



West Mildenhall - Suffolk

Masterplan

28.10.22



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1

Introduction

This section introduces the site, explains the purpose and status of this Masterplan and outlines the Local Plan policy for the site.

1.1 Introduction

This Masterplan relates to the 'Land to the West of Mildenhall' (hereafter referred to as 'the site'), which is allocated for a comprehensive residential led mixed-use development within the Site Allocations Local Plan (SALP).

The Local Plan, specifically Policy SA4: Focus of growth 'Land West of Mildenhall', within the SALP identifies 'the site' as 97ha in area for mixed use development comprising of the following indicative capacity:

- 1,300 dwellings, 30% affordable;
- 5ha employment minimum
- Primary School and Early Years;
- 10ha of Suitable Alternative Natural Green Space (SANG);
- Strategic Open Space, Allotments;
- Local Centre; and
- Public Services and Leisure Facilities

The West Suffolk Local Plan seeks the delivery of these proposed land uses and infrastructure in the period up to 2031. This Masterplan establishes a vision and delivery mechanism to achieve these policy requirements.

1.2 The Site

The site is located to the west of the settlement of Mildenhall. The site is currently in use for agricultural purposes, namely the production of arable crops. The land is bounded to the north by the existing industrial estate serving the town, in the east by the existing urban edge of Mildenhall, to the south by the River Lark and Mildenhall Hub, and to the west by open countryside. It is, furthermore, crossed by the B1102 (West Row Road) routing through the centre of the site.

Several public rights of way extend within the Mildenhall Hub area. No other public rights of way are located within the site boundary. However, there are several farm tracks extending north and south from West Row Road. Additionally, a public right of way is located along the southern and south-eastern boundary of the site leading from Wamil Way to Wamil Hall Farm.

The site contains little in the way of vegetation. However, there are several hedgerows and tree lines along field boundaries. In addition, a small copse lies south of West Row Road in the centre of the site.

The extent of 'the site' is shown in Figure 1 adjacent.

1.3 Purpose and Status of the Document:

This Masterplan has been prepared in accordance with West Suffolk Council's (WSC) 'Protocol' for the preparation of Masterplans, which supports the implementation of Policy DM3 (Masterplans) of the Joint Development Management DPD. The Masterplan has been the subject of consultation with the local community, key stakeholders, statutory consultees and WSC prior to its adoption.

The Masterplan constitutes a material consideration and therefore there is the expectation that any future applications for planning permission should be broadly in accordance with this approved Masterplan.

The Masterplan frameworks and guidance set out in this document form a complimentary set of guidelines alongside other key policies of the adopted West Suffolk Local Plan.

1.4 Planning Policy Context

The policy context for this Masterplan is set out within the suite of documents that make up the West Suffolk Local Plan. These are the former Forest Heath Core Strategy (2010), its Single Issue Review (2019), the Joint Development Management Policies Document (2015) and the Site Allocations Local Plan (2019). At the time of adoption work has commenced on a Local Plan Review.

SALP Policy SA4, 'Focus of growth Land West of Mildenhall' identifies the site for mixed use development for the uses set out in paragraph 1.1 of this document and seeks the delivery of this development by 2031. This Masterplan establishes a vision and delivery mechanism to achieve these policy requirements.

This Masterplan has been informed by Policy DM3 (Masterplans) of the Joint Development Management Plan, which provides a list of requirements for the preparation of Masterplans on sites allocated within the Site Allocations Local Plan.

Mildenhall Hub and provides office, leisure, health, emergency and educational facilities. Therefore, the Masterplan will illustrate that this part of the allocated site is integrated with the wider neighbourhood.

Any development proposals that are brought forward for this site should be informed by and will be expected to comply with relevant local and national planning policy and associated guidance. A list of the most relevant policies are provided within Appendix 1 of this document.

The public services and leisure facilities sought by Policy SA4 has been proactively delivered at the

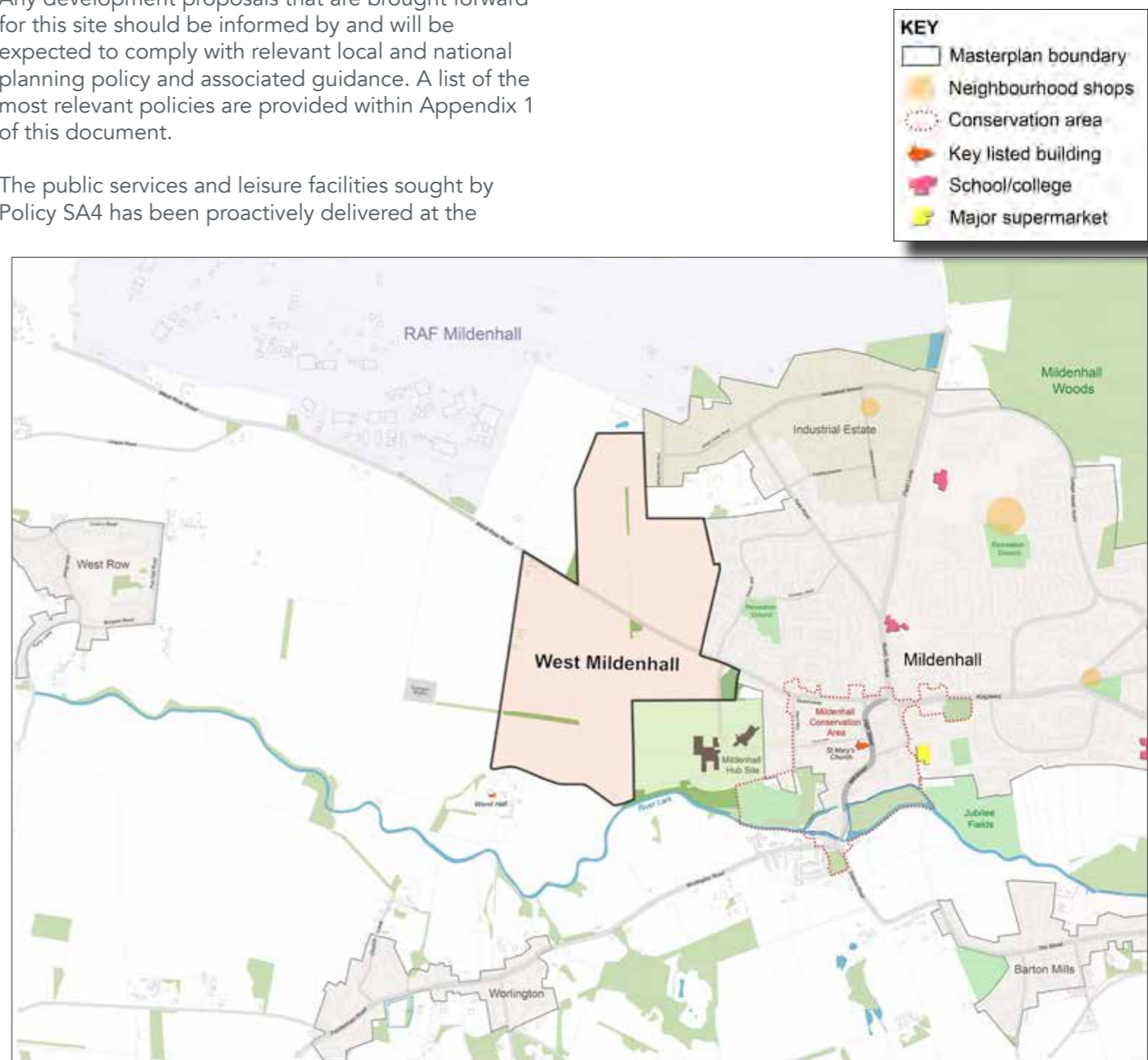


Figure 1. Map of Mildenhall with the site outlined in Black



2

Vision

This section sets out the overarching vision for the new neighbourhood at West Mildenhall.

2.1 Vision

The vision for the new neighbourhood at West Mildenhall is to deliver a locally distinctive community that is integrated with the natural and built environment and creates an identity that is recognisable as Mildenhall.


The neighbourhood will provide a network of green corridors that are a defining feature of the neighbourhood and will act as arteries providing recreation and movement connecting residents with a vibrant local centre at the heart of the new community and to the existing Mildenhall town centre.

The local centre will provide for the essential needs of the community and provide a central multi-functional public space that encourages social interaction within the community and compliments the existing public facilities at TheMildenhall Hub and the proposed new primary school and pre school setting.

Walking, cycling and public transport will take centre stage and will be prioritised over the car, promoting sustainable modes of transport and health and well being through active and healthy lifestyles for both new and existing residents.

Multi-functional open space will provide a high quality accessible green infrastructure network that protects and enhances existing vegetation, habitats, and achieves biodiversity net gain.

Building standards will be raised and will achieve adaptable and climate resilient design, which will drive down the carbon footprint of this development in response to the decision to call a Climate Emergency in the County and District.

 **Sustainability**

Sustainability is at the core of this masterplan. Within the masterplan frameworks are a number of labels like this which serve to highlight sustainability themes.

There is also a chapter on sustainability bringing together all the themes with additional detail.

A place focussed around a community that is recognisable and locally distinctive	A place that is defined by a variety of attractive and accessible green spaces	A healthy, sustainable neighbourhood that responds to the climate emergency	A place that fosters natural habitats	A place that provides good quality and choice of homes
<p>Delivering buildings of a design and form that are locally distinctive reflecting the character of Mildenhall and the surrounding villages.</p> <p>Creating a vibrant local centre at the heart of the community.</p> <p>Enabling economic development.</p> <p>Creating a new edge to the west of Mildenhall that integrates with the existing settlement whilst preserving West Row and preventing coalescence</p> <p>Providing multi-functional public spaces that foster interaction.</p>	<p>Retaining all boundary vegetation, trees and tree belts alongside new significant landscaping.</p> <p>Providing a network of green corridors that connects all parts of the neighbourhood and provides access to formal and informal open spaces.</p> <p>Creating multi-functional open spaces that positively interact with blue infrastructure and forms a new edge to Mildenhall.</p>	<p>Creating a walkable neighbourhood that prioritises walking and cycling as the primary mode of transport.</p> <p>Linking all land uses with green spaces and movement corridors.</p> <p>Integrating with existing Public Rights of Way, movement corridors and neighbourhoods.</p> <p>Achieving Future Homes Standard and incorporating low carbon and renewable energy provision.</p>	<p>Providing a high quality Suitable Accessible Natural Greenspace (SANG) of at least 10ha.</p> <p>Protecting existing habitats.</p> <p>Creating new habitats.</p> <p>Achieving 10 % bio-diversity net gain.</p>	<p>Creating high quality beautiful and sustainable buildings and places in accordance with the National Design Guide and the NPPF.</p> <p>Providing a range of homes, including Self and Custom Build and affordable home ownership.</p>
				

The Vision for West Mildenhall



3

Context Analysis

This section outlines the strategic and local context of the site, its relationship with the existing town and its wider landscape setting, and assessment of wider transport links, landscape designations, character and facilities within the town.

3.1 Strategic Context Analysis

The site, located on the western fringe of Mildenhall, is positioned within the administrative area of West Suffolk Council.

Mildenhall is near the A11 and is located 37 miles (60 km) north-west of Ipswich, the county town. Beyond the strategic road network, the settlement is only a 15-minute drive from Thetford Railway Station, granting easy access to a number of destinations along the Norwich-Cambridge mainline. It is also only just over 30 miles away from London Stansted Airport.

Mildenhall is large settlement in the West Suffolk District, with a population of approximately 16,000 residents as recorded in the 2011 Census.

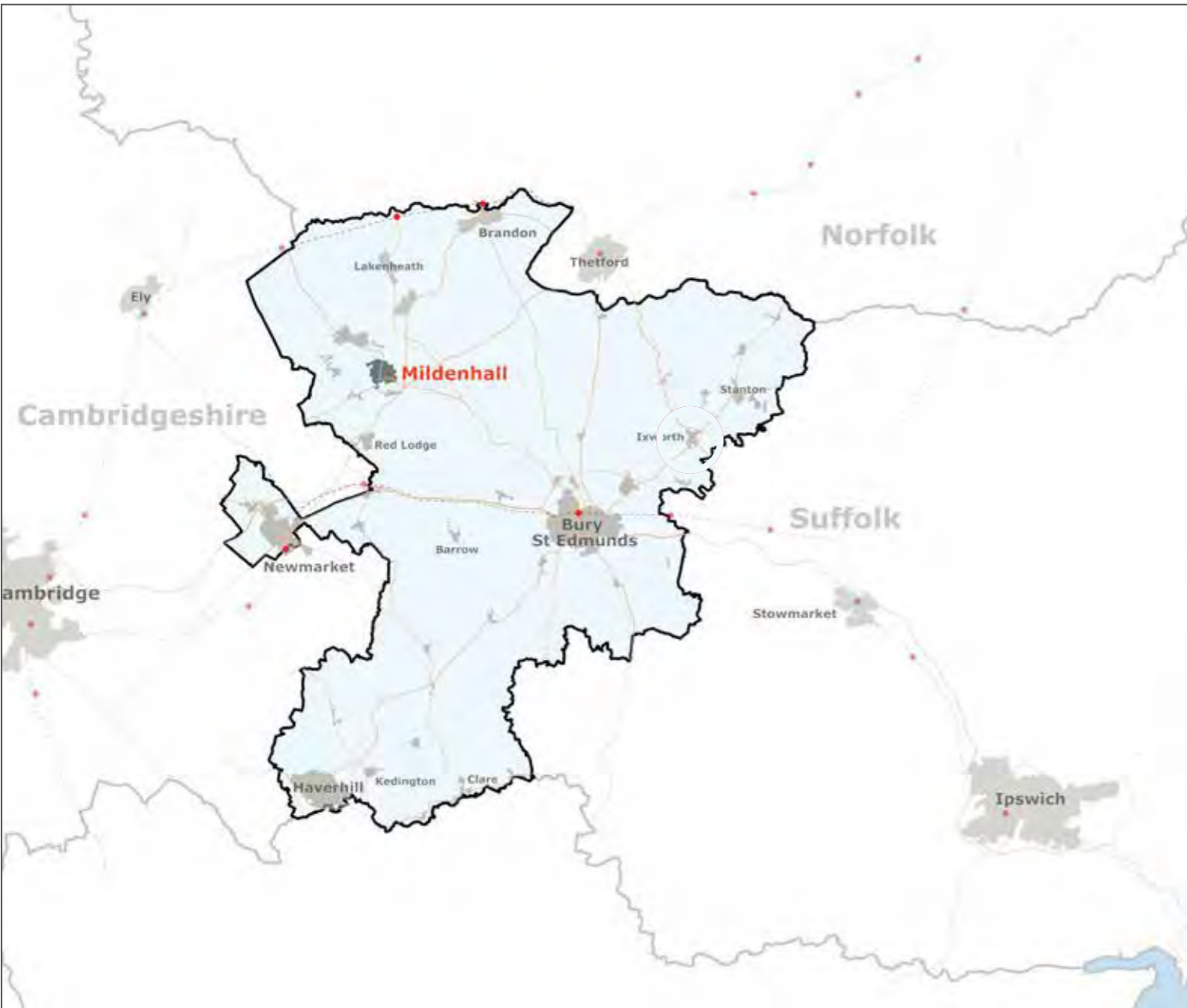


Figure 2 - Regional Context Map

3.2 Local Context Analysis

3.2.1 Location

Mildenhall is a vibrant market town and centre for employment in manufacturing, engineering, pharmaceuticals and electronics. It is a sustainable location for future growth due to its good access to services, facilities, and public transport.

The map below shows the extent of the development, edged in red, and its location in relation to Mildenhall.

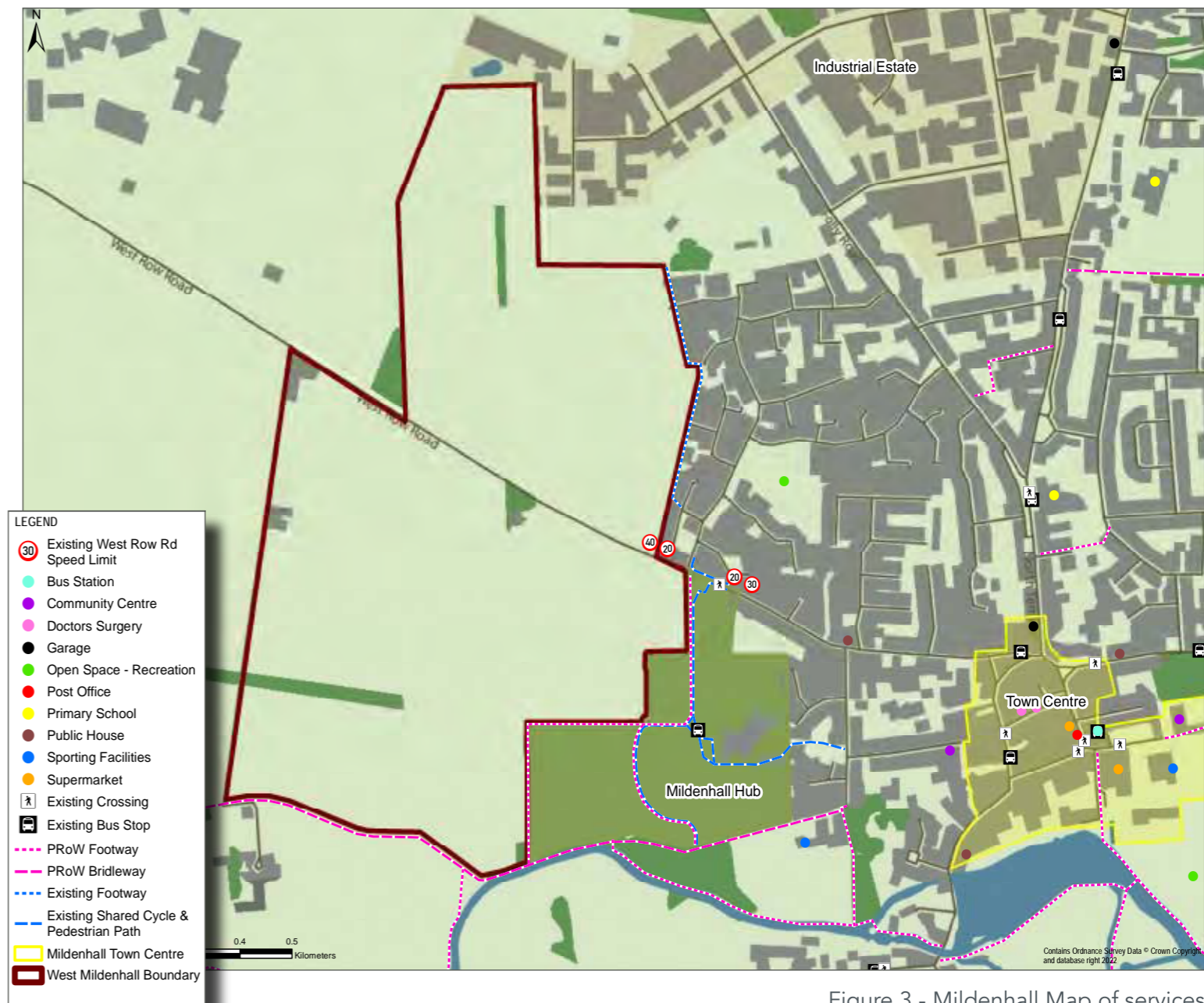


Figure 3 - Mildenhall Map of services

3.2.2 Facilities and Services

Mildenhall's town centre, situated to the east of the Masterplan area, is the major retail focal point containing an array of key shops and facilities and is within 1km of the site, and as shown on Figure 3.

- It is anchored by two supermarkets alongside pubs, fast food outlets, local convenience stores, comparison shops and services, public houses and other retail units.
- The town centre is within a short walking distance, but is also well served by a bus station providing public transportation system to nearby towns and villages.
- The settlement contains several community facilities such as West Suffolk Council Offices, St. Johns Community Centre and places of worship.
- Educational establishments include two primary schools (Great Heath Academy and St. Mary's Church of England Academy) as well as Mildenhall College Academy providing secondary age and sixth form provision.
- The Mildenhall Hub is a Public Services Hub which provides Office, Leisure, Health, Emergency and Educational Facilities.
- There is a doctor's surgery (The Market Cross Surgery) as well as two dental surgeries (The Churchyard and The Thatch Dental Practice).
- Mildenhall also consists of a series of leisure and sports facilities including, but not limited to, those at the Mildenhall Hub.
- Extensive amenity areas along the River Lark.
- The River Lark and its water meadows are a key natural characteristic south of the town providing a green and blue corridor used for leisure and recreation and links to nearby settlements.

3.2.3 Connectivity

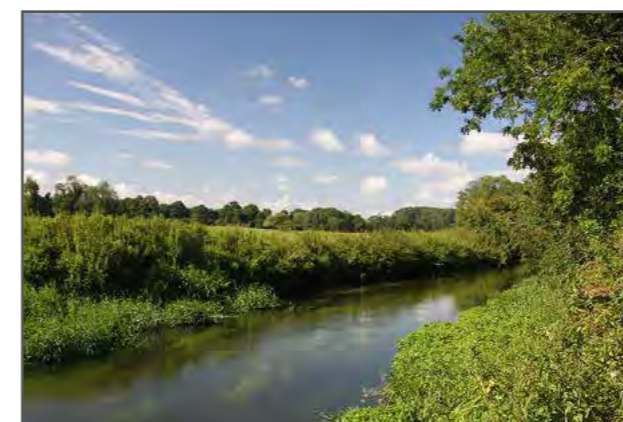
These community facilities are well-connected by direct footpath links and a good level of public transport.

- The site is well located in relation to existing bus links on West Row Road and is served by the Mildenhall Hub bus stop and stops within the town centre. These bus services facilitate ease of movement between Mildenhall and nearby settlements such as Bury St Edmunds, Newmarket, Thetford, Lakenheath, West Row and other surrounding settlements.
- The development is directly linked to Mildenhall and surrounding settlements by existing and new public rights of way (PROW).

3.2.3 Surroundings

Surrounding urban fringe influences include:

- The existing peripheral residential properties along the eastern edge of the site, which were added to the historic centre of the town during a 30 year period spanning from the 1970s to the 1990s and has resulted in expansion of the town west and an estate of primarily detached family housing.
- The Royal Air Force station, RAF Mildenhall is located north of the town. This is used by the United States Air Force, as the headquarters of its 100th Air Re-fueling Wing and 352nd Special Operations Group.
- To the west of the site is open arable farmland and beyond is the neighbouring village of West Row.



3.3 Movement

3.3.1 Existing Pedestrian and Cycle Network

A comprehensive network of walking and cycling traffic free routes exist throughout the town, providing convenient links to key destinations and open spaces within Mildenhall.

- Existing Public Rights of Way (PROW) are located within the south east corner of the site (Public Footpath 24 and Public Footpath 25) which connects the Mildenhall Hub and south east corner of the Masterplan area with West Row Road to the north and towards the village of Worlington in the south.
- Mildenhall Public Bridleway 1 is routed along the southern boundary of the site and connects with Church Walk and onto the High Street. Bridleway 1 is a key movement corridor between the village of West Row and Mildenhall town centre.
- A new shared cycle and pedestrian path has been delivered at The Mildenhall Hub development, which provides enhanced connectivity to the town centre via connection with Church Walk and the High Street to the east, and the existing residential neighbourhood at Comet Way to the north of West Row Road.
- Further detailed assessment and design work is required to review the potential impact of increased cycle and pedestrian movement through Church Walk.

3.3.2 Existing Public Transport Network

The site is also highly accessible in terms of public transport as illustrated at Figure 4.

- It is well located in relation to strategic bus links with 3 services in operation and providing connections between Bury St Edmunds, Newmarket, Thetford, Lakenheath and surrounding villages.
- A new bus terminus is also proposed at the Mildenhall Hub which is integrated with the site.

LEGEND

- Bus Station
- Bus Stop
- Community Centre
- Doctors Surgery
- Garage
- Open Space
- Post Office
- Primary School
- Public House
- Sporting Facilities
- Supermarket
- Bus Routes
- Mildenhall Hub
- West Mildenhall Boundary
- Mildenhall Town Centre

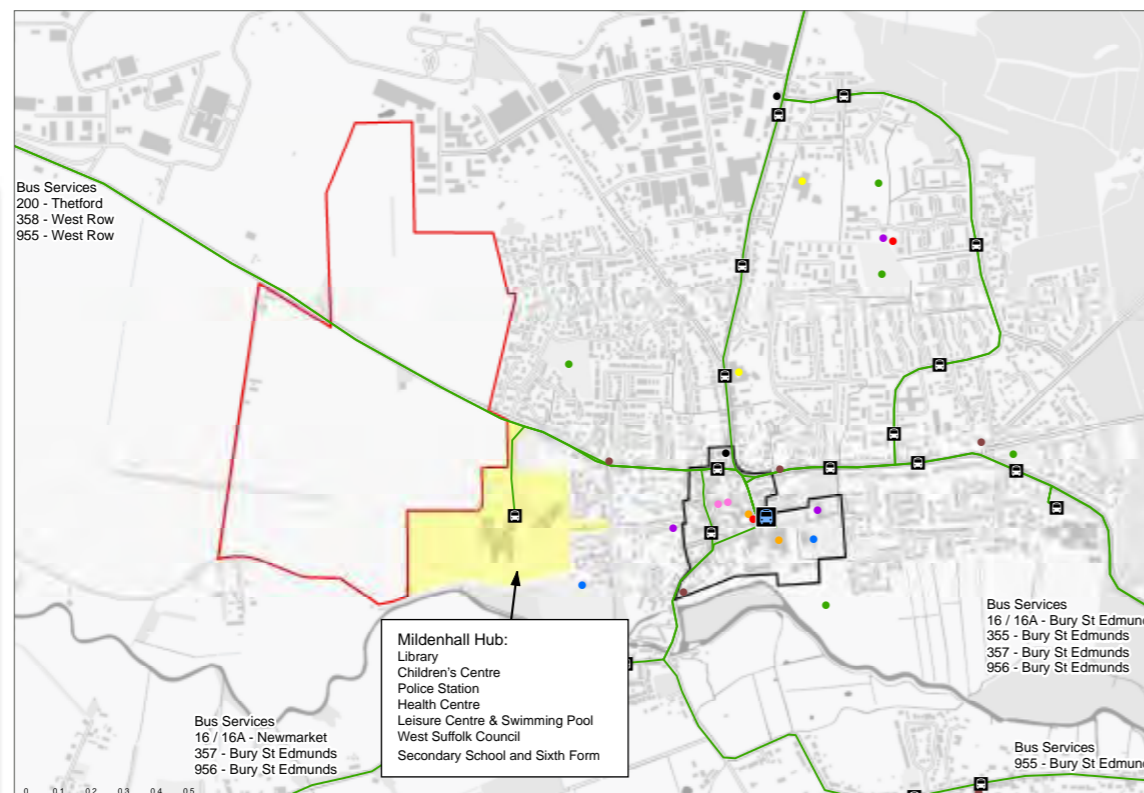


Figure 4 - Map showing Existing Bus Routes

3.3.3 Existing Transport Network

The transport evidence prepared for the Local Plan demonstrated that there would not be a need for bypass to the west of Mildenhall to cater for the growth allocated within the current Local Plan. However, there will be requirements for improvements within the town, including improved facilities and routing for pedestrians and cyclists, traffic management measures, as well possible re-routing of HGVs away from the Town Centre.

Off-site transport infrastructure works have been proposed to facilitate the Mildenhall Hub and agreed with the highway authority.

LEGEND

- Existing Crossing
- Toucan Crossing
- Indicative Route to Suburbs
- Potential Pedestrian and Cycle Connection
- PRoW Footway
- PRoW Bridleway
- Selected Pedestrian Connections
- Existing Shared Cycle & Pedestrian Path
- Key Route to Town Centre
- Key Vehicular Routes
- Mildenhall Town Centre
- West Mildenhall Boundary

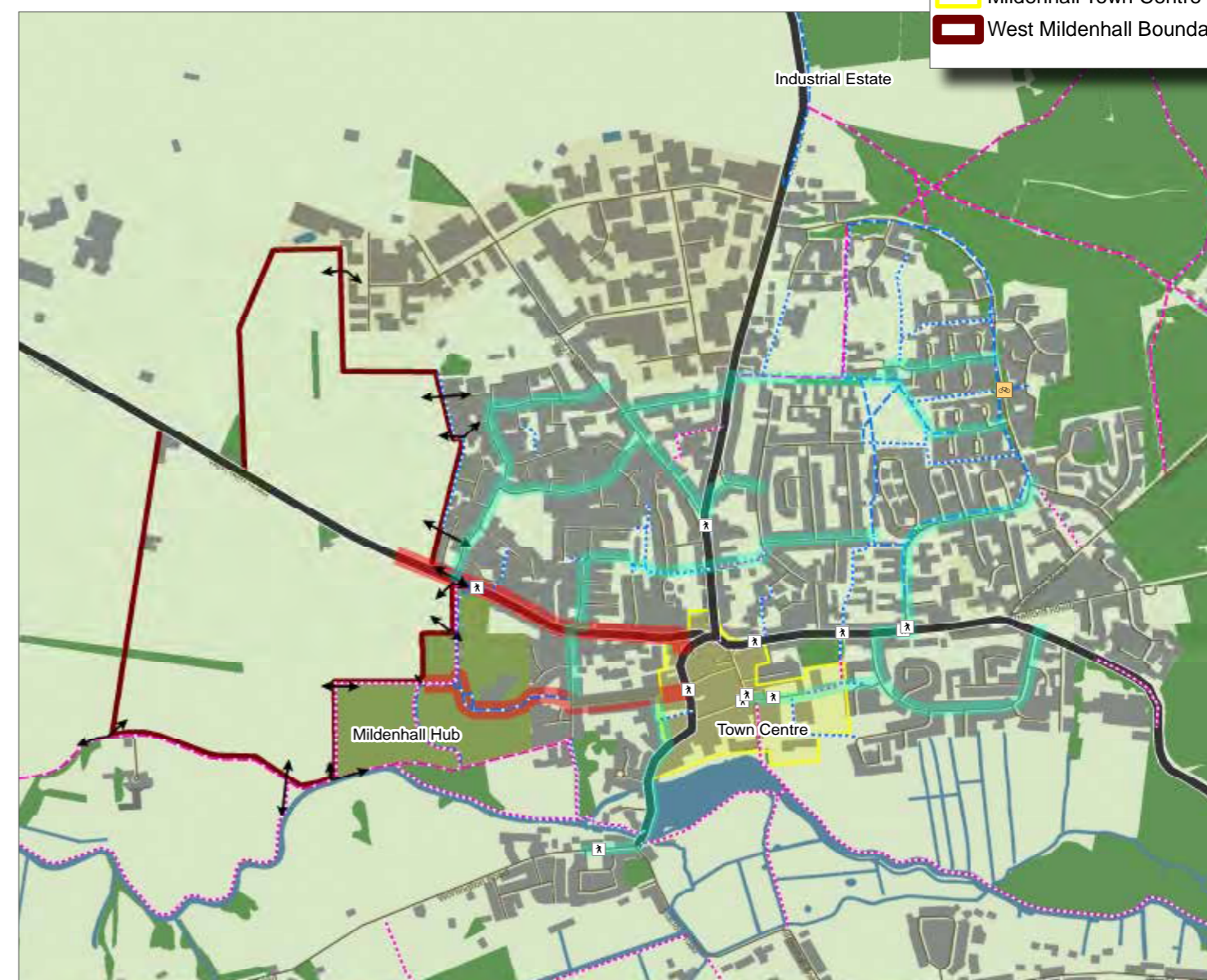


Figure 5 -Map showing Existing Pedestrian, Cycle and Vehicle Routes

3.4 Historical Context

3.4.1 Archaeology

An archaeological desk assessment and geophysical survey have been undertaken and has confirmed that there are no designated assets of archaeological interest within the site.

Records demonstrate that this part of Mildenhall has been inhabited/used in multiple periods from the Iron Age onward. The archaeological features identified by the geophysical survey are likely to be mainly associated with the agricultural history of the site and would most likely be of low to medium significance depending on the levels of preservation encountered. However, the potential for archaeology of high significance was concluded to be low.

Archaeological trial trenching would be undertaken at the planning application stage, pre-determination, and any further archaeological mitigation would be secured through an appropriately worded planning condition. With this mitigation in place no significant effects on archaeology are likely.

3.4.2 Built Heritage

The area surrounding the site contains a number of heritage assets, Wamil Hall is a Grade II listed building and a 16th-century house located to the south west of the site.

- The site itself is characterised by its openness which permits for an appreciation of the Wamil Hall estate.
- This Masterplan should seek to protect the Wamil Short Row tree belt to protect the setting of Wamil Hall and elements within its curtilage and provide an absence of built form between it and the new neighbourhood. This will mitigate for any potential impacts from this development.

The Mildenhall Conservation Area is located to the south east and was designated by West Suffolk Council in 2009.

- The Conservation Area includes 46 listed buildings that are mostly inwardly focused, lining the principal thoroughfares of High Street and Mill Street.
- The exception to this pattern is the Grade I Listed Church of St. Mary, which is recognised as a significant landmark across the flat fen landscape.
- The site borders the south west boundary of the Conservation Area that is defined by open green spaces along the banks of the River Lark.
- There are some long ranging views from the site across the Conservation Area towards the tower of the distant Church of St Mary (Grade I listed). As such, retaining and framing views of the Church tower will be desirable.

Other than the Church and the Listed Buildings at Wamil Hall, there are no other heritage constraints.

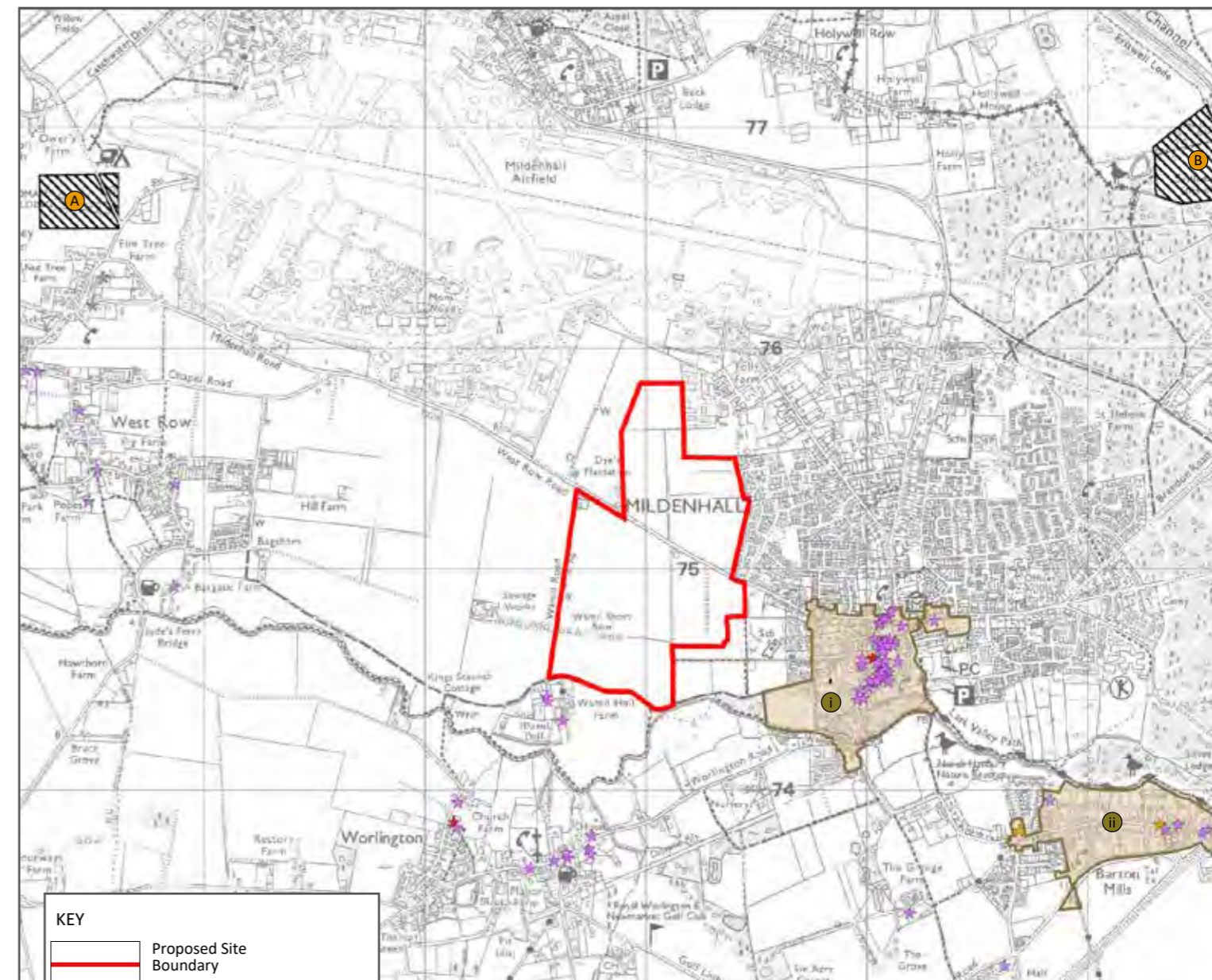


Figure 6 - Built Heritage Map

3.5 Townscape and Local Context

3.5.1 Key Characteristics

Analysis of the key characteristics that gives the settlement of Mildenhall and its surrounding villages their distinctive character was carried out. The analysis focussed on the pattern of historic development, the arrangements of buildings in the street-scape and landscape, rather than architectural characteristics, materials and details.

3.5.2 Urban Design References

The grey circled areas on the adjacent plan show the areas studied. The site is shown outlined in red. The study areas include the historic parts of Mildenhall, West Row, Worlington and Barton Mills. These were chosen because of their proximity to and relationship with the site. Wider areas studied included Freckenham, Isleham, Holywell Row, Beck Row, Thistley Green and Tuddenham.

3.5.3 Distinctive and Appropriate Character

The Urban Design and Placemaking Chapter of this document shows how designers could incorporate elements of the distinctive character of the area, identified in the analysis work, into future designs to create a unique and seamless extension of the town. In this way the new development will be appropriate for its location and will be recognisable as a uniquely designed place reflecting local urban design references.

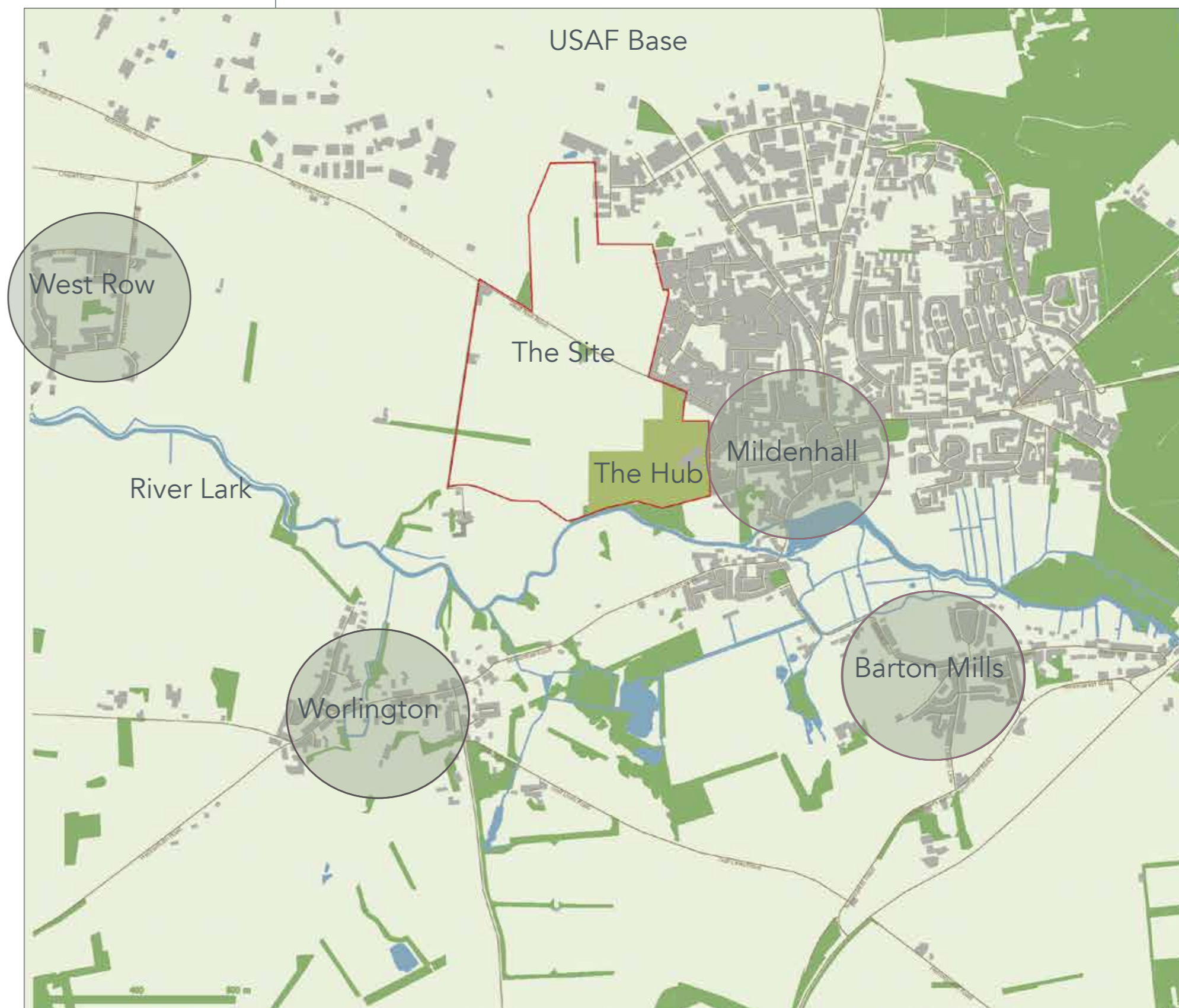


Figure 7 - Map showing locations of Urban Design references

3.5.4 Figure Ground Studies of key settlements

As part of the analysis work undertaken to produce this masterplan the urban design characteristics of Mildenhall and its surrounding villages were studied. The aim was to identify certain common characteristics which could then be set out as design guidance in this document.

Historically towns and villages grew up at key route crossings, markets, coach houses or churches. The adjacent image shows an example of a village with a green, a core, a street, an edge and fields and farms. These elements were common to all the villages studied but in addition were others which are specific to this part of West Suffolk.

The following pages show figure ground studies and photographs explaining the key characteristics.

Each page also has a black and white image of a model and a reference to a page later in this document. These models were created using house types from a variety of national house builders, arranged in a way that precisely reflects the key characteristics described.

It is proposed that designers can draw on these arrangements in order to create a new settlement to the west of Mildenhall that is appropriate for its context by re-creating these urban design characteristics that are unique to this part of the country.

Unlike Mildenhall and the surrounding villages which grew up organically over time, the development at West Mildenhall will be pre-planned as illustrated on the adjacent drawing. There is an opportunity to plan the new settlement with an understanding of the context in which it will sit.



Illustration of a traditional village structure



Illustration of a pre-planned development structure



West Row -

The key characteristics drawn from West Row are the tight knit streets, the church as a focal point (circled red), the street farms, the greens and green swathes and the interface with the countryside. This interface is soft and organic in places and sharp and linear in others. The overriding character of the village is that of a distinctively rural settlement. The roads and lanes are narrow. There is a combination of medieval and twentieth century dwellings arranged along streets and overlooking green spaces.



See Page 92 for Design Guidance





See Page 94 for Design Guidance



Barton Mills -

The older part of Barton Mills is along the east-west main street with streets running south, perpendicular to the main street. At the top of each of these perpendicular streets are buildings set as vista stops (circled red). This is a key characteristic along with the walls and back edge of footpath development found in the other villages. In addition Barton Mills has a key green space at its western edge and a tree lined route running westward to the countryside.

See Page 95 for Design Guidance





Mildenhall -
 There are a lot of characteristics to draw from in Mildenhall which include its fine church and churchyard, market square (circled red), tight knit streets, rear courts and back edge of footpath development. Its relationship to the River Lark is also evident in its mill buildings and many footpath routes leading to and along the river. The town has a rich variety of attractive buildings with a palette of materials including soft red and gault brick, stone, flint and render.



See Page 93 for Design Guidance



Key characteristics found in all study areas

- Gateways
- Brick or flint walls
- Street Farms
- Vista stops
- Variety of materials
- Decorative chimney stacks
- Greens and swathes at junctions
- Soft interface between village and countryside



3.6 Environmental Context

3.6.1 Ecological Designations

There are four statutory designated nature conservation sites located within 2km of the site. These include sites designated as Special Protection Areas (SPA), Sites of Special Scientific Interest (SSSI) and Local Nature Reserve (LNR). Fourteen non-statutory County Wildlife Site (CWS) designations are present within the 2km of the site. The closest of which is Worlington Golf Course and Surrounding Habitat (CWS), 650m to the south, comprising of species rich grassland, with mixed woodland and dense shrub layers.

3.6.2 Habitat Regulation Assessment

The HRA undertaken for the Local Plan, reviewed the impacts of the West of Mildenhall allocation and ruled out the potential for adverse effects on the integrity of Breckland SAC, SPA or Rex Graham Reserve SAC. However, this was on the basis of measures being in place to mitigate against the potential for recreational effects on Breckland SPA, and Breckland Forest SSSI located 1.3km to the east of the site.

Policy SA4 of the SALP identified the need for this site to provide a 'Suitable Alternative Natural Greenspace (SANGS) of at least 10ha in size which is well connected, and the enhancement and promotion of dog friendly facilities and access routes in the immediate vicinity of the development and/or other agreed measures.

3.6.3 Additional Matters

In addition, any future planning applications are required to demonstrate how potential effects on biodiversity can be avoided. In this respect, a number of ecological surveys are being undertaken such as breeding bird surveys, reptile surveys and badger surveys.

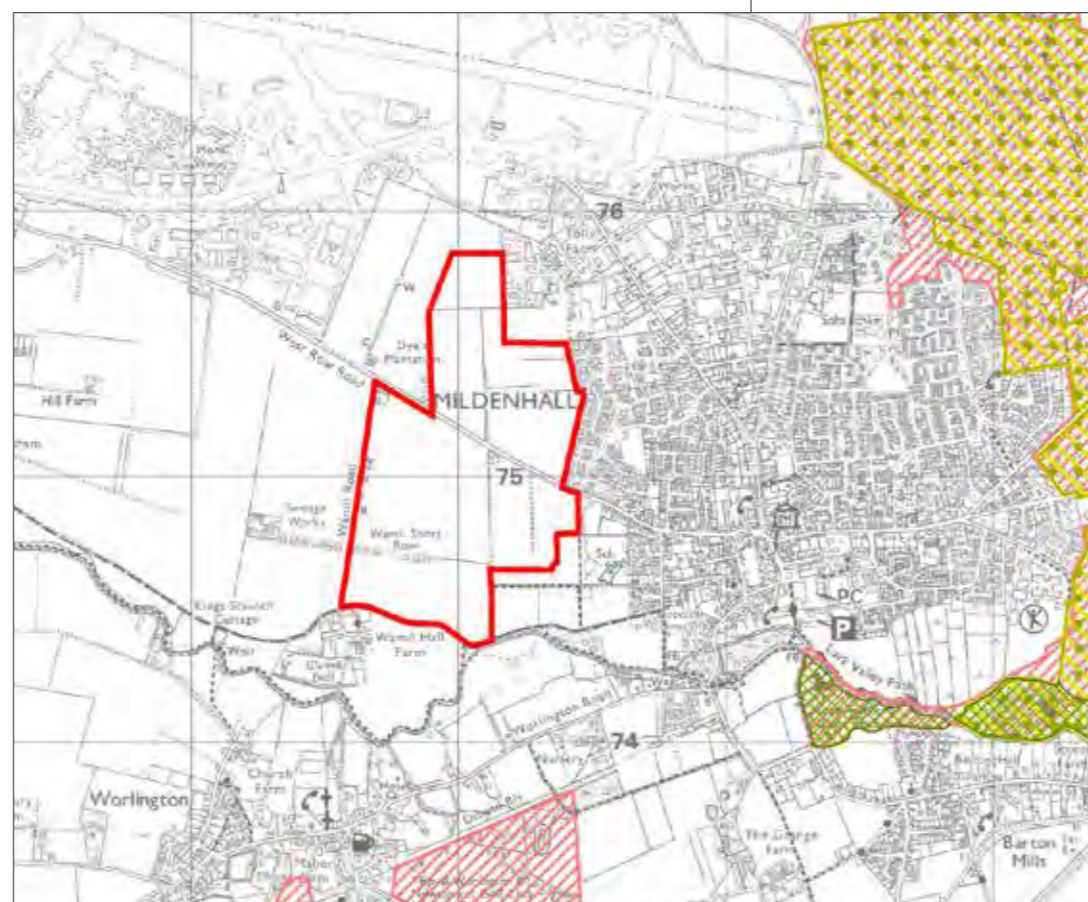
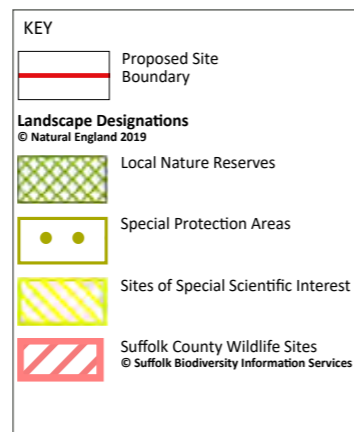


Figure 8 - Map showing Ecological Designations

<https://suffolklandscape.org.uk/landscapes/valley-meadows-fens/>

<https://suffolklandscape.org.uk/landscapes/settled-chalklands/>

Website links to the LCAs

3.6.4 Landscape Character

The site is generally flat with a slight ridge in the southern part of the site. The site lies mostly within Landscape Character Areas (LCA) 21 Settled Chalklands with a small area on the southern edge in LCA 27 Valley meadows and fens.

LCA 21 lies to the west and south of Mildenhall and is relatively flat with little woodland cover. It displays a regular pattern of fields consistent with late enclosure, is comprehensively settled with small hamlets and has been the subject of considerable recent settlement expansion. The airbase is dominant in the landscape.

LCA 27 in this area is associated with the River Lark. Flat, narrow, river valley bottoms with ancient meres within the valley bottoms & important fen sites. Small grassland fields, bounded by dykes run at right angles to the main river with a sparse scattering of small alder carr & plantation woodlands.

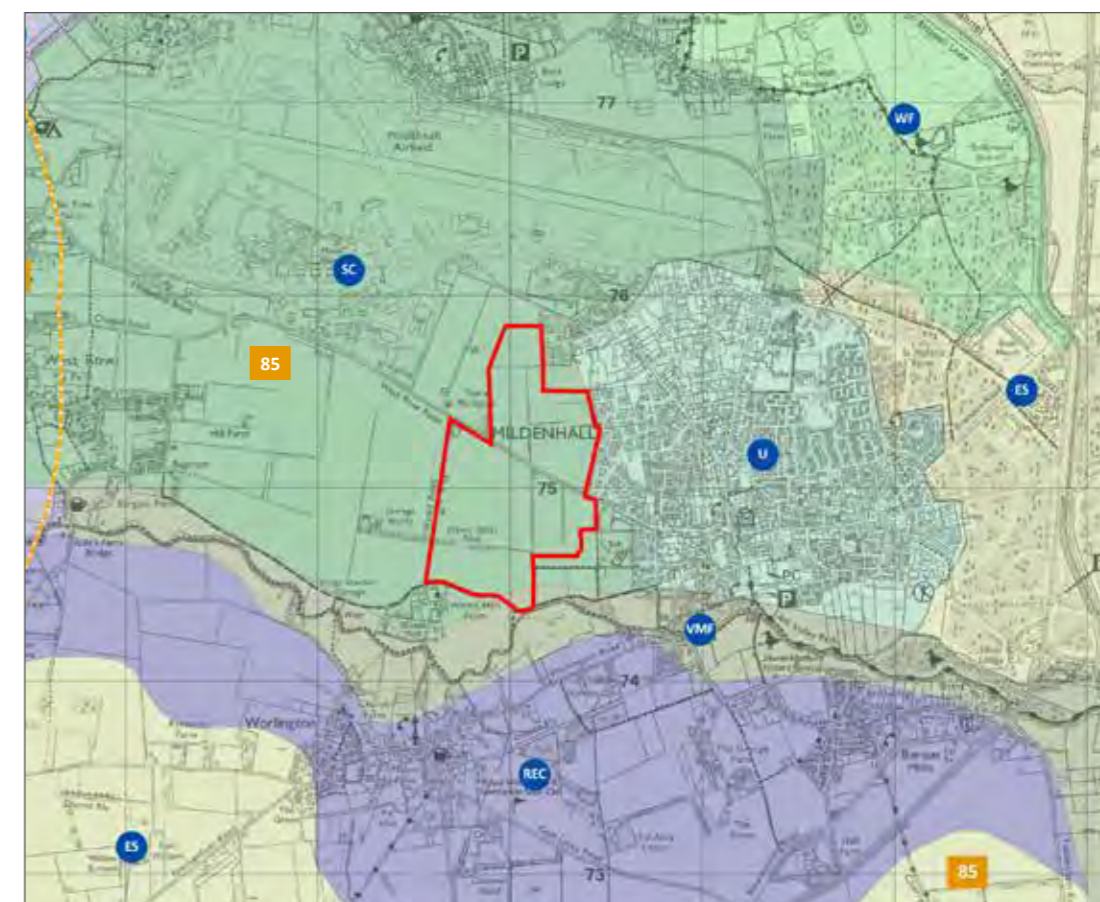
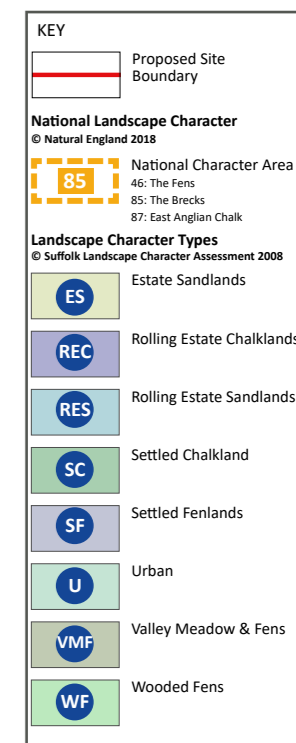


Figure 9 - Map showing Landscape Character Typologies

3.6.4 Flood Risk

Fluvial Flood Risk

There are no Main Rivers or significant watercourses within the site. However, the River Lark is located immediately to the south of the site.

The Environment Agency's indicative floodplain mapping confirms that the site is classified as being within Flood Zone 1. This means that there is a low probability of fluvial (river) and/or tidal flooding (less than 1 in 1,000-year annual probability of river and sea flooding (<0.1% in any year). Therefore, flood risk does not represent a constraint to development of this site or the location of more vulnerable land uses, such as residential.

Surface Water

The Environment Agency's indicative mapping for the local area also confirms that the vast majority of the site is not susceptible to pluvial (surface water) flooding. However, there are a small number of isolated patches which are susceptible to pluvial flooding under the medium-risk scenario (1:100-year event).

Ground Water Flooding

Records also indicate that groundwater flooding is not a cause for concern. Historic borehole logs extracted from the British Geological Survey website, suggests groundwater had been struck around depths of 4-5m

below ground level. Where infiltration techniques are to be used it is essential to ensure that the base of any features are a minimum of 1.2m above the resting groundwater level as per EA guidance.

The foregoing indicates that the site has a low risk of flooding from any source and with the implementation of suitable mitigation measures, would minimise risks further.

3.6.5 Ministry of Defence (MOD) Safeguarding Zone

Part of the site lies within the RAF Mildenhall statutory safeguarding zones surrounding the aerodrome that protect the operation of airfields (and their associated airspace), serve to minimise the risk of bird strike within the vicinity of airfields, safeguard explosive storage areas, and preserve the capability of technical assets.

The MOD would have an interest in the designs of any buildings and green infrastructure (open space, landscaping etc), as a result.

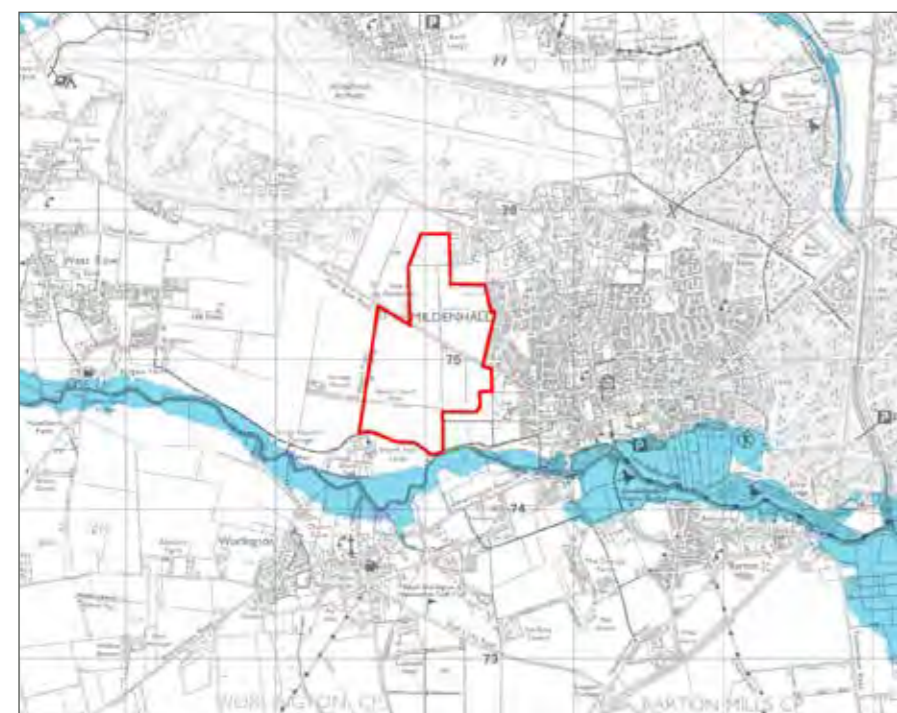
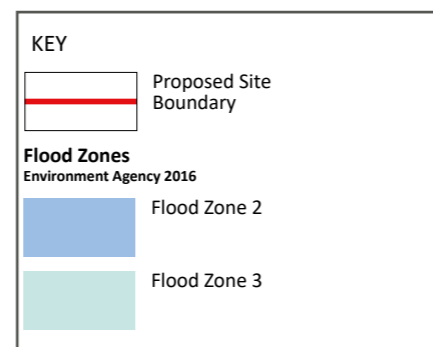


Figure 10 - Map showing flood zones



3.6.6 Noise

The primary sources of noise are likely to be aircraft noise from RAF Lakenheath and RAF Mildenhall and initial noise risk assessment has been undertaken to inform the land use planning within this Masterplan.

Baseline assessment has concluded that there would be no noise-related reason to preclude development of the site.

- The site is in the low to medium risk for both day and night noise, based on military aircraft noise contours, noise surveys and traffic flow predictions.
- The significant separation distance between the site and airbase means that the site falls entirely outside of the RAF Mildenhall noise contour map as shown in Figure 12.
- Acoustic treatment secured through building fabric and design, such as double glazed windows.
- Locating employment uses adjacent to the existing industrial estate where such activity already takes place, would remove potential for conflicts.
- Any future planning application will be supported by an Acoustic Design Statement to confirm how the adverse impacts of noise will be mitigated and minimised.

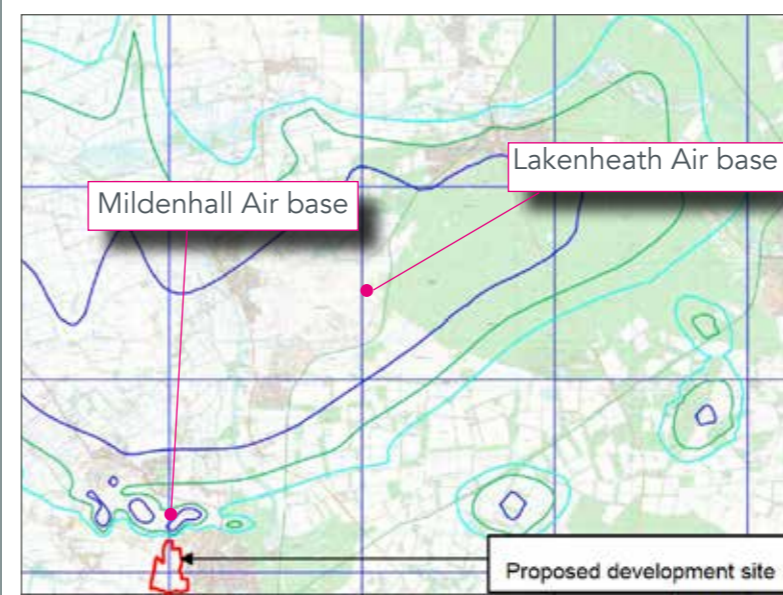


Figure 11 - Noise contour maps showing noise contours of RAF Mildenhall and RAF Lakenheath

3.6.7 Odour

An odour assessment has been undertaken to assess the potential effect of odour emissions from the Mildenhall Sewage Treatments Works (STW), which is within 300m of the site. This has been carried out using emissions data to determine the likely odour concentrations to which future occupiers of the Masterplan area may be exposed, based on the presence of the STW to the west.

Guidance requires an assessment of 'European Odour Unit per cubic metre of air (OUE)' and states that where predicted odour concentrations are less than 3 OUE/m³ then complaints are unlikely to occur.

Based on the results of the odour dispersion modelling it is considered the risk of odour nuisance would be minimal, because all of the site will be less than 3 OUE/m³. Therefore, odour does not represent a constraint to the site or Masterplan.

3.6.8 Utilities

There are currently a number of key utilities which run across the site, both above and below ground. The key utilities crossing the site include overhead power lines, mains water, surface water sewers and foul sewers.

It is envisaged that the water main, overhead lines and foul sewers will have potential for diversion, which will require ongoing discussions with the utility providers and design to accommodate this into the scheme. Easements will be observed and require further discussion with utility providers at the detailed design stage.

Existing utility capacities will be advised by the local utility providers present at the point of planned connection.

3.7 Site Context Analysis

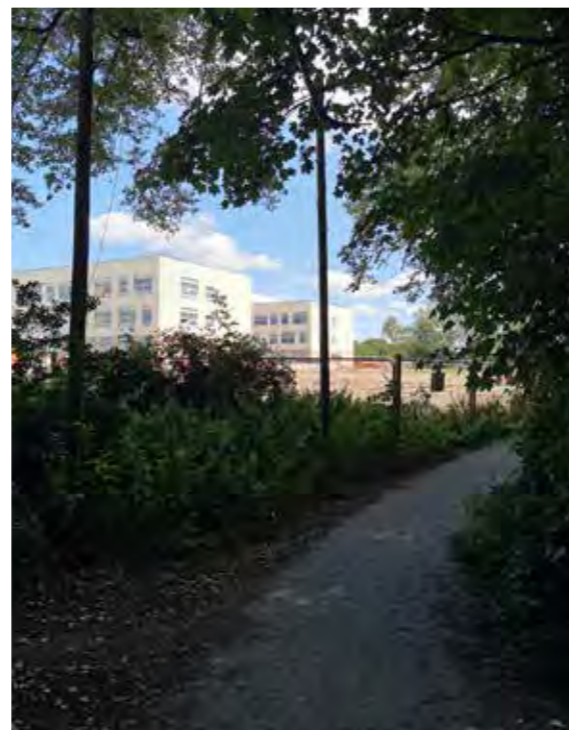
3.7.1 Landscape Features, Topography and Views

The site is an area of land on the west of Mildenhall currently in agricultural use. West Row Road bisects the site east to west, with the Mildenhall Airbase lying to the north of the site and the River Lark to the south. Wamil Road lies along the western boundary with Wamil Hall to the south west. The site is broadly flat, sloping gently to the south with a slight ridge between the Mildenhall Hub and Wamil Road.

There are a number of existing hedge and tree groups and watercourses within the site which will need to be retained and sensitively incorporated into the masterplan. Within the wider landscape there are scattered shelter belts and small copses, with limited hedgerow cover, with occasional hedgerow trees.

Despite the relative lack of significant vegetation to the north, west and south the site, in conjunction with the landform, the site is locally visible within 2km, with views predominantly available to the west and north west. Longer distance views may be available up to 5km from the site.

There are various potentially sensitive visual receptors at or near the site that have shaped the Masterplan. The masterplan identifies mitigation measures necessary to prevent, reduce or offset any significant adverse effects. Enhancement measures will also be considered for positive impacts where possible.



View of the Mildenhall Hub from the Public Right Of Way



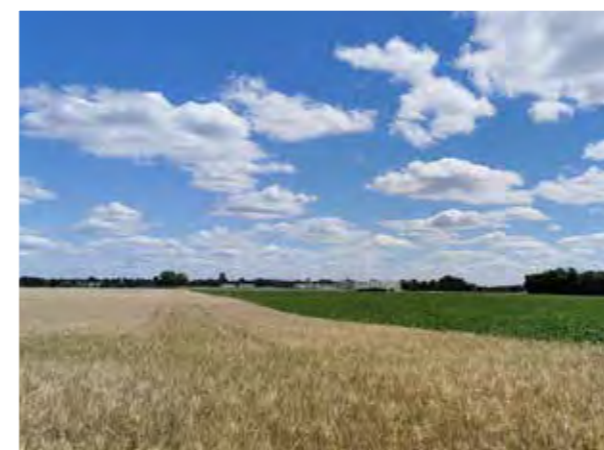
West Row Road looking west



View of northern part of Site looking north



View of Public Open Space on Comet Way



View east from Wamil Lane



View of northern part of site looking west



View eastward from Wamil Hall entrance gate



View east from West Row

3.7.2 Natural Environment

There are no designations within the site boundary and the site comprises arable land, including potential habitats such as, tall ruderal, broadleaved semi- natural woodland, species-poor hedgerow (intact and defunct), scattered trees, semi-improved grassland field margins, improved grassland, introduced shrubs, hardstanding, buildings and fencing.

A data search of Suffolk Biological Information Service records on protected species within 2km of the site and a Phase 1 habitat survey, has identified suitable habitat or evidence of the potential for a number of protected species for which further survey work will be undertaken. These include:

- Reptile;
- Otter and Water Vole;
- Bat foraging and roosting;
- Botanical Survey;
- Breeding bird; and
- Stone Curlew.

The site is not considered suitable for Great Crested Newt or Hazel Dormouse. Otter and Water Vole are potentially present offsite, associated with the River Lark to the south.

The following mitigation principles have been recommended for consideration within the masterplan at the appropriate stages:

- Retain existing trees and hedgerows where possible;
- Areas of semi-natural habitat such as meadows, ponds woodlands, hedgerows could be created within the scheme; and
- The development should incorporate plants that are beneficial to wildlife.

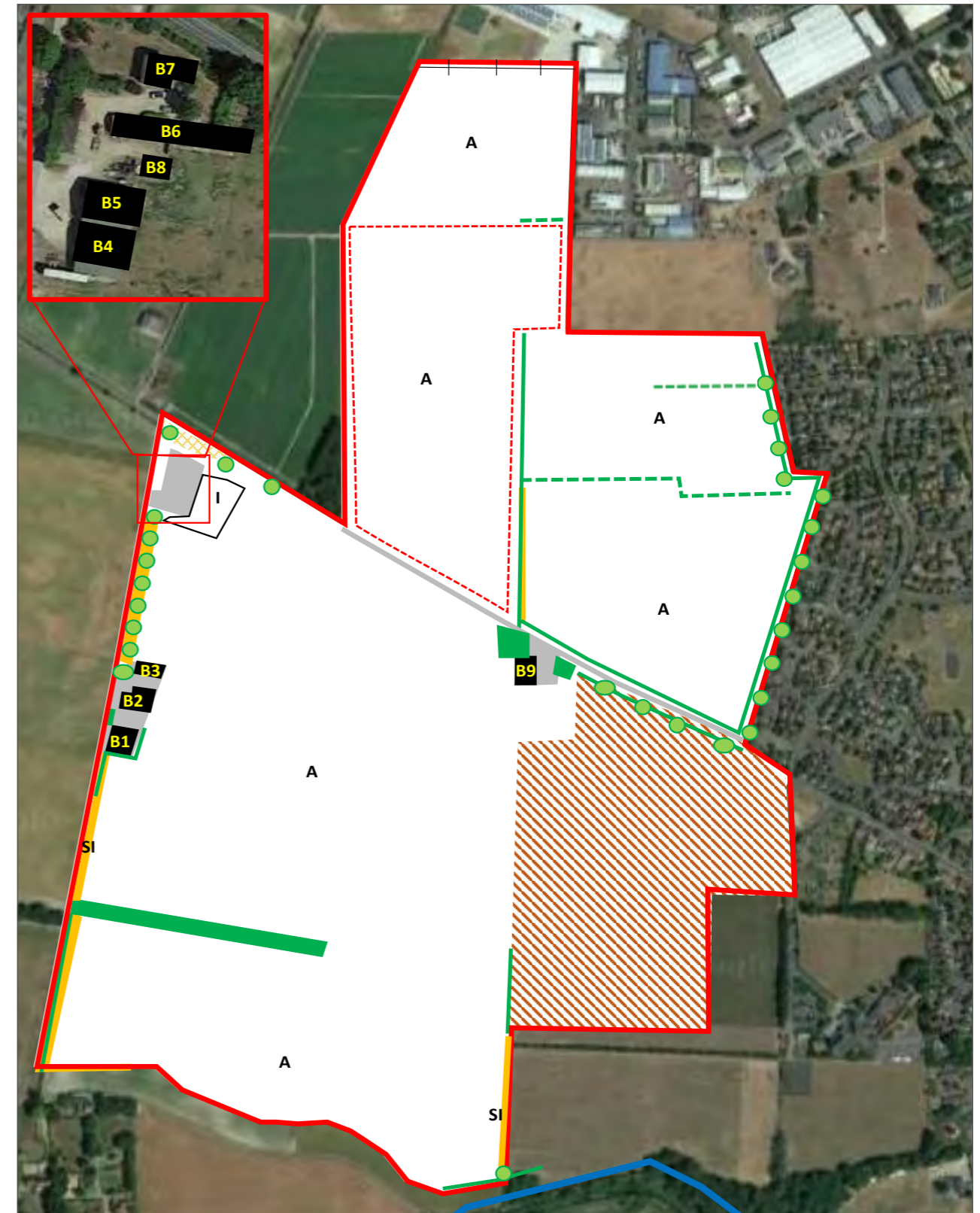
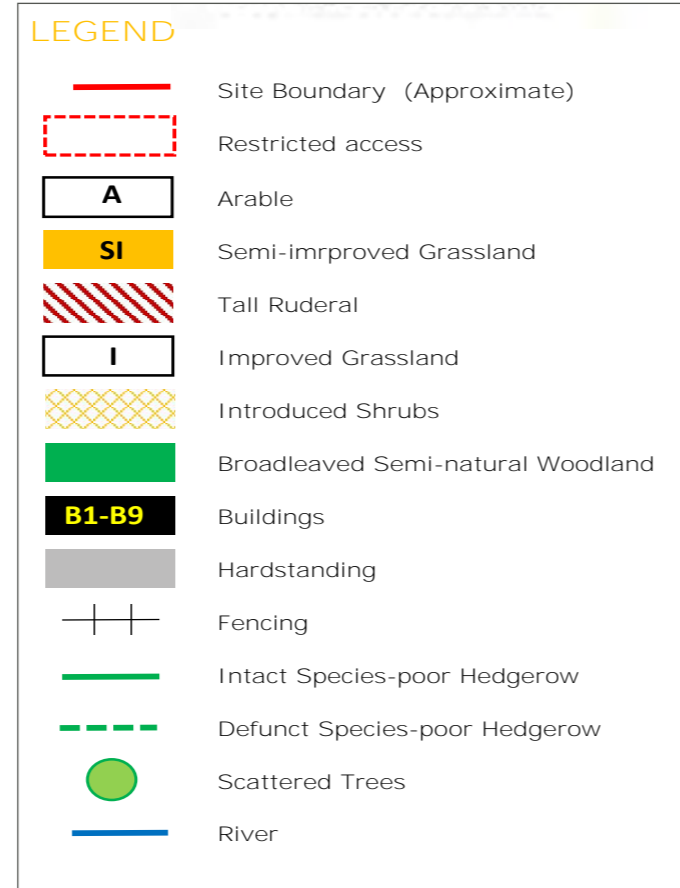


Figure 12 - Ecology Survey Plan

3.8 Site Constraints

The preceding analysis has provided an overview of the baseline conditions that will influence this Masterplan. These layers of baseline information have been combined within a 'Technical Constraints' and 'General Constraints Plan' shown in Figures 13 and 14.

Figures 13 and 14 illustrate that the primary constraints to be addressed through the Masterplan include:

- West Row Road – addressing the potential severance and barrier to movement;
- Existing Vegetation – comprising existing hedgerows and boundary trees that offer locally distinctive landscape features and suitable habitats that warrant retention and protection;
- River Lark valley – sensitivity to change;
- Settlement Edge – both the existing settlement edge and new western boundary to the settlement created by this development are sensitive boundaries that should be integrated with the development;
- Views - development could retain long-ranging views of the St Mary's Church in the east;
- Heritage – preserving the significance of the Grade II listed Wamil Hall and any archaeology present;
- Surface Water Drainage – addressing site levels to provide a suitable surface water management;
- Bird Management – implementing design and management of water to discourage avian species hazardous to aviation safety; and
- Conservation Sites - potential adverse effects on Breckland SPA;
- Utilities – observing easements;
- Other technical matters considered have not been identified as a significant constraint to development.

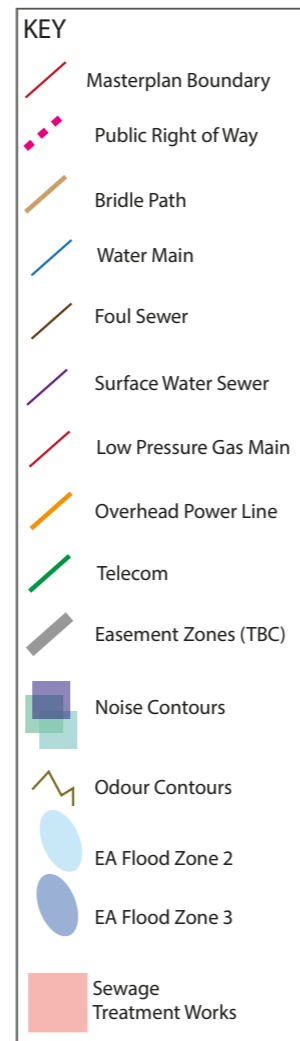
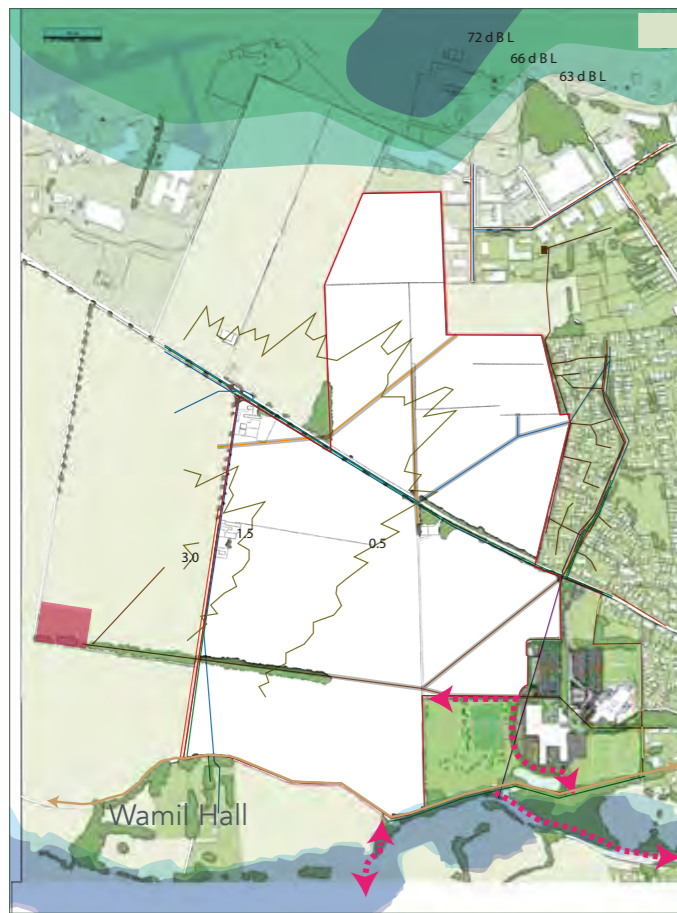


Figure 13 - Technical Constraints Plan

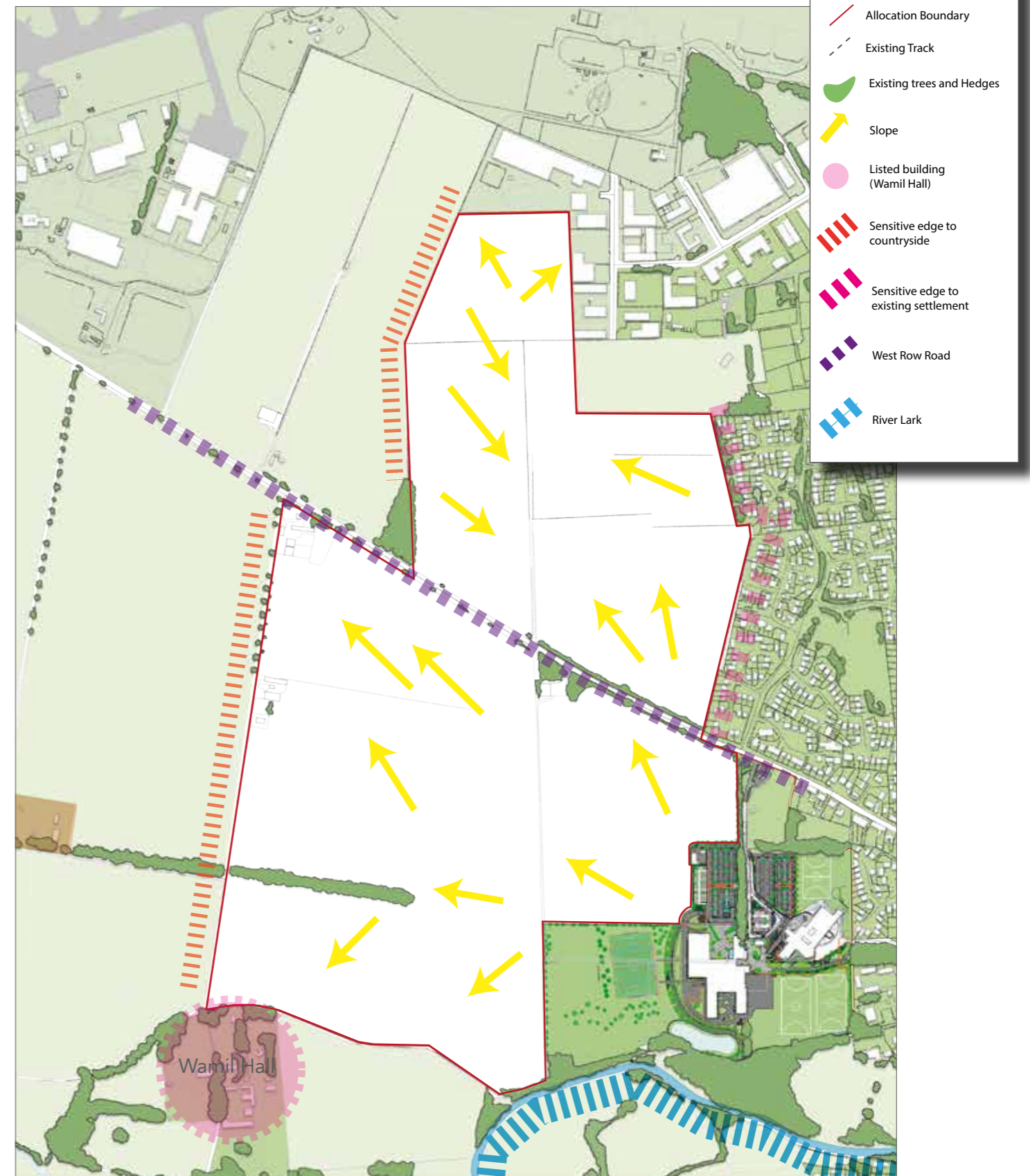


Figure 14 - General Constraints Plan

3.9 Opportunities

The preceding analysis has also identified a number of positive attributes that should be retained and integrated within the design framework alongside solutions for any constraints. These opportunities are the makings of the first phases of identifying a design framework for this site.

Figures 15 and 16 illustrate that the primary opportunities to be explored through the Masterplan include:

- Gateway – create a new sense of arrival to Mildenhall;
- Settlement Edge- increase significantly the level of tree cover in the area, using blocks of woodland along the western edge to help fragment views of the proposed development.
- Place making – seamlessly integrate with urban fabric and create locally distinctive sense of place.
- Public Rights of Way –integrate with wider PROW network and extend through the site making connections with the River Lark valley, the town, Comet Way to the east, the Mildenhall Hub to the south east and the existing allotments;
- Landscape – open and flat gives an opportunity to integrate;
- Views – frame and enhance views from West Row Road and across the site towards the tower of St Mary’s Church;
- Green Corridors – provide green corridors as a landscape structure and spine to the development with high levels of multi functional useable open space aiding movement around the development;
- Integrate West Row Road - to address the potential severance and barrier to movement between the north and south of the site;
- Habitat enhancement – retain and enhance existing habitats through retention of existing vegetation and creation of new habitats within the SANG;
- Increased Accessibility – through highly accessible walking and cycling network;
- Movement – integrating vehicular access to the College Heath Road;
- Energy - consider alternative heat and power systems.

Key

	Masterplan Boundary		Listed Building and setting
	New Gateway to Mildenhall		River Lark corridor
	Existing Open Spaces /recreation facilities		Filtered views across open boundary
	Existing vegetation to be retained		Potential green links
	Views to St Mary’s Church		Potential Connections
	Views to St Mary’s Church		Access

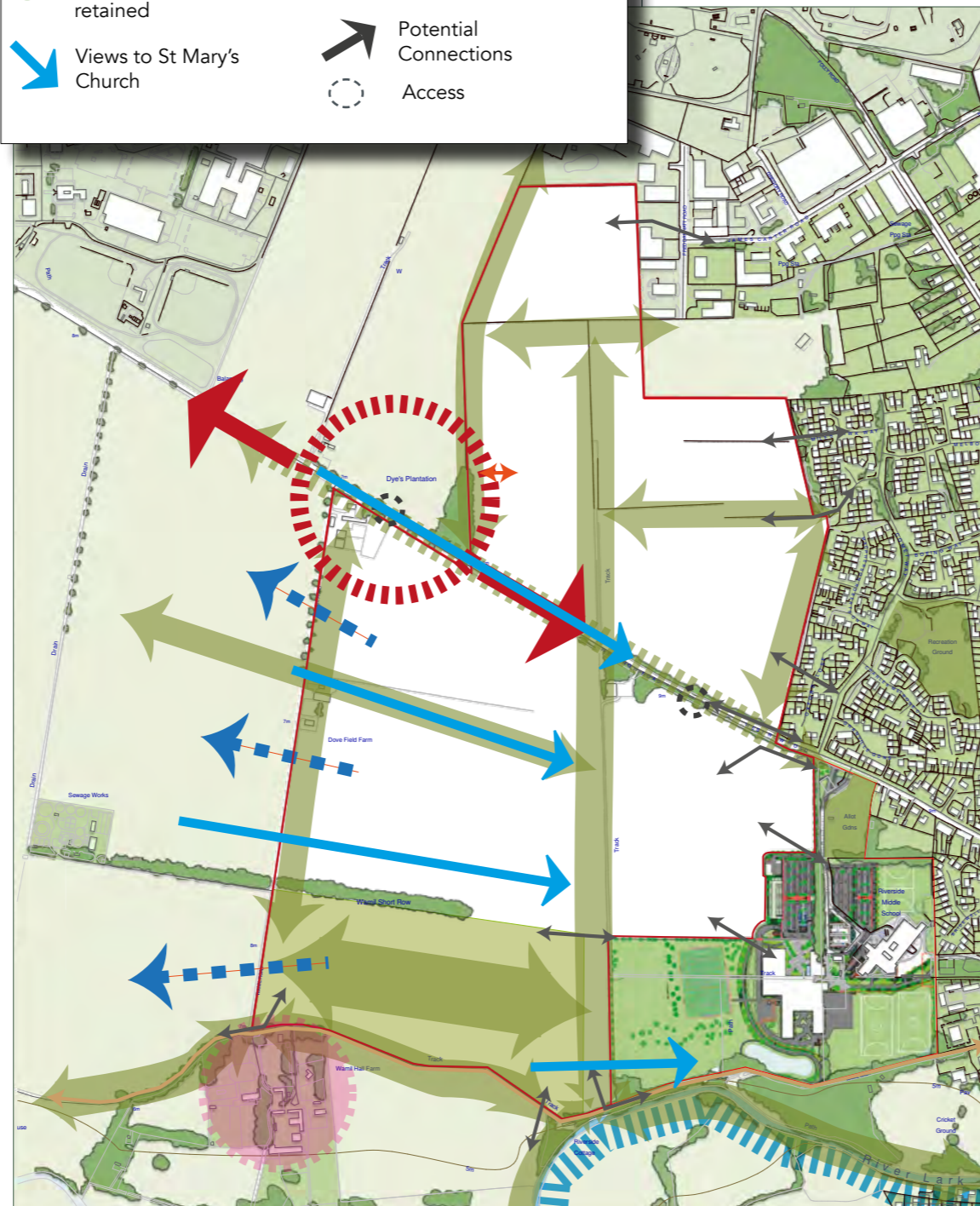


Figure 15 - Opportunities Plan



Figure 16 - Key Considerations Plan



4

Masterplan Framework

This section outlines the key strategies that enable the creation of the frameworks which provide the structure for the proposed masterplan.

4.1 Masterplan Framework

The Masterplan Framework Plan is the culmination of all the various framework plans and design strategies, which are described in the following sections. Future Planning applications will seek to follow Secure By Design principles and CABE Inclusive Design principles. In summary:

4.1.1 Development Areas and Land Use

The creation of development parcels set within the framework established by the landscape strategy, incorporating a wide range of residential dwelling types and tenures across the site, as well as focal community local centre, education facilities, and employment, with their preferred locations identified.

4.1.2 Landscape Strategy

Responding sensitively at the edges of the proposed development, and structuring the layout around the green corridors and spine. Providing a comprehensive landscape led structure within which the proposed uses can be distributed.

4.1.3 Ecology Strategy

Retention and enhancement of important existing habitats, with the creation of additional grassland areas, tree and hedge planting, creation of new ponds, and establishing a lasting management regime within a new SANG.

4.1.4 Drainage Strategy

Incorporating a network of SUDS features and swales to limit discharge rates and manage overland flows.

4.1.5 Open Space

Provision of a well-connected and distributed network of open space and formal provision, meeting policy requirements whilst maintaining the sensitive northern boundary.

4.1.6 Access and Movement

Creating pedestrian and cycle links responding to identified desire routes and safely connected with the existing town. Provision of vehicular access throughout the proposed development including for public transport.

Key	
	Masterplan Boundary
	Commercial
	Residential
	School Site
	Local Centre
	Playing Fields
	Public Open Space
	Existing and Buffer Planting
	Detention Basin
	Access
	Road
	Path
	Bridleway
	Allotments
	Listed Building and setting
	LEAP
	NEAP
	Destination Play Space

Placemaking

Following the principles of:

- Building for a Healthy Life
- National Design Guide
- Suffolk Design Guide

This document has been produced in accordance with The National Design Guide.

The National Design Guide addresses the question of how we recognise well designed places, by outlining and illustrating the Government's priorities for well designed places in the form of ten characteristics.

1. Context – enhances the surroundings.
2. Identity – attractive and distinctive.
3. Built form – a coherent pattern of development.
4. Movement – accessible and easy to move around.
5. Nature – enhanced and optimised.
6. Public spaces – safe, social and inclusive.
7. Uses – mixed and integrated.
8. Homes and buildings – functional, healthy and sustainable.
9. Resources – efficient and resilient.
10. Lifespan – made to last.



Figure 17 - Masterplan Framework Plan

4.2 Land Use Framework

The Land Use Framework Plan identifies the potential location of the land uses proposed for this site within the Local Plan.

4.2.1 Residential

The majority of the development areas within the masterplan are proposed for residential use including self build homes, incorporating a wide range of dwelling types and tenures across the site as a whole. This includes:

- Market and affordable homes in line with Local Plan expectations (30% pepper potted throughout and broadly delivered as 30% per phase).
- Land suitable for approximately 80 bed Adult Care Services to be provided by Suffolk County Council, which will assist with meeting the range of housing needs within the District.

To enable the creation of a balanced new community, a number of non-residential uses are also proposed within the masterplan. The preferred locations for these non-residential uses are shown on the proposed framework masterplan. The extent of potential development areas shown are of sufficient capacity to accommodate all policy requirements.

4.2.2 Local Centre

The Local Centre is envisaged as creating a central focus for the new community. It is envisaged that the Local Centre is likely to incorporate complementary services from the retail and tertiary sector (for example a small food store, hairdressers) and community uses such as a nursery. These uses will complement the Mildenhall Hub community services on the adjoining land.

4.2.3 Primary School


The masterplan incorporates a new 2.1 hectare primary school site, likely to be co-located with an early years and childcare nursery and will be provided in accordance with local education authority standards.

4.2.4 Employment

The provision of 5ha of flexible Class E(g), B2 and B8 uses which could include a range of unit sizes and types, form part of the proposals.

4.2.5 Green Infrastructure

Provision of 29ha of green infrastructure providing sport, recreation, formal and informal open spaces, allotments and a SANG



Energy


Heat pumps are the likely optimum solution for delivering low carbon heating.



Artist's impression of a Residential Street



Artist's impression of Local Centre



Low Carbon

- Future Home Standard for every dwelling
- Target BREEAM excellent



Figure 18 - Land Use Plan

4.3 Landscape Framework

4.3.1 Open Space Typologies

The landscape strategy is informed by open space required by the Local Plan illustrated in the plan below (Figure 19). The typologies are arranged to place the more naturalistic natural green space on the western and northern boundaries to provide opportunities for screen planting and woodland groups. The central spine of the site contains the majority of the play spaces and is amenity green space. The most formal spaces are found around the entrance and along the West to East Green Corridor, these areas are within the parks and gardens typology where an element of formality is required. Allotments are proposed to the east near the existing allotments and playing fields to the south to complement the facilities at The Mildenhall Hub. Typologies will merge into each other where they join or overlap, forming areas of transition between the different typologies.

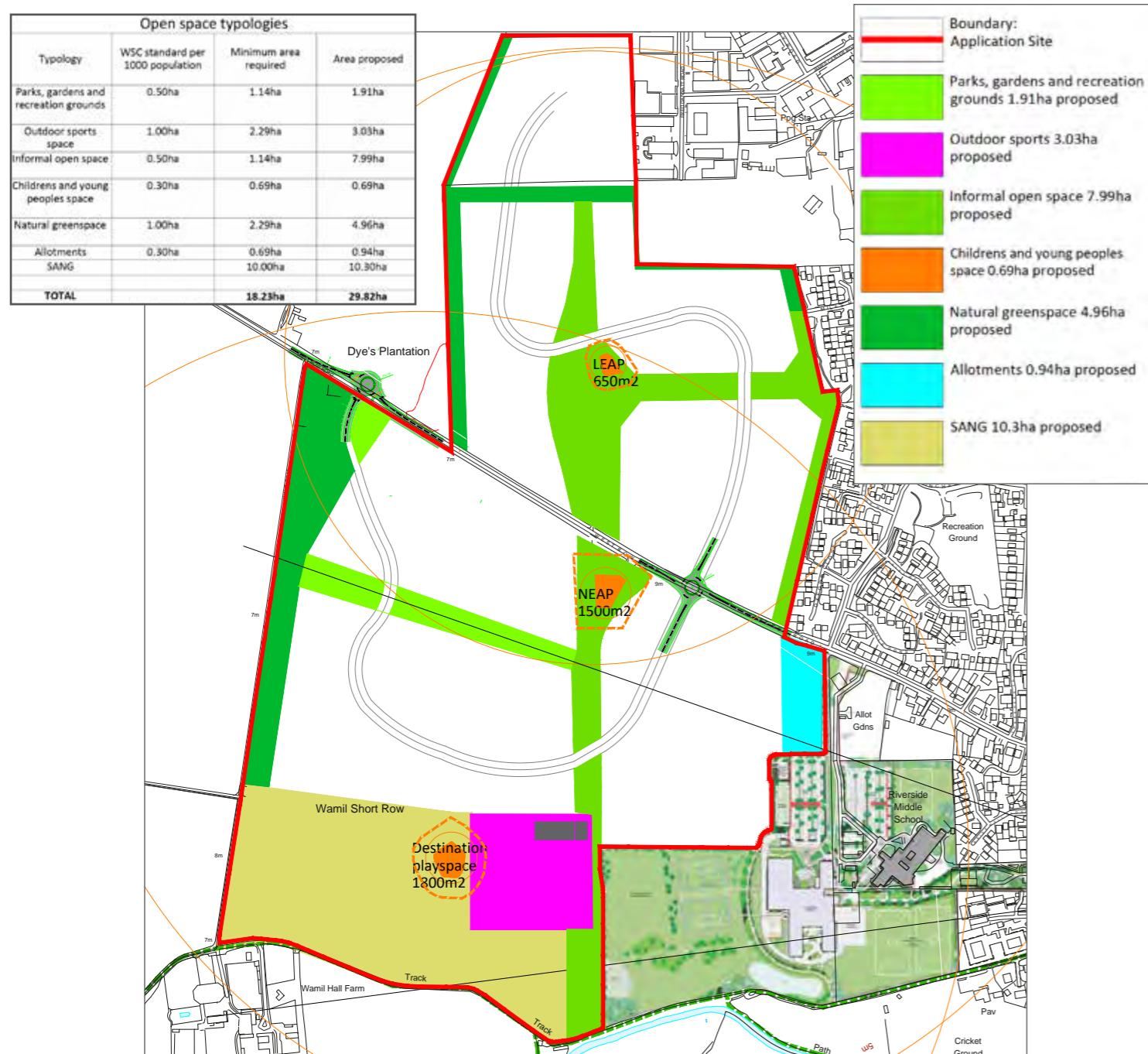


Figure 19 - Landscape Typologies Plan

There are four key large spaces that form the basis of the Framework Plan. These are illustrated on the following pages. It should be noted that due to the scale of some of the spaces, more than one typology will be relevant.

4.3.2 Green Infrastructure Framework Plan

The Green Infrastructure Framework Plan below (Figure 22) shows an illustrative landscape layout.

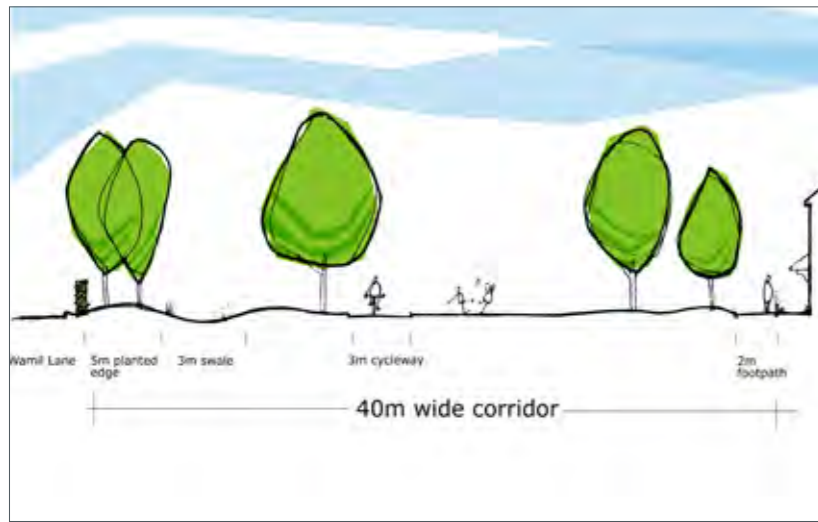


Figure 20 - Green Infrastructure Framework Plan

4.3.3 Western Boundary – red area on plan adjacent

The western boundary lies along Wamil Lane and is predominantly an informal naturalistic space for groups of largely native trees and copses to break up the visual appearance of the western edge of the development when seen from the west.

Informal paths wind through the meadow grassland. There are no formal play spaces within this area. There is a single large shallow SuDS feature to the north and an interconnecting ditch. The basin is designed with gently sloping profiles to be a usable area of functional open space.



Green Routes along Western Boundary



Western Boundary



Western Boundary

4.3.4 North to South Green Corridor and SuDS – blue area on plan adjacent

The central greenspace lies at the heart of the landscape framework. It links the River Lark in the south to the housing around Comet Way and retains the two small copses south of West Row Road.

It will be a semi formal space with strong directional routes for foot and cycle users, linking the two play spaces and the sports pitches near the Mildenhall Hub with access to the wider masterplan area and beyond. The SuDS features in this area consist of wide shallow "swales" and a single large shallow basin. These are designed with gently sloping profiles to be usable areas of functional open space.

Landscape
Multi-functional green spaces and green routes throughout the development encouraging healthy lifestyles.



Play Space



Central Green Space



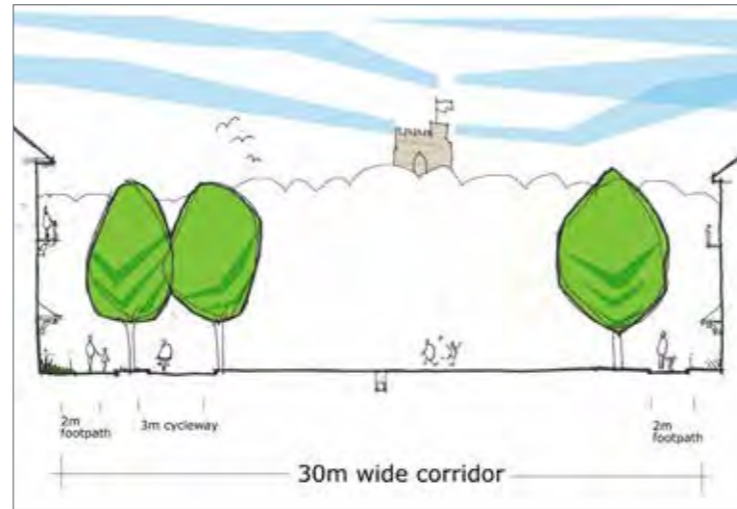
Section through Central Green Space

4.3.5 Entrance and West to East Green Corridor – green area on plan below

The Entrance and West to East Green Corridor are the most formal areas of the landscape framework. The Entrance area will form the new access not only into the site but into Mildenhall. The corridor forms part of the movement network for the site linking the western boundary to the central greenspace. There are no formal play spaces within this area.



West to East Green Corridor



Section through West to East Green Corridor



West to East Green Corridor

4.3.6 The SANG -purple area on plan below

An area of Suitable Alternative Natural Greenspace (SANG) will be created on the site providing ample opportunity for new residents to have access to recreational space within the local area. Dog walking routes provided within, and around the site will encourage dog walkers to remain in the local area. This will reduce the number of residents that routinely visit the nearby SPA, reducing the disturbance to nesting Stone Curlew, Nightjar and Woodlark. Views to St Mary's Church in Mildenhall and All Saint's Church in Worlington are available from within the SANG.



SANG



Dog Walking Routes



Informal Open Space



Informal Open Space



Illustrative plan of SANG

4.5 Ecology Framework

The vision for the site is to provide a biodiversity net gain of at least 10%. The habitats on site are comprised of a majority of arable land, which provides a low ecological baseline. The majority of the good quality habitat, such as field margins and hedgerows, will be retained.


Large areas of greenspace are included in the scheme. Within these areas, the arable land will be converted to natural habitats such as grassland meadows and scrub which will provide an increase in biodiversity within the site. Preliminary calculations indicate the site will easily achieve the target 10% biodiversity net gain.

These areas will also be managed to provide habitat for a variety of wildlife including notable plants, foraging bats, invertebrates and birds. Specific measures for protected species are summarised below:

- Landscaping will be designed to allow bats to continue foraging and roosting on the site.
- Any work to the river banks will be undertaken under a Natural England Licence, ensuring conservation benefit.
- Birds will continue to use the landscaping within the scheme to nest and forage.
- There is a requirement to provide offsite measures to mitigate for the loss of farmland in particular in relation to ground nesting birds and arable plants.

A 10 ha area of Suitable Alternative Natural Greenspace (SANG) will be provided on the site providing ample opportunity for new residents to have access to recreational space within the local area. The SANG will need to meet the policy expectations of the SALP. Accordingly, dog walking routes, infrastructure such as signage, and dog waste bins, and dogs-off-leads areas will be provided within the SANG and within the green corridors on site. Connections to the wider landscape and footpath network will be retained and new ones created to allow easy access to the local area, such as the bridleway along the River Lark.

These measures will encourage dog walkers to remain in the local area rather than routinely visiting the nearby SPA, reducing the potential for disturbance to Nightjar and Woodlark.



Ecology

SCC seeks to ensure at least a 10% bio diversity net gain across all development sites.



Woodlark



Nightjar



Stone Curlew

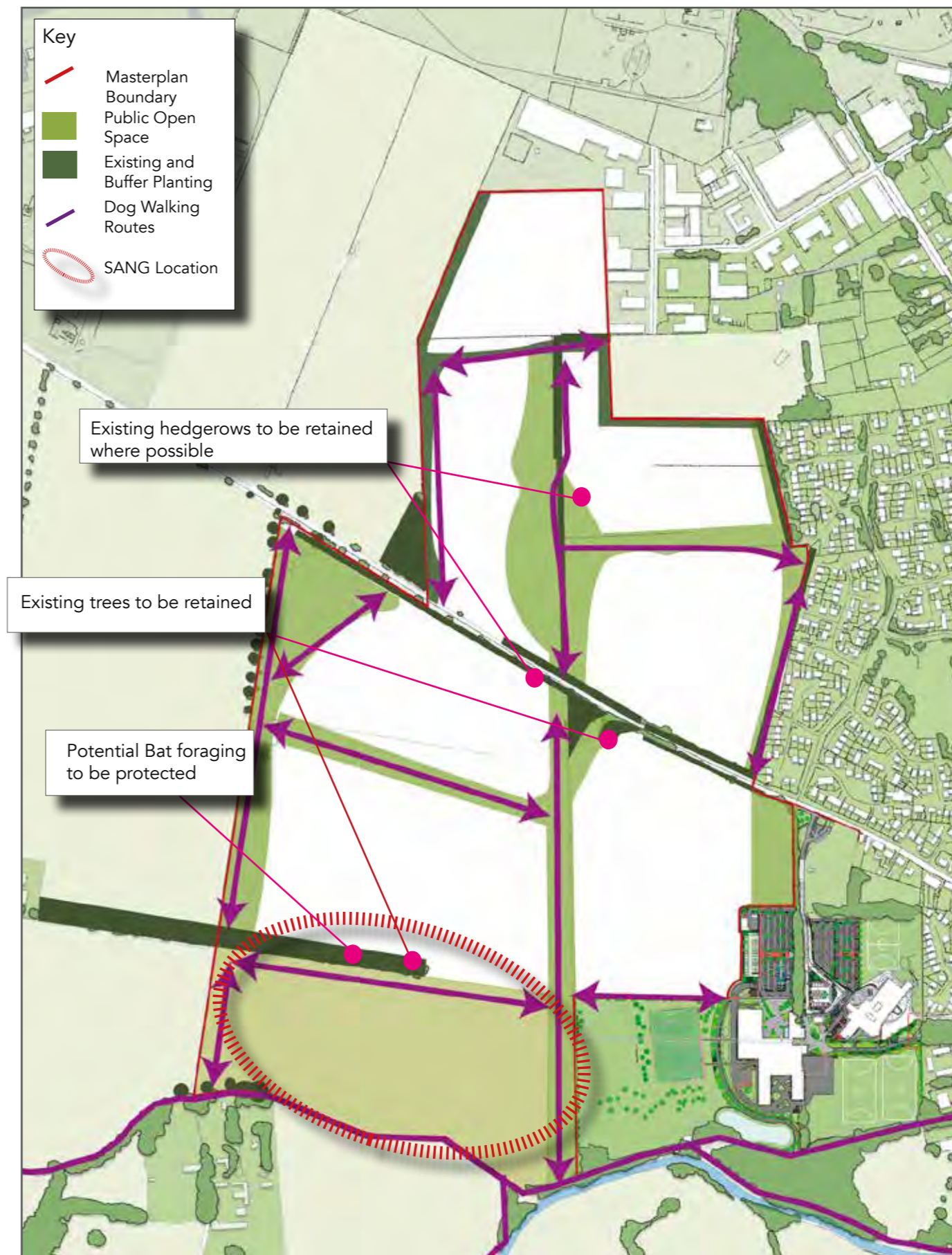


Figure 21 - Ecology Strategy Plan

4.6 Drainage Framework

4.6.1 Drainage Strategy

Drainage must accord with the Sustainable Urban Drainage Systems (SuDS) Design Guide produced by the Lead Local Flood Authority and will manage rainfall at source by ensuring that surface water is discharged into the ground via infiltration techniques, taking into account an allowance for future climate change.

To achieve this, a number of drainage measures are proposed to manage and control water flows across the site which include:

- plot attenuation for the commercial land uses in the north of the site;
- shallow, wide, swales (specifically designed drainage ditches) that convey surface water and allow infiltration; and
- shallow, large, open, attenuation basins (dry basins) that hold water within the site at times of heavy rainfall. The dry basins will operate a 48 hour drain-down rate (but are otherwise dry and usable at all other times) and enable water to be released at a steady rate.

Green corridors will include large but shallow depressions acting as large dry swales. Dry basins are also located in other green areas. All drainage features will have a minimal depth and allow for a very usable and accessible area. A network of large diameter pipes, sat within an infiltrating granular trench, are sited below these depressions, linking the whole system. Water will be conveyed to this below ground network of granular trenches with pipes where most attenuation and all infiltration will occur.

These areas would only be required to function in an extreme rainfall event. Generally, the areas will be no different to any other area of public open space. They will only ever be temporarily wet (like a basin) during an extreme rare rainfall event. However, at its worst, the water depths will be of minimal depths and will drain-down within 48 hours.

An overflow pipe discharging into the River Lark has been shown to the south, for potential future use. This may be used should future and more infiltration testing prove insufficient for the proposals. An overflow discharge rate will be agreed with the LLFA at this time should it be required based on an agreeable Greenfield Run-off Rate.



Example of a road side swale



Example of a dry detention basin

Water

- Multifunctional sustainable urban drainage system
- Opportunities for water re-cycling will be encouraged



Figure 22 - Drainage Strategy Plan

4.6.2 Bird Management

A Bird Hazard Management Plan will be required at the planning application stage to determine the design of the drainage system due to the sites location within the MOD safeguarding zone, which requires management of the risk of attractant environments for large and/or flocking bird species. Any attenuation basins which hold water on a regular basis have the potential to attract and support hazardous birds. Therefore, guidance is that such features should be generally dry, holding water only during and after an extreme rainfall event, with a quick drain down time.

The shallow depressions and dry basins will only ever be wet for a maximum of 48 hours after a storm and therefore will not result in long periods of standing

water reducing the chances of additional bird attraction to the areas. Therefore, removing the risk of bird strikes at the RAF base to the north.

4.6.3 Levels Strategy

There will be some cut into the ground for the proposed drainage features and this cut can be distributed across the site to avoid dispersing off site. This cut can evenly be distributed across the development to allow for a smooth fall towards all drainage features allowing for an easier conveyance to each system and an easier build across the development without disturbing the natural green corridors that are to remain.

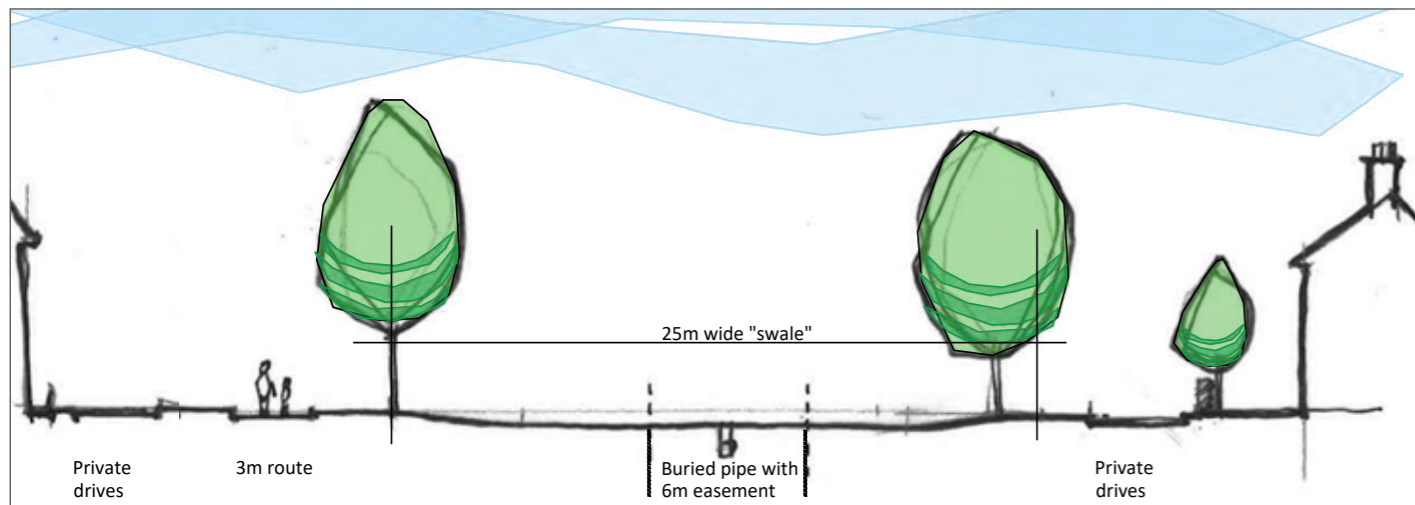


Figure 23 - Section B-B

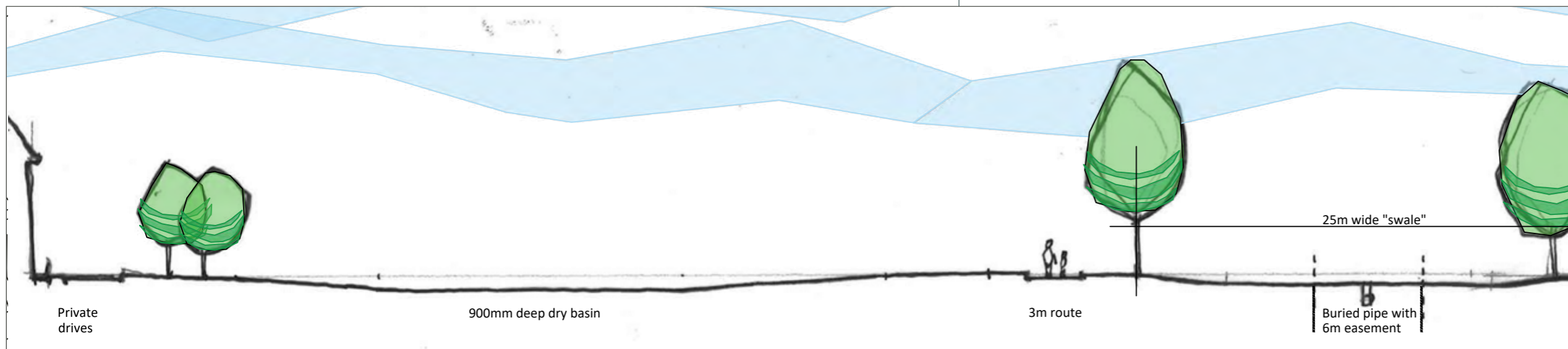


Figure 25 - Section A-A

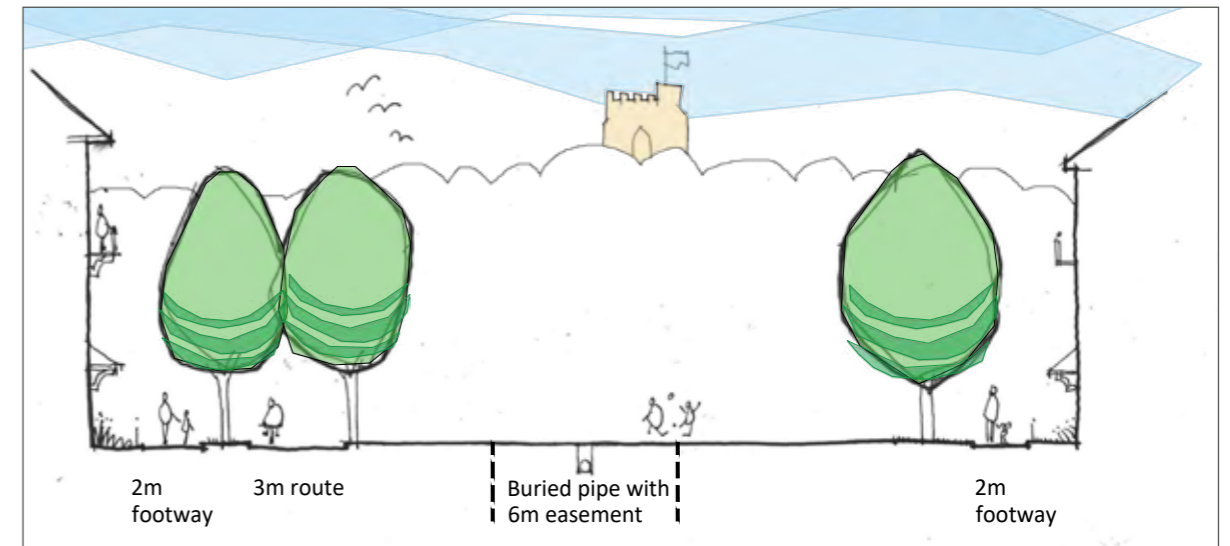


Figure 24 - Section C-C

4.6.4 Site sections

These sections demonstrate how the landscape strategy and the drainage strategy are fully integrated.

The location of the sections can be found at Figure 26.



Figure 26 - Section Location Plan

4.7 Connectivity and Movement

The site's connectivity by different modes is illustrated on the Connectivity and Movement Plan on the following page.

4.7.1 Walking and Cycling Strategy

The strategy prioritises creating pedestrian and cycle links over other vehicles and follows desire routes across the site that integrate with existing links and PROW. This will encourage the use of walking and cycling for a number of journeys including work, shopping, school, and leisure.

The primary footways and cycleways would be provided along the green corridor which runs in a north to south direction, east-west along the West Row Road frontage. The footways and cycleways provided within the development will be provided in accordance with guidance including Department for Transport Local Transport Note 1/20 which sets out guidance for cycle facilities.

- These facilities would comprise of a shared footway and cycleway facility with a combined width of 5.5 metres.
- The routes would be lit and will be provided with an asphalt surface.
- These routes would act as the key routes through the site and provide connections to the local centre, the employment area, the SANG, the school, the Mildenhall Hub, Queensway and Bridleway 1.
- A formal crossing would be provided, in the form of a Tiger crossing, on West Row Road linking the primary footway and cycleway on the northern section of the site with that on the southern section. Further crossing facilities will be provided where the primary routes cross internal roads.
- Secondary footways and cycleways will link through the residential areas to the spine road and the primary footways and cycleways. These routes would be lit and topped with an asphalt surface.
- Leading off the primary and secondary footways and cycleways will be connections to the exiting PROW network and other external routes. This includes a number of connections to Bridleway 1 from the SANG and the primary north-south route.
- Connections will also be provided from the primary north-south route to the PROW, which runs along the western boundary of the Mildenhall Hub.

- A number of connections will be provided along the eastern boundary linking primary and secondary footways and cycleways with Comet Way, Fred Dannatt Way, Queensway, Sheldrick Way and into the Mildenhall Hub development.
- Lighting and surfacing of these connections will be provided in the same form as provided at present to ensure that the facilities are consistent.
- The connections to the existing network are aimed at encouraging journeys to the town centre, employment, education, leisure, and other residential areas in the town as well as the Mildenhall Hub by walking and / or cycling.

4.7.2 Public Transport Strategy

Bus travel will be promoted and designed to accommodate buses travelling along West Row Road to use the main spine road through the southern section of the development.

- Bus stops will be provided along the spine road and will be placed such that they are within 400 metres walking distance of the dwellings, open space, schools, and local centre.
- The route within the northern section will see buses enter and exit from the eastern roundabout and through the new link through the proposed commercial area onto Fred Dannatt Way therefore offering an alternative bus route.
- There is a bus terminus being delivered as part of the Mildenhall Hub, which will also offer good public transport service for a large section of the development.

4.7.3 Streets and Spaces

The footways and cycleways provided within the development will be provided in accordance with guidance including Department for Transport Local Transport Note 1/20 which sets out guidance for cycle facilities.

Detailed layouts at Reserved Matters stage will be required to comply with SCC parking standards.

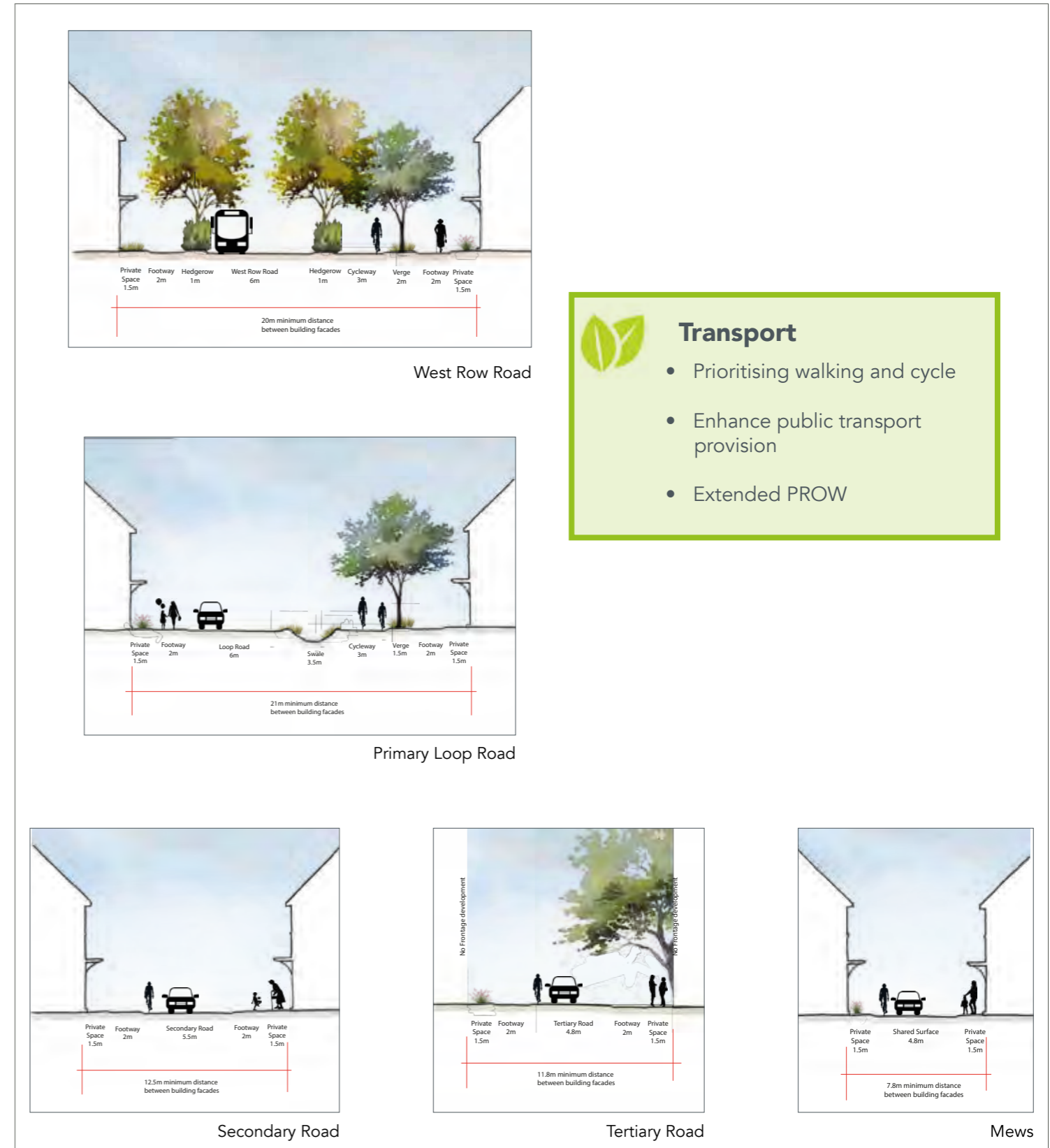


Figure 27 - Illustrative sections to show the minimum distances between buildings on different road types

4.7.4 Access Strategy

Vehicular access to the development will be provided from two new roundabouts on West Row Road.

- The eastern roundabout will be provided west of the West Row Road / Comet Way / Queensway 'T' junction and will provide access to both the northern and southern sections of the development.
- The western roundabout will be provided west of the eastern roundabout. This will provide access to the southern section of the development and will connect with the eastern roundabout via a spine road.
- The roundabout will be designed in accordance with the relevant standards. Facilities for pedestrians and cyclists will be provided on the approaches to the roundabout to assist with crossing.

A gateway feature will be provided to the west of the western roundabout to highlight to vehicles travelling eastbound along West Row Road that they are approaching an urban area.

The speed limit along this section of West Row Road would also be reduced from the currently posted national speed limit to 30 mph to further illustrate that vehicles are in an urban area.

A further vehicular access to the development will be provided in the northern section of the development from the existing industrial area located on Fred Dannatt Way. This new connection will enable vehicles associated with the commercial element of the development to access this area without travelling through the residential area of the development.

4.7.5 Transport Infrastructure

To enable an early understanding of the transport requirements for off-site improvements required to support the development, the scope of a Transport Assessment that would accompany a planning application has been discussed with the Highway Authority and initial assessment work has been undertaken to provide input at this Masterplanning stage. This would not normally be undertaken at this stage however as transport is a key local concern, this work has been brought forward to allow for consultation on any emerging mitigation proposals.

The scoping agreement with the Highway Authority has included agreement on the study area, the trip generation for all modes of travel for the development, the assessment years and scenarios, and the data which will form the basis of the assessment. The Suffolk County Transport Model, which is a strategic model used by the Highway Authority to understand forecast traffic flows across the entire County network, is being used to inform the Transport Assessment, offering a robust approach to future year traffic flows on the local network.



4.7.6 Transport Assessment

- The Transport Assessment will take into account the impact of the development on the road network in and around Mildenhall and will, where required, include the surrounding areas. In particular, it will focus on the impact at the A1101 Kingsway / B1102 High Street / A1101 North Terrace three-arm mini-roundabout and the B1102 High Street / Queensway 'T' junction as this is likely to be the location where the development's impact will be the greatest.
- An initial assessment illustrates the A1101 Kingsway / B1102 High Street / A1101 North Terrace three-arm mini-roundabout operates above its capacity threshold during the Am and PM peak weekday hours resulting in congestion. The proposed development will increase demand for traffic through this junction and as a result improvement works are being explored. In addition, the B1102 High Street /Queensway 'T' junction this is also being considered for potential improvements. The results of the initial assessment illustrate that capacity improvements are required to cater for the increase in demand associated with the development and those improvements are discussed in 4.7.7.
- The transport evidence prepared for the Local Plan demonstrated that there would not be a need for bypass to the west of Mildenhall to cater for the growth allocated within the current Local Plan. There are requirements for improvements within the town, including improved facilities and routing for pedestrians and cyclists, traffic management measures, as well possible re-routing of HGVs away from the Town Centre.

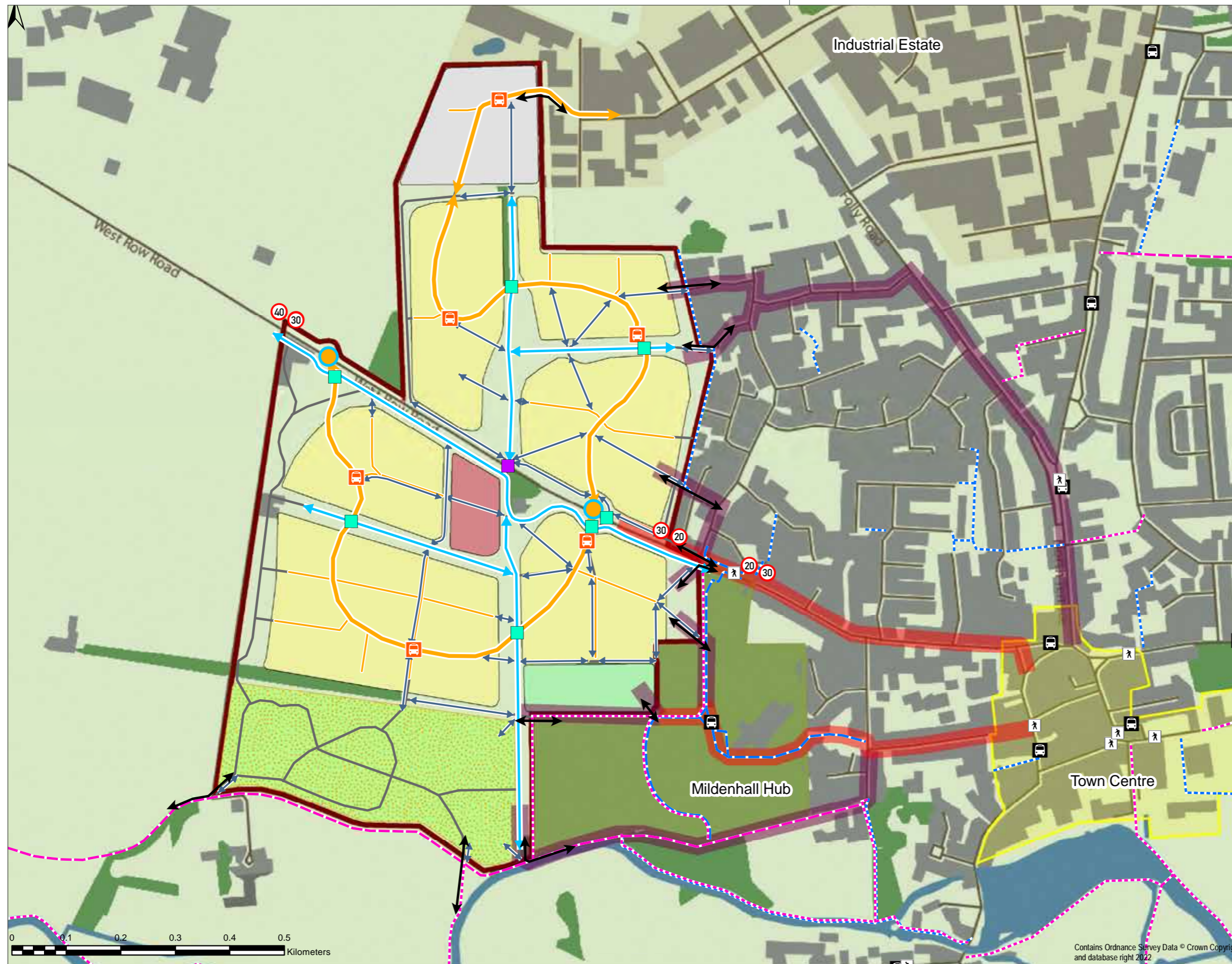
4.7.7 Transport Improvements

Potential improvements anticipated to be required in future planning applications include:

- The enlargement of the roundabout incorporating Queensway and promoting the use of College Heath Road as the predominant route for through-traffic travelling from the A11 Fiveways junction to the east of the town to the industrial area and RAF Mildenhall.

- The form of the junctions at the northern and southern ends of College Heath Road have yet to be determined however the reclassification of the road to the A1101 has been considered in the past by the Highway Authority who would support the proposed improvements.
- Reclassification of College Heath Road as the A1101 would result in a reduction in traffic at the A1101 Kingsway / B1102 High Street / A1101 North Terrace three-arm mini-roundabout enabling improvements to be made to the junction for pedestrians and cyclists, for whom it is lacking at present.
- West Row Road is relatively lightly trafficked at present, and of sufficient size to cater for the expected increase in traffic from this development. Any design related changes to West Row Road in the vicinity of the development will be undertaken in accordance with the appropriate guidance documents and form part of the assessment within any planning application, and will be subject to agreement with the highway authority.





LEGEND

- Proposed Speed Limit
- Existing Crossing
- Proposed Walking & Cycle Crossing (Tiger Crossing)
- Indicative Walking & Cycle Priority Crossing
- Indicative Bus Stop
- Existing Bus Stop
- Potential Pedestrian and Cycle Connection
- Indicative Key Pedestrian & Cycle Desire Line
- Indicative Secondary Pedestrian & Cycle Desire Line
- Roundabout & Crossings
- Masterplan Main Road - With Adjacent Footway and Cycleway
- Masterplan Minor Road - With Adjacent Footway
- PRoW Footway
- PRoW Bridleway
- Existing Footway
- Existing Shared Cycle & Pedestrian Path
- Internal Walking & Cycling Routes
- Key Route to Town Centre
- Potential Route to Town Centre
- SANG & Playing Fields
- Proposed Commercial Area
- Proposed School Site
- Proposed Local Centre
- Proposed Residential Area
- Mildenhall Town Centre
- West Mildenhall Boundary

Figure 28 - Connectivity and Movement Plan



5

Urban Design & Placemaking

This section sets out the density, character areas, site-wide urban design guidance, and design guidance for key areas of the development.

5.1 Density and Storey Heights Framework

The allocation seeks to deliver 1300 homes, including the Adult Care Services (ACS) facility.

The Density and Heights Framework Plan sets out the different density bands and different storey heights within different parts of the site. This is the starting point of the three dimensional design work that will follow as the Masterplan is developed.

The most dense part of the site is around the local centre and Adult Care Services (ACS), where elderly and supported housing will be provided, may be up to four storey (three storey apartments with under croft parking).

The lowest density part of the site is on the western edge at the interface with the countryside. Here buildings will generally be two storey. The remainder of the site will be a medium density, to match the existing western edge of Mildenhall, with buildings generally at 2 storeys but with the potential to have some three storey in key locations or as landmark buildings.

It is important to read the density and storey heights plan in conjunction with the Masterplan Framework Plan and the Character Area Plan.

Below are four aerial views and their corresponding photographs of different residential areas, in and around Mildenhall. Each area is an example of a different density, measured as dwellings per hectare (dph).



Miles Hawk Way - 18 dph



Evergreen Way - 29 dph



Bridge Dairy Farm - 40 dph



Miles Hawk Way - 18 dph
Detached houses large plots, small front gardens, green spaces



Evergreen Way - 29 dph
Detached, semi detached and terraced housing, some 3 storey, minimum or no front gardens



Bridge Dairy Farm - 40 dph
Apartments and terraced houses, some 3 storey, no front gardens, small plots

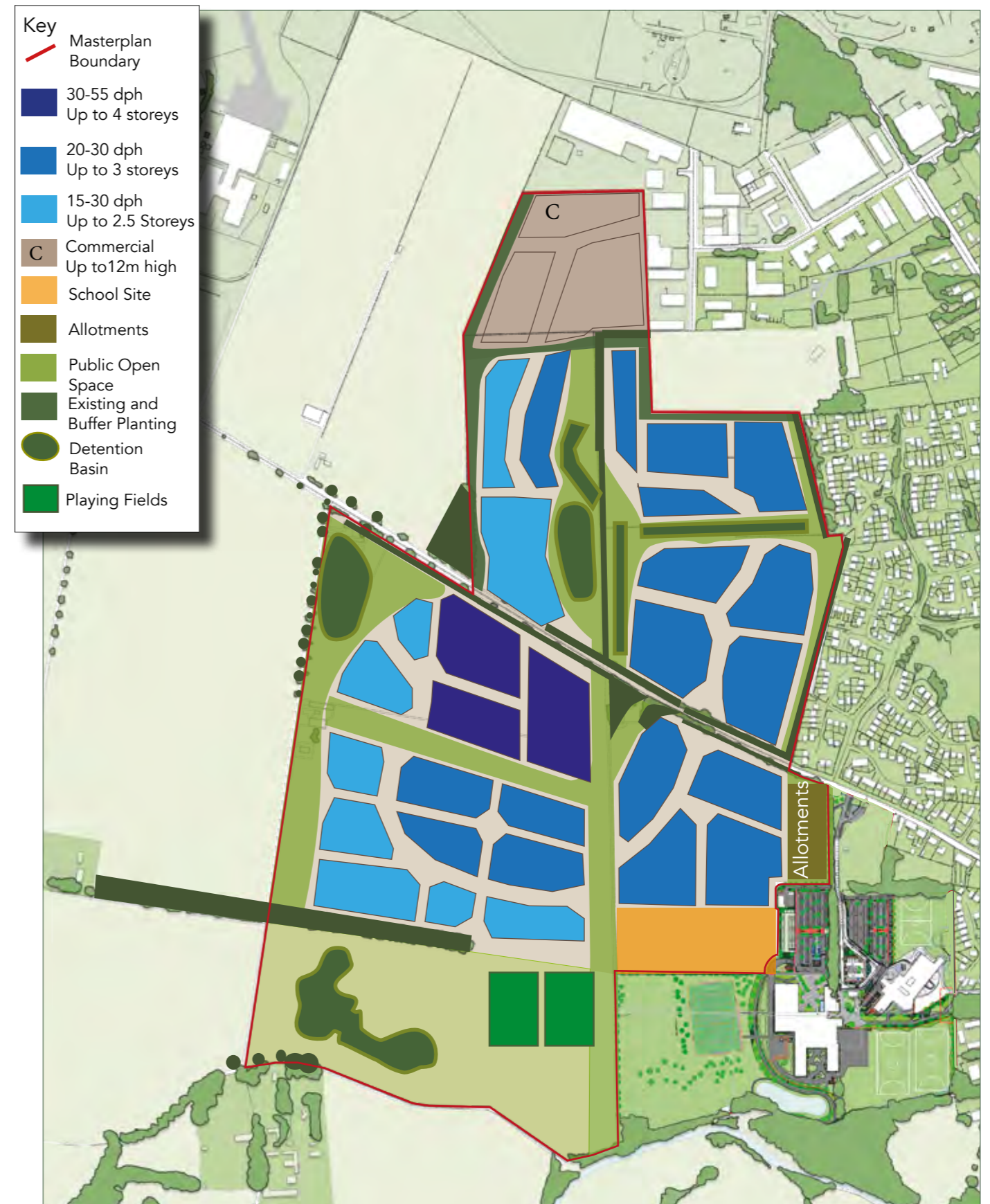


Figure 29 - Density and Heights Plan

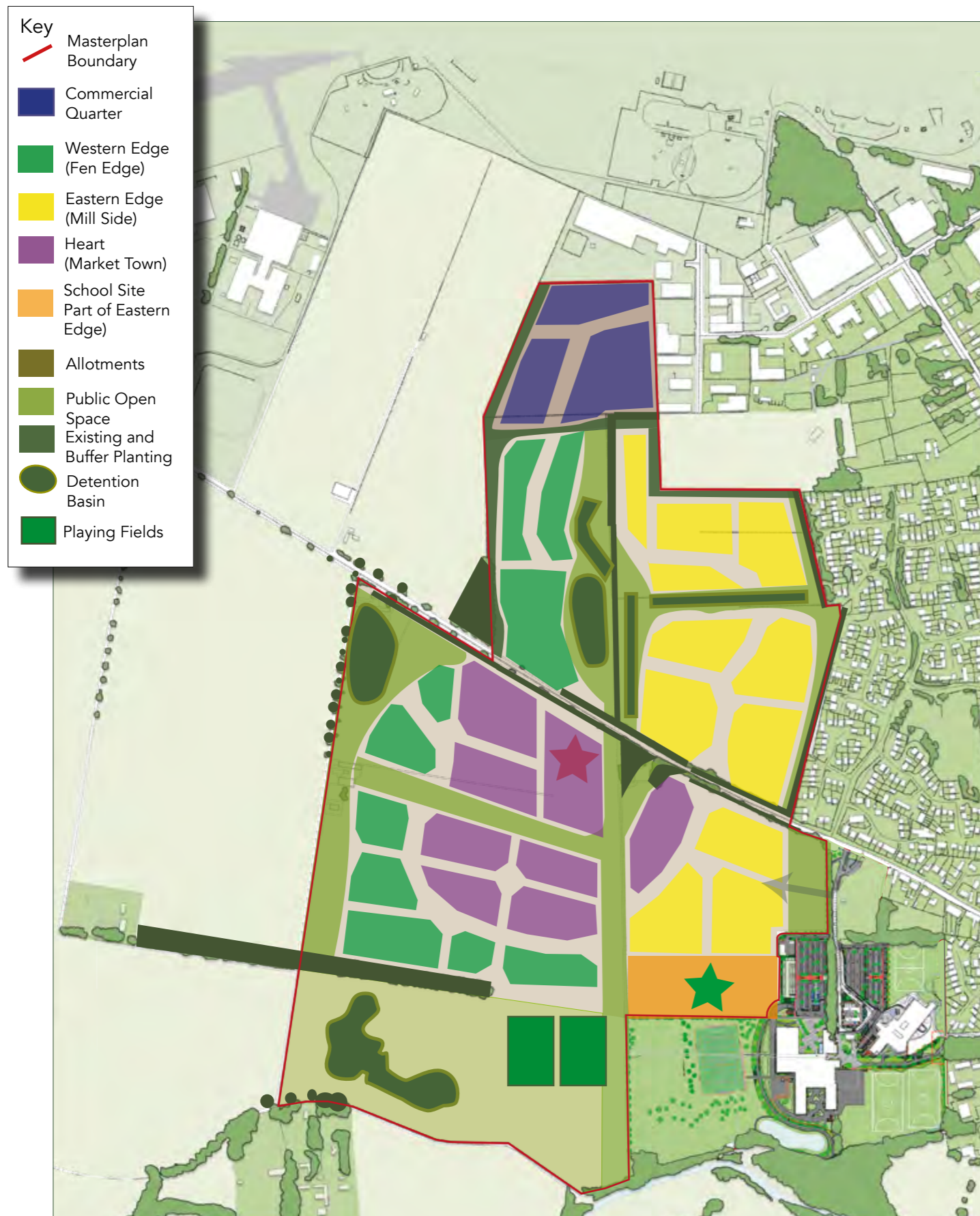


Figure 30 - Character Areas Plan

5.2 Character Areas

5.2.1 Character Areas Framework Plan

The Character Area Plan on the facing page shows four different character areas. Each will have a distinctive and unique character which will be based on a predominance of certain characteristics which are: site features, density, storey height, boundary treatments, landscape character, architectural materials and building typologies. Each character area also has a number of unique and important features which are identified on the birds eye views of each character area.

Each character area is made up of a number of urban blocks and careful consideration will be given to the locations where character areas adjoin one another. Supporting the Character Area Plan are the landscape, ecology, drainage and movement strategies presented earlier in this document which will tie the whole development together.

In addition the Key Characteristics (See pages 28-29 of the Analysis Section of this document) found in Mildenhall and surrounding villages- such as walls, vista stop buildings, gateways and courtyards will be interspersed throughout the development to root it in its location.

Key characteristics found in all study areas include:

- Gateways
- Brick or flint walls
- Street Farms
- Vista stops
- Variety of materials
- Decorative chimney stacks
- Greens and swathes at junctions
- Soft interface between village and countryside

5.2.2 Character Areas Rationale

The rationale for the character areas is based on a number of factors including land use, location, key features, relationship to other parts of the development and relationship to wider surroundings.

The following pages explain the rationale behind the Character Areas through illustrations and precedent images. There is also an extract from the 3D spatial masterplan (based on a proving layout - which shows the buildings and roads but not the driveways, fences or other layout details) for each of the four Character Areas, identifying key features which are unique to that Character Area.

All illustrations are indicative only and have been produced to illustrate scale and massing. Houses have deliberately been shown as outlines to allow for flexibility in the architectural design work that will develop later in the design process.

Western Edge - Fen Edge

This Character Area is visible from West Row Road when travelling eastwards. It forms an important interface with the open countryside and will become the new edge of Mildenhall. The buildings in this area will have rural references and soft natural landscape.

Features:

This area will create the new western gateway to Mildenhall. On the western countryside edge and also adjacent to the SANG it is the lowest density part of the development, of mostly semi detached and detached red brick houses with some light render.

Density:

Between 15 and 30 dwellings per hectare (mostly detached, semi detached and terraced, with some courtyards).

Storey Heights:

Up to 2.5 stories.

Boundary Treatments:

Mostly post and rail fences, hedges and open front gardens.

Landscape Character:

Soft landscape with indigenous species.

Architectural Materials:

Predominantly red brick and light colour render.



Local Precedent Images



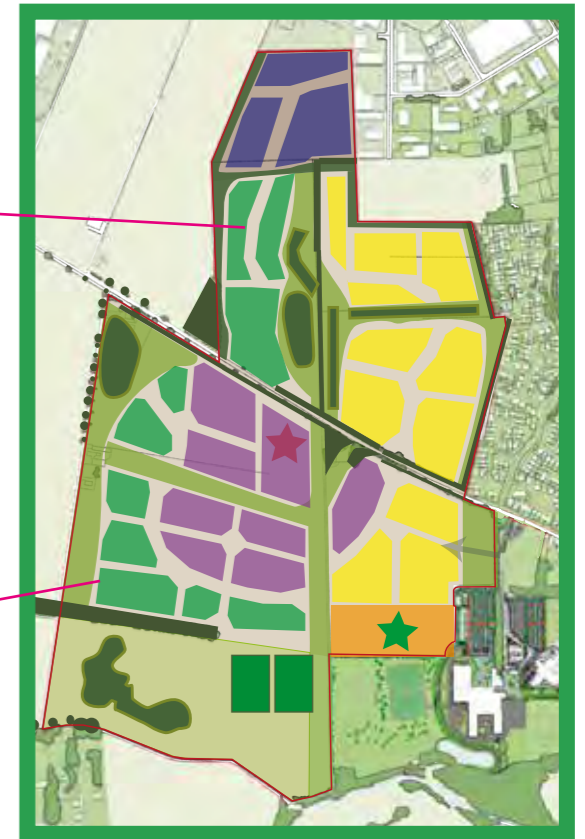
Gravel paths and rural boundary fence



Sketch of terraced houses on rural edge



Sketch of detached house on rural edge



Key Plan showing Western Edge Character Area coloured green



Illustration of housing on the rural edge of the western boundary

Western Edge - Key Features of this character area

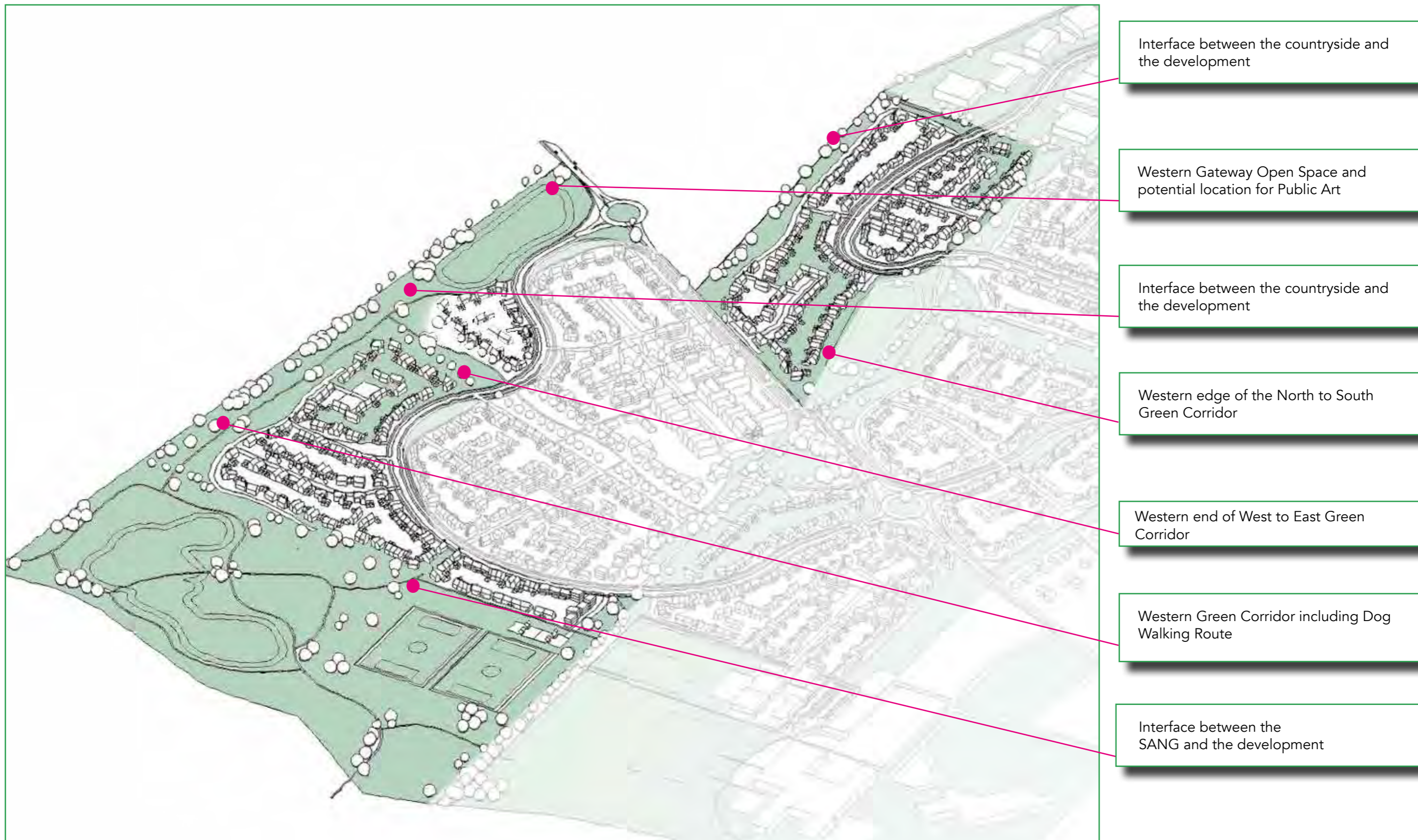


Figure 31 - Key Features of the Western Character Area

Eastern Edge - Mill Side

This character area is on the edge of the current western side of Mildenhall. The building heights and density of this edge will be a continuation of the existing settlement with a wide landscape buffer between and footpath/cycleway connections north-south as well as east-west.

Features:

This area is on the eastern edge of Mildenhall, with the commercial area to its north. It is adjacent to the North to South Green Corridor. It will be mostly mid density, two storey housing, predominantly buff brick with some pastel coloured render in places.

Density:

Between 15 and 30 dwellings per hectare (mostly detached, semi detached and terraces with some apartments).

Storey Heights:

Up to 2.5 stories

Boundary Treatments:

Mostly hedges, low walls and railings

Landscape Character:

Soft landscape

Architectural Materials:

Predominantly buff brick with some render



Natural landscape features



Sketch of traditional housing overlooking POS



Sketch of detached house on eastern edge



Key Plan showing Eastern Edge Character Area coloured Yellow



Illustration of housing facing north/south footpath adjacent to existing settlement on eastern edge

Eastern Edge - Key Features of this character area



Figure 32 - Key Features of the Eastern Character Area

Heart - Market Town

This Character Area includes the Local Centre and is bounded to the north by West Row Road. It will be a focal point for the community and is easily accessible and visible from all parts of the development with vehicular, pedestrian and cycle routes leading to the local centre. There are physical and visual links from the north of the development.

Features:

This area includes the local centre and the Adult Care Services and will be the highest density part of the site. There is an opportunity to create a less traditional urban character in this area with taller buildings, apartments and careful use of materials.

Density:

Between 35 and 55 dwellings per hectare (mostly semi detached, terraced, mews, town-houses and apartments).

Storey Heights:

Up to 4 stories.

Boundary Treatments:

Predominantly walls and railings.

Landscape Character:

Predominantly hard landscape with small trees and clipped hedges in places.

Architectural Materials:

Predominantly buff and red brick with some black boarding.



Hard landscape features



Sketch of three storey town houses



Sketch of mews houses (behind town houses)



Key Plan showing The Heart Character Area coloured Purple



Illustration of semi detached housing facing north/south Green Route, accessed by shared surface/private drives



The Heart - Key Features of this character area



Western Gateway creates a sense of arrival into the west of Mildenhall as well as the development itself

Formal Square with 3 Storey Apartments

Existing Vegetation along West Row Road to be retained wherever possible

Local Centre and ACS accessible from West Row Road and from north and south of West Row Road

Interface between the development and West Row Road

Existing Copse to be retained and incorporated into Public Open Space adjacent to the Local Centre

North to South Green Corridor and Open Space

Figure 33 - Key Features of The Heart Character Area



Commercial Quarter

Features:

This area is immediately to the west of the existing industrial area and south of RAF Mildenhall air base. It is screened from the residential area to its southern side by an existing hedgerow.

Density:

Not applicable.

Storey Heights:

Up to 2.5 commercial stories.

Boundary Treatments:

Mostly low walls and Railings.

Landscape Character:

Hard landscape with street trees.

Architectural Materials:

Predominantly buff brick with some black boarding and metal cladding

Typologies:

Not applicable



Images showing various commercial developments



Sketch of interface with residential development



Key Plan showing The Heart Character Area coloured Blue



High quality landscape



Illustration of industrial building



Commercial Quarter - Key Features of this character area

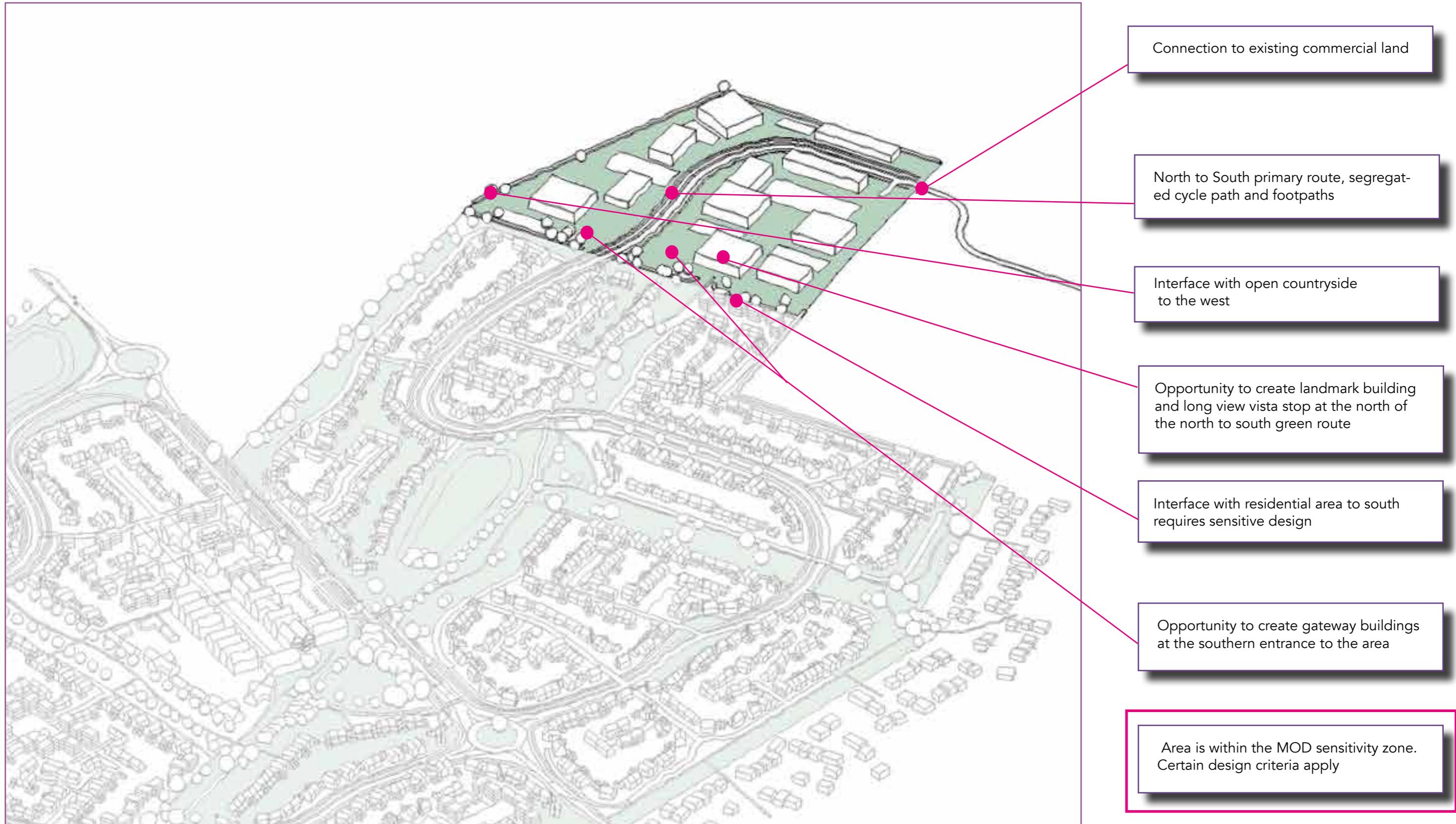


Figure 34 - Key Features of The Commercial Quarter Character Area

5.3 Design Guidance

5.3.1 Site Wide Design Guidance

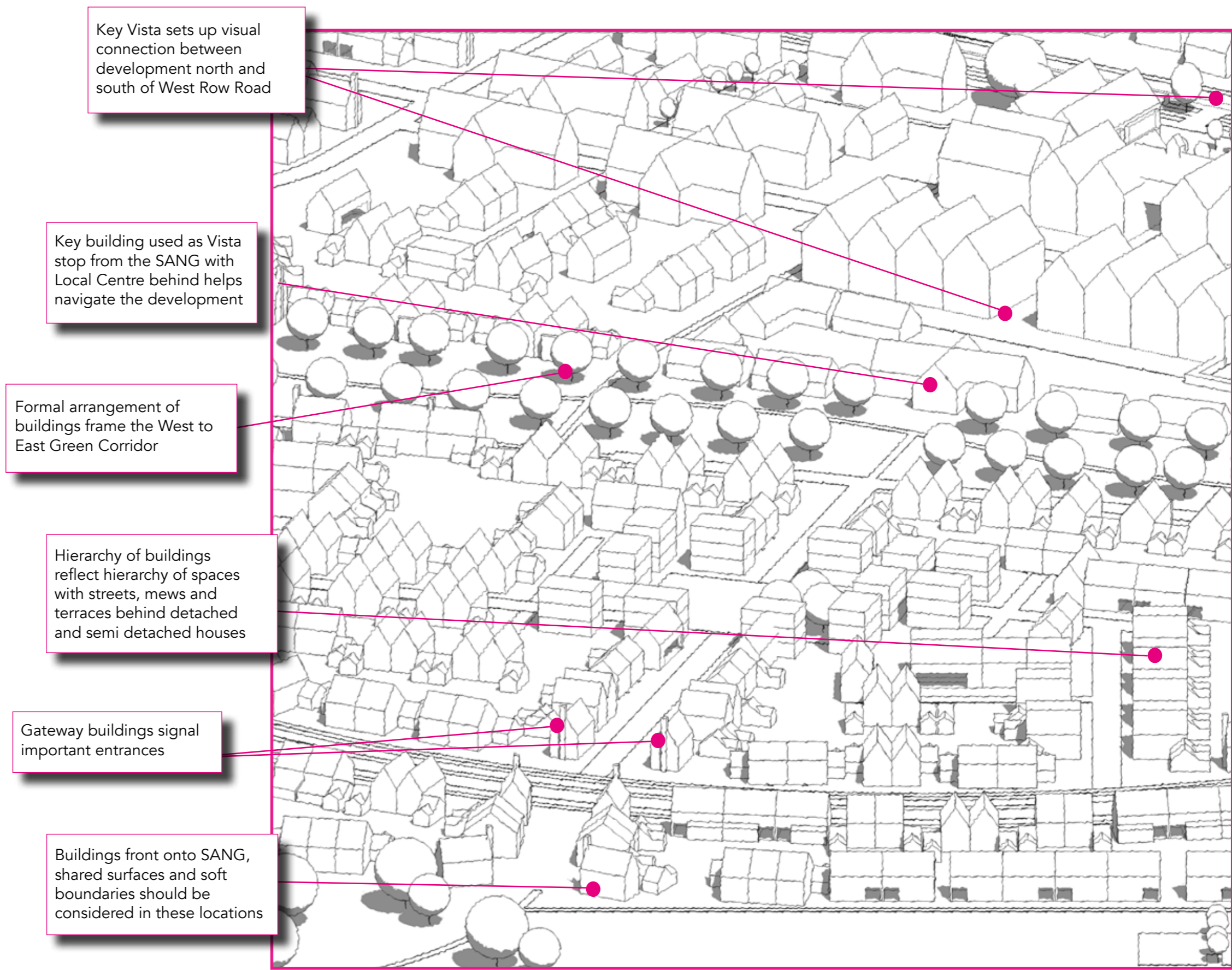
There is a requirement from West Suffolk Council to produce a Design Code for this development, prior to detailed planning applications (ie. reserved matters).

The following pages show examples of key spaces and key areas of the masterplan. The illustrations are indicative only.

The first three figures illustrate site wide design guidance and rules of Urban Design Best Practice. The guidance includes examples of how the key characteristics of Mildenhall and the surrounding villages should be included in future detailed designs (see pages 92 - 95).

There are also illustrations and precedent images to show how important sample areas are envisaged. There are a set of 'Rules' for each of these areas. The areas include the following:

1. The Western Gateway
2. The North Eastern Edge
3. West to East Green Corridor
4. The interface between the SANG and the built form
5. The interface between the residential and commercial areas
6. The Local Centre
7. The School Site



Key Vista sets up visual connection between development north and south of West Row Road

Key building used as Vista stop from the SANG with Local Centre behind helps navigate the development

Formal arrangement of buildings frame the West to East Green Corridor

Hierarchy of buildings reflect hierarchy of spaces with streets, mews and terraces behind detached and semi detached houses

Gateway buildings signal important entrances

Buildings front onto SANG, shared surfaces and soft boundaries should be considered in these locations

Figure 35 - Site-wide Design Guidance - Tile 1

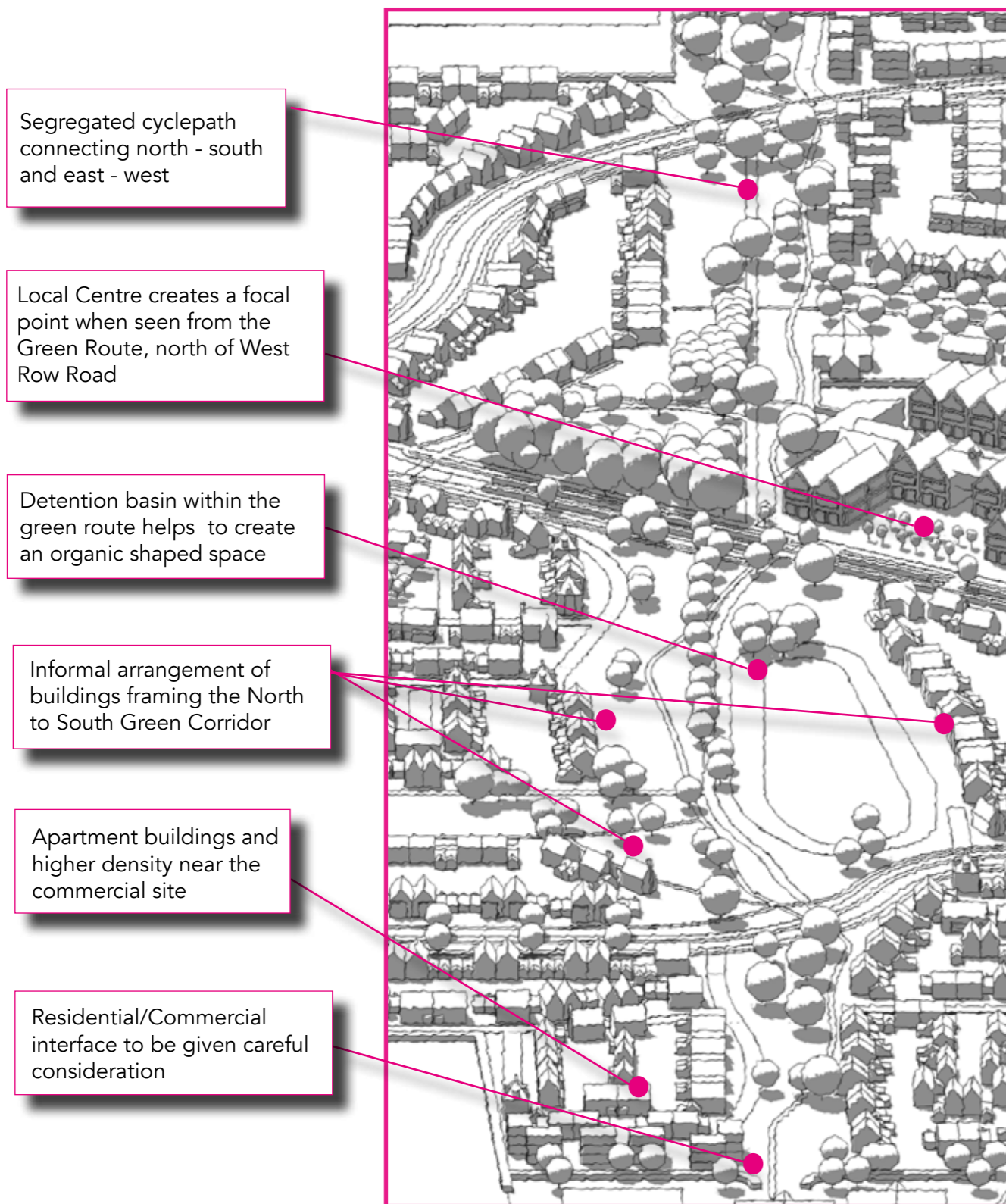


Figure 36 - Site-wide Design Guidance - Tile 2

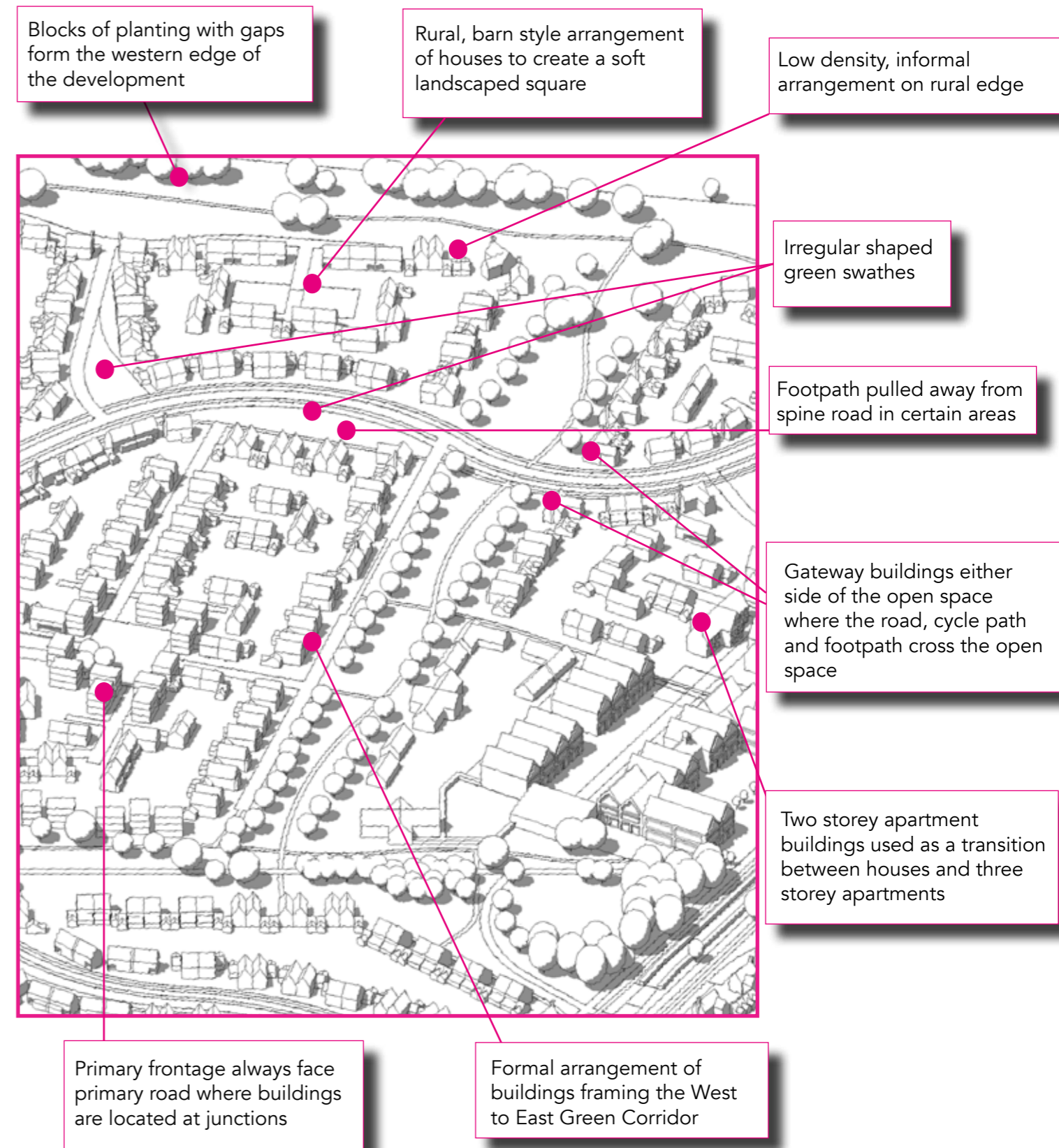


Figure 37 - Site-wide Design Guidance - Tile 3

5.3.2 Key Characteristics

These four pages show how the analysis work set out in section 3 of this document could be woven into the built form of the development.



Tight Knit Streets



Tight knit streets are a characteristic common to Mildenhall and all the villages studied. These streets have varied roof pitches and ridge heights and are set close to, or on the back edge, of the pavement. They also have rear courts which are accessed either by the side of the building or through archways.

Sometimes houses are placed at angles along the street so that their gable faces the street and the front elevation faces a small open space.

These characteristics can be successfully integrated into design proposals as shown in the plan and model on this page. The angled house is highlighted.



Incorporating Key Characteristics from Mildenhall and the surrounding villages will help to root the new development in its setting as a natural and appropriate extension to Mildenhall. These illustrations show in more detail how future designers could incorporate these Key Characteristics into their layouts.



Squares and Courtyards



Mildenhall is known for its market square which is of an attractive scale. The height to width ratio of the space is described as a 'human scale'.

The market square accommodates vehicles and parking spaces which are overlooked by generally two storey shops, some with flats above.

The model on this page shows how this scale can be translated into design proposals. The entrance to the courtyard should be narrow and the courtyard should be overlooked. In the model the chauffeur flats over garages are highlighted.

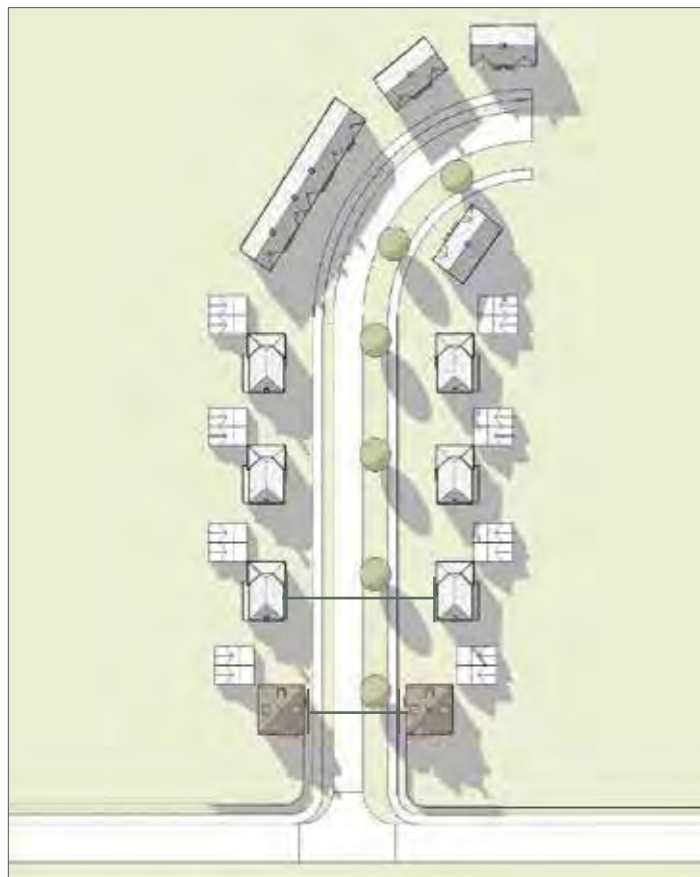




Edges and Gateways



Key Buildings and Vista Stops



Mildenhall and the surrounding villages are characterised by long walls at the interface between the built form and the countryside edge. This is particularly evident in Worlington and Barton Mills.

The study model on this page shows how walls and key 'gateway' buildings can be placed to herald the edge of the proposed development, or a part of the development which might be adjacent to open space, the green link or the countryside edge.

The plan shows a reduced distance between the distinctive gateway buildings (highlighted) and a widening of the space between facades of the rest of the street.



Key buildings and vista stops are another key characteristic of the area. The vista stops are buildings, often with symmetrical facades, which are placed at the end of a road or junction to close the vista or view. Key buildings are found at significant locations due to their grandeur or architectural interest.

Both vista stops and key buildings can be incorporated into the design proposals as shown and highlighted on the model on this page.

All the houses used to create these models are from a collection of actual designs by various national housebuilders.



5.3.3 Area Specific Design Guidance

Seven areas of the development have been illustrated in more detail to show how they could be designed to ensure the proposed vision for the development is delivered. The aerial and eye level sketches show the scale, height and massing of buildings and how they are arranged around open space. The buildings themselves are purposely shown without detail. The detail will be developed at a future design stage.

In accordance with **The National Design Guide**, these illustrations cover Layout, Scale, Appearance & Landscape.

Western Gateway - page 98

West to East Green Corridor - page 102

Edge of SANG - page 104

Residential/Commercial interface - page 106

Eastern Edge - page 100

Local Centre - page 108

School Site - page 110

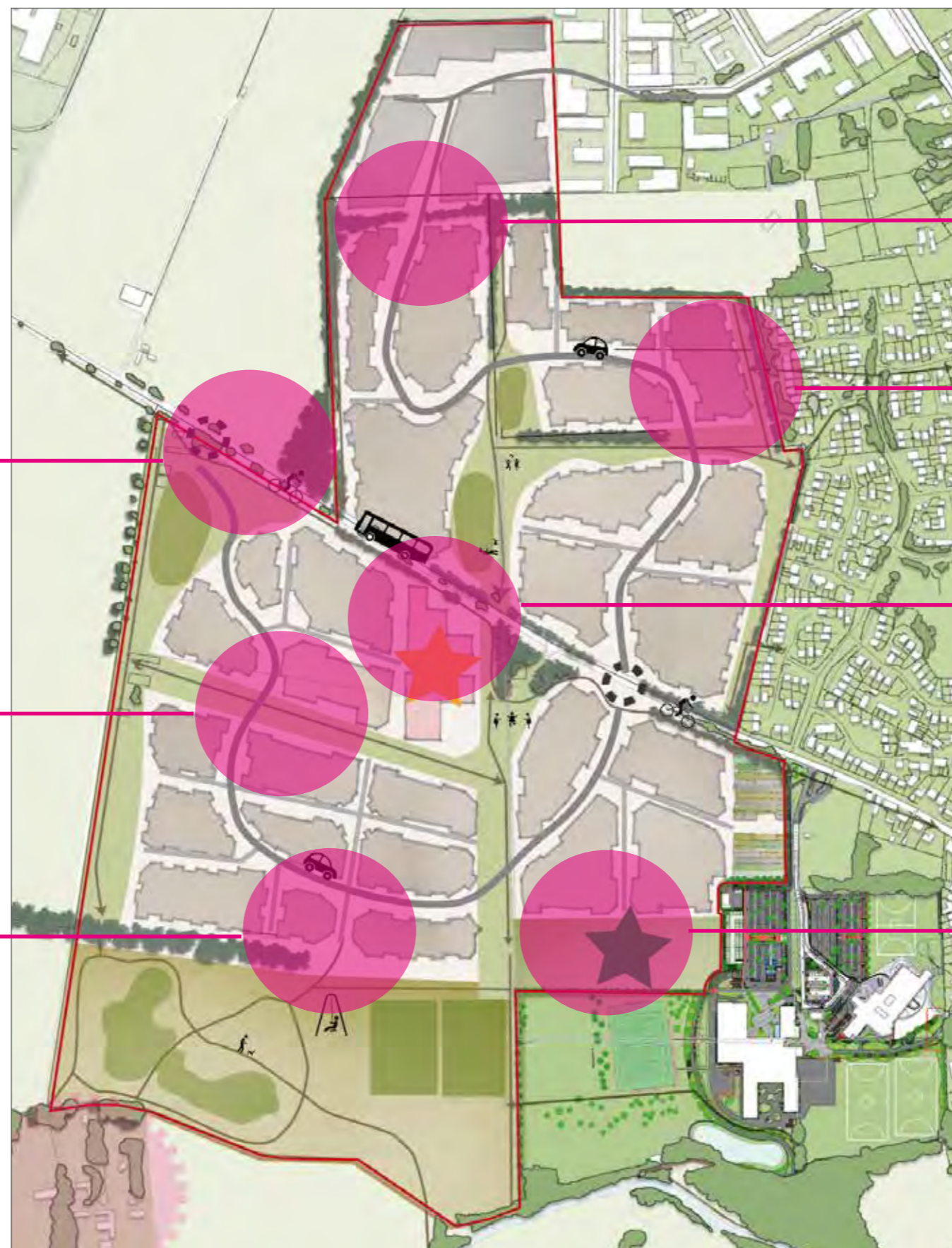


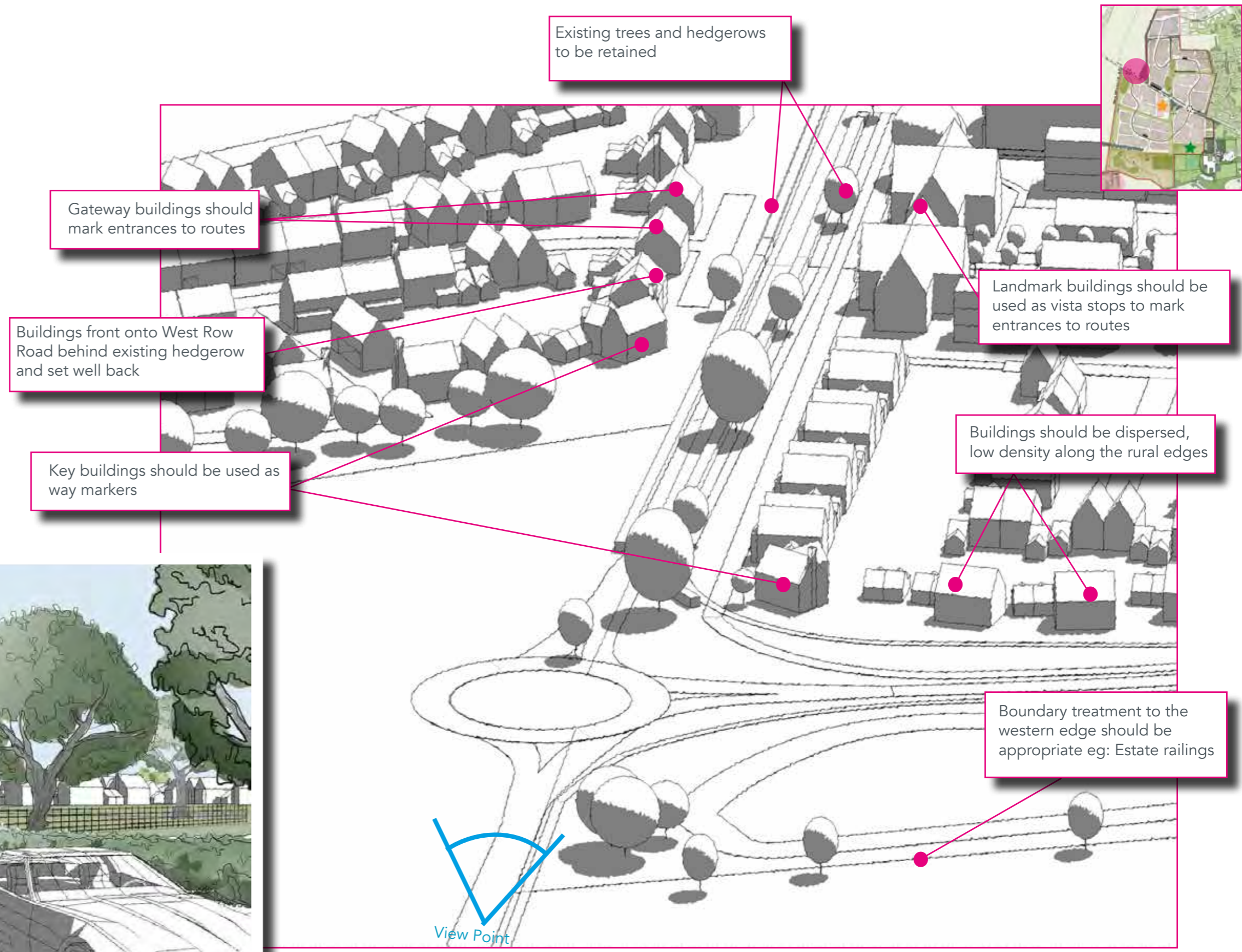
Figure 38 - Plan showing locations of Area Specific Guidance

Western Gateway

This is an important area as it creates a new gateway to Mildenhall from the west as well as the gateway to the development itself. It is in the Western Edge (Fen Edge) Character Area.

Approaching this gateway from West Row Road, the open space to the south (on the right hand side) will provide a soft green interface between the open countryside and the new development. To the north (left hand side) is open countryside. This creates an asymmetrical arrangement which is entirely in keeping with traditional settlements in the area.

The long view down West Row Road will be much the same as it currently is with the existing hedgerows and trees remaining. New buildings will be visible in places but well set back behind the cycleway, verges, swales and footpaths, which is a minimum distance of 9.5m - See the Movement Strategy in Chapter 4 of this document.



Illustrative view from West Row Road facing east (not indicative of final landscape design or building design)

Figure 39 - Western Gateway Design Guide Tile

Eastern Edge

The eastern edge of the development immediately adjacent to existing residential dwellings should be sensitively designed and respectful of the existing residents. It is in the Eastern Edge (Mill Side) Character Area.

The masterplan shows a broad area of open space between the existing and proposed buildings, through which a meandering footpath travels north south with connections to the east and west.

All houses must front onto this open space and must be no more than two storeys in height.

Front garden boundaries should be mostly hedges although some low walls and railings would also be appropriate in corner or gateway buildings.

Roads will only be shared surfaces or private drives in this location, keeping vehicular movements to a minimum. There are no through roads or secondary roads in this location.



Illustrative view south along Eastern Green Corridor (not indicative of final landscape design or building design)

Figure 40 - Eastern Edge Design Guide Tile

West to East Green Corridor

One of the key landscaped features of the masterplan is the West to East Green Corridor connecting the central green spine and Local Centre with the western green corridor, as illustrated below. This is an open space between the Heart (Market Town) and Western Edge (Fen Edge) and lies within the Western Edge Character Area.

The masterplan shows this as a formal and structured landscape feature with the built form either side of the corridor echoing this formality. The landscape treatment could be either informal (as illustrated) or formally planted with blocks of shrubs and plants set among hard landscape features. The detailed design of this area as well as other areas of open space will be developed later in the planning process.

The illustrative model and view are intended to show what could be achieved and to give an indication of the scale of the space.

Pedestrian routes and visual connections that cross the Green Corridor should not disrupt the spatial enclosure of the Corridor

Housing should be arranged formally along the Green Corridor with a consistent building line

Gateway buildings or features should signal the transition between built form and the Green Corridor

Planting to be formal either side of the Green Corridor

Key buildings and vista stops should not disrupt the building line or spatial enclosure of the corridor

Shared surfaces and private drives to be permeable

Change of surface material should be used where primary route crosses the Green Corridor

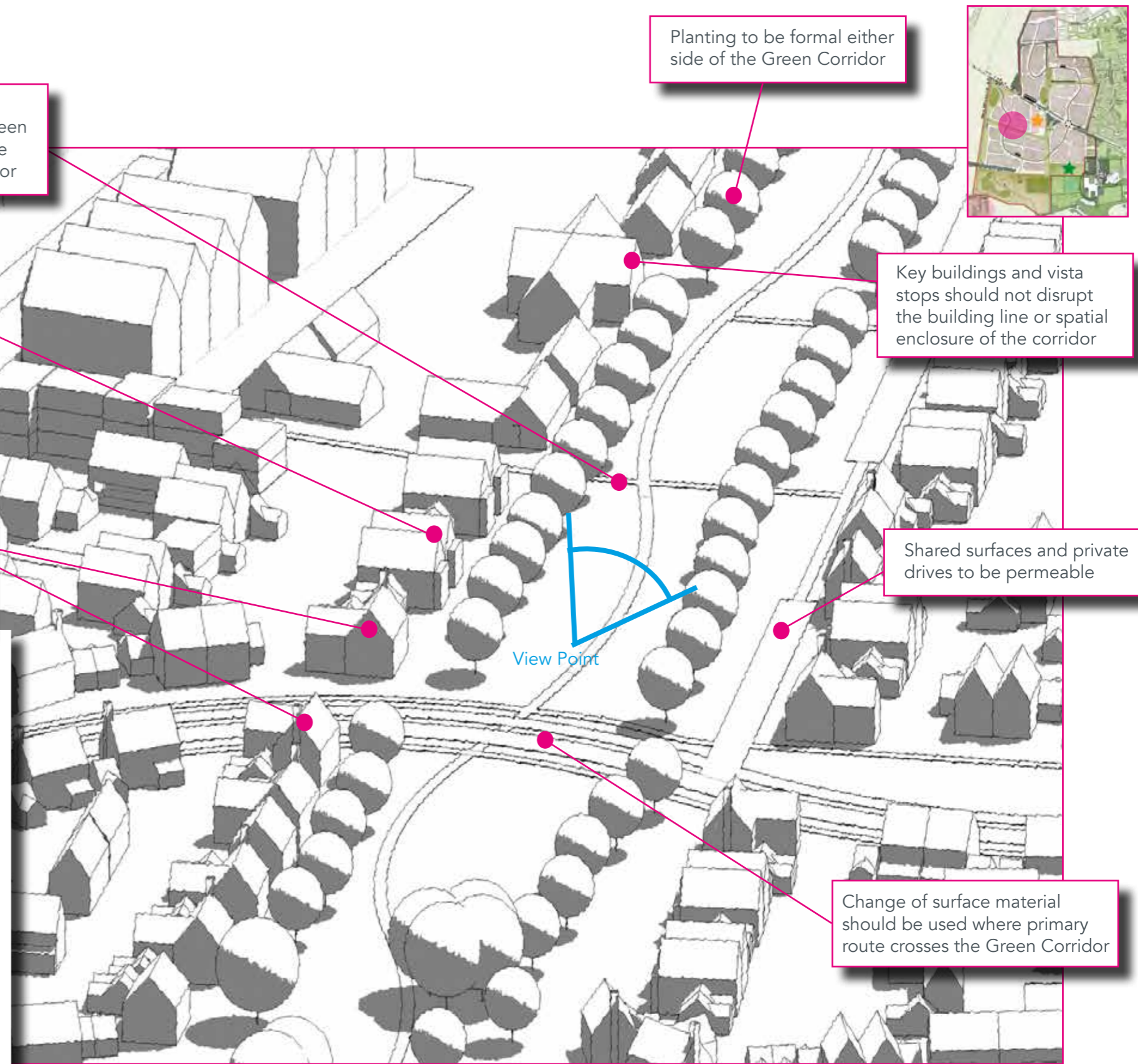


Figure 41 - West to East Green Corridor Design Guide Tile

Illustrative view from West to East Green Corridor facing west (not indicative of final landscape design or building design)

Edge of SANG

The residential development at the northern edge of the SANG requires special consideration. It lies within the Western Edge (Fen Edge) Character Area.

All houses on the edge of the SANG should be no more than two storeys in height and should be a combination of detached and semi detached houses arranged with a varied building line to create an informal, undulating, 'soft' edge of development. This is in contrast with the buildings along either side of the West to East Green Corridor which are formal.

Housing facing the SANG will provide natural overlooking and help people using the SANG to feel safe.

Boundary treatments to front gardens should be in keeping with the character area but there should be more hedges and railings than walls and fences.



Illustrative view SANG facing west (not indicative of final landscape design or building design)

Figure 42 - Edge of SANG Design Guide Tile

Residential Commercial Interface

The interface between the northern most residential parcel and the land proposed for commercial should be carefully designed. It straddles the Western Edge (Fen Edge), Eastern Edge (Mill Side) and Commercial Character Areas.

The illustrations adjacent and below show how this transition space could be arranged.

Generally the commercial buildings adjacent to the boundary with residential and the boundary with open space (to the west) should be smaller in scale and have lower ridge heights that the rest of the commercial buildings so that a transition in scale is achieved.

A separate dedicated cycleway to the commercial in addition to the one adjacent to the road should be provided in order to encourage cycle use wherever possible.

A well designed commercial building carefully sited to the north of the north south green corridor could form an attractive vista stop and help to integrate the residential and commercial areas rather than separate them with a wide planted area as a 'buffer'.

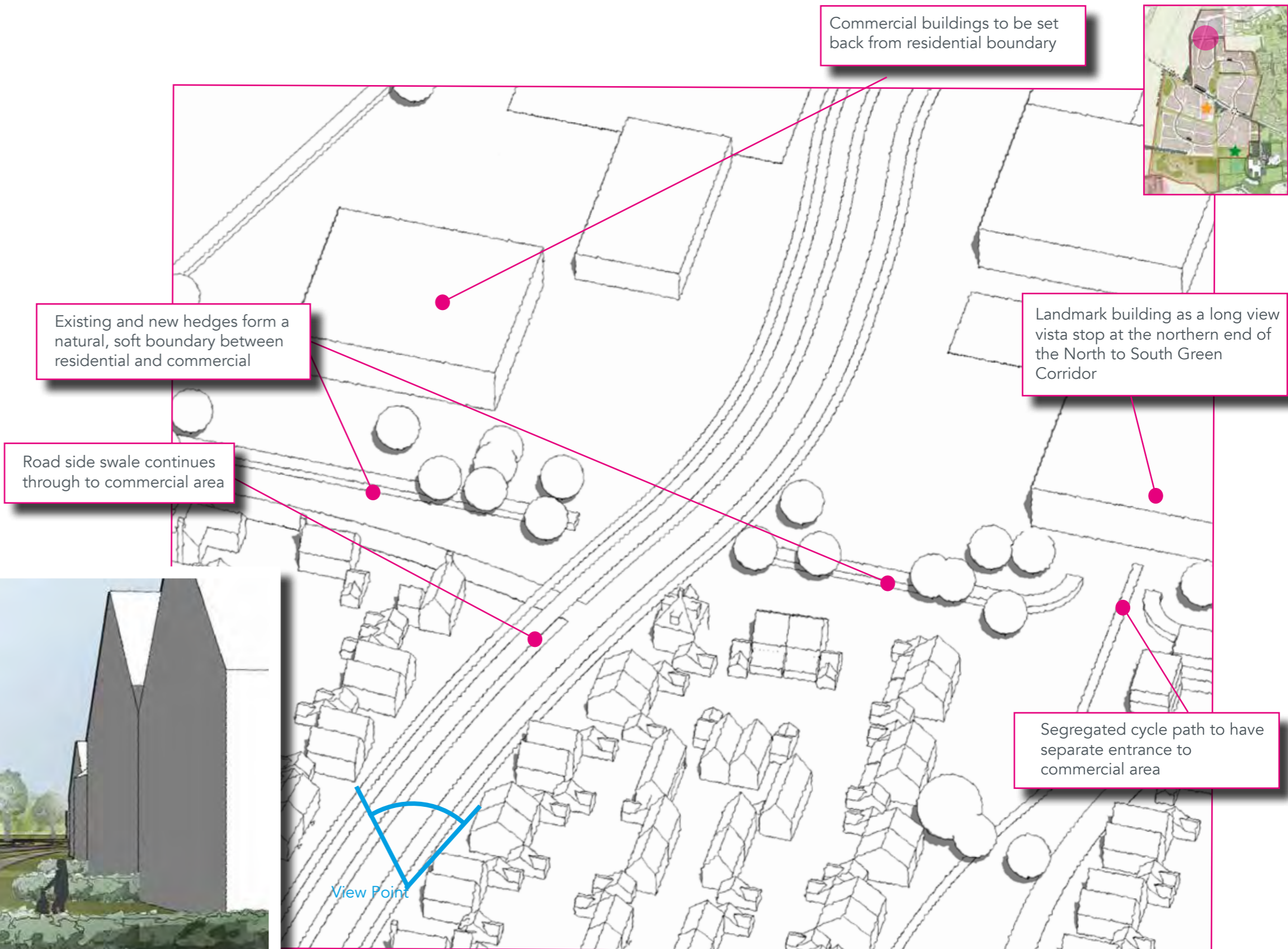


Figure 43 - Residential/Commercial Design Guide Tile

Illustrative view from residential area facing north towards Commercial (not indicative of final landscape design or building design)

Local Centre

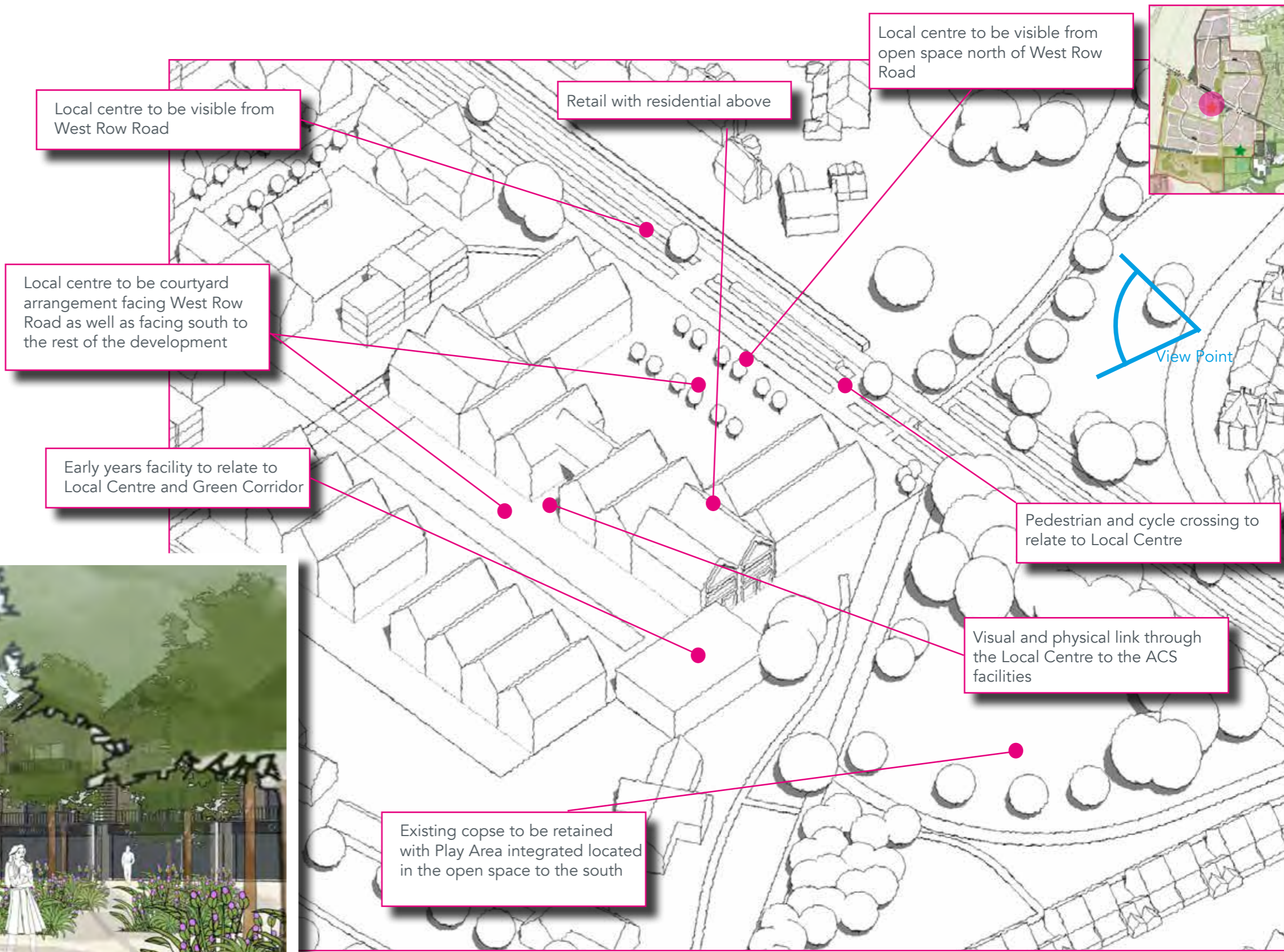
The illustrative layout adjacent is shown simply to illustrate how a Local Centre could be accommodated on the site and how it might be arranged within the context of the rest of the development. It lies within the Heart (Market Town) Character Area.

It needs to be accessible from West Row Road as well as the development itself. It is located south of West Row Road but central to the whole development.

It is easily seen from the North to South Green Corridor to the north of West Row Road creating a strong visual link from the northern parcel of the site.

The segregated foot path and cycle paths running down the north south green corridor will cross West Row Road in front of the Local Centre. It will be a focal point for the whole development.

There is the potential to form a traditional market square within the local centre and to provide a high quality and multi functional public space that could be used for events such as public gatherings, exhibitions, public art etc.



Illustrative view into the Local Centre courtyard (not indicative of final landscape design or building design)

Figure 44 - Local Centre Design Guide Tile

School Site

The school site is intentionally positioned adjacent to the playing fields, the SANG and the Hub, to the south of the development. It lies within the Eastern Edge (Mill Side) Character Area.

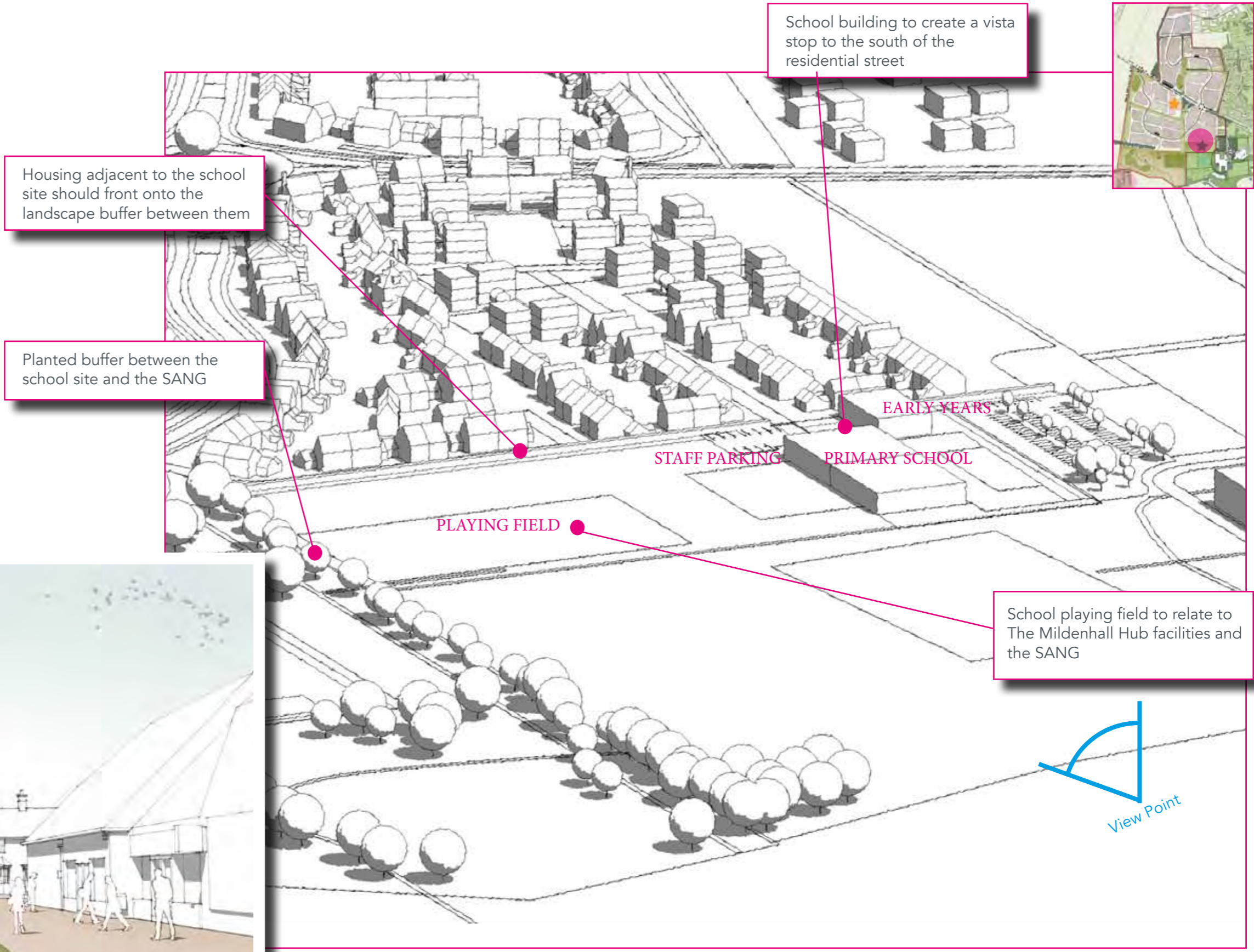
The design of the school and the layout of the site will be the responsibility of Suffolk County Council Education who will have their own design criteria.

The illustrative layout adjacent is shown simply to illustrate that all the uses can be accommodated on the site and how they might be arranged within the context of the rest of the development.

There is the potential for the school building to be designed and located in order to form a vista stop to the south of the residential road that serves it. To the north of that road is a formal square of three storey apartments, creating a vista stop to the north of the street.

Housing adjacent to the school site should be a maximum height of two storeys.

Boundary treatments will be to SCC school requirements.



Illustrative view from south with school building on right and housing behind (not indicative of final landscape design or building design)

Figure 45 - School Site Design Guide Tile



6

Sustainability

This section outlines the sustainability related current and future planning policies and proposed sustainability strategies for the new development

6.1 Sustainability

6.1.1 Review of Current and Future Planning Policies

Suffolk County Council declared a Climate Emergency in March 2019. A Policy Development Panel (PDP) was established in September 2019 with the specific aim of realising the ambition to make Suffolk County council carbon neutral by 2030. Over 100 actions to work towards carbon neutrality have been identified, which in turn have been divided into 5 sectors:

1. Collaborative action
2. Sustainable homes
3. Low carbon transport
4. Industrial and commercial energy use
5. Cleaner Power

Sector 1 - Collaborative Action, focuses on enabling the wider community to contribute towards the goal of zero carbon.

Sector 2 - Sustainable Homes, is of key importance to this masterplan, and focuses on how carbon neutrality will be achieved within the homes sector. In addition to changing how homes are heated, this also covers preparing for new technology, and reducing electricity usage to ease demand on the electricity grid. Electric vehicle charging points and PV roof panels for homes are identified as key measures for home installation.

A number of goals and priority actions have been outlined, such as transitioning to fully decarbonised heating systems, in the form of heat pumps; improved energy efficiency, by adopting a 'fabric first' approach; and encouraging behaviour change by the wider dissemination of information to homeowners.

Sector 3 - Low Carbon Transport, highlights the importance of building walking and cycling infrastructure, as well as seeking to encourage the take up of Electric Vehicles by developing a range of incentives, and improving the charging point network.

Sector 4 - Industrial and Commercial (IC) Energy Use, concentrates on measures to be adopted to reduce carbon emission from the I&C sector.

Sector 5 - Cleaner Power, discusses ways in which Suffolk is planning to continue to decrease carbon emissions from electricity generation towards the goal of a zero carbon supply.

Carbon neutrality is targeted to be achieved by 2030.

In addition to the Climate Emergency Action Plan, the following policies have also been identified as appropriate for assessing the performance of the development:

West Suffolk Council Core Strategy Development Plan, Adopted May 2010, Policy CS 4 – Reduce Emissions, Mitigate and Adapt to future Climate Change, which requires all proposals to encourage high levels of building sustainability, and West Suffolk Council Joint Development Management Policies Document, Adopted February 2015, Policy DM 3 – Masterplans, which states that 'measures to reduce energy demand, maximising energy efficiency and secure on-site renewable, decentralised or low carbon energy generation to cut carbon dioxide emissions' are to be set out.

Furthermore, Policy DM7: Sustainable Design and Construction, requires that all development adhere to the principles of sustainable design and construction, and optimise energy efficiency through design, layout, orientation, materials, insulation and construction techniques. In addition, water consumption for new development is to be no more than 110 litres/person/day, and all new non-residential buildings with

a gross floor area greater than 1,000m² are to achieve BREEAM 'Excellent'.

The Masterplan aims to ensure that all new commercial development within the Masterplan area will seek to achieve BREEAM 'Excellent', regardless of floor area.

At the time of writing, the West Suffolk Council draft Local Plan is currently under review.

6.1.2 Sustainability Strategy

In order to address the requirements of the current and future policies, a broad array of principles of sustainable design will be adopted for the development that will address the key environmental issues within the region.

Physical form of buildings:

Buildings will make use of passive design features such as orientation, internal layout and glazing to best respond to the local climate and annual sun path, with the aim of reducing energy demands and improving occupant comfort through the use of heat and light from the sun. Overheating will be avoided by making use of the natural environment, together with the incorporation of shading and blinds.



Figure 46 -- Effect of orientation on energy demand (LETI)

Building envelope and thermal performance

All dwellings will be built according to the 2025 Future Homes Standard. This entails achieving an exemplary fabric performance, through the incorporation of high levels of insulation and high performance glazing, well beyond current building regulations standards. The adoption of such rigorous energy efficiency measures will lead to an overall reduced energy demand for heating.

Sustainable construction methods such as offsite construction, where significant reductions in waste and carbon can be achieved, as well as a substantial reductions in build time, will be considered. It has been shown that homes built using these methods have fewer defects and far lower heating bills.

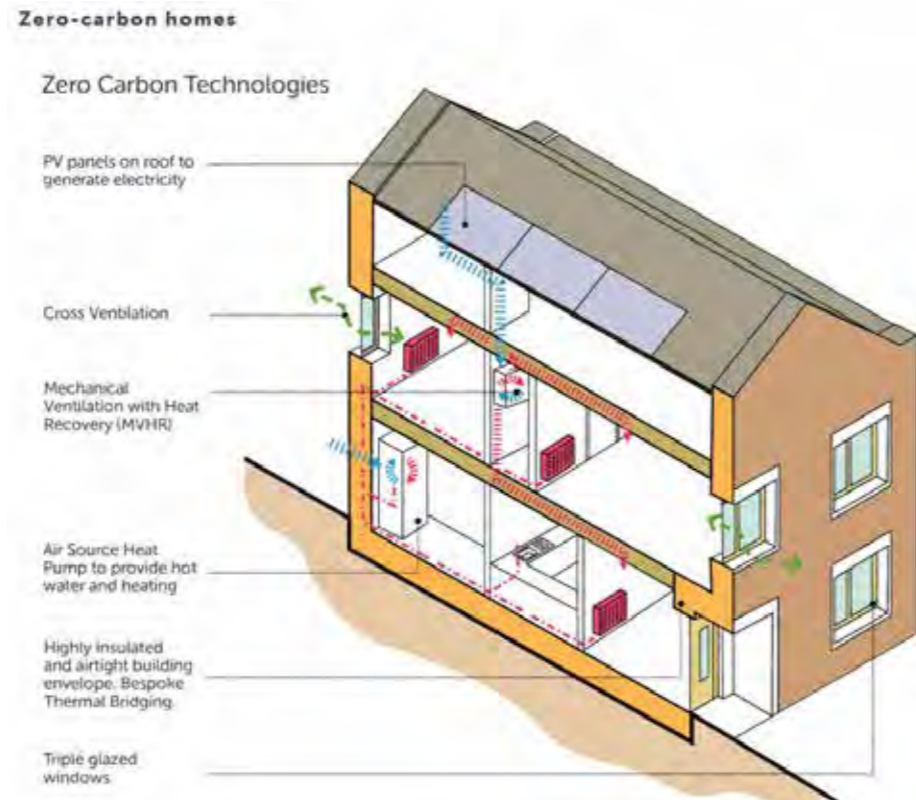


Figure 47 – features of a zero carbon home (BPTW)

Ventilation

In order to further reduce heat loss, construction will be carefully monitored throughout to ensure that all junctions are built to the highest standard of air tightness to avoid unnecessary heat loss. To ensure adequate levels of ventilation, highly efficient Mechanical Ventilation with Heat Recovery (MVHR) systems will be installed in all homes. The recovered heat from these systems will, in many cases, be sufficient to provide the majority of the buildings' heating demand.

Heating and hot water

Heating and hot water will be provided by low carbon sources such as Ground Source or Air Source heat pumps. These systems are powered by electricity, which will naturally evolve into a low or zero carbon energy source as the grid moves towards complete de-carbonisation. Other energy sources such as hydrogen will be considered as the technology matures.

It is anticipated that individual heat pumps will be installed for houses, with small local district heating systems installed for apartment blocks. Non-domestic buildings will have their own systems.

Renewable Technology

Further reductions in carbon emissions will be achieved by the incorporation of renewable technology in the form of photovoltaic (PV) panels installed on the roofs of houses and apartment blocks.

District Heating and Energy centres

There are a number of district heating systems within the vicinity, such as the Mildenhall Hub, as well as energy from waste initiatives. These will be investigated for feasibility for future connection.

Low carbon heat source will be used for in the development; it is assumed air source heat pumps will be primary source, however the feasibility of heat networks will also be considered.

Electric Vehicles (EV) and Smart Energy

All dwellings will be fitted with EV charging capability, as well as a minimum of 15% parking provision in public spaces. All charging points will be Vehicle to Grid (V2G) in order to enable demand response capability, where electricity can be taken from the grid at times of high demand, but fed back into the grid at times of low demand, thus smoothing out the overall demand, and taking advantage of the much greater storage capacity of vehicles over that of a standard battery.

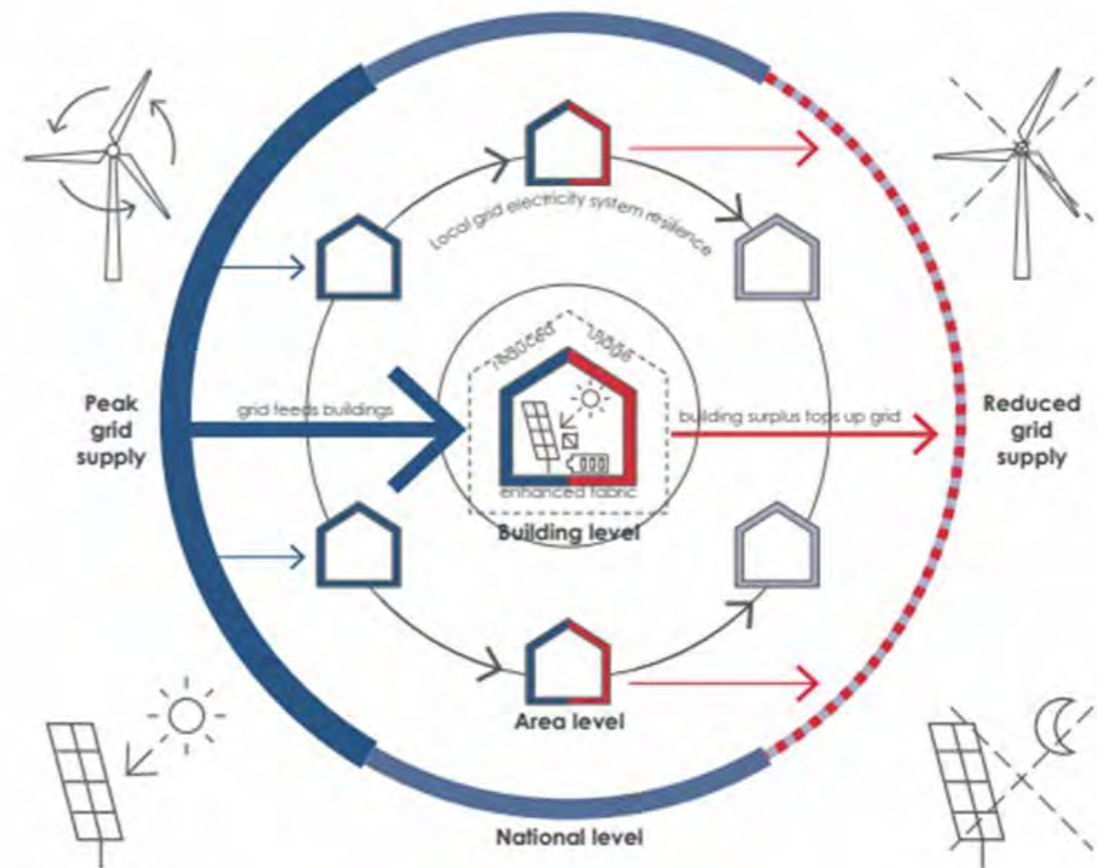


Figure 48 – The demand response cycle levels out energy demand (LETI)

Electric and Thermal storage

In addition to EV storage, the provision of battery storage for excess PV generated electricity will be explored. Thermal storage is yet another technology that enables the conservation of thermal energy via a storage medium. The most common of these is water, but other, more space efficient materials are becoming more widespread.

Water efficiency

Domestic water consumption will meet the local authority target of 110 litres per person per day by the installation in all homes of water efficient sanitary fittings, such as dual flush WCs, low flow taps, aerated shower heads, and water efficient white goods. Where feasible, the use of rainwater harvesting and greywater recycling will be considered for incorporation. In particular, the use of rainwater for irrigation of green spaces will be a high priority.

Reducing Construction Impacts - Materials and Recycling

We shall seek to source construction materials locally wherever possible for the entire development. In addition, particular consideration will be given to materials with low embodied carbon, as measured throughout the whole lifecycle. All building materials and construction methods will be subject to Whole Lifecycle Carbon assessment, with the emphasis being on the selection of the lowest impact solution. The principles of the Circular Economy will be adopted to eliminate waste during the construction process.

On-site waste will be minimised, and a high proportion of the waste that is produced will be diverted from landfill, through either re-use on site (in situ or for new applications) or re-use on other sites, salvaged/reclaimed for re-use, returned to the suppliers via 'take-back' schemes, or recovered and recycled using an approved waste management contractor.



6.2 Climate Change

The masterplan sets out a commitment to addressing climate change challenges through design. The following key principles will be considered through the masterplan and planning process:

Urban Design

- Pedestrian and cycle friendly urban designs that encourage non car use
- Connections to existing PROWs and creation of new PROWs
- New connections to public transport routes beyond the allocated site
- Strategic integration of SUDS into masterplan
- Green corridors and green infrastructure throughout the site









Housing Design & Build Standards

- Low carbon heating systems
- Fabric first construction principles and energy efficient design
- Orientation and thermal comfort considered as part of design
- On site energy generation
- Energy infrastructure to allow for electrical vehicle charging and peak demand management
- Water efficiency on site through low flow fittings

Materials and waste

- Reduced embodied carbon through local sourcing of materials and reduction of waste where possible

The masterplan has been designed with sustainability at its core. There are eight sustainability labels within the document which serve to highlight sustainable themes in each masterplan framework. The label headings are reproduced below with a page reference showing exactly where they can be found in the document.

 Placemaking	See page 44	 Ecology	See page 54
 Energy	See page 46	 Water	See page 56
 Low Carbon	See page 46	 Transport	See page 61
 Landscape	See page 51	 Construction	See page 126



7

Community Involvement & Consultation

7. 1 Consultation Process

7.1.1 Consultation Process

The Masterplan has been prepared in accordance with the Statement of Community Involvement (SCI), adopted by West Suffolk Council in 2018. In its preparation the views of statutory consultees, key local stakeholders and the general public, which comprise Mildenhall and the surrounding villages have been sought.

A copy of a completed SCI, detailing the consultation feedback and responses, accompanies the submission of this Masterplan.

7.1.2 Briefing Sessions with Key Stakeholders

At the outset of the Masterplan process a Project Plan was entered into with West Suffolk Council (WSC).

Monthly topic-based meetings were held with WSC over the course of a 24 month period, which included focussed workshops as appropriate. The process was recorded within a running log book in accordance with the Suffolk Design Charter. Statutory consultees were included within topic based meetings and workshops as appropriate. Several virtual presentations and workshops have been held with Mildenhall Town Council, West Row Parish Council, and surrounding villages including Worlington Parish Council, Freckenham Parish Council and Beck Row Parish Council. Feedback was received during the process and to formal public consultations.

7.1.3 Public Consultation

SCC has held two public consultation events concerning the proposed Masterplan for the Land West of Mildenhall. The first was held for a period of six weeks between Monday 4th January 2021 and Monday 15th February 2021, whilst the second was held for a period of nine weeks between Monday 15th November 2021 and Monday 17th January 2022.

The first consultation was held in a virtual capacity since it took place at a time when restrictions were in place to control coronavirus (COVID-19), including limiting the level of contact between people. However, in order to raise awareness of the virtual exhibition, and maximise the accessibility of the event, a number of publicity measures were employed as set out in the SCI but included:

- A notice was placed on the Facebook page of SCC targeting ads over a 10km area, reaching over 19,250 people;
- Approximately 7,000 leaflets publicising the event, was distributed to the local residents of Mildenhall as well as the nearby parish of West Row;
- SCC placed news story profiling the consultation within the East Anglian Daily Times;
- Local stakeholders, including statutory consultees, local and surrounding Parish Council's and Mildenhall Town Council was directly consulted; and
- There were 7,200 visits to the website;
- The consultation event was hosted on a dedicated website (<https://www.westofmildenhall.co.uk>) providing consultation material detailing the baseline conditions and the nature of the proposed Masterplan. It was accompanied by frequently asked questions (FAQs) documents to give additional details regarding the proposal.

The first public consultation event was related to the background evidence base – the technical constraints and opportunities - supporting the draft Masterplan. This included information related to, for instance, matters of technical constraint such as flood risk and transport. With this background material, the consultation also provided initial concepts as to how the site allocation could be delivered (such as an illustrative layout framework).

A variety of feedback was received from both the general public and statutory consultees. This feedback was used by the project team to make

changes to the initial draft Masterplan; for instance, a more specific set of guidance was created on proposed measures to mitigate transport impacts, and to ensure an overall net gain in biodiversity from the development of the site. More detail is set out within the accompanying Statement of Community Involvement which, sets out the consultation process, responses received and how these comments have influenced the final Masterplan.

The second consultation event was a hybrid of virtual and in-person. Again it took place at a time when restrictions were in place to control coronavirus (COVID-19), including limiting the level of contact between people. However, in order to raise awareness of the virtual exhibition, and maximise the accessibility of the event, a number of publicity measures were employed as set out in the SCI but included the same efforts of the first consultation as follows:

- A notice was placed on the Facebook page of SCC targeting ads over a 10km area, reaching over 17,300 people;
- Approximately 7,000 leaflets publicising the event, was distributed to the local residents of Mildenhall as well as the nearby parish of West Row;
- SCC placed news story profiling the consultation within the East Anglian Daily Times;
- Local stakeholders, including statutory consultees, local and surrounding Parish Council's and Mildenhall Town Council was directly consulted;
- A in person exhibition was held at the Mildenhall Hub on the 2nd December 2021;
- Due to further restrictions in December 2021, two further virtual consultation meetings were held instead of any further face-to-face consultation events. Hosted upon 6th January 2022 (between 2pm-3.30pm, and between 6pm-7.30pm), a presentation was delivered

concerning the purpose of the consultation alongside an overview of the draft Masterplan. This was followed by a period of time for attendees to directly pose any questions towards the project team;

- There were 4,669 visits to the website and
- The consultation event was hosted on a dedicated website (<https://www.westofmildenhall.co.uk>) providing consultation material detailing the baseline conditions and the nature of the proposed Masterplan. It was accompanied by frequently asked questions (FAQs) documents to give additional details regarding the proposal.

The second public consultation event sought views in relation to the updated version of the draft Masterplan. It contained a vision for the future development of the site, background information on the relevant technical constraints and opportunities, a set of framework plans (site-specific strategies dedicated to particular aspects of the proposal, such as transport), and an implementation strategy to co-ordinate the delivery of housing and key infrastructure (e.g. schools).

As detailed in Chapter 5 of the SCI, the feedback from the second public consultation event has been actively considered by the project team. Any changes that are made as a result of this feedback have been incorporated into the final version of the proposed Masterplan as set out in Section 6 of the SCI.

Public feedback across both consultations can be briefly summarised as primarily identifying the following:

- Mixed reaction to the principle of development;
- Building heights generally considered acceptable, but the quantum of development proposed was queried or challenged;
- Concern regarding the potential impact upon the infrastructure within Mildenhall;

- Widespread concern about its potential adverse impact on traffic generation and the safety of access points;
- Constructive comments regarding the inclusion of potential features within the scheme, such as the SANG;
- The environmentally sustainable form of development proposed was commended, but some reservations whether any development can be truly sustainable;
- Improved off-site connectivity sought, such as footpath links to Worlington to its south;
- Additional ecological surveys connected in relation to the presence of Stone Curlews;
- Inclusion of the SANG and public open space was praised;
- Observe impact on the setting of St. Mary's Church; and
- Concerns from Town/Parish Councils regarding the potential for illegal parking.

- Impacts - Further technical studies will be performed at the planning application stage to ensure no adverse impacts upon the local high way network, however a separate technical note has been prepared, discussed further below;
- Sustainability – the Masterplan indicates that sustainability measures will be incorporated into the proposed development;
- Connectivity - All existing footpaths are to be retained, with further consideration to be given to connections in the surrounding area;
- Ecology - Further survey work to be undertaken to better understand the status of protected species in the area and to ensure compliance with relevant legislation;
- Landscape - Further assessment work, such as a Landscape and Visual Impact Assessment, will be performed to better understand its potential impact and inform potential mitigatory measures; and
- Parking - Any planning application brought forward on the site will have to deliver a policy compliant level of parking.

7.1.4 Changes Implemented

Key changes implemented in light of the feedback received is summarised below. Whilst all of the comments have been actively considered the project team, this has been done in the recognition that some community concerns or suggestions will not always be aligned with local or national planning policy, and therefore there will be other competing interests.

A full assessment is provided within the accompanying SCI, but an overview of the main responses to the community consultation comments are as follows:

- Principle - The site is allocated within the Site Allocations Local Plan (2019);
- Infrastructure - infrastructure delivery or financial contributions be secured by way of a section 106 Agreement as part of any outline planning application;

Therefore, an extensive and comprehensive public and stakeholder consultation and communication has taken place through the Masterplan process and this has resulted in this final Masterplan.



Image of a page from the Consultation Virtual Exhibition website

WELCOME

Welcome to this public exhibition being held by Suffolk County Council. Suffolk County Council is proposing to build a new community on some land west of Mildenhall.

The new community would include houses, parks, a new school, a new local centre and an area for jobs. Part of this plan includes some new community facilities at the Mildenhall Hub, which has already been built and opened.

We first asked people about the plan in early 2021. This consultation seeks comment on our proposed Masterplan for the land.

Thank you for taking the time to view this public exhibition concerning Suffolk County Council's draft Masterplan for the Land West of Mildenhall. It relates to a strategic allocation within the adopted Local Plan for mixed-use development. This draft Masterplan has been prepared on behalf of the main landowner (Suffolk County Council) in consultation with the local planning authority (West Suffolk Council).

Suffolk County Council previously consulted with the public in January and February 2021 regarding the background evidence base in the form of technical constraints and opportunities mapping as part of a first step 'fact finding' exercise. This current consultation is now consulting on the draft Masterplan, which is the next step, and has been informed by the feedback received earlier this year.

The draft Masterplan out for consultation contains a vision for the future development of the site, background information on the technical constraints and opportunities, a set of framework plans, and a phasing and implementation strategy to co-ordinate the delivery of housing and key infrastructure, such as schools and a local shops.

Image of a board from the Public Consultation 2nd December 2022



8

Infrastructure Phasing & Delivery

8. Infrastructure, Phasing and Delivery

Suffolk County Council (SCC) own a substantial part of the Masterplan area allocated by Policy SA4 of the Site Allocations Local Plan (2019). Accordingly, SCC have led the production of this Masterplan but actively engaged with the adjoining landowners to ensure the successful delivery of this allocated site.

The land within the control of SCC will deliver key infrastructure identified by the Land Use Framework comprising, the Local Centre, ACS, Primary School, SANG, allotments and employment land, alongside a significant area of residential land. This phasing strategy will ensure that key infrastructure is delivered alongside needs to maintain a robust trajectory of housing completions.

Indicatively, this Masterplan has identified five possible broad phases of development, which are yet to be agreed but could be as follows

Phase 1 – c.400 residential units alongside:

- Junction improvements to West Row Road;
- Local Centre;
- Primary School;
- Partial delivery of SANG; and
- Transport infrastructure.

Phase 2 - c.340 residential units alongside:

- Completion of SANG; and
- Sports pitches; and
- Transport infrastructure.

Phase 3 - c.180 residential units alongside:

- 80 ACS;
- Employment land; and
- Transport infrastructure.

Phase 4 -c.40 residential units alongside:

- Necessary infrastructure.

Phase 5 -c.260 residential units alongside:

- Necessary infrastructure.

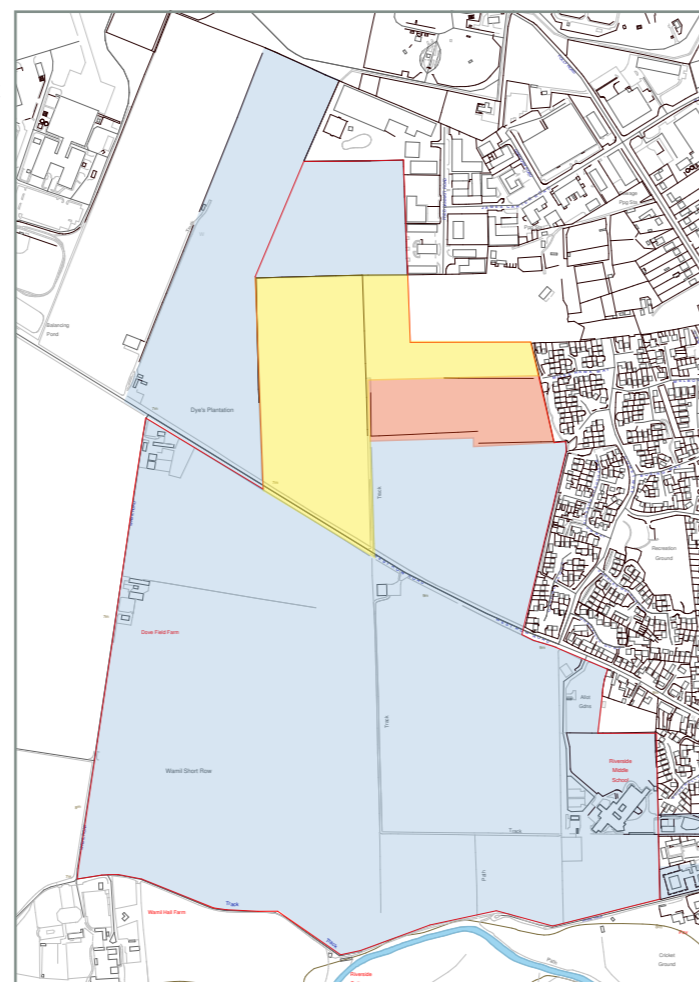


Figure 49 - Land Ownership Plan showing SCC land in blue and third party land in yellow and orange



Construction

- Minimise environmental impact of construction materials.
- The least carbon-intensive options will be assessed.

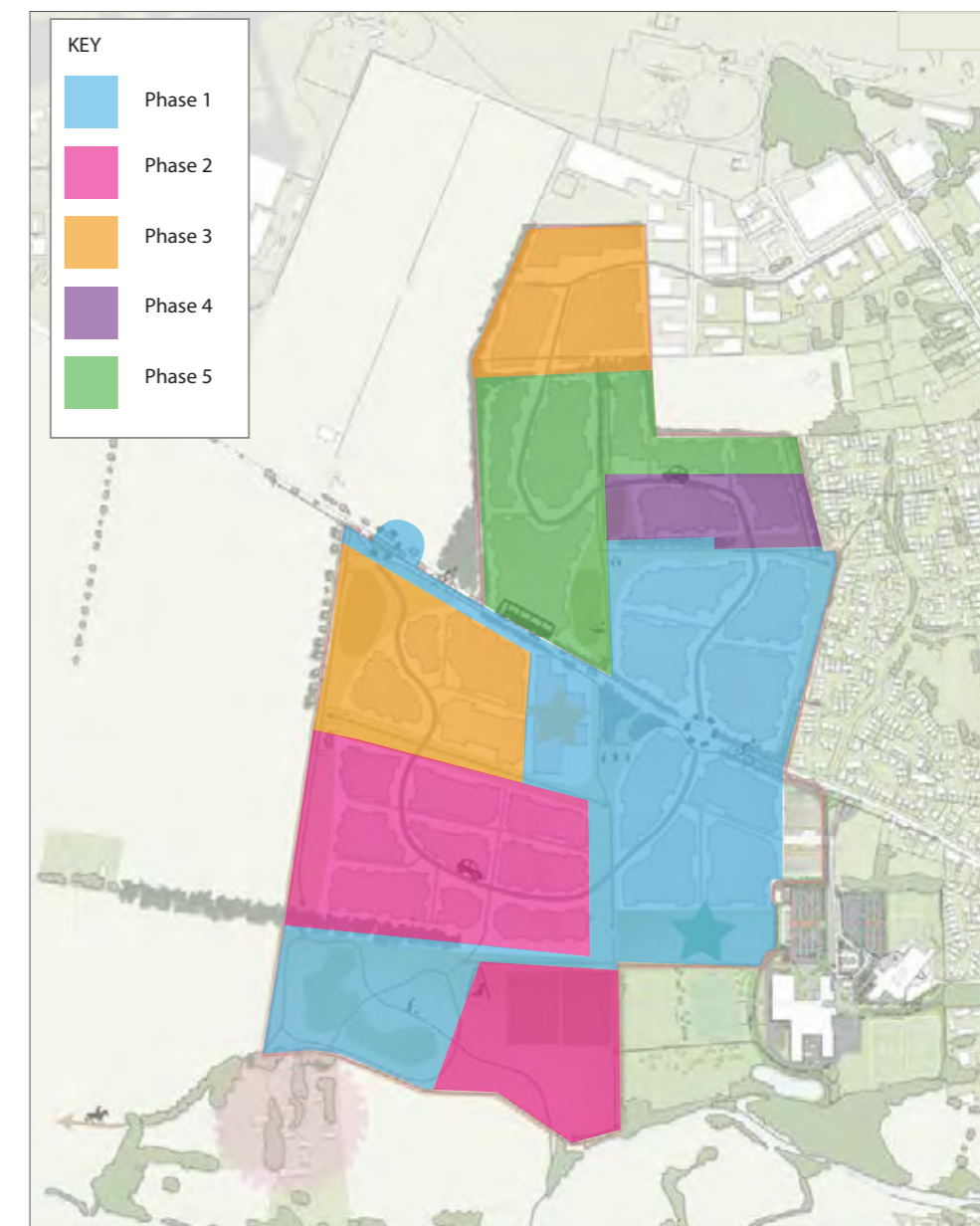


Figure 50 - Plan showing phasing of infrastructure

Whilst the employment land is initially identified as being in Phase 3, the developer will seek to identify approaches to accelerate some or all of this into one of the earlier phases. Options for earlier delivery of the employment land will depend on the availability of utilities and more detailed cost modelling for the programme. It is expected that a separate planning application will be submitted to seek to open up the employment land to the north, separately from the main site. The developer is seeking to bring this detailed planning application forward ahead of or alongside the full site outline planning application.



Appendix

Appendix 1:

National Planning Policy Framework (2021)

- Paragraphs 60 and 65 – Delivering a sufficient supply of homes
- Paragraph 92 – Promoting healthy and safe communities
- Paragraph 98 – Open space and recreation
- Paragraph 104 to 113 – Promoting sustainable transport
- Paragraph 124 to Achieving appropriate densities
- Paragraph 126 to 136 – Achieving well-designed spaces

Forest Heath Core Strategy (2010)

- Policy CS2 – Natural Environment
- Policy CS3 – Landscape Character and Historic Environment
- Policy CS5 – Design Quality and Local Distinctiveness
- Policy CS7 – Overall Housing Provision
- Policy CS9 – Affordable Housing Provision
- Policy CS13 – Infrastructure and Sustainable Communities

Joint Development Management Policies (2015)

- Policy DM3 – Masterplans
- Policy DM7 – Sustainable Design and Construction
- Policy DM8 - Low and Zero Carbon Energy Generation
- Policy DM12 – Mitigation, Enhancement, Management and Monitoring of Biodiversity
- Policy DM13 – Landscape Features
- Policy DM37 – Public Realm Improvements
- Policy DM41 – Community Facilities and Services
- Policy DM42 – Open Space, Sport and Recreation Facilities
- Policy DM44 – Rights of Way
- Policy DM45 – Transport Assessments and Travel Plan
- Policy DM46 – Parking Standards

Site Allocations Local Plan (2019)

- Policy SA4– Focus of growth ‘Land West of Mildenhall’

Supplementary Planning Documents

- Suffolk Design Guide (2000)
- Suffolk Guidance for Parking: Technical Guidance (2019)
- Technical Advice Note: Space Standards for Residential Development (n.d.)
- Forest Heath Open Space, Sport and Recreation (2011)
- West Suffolk Affordable Housing (2019)
- A suite of Supplementary Planning Documents and Guidance relating to Developer Contributions

bluepencil
DESIGNS

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