

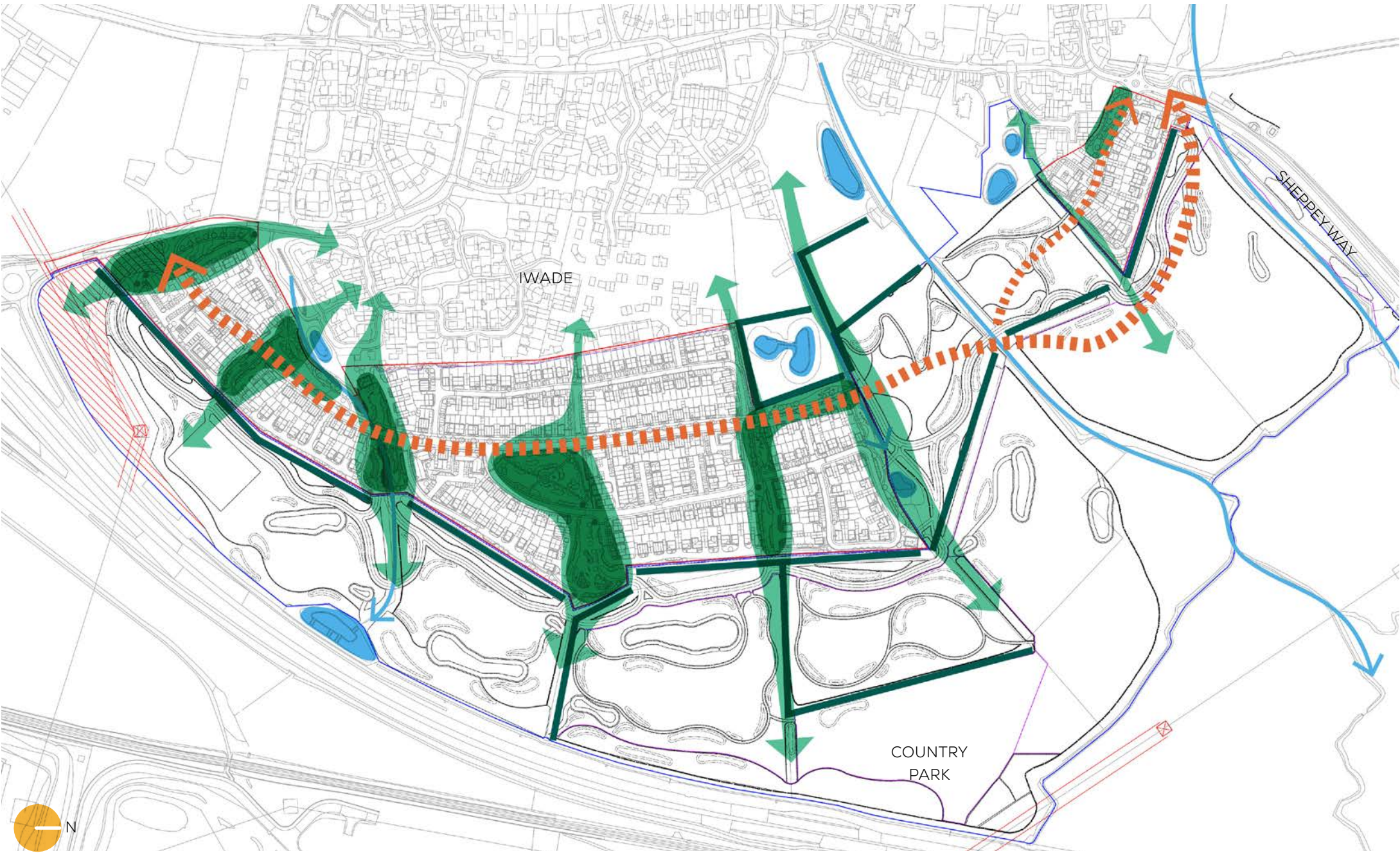
07 Willowbrook, Land East of Iwade LANDSCAPE & ECOLOGY

7.0 LANDSCAPE MASTERPLAN DESIGN PRINCIPLES

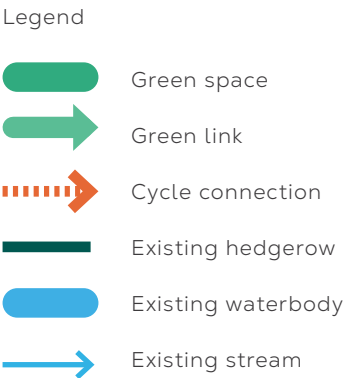
LANDSCAPE AND POS STRATEGY

The vision for the landscape responds to, and develops further, the principles set out and approved in the approved Design and Access Statement, August 2020 and approved Country Park masterplan.

- At the core of the landscape proposals, the design responds to the key principles:
- Provide open spaces of value for the benefit of the community
- Generous green space linked to the wider natural environment
- Landscape that supports the sustainable mix of uses and housing types
- Aid integration to the existing infrastructure and surrounding settlement
- Safe, attractive routes throughout the development, that promote pedestrian permeability
- Promote ecology enhance biodiversity present on site
- Create green infrastructure routes and spaces that provide a variety of uses of value to the community and wildlife
- Incorporate drainage strategies in to the landscape proposals
- Create new habitats to benefit the existing ecology, including wildflower meadows, wetland habitats, bat boxes and log piles



Landscape and POS strategy plan, NTS



7.1 ILLUSTRATIVE LANDSCAPE MASTERPLAN



Illustrative masterplan, NTS

7.2 LANDSCAPE AND POS DESIGN

LANDSCAPE CHARACTER AREAS

Design Principles

The landscape concept responds to the architectural layout and highways network, creating three individual character areas that are complementary to each other and the wider masterplan and create a gradual transition from rural settlement to the natural Country Park edge.

Character Area 1 - Rural Edge

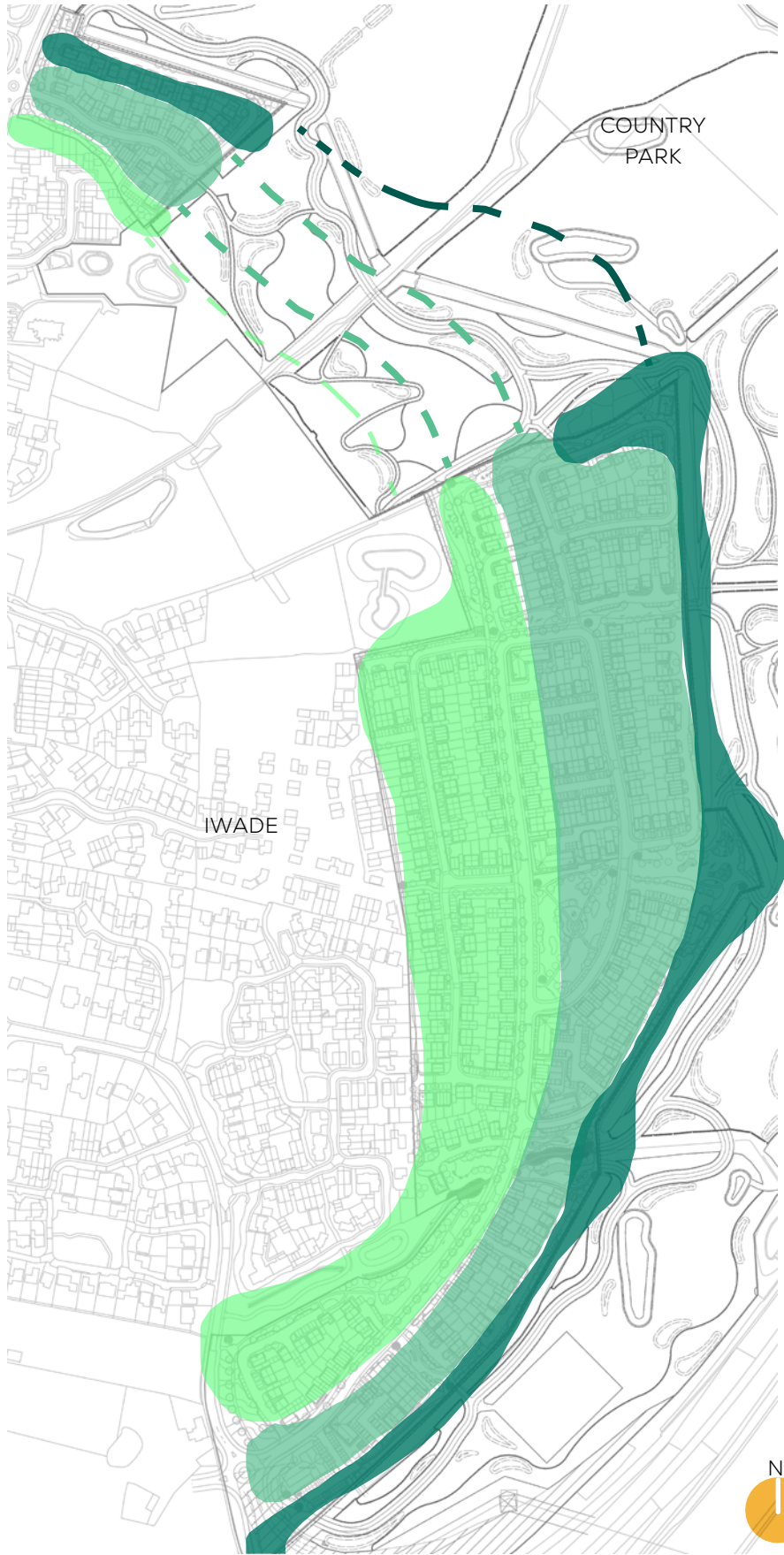
Tree lined streets create a verdant landscape structure that links the scheme and creates a clear site legibility. Formalised front gardens with ornamental hedge planting define the primary street.

Character Area 2 - Semi-natural

A continuous green corridor with a high degree of native planting creating a diverse natural environment that includes ecological habitats such as native planting, marginal planting, bird and bat boxes and dedicated play space.

Character Area 3 - Natural Edge

Large areas of open space with mixed native and non-native tree planting, amenity grassland and swathes of wildflower meadow with informal play and recreation spaces to connect with the approved Country Park masterplan and design principles.



Landscape character areas plan, NTS



Character area 1 - Rural Edge



Character area 2 - Semi-natural



Character area 3 - Natural Edge

Legend

- Rural
- Semi-natural
- Natural

DETAILED AREAS - VILLAGE GREEN

The Village Green will create a new setting for the proposed Village Hall and main entrance to the new development

- 3m wide shared cycle and footway serving the proposed development and creating connections to Iwade
- Swathes of ornamental planting to create a bold entrance
- Proposed building is set back from the primary road, with amenity planting and trees along the site frontage

Key characteristics

- 1 3m wide shared cycle/footway
- 2 Street trees
- 3 Swathes of mixed shrub and herbaceous planting with seasonal bulbs
- 4 Fruit-bearing tree species



Illustrative plan - Village Green, NTS



Lush perennial planting beds to enhance setting of the community building and sense of arrival



Tree-lined streets to soften travel routes



Location Plan, NTS



Typical section AA' - Village Green, NTS

DETAILED AREAS - WIDGEON GREEN

Widgeon Green is the first local green space from the primary entrance with landscape proposals to support the existing watercourse.

- Existing stream is protected and enhanced with new marginal planting
- Potential future connection for existing Iwade residents
- Enhanced outlook for residents
- Footpath connections to wider network of open green spaces

Key characteristics

- 1 Trees and native shrub planting to strengthen boundaries
- 2 Proposed footpaths to enhance pedestrian connections with Iwade
- 3 Marginal planting connecting with existing waterbody
- 4 Trim trail to encourage venturing and active travel across all ages
- 5 Shared cycle and footpath lined with street trees



Illustrative plan - Widgeon Green, NTS



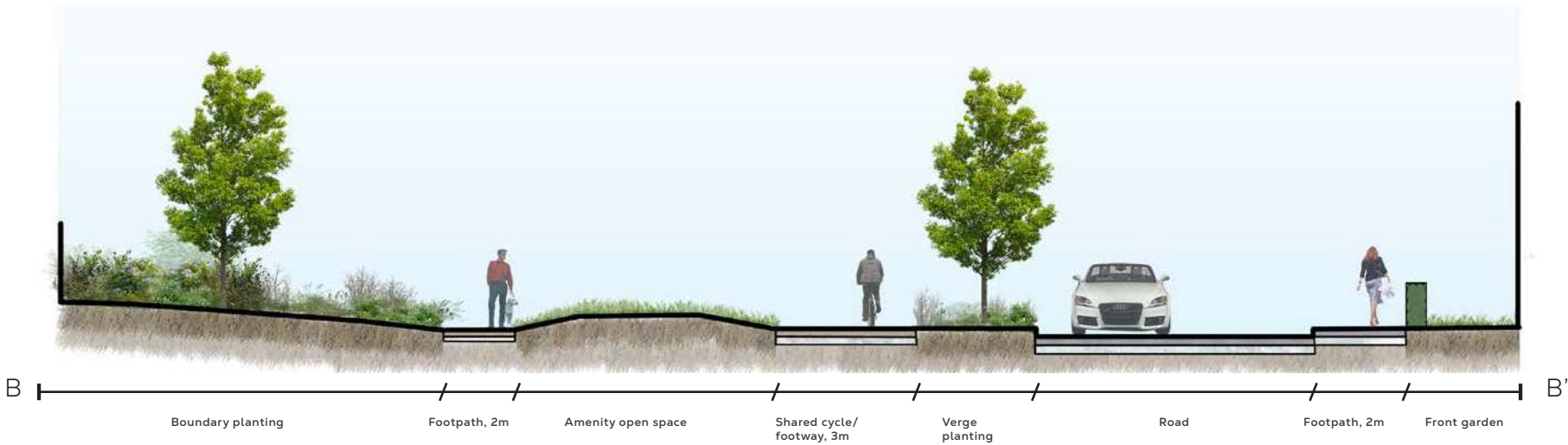
Tree-lined streets adjoining green space.



Trim trail in natural materials to connect with parkland character.



Location Plan, NTS



Typical section BB' - Widgeon Green, NTS

DETAILED AREAS - FULMAR GREEN

Fulmar Green serves at the central, primary green space within the development..

- Crossed by a green corridor, lined with new tree planting
- Informal open space with strong residential frontages around it
- Includes dedicated play space with natural play elements and fixed equipment to offer a range of challenge
- Extensive open space for events
- Strong links for pedestrians towards network of open green spaces

Key Characteristics

- 1 Connection to Iwade and emergency access
- 2 Shared cycle and footway lined with street trees
- 3 Dedicated play space
- 4 Natural play-on-the-way
- 5 Existing mature trees enhanced through native boundary planting



Illustrative plan - Fulmar Green, NTS



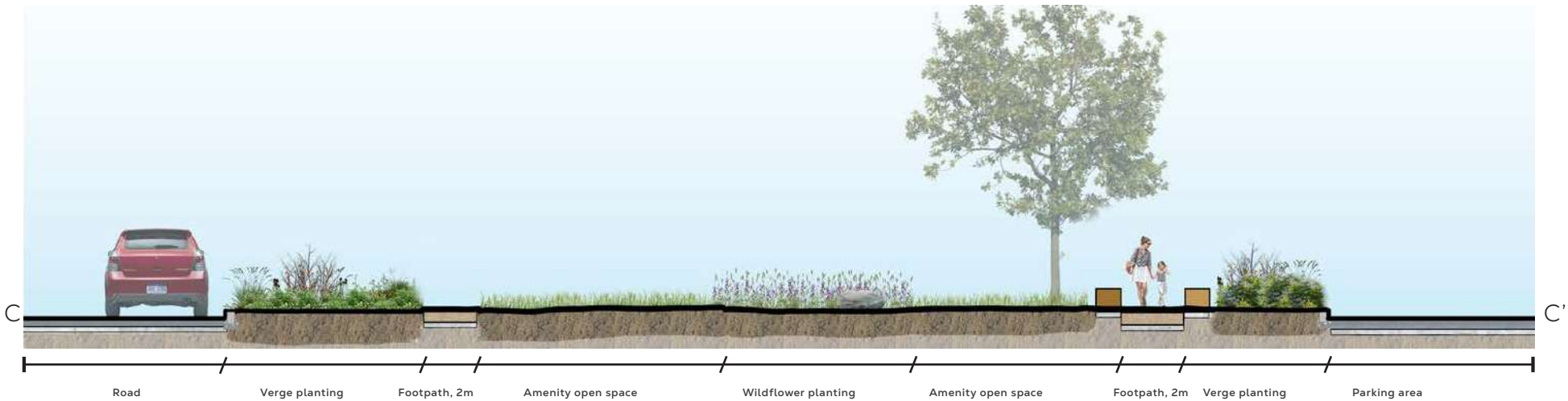
Contact with nature encouraged through a naturalised play space.



Planted mounds create interesting, playable features in the landscape.



Location Plan, NTS



Typical section CC' - Fulmar Green, NTS

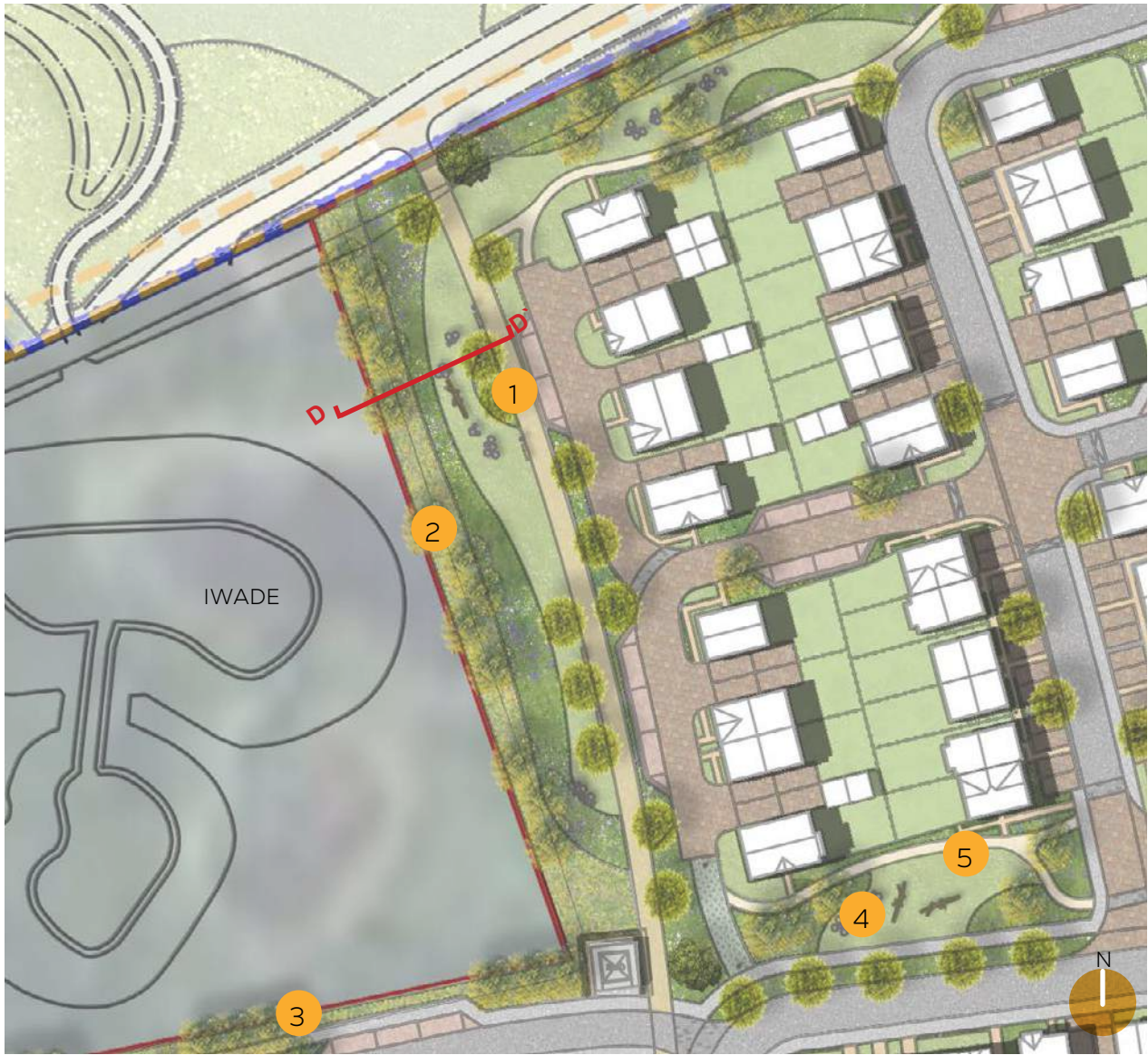
DETAILED AREAS - SWALLOW GREEN

Swallow Green forms the northern boundary to the Country Park.

- Buffer planting to form an edge to the residential plots
- Facilitates future cycle and pedestrian links into the Country Park
- Informal play-on-the-way

Key characteristics

- 1 Shared cycle and footway lined with street trees.
- 2 Trees and native shrub planting to strengthen boundaries
- 3 Proposed footpaths to enhance pedestrian connections with Iwade
- 4 Multi-stem ornamental trees
- 5 Natural play-on-the-way



Illustrative plan - Swallow Green, NTS



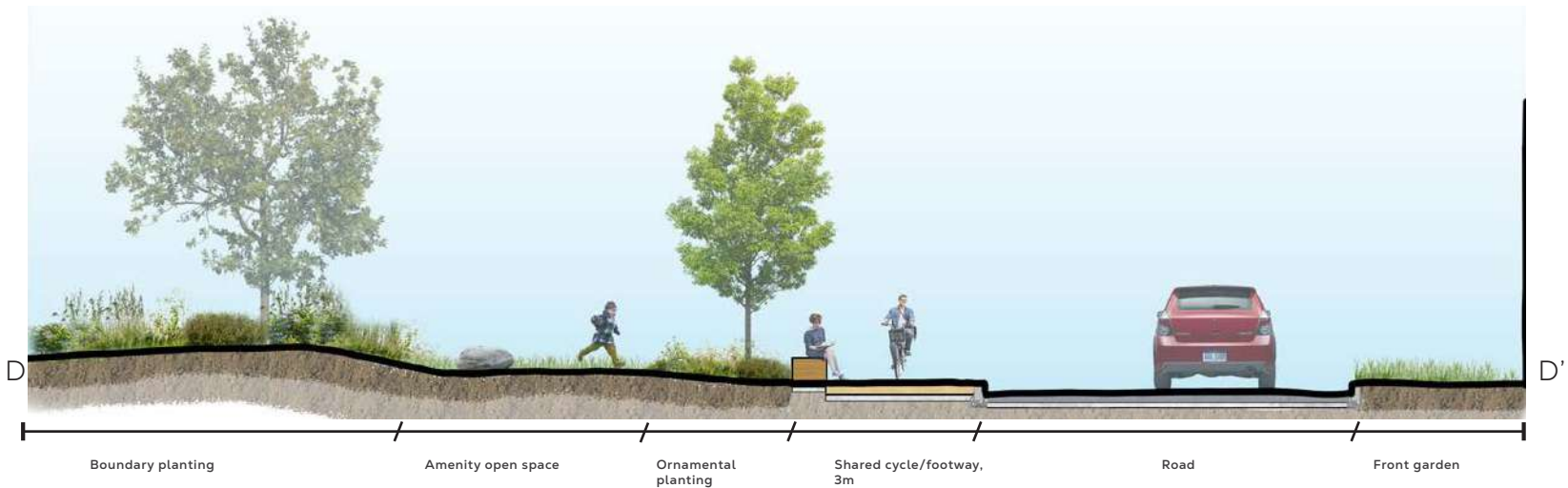
Seasonal interest and biodiversity enhanced through multi stem Prunus trees



Timber trim trail



Location Plan, NTS



Typical section DD' - Swallow Green, NTS

DETAILED AREAS - SANDERLING GREEN

Sanderling Green forms the northern gateway to the Country Park.

- Buffer planting to form an edge to the residential plots
- Facilitates future cycle and pedestrian links into the Country Park
- Informal play-on-the-way

Key characteristics

- 1 Wildflower swatches
- 2 Species-rich lawn
- 3 Trees and native shrub planting to strengthen boundaries
- 4 Informal play-on-the-way



Location Plan, NTS



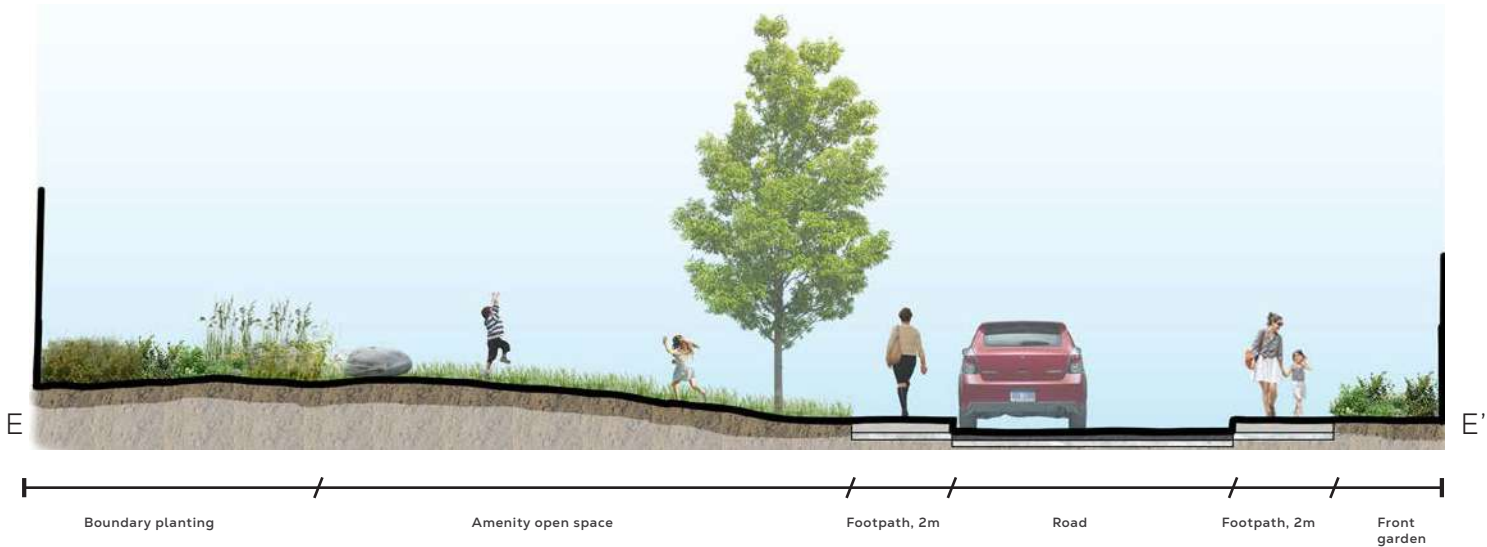
Illustrative plan - Sanderling Green, NTS



Native shrub and trees to strengthen boundary planting.



Wildflower swatches.



Typical section EE' - Sanderling Green, NTS

7.3 PLAY STRATEGY

SITE-WIDE PLAY STRATEGY

Across the site there will be a mix of formal and informal play spaces to provide active spaces for people of all ages. Informal play on the way and dedicated play spaces will satisfy various age groups and abilities.

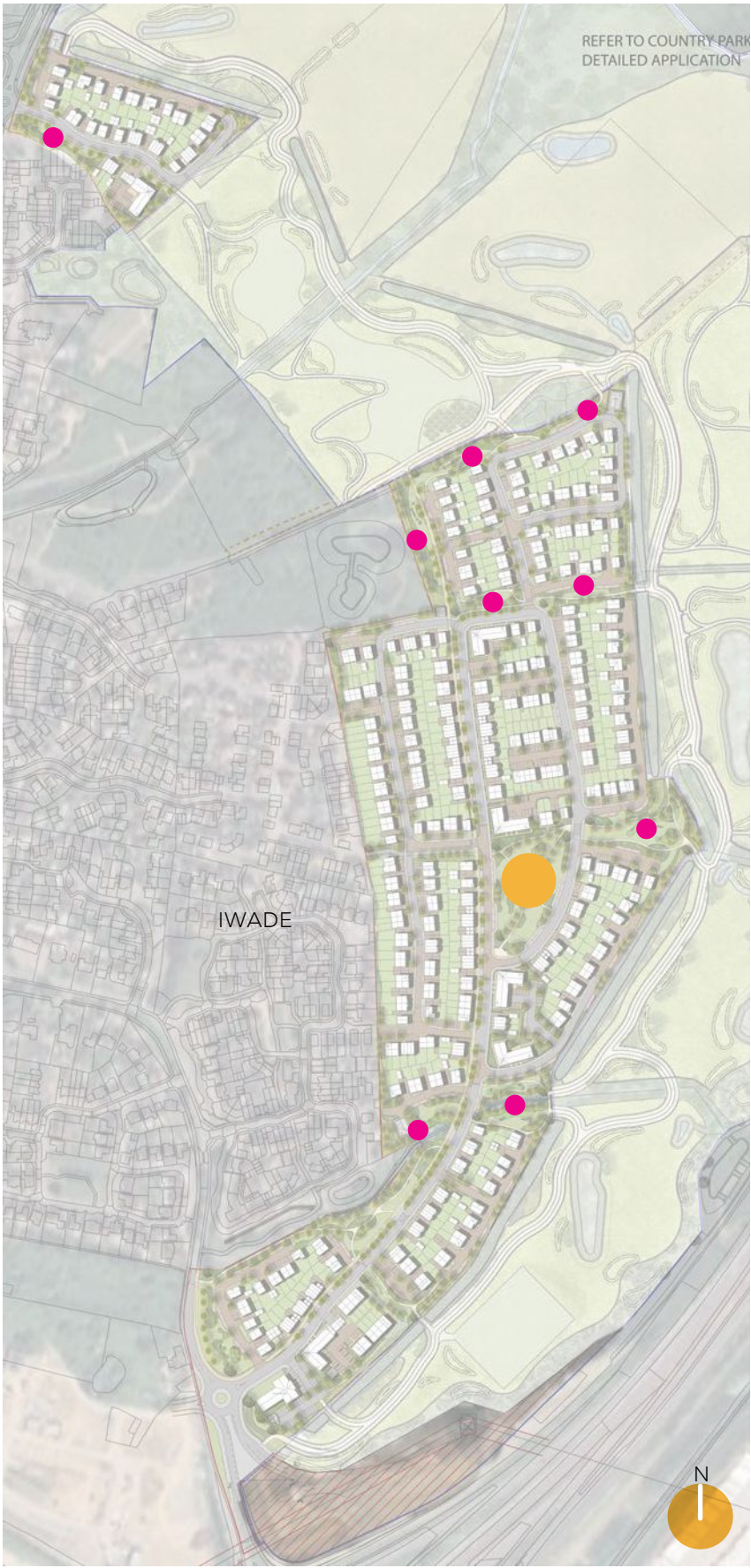
The proposed dedicated play space allows for informal supervision and encourages both social interaction and creative play. Play equipment would be naturally sourced and look to use integrated features of interest for adult residents. The public open spaces lend themselves to informal play-on-the-way.

A trail of exercise equipment located within the various areas of public open space create a playful landscape with equipment varying in difficulty. This encourages an active and healthy lifestyle and would be suitable for all ages groups.

The play proposals within the RM plots is complemented by the proposals within the Country Park, which includes additional natural play, as well as a dedicated sports pitch.

- Legend
- Dedicated play space

Informal play-on-the-way



Illustrative plan – dedicated play space, NTS



Sensory planting



Timber seats



Natural boulders



Timber bridges



Logs and stepping stumps



Natural materials for play equipment

DEDICATED PLAY SPACE

- Provision of a dedicated play space in addition to play facilities within the green corridors running through the development
- Provision of naturalistic, informal play provision to come forwards within the country park and along the nature trails therein
- Equipment to offer a range of challenge and be suited to all ages and abilities
- Picnic area with wheelchair-accessible tables
- Sensory planting to provide smell, touch, sound and visual interest



Location Plan, NTS



Illustrative plan - dedicated play space, NTS



Timber bench



Stepping stumps



Log stack



Wooden spring rocker



Play boulders



Stepping poles



Balance beam trail



Activity Panel



Wheelchair-friendly bench

TRIM-TRAIL STRATEGY

- Inclusion of natural play elements and informal play-on-the-way within the open spaces, providing an active resource for children’s play as well as exercise and recreation for residents and all other site users
- Provision of naturalistic, informal play provision within the country park and along the nature trails therein

Legend

●

 Informal play-on-the-way

—

 Play trail



Illustrative plan – dedicated play space, NTS



Natural log trail



Natural boulders



Stepping stumps

7.4 MATERIALITY - HARD LANDSCAPE

HARD MATERIALS PALETTE

A coherent and contemporary palette of materials has been selected to complement the architectural finish, reinforce the concept of the design and define sub-spaces within the landscape. Consideration has also been given to their aesthetics and durability.

Surface finishes consist of concrete block paving to private driveway, raise tables and crossing points in order to provide a consistent and quality finish to aid with accessibility.

The materials palette for the carriageways provide a hierarchy of streets to guide residents and create more private zones. By using different tones, the ground plane in delineated and defines circulation through the site.

As a contrast with this, the private patios use a flag paving in a more warm and relaxing colour.



PAVING TYPE 1
PERMEABLE CONCRETE
BLOCK PAVING

Locations - Private/
shared drives and
parking courts



PAVING TYPE 2 -
PERMEABLE CONCRETE
BLOCK PAVING

Locations: Visitor/car
parking bays



PAVING TYPE 3 -
CONCRETE SETTS

Locations: Crossing
points or similar &
approved



PAVING TYPE 4 -
CONCRETE FLAG
PAVING

Locations: Private
footpaths



PAVING TYPE 5 -
Grasscrete

Locations: Emergency
access routes



SURFACE TYPE 1 -
ASPHALT

To engineers
specification



SURFACE TYPE 2 - BUFF
COLOURED TARMAC

To engineers
specification

Colour: Buff
Location: Shared cycle/
footway



SURFACE TYPE 3 - SELF
- BINDING GRAVEL

Colour: Buff
Locations: Footpaths to
public open space



SURFACE TYPE 4
- BOUND RUBBER
MULCH

Locations: Dedicated
play area

EXTERNAL SITE FURNISHINGS PALETTE

The proposed street furniture would be fully integrated into the overall design aesthetic and would enhance the various spaces, playing an important role in:

- Defining the character and quality of the development.
- Catering for multiple uses
- Be robust and low maintenance
- Be informed by the colour palettes of the various plots
- Use of natural materials to reflect the site character



Timber knee rail



Timber bollard



Litter bin



Mobility-friendly kissing gate



Timber bridge over Iwade Stream



Timber bench

BOUNDARY TREATMENTS STRATEGY

A mixture of appropriate boundary treatments has been selected based on the principals of the approved Design and Access Statement:

- A close-board timber fence is proposed to define boundaries between plots
- Brick boundary walls to front main spine roads
- Hornbeam, or similar species, will demarcate street and front gardens on primary access routes
- Native planting suitable to the ecologist’s recommendations will be used along the site’s boundaries to enhance local, existing ecologies
- Hedging will vary from natural, unclipped forms within areas of public open space, with more formal structural elements in proximity to the residential areas



Fencing for residential garden



Brick wall for public / private boundary treatment



Boundary hedgerow / vegetation buffer for development edge



Soft private / public boundary using clipped, formal hedging



1.5m high timber post and rail fence



Timber knee rail

LIGHTING STRATEGY

The proposed lighting strategy reinforces the landscape character of the design which strive to balance security, safety and ecological factors while providing pleasant amenity spaces throughout the day.

Primary column lighting strategy would line the primary spine road in the form of down-light poles to provide sufficient light levels, while mitigating the negative impact of reflecting light to the residents adjacent and avoid light spill that may have impact to the surrounding landscape and public open spaces.

Footpaths and sub-spaces would be illuminated by ground-level path lighting and directional bollard lights to provide softer, localised level of lighting suitable to the space's scale and intended use, while minimising the amount of residual light spilling in to the private gardens of adjacent residents.



Directional path light



Column lighting to highways



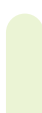
Timber bollard lighting

7.5 MATERIALITY - SOFT LANDSCAPE

PLANTING STRATEGY

- A naturalised boundary will accommodate native species with sufficient space to grow to a large, mature form
- Meadow seed mixes would provide benefits for biodiversity and sensory interest to all including visual interest, smell and sound
- Marginal plant mixes planted along the existing water course to maximise habitat creation
- Planting below trees to soften streets
- Bulbs and fruit-bearing trees to create a bold site frontage with emphasis on site heritage

Legend

		Species-rich grassland
		Wildflower seed mix
		Marginal planting
		Native mix planting
		Verge planting
		Planting to residential plots
		Bulbs and fruit-bearing trees



Planting strategy plan, NTS

PLANT PALETTE - RESIDENTIAL FRONTAGES

An ornamental plant palette could create pockets of impact and provide definition to the various spaces within the development.

Plan mixes could be predominantly evergreen species to provide year-round colour with seasonal perennials and bulb interest.

Example species could include (but would not be limited to):

- 1. Male Fern - *Dryopteris affinis Crispa*
- 2. Mediterranean Spurge - *Euphorbia characias wulfenii*
- 3. Quaking Grass - *Briza media*
- 4. Mexican Orange - *Choisya ternata*
- 5. Bear's Breech - *Acanthus mollis*
- 6. Yarrow - *Achillea millefolium*
- 7. Meadowsweet - *Filipendula ulmaria*
- 8. Culver's Root - *Veronicastrum 'Fascination'*
- 9. Blue Fescue - *Festuca glauca*
- 10. Purple Moor Grass - *Molinia caerulea*
- 11. Cotton Lavender - *Santolina pinnata*
- 12. Hart's Tongue Fern - *Asplenium scolopendrium*
- 13. Shrubby Veronica - *Hebe 'Red Edge'*
- 14. Purple Sage - *Salvia Purpurascens*
- 15. White Lavender - *Lavandula Arctic Snow*



Dryopteris affinis Crispa



Euphorbia characias wulfenii



Briza media



Choisya ternata



Acanthus mollis



Achillea millefolium



Filipendula ulmaria



Veronicastrum 'Fascination'



Festuca glauca



Molinia caerulea



Santolina pinnata



Asplenium scolopendrium



Hebe 'Red Edge'



Salvia Purpurascens

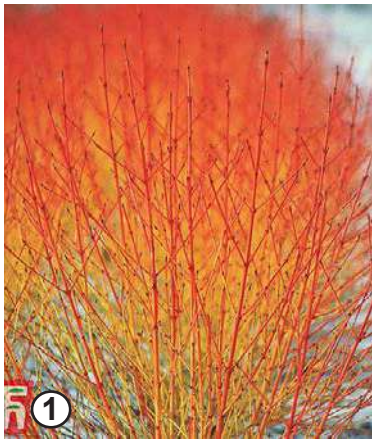


Lavandula Arctic Snow

PLANT PALETTE - PUBLIC OPEN SPACE

Example species could include (but would not be limited to):

- 1. Dogwood – Cornus sanguinea
- 2. Wild privet – Ligustrum vulgare
- 3. Dog rose- Rosa canina
- 4. Guelder rose – Viburnum opulus e
- 5. Lavandula officinalis
- 6. Skimmia japonica
- 7. Anemone hupehensis
- 8. Carex oshimensis 'evergold'
- 9. Lychnis coronaria
- 10. Stipa tenuissima
- 11. Rudbeckia fulgida
- 12. Aster amellus 'King George'
- 13. Common Daisy – Bellis perennis
- 14. Buttercups – Ranunculaceae sp.
- 15. Clover- Trifolium sp.



Cornus sanguinea



Ligustrum vulgare



Rosa canina



Viburnum opulus



Lavandula officinalis



Skimmia japonica



Anemone hupehensis



Carex oshimensis 'evergold'



Lychnis coronaria



Stipa tenuissima



Rudbeckia fulgida



Aster amellus 'King George'



Bellis perennis



Salvia Purpurascens



Lavandula Arctic Snow

PLANT PALETTE - NATIVE MIX

Native shrub planting could be used to provide lush loose planted areas in the landscape.

Native species could be planted to create strong vegetated buffer zones and natural barriers:

Example species could include (but would not be limited to):

- 1. Golden-twigg Dogwood - *Cornus stolonifera*
- 2. Common Dogwood - *Cornus sanguinea*
- 3. Hazel - *Corylus avellana*
- 4. Hawthorn - *Crataegus monogyna*
- 5. Spindle - *Euonymus europaeus*
- 6. Honeysuckle - *Lonicera nitida* 'Baggesen's Gold'
- 7. Wild Privet - *Ligustrum vulgare*
- 8. Crack Willow - *Salix fragilis*
- 9. Common osier - *Salix viminalis*
- 10. Guelder Rose - *Viburnum opulus*
- 11. Holly - *Ilex x altaclerensis* 'Golden King'
- 12. 1Holly - *Ilex aquifolium*
- 13. Firethorn - *Pyracantha* 'Orange Glow'
- 14. Ninebark - *Physocarpus opulifolius* 'Diabolo'
- 15. Mock Orange - *Philadelphus* 'Belle Etoile'



Cornus stolonifera



Cornus sanguinea



Corylus avellana



Crataegus monogyna



Euonymus europaeus



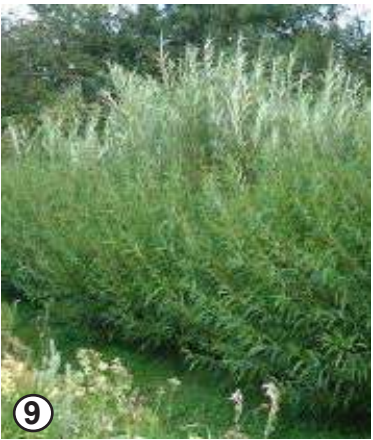
Lonicera 'Baggesen's Gold'



Ligustrum vulgare



Salix fragilis



Salix viminalis



Viburnum opulus



Ilex 'Golden King'



Ilex aquifolium



Pyracantha 'Orange Glow'



Physocarpus 'Diabolo'



Philadelphus 'Belle etoile'

PLANT PALETTE - WILDFLOWER SEED MIXES

Diverse seed mixes will be selected in consideration to maximizing biodiversity net gain.

Emorsgate mixes:

- EM5 - Meadow mixture for loamy soils
- EG22 - Wear tolerant mix with clover Typical Mix

Wild Flowers

%	Latin name	Common name
0.5	<i>Achillea millefolium</i>	Yarrow
3	<i>Centaurea nigra</i> Common	Knapweed
2	<i>Galium verum</i>	Lady's Bedstraw
0.3	<i>Geranium pratense</i>	Meadow Cranesbill
0.5	<i>Knautia arvensis</i>	Field Scabious
0.5	<i>Lathyrus pratensis</i>	Meadow Vetchling
0.5	<i>Leontodon hispidus</i>	Rough Hawkbit
1	<i>Leucanthemum vulgare</i>	Oxeye Daisy
0.5	<i>Lotus corniculatus</i>	Bird's-foot Trefoil
0.5	<i>Malva moschata</i>	Musk Mallow
1	<i>Plantago lanceolata</i>	Ribwort Plantain
1	<i>Plantago media</i>	Hoary Plantain
0.5	<i>Primula veris</i>	Cowslip
2.6	<i>Prunella vulgaris</i>	Self-heal
3	<i>Ranunculus acris</i>	Meadow Buttercup
1.5	<i>Rhinanthus minor</i>	Yellow Rattle
1	<i>Rumex acetosa</i>	Common Sorrel
0.1	<i>Trifolium pratense</i>	Wild Red Clover

Grasses

%	Latin name	Common name
10	<i>Agrostis capillaris</i>	Common Bent
1	<i>Anthoxanthum odoratum</i>	Sweet Vernal Grass (w)
2	<i>Briza media</i>	Quaking Grass (w)
32	<i>Cynosurus cristatus</i>	Crested Dog's-tail
10	<i>Festuca ovina</i>	Sheep's Fescue
20	<i>Festuca rubra</i> ssp <i>litoralis</i>	Red Fescue (w)
4	<i>Phleum bertolonii</i>	Smaller Cat's-tail
1	<i>Trisetum flavescens</i>	Yellow Oatgrass (w)

Sowing Rates

40 kg/ha 16 kg/acre 4 g/m2

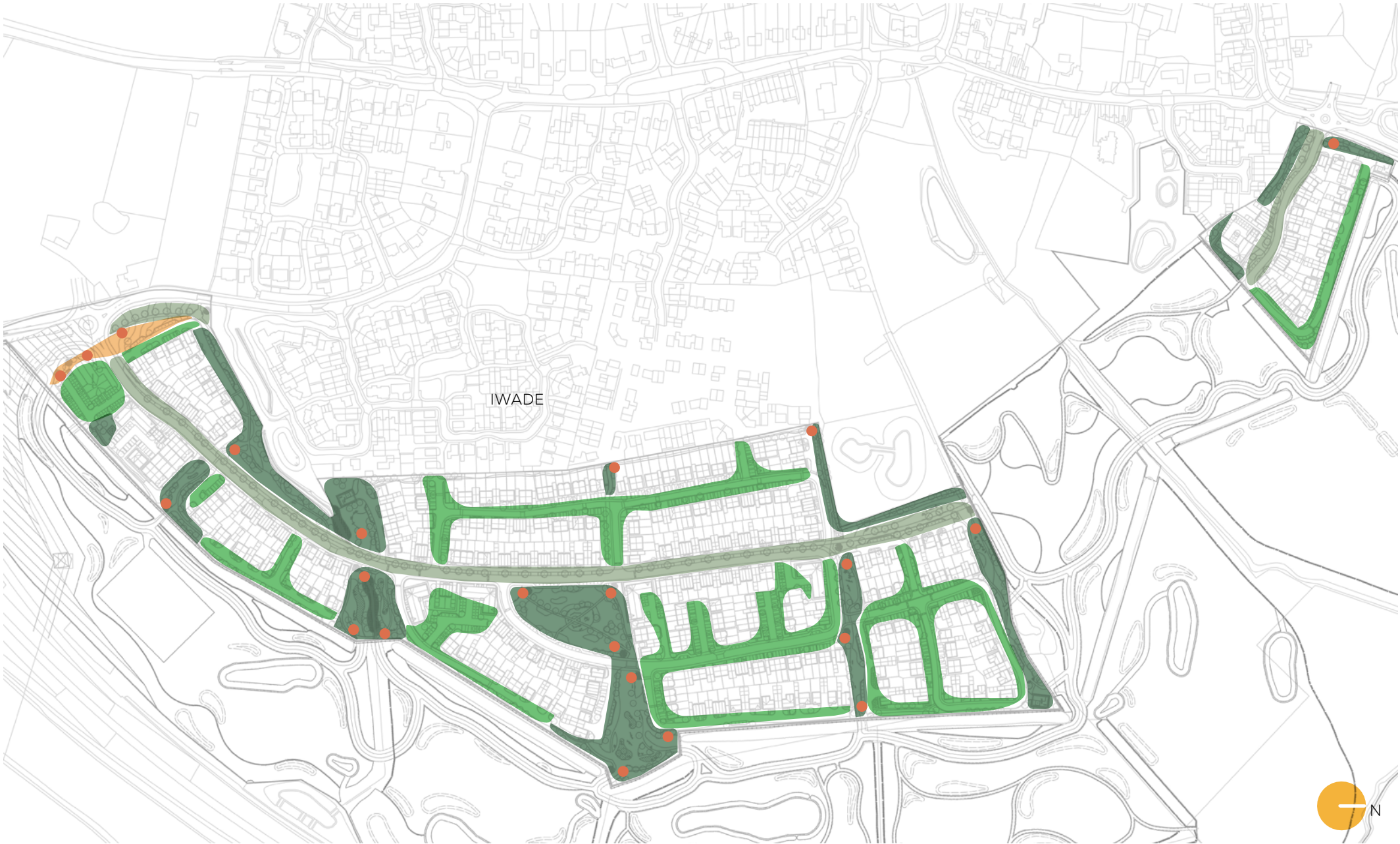


TREE PLANTING STRATEGY

The tree planting palette would be a selection of suitable species and would been chosen with consideration to the desired character. More naturalistic species are intended for the site boundaries, whereas flowering and seasonal interest trees will provide a higher impact at key nodal points.

These would be the key components in enhancing the character areas, with single specimen and group plantings to create open views and pocket spaces.

- Legend
- Primary Street Tree
 - Feature Tree
 - Orchard Tree
 - Street Tree
 - Parkland Tree



Tree planting strategy plan, NTS

TREE PALETTE

Naturalistic Trees

Naturalistic palette of natives, fruiting and flowering trees of clear and multi-stem, which will have plentiful space to reach maturity.

- 1. Acer campestre
- 2. Alnus glutinosa
- 3. Betula Pendula
- 4. Quercus robur

Feature Trees

Large trees located at key nodal points and gateways to provide wayfinding to areas of public open space,

- 5. Liquidambar styraciflua
- 6. Pinus sylvestris

Street Trees

Slender and tall trees to line streets throughout the phase. More formal and uniform species will be selected for the avenues.

- 7. Sorbus aria 'Lutescens'
- 8. Acer platanoides 'Crimson King'

Primary Street Trees

Formal habit provides uniformity and rural aesthetic to the primary route.

- 9. Tilia cordata 'Greenspire'

Orchard Trees

Fruit-bearing species planted within close proximity to create a productive orchard and community growing space.

- 10. Malus sylvestris
- 11. Pyrus communis



Acer campestre
Field Maple



Alnus glutinosa
Alder



Betula pendula
Silver Birch



Quercus robur
English Oak



Liquidambar styraciflua
Sweetgum



Pinus sylvestris
Scots Pine



Sorbus aria 'Lutescens'
Whitebeam



Acer platanoides 'Crimson King'
Norway Maple



Tilia cordata 'Greenspire'
Small Leaved Lime



Malus sylvestris
Apple



Pyrus communis
Pear

PLANTING ADJACENT TO EXISTING WATERCOURSE

- Existing watercourse within Widgeon Green is to be retained and enhanced
- New marginal planting adjacent to the watercourse would provide habitat creation and improve water quality
- Layering of marginal species, mixed shrub and herbaceous plants along the watercourse would create an ecological corridor



Illustrative plan - existing watercourse, NTS



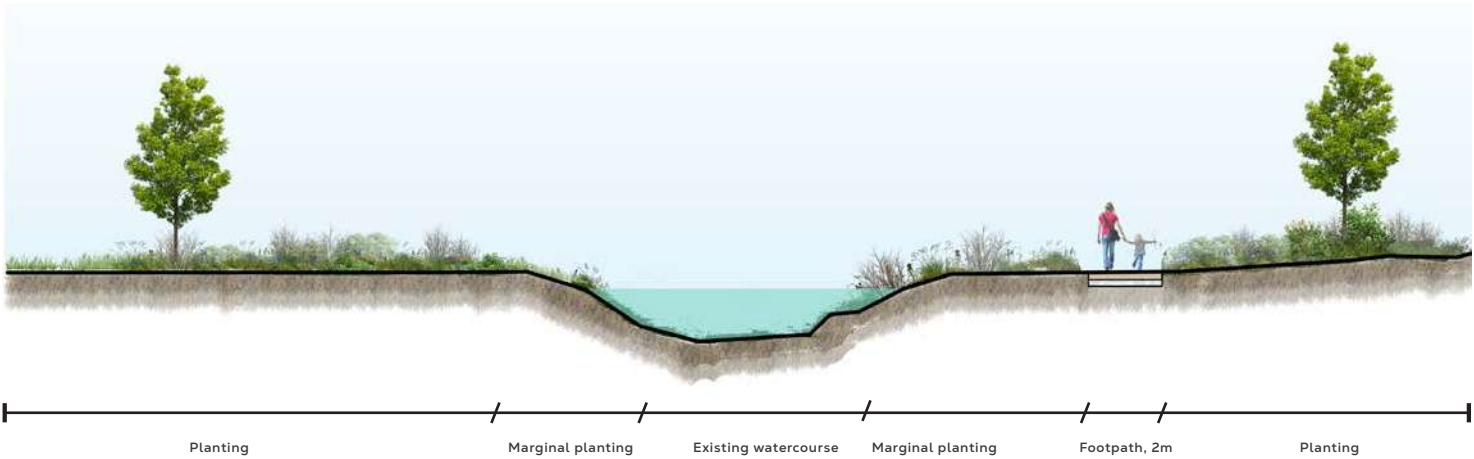
Marginal planting suited to wet conditions



Species-rich plant mixes to bolster stream banks



Location Plan, NTS



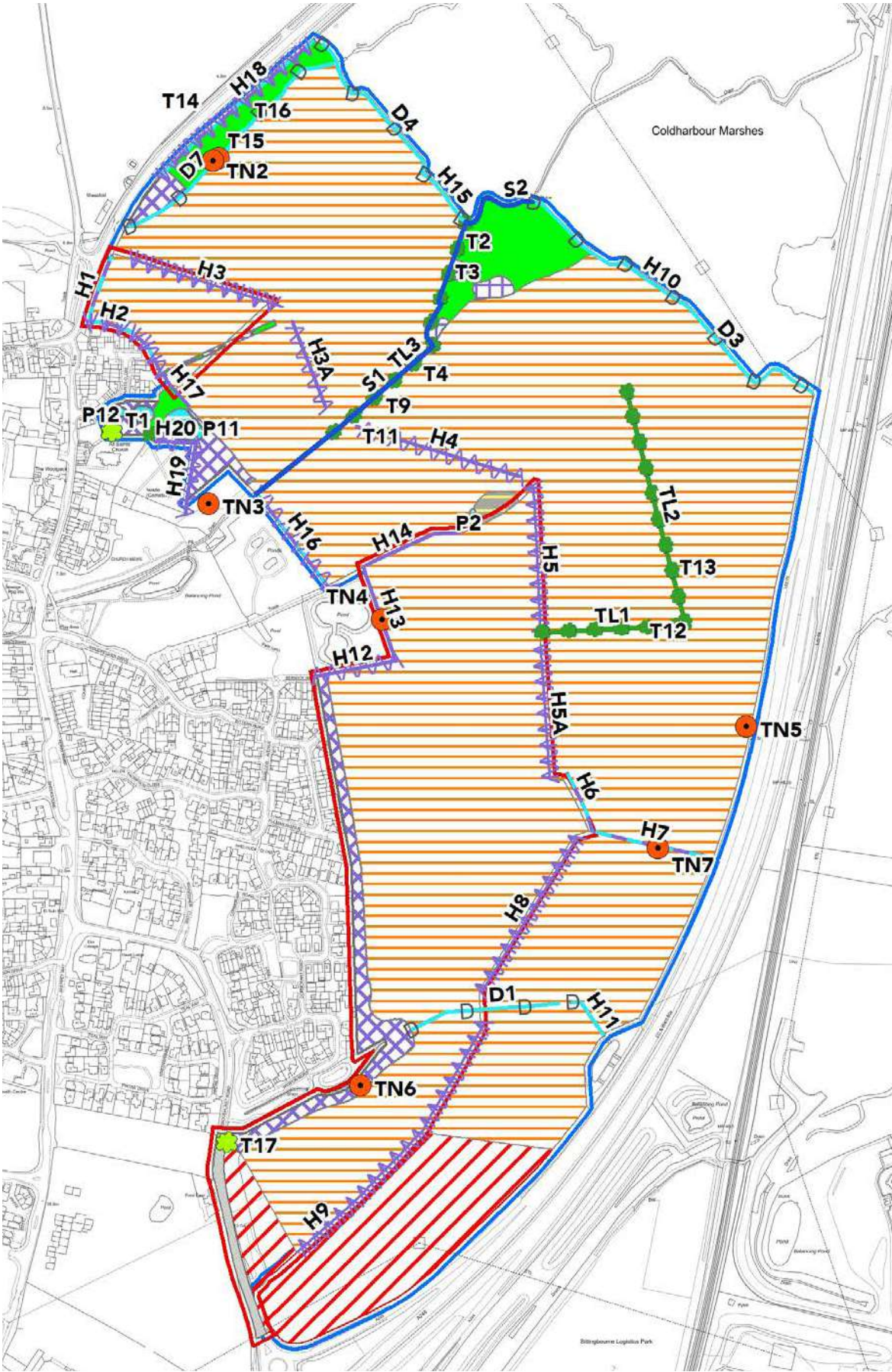
Typical section - treatment to existing watercourse, NTS

7.6 ECOLOGY STRATEGY

The survey area comprises c.16.25ha of agricultural land, currently dominated by cereal crops with smaller areas of modified grassland, mixed scrub, hedgerows, trees, ditch, and a road. The majority of the survey area is of low ecological value, however there are onsite or adjacent constraints to the Proposed Development including sites of nature conservation importance and the presence of Priority Habitats, great crested newt, breeding birds, wintering birds, bats, water vole and reptiles. The mitigation strategy submitted pursuant to condition 43 of the hybrid permission will show how negative impacts to these features can be prevented, as well as providing ecological enhancements following construction.

A Biodiversity Net Gain Assessment has been carried out and shows that the development proposals can achieve circa:

- A net gain of +119.68 habitat units, equivalent to +93.61%
- A net gain of +7.92 hedgerow units, equivalent to +20.35%
- A net gain of +2.09 watercourse units, equivalent to +22.27%



ECOLOGICAL ENHANCEMENTS AND BIODIVERSITY

Opportunities to maximise biodiversity would be encouraged throughout the site by planting native and wildlife-friendly planting, protecting and enhancing existing habitats, and providing habitat creation.

A considered planting palette and integrated ecological features would support existing biodiversity and attract new ecology onto the site.

The boundaries would be enhanced with native species to bolster the borders and maintain a strong wildlife corridor.

Diverse grassland seed mixes suitable for the soils would provide flowering species and ecological interest to the amenity areas.



Bug hotels



Supporting pollinator species



Bird and bat boxes



Natural habitat creation



Hedgehog gravel boards

08 Willowbrook, Land East of Iwade SUMMARY

8.0 SUMMARY

The proposed reserved matters application has been a development from the outline approval to build 455 dwellings and a Village Hall on parcels E1 and E2 at the land east of Iwade.

The proposals consider and develop upon the intentions set out at outline planning stage, and although these were only illustrative, the final proposal endeavors to ensure that the vision for the site has been met if not exceeded.

Open spaces and green corridors are a key element in the design principles and these are prevalent in the proposals bought forward.

Although details are being bought forward under a separate application for the Country Park it has been a key driver to the development and its character of the site as a whole.

The development is certainly a housing scheme within a Country Park, ensuring that the importance is on the setting.

The Design and Access Statement, along with the drawing pack and information from the design team, provides in depth information regarding how the scheme will come forward; from the layout itself to considered designs for house types and landscaping, all ensure the initial and long term image of a contemporary, locally distinctive development is met, retained and develops with time.



gdm architects
the Master's House, College Road,
Maidstone, Kent.
ME15 6YF

© copyright gdm architects ltd