



Cambourne West Cambridgeshire



Design Code
Rev 0



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Fig. 1: Cambourne West Location



Fig. 2: Cambourne West overview plan

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1.1 Background and context

Cambourne originally gained planning permission in 1994 as a 3,300 home new settlement. It promoted three linked villages separated by wide green valleys, a high street connecting the three villages in the centre of the site and a Business Park in the north west of the site with the whole development surrounded by boundary woodlands. This original form of development has been maintained as refinements to the original Masterplan have occurred. Additional planning approvals mean that the original area of Cambourne now has C. 4,250 homes.

Cambourne West promotes an additional 2,350 homes and associated infrastructure and open space to the west of Cambourne. The residential area of Lower Cambourne and Cambourne Business Park lie to the immediate east of the Site, beyond a strip of woodland. Cambourne Village College lies on an area of land that extends into the Site. The administrative centre of the District (South Cambridgeshire District Council (SCDC) office) is located within Cambourne Business Park and other areas of Cambourne including the High Street, lie further east.

Cambourne is now a vibrant, established community. It successfully combines the best attributes of town and country living in a unique and self-sustaining residential environment.

The development of Cambourne West must continue to learn from what works well at Cambourne, and also from other large scale developments in the wider area. This document has, in part, been informed by a detailed assessment of what works well and not so well at Cambourne, along with best practice examples of recent housing developments, primarily around Cambridge. It is intended to play a vital role in guiding the design of Cambourne West to ensure it enhances the settlement as a whole in terms of design quality, sustainability and community cohesiveness.

1.2 Purpose and status of this document

This document builds on previous Cambourne design guidance. It attempts to create a user friendly, accessible, single point of reference, to guide the design and delivery of Cambourne West.

This document sets out fundamental design guidelines for Cambourne West. It accords with the aims of the original Masterplan and Design Guide and responds to the way ‘best practice’ and guidance, on urban design, housing density etc, has changed since the original Masterplan was approved and also what is seen as good and bad practice in Cambourne to date.

The principles and layouts are given to aid the design process, not to limit it with rigid rules. Plans are intentionally diagrammatic and are not to scale in order to retain flexibility and aid the creativity of the design process.

Imaginative and innovative design solutions are encouraged. Schemes that diverge from the details within this document will only be considered if they meet the broad aims of this document and offer additional design benefits or design excellence.

This document will provide guidance to the designers of individual schemes, be used in support of individual applications and aid in the approval of applications. Supplementary Design and Access Statements will be provided with these applications to provide further, more detailed, information.

1.3 Evolution of the masterplan

Following Outline Approval the masterplan has continued to develop with input and support from SCDC and the Cambridgeshire Review Panel. The following key refinements are now incorporated in this Design Code:

Spine road area north of the secondary school: The spine road has shifted slightly north to allow built form to frame the road on both sides, creating an avenue and making best use of what is intended to be a high density bus corridor and key community area.

Spine road central section: This spine road is diverted into the residential area between the East/West Greenway/Central Green and the Sports fields. This allows the central, wetland area of the central green spine to have a quieter, less car dominated character and creates a strong change in character along the central section of the spine road.

1.4 Proposed schools

The Education Authority are in the early stages of the design process for the proposed schools at Cambourne West. The location of the school buildings are subject to change as part of the detailed design process.

Therefore any references or graphic representations of the schools within this document are illustrative only.

1.5 How to use the code

This document is intended as a reference guide for all those involved with the design of Cambourne West.

It is split into 7 sections that are all interrelated:

Section 1: Introduction

Explains the document’s background and purpose

Section 2: Development vision,

Key objectives and design principles

Section 3: Site wide coding

Covering whole site guidance that also impacts on and influences specific area guidance

Section 4: GI spaces and places

Guidance for specific landscape areas, that also influences and impacts adjacent neighbourhood areas

Section 5: Neighbourhood places and spaces

Guidance for specific neighbourhood areas, that also influences and impacts adjacent landscape areas

Section 6: Delivery

Section 7: Appendices

Code compliance



Mandatory elements which **must** be provided are indicated using the word 'must' and the above symbol next to images/illustrations.

Where compliance is **recommended** the word 'should' is used. If the developer/design teams do not follow recommended guidance the departure **must** be justified in future reserved matters applications. A divergence would need to be discussed and agreed with SCDC at pre-application stage and will only be considered if they meet the broad aims of the code and offer additional design benefits or design excellence.

1.6 Navigation of the code

Sections 1,2,3, 6 and 7 of the code are relevant to all users, irrespective of which part of the site is being considered.

Depending upon location, only certain parts of section 4 and 5 will be relevant. The overview plan next to the table of contents shows which sections of this document relate to which areas of the site.

Pink coloured boxes (as indicated in the bottom right hand corner on this page) are used throughout the document to highlight supplementary guidance or information (relevant at the date of publication of this Code) which **must** be referenced (or later up to date versions / replacements) when considering the design and development of Cambourne West. Where provided, specific guidance within this Design Code **should** take precedence over any contrary information contained within other guidance.

1.7 Development of the document and supporting information

This document was produced between August 2017 - March 2019 by Randall Thorp and GSA on behalf of Taylor Wimpey and Bovis Homes with the support of SCDC. Additional input has come from:

- Cambourne Parish Council
- Cambridgeshire County Council
- WBP
- TPA

In addition to the Design Code, a number of other documents have been submitted to South Cambridge District Council.

It is important for developers and designers to read these documents in order to fully understand the principles upon which the masterplan has been prepared.

The following plans have been approved as part of the planning permission and **must** be referenced when designing Cambourne West:

- **Site Boundary**
- **Location Plan**
- **Illustrative masterplan**
- **Parameter Plan 1 - Tree removal**
- **Parameter Plan 2 - Greenspace**
- **Parameter Plan 3 - Landscape and ecology**
- **Parameter Plan 4 - Development areas**
- **Parameter Plan 5 - Access and circulation**
- **Parameter Plan 6 - Building height**

These are appended to this document
Please refer to outline planning permission for further information.

2.1 Cambourne West vision

The shared vision for Cambourne West is to create a thriving, vibrant, sustainable urban extension with a strong sense of community and identity where people enjoy living. It will be a collection of neighbourhoods, as well as schools, community and sport facilities, that will extend and integrate into Cambourne. It **must** adopt and take forward the best elements of Cambourne, to enhance the settlement in terms of environmental, social and economic sustainability.

Cambourne West's unique character will be derived from its strong landscape structure: the central green spine, forming the heart of the place and boundary woodlands enclosing the place. Built form and spaces will be integrally linked to the landscape setting to create a place that exploits this authentic and distinct identity, deriving character from the immediate landscape: formal and informal landscapes, views, open spaces, lakes, meadows, greens, woodlands, skylines and enclosure. Three distinct residential neighbourhoods will be formed: Swansley Park, Sheepfold and Woodfields.

Swansley Park is closely associated with Lower Cambourne and shares some of its village characteristics. It is surrounded on all sides by a rich network of landscape spaces and wetlands, and includes the main southern entrance to Cambourne West.



Sheepfold welcomes those arriving from Cambourne from the east. It has a comparatively contemporary and formal character. A range of facilities are provided here including a secondary school, business park, community centre and playing fields.



Woodfields is the largest district, containing nearly half of the new homes in Cambourne West. This area has an informal and rural character in response to the woodlands that enclose it to the north and west, and the landscape spaces to the south.



Fig. 3: Swansley Park illustration



Fig. 4: Landscaped open space/wetlands illustration

2.2 Key objectives

<p>Character:</p> <ul style="list-style-type: none">• Be a development based on the regional landscape context and local vernacular.• Use local tradition to inform the overall structure, scale and order of spaces and buildings as well as the use of materials.• Use open space to define unique neighbourhoods both geographically and in terms of character, to make the place distinctive and to aid legibility.• Create contemporary interpretations of nearby historic villages and market towns to ensure individual buildings and character areas provide variety in heights, materials and architectural approach.• Create contemporary architectural typologies which range from rural to village and market town in character.• Deliver high quality homes designed for the 21st Century which offer lifestyle choices that promote health and well-being.• Provide homes with access to communal or private outdoor areas, in the form of gardens of various sizes, urban patio areas, roof terraces and balconies.	<p>Community:</p> <ul style="list-style-type: none">• Provide a range of housing types to suit different lifestyles and cater for a wide range of people - helping foster a strong sense of community.• Create a range of accessible facilities, managed by the local community, that will benefit residents of Cambourne West and wider Cambourne.• Create flexible indoor and outdoor community spaces for social activities, including community events and markets as well as areas for informal and formal sport, play and recreation for all ages.• Create sociable streets, facilities and spaces which will encourage community interaction and provide opportunities for face-to-face contact, and avoid segregation of the elderly and less able.• Provide a 'people-focused' network of streets that are not dominated by cars.• Make food growing easy by providing community orchards, allotments and foraging greenways.• Introduce a range of shops, services and community facilities to provide for the basic daily needs of the community.• Introduce homes that can accommodate working from home.• At key locations, introduce units with flexible ground floor plan and additional ground to ceiling heights which may accommodate a conversion to small businesses if the demand arises.	<p>Connectivity:</p> <ul style="list-style-type: none">• Ensure housing areas are integrally linked to the high quality open spaces which are located within short walking distances of all homes.• Create a wide range of green spaces varying in size and character, from parkland, to squares and pocket parks, allotments, gardens, green roofs and balconies, allowing all residents and visitors to enjoy recreation and connect with the natural environment.• Create quality open spaces which combine to create an attractive, accessible, inclusive and walkable place with good cycling and walking connections and excellent access to facilities and nature.• Create a network of off road routes: footpaths, pedestrian/cycle shared use paths and bridleways which connect Cambourne West to the rest of Cambourne and beyond.• Provide convenient access to existing and proposed employment areas, with the focus on sustainable modes of transport.• Allow for bus services to permeate the development providing public transport options to the rest of Cambourne, Cambridge and beyond.	<p>Climate:</p> <ul style="list-style-type: none">• Create safe, accessible, tree-lined streets and routes which provide a connected network along with encouraging non-motorised transport and active mobility.• Provide a variety of sustainable transport methods including access to public transport and the new bus link to Cambridge/St Neots leading through the site.• Ensure that new houses are designed so that access to cycles is as convenient as access for motor vehicles.• Protect against flooding through a site wide SuDS strategy.• Ensure that water saving behaviour is encouraged by incorporating appropriate measures to reduce consumption and encourage re-use of water for watering gardens.• Address climate change mitigation through landscape design and building design. Use trees as natural coolants and for carbon capture.• Building design should consider the latest sustainable technologies.• Create a diverse, ecologically rich landscape through the use of green corridors to enhance opportunities for wildlife.• Encourage recycling through community BRING sites and household waste management.
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2.3 Masterplan principles - key places and spaces

A series of key places and spaces are fundamental to the masterplan. These make the scheme unique, providing facilities for the new and the existing communities to use and help establish a strong sense of place and journey. The design principles are mandatory but the masterplan shown here is illustrative.

- 1 Boundaries** - New woodlands **must** be planted along the boundaries to link to the existing woodland along the western boundary. Breaks in the woodland **must** allow glimpsed views towards the development from adjacent roads and will allow the creation of smaller 'fields' and meadows on the development edges.
- 2 Central spine road** - The main spine road links the southern access point to Sheepfold Lane to the north. This meanders through the central green spine and residential areas to create a memorable route with a strong sense of place and journey. It ensures the green spine is visible and accessible as the defining feature of the development.
- 3 Central green spine** - The 'green spine' along the central valley is the landscape at the heart of the place, linking to all other places and key buildings. It **must** be a series of open spaces of different character, including: a village green; orchard; ponds and wetlands; formal parkland; meadows and community sports and play areas.
- 4 Swansley Green** - The journey from the south with its - 'threshold - entrance - arrival' space is designed to enhance the sense of arrival. Country houses and associated parkland features of the local area are the inspiration for this area. New woodlands screen most views of the development from outside. Glimpses of the site are revealed with views over Swansley Lake. The spine road bends into the site with the lake as a threshold before entering a formal area of parkland landscape, Swansley Green, that creates a grand arrival space.
- 5 Central Green** - A large village green creates a community hub where the spine road and east/west greenway cross and marks the point where the spine road enters/emerges from residential area to open space. A primary school overlooks the north of the green with a kickabout area adjacent. A large play area interacts with a village pond and wetland to form a focus to the green whilst an orchard and potential shop provide additional community facilities.
- 6 Greenways** - These attractive, safe, off road routes weave through the development following the alignment of historic hedgerows to link all areas of open space together and link Cambourne West to the rest of Cambourne.
- 7 Neighbourhood Greens** - Smaller local greens create a community focus of open spaces and play opportunities in the heart of each neighbourhood.



Fig. 5: Cambourne West birds eye view



- 8 Northern approach** - The Sheepfold Lane approach from the north will be widened and new footways and pedestrian/cycle shared use paths provided. A bend in the road restricts views of the new development, whilst the existing woodland creates a threshold that is passed through before Cambourne West is revealed. The squares within Sheepfold create an arrival space at the northern entrance with connections to the employment area to the north and the local centre and education campus to the south.
- 9 Sheepfold Square local centre** - A second, larger square marks the entrance to the local centre at the eastern end of Sheepfold Avenue. A vibrant mixed-use residential/retail space, with a local convenience store, cafe/restaurant and formal 'village square' benefits from the proximity of the education campus and existing business park.
- 10 Educational campus** - The grouping of schools creates a 'campus' which enhances their sustainability and forms a community hub that binds the new and existing communities.
- 11 Sheepfold Avenue** - The Avenue has a strong, enclosed, contemporary, urban character, taking its design cue from the adjacent Business Park and the public squares. It sets the design character for the whole northern area with community facilities at each end.
- 12 Sheepfold Green Sports Hub** - This provides a community focus at the western end of the avenue and northern end of the green spine. The community centre provides a landmark building at the end of The Avenue, marking the point where the road emerges from built form and enters the green spine. This hub of sports and play facilities will form a logical destination and community heart at this key location.
- 13 The Wetland** - This quiet, naturalistic area in the centre of the green spine, separates the busier community hubs of Sheepfold Green to the north and Central Green to the south. Homes directly overlook the reed beds with the spine road diverted away from the green spine at this point.
- 14 Swansley Primary School and allotments** - These community facilities are located adjacent to the eastern greenways to be easily accessible to both the existing and new communities of Cambourne.
- 15 Employment areas** - Employment areas targeted at small to medium sized operators will be provided in two locations: to the north east of the site - extending from the existing area of employment along Sheepfold Lane into the main site; and by Caxton Gibbet to the north west. They are easily accessible to the new community but minimise traffic through residential areas.
- 16 Woodfields Primary School** - New primary school located in the heart of Woodfields creating a community focus for the Central Green to the west.

3.1 Urban design principles

The combination of well-considered and appropriate architecture, townscape and landscape will come together to create a high quality development. This diagram shows the key urban design and placemaking influences that **must** be considered and reflected in future layout design of individual development parcels.

The intention is to inspire design that is visionary, yet entirely deliverable. A holistic approach will produce a design that carefully balances all the requirements of the development.

Designers are expected to provide an appropriate interpretation of each urban principle defined in the urban design principles plan (Fig 6), in the context of setting and local character.

The broad principles are explained in more detail on the following pages. Precedent images are included to demonstrate how the principles may look and give a flavour of successful urban design.

- KEY
- Key frontage A: predominantly continuous built form
 - Key frontage B: generally continuous built form with some gaps between buildings
 - Open space frontage: generally broken built form
 - Frontage A with potential for retail use on ground floor
 - Marker buildings
 - Non-residential marker building (indicative location)
 - Gateway space
 - Built form node
 - Key vista (location of tertiary streets/views is indicative only)
 - Important landscape view
 - Landscape node



Fig. 6: Urban design principles

Key frontage A

Key frontage that define key spaces and thresholds along the primary spine roads throughout Cambourne West.

- The design principle is to create strong enclosure and built unity. Designs **must** achieve this.
- Predominantly continuous built frontages, linked at first floor level (with the option for some to be linked by garages), or other design solutions that meet the design principle above **must** be used.
- Gaps **should** only be provided for access to streets stemming from the spine roads.
- Buildings within linked rows **must** have shared characteristics (such as architectural form, massing, materials, detailing, and roofline) and **must** respond to the street character type (see section 3.11) and/or character of each place they overlook (see sections 4 and 5). This also applies where frontages are located on opposite sides of a main route or are to be delivered in different phases.
- Active frontages (fenestration to habitable rooms and entrances) **must** be provided on all public realm faces. Architectural features such as bay windows, gables and balconies **should** be used.

Key frontage B

Key frontage that overlook the primary road and secondary routes and other key landscape spaces.

- Buildings **must** form generally continuous built frontages, providing enclosure to frame streets and key vistas, with some gaps between buildings to create streets that are less formal in character.
- Frontages **must** have common characteristics to provide a unified street scene, and **must** be designed to be distinctive and characterful to reflect the character of the street or area they front on to.
- Active frontages **must** be provided on all public realm faces.
- In areas where Key Frontages A and B adjoin each other (e.g. Sheepfold and Swansley Entrance) Key frontage A **should** define the approach taken to Key frontage B.

Open space frontage

Frontages that overlook the site-wide open space network.

- Buildings **should** form generally broken built frontages, with a higher proportion of gaps between buildings to reflect the more informal character at the periphery of blocks.

(continued overleaf)

Frontage type A



Shared building style and materials used on linked buildings



Continuous linked built frontage along length of street



Shared form, materials, detailing and roofline

Frontage type B



Generally continuous frontages along type B roads



Complementary building materials with some gaps between built form



Inactive frontage caused by too many garages and blank elevations



Weak enclosure to secondary street with blank gables

Open space frontages



Broken but characterful built form interface with public open space



Detached homes face outwards onto public open space



Building style and scale designed appropriately in relation to open space



Homes do not look directly onto public open space

- Buildings **must** predominantly front onto the open spaces to provide casual surveillance and encourage people to use them. Some rear gardens with high quality boundary walls fronting the open space will be appropriate to give the appearance of low density.
- Architecture, detailing and materials **must** respond to landscape character of each place they overlook (refer to sections 4 and 5).

Marker buildings

Marker buildings are defined as individual buildings that **must** provide accents within the scheme to help navigation and wayfinding.

- Marker buildings **should** articulate corners or terminate key vistas and views. Active frontages **must** be used on corner buildings.
- Buildings **should** aid orientation and navigability and **should** be noticeably distinct from other buildings either side by a change in height, style and/or materials. Further guidance on how this **should** be achieved is provided in sections 3.12, 3.13 and 3.14.

Gateway space

The gateway spaces are located at the main vehicular arrival points into Cambourne West. They are busy well-used spaces which **must**:

- Be visually attractive, and set the tone for the public realm and architecture at Cambourne West.
- Be distinctive entrance features through a change in form/materials.
- Provide strong enclosure to the arrival spaces: the south west space is enclosed by landscaping and built form; and the north east space is enclosed by continuous built form.
- Be visually and physically balanced to either side of the street through use of similar massing/height/form/materials/landscaping.
- Have high quality landscaping including semi-mature tree planting.
- Terminate views from pedestrian/cycle routes and streets.
- Be in accordance with the details provided in section 5 of this document (strategic area 1 and strategic area 8).

Built form node

These spaces mark the convergence of routes, and provide variation and punctuation within the development parcels. They **must**:

- Provide a distinct change in character through a change in massing/height/form/materials/architectural detail (sections 3.12, 3.13, 3.14).
- Use built form to create incidental spaces (these can be hard or soft landscape) through a change in building orientation, style or set back.
- Provide a high degree of enclosure to frame the space. Refer to section 5 strategic areas for the detail of these spaces.

Marker buildings



Distinctive feature gables and taller buildings at entrance to street



Distinctive end of terrace marker building at corner of street



Building 'turns the corner', with active frontages to both elevations



Nondescript gable fronting street corner provides little animation

Gateway spaces



Strong enclosure to gateway space, balanced to each side of entrance



Attractive arrival space framed by landscape features



Balanced landscape design and built form to either side of gateway



Gateway shared surface square enclosed by tall distinctive buildings

Built form nodes



Built form node around public open space



Varied building orientation and enclosure at street junction



Type A frontage surrounds shared use square at key street intersection. Taller and distinctive buildings provide strong enclosure and offer a change in character and scale which responds to the openness of the square. High quality surface materials make this a distinctive shared space

- Terminate key vistas leading from the adjacent streets.
- Provide opportunities for small-scale greens or hard surfaced squares or courts to enhance the change in character on the journey along the street.
- Consider opportunities for deflections in road alignment to enhance the sense of arrival and slow movement of pedestrians and vehicles.

Key vistas

The site layout **must** maximise the potential for vistas down streets, into internal green spaces and key frontages. This will create visual links along streets, from within the housing areas to the wider area and allows people to orientate themselves in relation to existing features.

- The arrangement of structural landscape and townscape **should** re-enforce these important views.
- Marker buildings or landscape features **must** terminate key vistas.
- Buildings and frontages that terminate key views **must** be carefully placed. For instance, avoid placing buildings that 'just miss' the centreline of a formal view corridor.
- Buildings and frontages that terminate key views **must** be well detailed with a high specification for materials.

Important landscape view

These are important views into landscape areas that **must** be considered. These views act as important 'reveals' into the public open spaces as viewed from the primary movement network.

- Unlike key vistas, important landscape views **should** have a wider prospect across more expansive areas of open space.
- As they are not defined by a central vista or focal point, these open views **should** be unobstructed from the locations shown in Fig 6. Built structures (such as sub stations), solid boundary treatments or dense vegetation **must** not obscure important landscape views.
- Important landscape views within Cambourne West are defined in section 4.

Landscape node

These spaces mark the convergence of routes within the strategic green infrastructure network. They **must**:

- Act as marker/navigation points through use of distinctive and characterful landscape treatments.
- Be designed to provide locations for recreation and activity.
- Be emphasised and framed by an appropriate built form and architectural response.
- Be comprised of high quality landscape treatments that respond to and enhance any adjoining hard landscaped areas.

Key vistas



Built form and landscaping frames key vista to open space beyond



Large marker building terminates view along street



Distinctive building terminates framed view along street



Poorly-framed street with missed opportunity for a marker building terminating the view

Important landscape views



Framed reveal of views into landscaped open space



Long distance views across open space



Wide angle views across key recreational space

Landscape nodes



Landscaped amenity space enclosed by strong frontage



Distinctive naturalistic play area overlooked by nearby homes



Public open space well-enclosed by outward-facing homes



Open space contained by long lengths of timber fencing

3.2 Green Infrastructure network (GI)

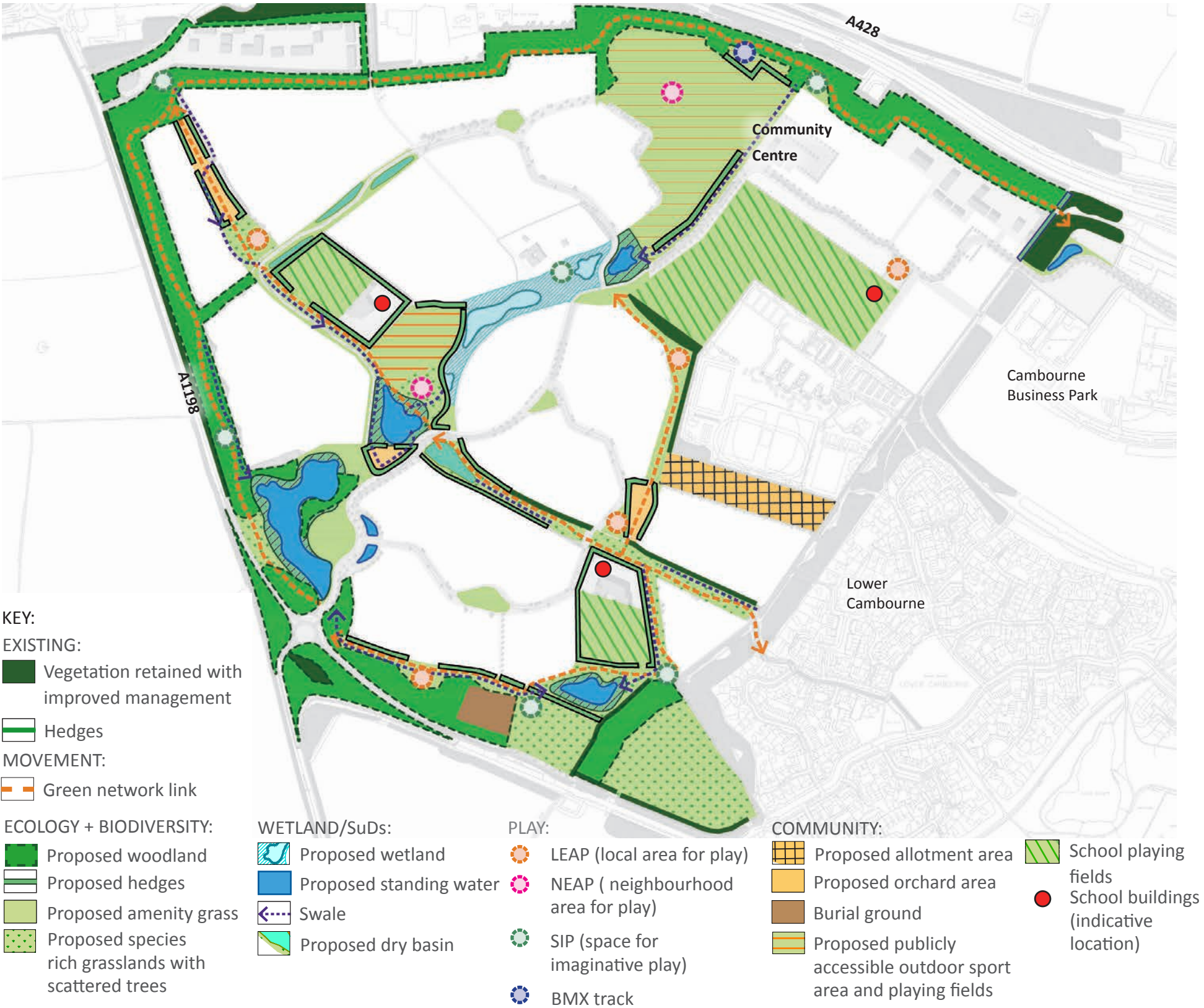
The GI network covers the whole of Cambourne West with a high quality, accessible, multifunctional landscape at the heart of the development, creating a setting for new homes and spaces for people and wildlife. It connects the contemporary, formal landscape of the Business Park to the north to the surrounding rural landscapes to the west and south. It is formed from a boundary landscape of woodlands and lakes and the central green spine running north south through the valley bottom. Additional greenways, greens, orchards, school playing fields and allotment area create a green network that links through the whole development and connects it to the rest of Cambourne and the wider area.

Landscape typologies

- Cambourne West **must** benefit from the following range of landscape typologies:
- Woodlands, copses, tree belts and hedgerows.
 - Naturalistic meadows, grassland and fields.
 - Wetlands, reedbeds, marshes and ditches.
 - Lakes and ponds.
 - Amenity greens and grassland.
 - Formal and informal play areas.
 - Sports pitches, playing fields, kickabout areas, BMX and athletics tracks.
 - Community orchards and allotment.
 - Greenways for movement and foraging.
 - Burial ground.

More detailed guidance on the design of key landscape spaces is given in section 4 of this document.

Fig. 7: Green Infrastructure network indicating mandatory range of typologies across Cambourne West



GI key design principles

- Open space **must** be distributed to maximise both use and value
- Open spaces **must** be multifunctional to generate best value for the community and the environment.
- The open spaces **must** encourage ecological diversity.
- Cambourne West's landscapes **should** be based on the local landscape character.
- Naturalistic landscapes **must** use species and plant communities found regionally. Designs **must** include natural or traditional landscape features.
- Amenity landscapes **must** take their inspiration from the designed landscapes of local country houses and the formal parks and gardens of Cambridge.
- Designed landscape, like built areas, **must** respond to its context
- Areas **should** have regard for adjacent landscapes and built areas and create seamless transitions or well defined edges.

3.3 Landscape maintenance

The future maintenance of all landscape areas **must** be considered during the design process and the relevant maintenance organisation consulted:

- Public open space will be maintained by Cambourne Parish Council.
- Highway verges will be offered for adoption by Cambridgeshire Highways.
- Tree planting within verges along the public highway will be adopted by Cambourne Parish Council.
- SuDS areas and facilities will be maintained by Anglian Water.
- Specific wildlife areas will be managed by Cambridgeshire Wildlife Trust.

A landscape maintenance plan **must** be submitted with each reserved planning application, setting out who the management organisation will be and outlining annual maintenance operations.

Relevant guidance:

- District Design Guide (SPD)
- Landscape in new developments (SPD)
- Trees and development sites (SPD)
- Open space in new developments (SPD)
- Cambridgeshire Green Infrastructure Strategy 2011



Cambourne - an example of a successful GI network

3.4 Play spaces

Play spaces

A series of play areas **must** be provided and **must** be integrated into the open space for Cambourne West.

Collectively, the Cambourne West play areas **must**:

- Be generally located as shown in Fig 8.
- Consist of 2 NEAPs, 5 LEAPs, 6 SIPs.
- Contain 37 LAPs (or such other number agreed with the District Council) as per S106 agreement. For locations of LAPs refer to LAP Distribution Plan within the Play Strategy. See appendix C for typical LAP design.
- Offer facilities for children of all ages and abilities to allow inclusivity, maximise play value and enhance the enjoyment of all users.
- Be designed to respond to the local landscape character of the specific area. See chapters 5 & 6 for further information on landscape character.
- Not have any spiky or irritant shrub planting or have species with poisonous fruits, berries etc.

Play areas **must**:

- Be sited so that they are in safe walking distance of all homes and linked to other attractive outdoor spaces by safe pedestrian routes.
- Have non-prescriptive play equipment and natural features to allow play spaces to be used in different ways by children of different ages and interests.
- Have opportunities for risk and challenge.
- Have spaces that welcome accompanying adults i.e. seating or perching places.
- Include sensory planting which offers a range of colours, textures, smells and sounds to encourage interaction and supplement play.

Relevant guidance:

- Cambourne West Play and Youth Strategy - 2018
- Design for play: A guide to creating successful play space - Play England 2008
- SCDC: SPD Open Space in New Development

M Fig. 8 Play space locations



Examples of good quality, natural play spaces



Inclusive play



Imaginative play



Sensory play



Water play is encouraged

3.5 SuDS and drainage

Developers and designers **must** reference the Cambourne West Drainage Strategy when considering drainage. The exact design, location and alignment will be confirmed as part of subsequent reserved matters applications.

Strategic SuDS and drainage design principles:

- SuDS **should** be designed to mimic the natural drainage regime and utilise the natural topography of the site using swales, ditches, attenuation basins, wetlands and ponds.
- SuDS features **should** be located as indicated on Fig 9. Exact alignment to be determined at reserved matters.
- Multiple short sections of swale separated by culverts/headwalls **should** be avoided. Where practicable bridges **should** be used over permanent water.
- Above ground solutions **must** be considered first with underground tank solutions being the least preferred option.
- All SuDS features **should** be planted with wildflower grass mixes and native wetland planting. Invasive and vigorous colonising species **must not** be planted.
- All SuDS features **should** have side slopes no steeper than 1 in 3, unless a retaining structure is proposed.
- 3m easements **should** be provided to either side of adoptable sewers (except for those under highways). Trees and shrubs **should** not be planted within these easements.

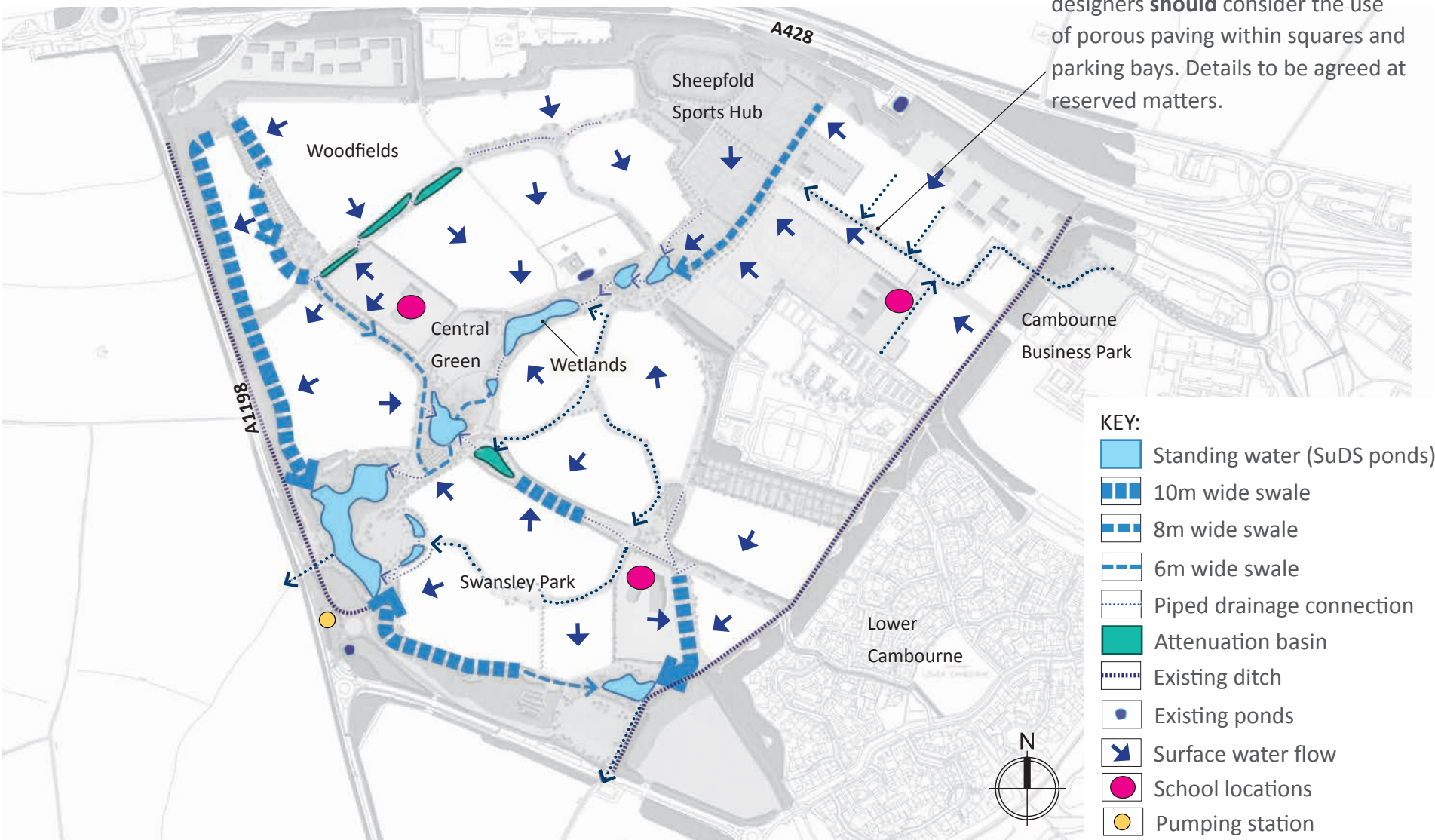
School site drainage

- School sites **should** discharge at existing greenfield rates into adjacent swales/ditches.
- SuDS on School sites **must** be integrated into the overall masterplan designed to the same standards (appearance, safety, accessibility, ecological enhancement etc.) as for the rest of the site.

Relevant guidance:

- Cambourne West SuDS Strategy
- Cambridge Sustainable Drainage and Adoption Guide
- Cambridgeshire Housing Estate Road specification
- Sewers for adoption 6th Edition
- CIRIA - The SuDS Manual - C753
- SuDS adoption manual - Anglian Water
- Cambridgeshire Flood & Water SPD 2016

Fig. 9 Site wide strategic SuDS requirements



Planted swale adjacent to roadside



Multifunctional SuDS pond



SuDS pond with marginal planting increasing wildlife value

Typical SuDS features - site wide

Swales

- Open swales **should** be provided along highways and within green open space.
- Swale sides **should** not exceed a 1 in 3 slope.
- Where space permits, wider swales **should** be provided with varied slope profiles, improving ecological value and mimicking natural features.
- **Should** be seeded with wildflower mix and native wetland planting to increase wildlife value.

SuDS ponds, attenuation basins and wetlands

- All ponds with standing water **must** have a safety bench and maintenance access designed in.
- Attenuation basins and ponds **must** have native marginal aquatic and wetland grass seed mixes to increase biodiversity and visual interest.
- Wetlands **should** vary in depth to control the spread of vigorous marginal vegetation.

Piped Drainage Connections

- Where a piped drainage connection is required under a road or footway, culverts **must** be sufficiently large for the anticipated flow.
- Headwalls can be varied. Culverts **should** be provided with a vegetated headwall or of a type approved by the adopting authority.
- The culvert **should** extend sufficiently far from the carriageway edge to avoid the need for a vehicular barrier.

Fig. 10: Typical illustrative swale detail

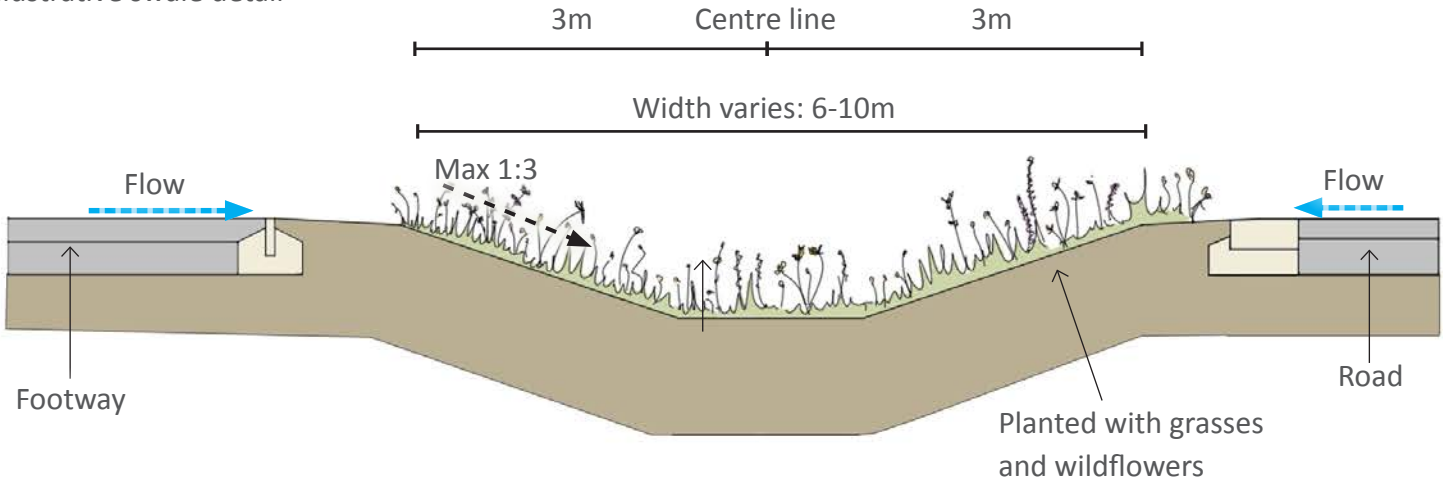


Fig. 11: Typical illustrative SuDS pond cross section

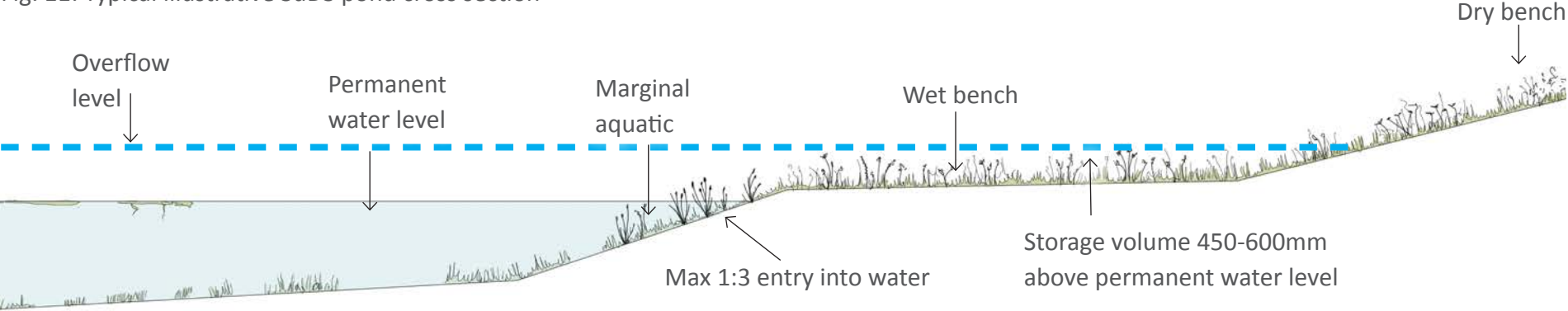
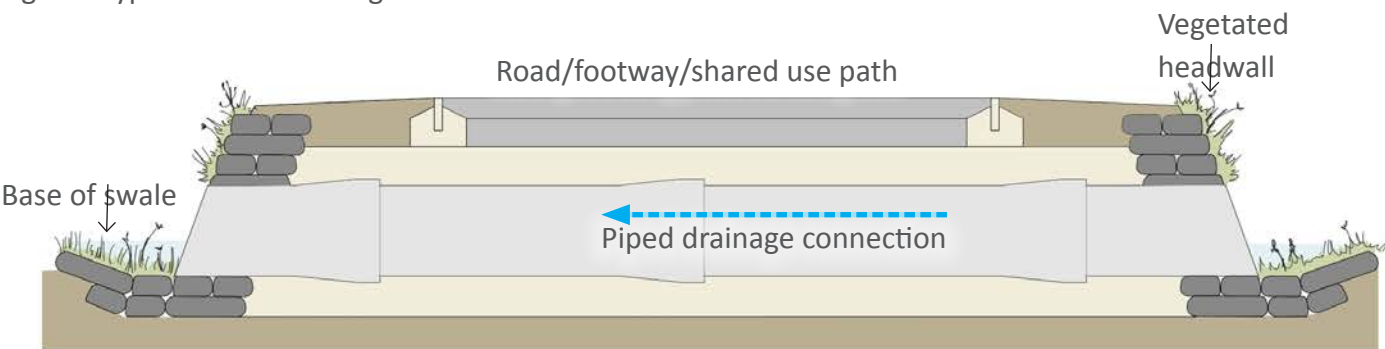
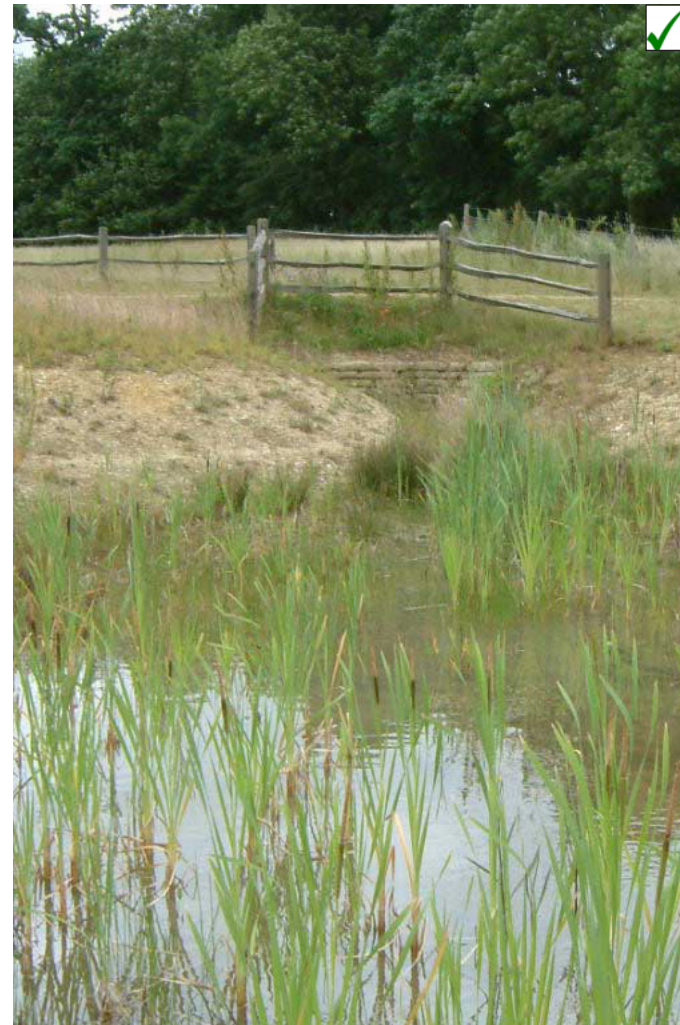


Fig. 12: Typical illustrative vegetated culvert headwall





Examples of headwalls successfully integrated into the surrounding environment

Foul water drainage

Foul water drainage **should** be directed by gravity to the south western corner of the site. From here it will be pumped to Anglian Water's public sewerage network. The foul water drainage system **must** be to adoptable standards so that it can be maintained by Anglian Water. Where practicably possible, further pumping stations **should** be avoided; however, if they are required, they **should**:

- Be designed to adoptable standards.
- Be fenced and screened by planting.
- Have suitable maintenance access.
- Be faced with materials in-keeping with the surrounding character.
- Be based on successful designs in Cambourne.
- Not be placed in key view lines.
- Not interfere with the rhythm or symmetry of building heights.
- Be stepped back to allow room for maintenance parking space.

Typical SuDS features - Residential areas

Strategic developers will be required to submit sustainable drainage proposals to the LPA, options **should** include:

- Rainwater harvesting i.e. water butts or underground storage tanks.
- Permeable paving in areas not offered for adoption.

Below is an example of how SuDS could be incorporated within the residential areas at Cambourne West.

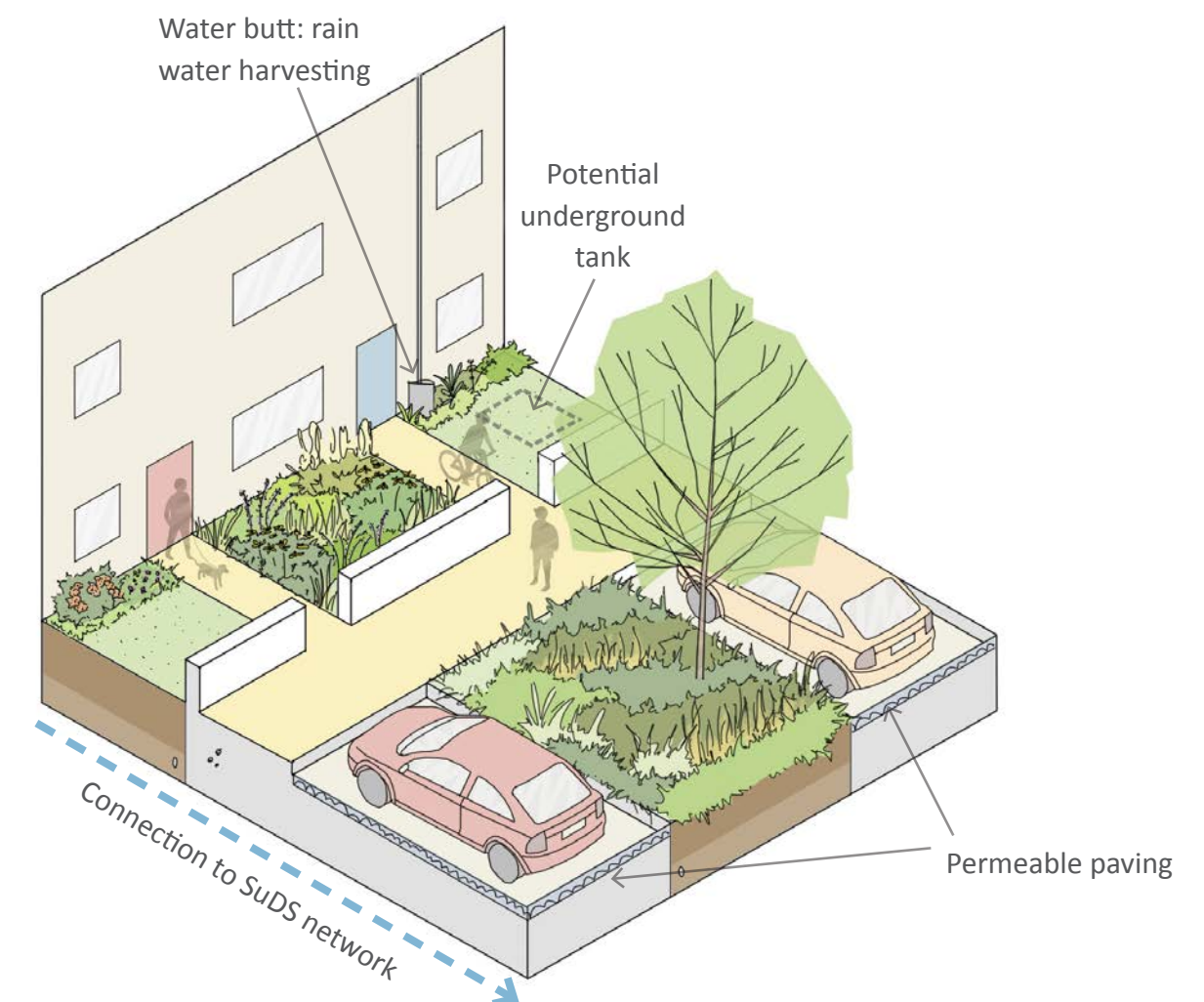


Fig. 13: Example of successful SuDS integration

3.6 Movement network

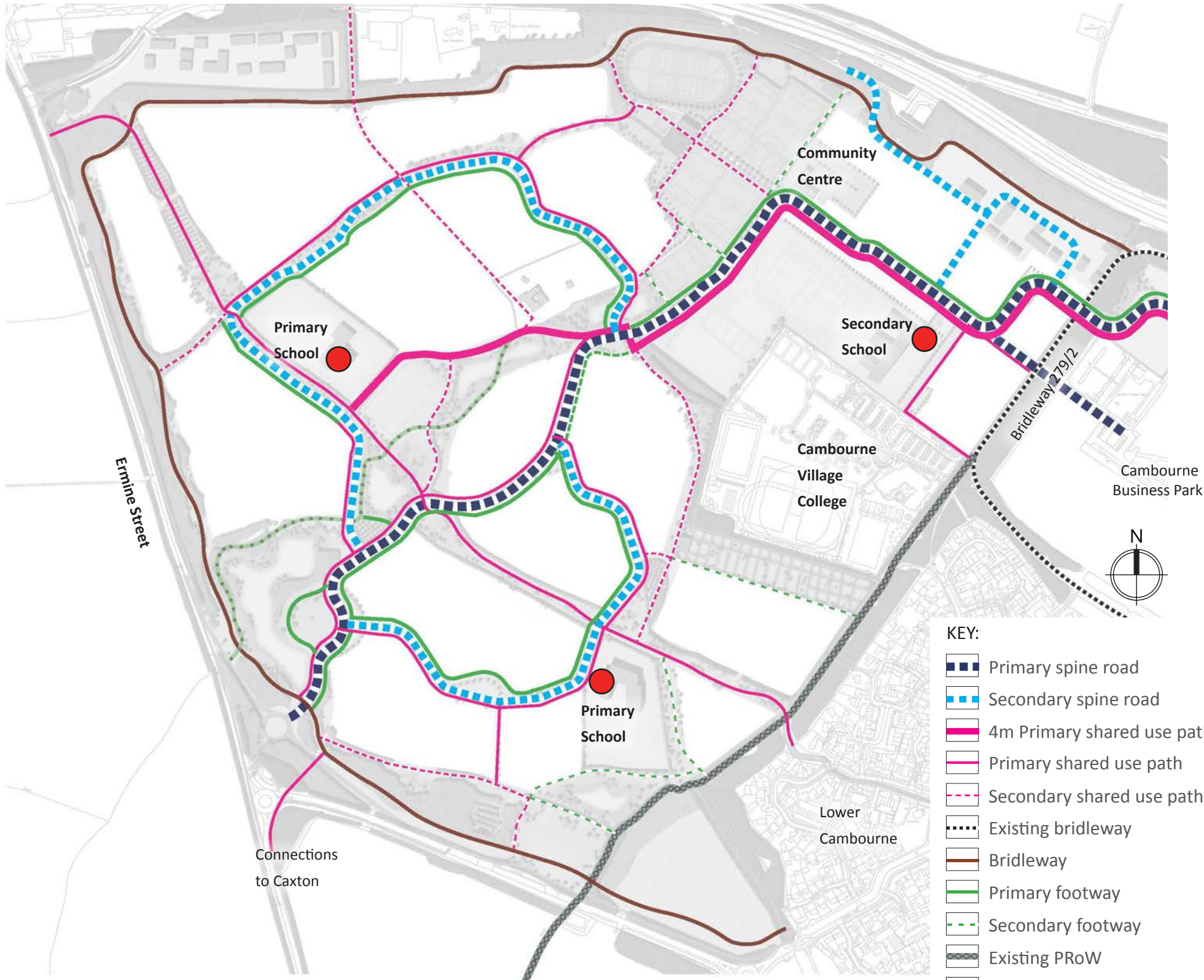
Cambourne West aims to promote an integrated design process for all movement routes. Consultation with the planning, highways and refuse disposal authorities **must** be carried out at an early stage. The principles shown opposite are **mandatory**, the exact alignment will be determined through reserved matters applications.

The movement network **must**:

- Facilitate and promote sustainable and healthy forms of travel by public transport, walking and cycling. Pedestrians and cyclists **must** be placed at the top of the user hierarchy.
- Be designed to ensure vehicle speeds are no more than 20 mph, except along parts of the primary spine road which will be 30 mph.
- Be designed as places that consider all elements within the highway corridor, including the buildings that enclose it.
- Provide a bridleway around the entire perimeter of the site which **must** connect to existing bridleway 279/2.
- Provide a mixture of primary pedestrian/cycle shared use paths both on and off road to allow a comprehensive, navigable network.
- Additional footpaths/access points that connect the strategic pedestrian/cycle networks **must** be provided as part of future reserved matters applications.
- Provide a central 4m wide pedestrian/cycle shared use path through the busiest part of the site.

The movement network **should**:

- Harmonise with the surrounding landscape and character of the area.
- Include traffic calming features along primary and secondary routes at key destinations and crossing points.
- Provide off road pedestrian/cycle shared use paths as illustrated.



M Fig. 14: Movement network and street hierarchy

Pedestrian, cycle and bridleway network key design principles:

Bridleways

- **Must** be shared routes used by horse riders, cyclists and pedestrians.
- **Must** be minimum 6.0m wide, consisting of 3.0m surfaced hoggin route with grass verges making up the remaining width.
- Where gates are necessary they **must** be negotiable from horseback, and a minimum of 1.5m between posts, and a minimum of 2.8m turning space if needed.
- Changes in direction **should** be designed to balance the need for forward visibility and safety, with the desire to minimise top speeds of cycles and horses.
- Sharp kinks and long straights **should** be avoided.
- On through routes for bridleways minimum radii **should** be 6.0m.

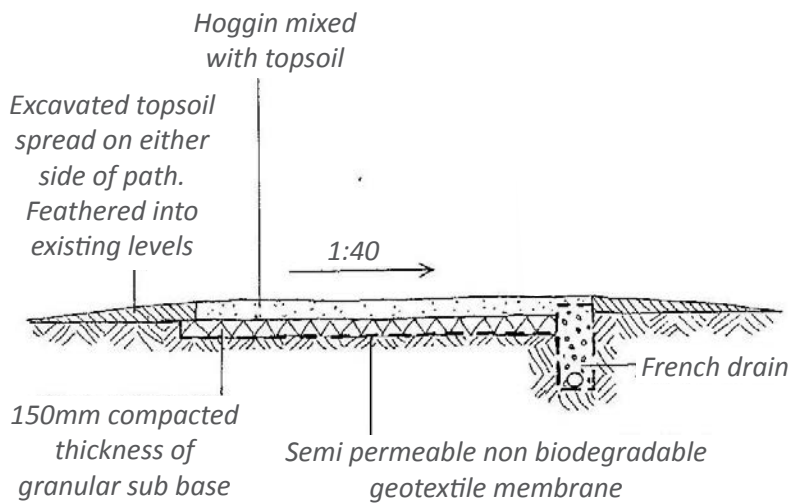


Fig. 15: Bridleway construction

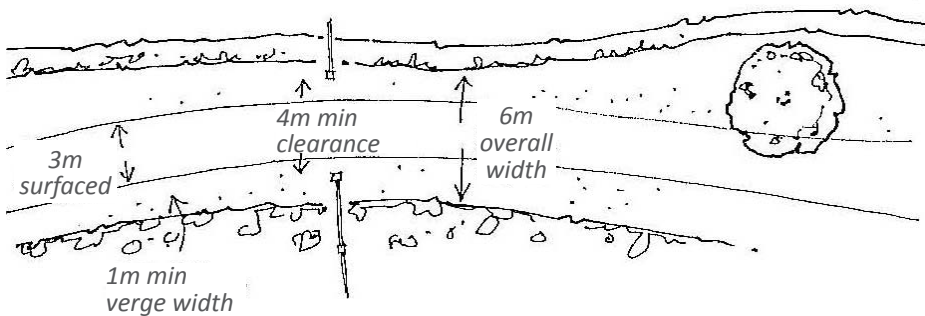


Fig. 16: Bridleway layout

Cycling:

- **Must** be shared routes used by cyclists and pedestrians without division by white lines.
- **Must** have a minimum total width of 3.0m.
- Primary adoptable pedestrian/cycle shared use paths **must** be red asphalt or block paving to an adoptable standard to aid navigability.
- **Must** be waymarked and be signposted at road crossing junctions.
- Where shared use paths cross side roads at junctions, small road junction radii **must** be used to maintain cyclist/pedestrian desire lines.
- Hedges, fences and walls and street furniture **must** be set back a minimum of 0.5m from shared use paths.

Footways/footpaths:

- **Must** be a minimum of 1.8m wide.
- Where footways cross side roads at junctions, small road junction radii **must** be used to maintain pedestrian desire lines.
- Hedges and fences **should** generally be set back a minimum of 0.5m from the edge of footpaths and pedestrian/cycle shared use paths.
- Footways **should** be provided to both sides of adopted roads, except where there is a shared use path to the opposite side, in which case one footway **should** be provided.



Sustainable methods of transport are encouraged throughout Cambourne West

M Mandatory characteristics of pathways, cycleway and bridleway network.

	Width (m)	Materials
Pedestrian/cycle shared use path:		
Primary (adoptable)	3.0m or 4.0m when adjacent to primary streets	Red asphalt with pin kerb edging. Except on raised tables and public squares where route is adjacent to highway edge (Fig 23). Refer to page 44 for further details on adoptable street materials
Secondary (non-adoptable)	3.0m - 3.5m	Rolled waterbound stone
Bridleway:		
(Non-adoptable)	6.0m (consisting of min. 3.0m surfaced route with grass verges making up the remaining width)	Hoggin mixed with topsoil
Footway/Footpath:		
Primary footpaths along primary and secondary roads (adoptable)	2.0m	Bituminous material with pin kerb edging. Except on raised tables and public squares where route is adjacent to highway edge (Fig 23). Refer to page 44 for further details on adoptable materials
Secondary footpaths along greenways and through POS (non-adoptable)	2.0m	Rolled waterbound stone or asphalt with rolled stone.

Note: See pages 44-48 for further details on materials

Relevant guidance:

- Cycle Infrastructure Design, Oct 2008 (Department for Transport)
- Manual for Streets 1&2, (Department for Transport)
- Cycling in new development, April 2008 (Cambridge Cycle Campaign)
- Cambridgeshire Design Guide for Streets and Public Realm (Cambridgeshire Horizons and Cambridgeshire County Council)
- Housing Estate Road Construction Specification (Cambridgeshire County Council), April 2018
- Sustrans Design Manual, April 2014
- The Equality Act 2010 (amended 2015)

3.7 Street hierarchy

Streets at Cambourne West **must** be in accordance with Fig 17.
Location and form of tertiary streets, lanes, squares and courtyard will be dependent on each parcel design.

- All streets **must**:
- Be designed to have a clear hierarchy consisting of primary, secondary and tertiary street types, along with shared streets, lanes, squares and mews.
 - All primary, secondary and tertiary streets **must** meet adoptable highway standards.
 - Aim to keep junction radii as tight as possible to ensure pedestrian desire lines are maintained. Details **must** be discussed with Cambridgeshire highways authority at reserved matters stage.
- Streets **should**:
- Integrate traffic calming features to achieve appropriate design speeds.
 - Provide parallel parking on primary and secondary spine roads at appropriate locations only i.e. Sheepfold Sports Hub and local greens.
 - Provide a shared use path or footway wherever dwellings have access points onto the proposed adopted public highway.
 - Be arranged appropriately to avoid the creation of greens and open spaces that are enclosed on all sides by highways.

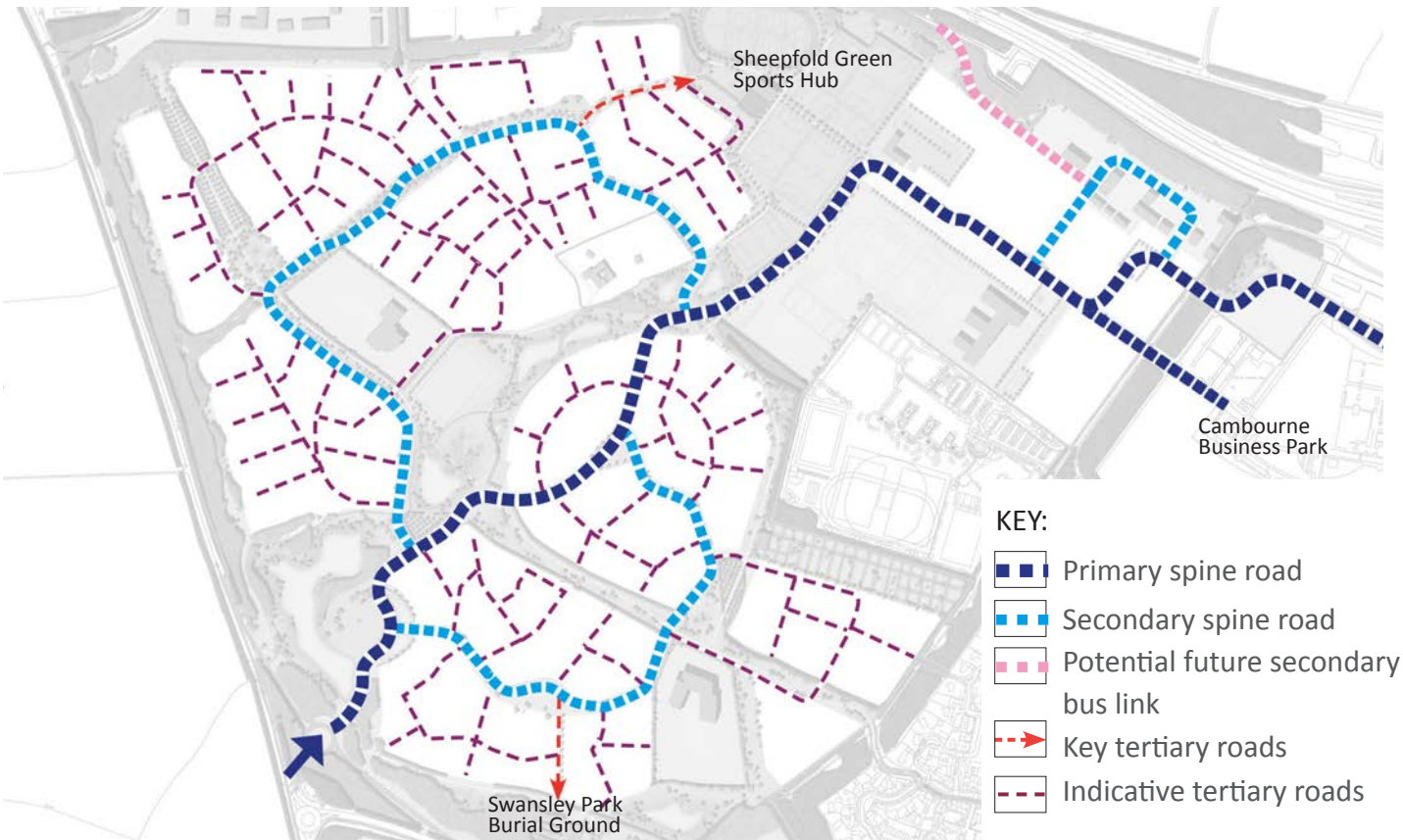


Fig. 17: Street hierarchy plan

Street hierarchy table coding common highways features across Cambourne West

	Primary	Secondary	Tertiary	Private drives (non adoptable)
Design speed				
	30 mph	20 mph	20 mph	15 mph
Street dimensions and character				
Min carriageway width	6.1m	6.1m	5.0m	4.0m
Footway	2m on one side	2m on one side	2.0m to both sides for two-sided development. 2.0m to one side where road abuts open space	No (shared surface)
Pedestrian/cycle shared use path	3m - 4m on one side	3m - 3.5m on one side	3m on one side (tertiary roads of importance only)	None
Verge	Yes. Width varies dependent on location	Yes. Width varies dependent on location	Varies	None
Direct plot access	Shared or dual access drives should be used. Private drives serving single properties should be limited	Yes	Yes	Yes
Public transport				
Bus Access	Yes	Yes	No	No
Street design details				
Traffic calming	60 - 90m intervals.	60m - 70m intervals.	As appropriate	
Junction radii	Determined by refuse vehicle/public service vehicle tracking as appropriate			
Junction spacing	Same side/other side - 25m		N/A	
Junction sightlines (x/y)	2.4m x 43m	2.4m x 25m	2.4m x 25m	2.4 x 17m
Vehicle swept paths	Buses/refuse/emergency vehicles		Emergency vehicles. Refuse vehicles where required	
Maintenance strip	No	No	Within footway	One 0.5m strip within the total carriageway width
Statutory services	In footway/shared use path - both sides			In shared street
Materials (see page 44)	Bituminous material with block paving at raised crossing tables		Bituminous material/block paving on shared surfaces	Block paving / heritage asphalt

Traffic signs and road markings

- Only the minimum numbers of signs and markings consistent with traffic and safety requirements **should** be provided.
- Where Department for Transport design recommendations allow the use of alternative smaller sign sizes or carriageway markings, or where alternative sizes or colours are permitted for use these **should** be considered and used whenever possible.
- Where the use of dedicated posts is unavoidable, posts **should** be in accordance with County standards.
- Highway signs **should** be illuminated only where there is a mandatory requirement to do so. Highway signs should be reflectorised.
- Timber bollards should be considered for signing to footways/shared use paths.
- Road markings **must** not be provided on block paving.



Good examples of mounted road signage

Street name plates

- Road name signs **must** be in accordance with SCDC guidelines.
- Where possible road name plates **should** be mounted on fences, walls and buildings to reduce street clutter. Where this is not possible road name plates **should** be installed as free standing units as agreed with the local authority.

Traffic calming

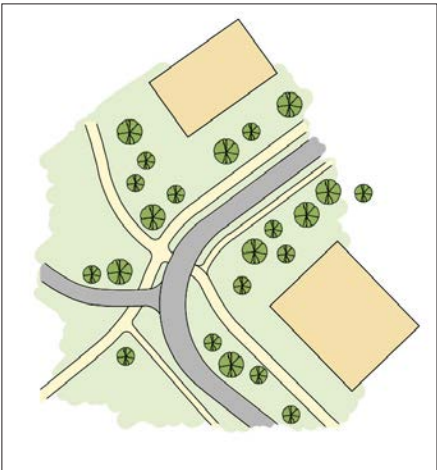
- Traffic calming features **should** be appropriate to the character of the area and **should** not be over-engineered.
- Road humps **must not** be used.
- The choice of traffic calming features selected **should** be used with landscaping to complement the character of the surrounding area.
- Tree planting **should** be used to demarcate visitor spaces where on street parallel parking is provided at key locations and surrounding local greens.
- **Must** be designed in accordance with road type and purpose - e.g. consideration of buses along bus routes.

The following traffic calming features **should** be used throughout Cambourne West to help control car speeds:

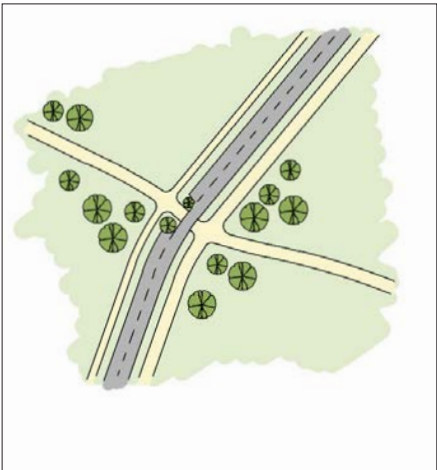
- Speed control bends.
- Priority give way.
- Raised crossings at major crossing points .
- Raised junctions.
- Central refuges - to be used sparingly and in appropriate locations e.g. settlement entrances.
- Narrowing (visual or pinch point) using enclosure of streets, tree planting etc.
- On street parking and shared surfaces in key locations.

Relevant guidance:

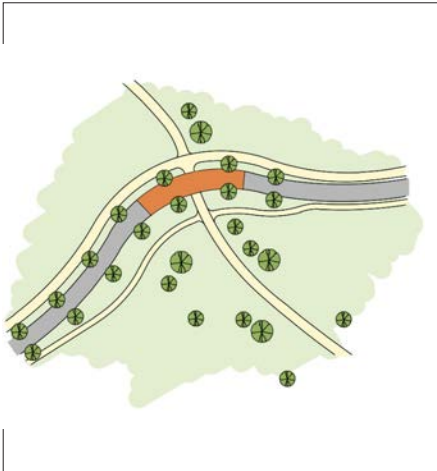
- Manual for Streets 1&2, (Department for Transport)
- Cambridgeshire Design Guide for Streets and Public Realm (Cambridgeshire Horizons and Cambridgeshire County Council)
- Housing Estate Road Construction Specification (Cambridgeshire County Council)



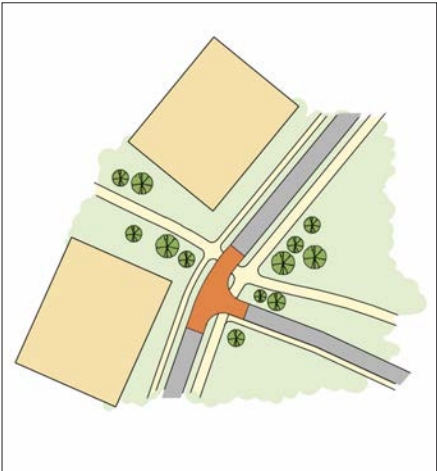
1. Speed control bends



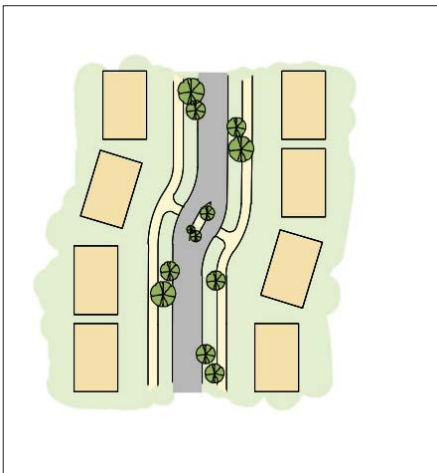
2. Priority give way



3. Raised crossings



4. Raised junctions



5. Central refuges

Fig. 18: Illustrative examples of acceptable traffic calming features

Junction Design

Junction design is a key consideration for the site-wide movement network. Junctions **should** vary across the scheme, depending on the hierarchy of the intersecting streets. The design, layout and materials used in each junction **must** respond to the character of the neighbourhood area and surrounding public realm.

Key technical principles for junction design are listed below:

- Junctions **should** be spaced at no less than 25m intervals where they are on the same side of the street.
- Junctions **should** be spaced at no less than 25m intervals where they alternate from one side of the street to the other.
- Junctions **should** be created by roads meeting perpendicularly.
- Junctions **should** be positioned to best suit visibility splays.
- Junctions **should** be positioned on the outside of a bend rather than the inside of a bend.
- Pedestrian and cycle crossing points at junctions **should** be located on or close to desire lines.
- Small junction radii **should** be used to reduce the speed of turning vehicles and make it safer for pedestrians and cyclists crossing side roads.
- Junction radii **must** be determined by the swept path of buses/refuse vehicles/emergency vehicles where required.
- Typical junction designs are provided in Fig 19. Buildings and landscape at junctions **should** be designed in accordance with these principles:

1. Junction perpendicular to open space:

- Buildings **should** hold the corner and form gateway to street. Built form should frame outward views into open space.

2. Corner / shoulder:

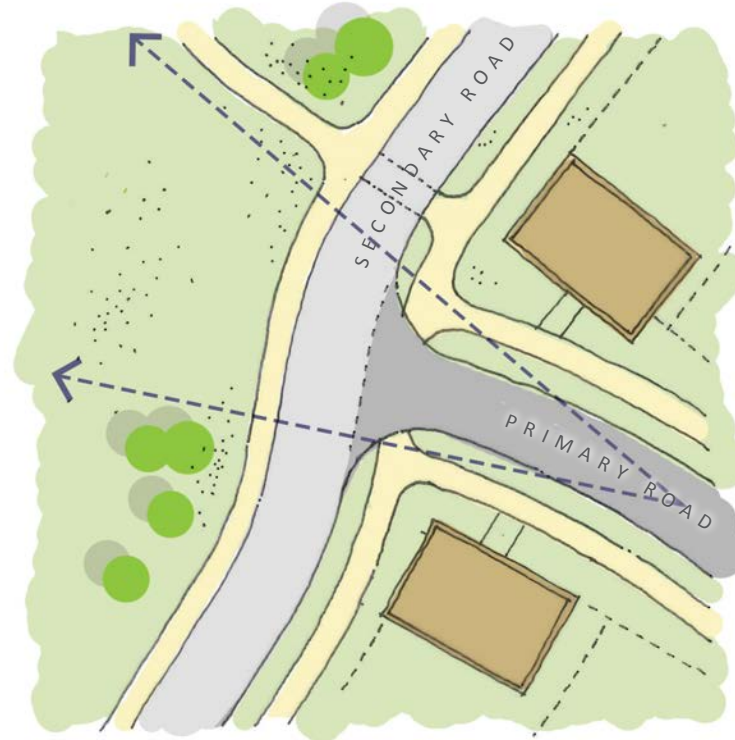
- Views along street **should** be terminated by marker buildings with active frontages to provide positive streetscene and assist navigability.

3. Crossroads:

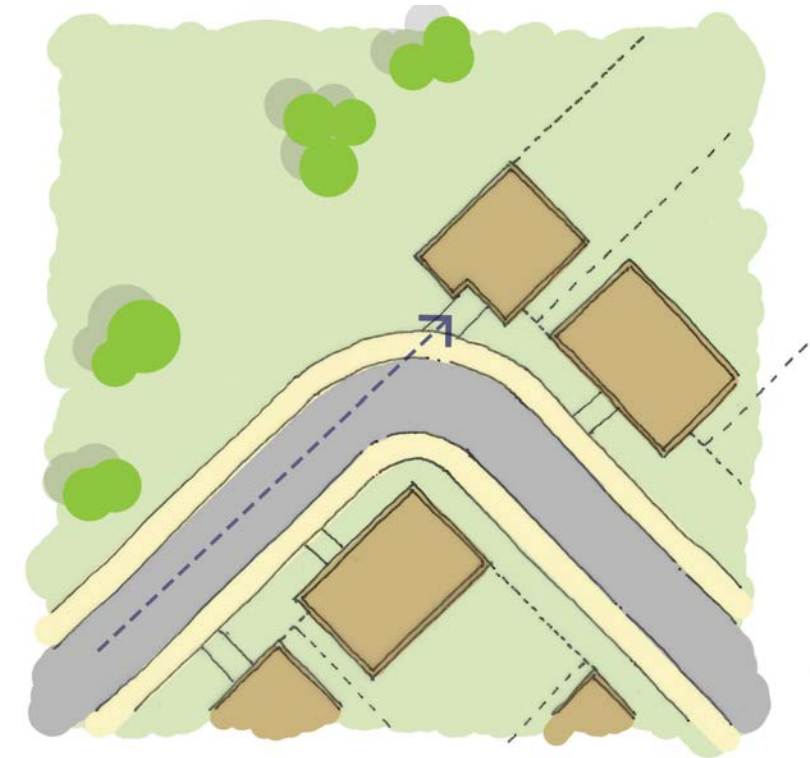
- Buildings **must** hold each corner with animation to both street-side elevations. Raised tables **should** use a change in surface material.

4. T junction:

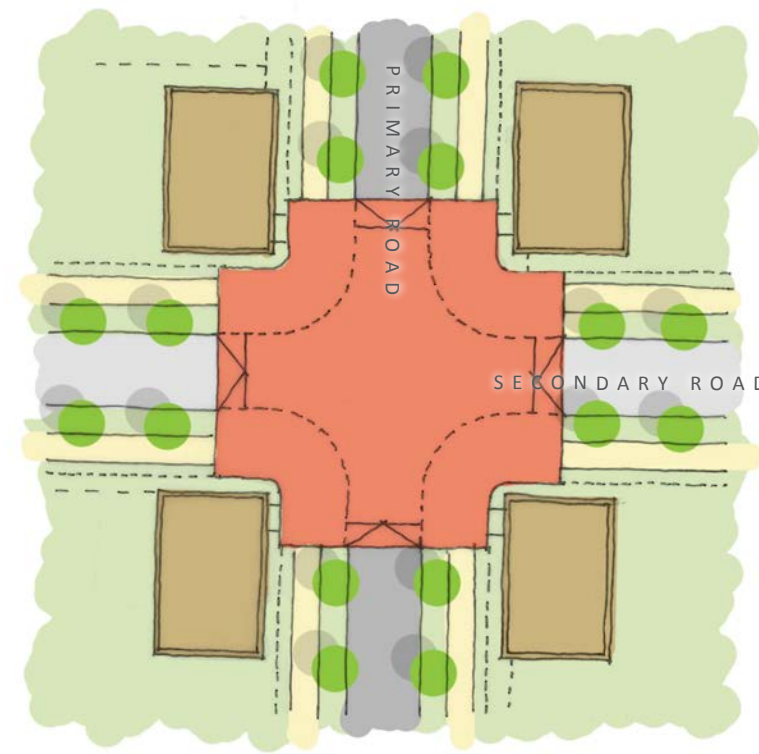
- Buildings **should** hold the corner and form gateway to street. Built form **should** frame views with views terminated by a marker building.



1. Junction perpendicular to open space



2. Corner / shoulder



3. Crossroads



4. T junction

Fig. 19: Typical junction design principles

3.8 Access and parking typologies

The following pages provide some of the many solutions to manage plot access and parking at Cambourne West to create a safe and attractive streets and public realm. It is not the intention of this document to provide details for every type of parking.

Car parking **must**:

- Form an appropriate response to each street character type
- Be designed in accordance with the guidance listed below.
- Be designed so that parked vehicles are visually unobtrusive and parking spaces are convenient and safe to use.
- Be designed as attractive functional spaces with planting used to avoid the street scene being dominated by the view of cars.
- Consider parking and delivery requirements for shops, employment users and new schools.
- Large areas of car parking **must** be located to minimise visual intrusion and **must** be well landscaped and safe.
- Not be allowed on front gardens - steps **must** be taken to ensure that gardens cannot be converted into parking areas.

Car parking **should**:

- Be accommodated as much as possible ‘on-plot’ or in a convenient location at the front of or to the side of the property.
- Only be in the form of rear or front parking courts in exceptional circumstances following agreement with SCDC.
- Be designed to discourage parking on verges where on-street parking is not provided, through use of bollards, ditches, fencing etc.
- Private drives can be accessed from the primary route but they **should** be limited. Consider shared or dual access to limit the number of cross overs.
- Include visitor parking in appropriate locations as agreed with SCDC.
- Be integrated within a robust landscape scheme including tree planting in between spaces to create a leafy street scene ensuring cars are not a dominant feature.
- Drain away from the proposed adopted public highway. Innovative solutions such as tyre wide strips and planted areas are welcomed.
- Include kerbside parking primarily along tertiary roads and **should** discourage kerbside parking along the spine and secondary routes using methods such as swales or ditches.

Parking standards

- 2 spaces per dwelling, at least 1 to be allocated within the curtilage
- Additional space may be needed for visitors, service vehicles etc.

Garages and car ports

- **must** be wide enough (minimum 3.3m) to allow easy access with a wheeled bin or cycle and to accommodate a car.
- Attached garages **must** be designed to create continuous frontage in high quality materials.
- Open views into car ports **must** not detract from the street scene.

Driveways

- To ensure that parked cars do not overhang pedestrian/cycle movement network, driveway depths **must** be in multiples of 5m (length of parking bay) from the back of highway footway/shared use path, with an additional 1m allowed for access to garage doors.
- This typology **should** only be considered for smaller dwellings.

Key Frontages

- Building line **must** be set close to back edge of the footway/shared use path where parking is not provided in front of building.
- Attached garages **should** be set back from, and be subservient to the primary building line and be designed in high quality materials.

Relevant guidance:

- Cambridgeshire Design Guide for Streets and Public Realm (Cambridgeshire County Council)
- Car parking: What works where (English Partnership)
- SCDC Adopted Local Plan 2018 : P T1/3
- Motorcycle parking will be required within key public areas. Designers should refer to motorcycle guidelines



Parking is visually unobtrusive



Parking court designed as attractive place



Parking square designed as attractive, well balanced space

Primary / secondary frontages

Type A (Direct access)

Build: continuous, formal

Access: direct from main highway

Parking: side/rear on plot

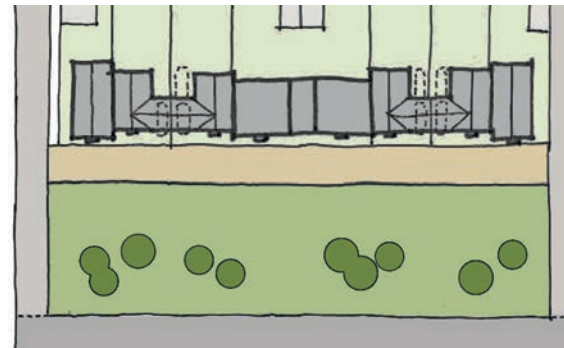


Type B (Indirect access)

Build: continuous, formal

Access: from front service street

Parking: side/rear on plot

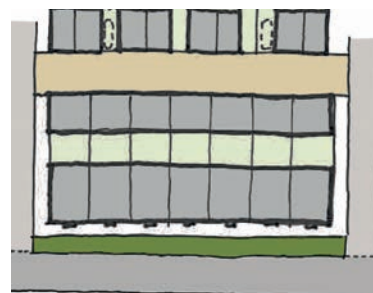


Type C (Rear access)

Build: continuous, formal

Access: from rear mews/service street

Parking: side/rear on plot



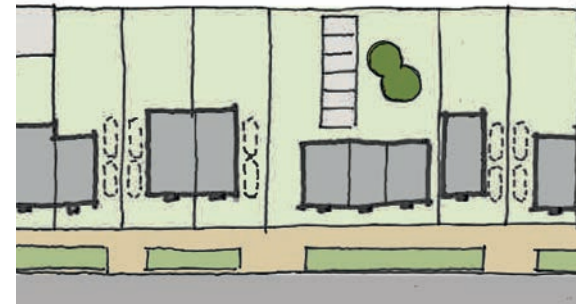
Secondary / tertiary frontages

Type D (Direct access to side)

Build: semi continuous, informal or formal

Access: direct from main street

Parking: side on plot



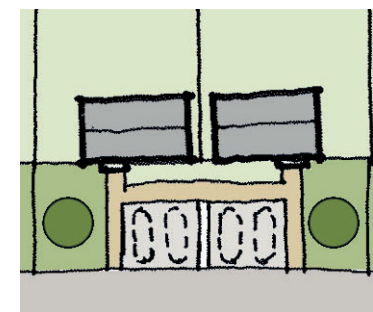
Type E (Direct access to front)

Build: semi continuous, informal or formal

Access: direct from main street

Parking: front, on plot

- Strong boundary conditions and appropriate planting **must** be used to define the public/private realm and create a generous, leafy street.
- car parking **must** be maximum 40% of the section of road to which the parking relates.
- Must not be used on primary spines.
- **Should** be interspersed with other car parking typologies.
- **Must** only be used on a maximum 4 houses in an adjacent group.



Secondary / tertiary frontages: Squares, courts and mews

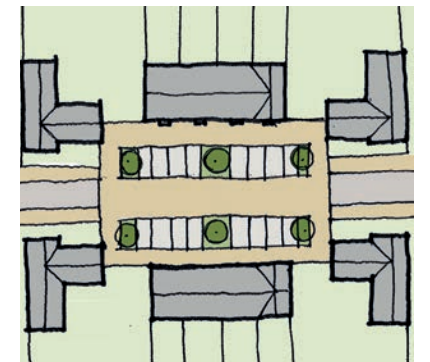
Type F (Frontage square)

Build: continuous, formal

Access: direct from main street

Parking: front, off plot

- The square **must** be designed as part of whole street scene.
- The square **should** be formal and balanced.
- Parking bays **should** be in groups of no more than 4.
- Tree planting **must** be used to soften the space.
- The square **should** serve a limited number of homes.



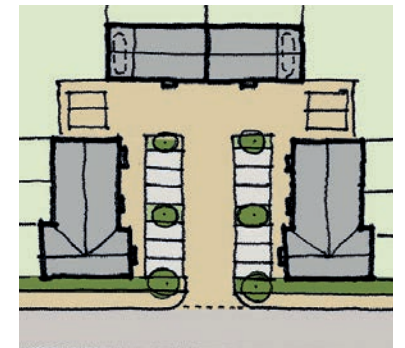
Type G (Frontage court)

Build: continuous, formal or informal

Access: from front court

Parking: varied

- The court **must** be designed as an attractive, well landscaped place .
- Parking bays **should** be in groups of no more than 4.
- Tree planting **must** be used to soften the space.
- The court **should** serve a limited number of homes.



Type H (Mews)

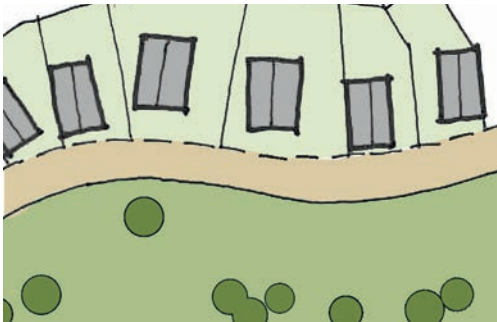

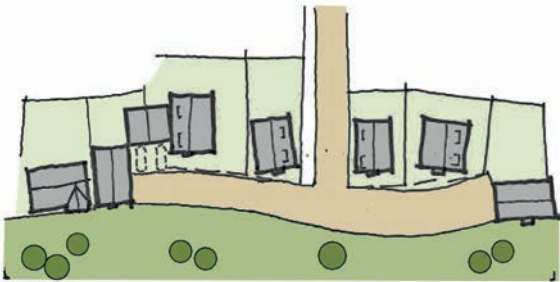
Build: continuous, formal or informal

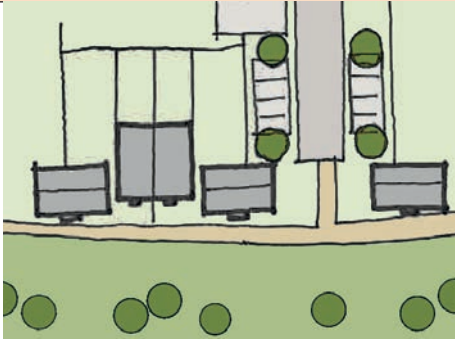

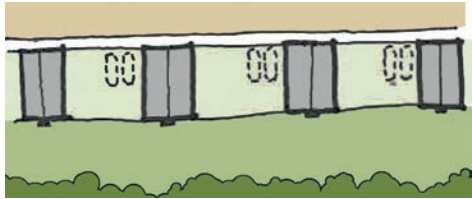
Access: from front court

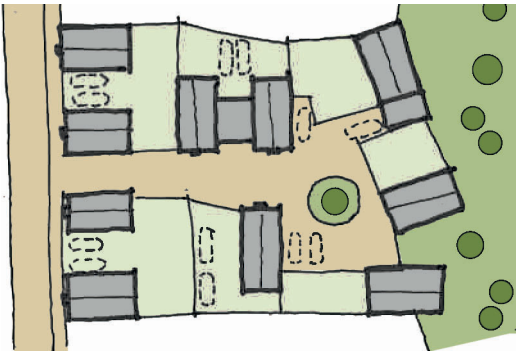

Parking: varied

- Space shared by houses directly overlooking, with parking allocated to each dwelling. This **should** provide easy access and a clear sense of ownership.
- Entrances and windows **must** face into the mews.
- A variety of parking **should** be provided ranging from on-street parking, integral parking to the house or in a car port/side garage.
- There **should** be no stand alone garages along a mews.
- Habitable space **should** be provided at upper levels where possible.
- Key corner buildings **should** be used at the entrance to ensure court is not flanked by boundary fencing/walls on both sides.



Tertiary / drives onto open space frontage
Type I (Frontage access from open space) Build: Broken, informal Access: front, direct from tertiary street Parking: front or side, on plot

Type J (Front drives from rear) Build: broken, formal, some direct frontage to open space Access: from front service street Parking: front or side, on plot

Type K (Front drives from rear) Build: broken, informal, some direct frontage to open space Access: from front service street Parking: front or side, on plot


Direct onto open space
Type L (Side parking court) Build: broken or semi-continuous, informal or formal Access: from rear to side court Parking: off plot to side/rear

Type M (Rear access) Build: semi-continuous, informal or formal Access: from rear tertiary/service street Parking: side/rear on / off plot

Type N (Side on) Build: broken Access: from rear tertiary street Parking: side on plot


Varied onto open space
Type O (Courtyard access) Build: broken Access: direct from main courtyard Parking: mixed

Type P (Mixed) Build: broken Access: from rear and side Parking: mixed

Parking for open spaces
Type Q (On street parallel) <ul style="list-style-type: none">Must be strategically located throughout the development for visitor parking at key destinations such as Sheepfold Sports Hub, sides of landscaped areas and central/local greens.Parallel bays should be broken up with street trees and have pavement build outs to have a beneficial traffic calming effect and promote an active frontage.There should be no more than 4 parking bays per group. Further discussion on layout to be agreed at reserved matters stage.Spaces should be defined by a change in use of material. Materials to be agreed at reserved matters stage.On street parking must not be allocated to residents/homes.

3.9 Cycle parking

Encouraging the use of cycling is a key priority of Cambourne West. In order to achieve this aim, convenient and secure cycle parking **must** be designed as a fundamental component of the Cambourne West layout.

Cycle storage **must**:

- Be provided in key public spaces within the public realm such as: Sheepfold Square, all primary and secondary schools, Sheepfold Sports Hub and Community Centre.
- Cycle parking **must** be located within the curtilage of a property so it is as convenient if not more convenient than the motor vehicle parking for residents to access. Storage of cycles next to bins is not acceptable.
- Designers and developers **should** consider the inclusion of other opportunities for cycle storage such as wall brackets or hoops where appropriate.
- Where used in a garage cycle storage **must** allow cycles to be removed easily without the need to drive out a parked car within it.
- Where drives are used for the movement of cycles or bins minimum driveway widths **should** be 3.3m, as illustrated opposite.
- Garages **must** allow for at least a further 4m² of floor space over and above the standard 4.8m x 2.4m space for parking a car. Garages **must** be a minimum of 3.3m wide.



Cycle parking in the public realm **should**:









- Allow provision for a range of cycles (including tricycles, cargo cycles, recumbent cycles), where appropriate, for example the Central Green NEAP and Sheepfold Sports Hub.
- Be a Sheffield stand or otherwise approved by the local authority.

Relevant guidance:

- South Cambridgeshire District Council Local Development Framework: Appendix 2 Standards for Cycle Parking Provision (2007)

Summarised adopted parking standards set out in the South Cambridgeshire District Council Local Development Framework

Residential Use	Minimum cycle storage	
Residential		
Residential institutions (including residential schools/nursing homes)		One for every two members of staff working at the same time
All proposed houses and apartments (including small home businesses, and communal housing of elderly and disabled)		Half a cycle per bedroom

Non Residential Use	Minimum cycle storage	
Non-residential		
Small shop		One for every 25m ² gross floor area
Non-food convenience superstores		
Financial and professional services		One for every 30m ² gross floor area
Food and drink (restaurants, cafés)		One for every 10m ² gross floor area
Pubs and bars		One for every 20m ² gross floor area
Offices		One for every 30m ² gross floor area
Schools	Spaces provided for 30% of children between 5 and 12 years and 60% of children over 12 years	
Crèches and nurseries		One for every two members of staff working at the same time
Community centres/sports halls		One for every 25m ² of net floor area and for every 15 spectator seats

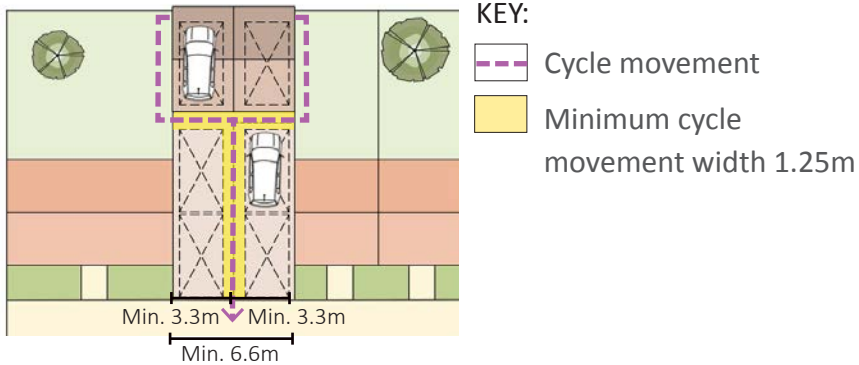
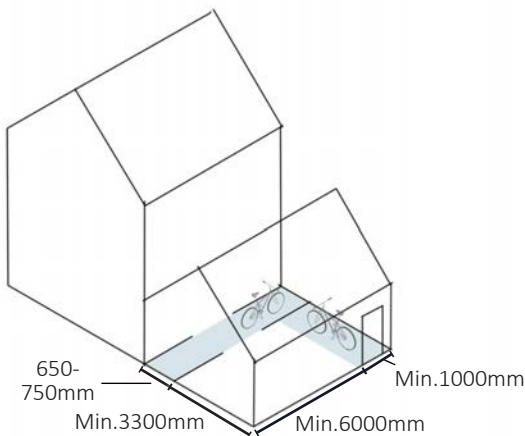
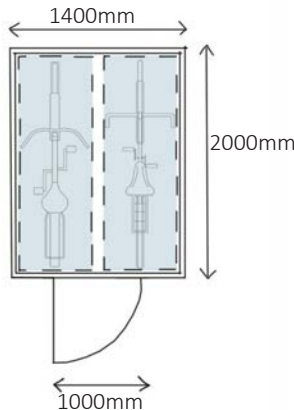


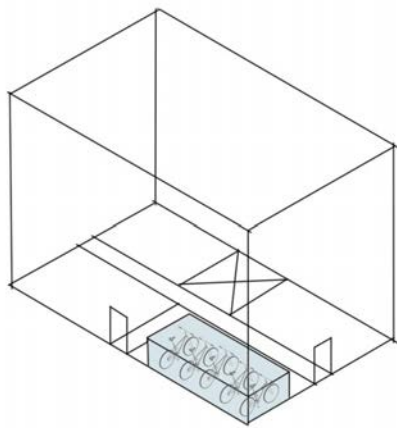
Fig. 20 Illustrative example of potential cycle movement from garage to highway



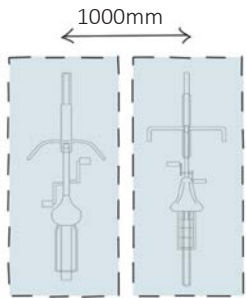
Example of secure covered cycle store for dwelling with a garage



Example of secure covered cycle store for dwelling without a garage



Example of cycle store in apartment building



Example of cycle stands in public realm for visitor parking

Fig. 21 Examples of acceptable cycle storage typologies which should be used within Cambourne West

3.10 Public transport

The primary spine road through the site connecting the A1198 road to the Business Park and secondary school **must** be designed to promote public transport.

A series of secondary roads which loop through the development **must** accommodate buses providing vehicular access to both the primary schools. All parts of the development **must** be within 400m walking distance of a bus stop, measured as "real distance" not as the crow flies.

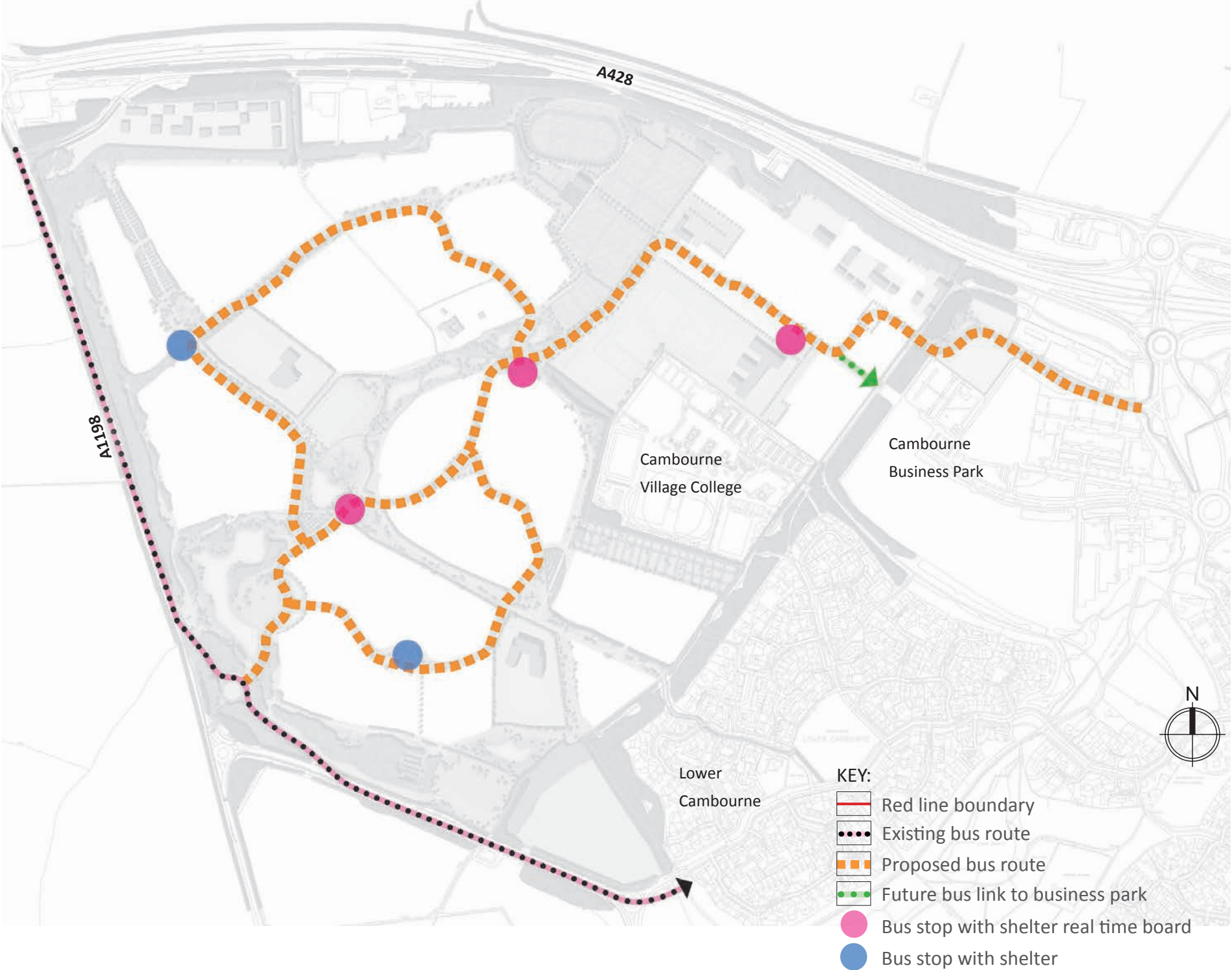
The following **must** be considered when designing bus routes:

- Bus stops **must** be accommodated on the highway.
- There **must** be an allowance in the design for a future fast track bus link to Cambridge.

The following **should** be considered when designing bus routes:

- Bus stops **should** be distributed appropriately throughout the development, with a minimum of 3 real time boards located along the primary and secondary routes as illustrated in Fig 22.
- Bus stops to be located in appropriate locations, near key routes and local greens as illustrated in Fig 22.
- Bus shelters with real time boards **must** be provided at strategic key locations such as the Central Green, Sheepfold Sports Hub and the Sheepfold Square/secondary school as indicated in Fig 22.
- Careful consideration **must** be given to ensure bus stops are sited in safe locations.

M Fig. 22: Public transport routes



3.11 Street character types

Introduction

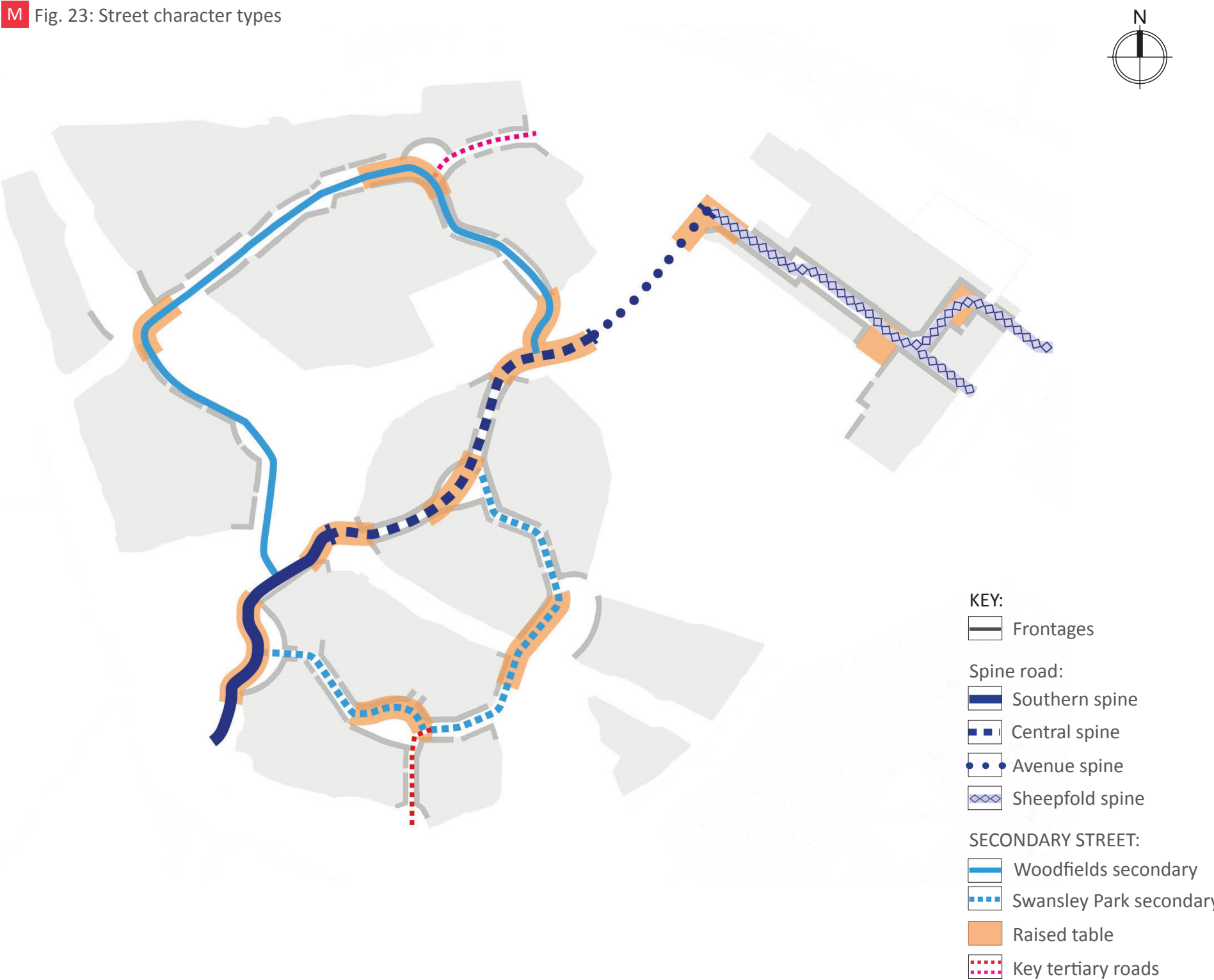
The primary influences upon the character of the architecture and built form are the areas of public space and the hierarchy of routes. Street character types at Cambourne West are determined by the relative importance of the place and movement function.

Fig 23 and the cross sections on the following pages illustrate the various street character types along with the design characteristics which **should** be adhered to as you travel along both the spine and secondary roads. The cross sections are intended to provide an indication of street character to inform detailed design and **should** be considered illustrative only.

- The elements within the highway corridor **must** present a change in character in response to the surrounding environment.
- Built form and enclosure **must** compliment and respond appropriately to the surrounding influences and road alignment.
- Strong public realm design and consistent boundary treatments **must** be used to unite the frontages on opposite sides of the highway (refer to coding provided later in this section).
- Raised tables **should** be provided at the key spaces highlighted. Key spaces should also include pedestrian/cycle crossing points.
- Shared-use pathways and footways **must** have connections provided at suitable crossing points to allow access across the primary and secondary roads.
- Primary spine road **must** have a formal tree lined avenue, unless indicated otherwise as illustrated within the cross sections and summary table.
- Secondary spine road **should** have informal planting within verges along the highway.
- Street lighting columns are shown indicatively only. Final locations to be confirmed.
- Pedestrian and cycle crossing points **should** be provided every 100-200m at suitable locations. Exact locations to be determined at reserved matters stage.

Please note further information on building set backs and planting for each street type can be found within the summary table on page 34.

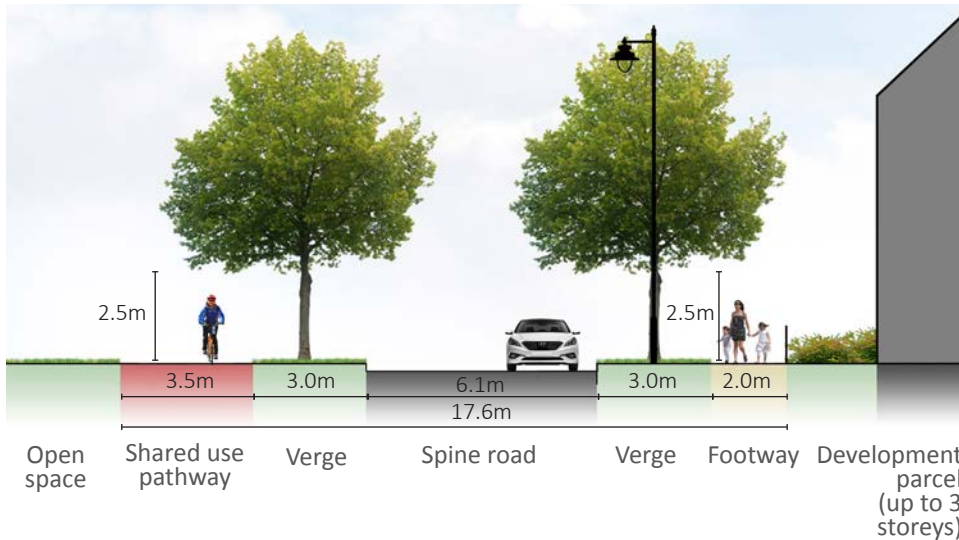
Fig. 23: Street character types



Southern spine

- Gateway to Cambourne West the spine road runs alongside Swansley Park with development on one side and a formal landscape setting to the other, providing attractive views.
- The space **must** be lined with street trees on both sides in a minimum 3m wide verge - see summary table for species.

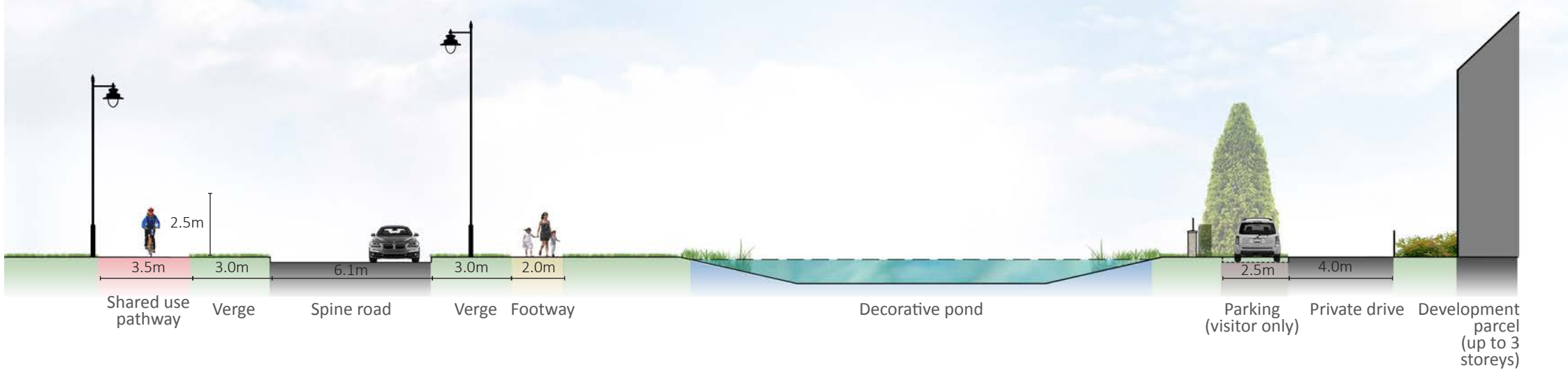
Section B-B1



Section location plan - Southern spine



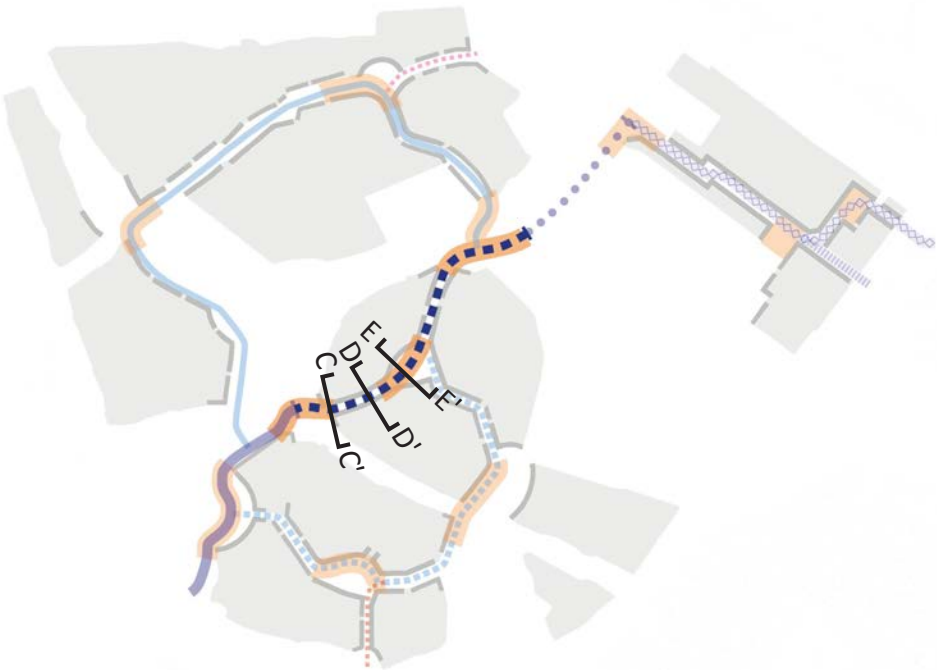
Section A-A1



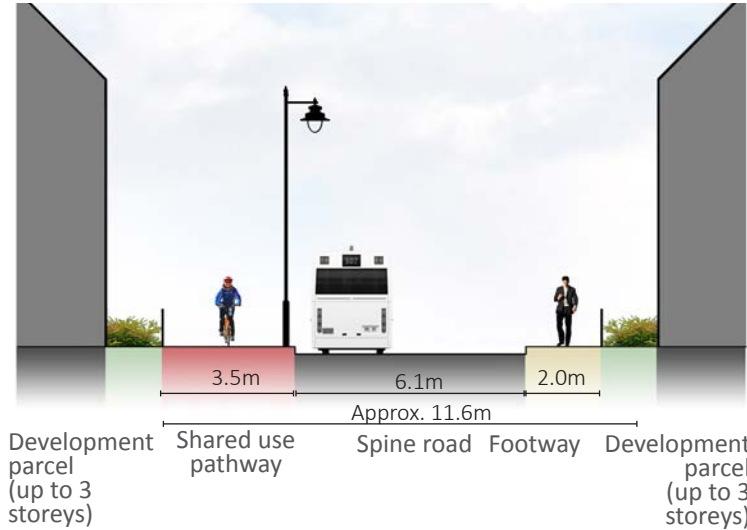
Central spine

- Central spine - spine road passes through Swansley Park to give a "village feel". A sense of enclosure **should** be created using a strong frontage and buildings on either side of the road until the space opens out at the local green in the centre of this district. This provides a key orientation space.
- **Must** be lined with street trees on both sides in a minimum 2.5m wide verge. **Should** be no street trees and no verge at entrance points into the parcel to increase sense of enclosure and gateway.

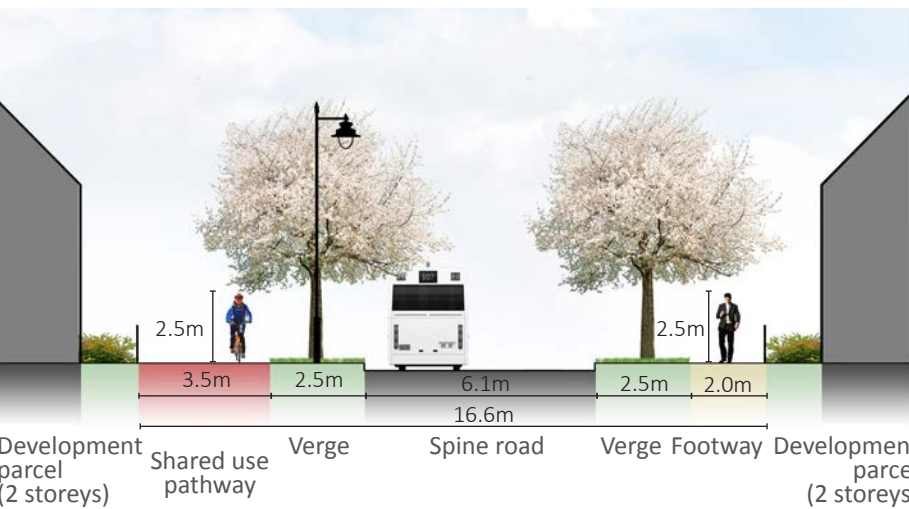
Section location plan - Central spine



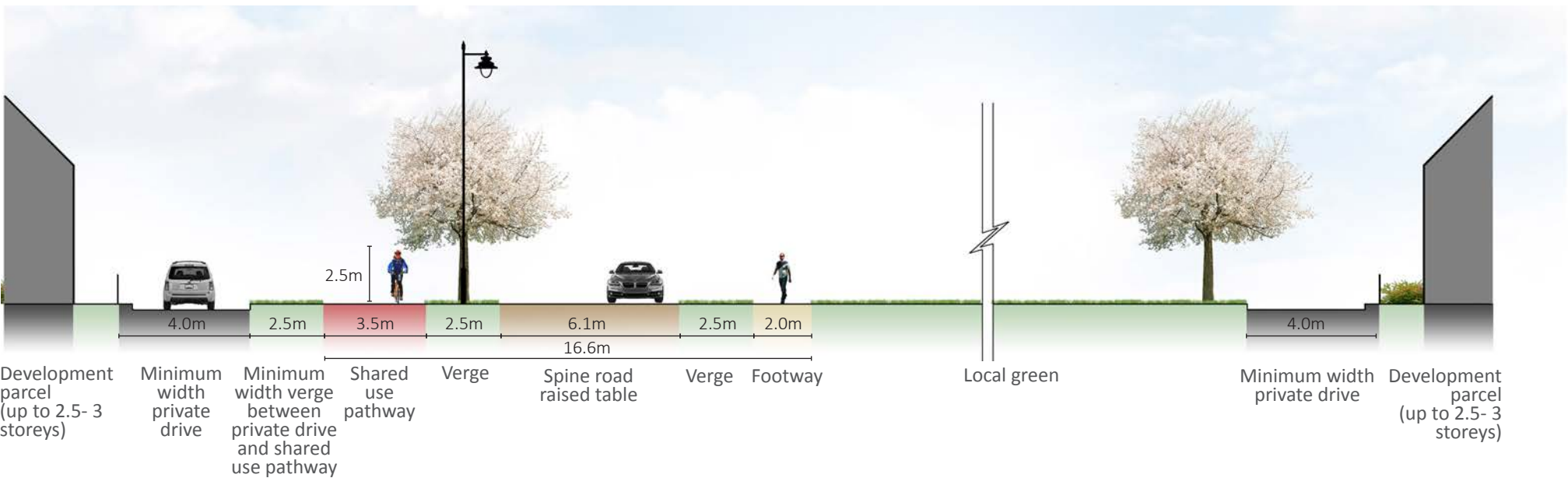
Section C-C1



Section D-D1



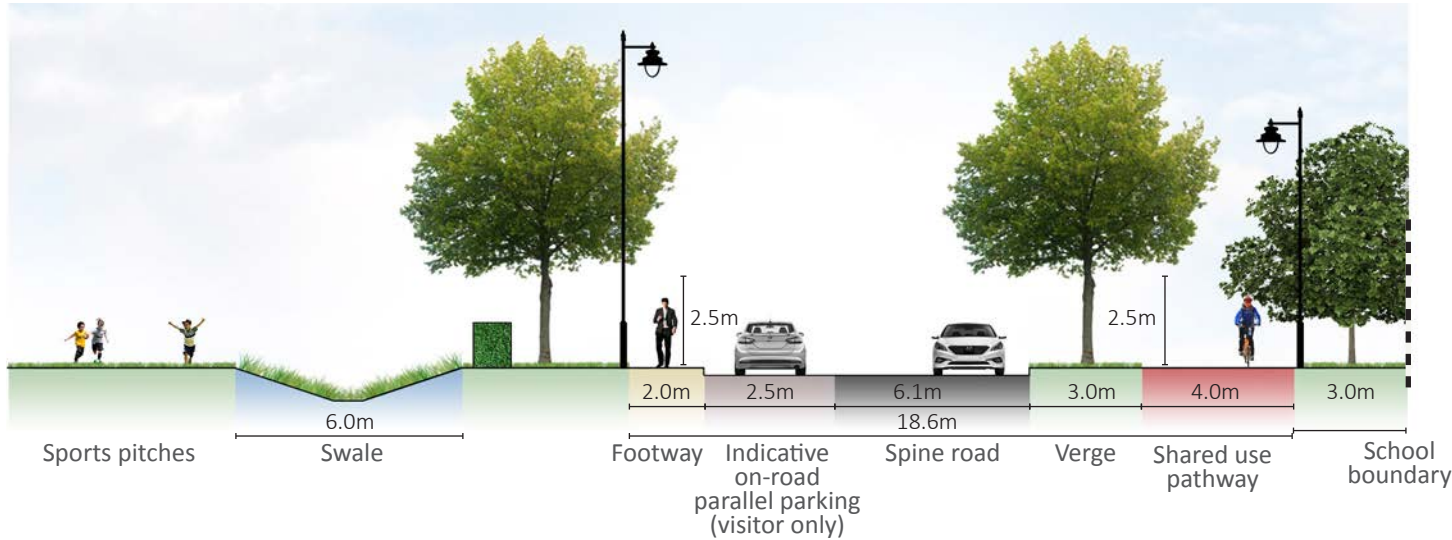
Section E-E1



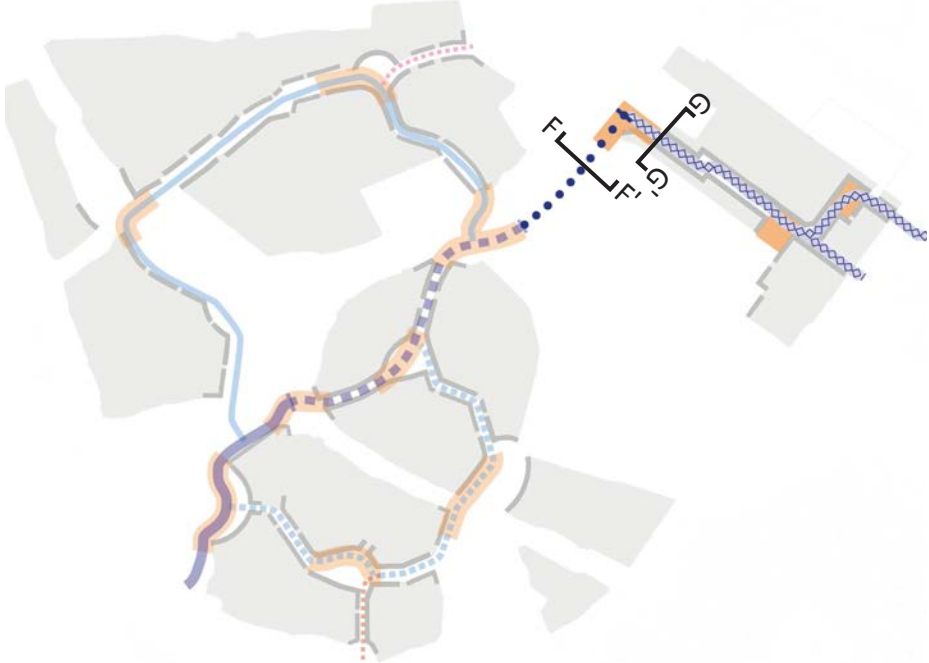
Avenue spine ●●●●●●●●

- Avenue spine - the road continues out of the central spine into Sheepfold where the street has a formal avenue character. Here the verge width varies to allow visitor parking and integrated traffic calming along the route.
- **Must** allow for parallel parking along this section adjacent to Sheepfold Sports Hub.

Section F-F1



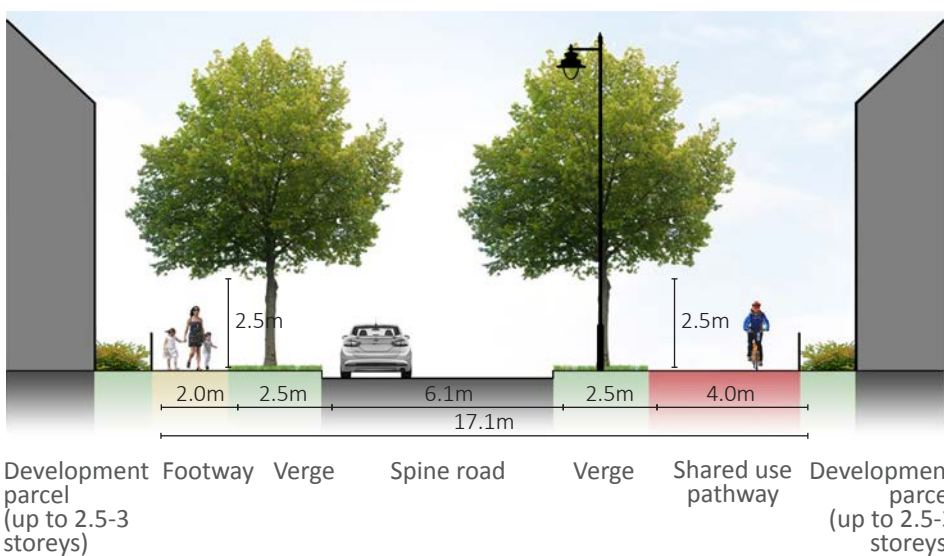
Section location plan - Avenue spine



Sheepfold spine ◆◆◆◆◆◆◆◆

- Sheepfold spine - formal avenue character continues. Verge widths decrease to allow for maximum shared use path width for the busiest part of the site. Serving schools, a community centre, employment uses and the express bus route, as well as being one of the main vehicular access points into Cambourne West. Street trees and planted verges will give a green feel.

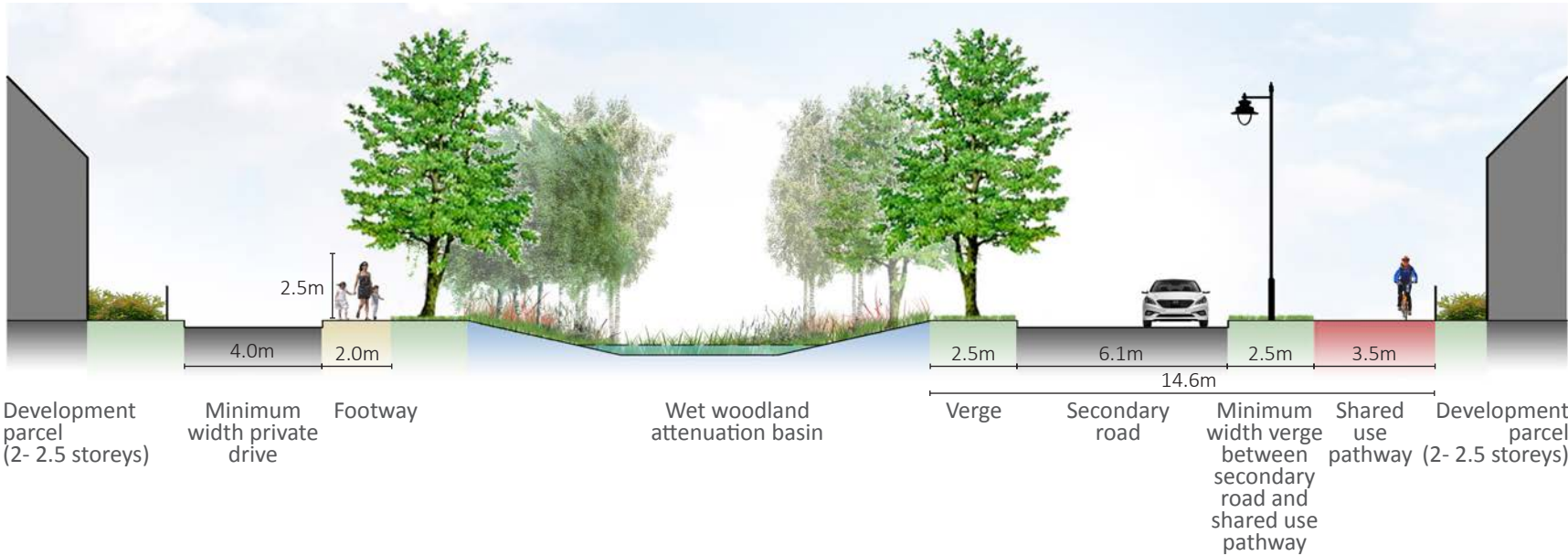
Section G-G1



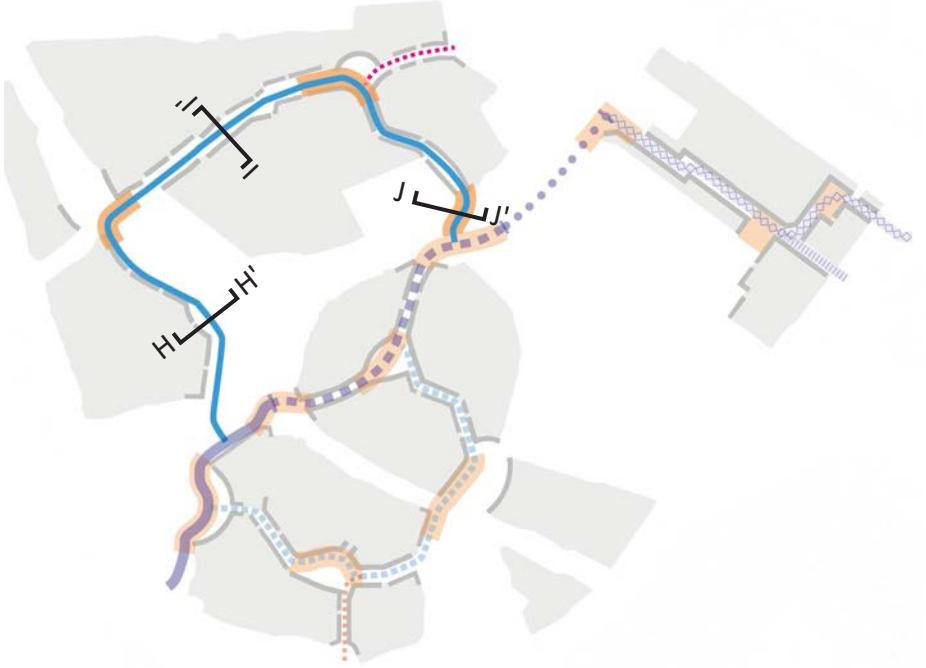
Woodfields secondary road

- Woodfields secondary - informal tree lined character with varying verge widths and mix of tree species common to the surrounding area.
- Planting **should** be informal and in groups with some carr woodland planting within attenuation basins.

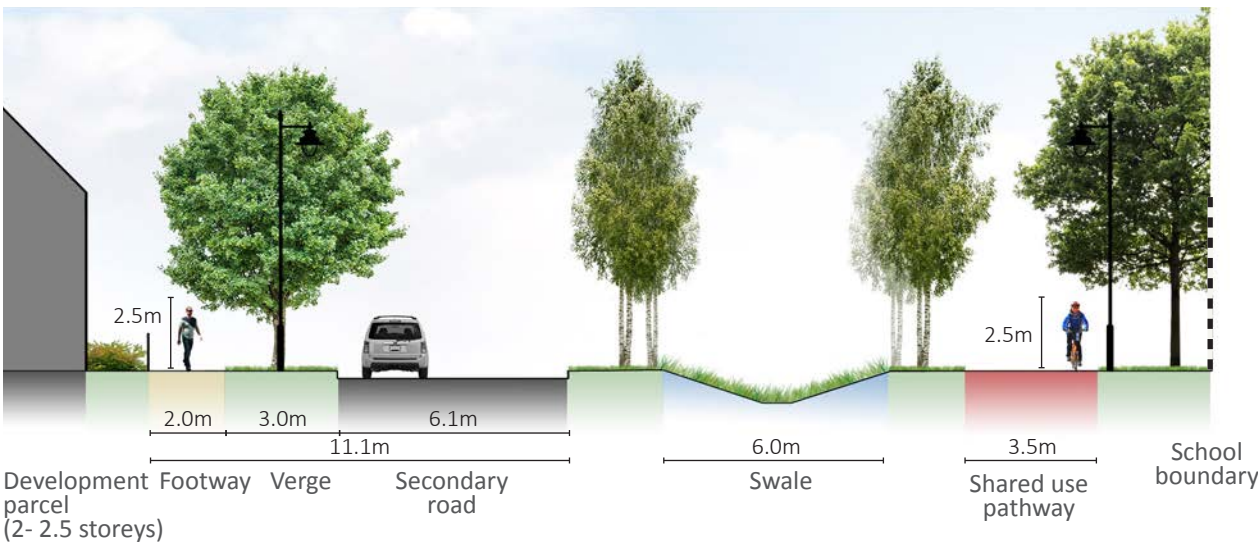
Section I-I1



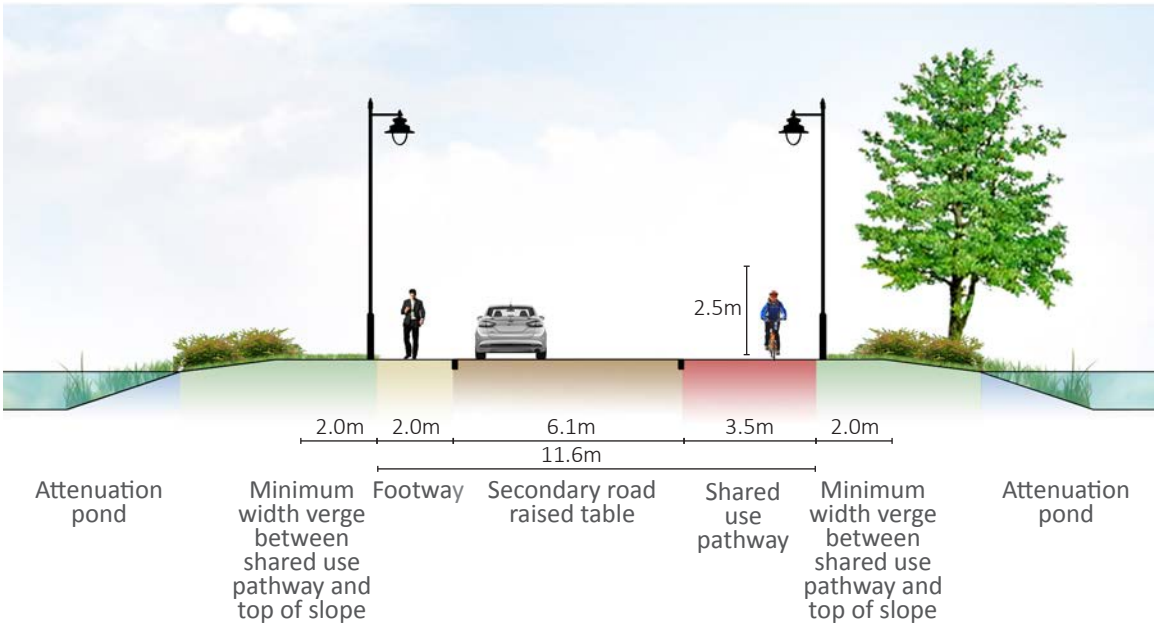
Section location plan - Woodfields secondary road



Section H-H1



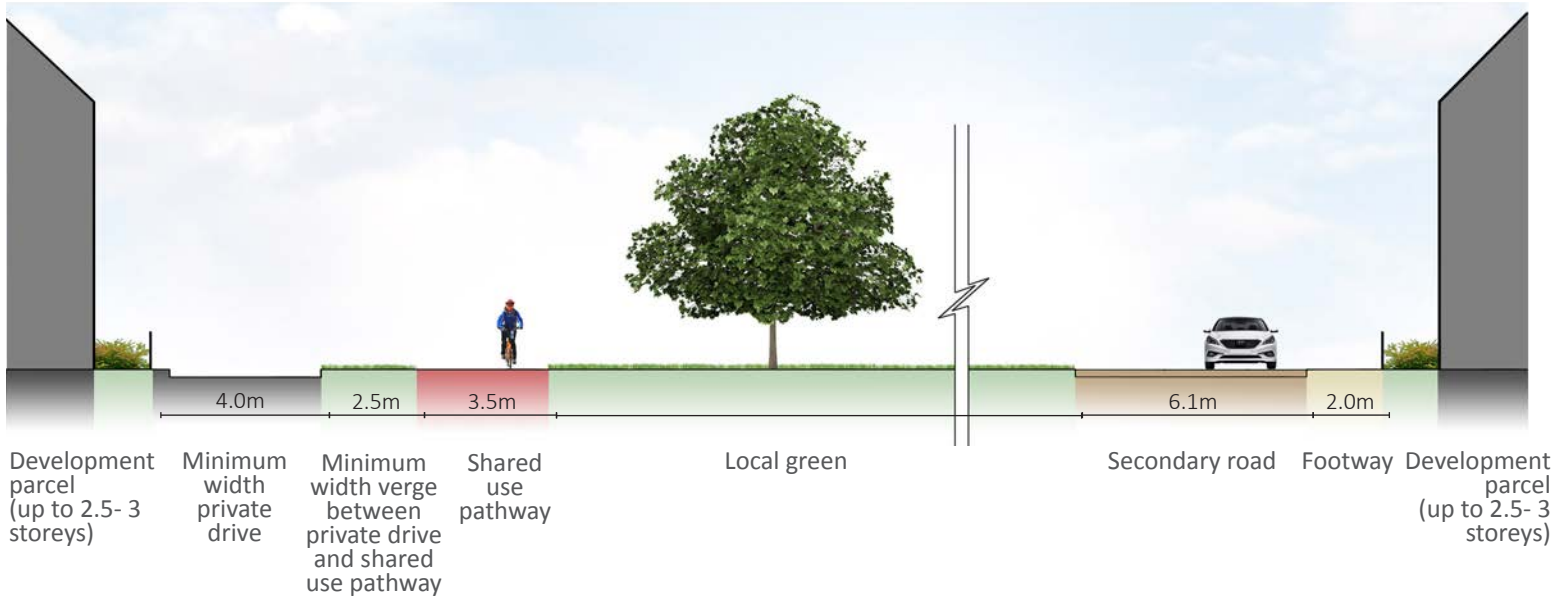
Section J-J1



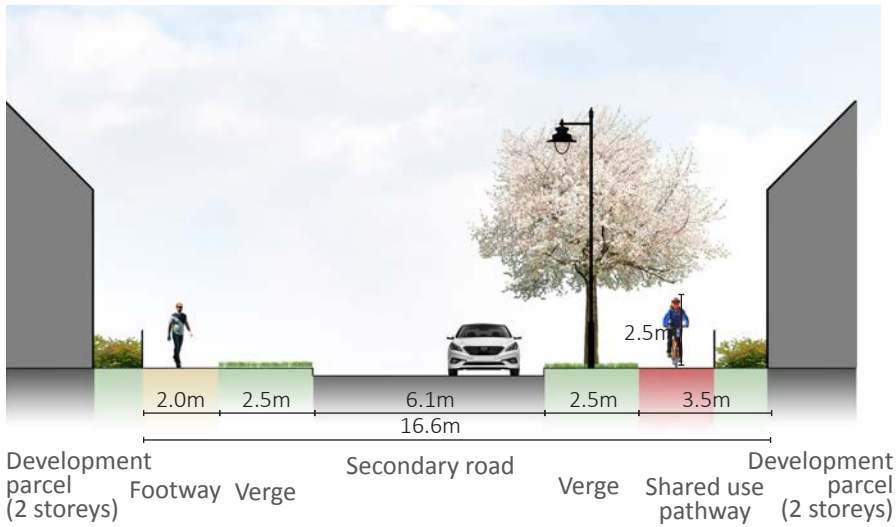
Swansley Park secondary road

- Secondary road **must** provide a loop through the development parcel with mixed informal tree planting on one or both sides of the road to reflect the surrounding area.
- Planting **should** be staggered and in groups with some elements of formal planting within key spaces (see chapter 4 and 5 for details).

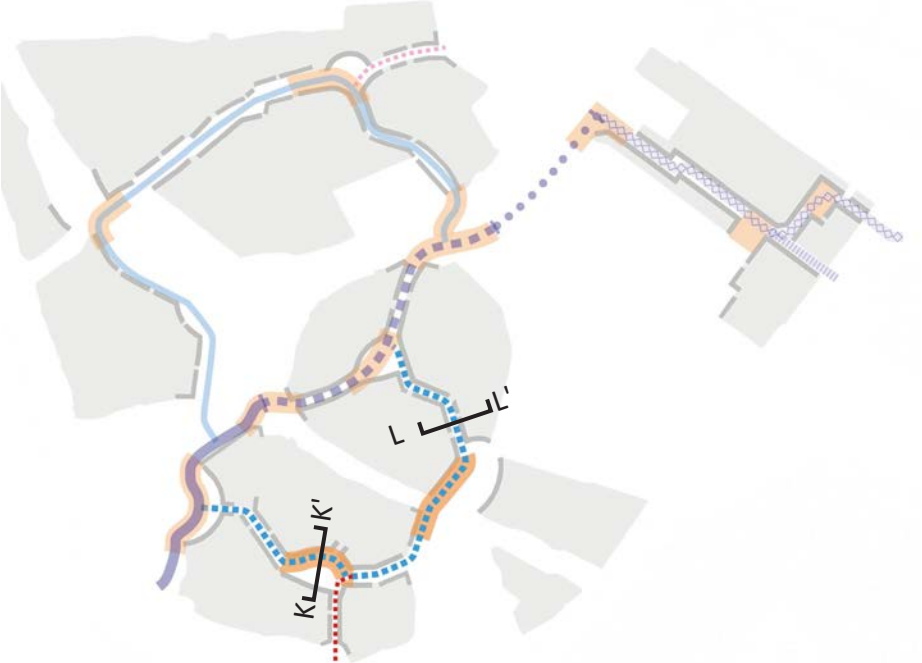
Section K-K1



Section L-L1



Section location plan - Swansley Park and Sheepfold secondary roads



Summary table - street type influences

The table opposite summarises the **mandatory** influence of each road category on the adjacent residential areas.



Roads and street type summary table

M	Street character	Verge width	Tree planting*	Tree species	Enclosure	Building height
Primary spine road						
	Southern spine	3m	Formal avenue planting on both sides of road at a spacing of minimum 10m. Two species must be used and should be planted in pairs to either side of the street	Lime and fastigate hornbeam	Open to western side	Predominantly 2/2.5 storeys with 2.5/to 3 storeys at key location. Contains the highest massing in each district
	Central spine	2.5m		Wild cherry and ornamental pear	Buildings on both sides	
	Avenue spine	Varies from 3m - 6m		Norway maple and London Plane	Open	
	Sheepfold spine	2.5m		Red maple and small leaved lime	Buildings on both sides	
Secondary roads						
	Woodfields secondary	Varies 2.5m-6m	Informal verge planting on one or both sides of the corridor	Mixed species - oak, birch, lime, maple, elm, Italian alder. Woodland carr species to include - alder, guelder rose, willow and willow	Enclosed to streets and open to local greens	Predominantly 2 to 2.5 storeys, with 2.5 /3 storeys at key locations. Contains the highest massing in each district
	Swansley Park secondary	Varies 2.5m-6m		Mixed species - lime and cherry		
	Sheepfold secondary <i>(Loop removed following consultation with CCH)</i>	2.5m	<i>Avenue planting of street trees. Trees should be planted in pairs to either side of the street</i>	<i>Red maple and small leaved lime</i>	<i>Buildings on both sides</i>	<i>Predominantly 2.5 storeys. Contains the highest massing</i>
Key tertiary roads						
	Woodfields	2.5m	Formal avenue planting of street trees	Fastigate oak	Buildings on both sides	Predominantly 2 - 2.5 storeys
	Swansley Park	2.5m		Fastigate hornbeam planted within yew hedgerows		
Tertiary roads						
	Throughout all neighbourhoods	Where appropriate. Maximum width 2.5m	Informal staggered avenue planting where space permits	Varied depending on neighbourhood. Generally smaller species including fastigate maple, rowan, ornamental pear, amelanchier, hawthorn	Mix of one-sided and two-sided development	Predominantly 2 - 2.5 storeys
Private drives						
	Throughout all neighbourhoods	None	Planting in key spaces. Refer to sections 4 & 5 for further detail		Generally open to one side	Predominantly 2 - 2.5 storeys
Sheepfold public squares						
	Sheepfold neighbourhood	None	Formal planting - contemporary focal trees. Refer to sections 4 & 5 for further detail		Enclosed	Predominantly 2.5 to 3 storeys

*A tree planting strategy will be provided as part of the Scheme of Informal POS submitted as part of the Section 106 Agreement

Building frontage (See page 9 for definition of type A & B)	Building set back	Range of dwellings	Boundary treatments	Materials strategy	Parking (refer to section 3.8)
Type A frontage (page 9 for definition) to enclose the entrance area, neighbourhood green and Sheepfold squares. Type B frontage (or type A as an alternative option) to other sections of road	Buildings must sit close to the back edge of the highway footway/shared use path to create an enclosed streetscene. Maximum set back 1.5 - 2m from back of footway/shared use path. Rows of linked buildings should have a consistent set back and architectural rhythm	Continuity in architectural language must be applied along each section of the spine road. Buildings should be primarily semi-detached, terraced and linked houses and apartment blocks. Larger individual/detached houses must be linked by garages or 'flying links'	Refer to boundary treatments plan in section 3.16. Treatments should be mirrored on both sides of street	Refer to corresponding materials palettes in section 3.14. Balanced use of materials to either side of the street	Type A, C for narrow set back Type B behind the reflective ponds
					Type A, C for enclosure Type B limited use around greens
					Type Q
					Type A, as above Type C around squares
Type B frontage (or type A as an alternative option) to other sections of road	Minimum set back from back of footway/shared use path of 1.5m, maximum 7m. Larger set back to provide variation, including front plot parking and larger front gardens.	Continuity in architectural language must be applied to frontages containing open spaces, and connecting streets. Buildings along these streets should be terraced, semi-detached and detached	Refer to boundary treatments plan in section 3.16. Treatments should be mirrored on both sides of street	Refer to corresponding materials palettes in section 3.14. Balanced use of materials to either side of the street	Type A, C and D for semi- continuous with narrow set back Type B, E , J, K to create a wider street section. I to P adjacent to open space. Alternative arrangements may be considered adjacent open space, please refer to section 5.
Type B frontage (or type A as an alternative option) to other sections of road	Maximum set back 1.5 - 2m from back of footway/shared use path. Rows of linked buildings should have a consistent set back and architectural rhythm	Buildings should be primarily semi-detached, terraced and linked houses and apartment blocks. Larger individual/detached houses must be linked by garages or 'flying links'	Refer to boundary treatments plan in section 3.16. Treatments should be mirrored on both sides of street	Refer to corresponding materials palettes in section 3.14. Balanced use of materials to either side of the street	A, C for semi- continuous with narrow set back Type B, E to create a wider street section.
Type B frontage (or type A as an alternative option) to other sections of road	Maximum set back of 1.5 - 2m from back of footway/shared use path	Houses should be primarily semi-detached and detached with some terraced properties	Refer to boundary treatments plan in section 3.16. Treatments should be mirrored on both sides of street	Refer to corresponding materials palettes in section 3.14. Balanced use of materials to either side of the street	Type A, D to maintain a semi-continuous built frontage. Type Q
Varied. Depending on the urban design principles and character of the neighbourhood (see section 5)	Varied. Minimum set back from back of footway/shared use path 1.5m, maximum 7m	Buildings along tertiary streets should be varied	Refer to boundary treatments plan in section 3.16. Treatments should be mirrored on both sides of street	Refer to corresponding materials palettes in section 3.14. Balanced use of materials to either side of the street	Type D-Q
Varied. These areas should have a looser, irregular edge	The building line should be varied to give a looser, more organic feel. Maximum set back from edge of drive to be 7m	Generally a higher proportion of detached houses with some large semi-detached properties	Refer to boundary treatments plan in section 3.16	Refer to corresponding materials palettes in section 3.14	Type H, J, K, L, M, Q
Type A frontage (page 9)	Maximum set back of 1.5 - 2m from back of footway/shared use path	Linked buildings to predominate: terraces and apartment blocks	Refer to boundary treatments plan in section 3.16	Refer to corresponding materials palettes in section 3.14	Type A, C, Q

3.12 Architectural character

Cambourne West **must** have a distinctive and recognisable sense of place and character. There **must** be subtle changes in character, influenced by local context and surroundings, that transition on the journey through the scheme.

Three neighbourhood areas are proposed create a logical change in character and to integrate the development into the surrounding area, enhancing legibility and sense of place.

The neighbourhood areas take their cue from their location within the scheme and from the areas they adjoin. The three neighbourhood areas are set out in the table below:

Neighbourhood area	Design cue
Sheepfold	Contemporary style and orthogonal, regular layout of Cambourne Business Park and secondary school
Woodfields	Traditional vernacular and irregular, organic settlement pattern of surrounding villages including Lower Cambourne and local country houses
Swansley Park	
<i>* Specific design principles relating to each neighbourhood area are provided in section 5 of this document.</i>	

The character of each neighbourhood will be derived form landscape, architectural form/style, materials and setting. Although Woodfields and Swansley park share common architectural form and style their difference will be derived form landscape treatment, materials, setting and differences in building appearance due to the different phases each area will be built in.

It is expected that some architectural styles, detailing and materials will be present in more than one neighbourhood area, particularly in Woodfields and Swansley Park. Suitable alternatives that are in keeping with the general character **should** also be explored.

Continuous frontage	Regular spaced frontage	Irregular frontage	Marker building
<div>SHEEPFOLD</div> 			
<div>WOODFIELDS & SWANSLEY PARK</div> 			
			

Precedent images demonstrating acceptable built form responses for each neighbourhood area

3.13 Architecture

The architectural design at Cambourne West **should** draw upon successful local examples. The robust masterplan framework and approach to townscape can support a range of architectural approaches. This is an appropriate location for a degree of architectural variety and diversity. As a result, this code offers enough flexibility to allow for good quality, creative design options to be used, whilst ensuring a basic standard of quality and consistency.

The general approach to architecture at Cambourne West **must** be simple, well proportioned, and well detailed, using high quality materials. Generally each building **should** be clad in a single material. Where this is not the case, such as a brickwork base with weatherboarding above; or an entrance detail using contrasting cladding, joints between materials **must** be well considered.

There are certain occasions within the masterplan where a specific or consistent approach is required. For example, at the key gateways into Cambourne West - here the buildings **must** act as a group to produce a strong visual statement that is greater than the sum of the individual buildings. These instances are identified in section 4 and section 5, where the required design responses are described.

Key architectural considerations:

Layout

- Layouts **must** be designed to ensure appropriate privacy for internal rooms and gardens. As a general rule of thumb, a minimum distance of 25m (30m for 3 storey buildings) should be provided between rear or side facing buildings containing habitable rooms, and 12m between habitable rooms and blank walls; however this may be reduced as part of detailed design.
- Blank ground floor elevations **must** be avoided

General design and materials

- Buildings **must** relate to one another and provide appropriate transitions between neighbourhood areas, character areas and development parcels. The design of buildings **must** demonstrate an understanding of the inherent relationship between form, materials and detailing.
- Buildings **should** be simple and elegant, avoiding fussy detailing.



Entrances should be welcoming and well designed to incorporate meters etc



Avoid blank elevations on gateway buildings at key street corners



Simple, well detailed buildings



Brickwork **must** be the predominant material



Variety of 2 to 2.5 storey buildings



Avoid over fussy detailing and mixed materials



Limit the number of different materials



3 storey gateway building



3 storey marker building

- High quality materials and high specification detailing **should be** prioritised in key locations such as primary routes, marker buildings and gateways.
- Fake /plastic add on features **must** not be used (eg chimneys, porches, dormers).
- Fussy arrangements of different / too many materials **must** be avoided
- 'Stuck on' panelling **must** be avoided
- Changes in materials **should** be at internal corners where there is a change in direction of the elevation
- The colour of windows, doors, fascias etc **must** be co-ordinated to compliment/harmonise with the primary colours.
- Garages should be subservient to the main building with a set back from the main building facade unless incorporated into the main building envelope.
- Garages within the main building should not dominate the main building frontage.

Height

- Changes to height and mass **should** be achieved through a range of architectural techniques including: feature gable ends facing onto the street, varied roof design, change in building width/depth.
- Taller and/or larger buildings **should** be used to add variety in height and mass at key focal locations. For further details see section 3.17.

Roofs: eaves, verges and panels

- Houses **should** have pitched roofs. Apartments **should** have pitched or flat roofs with parapets, as appropriate to context. Pitched roofs **should** range between 40° to 50° (30° as a minimum in exceptional circumstances to accommodate technical issues). Abutting roofs of different heights **must** be well co-ordinated where they meet. Garages **should** have roofs that are complimentary to the form/pitch of the main building.
- Flat roofs **must** sit behind a parapet.



Feature gable end



Avoid small panels of timber weatherboarding / unbalanced windows



Changes in materials at internal corners



Avoid awkward roof junctions



Avoid small infill panels of cladding



Garages should be set back from the main building facade



Avoid over-detailing with lots of different cladding materials



Render to be correctly detailed to avoid staining



Avoid changes in roof orientation along a length of road

- Roof orientation **should** generally be consistent along any one length of road and **should** be considered together with the potential for solar heating / power. However changes in roof orientation such as gable ends facing roads **should** be used to create features to mark junctions and focal points.
- Boxed eaves **must** be avoided within the Sheepfold character area and along the Primary street.
- Boxed ends to eaves which produce a heavy end detail at the verge **must** be avoided.
- Verges **should** not be boxed.
- Boxed Eaves can be used with hipped roofs and parapet gables in other areas (except those identified above) subject to appropriate detailed design agreed with the planning authority.
- Generally a slim profile and dark finish is preferred.
- Plastic verge/tile caps **must** not be used.
- Solar panels **must** be integrated into the roof plane.

Dormers

- Dormers **should** be minor elements in the roof plane, equal or smaller in proportion to the windows below.
- Cheeks and fascias **should** be slender in profile and dark coloured.
- Pitched dormers are appropriate on traditional style buildings.

Windows

- All buildings **must** have well proportioned, generously-sized windows. The selection of window frames **should** favour slim sections to maximise daylighting within the home. Glazing bars **should** be avoided unless they contribute to the structural integrity of the window design.
- Windows with pairs of same size sashes with one fixed and one opening light that result in an unbalanced appearance (i.e. much smaller panes of glazing within the opening light) **should** be avoided.
- Recesses **should** be a minimum of 75mm. A deeper recess is preferred on south facing streets.
- Colours **should** be subdued.
- Fake features such as sash casements, self-adhesive leads etc **must** be avoided
- Balustrades / railings / balcony **should** be designed as integral parts of the building with simple, discrete detailing.



Boxed eaves can be used on hipped roofs and parapet gables



Avoid plastic verge / tile caps



Use dark coloured, slender boxed eaves



Avoid fake /stick on bars / window panels



Dormers should be minor elements in the roof plain and have slender, dark cheeks / fascias.



Avoid heavy, light coloured boxed eaves



Pitched dormers of appropriate scale on a traditional building

Entrances/doors

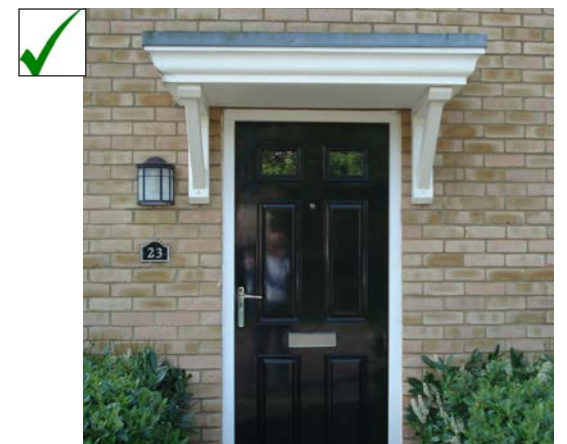
- All buildings **must** have recognisable and inviting entrances. Consider using contrasting textured materials here.
- Doors and windows **should** be positioned to maximise natural surveillance over adjacent public realm.
- Front doors **should** be pre-finished to avoid poor maintenance.
- Porches **should** be integrated into the building design.
- Porches **must** be proportionate to the elevation. They must not dominate the elevation nor have a bulky appearance.
- Special feature porch designs **should** be prioritised along primary streets and strategic areas. Porticos, door hoods/surrounds, inset porches, semi-enclosed/enclosed porches are encouraged along the primary streets and the strategic areas identified in section 5.2.
- All details of porches **should** be agreed with the local planning authority.

Ancillary features

- Consideration **must** also be given to the discrete and convenient storage of refuse and meters.
- Rainwater goods, particularly downpipes **must** be well coordinated and not detract from the building.
- Architectural features such as simple bay windows, feature gables and balconies **should** be used to add animation, particularly in prominent locations such as at corners and marker buildings.



Porches should be integrated into the built design



Flat cantilevered porches can be used away from the key areas

Corner buildings:

- Corner buildings **must** relate to more than one frontage, for example at the intersection of highway junctions.
- Buildings at the intersection of highway junctions **must** be articulated to provide an active frontage onto both streets.
- Buildings **should** help visually locate highway junctions from a distance through the creation of gateways.
- Corner buildings **should** be visually prominent and distinct from those next to them.
- Corner buildings **should** offer more entrances to different parts of the building.
- Access into the plot and the locations of openings within the defining boundary **should** be carefully considered in relation to the highways, adjacent plots and buildings on the opposite side of the street.
- Set backs from each highway **must** be carefully considered to ensure that buildings adequately 'signpost' the type of road they face in each direction.
- Boundary treatments **must** be consistent on both frontages of the same building and **should** compliment with the boundary treatments of adjacent plots.
- The prominence of a street corner location **should** be reflected in the building's design.
- Tailored designs **should** be considered at key intersections where corner buildings are required.



Corner building also acts as gateway to street



Active outlook to both elevations



Entrances off both streets. Pitched roof turns corner.

Building is architecturally balanced to both sides



Unifying boundary treatment to large corner plot. Windows placed on both frontages allowing views onto both streets

3.14 Materials

The approach to materials at Cambourne West is to specify high quality quality, robust, sustainable materials and to use them simply and elegantly. Each building **should** be finished in one material all the way around. This avoids weak and difficult details when changing from one material to another across a façade.

Materials palettes are provided to ensure that groups of adjacent buildings sit harmoniously together, whilst allowing for an appropriate degree of variety and choice. The palettes are influenced by the surrounding historic and contemporary settlements.

Detailing **must** be appropriate to create attractive, robust buildings and avoid staining and maintenance problems.

Hierarchy of materials

High quality, robust, sustainable materials such as stock brick, reconstituted slate plain tiles and plain clay tiles **should** be prioritised in key locations such as primary routes, secondary routes, marker buildings and gateways. This can then be balanced with alternative materials used in less prominent locations.

Primary materials

The primary materials diagram and palette demonstrated in Fig. 24 and Fig. 25 set out the primary materials which **should** be applied across Cambourne West. The materials contained within the primary materials palette **should** be used in the locations shown in Fig. 24. The predominant facing material across the development **should** be cream / buff bricks. It is expected that designers **should** consider additional complimentary materials for both residential and non residential buildings, suitable for the character of the area, for discussion with SCDC in future reserved matters applications.









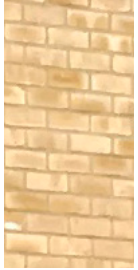













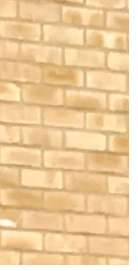













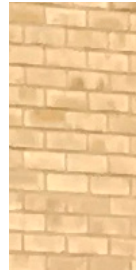





Buildings **should** be finished in one material. Small 'stick on' panels of contrasting materials (such as render or timber) **must** not be used.

Details and joints between different materials **must** be kept simple and elegant. Transitions **should** be made at suitable points such as a change in direction of planes or at internal corners.



Fig. 24: Primary materials diagram

M Fig. 25: Primary materials palette

	Colours	Roofing	Walls	Fenestration	Local context
<div><div>Palette A</div><div>Central spine/ Sheepfold</div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div>Slate / re-con slatePlain tile</div></div>	<div><div></div><div>Buff bricksGrey bricks</div></div>	<div><div></div><div>Black/buff/white</div></div>	<div><div></div><div>Cambourne Business Park</div></div>
<div><div>Palette B</div><div>Woodfields</div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div>Slate / re-con slatePlain tile</div></div>	<div><div></div><div>Buff bricksRed brick</div></div>	<div><div></div><div>Anthracite/white</div></div>	<div><div></div><div>Woodland edge</div></div>
<div><div>Palette C</div><div>Swansley Park</div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div>Slate / re-con slatePlain tile</div></div>	<div><div></div><div>Buff bricksRender</div></div>	<div><div></div><div>Grey/white</div></div>	<div><div></div><div>Lower Cambourne</div></div>

Accent materials

The landscape character of the public spaces throughout the scheme is a key influence on the surrounding built form.

This provides an opportunity to vary the materials, based on the site-wide landscape strategy, to add interest, enhance sense of place and improve navigability.

Accent materials **must** be used provide variation and interest at interfaces with key landscape spaces within the scheme.

The accent materials diagram and palette demonstrated in Fig 26 and Fig 27 set out appropriate accent materials which **should** be incorporated into the locations shown, as influenced by the local landscape character. The accent materials have been selected to work in harmony with the primary materials palette, which **should** still predominate. It is expected that designers **should** consider additional complementary materials for both residential and non-residential buildings, suitable to the character of the area, for discussion with SCDC as part of future reserved matters applications.

Buildings that fall within the locations shown **should** also 'borrow' materials from other accent palettes to provide consistent motifs on the journey through the scheme. However, such instances **must** be limited in order that the unique character of the landscape spaces is maintained.

Marker buildings and non-residential / mixed use buildings **should** stand out from those around them. They should use materials of an equal or higher quality than the predominant palette in agreement with the LPA. These buildings **should** 'borrow' materials from other primary materials palettes or accent materials palettes. Any introduced materials **must** work in harmony with the materials which predominate in that area.



Fig. 26: Accent materials palette

Brickwork

Brick is a robust and simple material, commonly used in this part of Cambridgeshire (including Cambourne). High quality bricks **must** be used as the **predominant** material. Stock bricks **should** be used for buildings fronting primary routes, secondary routes and key edges. Brick detailing and colour **should** vary to respond to the different character areas.

Roofs

Roofs **should** be pitched (with the exception of some community/ employment buildings or small areas of flat roofs on flats). Re-con slate, concrete tiles with a slim profile or clay plain tiles **should** be used along primary routes, secondary routes and key edges. Re-con slate or concrete slate **should** be used for roofs below 40° in pitch.

Render

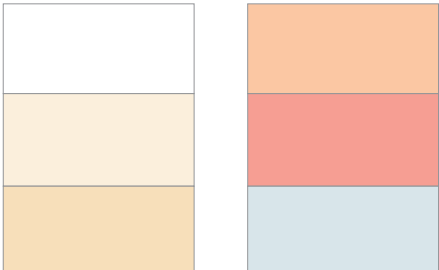
Render **should** be used as an accent material throughout Cambourne West. When specifying render, roofs **must** have a deep overhang to throw off water and minimise staining. Window sills **must** be a minimum of 30mm deep with sufficient falls and drip detailing. Render buildings **must** not be used on busy streets or on predominantly north facing buildings.

Weatherboarding

Weatherboarding gives an organic, soft effect. It **should** be used on buildings where there is an association with woodland or wetland landscape, on the lower density parts of the site. It works particularly well when used in small clusters or courtyards - reminiscent of agricultural buildings. It **should** be used to achieve both vernacular and contemporary building styles. In this part of Cambridgeshire weatherboarding is usually black.

M Fig.27: Accent materials palette

Palette 1



Render - white / buff / pink / blue

Palette 2



Render - white

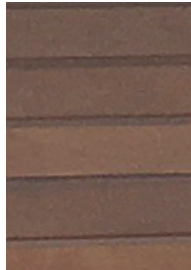


Weatherboarding - black

Palette 3

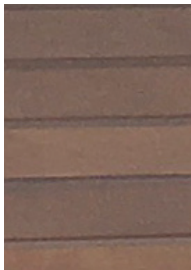


Render - cream



Weatherboarding - timber

Palette 4



Weatherboarding - timber



Weatherboarding - black



Other appropriate materials for non-residential and apartment buildings **should** be explored



Coloured render



Coloured render



Black weatherboarding



Render and buff brick

Roads and street materials

The following types of material are considered appropriate for use within adoptable areas in the site. The materials used **must**:

- Meet the requirements within Manual for Streets, Cambridgeshire Design Guide and County Council's Housing Estate Road Constructions Specification (HERCS).
- Use block paving or cobbled setts supplied by Marshalls, or similar approved supplier. Rough surfaces are not appropriate.

In areas which will not be adopted by the CCC (such as squares and parking bays), the following design guidance **should** be followed:

- Materials should be appropriate to the character of the development and its context.
- Muted colours are generally considered more suitable for paving.
- Large, unbroken areas of any particular surface material should be avoided, especially asphaltic material.
- Areas can be successfully broken up using materials of the same colour but with different textures.
- It is more appropriate to use changes in surface material rather than painted demarcation to define changes of surface use.
- See page 106 for management and adoption strategy for non adoptable items.

Material types

Adoptable (CCC Highways)	Non-adoptable (continued)
1-3 Block paviors in various sizes. Suitable for shared use spaces, adopted raised crossings and tertiary roads. Colour should be selected to suit the character of the surrounding area	7 Concrete block paviors and sett paving in various sizes. Suitable for tertiary roads serving less than 12 units, parking courts, on-street parallel parking, private drives and public squares. Colour should be selected to suit the character of the surrounding area
4 Black asphalt suitable for primary and secondary highway and primary footways	8 Flush surfaced tree grills - suitable for use in hard paved areas such as the Sheepfold Squares
5 Red asphalt suitable for primary pedestrian/cycle shared use path	9 Breedon gravel suitable for use on secondary footways
Non-adoptable	10 Timber boardwalks suitable for use on wetlands
6 Conservation kerb in Sliver Grey suitable for shared use public square.	11 Resin bound gravel
	12 Mount sorrel suitable for secondary shared use paths
	13 Heritage asphalt suitable for use on tertiary streets

Adoptable Note: Precise paving details will be determined through reserved matters applications



Non-adoptable



3.15 Street furniture

Street furniture is a necessary part of the street scene in terms of providing information and navigability along with ensuring the street is suitably lit and a safe place.

The design and layout of street furniture **must**

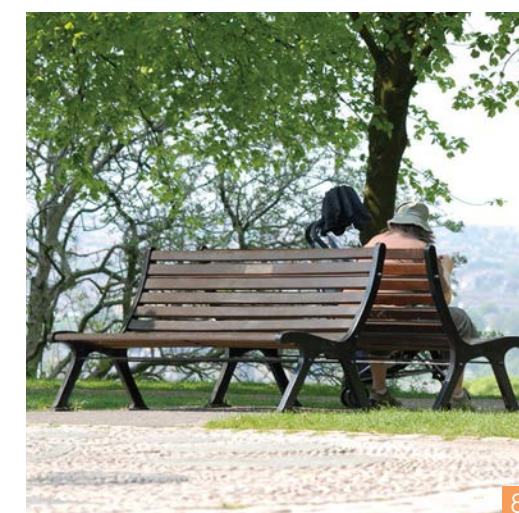
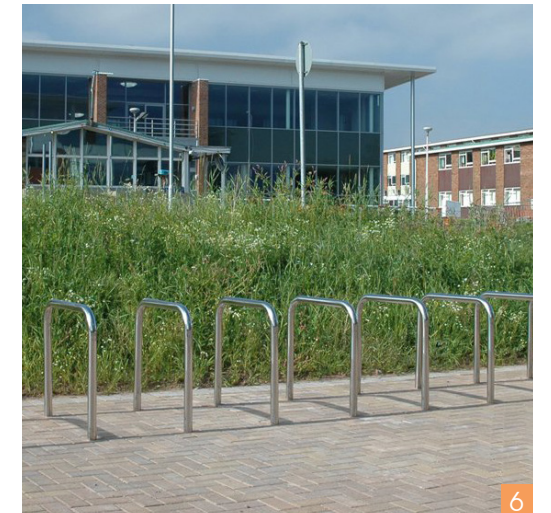
- Avoid unnecessary visual clutter and be sited with care in order not to reduce path widths and sight lines.
- Be selected from the approved range and be of a standard design to create visual consistency.

Street furniture **should**:

- Be selected and designed into the public realm from the outset in an integrated manner.
- Be selected for its appropriateness for its location and to complement the building design.
- Integration of furniture is encouraged e.g. support signs as well as lighting.
- Post boxes **should** be located at focal points i.e. village greens, street junctions, junctions at greenways/open space.

The following types of furniture are considered appropriate for use within Cambourne West. Final specification for street furniture to be discussed at reserved matters.

1. Timber bridge - should be used where appropriate over swales and areas of open water.
2. Timber bollard with reflective strip demarcating shared use pathway
3. Timber bollards
4. Litter bin and dog bin
5. Bus shelter
6. Broxap Sheffield cycle stand
7. Timber picnic bench in public open spaces
- 8-9. Timber bench - style suited to surrounding context



3.16 Boundary treatments

The detailed design of boundary treatments is a key factor in both enhancing the character of an area and blurring the boundary between one developer and another. Boundary treatments **must** vary across the site to reflect the character of the area. See sections 4 and 5 for relevant boundary treatments specific to landscape and neighbourhood areas. Foundations for boundary treatments **must** not extend under the proposed adopted highway.

Generally, the following types of boundary treatment are considered appropriate for use subject to approval.

1. Wall faced with flint blocks with saddleback coping - key areas only
2. Free standing brick wall
3. Dwarf wall with vertical railing - with or without structural planting
4. Estate rail/horizontal fencing
5. Timber picket fence and gate
6. Cleft oak fence (not suitable for front garden boundaries - **should** be used to define open spaces only)

Vegetated boundary treatments **should** consist of:

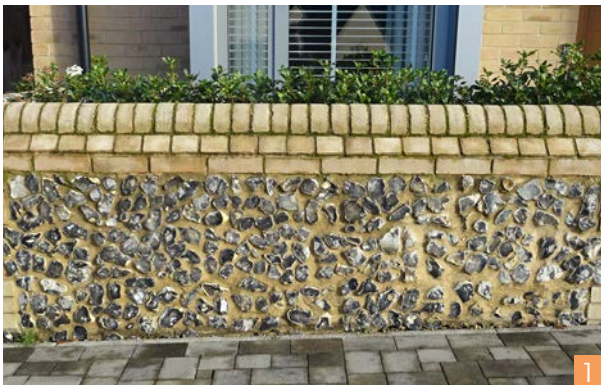
7. Mixed native hedge
8. Formal single species hedge
9. Shrub bed with planting

Boundary treatments **must**:

- Be 500mm from paved edge at plot boundaries (shrub planting may extend up to boundary).
- Avoid doubling up of fencing/boundary treatments which define development and open spaces.
- Avoid the use of timber boarded/overlapped fence panels in rear gardens on key site lines or in locations where they are highly visible. High quality boundary treatments **should** be used in these locations such as brick walling.

Walls **must**:

- Avoid saw tooth junctions and include interesting detailing where appropriate.
- Extend from and generally be aligned with the rear building line, when extending from a building.



In certain high density areas and/or shared surface areas such as the Sheepfold public squares it may be appropriate to extend paving up to the edge of buildings. In these instances the plot boundary **should** be marked with a change in paving material such as a change in colour, texture, use of cobbles or raised setts to deter pedestrians. Fig 28 shows the predominant boundary treatments for private plots and public spaces throughout Cambourne West.

- Long lengths of a single boundary treatment along roads should be avoided. It is expected that designers **should** consider additional complementary materials, suitable to the character of the area.
- Boundaries which contain public spaces **must** be located appropriately so that desire lines for streets and pedestrian routes are not affected.
- Any such gaps in boundary treatments **must** not be gated.

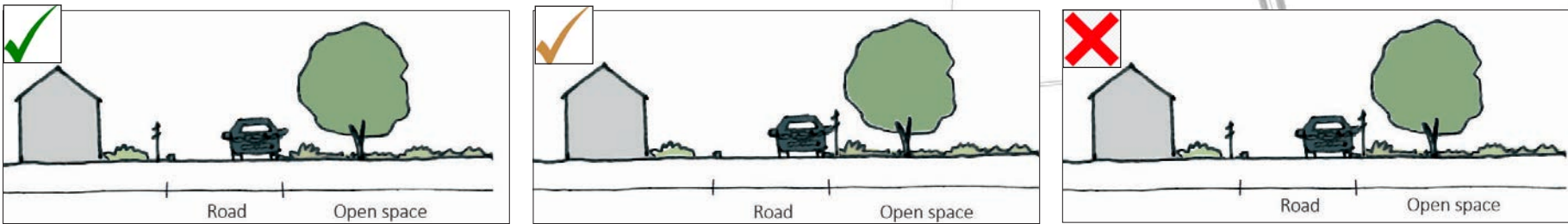
- KEY:
- Edges to public open space (where required) and main routes:
- Entrance wall faced with flint blocks with section of vertical rail (1.2m)
 - Brick wall (1.2m) (or a change in surface material to Sheepfold public squares)
 - Dwarf wall with vertical rail (1.2m)
 - Wall with tall vertical rail to schools (1.8m) (to be agreed with Education Authority - school building may form interface with public realm)
 - Riven oak fence
 - Weld mesh security fence (**must** be screened by hedge/tree planting where it adjoins public realm)
 - Hedge mix
 - Estate rail fence with hedge planting
 - Picket fencing
 - Picket fencing with hedge mix
 - Secure rear garden boundary between Sheepfold residential area and business park

Front boundaries to private front plots/boundaries:

- Most ↑
↓ Least
- Dwarf wall with vertical rail
 - Low brick wall
 - Formal shrub planting
 - Paving
- Most ↑
↓ Least
- Native hedge mix (refer to section 3.20)
 - Picket fence with hedge
 - Picket fence
 - Informal shrub planting
 - Paving/low brick wall
- Most ↑
↓ Least
- Picket fence
 - Picket fence with hedge
 - Low brick wall
 - Native hedge (refer to section 3.20)
 - Informal shrub planting
 - Paving

Boundaries to open spaces should have only one vertical boundary treatment along an edge, either marking a garden boundary or a road/ path boundary, **never** both. Generally the treatment should be along the garden boundary, unless access restrictions to the open space are required.

Fig. 28: Predominant boundary treatments across Cambourne West



3.17 Building height

A range of building heights must be delivered throughout Cambourne West to add variety and interest. Fig 29 demonstrates areas within the site where taller buildings will be acceptable.

- 2.5 storey buildings should be used to add variety in height along the streetscene, and at focal locations that frame spaces or terminate key views. These buildings **should** generally include roof space accommodation within pitched roofs with appropriately designed dormer windows.
- 3 storey buildings **should** be used sparingly to provide a distinctive change in height at key gateways or as marker buildings.
- The design of 2.5 storey and 3 storey buildings **should** be unique, but **must** be in harmony with the character of the area, and with the surrounding built form.

KEY:

Typically 2-2.5 storeys

Up to 3 storeys

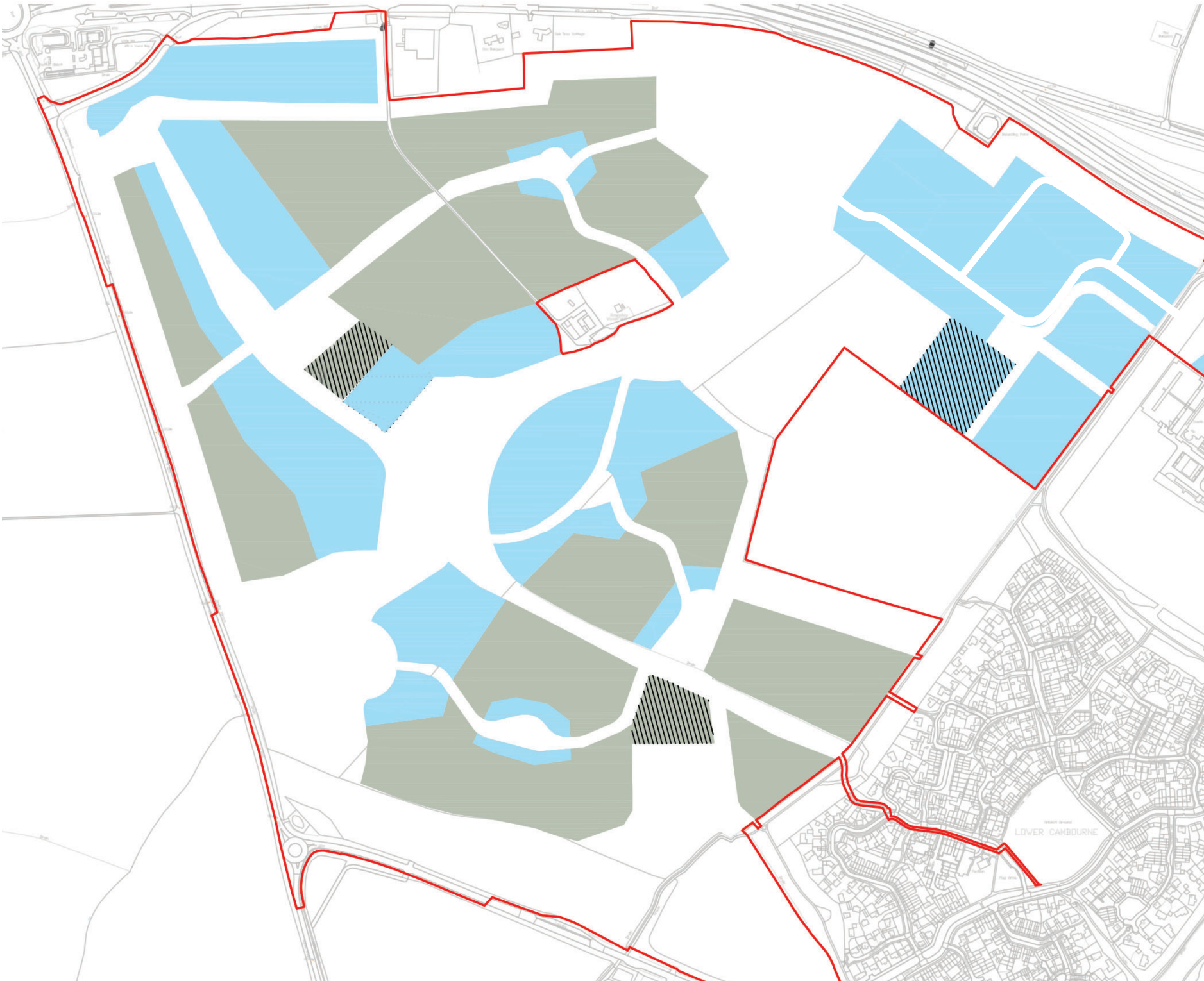
School buildings up to 12m

Typical height of 2 storey unit (to ridge) 8.5m.
Max height (to ridge) 9m

Typical height of 2.5 storey unit (to ridge) 10m.
Max height (to ridge) 10.5m

Typical height of 3 storey unit (to ridge) 11.5m.
Max height (to ridge) 12m

Fig. 29: Building heights across Cambourne West



3.18 Density

Housing density **must** vary across Cambourne West. The total number of housing units within Cambourne West **must** not exceed 2,350 units, with final house numbers based on a design-led approach. Average housing densities **should** be in accordance with the principles demonstrated in Fig 30.

Higher densities **must** be concentrated:

- Along the spine road and potential bus route.
- Around Sheepfold Community Centre and Sports Hub.
- Facing the Central Green.
- In the Sheepfold neighbourhood.

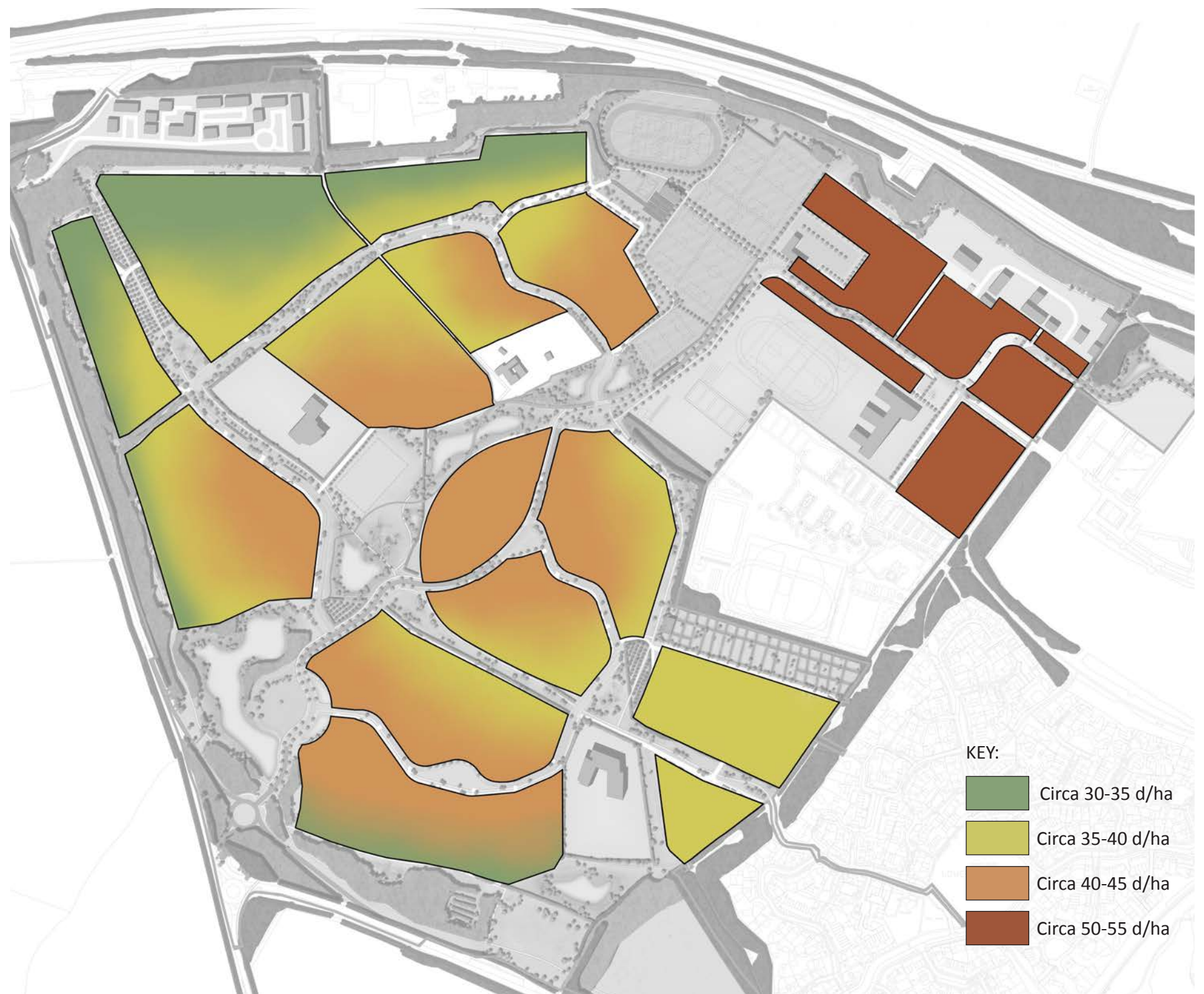
Lower densities **must** be located:

- Around the edges of Cambourne West.
- Along secondary spine road running through Woodfields.
- Adjacent to POS or greenways.

Built form interfaces with key landscape spaces and streets are an important consideration which affects housing densities. Further coding on appropriate built form responses is provided in section 5.

Development parcel boundaries as shown are fixed and **must** not be adjusted. Developers and designers **must** adhere to the development parcel boundaries supplied by the masterplan consultant.

M Fig. 30: Density across Cambourne West



KEY:

- Circa 30-35 d/ha
- Circa 35-40 d/ha
- Circa 40-45 d/ha
- Circa 45-50 d/ha
- Circa 50-55 d/ha

3.19 Planting

The public realm planting strategy **must** be based on the following principles and **should** be formed of robust, native species that are present in the region. Planting **should** largely have a natural, organic feel with more formal contemporary planting towards Sheepfold and Cambourne Business Park. Trees will be planted by the consortium and maintained by Cambourne Parish Council.

Highways network general planting principles:

- Planting species **must** vary to correspond with the surrounding character to create a sense of place - refer to Section 4.
- Where on street parking is provided street trees **should** be non-aphid.
- Trees **should** be planted as illustrated in Fig 32 and Fig 33.
- Semi-mature trees (30cm girth +) **should** be planted in the gateway spaces identified in section 3.1, Fig 6.
- At reserved matters stage, a suitable rooting zone (depending upon tree species) **must** be demonstrated for each individual tree.
- Trees planted in mown grass **must** have strimmer guards.
- Trees **Must** be planted within a minimum 2.5m wide verge free from services.
- Tree canopies **must** not impede movement of pedestrians, cyclists or vehicles. A minimum clearance of 2.5m **must** be maintained above pedestrian/cycle shared use paths, and 5.5m above highways.
- Trees **Must** be planted a minimum 1.5m from back of the road kerb.
- Root barrier **must** be installed on both sides of verges to 1.5m depth.
- Verge planting **should** respond and be appropriate to its location.
- Verges running parallel to roads **should** be planted with a perennial grass mix with limited planting to reduce ongoing maintenance and allow clear visibility for road users.
- Shrub planting **should** be used sparingly, and may be appropriate where roadside verges are wide or to reduce the impact of parallel transport routes.

Primary spine road:

- Trees **must** be planted in a formal tree lined avenue.
- Trees **should** be planted at minimum 10m centres.
- Tree size **should** be 18-20cm girth planted in a 1.2m x 1.2m x 1.2m pit, or in 1.2m min wide trenches where appropriate.



M Fig. 31: Proposed planting plan

Secondary spine road:

- Trees **must** be planted informally at varied spacings.
- Tree size **should** be 14-16cm girth planted in a 1m x 1m x 1m pit, or in 1m min wide trenches where appropriate.

Woodlands planting principles:

- New woodland **must** be a minimum 15m wide.
- **Should** comprise of woodland mix planting and woodland herb/grass seed mix.
- Tree guards **should** be provided.

Hedging:

- Hedges **should** include native species and reflect what is found within existing hedges within the vicinity. A list of appropriate species is provided in the ecology section 3.20.
- **Should** be used to create structure and define boundaries.
- Hedging species **must** be carefully considered in relation to services and building foundations. NHBC guidance **must** be consulted when specifying hedge species in close proximity to new buildings.
- Hedges **should** be planted in double staggered rows; 5 plants/metre.
- Fast growing conifers and laurels **must** not be used for hedges.



Hedging is used to the rear of this open space to successfully screen private drives and car parking.

Public open space and green corridors:

- Planting **must** incorporate a mixture of native species that reflect the local character of the area (see section 4 for details).
- Open spaces **should** be simple in design comprising informally arranged trees under-planted with wildflowers, wild grass and closely mown grass to reflect character of area and increase biodiversity.
- Tree size planted **should** be 14-16cm girth planted in a 1m x 1m x 1m tree pit.
- All trees **should** have double tree stakes, strimmer guards and irrigation pipes.
- Non-native ornamental shrub planting **must** not be used within public open space, except where proposed as sensory gardens or within play areas.

Species guidance for trees, shrubs, hedging and grasslands is provided in section 4.



Wetland and SuDS planting:

- Open spaces **must** incorporate a rich variety of adaptable plants that are suited to a wetland environment and **should** provide habitat for pollinating insects and wildlife and provide year round interest.
- Native species of local provenance **must** be used within wetland areas and SuDS system.
- Rushes, sedges and other emergent species **must** be used in areas surrounding areas of permanent water.
- Swales **should** be seeded with an appropriate grass mix or planted with a diverse range of plants suited to the specific condition of the swale.
- Invasive and vigorous colonising species **must not** be planted.
- **No** shrub planting within swales.

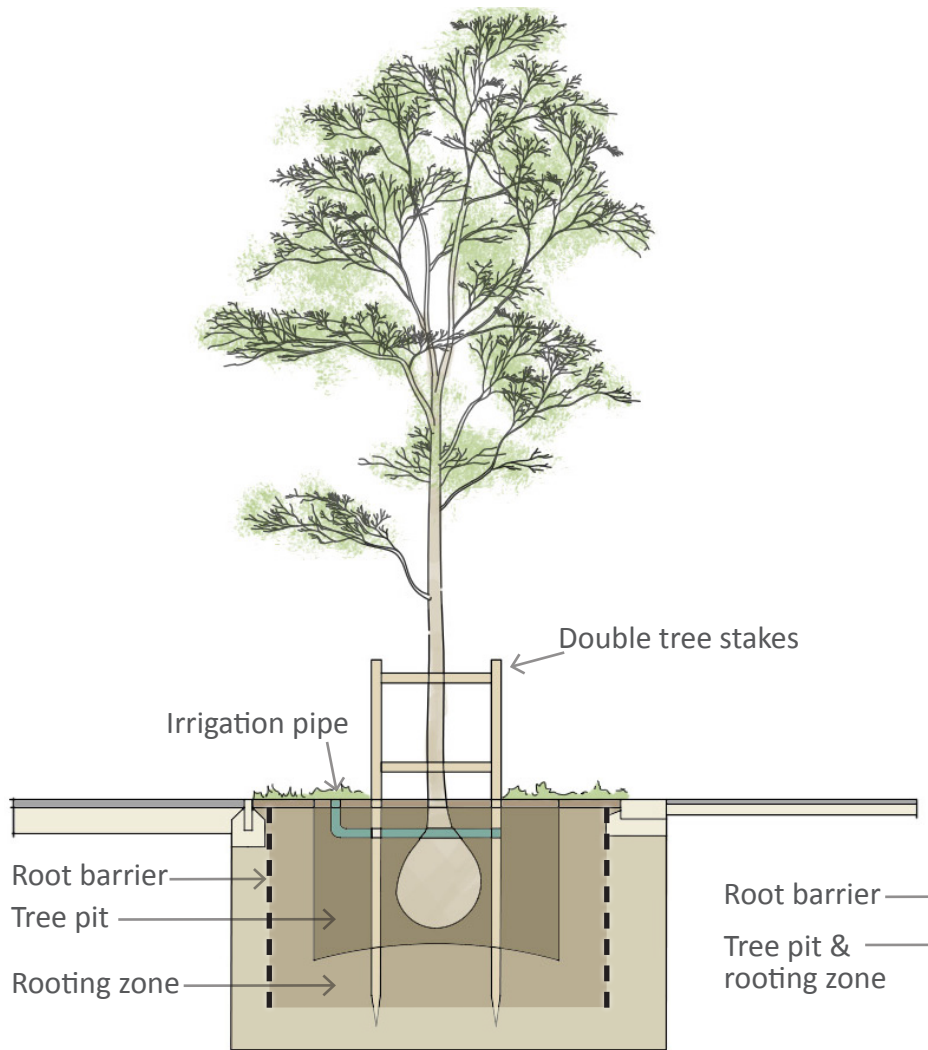


Fig. 32: Typical cross section for tree pit construction in soft landscape

Sheepfold formal squares

- Large trees **must** be used to define squares.
- There **should** be more than one species of tree used within the squares.
- Tree size **must** be 18-20cm girth planted in a 1.2m x 1.2m x 1.2m pit, or in 1.2m wide trenches where appropriate.
- Where trees are located in hard landscape, they **must** be planted in accordance with the below detail (Fig 33).
- Trees **must** be planted in root cells to avoid compaction and assist with aeration and irrigation.
- Tree guards **should** be provided to trees adjacent to the highway, and **should** be secured to tree grilles as per manufacturers instructions.

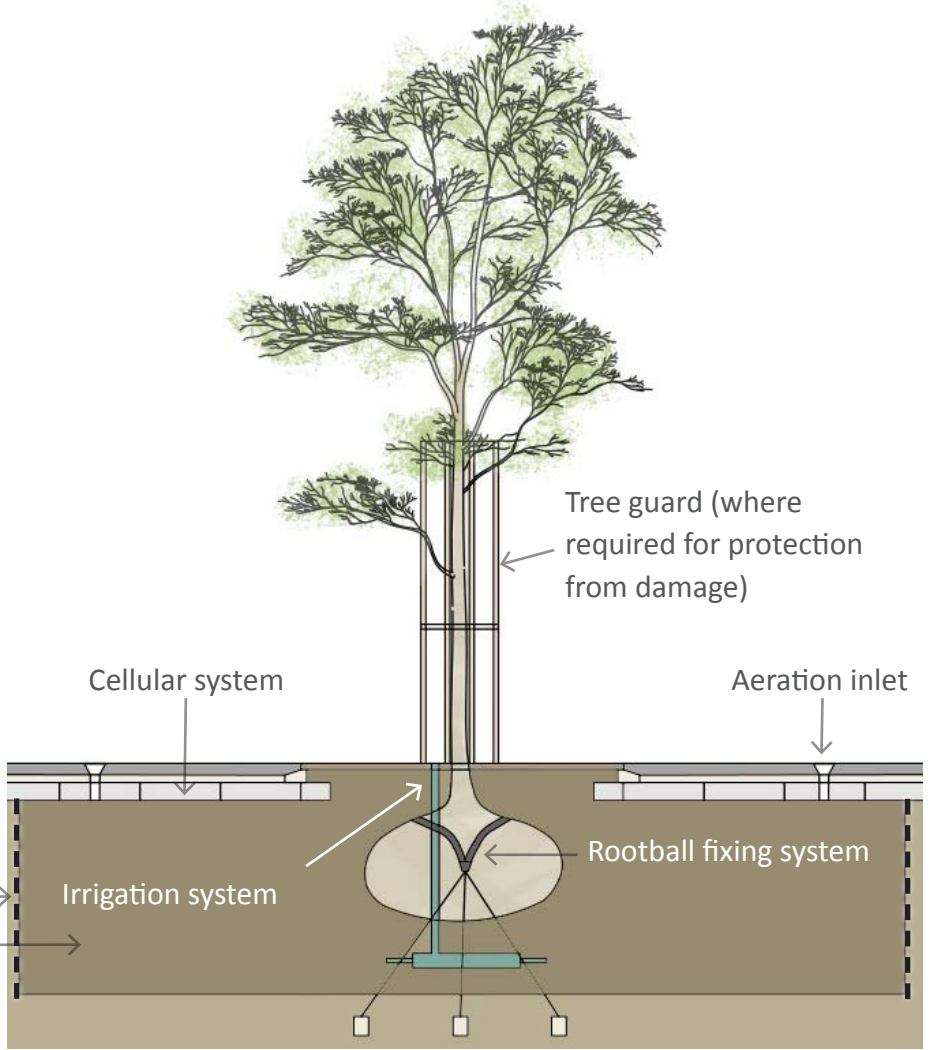


Fig. 33: Typical cross section for tree pit construction in hard landscape

Fig. 32: Typical cross section for tree pit construction in soft landscape

3.20 Ecological enhancement

Measures to protect existing habitat and protected species **must** be undertaken and must be in accordance with Chapter 8 of the outline Environmental Statement and the Site Wide Biodiversity Management Plan.

The following **must** be considered as part of the site-wide ecological strategy:

- The construction programme **must** take account of the ecological calendar to ensure biodiversity conservation.
- Ecological features **must** be incorporated throughout the scheme in accordance with the SCDC Biodiversity SPD adopted July 2009.
- A suitably qualified ecological consultant **must** be consulted with regard to ecological enhancements and protected species.
- Connections to existing mammal tunnels under existing roads **must** be maintained.
- Native tree, shrub and wildflower species **must** be prioritised in areas of public open space.

Water voles

Water vole habitat **must** be provided within open (wet) ditches, ponds and lakes in areas of strategic open space. Proposed swales, which will potentially be dry for long period of the year, are not suitable for vole habitat enhancements. The following features **must** be provided in appropriate areas as identified by the project ecologist:

- At least 2m wide shallow-water zones (0 - 0.3m deep) around ponds, planted with marginal vegetation including sedges, rushes and yellow-flag iris to allow foraging. Above water level, steeper clay, silt or earth pond banks to provide burrowing areas and opportunities for voles to create nesting chambers.
- Above water level, steeper clay, silt or earth pond banks to provide burrowing areas and opportunities for voles to create nesting chambers.
- Areas with steeper banks that open directly onto deeper water to provide escape routes.
- Pond banks planted with taller vegetation (where space permits) including grasses and herbs such as meadowsweet, willowherb, or nettle to provide cover and protection from predators.

- Occasional bank-side small trees and shrubs including hazel, willow hawthorn and buckthorn to provide bark and roots for winter food.
- Wet ditches designed with stepped bank faces suitable for burrowing, planted with marginal vegetation (including sedges and rushes) and minimum water level of ~0.3m.

Bats and birds

Integrated bat roosting and bird nesting features **must** be provided on 50% of new dwellings at Cambourne West, in accordance with the SCDC Biodiversity SPD.

Integral bat roosting features **must**:

- Be installed on buildings that are located close to or overlook open spaces, retained existing vegetation or structural planting.
- Be south / south-east / south-west facing.
- Be in suitable locations that coordinate with key bat foraging and commuting routes as identified by the project ecologist.
- Be high quality 'bat tubes' or equivalent features.
- Be incorporated into the external wall of buildings.
- Not be located near windows.
- Be at least 2.5m above ground level.
- Not be affected by light spillage from nearby street lights or flood lights.
- Not detract from the design or character of each building.

As above, integral bird nesting features **must** be provided on dwellings. They **must**:

- Be in suitable locations identified by the project ecologist.
- Be distributed evenly throughout the site.
- Be predominantly on buildings close to open spaces.
- Not be located above doors or windows.
- Be at least 2.5m above ground level.
- Be north / north-east / north-west facing.
- Be constructed from high quality materials.
- Not detract from the design or character of each building.

Habitat creation for bird nesting will include retained and managed vegetation, woodland planting, new hedgerow and shrub planting. Bird and bat boxes **should** be provided in suitable woodland habitat areas as determined by the project ecologist.

Hedgehogs, insects and invertebrates

Log piles, a range of appropriate hibernacula and 'insect hotels' **must** be specified and located within appropriate open spaces throughout the site, as determined by the project ecologist.

130mm x 130mm gaps **must** be incorporated along the base of boundary fencing/gravel boards wherever possible to create a hedgehog 'highway', allowing the free movement of animals between private gardens and the wider landscape.

Lighting

The lighting design **must** take account of wildlife sensitive features by incorporating LED lighting which avoids the illumination of sensitive habitats such as hedges, ditches, woodland edges and semi-natural open water. Flat, glass luminaires set horizontally **should** be used to control upward light spill.

Ecological corridors used by nocturnal wildlife **should** be maintained as dark corridors to minimise disturbance at night. These corridors **should** connect the site to the wider environment. Lighting design **should** be designed to accommodate this.

Hedgerows

Where possible hedges **should** be native and selected from the following species list:

- Acer campestre
- Carpinus betulus
- Cornus sanguinea
- Corylus avellana
- Crataegus monogyna
- Euonymus europaeus
- Fagus sylvatica
- Ilex aquifolium
- Ligustrum vulgare
- Prunus spinosa
- Rosa canina
- Viburnum opulus

Hedgerow species **must** not adversely affect building foundations, services, access, visibility; or cause ongoing maintenance issues.

- Relevant guidance:
- SCDC District Design Guide (SPD)
 - SCDC Biodiversity (SPD)
 - Outline Environmental Statement
 - Ecology and Landscape Management and Maintenance Plan for Public Open Space



Example integrated bat boxes and tubes



Example integrated bird nesting box



Example naturalistic hibernaculum

Fig. 34: Proposed ecological enhancements



3.21 Utilities

Today’s extensive site services often require extra space, which can be particularly disruptive during the early periods of development. The key is good planning and liaison with the service providers.

Utilities and services **must**:

- Not have a negative visual impact on the street scene.
- Services **must** be co-ordinated within a common trench within a 2m zone underneath the footway unless it can be demonstrated that this is not practical.
- Foul and surface water sewers **should** be installed within the highway. Sewers under the highway do not require easements which restrict the planting of street trees.
- Not be installed within verges where tree planting is proposed.

Utilities and services **should**:

- Service providers **should** be involved early in the design process.
- Consultation **should** cover routes, requirements and programming.
- Care **should** be taken to coordinate routing and access covers with paving design.

Sub-stations and pumping stations

- Electricity sub-stations, gas pressure reduction stations and pumping stations **should** be housed in structures integrated into the built development, in terms of materials, form and location.
- Vehicular access from adoptable highways to above ground apparatus **must** be provided.



Example of pumping station successfully integrated into development using a range of appropriate materials

Access covers

- Inspection covers **should** be located wholly within hard paved areas and only in the verge where unavoidable.
- Covers **must** be aligned parallel with the carriageway, footpath, or its nearest edging, and to retain continuity in the surface material and paving pattern.
- When placed in paving recessed covers **should** be used wherever possible to allow for the visual continuation of the paving, especially where several access covers are grouped together.
- Where they have to be in soft areas the preference is for them to be located in proposed planting areas rather than grass areas. They **must** be laid flush with the soil for ease of mowing.
- The type of access cover provided **must** be suitably strong for it’s location e.g. where refuse lorries will have access.



Substation materials tie in with other built form in the streetscene



Good and bad (Bottom right) examples of access covers

Meter boxes

- All meter boxes and all other apparatus **must** be located unobtrusively. If external, then they **must** be positioned away from the front or prominent locations.
- Colours of materials **must** be sympathetic to host materials.
- Meter boxes **must not** restrict access.
- Position of meter cupboards **should** be concealed against adjoining surfaces.
- The use of smart meter boxes **should** be encouraged.
- Where more than one box is required in close proximity they **should** align to each other and be spaced evenly.
- Electric vehicle charging points **should** be appropriately positioned in domestic properties and communal parking areas wherever practicable. Where not installed the construction must not prohibit their future installation.



Above left and right: Adjacent buildings with meter boxes on the side face and coloured to match the brickwork

Bottom right: Meter box blocking access to rear garden



Control boxes

- Care **must** be taken over the position of junction boxes in the footway.
- Larger equipment boxes, access points and traffic light control boxes **must** not obstruct the footway and **should** be sited elsewhere, for instance set into boundary walls or masked by shrubbery.
- Control kiosks and telecom cabinets **should** be integrated into the built development, unless they can be well screened.
- Kiosks and cabinets **must** never be located where they will obstruct or reduce the width of paths or where they could enable a wall to be climbed by providing a 'leg up'.
- Where apparatus has to be free-standing careful consideration **must** be given to its visual relationship to its surroundings.

Pipes and flue vents:

- Consideration **should** be given to the position of boilers to prevent unsightly flue terminals on the front of building.

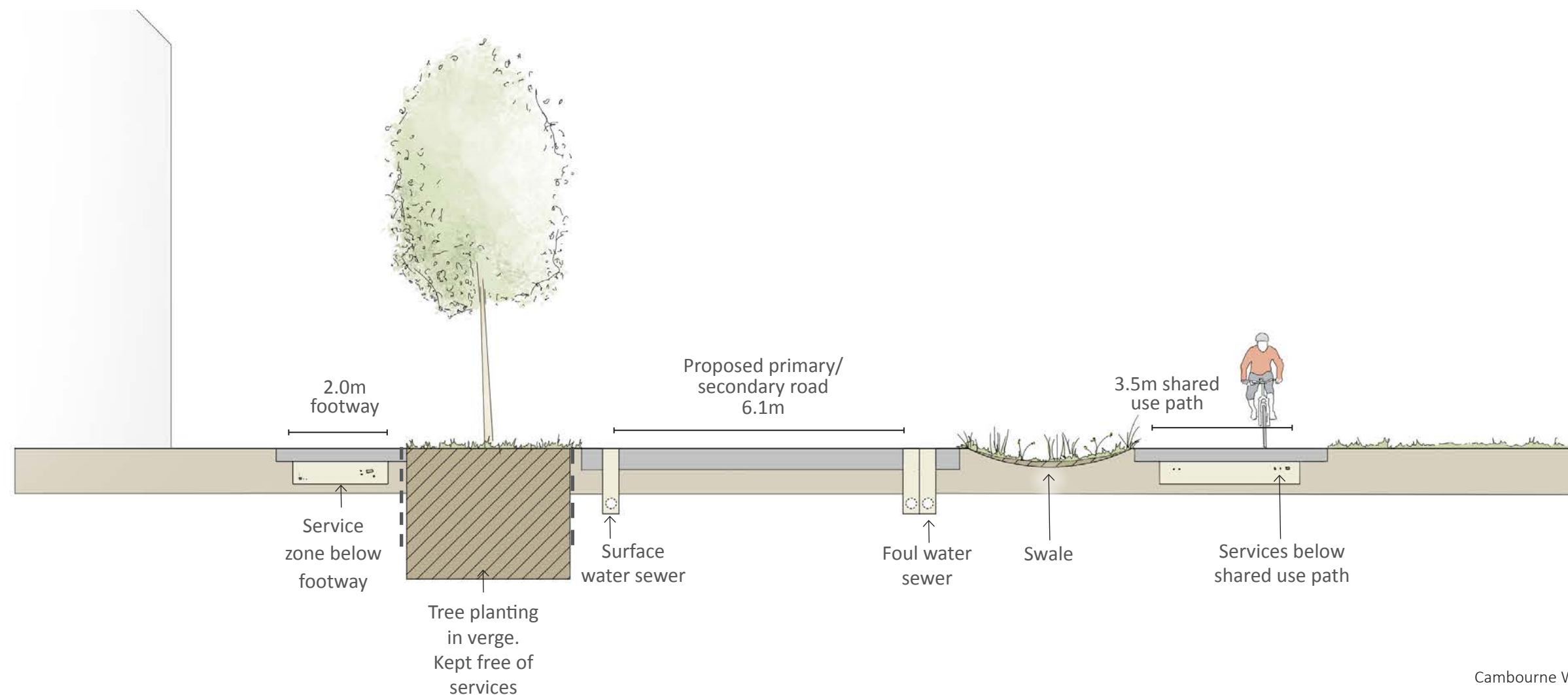
Markers

- Markers **should** be fixed to walls, fences, dual function posts, or laid flat, flush with the soil or paving.
- Only where unavoidable **should** dedicated posts be used, and these **must** be timber and carefully positioned to fit in with the street scene.

Service connections reinstatement

- Disturbance to adjacent areas due to service connections and other construction activity outside the development site **must** be reinstated to original conditions, as soon as practical, to avoid blighting the area.

M Fig. 35: Typical cross section of primary and secondary streets illustrating arrangement of services



3.22 Lighting

To provide a consistent approach throughout the development, a site-wide lighting strategy has been developed. Lighting proposals **must** respond to this strategy.

- Lighting, including columns, brackets and luminaires **must:**
- Be of an adoptable standard where sited in an adoptable highway.
 - Take into consideration the position of street trees and lighting columns so that one does not impede the other, particularly along the primary spine road.
 - Be energy efficient and the environmental impact of light spillage or light pollution is kept to a minimum so as not to create problems for residents, or have a harmful effect on the rural character or ecology of the area.
 - Be sited away from property windows and access points as far as reasonably practical to prevent light trespass into private dwellings
 - Incorporate LED lighting.

- Lighting, including columns, brackets and luminaires **should:**
- Be located at the back edge of the footpath, or in the verge.
 - Be positioned to illuminate speed restraint features clearly, to avoid pedestrian to vehicle visibility splays.
 - Not be located within 1m of a private drive access.
 - Be column-mounted at heights no greater than 10m or fixed on buildings. Consider the use of columns for a secondary function, for instance to support signs to avoid visual clutter.
 - Visually co-ordinate with adjacent columns.
 - Illuminate pedestrian/cycle shared use paths to an adoptable standard. Where shared use paths are located away from the highways, lighting **should** be switched off between the hours of 00:00 and 06:00.
 - Have a Wayleave Agreement in place for lamps bracketed off buildings completed with any payments to be made by the Developer prior to sealing the Section 38 Agreement.

Relevant guidance:

- Cambridgeshire County Council Street Lighting Development Specification - Revision 03 (2016)
- Housing Estate Road Construction Specification
- Cambourne West Lighting Strategy
- BS 5489 - Code of practice for the design of road lighting
- BS EN 13201 - Road lighting: Performance Requirements
- Secured By Design - Lighting against crime
- CIBSE - SLL Lighting Guides
- Bat Conservation Trust - Artificial Lighting and Wildlife



M Lighting Specifications Specific materials and styles have been selected to tie in with existing lighting at Cambourne.

Route	Luminaires	Lamp column	Bracket	Wall bracket	Finish
Spine road & Secondary Road	Urbis Schröder St Giles lanterns with LED lighting unit	8m/10m high: Urbis Schröder Chatsworth OR 5m/6m high: Urbis Schröder Blenheim	8m/10m high: Urbis Schröder Plain bracket OR 5m/6m high: Urbis Schröder Swan neck, Stirrup or Plain bracket	Urbis Schröder Plain bracket	Powder-coated Blue Grey Ref: RAL 7031
Tertiary Road & Private Drives	Philips WRTL Libra Performa with polycarbonate bowl and LED lighting unit	6m high fixed column	Standard fitting	Urbis Schröder Plain bracket	Galvanised steel
Adopted shared use paths	Urbis Schröder St Giles lanterns with LED lighting unit	5m/6m high: Urbis Schröder Blenheim	Urbis Schröder Swan neck, Stirrup or Plain bracket	N/A	Powder-coated Blue Grey Ref: RAL 7031
Secondary shared use paths	Philips WRTL Libra Performa with polycarbonate bowl and LED lighting unit	6m high fixed column	Standard fitting	N/A	Galvanised steel

3.23 Waste and recycling

The storage and collection of refuse and recycling **must** be carefully considered so as not to visually detract from the overall appearance of the development.

Storage and collection of refuse **must:**

- Provide all residents with adequate internal and external storage.
- Be able to dispose of waste conveniently.
- Have a suitably designed layout to ensure easy and efficient collection by the responsible authority.
- Each house **must** have a hard, level surface within the property boundary of sufficient size to accommodate three wheeled bins.
- Bin storage **must** be close to the collection point and layouts of plots **must** ensure that wheeled bins can be easily moved.
- Where wheeled bins are to be stored on the street frontage, they **must** be contained within a suitably designed store designed as an integral part of the building.
- Waste and recycling stores for apartments **must** be located for easy access by residents and for street collection and should be designed appropriately.
- Communal wheeled bins **must** be used for multiple occupancy units and residents will be required to take refuse and recycling to the storage facilities.
- Wheeled bins for waste and recyclables **should** have a common collection point serving small groups of houses.
- Storage for bins **should** be at the rear of the property .
- Collection points **must** not be further than 20m from the adopted highway. Collection points visible in the landscape **must** be screened with landscaping and/or fencing as appropriate to location.
- There **should** be no more than 25m between the location of waste bins and the collection points that will be used by refuse collectors.
- Long networks of alleyways accessing bins stores in rear garden **should** be avoided. Maximum distance **should** be 12m.
- Be designed to prevent a proliferation of wheelie bins in the public realm.

Site wide waste recycling facilities

There **must** be two BRING facilities located on site - potential locations for these are shown in the S106 obligations plan. Waste storage for commercial and non residential buildings **must** be positioned away from public areas and suitably screened.

Litter and dog waste bins

- Litter bins **should** be kept to a minimum and locations are to be agreed with the adopting authority as part of the reserved matters application.
- Dog bins **must** be located in appropriate locations.



Successful bin storage in Cambourne



Relevant guidance:

- RECAP Waste Management Design Guide SPD (Cambridgeshire County Council and Peterborough City Council)
- Cambourne West Waste Strategy

3.24 Public art

Contributions towards a site wide arts strategy have been agreed by the Cambourne Consortium negating any formal art requirement within or associated with individual reserved matters schemes. However, developers of individual reserved matters Applications are encouraged to consider the integration of public art within their schemes.

3.25 Sustainability

Cambourne West Sustainability Strategy **must** be referenced when developing the detailed design proposals for each phase of Cambourne West.

The development **must** embrace the need for sustainability and **must** actively work to meet the requirements set out within the NPPF and SCDC's policy objectives for delivery of sustainable development.

The development **should:**

- Be planned as a safe, healthy, accessible and attractive place for residents, including the mobility impaired.
- Encourage social cohesion and reduction in crime and fear of crime through careful site planning of housing and delivery of high quality public realm.
- Make appropriate provision for the doorstep recreational needs of all ages through the provision of opportunities for play, walking and cycling.
- Address climate change mitigation through its landscape design and with homes that are energy efficient.
- Make appropriate provision for the protection and enhancement of native biodiversity.
- Provide access to the countryside and opportunity for enjoyment of biodiversity.
- Address other key sustainability issues including efficiency in land use; maximisation of recycling; re-use of resources; and reduction in waste and pollution.
- Explore modern methods of construction
- Include, wherever practicable, renewable energy and low carbon energy provision within the built form
- Explore the use of green roofs.

3.26 Land uses

The land at Cambourne West has been divided into the following uses:

Land Use	Area	Description
Residential	65.58 ha	Must have up to 2,350 dwellings with a mix of residential types and 30% affordable.
Employment:	Up to 9.36 ha	Employment areas targeted at small-medium operators provided in the north east and north west of the site as an extension from existing Sheepfold Lane and Caxton Gibbet employment areas.
School areas:		
Secondary School	6.40 ha	All schools must be located adjacent to the green spine and/or greenways to allow their playing fields to form an integrated part of the green network. The primary schools have been located so all homes within Cambourne West and the surrounding site are within a 10 minute walk.
Swansley Park Primary School	2.30 ha	
Woodfields Primary School	2.30 ha	
Sports buildings and outdoor sports area	10.67 ha	Sports provision including 0.37 ha for pavilion/parking. Must be located in Sheepfold Sports Hub
Community Building	0.93 ha	Must be located within Sheepfold adjacent to Sheepfold Sports Hub
Formal play area	2.64 ha	A range of formal play areas located strategically throughout the site - refer to Cambourne West Play and Youth Strategy and page 15 of this document.
Allotments	2.63 ha	Should be located adjacent to greenway next to Lower Cambourne
Burial ground	0.56 ha	Must be located south of Swansley Park
Retail	Minimum 0.15 ha	Should be located overlooking the Central Green and within Sheepfold Square



Fig. 36: Land use at Cambourne West

KEY:

Residential

Employment

School areas

Outdoor sports area

Community building

Formal play

Burial ground

Allotments

Retail

4.1 Introduction

Cambourne West is defined by a strong landscape framework.

Landscape spaces separate neighbourhoods geographically, but act as the glue that binds the development together.

Neighbourhoods derive their character from the landscape spaces within the site and the surrounding context including the existing Business Park at Cambourne, Lower Cambourne and the wooded areas around the site.

The hierarchy of roads, streets and routes adds another layer that influences the character of both landscape and residential neighbourhoods and is dealt with in section 3.

Landscape is a key influence on built character. A holistic approach **must** be taken when designing residential areas to ensure that the built form and enclosure compliments and responds appropriately to these influences. Further details of how built form **should** surround and define these spaces is detailed in section 5.

The following pages describe the key landscape spaces and highlight which neighbourhood each landscape space influences.

Landscape spaces:

- 1 Swansley Park Green (4.2)
- 2 Central Green (4.3)
- 3 Wetlands (4.4)
- 4 Sheepfold Green Sports Hub (4.5)
- 5 Boundary woodlands (4.6)
- 6 South east boundary spaces (4.7)
- 7 Greenways (4.8)
- 8 Allotments and orchards (4.9)
- 9 Eastern and Western Greens (4.10)

Fig. 37: Key landscape spaces across Cambourne West



4.2 Swansley Park Green

Story

Swansley Park Green is the first area of open space encountered when entering the site from the south. It is a grand arrival space that sets the scene for the rest of the development. It is a large formal space of lawn, trees and water overlooked by an arc of houses marking the entrance to Swansley Park neighbourhood.

Earth bunding and new woodland planting screens views into the site. From the roundabout there are glimpsed views to a land mark feature in the centre of the grand lawn, to draw the visitor into the site, but the houses are screened from view.

Entering the space, the lake extends almost to the west side of the road, whilst formal ponds extend to the east side of the road, creating a threshold of water to pass between, beyond which the circular lawn with central sculptural element marks the arrival space.

To the north, blocks of woodland enclose the space, screening views of the housing beyond. The road sweeps around the east of the lawn in front of the arc of houses that overlook the space to the east and form the built focus of the area.

In front of these houses, reflecting ponds backed by a feature wall, railings and clipped formal hedge provides a strong formal element tying the housing together and creating a second threshold at the entrance to this first residential neighbourhood.



Fig. 38: Swansley Park Green visualisation

Key influences and characteristics

Inspiration for this area is the formal landscape parkland settings of local country houses and estates such as Madingley and Wimpole Hall.

Key characteristics

- **Must** have a formal arrangement of high quality, simple elements.
- Materials, plant species and details **should** be derived from traditional country house parkland.

The area influences the adjacent edges of Swansley Park neighbourhood. Refer to section 5 for guidance on the built form response to this space.



Arrival view at the 'gated' entrance point from the A1198



Precedent images for Swansley Park Green

Set pieces

1: The lake

- A SuDS feature **must** be designed to create a strong visual element at the entrance.
- **Must** extend close to the road.
- **Must** wrap around the circular lawn.
- **Must** have naturalistic planting with habitat creation.
- Footpaths, pedestrian/cycle shared use paths and bridleways **should** be arranged to allow close access to the water.
- **Must** have woodland planting along edges as shown to screen views of housing beyond.
- The lake **must** be designed to cope with fluctuating water levels, and **must** function visually and physically at the expected lowest levels.

2: The lawn

- A large formal, circular lawn, mown along its edges, wildflowers in the centre.
- **Should** have a central sculptural landmark.
- Few trees. Those specified **should** be from a limited number of landmark species such as cedar and **should** be semi-mature stock (30cm girth +).
- Footpath and pedestrian/cycle shared use path **should** be located around perimeter.

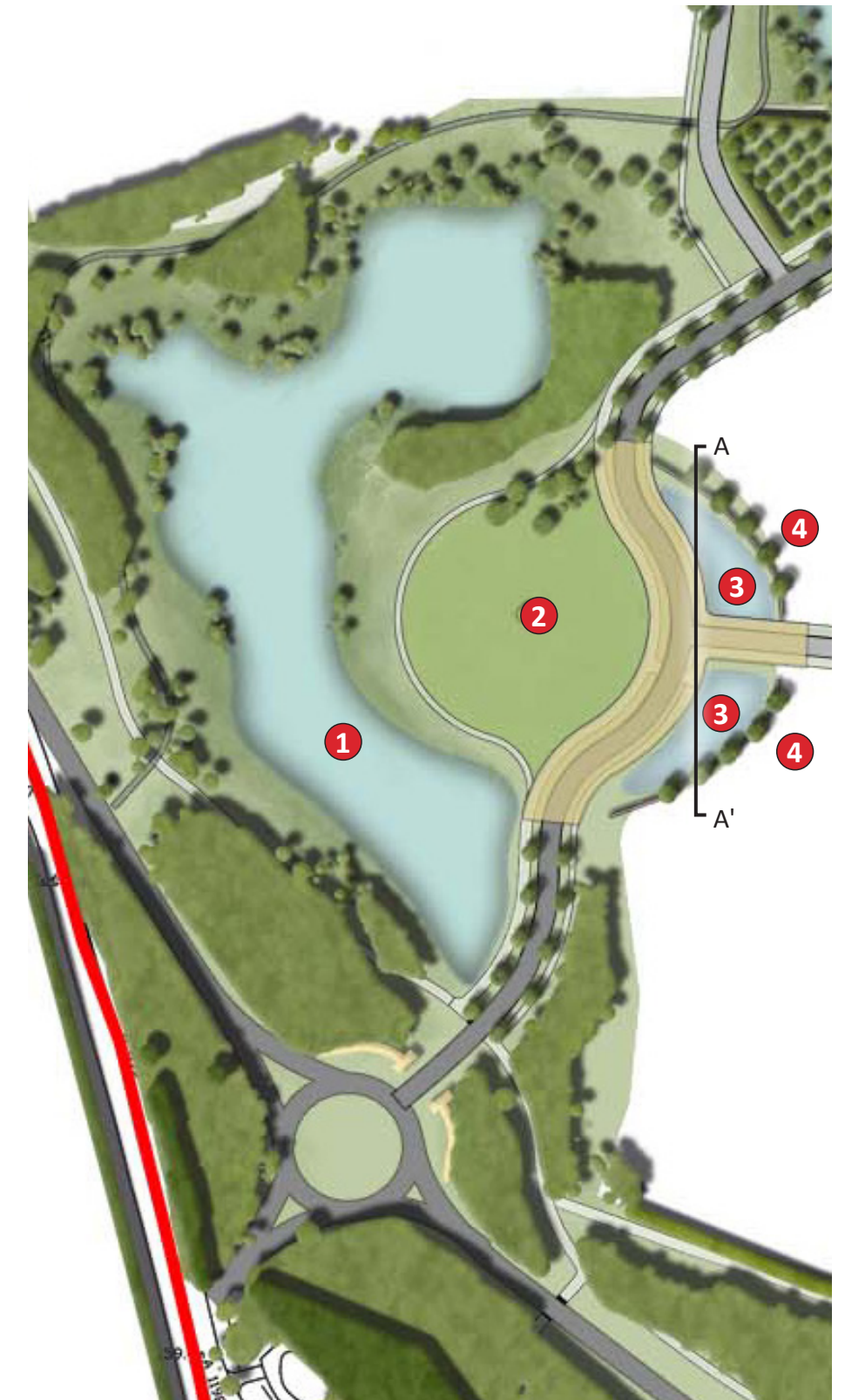
3: Reflecting ponds

- **Must** be formal and symmetrical.
- **Should** have high set water level so they are visible from a car.
- **Should** have grass to water edge spine road side.
- **Should** have naturalistic marginal planting on housing side.
- **Must** have a formal wall with railings and clipped hedges between ponds and housing access roads.
- **Should** be a gateway/'bridge' feature where the secondary road crosses between ponds.
- **Must** have a formal arrangement of trees to rear.

4: The built form

- **Must** be formal and balanced to either side of the secondary street.
- **Must** refer to Section 5 - Swansley Park neighbourhood area for built form and architectural guidance.

M Fig. 39: Set Piece Swansley Park Green: principles mandatory, exact detail determined at reserved matters application



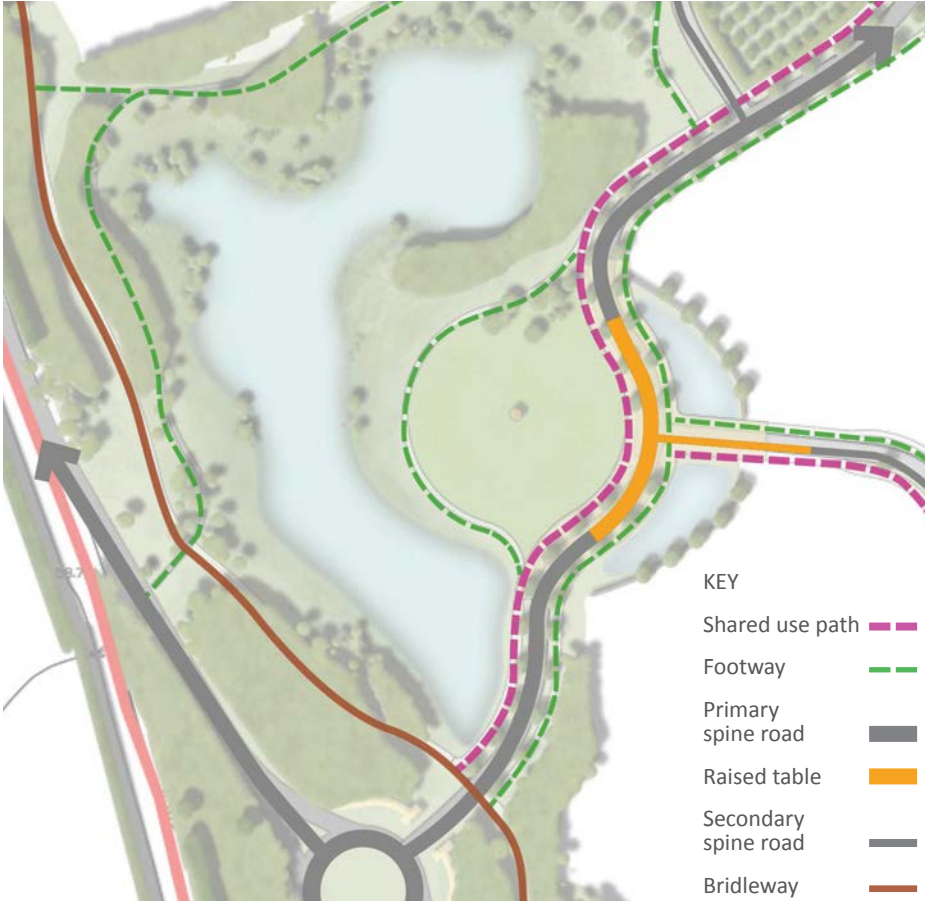
Design principles: the following diagrams outline **mandatory** principles which **must** be considered when developing set pieces

1: Landscape



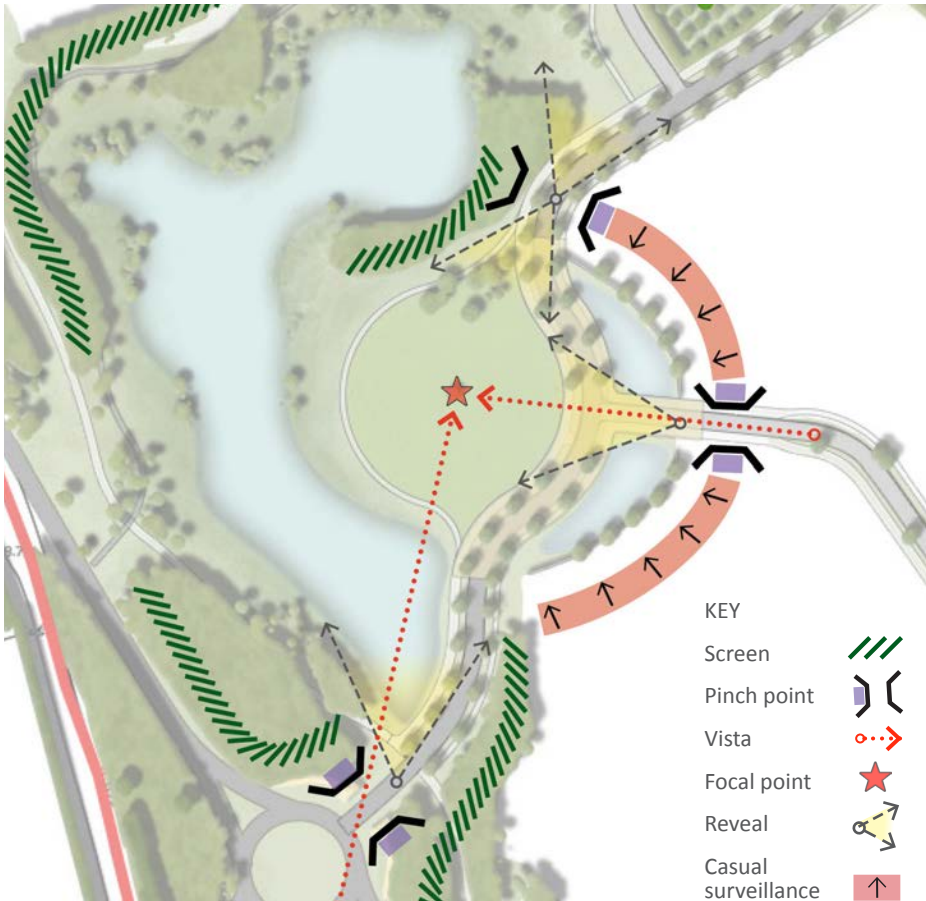
Note: refer to section 3.5 for site wide information on SuDS

2: Movement

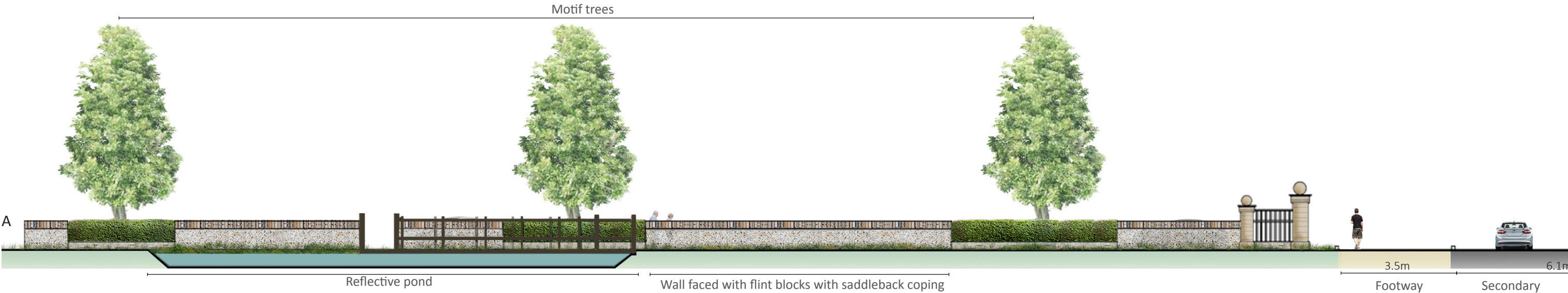


Note: refer to section 3.6 for site wide movement network

3: Views



Note: refer to section 3 for site wide urban design principles



Planting - Key principles:

Must have a country house parkland character:

- **Should** be a mix of broadleaf and conifers.
- Forest size conifers and/or forest size ornamental species **must** be used as feature trees.
- Street trees and open space tree species **must** be parkland trees typically found within country parks local to the area, and **should** be semi-mature stock.
- Woodland mix **must** include proportion of forest exotics and conifers typical of country estate woodlands.
- Domestic type ornamentals **must** be avoided.
- Aquatic planting **should** be naturalistic.

Swansley Park Green motif planting species which **should** be used.

Location/type	Motif species	Other species	Excluded	Arrangement
Street tree	Lime and fastigate hornbeam	N/A	All others	Formal, regular
Central focal point	Fastigate oak, gold beech, dawn redwood		Small ornamentals, birch	Formal, regular
Open space tree	Cedar, giant redwood, copper beech	Dawn redwood, black pine, liriodendron, red oak, holme oak, beech, lime	Small ornamentals, Birch	Irregular
Lakeside	Golden weeping willow, thuja	Alder, downy birch,	Small ornamentals	Irregular
Woodland tree	Scots pine, cedar	Oak, alder, wild cherry, birch, beech, field maple	Small ornamentals	Irregular
Hedge	Yew	Beech	Small ornamentals	Formal

**A tree planting strategy will be provided as part of the Scheme of Informal POS submitted as part of the Section 106 Agreement*

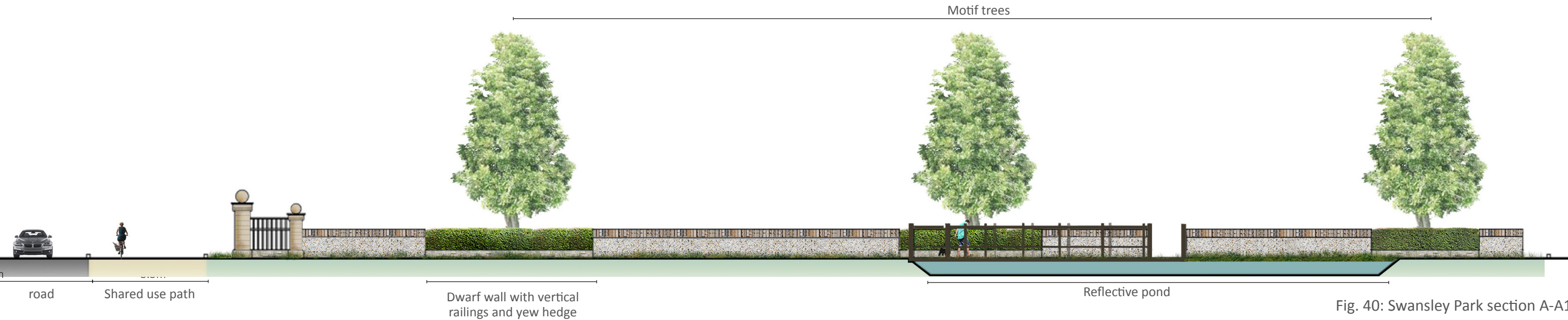


Fig. 40: Swansley Park section A-A1

4.3 Central Green

Story

The Central Green is a key community hub with a number of community facilities where the east west greenway intersects with the spine road.

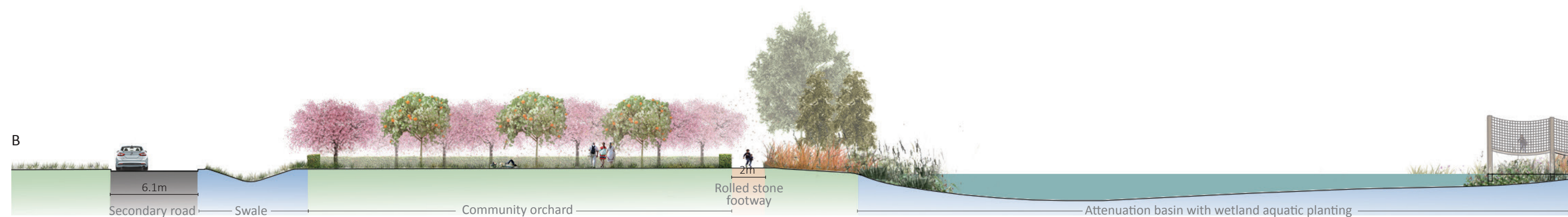
A community orchard screens views into the green when approaching along the spine road from the south. Passing along the east of this a slight curve in the road creates a reveal over the large village pond towards the main open space of the green. In the southern centre a large, exciting play area extends out over the pond and wet edges to create a dramatic landmark and focus to the area.

Further north a flat grass area provides multifunctional space for community events and kickabout. The western primary school on the northern edge provides community facilities in a civic building of village scale.

Before the road bends into the residential area an informal parking area provides car parking for the green and play area as well as the adjacent retail building and offers the opportunity for convenient drop off of children for the two primary schools. High quality landscaping filter views of the car park from the spine road. Glimpsed views into the car park ensure it is visible to passes by to encourage its use and enhance the commercial viability of any potential retail use.



Fig. 41: Birds eye visual Central Green



Key influences and characteristics

Inspiration for this area are the many village greens typical of South Cambridgeshire villages.

Key characteristics

- Informal arrangement of high quality, simple elements.
- Materials, plant species and details to be derived from traditional villages and village greens.

The open space influences the adjacent areas of Swansley Park and Woodfield neighbourhoods. Refer to section 5 for guidance on the built form response to this space.

Set pieces

1: The orchard must:

- Be a community orchard of fruit trees.
- Be enclosed by a hedgerow of edibles e.g. Hazel, Gooseberry, Field Rose, Blackberry to encourage foraging.

2: The pond

- **Must** be large naturalistic pond.
- **Must** be designed to cope with a fluctuating water level for SuDS, as well as habitat for ducks and other water birds.
- **Should** have footpath and shared use path around perimeter.
- **Must** have boardwalk and dipping platforms.
- **Should** be integrated with play area.
- **Must** function visually and physically at the expected lowest levels.



3: The play area

- **Must** be to NEAP standard.
- **Should** have naturalistic and manufactured elements.
- **Should** extend out over marsh edges of pond and over water.
- **Must** have 'Hero' piece of equipment to create landmark visible in vistas from surrounding movement network.

4: Multifunctional kickabout

- **Must** have level, well drained, open grass area, large enough for mini football.
- **Should** have informal tree planting around east, north and western edges.
- **Should** have water and electricity point for events.

5: Car park

- **Should** be an informal car park.
- **Should** have a rolled gravel surface.
- **Should** be enclosed by a Beech hedge and landscaping on road side.
- **Should** be enclosed by timber fence on village green sides.
- **Should** be well integrated with the landscape and not detract from key views

Fig. 42: Set Piece Central Green: principles mandatory, exact detail determined at reserved matters application

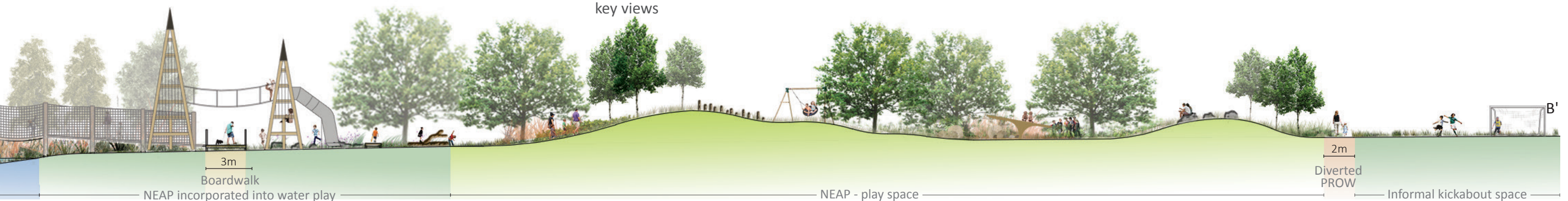
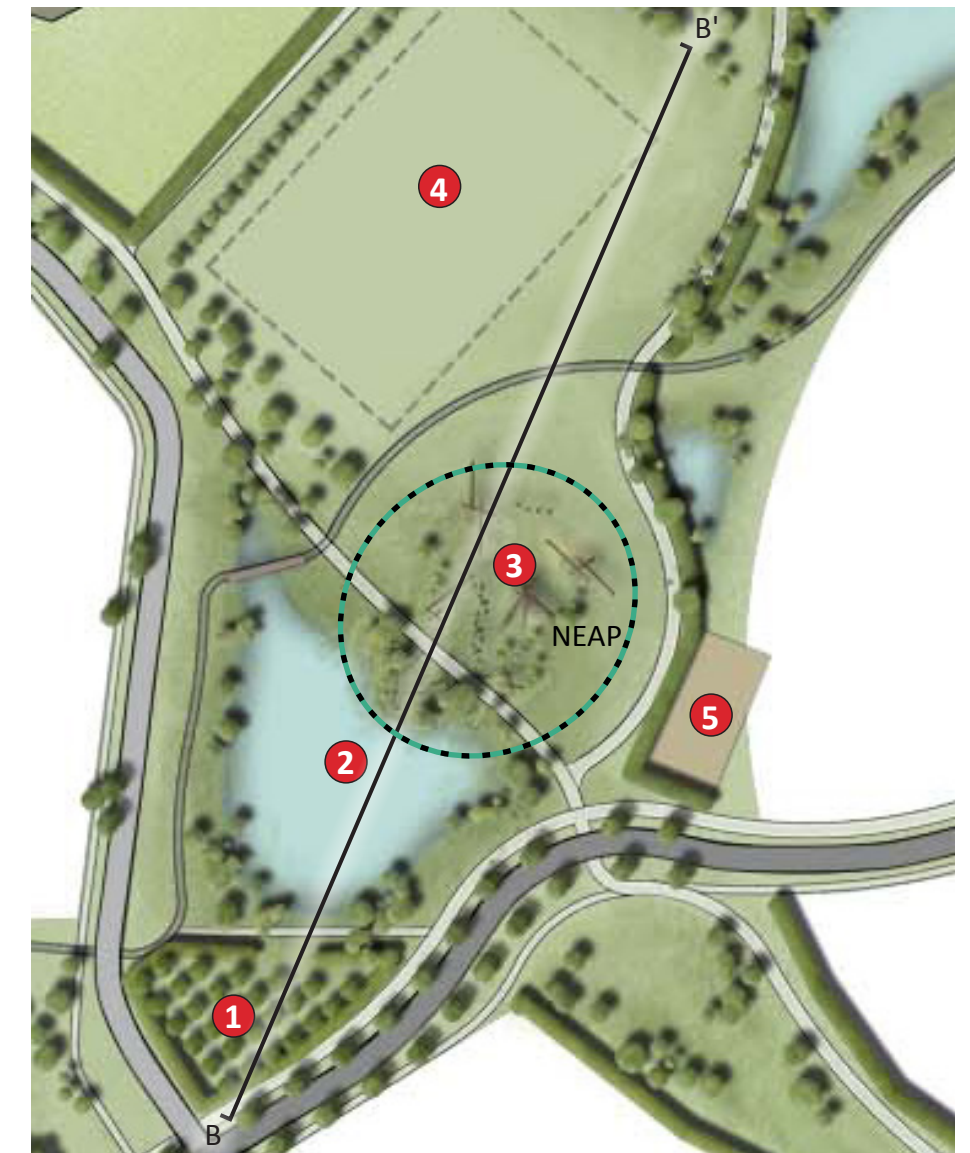
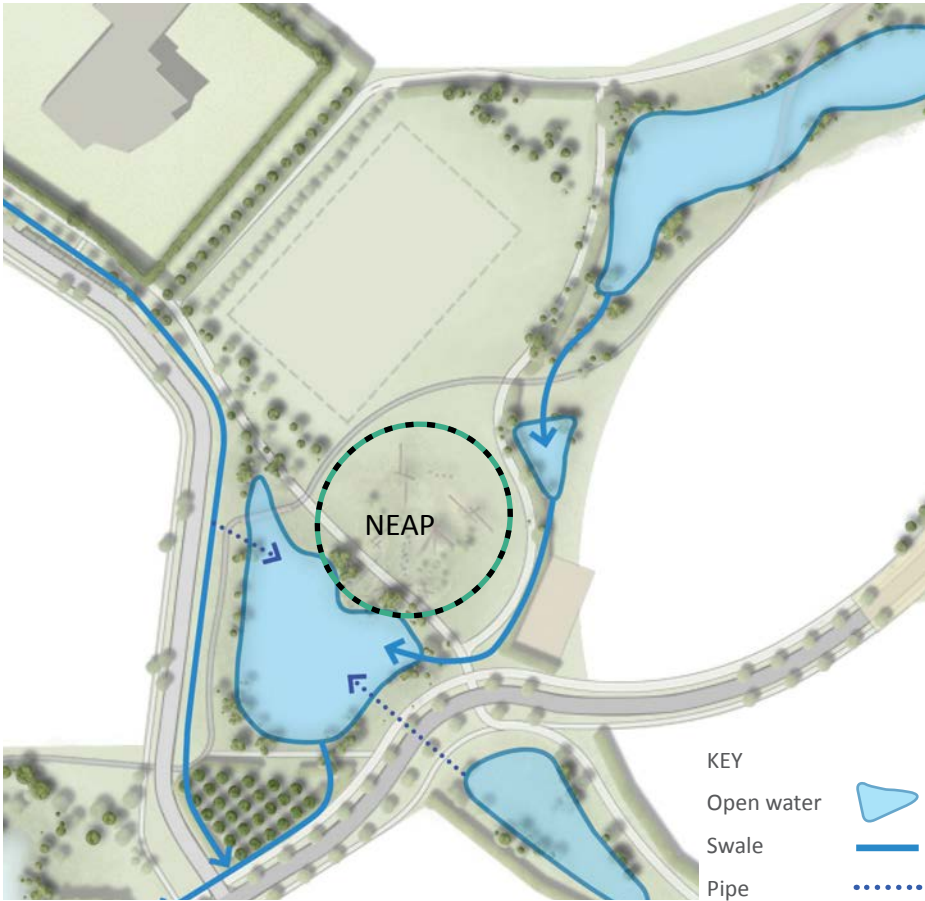


Fig. 43: Central Green section B-B1

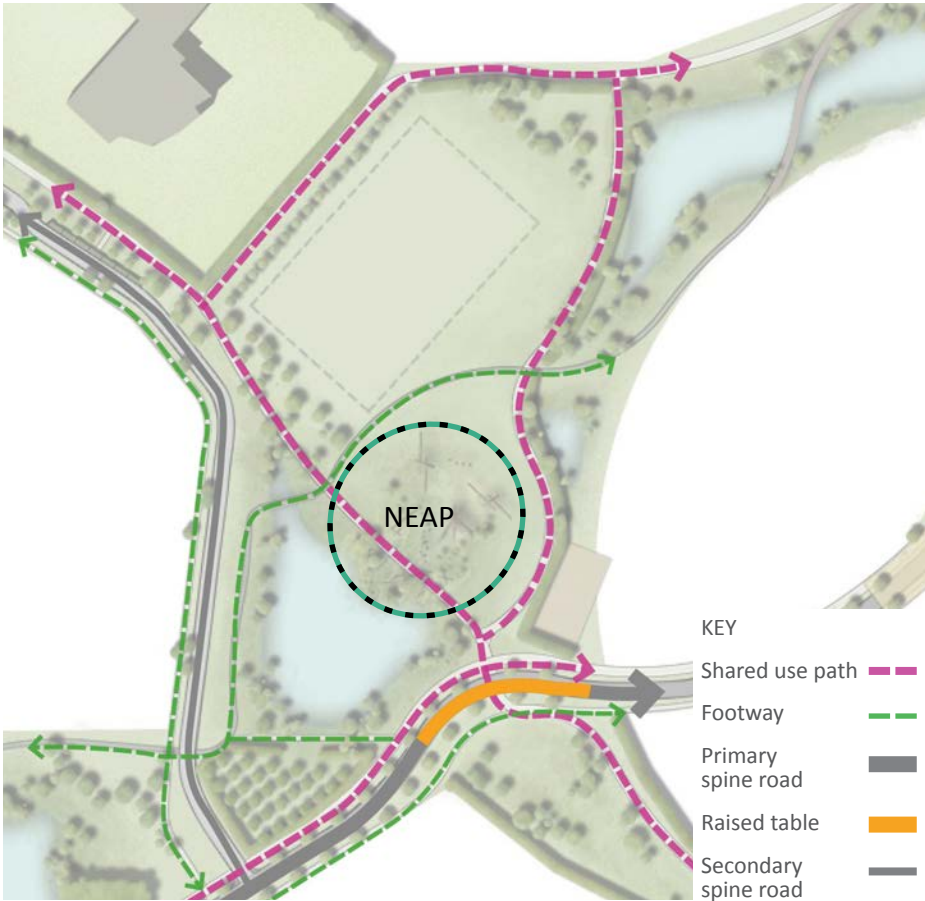
Design principles: the following diagrams outline **mandatory** principles which **must** be considered when developing set pieces

1: Landscape



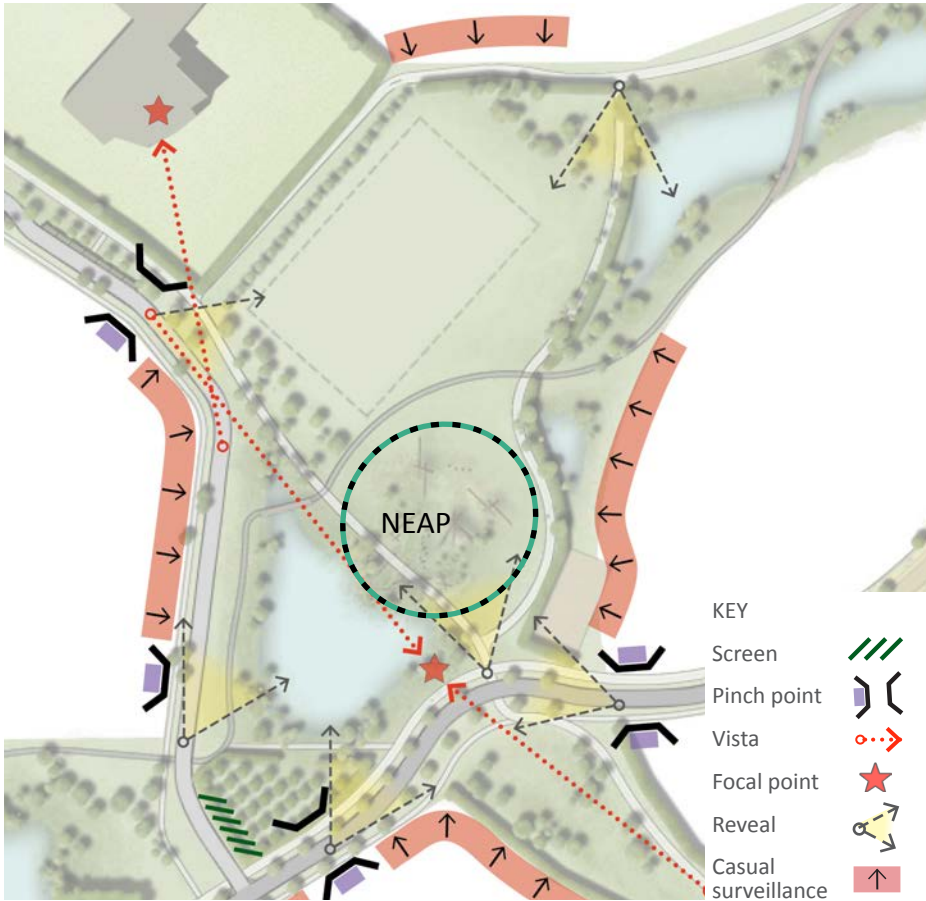
Note: refer to section 3.5 for site wide information on SuDS

2: Movement



Note: refer to section 3.6 for site wide movement network

3: Views



Note: refer to section 3 for site wide urban design principles

Planting

Informal village character **should**:

- Be mainly broadleaved trees.
- Forest size ornamental species to be used as feature trees.
- Have tree species typically found within village greens local to the area.
- Have naturalistic aquatic planting.
- Have naturalistic bulb planting.
- Christmas tree to be planted.
- Avoid domestic type ornamental shrubs.

Central Green motif planting species which **should** be used

Location/type	Motif species	Other species	Excluded	Arrangement
Primary spine tree	Lime and fastigate hornbeam		All others	Formal, regular
Secondary road tree	Mixed species - oak, birch, lime, maple, elm, Italian alder		All others	Informal, irregular
Open space tree	Cherry, oak, lime, Indian horse chestnut	Fruit trees, walnut, hazel	Cedar, pine	Irregular
Pondside	Weeping willow, crack willow, white willow, scarlet willow	Alder, downy birch, water maple	Small ornamentals	Informal, irregular
Hedge	Hazel	Beech, edibles surrounding orchard	Small ornamentals	Formal
Central orchard	Apple species - local to Cambridge - see Cambridgeshire Orchard groups and PTES Orchard Network for details			
NEAP - Play space	Groups of birch, maple varieties, oaks, willows			

**A tree planting strategy will be provided as part of the Scheme of Informal POS submitted as part of the Section 106 Agreement*

4.4 Wetlands

Story

Between the community hubs of the Central Green and Swansley Park Green sports area lie the quiet, naturalistic, wildlife rich wetlands.

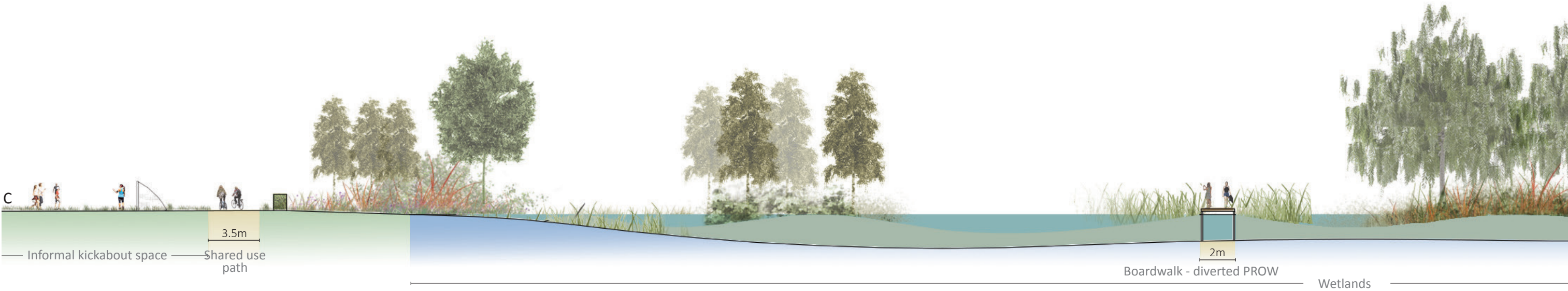
Traveling north along the spine road their western edge is glimpsed before the road turns into the residential area of Swansley Park.

At the east, the spine road briefly runs along the southern edge of the area, as if on a causeway, with vistas in a northerly and westerly direction.

The main pedestrian and cycle routes along the green spine through the centre of the site, enjoy an area free of highly trafficked roads and wind their way through the marshes and reedbeds on raised causeways and boardwalks.



Fig. 44: Set Piece Swansley Park Green. Principles mandatory, exact detail determined at reserved matters application



Key influences and characteristics

Inspiration for this area is Coe Fen in the centre of Cambridge

Key characteristics

- **Must** have an informal arrangement of wetlands, ponds, marshes and reedbeds with paths winding through in an organic way.
- **Must** be a SuDS feature designed to be a wildlife rich ecological area.
- **Should** have limited road access.
- **Must** contain naturalistic planting with habitat creation.
- **Should** have footpaths and pedestrian/cycle shared use paths on raised routes allow close access to the water.
- **Must** have materials, plant species and details derived from traditional rural fen and wetland areas.

The area influences the adjacent areas of Swansley Park and Woodfield neighbourhoods. Refer to section 5 for guidance on the built form response to this space.



Fig. 45: Set Piece Wetlands: principles mandatory, exact detail determined at reserved matters application

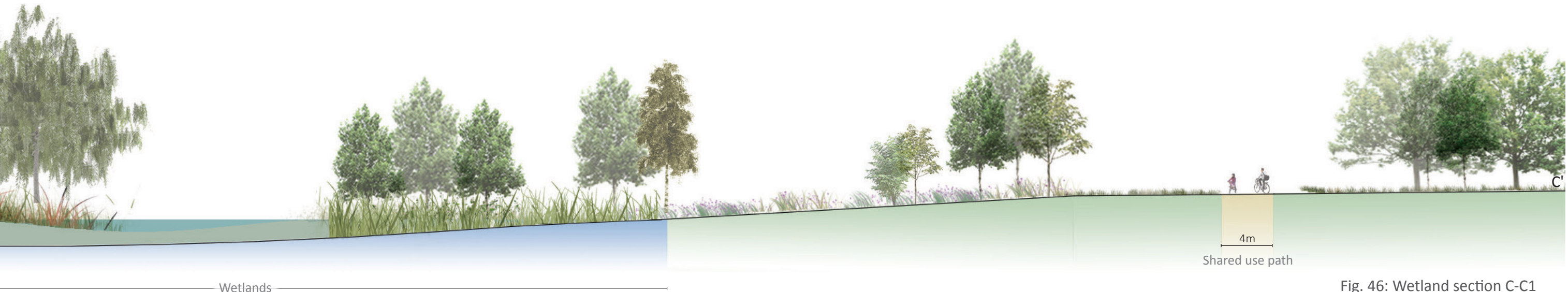
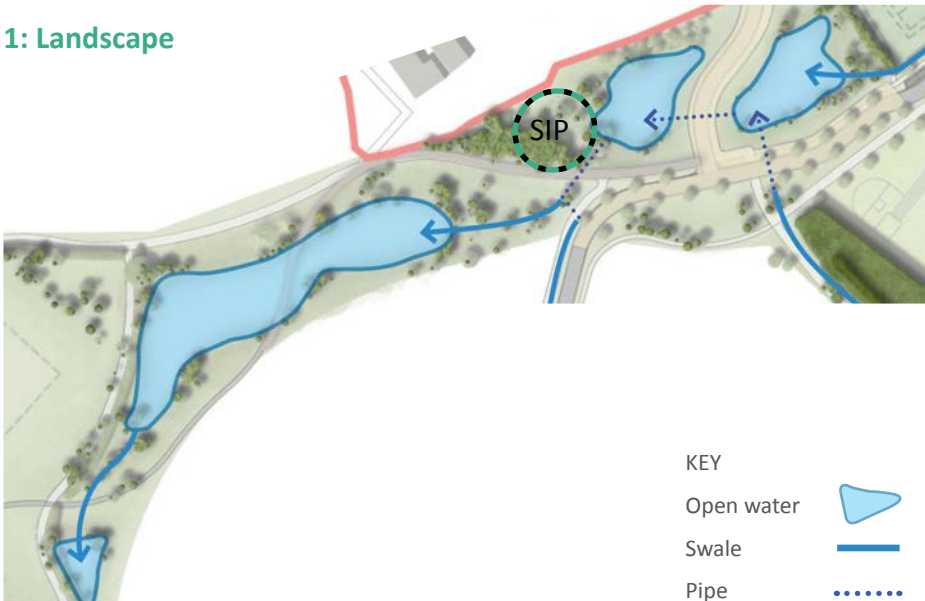


Fig. 46: Wetland section C-C1

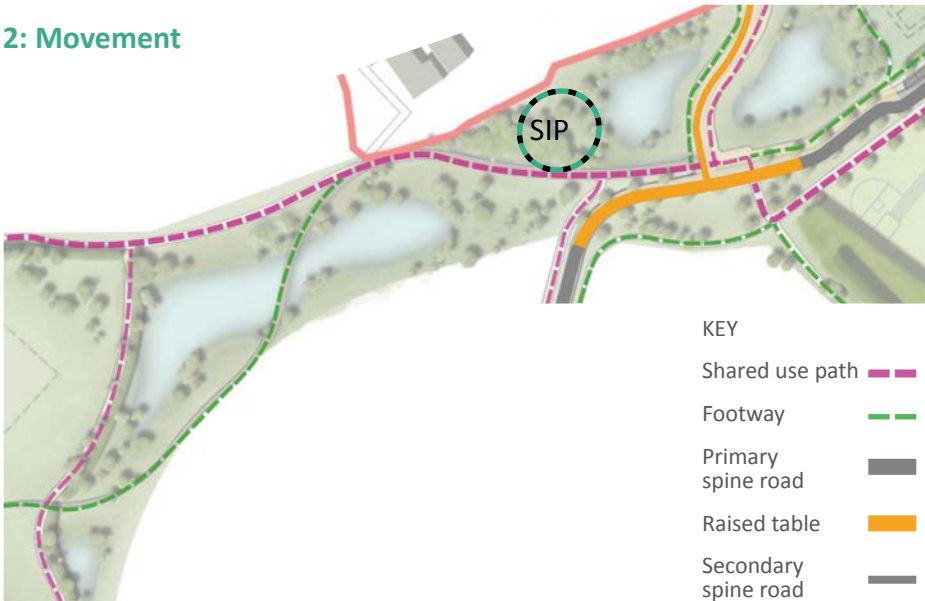
Design principles: the following diagrams outline **mandatory** principles which **must** be considered when developing set pieces.

1: Landscape



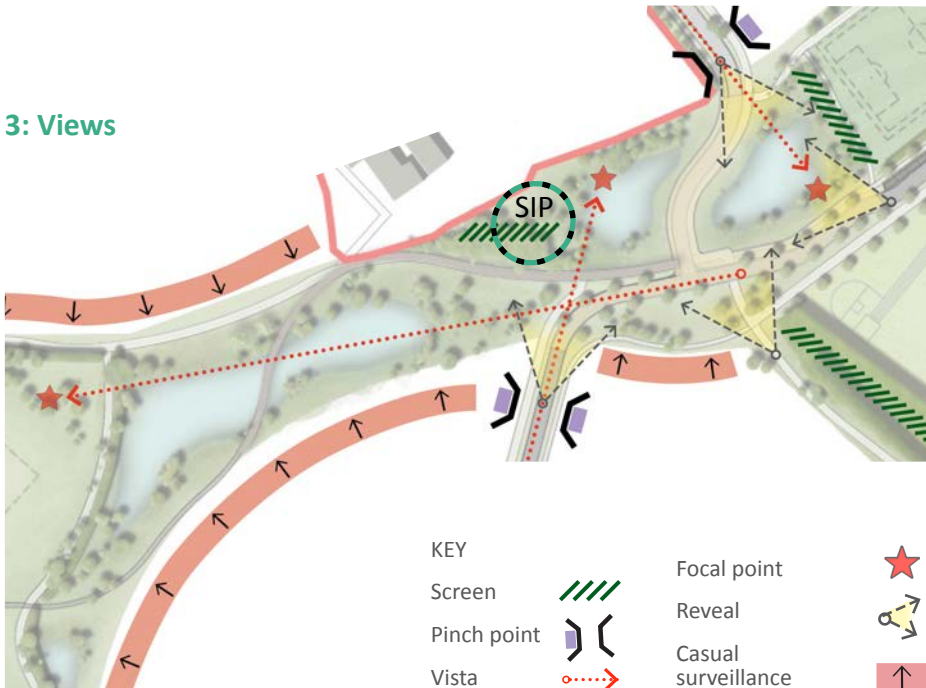
Note: refer to section 3.5 for site wide information on SuDS

2: Movement



Note: refer to section 3.6 for site wide movement network

3: Views



Note: refer to section 3 for site wide urban design principles

Planting

Wetland, marsh, reedbed character:

- **Must** be species rich, dominated by rushes and sedges.
- Large Willow species and Poplar **should** be used as focal trees.
- Aquatic planting - **must** be naturalistic and local to area.
- Domestic type ornamentals **must** be avoided.
- Invasive species **must** be avoided.

The Wetlands motif planting species which **should** be used

Location/type	Motif species	Other species	Excluded	Arrangement
Trees	White willow, black poplar	Alder, birch, trembling aspen, sallow	Ornamentals, conifers	Informal, irregular
Marsh/Reedbeds	Pussy willow, rushes and sedges	Hawthorn, grey willow, alder, buckthorn	Small ornamentals, invasive species	Irregular

**A tree planting strategy will be provided as part of the Scheme of Informal POS submitted as part of the Section 106 Agreement*

4.5 Sheepfold Green Sports Hub

Story

Sheepfold Green forms the northern termination of the green spine and marks the western end of Sheepfold Avenue, where east west pedestrian routes cross the main north south route. This important node marks the northern community sports hub, home to the community centre and sports facilities.

Arriving at Sheepfold Green from the south, the spine road goes around a slight joggle and passes a pond and hedge that mark the end of the wetlands. From here there is a reveal of views across the sports fields, which are enclosed by formal tree planting.

Car parking bays at the side of the spine road provide access, informal parking (and traffic calming). A rural hedge and timber fence with a ditch beyond encloses the green and prevents balls straying onto the road.

From Sheepfold Avenue, the line of trees extends out over the green towards the community pavilion, which forms a focus at the end of the avenue vista.

Football, athletics, BMX and a large play area are all provided as well as parking, and overflow parking for the community centre.



Fig. 47: Birds eye Sheepfold Green Sports Hub



Key influences and characteristics

Formal landscaped greens in the centre of Cambridge - such as Jesus Green - are the inspiration for the Sheepfold Green Sports Hub.

Key characteristics:

- Formal arrangement of high quality, simple elements.
- Materials, plant species and details to be derived from traditional rural and city park type elements.

The area influences the adjacent residential neighbourhoods of Sheepfold Gardens and Woodfields. Refer to section 5 for guidance on the built form response to this space.

Set pieces

1: The community centre

- **Must** face out over the green with good pedestrian connectivity.
- **Should** provide the opportunity for events space, marquees etc to extend over the green from the community centre.
- **Should** have a hard paved community meeting space/square in front of community centre at bend in spine road.

2: The Pavilion

- **Must** form a termination at the end of the Avenue's vista.
- Car parking **should** be located to the west.
- Outdoor drinking fountain **should** be provided.



3: Play area

- **Must** be to NEAP standard.
- **Should** have a range of challenging equipment for older children.
- A MUGA **should** be provided.

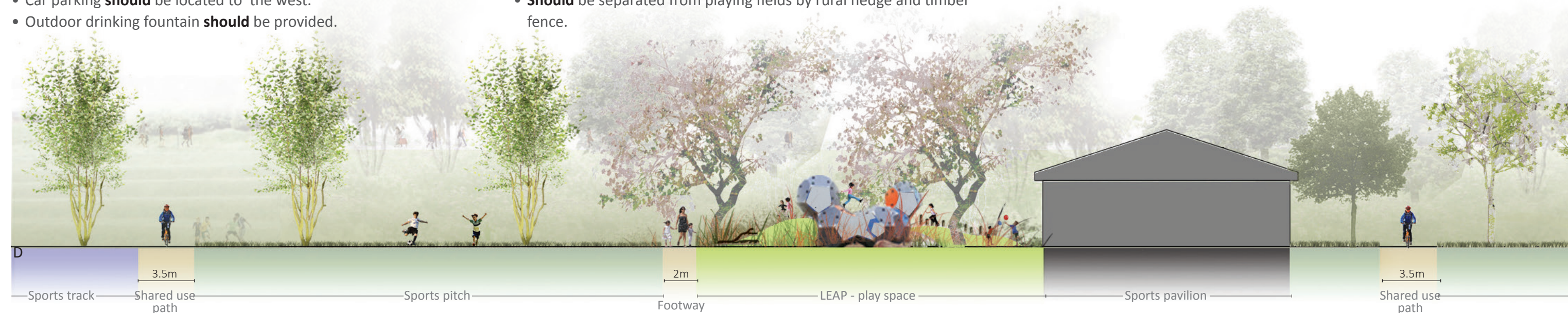
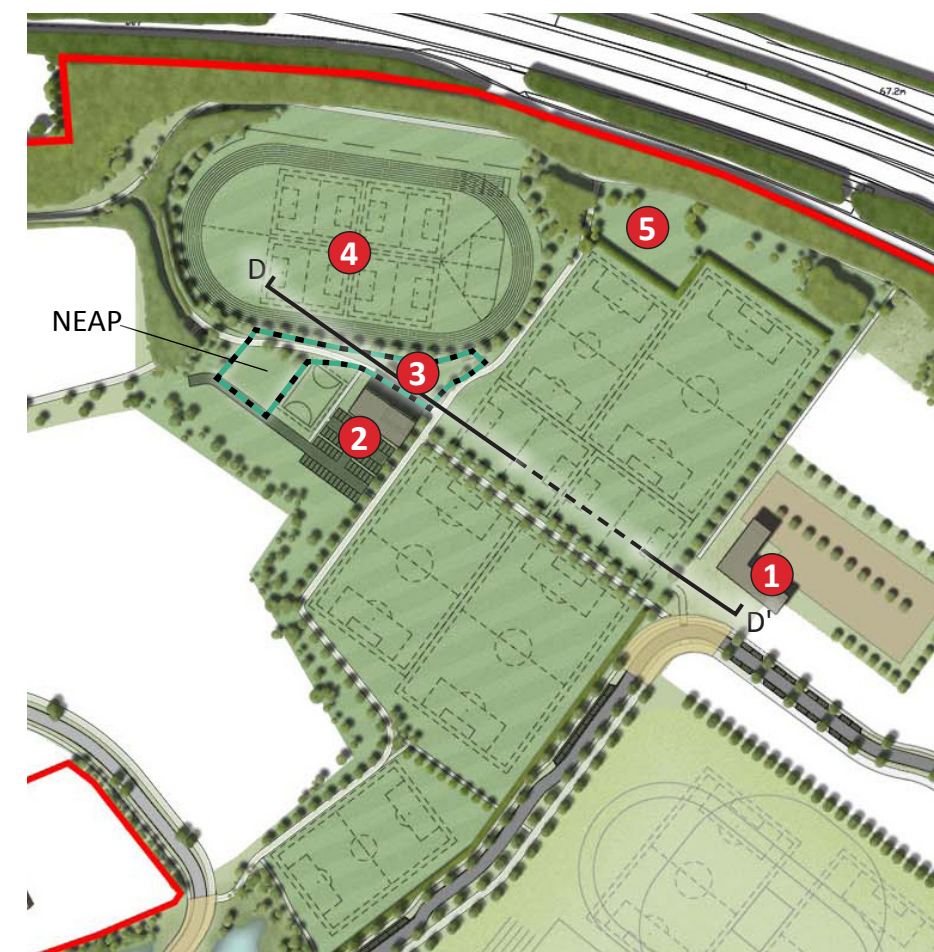
4: Athletics track

- **Must** have an all weather athletics track.
- **Should** not be flood lit.
- A426 noise bund **should** be used for spectator viewing.

5: BMX track

- **Should** extend onto the A426 noise bund.
- **Should** be separated from playing fields by rural hedge and timber fence.

Fig. 48: Set piece Sheepfold Green Sports Hub: principles mandatory, exact detail determined at reserved matters application



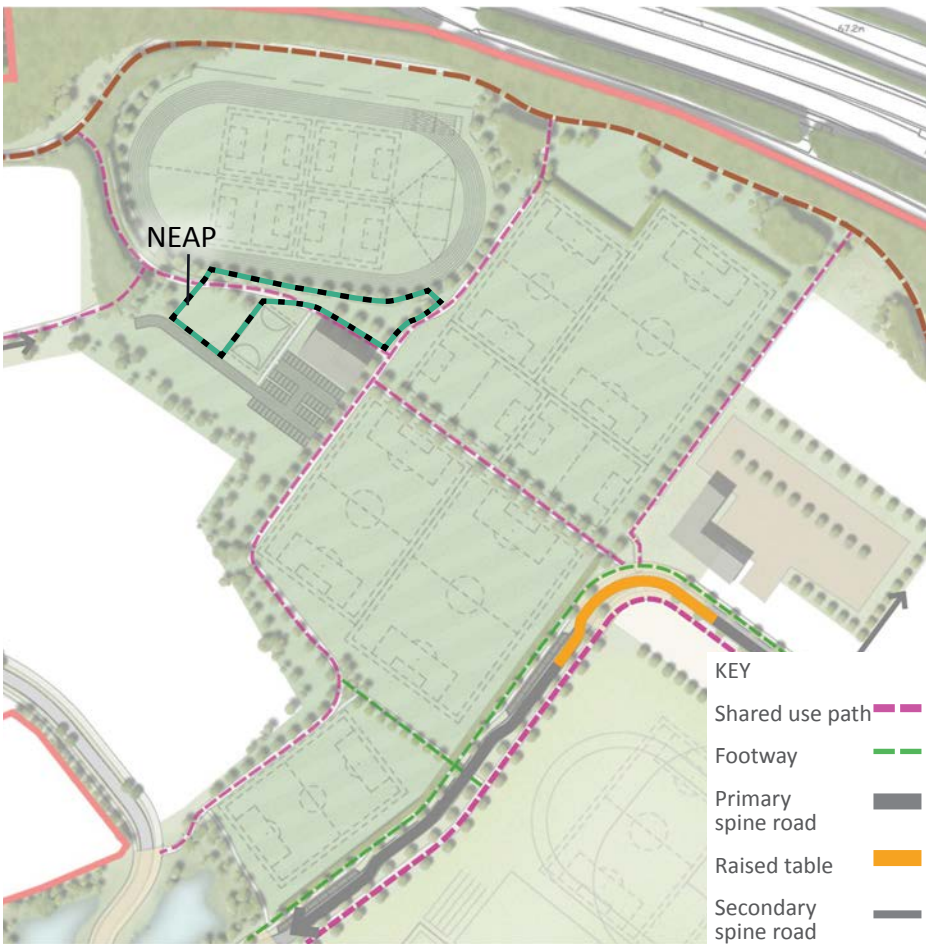
Design principles: the following diagrams outline **mandatory** principles which **must** be considered when developing set pieces.

1: Landscape



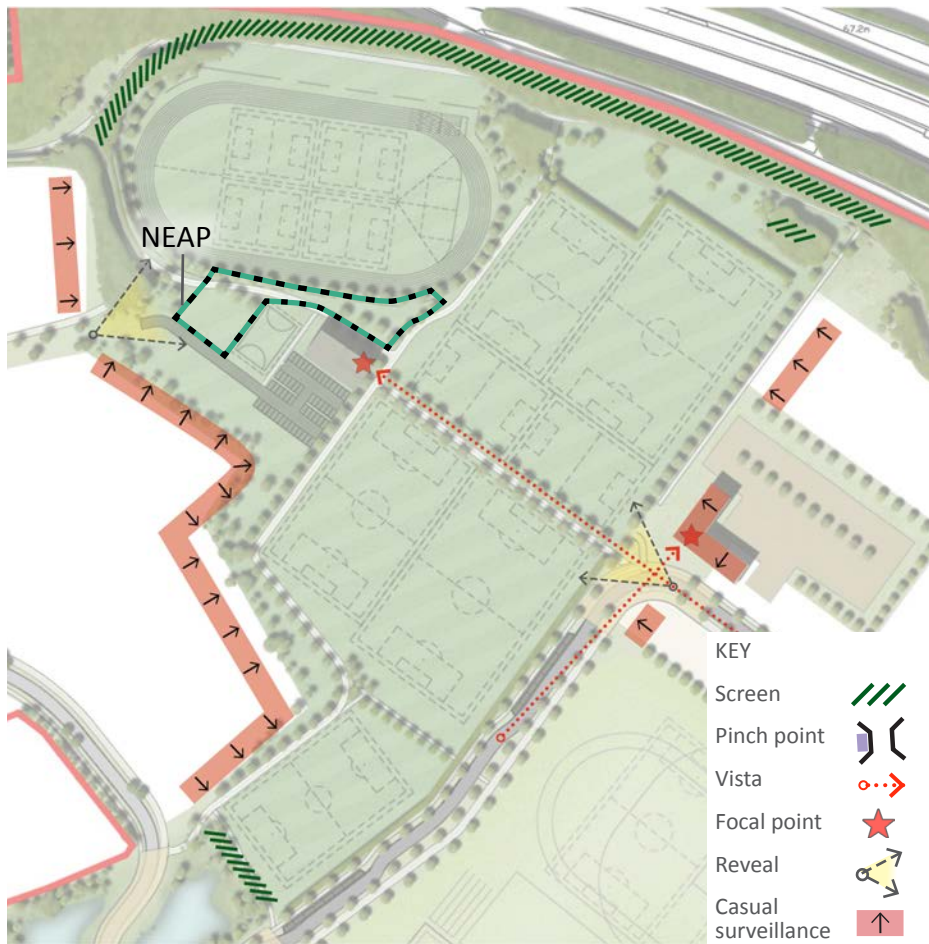
Note: refer to section 3.5 for site wide information on SuDS

2: Movement



Note: refer to section 3.6 for site wide movement network

3: Views



Note: refer to section 3 or site wide urban design principles



Fig. 49 Sports hub section D-D1

Planting

- Must** have a contemporary formal character:
- **Should** have formal tree planting with simple rural hedges to divide the area.
 - **Should** have naturalistic woodland along the northern boundary.
 - **Must** use two or three species of forest size broadleaves for avenue of trees.
 - Spine road species **should** be the same as avenue species.
 - Hedges **should** be rural species such as beech, hazel, hornbeam
 - Planting with thorns such as hawthorn, blackthorn etc **should** not be used surrounding playing fields.
 - Ornamentals may be used around the apron/curtilage of the community centre and pavilion.
 - Ornamentals and edibles **should** be used within the main play area.

Sheepfold Sports Hub motif planting species which **should** be used

Location/type	Motif species	Other species	Excluded	Arrangement
Spine road tree	Pin oak, London plane and streetwise maple	N/A	All others	Formal, regular
Open space tree	Norway maple, London plane, pin oak	Oak, beech, pine	Cedar, birch	Regular
Woodland tree	Scots pine, field maple, sweet chestnut	Oak, lime, hornbeam, hazel, wild cherry, birch, beech	Small ornamentals	Irregular
Hedge	Beech, holm oak	Hazel, hornbeam, field maple, crab apple	Small ornamentals	Formal
Public squares	London planes, holm oak, sweet gum, maple varieties		All others	Regular

**A tree planting strategy will be provided as part of the Scheme of Informal POS submitted as part of the Section 106 Agreement*

4.6 Boundary woodlands

Story

The boundary woodlands wrap around the north, west and south of Cambourne West, sheltering the neighbourhoods from wind and noise and creating a recreational route along the whole perimeter of the site with links to the established Cambourne woods to maximise wildlife value.

To the east the established woodland forms a threshold, through which routes into Cambourne West pass. At the end of Sheepfold Lane the road 'dog-legs' around a pond, preventing long forward views into the development.

- Boundary woodlands **must** follow the principles set out in Fig 7 and the adjacent table.
- Tree and shrub species within the woods **should** be typical of woodlands found in the region.
- Native species with some forest size exotics and conifers such as those found in the estate woodlands of country houses **should** be used in Swansley Park.
- The mix of species **should** vary around the perimeter.
- The built form interface with the boundary woodlands **should** be in accordance with the guidance provided in section 5.



The boundary woodlands **must** be comprised of a mix of local native tree and shrub species. The basic woodland mix **should** include the following: oak, wild cherry, field maple, small leaved lime, crab apple, hazel, hawthorn, blackthorn, dog rose, dogwood, spindle and elder.

The boundary woodlands **must** vary depending on location. This **should** be achieved through the introduction of the following motif tree species:

Location/type	Motif species
North of Sheepfold	Pine,
North of Sports fields	Field maple, hornbeam, hazel
North of Woodfield	Oak, birch
East of Woodfield	Oak, birch, lime
Swansley Lake	Willow, alder, downy birch
South of Swansley Park	Cedar, sequoia, pine, redwood
Access points	Pine
Hedge	Yew, mixed native as appropriate to character area



4.7 South east boundary spaces

Story

The south east boundary contains a number of open spaces that afford views to the rolling countryside to the south and allow glimpses into the development when approaching from the Caxton Bypass.

1. Swansley Hill

- Grassland hill.
- Wildlife area for grassland breeding birds.
- Pedestrian/cycle route around edges only.

2. Swansley Lake

- SuDS feature.
- Wildlife and recreational value.
- Naturalistic planting.

3. Burial ground

- Informal lawned area, enclosed by hedging within woodland.
- Surfaced car park.
- Access for refuse vehicles.
- Composting/waste facility.

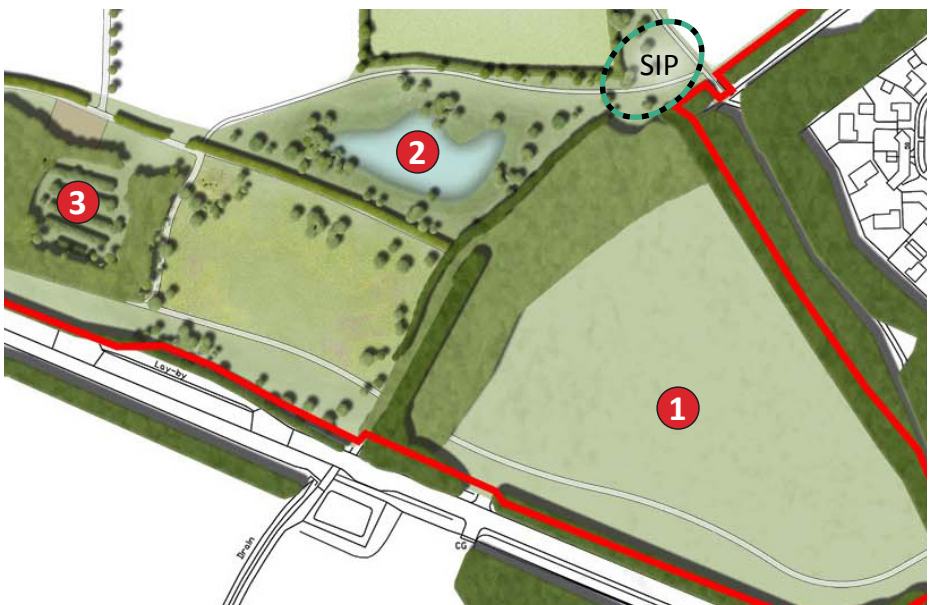


Fig. 50 Set piece south eastern boundary treatment



4.8 Greenways

Story

The greenways provide attractive, accessible, convenient, safe, off road routes to move around Cambourne West and connect to the wider network of footpaths, pedestrian/cycle shared use paths and bridleway.

They **must** be designed as multifunctional linear spaces that provide for movement and **must** also create:

- Attractive settings for new homes.
- Wildlife habitats.
- Opportunities for foraging.
- Spaces for formal play.
- Informal opportunities for play and quiet recreation.
- Social spaces for meeting.
- Space for SuDS features.

Built form fronting the greenways **should** be in accordance with the guidance provided in section 5.



4.9 Allotments and orchards

Story

Allotments and orchards provide the opportunity for the community to have a co-managed amenity space which promotes production and ownership of community grown fruit and vegetables. They have been located along key green corridor routes accessible to all.

Key characteristics

Allotments and orchards **must**:

- Be overlooked by houses to provide natural surveillance.
- Use short sections of private drives, perimeter roads as appropriate to ensure direct relationship with houses and allotments.
- Be bounded by fruit bearing hedge such as elder, hazel, raspberry, blackberry, wild plum, gooseberry and rosehip.
- Have access via either footway or shared use path.
- Have water taps provided.
- Orchards **must** have a mixture of regional varieties and commercially available fruit trees.

Allotments and orchards **should**:

- Act as an informal social recreational space which could also be used for local festivities i.e. "apple days" and "orchard wassailing".
- Allow produce to be harvested and sold by the local community.
- Have a space set aside to include bee keeping within the allotment.
- Have a mixture of amenity grass mown to maintain access and longer grass with wildflowers to increase biodiversity.
- Provide benches, bins and cycle stands in appropriate locations.

Built form fronting the allotments and orchards **should** be in accordance with the guidance provided in section 5.

4.10 Eastern and Western Greens

Story

The Eastern and Western Greens will provide two new local community hubs in the heart of each neighbourhood. The large swathe of public open space will follow the east-west green shared use path and both greens will facilitate a new children’s play area and an orchard.

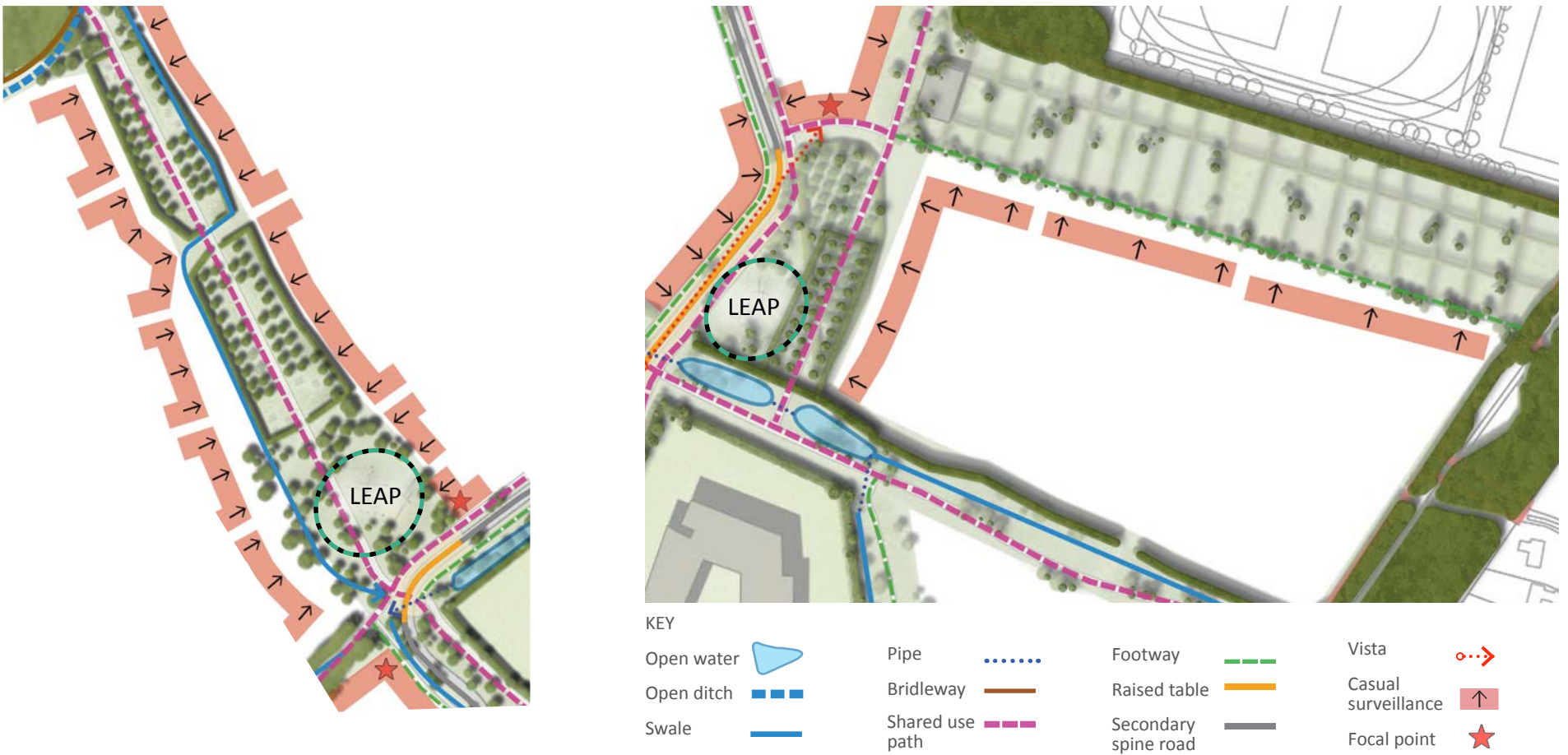
Key characteristics

- The greens **must** respond to the character of the area.
- **Must** have an informal arrangement of high quality, simple elements.
- **Should** take their cue from greens typical of South Cambridgeshire villages.
- Buildings **must** be orientated to overlook the greens. Access **should** be provided via private drives or rear private drives in key locations such as built form gateway.

The Eastern Green influences the area of Swansley Park whilst the Western Green influences the area of Woodfields. Built form fronting the Eastern and Western Greens **should** be in accordance with the guidance provided in section 5.



Fig. 51: Eastern and Western Greens



POS and orchard motif planting species which **should** be used

Location/type	Motif species	Other species	Excluded	Arrangement
Eastern orchard	Mixed fruits - a range of different pears, apples, plums, cherries, blackberry, hazel		All others	Formal, regular
Western orchard	Soft fruits - a range of different plums, cherries, quince, mulberries		All others	Formal, regular
Open space trees (west)	Oak, birch	Hornbeam	Small ornamentals, pine	Irregular
Open space trees (east)	Cherry, lime	Rowan	Small ornamentals, pine	Irregular
Hedge	Edible hedges. Species to include: elder, hazel, raspberry, blackberry, gooseberry, wild plum, crab apple		All others	Formal

**A tree planting strategy will be provided as part of the Scheme of Informal POS submitted as part of the Section 106 Agreement*



Fig. 52: Illustrative landscape masterplan

5.1 Introduction

Many elements of the design, such as the highways and SuDS, will be consistent across the masterplan as a whole. The previous sections of this document have looked at the way in which site-wide design issues and influences **should** be addressed. The following pages look at location-specific design influences and provide coding to help shape the unique character of the three districts.

Each neighbourhood, as defined in Fig 53, has its own unique story and set of key design principles which are presented on the following pages. The key design principles provide coding for the design and layout of each neighbourhood, and **must** be considered as part of future reserved matters applications.

Each neighbourhood is further sub-divided into 'strategic areas' to offer more detailed coding for spaces that are considered key to the delivery of the masterplan. Where strategic areas are located between different neighbourhood areas, the characteristics of each neighbourhood **must** be considered to provide a unified character.

Design principles for the secondary and primary schools is provided in each neighbourhood area in the following pages. Final designs will be taken forward by the the Education Authority, therefore the layouts shown in this section are illustrative only.

Coding for key landscape spaces is provided in section 4.

Perspective sketches and photographs are included for illustrative purposes only, and are intended to provide a flavour of the character of each element of the scheme.

KEY

Woodland edge (4.6)

Sport edge (4.5)

Lakeside edge (4.2)

Central green edge (4.3)

Wetlands edge (4.4)

Allotments (4.10)

Greenways (4.7)

Local greens (page 90)

Public squares (page 96)

Non-residential uses (Section 5)

Frontage A (3.12)

Frontage B (3.12)

Tertiary streets and private drives (3.12)

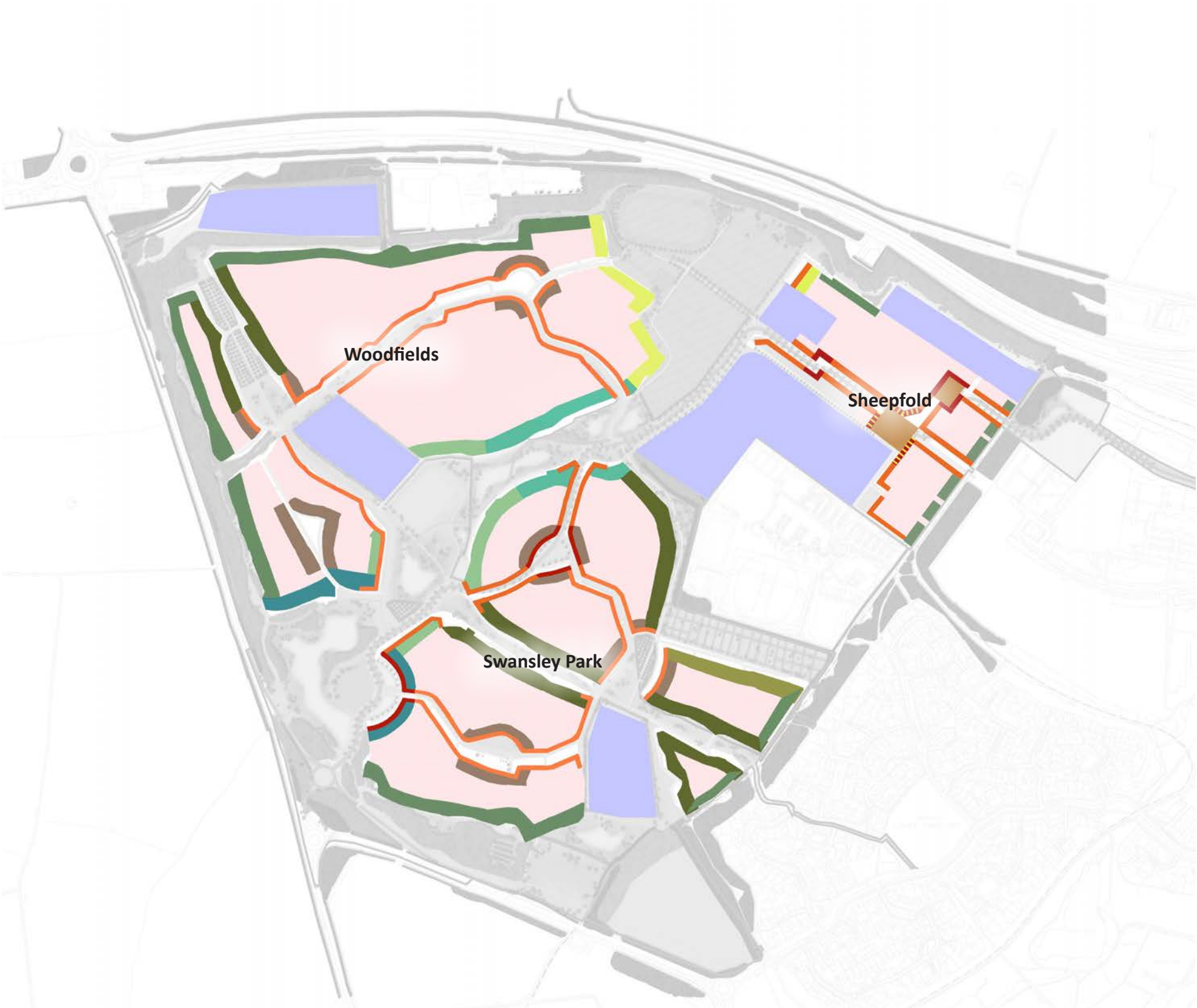


Fig. 53: Cambourne West neighbourhood areas plan

5.2 Swansley Park

Story

The Swansley Park neighbourhood area is surrounded on several edges by a range of water features including ponds, wetlands and swales. These features combine to create a water-side landscape character throughout the extensive open spaces at the northern, eastern and southern edges of the site. Open swales are also a key feature of Swansley Greenway, which provides a key east - west link between the northern and southern residential areas.

A formal character is applied to the arrival space at Swansley Park Green to provide a striking entrance space on the southern approach. The character of the neighbourhood becomes more informal as the spine road and secondary spine road extend further into the site.

Swansley Park is closely associated with Lower Cambourne to the east, and shares some of its village characteristics such as local greens within the development area.

This neighbourhood is situated to the north of a woodland belt along the southern boundary. The woodland tree planting, combined with the surrounding informal landscape areas; including the Central Green, the Wetlands, Swansley Lake, Swansley Hill and the greenways - provides a naturalistic design cue, which informs an organic block structure offering a feeling that the urban form has developed over time.

The spine road enters the site here and follows the lakeside lawn to form the southern gateway to the site, then cuts into the parcel forming a 'high-street' before exiting onto the edge of the sports fields. The district is also served by a meandering secondary road that leads to a series of smaller local greens.

The character of each strategic area on the design principles plan (opposite) is explained in more detail later in this section.



KEY

- Residential development areas
- Mixed use area
- Car parking
- Frontage A
- Frontage B
- Marker buildings
- Open space frontage
- Non residential frontages
- School and grounds
- Local greens
- Woodland
- Allotments
- Lakes and ponds
- Burial ground
- Spine road
- Secondary street
- Key tertiary street
- Pedestrian/cycle shared use path
- Pedestrian routes
- Strategic areas
- Outward views (indicative location only)



Fig. 54: Swansley Park design principles

Key design principles

Design cues	Urban form	Buildings	Materials	Landscaping
<ul style="list-style-type: none">Informal village character of Lower Cambourne.Materials used within Lower Cambourne.Lakeside character of Swansley Park Green.Woodland edge to the south.Interface with greenways.Water-side interface with the green and reed areas.Local centre.	Land use: <ul style="list-style-type: none">Must be predominantly residential.Local centre/mixed-use buildings should front the Central Green.Must include a primary school.	Architectural Character: <ul style="list-style-type: none">Must provide a continuation of the village character found within Lower Cambourne.Must include a varied style representative of the evolution of villages over time.Should be a mix of informal and formal styles, depending on location/strategic area.Refer to sections 3.12 & 3.13	Primary Materials Palette: <ul style="list-style-type: none">Should be selected from primary palette C in section 3.14: <div></div>	Tree planting: <ul style="list-style-type: none">Must be formal to Swansley Park Green.Should be informal to other open spaces.Increased tree planting should be introduced into the urban grain at the interface with the woodland edge.Avenue planting should be provided to secondary streets. <div></div>
	Block Structure: <ul style="list-style-type: none">Must be informal, curved/organicSouthern parcel edge should be irregular and permeable at interface with woodland.Should facilitate outward views of surrounding trees and open spaces from secondary and tertiary streets.	Range of Dwellings: <ul style="list-style-type: none">Houses must predominate, with small apartment buildings marking certain key corners and prominent edges.Linked properties along main routes should be provided.Higher numbers of detached homes should be located alongside open spaces. <div></div>	<div></div> <div></div> <div></div>	On-Plot Planting: <ul style="list-style-type: none">Must have estate parkland/rural feel.Water-loving species should be planted adjacent to the wetlands.
	Density: <ul style="list-style-type: none">Should generally be medium density, (circa 35-40 dph) see section 3.18.Should include generally larger plots.Lower density along southern edge.	Building Height: <ul style="list-style-type: none">Should be in accordance with building heights plan: Fig 24, section 3.17.Should be predominantly medium height.Taller buildings should be used for key frontages, key corners and focal points. <div></div>		On-Plot Motif Species: <ul style="list-style-type: none">Birch, crab apple, hornbeam, rowan.'Traditional English garden' character - include: lavender, salvias, roses, camillias, hebes, iris, viburnum, hydrangea, snowy mespilus.Ornamental grasses to be used in plots fronting wetland.
	Frontage: <ul style="list-style-type: none">Must have informal edge to woodland edge, green, wetlands and allotments.Must be regular and enclosed to primary and secondary streets.Less enclosure and more irregular along tertiary streets.	Roof Line: <ul style="list-style-type: none">Should be varied to enhance informal character. <div></div>		Excluded Species: <ul style="list-style-type: none">Architectural species such as phormium, acers, conifers
	Set back: <ul style="list-style-type: none">Buildings fronting primary spines must be 1.5 - 2m from back of footway.Should be between 1.5 - 7m on secondary streets.Generally deeper plots fronting open spaces.	Elevational Emphasis: <ul style="list-style-type: none">Should be a mix of horizontal and vertical.Must be a vertical emphasis to entrance area to enhance sense of scale to Swansley Green.	Accent Materials Palette: <ul style="list-style-type: none">Dependant on location - materials should be selected and distributed in accordance with Fig 28 section 3.14.	

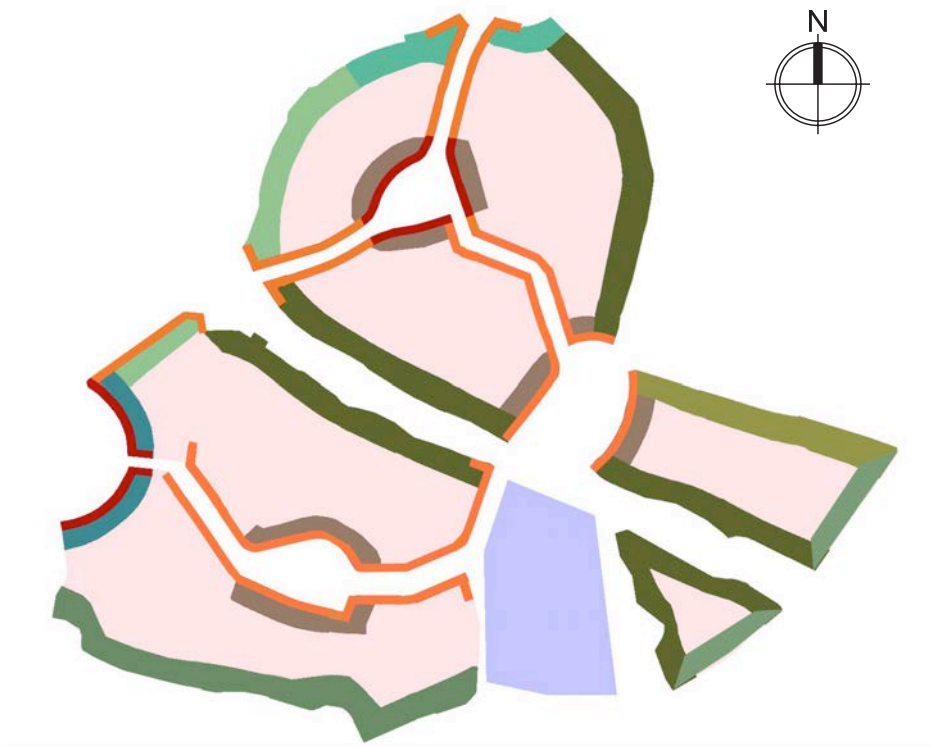


Fig. 55: Character influences

- KEY
- Woodland edge (4.6)
 - Lakeside edge (4.2)
 - Central Green edge (4.3)
 - Wetlands edge (4.4)
 - Allotments (4.10)
 - Greenway (4.7)
 - Local 'Green' (page 88)
 - Non-residential uses (Section 5)
 - Frontage A (3.11)
 - Frontage B (3.11)



Informal village character with organic road alignment



Linked semi-detached houses create a strong frontage

Strategic area 1 - Swansley Park Green entrance area

Story

The entrance area acts as an important terminus to views into the development on entry from the south along the central spine. The built form curving along the western edge of the area show off the first homes that are viewed when arriving from the south.

The built form frames the formal yet simplistic Swansley Park Green arrival space, creating a grand setting influenced by formal parkland and estates.

Landscape features

Formal lawns and large feature trees within Swansley Park Green, the lake and reflective ponds dictate that the landscape treatment **must** incorporate water and water-loving plants. Refer to section 3.19 and section 4.2 for further landscape guidance.

General layout

Predominantly continuous enclosure must be provided with a regular arrangement of house types. Built form to both sides of the secondary street **must** be balanced in terms of massing and layout to ensure a level of symmetry on each side of the secondary road leading off the central spine. Buildings on both sides **must** use shared architectural forms and motifs.

The entrance area **must** create a strong built form response to this large and unique open space.

Frontage

The building frontage must be designed as a composition with a shared rhythm, style and form. The built form **must** provide a predominantly continuous frontage that contains the arrival space. Car ports with upper floor links **should** be used to connect individual houses to create greater enclosure.

Parking and access solutions

The following solutions **should** be considered Type B, C (section 3.8)

Marker buildings

The buildings **must** be of a suitable scale to mark the arrival at Cambourne West.

The buildings marking the outside ends of the built form **must** act as bookends – bringing the whole composition together.

Buildings either side of the secondary street entrance **should** be act as a gateway into the development area.

Building height

Buildings **should** be mostly 2 - 2.5 storeys high.
Gateway buildings **should** be 3 storeys high.
Buildings used as bookends **should** be 2 storeys high.

Building materials

A similar palette of high quality materials **must** be used either side of the secondary road in order to provide consistency.

Predominant materials **should** be selected from Primary Palette A, Accent Palette 1 (see section 3.14).

Boundary treatments

Boundary treatments at the front of the buildings **must** be strong and **must** be consistent on both sides of the secondary road.

Walls faced with flint blocks with saddleback coping with sections of vertical railings **should** be used to delineate public and private space (see section 3.16).

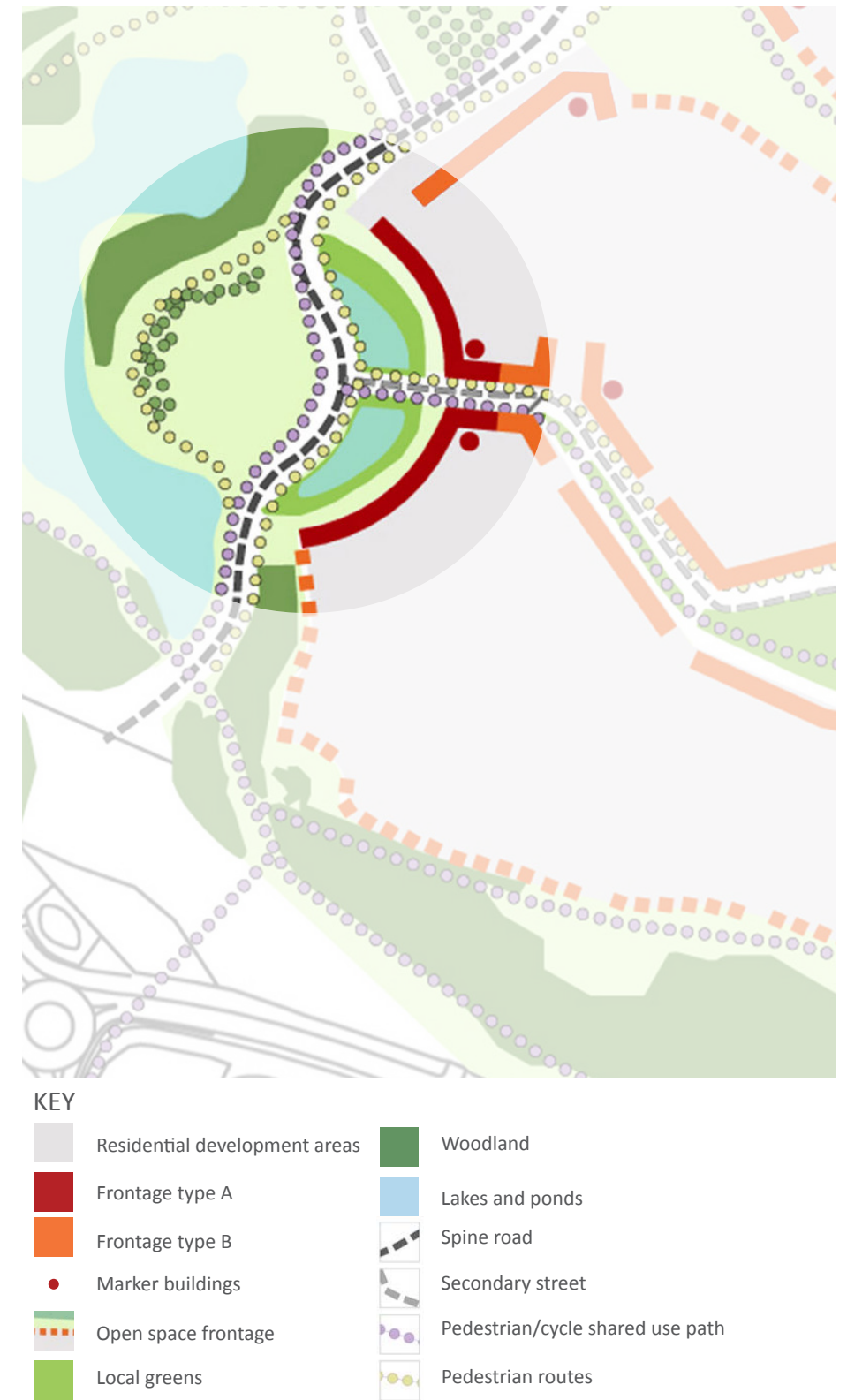


Fig. 56: Entrance area principles



Fig. 57: Entrance area - both sides of the secondary road **must** be similar. Shared materials palette, architectural forms and features and boundary conditions **must** be used



2 storey 'bookends' are required at the corners



Houses linked at upper floors create a strong frontage



Strong public realm and boundary condition design **must** be used



Fig. 58: A unified design for the public realm should tie the built form together

Strategic area 2 Mixed-use development fronting Central Green

Story

As the central spine road continues north it runs along the south of Swansley Park Green - the main focus of public open space and community activity. From here the street deflects east to enter the northern parcel of Swansley Park - this is the first point at which the central spine road is enclosed on both sides by built form when entering Cambourne West from the south.

This presents an opportunity to create a secondary gateway to the development that marks the transition from the open space of the Green into the built area of Swansley Park.

The green is framed to the north by built form within the Woodfields neighbourhood and Woodfields primary school. To the east the green is defined by the Woodfields secondary street and houses fronting it.

Landscape features

The Central Green is a key open space in the centre of Cambourne West which facilitates a range of recreational activities. Landscape features include a pond and amenity space. The open space **should** have a simplistic village green character, with a car park screened from views from the spine road. Refer to section 4.3 for landscape guidance for this space.

General layout

Built form to either side of the green **must** share common features to ensure that the green has its own character, rather than a space which is caught between two different neighbourhood areas.

Buildings surrounding the open space **must** respond to wider strategic views (for example from across the green), and continue the simple village green character.

A mixed use building such as local shops, cafe/restaurant and/or pub **should** be considered for the site on the north of the road where it enters the built area.

Frontage

The built form **must** provide strong enclosure to the open spaces. Built form **should** be arranged formally with the introduction of a regular rhythm of architectural form, extending from the primary road north along the wetlands edge, with a consistent rhythm and high level of repetition. Along the primary and secondary roads buildings should be mostly continuous, whilst along the wetlands and northern edge of the green they should be mostly detached.

As the spine road enters the development, where built form features on both sides, the street **must** be reduced to a maximum width of 11.6m to create a pinch point, reinforcing this key gateway.

Built form along the Woodfields secondary street **should** have a maximum set back of 2.5m to provide a more regular edge. Along tertiary streets the building line **should** be more varied to provide an informal edge.

Marker buildings

Two gateway buildings, one on each side of the road **should** mark the point where the spine road enters the development parcel. The northern building should be a prominent mixed use building with space on the ground floor for retail etc to enhance the range of facilities on and around the Green.

Woodfield primary school **must** face south onto the open space. This will be a large marker building to draw the eye over the Green and balance the mixed use building on the opposite side of the green.

Other marker buildings **must** be arranged so that they terminate key views across the green.

Building height

Marker buildings around the open spaces and gateway buildings **should** be 2.5 or 3 storeys high. Increased ground floor ceiling heights (3.6m min) **must** be provided to allow flexibility for future mixed-uses.

As the spine road passes through the gateway into the internal development area, buildings flanking the road **should** be mostly 2 storeys high.

The primary school building **must** not extend beyond 12 metres high.



Fig. 59: Mixed-use area landscape principles

Building materials

Common materials **must** be provided on opposite sides of the green to provide consistency and a unifying character. Therefore, some building materials **should** be 'borrowed' from the materials palettes from the opposing neighbourhood areas (Swansley Park and Woodfields), to create visual continuity in long-distance views across the open space.

Predominant materials to the Swansley Park side **should** be selected from Primary Palette A, Accent Palette 1 (see section 3.14).

Predominant materials to the Woodfields side **should** be selected from Primary Palette B, Accent Palette 2, 3, depending on location (see section 3.14).

The primary school building **should** be built primarily from the Woodfield materials palette to to differentiate it from the Swansley Park primary school..

Boundary treatments

Boundary treatments **must** be consistent on both sides of the spine road, with the exception of areas that provide non-residential uses at ground floor level.

Boundary treatments defining the boundary between residential areas and the central green **should** include a mix of picket fencing and riven oak fencing, depending on location. The southern boundary of the green (south of the spine road) **should** be delineated by estate rail fencing (see section 3.16).

The boundary between the school and the green **should** be dwarf walls with vertical rails. Elsewhere it **should** be weld mesh fencing with hedge and tree planting to provide a well-screened secure boundary.

Parking and access solutions

The following solutions **should** be considered

Primary road (Swansley edge): Type C

Secondary road (Woodfield edge): Type D, E, G

For details of the village green car park see section 4.3.



Fig. 60: An opportunity for mixed-uses facing onto the green - the buildings and landscape **must** be considered together



2.5 storey buildings overlooking open space



Traditional 2-3 storey pub facing onto the green

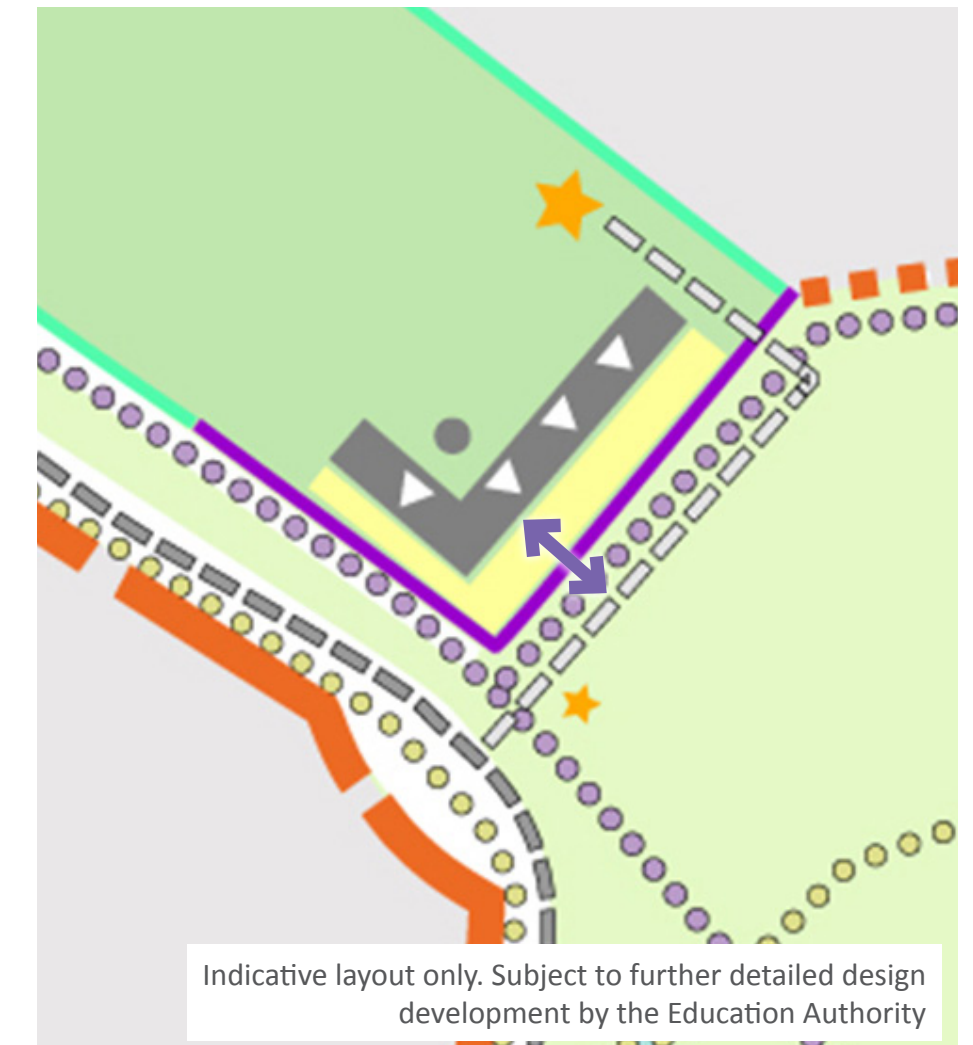


Bold 3 storey buildings with generous feature windows



Strong frontage of 3 storey buildings fronting wetland habitat

Fig. 61: Woodfields primary school frontage design principles



- KEY
- Vehicular access
 - Pedestrian / cycle access
 - Drop-off accessible from secondary street
 - Car parking and service yard/access to rear
 - Frontage boundary treatment (refer to section 3.16)
 - Weldmesh fence and hedge
 - Outward facing active building frontage
 - High quality hard and soft landscaped frontage
 - Playing fields

Strategic area 3 - Built form fronting the wetlands

Landscape features

The wetlands open space is comprised of an informal arrangement of SuDS features and naturalistic wetland planting. Refer to section 4 for landscape guidance for this space.

General layout

The built form surrounding the southern edge of the wetlands forms part of the Swansley Park neighbourhood area. To the north the wetlands is defined by built form within the Woodfields neighbourhood area.

Built form to either side of the green **must** share common features to ensure that the green has its own character, rather than a space which is caught between two different neighbourhood areas.

Buildings surrounding the wetlands **must** be served by tertiary roads and be outward-facing to provide an active interface with opportunities for some buildings to directly access the wetland.

Frontage

The built form **should** provide a regular edge (same/similar buildings, spacing and setback) with a strong, regular rythm to the wetland edge including some buildings that are very close to the development edge (see Fig 62) to create an intimate relationship with the wetland. buildings should generally be detached.

Homes along this edge **should** be a mix of larger detached homes and semi-detached homes, in contrast to a higher proportion of semi-detached and terraced houses along the internal primary and secondary spine roads.

Parking and access solutions

The following solutions **should** be considered
Type: J, L, M

Marker buildings

Distinctive buildings **should** be located at key locations to terminate vistas across the open space as viewed from pedestrian/cycle shared use paths. Groups of buildings along the wetland edge could create a dramatic feature in this unique location.

Building Height

Buildings **should** generally be 2 - 2.5 storeys high.

Taller 3 storey buildings **should** be located either side of the primary spine road where it enters Swansley Park, and where the secondary spine street enters Woodfields, to act as a gateway to development.

Building Materials

Common materials **must** be provided on opposite sides of the Wetlands to provide consistency and a unifying character. Therefore, some building materials **should** be 'borrowed' from the materials palettes from the opposing neighbourhood areas (Swansley Park and Woodfields), to create visual continuity in long-distance views across the open space.

Predominant materials to the Swansley Park side **should** be selected from Primary Palette A, Accent Palette 1, 2, depending on location (see section 3.14).

Predominant materials to the Woodfields side **should** be selected from Primary Palette B, Accent Palette 1, 2, depending on location (see section 3.14).

Boundary Treatments

A mix of hedges and riven oak fencing **should** be used to delineate public and private space at the interface with the wetlands, depending on location (see section 3.16).



Regular spaced edge



Larger detached fronting water

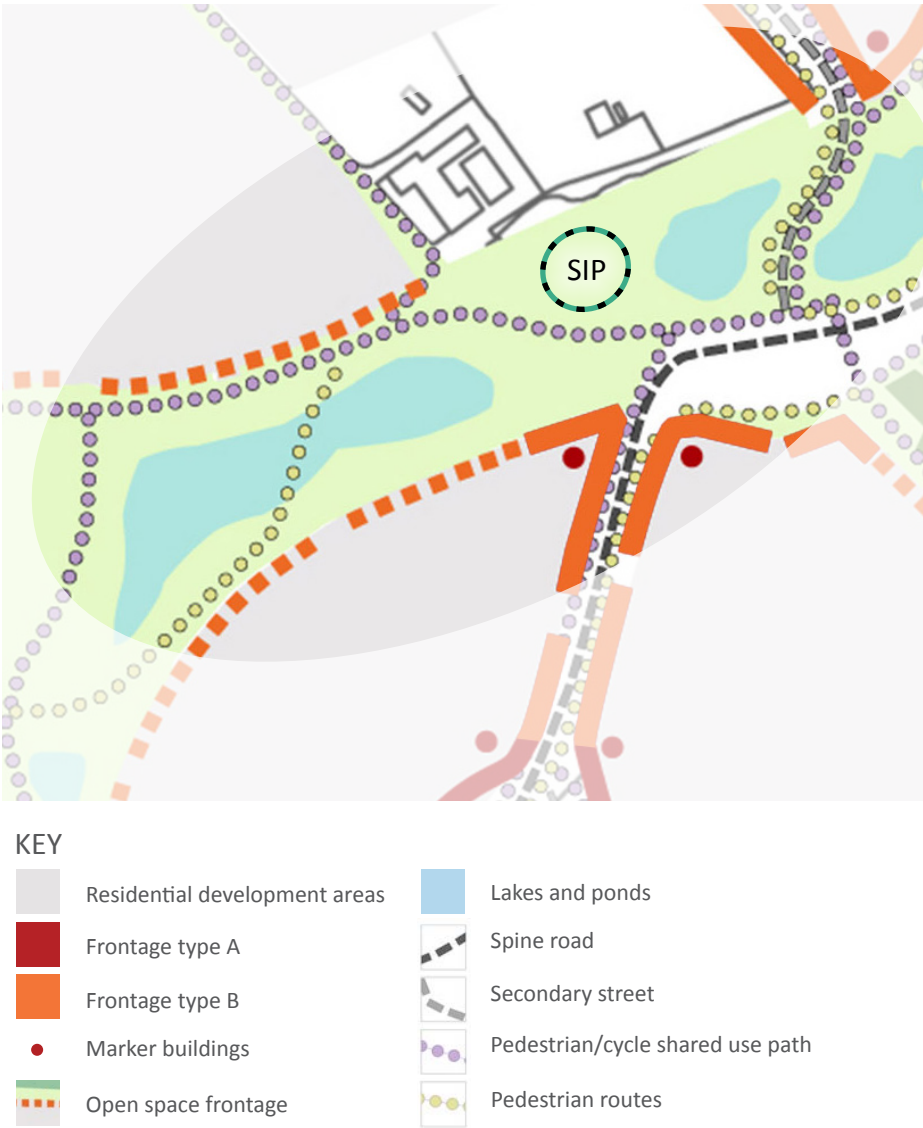


Fig. 62: Built form fronting the Wetlands principles

Strategic area 4 - Built form fronting the allotments

Landscape features

The eastern Swansley Park development parcel looks north across the allotments. This landscape **should** have an informal but managed character including a high number of native trees and hedgerows. Refer to section 4 for landscape guidance for this space.

General layout

Buildings **should** generally face outwards across the allotments to provide casual surveillance over this busy public space.

Homes **should** be a mix of detached, semi-detached and short lengths of linked to provide a comparatively permeable edge at this location.

Frontage

The built form **should** provide an informal edge to the allotments. The building line **should** run broadly parallel to the open space.

Front gardens **should** generally be larger to create a green edge.

Parking and access solutions

The following solutions **should** be considered
Type: I, J, K, L, M, N

Marker buildings

Changes in building style, height and/or materials **should** be used where streets join the edge perpendicularly to create gateways into the development.

Building height

Buildings **should** be 2 storeys high, except buildings adjacent to the north corners of the green which should be 2.5 - 3 storey in height.

Building materials

Predominant materials **should** be selected from Primary Palette C, Accent Palette 3 (see section 3.14).

Boundary treatments

Picket fencing **should** be used to delineate public and private space at the interface with the allotments. The allotments should be defined by a weldmesh fence and hedge (see section 3.16).



Fig. 63 : Landscape set-piece: Allotments (see section 4)



Fig. 64: Built form fronting the allotments principles

Strategic area 5 - Local greens

Story

The local greens are located at key intersections within Swansley Park. The greens provide opportunities for play, relaxation and social interaction. They act as important orientation spaces, improving navigability on the journey through this neighbourhood.

The local greens provide an opportunity to recreate the village character of the adjacent Lower Cambourne and bring a sense of informality to the Swansley Park neighbourhood.

Each green will be slightly different in character, in response to the built form that surrounds it, but will share the following overarching design principles.

Landscape features

The local greens **should** be green open spaces, in contrast to the enclosed surrounding streets. The spaces **should** feel organic in terms of character and geometry. Refer to section 4 for landscape guidance for the greens.

Local greens **should** consist primarily of amenity grass and trees with some play opportunities within them.

General layout

The northern green (Fig 65) **should** provide strong enclosure to the open space. Built form **should** be formal and have a regular rhythm and height in response to the spine street that passes through the space.

Architectural form **should** be varied in terms of roof line, plot width and architectural detailing, for the greens situated along the secondary roads (Fig 66 and Fig 67) as observed around traditional village greens.

Frontage

Predominantly continuous frontages **must** frame the north green, generally continuous frontage should frame the southern greens.

A variety of access options should be explored in addition to service streets so the greens are not surrounded by roads on all sides.

Parking and access solutions

The following solutions **should** be considered
 Primary road; Type A, B (limited), C
 Secondary roads: Type A, B, C, D,
 Tertiary roads: Type A, B, C, D, I, L, M. (at least one edge should have buildings direct onto green, type: J, K, L, M)

Marker buildings

Marker buildings **should** be provided at key street intersections and entrance thresholds to the greens.

Long views across the open spaces **should** be terminated by attractive feature buildings such as larger town houses or apartment buildings.

Building height

Focal or gateway buildings around the open spaces and gateway buildings **should** be 2.5 or 3 storeys.

Building materials

A similar palette of materials **must** be used either side of the greens to ensure that the spaces have their own identifiable character, rather than appearing as if they are located between two opposing development areas.

Predominant materials **should** be selected from Primary Palette A, C, Accent Palette 1, 2, depending on location (see section 3.14).

Boundary treatments

A mix of timber picket fences and walls **should** be used to delineate public and private space around the greens, depending on location (see section 3.16).

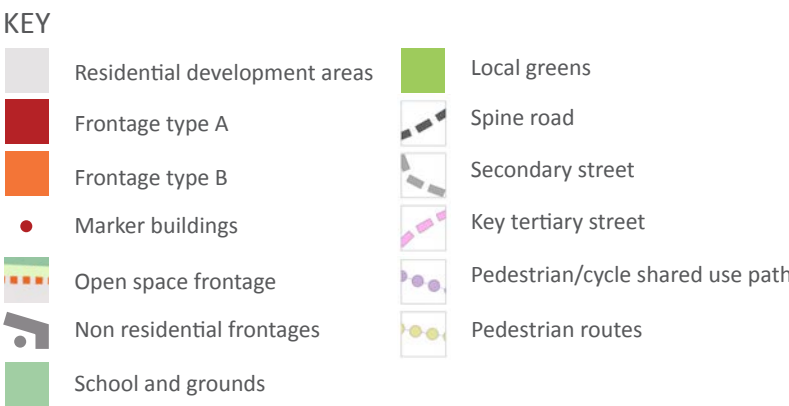


Fig. 65

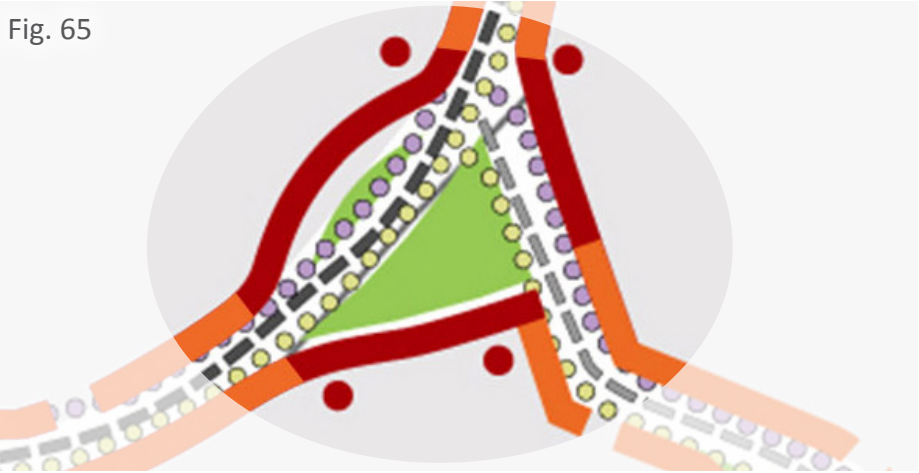


Fig. 66



Fig. 67



Fig. 65-67: Local greens landscape principles



Fig. 68: Continuous frontage and natural surveillance (in terms of entrances and windows) **must** be provided



Fig. 69: Vehicle crossovers **must** be minimised here. Visitor parking could be incorporated into the public realm and **must** not dominate the space design



A variety of house types **should** be incorporated



A varied roofline and a range in massing **should** be provided



Buildings **should** have some variation with shared characteristics



A consistent material palette and similar architectural detailing could help to provide consistency



Strong enclosure to the green



Good quality landscaping and consistent materials palette

Strategic area 6 - Built form fronting the boundary woodlands

Landscape features

The southern development edge is defined by native woodland planting. This provides an informal and naturalistic landscape character which **must** be reflected by the built form along this edge. Refer to section 4 for landscape guidance for the boundary woodlands.

There will be a high proportion of native trees planted within the open spaces to reinforce the woodland character.

General layout

The southern edge of Swansley Park **must** be looser and more irregular than the internal development area, providing a visually permeable interface with the woodland.

There **should** be a higher proportion of detached homes with larger front gardens, allowing for increased tree planting. Some linked properties will still be appropriate to provide variation.

A variety of access options should be explored: service streets, tertiary bell mouths and direct frontage to open space to create varied edges and variety in terms of sense of place.

Frontage

The layout **should** form an active frontage along this edge with homes mostly looking outwards onto the woodlands.

Buildings **should** have slight changes in orientation to create a more irregular edge.

There **should** be a varied building set back to emphasise the informal character of the landscape with opportunities for some buildings to hug the edge (Fig 70).

Parking and access solutions

A variety of solutions **should** be considered from the following Type K, L, M, N, O, P

Marker buildings

Changes in building styles and materials **should** be used where streets turn the corner onto streets that lead north into the internal development area.

Building height

Buildings **should** be 2 or 2.5 storeys high.

Building materials

Predominant materials **should** be selected from Primary Palette C, Accent Palette 4 (see section 3.14)

Boundary treatments

Estate rail fencing with hedge planting **should** be used to delineate public and private space along the woodland edges (see section 3.16).



Informal irregular edge



Homes set within woodland



KEY

- Residential development areas
- Open space frontage
- Woodland
- Key tertiary street
- Pedestrian/cycle shared use path
- Pedestrian routes

Strategic area 7 - Built form fronting the greenways

Landscape features

Greenways are linear green spaces that facilitate movement throughout Swansley Park. The open spaces are primarily comprised of grassland, tree planting, SuDS features and informal play areas. Refer to section 4 for landscape guidance for the greenways.

General layout

There **should** be a sense of enclosure to the greenways. Buildings **should** generally face onto the greenways to provide casual surveillance over the public spaces. Along the eastern greenway a higher density will require more linked or closely spaced units, whilst the north west greeway could incorporate some rear gardens with high quality boundary walls fronting the open space to create an impression of lower density.

Building styles **should** be varied to create an organic edge, with detached and semi-detached properties more prevalent at the interface with the greenways.

Swansley Primary School **should** face north onto the greenway with its vehicular access off the tertiary road.

Frontage

Building frontages **should** be varied with a range of set backs to create an informal yet enclosed edge.

The built form **must** be balanced to either side of the greenways.

Buildings should front directly onto the greeway to minimise intrusion by cars and maximise informal surveillance. The higher density here would lend itself to rear or side access and parking solutions.

Parking and access solutions

The following solutions **should** be considered
Type J, K, L, M, N, O, P

Marker buildings

Marker buildings **should** be provided at key street intersections and entrance thresholds to streets which join the greenways.

Long views across the greenways, such as those from adjoining streets, **should** be terminated by attractive feature buildings which **must** be distinctive from those that surround them, either by a marked change in form, height or materials.

Building height

Buildings **should** be predominantly 2 storeys high. Taller 2.5 or 3 storey buildings **should** be used as marker buildings.

The primary school building **must** not extend beyond 12m high.

Building materials

A similar palette of materials **must** be used either side of the greenways to ensure they have a unifying character.

Predominant materials **should** be selected from Primary Palette C, Accent Palette 1, 2, 3, 4, depending on location (see section 3.14).

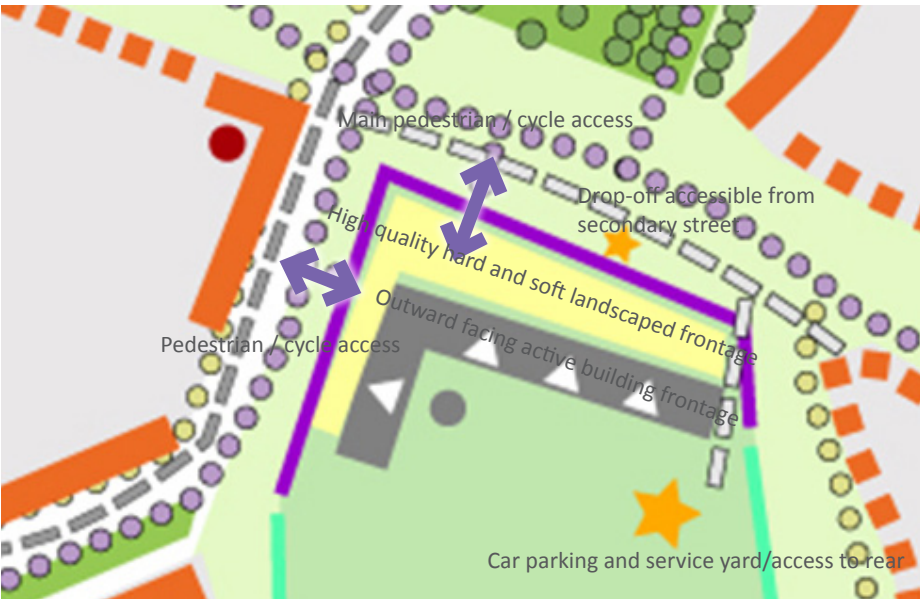
The primary school building **should** be built primarily from the materials featured in the above palettes to create a unified character.

Boundary treatments

Boundary treatments **must** be consistent on both sides of the greenways to create well-balanced open spaces.

Boundary treatments to the edges of the greenways **should** be a mix of estate rail fencing with hedge planting and picket fencing, depending on location (see section 3.16).

The boundary between the school and the green **should** be low walls with vertical rails. Elsewhere it **should** be weld mesh fencing with hedge and tree planting to provide a well-screened secure boundary.



Indicative layout only. Subject to further detailed design development by the Education Authority

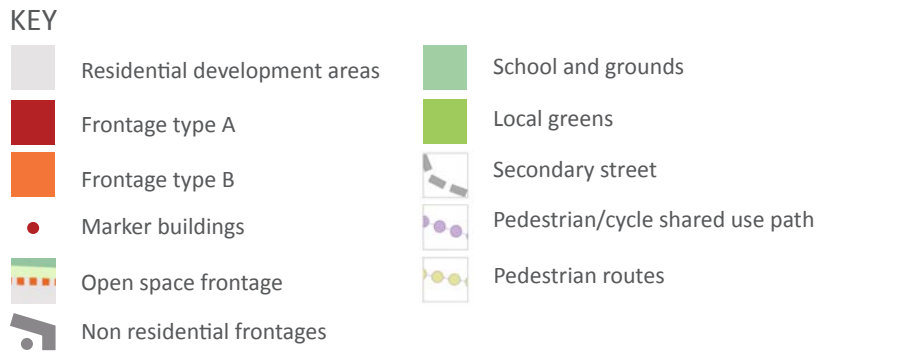
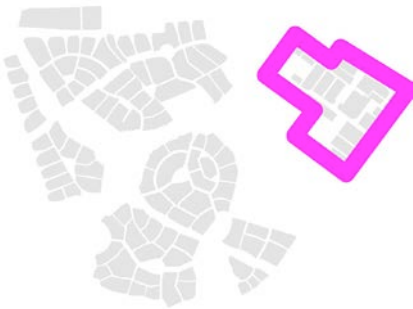


Fig. 73: Built form fronting the greenways principles

5.3 Sheepfold

Story

Located in the north east corner of the site, the Sheepfold neighbourhood area welcomes those arriving from the A428 and north Cambourne.



Sheepfold has an orthogonal and grid-like structure which takes its cue from the existing business park and secondary school. The layout enables long vistas down streets into open spaces to the west and east. The primary east-west movement is provided by the spine road (with squares and spaces marking each change in direction) which travels through this neighbourhood. A secondary loop road allows access between the spine road and the business park to the north.

Sheepfold provides a range of facilities including the secondary school, business park, community centre, Sheepfold Green playing fields and retail uses. High levels of pedestrian movement and social activity associated with these destinations creates a series of lively spaces interlinked by the central spine.

The residential development and employment uses demonstrated on Fig 74 will be further sub-divided into smaller orthogonal blocks by tertiary roads, subject to detailed design.

Contemporary building styles and materials feature heavily in the architecture which defines the streets and public squares, creating a formal urban neighbourhood character influenced by the business park. Common features will include flat roofs, orthogonal buildings, larger windows, formal architectural repetition, balconies and parapets. Vernacular/traditional designs will not feature in this area, making it distinct from the rest of Cambourne West.

The character of each strategic area on the design principles plan (opposite) is explained in more detail later in this section.

- KEY
- Residential development areas
 - Employment use
 - Community use
 - Frontage type A
 - Open space frontage
 - Frontage type A with potential for retail use on ground floor
 - Frontage type B
 - Marker buildings
 - Public squares
 - Non residential frontages
 - Sports pitches
 - School and grounds
 - Local greens
 - Woodland
 - Spine road
 - Secondary street
 - Pedestrian/cycle shared use path
 - Pedestrian routes
 - Strategic areas
 - Outward views (indicative location only)



Fig. 74: Sheepfold design principles

Key design principles

Design cues	Urban form	Buildings	Materials	Landscaping
<ul style="list-style-type: none">Cambourne business park.Secondary school.Long distance views along streets and into adjoining landscape areas of the woodland to the east and Sheepfold green to the westPublic squares.Non-residential uses.	Land use: <ul style="list-style-type: none">Must be comprised of mixed-use development including residential, secondary school, community centre, business park and retail.	Architectural Character: <ul style="list-style-type: none">Must have urban character influenced by Cambourne business park and secondary schoolMust have a formal building style and arrangement.Refer to sections 3.12 & 3.13	Homes on Primary Spine: <ul style="list-style-type: none">Should be selected from primary palette A in section 3.14:<div><div></div><div></div><div></div><div></div></div>	Tree planting: <ul style="list-style-type: none">Trees should be planted in formal arrangements throughout.Tree-lined avenues must connect the main public spaces. <div></div>
	Block Structure: <ul style="list-style-type: none">Must be formal and orthogonal.Must have gridded, linear blocks with clear road hierarchy.Larger public squares should be linked by enclosed streets.Outward views of surrounding open spaces to north and east must be maintained.	Range of Dwellings: <ul style="list-style-type: none">Should be mostly linked properties and apartments.	<div></div>	<div></div>
	Density: <ul style="list-style-type: none">Should have the highest density (50-55 dph) see section 3.18.Should have a higher proportion of linked properties and apartment buildings.	Building Height: <ul style="list-style-type: none">Should be in accordance with building heights plan: Fig 24, section 3.17.Should be predominantly medium height.Apartment blocks should be up to 3 storeys high	<div></div>	On-Plot Planting: <ul style="list-style-type: none">Must have formal contemporary character with strong structural planting.Should use ornamental species which have strong architectural form.
	Frontage: <ul style="list-style-type: none">Continuous linked frontages must be provided around squares to provide strong enclosure.Built form must provide an appropriate response to the alignment of the spine road.	Roof Line: <ul style="list-style-type: none">Should be consistent along each section of street to enhance the formal character and regular architectural rhythm.	<div></div>	On-Plot Motif Species: <ul style="list-style-type: none">Photinia red robin, Japanese privet and fastigate maples.Phormiums, hebes, mexican feather grass, salvias, joe pye weed, alliums, rosemary, bay.
	Set back: <ul style="list-style-type: none">Must be a consistent maximum set back of 1.5 - 2m along streets to create a strong, regular urban frontage.	Elevational Emphasis: <ul style="list-style-type: none">Should have a strong vertical emphasis.	Accent Materials Palette: <ul style="list-style-type: none">Dependant on location - materials should be selected and distributed in accordance with Fig 28, section 3.14.	Excluded Species: <ul style="list-style-type: none">Conifers, birch, lady's mantle, ferns, holly, dwarf pine.

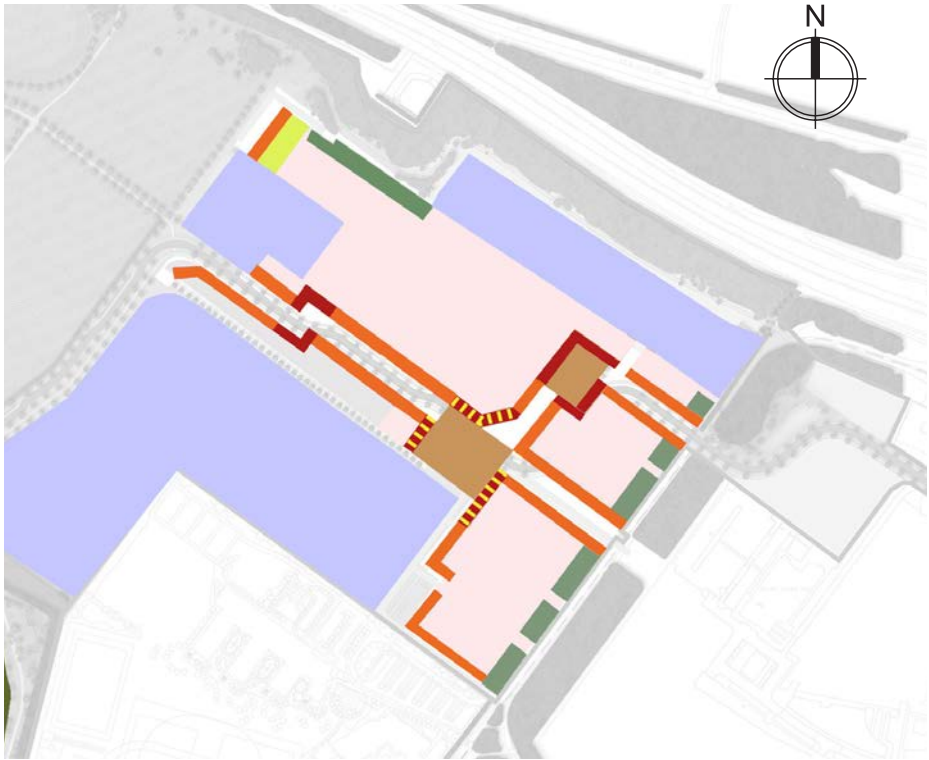


Fig. 75: Sheepfold character influences

- KEY
- Woodland edge (4.6)
 - Sports edge (4.5)
 - Public square (page 96)
 - Non residential uses (Section 5)
 - Frontage type A (3.11)
 - Frontage type B (3.11)



Squares should be designed to well overlooked and well used.



The public realm should be safe and inviting to encourage trips on foot or cycle.

Strategic area 8 - Public squares

Story

The northern entrance to Cambourne West is through Sheepfold Gate. The central spine enters the site through a break in the established woodland belt along the eastern site boundary which forms an entrance threshold before entering two formal squares.

The northern, smaller square is mainly residential with a potential for retail uses within the ground floor of buildings surrounding it. A secondary road leads from this square into the employment area.

The southern square is a larger hard landscaped space which is surrounded with residential blocks with potential for ground floor retail/commercial on three sides. The southern side is formed by the main pedestrian entrance to the secondary school.

Landscape features

Formal landscape treatments **must** predominate the public realm. The squares **should** be finished high quality contemporary materials. The LEAP **must** reflect the urban and civic character of the space. Formal avenue tree planting **must** be implemented to enhance views along streets and frame the public squares. Semi-mature trees (30cm girth +) should be planted in the larger square, refer to section 3.19.

General layout

The layout of the square is fixed but junction geometry/layout may be revisited if access arrangements change.

Built form **should** be orthogonal with a regular rhythm that provides strong enclosure. Chamfered buildings should only be used where sight lines dictate, although other options should be considered.

The school site **must** be directly accessible by foot from the square and **should** create a civic entrance/gateway and **must** provide enclosure to this side of the square. A LEAP will be provided on the southern side of the square which **must** be within the school land transfer. There **must** be direct secondary vehicular access along the edge of the square to the school.

Large areas of parking for the school **must** not be visible from the square. The primary drop-off for the school **should** be provided within the school site and **must** not cause a nuisance to residents or interfere with the functionality of the square as an attractive public space.

Frontage

Generally continuous frontages **must** be provided around the squares and streets. Building frontages **must** follow to the alignment of the spine road.

Parking and access solutions

The following solutions **should** be considered
Type A, B (limited following early discussion with SCDC), C,

Marker buildings

Must be arranged so that they terminate key views across the squares. Larger buildings **should** be located at street corners to emphasise key junctions and to announce arrival at the public squares.

Building height

Buildings around the public squares and central spine road **should** be predominantly 2.5 or 3 storeys. There **should** be some 2 storey high buildings along the central spine between the squares.

Buildings surrounding the squares **should** have increased ground floor ceiling heights (3.6m min) to allow flexibility for potential retail uses.

Building materials

Materials around the public squares **must** be high quality and balanced in order that they have their own character. Matching colours, materials and detailing **should** be visible on opposing sides of the squares.

Predominant materials **should** be selected from Primary Palette A, Accent Palette 1 (see section 3.14)



Fig. 76: Public square landscape principles

Boundary treatments

Boundary treatments at the front of the buildings **must** be consistent on both sides of the streets and squares.

A mix of vertical railings and dwarf buff brick walls **should** be used to delineate public and private space where a physical boundary is required. In some areas it may be appropriate for the space to extend to the building frontage, such as apartment blocks and mixed use buildings, in which case ownership **should** be defined by a change in surface material. (see section 3.16).



Fig. 78: Three storey buildings provide definition to the square. Opportunity for retail uses at ground floor



Simple repeated forms and massing



Strong avenue - simple, repeated massing, details, materials and tree planting



Contemporary built form providing strong enclosure to streetscene



Mixed-use buildings could help create a safe, animated public space throughout the day



Balcony feature could be used to create a focal corner of a marker building

5.4 Woodfields

Story

The Woodfields neighbourhood area is the largest district, containing nearly half of the proposed new homes in Cambourne West.

The edges of this district are influenced by the character of the open spaces which surround it. The historical land use in this area, which was once home to a large doughnut-shaped area of woodland, and the woodland belts along the site boundaries are a key design cue. The north, south and western edges of the neighbourhood have a more informal landscape character in response to the woodland edge, lake, central green and wetlands that they front onto.

This district is served by the secondary spine road which forms a sinuous loop to the north of the central spine road. The block structure is arranged to allow views out into the wide verges on each side of this route and the public open spaces that surround the development areas.

The character of each strategic area on the design principles plan (opposite) is explained in more detail later in this section.

- KEY
- Residential development areas
 - Employment use
 - Community use
 - Frontage type A
 - Frontage type B
 - Marker buildings
 - Open space frontage
 - Non residential frontages
 - School and grounds
 - Local greens/greenway
 - Verges to secondary street
 - Sports pitches
 - Woodland
 - Lakes and ponds
 - Spine road
 - Secondary street
 - Key tertiary street
 - Pedestrian/cycle shared use path
 - Pedestrian routes
 - Strategic areas
 - Outward views / vistas (indicative location only)



Fig. 79: Woodfields design principles

Key design principles







Design cues	Urban form	Buildings	Materials	Landscaping
<ul style="list-style-type: none">Historically a wooded area.Woodland edge to north and west.Interface with greenways, Central Green and sports fields.Interface with primary school.Lakeside edge.	Land use: <ul style="list-style-type: none">Must be predominantly residential.Primary school and business park must be provided in this district.	Architectural Character: <ul style="list-style-type: none">Must have an informal architectural style influenced by the woodland edge and the small settlements surrounding Cambourne.Should use simple and traditional building materials and detailing.Refer to sections 3.12 & 3.13	Homes on Primary Spine: <ul style="list-style-type: none">Should be selected from primary palette B in section 3.14: <div></div>	Tree planting: <ul style="list-style-type: none">Public realm design should incorporate rural themes such as the farm lane, blocks of trees and orchards.Open spaces and public realm must contain strong native tree planning. <div></div>
	Block Structure: <ul style="list-style-type: none">Must be irregular rectilinear or organic.Must have permeable development edges at interface with woodland.Should maintain outward views of surrounding trees and open spaces.	Range of Dwellings: <ul style="list-style-type: none">Houses should predominate, with larger family homes along the main routes and greens.Small apartment buildings should mark key corners a.Terraces and smaller houses should be located at the woodland edges, away from the main routes. <div></div>	<div></div> <div></div>	On-Plot Planting: <ul style="list-style-type: none">Must have naturalistic planting that reflects a woodland character or setting.Should include mixes of native bulbs where appropriate.Should include wetland species adjacent to wetland.
	Density: <ul style="list-style-type: none">Should have the lowest average density, (circa 30-40 dph) see section 3.18.The lowest density should be along the north and western edges.	Building Height: <ul style="list-style-type: none">Should be in accordance with building heights plan: Fig 24, section 3.17.Should be predominantly 2-2.5 storey height.Taller buildings should be considered for Sheepfold green frontages.		On-Plot Motif Species: <ul style="list-style-type: none">Birch, rowan.Holly, guelder rose, ferns, grasses, dogwood, geraniums, lady's mantle, bluebells, snowdrops., rosesWillow species, dogwood, iris, grasses.
	Frontage: <ul style="list-style-type: none">Must have informal and irregular interface with Woodland Edge.Must have a more regular edge to the Central Green, Wetlands and greenways.Wide plots and deeper frontages must be located along main routes to give a sense of lower density.	Roof Line: <ul style="list-style-type: none">Varied roofline should be used to enhance the rural and traditional character. <div></div>		
	Set back: <ul style="list-style-type: none">Building line should be varied to give an informal feel to the streetscape (minimum 1.5m, maximum 7m depth).	Elevational emphasis: <ul style="list-style-type: none">Should be varied, with greater vertical emphasis at woodland edges to reflect the form of the trees.	Accent Materials Palette: <ul style="list-style-type: none">Dependant on location - materials should be selected and distributed in accordance with Fig 28, section 3.14.	Excluded Species: <ul style="list-style-type: none">Conifers, pine, mexican orange blossom, hydrangeas.



Fig. 80: Woodfields character influences

- KEY
- Woodland edge (4.6)
 - Sport edge (4.5)
 - Lakeside edge (4.2)
 - Central Green edge (4.3)
 - Wetlands edge (4.4)
 - Greenway (4.7)
 - Local 'Greens' (page 90)
 - Public square (page 96)
 - Non-residential uses (Section 5)
 - Frontage type B (3.11)



Barn style homes set in a courtyard are appropriate for lower density areas.



Building materials and landscape design should be complementary.

Strategic area 9 - Local greens along Woodfields Secondary Road: eastern gateway to Sheepfold Green and Western Green

Story

Both greens form a key public spaces along the secondary spine, punctuating the journey through Woodfields. The greens are located at junctures between key pedestrian and cycle routes making them important nodes for recreation and wayfinding

The eastern green sits at the junction between three routes, signifying a change in direction through a change in the arrangement of built form. Gateway buildings frame views along streets and into the sports fields, with marker buildings terminating views across the green.

The Western Green frames long-range north-westerly views from the secondary spine. The green extends north to provide an off road link to homes to the north of the site and onwards to the business park.

Landscape features

The greens **should** be soft landscaped spaces which begin where the secondary spine changes direction.

To the east the green route **should** be continued to the sports fields in the form of an informal avenue with trees and verge planting (creating opportunities for additional visitor parking).

To the west closely-planted orchard trees **should** be planted to the north of the space to provide a sense of enclosure to the green. The tree planting **should** be organised in a formal geometry in response to the long-range linear views through the space. Refer to section 4 for landscape guidance for this space.

General layout

The greens **should** be well enclosed by built form, with homes looking out over the open spaces.

Buildings **should** be set back from the streets which surround the greens to create comparatively open spaces which aid navigability.

Frontage

The frontages **should** articulate to assist orientation where these routes meet.

Strong linked frontages **must** frame the open space with generally continuous linked frontages provided around both greens. There **should** be varied rhythm and architectural form.

Parking and access solutions

The following solutions **should** be considered

Secondary road edge: Type: D,

Tertiary roads: type D, I, J, K, L, M, P (at least one edge of smaller green should have buildings directly on the green)

Marker buildings

Marker buildings **must** be arranged so that they terminate key views across the green. Marker buildings **should** also be used as gateways marking the transition from the street into the open space.

The primary frontage around the Eastern Green **should** take the form of an arc of housing - ending the vista from the secondary street and the busy tertiary route to Sheepfold Green.

Building height

Buildings around the green **should** be mostly 2 storeys high. Gateway or corner buildings **should** be 2.5 to 3 storeys high.

Building materials

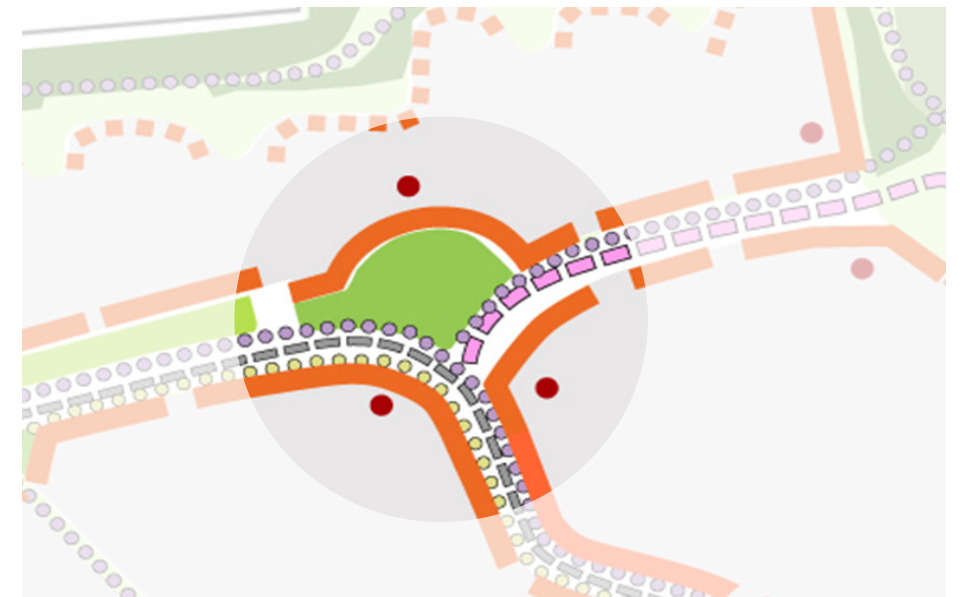
Common materials and motifs/features **must** be provided on opposing sides of the greens to provide consistency and sense of place.

Predominant materials **should** be selected from Primary Palette B, Accent Palette 1 (see section 3.14).

Boundary treatments

Boundary treatments **should** respond to the woodland character of Woodfields.

Native hedge planting **should** be the predominant boundary treatment around the green: see section 3.16.



KEY

	Residential development areas		Local greens/greenway
	Primary frontage		Secondary street
	Secondary frontage		Key tertiary street
	Marker buildings		Pedestrian/cycle shared use path
	School and grounds		Pedestrian routes

Fig. 81: Local green principles - Eastern Green (top) and Western Green (bottom)



Fig. 82: (Eastern Green) - linked primary frontage contains space with prominent corners defined by marker buildings



Fig. 83: (Western Green) - strong frontage, repeated rhythm, materials and architectural features could be used to unite all sides of the space



Fig. 84: Homes front onto the open space to ensure good natural surveillance



Linked semi-detached houses create a strong frontage onto open space



Gable and feature dormer could create a focal corner building



Active frontages **must** be provided onto open space

Strategic area 10 - Built form fronting Swansley Park

Landscape features

The southern edge of the Woodfields neighbourhood area abuts the northern edge of Swansley Green. The main landscape features in this area include the lake and the associated naturalistic planting and woodland. Refer to section 4 for landscape guidance for this space.

General layout

The built form along this edge **should** provide visual containment to the open space.

The informal block structure of the Woodfields **must** be echoed by the built form along the edge; demonstrating a different character in views from the comparatively formal treatment of the Swansley Green Entrance Area.

There **should** be a higher proportion of detached homes. Some linked properties may be appropriate to provide variation.

Frontage

The layout **should** form an active frontage along this edge with homes looking outwards onto the woodlands and lake.

Buildings **should** have slight changes in orientation to create a more irregular edge.

There **should** be a varied building set back to emphasise the informal character of the open space.

Parking and access solutions

The following solutions **should** be considered
Type I, K, L, O

Marker buildings

Changes in building styles and materials **should** be used where buildings turn the corner onto streets that lead north into the internal development area.

Building height

Buildings around the public open space **should** be mostly 2 to 2.5 storeys high.

Larger 3 storey buildings **should** be used as marker buildings to add variation in height and reflect the scale of this large open space.

Building materials

Predominant materials **should** be selected from Primary Palette B, Accent Palette 2 (see section 3.14).

Some building materials **should** be 'borrowed' from adjacent materials palettes to provide visual continuity in views across Swansley Green.

Boundary treatments

Estate rail fencing with hedge planting **should** be used to delineate public and private space along this edge (see section 3.16).



Contained informal edge to public open space and lake



Fig. 85: Landscape set-piece: Wetlands (see section 4)



KEY

	Residential development areas		Lakes and ponds
	Secondary frontage		Spine road
	Marker buildings		Secondary street
	Open space frontage		Pedestrian/cycle shared use path
	Woodland		Pedestrian routes

Fig. 86: Built form fronting Swansley Park green principles

Strategic area 11 - Business parks

Landscape features

Woodland planting surrounds the Woodfields business park along its northern, eastern and southern edges. Sheepfold business park is enclosed by woodland along its northern edge. There will be some views into the business park from the Sheepfold streets and squares to the south.

Internal landscaping will be provided along internal streets and within parking areas and open space. Landscape features **should** generally include a mix of grassed areas, structural native and ornamental shrub planting and specimen trees.

General layout

The layouts **should** be orthogonal and gridded. The built form **should** be contemporary. The arrangement of built form and landscaping must be consistent along streets.

Residential amenity and privacy **must** be maintained at the interface between the business parks and housing parcels.

The block size and built form within the business parks will ultimately be dictated by the eventual use and mix.

Frontage

The built form **must** provide strong enclosure to the streets which lead into the business park.

Active frontages **should** be located along the northern edge of the Woodfields business park where there are views from the access road.

Active frontages **should** generally be located along the secondary road through Sheepfold business park where there are views from the streets and squares to the south.

External spaces/parking associated with building use and mix **should** determine the building line, although buildings in the same row **should** have a consistent set back to provide a regular edge.

Parking and access solutions

The following solutions **should** be considered E, F, G

Marker buildings

Marker buildings **should** terminate views along street in the residential area to the souths and at entrance thresholds. These buildings **should** be visibly distinctive through use of changes in style, height and/or material.

Building height

Built form **must** not extend beyond 12 metres in height.

Building materials

Material choices in the Woodfields business park **should** be influenced by the woodland landscape character. Predominant materials **should** be selected from Primary Palette B, Accent Palette 4, depending on location (see section 3.14).

Where there is inter-visibility between the Sheepfold business park and the surrounding residential areas, built form **should** include similar materials to create a unifying character. Predominant materials **should** be selected from Primary Palette A, Accent Palette 1, 4, depending on location (see section 3.14).

Boundary treatments

High quality landscaping and boundary treatments **must** be used and **must** be in accordance with the character of the surrounding public realm. Where there is a transition between residential areas and business parks the boundary treatments **must** be consistent. Boundary treatments must only change at a suitable place such as a street corner or junction.

Brick walls, vertical rails and formal shrub planting **should** be used along streets that lead into Sheepfold business park from the residential area to the south.

The interface between the Sheepfold business park and residential development **should** be defined by secure rear garden boundaries built to Secure by Design standards.

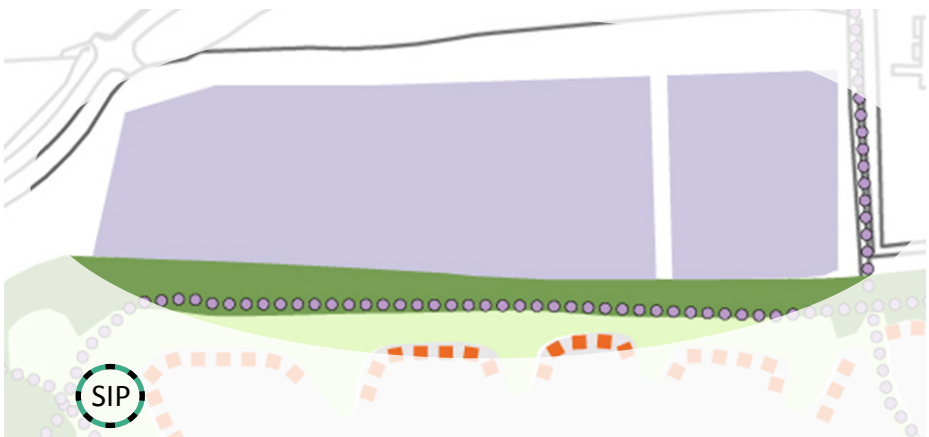


Fig. 87: Woodfields business park principles

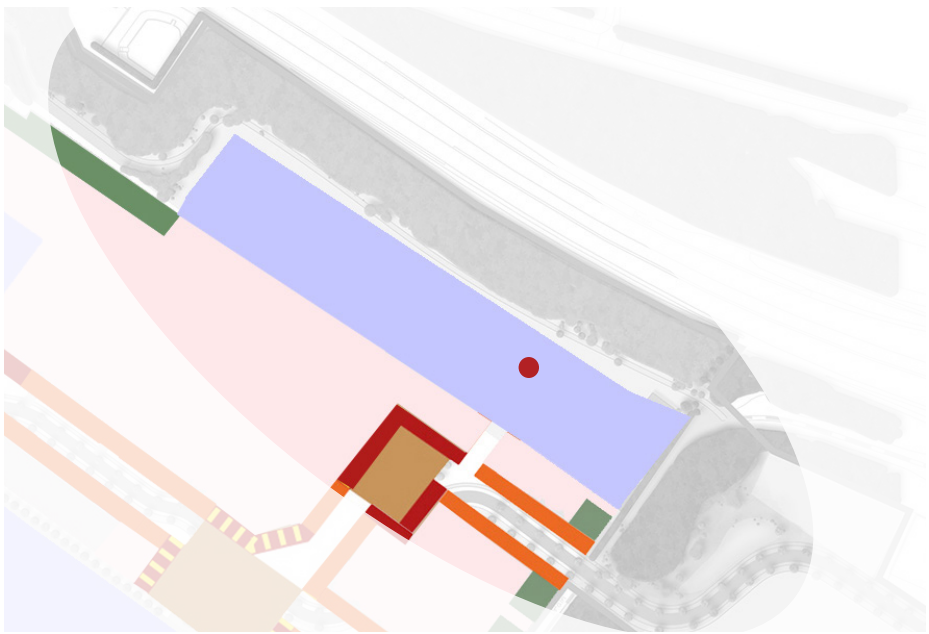


Fig. 88: Sheepfold business park principles

KEY

	Residential development areas		Woodland
	Employment use		Non residential frontages
	Frontage A		School and grounds
	Frontage B		Spine road
	Marker buildings		Secondary street
	Public squares		Pedestrian/cycle shared use path
	Non residential frontages		Pedestrian routes

Strategic area 12 - Built form fronting Sheepfold Green

Landscape features

Sheepfold Green is a large area of public open space that serves as a new community sports hub and formal playing pitches.

Primary landscape features include amenity grassland and formal avenue tree planting along key routes and along the eastern edge of the open space at the interface with the Sheepfold neighbourhood area.

Landscape features along the western edge of the space include scattered tree planting and native woodlands providing a more informal edge at the interface with the Woodfields neighbourhood area. Refer to section 4 for landscape guidance for the green.

General layout

The built form within the Sheepfold neighbourhood area lines the eastern edge of Sheepfold Green. To the west the Sheepfold Green is defined by built form within the Woodfields neighbourhood area.

Outward views across the playing fields from the primary spine road **must** be maintained. North-westerly views from the Sheepfold spine road **should** be terminated by the sports pavilion.

A community centre **must** be positioned on the east side of the green. This location benefits from being in close proximity to both the sports fields and the primary spine road.

Sheepfold Green **should** feel enclosed to the east and west by built form.

Homes **should** look out over the open space to provide casual surveillance.

Frontage

The buildings facing Sheepfold Green **must** provide a formal, contemporary interface, influenced by the character of the open space.

A generally continuous frontage **should** be provided at the eastern interface with Sheepfold Green to provide strong containment along this edge of the open space.

Residential buildings **should** be primarily semi-detached and terraced houses. Buildings in the same row **should** have a consistent set back to provide a regular edge.

The built form at the western edge of the open space **should** provide a regular, but spaced edge to the open space. Homes along the western edge **should** be a mix of larger detached homes and semi-detached homes.

Parking and access solutions

The following solutions **should** be considered

Type: I, J, L, M, N

Marker buildings

The community building is the key marker building to the east of the green. The nature of its use dictates that its form would be different from the residential properties that surround it. It **should** be a contemporary building which is visibly distinctive, but **must** tie in with the other built form along this edge.

The sports pavilion **should** be of high design quality and use materials from the Sheepfold neighbourhood area, providing visual continuity in views across Sheepfold Green.

Marker buildings **must** be arranged so that they terminate key views to the west of the open space. These buildings **should** also act as gateways marking the transition from the street into the open space.



Fig. 89: Built form fronting Sheepfold Green principles

Building height

Buildings around the public open space **should** be 2 or 2.5 storeys high. 3 storey buildings **should** be used as gateway buildings.

The community building **should** be up to 3 storeys high.

Building materials

Common materials **must** be provided on opposite sides of Sheepfold Green to provide consistency and a unifying character. Therefore, some building materials **should** be 'borrowed' from the materials palettes from the opposing neighbourhood areas (Sheepfold and Woodfields), to create visual continuity in long-distance views across the open space.

Predominant materials **should** be selected from Primary Palette A, Accent Palette 1 (see section 3.14).

Boundary treatments

Boundary treatments along the western edge of Sheepfold Green **should** respond to the woodland character of the Woodfields.

Estate rail fencing with mixed hedge planting **should** extend south from the northern woodland to delineate public and private space.

Further south, oak riven fencing should be used, see section 3.16).



Regular spaced detached homes



Tall gateway and feature buildings



Fig. 90: Landscape set-piece: Sheepfold Green (see section 4)



Fig. 91: Landscape set-piece: Sheepfold Green (see section 4)

6.1 Delivery and phasing

Introduction

There are a number of systems and procedures in place to help the smooth transition from design through planning to delivery on the ground at Cambourne West.

This section explains these systems and outlines what is expected from reserved matters Application teams to enable the process to run as smoothly and efficiently as possible.

This section also explains the phasing, implementation, management and adoption of the development, and sets out the code review process for the duration of the project

Phasing and delivery

Cambourne West is being developed by the Cambourne West Consortium (Taylor Wimpey and Bovis Homes). The Cambourne West Consortium will be delivering all residential areas and the strategic framework. Employment land areas likely to be sold for development.

The current intention is to develop the site in a east west direction across three phases, to ensure continuity of development from Cambourne through to Cambourne West. Each phase has been split into two sub-phases along with parcelisation of the development parcels as indicated on the drawing opposite. This will be regularly reviewed and updated as necessary .

Delivery of Cambourne West is outlined below:

- Strategic framework: includes strategic infrastructure network, SuDS/drainage strategy and strategic public open spaces (POS). The general principle for the delivery of the strategic framework will be for hard landscaping elements to be laid in tandem with the construction of the strategic infrastructure and soft landscaping being completed within the following planting season if necessary. Soft landscaping and tree planting works within the primary spines will be undertaken following the completion of the wearing course.
- Development parcels: Areas of POS, structural planting and local play areas are to be implemented by individual house builders where they fall within their land parcel.

The two primary schools, secondary school and community centre will be transferred to Cambridgeshire County Council under the terms of the S106 legal agreement.

A detailed site wide phasing plan will be submitted to the local authority and house builders are expected to refer to this along with the S106 agreement.

Phase 1

Includes delivery of the following:

- Strategic infrastructure: primary spine road, a portion of secondary spine road, SuDS attenuation required for first phase of development, Swansley Park Green, The Wetlands, southern and northern boundary woodlands, Burial Ground, LEAPS and SIPs, greenway connection from Cambourne.
- Neighbourhood areas: large portion of Swansley Park, Sheepfold Gardens.
- Swansley Park Primary School and Secondary school.

Phase 2

Includes delivery of the following:

- Strategic infrastructure: secondary spine roads, SuDS attenuation as required for second phase of development, Central Green including NEAP, Sheepfold Sports Hub including NEAP, Sheepfold Business Park, Swansley Park Community Orchard and allotments, and greenway links including a LEAP to Sheepfold Sports Hub.
- Neighbourhood areas: remaining Swansley Park and portion of Woodfields.
- Woodfields Primary School and the Community Centre.

Phase 3

Includes delivery of the following:

- Strategic infrastructure: Woodfields POS, Woodfields community orchard, Woodfield POS, SuDS attenuation as required for the third phase of development and Swansley Hill.
- Neighbourhood areas: remaining Woodfields.



Fig. 93: Site wide phasing

6.2 Management and adoption

The table below sets out the intended strategy for the management and/or adoption of non-residential facilities and land uses across the site.

Market housing will be privately owned. Affordable housing comprising 30% of the overall housing provision, will be owned by an approved registered provider. There is also an intention to ensure that service charges are set at levels which are manageable for residents and occupiers of the development. The details of the estate management arrangements are agreed under the terms of the S106 agreement.

Facility or land use	Delivery of facilities	Organisation responsible for management	Ownership
Public Open Space including children's play spaces	Cambourne West Consortium	Cambourne Parish Council	Cambourne Parish Council
Public highway	Cambourne West Consortium/housebuilder	Cambridgeshire County Council Highway Authority	Cambridgeshire County Council Highway Authority
Tree planting along public highway	Cambourne West consortium	Cambourne Parish Council	Cambourne Parish Council
Unadopted roads and courtyards	Housebuilder	By private management organisation or parish council by agreement	Private organisation
Swales, ponds, ditches and waterbodies	Cambourne West Consortium	Anglian Water & parish council	Anglian Water
Pumping station	Anglian Water	Anglian Water	Anglian Water
Secondary school, primary schools	CCC	Cambridgeshire County Council Education Authority	CCC
Community Centre	Cambourne West Consortium	Cambourne Parish Council	Cambourne Parish Council

6.3 Code review

This document is intended to provide guidance to developers, designers and development control officers of individual schemes, be used in support of individual applications and in aid of the approval of applications through the duration of the project.

Condition 8 requires any reserved matters application **must** include a statement demonstrating compliance with the Design Code. Where reserved matters applications vary from the code, the variation **must** be justified in the compliance statement within the Design and Access Statement describing how the variance delivers greater design quality. There will be no need to amend the Design Code to encompass each potential variation.

However, there may be aspects of the code that require modification to reflect design issues that become apparent once the initial phases of the development are constructed. It is therefore appropriate that there be an opportunity for the lead developer and/or the local authority request a review of the Design Code at the end of each phase or more frequently if agreed it would be more desirable.

Therefore, this document should be seen as an evolving document. Designers and developers should therefore check that the copy they have is the most up to date.

When a request for review is made the following **must** be outlined:

- Sections or pages of the Design Code to be reviewed.
- Explanation of the reasoning for the request.
- Details outlining the proposed changes.
- Timetable for review.

The review process is intended to focus on matters of detail and **must** not focus on matter of principle established within the outline DAS or masterplan.

Any change to the code **must** be agreed between the developer and local authorities by mutual consent and in writing. It has been agreed that the scope of the code cannot widen to include matters outside the requirements of condition 8.

6.4 Quality control

Taylor Wimpey and Bovis Homes will take long-term stewardship of Cambourne West. All proposals for Cambourne West will be required to have landowner approval before submitting reserved matters applications. Landowner approval will include compliance check against the Design Code.

A. Summary of planning conditions relating to code

Planning Condition 8 - Design Codes

Prior to, or concurrently with, the submission of the first of the reserved matters application(s), a site-wide Design Code shall be submitted to the Local Planning Authority for approval. No development shall commence apart from Enabling Works and Strategic Engineering and Landscape Elements (save for strategic landscaping) until the Design Code has been approved in writing by the Local Planning Authority.

The Design Code shall be prepared having regard to the Design and Access Statement and the approved parameter plans and shall include the following:

- a. The overall vision of the development;
- b. The character and heights established through the approved parameter plans, reference to the phasing of Development Parcels;
- c. The street hierarchy, including the principles and extent of the highway that would potentially be offered for adoption, along with traffic calming measures;
- d. Typical street cross-sections which will include details of tree planting, tree species, underground utility/ service trenches, and on street parking;
- e. How the design of the streets and spaces takes into account mobility and visually impaired users;
- f. Block principles to establish use, density and building typologies. In addition, design principles including primary frontages, pedestrian access points, fronts and backs and threshold definition shall be provided;
- g. Key groupings and other key buildings including information about height, scale, form, level of enclosure, building materials and design features;
- h. Approach to incorporation of ancillary infrastructure/buildings such as substations, pumping stations, pipes, flues, vents, meter boxes, external letterboxes, fibres, wires and cables required by statutory undertakers as part of building design;
- i. Details of the approach to vehicular parking across the site including the location and layout of parking for people with disabilities and for each building type, including details of a design approach for access points into and the ventilation of any undercroft/underground parking;
- j. The approach to cycle parking for all uses and for each building type, including the distribution (resident/ visitor parking and location in the development), type of rack, spacing and any secure or non-secure structures associated with the storage of cycles;
- k. The approach to the character and treatment of the retained landscape features, and new structural planting in the key public open spaces and along the primary and secondary streets;
- l. Outdoor sports and children’s play space strategy including the formal playing fields, NEAP, LEAPs and LAPs;
- m. The approach to the treatment of footpaths, shared use paths and bridleways through the site;
- n. The conceptual design and approach to the public realm (making reference to the public art strategy, materials, signage, utilities and any other street furniture);

- o. The conceptual design and approach to the lighting strategy and how this will be applied to different areas of the development with different lighting needs, so as to maximise energy efficiency, minimise light pollution and avoid street clutter;
- p. Details of waste and recycling provision for all building types and recycling points;
- q. Utility routes, type and specification;
- r. Measures to demonstrate how the design can maximise resource efficiency and climate change adaptation through external, passive means, such as landscape, orientation, massing, and external building features;
- s. Details of measures to minimise opportunities for crime;
- t. Measures to show how design will address/minimise the impact of noise (from traffic, employment land etc.) on future residents;
- u. Details of the Design Review Procedure and of circumstances where a review of the Design Code shall be implemented. The Design Code shall explain its purpose, structure and status and set out the mandatory and discretionary elements where the Design Code will apply, who **should** use the Design Code, and how to use the Design Code.

All subsequent reserved matter applications shall accord with the details of the approved Design Code and be accompanied by a statement which demonstrates compliance with the code. REASON: To ensure high quality design and coordinated development in accordance with policy DP/2 of the South Cambridgeshire Development Control Policies, Local Development Framework, 2007; and to facilitate continuity through cumulative phases of development in accordance with Policy DP/5 of the South Cambridgeshire Development Control Policies Document, Local Development Framework, 2007.

B. LAP Design Guidance

Local areas for play (LAPs) provide informal open spaces with natural play opportunities, in accessible locations close to dwellings. They are a place for incidental play, social interaction amongst neighbours and a common space for people to enjoy in the close setting of their homes. Being located 100m walking distance from dwellings, LAPs occur often within housing parcels and as such should offer variety in terms of their character, features and the play opportunities they provide.

Play in LAPs should not be overly prescriptive and usually excludes formal play equipment. This is to encourage imaginative, free play with the natural elements. LAPs are more versatile as a result being accessible to the whole community for a variety of uses, such as a meeting place for friends or taking a quick break during a walk home from school.

Fields in Trust guidance

- LAPs **must** be located 100m walking distance from dwellings.
- They **must** be a minimum 100 m² (approx. 10 x 10m).
- A 5m minimum separation between the activity zone and the boundary of dwellings **must** be allowed for.

Design principles

- Natural play elements aimed at very young children **should** be considered.
- Seating for parents/guardians **should** be included.
- A physical barrier to prevent direct access to main roads **must** be incorporated into design proposals.
- Each LAP **should** reflect the character of the neighbourhood area in which it is situated i.e. Swansley Park, Woodfields or Sheepfold. Refer to Section 5 Neighbourhoods of this Design Code for details.

Natural play elements

- Stepping/balancing logs
- Boulders
- Climbing tree trunks
- Mounding
- Tree and shrub planting

Boundary treatments

- Knee rail
- Estate rail
- Bollards
- Hedgerow planting
- Shrub planting beds

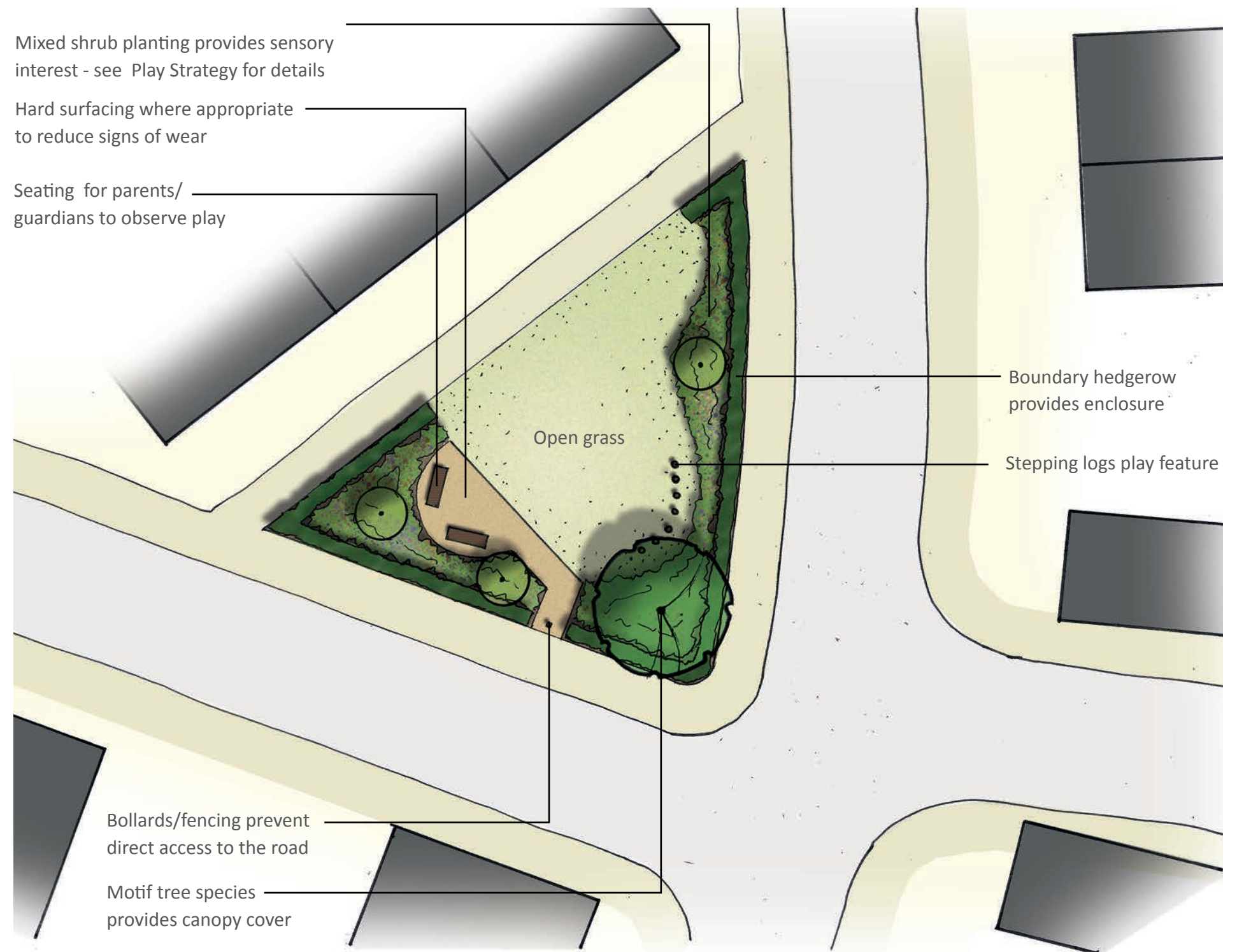
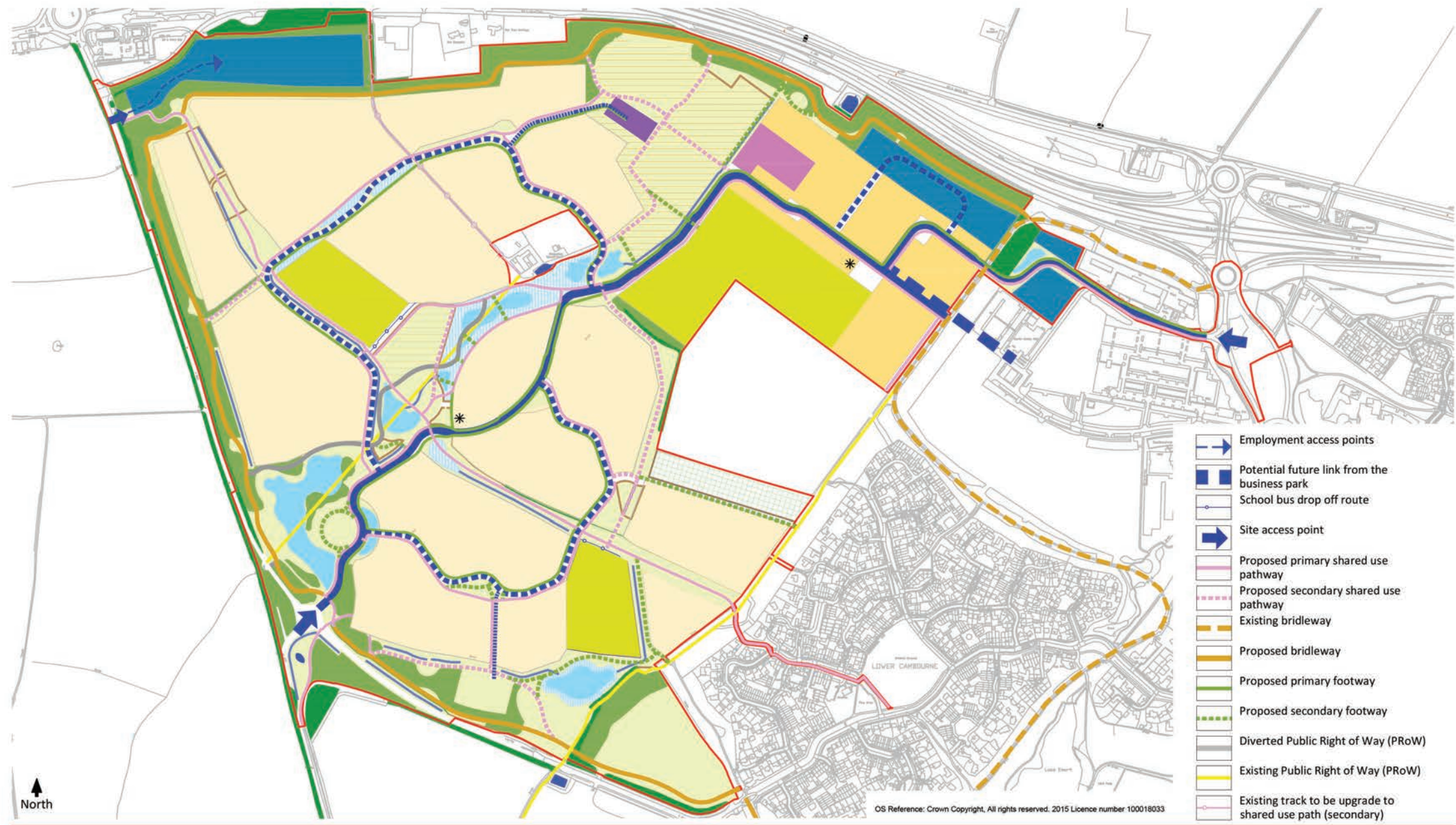


Fig. 94: A typical LAP design which should be used as an example only.

C. Parameter Plans



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LANDSCAPE ARCHITECTURE
ENVIRONMENTAL PLANNING
MASTER PLANNING
URBAN DESIGN

Canada House, 3 Chepstow Street,
Manchester M1 5FW
0161 228 7721 mail@randallthorp.co.uk
www.randallthorp.co.uk

KEY

- Site boundary
- Net residential areas (Use class C3) 63.01ha (including a minimum 0.15ha retail)
- Employment areas (Use Class B1); up to 6.25 ha
- School areas (Use Class D1); 11.00 ha
- Community buildings (Use Class A1-5 & D1/2); 0.93ha
- Sports/ community buildings; 0.37 ha (Use Class D1/ 2)
- Potential retail location (min 0.15ha, up to 0.29ha)
- Proposed landscape/ open spaces
- Proposed waterbodies
- Existing waterbodies
- Proposed seasonally wet basins/wetland
- Existing vegetation retained with improved management
- Proposed woodland
- Proposed allotment area
- Proposed publicly accessible outdoor sport areas and playing fields
- Proposed school playing fields
- Proposed hedges
- Proposed swale
- Indicative primary spine road (+10m/ -10m)
- Proposed secondary spine road (+10m/ -10m)
- Important tertiary road (+10/-10m)

Date: 16.07.2018
Drawn by: CAW
Checker: LC
Rev by: MP (22.03.2019)
Rev checker: DB (22.03.2019)
QM Status: Checked
Product Status: For Issue

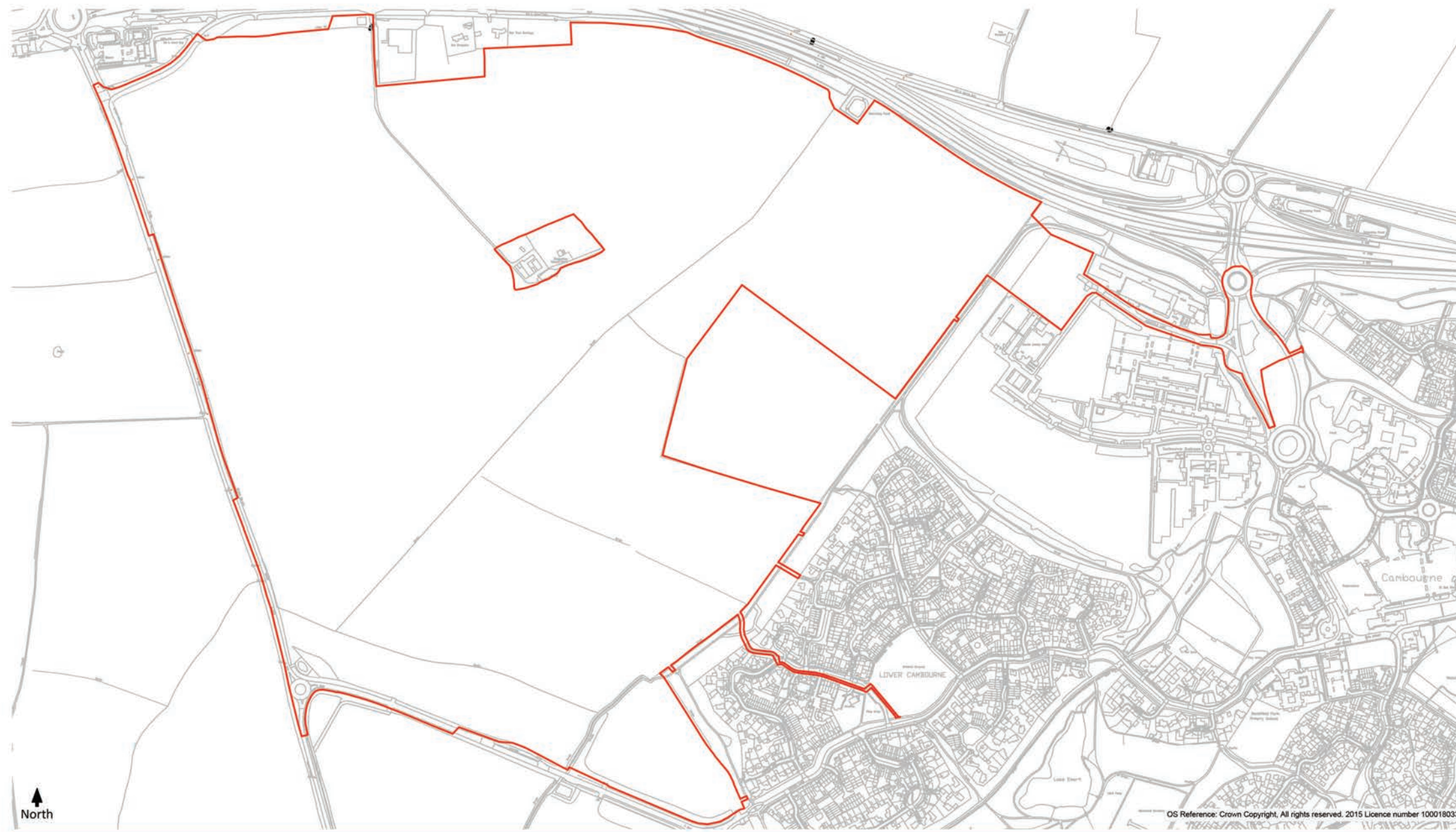
Taylor Wimpey

BOVIS HOMES

**Cambourne West
Principles and Parameters
Parameter Plan**

Drwg No: 85 S-122F

Scale: 1: 7500 @ A3



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LANDSCAPE ARCHITECTURE
ENVIRONMENTAL PLANNING
MASTER PLANNING
URBAN DESIGN

Canada House, 3 Chepstow Street,
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0161 228 7721 mail@randallthorp.co.uk
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KEY

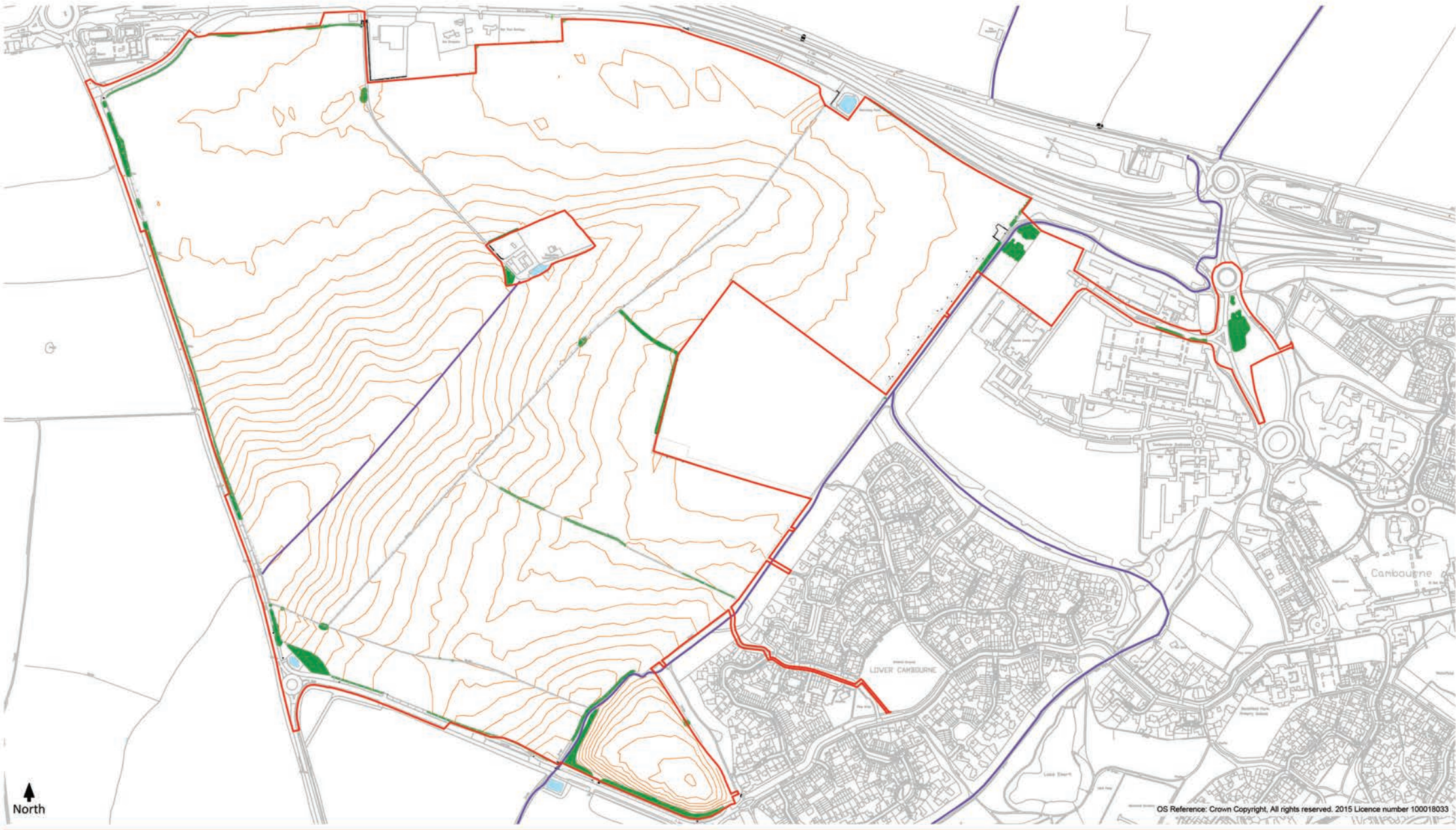
Site boundary

Date: 05.07.2018
Drawn by: CAW
Checker: LC
Rev by: MP
Rev checker: DB
QM Status: Checked
Product Status: For issue

**Taylor
Wimpey** **BOVIS
HOMES**
Cambourne West
Principles and Parameters
Figure 3.1a
Site Boundary

Drwg No: 85 S-115C

Scale: 1:7500 @ A3



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KEY

- Site boundary
- Public Right of Way
- Existing Contours
- Existing Tree Surveyed within Site Boundary

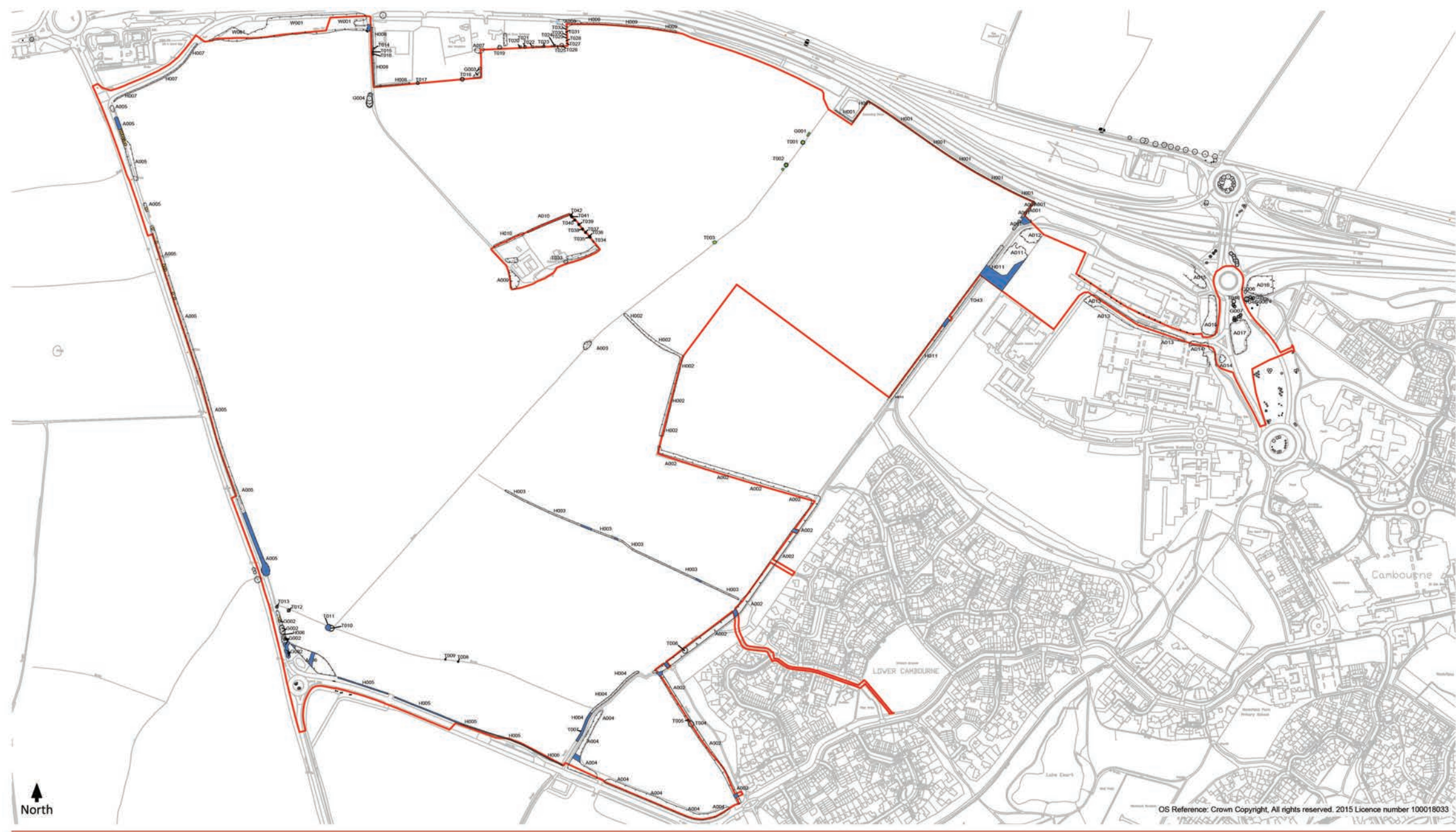
Existing waterbody

Date: 04.07.2018
Drawn by: CAW
Checker: LC
Rev by: MP
Rev checker: DB
QM Status: Checked
Product Status: For issue

**Taylor
Wimpey** **BOVIS
HOMES**

Cambourne West
Principles and Parameters
Figure 3.2a
Existing Features

Drwg No: 85 S-73L Scale: 1: 7500 @ A3



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KEY

Site boundary

Existing tree retained;
Refer to Tree Constraints Plans and
document for category gradings and
recommendations. Existing trees to
be protected to BS5837:2012

Existing trees to be removed to permit
site access.

Existing trees to be removed to permit built
access.

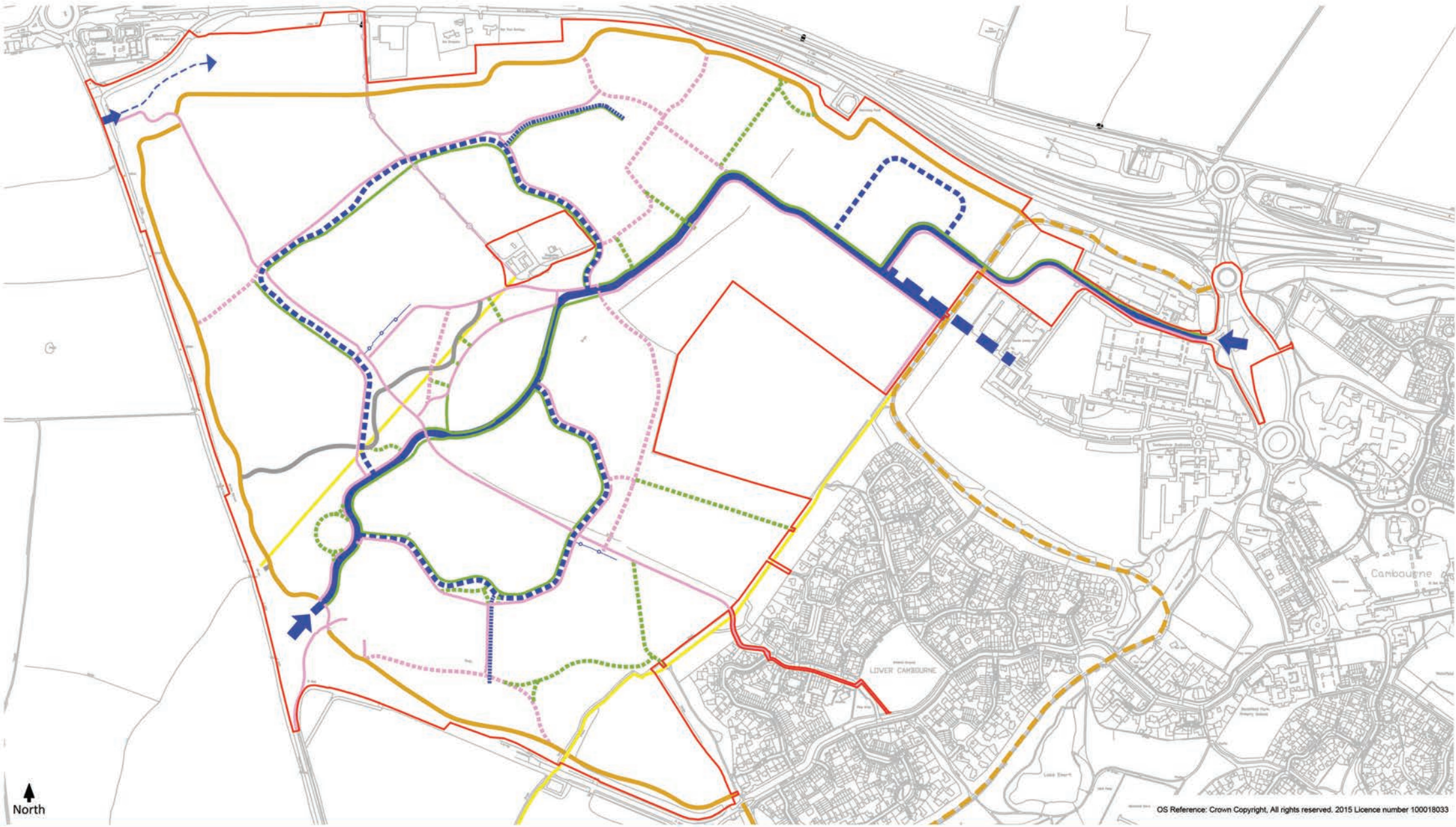
Dead trees to be removed

**Taylor
Wimpey** **BOVIS
HOMES**
Cambourne West
Principles and Parameters
Figure 4.3 a
Tree Retention Plan

Date: 06.07.2018
Drawn by: CAW
Checker: LC
Rev by: MP
Rev checker: DB
QM Status: Checked
Product Status: For issue

Drwg No: 85 S-118B

Scale: 1:7500 @ A3



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KEY

- Site boundary
- Indicative primary spine road (+10m/-10m)
- Proposed secondary spine road (+10m/-10m)
- Important tertiary road (+10/-10m)
- Employment access points
- Potential future link from the business park

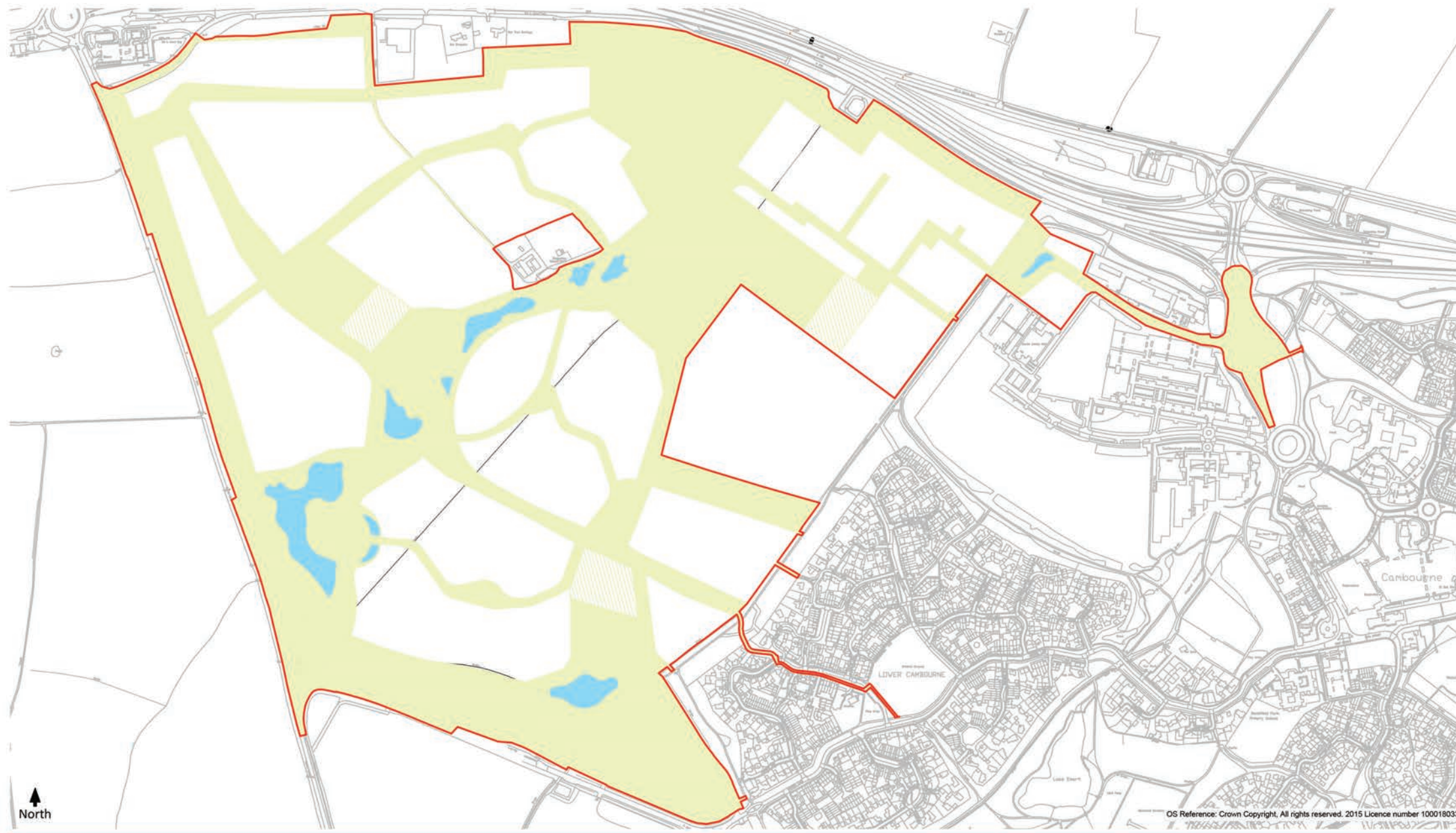
- School bus drop off route
- Site access points
- Proposed primary shared use pathway
- Proposed secondary shared use pathway
- Existing bridleway
- Proposed bridleway

- Proposed primary footway
- Proposed secondary footway
- Diverted Public Right of Way (PRoW)
- Existing Public Right of Way (PRoW)
- Existing track to be upgrade to shared use path (secondary)

Date: 09.07.2018
Drawn by: CAW
Checker: LC
Rev by: MP (22.03.2019)
Rev checker: DB (22.03.2019)
QM Status: Checked
Product Status: For Issue

Taylor Wimpey **BOVIS HOMES**
Cambourne West
Principles and Parameters
Access & Circulation

Drwg No: 85 S-121D Scale: 1: 7500 @ A3



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KEY

- Site boundary
- Proposed landscape / open spaces
(including spine road through main
open spaces)
- Proposed open space setting for
school buildings
- Proposed waterbodies

Note: Limit of deviation on all areas
of open space and waterbodies:
+10m/ -10m

Date: 04.07.2018
Drawn by: CAW
Checker: LC
Rev by: MP (22.03.2019)
Rev checker: DB (22.03.2019)
QM Status: Checked
Product Status: For issue

**Taylor
Wimpey** **BOVIS
HOMES**
Cambourne West
Principles and Parameters
Open Space

Drwg No: 85 S-116D

Scale: 1: 7500 @ A3



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KEY

- | | | |
|---|--|--|
| Site boundary | Proposed publicly accessible outdoor sport areas and playing field | Proposed swale |
| Existing vegetation retained with improved management | Proposed school playing fields | Proposed waterbodies |
| Proposed woodland | Proposed allotment area | Existing waterbodies |
| Proposed amenity grassland with scattered trees | Proposed orchard area | Proposed seasonally wet basins/wetland |
| Proposed species rich grassland with scattered trees | Proposed hedges | Proposed noise attenuation bund |

- NEAP (neighborhood area for play)
- LEAP (local area for play)
- SIP (space for imaginative play)
- BMX track

NOTE:
Limit of deviation on all areas of
landscape and ecology: +10m/-10m

Date: 05.07.2018
Drawn by: CAW
Checker: LC
Rev by: MP (22.03.2019)
Rev checker: DB (22.03.2019)
QM Status: Checked
Product Status: For issue

**Taylor
Wimpey** **BOVIS
HOMES**
Cambourne West
Principles and Parameters
Landscape & Ecology

Drwg No: 85 S-117F Scale: 1:7500 @ A3



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KEY

Site boundary

Net residential areas (Use class C3)
63.01ha (including a minimum
0.15ha retail - areas position tbc)

Employment areas (Use Class B1);
up to 6.25 ha

School areas (Use Class D1);11.00 ha
Primary (i); 2.30 ha
Primary (ii); 2.30 ha
Secondary (vi) ; 6.40 ha

Sports/ community buildings;
0.37 ha (Use Class D1/ 2)

Community buildings (Use
Class A1-5 & D1/2); 0.93ha

* Potential retail location
(min 0.15ha, up to 0.29ha)

Date: 09.07.2018

Drawn by: CAW

Checker: LC

Rev by: HB/MP (22.03.2019)

Rev checker: DB (22.03.2019)

QM Status: Checked

Product Status: For Issue

**Taylor
Wimpey**

**BOVIS
HOMES**

**Cambourne West
Principles and Parameters
Development Areas**

Drwg No: 85 S - 119D

Scale: 1: 7500 @ A3



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KEY

Site boundary

Typically 2 storey units (up to 2.5 storey units)

Typically of 2 storey units(to ridge)
8.5 m Max height (to ridge) 9 m
& Occasional 2.5 storey unit (to
ridge) 10 m Max height (to ridge)
10.5 m

Up to 3 storey units

Typical height of 2 storey unit (to
ridge) 8.5m. Max height (to ridge) 9 m
Typically height of 2.5 storey unit (to
ridge) 10 m. Max height (to ridge) 10.5 m
Typically height of 3 storey unit (to ridge)
11.5 m. Max height (to ridge) 12 m

School buildings
Up to 15m max.

**Taylor
Wimpey**

**BOVIS
HOMES**

Cambourne West
Principles and Parameters
Figure 4.5a
Building Heights

Date: 11.07.2018
Drawn by: CAW
Checker: LC
Rev by: HB/MP
Rev checker: DB
QM Status: Checked
Product Status: For Issue

Drwg No: 85 S-120C

Scale: 1 : 7500 @ A3

D. Key dimensions for designers

Minimum carriageway widths:

Primary spine:	6.1m
Secondary road:	6.1m
Tertiary road:	5.0m
Private drive:	4.0m

Junction spacing:

Same side/other side of street:	25m
Distance of private drive from junction:	15m (dependant on location and context)

Traffic calming spacing:

Primary spine:	60 - 90m
Secondary road:	60 - 70m

Refuse collection distances:

No more than 25m between the location of waste bins and the collection points that will be used by refuse collectors.

Fire tender access:

To within 45m of every point of each building's footprint.

Minimum pedestrian/cycle route widths:

Primary pedestrian/cycle shared use path:	3.0 - 4.0m
Secondary pedestrian/cycle shared use path:	3.0 - 3.5m
Bridleway:	3.0m
Footpath:	1.8m

Distances between houses:

Rear or side facing 2 - 2.5 storey buildings with habitable rooms:	25m
Rear or side facing 3 storey buildings with habitable rooms:	30m
Habitable rooms and blank walls:	12m

Front plot depth:

Minimum front garden depth:	1.5m
Minimum drive depth:	5.0m
Minimum drive depth with garage:	6.0m
Additional end-on bays in multiples of	5m

Parking standards

- Up to 2 bedrooms = 1 parking space
- Over 2 bedrooms = 2 parking spaces
- visitor parking = 1 space for every 4 units



Prepared for:



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