# Bull Field, Takeley

Landscape Ecological Management Plan May 2023

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## Contents

1.0	Introduction	1
2.0	Aims and Objectives of LEMP	4
3.0	Management Roles, Responsibilities and Monitoring	6
4.0	List of Management Areas	9
5.0	Landscape Ecological Management Area (LEMA) Descriptions	10
6.0	Management Programmes	17
7.0	Whole Development: Litter collection and cleansing/Waste Disposal	47
8.0	Appendices	51

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This document has been prepared and checked in accordance with ISO 9001:2015.

#### 1.0 Introduction

#### 1.1. Instruction

LDA Design were instructed by Weston Homes to produce a Landscape Ecological Management Plan for a proposed development within Bull Field, Takeley, which falls within the administrative boundary of Uttlesford District Council.

This document provides information and advice regarding the landscape and ecological management and maintenance of landscape works associated with the whole of the Bull Field development. The Landscape Ecological Management Plan would cover all areas of public realm and open space.

## 1.2. Existing Site

The site comprises the entirety of an agricultural field parcel named Bull Field, with access currently provided through an adjacent field parcel to the west referred, to as '7 Acres'. The site is bounded to the southwest by both existing residential development within Takeley and Roseacres Primary School. Smiths Green Lane runs adjacent to the eastern site boundary, separating the site from existing development within Smiths Green.

## 1.3. Proposed Development

The proposed development has been designed to form a sustainable extension to Takeley and Little Canfield, well related to the existing settlement, offering a number of public benefits, most notably, the provision of much needed new housing, including a policy compliant level of affordable housing.

Planning permission is sought for 96 dwellings on Bull Field, south of Prior's Wood, including associated parking, landscaping, public open space, land for the expansion of Roseacres Primary School, pedestrian and cycle routes to Smiths Green Lane. The application will include the provision of both formal and informal public open spaces (POS), extensive tree, hedgerow and shrub planting as well as enhancements to Prior's Wood.

A variety of recreational and play opportunities are incorporated within the POS areas, along with rich planting areas and minor variations in landform, all of which seek to engage members of the public and provide recreational benefits to all site users.

The Site is an extension to the established settlement of Takeley, an area that has been subject to more recent expansion with the Priors Green Development to the southeast of the development site. Access to the Site is provided from Parsonage Road, via the Site known as 7 Acres, which is the subject site of a recent planning approval in April 2023 (Ref. No. UTT/22/2744/FUL).

## 1.4. Scope of this Document

This Landscape Ecological Management Plan covers long term management and maintenance for all areas of public realm and landscape within the Site boundary. It also includes reference to both new and existing ecological habitat areas that have been incorporated into the proposed development.

## 1.5. Purpose of the Landscape Ecological Management Plan (LEMP)

This Management Plan has been prepared to guide the developer/development management team in the future management of all communal areas within the development. Where the developer/development management team is not responsible for maintenance, this document also provides high level aims and objectives for the maintenance of those specific areas to support the overall management of the site.

This document sets out the overall management aims and objectives in order to manage and maintain the site in a manner that is sympathetic to the original design principles. The document therefore prescribes the short term and long-term maintenance regimes required to allow both the planting to flourish and reach its design potential and for hard landscape features to be maintained to safe, clean and useable standards for as long as possible before any replacements may be needed.

In addition, this document exists to help maximise the overall quality and appearance of the development, its enjoyment by residents and its recreational, amenity and ecological value. This Management Plan is intended to guide future decisions on maintenance, on the scope for new interventions in existing areas of open space and in responding to requests from residents for new features, planting and so forth.

## 1.6. Planning History

The site has been subject to a previous planning application (application reference: UTT/21/1987/FUL) for a mixed-use development. As part of this application, the site boundary also included other nearby land parcels, known locally as 7 Acres and Jack's Field. This application was refused on 20.12.2021.

A subsequent appeal (appeal reference: APP/C1570/W/22/3291524) was lodged by the applicant which was later dismissed at public inquiry. The appeal decision was made on 09.08.22.

Land adjacent to the site, within the 7 Acres field parcel, has been granted permission (application reference: UTT/22/2744/FUL) for the erection of "4 no. industrial/flexible employment (Use Class E) buildings (c. 3,568 square metres) with associated landscaping and parking".

#### 1.7. Structure of the LEMP

The LEMP is structured as follows:

- **Section 1**: Provides introductory and contextual information regarding the site, including planning history.
- Section 2: Sets out the overall aims and objectives of the Landscape Management Plan.
- **Section 3:** States who is responsible for maintaining specific areas of the site / development and therefore for implementing this management plan.
- Section 4: Lists the separate 'Management Areas' (LMA)
- Section 5: Describes each Management Area in detail, describes their aims and objectives and lists typologies (materials) present
- **Section 6:** Sets out the specific Management Programmes for each particular landscape material/element (typology)
- Section 7: provides guidance for site wide Litter Collection and Cleansing / Waste Disposal
- Section 8: is for Appendices (plans, schedules and relevant guidance)

#### 1.8. Associated Documents

This LEMP has been informed with reference to the following drawings and reports:

- Proposed Site Plans (Document Ref: 8749 200-400 series by LDA Design).
- Landscape and Visual Impact Assessment undertaken by LDA Design.
- Ecological Assessment and its Appendix containing the results of the ecology surveys undertaken by Ecology Solutions. (2021-2023)
- Bird Hazard Management Plan undertaken by Ecology Solutions (2021)
- Woodland Management Plan undertaken by Ecology Solutions (2023)
- Archaeological Desk Based Assessment undertaken by RPS (2023)
- Written Scheme of Investigation for an Archaeological Evaluation (2023)
- Arboricultural Impact Assessment undertaken by Barton Hyett (2023)
- Essex Landscape Character Assessment by Chris Blandford Associates (2003)
- Braintree, Brentwood, Chelmsford, Maldon and Uttlesford Landscape Character Assessments by Chris Blandford Associates (2006)
- Landscape Strategy document by LDA Design (2023)
- Softworks drawings ref. 8749\_200 Series by LDA Design (2023)
- Hardworks drawing ref. 8749\_300 Series by LDA Design (2023)

## 2.0 Aims and Objectives of LEMP

The aims and objectives of each individual management area and for each landscape element (typology) are set out in the following Sections 5.0 and 6.0 but more general management aims and objectives for this Landscape Management Plan are:

- to set out how the Proposed Development will positively manage landscape, habitats, species, and functionality of the Site, in accordance with the Uttlesford Local Plan (2006) and other relevant guidance
- to facilitate the management/maintenance of the external public realm elements, that
  form part of the proposed residential development, as high quality functional amenity
  areas, maintaining an attractive, tidy and safe finish to all landscape elements
- to ensure that planting is managed to maintain healthy specimens / environments and that planting shall flourish and grow to its full potential
- to provide guidance to ensure that landscape elements that perform a specific function (e.g. SUDS, drainage, street furniture, etc.) shall be managed to ensure the continuing operation of that function
- to ensure that the site is managed to uphold the original design intent and principles as approved through planning
- to ensure that this LEMP, in adhering to the original design principles, shall be used as a guide for any future changes to the design of the spaces and any future development / redevelopment within the site
- to encourage sustainable solutions to any future decisions
- to provide adequate detailed maintenance regimes, including yearly schedules, that are clear and concise and that can be followed easily by immediate and future maintainers
- to provide adequate guidance to ensure that the lifespan of all hard landscape elements is extended for as long as possible before any replacement is necessary, bearing in mind that all elements should always be safe and perform the function that was intended of them
- to provide guidance to ensure that play areas / equipment and other recreational spaces are managed to be safe at all times

The Proposed Development will deliver the following:

- Significantly enhance the overall biodiversity value of the Site, including for protected and notable species and habitats;
- Protect and enhance the existing characteristics and features of value of the Site including the historic field structure, mature trees, ancient woodland, hedgerows and ditches;
- Protect, restore, maintain and extend the existing vegetation network, to create a strong structural framework, which would also provide enhanced screening of close- and middle-distance views of the Proposed Development, in the long term;
- Provide additional habitat for protected species and species of conservation concern;

- Enhance the Green Infrastructure (GI) connectivity within the Site and wider landscape; and,
- Secure the long-term future management of the Site for the duration of the development.

The LEMP's objectives support the protection and enhancement of ancient woodland and hedgerows and the creation of new areas of appropriate habitats to achieve biodiversity net gain (BNG). In order to achieve BNG objectives, the landscape scheme has been designed to maximise gains to biodiversity and provide opportunities in the form of new habitats, including both woodland and woodland edge planting, native and ornamental shrub planting, native and ornamental hedgerow, herbaceous and bulb planting, wildflower meadow, species rich amenity grassland and wet meadows. Additional enhancements such as log piles, bat and bird boxes will be incorporated across the proposed scheme.

The proposed habitat creation will benefit a range of protected species and species of conservation interest, including reptiles, amphibians, farmland and hedgerow birds, and also birds, invertebrates and small mammals more generally. The scheme will retain boundary features such as Prior's Wood Ancient Woodland together with an appropriate buffer, boundary hedgerow and trees. The woodland will be enhanced through the creation of buffer zones of woodland edge planting. Furthermore, a long-term woodland management plan will be secured in perpetuity.

The Ecological Assessment (2021-2023) report identifies the main ecological features within the site as: ancient and semi-natural woodland; arable land; hedgerow, ditches and ponds. The report also highlights Prior's Wood as a Local Wildlife Site and outlines the presence of protected species and habitats within the site, as outlined below:

"Bats - Some of the more mature trees are considered to provide bat roosting potential. The woodland and hedgerows at the boundaries of the site are considered to provide good opportunities for foraging and commuting bats. In order to safeguard local bat populations, the woodland and mature vegetation at the boundaries of the site will be retained to allow continued dispersal and foraging opportunities post-development. Additionally, new woodland, native hedgerows, trees, grassland and wetland habitats will be provided throughout the development."

**Birds.** The woodland and hedgerows are considered suitable for foraging and nesting birds. A number of species protected under Section 41 of the NERC Act 2006 and / or listed on the Red List, as well as more common species have been recorded across these areas during wintering and breeding bird surveys.

**Reptiles.** The semi-improved grassland margins provide suitable opportunities for reptiles and low populations of Grass Snake and Common Lizard were recorded during presence / absence surveys.

*Invertebrates.* Given the habitats present it is likely a varied assemblage of common invertebrate species would be present within the site."

The report states that there was no evidence of Badgers, Dormice or Hedgehogs however the habitats on site were noted as suitable and therefore appropriate caution must be taken as per the report's conclusions.

## 3.0 Management Roles, Responsibilities and Monitoring

All rear gardens of individual properties will be conveyed to house purchasers. These purchasers/tenants will then be responsible for maintaining their own property in a neat and tidy condition. All parts of the landscape within the public realm will be maintained by the designated management company. See Appendix 1 – Landscape Management Areas Plan (whole site)

Until private areas are conveyed, or the Management Companies take over, the developer will be responsible for maintaining all the above areas and will be responsible for replacement of defective stock.

All new planting will be sourced from a reputable UK based provider who are able to demonstrate provenance of planting and adhere to all relevant biohazard controls including LI Technical Note 1/15 Pests and Disease Threats.

All new planting must be certified disease and pest free from the chosen supplier(s). Planting is to be undertaken in suitable planting conditions. All new tree planting will be undertaken in accordance with the BS8545:2014 'Trees: from Nursery to Independence in the Landscape – Recommendations' document.

## 3.1. Roles and Responsibilities

This LEMP incorporates objectives and prescriptions for the approach to be adopted in the maintenance and management of the Proposed Development.

The aim is to promote a sensitive management approach, which protects and improves the landscape and visual amenity value of the Site, enhances biodiversity and is compatible with the Proposed Development.

The successful contractor will be required to manage and maintain the landscapes of the Proposed Development in accordance with this LEMP. The Applicant shall satisfy themselves that the appointed contractor is fit and capable of undertaking the management tasks as detailed within this LEMP.

Details of the appointed contractor will be provided to the LPA in accordance with the planning conditions. Contact details of the appointed contractor will also be provided at suitable publicly accessible locations within the Site.

## 3.2. Monitoring

The LEMP is a dynamic document that should be reviewed regularly and developed or amended as circumstances change and the Site evolves.

Monitoring of the LEMP will be undertaken annually in the first two years then every five years by a suitably qualified ecologist and landscape architect and a written report produced.

Where the delivery of the LEMP is not being met for whatever reason(s), appropriate action will be identified and taken to rectify failings. This may entail making changes to specification of planting species if these are failing to establish successfully. Equally, where

successes are identified, these should be promoted further, and lessons learned from both successes and failures fed into the next iteration of the LEMP.

## 3.3. General Management

The following general management will be undertaken across the whole of the Site.

#### 3.3.1. Weed Control and Mulching

Mulching and weed control will take place during the establishment period.

#### 3.3.2. Pest and Disease Control

All plant material shall be inspected for the presence of any pests or disease occurring on the Site and appropriate action shall be taken to remedy any disease and eradicate pests.

All materials used in connection with these works shall be of an approved type and be applied and used in accordance with the conditions for the use of herbicides which will be outlined in the specification documents at the construction stage.

Allowance should also be made for annual replacement of any new planting and grass area that dies, is diseased or failing to make satisfactory growth within the first five years following completion of planting works.

### 3.3.3. Public Rights of Way (PRoW)

PRoW through the Site will be maintained to allow unhindered passage during the construction, operational and decommissioning phases unless these routes are subject to formal temporary closure or diversion. Vegetation will be checked periodically and pruned where necessary to maintain an obstruction free route. Where installed, gates will be checked to ensure they are safe and operationally effective. Repair and replacement of gates will be undertaken as and when required.

## 3.3.4. Fencing

All internal and perimeter fencing for the development will be regularly checked to ensure it is safe and fit for purpose. Repairs and replacement of fencing will be made as soon as practically possible as and when required.

Checking of fencing to ensure that proposed passage gates for small mammals are clear of obstruction and function properly.

#### 3.3.5. Maintenance of Tree Supports

Supporting tree stakes, ties and tree guards where used will be maintained in good condition, replaced as necessary and removed when trees are self-supporting (normally after two-three years).

Tree ties will be adjusted for tightness as necessary to avoid strangulation of the stem.

## 3.3.6. Control of Litter / Vandalism

Grounds maintenance will be delivered throughout the Proposed Development. The Proposed Development will be kept clean and litter free. Response to acts of vandalism or graffiti will be dealt swiftly with repair or replacement implemented as soon as practically possible.

## 4.0 List of Management Areas

This document divides the Proposed Development into the following Landscape Ecological Management Areas (as shown in <u>Appendix 1 – Landscape Ecological Management Areas Plan (whole site)</u>:-

- LEMA01: Informal Public Open Space Eastern Hay Meadow
- LEMA02: Informal Public Open Space Prior's Green South
- LEMA03: Woodland Edge Pedestrian Route
- LEMA04: Formal Public Open Space Prior's Green North
- LEMA05: Green Residential Streets
- LEMA 06: Prior's Wood (Management as per site's Woodland Management Plan, 2023)

In the following section (Section 5.0) each management area is divided up into its constituent hardworks and vegetation typologies with management aims and objectives stated for each management area. Management typology prescriptions are outlined in Section 6.0, as well as overall aims and objectives for each typology.

## 5.0 Landscape Ecological Management Area (LEMA) Descriptions

The following section contains a description of the individual Management Areas (LEMA's) as identified in Appendix 1 – Landscape Ecological Management Areas Plan (whole site).

## 5.1. LEMA01: Informal Public Open Space – Eastern Hay Meadow

## 5.1.1. Description

An area of informal public open space (POS) situated in the eastern site area adjacent to Smiths Green Lane. This area of open space is enclosed by existing site boundary vegetation comprising a mixture of hedgerow, tree groups and specimen trees. This area is separated from the remainder of the site by a proposed reinstated historic hedgerow that runs north-south, connecting Prior's Wood to the southern site boundary and further strengthening the site's landscape fabric. Furthermore, this meadow area is partially enclosed by a naturalistic timber post and rail fence which serves to restrict access from the adjacent pathways.

This eastern edge of the site is more closely associated with Maggotts Field which lies beyond the site to the north and the wider countryside beyond and therefore an informal agrarian approach to recreation is proposed to ensure it remains entirely in keeping with the local character.

### 5.1.2. Management Aims and Objectives

- To provide a naturalistic green edge to the development proposals, aiming to provide an open and informal character; more akin to the countryside the north.
- To provide safe and accessible areas for informal walking and recreation along existing public rights of way (PRoW).
- To enhance the site's landscape fabric and green infrastructure connectivity.
- To protect and enhance the site's existing ecological habitat. This will primarily be
  achieved through new habitat creation via planting and subsequent agricultural-style
  fencing of the new meadow area. In addition to habitat creation, existing habitats (e.g.
  hedgerows) will be enhanced through positive management and relaxation of a regular
  management regime associated with intensive farming practice to improve habitat
  value and condition.
- To provide and maintain an empathetic means of interaction between people and a variety of habitats and wildlife.
- Create greater opportunities for protected species and species of conservation concern.
   To manage the meadow in order to provide significant increases in opportunities for wildlife, primarily for reptiles and invertebrates.

## 5.1.3. Management Typologies Present

#### Vegetation

- V02 Existing Trees
- V03 Existing Hedgerow
- V07Proposed Native Hedgerow
- V04 Proposed Trees
- V12 Proposed Wildflower Meadow
- V13 Species Rich Amenity Grassland

#### Hard Landscape

- B01 Timber Post and Rail Fence
- B02 Timber Post and Wire Fence
- S06 Improved Compacted Hardcore Pathway

## 5.2. LEMA02: Informal Public Open Space – Prior's Wood Green South

## 5.2.1. Description

An area of informal public open space (POS) situated in the southern site area, comprising a variety of landscape typologies. This area will remain accessible with unrestricted access. There are a series of informal walking routes around the periphery, alongside existing site boundary vegetation and new tree planting.

This informal public open space forms part of the site's wider eastern green edge and serves to partially separate proposals from existing development edge of Takeley. An existing PRoW runs along the northern edge of this LEMA and connects to Smiths Green Lane.

The PRoW is proposed to be upgraded to a shared pedestrian and cycle route, enhancing access and recreation within the LEMA and wider site.

An infiltration basin is situated within this LEMA and is a key SuDS element within the proposals. This basin forms part of the site's wider drainage strategy.

### 5.2.2. Management Aims and Objectives

- To provide an area of wetland meadow habitat as part of the scheme's proposed sustainable drainage systems; aiming to further enhance biodiversity benefits alongside the proposed wildflower meadow.
- To provide an enhanced naturalistic green edge to the development proposals, separating proposed development from those within Takeley, to the south.
- To provide safe and accessible areas for informal walking and recreation along existing public rights of way (PRoW).
- To enhance the site's landscape fabric and green infrastructure connectivity.

- To protect and enhance the sites existing ecological habitat. This will primarily be
  achieved through new habitat creation via planting. In addition to habitat creation,
  existing habitats (e.g. trees and scrub to the field edge) will be enhanced through
  positive management and relaxation of management to improve habitat value and
  condition.
- Create greater opportunities for protected species and species of conservation concern.

## 5.2.3. Management Typologies Present

#### Vegetation

- V02 Existing Trees
- V04 Proposed Trees
- V12 Proposed Wildflower Meadow
- V14 Proposed Wetland Meadow
- V13 Species Rich Amenity Grassland

## Hard Landscape

- S01 Timber Structures
- S03 Buff Coloured Tarmac Pathway
- S06 Improved Compacted Hardcore Pathway
- F03 Litter Bins
- L02 Bollard Lighting
- B06 Timber Knee Rail Fence
- P01 Local Area for Play (LAP)

### 5.3. LEMA03: Woodland Edge Pedestrian Route

#### 5.3.1. Description

A linear pedestrian route that retains the existing PRoW as part of the proposals. This LEMA serves to enhance the woodland edge of Prior's Wood, at its interface with the proposed development providing an appropriate woodland buffer. This PRoW is proposed to be upgraded to a shared pedestrian and cycle route, enhancing access and recreation within the LEMA and wider site.

The woodland has been appropriately buffered by way of an 15-20m offset but within which includes space for new native planting, a surfaced pedestrian/cycle route, and informal features providing biodiversity interest such as boulders and logs; all of which provide additional recreational benefit. This pedestrian route has been extensively planted with native tree and shrub planting alongside swathes of wildflower meadow to create an attractive and engaging recreational route between Smiths Green Lane and Parsonage Road to the west.

This route plays a key role in aiding pedestrian movements within the site and also reinforcing the existing site fabric through additional planting and habitat creation.

#### 5.3.2. Management Aims and Objectives

- To preserve and enhance key landscape features such as Prior's Wood, a designated Ancient Woodland
- To provide safe and accessible areas for informal walking and recreation along existing public rights of way (PRoW)
- To maintain and provide safe access to other parts of the Site
- To encourage outdoor recreation and enjoyment of the local landscape
- To enhance the site's landscape fabric and green infrastructure connectivity
- To protect and enhance the sites existing ecological habitat. This will primarily be achieved through new habitat creation via planting. In addition to habitat creation, existing woodland habitat (e.g. Prior's Wood) will be enhanced through positive management and reinforced with additional woodland edge planting
- Create greater opportunities for protected species (e.g Bats) and species of conservation interest.

## 5.3.3. Management Typologies Present

#### Vegetation

- V01 Existing Woodland
- V02 Existing Trees
- V03 Existing Hedgerow
- V04 Proposed Trees
- V12 Proposed Wildflower Meadow
- V05 Proposed Woodland Edge Planting
- V13 Species Rich Amenity Grassland

#### Hard Landscape

- S03 Buff Coloured Tarmac Pathway
- P01 Local Area for Play (LAP)
- F01 Timber Benches
- F03 Litter Bins

## 5.4. LEMA04: Formal Public Open Space – Prior's Wood Green North

## 5.4.1. Description

An area of formalised public open space providing opportunities for play and recreation. This area is a key part of the proposed development and is a core part of the site's play strategy. The layout has been carefully designed to integrate within the site's constraints, being offset from Prior's Wood and away from the more visually open eastern site area.

This LEMA is situated alongside new tree planting and a reinstated historic hedgerow which forms the boundary of the more naturalistic eastern site area. These new planting elements would serve to differentiate between formal and informal POS areas, as well as softening any views of the scheme from the east to ensure the proposals consider local sensitivities.

There is an outdoor picnic space, which includes picnic benches situated within a wider meadow area. Minor changes in landform, in the form of small, landscaped mounds, provide variation and interest within the immediate setting of the development and create additional opportunities for play too.

### 5.4.2. Management Aims and Objectives

- To provide accessible and safe spaces for play, amenity and recreation
- To maintain and provide safe access to other parts of the Site
- To provide and maintain safe, clean, useable and accessible play facilities for children aged 0-12+
- To create and maintain areas of ecologically rich and diverse wildflower meadow habitat, including small patches of native shrub planting which should not become too dense and overgrown

### 5.4.3. Management Typologies Present

#### Vegetation

- V02 Existing Trees
- V03 Existing Hedgerow
- V04 Proposed Trees
- V09 Proposed Ornamental Hedgerow
- V12 Proposed Wildflower Meadow
- V06 Proposed Native Shrub Planting
- V13 Species Rich Amenity Grassland

#### Hard Landscape

- S03 Buff Coloured Tarmac
- B02 Timber Post and Wire Fence

- P01 Local Area for Play (LAP)
- P02 Local Equipped Area for Play (LEAP)
- F01 Timber Benches
- F02 Picnic Benches
- F03 Litter Bins
- S04 Play Surface Tiger Mulch

#### 5.5. LEMA05: Green Residential Streets

#### 5.5.1. Description

Careful site masterplanning and development offset from roads has allowed for the greening of tree lined streets within the proposals. The masterplan incorporates one primary access off Parsonage Road, which is well treed along its northern edge, where the site abuts Prior's Wood. These trees are key design elements that contribute to the street scene of along this route.

Other secondary routes which service the wider masterplan also incorporate tree planting, together with shrub and herbaceous planting within generous verges that serve to enhance the visual amenity of the proposals and enhances biodiversity within the site.

Additional strategic tree planting along the site boundary, including to the boundary of the proposed Roseacres Primary School Extension, also serves to soften views of the proposals from within Takeley and further reinforce the existing landscape fabric along the periphery of the site, enhancing the existing green infrastructure network.

### 5.5.2. Management Aims and Objectives

- To provide greener roadways and enhance the streetscape and visual amenity within the development.
- To maintain accessible and visually appealing entrance to the site, from Parsonage Road.
- To provide additional biodiversity benefits within the central development areas where there are typically fewer habitat opportunities.

## 5.5.3. Management Typologies Present

#### **Vegetation**

- V02 Existing Trees
- V04 Proposed Trees
- V08 Proposed Ornamental Hedgerow
- V09 Proposed Ornamental Shrub Planting
- V10 Proposed Herbaceous Planting

- V11 Proposed Bulb Planting
- V06 Proposed Native Shrub Planting
- V13 Species Rich Amenity Grassland

## <u>Hard Landscape</u>

- P01 Local Area for Play (LAP)
- S01 Timber Structures
- S02 Tarmac Road
- S03 Buff Coloured Tarmac
- S05 Permeable and Standard Paving
- B03 Timber Closeboard Fencing
- B04 Timber Bollards
- F03 Litter Bins
- L01 Lighting Columns

## 6.0 Management Programmes

The pages following sub sections 6.1 and 6.2 contain specific Management Programmes for all proposed vegetation and habitat types, hard surfacing and street furniture within the site.

## 6.1. Health & Safety

At all times it is a requirement that the relevant British Standards, Statutory Regulations and Codes of Practice are complied with. Particular attention should be paid to the latest issue of the following:-

- The Food and Environment Protection Act
- The Control of Pesticides Regulations
- The Control of Substances Hazardous to Health Regulations
- The Code of Practice for the Use of Approved Pesticides in Amenity and Industrial Areas
- The Health and Safety Work etc Act
- BS3998:2010 Tree Work
- EN1176 (play equipment) and EN1177 (safety surfacing)

The work prescribed in the Management Programmes should be undertaken using appropriate and well-maintained equipment operated by qualified and supervised staff.

Work should be planned and carried out in a manner and at times to minimise unnecessary disturbance to residents, as well as taking into account the correct timing of seasonal works such as pruning to comply with good horticultural practice and any restrictions imposed by ecological constraints.

### 6.2. Wildlife and Biodiversity Legislation

At all times it is a requirement that the following legislation in relation to the SSSI and legally protected species be followed:-

- Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way (CRoW) Act 2000
- Protection of Badgers Act 1992
- Conservation Regulations 1992
- Biodiversity Net Gain(BNG) is a way to contribute to the recovery of nature while
  developing land. It is making sure the habitat for wildlife is in a better state than it was
  before development. This will apply from November 2023 for developments in
  the Town and Country Planning Act 1990, unless exempt.

Management Programmes should be carried out in accordance with best practice in relation to the requirements of the above and any other relevant legislation.

## 6.3. Existing Woodland, Trees and Hedgerow

Typology	Typology Code
Existing Woodland	V01
Existing Trees	V02
Existing Hedgerow	V03

## 6.3.1. Typology Description

Existing vegetation within the site boundary is to be retained except for vehicular site access. The management of Prior's Wood is covered within the Woodland Management Plan referenced at the beginning of this report with the woodland to be subject to management throughout the lifetime of the development. Existing trees, tree groups and hedgerow that are to be incorporated within the design are shown on the soft landscape proposals plan. These are detailed more fully in the site's accompanying Arboricultural report (Arboricultural Impact Assessment undertaken by Barton Hyett (2023).

#### 6.3.2. Management Aims

Existing landscape features within and along the site boundaries should be managed appropriately, to ensure their long-term structure, health and integrity. Existing vegetation should be pruned and managed to ensure they do not obstruct the health and safety of users within or adjacent to the site. Any ongoing management regimes should consider the potential presence of habitats relating to protected species i.e. during bird nesting season, ensuring that there is no interference during these times. If work is required during these periods, then a qualified ecologist should be consulted prior to undertaking the works.

### 6.3.3. Management Objectives and Prescription

The main management objective for existing vegetations areas is for them to be maintained to ensure they fulfil relevant management aims by following these prescriptions:-

#### Existing trees and Hedgerow

A tree survey of the application area was produced by Barton Hyett in 2023 and updated in 2023. The details of this and associated recommendations should be followed. In addition, it is recommended that all significant trees are appropriately tagged and numbered for ongoing clarity.

Although not protected through a Tree Preservation Order, all existing tree and proposed trees and woodland areas are fulfilling a design objective for the site and should be

managed accordingly for the preservation of the historic and landscape setting of the proposed development as well as their biodiversity interest.

All tree surgery works shall be undertaken in accordance with the requirement of BS 3998:2010 'Tree Work. Recommendations' and BS5837:2012 'Trees in relation to Construction – Recommendations'.

Tree work should be carried out in accordance with BS 3998 and Health and Safety Executive (HSE) 'Forestry and Arboricultural safety leaflets'. Branches should be cut in accordance with the Arboricultural Association Leaflet 'Mature tree management'. In each case cut back to live wood using appropriate tools, and do not prune during the late winter/early spring period.

All pruning/removal works to existing vegetation, including trees and scrub, should be undertaken outside of the bird nesting season to ensure breeding birds are not disturbed. For clarification, the bird nesting season is taken to be from February/March to August/September inclusive.

Expectations and easements in relation to all services are to be fully determined and adhered to in the ongoing management and maintenance of the site.

## 6.4. Specimen Trees and Shrubs

Typology	Typology Code
Specimen Trees	V04
Feature Trees	V04.1
Specimen Shrubs	V04.2

### 6.4.1. Typology Description

Specimen/feature trees and large shrubs are located throughout the site and are an integral part of the landscape structure, enhancing the character of the development and providing seasonal interest. They have a variety of functions including shade trees, street trees, POS trees and boundary trees.

#### 6.4.2. Management Aims

Following the end of the contractor's maintenance responsibility the management aim is for new trees to provide visual interest, species diversity, to extend and enhance habitat diversity in different areas, to provide shade and shelter, to add distinctiveness to the landscape aiding wayfinding and to complement buildings.

## 6.4.3. Management Objectives and Prescription

The main management objective for new trees is for them to be maintained to ensure they fulfil relevant management aims by following these prescriptions:-

#### Establishment Period – Years 1-7

#### Years 1-4:-

- After the first 4 months of more intense establishment watering (every week at least) water as deemed necessary (ideally as early in morning as possible) to keep soil moist and secure healthy establishment. This regime will avoid the need for replacement due to dry periods (less than 30mm rainfall at the end of a four week period), and subsequent loss of a whole growing season. Ensure to water on to the root-ball.
- Adjust guy fixings, stakes and ties at the start and end of growing season or at any other time as necessary to avoid chafing and maintain firm support
- Apply slow-release fertiliser in spring
- Corrective pruning of misshapen trees whilst still young. Prune dead, dying, diseased, crossing, rubbing and damaged branches and encourage new leader if necessary (routine tree pruning to be undertaken outside the nesting bird season, i.e. October to February)
- Remove stem growth (apart from specimen shrubs)
- Replace losses with original species and size in dormant season inspection in August
- Maintain mulch cover where used by topping up twice annually but ensure mulch does not cover or fill up irrigation pipes if installed (spring and autumn preferably)
- Weekly (or as necessary) leaf sweeping in autumn to maintain accessibility of footpaths and roads and the functionality of any play equipment, sports pitches, outdoor dining areas etc.
- Identify trees on banks/slopes with exposed root balls and assess needs for stabilisation and soil covering
- Inspect monthly for stem wounds, pests and diseases and treat early
- ➤ All specimen trees and shrubs should be inspected annually in the growing season to monitor their continued health. In particular any damage to stems or branches after severe weather. Arboricultural advice should be sought as soon as possible if any significant damage is found. All tree inspection and work should be carried out by recognized contractors in accordance with British Standard B.S. 3998: 1989 'Recommendations for tree work':

## Years 5-7:-

- ➤ Water any replacement trees as in year 1-4 above
- Remove guy fixings, stakes and ties in year 5, or when tree deemed firm and self-supporting
- > Apply slow-release fertiliser in spring
- Prune dead, dying, crossing, rubbing and damaged branches and crown-thin early crowded branches when operations are easily carried out and arisings are minimal
- Leaf sweeping as above

- > Remove stem growth (apart from specimen shrubs)
- > Inspect weekly stem wounds, pests and diseases and treat early

## Long Term Management - Years 8-15

#### Years 8-10:-

- ➤ Prune as year 5-7
- Prune to raise crown as necessary and remove stem growth (apart from specimen shrubs)
- Prune and thin selectively as necessary to maintain long distance views, vistas and views to focal points
- > Assess need for removal of branches overhanging paths and roads
- Leaf sweeping as above

#### Years 11-15+:-

- > Prune as Years 5-7
- ➤ Inspect as above and consult arboriculturist on issues about damage, disease, proximity to walls, fences, lighting columns and other service facilities. Carry out felling and tree surgery work as deemed necessary
- Assess need for removal of branches overhanging paths and roads
- Leaf sweeping as above

## 6.5. Woodland Edge Planting

Typology	Typology Code
Woodland Edge Planting	V05

#### 6.5.1. Typology Description

Native woodland edge planting to enhance the peripheral areas of Prior's Wood. Woodland edge planting to comprise a native mix or varying species.

## 6.5.2. Management Aims

A native species mix would serve to increase biosecurity and biodiversity benefits. The over-arching aim is to manage the planting areas so that they grow into well established and robust woodland edge areas, forming a buffer between Prior's Wood Ancient Woodland and the adjacent development areas.

#### 6.5.3. Management Objectives and Prescription

The main management objective for new shrubs and trees is for them to be maintained to ensure they fulfil relevant management aims by following the relevant management regimes for new trees and native shrubs.

New trees planted in this area of the site should be included within the active management and maintenance of the site as a whole. During the first few weeks, and to establish the trees, they should be watered regularly with additional watering fortnightly during the dry

period June – September. Other dry periods should be responded to promptly by ensuring the watering of the trees within 12 hours of exceptionally dry weather for the time of year.

Check trees once per year and adjust stakes and ties as required. Pruning to be carried out as required, removing any damaged, rubbing branches or any epicormic growth. Collect and retain for reuse all arisings.

Trees are planted at specific centres so that they do not suffer from excessive competition to enable the woodland to grow effectively to maturity.

## 6.6. Woodland Planting

Туроlоду	Typology Code
Woodland Planting	V17

## 6.6.1. Typology Description

Woodland planting adjacent to Prior's Wood to enhance the existing woodland.

### 6.6.2. Management Aims

The main management objective for trees is to ensure the establishment and maintenance of healthy attractive trees that are safe and provide ecological benefit, both within the main body of the development and within existing retained woodlands at the site boundaries. Any tree surgery works are to be undertaken by a qualified Arboricultural contractor who is listed in the Arboricultural Association's Approved Contractors Directory (ref: www.trees.org.uk).

All tree surgery work should be undertaken in accordance with the requirements of BS3998:2010 British Standard Recommendations for Tree Work and BS5837:2012 Trees in Relation to Design, Demolition and Construction.

#### 6.6.3. Management Objectives and Prescription

#### **Establishment Period**

During the establishment period following initial or reinstatement planting of trees, the following landscape operations are to be undertaken to ensure establishment of healthy, vigorous plants:

- Maintain a weed-free area around each tree, minimum diameter of 1m around stem, for the first three growing seasons, using spats, bark mulch or herbicide);
- Any dead or dying plants to be replaced during the winter season (November/March);

- ➤ Re-firm plants loosened by frost heave, wind rock or vandalism by treading around the base. 'Collars' at the base of tree stems created by tree movement to be broken up by fork, avoiding damage to roots, backfilled with topsoil as necessary, and re-firmed;
- ➤ Watering to field capacity to be undertaken regularly during the summer months and as required in the first five years following planting, to achieve successful plant establishment;
- Spiral guards to be removed after two years to facilitate further growth and management;
- ➤ Undertake formative pruning to avoid future structural problems, to remedy disease and vandalism problems, and to achieve good form:
  - o Do not prune whips or feathered trees;
  - o Do not prune during the late winter/early spring sap flow period; and
  - Crown prune young trees up to 4m high by removing dead branches and reducing selected side branches by one third to preserve a well-balanced head, ensuring the development of a single strong leader and the removal of duplicated branches and potentially weak or tight forks. In each case cut back to live wood.
- Regularly inspect tree stakes and ties and carry out the following:
  - o Check stakes and replace or re-fix as necessary;
  - Adjust, re-fix or replace loose or defective ties as necessary, allowing for growth since planting and to prevent chafing. Where chafing has occurred, reposition or replace ties to prevent further chafing; and
  - Remove stakes and ties during spring once trees can maintain an upright, unsupported growth, generally 18 months to 3 years after planting.
- Tree Guards: Inspect and adjust, re-fix or replace loose or defective guards to original specification and to prevent chafing. Remove guards and ties after two years; and
- Tree Shelters: Adjust, re-fix or replace loose or defective shelters to original specification and to prevent chafing. Remove shelters when tree stems touch the shelters.

## Thinning, Pruning and Coppicing

Following establishment of native woodland planting areas, the following maintenance operations will be carried out:

After the plants are well-established, 3-5 years after planting, the area will have reached thicket stage. When branches have become interlaced, it will be necessary to thin and prune the plants to promote growth and required structure of planting area. Select plants with a strong healthy habit for retention. Remove unwanted

plants by removing as much as possible of roots without causing undue disturbance to adjacent plants and refill holes with topsoil to leave an even graded surface. Make good any minor damage to adjacent plants immediately. Cut back or remove scrub invading into areas of open grassland;

- Selective pruning to maintain vigour and a dense appearance;
- > Selected coppicing of shrubs to be carried out where necessary in order to maintain the density of the buffer throughout its height. Trunks shall be cut close to the ground using a slanted cut, which sheds rainwater. Branches will generate from the base or 'stool', this may be necessary by year 5, but will be dependent on growth rates and each planting bed will be individually assessed; and
- At the end of the growing season, check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems.

#### Plant Replacement

Following establishment of native woodland planting areas, the following maintenance operations will be carried out:

Replace any dead or dying specified plants not required to be thinned, at the earliest opportunity.

#### Weed Control

Following establishment of native woodland planting areas, the following maintenance operations will be carried out:

- As soon as plants have established and formed a close-knit ground cover, mulch will not be required, bark mulch should not be topped up and/or mulch mats should be removed; and
- Removal of aggressive species (trees and shrubs that have invaded and are suppressing long-term species, i.e. Rubus) should be cleared. Unwanted climbers that are suppressing trees and shrubs should also be removed.

#### **Annual Monitoring**

All trees to be regularly inspected to ensure that they remain in a safe condition, do not obstruct access routes of visibility and do not cause nuisance. In undertaking the inspection, consideration should be given to safety aspects in balance with the visual and ecological benefits provided by the tree. Where any new tree planting deteriorates, following its initial establishment, take necessary measures to resolve any underlying problems. Replace dead or dying trees at the earliest opportunity. Remove annually any excess growth encroaching onto grassed areas, paths, roads, signs, sightlines and light fittings.

## 6.7. Native Structural Shrub Planting

Typology	Typology Code
Native Structural Shrub Mix	V06

## 6.7.1. Typology Description

Native structural shrub planting, comprising low growing native shrub mixes and larger structural whips, will be found in groups throughout the more natural areas of the development, within the eastern site area.

#### 6.7.2. Management Aims

### Visual:-

- To provide structure in the landscape
- To provide seasonal interest

#### Use:-

- To provide landscape character and diversity
- To create green links to adjacent landscapes and habitats

#### **Biodiversity:-**

• To provide diversity of habitat, species and structure

### 6.7.3. Management Objectives and Prescription

The main objective is to let species grow to their natural shape and height to increase habitat potential and interest from flower, fruit and autumn colour. Some coppicing of species like Dogwood, Hazel and Willow will add to these objectives.

#### Establishment Period - Years 1-7

#### Years 1-4:-

- > Water as deemed necessary to keep soil moist and healthy establishment and to avoid the need for replacement due to dry periods (less than 30mm rainfall at the end of a four week period), and subsequent loss of a whole growing season
- Check regularly that rabbit guards are securely fixed and functional
- > Re-firm soil around any loose plants without compacting
- > Apply slow-release fertiliser to plant stations in spring from Year 2
- Remove competing vegetation within planted area between April and August, before weeds and grass set seed, by hand weeding or chemical means as appropriate. (should be limited to controlled spot treatment of herbicide)
- ➤ Prune weak plants or plants suffering wind rock by 50% in Year 1/Year 2 to encourage new stem growth and root development (Oct to Feb only)
- Scrub should be managed to provide areas of dense and less densely spaced plants as per the typologies
- ➤ Replace losses with original species and size in Years 1-3 only
- Maintain any mulch cover to original depth
- Remove rabbit guards in Year 3 unless rabbit damage envisaged
- Annual grass strimming, between September and October, where required, to facilitate growth of young trees and to maintain/promote mosaic habitat
- Visual inspection to assess canopy and identify presence of rubbish, debris and invasive weeds on a monthly basis

#### Years 5-7:-

- ➤ Should be allowed to develop into dense thickets
- ➤ Coppice scrub to encourage regrowth. Cut areas of scrub in a rotation, aiming to retain all ages. Leave berry bearing scrub cutting until after December so the resource remains available for birds and mammals. To be undertaken in a cyclical programme of every 7 years for scrub adjacent grasslands and every 15 years for inner areas of scrub

#### Long Term Management

Refer to Years 5-7

## 6.8. Native Species Rich Hedgerow

Туроlоду	Typology Code
Native Species Rich Hedgerow	V07

#### 6.8.1. Typology Description

Native species rich hedgerows provide containment, significant wildlife habitat and an ecological corridor.

## 6.8.2. Management Aims

#### Visual:-

- To create visual interest and seasonal variety
- To create structure in the landscape

#### Use:-

To provide enclosure

#### Biodiversity:-

- To provide significant habitat
- To provide a wildlife corridor

## 6.8.3. Management Objectives and Prescription

Objectives are to maintain hedgerows to ensure they fulfil relevant management aims, these will be achieved by following the prescriptions below:

#### Establishment Period - Years 1-5:-

- Water as deemed necessary to keep soil moist and healthy establishment and to avoid the need for replacement due to dry periods (less than 30mm rainfall at the end of a four week period), and subsequent loss of a whole growing season
- Apply slow-release fertiliser in spring
- Replace losses with original species and size inspection in August, replace losses in dormant season. Losses / replacements tolerance threshold to be 10% maximum loss
- Maintain mulch cover where used by topping up twice annually (spring and autumn preferably), including 500mm either side of hedge
- ➤ Invasive weeds to kept to less than 50% ground cover
- ➤ Prune (by hand for first 2 years) only hawthorn and blackthorn (Sloe) once in each of the establishment years (Oct to Feb only). These plants should be pruned immediately after planting in autumn to 150mm above ground level to encourage strong basal shoots to form. If planted late in season leave to grow on for a year before cutting back to 150mm the again following winter. In the 2<sup>nd</sup> winter cut back previous seasons growth by about one half. In the third winter trim laterals and leaders to create an even shape. Do not prune in frosty weather

### Long Term Management - Years 5-15+:-

- Once established trim to required height and width with a mechanical flail, every 3 years from October to February on a rotational basis so that some hedges always have 2/3 years growth.
- ➤ Shape of hedge to be maintained to a rectangular profile (flat top)
- Condition to be inspected and recorded annually in late summer/early autumn (before leaf fall); written report with recommendations for ecology, structure and plant health
- Divide hedge into 3 management units and cut on a 3 year continuous cycle.

## 6.9. Ornamental Hedgerow

Typology	Typology Code
Ornamental Hedgerow	V08

## 6.9.1. Typology Description

Hedgerows consisting of non-native ornamental plants

#### 6.9.2. Management Aims

#### Visual:-

- to create high visual interest and seasonal variety
- to create structure in the landscape

#### Use:-

• to provide enclosure to plot frontages

#### **Biodiversity:-**

• to provide areas of refuge and habitat

## 6.9.3. Management Objectives and Prescription

The objective is to develop and maintain visually interesting hedges with dense leaf cover from the base to the top whilst keeping roads, drives, cycleways, footpaths and sightlines unobstructed. Hedge height to reflect design intent and identified functions and enhancements of each open space. These objectives will be achieved by following the following prescriptions:

#### Establishment Period - Years 1-7

#### Years 1-4:-

- Water as deemed necessary to keep soil moist and healthy establishment and to avoid the need for replacement due to dry periods (less than 30mm rainfall at the end of a four week period), and subsequent loss of a whole growing season
- ➤ Re-firm soil around any loose plants without compacting
- Apply slow-release fertiliser to hedge lines in spring from Year 2
- Prune dead, dying and broken branches and reduce weak plants to encourage new stem growth and root development
- Selectively trim hedge plants to promote bushy growth and optimum flowering
- Remove competing vegetation from hedge line between 1 March to 30 September by hand weeding or chemical means and before weeds and grass set seed
- Replace losses with original species and size to maintain hedge without gaps at all times
- Maintain mulch cover to original depth

#### Years 5-7:-

- > water any late replacement plants as Years 1-4
- > prune and trim as Years 1-4 and employ cutting regimes appropriate to each different species to achieve healthy hedges of good shape, fulfilling original design concepts for different character areas

### **Long Term Management**

Refer to Years 5-7

## 6.10. Ornamental, Defensive Shrub and Herbaceous Planting

Typology	Typology Code
Ornamental Shrub Planting	V09
Herbaceous Planting	V10
Defensive Shrub Planting	V15

## 6.10.1. Typology Description

Visually vibrant and exciting ornamental shrub and herbaceous planting generally using non-native species. These planting areas should be high impact providing magnificent colour, form and interest. It should also be taken into account that although an overall ornamental planting prescription is provided this typology may have slightly different management objectives depending on the area they are within, please therefore also refer to the aims and objectives for each management area.

### 6.10.2. Management Aims

#### Visual:-

- To create colour and interest in all seasons
- To inspire and encourage residents to take pride of place

#### Use:-

- To provide high calibre horticultural interest and attractive frontages
- Defensive shrub areas should be planted against gable ends of buildings and at residential plot boundaries

#### Biodiversity:-

• To establish and maintain species-rich planting of differing character, which will support a range of invertebrates and flowers that attract pollinators at different times of year

#### 6.10.3. Management Objectives and Prescription

To maintain ornamental planting areas to high horticultural standards.

#### Establishment Period - Years 1-7

#### Years 1-4:-

- ➤ Water as deemed necessary to keep soil moist and healthy establishment and to avoid the need for replacement due to dry periods (less than 30mm rainfall at the end of a four week period), and subsequent loss of a whole growing season.
- > Apply slow-release fertiliser to planted areas in spring from Year 2
- Remove by hand weeding or by careful appropriate spot treatment 95% of competing vegetation within planted areas monthly between 1 March and 30 September before weeds and grass set seed
- ➤ Prune weak plants or plants suffering wind rock by 50% in Year 1/Year 2 to encourage new stem growth and root development. This should be particularly relevant to the 'industrial gardens' along the more exposed areas of the Wharf landscape
- ➤ Replace losses with original species and size in Years 1-3 only
- Maintain any mulch cover to ensure depth of 25-50mm
- ➤ Prune established shrubs as required (from Year 2/3) to encourage healthy and bushy growth, desirable ornamental features (flowers, fruit, autumn colour, stem colour etc) and to remove dead/dying/diseased wood.
- > Time of year principles for pruning:-
- Winter flowering shrubs early spring
- March to July flowering shrubs immediately after flowering
- July to October back to old wood in winter/ early spring
- Cut with appropriate hand tools in accordance with good horticultural standards and compost arisings
- Prune back to ground all deciduous herbaceous plants and grasses in late winter/spring, comb through and remove any dead growth from evergreen grasses in early spring
- Remove any seed heads to prevent migration of seed to areas where it is not required
- Annual monitoring to review that planting is fit for purpose and displaying desired horticultural features and fulfilling management aims

#### Years 5-7:-

- Where plants are planted at high densities for instant impact and where they have established well and are spreading, remove whole plants along edges of roads and footpaths to minimise the need for pruning. Remove plants as early as possible so that the whole plant can be pulled out without the need for stump/root treatment
- Reduce spread of shrubs as necessary by removing outer branches at ground level, aiming to retain natural height and shape of species wherever possible

- ➤ General continuing thinning, pruning and removal of dead wood will still be necessary (as Years 1-4) to achieve optimum flower and leaf cover. These operations should be led by a suitably qualified supervisor
- ➤ Weed beds as necessary as Years 1-4 and before weeds and grasses set seed
- > Treat pests and diseases early

#### Long Term Management:-

- Continued pruning, thinning and weeding as necessary
- Rejuvenate shrubs that have outgrown their location or become shapeless, bare or woody by coppicing or hard pruning. Most shrubs, including groundcover shrubs, respond to this treatment by quickly producing fresh growth
- Apply slow release fertiliser in spring to shrubs that have been heavily pruned or coppiced
- Profuse growth after coppicing should be selectively thinned early to avoid overcrowded branch system, making shrubs more prone to pests and diseases
- ➤ Replace short-lived plants with same species or consider use of more robust species without losing original design intention. Continue annual monitoring
- ➤ Defensive planting should be pruned and utilised to form a defensible boundary within the landscape allowing plants to establish a strong network of branches which are best left to intertwine and grow into one-another, forming a dense barrier.

## 6.11. Bulb Planting

Typology	Typology Code
Bulb Planting	V11

## 6.11.1. Typology Description

Visually vibrant and exciting swathes of bulbs which provide seasonal interest throughout the development.

#### 6.11.2. Management Aims

### Visual:-

- To create colour and interest in through Spring and Summer.
- To inspire, welcome and excite visitors

#### Use:-

• To provide high calibre horticultural interest

### Biodiversity:-

 To establish and maintain species-rich planting of differing character, which will support a range of invertebrates and flowers that attract pollinators at different times of year

## 6.11.3. Management Objectives and Prescription

To maintain bulb planting areas to high horticultural standards. Areas where bulbs are planted within grass will require a specific cutting regime. These areas will be left uncut until after flowering for a period of at least four weeks to allow the bulbs to set. The grass around the groups of bulbs will be cut with either a mower or strimmer, forming a neat tidy edge while the bulbs are in flower. Once the bulbs have finished flowering the grass cutting can be incorporated into the fine lawn cutting regime. The first cut will usually be fairly high to cut and remove longer grass and bulb leaves, with subsequent cut to bring the grass down to an acceptable level for amenity grass. Hand raking will be carried out following the first two cuts to tidy and remove arisings. During the rest of the year the grass will be maintained as fine lawn.

### 6.12. Wildflower Meadow

Typology	Typology Code
Wildflower Meadow	V12

### 6.12.1. Typology Description

Visually vibrant and exciting meadow areas using native species of perennial and annual wildflowers and grasses. This typology provides general prescriptions for wildflower meadows, refer to the manufacturers guide for maintenance relating to the specification.

### 6.12.2. Management Aims

## Visual:-

• To provide a visually interesting component to the landscape while establishing and maintaining a species rich swards of differing character

#### Use:-

• To provide relatively low maintenance and attractive setting for POS areas.

### Biodiversity:-

- To establish and maintain species-rich planting of differing character, which will support a range of invertebrates and flowers that attract pollinators at different times of year
- To provide a visually interesting component to the landscape while establishing
  and maintaining a species rich swards of differing character, including plants that
  support invertebrate larvae and flowers that attract pollinators at different times of
  year. Provide suitable habitat for breeding birds and foraging for pollinating
  insects.

# 6.12.3. Management Objectives and Prescription

To maintain as a colourful and species rich meadow by allowing the more desirable species to flourish and reducing the vigour of the more extensive species.

#### **Establishment Period**

In the early years, to achieve maximum floral diversity adhere to the following prescriptions:-

- > Ensure sward height by the beginning of the growing season not to exceed 50 mm
- ➤ Allow a high proportion of sown grasses and wild flowers to flower and set seed before mowing and grazing in mid-summer

#### Establishment - Year 1:-

- ➤ There will often be a flush of annual weeds from the soil in the first growing season. Control this weed growth by topping or mowing to prevent them setting seed. Be aware that the sown meadow species are perennial and will be slow to germinate and grow and will not usually flower in the first growing season
- Assuming an autumn sowing the vegetation will need to be cut in the first spring and summer to around 50mm, probably several times, to prevent the growth and flowering of tall weeds including creeping thistle, clustered and broadleaved dock, spear thistle and sow-thistle
- > Do not apply fertilizer. Hand weeding may be required to remove large weeds
- ➤ If any native wild flowering meadow area fails to thrive / meet the objectives set out above, then these areas should be re-seeded with original seed mix. The location of re-seeded areas should be noted (if past year one so year one) so establishment regimes can be undertaken. If these areas then fail again specialist advice should be sought.

# Establishment - Years 2 – 5:-

- Cut to 150mm in October, with arisings collected and removed from site
- > Cut with a cut and collect flail machine, although use hand tools if possible
- Cutting should be undertaken at intervals over several weeks so that there is always cover available for species such as grass snake
- > Cutting should always allow animals to move ahead into cover over 150mm high
- ➤ Cut in temperatures above 10≤C

- > To avoid trapping of animals do not leave 'islands' of vegetation until last
- Do not apply fertilizer
- > Some hand weeding may be required to remove larger aggressive weeds

#### Long-Term Management

Management same as for as Establishment – Years 2-5

# 6.13. Species Rich Amenity Grassland

Typology	Typology Code
Species Rich Amenity Grassland	V13

# 6.13.1. Typology Description

Areas of short grass designed for regular leisure, recreation and event use characterised by a mix of grass species designed to provide a hard wearing, dense grassy sward which can withstand regular use.

# 6.13.2. Management Aims

To provide hard wearing, recreational areas of grass which complement neighbouring areas of planting. These areas should be able to provide for and withstand informal recreational use (and event use if larger areas).

#### Visual:-

• To provide hard wearing, recreational areas of grass which complement neighbouring areas of planting.

#### Use:-

 To provide for and withstand informal recreational use (and event use if larger areas).

#### Biodiversity:-

• To provide a species rich amenity grassland than delivers increased biodiversity benefits when compared to standard amenity grass.

# 6.13.3. Management Objectives and Prescription

Management objectives for the amenity grass areas are to maintain a space for events and recreation and to repair any damage from such use. Prescriptions to achieve these objectives are as follows:-

- Amenity grassland to be mown monthly in March, April, September and October and fortnightly during May and August (12 mows) cut sward to maintain to a height of between 40-50mm and remove arisings to compost facility
- > Delay cutting of areas planted with bulbs until 6 weeks after flowering

- ➤ Keep surface area free of stones exceeding 25mm in any dimension
- Scarify in November to remove thatch and dead grass
- Aerate by means of spiking in mid-April, top dressing to follow immediately
- Fertilise after top dressing with further applications (maximum of 3 no.) as required through the growing season
- > Edging adjacent to paths, hard surfaces and service inspection covers
- ➤ Weeds to controlled to maintain 95% grass species
- > Inspect after any events to identify necessary repairs
- Irrigation to occur only for event recovery
- After an event level any hollows and bumps to retain an even grade
- Re-seed and re-turf as necessary to maintain a 100% sward cover
- ➤ Inspect in spring and autumn to review fulfilment of management aims

#### 6.14. Wetland Meadow

Typology	Typology Code
Wetland Meadow	V14

# 6.14.1. Typology Description

Visually vibrant and exciting wetland meadow areas using native species of perennial and annual wildflowers and grasses. This typology provides general prescriptions for wetland meadows, refer to the manufacturers guide for maintenance relating to the specification.

#### 6.14.2. Management Aims

To provide a visually interesting component to the landscape while establishing and maintaining species rich swards of differing character within areas of wetland – particularly within the SuDS basin which is located in the southern site area.

#### Visual:-

 To provide a visually interesting component to the landscape while establishing and maintaining a species rich swards of differing character within areas of wetland

#### Use:-

• To provide relatively low maintenance an ecologically rich habitat within drainage basins, located within the southern site area.

# Biodiversity:-

• To establish and maintain species-rich planting of differing character, which will support a range of invertebrates within wetland areas, at different times of year

# 6.14.3. Management Objectives and Prescription

#### **Establishment Period**

In the early stages, to achieve maximum diversity adhere to the following prescriptions:-

- > Endeavour to select ground that is not highly fertile and does not have a problem with perennial weeds. Good preparation is essential to success so aim to control weeds and produce a good quality seed bed before sowing.
- > To prepare a seed bed first remove weeds using repeated cultivation. Then plough or dig to bury the surface vegetation, harrow or rake to produce a medium tilth, and roll, or tread, to produce a firm surface.

#### Establishment - Year 1:-

- ➤ There will often be a flush of annual weeds from the soil in the first growing season. Control this weed growth by topping or mowing to prevent them setting seed.
- Assuming an autumn sowing the vegetation will need to be cut in the first spring and summer to around 50mm, probably several times, to prevent the growth and flowering of tall weeds including creeping thistle, clustered and broadleaved dock, spear thistle and sow-thistle
- Most of the sown meadow species are perennial and are slow to establish. Soon after sowing there will be a flush of annual weeds, arising from the soil seed bank. These weeds can look unsightly, but they will offer shelter to the sown seedlings, are great for bugs, and they will die before the year is out. So resist cutting the annual weeds until mid to late summer, especially if the mixture contains Yellow Rattle, or has been sown with a nurse of cornfield annuals. Then cut, remove and compost. Early August is a good time. This will reveal the young meadow, which can then be kept short by grazing or mowing through to the end of March of the following year. Dig out any residual perennial weeds such as docks.
- Do not apply fertilizer
- > Some hand weeding may be required to remove larger aggressive weeds
- ➤ If any native wild flowering meadow area fails to thrive / meet the objectives set out above, then these areas should be re-seeded with original seed mix. The location of re-seeded areas should be noted (if past year one so year one) so establishment regimes can be undertaken. If these areas then fail again specialist advice should be sought.

#### Establishment - Years 2 - 5:-

- ➤ Meadow grassland is not cut or grazed from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back with a scythe, petrol strimmer or tractor mower to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site. Mow or graze the re-growth through to late autumn/winter to c 50mm and again in spring if needed. Cut with a cut and collect flail machine, although as far as possible, use hand tools only
- ➤ Cutting should be undertaken at intervals over several weeks so that there is always cover available for species such as grass snake

- > Cutting should always allow animals to move ahead into cover over 150mm high
- ➤ Cut in temperatures above 10≤C
- > To avoid trapping of animals do not leave 'islands' of vegetation until last
- Do not apply fertilizer

# Long-Term Management

Management same as for as Establishment – Years 2-5

# 6.15. Climber Planting

Typology	Typology Code
Climber Planting	V16

# 6.15.1. Typology Description

Climber plants grown vertically.

# 6.15.2. Management Aims

To provide a visually aesthetic, vertically grown cover against walls and physical boundaries.

# 6.15.3. Management Objectives and Prescription

The main objective for the management of climbers is to establish and maintain them in a healthy, functional and visually attractive condition. Where climbers are growing adjacent to buildings, ensure that branches remain secured to support wires, where necessary, and are trimmed well clear of all openings. Where replacement planting is required, replant 300mm clear of wall (as site conditions allow), with roots spread outwards. Train back to climber support or wall/fence along 2 no. canes approx. 600mm long, firmly lodged into ground each side of the plant. Lightly secure branches to canes or climber support, where necessary.

Maintain or replace climber support as necessary. Maintain self-clinging climbers (Hedera sp., etc.) along fence line. Climbers to be maintained to the height of the fence and trimmed back from any openings/access gates to allow ease of access. Replacement planting as above. Any necessary pruning or cut back of climbers to follow sound horticultural practice. Maintenance regime to be species specific. Timing of pruning follows general rules for pruning shrubs, e.g. those that flower on the previous year's wood before midsummer, prune immediately after flowering. Those which flower after midsummer on the current season's shoots to be pruned in late winter or early spring. Apply fertiliser as necessary.

#### 6.16. Timber Structures

Туроlоду	Typology Code
Timber Structures	S01

# 6.16.1. Typology Description

Timer bridge allowing pedestrian access between the site and Smiths Green Lane, to the east. Timber Pergola within the residential development area.

#### 6.16.2. Management Aims

To provide safe access into the site from Smiths Green Lane. To maintain the continuing function of the surfacing in accordance with their original design. Surface should be maintained to ensure its cleanliness and structural integrity. Timber pergola to provide an attractive feature within the streetscape.

# 6.16.3. Management Objectives and Prescription

Inspections of the timber structures should be undertaken, as required, to ensure the material and fixings remain intact. Any defect should be noted and remediated immediately, with the pedestrian route closed and fenced off until the defects have been made good, and the structure is safe to use again. Timber should be treated to ensure longevity of material. Screws and fixings should be galvanised to provide suitable protection against adverse weather conditions.

# 6.17. Tarmac Surfacing

Туроlоду	Typology Code
Tarmac Road	S02
Buff Coloured Tarmac	S03

# 6.17.1. Typology Description

Tarmac road and pathway surfacing

# 6.17.2. Management Aims

To provide safe access for all users and to contribute to safe and enjoyable use of the site. To maintain the continuing function of the surfacing in accordance with their original design. Surfaces should be clean, free of litter, weeds, graffiti, stains, hazards and damaged items. To maintain drainage functionality.

# 6.17.3. Management Objectives and Prescription

Maintain surfaces in a safe, accessible and serviceable condition by following these prescriptions:-

- Monthly inspections to identify defects
- Twice annual flushing (April and September)
- Sweeping and cleansing as Section 7.0
- Repair or re-instate surface dressing where loss of aggregate / pot holes have occurred.
- Inspections and repairs to comply with contract, DMRB and requirements of New Roads and Street Works Act 1991 and other relevant Highways Agency Standards

Tarmac generally has a lifespan of 20 - 30 years, structural inspection required after 20 years to assess condition by specialist. To be replaced like for like.

# 6.18. Play Surface Tiger Mulch

Туроlоду	Typology Code
Play Surface Tiger Mulch	S04

# 6.18.1. Typology Description

Tiger Mulch for playground surfacing.

# 6.18.2. Management Aims

To provide safe access and safe enjoyment of play areas. To maintain the continuing function of the surfacing in accordance with their original design. Surfaces should be maintained at required depth, clean, free of litter, weeds, hazards and damaged items.

# 6.18.3. Management Objectives and Prescription

Maintain bound tiger mulch playground surfaces in a safe, accessible and serviceable condition by following these prescriptions:-

- Weekly inspections to remove any debris, sharps and glass with increased checks during busy periods such as school holidays
- > Surfacing to conform to BS EN 1188:2008 and to RPII guidelines

# 6.19. Permeable and Standard Paving Units

Typology	Typology Code
Permeable Paving	S05
Standard Paving	S05.1

# 6.19.1. Typology Description

Block paving areas of varying typologies and construction build ups.

# 6.19.2. Management Aims

To provide safe access for all and to contribute to safe and enjoyable use of the site. To maintain the continuing function of the surfacing in accordance with their original design. Surfaces should be clean, free of litter, weeds, graffiti, stains, hazards and damaged items. Permeable paving should serve to maintain drainage functionality.

# 6.19.3. Management Objectives and Prescription

Maintain surfaces in a safe, accessible and serviceable condition by following these prescriptions. Manufacturers recommendations for maintenance should also be adhered to:-

- Monthly inspections to identify defects
- Sweeping and cleansing as Section 7.0
- Routine repairs any significantly cracked or broken units to be or replaced with exact same unit within a reasonable timescale depending on the extent of damage and any safety concerns it may raise. Original specification of laying course and jointing to be used,
- ➤ Joints to be re-filled with appropriate jointing material to BS7533-3, if significantly reduced over time, as required or as per manufacturers recommendations.
- ➤ Units generally have a lifespan of 20 30 years, structural inspection required after 20 years to assess condition by specialist. To be replaced like for like.
- ➤ For permeable paving vacuum sweep pervious surfaces with mechanical sweeper every 6 months and replace grit within joints, if required. Remove silt from joints if discovered. Records of inspections and maintenance undertaken should be kept.

# 6.20. Improved Compacted Hardcore

Typology	Typology Code
Improved Compacted Hardcore	S06

# 6.20.1. Typology Description

Compacted hardcore pathway

#### 6.20.2. Management Aims

To provide safe access and safe enjoyment of the site. To retain existing access and pathway.

# 6.20.3. Management Objectives and Prescription

Maintain and improve existing pathway to ensure route is safe and accessible. All material should be inspected on an annual basis and replenished then re-compacted where required.

# 6.21. Timber Benches and Picnic tables

Typology	Typology Code
Timber Bench	F01
Picnic Table	F02

# 6.21.1. Typology Description

Timber benches / seating / tables

# 6.21.2. Management Aims

Benches to be maintained in a clean and serviceable condition at all times

# 6.21.3. Management Objectives and Prescription

- Cleansing in accordance with cleansing regimes set out in Section 7.0 of this document
- ➤ Timber oiling treatment required for longevity (if wood left to weather naturally lifespan reduced to 10 years)
- Minor repairs to be carried out as required
- ➤ All benches to remain fit for purpose including visual standards and, where relevant, legible
- > Regular inspections
- > Recommended lifespan of 15-20 years if timber maintained as above
- > To be replaced at end of lifespan with similar or approved

#### 6.22. Litter Bins

Туроlоду	Typology Code
Litter Bins	F03

# 6.22.1. Typology Description

Litter Bin

# 6.22.2. Management Aims

To be a depository for small scale waste around the site. To be regularly emptied, free from leaks and appropriately disposed of by the management company.

# 6.22.3. Management Objectives and Prescription

Bins will be maintained in a sound, clean state and emptied at a rate, which does not allow them to overflow. In addition the bins will be cleaned and disinfected as necessary to avoid an unsightly accumulation of dirt.

# 6.23. Timber Fencing

Typology	Typology Code
Timber Post and Rail Fence	B01
Timber Post and Wire Fence	B02
Timber Closeboard Fence	B03
Timber Knee Rail Fence	B05

# 6.23.1. Typology Description

Timber fencing including post and rail, post and wire, closeboard and knee rail typologies.

# 6.23.2. Management Aims

Fencing to be maintained in a clean and serviceable condition at all times

# 6.23.3. Management Objectives and Prescription

- Cleansing in accordance with cleansing regimes set out in Section 7.0 of this document
- Timber oiling treatment required for longevity (if wood left to weather naturally lifespan reduced to 10 years)
- Minor repairs to be carried out as required
- ➤ All fencing to remain fit for purpose including visual standards and, where relevant, legible and structurally sound.
- > Regular inspections
- ➤ Recommended lifespan of 15-20 years if timber maintained as above
- > To be replaced at end of lifespan with similar or approved

### 6.24. Timber Bollards

Typology	Typology Code
Timber Bollards	B04

# 6.24.1. Typology Description

Timber bollards to restrict access.

# 6.24.2. Management Aims

Bollards to be maintained in a clean and serviceable condition at all times.

# 6.24.3. Management Objectives and Prescription

- Cleansing in accordance with cleansing regimes set out in Section 7.0 of this document.
- > Timber oiling treatment required for longevity (if wood left to weather naturally lifespan reduced to 10 years)
- Minor repairs to be carried out as required.
- All bollards to remain fit for purpose including visual standards and, where relevant, legible and structurally sound.
- > Regular inspections
- > To be replaced at end of lifespan with similar or approved

# 6.25. Areas of Play

Typology	Typology Code
Local Area for Play (LAP)	P01
Local Equipped Area for Play (LEAP)	P02

# 6.25.1. Typology Description

There are several areas within the development that provide formalised play opportunities. They can be broken down into two typologies as outlined above: LAP and LEAP. Each play space has separate play equipment subject to individual warranties, inspection certification i.e. RoSPA and maintenance requirements.

# 6.25.2. Management Aims

All areas of play should be safe to use at all times. The areas should be safe and accessible for all target users and deliver an enjoyable user experience for children and accompanying adults.

# 6.25.3. Management Objectives and Prescription

As outlined above, the individual pieces of play equipment are subject to manufacturer maintenance requirements in order to align with individual warranties. All equipment should be inspected by a certified body i.e., RoSPA, prior to use by members of the public. Ongoing inspection and maintenance are required to ensure the safe and accessible use of play areas throughout the development. More generic maintenance requirements are listed below:

- Minor repairs to be carried out as required and in line with manufacturers recommendations.
- Faults and defects should be identified as soon as reasonably practicable. In the event of fault or defect, equipment should be cordoned off and the defect rectified.

# 6.26. Lighting

Туроlоду	Typology Code
Lighting Columns	L01
Lit Bollards	L02

# 6.26.1. Typology Description

Taller lighting columns and smaller lit bollards form the predominant lighting elements within the external spaces.

#### 6.26.2. Management Aims

Lighting is a requirement of the development for safety and surveillance, but baffles, shields and sensors should be installed where appropriate in order to limit spill. Where possible lighting within this area should be low-level with directional down lighting used sporadically, along appropriate roads where there are ecological adjacency issues.

# 6.26.3. Management Objectives and Prescription

All adopted highways lighting shall be commissioned and maintained in accordance with Section 38 Agreement. Any adoptable lighting should be maintained in accordance with the manufacturer's recommendations. All structural elements and fixings should be inspected to ensure they remain structurally sound. Columns and bollards should be maintained to ensure visual standards.

# 6.27. Log Pile Hibernacula

Typology	Typology Code
Log Pile Hibernacula	E01

# 6.27.1. Typology Description:

A pile of logs serving hibernating animals as a shelter during winter.

# 6.27.2. Management Aims:

Habitat creation, refuge and food source for invertebrates. To add aesthetic value in ecological areas. Hibernacula to be designed in accordance with best practice guidance using piles of logs.

# 6.27.3. Management Objectives and Prescription

- ➤ These features do not require any maintenance.
- ➤ The typology will decrease over time as the wood rots.
- > Every 5-10 years consider creating new features.
- > Old features do not require removing.

#### 6.28. Bird Boxes

Typology	Typology Code
Bird Boxes	E02

# **6.28.1.** Typology Description:

Bird box product specification as per ecologist recommendation.

# 6.28.2. Management Aims:

To further enhance bird nesting opportunities across the site.

# 6.28.3. Management Objectives and Prescription

- ➤ Boxes to be hung at a height of 3m or higher, with the entrance facing away from prevailing winds and sources of light and within or immediately adjacent to good tree or hedge cover to increase the shelter and food source available to nestlings.
- Installed upon larger retained trees at the site boundaries.
- > Installed and maintained as per manufacturer's instructions.

# 6.29. Bat Boxes

Typology	Typology Code
Bat Boxes	E03

# 6.29.1. Typology Description:

Bat box product specification as per ecologist recommendation.

# 6.29.2. Management Aims:

To provide roosting opportunities for bats within the development.

# 6.29.3. Management Objectives and Prescription

- > Installed and maintained as per manufacturer's instructions.
- > Installed upon larger retained trees at the site boundaries.

# 7.0 Whole Development: Litter collection and cleansing/Waste Disposal

Objective	Prescription	Standard	Monitoring
To maintain the whole development as a clean and safe and predominantly litter free environment	<ul> <li>➤ Weekly litter picks and inspections of all hard and soft landscape areas and public realm</li> <li>➤ Sweeping of paths, roads and other hard surfaces with appropriate mechanical sweepers as required, to ensure sweeping does not result in damage to path services</li> <li>➤ Wind-blown litter in ditches or infiltration basin to be removed as part of weekly litter picks</li> </ul>	> The development shall be maintained in a predominantly litter free condition as far as is possible	Weekly checks and inspections and immediately after any specific event
	Additional checks and cleansing to be carried out following all flood events		
	<ul><li>Checks and actions to remove fly posting</li></ul>		
	Ensure any arisings from maintenance operations are removed on		

	completion of each activity		
Ensure that litter bins are regularly emptied and do not overflow	<ul> <li>➤ Litter bins shall be emptied as required to ensure they are never over 75% full</li> <li>➤ Litter bins to be inspected on a regular basis and maintained in a clean and serviceable condition</li> <li>➤ Any bin in a poor state of repair to be replaced</li> </ul>	Litter bins are in a clean and serviceable condition at all times and not overflowing	Weekly checks and inspections and immediately after any specific event
Development to be maintained free of Graffiti	<ul> <li>Weekly inspections and rapid response to any identification of graffiti</li> <li>Methods and products to be used shall be non-toxic and biodegradable</li> </ul>	<ul> <li>➢ Offensive graffiti removed within 1 hour of reporting if possible and no longer than 24 hours</li> <li>➢ Other graffiti removed asap and no longer than one week</li> </ul>	Weekly checks and inspections. Quick response to offensive graffiti
Ensure development remains in a largely leaf clear condition during	Leaf clearance to all roads, paths and hard surfaces and grass / recreation / play areas to be undertaken to	Paths, roads and play /recreation areas to kept in predominantly leaf free condition during periods of leaf fall	Weekly checks and inspections during autumn months

autumn and winter months	ensure these remain in a predominantly leaf free condition  > Higher tolerance on other landscape typologies; clearance must ensure leaf fall does not hinder plant growth		
Development furniture including signage to be maintained in a clean and serviceable conditions	<ul> <li>➤ Weekly inspections of all signage and furniture</li> <li>➤ Minor repairs and cleansing to be carried out in situ as required</li> <li>➤ Damaged items of furniture to be removed and replaced</li> <li>➤ All furniture in flood zones to be checked following flood events and cleansing carried out as required to ensure maintained in a serviceable condition</li> </ul>	Furniture is maintained in a clean and serviceable condition	Weekly checks and inspections
Ensure that highways and paths remain in a clean and	➤ Inspections to identify defects and repairs in accordance with	All paths and roads remain accessible to all and in a safe and	Daily safety inspections and

accessible condition	service level standards  > Regular sweeping of carriageways and paths  > Flushing of main carriageways to be carried out	serviceable condition	monthly detailed inspections
Ensure that drains, gullies and SUDS systems remain fully operational	during April and September  Flushing to utilise non potable water  Gullies to be cleared twice a year at intervals of roughly six months  Additional	➤ Drains, gullies and SUDS systems to be maintained in a serviceable condition largely free of debris	
	checks and cleansing to be carried out following all flood events		

All waste will be removed from site by the waste carrier and treated locally. General waste will be processed to remove items which can be prepared for reuse, recycled and recovered, with the remaining items disposed to landfill. Green waste will be composted off site.

All waste from the site will be dealt with in accordance with the waste duty of care in section 34 of the Environmental Protection Act 1990 and the current Environmental Protection (Duty of Care) Regulations.

# 8.0 Appendices

# 8.1. Appendix 1 – Landscape Ecological Management Areas Plan (whole site)

This plan shows the whole of the proposed development, split into its constituent 'Management Areas' as listed in Section 4.0 and described in Section 5.0



Landscape Ecological Management Areas (LEMA)

Informal POS - Eastern Hay Meadow

Informal POS - Prior's Wood Green South

LEMA 03

Woodland Edge Pedestrian Route

LEMA 04

Formal POS - Prior's Wood Green North

LEMA 05 Green Residential Streets

LEMA 06 Prior's Wood

Woodland fotpaths amended LEMA 01 Boundary Amended OW 16.06.23 OW 12.06.23 Landscape Design Amended DESCRIPTION OW 18.05.23 APP. DATE

# LDĀDESIGN

**BULL FIELD, TAKELEY** 

Landscape Ecological Management Areas

ISSUED BY T: 01733 310 471 Peterborough May 23 DRAWN OW SCALE@A3 1:2,500 CHECKED GSt APPROVED

DWG. NO 8749\_401\_C

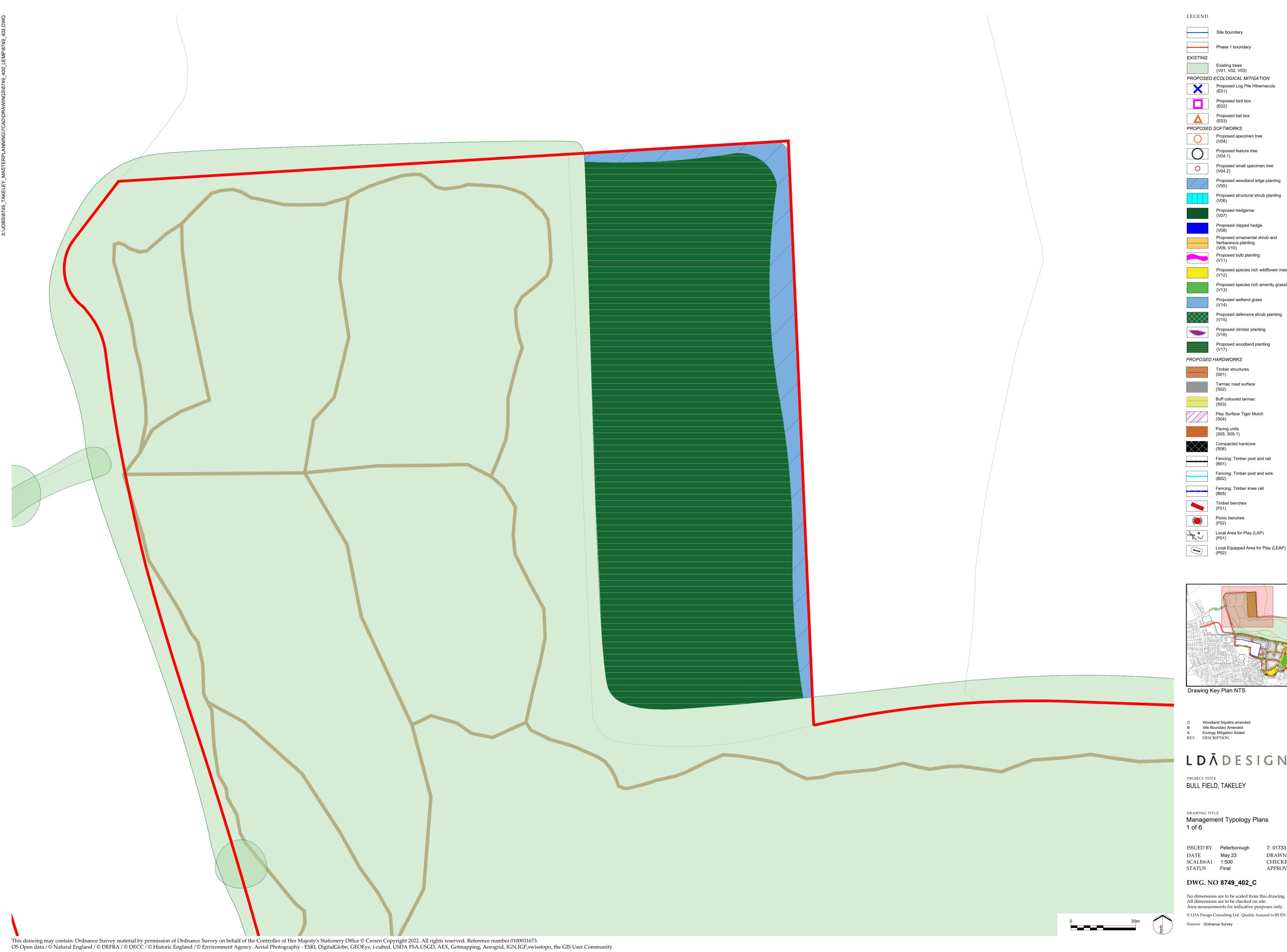
No dimensions are to be scaled from this drawing. All dimensions are to be checked on site. Area measurements for indicative purposes only.

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Sources Ordnance Survey

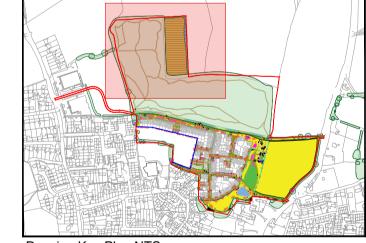
# 8.2. Appendix 2 – Management Typology Plans

These plans show the location of different soft and hard materials ('typologies') present within the proposed development.



Site boundary Phase 1 boundary

EXISTING Existing trees (V01, V02, V03) PROPOSED ECOLOGICAL MITIGATION Proposed Log Pile Hibernacula (E01) Proposed bird box (E02) Proposed bat box (E03) PROPOSED SOFTWORKS Proposed specimen tree (V04) Proposed feature tree (V04.1) Proposed small specimen tree (V04.2) Proposed structural shrub planting (V06) Proposed ornamental shrub and herbaceous planting (V09, V10) Proposed bulb planting (V11) Proposed species rich wildflower meadow (V12) Proposed species rich amenity grassland (V13) Proposed wetland grass (V14)



Drawing Key Plan NTS

C Woodland fotpaths amended
B Site Boundary Amended
A Ecology Mitigation Added
REV. DESCRIPTION

OW 16.06.23 OW 12.06.23 OW 18.05.23 APP. DATE

CHECKED GSt

APPROVED GSt

# LDĀDESIGN

BULL FIELD, TAKELEY

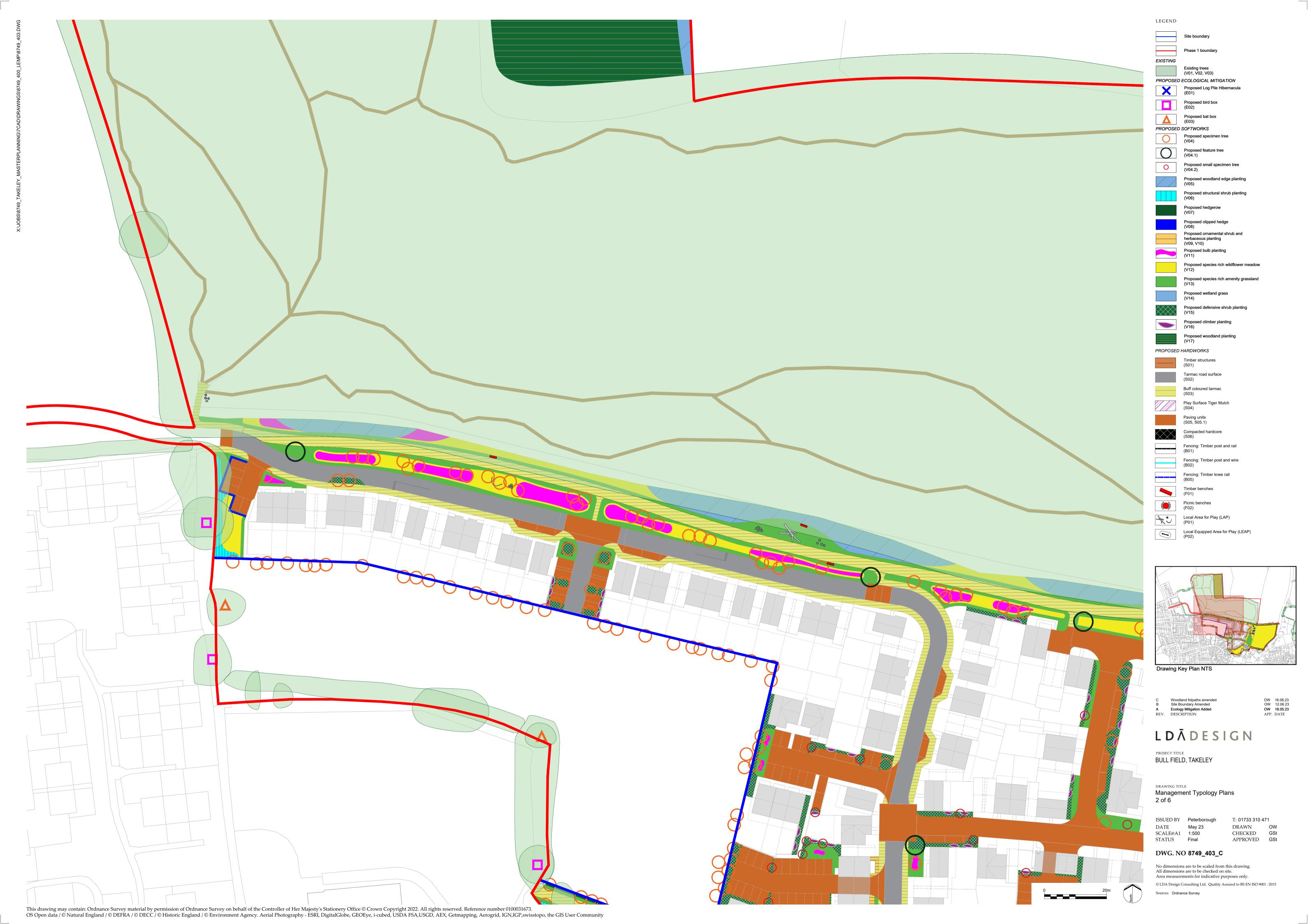
Management Typology Plans

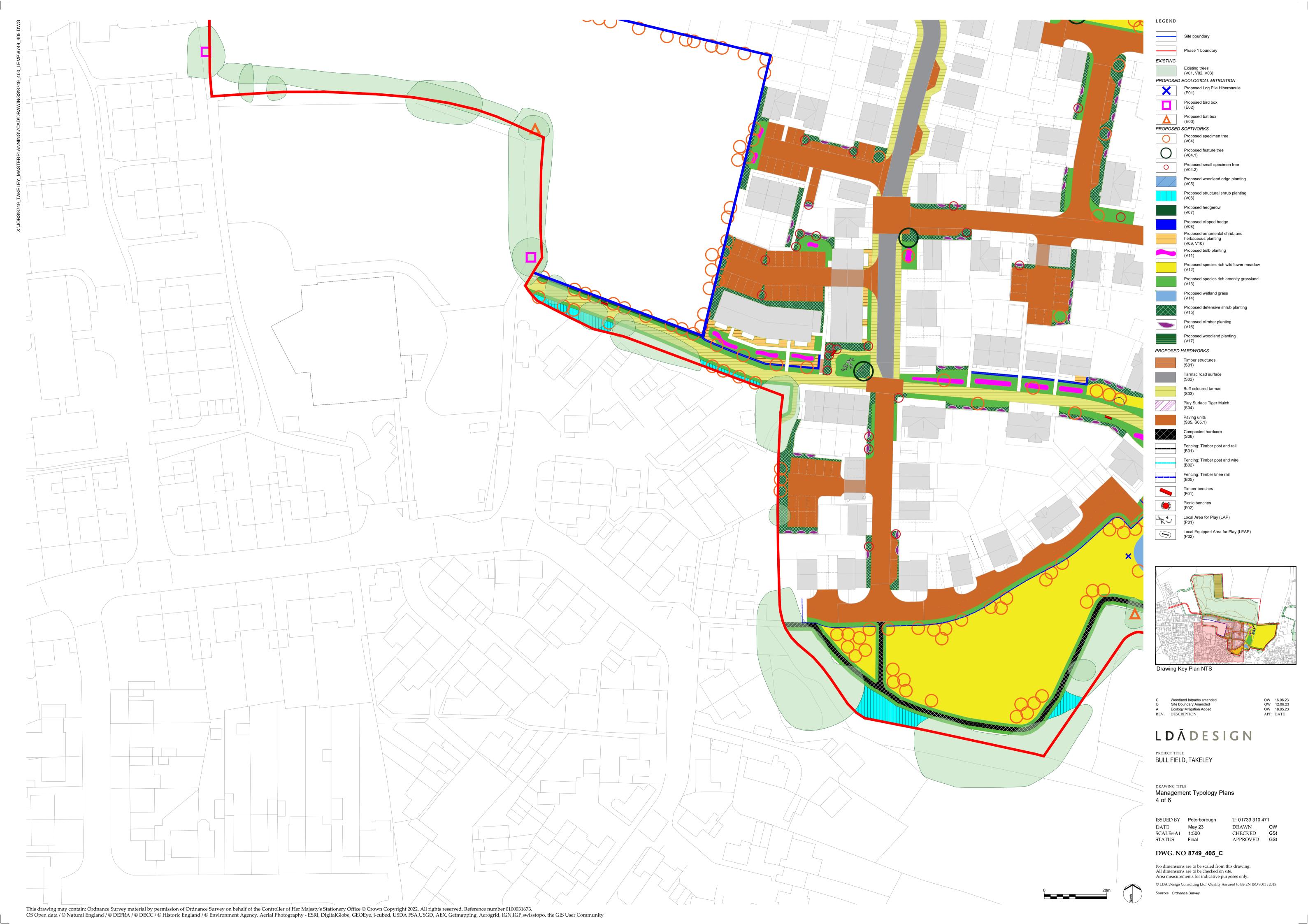
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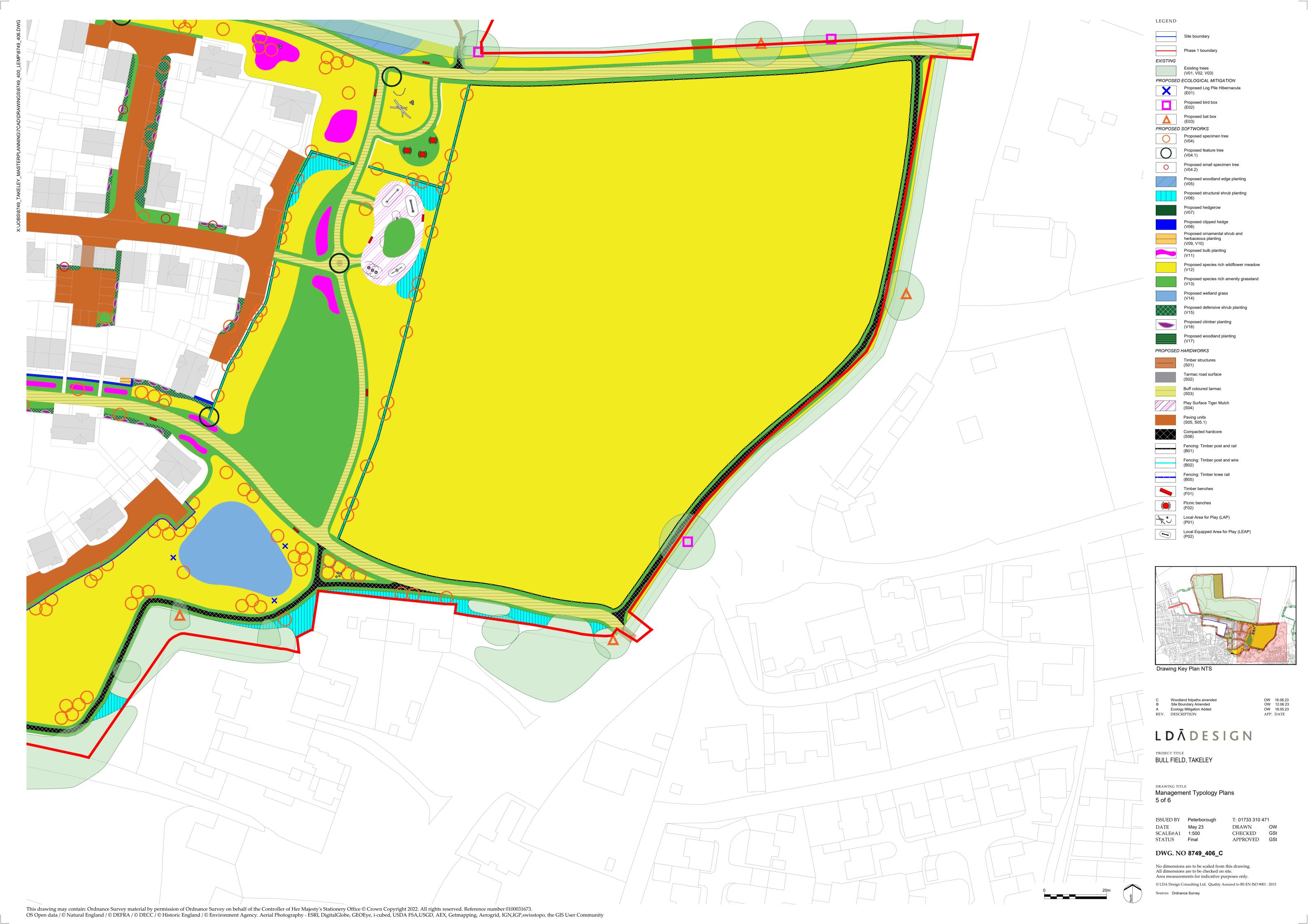
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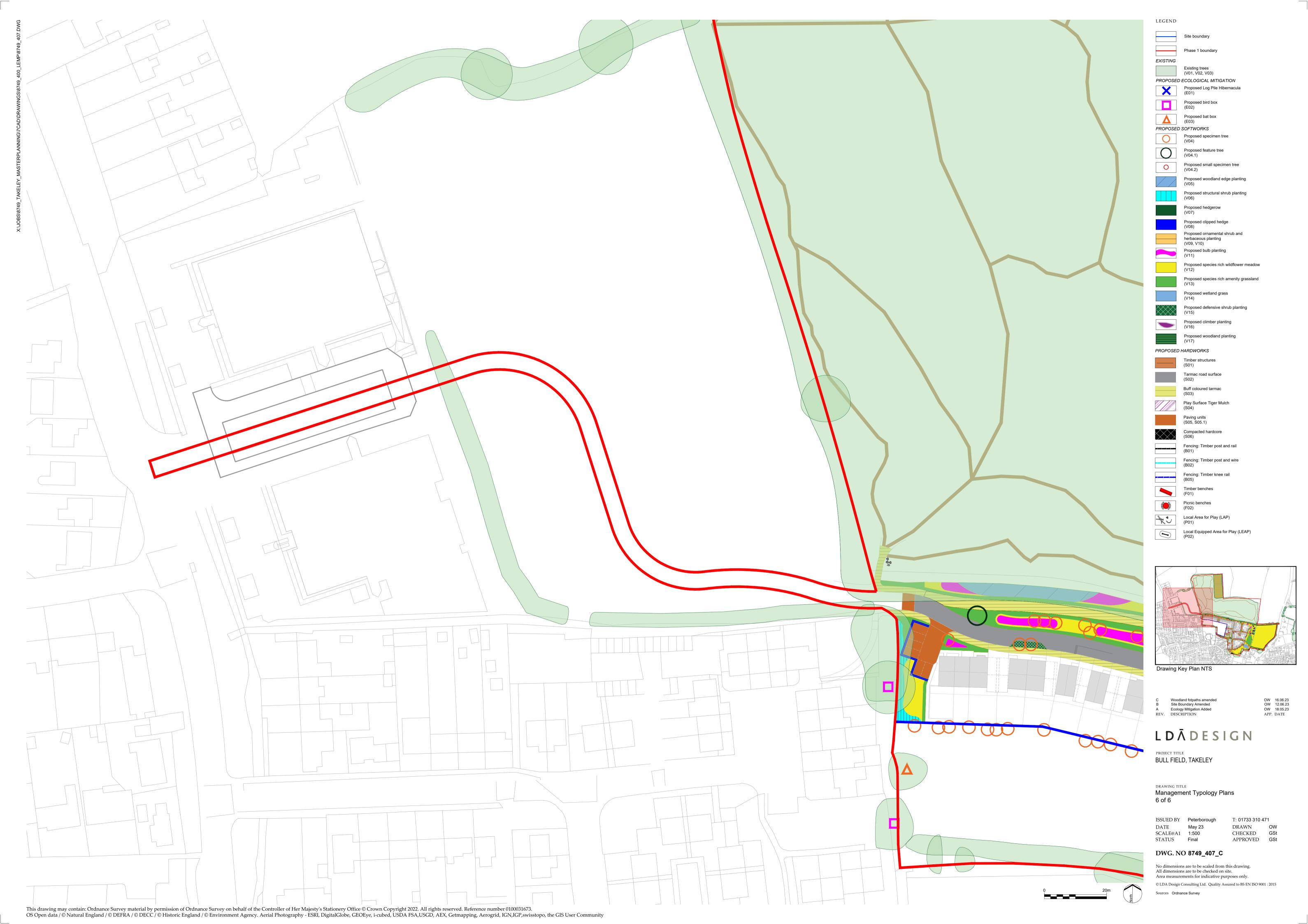
No dimensions are to be scaled from this drawing. All dimensions are to be checked on site. Area measurements for indicative purposes only.

 $\hbox{@}$  LDA Design Consulting Ltd. Quality Assured to BS EN ISO 9001 : 2015









# 8.3. Appendix 3 – Maintenance Schedule (Site Wide)

This schedule shows the annual maintenance regimes for each typology within the proposed development.

		Months	Jan	Feb	Mar	Apr	May	Jun Jul	Aug	Sep Oct	Nov Dec
		Weeks	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	4 1 2 3 4 1 2 3		4 1 2 3 4 1 2 3	4 1 2 3 4 1 2 3 4
Description of Hardworks Maintenance Regime  Qty (appr	rox.) Unit	Frequency / Notes									
General Inspection for defects and damage/general maintenance to hard surfaces, street furniture and communal structures (e.g any cleansing, repair work or replacements needed recorded during	m²	Every month (and immediately after any severe weather or events)									
monthly inspection and the work programmed in. (If any saftey concerns are recorded the work should be undertaken as soon as possible, relating to the level of safety concern)											
General Inspection	No.	Benches/Picnic Benches									
Highways and Paths access safety inspections	m²	Weekly inspections									
Flushing of main carriageways	lin m	April and September									
Drains, gullies and SUDS systems to be cleared /	m²	Twice a year at 6 months intervals (additional checks and									
cleaned etc.		cleansing to be carried out following all flood events)									
Play Area Routine Inspection (Visual)	m²	Weekly visual inspections checks to identify any faults or breakages of equipment and general cleanliness									
Play Area Operational Inspection	m²	Quarterly. Quality Control. Detailed inspection of equipment. Supplier should provide a checklist.									
Specialist Annual Inspection of Play Areas	m²	Annual inspection by a play specialist (e.g. rpii, RoSPA)									
Manual Litter Picking in Hard Landscape Areas	m²	Once weekly visits (and immediately after any severe weather or events)									
Hard surface sweeping with mechanical cleaners	m²	Once a week. Not for unbound surfaces - manual cleanering for unbound surfaces where required									
Weed clearance / treatment for hard surfaces	m²	2 annual visits early and mid summer. Hand weeding or use of suitable spot herbicide treatment (including stone beach at Patrick Park)									
Leaf clearance from hard surfaces	m²	Weekly checks and clearance during autumn months									
Graffiti inspection and removal	m²	Weekly inspections									
Litter Bin Emptying	No.	Should depend on how busy an area is and time of year but minimum of once a week. Bins in playgrounds may need emptying daily during school holidays. Target of bins never being more than 75% full									
		being more than 75% full									

Notes:-  • This Schedule is a guide for frequency of operations only and must be read in conjunction with the LMP.		
In terms of manual litter picks and mechanical	Zone	Cleaning frequency
sweeping it may become apparent that more	High Intensity of Use	Daily
instensively used areas need a higher frequency of	Medium Intensity of Use	Weekly
operations.	Low intensity of Use	4/8 weekly
	Special Circumstances	As and when

Description of Softworks Maintenance Regime General Monitoring of Plant Health	Weeks	1 2 3 4	1 2 3	4 1 2 3	4 1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 2	4 1 2 3 4	1 2 3 4	1 2 3 4	
				7 1 2 3	4 1 2 3 2	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3	4 1 2 3 4	1 2 3 4	1 2 3 4	1 2 3
	Frequency / Notes  Annually in late summer (and after any severe weather												
	event)												
Existing trees - Inspect/assess condition and tree structure. Undertake selective crown thinning where necessary	Remove or support by bracing unsafe limbs and branches. Retain fallen deadwood as stacked habitat piles, away from publically accessible areas. Annual Visit												
Existing trees - Undertake selective crown thinning where	Thin and balance crown where appropriate.												
necessary Watering - Specimen Trees - Establishment (Years 1 to 4 only)	Guide amount of 12 fortnightly visits between April and September (however this is weather dependant and as needed to keep soil moist)												
Watering - native and ornamental hedgerows - Establishment (Years 1 to 4 only)	Guide amount of 12 fortnightly visits between April and September (however this is weather dependant and as needed to keep soil moist)												
Watering - Ornamental Planting	Guide amount of 12 fortnightly visits between April and September (however this is weather dependant and as needed to keep soil moist).												
Watering - Grass Areas/Meadows	1 visit in Year one only (6 - 8 weeks after seed sowing to ensure successful establishment). However some watering may be necessary for event recovery and should be factored in.												
Weeding of all planted/seeded areas (during planting establishment. i.e. Year one)	4 visits between March and September in Year one only												
Weeding of all planted / seeded areas after Year one	1 annual visit												
Mulch topping up	Twice annually (Spring and Summer)												
Mulch maintenance (e.g sweeping back into beds)	Monthly												
Specimen tree maintenance (stake and tie adjustment over first two years plus any leaning adjustments)	Tie and stake adjustment twice a year in March and October until established (first 2 years after planting)												
Pruning - Specimen and Feature Trees	Annual check in mid winter for trees requiring pruning and then pruning undertaken immediately.												
Pruning/coppicing of woodland edge planting	To be undertaken in winter a long term cyclical programme of either 7 or 15 years												
Cut bulb foliage once starts to die-down mid-June.	Maintain grass to 40-60mm height throughout growing season. Annually assess coverage and density of recurring bulbs. Supplement as necessary to maintain an amenity display and species diversity												
Pruning/Trimming of Native Shrubs, Deciduous Ornamental Plants (including deciduous Grasses which should always be cut back in late winter)	Different plants will have differing pruning requirements but all shall need pruning once a year. Herbaceous perennials cut back to ground in Autumn			winter/summer flowering			* spring flowering						
Pruning/Trimming/maintenance of Evergreen Ornamental Plants/Grasses Formative Pruning - Native and ornamental hedgerows	Once a year in spring.  Annually (Years 1-3).			evergreen grasses comb									
Frimming - Native and ornamental hedgerows, Existing	Once a year in late spring/early summer												
Hedgerow Species Rich Amenity Grass Mowing and Edging	12 visits - monthly in March, April, September and October					_							
Scarify Species Rich Amenity Lawn Grass/Grass Swales	and fortnightly during May and August  Annually in November												
Aerate (Spiking) then top dress Species Rich Amenity Lawn Gras	·												
Add Fertilzer to Trees/Planting	Trees and other planting only in April												
Meadow Grassland Cutting (inc. wet meadow) - Year one only													
Grassland Cutting, Wildflower Meadow - after Year one Grassland Cutting, Wet Meadow - after Year one	Cut annually to 150mm in October in stages  Cut annually to 150mm in October in stages in dry conditions												
Leaf Clearance  Manual Litter Picking in Soft Landscape Areas	Weekly checks and clearance during autumn months  Once weekly visits (and immediately after any severe												
Notes:- This Schedule is a guide for frequency of operations only and must be read in conjunction with the LMP.  In terms of manual litter picks it may become apparent that more intensively used areas need a higher frequency of													

more intensively used areas need a higher frequency of operations.

All pruning and trimming arisings to be removed from site

and composted for future use.

Medium Intensity of Use

Low intensity of Use Special Circumstances 4/8 weekly

As and when