built structures meadows and pastures fen, marsh and swamp open landscapes with ancient/old trees	black redstart common dormouse grey heron otter peregrine

Camden Biodiversity Action Plan

The third iteration of the Camden BAP[4] runs from 2013-2018. It was developed through stakeholder consultation and is delivered by a partnership of organisations involved with biodiversity across the borough. Rather than focusing on species and habitats, the Camden BAP outlines a series of actions to ensure that biodiversity is safeguarded in the borough and that people in Camden have opportunities to get involved with nature. There are three key areas of focus:

Access to Nature

These actions aim to ensure that opportunities are available for Camden's residents to get involved in nature across the borough for the range of health, wellbeing and social benefits it can provide.

There is a strong focus on physical and social access to the natural environment - we want to have more places where people can experience nature and address any barriers to use, particularly for children and young people.

The Built Environment

These actions aim to ensure Camden's built environment makes a positive contribution to biodiversity across the borough, through land management, the planning process and bespoke projects.

Open Spaces and Natural Habitats

These actions aim to ensure that Camden's open spaces are managed to benefit wildlife across the borough. This means looking after woodlands, the canal and heath to the best of our ability as well as making amenity spaces more wildlife friendly integrating wildlife into decision making and site management.

[4] Camden Biodiversity Action Plan. https://www.camden.gov.uk/ccm/content/leisure/outdoor-camden/nature-in-camden/wildlife/camden-biodiversity-action-plan/

2 Site Information

2.1 General Details

Site Name:	Gray's Inn Road
Location:	277A Gray's Inn Road, London WC1X 8QF
Ordnance Survey Grid Reference:	TQ 304828
Site Area:	c. 2850 m^2
Site Owner:	Regal Homes GI Ltd
Responsibility for Maintenance:	Appointed Maintenance Team
Local Planning Authority:	London Borough of Camden

2.2 Pre-Development Site Information

The following section describes baseline conditions at Gray's Inn prior to construction.

2.2.1 Landscape Context

The Site is comprised of a large warehouse in an area of 'backland' behind street-facing buildings, along with an open paved entrance from St Chad's Street and an entrance through a building from Gray's Inn Road. Within the warehouse there was a two-storey building in the northeast corner and small rooms on the east side and underground in the northwest. The warehouse was being used for car parking at the time of the 2014 survey. In addition there was some hardstanding used as parking to the east of the warehouse behind the buildings on Gray's Inn Road.

The adjacent land to the north and east had street facing shops and offices. To the south was a residential/office development and shop and to the west three large residential blocks set in landscaped gardens with trees, forming Birkenhead Street Estate.

2.2.2 Habitats

The pre-development Site comprised predominantly hardstanding and buildings. The majority of the Site was covered in one large open plan warehouse building. This was of a steel frame construction with an opaque fibreglass and metal roof and concrete block walls. The internal building in the northeast had two storeys and was also of a concrete block structure. Numerous pipes were present around the internal walls of the building, likely to be from air conditioning systems. A toilet block and plant room were present on the east side, and in the northwest corner there was a small room with stairs down to a toilet block and store room beneath ground level. The building is of negligible value for nature conservation.

The entrance from Saint Chad's Street had paving and tarmac hardstanding. A few small ephemeral weed species had established in cracks here, with annual meadowgrass *Poa annua* and dandelion *Taraxacum officanale* agg. Hardstanding is of negligible value for nature conservation.

The London BAP and Camden BAP for habitats are not likely to be of relevance to the Site. Although buildings and built structures were present, these were not of value to biodiversity.

2.2.3 Species

A single feral pigeon *Columba livia* was observed flying over the warehouse during the survey. No signs of birds were recorded within the building, likely due to the lack of access. The Site is considered to be of negligible value to birds.

No evidence of bats was recorded within the building, and the Site was not considered to be suitable for use by roosting or foraging bats. It is therefore of negligible value to bats.

No other protected or notable species were recorded during the survey.

The landscaped gardens and trees at the Birkenhead Street Estate are likely to be used by foraging and nesting birds.

The London BAP for species are not likely to be relevant to this Site.

2.3 Post-Construction Site Conditions

The development and landscape proposals are shown in Annex B. The proposals include the comprehensive redevelopment of the Site. The existing building will be demolished, and the redevelopment will include 60 residential units (including 14 affordable flats) comprising: 56 units arranged round a new open space (seven two storey houses plus lower-ground floor, 49 flats in three, seven and eight storey blocks plus lower-ground floor) and four flats in a four storey plus lower-ground building on St Chads street, with ancillary basement gym. There will also be offices at ground and lower ground floor, café/gallery at ground floor, together with cycle parking, access facilities, landscape planting including green and biodiverse brown roofs, boundary treatments and associated works.

2.3.1 Ecological Recommendations

In view of the above, a number of recommendations were made with regard to the development of the Site as set out in the BREEAM and Code for Sustainable Homes Ecology Reports:

- The soft landscaping should include a tree planting strategy of various densities;
- All of the plant species used in the soft landscaping would either be native or of known benefit for wildlife;
- Provision of green and brown roofs with plant species and features suitable for use by wildlife;
- Habitats suitable for use by invertebrates should be developed within the Site, with nectar-rich wildflower planting using special pollen and nectar meadow seed mixture.
- Provision of SUDS, integrated into the landscape plan;
- Consideration of installation of a mixture of bat and bird boxes, (specific design and location to be agreed with the SQE);
- Consideration of installation of invertebrate boxes (specific design and location to be agreed with the SQE); and
- Consideration of provision of climbers and/or green walls.

Regal Homes GI Ltd has confirmed that of the last three considerations, bat and bird boxes will be included in the installation.

2.4 Cultural Information

The Site is located in a largely urban setting and will be developed to provide housing and employment. Most of the outdoor areas will be open to public access and therefore any steps taken to improve the Site's value for biodiversity must fit within the constraints placed by these cultural factors.

2.5 Biodiversity Action Plans

New habitats created and enhanced within the development may become eligible as London BAP habitats parks and urban greenspaces and private gardens, and London other important habitats Built Structures. The Site will also contribute to the Camden BAP built environment.

The provision of bird boxes will have the potential to benefit the London BAP species house sparrow, London other important species black redstart and the provision of bat boxes will have the potential to benefit the London BAP species bats.

3 Factors Influencing Management

3.1 Natural Trends

The main natural trends likely to influence the management of the Site are:

- Ecological succession – in the absence of management, the natural progression from one habitat to another is likely to occur during the operational phase of the Development;
- The trees on-site are likely to grow and mature with time; and
- Pests and diseases – natural outbreaks can potentially affect the vegetation on-site. While this is unlikely to be an important factor within the Site, it would be prudent for maintenance workers and landscape gardeners to be observant for such outbreaks so that they can take appropriate action where necessary.

3.2 Anthropogenic Trends

The main anthropogenic trends likely to influence the management of the Site are:

- Management resources – the funding, personnel and equipment available to manage the Site may change over time, thus affecting the feasibility of undertaking the management prescriptions described in Section 4;
- Pollution – air and water-borne pollutants can potentially alter species composition within an ecosystem, usually resulting in a decrease in biodiversity; and
- Introduced species – there is the potential for some species to be introduced to the area by humans which can prove highly invasive (e.g. Japanese knotweed *Fallopia japonica*). It would be prudent for maintenance workers and landscape gardeners to be observant for such introduced species so that they can take appropriate action where necessary.

4 Five-Year Habitat Management Plan for the Site

4.1 Specific Ecological Features of Interest

The specific features of interest are:

- Landscape planting with trees, suitable as foraging habitat for small passerine birds and insects. Where possible, plant species used in the soft landscaping would either be native or of known benefit for wildlife;
- Green and biodiverse brown roofs with features such as deadwood and bare areas of benefit to wildlife; and
- Bird and bat boxes included within landscape planting areas.

4.2 Management Objectives

The Management Objectives (MO) for the Site are to:

- MO1: maintenance of structures;
- MO2: maximise the value of newly-established soft landscaping for biodiversity;
- MO3: control of invasive plants (if present); and
- MO4: management of bird and bat boxes.

Each Management Objectives has a number of associated Management Prescriptions, in order to achieve the objectives for the Site. The Management Objectives and the associated Management Prescriptions are detailed below.

4.3 MO1. Maintenance of Structures

Drainage Outlets

Maintenance of the green and brown roof drainage outlets is required twice a year, in spring and autumn. All drainage outlets should be inspected to ensure they are not blocked by debris or vegetation.

Roof Surface Inspection

Longer term it may be necessary to inspect the underlying roof as part of the routine building maintenance. In this case it will be necessary to move the overlying substrate to one side in order to expose the roof surface. If feasible, only a small area of the green and brown roof should be disturbed during inspection at any one time, to avoid disruption of the habitats and the various populations using them. Inspection of the roof should be undertaken during autumn to minimise disturbance to wildlife.

Repair of Damaged Roof Membranes

Although considered extremely unlikely, the underlying membranes comprising the water retaining and drainage layers may become damaged. This will likely be signalled by areas of dead vegetation within the green and brown roof area.

Reference should be made to the manufacturer and supplier in the first instance for advice over the suitability of repair materials. This is important as a poor choice of materials may potentially affect the ecological integrity of the roof, or cause damage to the underlying roof structure over time. If possible, any damage should be repaired during the autumn maintenance period.

Replacement of Eroded Soils and Sand on Green and Brown Roofs

In the longer term, it may become necessary to replace soils and sand eroded by foraging by birds and wind scour in exposed positions (although this is considered unlikely due to the vegetative cover). In the first instance, replacement materials should be checked for conformity with the existing roof substrates. Replacement of any substrate should be undertaken in spring before new annual plant growth develops. Replacement substrate should meet the same specification as the original.

4.4 MO2: Maximising Value of Soft Landscaping for Biodiversity

Management of Wildflowers

Areas of landscape planting and the brown roofs are to be sown with a wildflower species mixture appropriate to the area, and where possible of local provenance, as stipulated in Table 1.1 in the Landscape Proposals. These will produce nectar and will encourage invertebrate species to use the Site.

Most of the sown wildflower species are perennial and will be slow to germinate and grow and will not usually flower in the first growing season. Cutting should be avoided in the spring and early summer. In mid-summer where access is possible, vegetation should be cut and removed. This cut will reveal the developing seed mixture and give it the space it needs to develop. No fertiliser should be applied at any time. Competitive weed species may need to be removed.

Management of Mature Trees and Shrubs

Landscape areas will be planted with shrub species with dense growth forms to provide natural nesting opportunities for birds. The shrubs will include some evergreen species to provide winter cover for birds.

The best time to plant the shrubs would be in autumn / winter so that they have time to establish throughout the wetter winter months.

Some autumn pruning of shrubs will be required to maintain the appearance of the beds. However, some dead flower heads of plants can be attractive and provide an over-wintering habitat for insects. Autumn pruning / cutting back should be limited to approximately 50% of the shrubs.

Young planted shrubs should be trimmed lightly on an annual basis in January or February for at least five years after planting to encourage thick, bushy growth, and the desired shape. Once the shrubberies have become established and have matured to the desired size (at least 2 m high is recommended) pruning should be undertaken on rotation throughout the Site so that each section of shrubbery is pruned / cut back once every two to three years. This allows flowering and fruits to develop which provides food for invertebrates and birds. Rotational management should be undertaken in January or February to allow winter food for birds and to avoid disturbing nesting birds. Any dead or diseased plants should be replaced by species of known benefit to wildlife.

If large gaps appear in the tree and shrub planting areas, new trees and shrubs should be planted, using native species where possible. The young shrubs should be established using standard horticultural practice, but without the use of herbicides or fertiliser. The growth of the planted shrubs should be monitored for the first three years and any dead plants replaced.

4.5 MO3: Measures to control Schedule 9 Plants

If Schedule 9 plants (e.g. Japanese knotweed and Himalayan balsam *Impatiens glandulifera)* are observed in the Site or within materials imported to or exported from the Site, this should be reported to the Site Manager. It is an offense to cause or allow the growth of Schedule 9 plant species in the wild. The Environmental Protection Act 1990 and associated regulations define Japanese Knotweed and Himalayan balsam contaminated soil or plant material as controlled waste and make provisions for their treatment and disposal. Occurrence of such invasive plant species should be recorded and a suitably qualified ecologist consulted.

4.6 MO4: Provide bird and bat boxes

A range of bird and bat boxes will be installed where human disturbance / light spill is minimal, on suitable trees around the Site and on buildings and walls. Bird and bat boxes should be installed in autumn.

The location of bat boxes and bird boxes are presented in Figure 1. The following boxes are recommended:

- 4 x 1FF Schwegler Bat Box with Built-in Wooden Rear Panel. These should be positioned on south, east or west elevations at a height of approximately 5 m above ground level;
- 4 x 2HW Schwegler Nest Box, which are open-fronted and suitable for use by black redstarts. These should be located on biodiverse brown and green roof terraces;
- 4 x 1SP Schwegler Sparrow Terrace. These should be located on east facing elevations at approximately 4 m above ground level;
- 3 x traditional wooden bird boxes located on trees in the ground-level landscape planting areas.

These boxes are commercially available from a number of suppliers. In the event these box designs are not available, similar designs may be used in their place.

The boxes should be inspected every year following installation to ensure they remain fit for purpose. This can be undertaken externally by the landscape maintenance team. In the event that replacements boxes are required, this should be undertaken in the winter months when boxes are unlikely to be in use.

5 Work Programme

Table 2 summarises the recommended management prescriptions and their frequency. Shaded areas in the table indicate time periods during which the relevant management prescription may be undertaken.

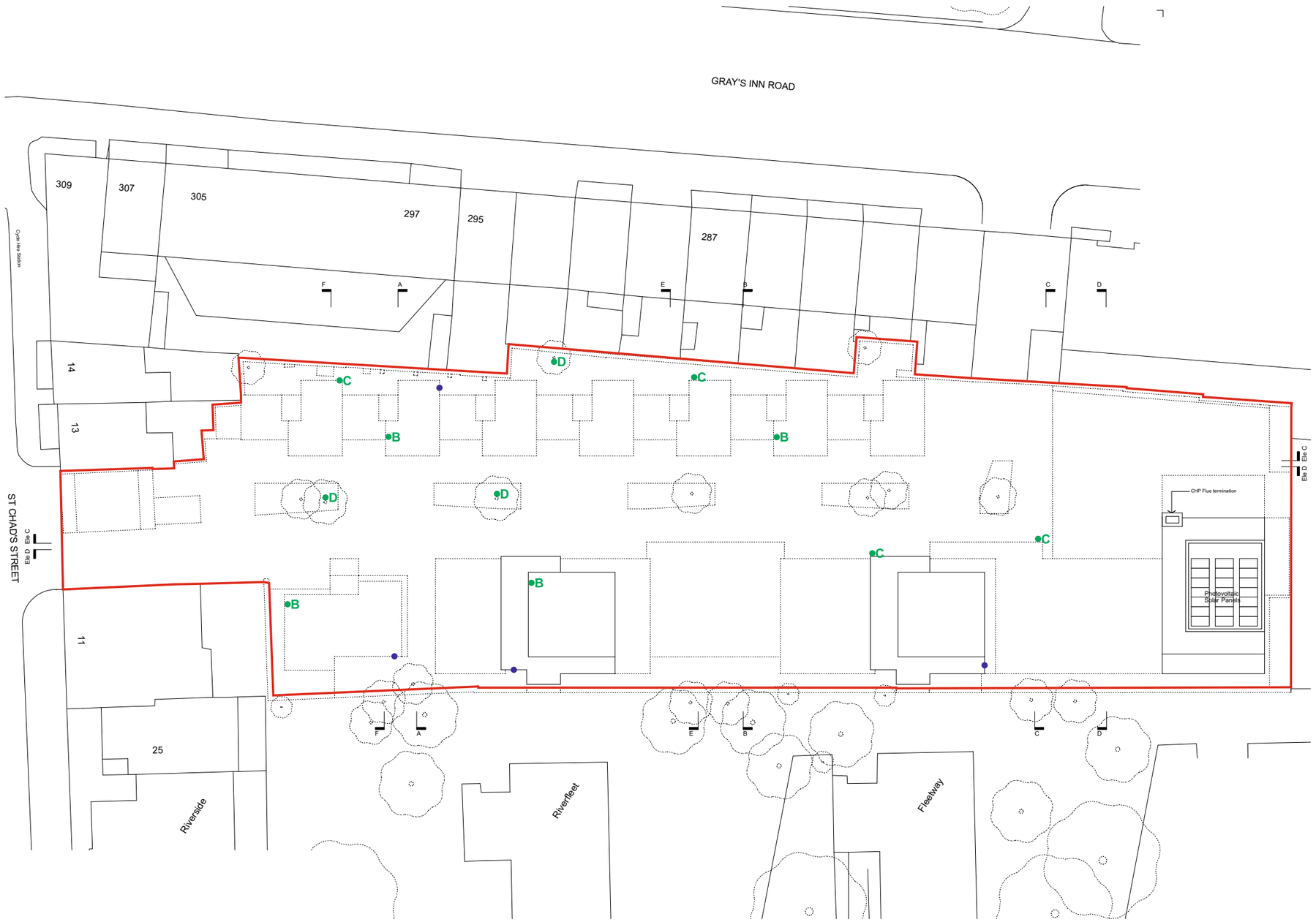
Table 2: Recommended Management Prescriptions Timeline

Management Objective			MO1: Maintenance of Structures			MO2: Maximise Biodiversity Value of Soft Landscaping		MO3: Control Of Invasive Plants	MO4: Management of bird and bat boxes
Management Prescription			**Inspect drainage outlets**	**Inspection of roof surface**	**Repair of roof membranes and replacement of eroded soil**	**Management of Wildflowers**	**Management of Mature Trees and Shrubs**	**Control Of Invasive Plants**	**Management of bird and bat boxes**
Frequency			Biannual	Every two years	As required	First year	Annual	Annual	First year
Month		J	Inspect			Plant trees and shrubs	Plant and prune trees and shrubs		Install
		F	Inspect			Sowing	Plant and prune trees and shrubs		Install
		M	Inspect			Sowing	Plant and prune trees and shrubs		
		A	Inspect			Sowing			
		M							
		J						Inspect planting for presence of invasive plants	
		J						Inspect planting for presence of invasive plants	
		A						Inspect planting for presence of invasive plants	
		S				Sowing		Inspect planting for presence of invasive plants	
		O	Inspect	Inspect	Repair / replace	Sowing	Plant and prune trees and shrubs		Install
		N	Inspect	Inspect	Repair / replace		Plant and prune trees and shrubs		Install
		D	Inspect	Inspect	Repair / replace		Plant and prune trees and shrubs		Install
Year	0	2015	Inspect		Repair / replace	Sowing	Planting		Install
	1	2016	Inspect	Inspect	Repair / replace	Cut back and remove weeds as necessary	Pruning / cutting back / replace as necessary	Annual inspection	Annual inspection
	2	2017	Inspect		Repair / replace	Cut back and remove weeds as necessary	Pruning / cutting back / replace as necessary	Annual inspection	Annual inspection
	3	2018	Inspect	Inspect	Repair / replace	Cut back and remove weeds as necessary	Pruning / cutting back / replace as necessary	Annual inspection	Annual inspection
	4	2019	Inspect		Repair / replace	Cut back and remove weeds as necessary	Pruning / cutting back / replace as necessary	Annual inspection	Annual inspection
	5	2020	Inspect	Inspect	Repair / replace	Cut back and remove weeds as necessary	Pruning / cutting back / replace as necessary	Annual inspection	Annual inspection

Figures

Figure 1: Locations of Ecological Enhancement

Reproduced from Ordnance Survey Map Data with the permission of the Controller of HMSO, Crown Copyright Reserved Licence No. ES 100020449



0 20m

Key

- Site Boundary
- Bat Box
- B Open-Fronted Bird Box
- C Sparrow Terrace Bird Box
- D Tree Mounted Bird Box

Title	Figure 1: Locations of Ecological Enhancement
Project No.	UK11-21465
Site	Land at 277A Gray's Inn Road, London
Client	Regal GI Limited
Date	April 2015
Scale	1:400 @ A3
Issue	2
Drawn by	DM

ENVIRON

Annex A: Legislation Framework

Ecological features are protected under various United Kingdom (UK) and European legislative instruments. These are described below. European legislation is not included as it is incorporated in UK legislation by domestic provisions.

The Conservation of Habitats and Species Regulations, 2010, as amended

The Habitats Directive (Council Directive 92/43/EEC)[5] came into force in 1992 and provides for the creation of a network of protected wildlife areas across the European Union, known as 'Natura 2000'. The Natura 2000 network consists of Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Birds Directive (Council Directive 79/409/EEC)[6]. These Sites are part of a range of measures aimed at conserving important or threatened habitats and species.

The Conservation of Habitats and Species Regulations 20107 commonly known as 'the Habitats Regulations' transpose the Habitats Directive into national law and set out the provisions for the protection and management of species and habitats of European importance, including Natura 2000 sites. The Regulations have been amended in England in relation to candidate SACs. These are Sites submitted by the Government for consideration as Natura 2000, and are also now defined as European Sites. All European Sites are of national importance and have been notified as SSSI. The Regulations also provide strict protection for plant and animal species as European Protected Species. Derogations from prohibitions are transposed into the Regulations by way of a licensing regime that allows an otherwise unlawful act to be carried out lawfully for specified reasons and providing certain conditions are met.

The Conservation of Habitats and Species (Amendment) Regulations 2012[8] came into force in August 2012. Article 2 of the Wild Birds Directive requires Member States to take requisite measures to maintain wild bird populations at a level which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements, or to adapt the population of these species to that level. Articles 3 and 4(4) (second sentence) of the Directive are designed to ensure Member States preserve, maintain or re-establish a sufficient diversity and area of habitats for wild birds and to ensure that outside those areas which are specifically designated as important bird habitats, efforts are taken to avoid pollution or deterioration of habitats.

Article 10 requires Member States to encourage research and any work required as a basis for the protection, management and use of wild bird populations. The 2012 amendment further transpose the provisions of Articles 2, 3, 4(4) (second sentence) and Article 10. The Regulations are intended to ensure clearer transposition of these provisions by giving additional and specific duties to relevant bodies and also make a number of amendments to transpose more clearly certain elements of the Habitats Directive.

[5] European Commission, 1992. Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora. European Commission, Brussels.

[6] European Commission, 1979. Council Directive 79/409/EEC on the conservation of wild birds, European Commission, Brussels.

[7] Secretary of State, 2010. The Conservation of Habitats and Species Regulations. Her Majesty's Stationery Office (HMSO).

[8] Secretary of State, 2012. The Conservation of Habitats and Species (Amendment) Regulations. HMSO.

The Countryside and Rights of Way Act 2000

The Countryside and Rights of Way Act 2000[9] primarily extends to England and Wales. It provides a new statutory right of access to the countryside and modernises the rights of way system, bringing into force stronger protection for both wildlife and countryside.

The Act is divided into five distinct sections, Part III is of relevance to ecology:

Part III - Nature Conservation and Wildlife Protection: The Act details a number of measures to promote and enhance wildlife conservation. These measures include improving protection for Sites of Special Scientific Interest (SSSIs) and increasing penalties for deliberate damage to SSSIs. Furthermore, the Act affords statutory protection to Ramsar Sites which are wetlands designated under the International Convention on Wetlands[10].

Wildlife and Countryside Act 1981, as Amended in Quinquennial Review and by the Countryside and Rights of Way Act 2000 and the Natural Environment and Rural Communities Act 2006

The Wildlife and Countryside Act 1981[11] forms the basis of much of the statutory wildlife protection in the UK. Part I deals with the protection of plants, birds and other animals and Part II deals with the designation of SSSIs.

This Act covers the following broad areas:

Wildlife - listing endangered or rare species in need of protection and creating offences for killing, disturbing or injuring such species. Additionally, the disturbance of any nesting bird during breeding season is also noted as an offence, with further protection for species listed on Schedule 1. Measures for preventing the establishment of non-native plant and animal species as listed on Schedule 9 are also provided;

Nature Conservation - protecting those Sites which are National Nature Reserves (NNR) and SSSI;

Public Rights of Way - placing a duty on the local authority (normally the County Council) to maintain a definitive map of footpaths and rights of way. It also requires that landowners ensure that footpaths and rights of way are continually accessible; and

Miscellaneous General Provisions.

The Act is enforced by Local Authorities.

Natural Environment and Rural Communities (NERC) Act 2006

Under the NERC Act 2006[12] Section 40, public authorities must show regard for conserving biodiversity in all their actions. Public authorities should consider how wildlife or land may be affected in all the decisions that they make. The commitment to the biodiversity duty must be measured by public authorities.

---

[9] Secretary of State, 2000. The Countryside and Rights of Way Act. HMSO.

[10] United Nations Educational, Scientific and Cultural Organization (UNESCO), 1971. Convention on Wetlands of International Importance especially as Waterfowl Habitat, as amended in 1982 and 1987. Ramsar, Iran Published in Paris, 1994.

[11] Secretary of State, 1981. Wildlife and Countryside Act. HMSO.

[12] Natural Environment and Rural Communities Act 2006. HMSO

NERC Act 2006 Section 41 requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England.

Protection of Badgers Act 1992

The Protection of Badgers Act 1992[13] consolidated previous legislation relating specifically to badgers. This makes it an offence to kill, injure or take a badger, or to damage or interfere with a sett unless a licence is obtained from a statutory authority.

Biodiversity Action Plans

In 1994, Government produced the UK Biodiversity Action Plan (BAP)[14], a national strategy for the conservation of biodiversity. This led to the creation of the UK Biodiversity Steering Group, which has listed 1,150 Species Action Plans (SAPs) and 65Habitat Action Plans (HAPs). Regional and District/Borough BAPs apply the UK BAP at a local level.

From July 2012, the UK Post-2010 Biodiversity Framework[15] succeeds the UK BAP and Conserving Biodiversity - the UK Approach. This is as a result of a change in strategic thinking following the publication of the Convention on Biological Diversity's Strategic Plan for Biodiversity 2011 - 2020 and its 20 'Aichi targets', at Nagoya, Japan in October 2010, and the launch of the new EU Biodiversity Strategy (EUBS) in May 2011.

The UK Post-2010 Biodiversity Framework constitutes the UK's response to these new 'Aichi' strategic goals and associated targets. The Framework recognises that most work which was previously carried out under the UK BAP is now focussed on the individual countries of the United Kingdom and Northern Ireland, and delivered through each countries' own strategies.

Following the publication of the new Framework, the UK BAP partnership no longer operates. However, many of the tools and resources originally developed under the UK BAP remain of use. The UK list of priority species has been used to help draw up statutory lists of priorities in England, Scotland, Wales and Northern Ireland. For England, this is in line with the NERC Act 2006 Section 41.

Biodiversity in the Planning Process

Administrative and policy guidance on the application of some of these statutory obligations is provided through relevant government policy guidance and advice. In England, this includes National Planning Policy Framework 2012, National Planning Practice Guidance, Circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System, Biodiversity 2020 and Natural Environment White Paper The natural choice: securing the value of nature.

National Planning Policy Framework, 2012

The National Planning Policy Framework (NPPF[16]) sets out the Government's requirements for the planning system and how these are expected to be addressed.

---

[13] Protection of Badgers Act 1992. HMSO

[14] Her Majesty's Stationery Office, 1994. Biodiversity: The UK Action Plan. London.

[15] JNCC and Defra (on behalf of the Four Countries' Biodiversity Group), 2012. UK Post-2010 Biodiversity Framework. July 2012. jncc.defra.gov.uk/pdf/UK_Post2010_Bio-Fwork.pdf

[16] Department for Communities and Local Government, 2012. National Planning Policy Framework (NPPF). London. HMSO.

'Objective 11 - Conserving and enhancing the natural environment' states that the planning system should contribute to and enhance the natural and local environment by:

- *"…protecting and enhancing valued landscapes, geological conservation interests and soils;*
- *recognising the wider benefits of ecosystem services; and*
- *minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures…"*

It furthermore advises local planning authorities to conserve and enhance biodiversity when considering planning applications, by applying principles aimed at protecting and enhancing biodiversity and designated sites and incorporating biodiversity in and around developments.

National Planning Practice Guidance, 2014

The National Planning Practice Guidance[17] is a web-based resource launched in March 2014. This guidance is divided into sections, of which Natural Environment: Biodiversity, Ecosystems and Green Infrastructure provides information on biodiversity issues within planning and guidance on where to find further information on biodiversity issues.

Circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System.

This circular[18] provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. It complements the national planning policy in the National Planning Policy Framework and the Planning Practice Guidance.

Natural Environment White Paper. The natural choice: securing the value of nature

The Natural Environment White Paper [19]outlines the government's vision for the natural environment over the next 50 years, shifting the emphasis to an integrated landscape-scale approach. It describes the actions that will be taken to deliver that goal.

Biodiversity 2020

The Biodiversity 2020[20] strategy for England builds on the Natural Environment White Paper and provides a comprehensive picture of how England is implementing its international and EU commitments. It sets out the strategic direction for biodiversity policy on land (including rivers and lakes) and at sea.

[17] Department for Communities and Local Government, 2014. National Planning Practice Guidance. http://planningguidance.planningportal.gov.uk/

[18] Office of the Deputy Prime Minister, 2005. Circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System. https://www.gov.uk/government/publications/biodiversity-and-geological-conservation-circular-06-2005

[19]Defra, 2011. Natural Environment White Paper. The natural choice: securing the value of nature https://www.gov.uk/government/publications/the-natural-choice-securing-the-value-of-nature

[20]Defra, 2011. Biodiversity 2020. https://www.gov.uk/government/publications/biodiversity-2020-a-strategy-for-england-s-wildlife-and-ecosystem-services

The mission for this strategy is to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people.

It is anticipated that this will be delivered through:

- a more integrated large-scale approach to conservation on land and at sea;
- putting people at the heart of biodiversity policy;
- reducing environmental pressures; and
- improving our knowledge.

Annex B: Landscape Scheme

Landscape Proposals For Discharge of Planning Conditions - 13 April 2015

The purpose of this report is to provide further details and information on the landscape design as set out in the following planning conditions:

- Condition 6 Hard & Soft Landscaping
- Condition 21 Living Roofs

The approach has been to update the original landscape report submitted for planning with additional information as set out in the above planning conditions.

Grays Inn Road

Grays Inn Road

1 Granite paving blocks - Mid/Warm Greys

2 Main Entrances - Sandstone Paving - Buff

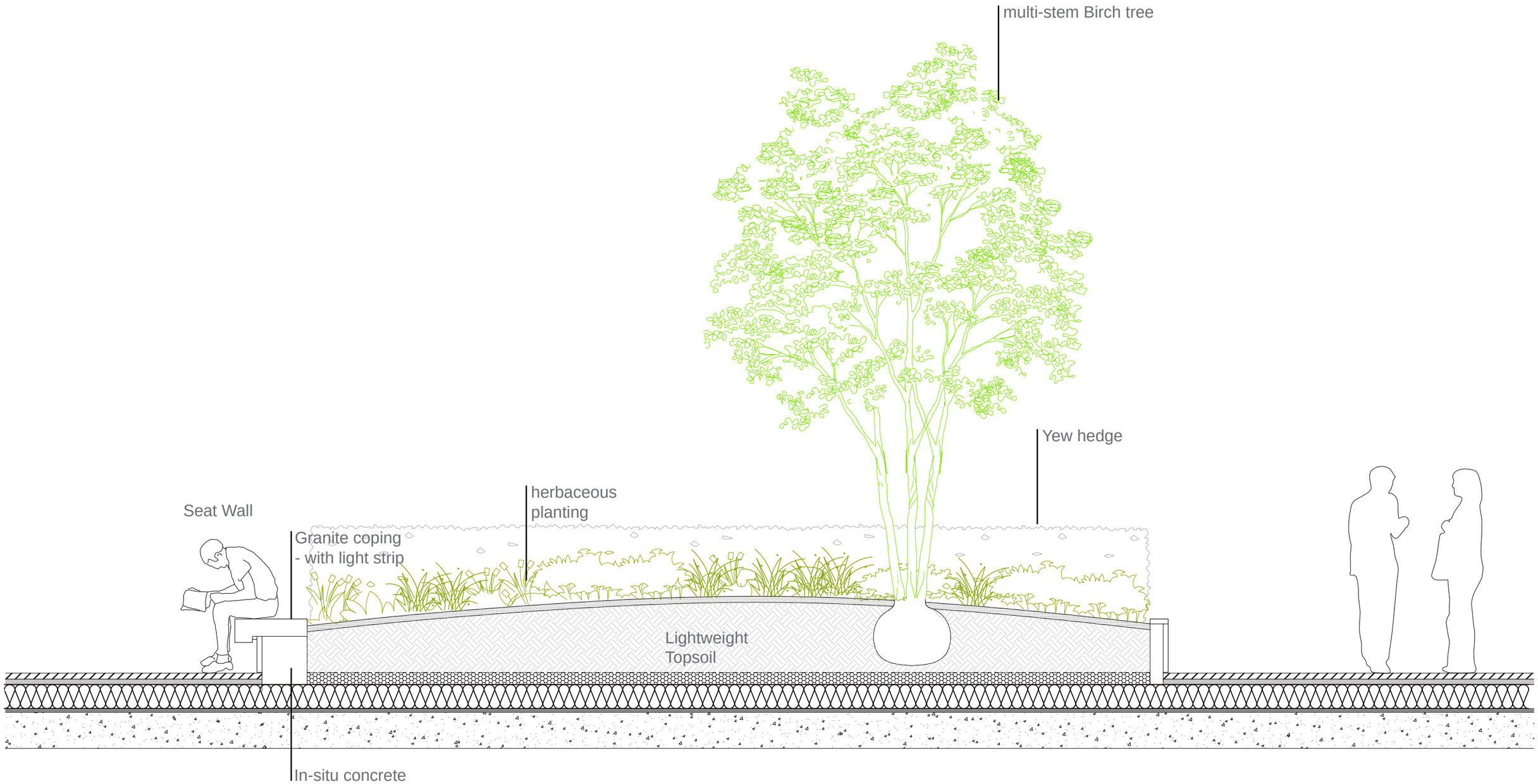
3 Art Gallery/Cafe - Granite Paving Flags

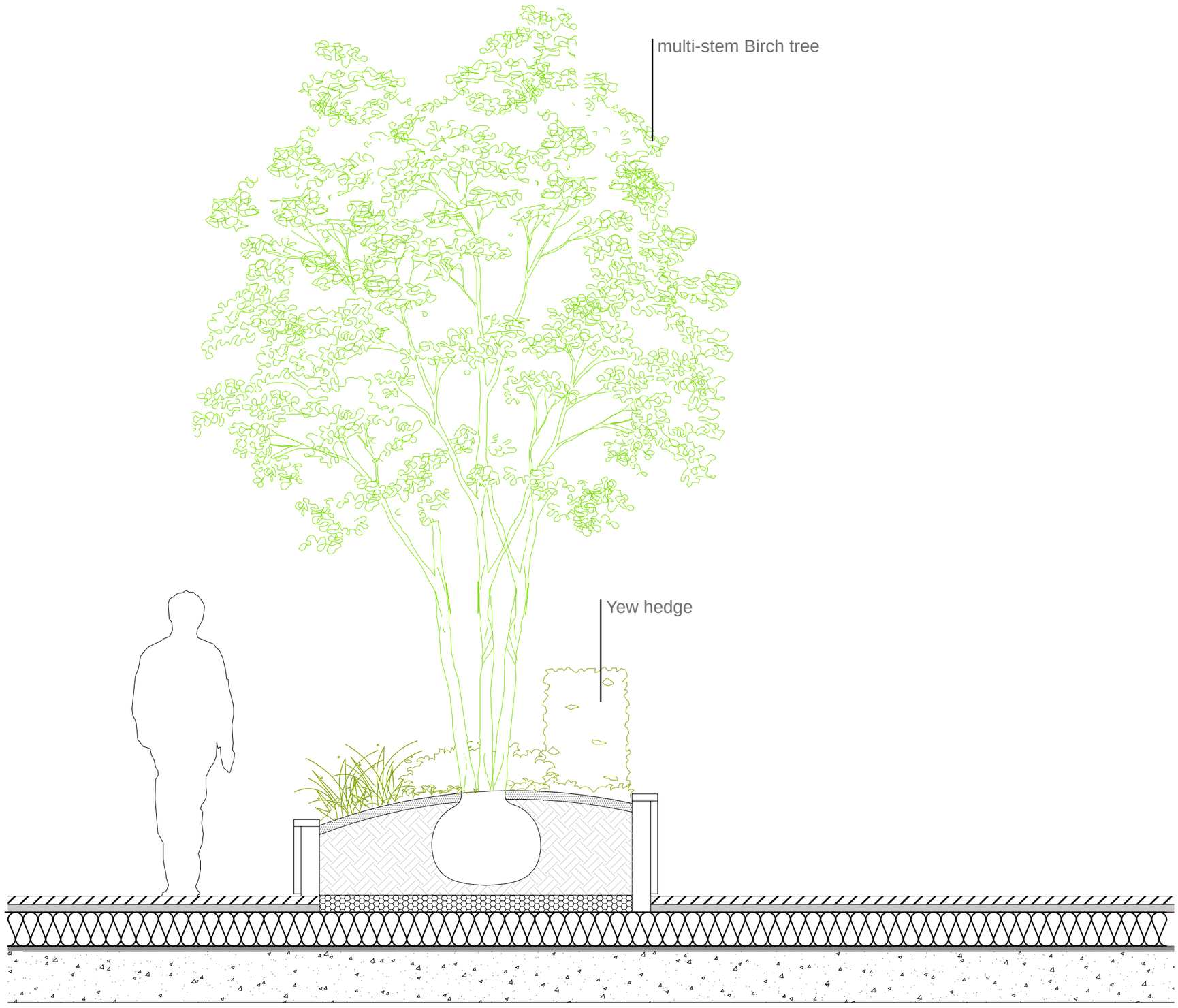
4 Entrances to Terraces - Dutch Brick Paving

5 Play surfacing

Ground Floor - Hard Materials

TYRÉNS UK


multi-stem Birch tree
Yew hedge
herbaceous planting
Seat Wall
Granite coping
- with light strip
Lightweight Topsoil
In-situ concrete

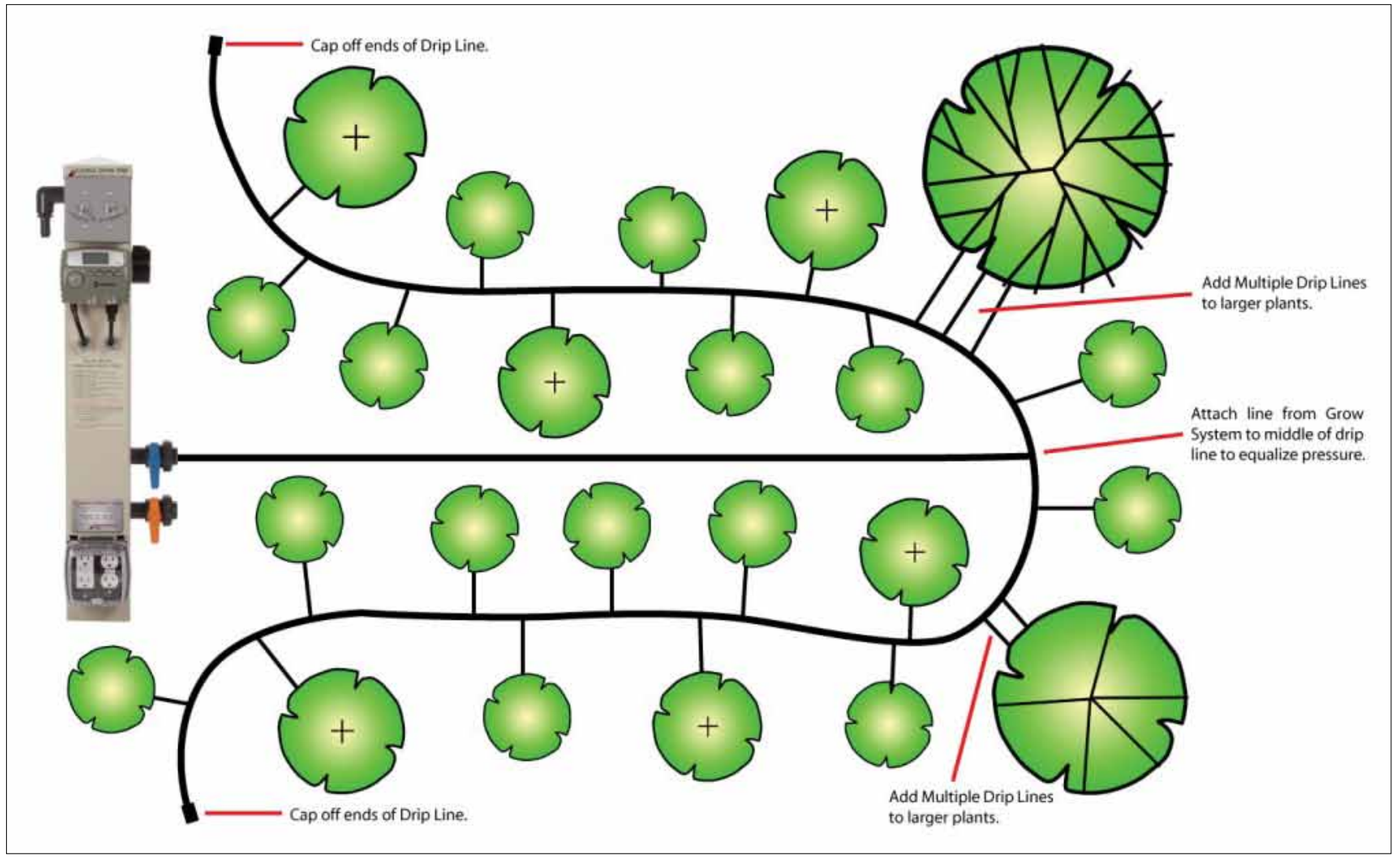

multi-stem Birch tree
Yew hedge

Planter Irrigation

Due to the raised planters being on podium (over the basement sections of the scheme), the planters require artificial irrigation.

We are proposing to use a drip irrigation system, allowing water to drip slowly to the roots of plants via a 16mm diameter drip line with drippers positioned every 300mm. The drip line is installed on the surface and evenly spaced for optimised watering; this pipe will be covered using bark or mulch for aesthetic proposes. The system will be commissioned through a commercial irrigation company, and would typically be computer-controlled from the Concierge. The planters have a drainage layer/ water reservoir at the base, providing drainage as well as additional water through capillary action.

There is also the opportunity to re-use captured stormwater runoff as part of the sustainable urban drainage proposals; this will be further developed as the detailed design of the scheme progresses. Drip line irrigation has been officially approved for use during hosepipe bans since the hosepipe ban in 2012.



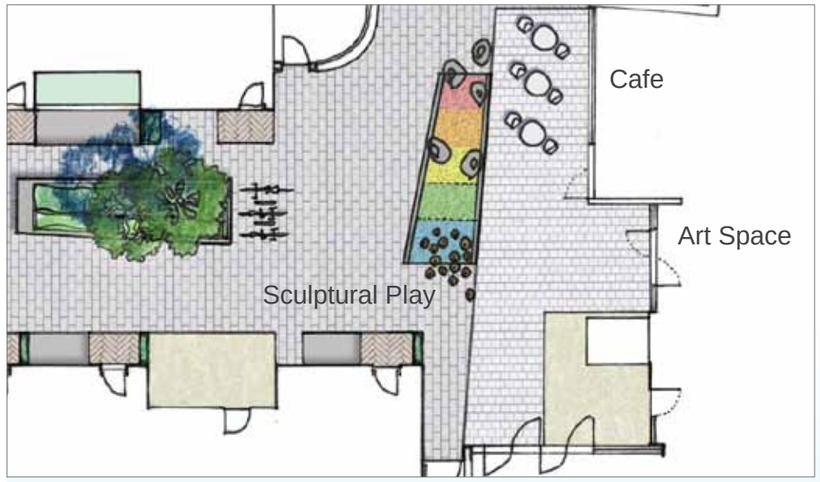
Typical diagram for drip line

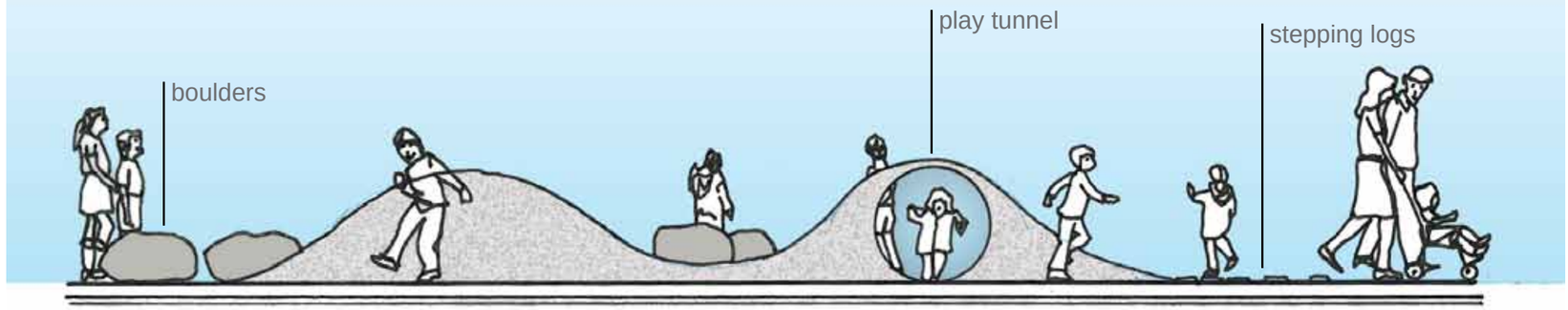
Grays Inn Road

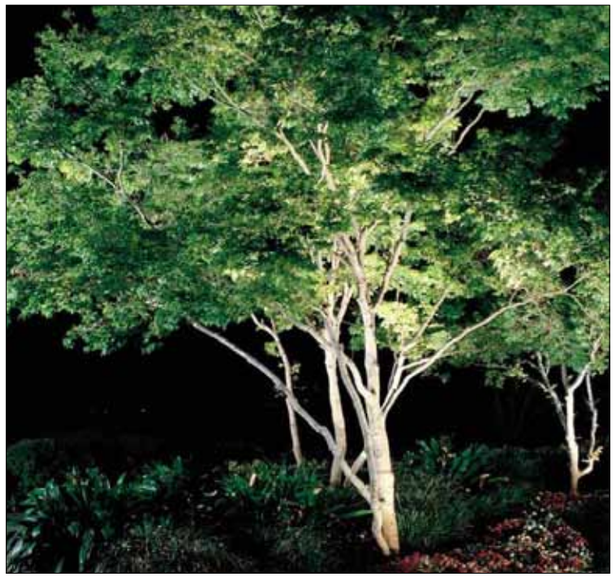
Play Provision

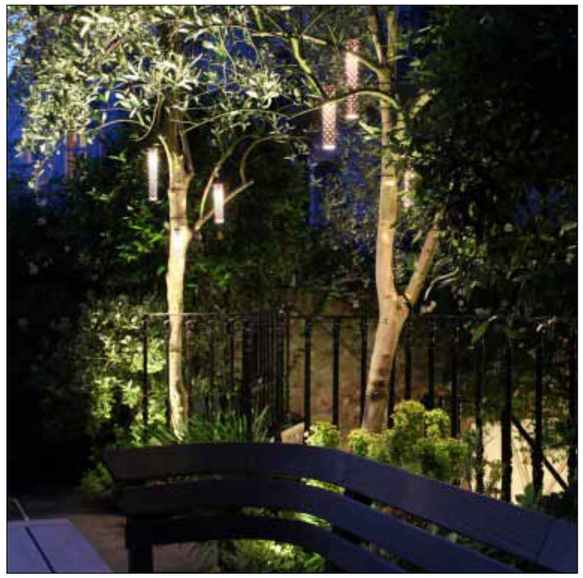
We have developed a simple strategy of providing an undulating surface (recycled rubber crumb in a range of primary colours) contained by curving low walls, which provides opportunities for ‘Movement’ (running, jumping, climbing, balancing, rolling).

The undulating mounded area will incorporate boulders, timber stepping stones, and a tunnel to provide a ‘natural play’ character, rather than the use of traditional play equipment which would be inappropriate in this urban and narrow location.









Uplighters to the trees

Integral lighting strips to the raised planters

Lighting types

The lighting is functional, providing safe movement through the development.

Key lighting types are:

1. Light columns (3 or 4 metre high columns - to be confirmed) with four separate LED directional fittings; with anti-glare louvres and asymmetrical refractors; the fittings allow controlled light, stopping light spill into the units whilst giving enough light for facial recognition for CCTV

2. Integral lighting strips to the raised planters/seating edges - low-level lighting to highlight these features

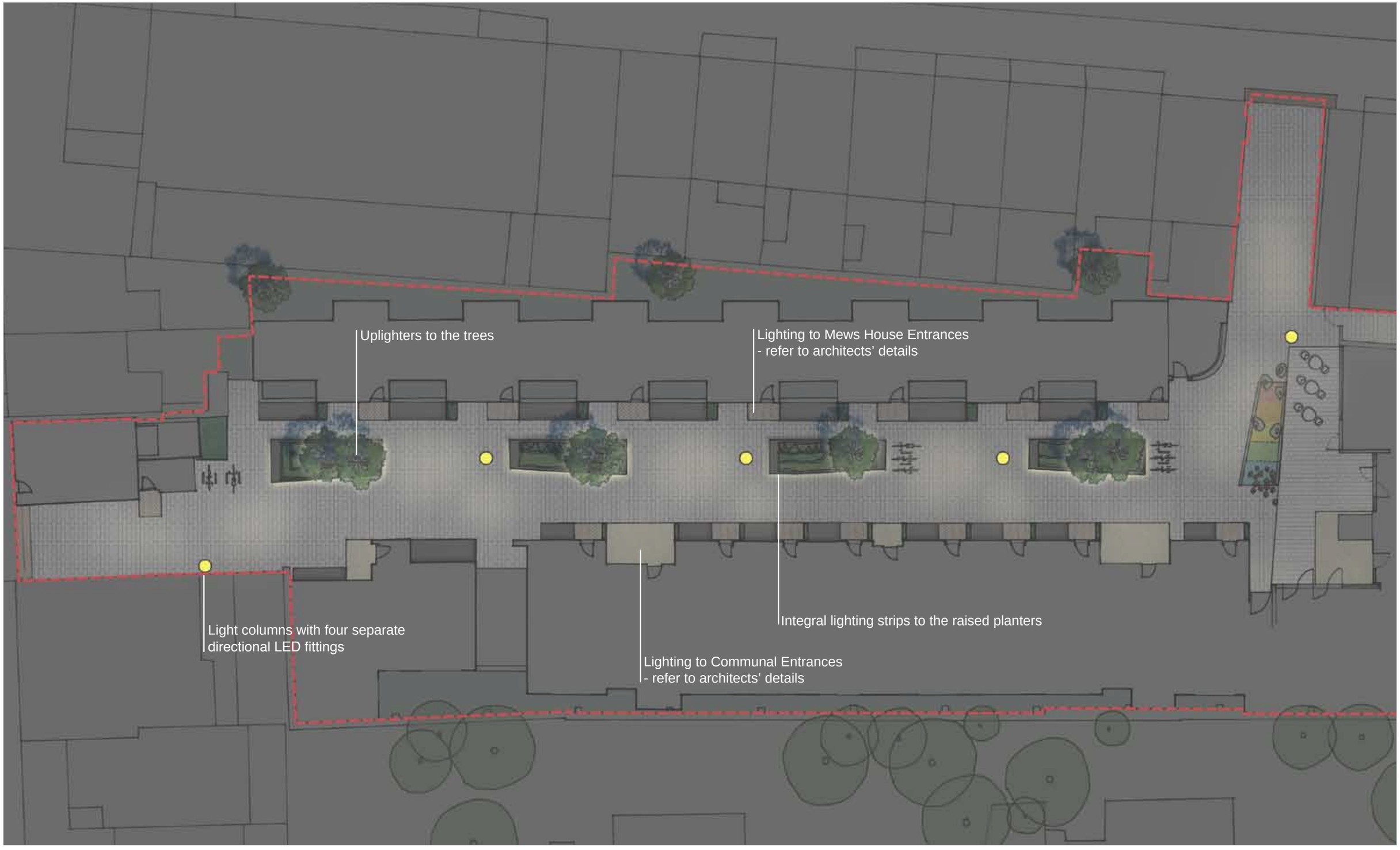
3. Uplighting to the trees - as a highlight feature (to be on a timer system).

The lighting is to be programmable, with control located in the concierge facilities.

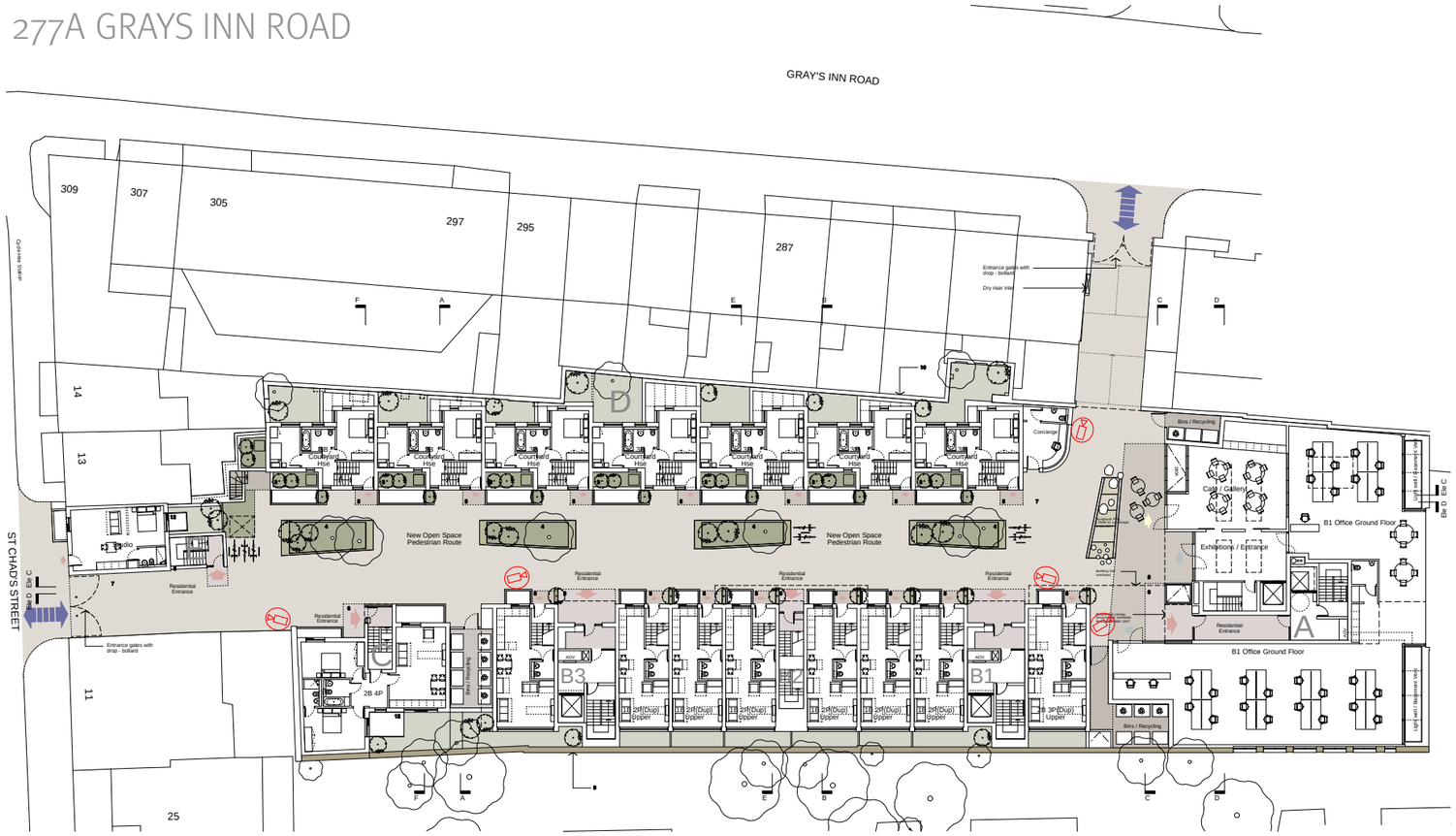
The external lighting complements wall and soffit-mounted light fittings to the building entrances, and soffit/wall-mounted lighting to the entrance from Gray's Inn Road.

Light columns with four separate directional LED fittings

Grays Inn Road



277A GRAYS INN ROAD



DO NOT SCALE

BACKGROUND DRAWING INFORMATION

FILE NAME	ORIGINATOR NAME	DESCRIPTION NAME	REV	DATE RECD
126-1201A	MATERIAL ARCHITECTS	PROPOSED PLAN GROUND FLOOR		OCT '14

Notes

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION PURPOSES. DO NOT SCALE OFF THIS DRAWING. ALWAYS WORK TO NOTED DIMENSIONS. ALL DIMENSIONS MUST BE VERIFIED ON SITE BEFORE COMPLETING SHOP DRAWINGS OR SETTING OUT THE WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE TECHNICAL SPECIFICATIONS AND ASSOCIATED EQUIPMENT SCHEDULES AS PREPARED BY XCO2 ENERGY Ltd. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL CIVIL AND STRUCTURAL ENGINEERS' DRAWINGS AND ASSOCIATED XCO2 ENERGY Ltd. DRAWINGS.

Rev	Date	Description	Chk'd	Appr
P1	15/01/15	PRELIMINARY	TG	SS

PRELIMINARY

Client: REGAL HOMES

Architect: WAUGH THISTLETON ARCHITECTS LTD

Project: GRAYS INN ROAD

Title: CCTV LOCATION PLAN

XCO2 ENERGY
17-18 Hayward's Place
Clerkenwell
London
EC1R 0EQ
T: 020 7700 1000
F: 020 7183 6620
E: mail@xco2energy.com
W: www.xco2energy.com

Scale@A1	Drawn	Checked	Date
1:50	YE	TG	15.01.15

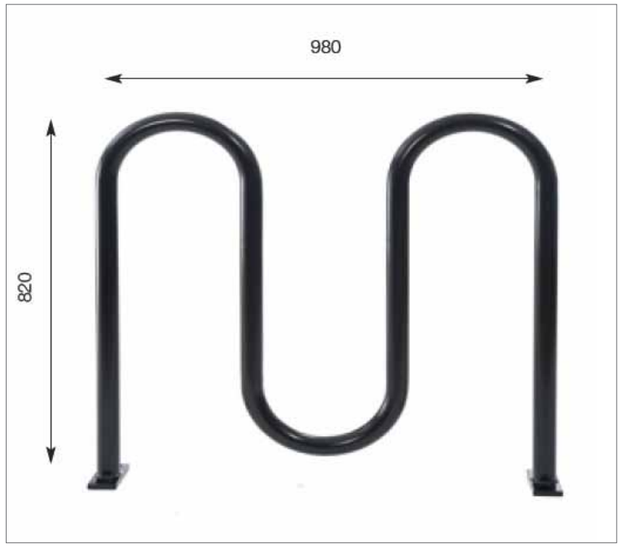
Drawing Number: 8465-SK-E-001

Revision: 00

Grays Inn Road

Visitor Cycle Parking

Camden M Cycle Stand

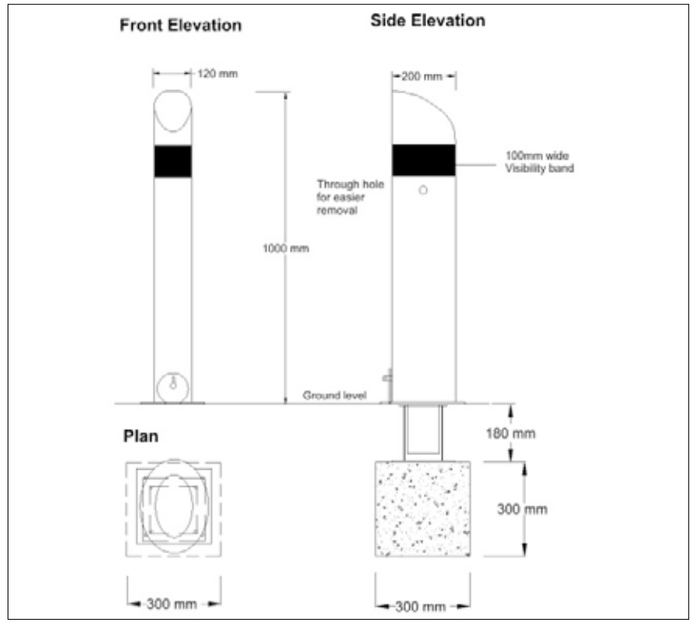


Collapsible Bollards

The entrances to both St Chad's Street and Grays Inn Road have collapsible bollards, to control vehicular access whilst allowing emergency and servicing vehicles.

The bollard shown is the Tb20 Bollard by VOSS Street Furniture. The Tb20 features a unique oval section and profiled top; the finish is stainless steel 304 grade. The bollards will have a visibility banding.

The bollard can be removed, and sits within a sunken socket; the hinged cover flap is brought over the flange on the bollard for securing with a padlock. The removal of the bollards for servicing, emergency access, etc. will be controlled by the Concierge, as part of the management of the development.



Grays Inn Road

Trees

Appropriately-sized mature trees are a positive addition to the main open Space.

We are showing 6 trees in this space, providing a level of visual screening between residential units; the species are chosen to grow in restricted spaces and are tolerant of urban conditions; rooting zone to be restricted with root barriers.

Tree species proposed have light-coloured leaves and are medium-sized trees with a narrow crown; each has yellow Autumn foliage and are tolerant of urban conditions (including pollution). The species are:

Birch	Betula utilis var Jacquemontii
Maidenhair Tree	Ginkgo biloba ‘Lakeview’

Himalayan Birch *Betula utilis* var Jacquemontii - multistem

Maidenhair Tree *Ginkgo biloba* ‘Lakeview’

Grays Inn Road

The planting has a ‘naturalistic’ character, with a range of perennial plants, with some hedges of Yew and Box used as structure and a level of screening between the residential buildings.

We have illustrated the range of some of the ‘naturalistic’ plant species being considered for the development.

The key planting characteristics are:

- Low-maintenance requirements
- Low-water demand/drought-tolerant
- Shade-tolerant
- Evergreens/perennials - providing screening and ‘greening’ throughout the year
- Plants with interest at different times of the year (flower colour in Spring/Summer; Autumn leaf colour; bark/stem colour in Winter; scent)
- Native species where appropriate, including Herbaceous Perennials, to increase the nature conservation value of the project

Yew hedges - *Taxus baccata*

Box - *Buxus sempervirens* ‘Suffruticosa’

Cyrtomium fortunei

Pennisetum alopecuroides

Hellebores *Helleborus* x *hybrida*

Echinacea purpurea

Sedum telephium

Salvia nemerosa

Iris foetidissima

Feather Grass - *Stipa tenuissima*

Polystichum setiferum

Liriope muscari

Grays Inn Road

Black Bamboo - *Phyllostachys nigra*

Raised planter with bamboo