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The contents of this document must not be copied or reproduced in whole or in part without the written consent of Barton Willmore. K:\22000-22999\22400-22499\22430 - Cow Lane, Fulbourn\A5 - Reports & Graphics\Graphic Design\Documents\DAS

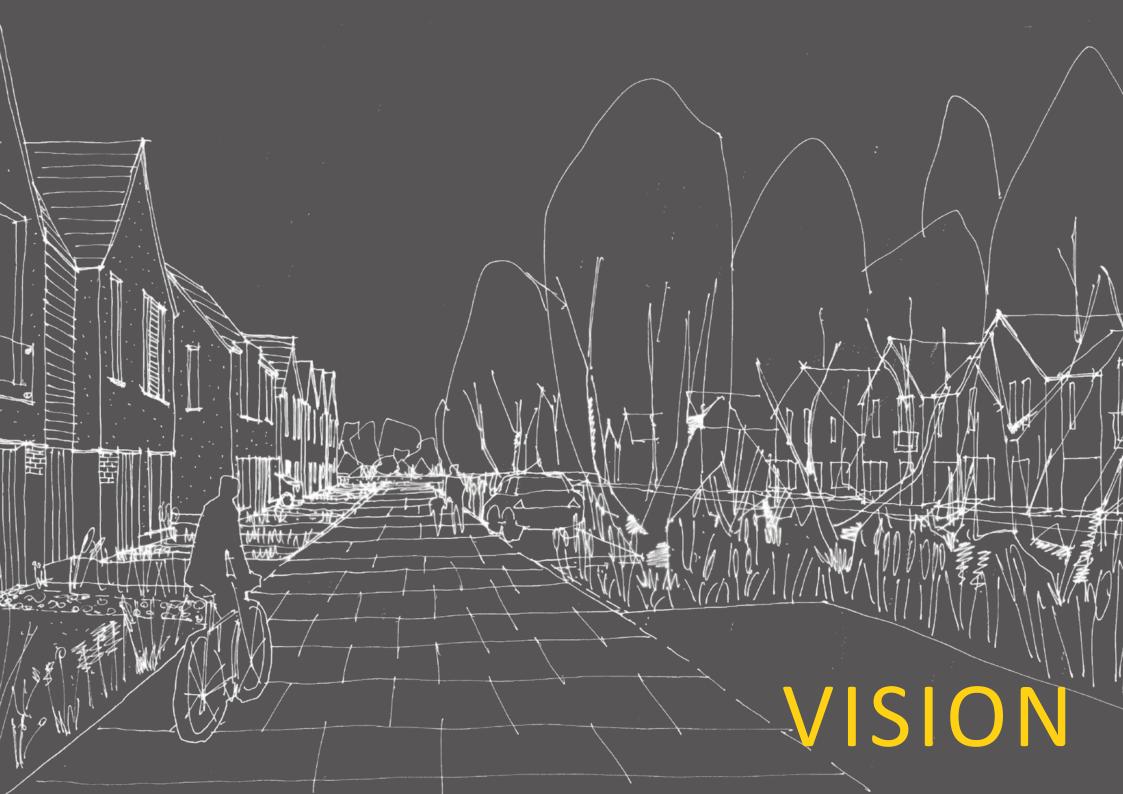
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VISION

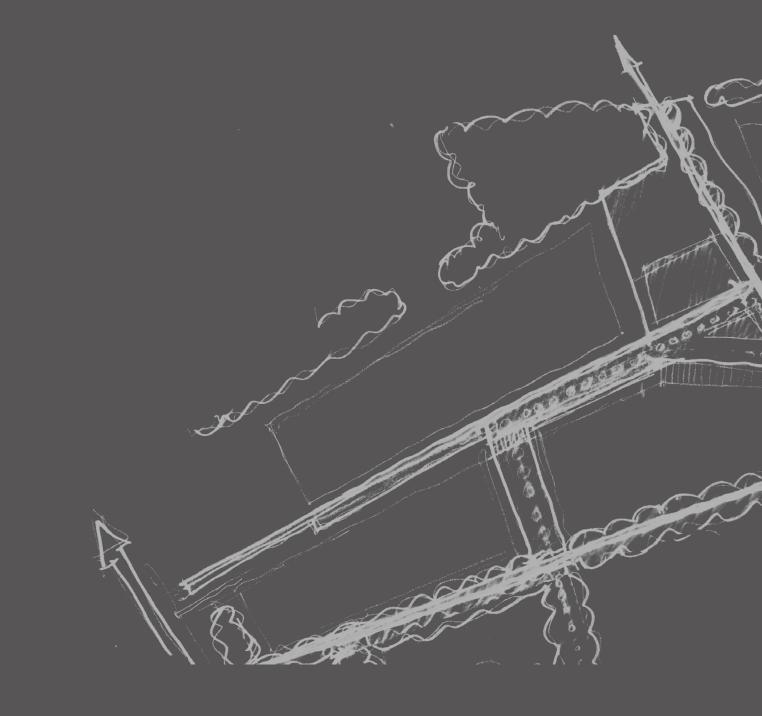
Our vision is to create a sustainable neighbourhood of Fulbourn, which is in keeping with the landscape and built character of the area, well connected to and integrated with the village.

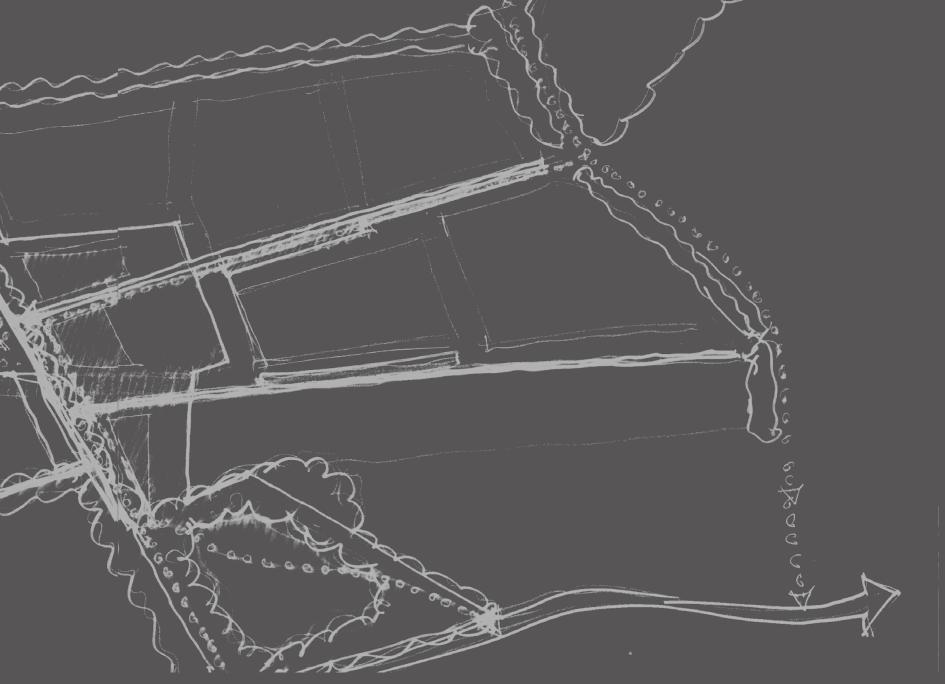
The history of the Site as fenland has been translated into the creation of an attractive meadow park as a setting for housing with a genuine sense of place.

The network of linked open spaces will provide extensive recreational opportunities for both new and existing residents of Fulbourn and become a shared community asset.

The development will contribute to meeting local need for family housing, including affordable homes.







INTRODUCTION

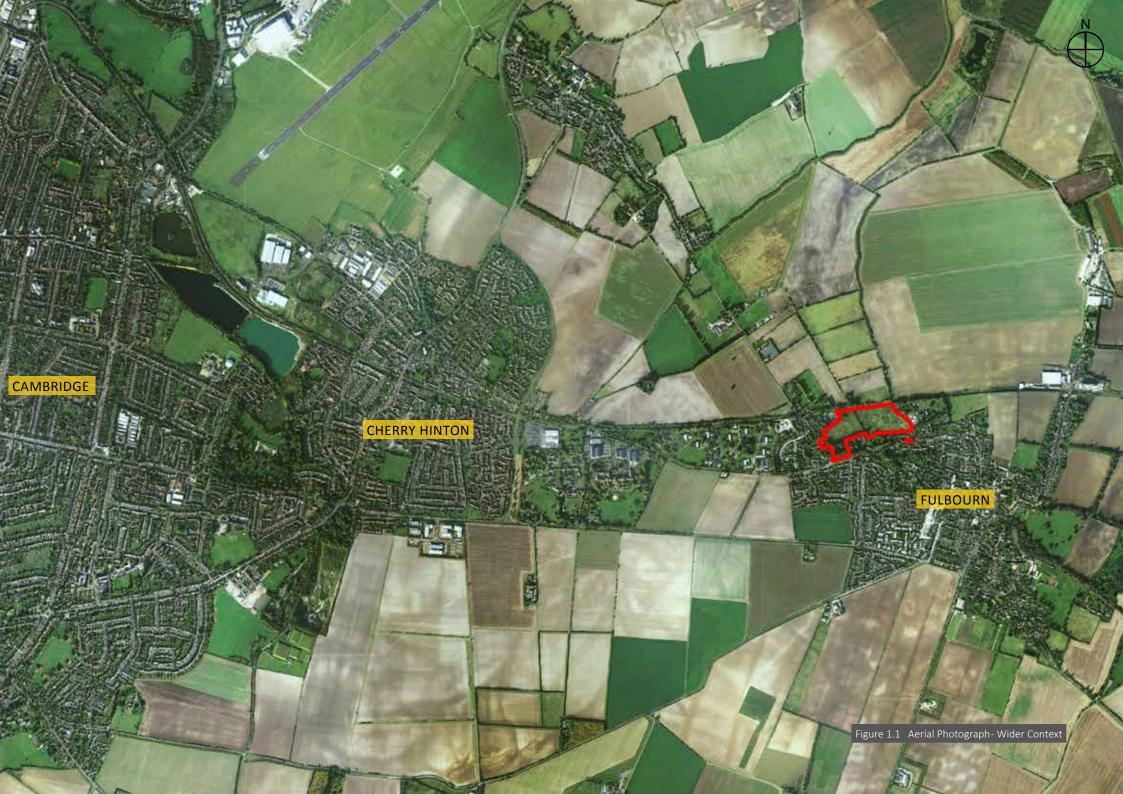
INTRODUCTION

1. SCOPE AND CONTENT OF DAS

- 1.1 This Design and Access Statement (DAS) has been produced by Barton Willmore on behalf of Castlefield International Limited (Castlefield), a subsidiary of Hutchinson Whampoa, in support of an Outline Application on the 'Land at Teversham Road, Fulbourn'.
- 1.2 The DAS supports a new application following a previous scheme (S/2273/14/OL) for residential development of up to 110 dwellings on the site.
- 1.3 This DAS has been prepared to be compliant with the Development Management Procedure (England) Order 2010 (amended 2013), and the Planning Practice Guidance 2014 (PPG).
- 1.4 The DAS illustrates the design principles and concepts that support the proposals and address the requirements set out in the PPG 'Making an Application'.

- 1.5 Specifically, responding to the PPG requirements 'What should be included in a DAS', this DAS explains:
- The design principles and concepts.
- The steps taken to appraise the context of the proposed development and how the design has taken them into account.
- The applicant's approach to access, how Local Plan policies have been taken into account, consultation undertaken in relation to access issues, and how the outcome has informed the proposed development.
- 1.6 The DAS also provides details relevant to an Outline Planning Application, which include:
- Information about the proposed use or uses, and the amount of development proposed for each use.
- Indicating the area or areas where access points to the development will be situated, as required under article 4 (5) of the Development Management Procedure Order.

1.7 The DAS takes into account the comments of the Planning Inspector when considering the effects on the character and appearance of the area, and the setting of Fulbourn Conservation Area. On the former, the Inspector noted "the appeal proposal would result in a form of development which would not be out of keeping in this part of Fulbourn", whilst any impact upon the Conservation Area is considered only "very minor adverse impact", outweighed by the benefits of the scheme.



2. SITE LOCATION AND DESCRIPTION

- 2.1 The Site lies on the north western edge of Fulbourn, a village located within the South Cambridgeshire district which lies approximately 8km south-east of the centre of Cambridge.
- 2.2 The village of Fulbourn is located on Cambridge Road which runs between Cambridge and Balsham.
- 2.3 The Site comprises land to the east of Teversham Road, to the south of the railway line and to the north of Cow Lane. The Pump House Garden, at the southern part of the Site, lies within Fulbourn Conservation Area, which extends to the south of the Site. The Green Belt lies to the north. The Site is accessible from the public highway and is located within walking distance of the nearby High Street, local shops and facilities. There are no public rights of way or permissive routes across the Site.
- 2.4 The Site encompasses 6.85 hectares of undeveloped land which is partitioned by a narrow Chalk Stream. Part of the Site fronting Cow Lane was formerly the Pump House Garden, but is now neglected and heavily overgrown. The Site abuts a pond known as Poorwell Water, across which a low quality pedestrian access has been informally created.

- 2.5 The Site is flat and contained by extensive vegetation belts comprising hedgerows and mature trees, some of which align with the linear drainage channels within and adjoining the Site. The fields themselves are open grassland, whilst the Pump House Garden retains some more ornamental planting, despite its current neglected condition.
- 2.6 The Site is not covered by any statutory environmental designations. Two Sites of Special Scientific Interest are located within 2km of the Site, the nearest of which is 1.2km east of the Site (Fulbourn Fen). Both are designated primarily for their botanical interest. The Site lies within the low risk Flood Zone 1.



Figure 1.2 The eastern part of the Site



Figure 1.3 Existing Site entrance off Teversham Road



Figure 1.4 Currently neglected pond at the Pump House Garden



3. APPLICATION DESCRIPTION

3.1 The Application seeks permission for:

Outline application including consideration of access points, for high quality residential development of up to 110 dwellings with areas of landscaping and public open space and associated infrastructure works. Access will be determined at outline stage, with all other matters reserved.

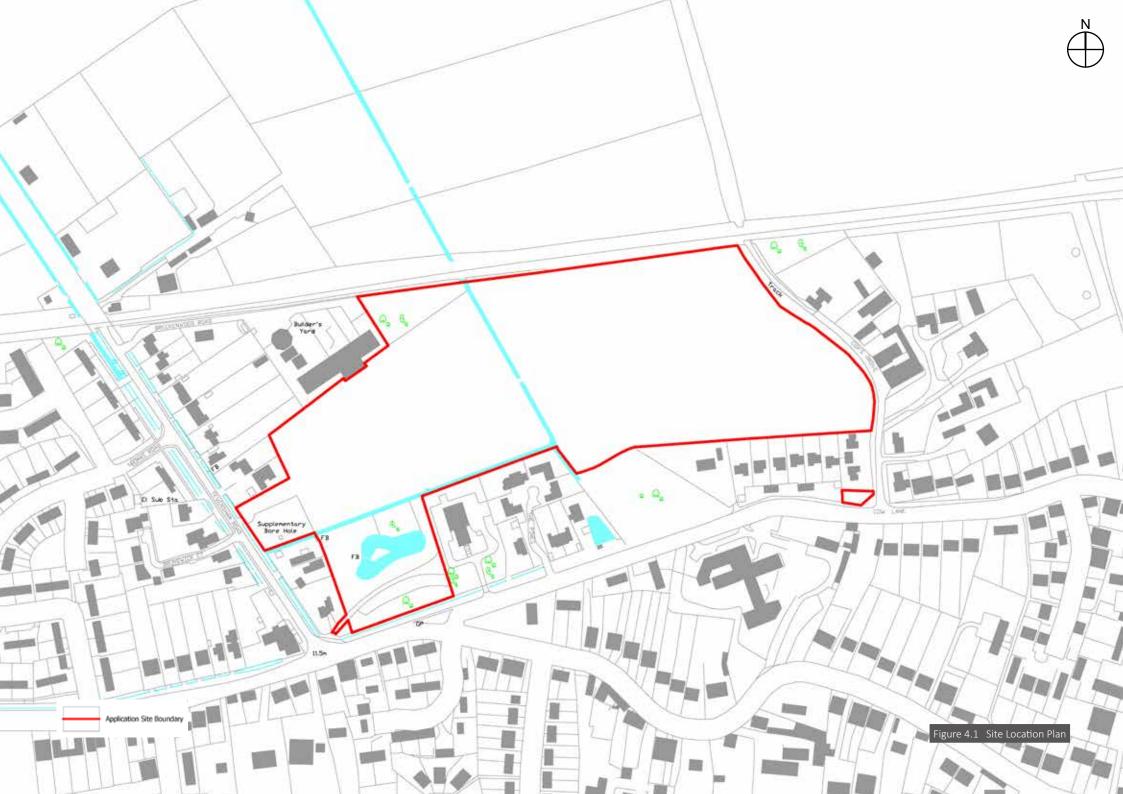
4. POLICY CONTEXT

NATIONAL GUIDANCE

4.1 The relevant design planning policy framework includes National guidance (inc. National Planning Policy Framework (NPPF), National Planning Practice Guidance (PPG) and good practice guidance), the 'saved' policies of the adopted Core Strategy and Development Control Polices DPD (January 2007/July 2007) and the emerging submission Local Plan 2011-2031 Policies (July 2013).

- 4.2 The NPPF (March 2012) states that 'The Government attaches great importance to the design of the built environment. Good design is a key aspect of sustainable development, is indivisible from good planning, and should contribute positively to making places better for people' (Ref: Paragraph 56). When determining planning applications LPA's should seek to ensure that proposals:
- "Will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development,
- Establish a strong sense of place, using streetscapes and buildings to create attractive and comfortable places to live, work and visit,

- Address the connections between people and places and the integration of new development into the natural, built and historic environment securing high quality and inclusive design that goes beyond aesthetic considerations,
- Optimise the potential of the site to accommodate development, create and sustain an appropriate mix of uses (including incorporation of green and other public space as part of developments) and support local facilities and transport networks,
- Respond to local character and history, and reflect the identity of local surroundings and materials, while not preventing or discouraging appropriate innovation,
- Create safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion,
- Are visually attractive as a result of good architecture and appropriate landscaping.' (Ref: Paragraph 58)."



4.3 Furthermore the Planning Practice Guidance (PPG) expands the design objectives outlined in the NPPF and states that good design should:

- Ensure that development can deliver a wide range of planning objectives,
- Enhance the quality buildings & spaces by considering amongst other things form & function, efficiency and effectiveness and their impact on well-being,
- Address the need for different users sympathetically.

4.4 In accordance with national planning guidance the proposed development has been sensitively designed to create a safe and attractive environment which is very well connected to and integrated into the existing built form of the village.

LOCAL PLANNING POLICY

4.5 A separate Planning Statement has been prepared which evaluates the proposal in relation to the existing policies in the extant Development Plan and the emerging new Local Plan.

4.6 Of particular relevance is Policy DP/2 'Design of New Development' of the South Cambridgeshire Development Control Polices DPD which seeks to ensure that all new development is of high quality design and, as appropriate to the scale and nature

of the development in terms of scale, mass, form, siting, design, proportion, materials, texture and colour in relation to the surrounding area. In addition, the policy requires that provision is made for adequate open space, landscaping and In the case of residential development, provide higher residential densities, and a mix of housing types including smaller homes. The policy also requests that a Design and Access Statement accompanies the planning application and is compatible with the scale and complexity of the proposal.

4.7 Within the emerging Local Plan, Chapter 5 focuses on Delivering High Quality Places in order to secure high quality design and a good standard of amenity. Policy HQ/1 'Design Principles' which is comparable with Development Control Policy DP/2 establishes a set of design principles ensuring all new development contributes to social, economic and environmental sustainability and makes a positive difference to help provide homes, jobs and better opportunities. The only difference between the policies is that Policy HQ/1 requires larger and more complex developments to submit Masterplans and Design Codes to agree an overall vision and strategy.

DISTRICT DESIGN GUIDE SUPPLEMENTARY PLANNING DOCUMENT (SPD) (MARCH 2010)

4.8 South Cambridgeshire has adopted a District Design Guide to provide additional guidance on how developments can ensure they are sustainable and achieve a high quality of design in a way that respects the local context.

4.9 The District Design Guide SPD expands on district-wide policies included in the Development Control Policies Development Plan Document (DPD) and seek to ensure that design is an integral part of the development process.

4.10 Fulbourn is located within The Chalklands character area and the following key design principles are set out:

- Maintain the distinctive, settlement pattern of the area and its local context.
- Maintain the linear, or rectilinear form of the settlements,
- Ensure density and pattern of new developments reflect that of existing villages and hamlets. Avoid backland and cul-de-sac developments where possible,
- Ensure buildings are arranged in continuous frontages within village cores and are arranged in loose knit patterns facing the street on more peripheral sites,
- Ensure new developments are integrated with sufficient space for garden and street tree planting where applicable,

- Enhance village gateways and, where appropriate, consider provision of avenue planting on village approaches,
- Take opportunities to create new village greens and/or wildlife areas within new developments,
- Ensure new developments reflect the form, scale and proportions of the existing vernacular buildings of the area and pick up on the traditional building styles, materials, colours and textures of the locality,
- Retain hedges along roads,
- Enclose boundaries facing the street on village peripheries with hedge and tree planting,
- Avoid the use of standardised and intrusive urban materials, street furniture, lighting and signage as part of traffic calming measures wherever appropriate.

4.11 In respect of design principles, the Design Guide states that new development within villages should:

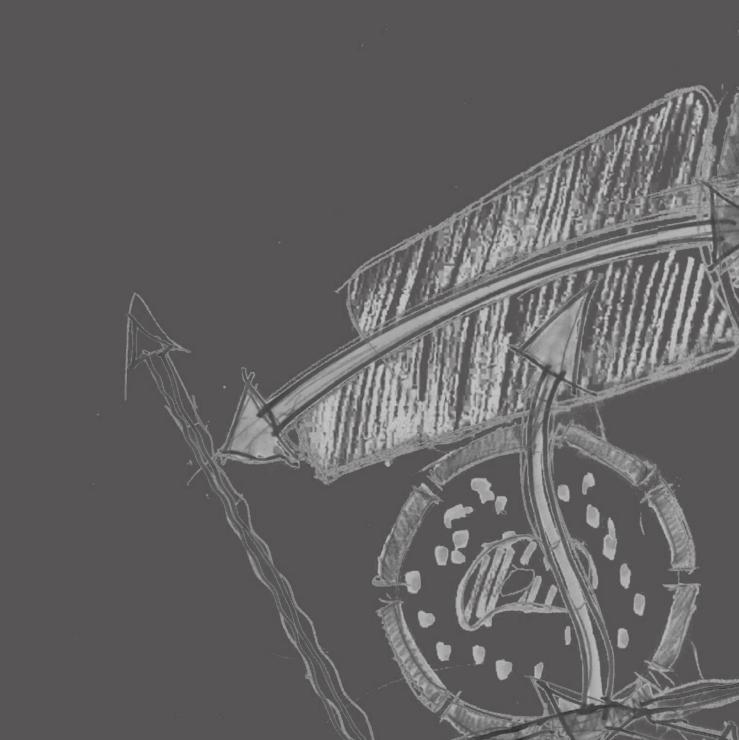
 Be understood and planned in terms of the history and future of the entire village.
 New development should not be piecemeal which is likely to detract from the village as a whole and its sense of place. Culs-desac are not encouraged and development should also be careful to retain existing visual links through to the countryside,

- Be informed by the established character of the area. This is to include views, roads and paths, trees and landscapes and the scale, proportions, orientation, positions, building lines, styles, and materials of existing buildings,
- Respond to the existing variety in building design and ensure new development reflects the distinctive character and identity of the village,
- Identify the focus of the context, whether countryside or settlement. The character of each part of the settlement or context is distinctive and careful consideration should be taken to preserve or enhance it.
- Reflect the settlement's position in the spatial, historical and physical hierarchy of villages to ensure the development's design is appropriate to its context and reflects the differences between villages.

RELEVANT DESIGN GUIDANCE

4.12 The following relevant design guidance has informed the development of the scheme:

- Urban Design Compendium 1 (English Partnerships 2000)
- Urban Design Compendium 2 (English Partnerships 2007)
- Safer Places The Planning System and Crime Prevention (ODPM 2004)
- Secured by Design: New Homes (ACPO, 2014)
- Manual for Streets (DCLG, 2007)
- Manual for Streets 2(DCLG, 2010)
- Car Parking: What Works Where (English Partnerships 2007).
- Planning and Design for Outdoor Sport and Play (Fields in Trust 2008).
- Code for Sustainable Homes (DCLG, 2006)
- Building for Life 12 (CABE, Design for Homes, HBF 2012)





CONTEXT ASSESSMENT

5. WIDER CONTEXT ASSESSMENT

ACCESS & MOVEMENT

5.1 The Site is well located in a range of existing movement and transport networks.

5.2 Cambridge city centre is approximately 8km from the Site, and the A11, A14 and M11 provide vehicular access to the wider surroundings.

Public Transport

5.3 Given its rural location the Site offers reasonable access to sustainable transport opportunities, as shown on Figure 5.1.

5.4 There are a number of bus stops within the recommended 400m walking distance from the Site (as shown on Figure 5.1), which offer services to key areas in Cambridgeshire as follows:

- Stagecoach in Cambridge Service Citi 1
 provides the primary public transport
 linkage between Fulbourn and Cambridge.
 The service operates a twenty minute
 weekday and Saturday frequency between
 the hours of 06:00 and 19:00, dropping
 down to half hourly between 19:00 and
 23:30 then hourly until 02:30. A half hourly
 service operates on Sundays from 09:00
 until 23:30.
- Stagecoach Service 16 links the Fen Estate and Cambridge with Haverhill, and is readily accessible from the Site. The

- service operates every two hours between the hours of 08:30 and 16:30, Monday to Saturday. No service operates on Sunday.
- Stagecoach service 17 shares the same route as service number 16 between Fen Estate and Fulbourn before continuing onward to Newmarket in place of Haverhill. A total of 4 services operate in the period from 09:30 to 17:30, Monday to Saturday.

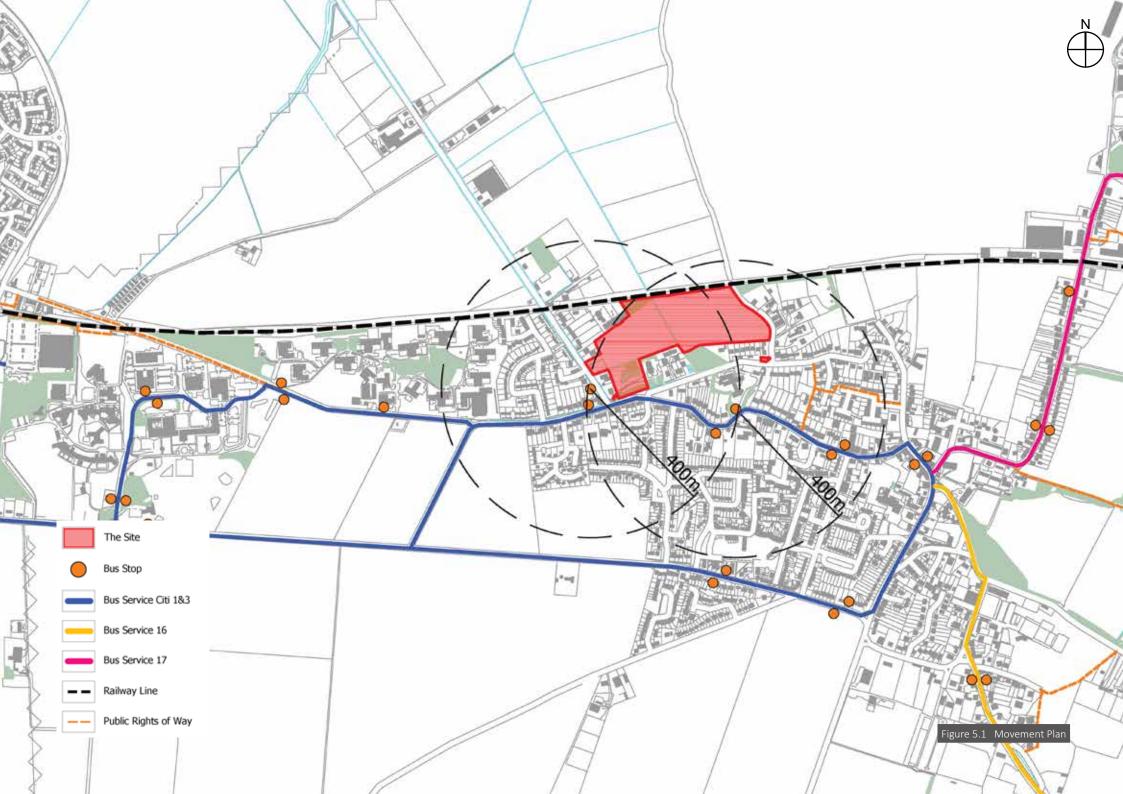
5.5 Although there is a railway line directly north of the Site, Fulbourn is not directly served by rail services since the station closed in 1967. However, non-car access to Cambridge station from Fulbourn (approximately 5.5km to the north-west) is available via the frequent Citi 1 bus service in 33 minutes and is also feasible by cycle.

Pedestrian and Cycle Network

5.6 The pedestrian network in the immediate vicinity of the Site offers access to the village centre and other local facilities in Fulbourn.

5.7 Public rights of way (PROWs) are limited within the vicinity of the Site. The only PRoW from which glimpsed views would be attained of the Proposed Development is PRoW 95/15, approximately 1.2km north-west of the Site.

5.8 Good cycle links connect Fulbourn to Cambridge, although some riding on the road is required from the Site.



LOCAL FACILITIES

5.9 Figure 5.2 shows the key facilities in the village, as described below:

Education

5.10 Fulbourn Primary School is located within 800m to the southeast of the Site.

5.11 Cambridge Steiner School is an independent school located approximately 600m to the west of the Site and offers kindergartens for children between 3-6 years and primary education to children between 6-11 years.

5.12 The closest secondary schools the Netherhall School and St Bede's Inter-Church Comprehensive School in Cherry Hinton in Cambridge, both approximately 3.6km from the Site, and Bottisham Village College, approximately 8km to the north of Fulbourn.

Retail & Community Facilities

5.13 The Site is within walking distance from local shops and facilities in the village centre, including a cooperative supermarket, butchers, chemist, post office, pub and church. Fulbourn library is at Haggis Gap, just southwest of the village centre. Fulbourn also benefits from a Tesco Superstore, which is situated approximately 1.7km to the west of the Site.

5.14 Cambridge provides further retail and community facilities, which are easily accessible via good road links and public transport connections.

Healthcare

5.15 Fulbourn Health Centre is located approximately 650m to the southeast of the Site and accommodates 6 GP's.

5.16 Fulbourn Hospital is a mental health facility located between Fulbourn and Cherry Hinton.

5.17 The closest dental practice is situated in Cherry Hinton in the southeast Cambridge, approximately 2.6km to the west of the Site.

Employment Areas

5.18 Employment opportunities in Fulbourn can predominantly be found at Capital Park to the west of the Site and in the village centre.

5.19 Cambridge city and South Cambridgeshire also offer a range of employment opportunities, and 90.5% of Fulbourn residents commute entirely within Cambridgeshire. Employment areas for Fulbourn residents include Cambridge city centre area, Queen Edith including Addenbrookes, and Fulbourn ward itself.

Recreation & Leisure

5.20 Fulbourn recreation ground, approximately 1.3km to the southeast of the Site, offers a range of sports and play facilities. There are various public open spaces and woodlands around the village. Fulbourn Fen to the east of the village, is designated as an Site of Special Scientific Interest (SSCI) and it offers extensive recreational opportunities.

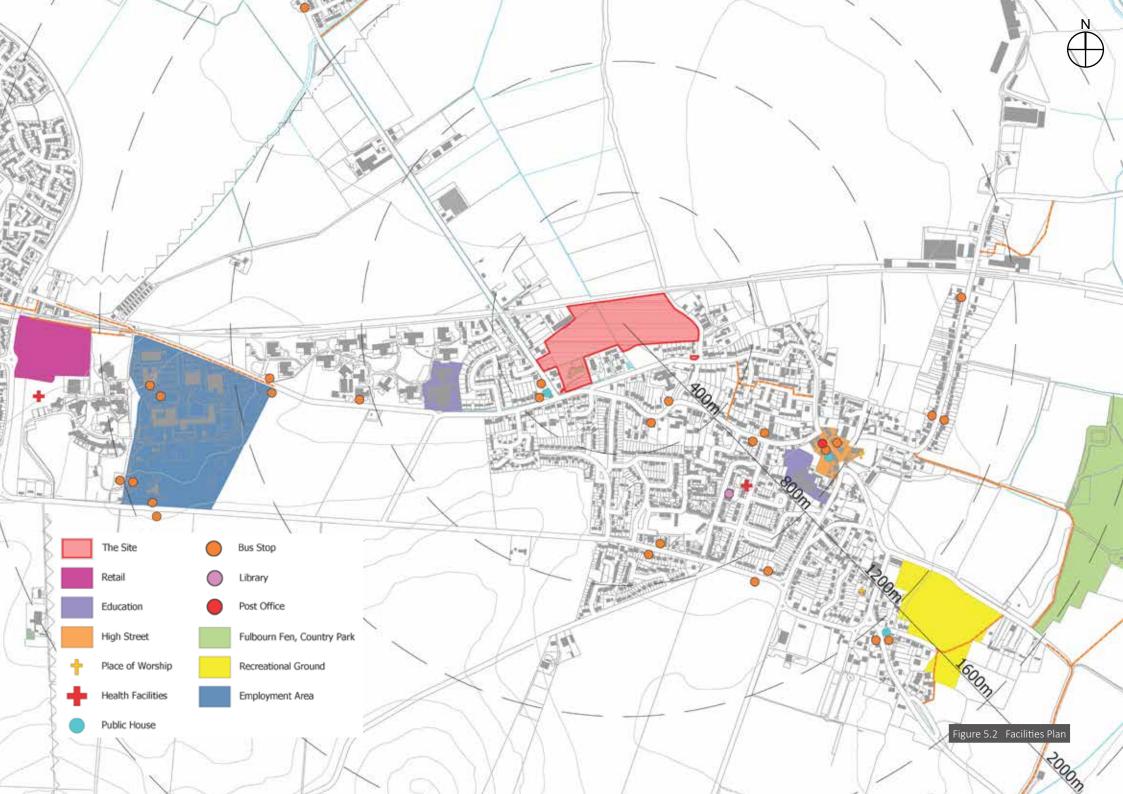
5.21 Despite the green character of Fulbourn, public open spaces in the heart of the village are limited. The opening of the Pump House Garden and the creation of a meadow park could provide additional recreational opportunities in Fulbourn.

Accessibility to Local Facilities

5.22 Policy supports further development in Fulbourn recognising its ranking in the settlement hierarchy on the basis of infrastructure, facilities and accessibility to good public transport.

5.23 Access to local facilities is good, with the village centre providing a range of local shops and services and a primary school. The nearby Tesco superstore is accessible by bus, cycle and on foot, as well as being within a short drive.

5.24 Given the high likelihood that residents will be working within the Cambridge area, it is most likely that linked trips will be common and this makes better use of the available means of transport.



6. HISTORIC DEVELOPMENT

- 6.1 The Site historically formed part of a larger section of Great Wilbraham Fen. Over time, as illustrated by the historic map progression opposite, the character of the site has been changed significantly by the arrival of the railway line and subsequent Nineteenth and Twentieth Century development, so that almost the entirety of the east, south and western edges of the original field are now occupied.
- 6.2 Whilst the Nineteenth Century development associated with the pumping station lends a specific character to the Site, the Twentieth Century work is formed of post-war properties of a somewhat generic suburban character.
- 6.3 A fuller assessment of the history of the site is given in the Heritage Statement from which the maps opposite have been extracted.



1808 OS map



1886 OS map



Figure 6.1 Historic Map Progression

7. LOCAL BUILT CHARACTER

7.1 The NPPF places a strong emphasis on new development 'promoting or reinforcing local distinctiveness' alongside the promotion of 'innovation, originality or initiate' in development form and style (Para 60).

7.2 To create a development that is both in keeping with the character of Fulbourn and distinctive, this section of the DAS analyses the built context of the Site, the village and the wider area. The wider analysis including the historic core is particularly important as much of the residential development immediately adjacent to the site is, as previously discussed, of a somewhat generic suburban character.

FULBOURN

7.3 Fulbourn is a fen-edge settlement and the area has been influenced by this wetland landscape.

7.4 Fulbourn's historic core, around the church and the High Street, lies on higher grounds. At the end of the 19th century Cambridge Waterworks Co opened a pumping station at Poorwell Water, which is directly south of the Site. The pumping station forms the focus of the conservation area, which comprises the Pump House Garden and is further south of the Site. This part of the village is characterised by mature tree planting, especially around the pumping station and on the location of the old Mulberry Villa. Various dwellings around the Site are set back from the road on large plots, which also contributes to the green character of this part of Fulbourn.

7.5 The following characteristics could be used as inspiration for the appearance strategy:

Dwelling Types

7.6 Cottages and dwellings between 1% - 2% storeys create intimate and small scale character to the village. A similar range of scales would be appropriate for the new development.

7.7 Wide-fronted dwellings and cottages present in Fulbourn create a strong frontage through linking dwellings or similar heights.

7.8 Contrarily, in some parts of the village dwellings are more loosely disposed, which creates a permeable development and allows for planting between dwellings. Together with large front gardens this gives these streets a green character.

Materials

7.9 A range of materials, including Cambridge brick, (painted) render, slate and pantiles, appear in the village and its surroundings.

7.10 The proposed development should use materials that match and complement the materials present in Fulbourn.

Roofs

7.11 A range of attractively varied roofscapes are present in Fulbourn. These could be used as an example for the architecture of the proposed development, for example to indicate key buildings and corners.

Walls

7.12 Various historic garden walls can be found in village, which could be used as inspiration for boundary treatments within the proposed development.













Figure 7.1 Housing Examples in Fulbourn

CHARACTER FURTHER AFIELD

7.13 Contemporary architecture and detailing can be found in more recent large scale developments in Cambridgeshire. Reference could be drawn from these schemes as follows:

7.14 Some good examples of contemporary schemes with a strong sense of place can be found in the wider area. Central open spaces form a focal point in the development, framed by buildings and with strong frontage around. The majority of streets are designed as pedestrian friendly spaces, with well integrated parking. The simple network of streets and spaces also contributes to the legibility of the development. Some well landscaped green links (as shown opposite) create an intimate character and ensure the development is permeable. In the same way the significant landscape features on the Site could be used as focal points and set up a network of open spaces.

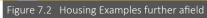
7.15 The recent schemes match and complement materials in Cambridgeshire, but use them with contemporary detailing or in different combinations to create a distinctive neighbourhood. They also display a range of contemporary interpretations of traditional detailing, as the roofscape examples and wall detailing shown opposite. Similarly for these proposals contemporary roofscapes could be used to mark key buildings, and complement the variety of roofs in Fulbourn.











Modern Roofscape Variation

8. LANDSCAPE CHARACTER

8.1 The area including the Site is covered by fairly broad brush landscape character assessment at national level and more detailed assessments at county and district level.

8.2 At a national scale, the Site is located within National Character Area 87: East Anglian Chalk, in which the landscape is described as rolling downland with sparse tree cover and distinctive beech belts along straight roads. This is consistent with the landscape surrounding Fulbourn, however is not applicable to the Site.

8.3 At a county scale, the Site is located within the 'Fen' Landscape Type / 'Little Wilbraham Fen' Landscape Character Area but is more characteristic of the 'Fen Edge' Landscape Type / 'Fulbourn Eastern Fen Edge' Landscape Character Area which covers Fulbourn, due to its contained urban edge setting. The Fen Edge Landscape Type is described as a transitional landscape type, situated between the Fens and higher land, is relatively low-lying and traditionally a location for settlement. The Fulbourn Eastern Fen Edge Landscape Character Area is described as a rural setting for small densely treed villages including Fulbourn. The Study describes Fulbourn as "a large village with a linear, largely intact historic core focussed on High Street, Manor Walk and Home End. The village contains some attractive historic buildings [...]."

In addition, the Study states that some areas of Fulbourn are well treed with grass verges and rural in character. Small scale industrial and storage development are noted to be present on the northern side of the village close to the railway line, and are described as detracting features.

8.4 At a district scale, the village of Fulbourn and its surroundings are situated within Landscape Character Area B 'Chalklands'. In relation to the settlements within the Chalklands, key characteristics include the presence of mature trees, grass verges, streams and ponds, all of which add to the rural character; a mostly well treed character to the villages which are not often visible in the wider landscape; and the presence of enclosed meadows and parkland which are described as important features.



Properties on Cow Lane



30 Land at Teversham Road | Fulbourn





9. SITE CONSTRAINTS & OPPORTUNITIES

9.1 The Site has rich collection of features that would contribute to an attractive and high quality living environment. Together with this there is a real opportunity to offer a varied network of open spaces back to the village.

Access

9.2 Vehicular access to the Site is currently taken in two locations, from Teversham Road and from Cox's Drove although these access points are gated and for agricultural vehicles only.

9.3 The principal vehicular access for the proposed development would be from Teversham Road. Pedestrian/cycle access can be accommodated off Cow Lane via the Pump House Garden and Poorwell Water, and off Cox's Drove.

Open Space

9.4 The Pump House Garden is currently private, but could be opened up to the village and connected to a central open space within the new development.

Trees

9.5 The proposals have been informed by a tree survey undertaken to BS5837:2012, which includes a differentiation of the tree stock into four quality grades (high, moderate, low and non-viable). The Illustrative Layout shows all 45 of the trees in the high quality category as being retained, as well as 92% of the trees in the moderate quality category.

9.6 The trees generally stand in strong linear and block features that frame and internally subdivide the site. This peripheral structural landscape both screens and substantially encloses the site, while the internal features direct and inspire the proposed residential layout.

Landscape & Visual Considerations

9.7 The Site is within a contained urban edge setting adjoined by residential development and separated from the wider landscape to the north by a railway embankment and associated vegetation. The adjoining development exerts an urbanising influence which distinguishes the Site from the wider landscape.

9.8 Due to a combination of the location of the Site, the topography of the Site and its surroundings, and the extensive tree structure within and adjoining the Site, open views of the Site are restricted to its most immediate setting. Beyond the immediate setting of the Site, partial views of the Site are attained from a short section of PRoW 95/15 that crosses the landscape to the north of the Site, where the Site is partially screened by the railway embankment and associated vegetation along the northern edge of the Site.

Ecology

9.9 Ecological surveys have been carried out, which found that:

 The site contains woodland, grasslands, hedgerows and chalk streams. These habitats contain some interesting flora features such as early marsh orchid, bee orchid, common spotted orchid and adder's tongue.

Application Site Boundary (6.8ha) Conservation Area Green Belt Existing Tree Canopy Outline Root Protection Areas Existing Roads Existing Link Existing Railway Noise Caused by Existing Industrial Unit Existing Significant Structures Existing Surface Water Storage Existing Water Features Existing Bus Stops Existing Landscape Structure Opportunity for Vehicular Opportunity for Pedestrian/Emergency Access Existing Informal Pedestrian Links to be Improved Potential Pedestrian Links Sensitive Edge Development Framework Existing Development

32 Lan



- The Site supports a bird community typical of woodland edge habitat. The open grassland and hedgerows support the Corn Bunting which is of local importance. No significant congregations of any other species of conservation concern were recorded on Site.
- No Badger, Otter or Water Vole were recorded during the surveys and no field signs to indicate their presence were identified on-site.
- The site supports small populations of Common Lizard and Grass Snake.

Topography

9.10 The Site is generally flat and slopes slightly inwards from the western and eastern boundaries to the central watercourse which flows generally northwards through the Site. Levels in the western part of the Site range from approximately 10.0 to 9.3m AOD and levels in the eastern part of the Site range from approximately 10.5m AOD to 9.3m AOD.

9.11 The Site is at a lower level than the majority of Fulbourn and lies at the foot of a (chalk) hill the crest of which reaches to approximately 60m AOD at a point approximately 2.4 km to the south of the Site.

Site Investigation

9.12 A phase 1 Desk Study and Phase 2 Site Investigation Report was undertaken, and concluded that:

- Chemical analysis did not show any determinants to be above the respective guideline levels.
- Based upon the findings of the ground investigation, it has been assessed that soil contaminants of concern were present at concentrations unlikely to cause a risk to human health. Furthermore, it is considered that there is unlikely to be a risk to Controlled Waters from the contaminants of concern in the soils due to their very low concentrations and environmental mobility.

Drainage

Watercourses

9.13 The Site lies in Flood Zone 1 and is therefore not considered to be at risk of inundation from a tidal source or river with a catchment of more than $3\ km^2$.

9.14 There are three watercourses/ditches which run through/around the Site:

 The central watercourse which runs northwards through the Site, beneath the rail line and joins Cawdle Ditch some 1.3km to the north of the Site.

- The ditch along the southern boundary of the western section of the Site, which joins the central watercourse.
- The Teversham Road ditch runs northwards along Teversham Road and also joins Cawdle Ditch.

9.15 It is not proposed to remove or pipe any of the existing watercourses. Where roads and footpaths cross the central watercourse they would be bridged.

Surface Water

9.16 Surface Water runoff from the surrounding area (run-on) enters the Site via two potential pathways:

- Flows being routed along Cox's Drove tipping onto the Site at the south-eastern corner of the Site.
- Flows gathering in a low point on Cow Lane and tipping northwards (between the existing properties on Cow Lane) at a point adjacent to the Cow Lane- Cox's Drove junction.

Ground Water

9.17 As the Site lies towards the base of a chalk hill, it is likely to be exposed to elevated groundwater levels. Ground water levels were investigated via three on-site boreholes and it was concluded that groundwater flooding is not a significant threat to the proposed development.

Foul Water

9.18 Existing foul sewers are present on Teversham Road and Cox's Drove. Foul water from the proposed development will be discharged into the public sewer at Teversham Road.

Utilities

Electricity

9.19 The electrical network in the area is owned and maintained by UK Power Networks (UKPN).

9.20 There are existing low and high voltage underground cables located within the adjacent road networks. There is also a low voltage underground cable within the Site's south-western boundary, but the location of the cable does not cause a constraint to the proposed development.

9.21 There is a low voltage overhead cable along Teversham Road with a pole located in the middle of the proposed Site access, which is proposed to be terminated either side of the proposed access and diverted underground.

Gas

9.22 National Grid (NG) has existing low pressure gas mains adjacent to the Site within the local road network.

Water

9.23 There are existing Cambridge Water (CW) potable water mains within the local road network adjacent to the Site.

Telecoms

9.24 Virgin Media records indicate there are existing underground cables located within the adjacent road network.

Noise

9.25 There are a small number of noise sources that are currently largely unsilenced and located externally on the north-west boundary of the Site. These are straightforward to attenuate which would transform the acoustic environment to the north-west. Technical solutions also exist to address the current levels of noise and to create internal and external living spaces that comply with the adopted acoustic standards.

9.26 Therefore the noise assessment concludes that the Site is acoustically suitable for residential development. However, conversations are ongoing with the owners of the industrial units to the north-west to seek solutions to reduce the noise from this area.

Odour

9.27 The levels of odour likely to be experienced by new residents on the Site are not considered to amount to a statutory nuisance and, given their low level of intensity, extent and frequency, would not adversely affect residential amenity.

Archaeology

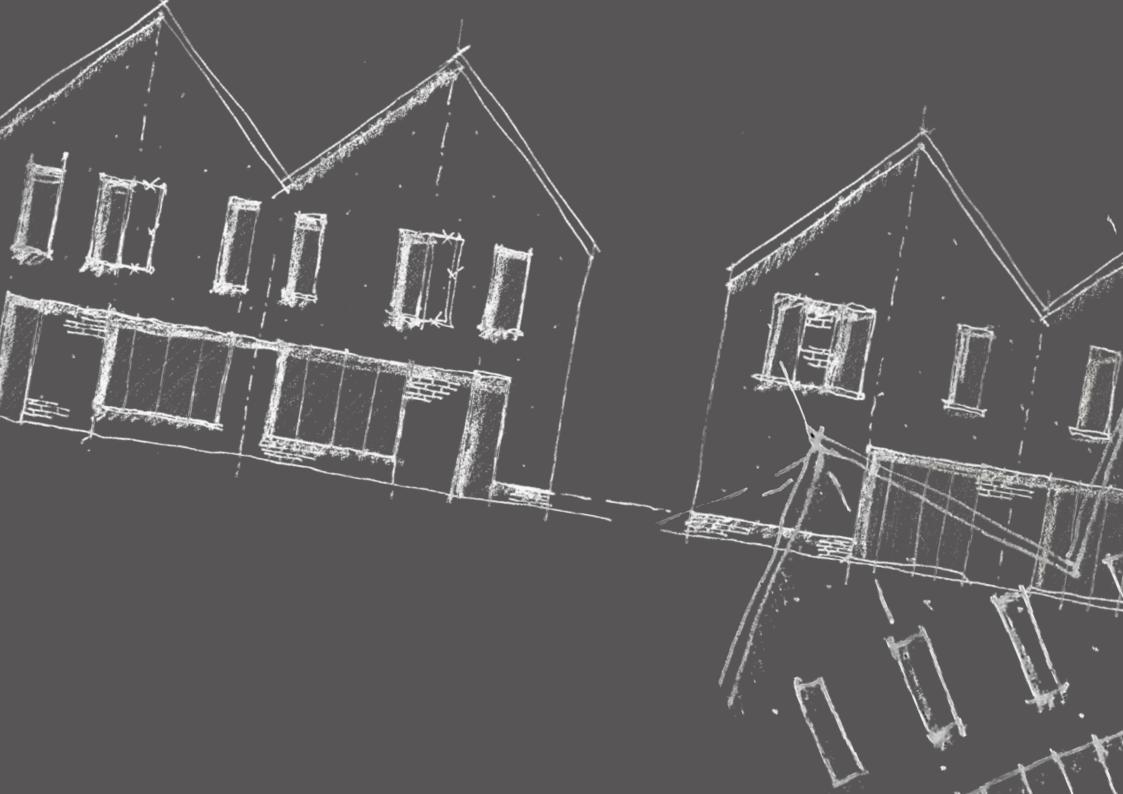
9.28 A desk-based archaeology assessment identified that the Site has moderate archaeological potential for the late Prehistoric, Roman, Anglo Saxon and early Medieval periods with the potential for evidence of land division and agricultural activity.

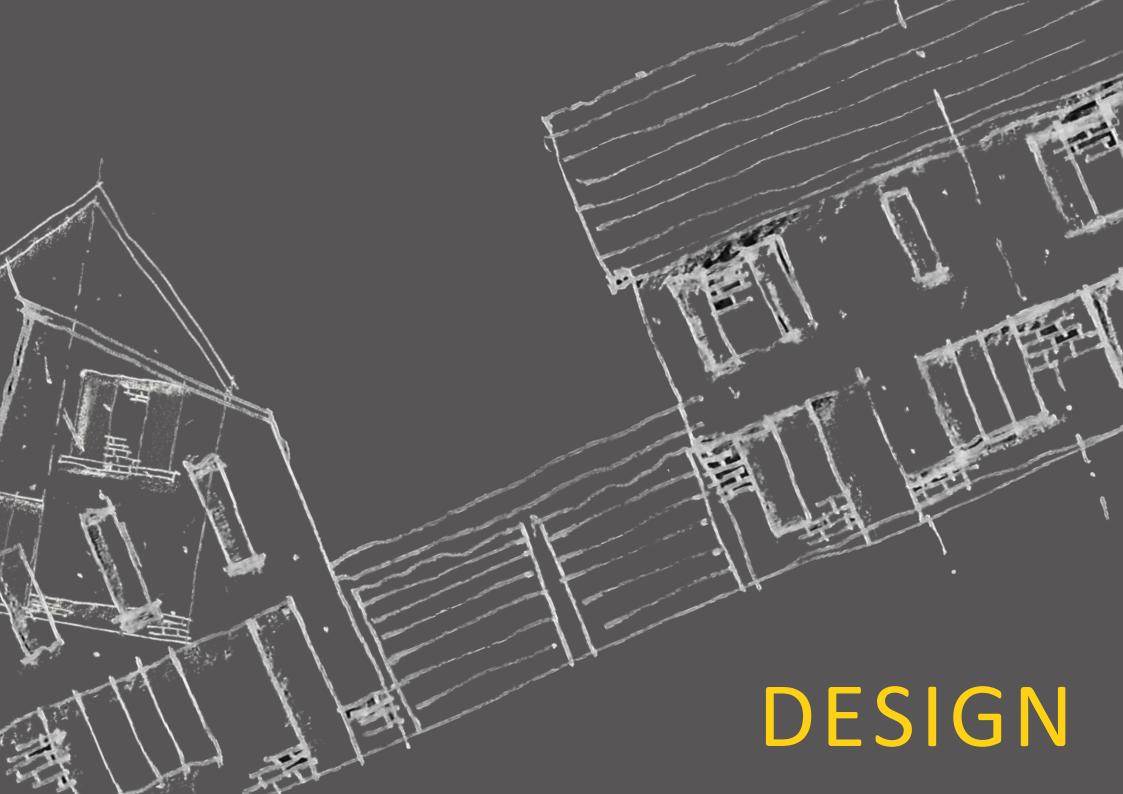
9.29 On the basis of the available evidence any future development would be unlikely to have either a significant or widespread archaeological impact, although unknown archaeological remains of local importance could be encountered.

Heritage

9.30 The Pump House Garden at the southern part of the Site, falls within the Fulbourn Conservation Area. There are also two Grade II listed buildings, and various locally listed buildings within the vicinity of the Site.

9.31 Any built form would be set back from the southern boundary of the Site including where the Pump House Garden meets the main body of the Site. In addition mature tree planting would be retained to respect the heritage value of the conservation area and listed buildings in the vicinity of the Site.





10. CONCEPT

10.1 The concept illustrates the rationale behind the design for the Site, and is similar to the concept for the previous application (S/2273/14/OL). The key principles include:

- The development has been structured around a network of generous publicly accessible, linked green spaces and existing mature planting.
- Over 50% of the Site is offered as open space and landscaping, and all high quality trees (Category A) and 92% of Category B trees are retained as part of the proposals.
- The proposed meadow park and green corridors provide recreational opportunities, biodiversity hotspots, and accommodate surface water run-off.
- The Pump House Garden (never before publicly accessible) will be opened to benefit both new and existing residents of Fulbourn.
- Development will be in keeping with the built character of the village.
- Main pedestrian/cycle access is taken from Cow Lane via the Pump House Garden and Poorwell Water, which creates a green entrance to the development.
- Vehicular access is taken off Teversham Road.
- An emergency and pedestrian/cycle access is proposed off Cox's Drove.





11. SCHEME PARAMETERS

11.1 The distribution and amount of each land use is illustrated in Figure 10.1 and described on the following pages. The distribution of land uses has evolved from the evaluation of the constraints and opportunities and the concept for the Site.

Open Space & Landscaping	3.54ha
Open Space, including Proposed Planting, Children's Play Areas, Footpaths, occasional Parking, SuDS	1.84ha
Existing Vegetation	0.96ha
Pump House Garden	0.71ha
Proposed Boundary Planting	0.03ha
Residential Development	3.31ha
Total Site Area	6.85ha

Table 11.1 Land Uses

USE AND AMOUNT

Residential

Indicative Mix

11.2 The development will deliver a range of housing of different size and tenures.

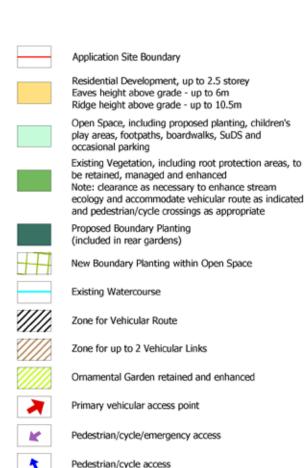
11.3 At this Outline stage the Illustrative Layout has been based on an indicative mix, as set out below:

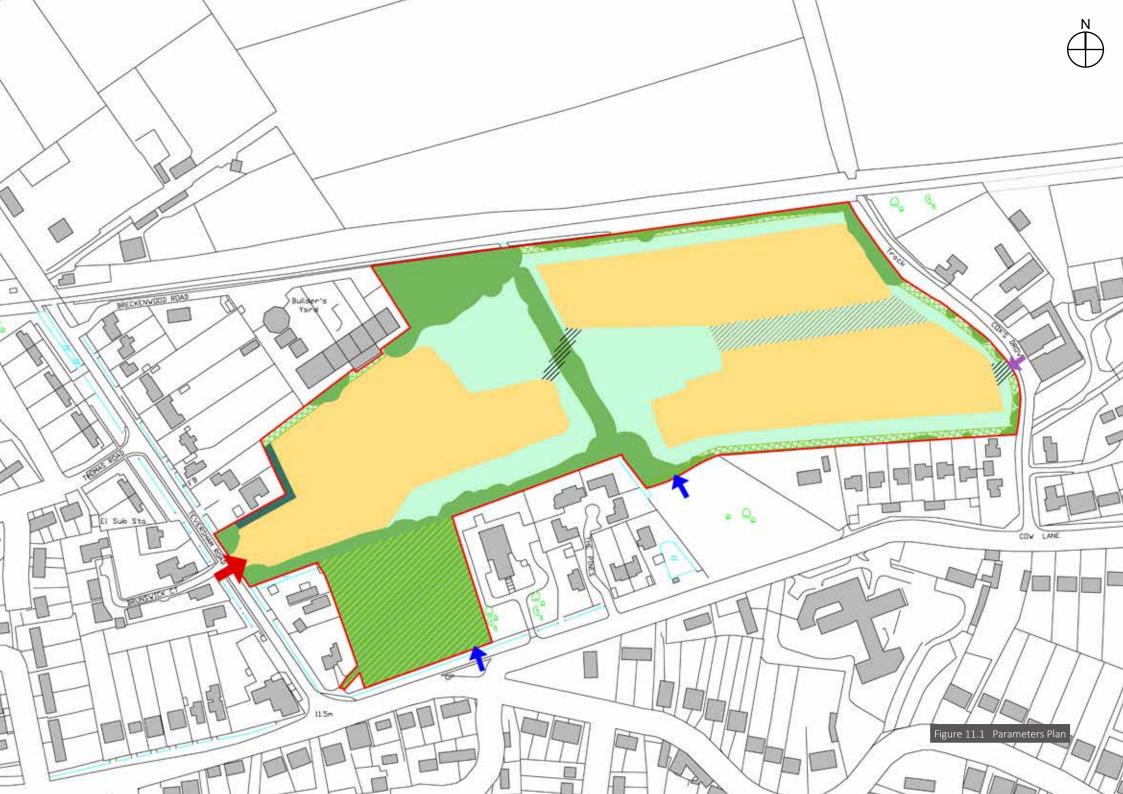
•	2 Bed Flat	8%
•	2 Bed House	17%
•	3 Bed House	35%
•	4 Bed House	35%
•	5 Bed House	5%

11.4 The composition of the mix will be confirmed at reserved matter stages, and will respond to market demand and local housing needs.

Density

11.5 The Net residential area measures 3.31ha, which gives an average net density of up to approximately 33dph to achieve up to 110 homes. The gross density for the Site is approximately 16dph, which is significantly lower than the recent proposals for The Swifts (44dph) and Ida Darwin (19dph).





'The Pumphouse Garden will be opened to public use for the first time in its history'

Open Space & Landscaping

11.6 Open Space requirements have been calculated following emerging Local Plan policies 'SC/7 Outdoor Play Space, Informal Open Space and New Developments' and 'SC/8 Open Space Standards', but the provision is also compliant with the adopted Open Space SPD (January 2009). As the development accommodates less than

200 dwellings, on-site provision is only sought for informal open space, Local Area for Play (LAP) and Local Equipped Area for Play (LEAP). The subsequent requirements and provisions are set out in Table 10.2. The Illustrative Layout is driven by open space and landscape provision, and proposes 3.54ha, more than half the Site area.

Existing Vegetation

11.7 The Site comprises significant existing landscape features (0.96ha). Existing landscape buffers and structural planting would be retained and enhanced within the proposals wherever possible and viable.





Proposed Boundary Planting

11.8 Additional boundary planting (0.03ha) is proposed around the properties directly to the north-west of the Site to provide screening.

Open Space

11.9 The Masterplan proposes generous amounts of open space, 2.55ha including the Pump House Garden (0.71ha). The open space comprises the Pump House Garden, a meadow park, proposed planting, children's play areas and accommodates surface water run-off, and is significantly in excess of the minimum requirements.

11.10 The currently closed Pump House Garden will be opened to public use for the first time

Open Space Standards	On-site Requirement	Provision	
Formal Children's Play Space 0.4ha/1000pop	0.12ha	0.12ha	
Informal Children's Play Space 0.4ha/1000pop	0.12ha	2 421-	
Informal Open Space 0.4ha/1000pop	0.12ha	2.43ha	
TOTAL	0.36ha	2.55ha	

Table 11.2 Open Space Provision

in its history and will accommodate areas for informal recreation. The Pump House Garden will also provide pedestrian/cycle access to the Site, creating a green entrance to the development. Some clearance will be undertaken to enhance the qualities of the garden.

11.11 A series of elevated board-walks provide recreational routes through the Site, which link a series of green spaces and connect to the existing pedestrian network in Fulbourn.

Children's Play Areas

11.12 The requirement for equipped play areas can be accommodated through the provision of a Local Equipped Area of Play (LEAP) and a series of Local Areas of Play (LAPs), which provide safe and easily accessible doorstep play opportunities for young children. The approximate location of the LEAP is illustrated on Figure 10.3, and the location of LAPs will be confirmed at reserved matters stage.

11.13 The permeability of the Site enables all dwellings to be within 400m walking distance (5min) of the LEAP, as recommend in the FIT guidance. Natural play equipment is proposed to complement the character of the open spaces throughout the Site.

SCALE

Building Heights

11.15 The heights of buildings relate to landscape features on the Site, the general building scales in Fulbourn, and the landscape and visual analysis.

11.16 In accordance with the average storey heights in Fulbourn, the Site will contain a mix of predominantly 2 and 2½ storey dwellings. It should be noted that the buildings heights on the Parameters Plan (Figure 10.1) illustrates the maximum height parameter.

Building Mass

11.17 The massing of dwellings should respond to the width and depth of building in Fulbourn.



12. ILLUSTRATIVE PROPOSALS

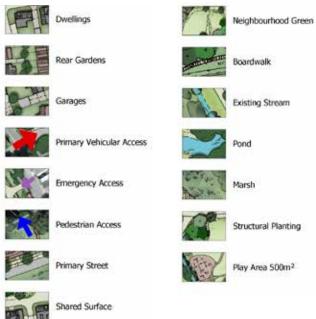
12.1 The Illustrative Layout builds on the identified Constraints and Opportunities, and has been developed from the Concept Plan and Scheme Parameters.

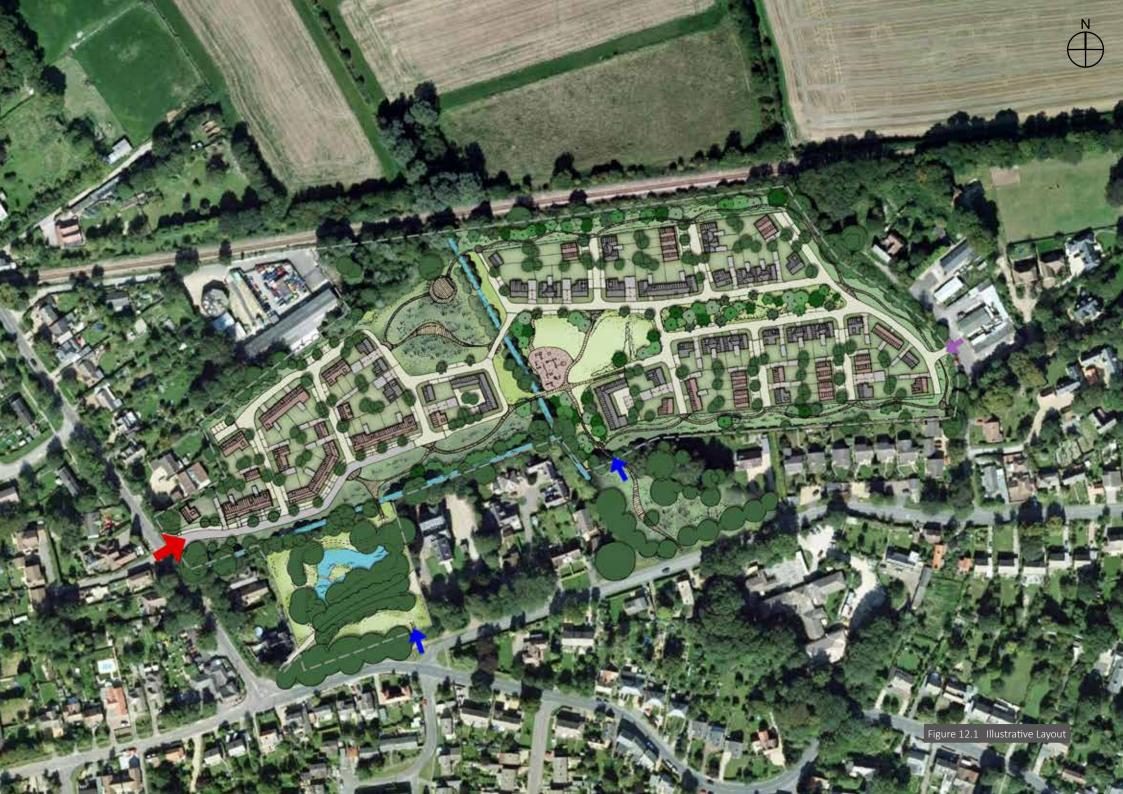
12.2 The Layout illustrates one way of interpreting the design principles set out in this DAS:

- The Pump House Garden and proposed meadow park link to Poorwell Water and create a green heart on the Site. Together with the existing planting and tree belts, it provides a mature landscape setting to the proposed development.
- The Pump House Garden, the meadow park and green corridors provide children's play areas, footpaths and informal recreational opportunities for the benefit of both new and existing residents of Fulbourn.
- Main pedestrian/cycle access is taken from Cow Lane via the Pump House Garden and Poorwell Water, which create green entrances to the development and short links to the village centre.
- Main vehicular access is taken off
 Teversham Road, with an emergency and
 pedestrian/cycle entrance from Cox's
 Drove.
- All existing high quality trees (Category A) and the vast majority of Category B trees

- would be retained and over 100 new trees, site wide, are proposed.
- The existing chalk stream would also be incorporated in the development and form part of the proposed drainage network.
- Open spaces accommodate areas for surface water run-off, which contribute to a diverse landscape setting on the Site.
- A network of boardwalks creates attractive green routes through the Site, which link to the existing pedestrian network in the village.
- A simple network and hierarchy of streets is proposed to create an attractive and legible environment.
- Houses would side onto the railway and southern boundary to minimise impact on the adjacent development, whilst providing surveillance to the boundary of the Site.
- Development is set-back from the southern boundary to sensitively respond to the conservation area and locally listed buildings to the south of the Site.

•





12.3 The illustrative aerial perspective adjacent is taken from a viewpoint north of the site, showing the extent of the Meadow Park and its connections through Poorwell Water and the Pumphouse Garden onto Cow Lane and into the village.





13. CHARACTER AND APPEARANCE

13.1 An illustrative appearance strategy has been derived from the character assessment and suggests how the Illustrative Layout could be articulated using character areas.

13.2 The appearance strategy proposes three character areas, as shown on the plan opposite and set out on the following pages.

PUBLIC REALM TREATMENTS

13.3 A simple palette of natural materials and colours, as the examples shown adjacent and including timber boardwalk, gravel, block paving, and some tarmac, is proposed to complement the landscape setting of the Site.

13.4 Materials in shared surfaces should contrast with the main street to reinforce pedestrian priority in these spaces.

13.5 The predominant materials could include:

- Tarmac
- **Block Paving**
- Gravel for footpaths
- Timber for boardwalks















Village Lanes



Meadow Park at the heart of the development, provides recreational opportunities and accommodates surface water run-off.

Larger units, linked and positioned to create a strong frontage

A network of boardwalks creates attractive green routes through the Site, throughout the year.

gure 13.3 Extract - Meadow Park Character Area

Land at Teversham Road | Fulbourn

Meadow Park

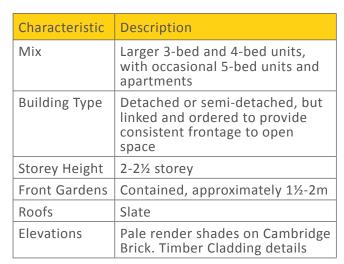
13.6 This character area focusses around the meadow park at the heart of the development. Larger units are proposed to create a strong frontage and sense of enclosure to the open space.



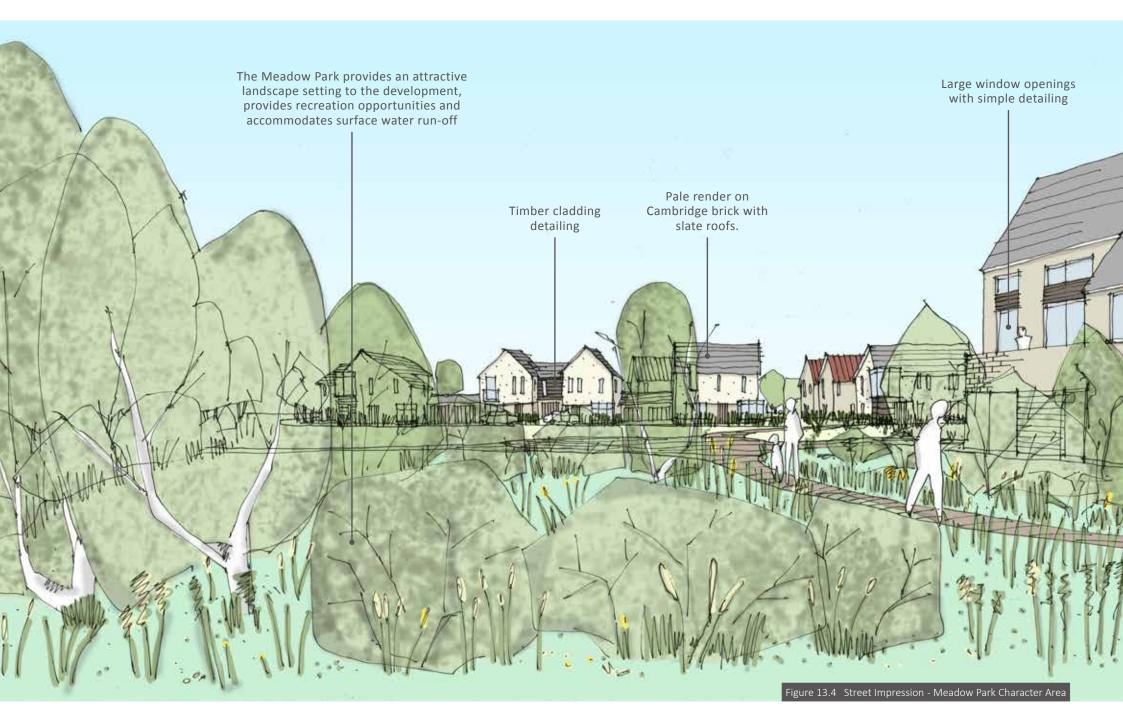








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Village Lanes

13.7 The village lanes character area covers the western part of the Site, and relates to the edge of village condition and the presence of the pumping station. It proposes an intimate network of lanes at a smaller scale, using 'cottage' type units.

Characteristic	Description
Mix	3, 4 and 5-bed units
Building Type	Detached or semi-detached Generally wide frontage 'cottage' type dwellings
Storey Height	1.75-2 storey
Front Gardens	Deeper where possible, min 2m
Roofs	Pantiles
Elevations	Dark timber cladding or pale render shades on Cambridge brick







Land at Teversham Road | Fulbourn





Mix of 2, 3 and 4-bed units. Linked around the green space to create a strong frontage, more detached in side streets

Contained gardens of approximately 1½-2m

Side façades towards the southern boundary to minimise the impact on the neighbouring homes, whilst providing surveillance to the boundary of the Site



Characteristic

Building Type

Storey Height

Front Gardens

Mix

Roofs

Elevations

13.8 The village streets character area covers the eastern part of the Site. The principle aim is to create a neighbourhood network, reflecting the greater proximity of this part of the Site to the village centre.

Description

2-2½ storev

cladding details

2, 3 and 4-bed units

Predominantly short terraces and semi-detached dwellings with occasional detached dwellings.

Contained, approximately 1½-2m

Slate to major east-west routes and pantiles to side streets Cambridge brick with varying

extents of render and/or timber











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14. LAYOUT PRINCIPLES

URBAN FORM

14.1 In order to strengthen the sense of place and legibility of the proposed development, a series of urban form principles have informed the Illustrative Layout.

Key Frontage

14.2 Key frontages reinforce the heart of the development and provide a sense of enclosure around these key open spaces.

14.3 The key frontage contributes to creating an attractive and legible environment and guide people to the heart of the scheme. They also provide natural surveillance.

Key Buildings & Building Clusters

14.4 Key buildings or building clusters mark important locations within the development and fulfil at least one of the following functions:

- Completing vistas and key views.
- Creating gateways and pinch points.
- Creating landmark buildings to assists with way-finding through the Site.
- Creating a sense of scale and enclosure at key spaces.

14.5 Opportunities exist to vary the architecture and detailing of key buildings. However, they should still respond to the principles set out in Section 12.



STREET HIERARCHY

14.6 A simple network of streets is proposed to create a legible neighbourhood. The hierarchy of streets is based on their type, function and location within the development. Whilst materials, colours and detailing of the public realm may vary within the various character areas, the main street characteristics are overarching throughout the scheme.

14.7 Figure 14.3 shows the distribution of the streets within the development and Figures 14.4-14.7 set out the main characteristics and indicative widths of each street.

Parking Principles

14.8 A number of parking solutions are illustrated on the street sections, however other car parking solutions may also be appropriate. A mix of parking types is proposed within the development, both on-plot and off-plot, which are well integrated within the design to minimise visual impact and obstruction for pedestrians and cyclists.

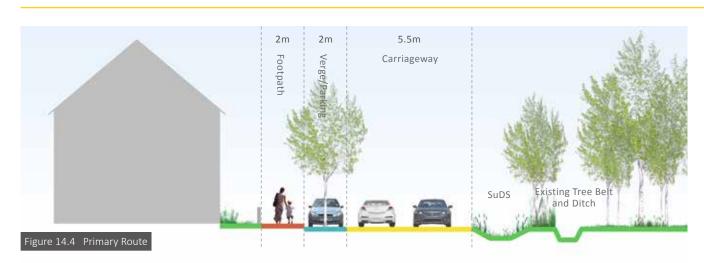
14.9 Car parking is designed to be safe and secure with natural surveillance from overlooking properties. Spaces for cars should not interrupt service of emergency vehicle access or create unsafe conditions for pedestrians and/or cyclists. The overall parking provision will be to a level in accordance with local requirements, and will be agreed at the reserved matters stage.

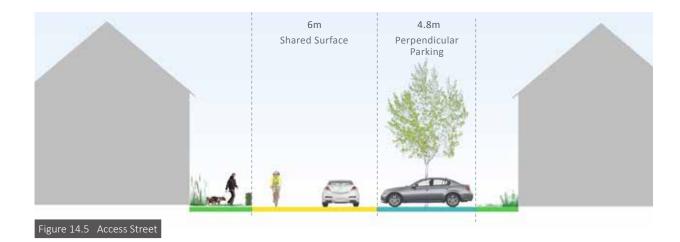
14.10 The following parking principles will apply to the types of parking proposed:

- On-plot:
 This can include open spaces, car ports and garages.
- Off-plot:
 This can include on street parking in marked parking bays and parking areas within incidental spaces and mews.









Entrance Road

14.11 The entrance road distributes vehicles from Teversham Road into the Site and follows an existing mature tree belt and ditch.

Building Types & Heights

14.12 Linked terraces and semi-detached dwellings create a strong frontage along the entrance road. They are generally wide-fronted, 'cottage' type dwellings. Heights vary between 1.75 and 2½ storey.

Buildings Lines & Gaps

14.13 Building lines should be generally consistent with limited gaps between buildings. Dwellings could be linked via an extra room over garages/parking to reinforce the continuous frontage.

Boundary Treatment

 $\ensuremath{^{14.14}}$ Gardens should be contained by low walls or hedges.

Access Streets

14.15 The access streets are predominantly shared surfaces, designed to be pedestrian friendly and encourage low traffic speeds. Parking should be carefully integrated in parallel or perpendicular form.

Building Types & Heights

14.16 A mix of terraces, semi-detached and occasional detached dwellings. Building heights vary between 1.75 and 2½ storeys.

Buildings Lines & Gaps

14.17 Variation in building lines and larger gaps between buildings should be acceptable.

Boundary Treatment

14.18 If used, boundary treatments should be a mix of low walls and hedges.

Lane/Private Drive

14.19 The lanes and private drives are designed as single-sided pedestrian and cycle friendly streets, adjacent to landscape features. An informal setup and occasional street planting creates a soft transition to the adjacent landscape.

Building Types & Heights

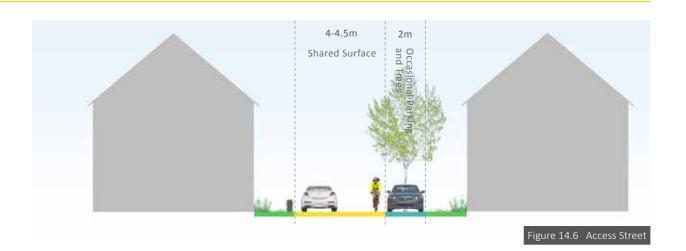
14.20 Lanes and private drives predominantly accommodate semi-detached and detached dwellings. Building heights vary between 1.75 and 2 storey, with 2½ storeys in key locations.

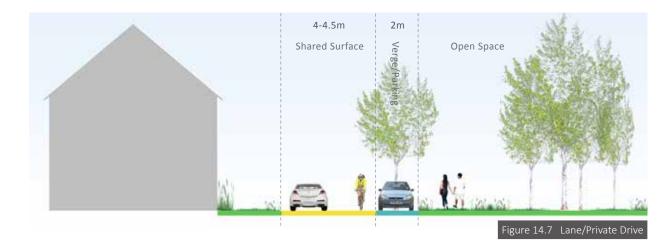
Buildings Lines & Gaps

14.21 More variation in building lines and gaps between buildings is considered appropriate.

Boundary Treatment

14.22 Front gardens should be well planted to create a soft transition between the built development and the adjacent landscape. If boundary treatments are use they should be predominantly low hedges.





15. LANDSCAPE AND ECOLOGY

LANDSCAPE STRATEGY

15.1 A strong landscape-led approach to the proposed development will ensure that the development is integrated successfully into the landscape.

15.2 In broad terms, the landscape strategy aims are to create an attractive setting for the development, assimilating the built elements into the surrounding landscape / townscape to minimise effects on visual amenity and landscape character.

15.3 A number of considerations emerging from the landscape and visual appraisal have influenced the design of the proposed development. These are described below:

- The retention of the strong landscape structure that provides containment to the Site.
- The creation of wide landscape buffers between the existing tree belts and built form.
- The retention of large areas of grassland within the scheme, which would provide new areas of publicly accessible open space, managed positively for biodiversity and water attenuation.
- The retention of the chalk streams within the Site.

- The enhancement of the landscape structure around the Site, including the creation of a landscape buffer along the northern edge of the Site along the railway embankment.
- The introduction of over 100 new trees, site-wide.
- The introduction of a network of surface water drainage channels / swales planted with moisture tolerant grasses and shrubs.
- The introduction of a network of paths which would enhance connectivity and provide circular routes around and through the scheme.
- The enhancement of the Garden, to restore the feature pond and provide public access to the Garden, where presently there is none.
- The introduction of a new play area in the meadow park which encourages natural play.

ECOLOGY

15.4 The Illustrative Layout has been subject to ecology guidance and the following measures are proposed to retain and enhance the biodiversity on the Site:

 The majority of ecological features will be retained as part of the proposed

- development and where losses are anticipated alternative enhanced habitats will be provided.
- Inclusion of an area of open grassland and incorporation of native plant species to enhance the value of the Site for nesting birds, and safeguard the present bird population including the Corn Bunting.
- Inclusion of an area of a meadow park to provide a biodiversity hotspot suitable for moisture loving species such as early marsh orchid.
- Vegetation clearance to be scheduled outside the breeding bird season where possible, and undertaken immediately after completing a nesting bird check where unavoidable.
- Habitat creation to safeguard the reptiles present on the Site, and mitigation to ensure that no reptiles are harmed during the construction.
- Preparation of an Ecological Management Plan.
- Maintaining dark corridors across the Site for foraging and commuting bats.
- Providing bird and bat boxes to encourage these species groups to reside within the Site.



Development, in order to respect the setting of the Conservation Area, and maintain an undisturbed

Opportunity for a new pedestrian access to the Pump House Garden from Cow Lane, allowing public access to the Pump House Garden

Opportunity for new footpath links between the Pump House Garden and the Proposed Development

zone within the root protection areas of the trees

The pond within the Pump House Garden would be restored, and poor quality trees removed to address overshading within the Pump House Garden

Landscape scheme including new tree planting, reflecting existing street character, to accompany access proposals

The majority of trees would be retained, and over 100 trees would be introduced site-wide

Large publicly accessible open spaces would be created, managed positively for biodiversity and water attenuation, planted with moisture tolerant wildflower species and grasses

New wide landscape buffer zones would reinforce existing hedgerow and screen views of the railway embankment from the Appeal Site. The planting would reinforce what is already a well defined edge between the northern edge of the Appeal Site and southern edge of the Green Belt

A network of open spaces would be created, extending through the Appeal Site

A network of surface water drainage channels / swales would be provided across the Appeal Site, planted with moisture tolerant trees and shrubs, contributing to the site-wide green infrastructure and visual amenity

Opportunity for a new play area within centre of Proposed Development, connected with Poorwell Water and which would encourage natural play

A new green infrastructure link would be created along Cox's Drove, contributing positively to the setting of Cox's Drove

A network of paths would be introduced which would enhance connectivity and provide circular routes around and through the scheme

New native-species hedgerow structure would be planted along the boundaries of the Appeal Site where required

Figure 15.1 Landscape Strategy Plan

16. TOPOGRAPHY, DRAINAGE AND UTILITIES

TOPOGRAPHY

16.1 The Site is generally flat and lies at a lower level than the majority of Fulbourn, causing a risk of flooding from surface water run-off from the surrounding development.

DRAINAGE

Surface Water

16.2 The proposed surface water management scheme relies on restricted outfalls to the central watercourse.

16.3 The Illustrative Layout accommodates space for surface water runoff from the surrounding development (run-on) and for run-off generated by proposed development itself (run-off). Consequently, the majority of the high and medium surface water flood areas have been kept free of built development.

16.4 Three bioretention basins are proposed, which will each capture flows from the development parcels. The design depth of each facility is 600mm in order to help keep their bed above the high groundwater levels recorded at the site. Flows leaving the bioretention basins will be controlled by a filter control.

16.5 Flows will be conveyed to the bioretention basins via a series of rills/canals. Two main types of rill/canal are envisaged:

- Planted 'residential' rills serving to collect runoff shed from roofs and private hardstanding.
- Roadside rills (inspired by Hobson's Conduit) serving the roads.

16.6 Finished floor levels will be set at or above 300mm above current ground levels as an added precaution against surface water flooding.

Foul Water

16.7 Existing foul sewers are present on Teversham Road and Cox's Drove. Foul water from the proposed development will be discharged into the public sewer at Teversham Road.

UTILITIES

Water

16.8 Cambridge Water have confirmed that the existing main in Teversham Road can accommodate a development of this size.

Gas

16.9 Connection can be made to the existing low pressure main located to the west of the Site within Teversham Road

Electricity

16.10 A point-of-connection is proposed to the existing high voltage network located along Thomas Road to the west of the Site. It is anticipated that the 11kV (HV) network will need to be extended into the Site and a new substation will be required.

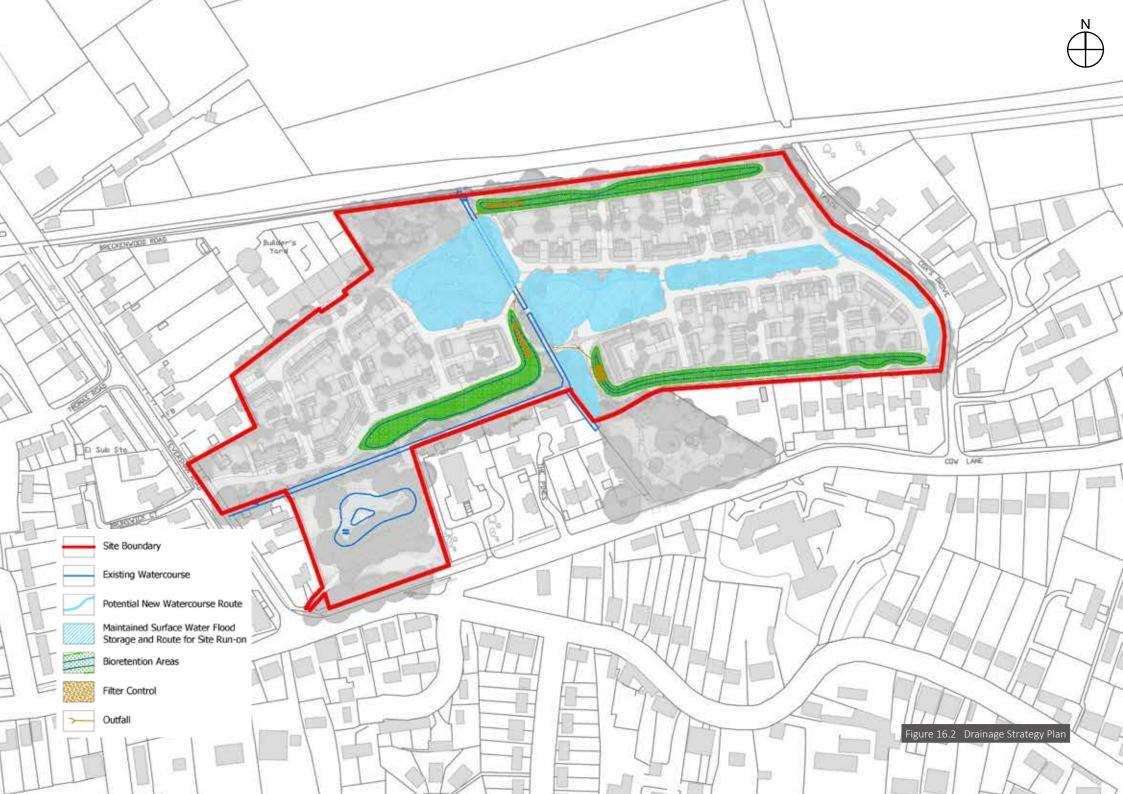
Telecoms

16.11 BT has a statutory obligation to provide telecommunication services but it will be the developer's responsibility to arrange the required service at the appropriate time when the development proposals are advanced.





Figure 16.1 Rills & Channels Examples
Source https://www.cambridge.gov.uk/sites/www.cambridge.gov.uk/
files/docs/SUDS-Design-and-Adoption-Guide.pdf
Land at Teversham Road | Fulbourn



17. ACCESS AND MOVEMENT

Site Access

17.1 It is proposed to provide a priority junction with a ghost right-turn lane from Teversham Road for vehicular access. This junction will facilitate all vehicular movements to and from the Site.

17.2 It is also proposed to provide three additional pedestrian/cycle access points, including an access from Cow Lane via the Pump House Garden, from Poorwell Water and off Cox's Drove. These access points will provide connections through to the village from the Site.

Vehicular Network

17.3 Vehicular movement within the development will be accommodated through a simple network of interconnected streets.

17.4 A hierarchy of streets is proposed as described in Section 13. Streets will be designed to a maximum of 20 mph speeds, which will be reinforced through traffic management measures.

17.5 Traffic calming will be designed to be integrated within the built environment, rather than having highway features dictate the street scene.

Pedestrian and Cycle Network

17.6 The Site will be designed to provide the most direct cycle and pedestrian linkages to the local existing road and footway network. The Site benefits from good connections to local public facilities for pedestrians and cyclists. The four access points will provide good connectivity to the local pedestrian and cycle network.

17.7 Footways on Site will be designed to facilitate pedestrian movement through and from the Site to the local footpath network. The new footway and informal crossing points will provide greater permeability.

Public Transport

17.8 The existing bus stops located less than 400m from the Site on Hinton Road provide access to the thirty minute services Citi 1 and Citi 3. These services provide routes into the major local employment destinations such as Capitol Park, ARM, Addenbrookes and the city centre. They also provide routes to Cambridge Station, retail destinations such as Tesco and Cambridge.

Servicing, Refuse and Emergency Vehicle Access

17.9 Emergency access is proposed off Cox's Drove, and the internal road layout will be set out to accommodate servicing, emergency and refuse vehicles accessing and egressing in forward gear.

Parking

17.10 Parking will be provided in accordance with the emerging Local Plan policy 'TI/3 Parking Provision', which exceeds the adopted policy 'TR/2 Car and Cycle Parking Standards'.

17.11 Parking will be provided as follows:

- 2 car parking spaces per dwelling 1 space to be allocated within the curtilage
- 1 bicycle space per bedroom
- Additional provision may be needed for visitors, service vehicles, salesmen.

Residential Travel Plan

17.12 A Residential Travel Plan has been submitted as part of the application, which aims to target a mode shift away from single occupancy car trips and encourages sustainable travel options at the Site and to the wider community.

17.13 Several initiatives will be implemented at the Site to encourage sustainable travel. These initiatives include, amongst others, free Car Club membership for the first year for each dwelling and a £50 voucher for each dwelling to use towards a bicycle/cycling equipment or public transport.

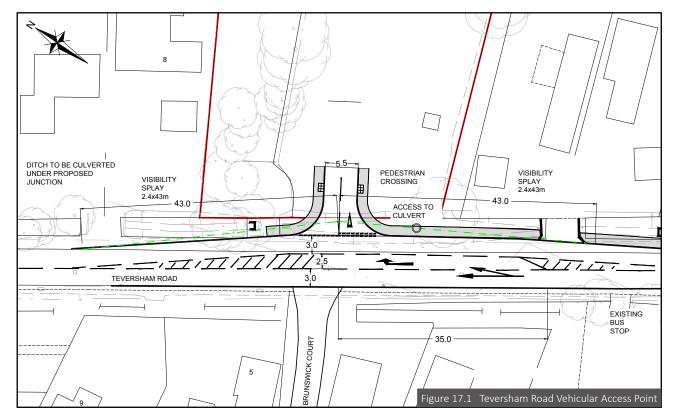
17.14 A Travel Plan Coordinator will be appointed to implement the Residential Travel Plan and to supervise its operation.

Inclusive Design

17.15 The aim for inclusive design is to remove barriers which create undue effort, separation or special treatment, and enable everyone to participate equally in mainstream activities independently with choice and dignity. Although the principles of inclusive design have emerged from the disability movement, inclusive design is relevant to all members of society, such as older people, children and carers of young children.

17.16 From the outset the design of the development has included the fundamental principles of inclusive design. Our approach has been as follows:

- Provide level access to all buildings.
- Create safe pedestrian crossings.
- Ensure changes in level including ramps have a maximum gradient of 1 in 20 (5%).
- Provide good transport infrastructure and link to existing and proposed bus stops.









18. SUSTAINABILITY AND CLIMATE IMPACT

18.1 At this outline stage the proposals have given consideration to the national and local policies and regulations regarding sustainability and climate impact.

Energy and Carbon Dioxide

18.2 The design for the Site has considered building positioning and orientation to maximise both active and passive energy efficiency.

18.3 During detailed design stages further consideration will be given to individual dwellings including their orientation, internal layouts, fabric build ups, heating specification, and energy strategy etc. to further reduce energy consumption and carbon dioxide emission.

Water Management

18.4 The development proposals have given consideration to the National Planning Policy Framework and South Cambridgeshire Local Plan's planning policies regarding water consumption, flood risk and drainage.

18.5 The development will incorporate a range of water efficiency measures including:

- Reducing the internal potable water consumption across the development through the use of practical, water-efficient fittings.
- Providing the majority of homes with large water butts to reduce the amount of potable water used for external irrigation.

18.6 A drainage strategy has been proposed for the Site and is designed to accommodate run-off from the development for all events up to and including the 1 in 100 year (+30% climate change) event.

18.7 Rainwater could be harvested and reused within the development.

Pollution

18.8 The development aims to not only mitigate potential air, light, noise, water and ground pollution from the proposed development, but also to remediation and reduce existing pollution.







Materials and Waste

18.9 The aim of the proposed development is to respect the existing character of Fulbourn and use materials that match and complement the materials present in the village and its environment. Materials should also have a good environmental performance.

18.10 A Site Waste Management Plan will be considered at reserved matters stages, which could cover issues and measures such as:

- The creation of a dedicated area on-site for waste storage.
- The correct storage of materials to prevent spoilage.

- The sorting of any waste materials into streams for potential recycling (e.g. metals, plastics etc.).
- The identifying of opportunities to reuse waste materials on-site (e.g. the crushing of waste concrete and hard standing for reuse as secondary aggregate).
- The setting of targets for the minimisation of construction waste and the diversion of waste from landfill.
- Ordering only the required quantity of materials to prevent over ordering and materials exceeding their shelf life.

- The appointment of a waste champion whose responsibilities include updating the SWMP so that it is also accurate and relevant to the project.
- Full induction and on-site training of the workforce to ensure that best practice waste management principles are implemented.

Sustainable Transport

18.11 The emphasis is on promoting sustainable transport modes to reduce car journeys. The development provides good walking and cycling opportunities along streets, and a series of path which link with the adjoining neighbourhoods and village centre and provide good access to bus stops in the vicinity of the Site.

18.12 A Residential Travel Plan has been produced which has made a number of recommendations regarding measures and initiatives to encourage the use of more sustainable modes of travel including:

- The design of direct pedestrian linkages to the existing local footway network.
- The provision of off road cycle links which connect to the local cycle/road network.
- The provision of cycle parking spaces for each dwelling.
- The production and distribution of a Travel Information Pack to each household which includes information such as public transport timetables, local maps, and details about available season tickets etc.
- The distribution of cycle vouchers to households to act as an incentive for occupants to take up cycling.
- The distribution of free bus tickets to households to act as an incentive for occupants to use the bus network.

Land Use and Biodiversity

18.13 The development includes the following measures to protect, enhance and extend biodiversity on the Site:

- Retain and enhance ecological habitats wherever possible.
- Encouraging wildlife within open spaces and public realm through the careful selection of plant species.
- Encouraging wildlife within private space and buildings through the creation of a green space network.
- Creation and adoption of a Management Plan to ensure that retained habitats are enhanced and conserved long-term.

19. PHASING & DELIVERY

19.1 This section describes the principles behind the likely phasing of the development and provides indicative information on likely dwelling completions and the process for bringing forward the development.

19.2 It is envisaged that there will be overlap between phases starting and finishing, particularly in relation to the infrastructure provision. This will be confirmed at the reserved matters stage through the submission of a phasing strategy plan for the Site.

19.3 The anticipated rate of dwelling completions is shown in Table 19.1.

Open Space Standards	Date	Completions	Cumulative Total
Outline Application Submission	January 2017		
Committee Determination and Signing of Agreements (S106)	April 2017		
Preparation and submission of Reserved Matters Application	August 2017		
Approval of Reserved Matters Application	December 2017		
Completion of first 50 houses	August 2018	50	50
Completion of 60 houses	August 2019	60	110
TOTAL			110

Table 19.1 Phasing and Delivery





INVOLVEMENT & EVALUATION

20. PUBLIC CONSULTATION

20.1 An initial public exhibition was held on Saturday 28th June 2014, from 10am to 2pm. Invitations to the exhibition were sent before the event to local residents and stakeholders.

20.2 The display consisted of 5 exhibition boards printed on pull-up banners, which outlined various aspects of the proposals. Display materials have also been emailed or posted to local residents who requested copies before or during the event.

20.3 A total of 163 local residents and interested parties attended the event, and 51 of these completed a feedback form on the day. 14 were received via the Freepost address.

20.4 The majority of the comments related to the following themes:

 Principle of Development: A number of responses were opposed to the principle of development in Fulbourn. In particular, there is the perception that the nearby Swifts development and plans for 180 homes at the Ida Darwin Hospital Site are sufficient for meeting local housing need. Some residents were also concerned about the loss of green space in the village.

- Local Facilities: A number of residents
 were concerned about how local facilities
 would cope with more homes. There was
 a particular focus on schools and health
 services in the village, which residents
 believe are already at full capacity.
- Flooding: There is the perception from some respondents that the Site is already prone to flooding, and that development would exacerbate the flood risk.

20.5 Liaison with Planning Officers at South Cambridgeshire District Council has taken place to discuss the proposals, technical considerations and any potential impact on community facilities.

20.6 Information from meetings and further liaison, and feedback received at the exhibition was taken on board and incorporated in the proposals for the Site.

20.7 A second public exhibition was held on 28th August 2014, from 4pm to 8pm. 105 visitors attended, with 47 providing feedback. Whilst concern over the principle of development remained, there was some interest in the qualities of the proposals, e.g. in terms of boundary treatment, as well as wider considerations such as school places.





21. DESIGN EVOLUTION

21.1 The Masterplan has evolved through a comprehensive process of assessment, involvement and evaluation. The following plans show the schemes evolution.

Constraints & Opportunities and Concept Plan at Exhibition - June 2014

21.2 The Constraints & Opportunities plan was presented at the exhibition and identified the features on the Site, concluding that the rich collection of landscape features would contribute to an attractive and high quality living environment. It also identified the opportunity to offer a varied network of open spaces back to the village.

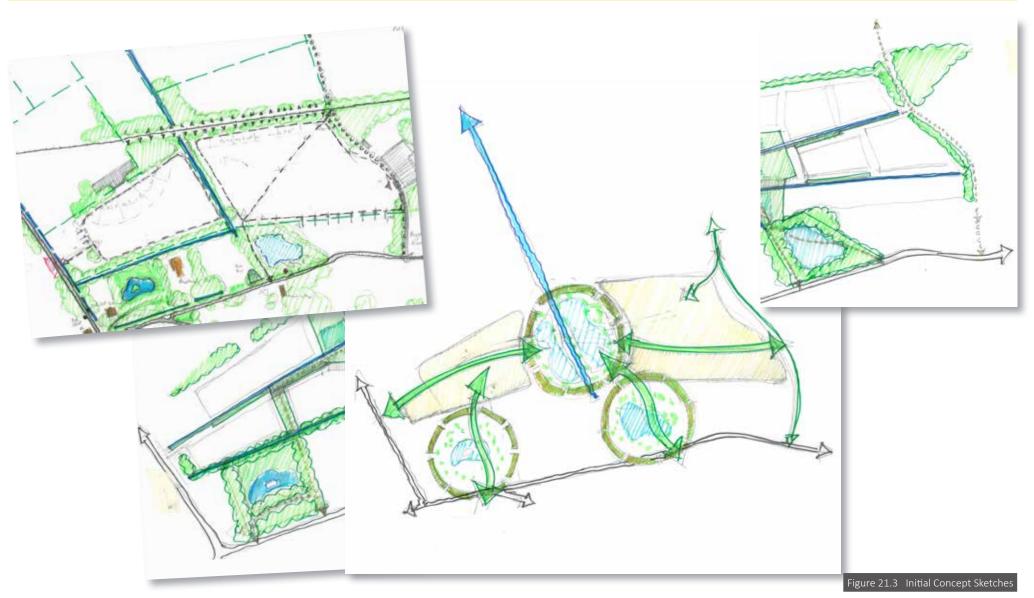
21.3 The Concept Plan derived from the constraints and opportunities and was also presented at the exhibition. The plan translates the identified positive features into a concept of generous, publicly accessible and linked green spaces. It shows how the Pump House Garden and Poorwell Water, along with a new meadow park, could be combined to form a heart to the development that is available to the whole village.



Figure 21.1 Constraints & Opportunities Plan



Figure 21.2 Concept Plan



Appearance Strategy - June 2014

21.4 As part of the layout and appearance development for the Site, a series of sketch elevation studies were undertaken. These sketches test the combination of different materials, extend of render, window openings and detailing. The studies have informed the Illustrative Layout and the appearance strategy as described in Section 12.

Illustrative Layout - August 2014

21.5 Following the public exhibition and liaison with Council Officers an Illustrative Layout was developed, based on the principles set out in the concept plan and the appearance strategy for the Site. The Illustrative Layout shapes the open spaces in the heart of the development, which was significantly influenced by the drainage strategy for the Site whilst also accommodating recreational opportunities. The drawing also provides information on access, position of buildings, orientation, frontage types and proposed landscaping.

21.6 During the exhibition comments were received about the vehicular access off Cox's Drove, which has subsequently not been included in the Illustrative Layout and changed to be an access for emergency vehicles, pedestrians and cyclist only.

21.7 The Illustrative Layout and appearance strategy were presented at the exhibition on the 28^{th} of August.

Illustrative Layout - January 2017

21.8 The Illustrative Layout submitted as part of the new application is largely based on the same principles as set out in application S/2273/14/OL. However, following further feedback the LEAP was moved from the Pumphouse Garden to the Meadow Park. Also, the vehicular access off Teversham Road has been amended to include a ghost right-turn lane.











CONCLUSION

This Design and Access Statement demonstrates how an attractive and sustainable neighbourhood of Fulbourn can be created on the Land at Teversham Road. The existing landscape features provide a mature setting to a high quality living environment, which will deliver a range of benefits to the local community and contribute to the vitality of Fulbourn.



