

A Sustainable Urban Extension to the North East of Leicester

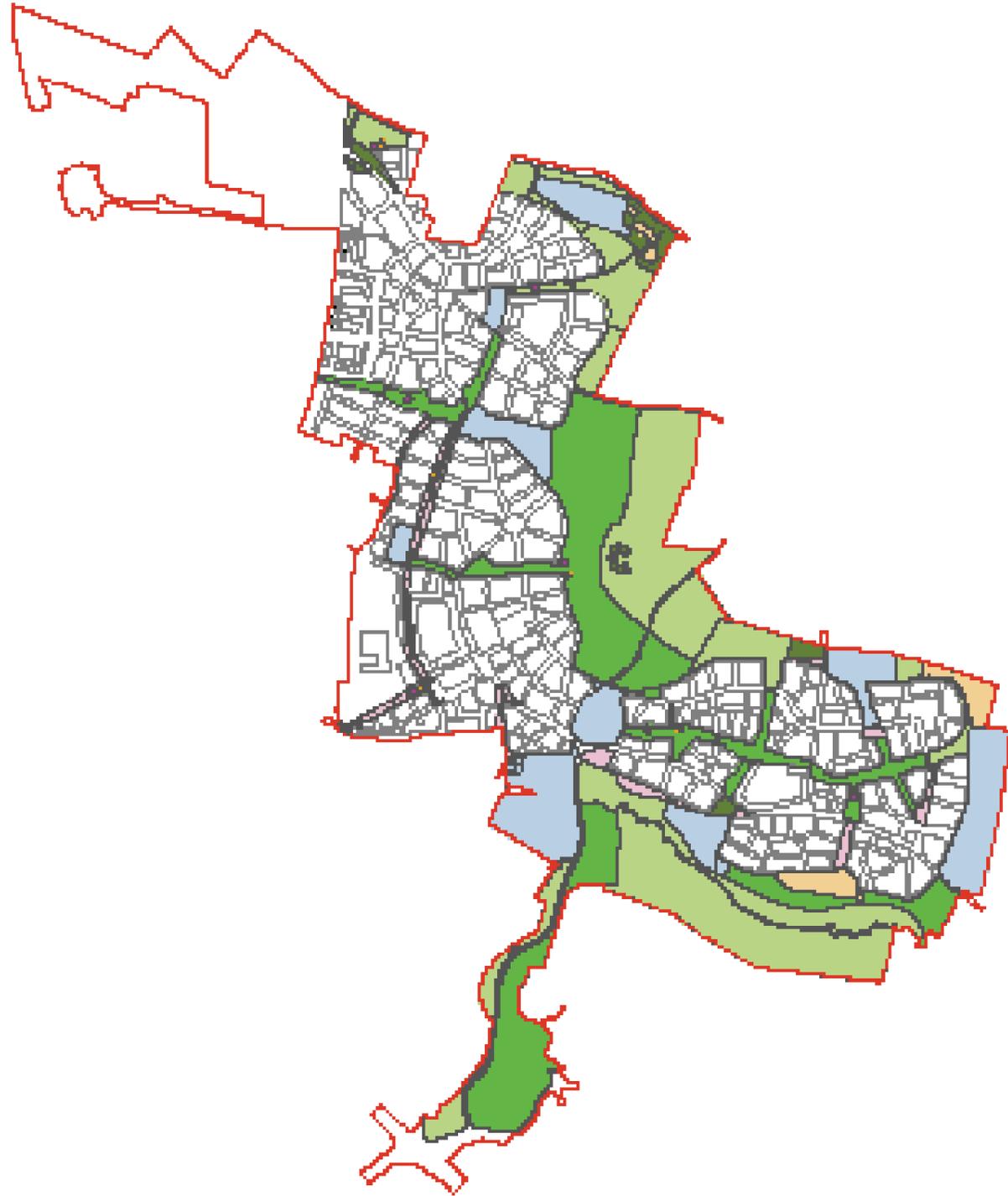
Landscape Framework Plan

December 2013

COMMERCIAL ESTATES GROUP



LANDSCAPE FRAMEWORK



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INTRODUCTION

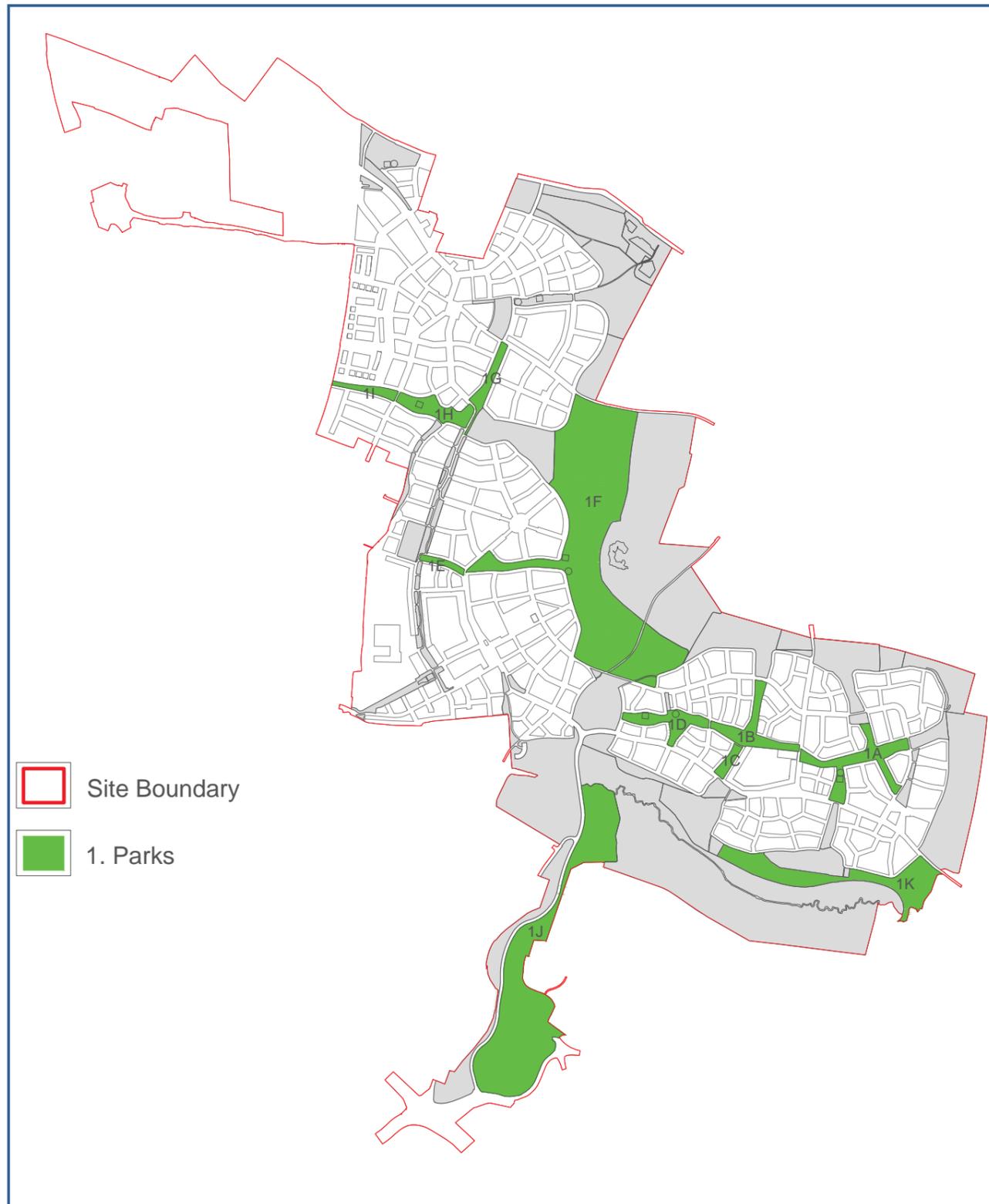
This document sets out the process behind the development of the Landscape Framework for Land North East of Leicester Sustainable Urban Extension (NEoL SUE). This information forms part of the assessment submitted in support of the hybrid application (part outline /part detailed) and should be read in conjunction with other elements of the submission prepared by the consultant team.

The Landscape Framework refers to six landscape types throughout the proposed development. The report includes a brief description of each landscape type, and where appropriate sub categories, which are referred to as landscape character areas. For each type or character area information is provided on the overall characteristics / elements, the function of a landscape framework, the landscape treatment and management details.

The accompanying plan; Landscape Framework Plan (1603/21f) illustrates the location of each landscape type. The overall context of all landscape types is reflected on the Plan opposite.



LANDSCAPE TYPE – 1: PARKS



General Description

This landscape type covers two landscape character areas:

1. Open Parks (1F, 1J and 1K); and
2. Linear Parks (1A, 1B, 1C, 1D, 1E, 1G, 1H and 1I).

There are three extensive areas of open parkland within the development. One runs along the eastern side of the southern link road, another flanks the southern edge of the Southern Area, and one runs along the eastern edge of the Central Area. They form a transition zone between the built edge and natural and semi natural green spaces, and in the case of the latter two; the open countryside beyond.

Linear Parks are of a smaller scale and cut through the development areas creating important links to adjacent green spaces which are a combination of natural green space, amenity green space, parks and outdoor sports facilities.

Open Parks

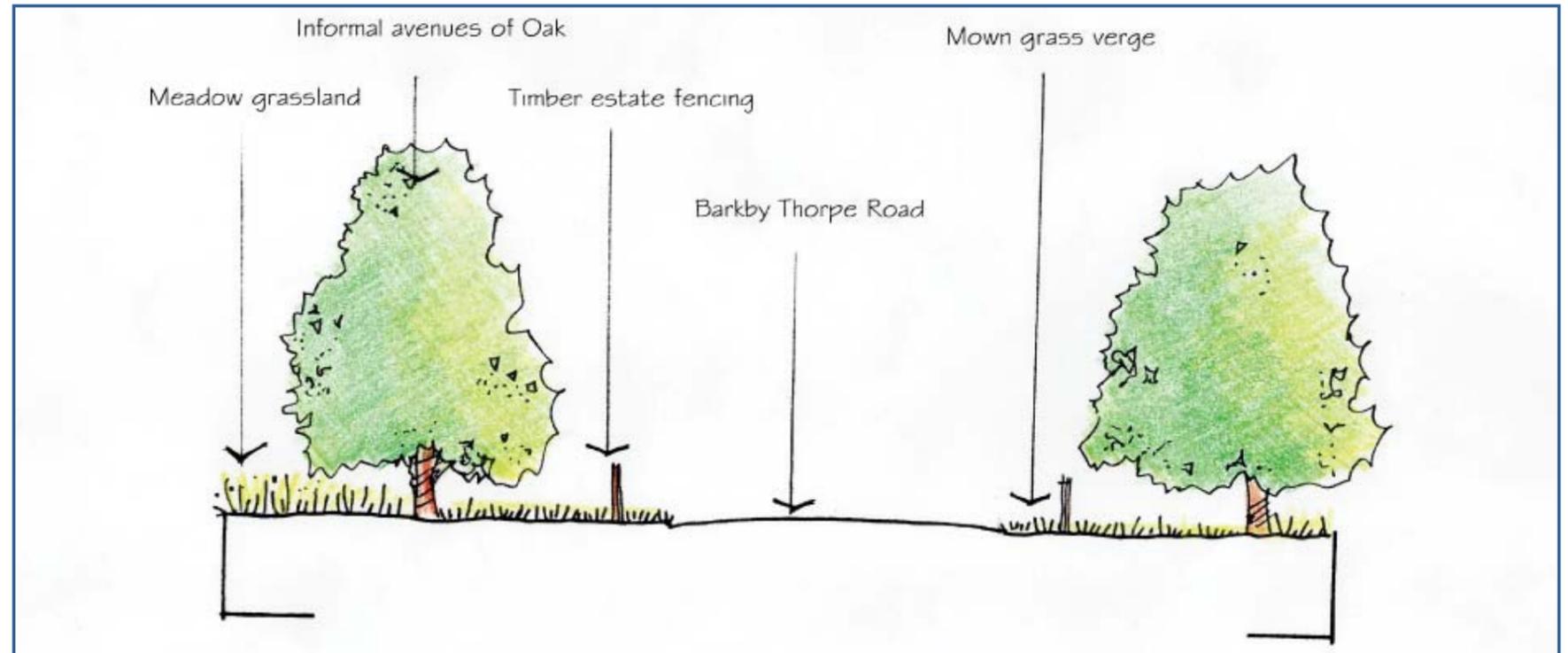
Main characteristics / elements

Within the parks there will be well maintained areas of grass forming roadside and footpath/cycleway edges, native trees either as informal avenues in a double row or as stands of trees, and extensive areas of wildflower meadow. Planting along roadside edges can form important elements of surprise through the creation of pinch points, adding interest, whilst planting along the built edge can aim to integrate with the pattern of existing landscape features particularly field boundaries and tree belts. Children's play areas will be located at key points within the parks.



Source: Mature trees along Thorpe Lane, Barkby

- Retains and connects to the biodiversity network
- Serves as an attractive multi-functional space for local communities
- Improves health and well-being through informal and formal recreation in the form of trim trails and natural play.
- New trees will act as a carbon sink



Indicative sketch section of planting along the roadside edge

Function of landscape framework

- Generates a sense of place and an attractive approach to the new development
- Creates a distinct green link to adjacent natural and semi natural green spaces, amenity green space and outdoor sports facilities
- Softens the built edge of the development areas
- Creates a transition zone between development areas and the countryside beyond

Landscape treatment

Native tree species within parkland and by the side of roads:

Ash (*Fraxinus excelsior*)

Beech (*Fagus sylvatica*)

Hazel (*Corylus avellana*)

Hornbeam (*Carpinus betulus*)

Oak (*Quercus robur*) – particularly important in forming avenues of roadside trees (1F, 1K, 2E and 2I)

Rowan (*Sorbus aucuparia*)

Silver Birch (*Betula pendula*)

Native shrub species within parklands

Dogwood (*Cornus sanguinea*)

Guelder-rose (*Viburnum opulus*)

Hazel (*Corylus avellana*)

Holly (*Ilex aquifolium*)

Grass/ Wildflower seed mix:

British Seed House RE9 Farmland Mixture (MG6 Grassland)

British Seed House RE2 Lowland Meadow (MG9 Grassland)

Management details

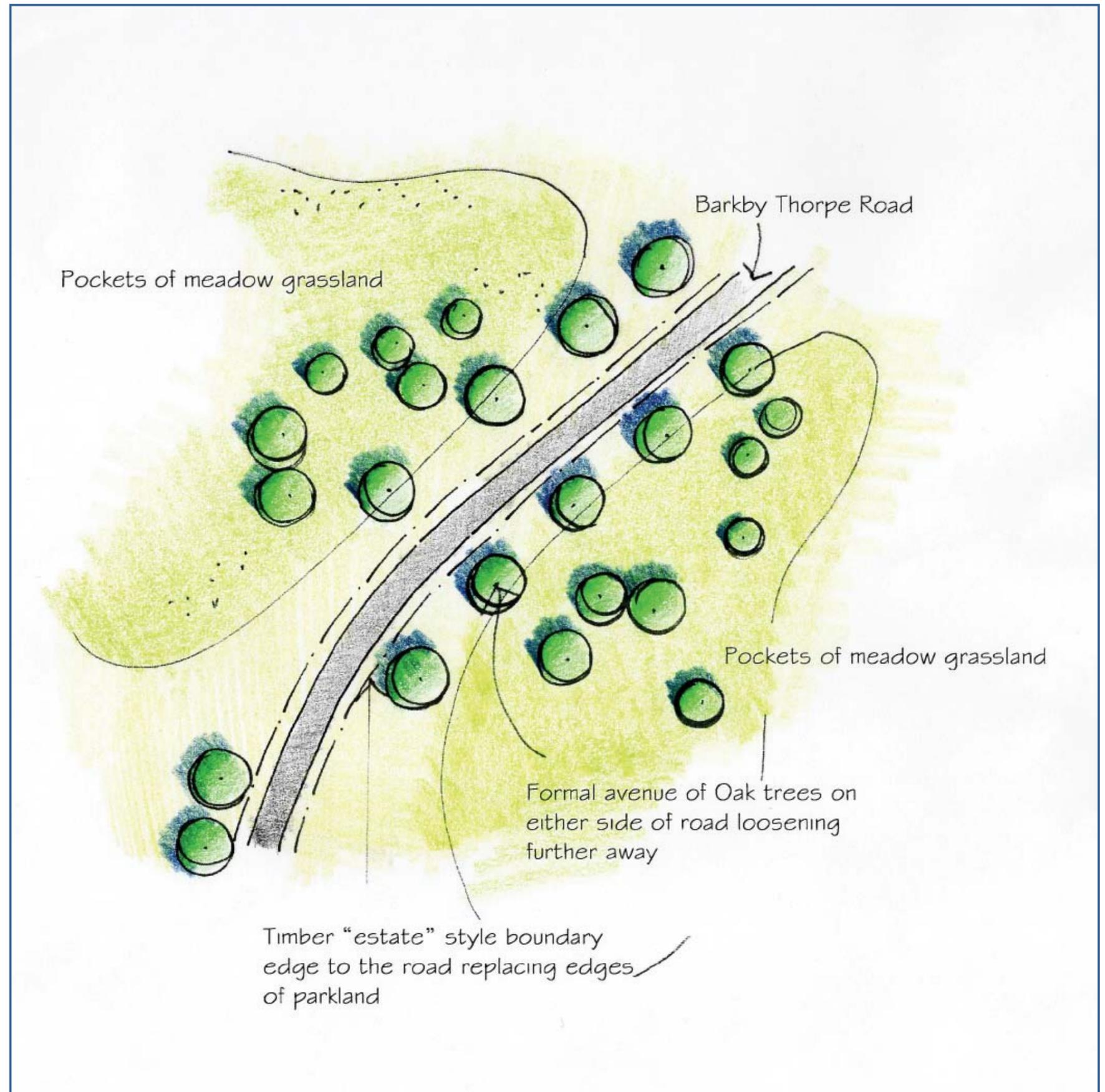
Parks will have a medium to high maintenance regime.

Deciduous trees and shrubs will be planted in late October to late March, and evergreens September/October or April/May. During the establishment period there will be adequate water supply, weed control and maintenance of the tree stock to achieve maturation of the planting.

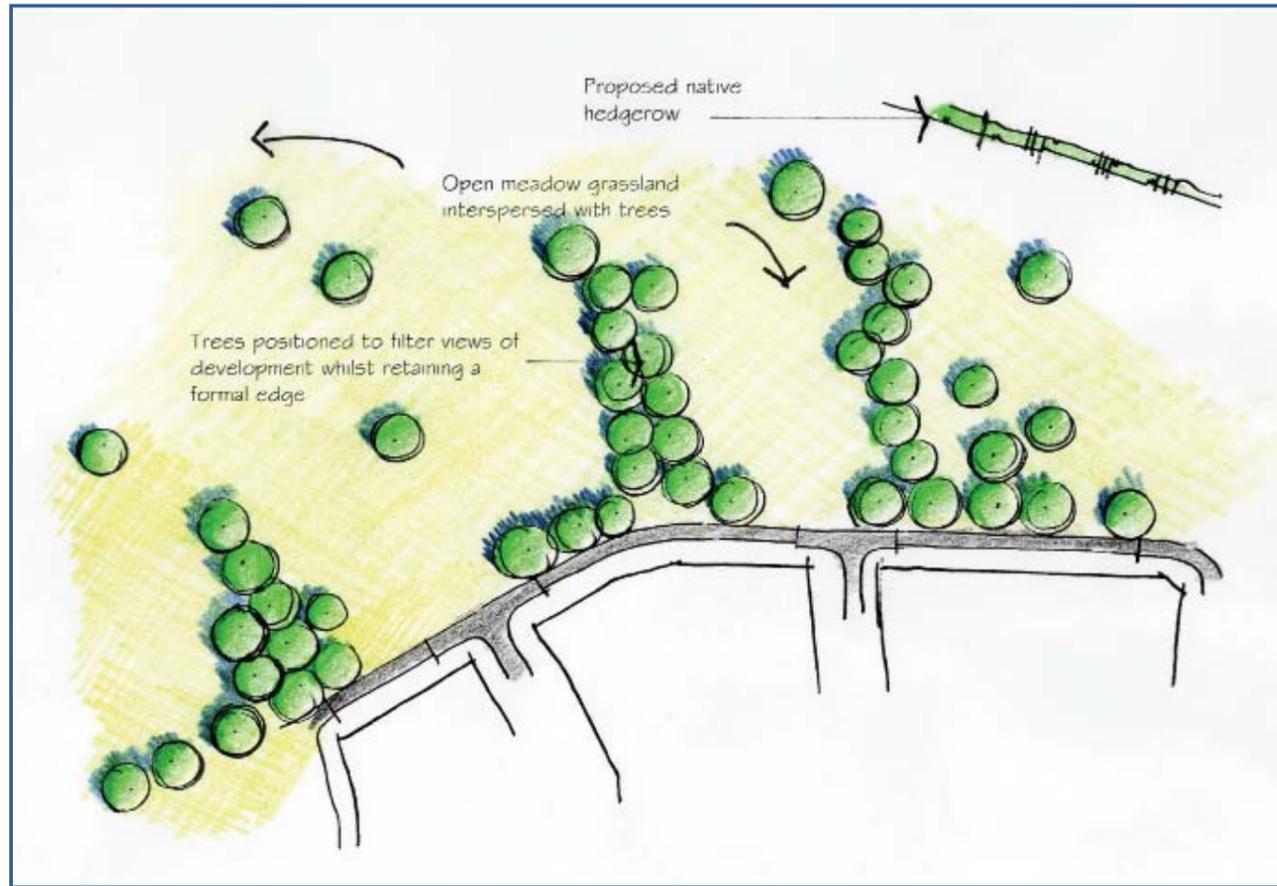
Tree maintenance will take place outside of bird nesting season, and pruning undertaken during the dormant season following good horticultural practice.

Grassed areas in the Parks will be mown as required throughout the year, although the main mowing period will be between March and October.

Areas of wildflower meadow will be allowed to grow tall between March and late August, and will maintain a height of 100mm at other times of the year. Grass will be cut September to February as required. Footpath and cycle routes in the grass will not exceed 100mm height to encourage use and prevent disturbance of wildlife habitats. Other areas of grassland will be cut after flowering July/August to September/October, avoiding intensive management.



Indicative sketch plan showing planting along the roadside edge



Indicative sketch plan showing the relationship of the built edge to the park where the positioning of trees reflects the form of existing boundaries



Indicative sketch plan showing part of a linear park

Linear Parks

Main Characteristics/elements

The Linear Parks include a mix of well-maintained areas of grass and wildflower meadow, with native trees and shrub planting as well as areas of ornamental planting. Planting will vary from informal groupings of trees and understorey to formal avenues of native street trees along the edge of Parks.

The central natural green space will have a network of small ponds or SuDS planted with native riparian plant species.

Function of landscape framework

- Creates attractive and distinctive neighbourhoods
- Softens the built edge of the development areas
- Includes focal points or landmarks creating a sense of place, and improving orientation

- Planting and subtle mounding will create pinch points and elements of surprise as well as vistas for defining focal points
- Includes both informal and active play spaces such as LAPs, NEAPs and LEAPs and Trim Trails
- Serves as an attractive multi-functional space for local communities
- Connects to the larger areas of green space on the edge of the development areas
- Includes footpaths and cycleways
- Creates new urban wildlife habitats and networks through the integrated SuDS network connecting to more larger habitats
- SuDS network reduces the risk of flooding
- New tree planting acts as a carbon sink
- Improves health and well-being through informal and formal recreation.



Source: SuDs Delta Way, Gloucester



Indicative sketch section of part of a linear park

Landscape Treatment

Native tree and shrub species within linear parkland

- Rowan (*Sorbus acuparia*)
- Silver Birch (*Betula pendula*)
- Wild Cherry (*Prunus avium*)

- Alder Buckthorn (*Frangula alnus*)
- Dogwood (*Cornus sanguinea*)
- Guelder rose (*Viburnum opulus*)
- Hazel (*Corylus avellana*)
- Holly (*Ilex aquifolium*)

Native tree species along SUDs:

- Downy Birch (*Betula pubescens*)
- Hornbeam (*Carpinus betulus*)

Native riparian plant species within SUDs:

- Common Spike-rush (*Eleocharis palustris*)
- Common Water-plantain (*Alisma plantago-aquatica*)
- Watercress (*Nasturtium officinale*)
- Marsh-marigold (*Caltha palustris*)
- Water Mint (*Mentha aquatic*)
- Creeping Bent (*Agrostis stolonifera*)
- Marsh Foxtail (*Alopecurus geniculatus*)

Grass/ Wildflower seed mix:

- British Seed House RE9 Farmland Mixture (MG6 Grassland)
- British Seed House RE2 Lowland Meadow (MG9 Grassland)
- British Seed House WFG9 – Wetland and Pond areas

Management details

Linear parks will have a medium to high maintenance regime.

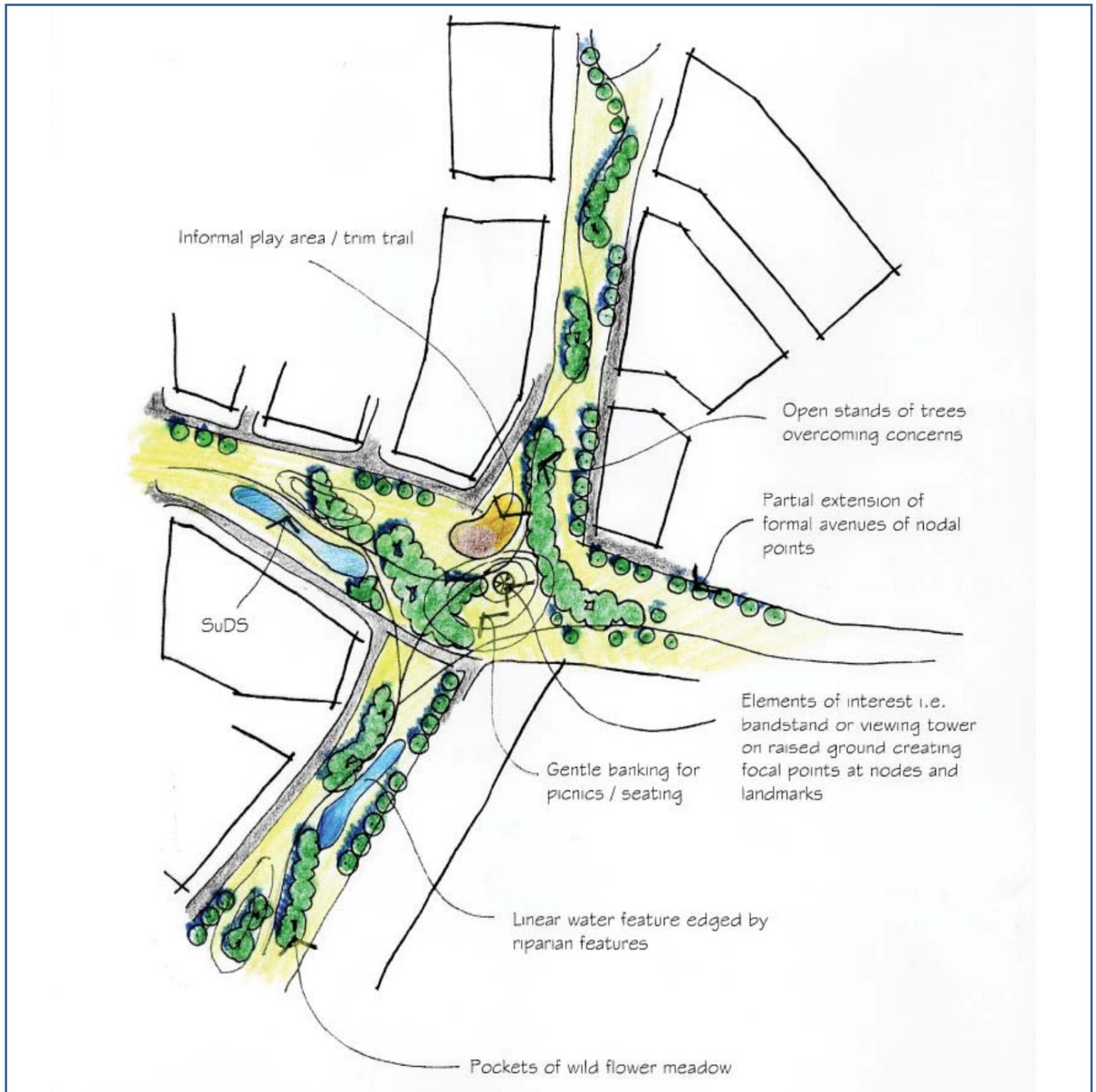
Native marginal plants will be planted mid-spring through to early summer. Natural propagation will be encouraged although depending on the design system there may need to be vegetation harvesting and control of aquatic plants. The grass banks will be regularly cut during the growing season.

Deciduous trees and shrubs will be planted in late October to late March, and evergreens September/October or April/May. During the establishment period there will be adequate water supply, weed control and maintenance of the tree stock to achieve maturation of the planting.

Tree maintenance will take place outside of bird nesting season, and pruning undertaken during the dormant season following good horticultural practice.

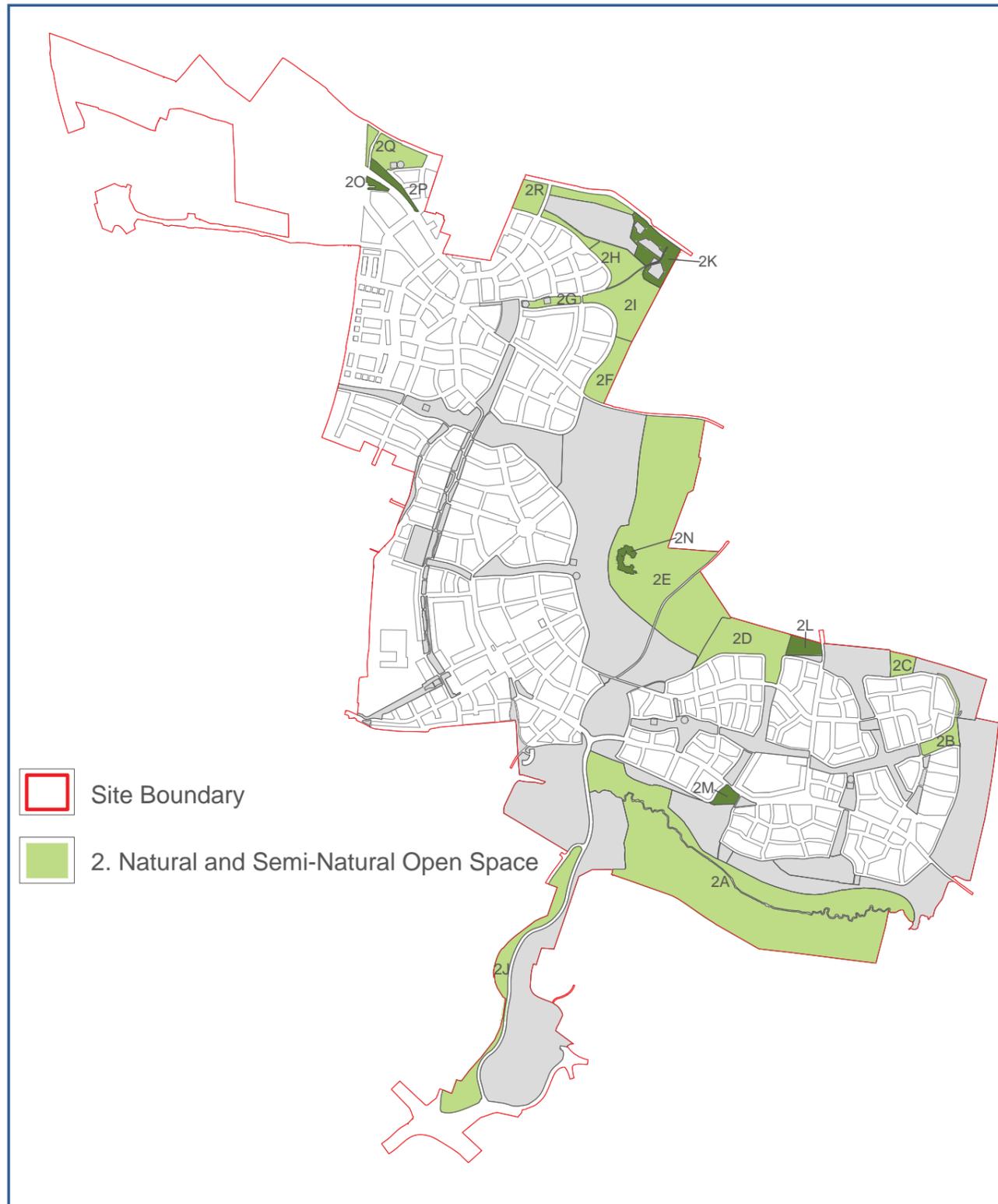
Well maintained grassed areas in the Linear Parks will be mown as required throughout the year, although the main mowing period will be between March and October. Areas of meadow will be allowed to grow tall between March and late August, and will maintain a height of 100mm at other times of the year. Grass will be cut September to February as required. Footpath and cycle routes in the grass will not exceed 100mm height to encourage use and prevent disturbance of wildlife habitats.

Other areas of grassland will be cut after flowering July/August to September/October, avoiding intensive management.



Indicative sketch plan of part of a linear park

LANDSCAPE TYPE – 2: NATURAL & SEMI NATURAL OPEN SPACE



General Description

This landscape type covers four landscape character areas:

- Natural green space (2A, 2B, 2C, 2E, 2F, 2G, 2H, 2J, 2Q and 2R);
- Forest gardens (2D and 2I);
- Community Orchards (2K, 2L and 2M); and
- Woodland (2N, 2O and 2P).



Source: Bristol Botanic Gardens

Natural Green Space

Main characteristics / elements

Natural green spaces will be planted with native trees and areas of wildflower meadow and mown grass alongside road edges, footpaths and cycleways with native hedgerows where appropriate. Within specified locations there will be a network of balancing ponds planted with native riparian plant species, and in some locations grassland will be grazed.

Characteristics of this area are divided into the following sub areas:

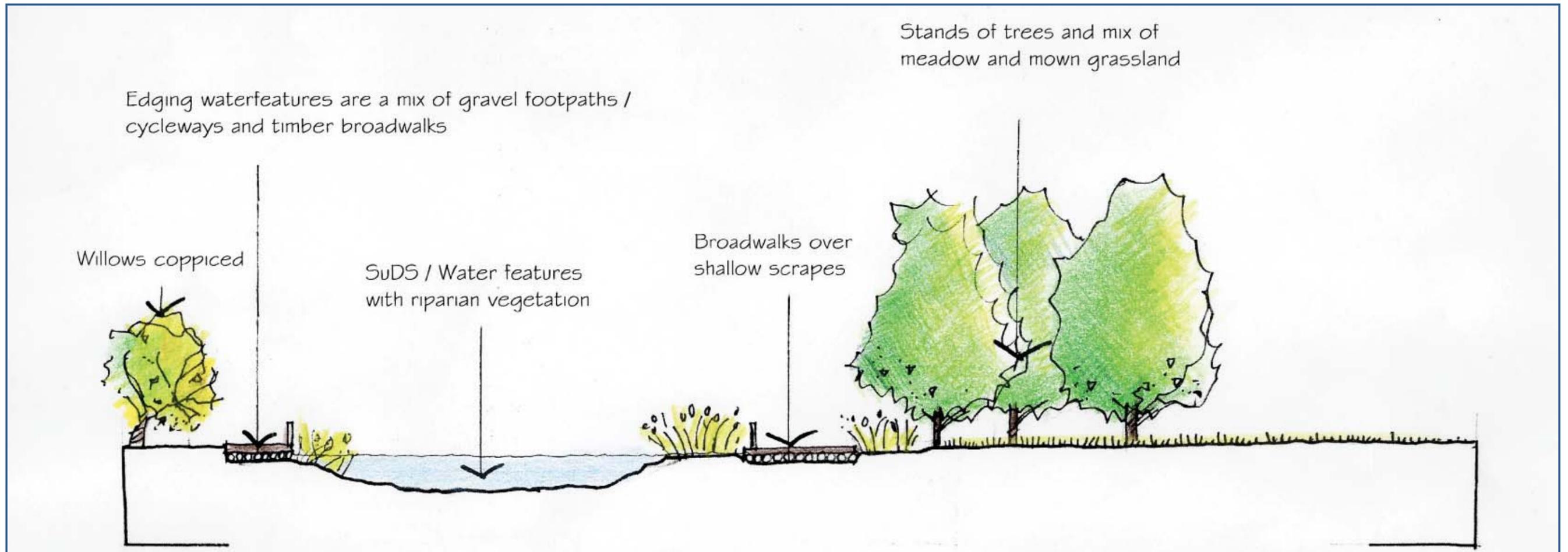
- **(2R, 2H, 2I and 2F) North eastern edge:** This natural open space links across to Barkby and wraps around a mix of forest gardens, community orchards and allotments. This space will consist of a mix of water features/ SuDs with native trees, understorey planting and a mix of wetland wildflower meadow with reed beds.
- **(2E) Land on either side of Barkby Thorpe Road:** This area will consist of a mix of native trees, wildflower meadow with mown grass verges along roadside edges.
- **(2C/2B) North east of the Southern Area:** There are two small pockets of natural green space within the south eastern corner of the development which will consist of a mix of native trees, wildflower meadow with mown grass verges along road edges.
- **(2A) North of Melton Brook:** This natural green space runs along Melton Brook corridor. This space will consist of native hedgerows, trees and wildflower meadow. A number of scrapes will be created to provide areas of standing water or wetland, according to seasonal fluctuations.
- **(2J) West along the southern link road:** The southern link road will be flanked by mown grass verges, trees and areas of wildflower meadow and merge visually with the adjacent parkland to the eastern side of the link road. The proposals will create an attractive approach to the new development integrating the new road within the landscape.



Source: *Frampton on Severn*

Function of landscape framework

- Conserves and enhances the existing boundary edges
- Creates a transition zone between development areas and the countryside beyond
- Strengthens biodiversity and creates new wildlife habitats
- Retains and connects to the biodiversity network
- Connects to Leicester's green wedge and its associated landscape features
- New trees will act as a carbon sink
- Local communities will have access to a managed natural open space
- Generates positive indirect benefits on health and wellbeing relating to informal recreation



Indicative sketch section through the north eastern edge

Landscape Treatment

Native tree species:

- Alder (*Alnus glutinosa*) – locations near Melton Brook and North Eastern edge
- Ash (*Fraxinus excelsior*)
- Hornbeam (*Carpinus betulus*)
- Oak (*Quercus robur*)
- Silver Birch (*Betula pendula*)
- Downy Birch (*Betula pubescens*)
- White Willow (*Salix alba*) – locations near to Melton Brook & North Eastern edge
- Wild Cherry (*Prunus avium*)

Native hedgerow and shrub species:

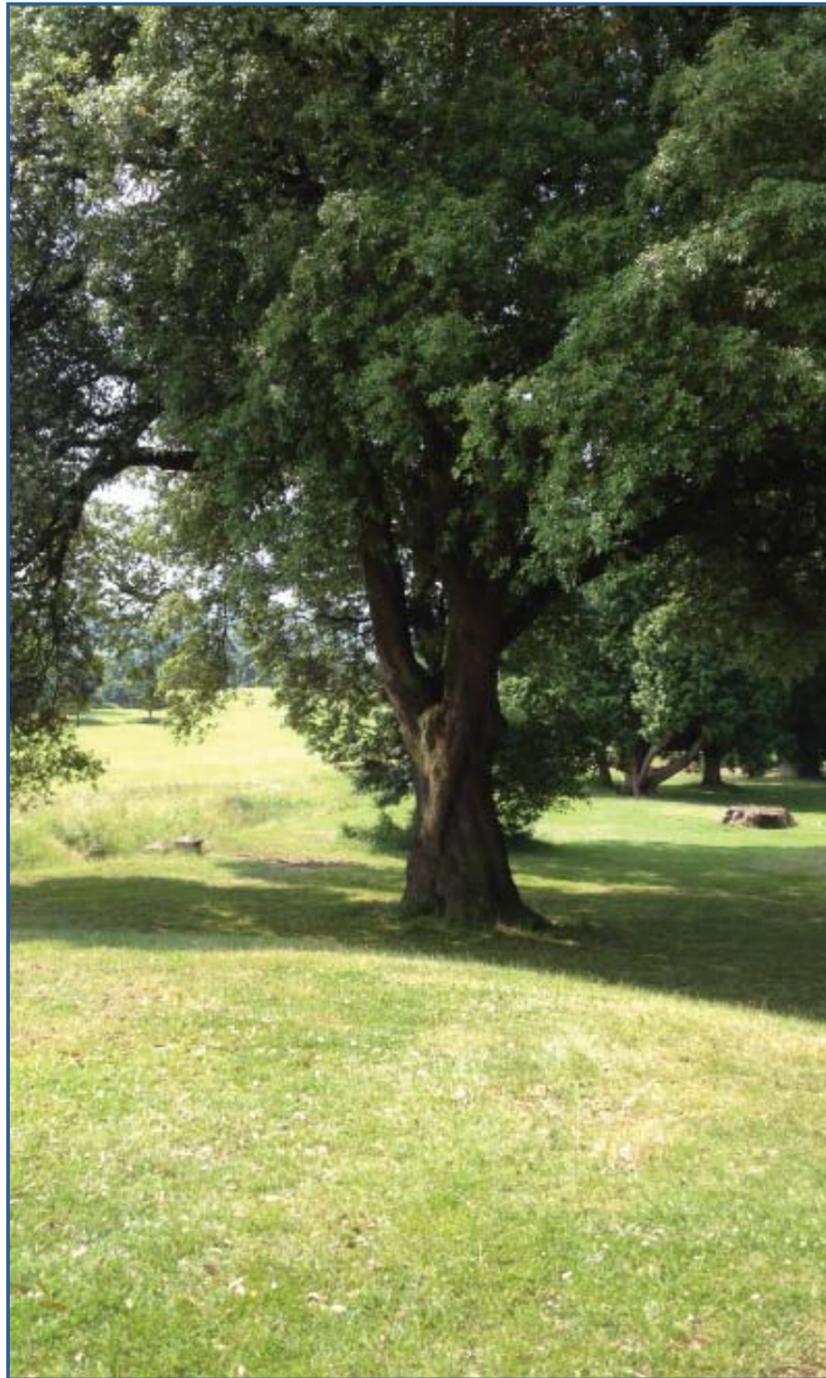
- Alder Buckthorn (*Frangula alnus*)
- Blackthorn (*Prunus spinosa*)
- Bramble (*Rubus fruticosus*)
- Dog-rose spp. (*Rosa canina* spp.)
- Dogwood (*Cornus sanguinea*)
- Elder (*Sambucus nigra*)
- Hawthorn (*Crataegus monogyna*)
- Hazel (*Corylus avellana*)
- Wild Privet (*Ligustrum vulgare*)

Native riparian plant species for balancing pond areas:

- Bulrush (*Typha latifolia*)
- Compact Rush (*Juncus conglomeratus*)
- Hard Rush (*Juncus inflexus*)
- Lesser Bulrush (*Typha angustifolia*)

Grass / Wildflower seed mix:

- British Seed House RE9 Farmland Mixture (MG6 Grassland)
- British Seed House RE2 Lowland Meadow (MG9 Grassland)
- British Seed House WFG9 Wetland and Pond Areas



Source: Ashton Court, Bristol



Indicative sketch plan of the north of Melton Brook



Indicative sketch plan of the north eastern edge

Management details

Natural green spaces will have a low to medium maintenance regime.

Deciduous trees and shrubs will be planted in late October to late March, and evergreens September/October or April/May. During the establishment period there will be adequate water supply, weed control and maintenance of the tree stock to achieve maturation of the planting.

Tree maintenance will take place outside of bird nesting season, and pruning undertaken during the dormant season following good horticultural practice.

Deciduous native hedgerows will be planted from mid-autumn to late winter. The hedge will be kept weed free on each side and plants will be well-watered during dry spells for the following two years. Hedge maintenance will take place outside of bird nesting season.

Areas of meadow will be allowed to grow tall between March and late August, and will maintain a height of 100mm at other times of the year. Grass will be cut September to February as required. Footpath and cycle routes in the grass will not exceed 100mm height to encourage use and prevent disturbance of wildlife habitats. Other areas of grassland will be cut after flowering July/August to September/October, avoiding intensive management. Some areas may be naturally grazed.

Native marginal plants will be planted mid spring through to early summer. Natural propagation will be encouraged although depending on the design system there may be vegetation harvesting and control of aquatic plants.

Forest Gardens

Main Characteristics/ Elements

Forest Gardens fall between wild nature and an orchard, and provide direct and indirect benefits to people.

There are two forest gardens lying on the eastern fringes of the proposed development, one along the north eastern boundary close to Barkby, and another north of the Southern Area and south of Barkby Thorpe.

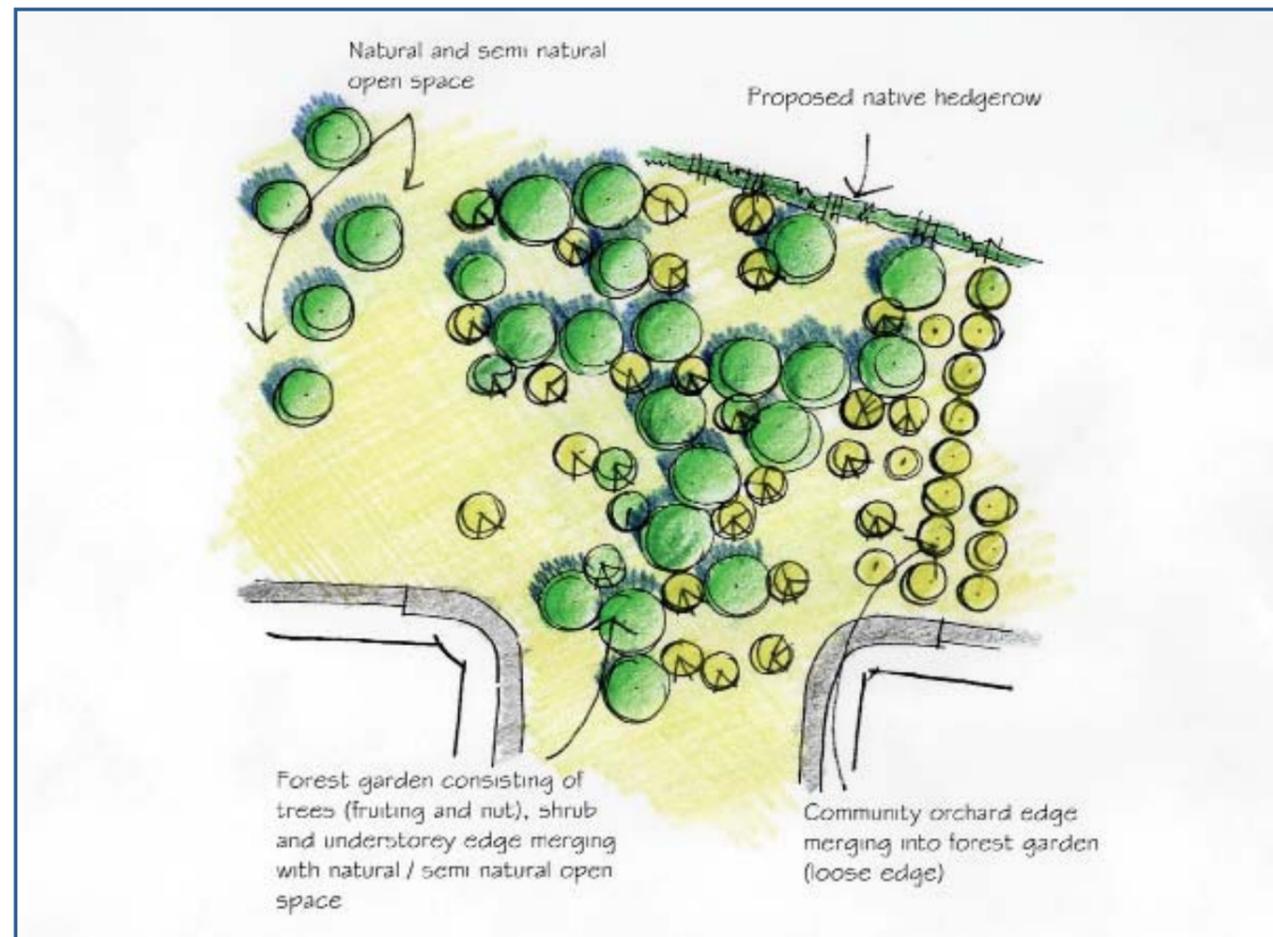
The Gardens are divided into three layers, top canopy later, middle shrub layer and lower perennials or ground cover. All plants within the different layers are interlinked.



Source: Forest Garden, Eden Project, Cornwall

Function of landscape framework

- Creates attractive urban food growing areas for local communities
- Creates distinct areas that have a sense of place
- Enhances and connects to the biodiversity network
- New trees will act as a carbon sink
- Provides opportunities for local communities to come together
- Supports sustainable development
- Improves indirectly people's sense of wellbeing and health through informal recreation
- Achieves a well-managed, high quality and fully productive forest garden
- Acts as a suitable interface between new development and Barkby Village



Indicative sketch plan illustrating the relationship of forest gardens to community orchards

Landscape treatment

Species for the top two layers of the forest garden are listed below:

Top Canopy Layer:

Juneberries (*Amelanchier* spp)
Chestnut (*Castanea sativa*)
Hickories / Pecan (*Carya* spp)
Hazelnuts (*Corylus avellana*)
Hawthorn (*Crataegus* (*Hawthorn*))
Quince (*Cydonia oblonga*)
Persimmons (*Diospyos* spp)
Fig (*Ficus carica*)
Walnut (*Juglans regia*)
Medlar (*Mespilius germanica*)
Mulberries (*Morus* spp)
Bayberries (*Myris* spp)
Sorbus spec (*Rowans, whitebeams and service trees*)
Tilia spp (*Limes*)
Prunus avium (*Sweet cherry*)
Blackthorn/ sloe (*Prunus spinosa*)
Peach / nectarine (*Prunus persica*)
Pines for nuts (*Pinus* spp)

Middle Shrub Layer:

Flowering quince (*Chaenomeles* spp)
Cornelian cherry (*Cornus mas*)
Dogwoods (*Cornus* spp)
Oregon grapes (*Mahonia aquifolium*)

Bog myrtle (*Myrica gale*)
Northern Bayberry (*Myrica pensylvanica*)
Blackcurrants (*Ribes nigrum*)
Gooseberry (*Ribes uva – crispa*)
Redcurrant (*Ribes rubrum*)
Sumachs (*Rhus* spp)
Blackberry (*Rubus fruticosus*)
Raspberry (*Rubus idaeus*)
Snowberry (*Symphoricarpos*)

Native hedgerow and tree species (flanking the boundary edges)

Crab Apple (*Malus sylvestris*)
Blackthorn (*Prunus spinosa*)
Bramble (*Rubus fruticosus*)
Elder (*Sambucus nigra*)
Hawthorn (*Crataegus monogyna*)
Hazel (*Corylus avellana*)

(From Leicestershire fruit listed on www.orchardnetwork.org.uk) and 'Creating a Forest Garden – Working with Nature to Grow Edible Crops', Martin Crawford)

Grass / Wildflower seed mix:

British Seed House RE9 Farmland Mixture (MG6 Grassland)
British Seed House RE2 Lowland Meadow (MG9 Grassland)

Management details

Deciduous trees (including fruit and nut) trees will be planted in late October to late March and evergreen September/October or April / May. During the establishment period there will be adequate water supply, weed control and maintenance of the tree stock to achieve maturation of the planting.

Tree maintenance will take place outside of bird nesting season, and pruning undertaken during the dormant season following good horticultural practice. Pruning and harvesting of fruit /nut trees and shrubs will be undertaken by local community groups.

Deciduous native hedgerows will be planted from mid-autumn to late winter. The hedge will be kept weed free on each side and plants will be well-watered during dry spells for the following two years. Hedge maintenance will take place outside of bird nesting season.

Grass edges to the Forest Gardens will be allowed to grow tall between March and late August, and will maintain a height of 100mm at other times of the year. Grass will be cut September to February as required. Footpaths in the grass will not exceed 100mm height to encourage use and prevent disturbance of wildlife habitats.

Community Orchards

Main characteristics/ elements

Community orchards will be a grassed area with local varieties of fruit trees set out in formal lines of a traditional orchard, where appropriate they will lie adjacent to allotments and forest gardens to achieve a cohesive community growing area.

Trees should be grown as free-standing trees at 4 to 5m spacing.

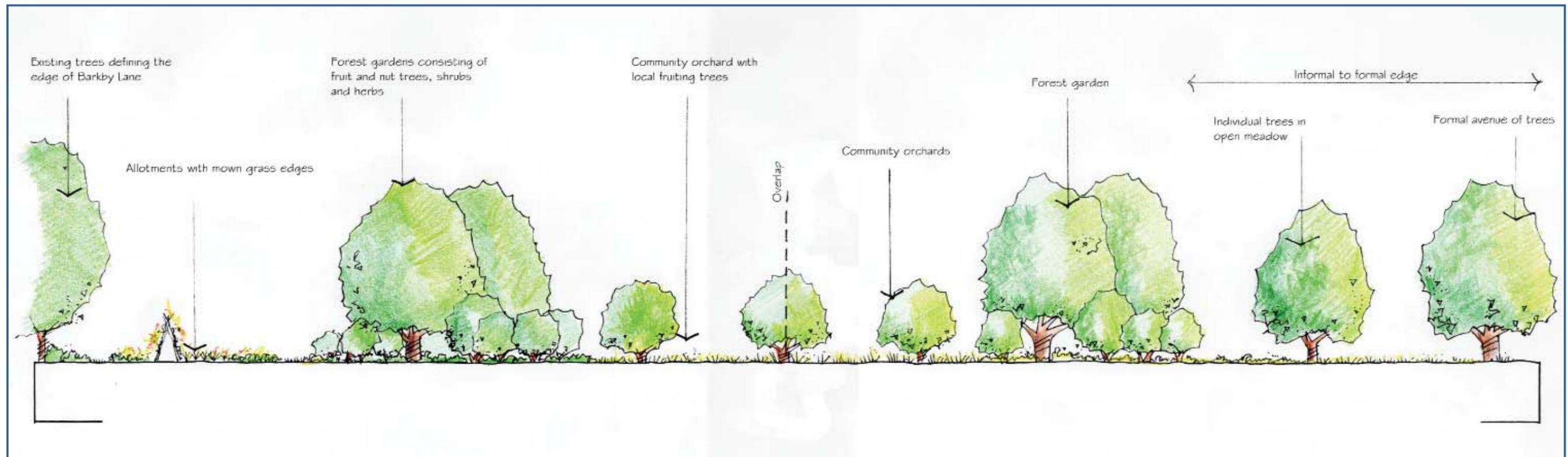
There are three areas of orchards; one to the north eastern edge of the Northern Area, and two others to the north and south of the Southern Area.

Function of the landscape framework

- Creates attractive urban food growing areas for local communities
- Achieve a well-managed provision of high quality and productive orchards
- Creates distinct areas that have a sense of place
- Enhances and connects to the biodiversity network
- New trees will act as a carbon sink
- Provides opportunities for local communities to come together
- Creates indirect benefits in terms of health, wellbeing and recreation



Source: Westbury Court, Gloucestershire



Indicative sketch section showing the relationship of orchards to forest gardens

Landscape treatment

Local fruit tree varieties:

(Leicestershire fruit listed on www.orchardnetwork.org.uk)

Malus domestica

- Annie Elizabeth
- Barnack Orange
- Brown Seedling
- Dumelow's Seedling
- Lord Burghley

Prunus domestica

- Monarch Plum
- Old Workhouse Plum
- Syston Plum

Native hedgerow and tree species:

Crab Apple (*Malus sylvestris*)

Blackthorn (*Prunus spinosa*)

Bramble (*Rubus fruticosus*)

Elder (*Sambucus nigra*)

Hawthorn (*Crataegus monogyna*)

Hazel (*Corylus avellana*)

Management details

Grass paths and grass under the fruit trees will be regularly cut during the growing season.

Fruit trees will be planted in late October to late March. During the establishment period there will be adequate water supply, weed control and maintenance of the tree stock to achieve maturation of the planting.



Indicative sketch plan showing the relationship of community orchards to allotments and forest gardens within the north eastern edge

Tree maintenance will take place outside of bird nesting season, and pruning undertaken during the dormant season following good horticultural practice. Pruning and harvesting of fruit trees will be undertaken by local community groups.

Deciduous native hedgerows will be planted from mid-autumn to late winter. The hedge will be kept weed free on each side and plants will be well-watered during dry spells for the following two years. Hedge maintenance will take place outside of bird nesting season.

Woodland

Main characteristics / elements

Small pockets of woodland will add definition and structure. They will consist of trees plus understorey shrub planting. Woodland areas are located to the north west of Barkby Thorpe Road, and to the north western corner of the development area, (east of the railway line). 2N, a crescent shaped woodland area reflects the existing woodland area on the ridgeline along Barkby Thorpe Road.

Function of the landscape framework

- New trees will act as a carbon sink
- Creates a sense of place
- Contributes to an attractive environment as well as screening
- Replicates the pockets of woodland within the surrounding countryside
- Strengthens biodiversity and recreate new wildlife habitats
- Creates indirect benefits in terms of health, wellbeing and recreation

Landscape treatment

Native tree and shrub species within parks:

Ash (*Fraxinus excelsior*)

Beech (*Fagus sylvatica*)

English Elm (*Ulmus procera*)

Field Maple (*Acer campestre*)

Hornbeam (*Carpinus betulus*)

Larch (*Larix decidua*)

Lime (*Tilia cordata*)

Oak (*Quercus robur*)

Rowan (*Sorbus aucuparia*)

Silver Birch (*Betula pendula*)

Wild Cherry (*Prunus avium*)

Hawthorn (*Crataegus monogyna*)

Elder (*Sambucus nigra*)

Guelder-rose (*Viburnum opulus*)

Hazel (*Corylus avellana*)

Holly (*Ilex aquifolium*)

Wild Privet (*Ligustrum vulgare*)

Management Details

Deciduous trees will be planted in late October to late March. During the establishment period there will be adequate water supply, weed control and maintenance of the tree stock to achieve maturation of the planting.

Tree maintenance will take place outside of bird nesting season, and pruning undertaken during the dormant season following good horticultural practice.



Source: Wyre Forest