

05. Design



Illustration showing the relationship of new homes overlooking green space.



05 Design

5.1 Masterplan Layout

5.1.1 Guiding development

The outline Masterplan is not a single plan, but the culmination of a number of guiding strategies or 'parameters'. The parameters set out the key components that form the Masterplan, such as development structure, street types, Sustainable Drainage Systems (SuDS), landscape and open space, density and building heights. The following section sets out the parameters that make up the design proposal of the Masterplan.

5.1.2 Layout and structure

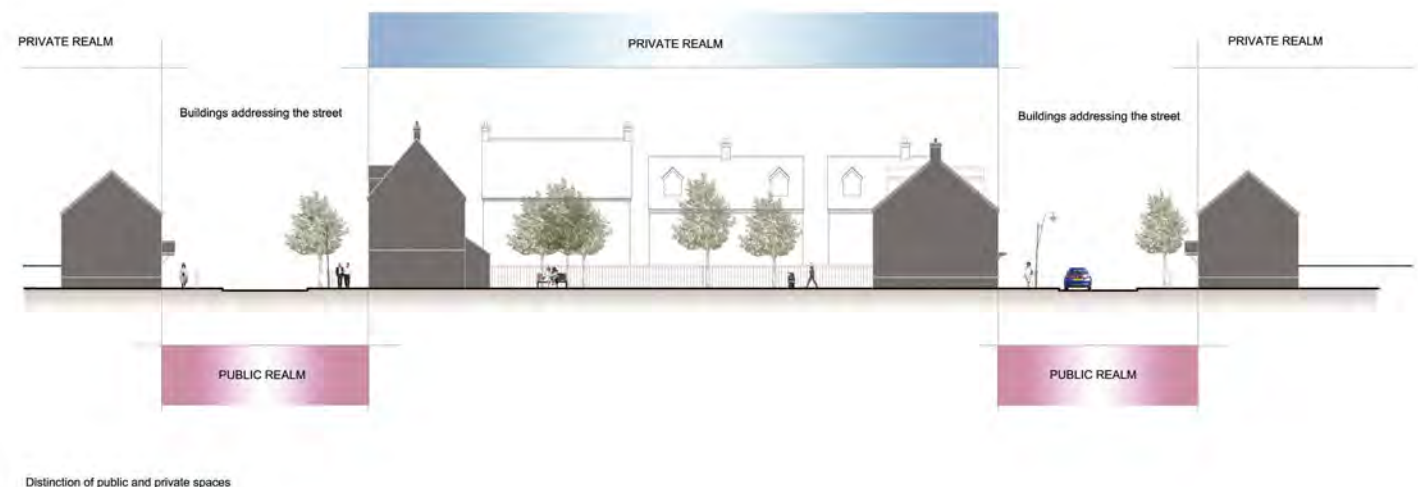
The structure for the Masterplan aims to set out a clear hierarchy of streets and spaces based on a strong block structure, clear differentiation of public and private spaces. The emphasis is to create strong north to south green routes, linking the existing neighbourhood to the countryside via green corridor and footpaths.

The layout will maximise access to surrounding green spaces with individual homes orientated to benefit from the visual amenity of the central valley green corridor and surrounding trees and spaces. It is important that all streets and lanes are properly fronted and overlooked by new homes to enhance natural surveillance and encourage a sense of ownership in the local landscape.

The development uses a perimeter block structure which gives flexibility and a clear definition of public and private space. It ensures a variety of movement routes and can accommodate a range of building types. The form of

the development also responds to site constraints and opportunities, including in particular the landscape features and topography of the site.

Building frontages will focus activity on the edges of the development plot, ensuring and supporting the perimeter block structure, and approach to façades and access. Frontages overlook all key open spaces, such as the central valley space, and public areas to provide natural surveillance to aid security and to foster a sense of ownership.



Illustrative Masterplan - A landscape led approach delivering sustainable development principles is at the forefront of the masterplan concept, guided by planning, landscape, transport, and ecological assessments.



Figure 19. Illustrative masterplan



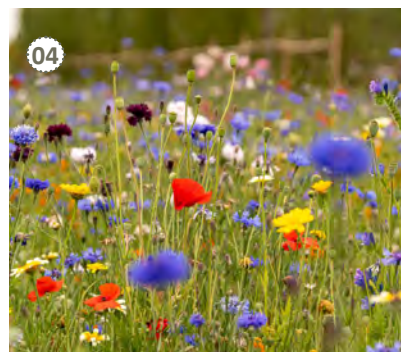
Local Equipped Area of Play



Apartments and taller building overlooking space and at key points in street scene



Health and well-being - fitness trail within the linear park and green network



Use of meadows within the central space and linear park



Mix of new homes, set within a strong landscape



Pedestrian focused streets

01 Play Spaces

A range of play space will be provided, including a LEAP in the northern part of the linear space, and two additional Local Areas of Play, each in safe locations overlooking by homes..

02 Sustainable movement

The layout of the development and role of the green infrastructure is to encourage ease of movement for pedestrians and cyclists, in order to sustainably access local public transport and facilities.

03 Linear valley park

A linear park will be provided as a key focal point to the development. This will create a strategic amenity and biodiversity asset as part of a multi-functional green corridor. It will encourage spaces for health and well-being including play, fitness trails, movement and local food growing.

04 Green web

New multi-functional green corridors with tree and hedge planting to create a network of connected landscapes to enhance amenity and ecology. The existing badger sett will also be fully mitigated where required along its southern edge. The green web, along with the linear valley park, will ensure that connections into the wider landscape and the woodland to the north have strong connections to protect and enhance habitats and foraging networks.

05 Water management

Management of on-site hydrology will be a feature of the development. The existing water bodies on site will be retained. New SuDS features will be added as part of an overall water management strategy.

06 Footpath and cycle links

The web of green space provides the opportunity for a number of circular walks, activity trails and associated improvements to footpaths and bridleways, including links to PROWs and the BOAT, which will include an improved links across the site, connecting Wecock to the wider countryside via the proposed Phase 3 development.

07 Mix of new homes

A mix of new homes, in terms of size and tenure will be provided across the site and be incorporated in to a welcoming and well-structure place, and provide for safe streets and well overlooked public open space.

08 People friendly streets

The layout of the development will be to put people first over the motor car. It will encourage sustainable modes of movement through facilitating good walking and cycling routes throughout the new neighbourhood.

5.1.3 Scale and massing

As a lower density scheme (gross at 23dph) there are opportunities for a mix of house types, from detached to short rows of houses, and small apartment blocks at strategic locations. Broadly individual houses should be located in small clusters centred around streets and spaces, not isolated by itself. A variety of heights would be suitable, with the majority of homes being set over two floors with some increasing to two and a half or three where appropriate, such as overlooking key open spaces or providing local landmark features within the street scene and at key arrival points.

The form of the development also responds to site constraints and opportunities, including in particular the landscape features and topography of the site.



The use of 2-3 storey homes within the adjoining Catherington Park.



Figure 20. Parameter Plan - Building Heights

- Core development boundary
- Up to 3 storeys
Up to 15m from existing ground levels - plus or minus 2m (to top of ridge line; excluding chimneys and plant shafts etc)
- Up to 2.5 Storeys
Up to 12m from existing ground levels - plus or minus 2m (to top of ridge line; excluding chimneys and plant shafts etc)
- Corner and feature buildings



5.1.4 Appearance

The appearance and architecture of the new homes will reflect the setting and be responsive to the local area and consistent with the colour palette appropriate to south Hampshire, as used at Catherington Park. This could be through study of local materials and architectural form, for example this could be reflected by red/orange brick with render and tiled clay roof or slate similarly used in the surrounding settlements.

Materials will need to be chosen to weather well over time and be effective to maintain, ensuring the longevity of the scheme. Materials will need to unify the scheme but subtle differentiations should be employed adding variety and richness to the environment.



The use of 2-3 storey homes within the adjoining Catherington Park.



Typical use of orange and red bricks within the south Hampshire area.



Use of multi coloured bricks to add texture to elevations



Block Paving - used in courtyards and shared space areas



Local characteristics, including dormer windows, open porches, exposed rafter, red brick, grey and orange/ red roof tiles.

5.2 Landscape

5.2.1 Green Infrastructure Strategy

The Green Infrastructure Parameter Plan illustrates how the proposed development will incorporate and enhance significant on-site landscape features such as hedgerows, trees and valley features and the layout of the residential areas is defined by this strong landscape framework. The landscape and open space proposals will provide an attractive setting for the new development, maintaining and enhancing existing habitats through the retention of vegetation and supplementing this with opportunities for generous areas of tree planting.

Extensive areas of open space will provide informal recreation facilities for existing and future residents. These open spaces will be supplemented by green corridors around the site boundaries and through the centre of the site. These will incorporate retained trees and hedgerows wherever possible and reinforced can be with new planting to enable wildlife habitats to be retained and enhanced. These green corridors and streets will provide connections to green spaces to enable the movement of people and wildlife within an attractive setting and will connect with the wider network of space and hedgerows in the surrounding areas to all sides.

The green infrastructure will be designed as a multi-functional opportunity. Sustainable drainage features will be integrated into the overall green network as will formal play spaces. Where appropriate, the spaces can also incorporate buffers of structural native planting to providing screening and softening views to and from the adjoining areas.

The overall strategy will be to respect the existing landscape character of the site and wider area, especially the hedgerow oaks trees and views through to the ancient woodland and preserved trees to the north. In return, these existing landscape features will visually contain the development, ensuring that there will be very limited impact to the character of the wider landscape and community.

As well as incorporating a landscape structure that is integral to the site layout, the new homes will be laid out to respect the existing landscape features and create new homes that benefit from these important assets. Design responses include:

- Development parcels and streets set out to respect the site contours
- Development set back to ensure that it will not infringe the root protection areas of retained trees, and the capping to the sink holes.
- Accommodating shading patterns caused by the existing mature retained trees/woodland to ensure that there would not be legitimate pressures to fell or reduce existing trees because of unacceptable levels of shading
- Ensuring that development addresses the retained trees and woodland and, in particular, the central valley corridor in a positive manner, by avoiding rear gardens backing on to woodland, which will be part of the public realm and subject to surveillance, between houses and green space

The site benefits from a mature landscape framework and significant areas of strategic planting will not be necessary. New planting (with the emphasis on native species) can be focused on the residential development and tree planting along the streets southern periphery. The site would be maintained via an agreed integrated Landscape and Biodiversity Management Plan which may be secured by planning condition.

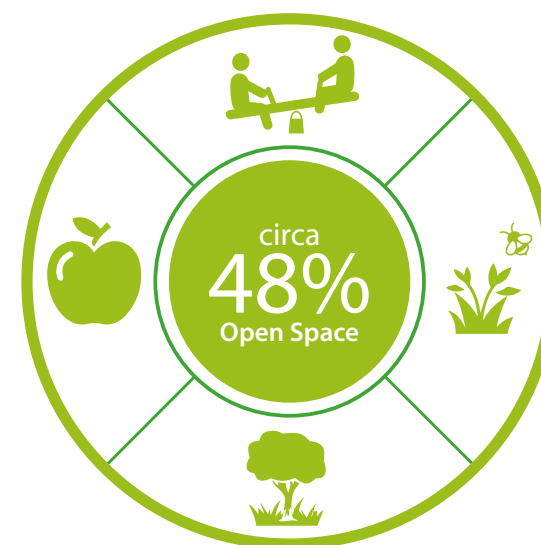


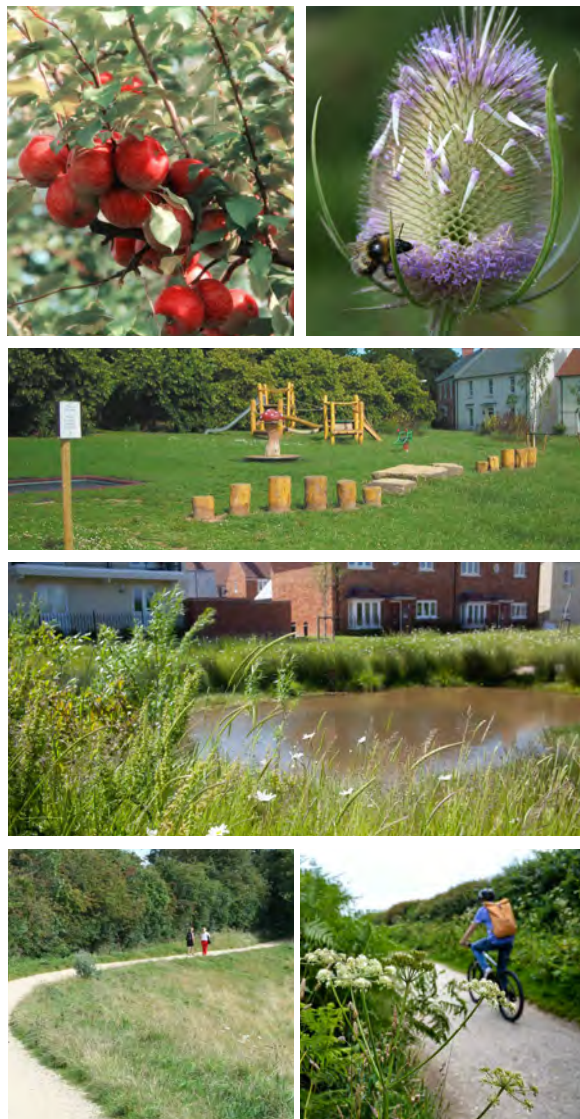


Figure 21. Green Infrastructure Parameter Plan

5.2.2 Illustrative Landscape design approach

The Illustrative Landscape Strategy and Green Infrastructure Parameter Plan show that the site can meet the following objectives:

- Create a green network to enhance biodiversity and access to amenity for the community
- Create a range of opportunities for fitness and play in line with NPPF (Section 8 Promoting healthy communities), best practice guidance and to meet local requirements. This can include a trim trail and formal play areas
- Highlight the balance between vehicles and pedestrians, with increased priority given to pedestrians and cyclists
- A 'green' neighbourhood, with street tree planting to unify the architecture and embed the development into the wider landscape – this can also include opportunities for a community orchard for example
- Recognising and retaining important trees and boundary hedgerows in the landscape to help define the character of the development
- Careful choice of materials and street furniture to enhance the understanding of the hierarchy of streets and spaces through landscape treatment
- Create new opportunities for local food growing as part of a sustainable community – this can include a community orchard as well as 'edible' species within the general planting proposals
- Create streets and spaces that are places for people to enjoy rather than simply passing through
- An integrated SuDS that will sensitively connect the built up areas with wider landscape and provide opportunities for biodiversity and amenity



Creative ways utilise the extensive green infrastructure at Woodcroft Farm Phase 3.

	Core development boundary
	Existing vegetation within the site - to be retained
	Existing Public Right of Way (PRoV)
	Existing footpath
	Proposed shared cycle/footpath route
	Proposed shared street route
	Proposed footpath
	Existing LEAP (Locally Equipped Area for Play)
	Proposed LAP (Local Area for Play)
	Existing recreational area
	Existing school and sport field on school grounds
	Proposed LEAP (Locally Equipped Area for Play)
	Proposed LAP (Local Area for Play)
	Suggested trim trail station
	Proposed open space
	Proposed private garden
	Suggested orchard
	Indicative new trees
	Proposed attenuation basin locations (SuDS)



Figure 22. Illustrative Landscape Strategy

Central linear Valley Park

The Linear Parkland areas provide a range of connected green spaces, with a variety of uses including local food growing, local amenity, meadows, and local ecological habitats.

The Linear Valley parkland landscape includes:

- Areas of productive landscape, including opportunities for community orchard garden area.
- Informal open spaces, providing visual amenity and passive recreation.
- Tree planting and hedgerows and the creation of green links throughout the development.
- Greenway/ bridleway.
- Play space and fitness trails.
- Ecological spaces, including meadows.



Sustainable drainage systems integrated into the landscape (Grainger Plc - Berewood)



Illustrative section of Linear Park

A greenway will pass through this landscape - providing access for pedestrians and cyclists.



Central space and proposed residential relationship: This focal point network of landscaped space should include natural woodland, glades, and ponds providing a variety of open space, increasing both habitat and recreational value of the area. Planting should be native and aim to increase habitat value.



Illustrative section showing the southern edges of the development and new planting with SUDS spaces and informal amenity to provide a defined green boundary.

Illustrative section of Linear Park



Illustrative section showing how built form can interact with the green network of spaces, which also form a buffer to the rural edge of the site, and provide a range of natural ecological, and amenity spaces.



Informal play areas



Trim trail to encourage healthy lifestyle

5.2.3 Play

A series of play spaces will be provided, in line with Fields in Trust standards and East Hampshire District Council Local Plan policies. These will be distributed throughout the site to ensure easy walking access for all age groups. Facilities will include one LEAP, and up to three LAPs, as well as informal play and tranquil spaces.

Each space will be connected as part of a green web of spaces and also incorporate walking routes and a circular fitness trail with key activity stations.

5.3 Ecology

The illustrative masterplan layout (and the fixed requirements of the parameter plans) recognises the importance of the central valley, hedgerows and tree lines as flight corridors for bats and other foraging species including badgers.

With the exception of the southern access point, the majority of hedgerows would be retained and a new native hedgerow would be planted where enhancement or repair is required. A 10m buffer (minimum) is proposed along the boundaries, as a minimum 15m distance from the protected ancient woodland to the north of the site.

The central north-south valley area is a key focus to local habitats and provides a strong foraging corridor linking adjoining green corridors to the wider landscape network and woodland to the north.

The design of the proposed development intends to retain and protect the area, and has carefully avoided significant severance of this space via the two separate vehicular access points to the east and west development parcels. The southern access will impact upon the extensive badger sett network and therefore additional mitigation work will also be required.



Illustration of the central valley green space - high-quality multi-functional open space.



Pedestrian friendly development encouraging walking



Insect hotel - allowing for diverse habitat creation



Bird boxes on buildings or trees will assist with habitat creation

5.3.1 Central Valley

Within this central multi-functional space careful consideration will need to be made of any lighting of adjoining streets and footpaths. Within the central space and wider green network, high level lighting should be avoided wherever possible to avoid impact on foraging species, and in particular bats.

5.3.2 Key enhancement measures proposed

The following are recommended for ecological enhancement as part of the proposed development:

- The creation of the woodland buffer zone within the bat corridor will create an area of high-quality native scrub for on site. This habitat will increase the foraging potential for bat, bird and invertebrate species.
- The creation of the central corridor of green space habitat around the badger sett will include a diverse mix of native fruiting species and will create an area of increased sward diversity over the existing habitats present. This area will also create a green space corridor connected to the hedgerow and peripheral habitats around the site to prevent fragmentation of habitat.
- The development includes the creation of a species rich native hedgerow, and retention of the existing hedgerows.

This habitat will include a number of native fruiting trees such as hazel, hawthorn and guelder rose (*Viburnum opulus*) which will provide foraging resources for birds at different times of the year.

- Where any close boarded fencing is to be installed, gaps measuring 13cm by 13 cm will be provided to allow for hedgehog movement across the site. There will also be an increase in hibernation suitability for this species as the proposed planting scheme includes tree species with suitable leaves for nest construction such as field maple.
- The proposals will incorporate integral features for nesting birds within 50% of the new dwellings across the site which will support nesting and boost fecundity. These integral boxes will include nesting provision for swifts, house sparrow, house martin, and swallow. The swift nest bricks will be installed within the new development in clusters of two to three bricks with the other boxes being installed at eaves height.

**Biodiversity
Net Gain
+10%**





5.4 Sustainability

Sustainability is a key component of the development vision. The scheme has been designed to minimise car travel and optimise walking, cycling and public transport use. Linkages to nearby employment and community uses off-site are also good. The scheme embodies a high level of transport sustainability.

5.4.1 Sustainable drainage

Management of on-site hydrology will be a feature of the development. A mix of new SuDS features will be added as part of an overall water management strategy, including dry and wet ponds and swales to ensure improvements and reduction of off-site run-off.

The proposals are supported by a Flood Risk Assessment and SuDS and Drainage Strategy, which has been submitted in support of the masterplan proposals.



Drainage ponds can also be used to enhance biodiversity.

5.4.2 Energy efficiency

In relation to energy and the desire to be a low carbon development, the most essential ingredient for any major new housing scheme is to achieve low energy buildings and a low energy layout.

The development will comprise fabric first, well insulated and energy efficient buildings throughout, encouraging energy monitoring systems so that future users are acutely aware and able to control energy use.



Use of photovoltaics at Catherington Park

A significant part of the site is south facing, hence its overall orientation is ideal for maximising passive solar gain, taking advantage of solar technologies and reducing energy costs. A high number of the houses will have at least one south facing main elevation, facilitating passive solar gain. Solar photovoltaics will be installed on south facing roofs, where feasible and appropriate.

Efficient, Electric Heating Systems

The development is going to be electric-led, moving away from use of fossil fuels such as natural gas. Systems such as Air Source Heat Pumps have been proposed.

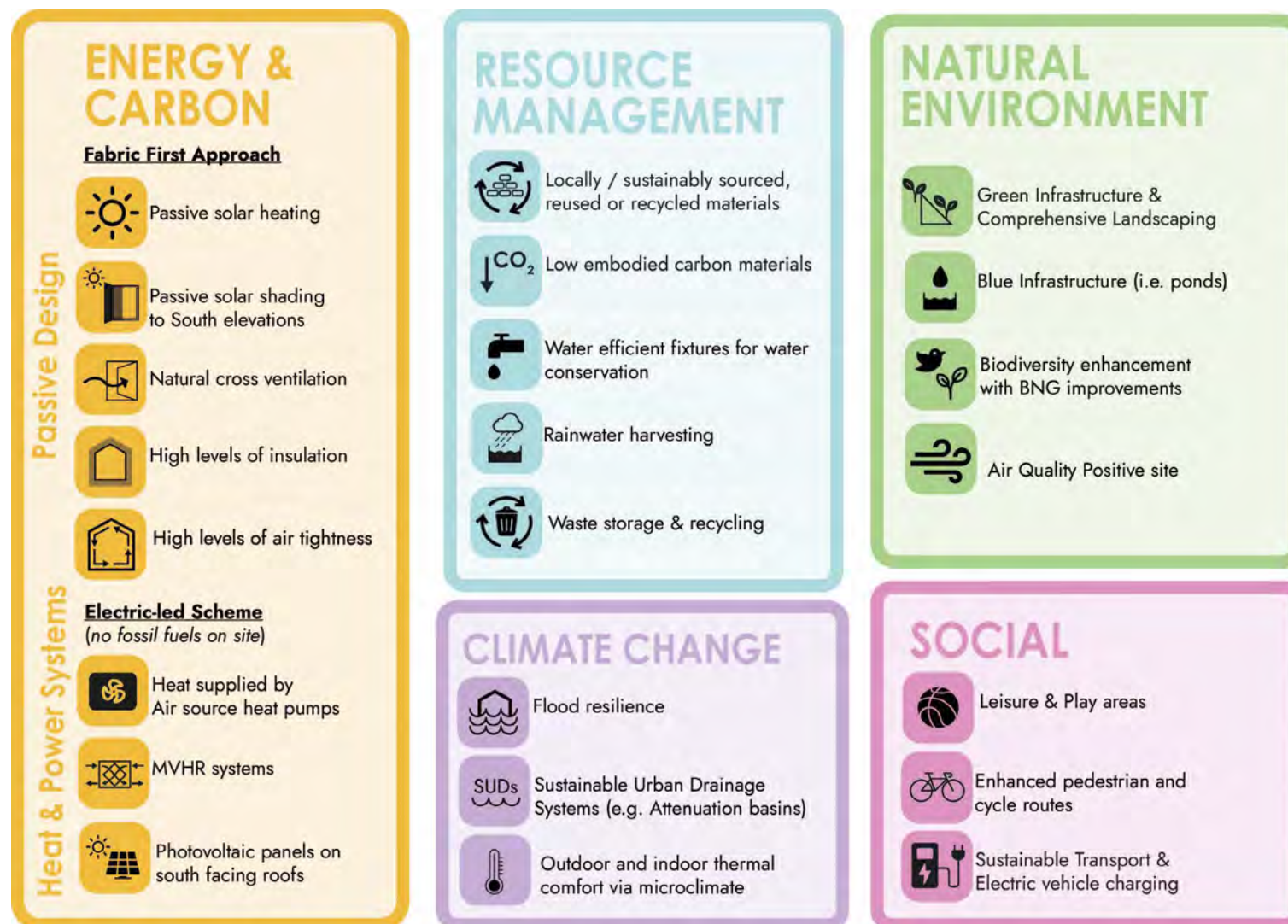
Monitored energy

Both heat energy demand and consumption will continue to be monitored and reported, for better efficiency and maintenance. Smart meters will monitor all energy to improve community awareness.

Prevent overheating

Implemented measures from masterplan to building level, will continue to avoid overheating homes as temperatures rise in the summer months. Proximity to water, greening and openable windows.

The Energy and Sustainability strategy for Woodcroft Farm Phase 3 aims to design a development that responds to key sustainability criteria, relating to:





5.4.3 Greening

The local community will benefit from a number of surrounding open green areas and amenities. The development will provide several natural blue/green areas to the new and surrounding neighbourhoods.

5.4.4 Electric Vehicles

Homes with in plot parking will be designed to incorporate adequate charging facilities for private electric vehicles. Denser residential areas, including apartment blocks, will allow for communal charge points for cars. New public charge points will be provided in key strategic locations through the development.



Public electric car charging points incorporated into the development

5.4.5 Waste and Whole Life-cycle Carbon

A whole life-cycle carbon approach is proposed to reduce carbon emissions and maximise reuse and recycling, design out waste, design for durability and flexibility and more to reduce carbon emissions from construction and operation. Waste Management

Woodcroft Farm development will ensure waste is suitably stored, collected and disposed of across construction to operational stages to ensure recycling of waste is maximised and diverted from landfill. Circular Economy

Circular Economy principles will be followed, aiming to maximise value of materials and extend use as long as possible. Waste hierarchy principles will be followed which include maximising reused or recycled, leaving a minimum of residual waste.

5.4.6 Social Inclusion and Impact

Social inclusion, cohesion and a strong community focus are key elements of the vision and the design concept. The scheme incorporates open space, recreation and other essential elements. Affordable housing is integrated in all phases, built to a standard that is indistinguishable from housing for sale.

Positive Social Impact

- Promoting health & well-being in design
- Improved air quality
- Meeting local housing needs with a target of 40% affordable housing
- Large public space provisions, including children play areas and fitness trails
- Community focused landscapes
- Local Area for Play (LAP) provision
- Walking and cycling is promoted to influence healthy lifestyles
- Cycle parking is proposed to be incorporated into the site in line with the local standards for residential units
- Lighting elements and configuration design for safety and security.
- House and flat size diversity, including 1,2 3 and 4 bed dwellings
- Incorporation of edible landscape as a social hub.

An Energy and Sustainability Strategy has been prepared in support of the current proposals.

5.5 Healthy Living

A key objective of the development is to support health and well-being and therefore a key theme underpinning Woodcroft Farm Phase 3 is to design a place that supports healthy living, coupled with access to open space.

The form of the masterplan and activities will enable people to partake in a healthier lifestyle, including: access to local food growing, exercise and fitness, fresh air, outdoors and interaction with nature. This will be implemented by a number of practical measures, trails, and an orchard.

Exercise and fitness will be encouraged by the provision of trim trails, walking, jogging and cycling routes, both within the site and utilising the site's excellent linkages and connectivity into local network of footpaths and bridleways.

The intention is for the community to be in contact with the outdoor environment, the landscape, ecology and biodiversity. The concept and layout will encourage people to walk to essential facilities, cycle and enjoy the outdoor environment as fully as possible. It will be easy to reach local facilities (education, healthcare, local shops, community and recreation areas) on foot or by cycle, rather than by car.



Opportunities for a wide range of uses for open space on site.



Illustration of the landscape led approach to the development.

06. Access

Illustration of primary street through linear green space and use of pinch-points to assist pedestrian connectivity along the north-south footpath.





06 Access

6.1 Objectives

6.1.1 Approach

A key objective of the movement framework is to create a clear pattern of streets within the development and ensure the area and its surroundings are easily accessed by foot and cycle. This can only be done by balancing the movement hierarchy and avoiding a car-led development. Movement priority will need to be focused on pedestrians who will be placed at the top of the hierarchy. Cars will be given the lowest priority on most streets. The future movement hierarchy in the development will need to respond to the requirements of the following key users in this particular order:

1. Pedestrians
2. Cyclists
3. Cars

6.1.2 Vehicular access

Vehicular access to the site will be provided via the existing development at Catherington Park. Specifically, it is anticipated that the western parcel of development will be serviced by a vehicular access provided from Wilkes Way to the southern side of the site, with shared

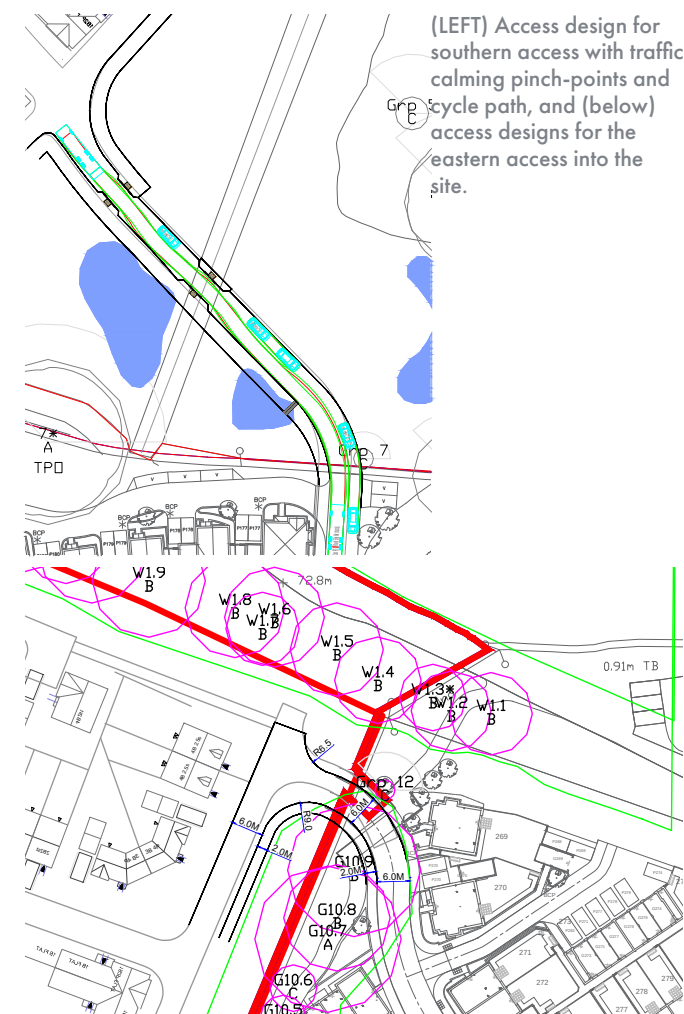
footway/ cycleway provided along the southern side of the carriageway. The eastern parcel of development would be served by a vehicular access with a shared footway/cycleway provided from Merritt Way to the eastern side of the site. The two parcels would then be linked by a shared pedestrian/cycleway (which will also serve as an emergency access). Separate pre-application engagement will be undertaken with Hampshire Highways in order to confirm the parameters of junction modelling and confirmation over layout of proposed accesses, though the proposed designs are show opposite.

Overall, it is considered that the proposal promotes sustainable development in transport terms.

6.1.3 Internal movement

From the primary access points from the south and east, a network of streets will produce a well-connected environment, focused on good pedestrian movement. These will be overlooked streets and lanes, and not purely roads or footpaths between development blocks.

Each development parcel (east and west) will be interconnected by numerous pedestrian links and also a new shared footway/ cycleway that will run east to west across the site.



A number of connections will be formed allowing new and existing residents to access the site and the adjoining footpath networks (including PRoW and BOAT).

Footpaths and cycle routes will be designed to be overlooked by development wherever possible to provide natural surveillance. Improved links into the countryside network of bridleways and footpaths will be provided. Development will follow the principles of traditional perimeter blocks (street elevations that are enlivened by visible activity) and create a coherent new street pattern, responding to uses, scale and landscape design.

The layout of the development, together with the detailed design of streets, aims to ensure that walking and cycling are the more likely modes of choice over short distances, and that the ease of access to nearby public transport will become a more attractive mode over longer distances. It will be a place that does not rely heavily upon the car as a primary mode of transport, provides opportunities to reduce pollution and congestion, and create a more lively and varied area.



6.2 Street types

The strategy is to create a range of streets:

- Main Streets
- Residential Streets
- Lanes
- Courtyards

6.2.1 Main Streets

The main streets will provide the main movement route into each development parcel, linking into the adjoining streets via Wilkes Way/ Hudson Gardens to the south, and via Merritt Way to the east, linking into the wider local street network.

6.2.2 Residential Streets

Streets form the main access routes to blocks within the proposed development. Priority should be placed on the design for pedestrians and cyclists as well as providing access for vehicles (except buses and commercial vehicles). Streets should be designed to provide a more formal arrangement, and this should be reflected in the proposed arrangement of buildings, footpaths, on-street parking (parallel or right-angle) and traffic calming.

6.2.3 Lanes (shared surface - tertiary)

Lanes will provide an alternative form of access to blocks within the proposed development to streets and should be used where traffic flows will be lower. As with streets, priority should be placed on the design for pedestrians and cyclists as well as providing access for vehicles, and can be designed as shared surface areas.

6.2.4 Courtyards/ private driveways

Courtyards should be designed according to home-zone principles. The aim is to create intimate spaces where pedestrians and cyclists have priority over vehicles. The route for vehicles through the space should be wide enough to provide access for removal vans, refuse vehicles and fire tenders, with spaces to allow vehicles to pass.

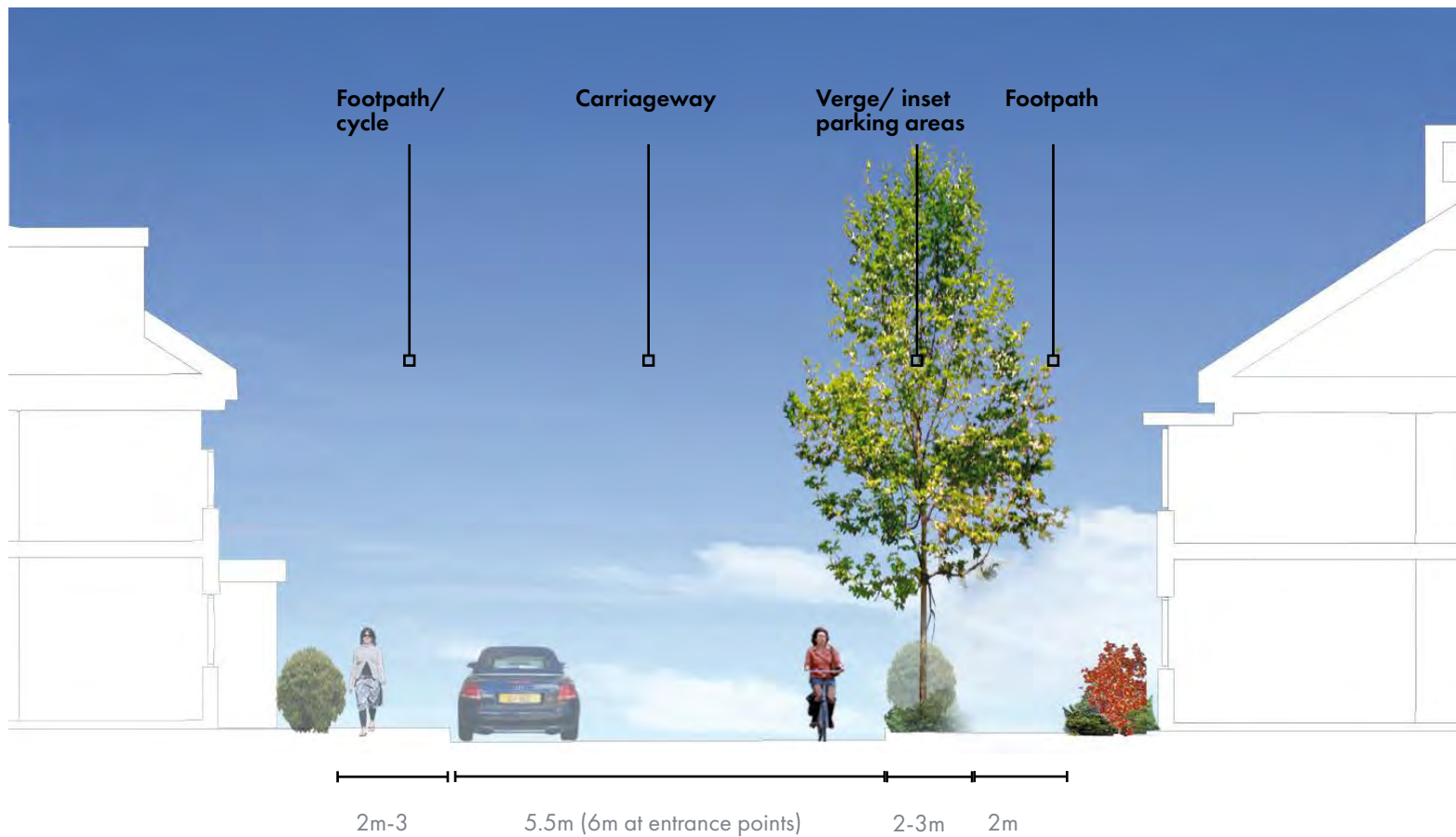


Figure 23. Access and Circulation Parameter Plan

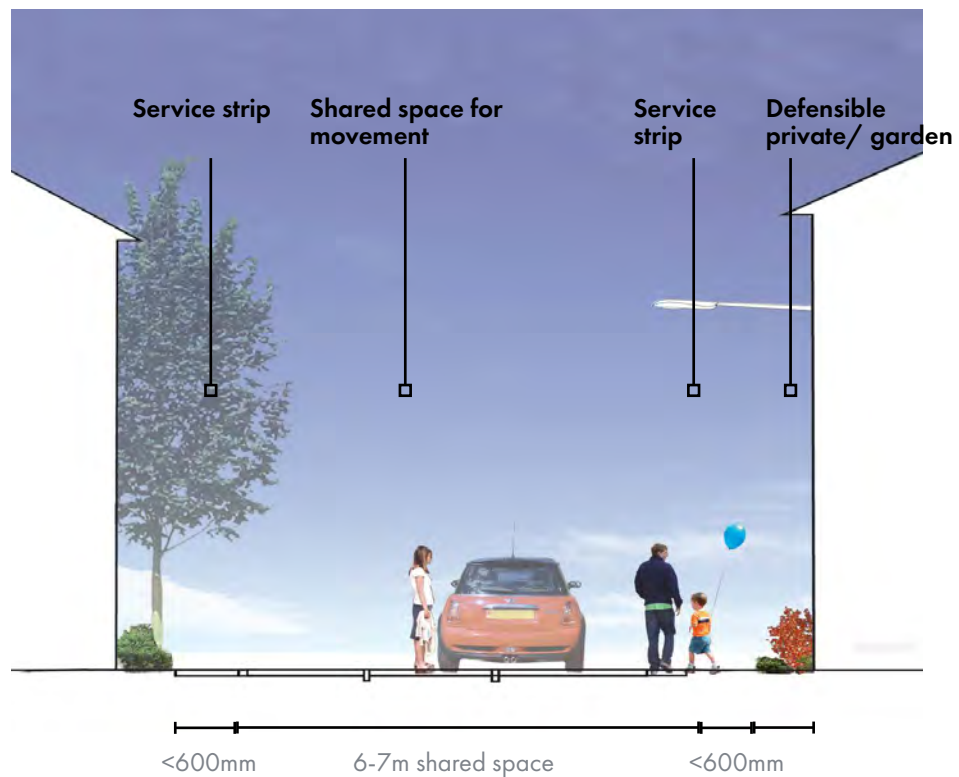


Figure 24. Illustrative Access and Circulation Strategy

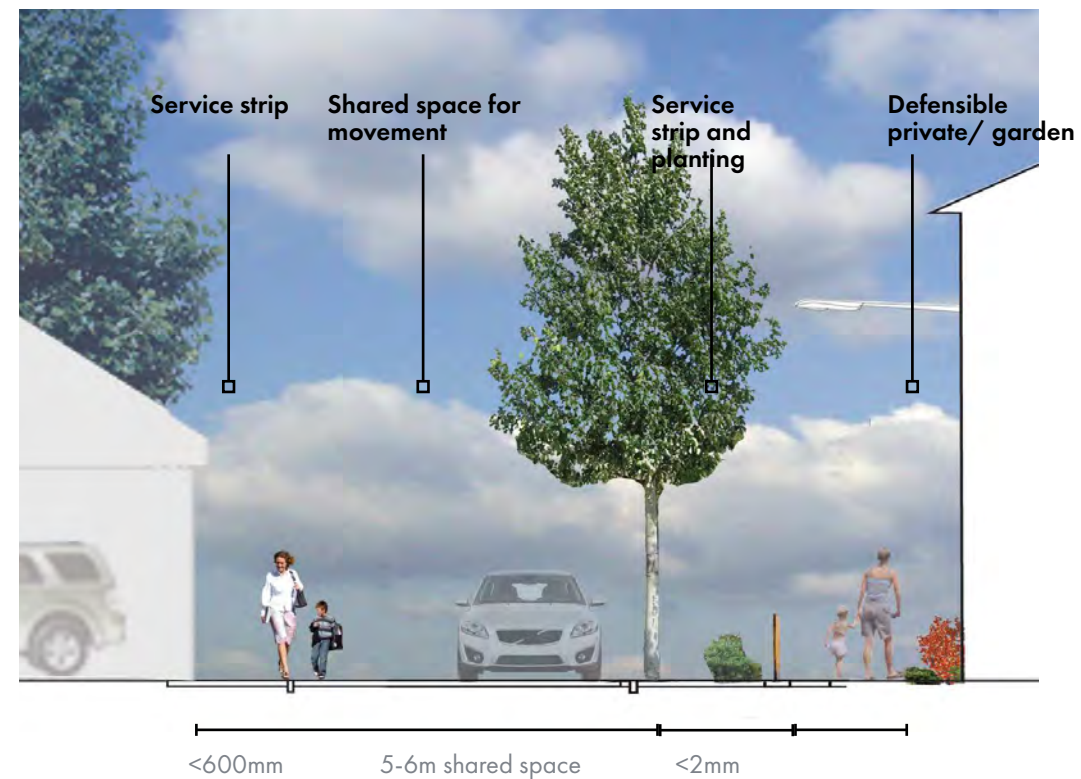
Main Street - Typical Illustrative section



Lane/ Shared Street - Typical Illustrative section



Lane with Parking/ Courtyard - Typical Illustrative section





Use of block paved shared space parking lane at Catherington Park