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BOROUGH GREEN GARDENS

DRAFT DEVELOPMENT BRIEF

JULY 2023

TONBRIDGE & MALLING BOROUGH COUNCIL

ARCADIS

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01

INTRODUCTION

01 INTRODUCTION

1.1 Introduction

Borough Green Gardens is a strategic housing allocation identified in the withdrawn Tonbridge and Malling Borough Council's (TMBC) Draft Local Plan, allocated for approximately 3000 dwellings. At the time of writing, it is the largest residential development allocation and strategic site within the Borough.

Borough Green Gardens is one of the projects identified by Homes England as forming part of the garden communities programme. Garden communities provide new housing, infrastructure, jobs and services in sustainable settlements and make a significant contribution to closing the housing supply gap. High quality place making is at the heart of the development of garden communities, as is the need for a clear vision and strong local engagement.

The aim of the Development Brief is to guide future masterplanning proposals for the Borough Green Gardens site, and to enable a high quality development that will respect the landscape setting of the AONB and respond to garden community design principles. In doing so, the development brief will articulate a clear vision, guide the preparation of planning applications for the site, aid the decision-making process and propose a co-ordinated framework for delivery.

The Development Brief has been formulated alongside the production of the Relief Road Topic Paper, which has fed into the development framework proposals.

1.2 Site Location

Borough Green is in the borough of Tonbridge and Malling in Kent. It is located to the south of the M26 and is clustered around the junction of the A25 and A227.

Borough Green Gardens lies between the village and the M26 to the north. The site is situated in the north of the Borough on land that is currently subject to a range of uses, including agricultural land, minerals extraction and related industry.

The site is currently designated as Green Belt, and is adjacent to and partly within the Kent Downs Area of Outstanding Natural Beauty (AONB). The AONB setting offers attractive views, a rich historic and cultural heritage, and diverse wildlife and habitats.

1.3 Strategic Context

Key challenges facing TMBC include meeting the varied housing needs of the growing population in the right places, supporting the needs of the local economy and delivering essential infrastructure to support growth and create high quality environments.

The West Kent Housing and Homelessness Strategy outlines ambitions to improve the availability of housing for all, improving supply, improving standards and improving health and well-being. Specific challenges include increasing demand, population growth and increasing private rents.

The strategic context for Borough Green Gardens is also set by TMBC's Borough Economic Recovery Strategy 2021-2023 which includes a vision to 'help create a resilient, dynamic and inclusive economy that fosters sustainable growth'.

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WEST KINGSDOWN

CULVERSTONE GREEN

RIVER MEDWAY

draft

M20

A20

A227

WROTHAM

NEW HYTHE

M26

BOROUGH GREEN

SOUTH EASTERN LINE

ST MARY'S PLATT

WEST MALLING

IGHTHAM

A25

MAIDSTONE

A228

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FIGURE 1.1 SITE LOCATION

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02

BOROUGH GREEN & CONTEXT

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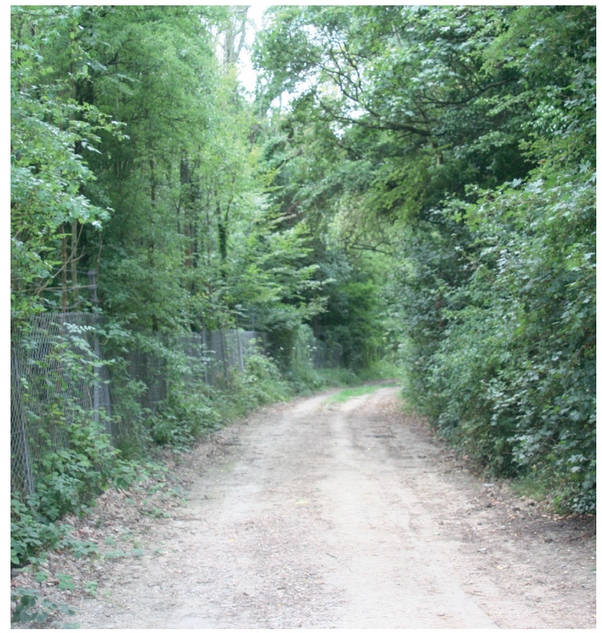
02 BOROUGH GREEN & CONTEXT

2.1 The Site

The site is located to the north of the existing residential area of the village of Borough Green and south of the residential area of the village of Wrotham. Connectivity between the two residential areas is provided via the A227 Borough Green Road.

The site consists of a number of agricultural fields of varying sizes which are separated by a network of existing hedgerows and woodland. There are also a number of gravel pits located throughout the site.



PHOTOS: **THE SITE**

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Key

- Historic gardens
- Wildlife sites
- TPOs
- Ancient woodland
- Trees and hedgerows
- Flood zone
- Water ways
- Primary school
- Secondary school
- Specialist school
- Railway station
- Railway
- Site boundary
- Motorway
- Main A Roads

Wrotham

M20

A227

M26

A20

Wrotham Heath

A25

A25

A25

St Mary's Platt

draft

FIGURE 2.1 SITE PLAN

draft

2.2 History and Cultural Heritage

The Borough Green Character Areas Supplementary Planning Document (2011) has been used as a guide when researching the history and cultural heritage of the area. The derivation of the name Borough Green is uncertain. It may refer to the use of the area as a site for recreation and sports for the wider Borough of Wrotham; it is also possible that 'borough' is derived from 'barrow' relating to Roman remains near the village.

Borough Green is located at the crossing point of what is now the A25 and the A227, trading routes which linked Sevenoaks, Maidstone, Gravesend and Tonbridge. Some of the oldest buildings in the village are inns grouped near to this junction. The village began to develop at some point in the 1830s, with Census data from 1841 showing that there were 70 houses located in Borough Green. Further expansion occurred in the late 19th century, with the opening of a railway station at Borough Green in 1874 (part of the London, Chatham and Dover Railway line).

The most rapid period of expansion took place from the late 1940s to the early 1960s, with private and public housing developments extending outwards from the village centre over former farmland and quarries. As a consequence, between the end of World War II and 1988, the population of Borough Green rose from 400 to 1,300. The population today is around 4,500 people.

Manufacturing has always played a big part in Borough Green's history dating back to the Roman times, where due to its strategic location it was the perfect spot for wheelwrights and blacksmiths.

Today however, Borough Green is renowned for its quarries, most of which are now landfilled. When in operation, 40% of all the material extracted was hard limestone. This type of quarrying generated more waste than the stone which was dug up, contributing to many spoil heaps in the area.

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2.3 Heritage Designations

There are no heritage designations within the Borough Green Gardens site itself, however there are heritage assets within and around the settlement of Borough Green. These include listed buildings clustered around the historic centre of Borough Green, along High Street, Rock Road and Sevenoaks Road. Just beyond the eastern edge of the site boundary, there is a cluster of listed buildings in the vicinity of Wrotham Heath, including Nepicar House which is listed Grade II*.

There are several Conservation Areas in the wider area – these include the Platt Conservation Area approximately 0.5km to the south-east of Borough Green, the Ightam Conservation Area which is a similar distance to the south-west and Wrotham Conservation Area beyond the M26 to the north of Borough Green.

Ightham Court is located to the west of the site. The building itself is a small country house dating from the late 17th Century and is listed Grade II*. The surrounding park, woodlands and gardens contain features surviving from the formal layout of the late 18th or early 19th Century. Ightam Court is on the Register of Historic Parks and Gardens at Grade II.

FIGURE 2.2 LOCAL HERITAGE DESIGNATIONS

draft

2.4 Landscape Character

KENT DOWNS AONB

The National Association AONB describes the Kent Downs AONB as follows:

'The Kent Downs AONB continues from the Surrey border in a widening ribbon of rolling countryside to meet the sea at the cliffs of Dover. Inland, the Downs rise to over 240m, cresting in a prominent escarpment above the Weald to the south. It is traversed by the three prominent river valleys of the Darent, Medway and Stour.

The AONB roughly follows the southeast's outcrop of chalk and greensand, the two ridges running parallel with each other to the coast. The chalk ridge, with its characteristic dip slope and dry valleys, has great wildlife importance in its unimproved chalk grassland, scrub communities and broadleaved woodlands. The well-wooded greensand ridge is particularly prominent in the Sevenoaks and Tonbridge and Malling districts and supports heathlands and acidic woodlands.'

The adjacent images show examples of the countryside surrounding Borough Green.

NATIONAL

The study area is situated within National Landscape Character Area 120: Wealden Greensand (Natural England). It is described as follows:

- *'A long, narrow belt of Greensand, typified by scarp-and-dip topography...*
- *Extensive areas of ancient mixed woodland.....*
- *Fields are predominantly small or medium in irregular patterns.....*
- *Agricultural land comprises a mosaic of mixed farming, with pasture and arable land set within a wooded framework.....*
- *The rural settlement pattern is a mixture of dispersed farmsteads, hamlets and nucleated villages.'*

IMAGES OF COUNTRYSIDE SURROUNDING BOROUGH GREEN

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LOCAL

1. The eastern section of the site encompasses the 'Greensand Fruit Belt' County Character area, with the following noted as characteristic features of the landscape:

"Flat to gently undulating landscape of mixed farmland. Dominated by orchards. Interspersed with broadleaved copses. Medium scale landscape, enclosed at the local level. Long views in places."

2. The western section of the site encompasses the Wrotham Heath Gap County Character area, with the following noted as characteristic features of the landscape:

"Undulating landscape with varying soils. Mixed farmland with enclosed fields. Small sessile oak woodlands with heathy grassland. Enclosed wooded lanes. Mineral extraction. Transport corridor"

3. The western and northern edges of the site dip into 'Kemsing Vale Kent Downs' County Character area, with the following noted as characteristic features of the landscape:

"Undulating landscape on wet stiff clays, patchwork of small woodlands, pastrure and larger arable fields. Infrequent settlement. Chalk scarp dominates to the north. Enclosure by motorways."

The Landscape Assessment of Kent, 2004.

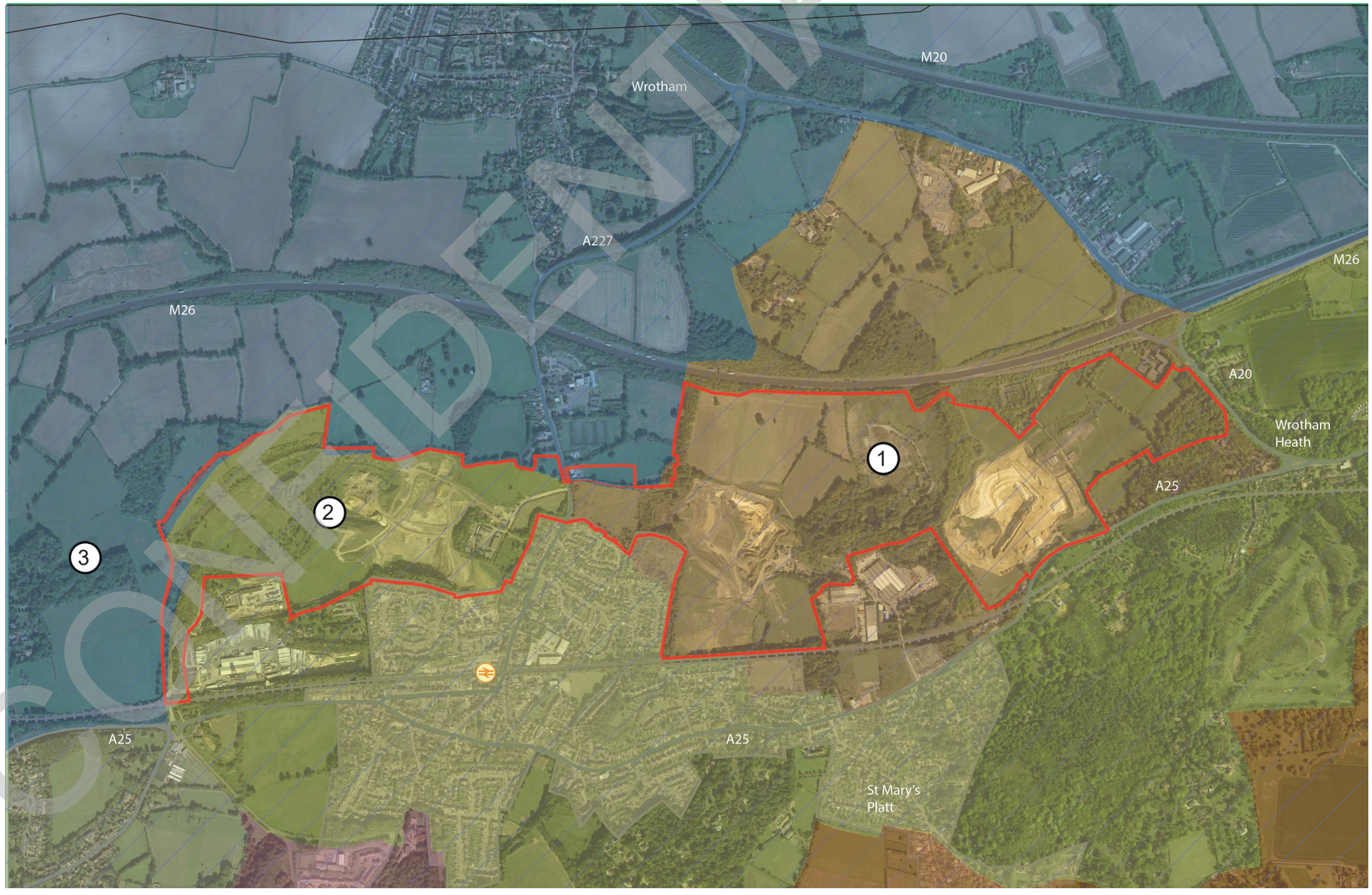

FIGURE 2.3 LANDSCAPE CHARACTER PLAN

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2.5 Landscape Setting

AONB

AONBs represent some of Britain's finest landscapes and are accorded a correspondingly high degree of protection through local, regional and national policy.

The undulating topography of the Kent Downs AONB creates long views over surrounding woods and fields, with the scarp face of the North Downs being the prominent feature to the north and the rolling greens and ridge to the south. Crow Hill forms the highest point locally, from which there are 360 degree views over the surrounding countryside.

The adjacent figure shows the AONB boundary, and it can be seen that part of the Borough Green Gardens site lies within the AONB, the largest area being in the Ightham Sandpit and Celcon access area to the west of the site.

Due to the site's proximity to the wider AONB area as well as a degree of inter-visibility, the parts of the strategic site that do not fall within the AONB are within its setting. Development outside of the AONB will therefore be required to respect the setting of the AONB in terms of design, scale, massing and materials having regard to the landscape character and the relevant policies in the Kent Downs AONB Management Plan.

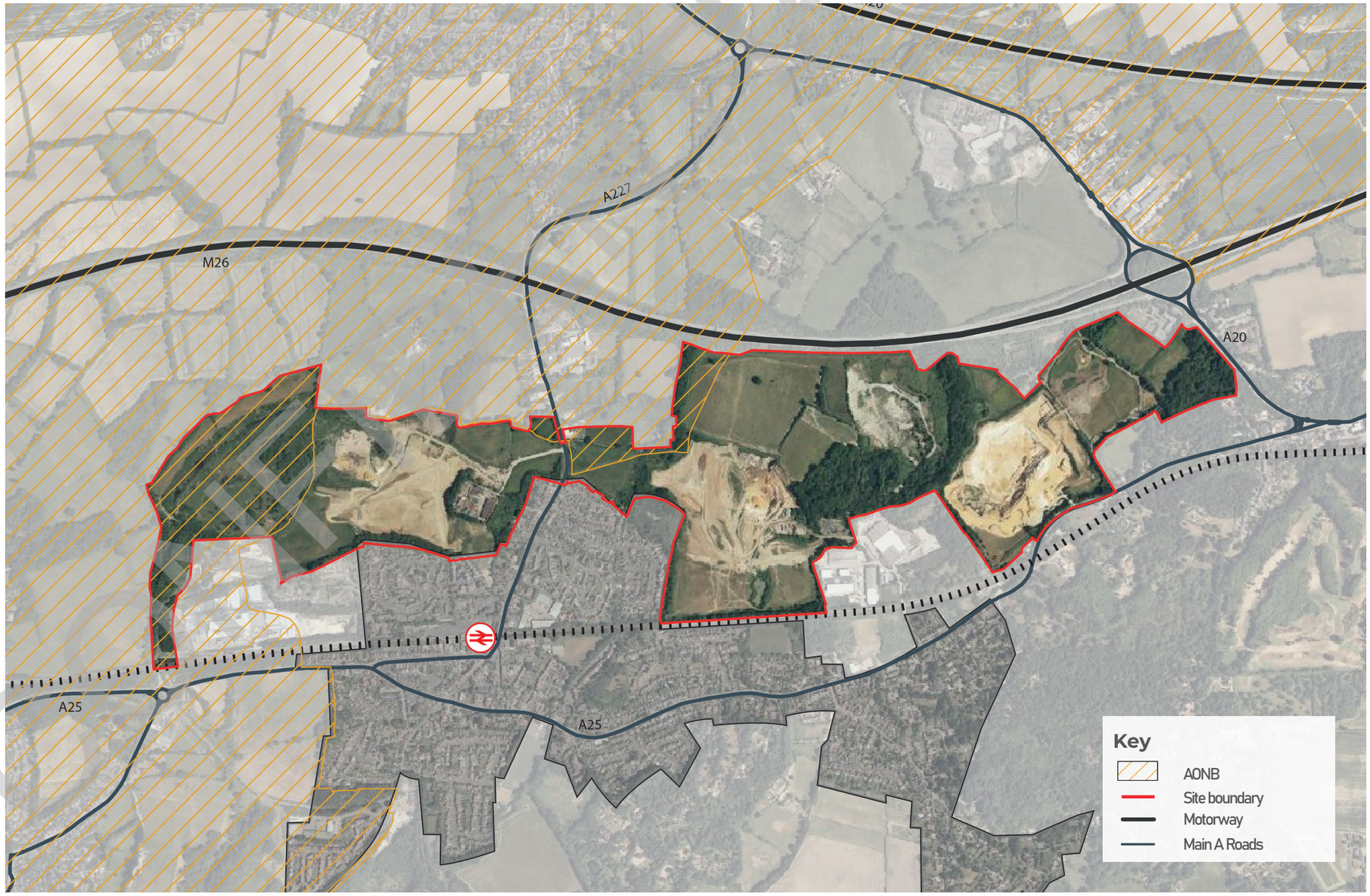

FIGURE 2.4 AONB

draft

2.6 Landscape Character and Topography

Analysing the topography of a site is a key part of understanding its local context and character and can be used to help inform design development including: site layout, SUDS, movement and for establishing character areas and visual sensitivity of a potential new development. Careful siting of development within the existing topography can help reduce the visual impact of a potential development. Enclosed landforms for example can be used to help screen development.

The site flanks the southern edge of the M26 road corridor and the northern edge of the Maidstone East Line Railway. The surrounding landscape is characterised by a mosaic of woodland and agricultural land which has been subject to quarrying. The site extends across two distinct valley formations and ranges in height from 70m AOD to 109m AOD. Generally the topography of the site is subtly undulating, although there are localised man-made levels as a result of the historic extraction of clay.

In terms of the landscape of the Borough Green Gardens site itself, much of the existing landscape is characterised by operational or former mineral quarries. The topography of the site is strongly influenced by these existing and former quarry workings. Topography is a key issue, both in terms of the site itself and the potential impact on layout, but also in terms of the visual impact on the wider landscape and AONB and the need to consider longer distance views.

If the existing sloping topography is retained, careful consideration will be required in terms of site layout in order to avoid significant earthworks and retaining walls, which can be intrusive in the landscape and can also add significant construction costs.

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FIGURE 2.5 VIEW SHOWING WIDER LANDSCAPE CHARACTER (SOURCE: ENPLAN)

draft

2.7 Borough Green Village Centre

Borough Green is designated a Rural Service Centre within the local plan. The village centre is small and compact and is home to a variety of businesses catering for the everyday needs of residents including cafés, takeaways, convenience stores and newsagents.

The architecture within the village mainly consists of 19th century buildings displaying a mix of Victorian and Edwardian architecture.

According to the Borough Green Character Areas SPD, buildings within the centre are predominantly 19th century, compact and two-storey. Frontages are mainly residential with a few commercial.

Further out, the houses are typically 1930s ribbon development, and post war private housing and public estates. A few pre-Victorian public houses, villas and farms can be found along the roads leading out of Borough Green. Individual listed and unlisted buildings help provide character and form local landmarks.

As the village is situated along two busy roads, traffic noise and movement dominate the centre which has a negative impact on the character.

2.8 Character of Local Villages

The neighbouring parishes of Wrotham and St Mary's Platt all display similar characteristics. Wrotham has a compact historic core made up of 19th century buildings with a mix of post-war housing estates and private detached housing on the outskirts.

St Mary's Platt is much smaller scale and more rural in nature. Some of it falls under the Platt Conservation Area.

Other nearby Conservation Areas include Ightham and Oldbury which are located to the west of Borough Green.

EXAMPLES OF BOROUGH GREENS VILLAGE CHARACTER

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2.9 Green Belt

The adjacent figure shows that all of the site lies within Green Belt, comprising part of the outer edge of the 'Metropolitan' Green Belt which surrounds London.

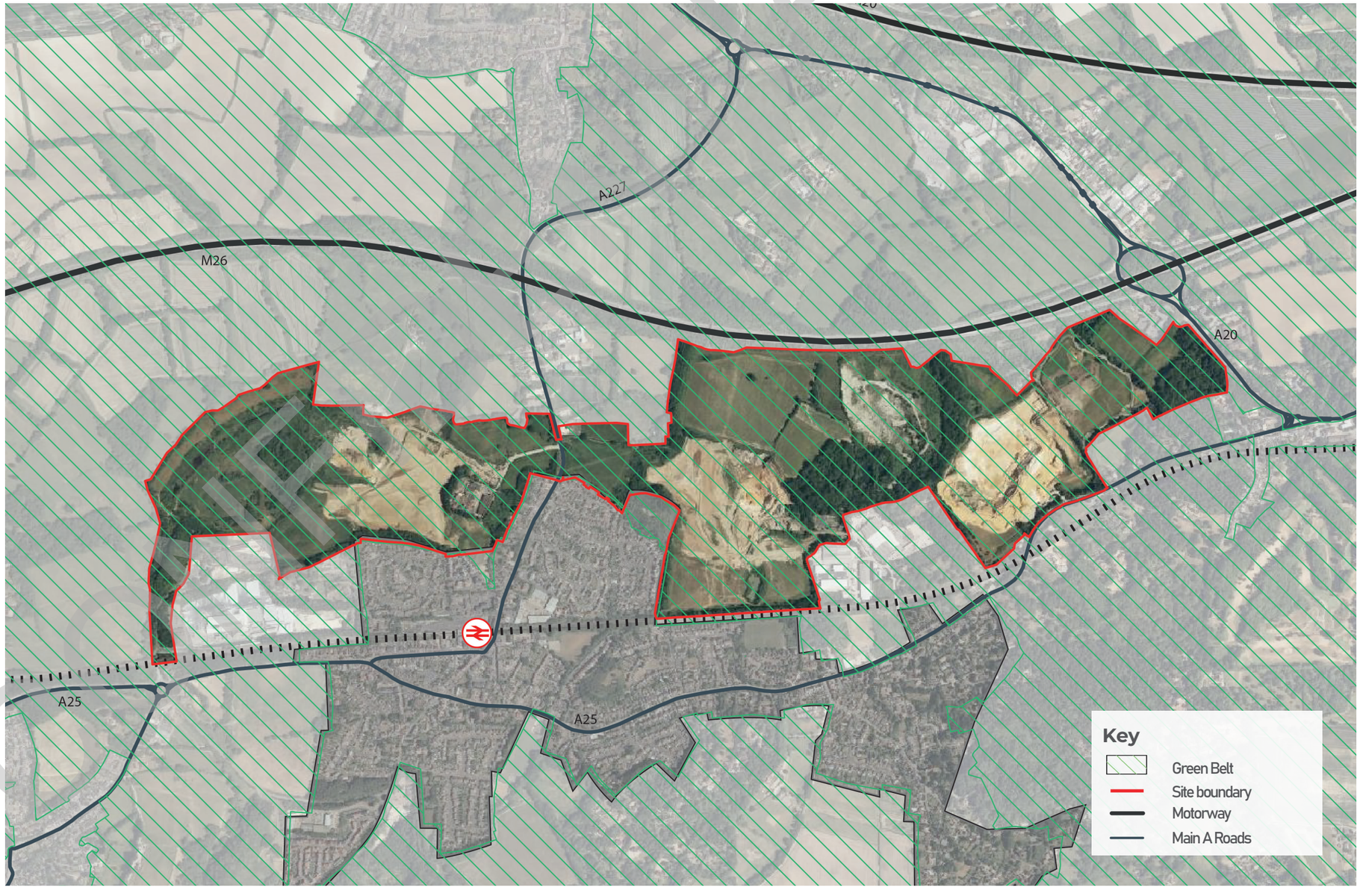

FIGURE 2.6 GREENBELT

draft

2.10 Socio-Economic Context

A summary of the socio-economic profile for Borough Green is presented in Appendix 2. This summary describes research relating to current demographic, retail land use trends in Borough Green and sets out a socio-economic baseline to inform the vision for the Borough Green Gardens settlement. The document provides key planning policy context, a summary of Borough Green's demographic and economic profiles and an analysis of the town's retail elements in the form of a health check appraisal.

Borough Green centre provides a key role within the surrounding area as it is a hub village for Platt, Wrotham, Ightham, Plaxtol, Shipbourne and Stansted. Despite being a small centre, Borough Green has the largest retail offering within an 7km radius due to the rural nature of the wider areas.

The Health Check Appraisal for Borough Green Retail Centre describes its key role and function in providing retail and shopping facilities for its catchment population.

There are a total of 32 retail units within the designated district centre boundary which are predominantly concentrated along high street and the northern side of Western Road. The retail core of Borough Green is along the northern section of High Street, and the eastern section of Western Road. Situated towards the north of the centre boundary, Sainsbury's Local (Wrotham Road) and Co-Op Food (Station Approach) act as the anchor stores for the centre. The majority of the units in Borough Green are occupied by independent retailers with only 6 national operators being present

EXAMPLES OF BOROUGH GREENS VILLAGE FACILITIES

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2.11 Land Use and Community Infrastructure

The settlement of Borough Green itself is home to a range of services and facilities, including education, healthcare and community facilities. Borough Green Primary School, which is two form entry, is located at the heart of the village. Wrotham School, a co-educational secondary and sixth form with academy status, is located to the north of Borough Green, between the proposed site and the M26.

Borough Green Medical Practice currently has nine General Practitioners (as at 2022). Other community facilities include places of worship (The Church of the Good Shepherd, Borough Green Baptist Church and St Joseph's Roman Catholic Church) and the Borough Green Village Hall, located off the High Street.

The centre of Borough Green has a retail area clustered along the High Street. Businesses are primarily small, independent retailers, service providers and food outlets, with the exception of some multiple chains, such as Costa Coffee and Sainsburys Local.

Bourne Enterprise Park is located to the east of Borough Green and comprises a number of industrial and warehouse units. Other key employers in the area include the building block manufacturer HHCelcon Ltd, located immediately to the south of the proposed development site.

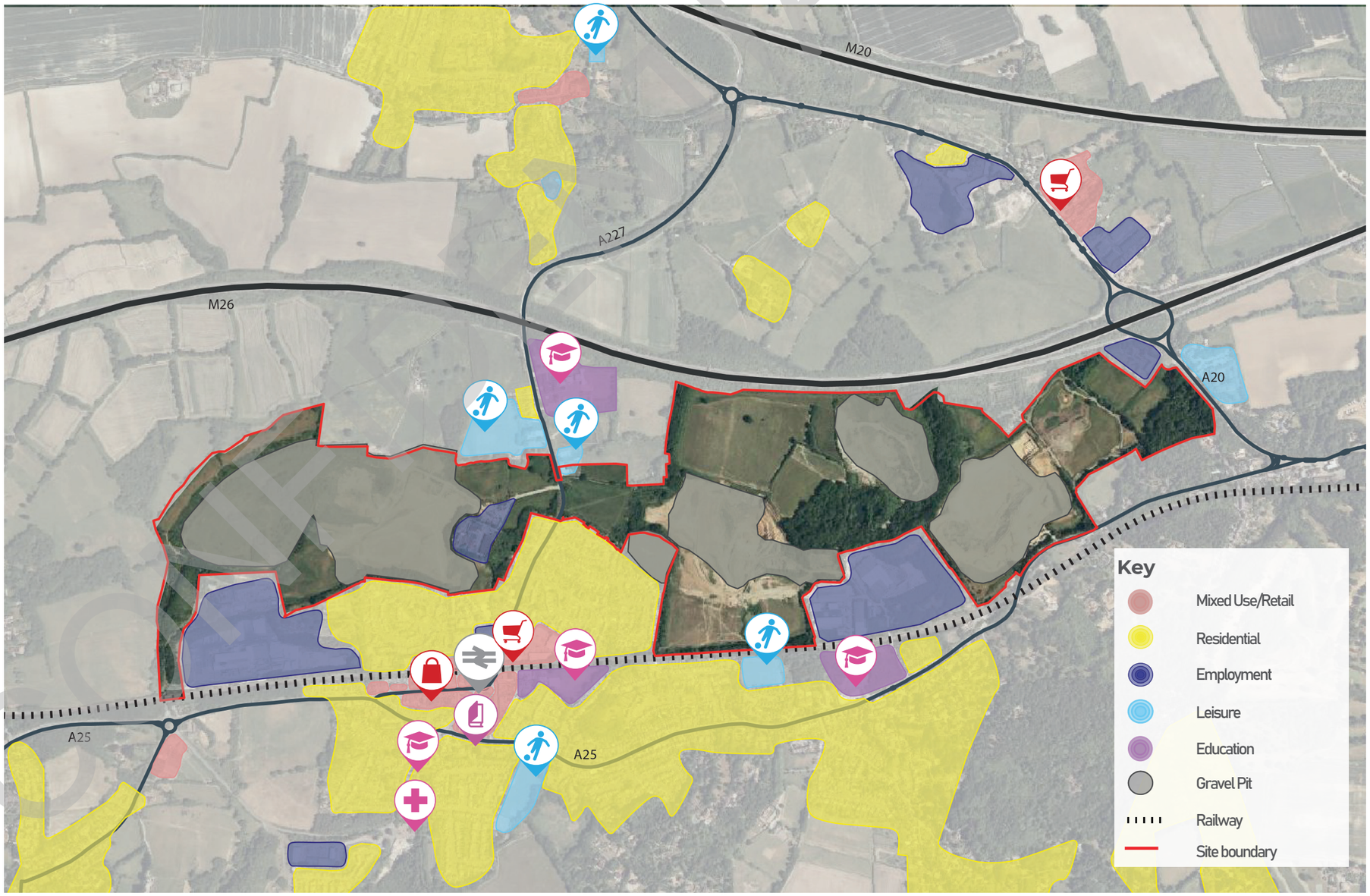

FIGURE 2.7 STUDY AREA AND WIDER LAND USE CONTEXT

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2.12 Transport and Accessibility

Borough Green can be accessed via the A25 in an east-west direction, connecting the village to other small villages such as Wrotham Green and Addington and towns such as Sevenoaks.

The M26, situated to the north and connected to Borough Green by the A227 and A20, connects the village to locations further afield including Maidstone approximately 15km to the east, and Croydon approximately 30km to the north-west.

The railway station is situated along the Victoria to Ashford International mainline train line. It provides access to destinations both locally and regionally including Canterbury West, Ashford International, Maidstone, Otford, Swanley, London Victoria and West Malling.

Bus services operate throughout the village, providing services to neighbouring towns/villages and further afield.

There is a strong public right of way network that connects the village with the surrounding countryside.

As can be seen from the map on the opposite page, the whole site is within 2 - 2.4km distance from the village centre and the railway station.

FIGURE 2.8 EXISTING MOVEMENT

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M20

Wrotham

1.4km

2km

A227

M26

1.6km

1.2km

M26

A20

Wrotham Heath

800m

A25

400m

Borough Green

A25

A25

St Mary's Platt

FIGURE 2.9 WALKING DISTANCES

draft

2.13 Key Baseline Issues

This section sets out an overview of the baseline information including the planning context for the site, site analysis, transport and environmental constraints. The key issues identified in the baseline review include the following:

- Background growth in traffic and increasing car ownership over recent decades.
- Excessive traffic speeds through Borough Green (A25) with 65% of drivers exceeding the 30mph speed limit in 2014.
- Through traffic using the A25 and A227 at Borough Green (including HGV routing) as an inter-urban route due to the lack of east facing slip roads at Junction 5 of the M25.
- Emissions resulting from traffic congestion in Borough Green which has resulted in an Air Quality Management Area being designated.
- A number of junctions within the vicinity of the site have already been shown to be currently over capacity.
- The M26, A25 and Maidstone East railway line are the significant sources of noise and vibration in proximity to the site. There is an increased risk that residential development may be refused on noise grounds.
- Bus services in the area are limited in frequency with a maximum frequency of an hour.
- There are no designated off-road cycle routes in the local area and no links to the national cycle network provided.
- Due to the land use history of the area (quarries and landfills), ground conditions are likely to be highly variable.
- Flood Zone 3 encroaches into a small area to the south-west of the site.
- Some areas to the west/north-west of the site fall within the 1 in 30 year surface water flood extents.
- There are heritage assets within and around the settlement of Borough Green.
- There are several Conservation Areas in the wider area – these include the Platt Conservation Area, the Ightam Conservation Area and the Wrotham Conservation Area.
- The Historic Garden, Ightham Court, is located to the west of the site.
- Local wildlife sites in the vicinity include: Valley Wood and Wrotham Golf Course, Bourne Valley Woods and Wotham Hill.
- There are areas of broadleaved woodland within the site, some of which is Ancient Woodland, whcih present a constraint to development.
- Part of the site lies within the Kent Downs AONB.

SUMMARY CONSTRAINTS MAP

In summary, there are a number of key constraints and opportunities for the site as shown on the adjacent figure.

Key

- AONB
- Historic gardens
- Conservation areas
- Wildlife sites
- TPOs
- Ancient woodland
- Trees and hedgerows
- Flood zone
- Water ways
- Settlement boundary
- Green infrastructure Opportunity
- Quarry sites
- Motorway noise
- Listed buildings
- Primary school
- Secondary school
- Specialist school
- Railway station
- Gateways
- Railway
- Site boundary
- Motorway
- Main A Roads

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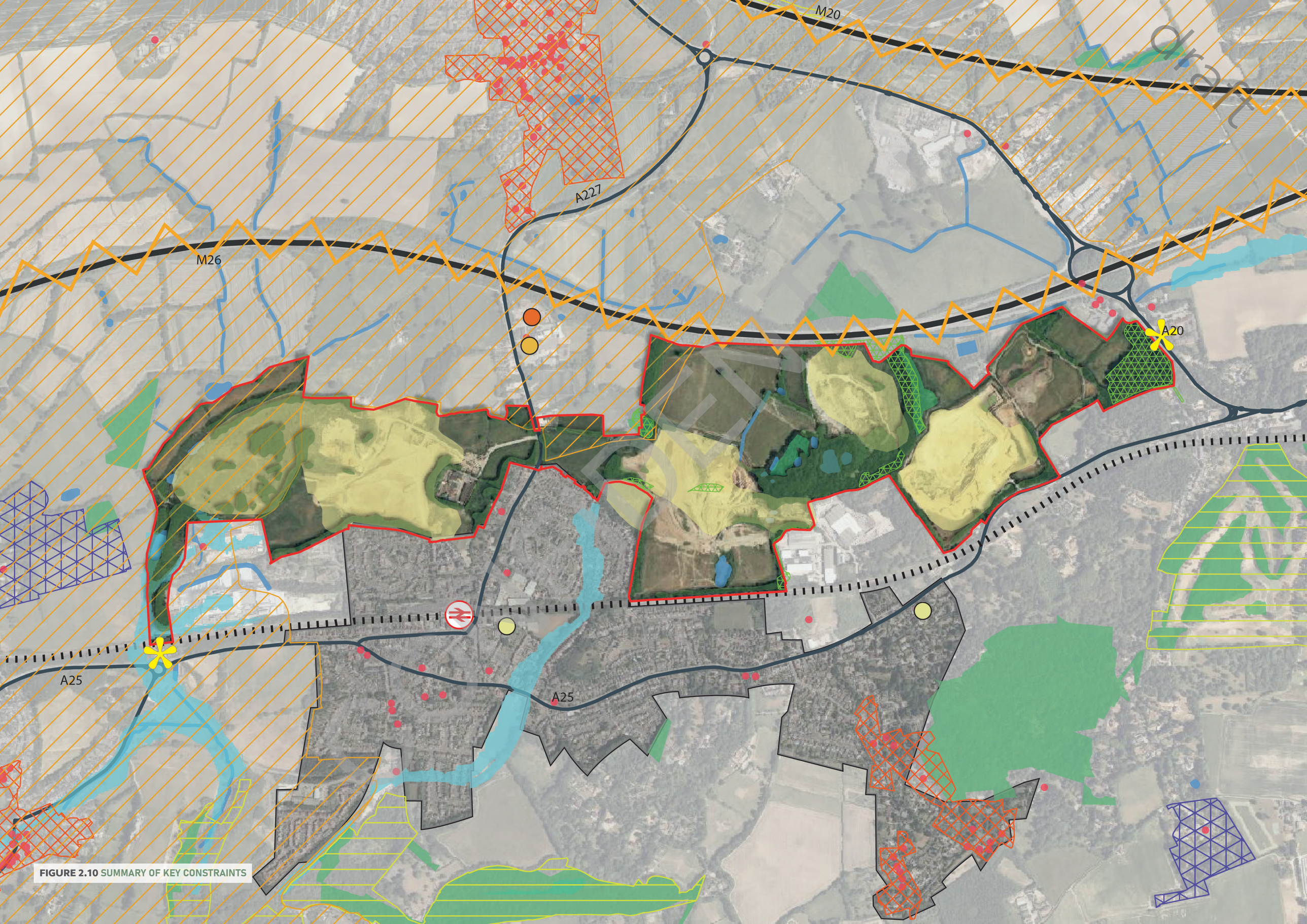

FIGURE 2.10 SUMMARY OF KEY CONSTRAINTS

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03

PLANNING POLICY CONTEXT

03 PLANNING POLICY CONTEXT

3.1 Local Planning Policy

The rationale behind commissioning this Development Brief was to provide further site-specific content and detail to the delivery of the draft policies and proposed strategic site allocation (LP 29) as set out within submission version of the TMBC Local Plan (January 2019). This Local Plan was withdrawn from examination in July 2021 by agreement of its Full Council, due to a failure in meeting the Duty to Co-operate.

The council is in process of preparing a new Local Plan and has consulted on its Regulation 18 document, which did not include draft site allocations. Further updates regarding the timetable (local development scheme) will be found on the council's website.

At the time of writing the proposed changes to the NPPF as set out in December 2022 have not been published. If brought forward these have implications for meeting housing need and the role of the Green Belt, and the approach taken within the new Local Plan.

The key planning considerations relate to the current Green Belt designation of the site and its relationship to the Kent Downs Area of Outstanding Natural Beauty, being partly within and within its setting as defined in the 2019 Plan.

The following sections set out the draft policies as contained within the now withdrawn local plan, so are provided for reference purposes only.

TMBC LOCAL PLAN (REGULATION 22 SUBMISSION JANUARY 2019 - WITHDRAWN)

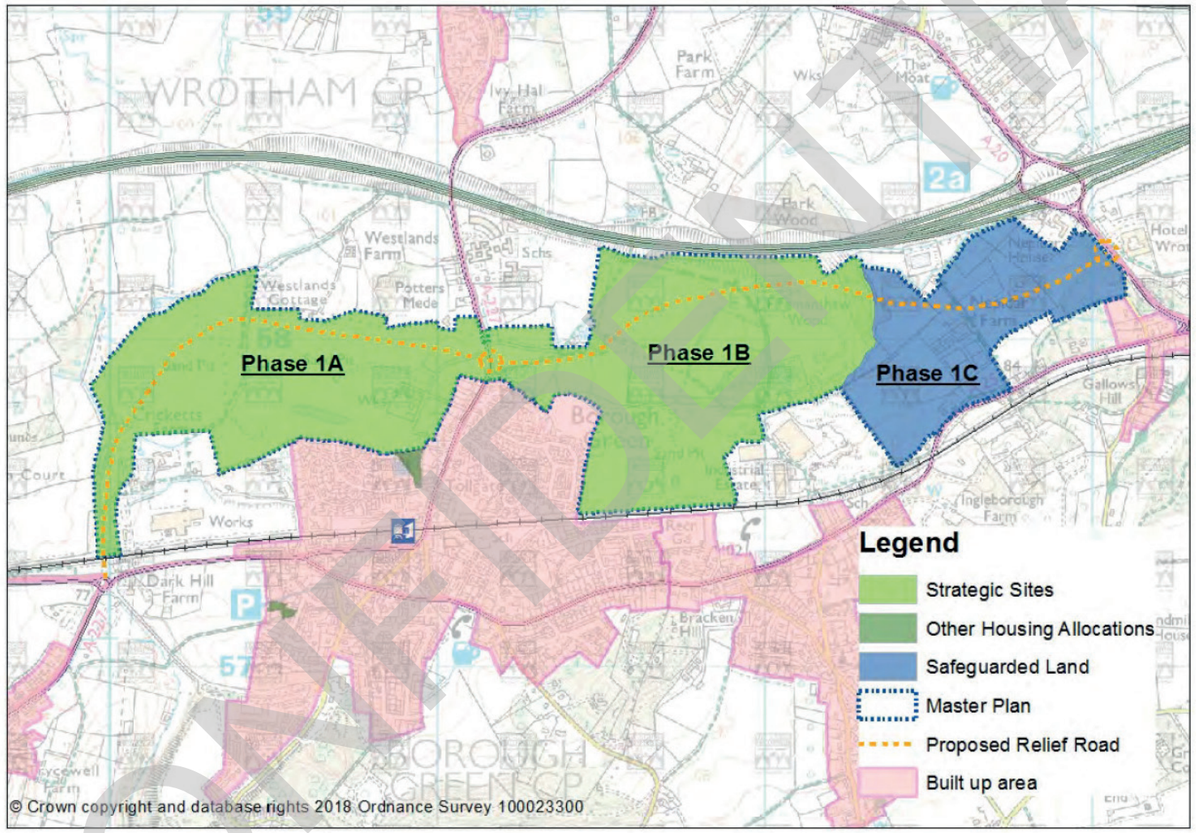

FIGURE 3.1 BOROUGH GREEN GARDENS MASTERPLAN AREA (TONBRIDGE & MALLING BOROUGH LOCAL PLAN, 2019)

DRAFT LOCAL PLAN POLICY LP29

1. *Borough Green Gardens, as defined on the proposals map, is allocated and safeguarded for development of approximately 3,000 dwellings. 1,720 dwellings are expected to be completed by 2031, with the remainder built in the post-plan period. The site will also provide for 2 ha of new employment land.*

2. *The prospective applicant should prepare a masterplan, to the satisfaction of the Council, reflecting the phasing outlined in Appendix E and addressing the full requirements of the other policies in the Local Plan and delivering the necessary infrastructure to meet the needs of the development as identified in the Infrastructure Delivery Plan.*

3. *The masterplan needs to make provision for key pieces of infrastructure necessary to support the development including:*
   - *a relief road as an integral part of the development linking the A25 in the west to the A20 in the east at Nepicar providing relief along the A25 through Borough Green*
   - *2 primary schools – 1 x 2 form entry; 1 x 3 form entry*
   - *secondary education – proportionate contribution to provision of a new school in the north-east part of the borough*
   - *healthcare provision to meet the needs of the development*

4. *The relief road linking the A25 in the west to the A20 in the east, as illustrated on the proposals map, will be required to be completed and open before, or by no later than, the occupation of 450 new dwellings, being 15% of the total number of dwellings allocated within the masterplan area.*

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5. *The masterplan will be prepared and completed in advance of the formal submission of the planning application. It shall be accompanied by a Planning Performance Agreement and Planning Obligation Agreements covering the phasing and delivery of the infrastructure requirements identified I this policy.*

6. *Within the Masterplan area residential and/or commercial development within the Kent Downs Area of Outstanding Natural Beauty (AONB) will only be permitted where it can be demonstrated that it makes a critical contribution to the deliverability of the overall development and where its design, scale, massing and materials are respectful of the local character, qualities and distinctiveness of the Kent Downs AONB. The relief road and development at the northern and western edges of the masterplan area will be required to be sensitively designed taking account of the relationship with the Kent Downs AONB and its setting. A Landscape and Visual Impact Assessment will be required to accompany a planning application for development that addresses the impacts on the Kent Downs AONB and includes appropriate mitigation measures.*

7. *Development outside of the Kent Downs Area of Outstanding Natural Beauty (AONB) will be required to respect the setting of the AONB in terms of design, scale, massing and materials having regard to the landscape character and the relevant policies in the Kent Downs AONB management plan and complying with the requirements of Policy LP12.*

8. *Development should, where possible, maximise opportunities for net biodiversity gains on site.*

9. *The development will be required to provide a wide range of opportunities for safe sustainable travel to Borough Green railway station and the centre of the settlement.*

SUSTAINABLE DEVELOPMENT LP1

LP1: Presumption in Favour of Sustainable Development

1. *At the heart of the strategy for Tonbridge & Malling is a desire to deliver sustainable development; growth that is not for its own sake, but growth that brings benefits for all sectors of the community - for existing residents, businesses and organisations as much as for new ones.*
2. *Planning applications that accord with the policies in this Development Plan (and, where relevant, with policies in neighbourhood plans) will be approved without delay, unless material considerations indicate otherwise.*
3. *Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision then the Borough Council will grant permission unless material considerations indicate otherwise – taking into account whether:*
   i. *Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework taken as a whole; or*
   ii. *Specific policies in that Framework indicate that development should be restricted.*

LP12: AREAS OF OUTSTANDING NATURAL BEAUTY

Tonbridge & Malling Borough contains part of two Areas of Outstanding Natural Beauty (AONBs): the Kent Downs and the High Weald. These areas are designated for the national importance of their landscape. Within AONBs the government policy is to conserve and enhance their natural beauty.

For each of the AONBs a management plan has been prepared which has been adopted by the Council as a material consideration for decision taking on planning applications. Development proposals will be required to have regard to the policies in these plans.

1. **Areas of Outstanding Natural Beauty (AONBs) are nationally designated landscapes and as such have the highest status of landscape protection. The Kent Downs and High Weald AONBs, as illustrated on the proposals map should be conserved or where possible enhanced in accordance with their landscape significance.**

2. **Major development within the AONBs will only be permitted in exceptional circumstances and where it can be demonstrated that it is in the public interest.**

3. **Other development within the AONBs and their settings will be permitted provided that:**

a. **the location, form, scale, materials and design would conserve or enhance the character of the landscape; and**
b. **the development would conserve or enhance the special qualities, distinctive character and tranquillity of the AONB; and**
c. **the development has regard to the relevant AONB Management Plan and any associated guidance.**

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LP14: ACHIEVING HIGH QUALITY SUSTAINABLE DESIGN

The Local Plan promotes high quality design as set out in Policy LP14 and supporting text.

Achieving High Quality Design
A high quality, well designed development can contribute significantly to establishing a strong sense of place through the creation of attractive and desirable places to live, work and visit which can bring significant benefits to the local environment and economy.

Development should respond to a particular place but it should equally be recognised that exceptional design does not simply replicate the form and appearance of existing development and where opportunities exist for positive visual improvements these should be supported.

Sensitively designed schemes can help reduce the likely energy demands of developments - and thereby mitigate the impacts on climate change - through the orientation of buildings and landscaping that makes the best use of natural light, heat and even shade.

Well-designed places can also help reduce crime and disorder through natural surveillance and create secure environments. With this in mind, planning applicants should have regard to guidance in 'Secured by Design' or whatever represents good practice at the time the application is made.

In addition, a high quality well-designed environment can make a positive contribution to the well-being of residents and visitors.

LP14: Achieving High Quality Sustainable Design

1. Development must:
a. protect the local distinctiveness of the area including the setting and pattern of the settlement and its historical and architectural interest and the landscape character; and
b. protect the amenity of the local area, including any important prevailing features or characteristics; and
c. be well designed and of a high quality in terms of detailing and use of materials and through its scale, density, layout, siting, character and appearance be designed to respect the site and its surroundings.

2. Development should, where practicable and proportionate, be designed to:
a. maximise opportunities to reduce energy demands through the orientation of habitable rooms to harness natural light and through landscaping to prevent overheating;
b. deter crime and reduce the fear of crime;
c. maximise opportunities for healthy active lifestyle choices including access to open spaces; and
d. maximise opportunities for achieving net biodiversity gains.

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LP5: SETTLEMENT HIERARCHY

The Local Plan also proposes a settlement hierarchy as set out in Policy LP5: Settlement Hierarchy and outlined below and in the adjacent figure.

What is the settlement hierarchy?

One of the influences on the development strategy in this Local Plan is the hierarchy of settlements which was established in the Council's Local Development Framework.

The purpose of the hierarchy is to make it clear where development should be focussed and how much is considered acceptable. The hierarchy takes account of the range of services and facilities available, the size and character of the settlements and how settlements have evolved, particularly in more recent history. In essence, the Council will support development that focuses within settlements towards the top of the hierarchy, providing it is proportionate in scale and respectful of the character of the place and complies with the suite of policies in this Local Plan.

1. Urban Areas
(Tonbridge, Medway Gap, Kings Hill, Snodland, Walderslade)

2. Rural Service Centres
(Borough Green, East Peckham, Hadlow, Hildenborough, West Malling)

3. Other Rural Settlements
(Addington, Addington Clearway, Aylesford Village, Birling, Blue Bell Hill, Crouch, Dunks Green, East Malling Village, Eccles, Fairset, Golden Green, Hale Street, Ightham, Leybourne, Chase, Mereworth, Offham, Peters Village, Platt, Plaxtol, Ryarsh, Snoll Hatch, Trottiscliffe, Wateringbury, West Peckham, Woodham, Wrotham Heath)

Rural Areas
(All areas outside of the defined confines of the urban areas, rural service centres and other rural settlements)

FIGURE 3.2 SETTLEMENT HIERARCHY

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LP23: SUSTAINABLE TRANSPORT

A key part of the vision for Tonbridge & Malling in 2031 is the provision of a wide choice of travel opportunities to connect people and places across the borough and beyond.

Sustainable transport solutions can achieve a wide range of benefits. Not only are there health, well-being and environmental benefits associated with walking and cycling but encouraging alternatives to the car can help reduce congestion and delays which can be harmful to the functioning of the local and wider economy. Ensuring that there is a wide choice of travel opportunities can help achieve a more inclusive society.

LP23: SUSTAINABLE TRANSPORT

The Council will work in partnership with Kent County Council, Highways England, transport providers and other key stakeholders to ensure that developments:

1. *are designed so that opportunities for sustainable transport modes are maximised, where practicable, reflecting the amount of movement generated, the nature and location of the site and its relationship with existing centres and public transport nodes and recognising that solutions and measures will vary from urban to rural locations. This may include the provision, where supported by evidence, of parking adjacent to sustainable transport modes such as railway stations to support their functioning; and*
2. *make the necessary contributions to the improvement of existing, and provision of new, transport schemes that lead to improvements in accessibility and give priority to the needs of pedestrians, cyclists, users of public transport, car sharers and users of low and ultra-low emission vehicles; and*
3. *include measures, where practicable and proportionate, for non-car use such as on-site cycle parking; and*
4. *are consistent with, and contribute to the implementation of the Kent Local Transport Plan; and*
5. *include the submission of Transport Assessments and Travel Plans where significant amounts of movement would be generated; and*
6. *contribute to transport infrastructure improvements, where proportionate, having regard to the Infrastructure Delivery Plan; and*
7. *provide, where practicable and proportionate, new and improved footpaths, bridleways and cycleways, provided there would be no significant effect on areas of importance for nature conservation; and*
8. *make provision for car parking, having regard to the type of development and its location, in accordance with the Parking Standards Policy LP42; and*
9. *meet the requirements of the Local Plan Air Quality Policy LP20.*

LP19: HABITAT PROTECTION AND CREATION

Climate change can have an effect on the integrity of existing habitats and the ability of wildlife to create new habitats. The Council has prepared a Green Infrastructure and Ecological Network diagram (see figure below).

LP19: HABITAT PROTECTION AND CREATION

1. *Major development within the Principal Green Corridors identified on the Green Infrastructure and Ecological Network diagram (see Appendix C) should, where practicable and proportionate, provide opportunities for habitat creation, taking account of the habitat and species of the Biodiversity Opportunity Areas.*
2. *Major development should, where practicable and proportionate, make space for nature by including, as an integral part of the external building fabric, opportunities for habitat creation for wildlife.*

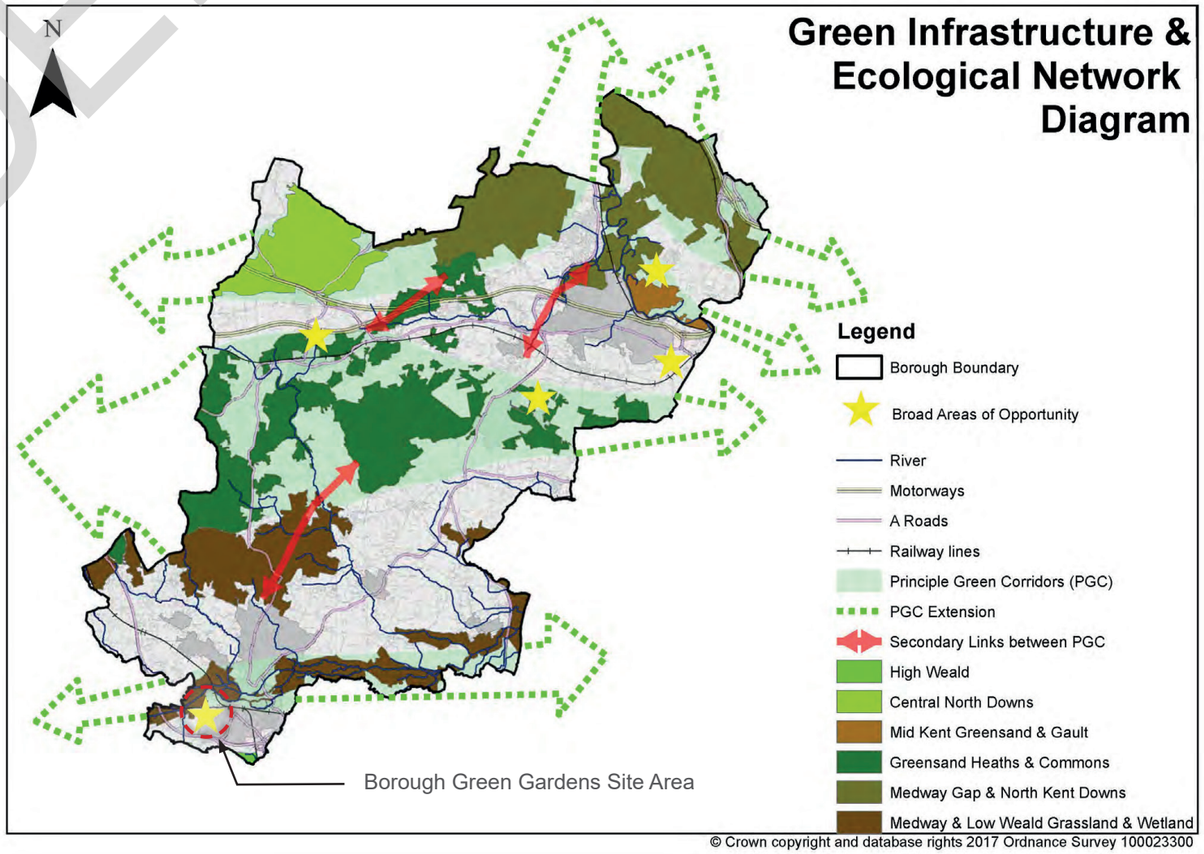

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FIGURE 3.3 GREEN INFRASTRUCTURE & ECOLOGICAL NETWORK DIAGRAM

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LP39: AFFORDABLE HOUSING

1. Affordable housing provision will be sought as part of residential development of 11 dwellings or more or which have a combined gross floorspace of greater than 1,000 square metres (gross internal area).

2. The following levels of affordable housing provision will be required:
i. 40% of the total number of dwellings on development sites located in the areas outside of the north-east part of the borough2 as defined on the map in Appendix F.
ii. 30% of the total number of dwellings on development sites of 500 units or more located in the north-east part of the borough3 as defined on the map in Appendix F.
iii. 25% of the total number of dwellings on development sites of fewer than 500 units in the north-east part of the borough as defined on the map in Appendix F.

3. The following tenure split will be sought:
i. 70% rent capped at the Local Housing Allowance
ii. 30% intermediate products, as defined in the National Planning Policy Framework

4. The type of affordable housing product sought will be assessed on a case-by-case basis taking account of the local housing need.

5. Affordable housing will be provided on site unless circumstances demonstrate that this is not possible, in which case the affordable housing will be provided on an alternative site within the vicinity of the development site. A commuted sum commensurate to the affordable housing requirement to be agreed by the Council will only be considered where it can be demonstrated that neither on site provision or provision on an alternative site within the vicinity of the development site is possible.

6. Where a vacant building is brought back into any lawful use, or is demolished to be replaced by a new building, the existing gross floorspace will be deducted from the overall affordable housing contribution calculation.

7. Where a site is sub-divided, the amount of affordable housing sought will reflect the provision that would have been achieved on the site as a whole had it come forward as a single scheme.

8. Where an application does not meet the affordable housing requirements it will need to be supported by an open book viability assessment.

9. Affordable housing will be sought from new residential developments providing for all types of residential accommodation including specialist older persons, extra care and sheltered housing, other than residential care accommodation.

LP41: PUBLICLY ACCESSIBLE OPEN SPACE

1. *Major residential development of 10 or more dwellings will be required to provide publicly accessible open space in accordance with the standards and implementation process set out in Appendix R.*
2. *Publicly accessible open space provision should, where practicable and proportionate, include opportunities for habitat creation to help strengthen the wider Green Infrastructure and Ecological Network as illustrated on the diagram in Appendix C.*
3. *Publicly accessible open space provision that includes artificial turfed playing pitches will be supported providing it does not conflict with the other criteria in this policy and other policies in the Local Plan. Where high quality durable artificial turfed pitches are provided as part of the publicly accessible open space provision the Council may be willing to compromise on the quantity standard provided it can be demonstrated that the playing pitches will be used more intensively than the grassed alternative.*
4. *Publicly accessible open space provision is required to be supported by a clear long-term management plan.*

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04

DESIGN REVIEW & STAKEHOLDER ENGAGEMENT

04 DESIGN REVIEW & STAKEHOLDER ENGAGEMENT

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4.1 Stakeholder Engagement

INTRODUCTION

This section summarises stakeholder and community engagement carried out to date.

4.2 Purpose

Establishing a pathway for stakeholder and community engagement forms a key part of delivering new settlements. The purpose of this section is to provide local authorities with a route map to developing and maintaining inclusive community engagement as part of the delivery of the Borough Green Gardens project, setting out key steps in the engagement process, approaches that can be taken to secure inclusive engagement and opportunities to encourage community ownership and stewardship.

Where relevant, this section describes work that should be undertaken at appropriate stages (whether this is shaping proposals at pre-planning stage through to development and subsequent occupation), providing examples of best practice from similar projects elsewhere in the UK. Essentially, this document is a guide that can be referred to at different points in the project's lifetime to ensure good practice is being followed and that community ownership is effectively fostered.

OBJECTIVES

- To provide accurate and timely information and to overcome misinformation.
- To keep resident, community group and business representatives informed of the progress in preparing proposals for the development, and provide meaningful opportunity for these groups to engage.
- To promote the economic and infrastructure benefits of the development.
- To listen carefully to feedback received and to use this to refine and strengthen the development brief.

AUDIENCES

Audiences comprise all demographics and groups within the existing Borough Green community, particularly those who are less likely to engage in public meetings and development matters. Defined groups are as follows:

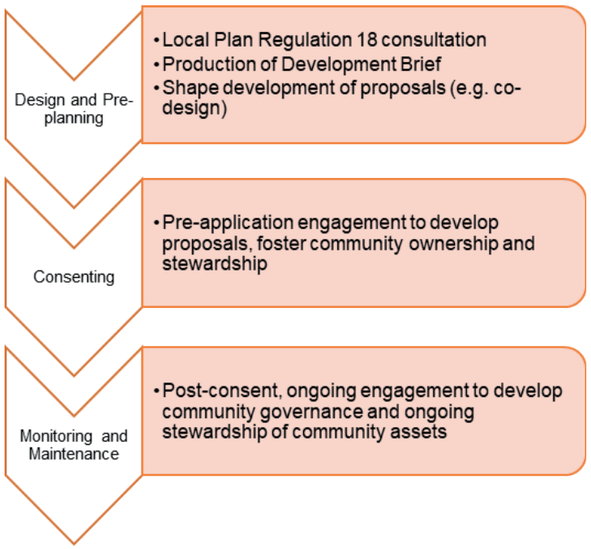
- Residents
- Businesses
- Community groups and organisations

KEY COMMUNICATION CHANNELS

- Website, social and digital media
- Local advertising including press and leaflets
- Briefing or e-newsletter format to be developed (targeted as appropriate)
- Engagement materials including text and visuals

4.3 Key Project Stages

The key stages of the project together with specific points for engagement are summarised below.



This includes current visioning and placemaking work as part of the pre-planning stage, followed by the consenting process, and ultimately through to monitoring and maintenance of the new settlement itself.

The current phase of activity is centred around the production of a development brief for Borough Green Gardens. The Regulation 18 consultation on the Local Plan has taken place in 2022.

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4.4 Overarching Engagement Activities

There are several steps that should be progressed in the future in order both to structure and co-ordinate stakeholder and community engagement. This will be beneficial not only for the design and pre-planning stage of the project, but can inform and set the framework for later stages of engagement during the consenting process and on through construction / occupation stags as part of the ongoing maintenance and management of the settlement. The most critical aspect is on-going preparation and refinement of a Stakeholder Engagement Plan (SEP).

1. Stakeholder Engagement Plan

The purpose of the Stakeholder Engagement Plan is not only to describe how activities will be co-ordinated, but done properly can provide a rolling record of how groups and communities have been engaged with, a record of key decision that have been made, and essentially an audit of local engagement. Key steps in the preparation of the SEP are as follows:

a) Identification of the different stakeholder groups who may have an interest in development of proposals for Borough Green Gardens – different groups may have different types and levels of interest at different stages of the proceedings. Cataloguing who these groups are and what they may be interested in and when is a valuable stakeholder mapping exercise. Results can be presented visually or in table / descriptive format.

Sources of information that the council could use to identify relevant stakeholder groups include existing knowledge / databases, responses to the emerging review local plan, previous Statements of Community Involvement. Types of stakeholder groups that should be identified (with additional level of detail then added for each) include Council officers, political stakeholders, landowners / developers, local communities (existing residents), future residents, statutory consultees, local interest or environmental groups, employment / economic growth agencies, transport / access organisations, utility providers and so on.

Stakeholder mapping should consider the level of interest each group might have compared to their level of influence and this helps to set the framework for engagement – for example groups with high levels of interest and correspondingly high levels of influence require a very different programme of engagement activity compared to those with low interest and low levels of influence on the project.

b) Following on from stakeholder mapping, the SEP can set out anticipated engagement activities relevant to particular stakeholder groups and particular stages of the process. In this way engagement can be targeted at the right people, for the right reasons, at the right time. Links can be made with the relevant purpose of engagement according to project stage as referred to in the Tookit (inform / consult / involve / collaborate / empower). Appropriate engagement activities can then be devised. A range of engagement activities are described later in this guide.

Arcadis has experience of preparing stakeholder engagement plans, including extensive stakeholder mapping, analysis and the development / tailoring of engagement activities to a project. A SEP checklist is set out in the figure below.

WHO?	WHY?	HOW?
• Specify who stakeholders are • What are their areas of interest and influence?	• Why do you need to engage with them (e.g. developing a vision, information sharing)? • What do you hope to achieve (e.g. overcoming objections?)	• What activities are you going to use? • What timescales / stage of the project will these activities be relevant for? • How will you capture feedback?

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4.5 Stakeholder Groups and Likely Areas of Interest

Stakeholder Group	Likely Areas of Interest
Existing residents of Borough Green	• Interest levels are likely to be high. • Areas of interest likely to relate to traffic and transport, landscape impacts, retention of character, community cohesion, implications for education and healthcare services, implications for town centre viability.
Under-represented populations including: • Young people • People in the private and social rented sectors • Low-income households • BAME	• This group includes those who are traditionally often under-represented in engagement activities. This may be as a result of a lack of awareness / knowledge about how to engage or as a result of other factors such as apathy or lack of interest. • Interest levels may vary according to individual / group.
Local businesses	• Interest levels are likely to be high. • Areas of interest may relate to implications for town centre viability, business growth, services, transport and parking.
Community groups	• Interest levels are likely to be high. • Community groups may have a variety of areas of interest depending on the nature of the group (for example environmental groups may have an interest in sustainability or landscape setting, other groups may see benefits arising from an increased population).
TMBC	• Areas of interest relate to meeting housing need, delivering the Draft Local Plan allocation, sustainability and regeneration opportunities, and achieving high quality place-making in line with garden community principles.
Kent County Council	• Particular area of interest / focus around transport and infrastructure.
Political stakeholders	• The borough of Tonbridge and Malling is currently served by two MPs. Interest in the project is likely to be high. • Areas of interest likely to include housing need, landscape sensitivity / green belt.
Project Board	• High interest and influence over the project. A range of stakeholders are represented on the Project Board in addition to TMBC, including Homes England, Kent County Council, Natural England, the Borough Green Gardens Consortium, the Kent and Medway Economic Partnership and Design South East. • Varied areas of interest according to perspective of individual stakeholders.
Borough Green Gardens Consortium	• In addition to good design, areas of interest will include viability / return on investment; and delivery mechanisms / timescales.
Borough Green Parish Council	• Areas of interest /concern relate to the scale of the proposed garden community and associated impacts it is considered to have.
Statutory environmental bodies	• Areas of interest will vary according to environmental discipline.

Table 1 Stakeholder Groups and Likely Areas of Interest

4.6 Stakeholder Engagement To Date

BOROUGH GREEN GARDENS BOARD

The Borough Green Gardens Board was set up to provide a forum for key stakeholders to input to the future masterplanning of the site. A number of board meetings were held between 2020 and 2021 before the project was put on hold awaiting the local plan update.

OFFICER & STAKEHOLDER ENGAGEMENT

As part of the development brief commission a number of Council officer and stakeholder meetings have been held and the discussion has fed into the development of framework plan and development brief, as follows:

- Briefings with Barton Willmore and Vectos
- Tri-Party Highways meetings with TMBC, KCC and Vectos;
- Landscape sensitivity with Enplan;
- Health with CCG re GP requirements;
- Education requirements;
- Housing mix with TMBC;
- Minerals, quarrying and levels with KCC; and
- TMBC Leisure Services re built leisure facilities.

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4.7 Design South East Design Review Panel 1

The initial Design South East Design Review Panel workshop was carried out on 13th May 2021 during the Covid-19 outbreak in 2020/21. An independent site study including desktop research and a digital walk-around (in a similar fashion to that which would have been conducted on-site) was carried out by the applicant team. Further information on the Design Review Panel can be found in Appendix 3.

4.8 Branding and Website Development

A project website will obviously play an important role in terms of community information sharing and engagement. Developing these at an early stage in the development of a new community can help bring stakeholders and community members along the journey through the various stages outlined above, providing a forum for providing information and capturing feedback during the early stages of design and place-making through to providing a forum for stewardship discussions and governance during later stages. Examples of websites that may be useful to review and consider in terms of structure and content include:

- Langarth Garden Village, Cornwall
https://www.langarth.co.uk/
Project managed by Arcadis with website design undertaken by Solve (https://solve.co.uk)

- Otterpool Park, Kent
https://www.otterpoolpark.org/
Project managed by Arcadis and Quod with website design undertaken by Pillory Barn (www.pillorybarn.co.uk)

Examples of other garden community logos are shown adjacent.

Developing project branding at an early stage is helpful to develop a 'look and feel' for the new settlement and think about what it symbolises (e.g. green growth, local distinctiveness, healthy communities). Branding includes the development of a name for the new community, a colour palette and logo, enabling documentation and publicity throughout all stages of the project to be coherent, instantly recognisable and to be included in communications as a single point of reference and identity for the new community. Branding should be aligned with the vision for the new settlement (e.g. an emphasis on landscape or heritage or specific local features).

Project branding has been developed alongside the development of a project website, prepared by Solve.

4.9 Community Engagement

A range of exhibition boards and a consultation questionnaire were prepared in anticipation of future community consultation.

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VISION & KEY DRIVERS

05 VISION & KEY DRIVERS

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5.1 Introduction

The following section sets out the vision, key drivers and thinking that will inform the design of the development at Borough Green, drawing from both past and present influences.

The vision reflects input from the Design Review Panel, as well as from stakeholder engagement.

This section of the brief represents a starting point for developing the vision which is to be refined and developed by the site promoters, alongside the design principles, as the scheme develops. Site promoters are expected to demonstrate how their design proposals respond to this vision, and the design principles set out in this chapter.

THE GARDEN CITY MOVEMENT

Garden Cities were underpinned by a strong vision developed by Ebenezer Howard, who in his seminal book of 1898, To-morrow: A Peaceful Path to Real Reform, described how 'the advantages of the most energetic and active town life, with all the beauty and delight of the country, may be secured in perfect combination'.

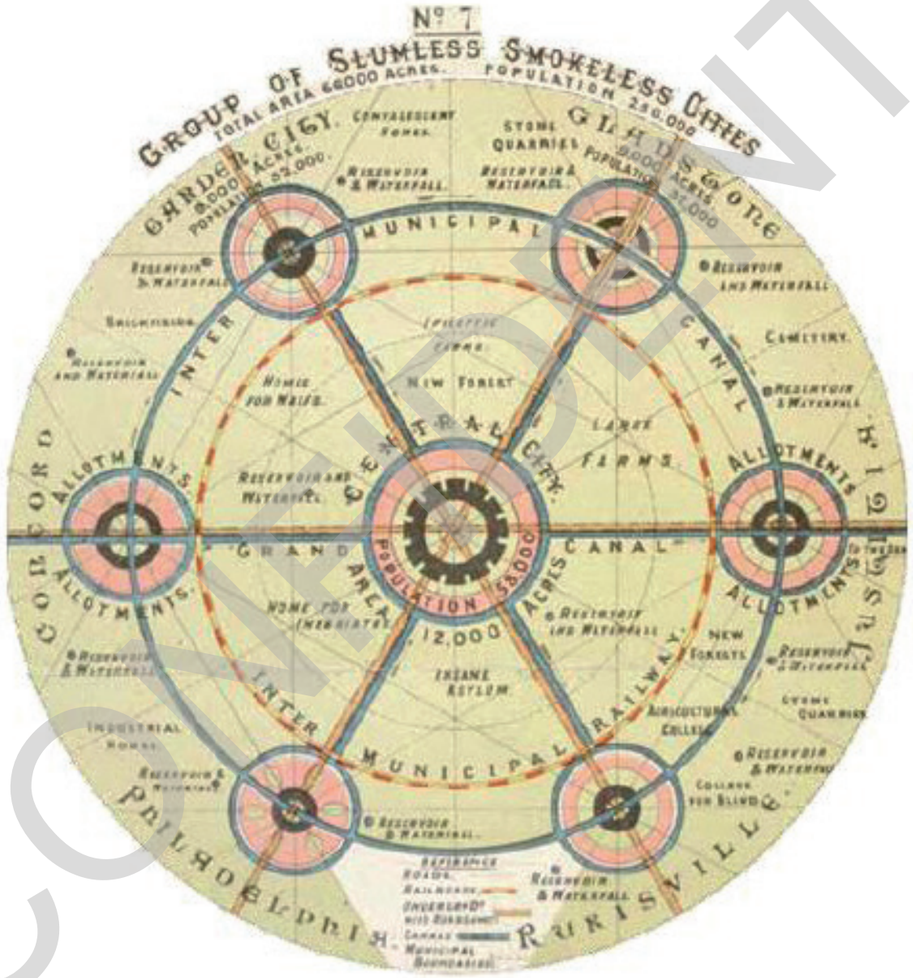
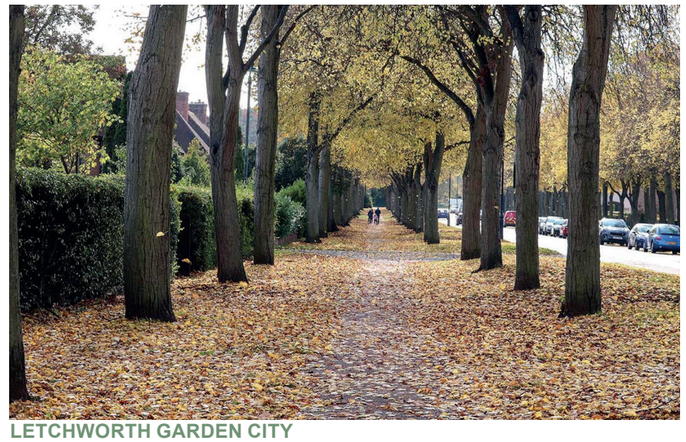


FIGURE 5.1 GARDEN CITY DIAGRAM (SOURCE: LIBRARYSERVICES, 2016)

LETCHWORTH GARDEN CITY

WELWYN GARDEN CITY



LETCHWORTH GARDEN CITY

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5.2 Garden Community Principles

When creating a Garden Community, The Garden Community Prospectus 13 (MHCLG) states that a clear vision for the quality of the community should be set out and proposals should demonstrate how they will meet and embed the following key qualities to achieve high quality place-making.

- Clear identity
- Sustainable scale
- Well-designed places
- Great homes
- Strong local vision & engagement
- Transport
- Healthy places
- Green space
- Legacy & stewardship arrangements
- Future proofed

FIGURE 5.2 GARDEN COMMUNITY PRINCIPLES

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5.3 Our Vision

Exemplary. Integrated. Transformative.

Borough Green will be a place that integrates new and existing development, strengthening the existing community and village centre. The village will celebrate the character and quality of the Kent Downs Area of Outstanding Natural Beauty showcasing the area's unique sense of place, reflected in a heritage of brick manufacturing and mineral working. Looking forward, Borough Green will be a place where residents can transform their lifestyles, embracing a zero carbon future and exemplary low carbon living.

New development in Borough Green will be characterised by:

- *a proposed landform which positively utilises the existing quarry topography to create a distinctive local landscape and sense of place;*
- *strong integration with the existing village through green infrastructure, active travel provision and complementary community uses promoting social interaction and healthy lifestyles;*
- *land uses that respond to local need through the delivery of high quality homes, multi-functional green spaces, sports and play facilities, and enhanced connectivity with existing communities and the wider countryside;*
- *a new relief road which will be a unifying element designed to address current segregation issues from the A25 and relieve congestion through the existing village.*

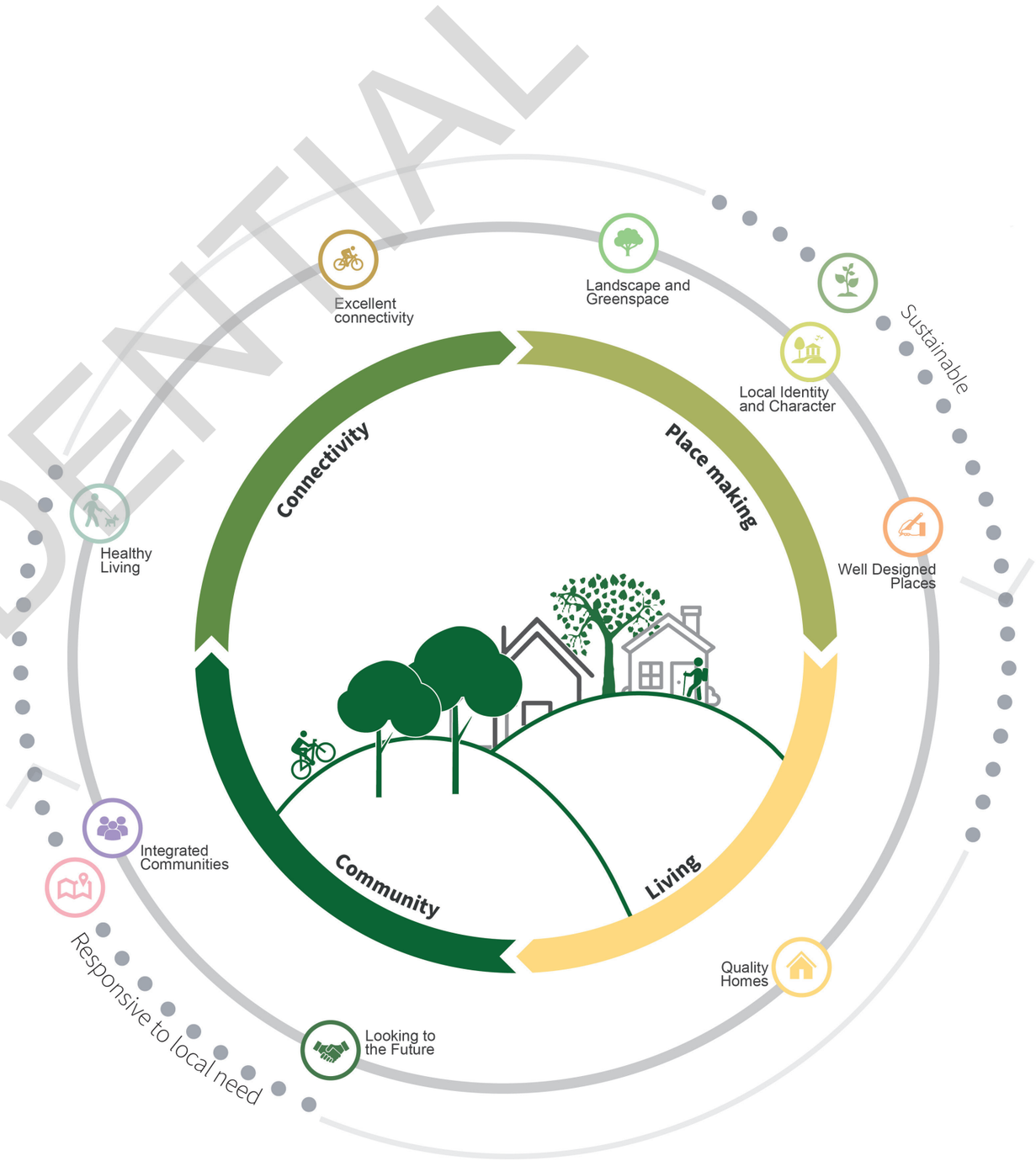

FIGURE 5.3 VISION DIAGRAM

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RESPONDING TO LOCAL NEED

EXCELLENT CONNECTIVITY

LOCAL IDENTITY & CHARACTER

WELL DESIGNED PLACES

LANDSCAPE & GREEN SPACE

QUALITY HOMES

INTEGRATED COMMUNITIES

SUSTAINABLE LIVING

HEALTHY LIVING

LOOKING TO THE FUTURE

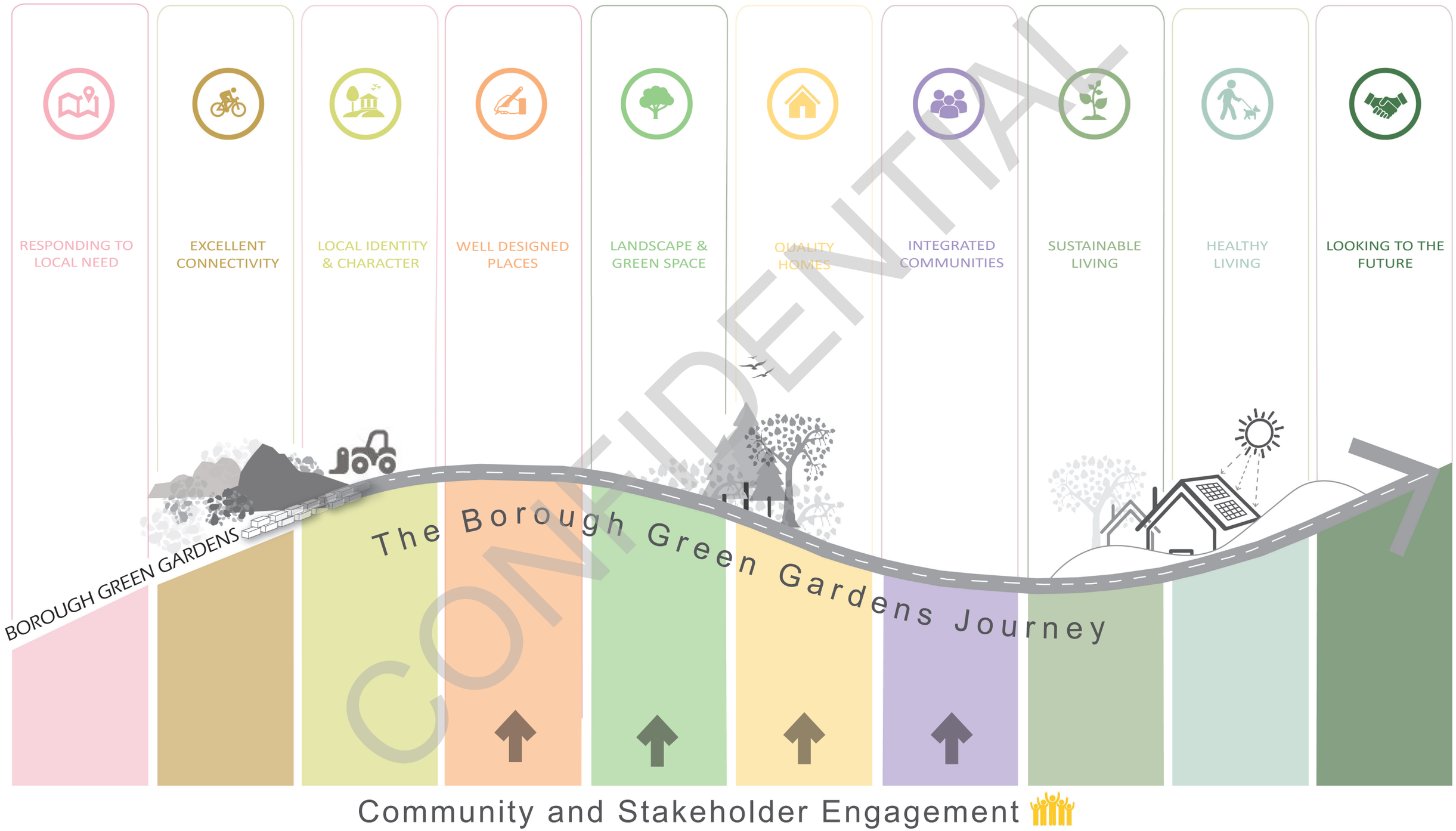

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FIGURE 5.4 BOROUGH GREEN JOURNEY DIAGRAM

5.4 A Liveable Place

Borough Green is a place where you can:

- *Live in a safe, healthy and attractive environment*
- *Walk and cycle to local facilities, schools and shops*
- *Enjoy a range of parks, play areas and green spaces set within an attractive landscape*
- *Have a choice of high quality homes*
- *Feel you are part of one community*

RESPONDING TO LOCAL NEED

- Local Plan context and **housing growth** requirements for up to 3000 homes
- Carry out **meaningful** community and stakeholder engagement
- A mix of **community** uses and activities, including 2 primary schools and health provision to serve both the existing and proposed community
- Provision of an appropriate range of **housing** types, sizes and tenures to meet local need
- Provision of small scale **local centre retail** which is complementary to the village centre
- Creation of **inclusive** environments, activities and facilities for families, youth and elderly residents
- Creating the opportunity for **new jobs** through the provision of 2ha of employment land.

EXCELLENT CONNECTIVITY

- A development that is **well connected**, readily understood, easily **navigated** and **integrated** with the existing settlement
- Provision of **relief road** between the A25 in the west and A20 in the east as a key movement route relieving traffic from the village centre
- A layout which **reduces dependence on the car** by promoting **sustainable transport modes**
- **Connectivity** throughout the masterplan through a strong network of footpaths and cycle links
- Provision of strong **north-south green links** following existing rights of way
- strong links to Borough Green **railway station** (and beyond)
- Creation of **new east-west active travel routes** following the relief road and green infrastructure network

LOCAL IDENTITY & CHARACTER

- Respect the AONB **landscape setting and topography** through the consideration of key views into the development
- Establish a distinct **identity** and a strong 'sense of place' to the development reflecting the area's hard working history in **brick manufacturing and mineral working**
- Development parcels and green spaces which respond to and celebrate the existing **quarry topography**
- Retain a sense of openness on the western edge which respects the **registered park and garden**
- Responds to the **existing character and heritage** of Borough Green and other local villages
- **Character areas** that create variety and celebrate the inherent qualities of the site
- Create a positive image and arrival to the garden village by defining new **gateways**

WELL DESIGNED PLACES

- Commitment to **quality**
- An **exemplary** masterplan - based on the very best practice in urban design
- Creation of a place and destination that people choose to live with its own unique character and identity building on the **Garden Village ethos**
- A **townscape** that is rich, varied and sympathetic to context
- A high quality **public realm**
- An **identifiable 'heart'** to the eastern community
- A **seamless transition** between the old and new through well-connected and designed green spaces
- Create a **dynamic hierarchy** of streets and street scenes with a range of activities
- **Character** of relief road to reflect movement priorities of eastern and western sections
- Provision of public art to provide key **local landmarks** and areas of interest

PRECEDENT IMAGES

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LANDSCAPE & GREEN SPACE

- **40%** green infrastructure provision
- A **transformed** landscape – opportunity to restore the despoiled quarry landscapes degraded from mineral extraction and utilise landform to provide interest and variety
- A **rich and varied** network of green spaces informed by local landscape character
- **Multi-functional** green space providing for a range of uses and activities including outdoor sport, play, recreation, movement and drainage
- A **central green focus** celebrating existing water bodies and activities
- A strong **east-west 'wave'** of green space and the provision of **north-south green links**
- Protection/enhancement of **landscape features,** such as existing hedgerows, watercourses and ancient woodland/tree groups

QUALITY HOMES

- A variety of high quality residential provision and new residential uses which creates a strong long term **residential community**
- Create a **commercially viable** development which will sustain and drive value in the long term
- A **mix of house types** and sizes, and character areas creating different zones of identity knitted together through green infrastructure
- To provide greater **choice,** quality and diversity of housing across all tenures to meet the needs of residents
- Opportunity for **split level** housing to respond to topography & level changes
- **Modular** housing which can be adapted and 'grow' with families
- Provision for **home working** in a post covid world
- **Higher density** housing located in the lower excavated quarry areas

INTEGRATED COMMUNITIES

- Creation of **distinct yet connected** communities, which respect the existing village settlement
- Promote **community cohesion** and strengthen the existing strong community feel
- Provision of local centre and community hub that is **complementary** to the existing settlement, within easy walking distance of St Mary's Platt (north)
- New primary **schools** in accessible locations and at key focal points
- Strong **integration** between the site and the adjacent residential area by strengthening and enhancing the existing network of footpaths and cycleways to link existing and proposed areas
- Role of relief road as a **unifying** element to address segregation issues from the A25 through existing village.

SUSTAINABLE LIVING

- Promote the objectives of sustainable development through layout and design which shifts Borough Green towards a more **sustainable future**
- **Smart** and sustainable
- Promote **sustainable transport modes** - walking, cycling public transport & user safety
- Protect and enhance biodiversity to achieve **biodiversity net gain**
- Increase **energy efficiency** and require the use of renewable energy sources
- Maximise **low carbon** opportunities to reduce carbon emissions
- Create generous, accessible, and good quality **green and blue infrastructure**
- Promote the sustainable use of natural resources and an **efficient** use of land

HEALTHY LIVING

- Promote **health, well-being** and **active lifestyles**
- Safe environment promoting **community safety**
- **Open space** - provision of sports pitches, play areas and additional green areas, as well as shared use of built sport facilities
- Facilities located within **walkable catchments** of new housing and public transport routes and bus stops
- Promote **ecological health** and well being
- Minimise **noise and air** quality issues, particularly in the vicinity of the village centre and M26
- Provision of **health facilities** in response to local need

LOOKING TO THE FUTURE

- **Flexible** framework which is **adaptable** to changes to the market and demand and **resilient** to future requirements
- **Realistic phasing** to respond to quarry restoration
- Effective management and long term **stewardship**
- Meaningful long term **engagement** and **governance**
- **Partnerships**
- **Forward** thinking and **outward** looking, but **practical, achievable** and **aspirationa**l
- Good **digital** connectivity

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STRATEGIC FRAMEWORK

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06 STRATEGIC FRAMEWORK

6.1 Introduction

A key objective of the development brief is to guide the provision of land uses at Borough Green Gardens. This is to be achieved through the production of a strategic development framework with a supporting indicative land use budget.

The starting point for describing the strategic development framework is through a series of high level land use concept plans, which seek to represent the broad development principles for Borough Green Gardens in spatial terms.

The main land uses, such as housing and employment, and the supporting infrastructure and landscape requirements, are then individually described.

Finally, all the elements are brought together in the comprehensive strategic development framework plan and land use budget, presented at the end of the chapter.

The strategic development framework should be refined through the masterplan process as further site information is gathered and the masterplan tested and appraised. The framework should underpin future more detailed layouts and design codes as part of the planning application process.

6.2 Key Structuring Elements

The Concept Plan seeks to generate a distinctive 'sense of place' which responds to the specific character of the site, local landscape and wider built form.

It builds on previous work carried out on behalf of local landowners and has evolved through discussions with key stakeholders and through the design review process.

In general terms, the concept for the development framework is focused on three key elements;

- a network of green landscaped corridors linking together existing and proposed residential areas;
- the creation of one integrated residential community for Borough Green comprising three distinct proposed housing clusters, positioned within a distinctive scenic setting;
- the provision of supporting community facilities such as education, retail and health facilities within a walkable and legible hierarchy of centres.

LANDSCAPE CORRIDORS

A network of green landscaped corridors linking together existing and proposed residential areas

FIGURE 6.1 BOROUGH GREEN KEY STRUCTURING ELEMENT DIAGRAMS

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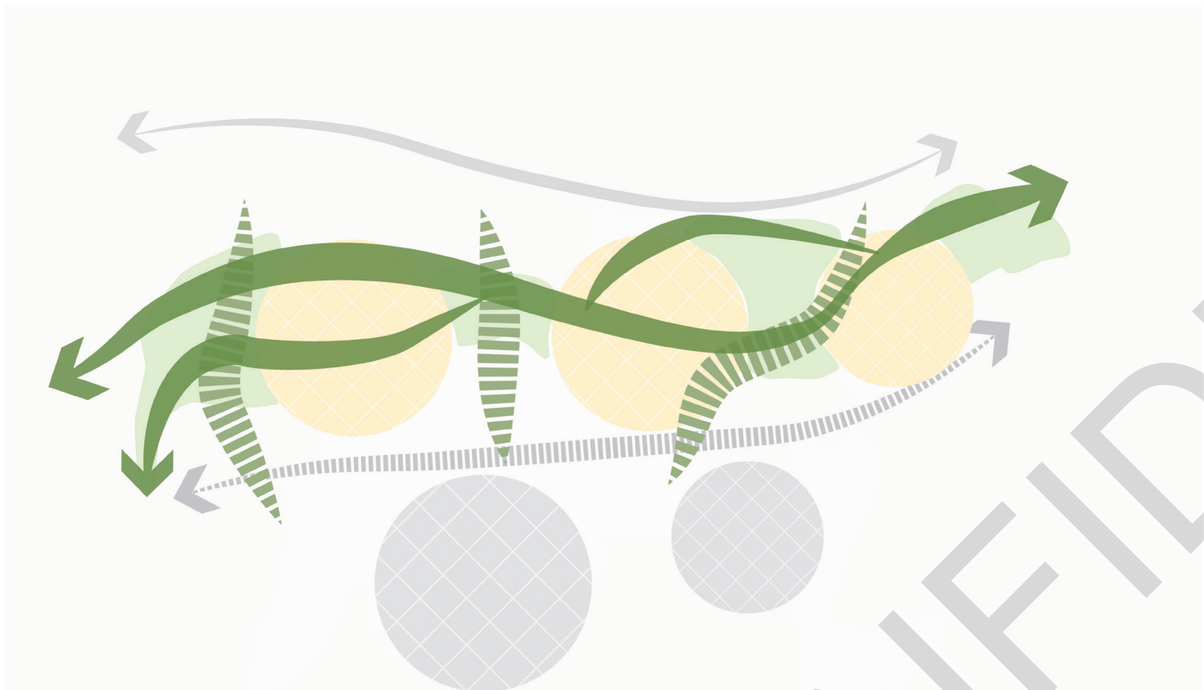
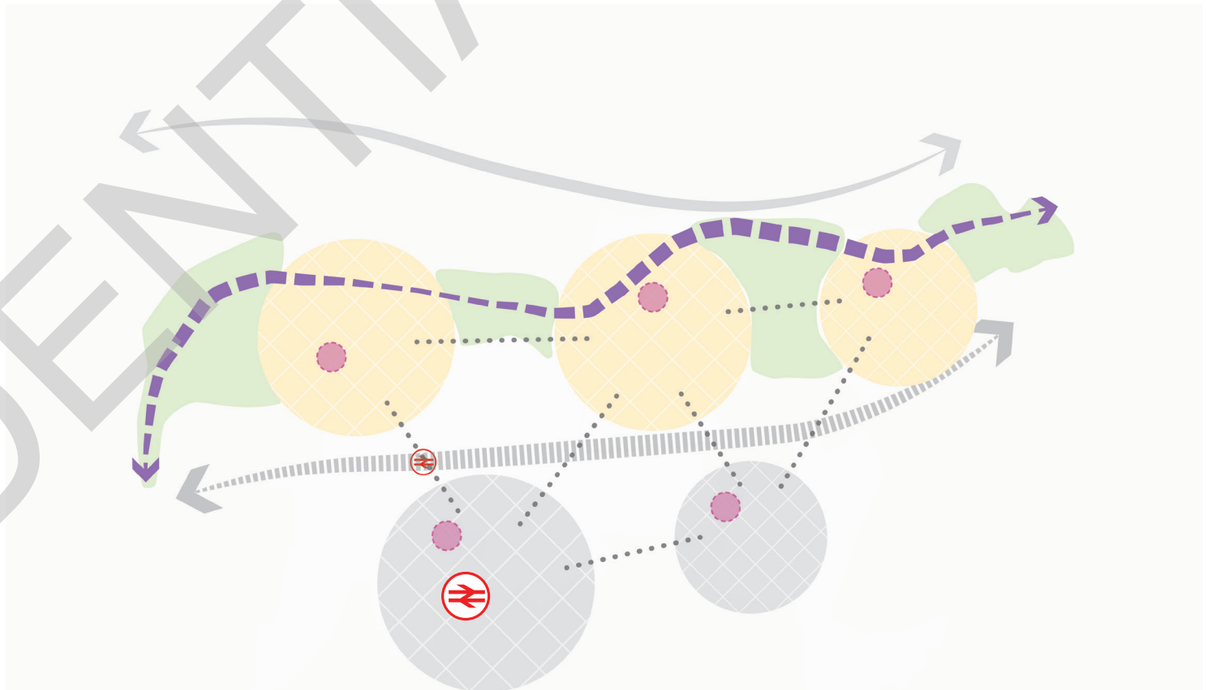
NEIGHBOURHOODS POSITIONED WITHIN LANDSCAPES



The creation of one integrated residential community for Borough Green comprising three distinct housing clusters, positioned within a strong and distinctive landscape setting

WALKABLE HIERARCHY OF CENTRES



The provision of supporting community facilities such as education, retail and health facilities within a walkable and legible hierarchy of centres, and linked to an east-west active travel corridor along the proposed relief road

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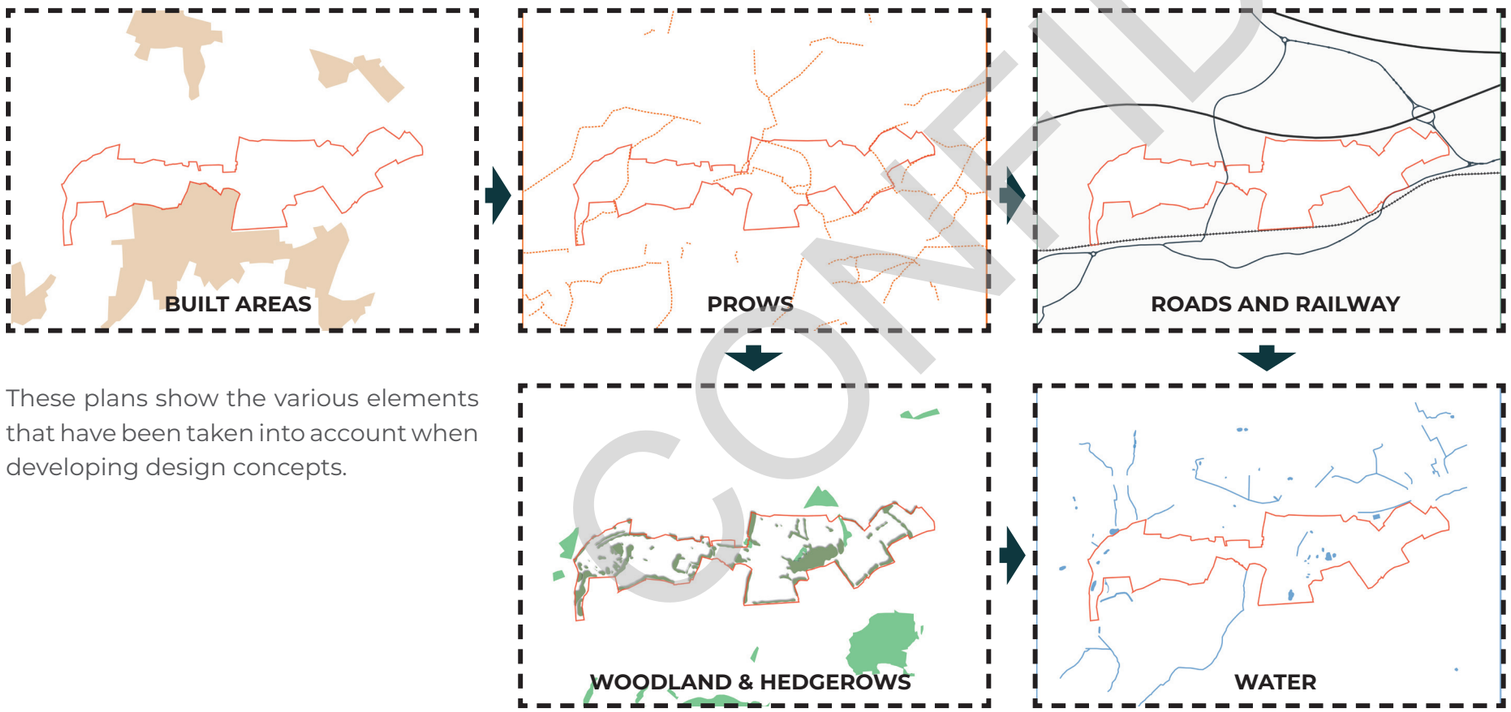
The framework plan in this development brief has been based upon a high level baseline review of information supplied by TMBC and site promoters.

A significant amount of work has been carried out to date by both TMBC and on behalf of the local landowners as part of the Local Plan Evidence Base. In order to make sense of this large amount of data it is helpful to consider the datasets in terms of a series of grouped layers and discipline inputs, similar to those shown on the adjacent figure.

Analysis of these concept plan layers will help create a clear narrative for the evolution of future masterplans which can be developed in terms of a range of key structuring elements including:

- Health and well-being;
- Accessibility and inclusiveness;
- Sustainability and low carbon solutions;
- Green and blue infrastructure;
- High-quality place design – natural & built environment and buildings
- Responsive design / local distinctiveness
- Leveraging of Digital and SMART place technology
- Viability and deliverability;
- Land use and movement strategies;
- Water management;
- Education and employment.

Additional surveys and strategies (such as detailed information and analysis of topography, hydrology and biodiversity) will be required to inform the structure and configuration of the emerging masterplan as it is developed.



These plans show the various elements that have been taken into account when developing design concepts.

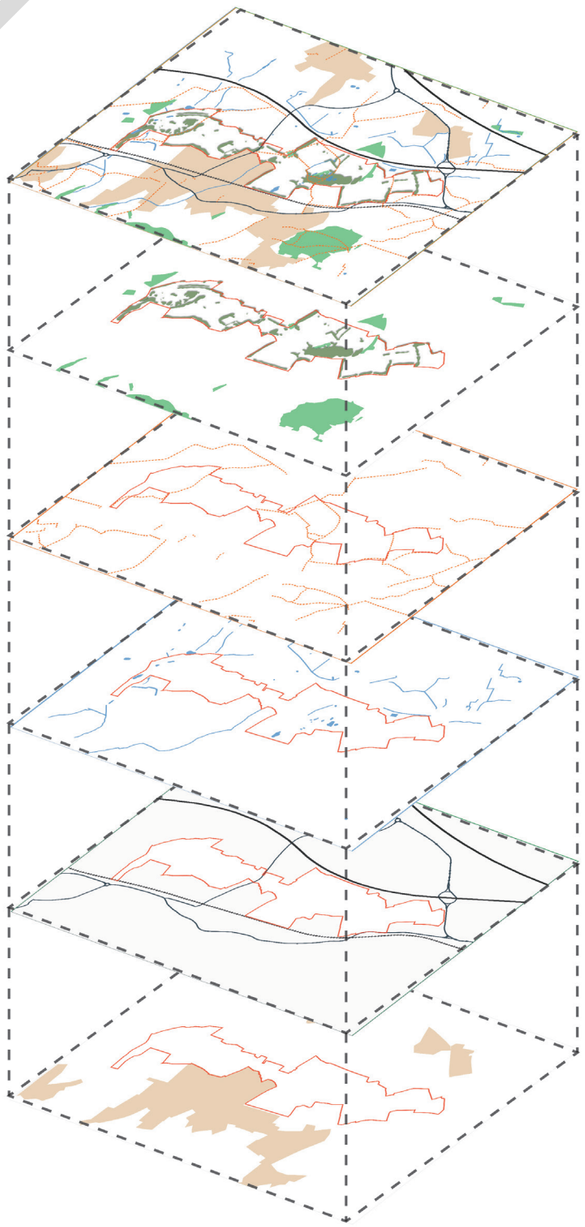


FIGURE 6.2 KEY FRAMEWORK ELEMENTS

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6.3 Concept Option Development

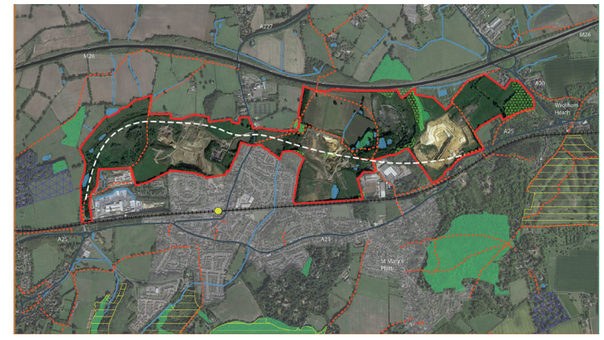
The formulation of the strategic framework has responded to the production of a number of relief road options (see adjacent figures). In order to test and explore each of these options a SWOC analysis has been carried out in order to identify a preferred option (see Appendix 1). The SWOC analysis also addresses potential land use scenarios for each of the road alignments.

Developers need to demonstrate how they have tested differing options to reach their preferred approach. In particular, options should be tested against the proposed vision, design principles and sustainability objectives.

RELIEF ROAD OPTION 1

RELIEF ROAD OPTION 4

RELIEF ROAD OPTION 2



RELIEF ROAD OPTION 5

RELIEF ROAD OPTION 2A

RELIEF ROAD OPTION 6

FIGURE 6.3 CONCEPT PLAN OPTIONS

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6.4 Land Use Approach – An Integrated Community

INTRODUCTION

This section presents the key land use principles for Borough Green Gardens including the proposed mix of land uses, suggested housing mix and associated community uses.

'*Sustainable places include a mix of uses that support everyday activities, including to live, work and play*' (National Design Guide).

The built environment is a key factor that determines the way people live, whether they are local residents, businesses or visitors. The range of uses and roles of its spaces can influence and contribute to the realisation of multiple benefits and objectives.

The land use approach should encourage sustainable lifestyles. The proposed mix and location of land uses is important in terms of creating walkable communities and in adopting a sustainable masterplanning approach which promotes reduced car use. For example, delivering a good mix of community and basic uses within a local area encourages interaction and the creation of an active community. Facilities should be conveniently located within easy walking or cycling distance from where people live and work.

This highlights the importance of applying high standards for sustainable living at the masterplanning stage, helping to reduce carbon emissions and supporting the development of a healthier population.

Borough Green Gardens aims to deliver an urban extension that delivers a good balance of amenities and services, which reflects the existing land use context, so that land use proposals are complementary to the offer of the existing village. For example, out of town food stores, should not be provided if they compete with existing town centres.

A new mixed use local centre should be located at the heart of this urban extension, at a key node and along public transport routes. The local centre should be complemented by higher density residential development above ground floor level. By providing a mix of uses, streets can be kept active over as long a time as possible.

New mixed use centres have the potential to integrate new and existing communities as health centre facilities, schools, leisure and community centres can be a focal point for all residents. The aim is that local mixed use centres should achieve a sufficient critical mass in order to be commercially viable and to be able to support a range of facilities.

The proposed land uses for Borough Green Gardens should respond to local need and be supported by evidence of market demand and needs assessments (as part of the local plan process).

The land uses proposed in this development brief reflect the former Draft Local Plan Policy LP29 (and would be subject to review through new evidence to support the new Local Plan) which proposes the following land uses:

- 3000 dwellings
- 2 primary schools
- 2 ha employment

In terms of sustainability and the spatial requirements for masterplanning, there are a number of considerations in order to deliver the development vision and to be provided in the emerging framework plan:

- Carbon offsetting / sequestration;
- Adaptability;
- Phasing – land & infrastructure.;
- Land for advanced planting;
- Decentralised energy network;
- Food & foraging (market garden, allotments, orchards);
- SuDS;
- Public open space and play;
- Modern methods of construction and onsite manufacture;
- Changing parking standards & Autonomous vehicle provisions; and
- Safeguarding land for resilience & flexibility.

LAND USE EXAMPLES

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6.5 Compact Development

The National Design Guide states that:

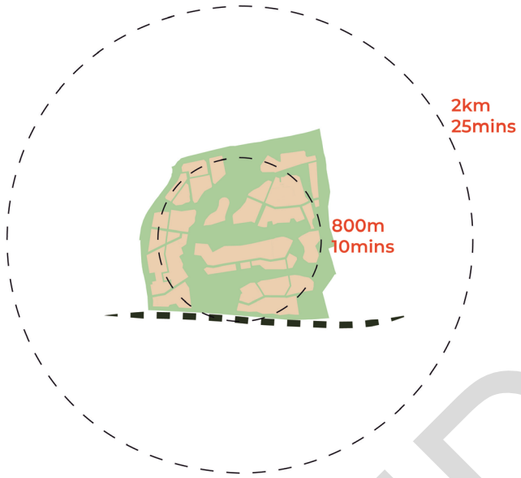
"Compact forms of development bring people together to support local public transport, facilities and local services. They make destinations easily accessible by walking or cycling wherever this is practical. This helps to reduce dependency upon the private car.

Well-designed new development makes efficient use of land with an amount and mix of development and open space that optimises density. It also relates well to and enhances the existing character and context.

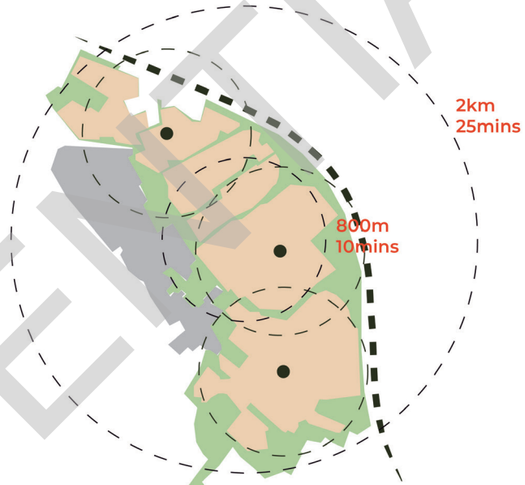
Built form is determined by good urban design principles that combine layout, form and scale in a way that responds positively to the context. The appropriate density will result from the context, accessibility, the proposed building types, form and character of the development."

The images on the right show the size and scale of a range of settlements with differing housing yields as a comparison to Borough Green Gardens.

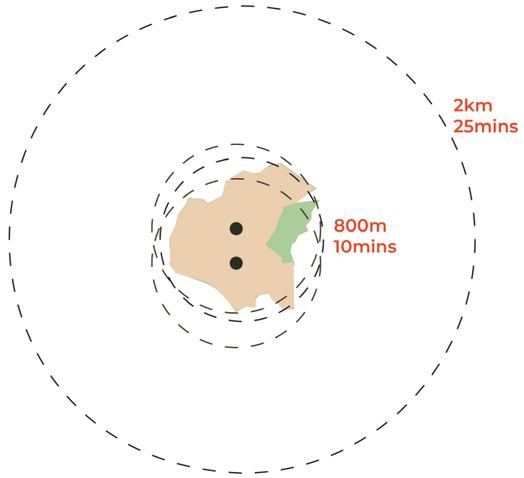
One of the key challenges with delivering more compact development, with higher densities, is that this can raise concerns regarding the style for new housing which can be contrary to the local vernacular/character. This raises the importance of design codes and the formulation of character areas/area types (see Section 7).



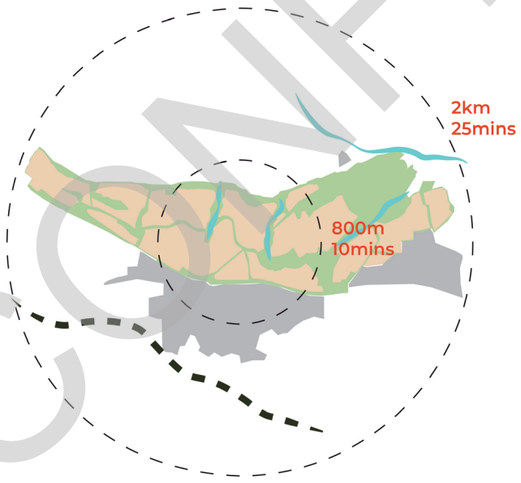
Dunton Hills
4,000 homes



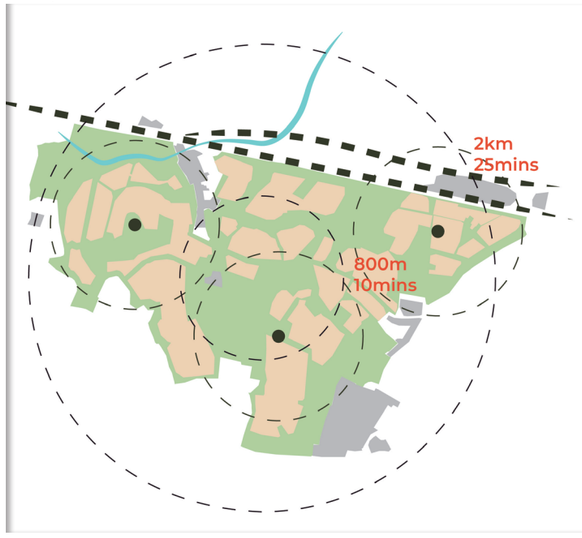
Northstowe
10,000 homes



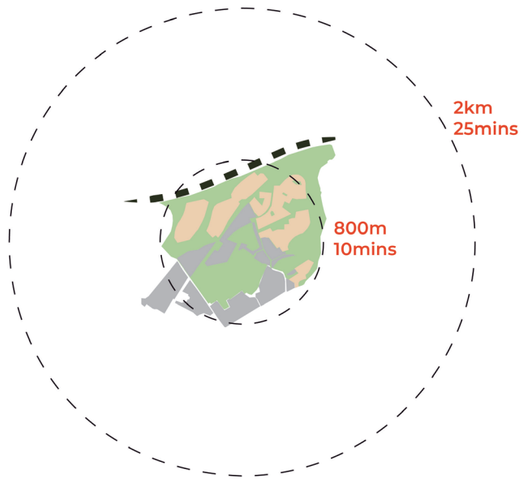
Poundbury
2,700 homes



Langarth
8,000 homes



Otterpool
10,000 homes



Huncoat
1,500 homes

FIGURE 6.4 COMPACT DEVELOPMENT EXAMPLES

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HOUSING

The Borough Green Garden community will make efficient use of land in accommodating up to approximately 3,000 new dwellings. The overall average net density of the strategic framework is approximately 35-45 dwellings per hectare.

The new Borough Green Garden community should include a range of dwelling type, size, and tenure. An integrated mix of tenures and housing types that reflect local housing need and market demand will create choice, provide a more varied building form, and will meet community needs. Key trends in demographic profile unique to Borough Green should guide the future housing mix.

New development should be designed to be inclusive and address a wide range of needs specific to different demographic groups characterised by age, culture, physical conditions, and family sizes.

Houses with different tenures should be well integrated and designed to the same high quality. Housing design should, therefore, be tenure 'blind' so there is no obvious difference between social and market housing.

Geographic inequalities are often characterised by huge contrasts in housing prices and living conditions across a given area. The desirability of housing location is just as important as building quality in influencing house prices. These inequalities should be addressed through raising the desirability of key housing locations through providing the adequate amount of infrastructure and services in a timely manner.

Housing proposals would have been required to provide 40% of new housing stock for affordable housing and homes for social rent in line with the former draft Council Policy LP39 from the withdrawn Local Plan, or any subsequent new policy within the emerging Local Plan.

Consideration should be given to ways in which new and emerging forms of housing could be provided.

Housing provision should meet the needs of older people and should be integrated into the new community, close to public transport and local facilities, this could include some of the following:

- retirement villages;
- care homes;
- extra-care housing;
- sheltered housing;
- independent living; and
- age-restricted general market housing.

New developments within Borough Green should encourage diversity in design and delivery by promoting community-led development, self- and custom-build and build to rent.

The housing areas should respond to the inherent site opportunities and constraints with suitable densities to provide distinctive 'character areas' (see Section 7).

Higher density housing should predominantly be located in the less sensitive landscape areas. In these area taller buildings can be more readily integrated into the landscape by being located in lower parts of the site created by quarry excavations.

The main housing core will comprise medium density housing which should be located adjacent to the higher density areas to create a gradual decrease in density and height towards the north and western rural edge of the development. This housing should form the core of the new urban area and would be characterised by a connected network of streets and squares, punctuated by local play areas.

The lower density housing should be principally located along the outer edges of the development, particularly along the western and northern edge of the development, and also areas fronting on to the green space network.

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EMPLOYMENT

Commercial and industrial spaces are critical to new settlements as they provide employment for local residents, whilst also supplying goods and services in the area.

The former draft Policy LP29 states that the site will also provide for 2 ha of new employment land. Employment land is to be located in one of the least sensitive parts in landscape and visual terms to the east of the site. Employment in this location would also benefit from direct access to the A20 and easy access to the M26 from the proposed relief road.

This area would also mirror recent development on the northern side of the M26 at Nepicar Park (see the figure below) in terms of the type and scale of units and the level of parking. However, the Borough Green Gardens employment site would benefit from a stronger landscape structure to screen views from the north and integrate the development into the landscape, subject to review within the new local plan evidence being prepared.

FIGURE 6.5 NEPICAR PARK

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COMMUNITY FACILITIES

The provision of community uses, such as schools, health facilities, community and sports facilities are a key part of any new community. The provision of community activity should be focussed on school buildings to promote the sharing of space and efficient use of land. Schools and other community buildings, where required, should be integrated into the prevailing urban form.

The former Policy LP29, subject to review in new evidence, sets out the required provision for community facilities for Borough Green Gardens including the following:

- Primary schools – 1 x 2 form entry; 1 x 3 form entry;
- Secondary education – proportionate contribution to provision of a new school in the north-east part of the borough;
- Healthcare provision to meet the needs of the development.

Consideration has been given to the allocation of land for a local centre, comprising small-scale retail, office space, community use and health care facilities.

In terms of health care, there is potential for the existing medical centre to be expanded to meet the needs of the new population. However, at this stage it has not been confirmed whether this is deliverable and would require further discussions, feasibility studies and ultimately would be subject to planning approval.

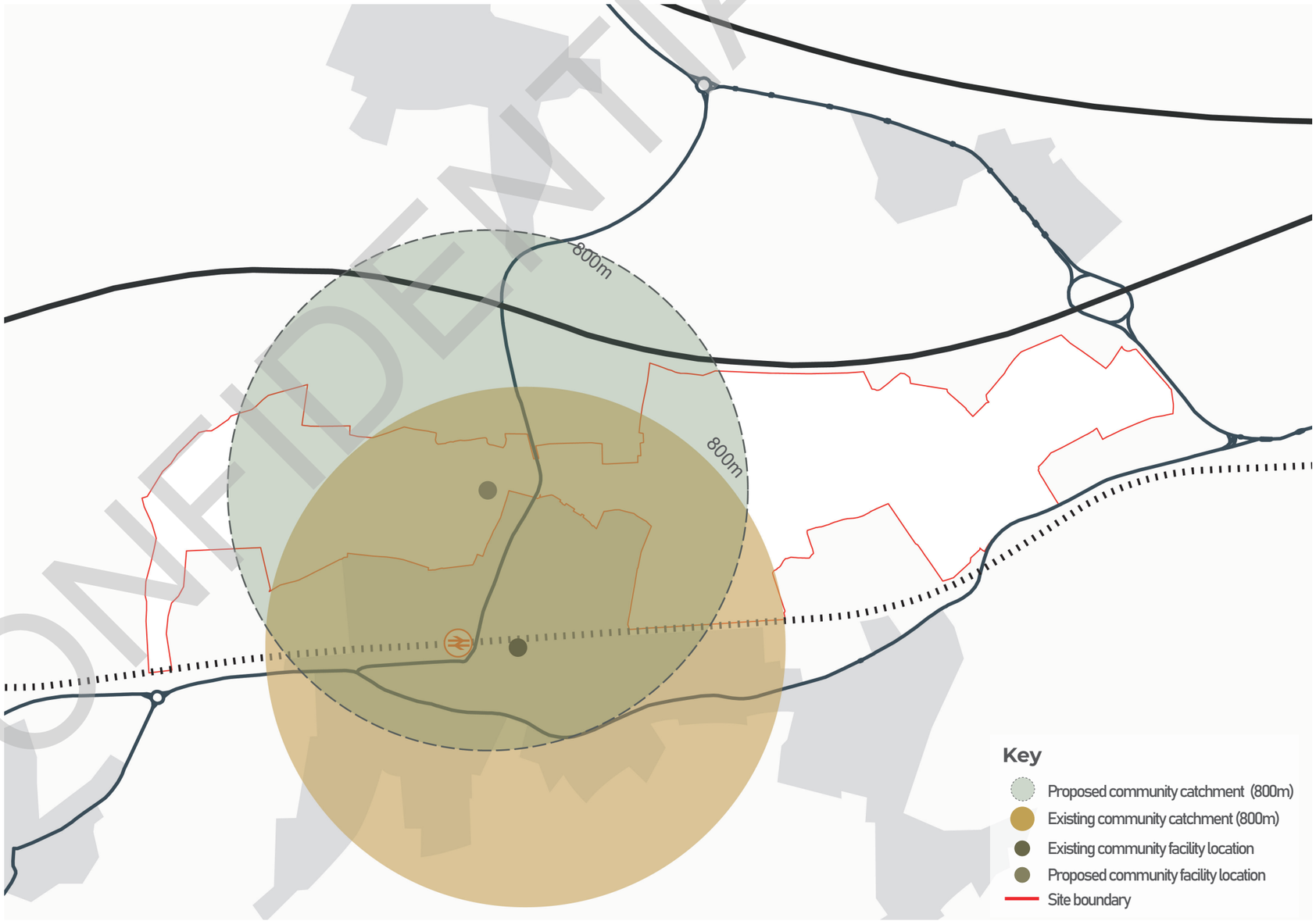

FIGURE 6.6 COMMUNITY FACILITIES

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EDUCATION

In terms of existing provision Borough Green is served by the following schools:

- Borough Green Primary School; and
- Wrotham School, a co-educational secondary and sixth form with academy status.

An additional two primary schools should be provided to make sure that there is sufficient provision to meet local need, in line with the former Policy LP29, subject to review.

The location of new school provision should reflect the catchment of existing school provision as shown on the adjacent figure to make sure that existing and proposed schools are within easy walking distance. The presence of the railway line as a key barrier to pedestrian movement also needs to be considered.

The delivery and phasing of each school will need to be delivered in accordance with existing need and available school places. They will provide an 800m catchment over the proposed residential communities.

There is potential to use facilities provided for the school, such as sports pitches, for wider community use.

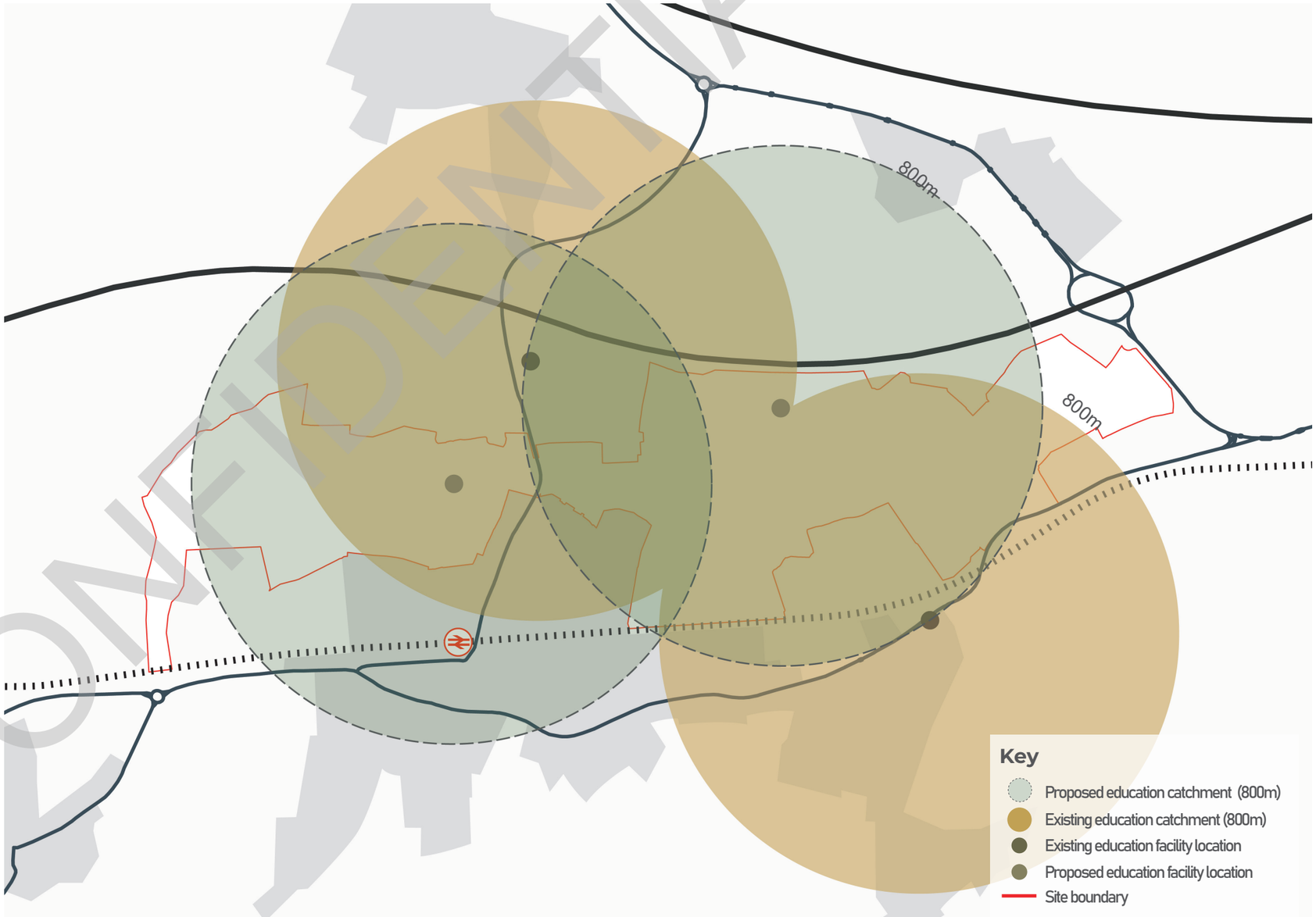

FIGURE 6.7 EDUCATION

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6.6 Landscape Sensitivity

The adjacent plan presents findings of the landscape sensitivity study prepared by Enplan. These findings have been used to develop outline design parameters for the site, which are presented as key recommendations in the assessment.

Key issues:

- The site is surrounded by Green Belt;
- Much of the existing landscape is characterised by operational and former mineral quarries;
- The surrounding landscape is characterised by a mosaic of woodland and agricultural land; and
- The prevailing topography of the site is subtly undulating, with quarrying, in particular, having a significant impact on existing landform.

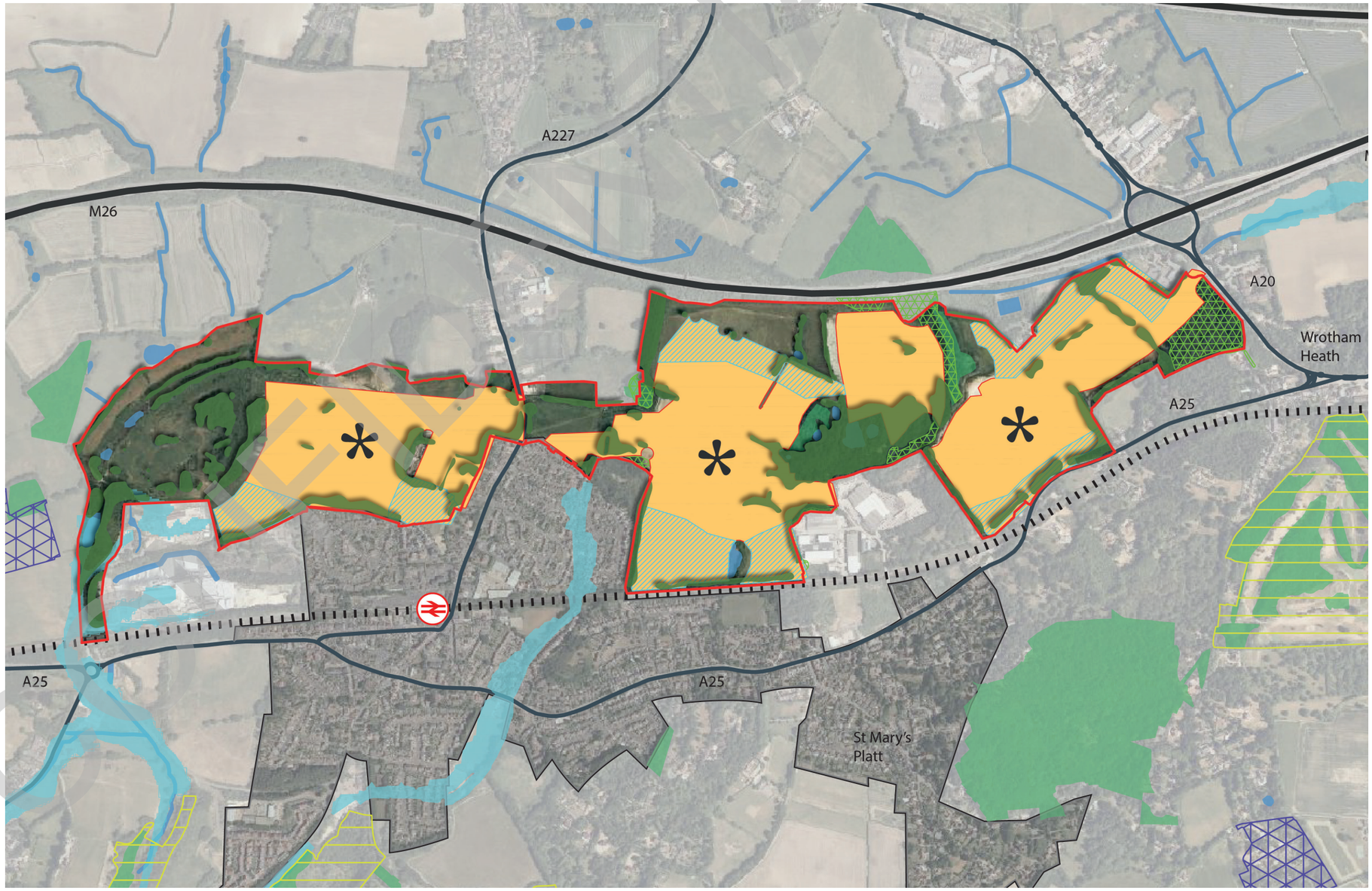

FIGURE 6.8 LANDSCAPE SNESITIVITY (BASED UPON ENPLAN STUDY)

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As mentioned previously there is potential for higher density housing in a number of areas where existing quarrying operations have created changes in landform.

In addition a number of areas have also been identified as more sensitive to development and these areas would benefit from lower density development in order for new development to be successfully integrated into the landscape.

It should be noted that the Enplan work was based upon visual impact without any mitigation. There is, therefore, potential for additional housing subject to suitable mitigation.

Developers will need to demonstrate how this can be achieved as part of any Landscape and Visual Impact Assessment supporting future planning applications.

FIGURE 6.9 PHOTOS OF WIDER LANDSCAPE (SOURCE: ENPLAN)

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6.8 Green Infrastructure

INTRODUCTION

The Landscape Institute 2013 Position Statement *'Green Infrastructure: An integrated approach to land use'* defines GI as "*the network of natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect villages, towns and cities. Individually, these elements are GI assets, and the roles that these assets play are GI functions. When appropriately planned, designed and managed, the assets and functions have the potential to deliver a wide range of benefits – from providing sustainable transport links to mitigating and adapting the effects of climate change.*"

Green and Blue Infrastructure is the network of multi-functional natural and semi-natural landscapes, green spaces and waterbodies, which deliver a range of benefits for the environment and communities across both rural and urban landscapes.

The adjacent diagram shows the range of green infrastructure typologies which are relevant to Borough Green Gardens.

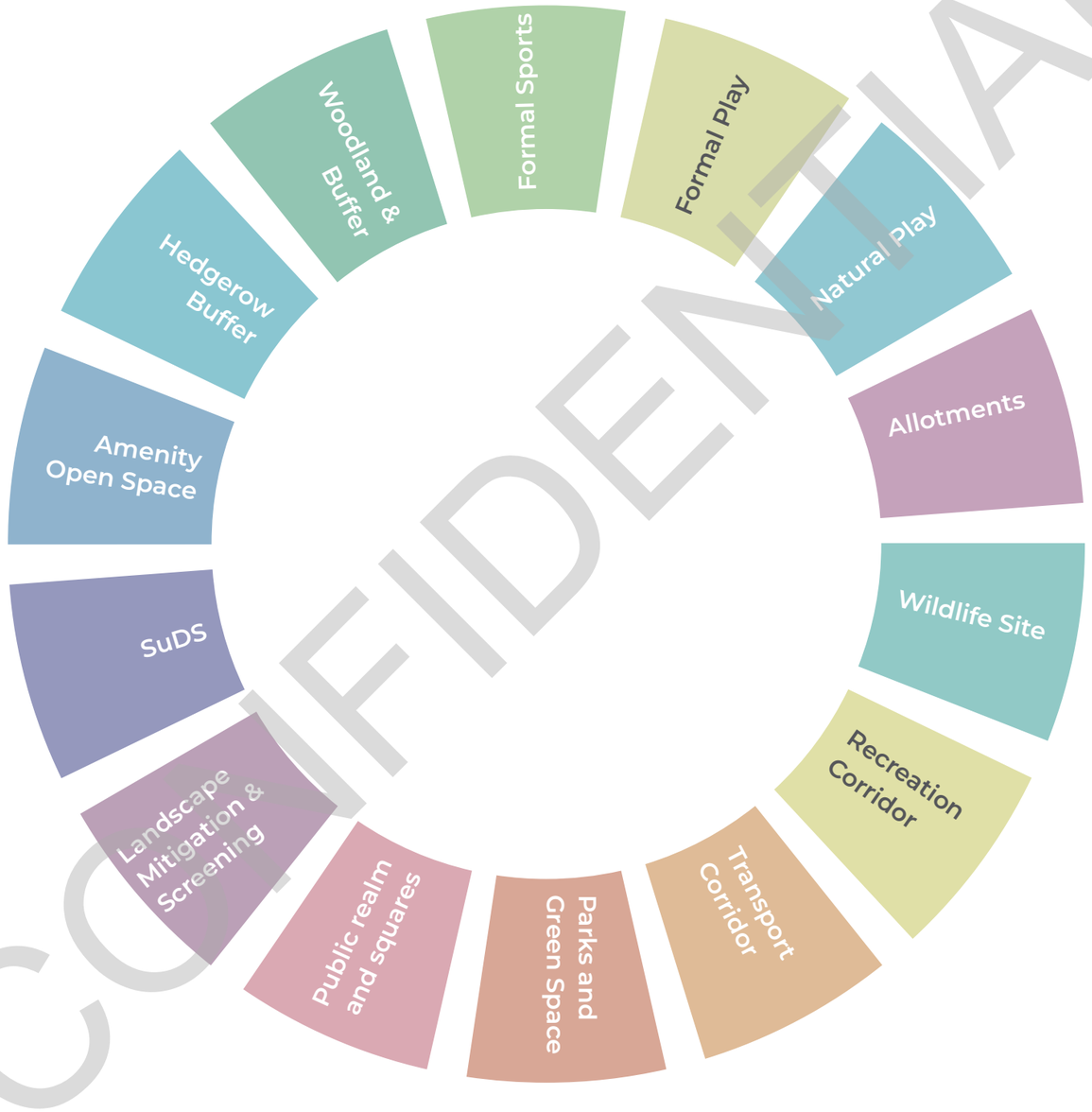

FIGURE 6.10 GREEN INFRASTRUCTURE TYPOLOGIES

↑ Sport and Play

↑ Informal / Natural Play

↑ Outdoor Gym

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GREEN INFRASTRUCTURE STRATEGY

Following a review of the existing and surrounding landscape structure, opportunities can then be identified where spaces for recreation, interaction with nature, and wildlife connections, and contribution to a sense of place can be made.

Typical open space strategies follow the 'string and beads' principle where key open spaces and nodes of activity (such as pubs, cafés, play areas arranged at strategic locations) are linked via green links, leisure routes or active travel corridors ("strings").

The strategy should illustrate how the various green infrastructure typologies are to be provided. Open space should be multi-functional and incorporate ecological assets, balancing areas, recreational facilities and be linked with routes for walking and cycling.

The aim is to provide attractive green transport corridors and leisure routes. The emphasis of the green and blue infrastructure strategy should be to deliver a series of linked open spaces to encourage biodiversity and nature conservation interest through the design of a range of semi-natural green spaces.

The overall goal of the green infrastructure strategy for Borough Green Gardens is to create a varied and attractive landscape for existing and future residents, which responds to topography, and provides a strong setting for the new development. This enhanced landscape is to comprise a linked network of multi-functional green spaces.

Areas of past (and current) excavation have resulted in a varied topography. There is a great opportunity to incorporate some of these topographical features into the design of the development and green infrastructure, creating a unique sense of place.

An inherent feature of the development framework is the protection of an integrated network of wildlife corridors. These corridors should provide ecological and pedestrian links along key natural features. These wildlife corridors are to be designed to reflect the naturalistic character of these areas and are to consist substantially of semi-natural habitat.

A number of these corridors have been aligned to follow the principal watercourses through the site and also to create a strategic landscape and wildlife corridor adjacent to the M26 to the north of the site.

There is potential to provide strategic planting within these corridors to contribute to landscape mitigation required as part of a landscape visual impact assessment which will be required in support of any planning application for the site. In particular, the northern and western boundaries of the site have potential to provide a landscape buffer to integrate the development into the wider landscape.

There is also an opportunity to retain and enhance existing areas of broadleaved woodland (including TPOs and ancient woodland) within the site. This presents an opportunity to link the existing woodland into the proposed green infrastructure and open space network.

In summary, there is a possibility to provide an east-west spine of green infrastructure that would extend and enhance the existing woodland across the site. The proposed central green space focussed upon the existing pond will be a key focal point. In this way, the proposed landscape structure can contribute to repairing the currently fragmented landscape in the area and help meet wider landscape policy objectives to restore the landscape and improve the setting of the AONB.

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The adjacent tables present the TMBC local open space standards which would apply to Borough Green Gardens (former TMBC Local Plan - Appendix R: Open Space – Standards & Implementation Process). and also the Fields in Trust recommended benchmark guidelines for formal outdoor space, which includes recommended walking distances.

OPEN SPACE STANDARDS - ON-SITE PROVISION

Type	Area	Standard (ha per 1000 pop.)
Outdoor Sports Facilities (sports, pitches, tennis, athletics. bowls)	Borough-wide	**1.6** (of which a minimum of 1.2 is for playing pitches)
Children's and Young People's Play Areas (equipped play areas, skate parks, ball courts, informal play space and MUGAs)	Borough-wide	**0.55** (of which a minimum of 0.25 is for equipped/designated play areas)
Natural and Semi-Natural Greenspaces	Borough-wide	**1.0**
Amenity Green Spaces	Borough-wide	No standard - The provision of amenity greenspace will be design-led rather than prescribed and will be addressed in other policies seeking to achieve a high quality environment
Total Requirement		**3.15**

OPEN SPACE STANDARDS - OFF-SITE PROVISION

Type	Area	Standard (ha per 1000 pop.)
Parks and Gardens	Borough-wide	**2.2**

Open space typology	QUANTITY GUIDELINE[2] (hectares per 1,000 population)	WALKING GUIDELINE (walking distance: metres from dwellings)	QUALITY GUIDELINE
Playing pitches	1.20	1,200m	* Quality appropriate to the intended level of performance, designed to appropriate technical standards. * Located where they are of most value to the community to be served. * Sufficiently diverse recreational use for the whole community. * Appropriately landscaped. * Maintained safely and to the highest possible condition with available finance. * Positively managed taking account of the need for repair and replacement over time as necessary. * Provision of appropriate ancillary facilities and equipment. * Provision of footpaths. * Designed so as to be free of the fear of harm or crime. * Local authorities can set their own quality benchmark standards for playing pitches, taking into account the level of play, topography, necessary safety margins and optimal orientation[3]. * Local authorities can set their own quality benchmark standards for play areas using the Play England Quality Tool.
All outdoor sports[1]	1.60	1,200m	
Equipped/designated play areas	0.25 See table 4 for recommended minimum sizes	LAPs – 100m LEAPs – 400m NEAPs – 1,000m	
Other outdoor provision (MUGAs and skateboard parks)	0.30	700m	

FIGURE 6.11 FIELDS IN TRUST RECOMMENDED BENCHMARK GUIDELINES - FORMAL OUTDOOR SPACE

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MULTI-FUNCTIONAL GREEN SPACE

For any settlement, it is important to have a range of multi-functional green spaces which can be used for formal and informal activities for communities to participate in and enjoy.

The green space network should include high quality urban public spaces such as squares, streets and pocket parks. These should be provided throughout the development particularly at key nodal points.

New developments should ensure the inclusion of urban spaces and the public realm which are:

- Multifunctional - for the needs of both residential and business communities.
- Attractive
- Safe and secure
- Well maintained
- Accessible to all users of the community
- Adaptable
- Welcoming to wildlife
- Varied in character
- Well connected
- Pedestrian focussed
- Legible for all users with clear wayfinding
- Places of rest and for interaction through provision of seating spots
- Able to provide shelter and shade
- Able to provide a high level of activity and amenity

These public spaces should be designed with inclusivity in mind to ensure that the spaces are fit for a range of users. There are different types of public spaces, and these can include green spaces, natural open spaces, leisure and recreational spaces, and play spaces.

Green spaces are spaces that can be used for walking or hosting formal and informal activities. Leisure and recreational spaces include facilities designed to accommodate a range of sporting activities. Such facilities are to be maintained for the use of the community as a whole.

Play spaces are important areas where children can have fun, learn and be challenged in a safe environment. These spaces need to be easily accessible, safe and within a reasonable proximity from residential areas.

BUILT FORM AND THE PUBLIC REALM

Well designed public realm performs an important role in terms of townscape quality, fostering civic pride and local identity. Urban spaces should provide opportunities for social interaction, informal activities and encouraging community development.

The priority for the public realm should be for the creation of a human scale environment with priority given to pedestrian users. This can be achieved through consideration of the layout, scale and design of buildings. The relationship between built form and the public realm is key in creating quality places.

Urban spaces must be comfortable, and be designed to an appropriate scale and with a sense of enclosure. Streets and squares which provide enclosure and have a variety of form and texture provide visual interest for users and help define the character of a town or village.

Suitable ratios between heights of built form and the width of streets should be considered. Diversity of visual interest within the public realm can be achieved through the creation of staggered skylines, varying building frontages through use of materials and textures and by integrating trees and soft landscape into urban areas.

The public realm should be faced by active frontages and not by side or rear building elevations.

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Borough Green Gardens should be designed to positively impact on health by encouraging active and social lifestyles. By promoting health and well-being future settlements will deliver positive social outcomes for the future population of the town. The catchment analysis diagram on the following page shows how active travel and healthy living can be promoted by locating facilities within easy walking and cycling distance.

Wellbeing/Mental health
Optimal spaces to connect with nature

Accessibility
Supporting access to green areas with walking paths and cycling routes

Recreation and Fitness
Formal open spaces for physical activities to enhance mental health

Community
Provision of community gardens and allotments stimulates social integration

Healthy Town
Doorstep to countryside provides easier access to green spaces

Open Spaces
Learning from nature and caring for natural elements

FIGURE 6.12 APPROACHES TO ENCOURAGE ACTIVE AND SOCIAL LIFESTYLES

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OUTDOOR SPORTS FACILITIES

A range of sport facilities will be provided for in Borough Green Gardens in accordance with the former Local Plan open space standards. These facilities include playing fields/sports pitches, changing facilities and a club house. There is also potential to explore joint provision of the playing fields located at Wrotham School. The proposed sports pitch locations reflect catchment requirements to promote active travel.

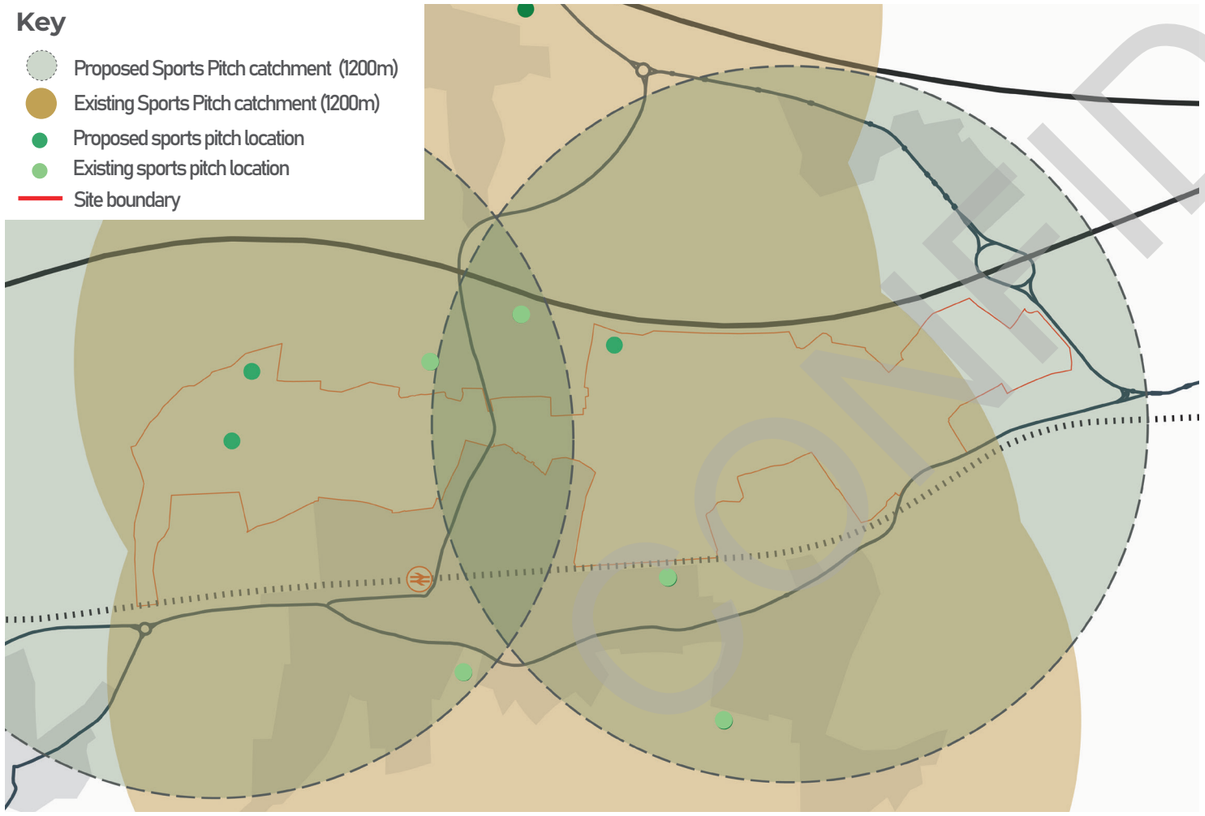

FIGURE 6.13 SPORTS PITCH CATCHMENT

CHILDREN'S AND YOUNG PEOPLE'S PLAY

Play areas in the form of LEAPs (Locally Equipped Areas of Play) and NEAPS (Neighbourhood Equipped Areas of Play) will be provided throughout the site in accordance with the former Local Plan open space standards. The proposed play area locations also reflect catchment requirements to promote active travel. Children's play spaces will incorporate a range of natural and imaginative provision, aligned with more traditional prescriptive play preparations.

YOUTH PROVISION

Provision of play and social spaces for youth should be aligned with both sports activities and community cultural facilities with the potential to create activities throughout the year, both indoor and outdoor, as well as connecting play space with community buildings and areas of public open space.

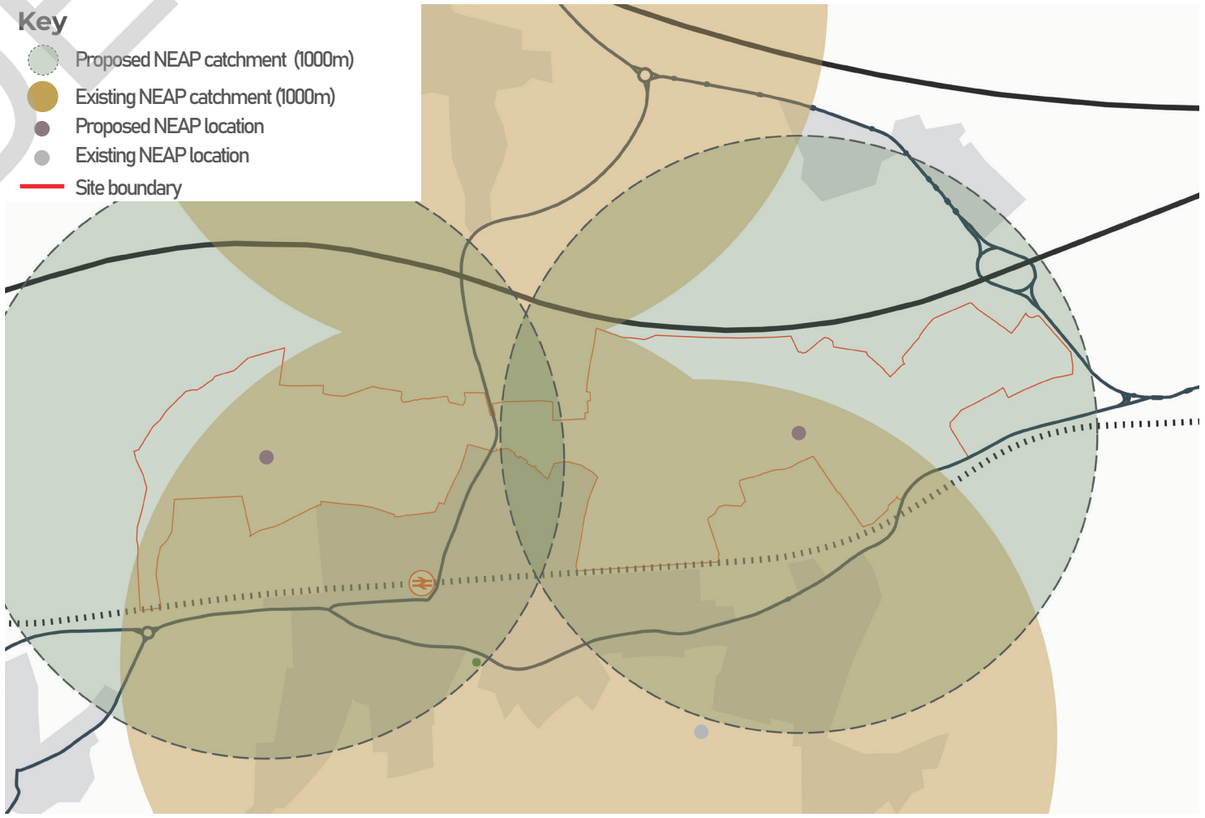

FIGURE 6.14 PLAY AREA CATCHMENT

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NATURAL & SEMI-NATURAL GREENSPACES

Natural and semi-natural greenspaces form a major component of the Borough Green Gardens green infrastructure strategy. This open space type would include the provision of the east-west spine of green infrastructure, and green corridors linking existing woodland, watercourses and retained hedgerows.

PARKS & GARDENS

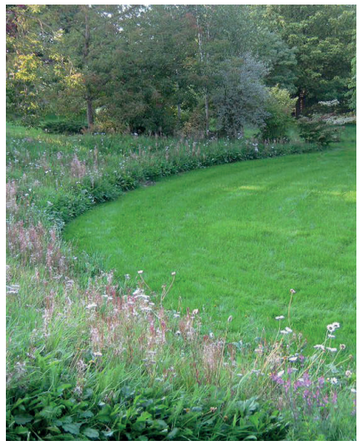
TMBC local open space standards indicate off-site provision for parks and gardens. However, as previously mentioned, it is proposed to create a central green space focussed upon the existing pond, which will be a key focal point for the development.

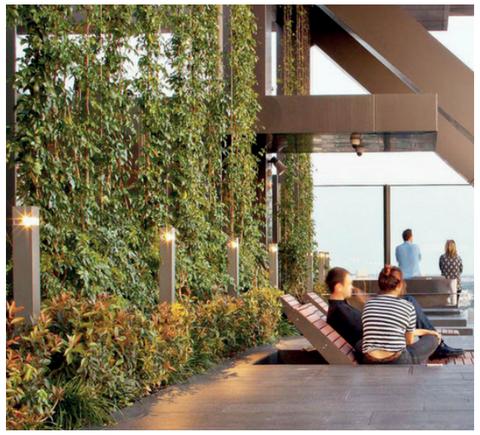
AMENITY GREEN SPACE

Within residential parcels there is potential to create pockets of smaller green spaces located throughout the site. These spaces can be used for a variety of activities including informal play, suds and recreation.

ALLOTMENTS

Allotments will be fully functioning and located amongst the green infrastructure network. They will be sympathetically designed as to not visually effect the residential development negatively. Car parking for residents (if required) and utilities will be provided. These will not only promote healthier lifestyles but will also encourage community involvement, further physical activity, interaction with nature and provide opportunities for outdoor education.





GREEN INFRASTRUCTURE EXAMPLES

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GARDENS FOR HOUSES

Good quality private gardens and courtyards within a new development can contribute to creating a strong sense of place, and provides opportunities for improving the wellbeing of residents through access to the outdoors and social interaction. Gardens and Courtyards can also provide an important contribution to a site's biodiversity.

Residential layouts should take into the location and design of private gardens and courtyards at an early stage to ensure the gardens are well integrated with the built from, with micro-climates suitable for residents and plants. Individual private gardens or communal outdoor courtyards/gardens should be located within very close proximity to the dwelling.

The site and development constraints will determine the ability to accommodate private garden plots.

With higher density development it may be more appropriate to provide fewer private gardens to ensure a high quality public open green space and communal environment is secured.

In smaller compact development there may be more of a balance towards communal spaces over private individual gardens and also good access to areas of public open space.

Providing front gardens to dwellings offer multi-functional benefits such as contributing to SuDS, the streetscene, creating opportunities for wildlife, and potentially filtering pollution and noise. Areas of soft landscape, small trees, climbing plants and shrubs can help soften the built form and reduce dominance of hardstanding. Adequate dimensions should be allowed for to ensure successful and sustainable planting.

COMMUNAL/AMENITY SPACE & COURTYARDS

Private communal courtyards/gardens and amenity space should provide a variety of amenity activities to ensure an inclusive, usable space which is attractive to all residents is provided. They should include the following:

- Safe, private space with natural surveillance
- Combination of hard and soft landscape, softscape features and trees
- Level access
- Opportunities for growing food
- Inclusive seating
- Protection from noise
- Access to daylight
- Accessible to people of all ages and physical and mental abilities
- Shelter and shading for all weathers/seasons
- Informal play
- Seasonal planting
- Passive/quiet areas
- Secure place for tools
- Provide cycle storage
- Water storage eg water butts
- Encouragement and support for communal ownership and management

HIGH QUALITY PUBLIC REALM PRECEDENTS

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> *"One of the first Garden towns to submit for planning, Otterpool has been designed with Health & Climate at it's heart proposing a 20% biodiversity net gain target within the design. This development was also utilised as a pilot project for the 'Eco metric', an emerging assessment methodology being pioneered by Natural England"*
>
> Folkestone and Hythe District Council - Otterpool Park Garden Town

6.9 Biodiversity and Natural Environment

Biodiversity and the natural environment plays an important role in the built environment and should be at the heart of all new development. Nature contributes to the quality of a place through enhancing the health and wellbeing of its residents.

The importance of nature conservation is a key objective of the Development Framework in line with the former Local Plan Policy LP19: Habitat Protection and Creation.

There are areas of broadleaved woodland within the site, some of which is Ancient Woodland. No nationally designated sites are within the proposed development site or the surrounding area. Local wildlife sites in the vicinity include:

- Valley Wood and Wrotham Golf Course
- Bourne Valley Woods
- Wrotham Hill

Existing Habitats
Hedgerows
Trees and Woodland (including ancient woodland)
Watercourses

Development proposals should impact positively on local biodiversity. Natural capital is emerging as a crucial way of protecting and enriching natural systems, with objectives including habitat connectivity and enhancing existing green infrastructure assets

Habitats, and the wildlife they support, have the capacity to provide wider ecosystem services such as water quality regulation, air quality regulation, places for recreation, carbon storage and sequestration, flood water regulation and wildlife for enjoyment and appreciation.

Incorporating high quality sites for nature into new developments is a fundamental component of well-designed and climate resilient places.

Nature should be prioritised so that diverse ecosystems can flourish to ensure a healthy natural environment that supports and enhances biodiversity. They include natural landscapes, high quality public green open spaces, street trees, woodland, grasslands, planting, waterbodies, green roofs and sustainable drainage.

Attractive natural green spaces should be easy to access for all ages and abilities and promote social inclusion, physical activity, health and mental well-being.

Biodiversity Net Gain will be required at Borough Green Gardens to reflect the Government's objectives for the environment as set out in The Environment Bill, which requires developments to deliver a minimum 10% net gain.

Biodiversity net gain is an approach which aims to leave the natural environment in a measurably better state than beforehand. For instance, where a development has an impact on biodiversity it encourages developers to provide an increase in appropriate natural habitat and ecological features over and above that being affected in such a way it is hoped that the current loss of biodiversity through development will be halted and ecological networks can be restored.

Future masterplan proposals should include measures to encourage biodiversity by creating varied habitats and a rich diversity of trees and planting throughout the built environment.

Potential opportunities for new development include:

- Delivering an increase in natural capital and habitat connectivity
- Delivering green roofs and walls that maximise the opportunity for enhancing natural capital
- Promoting water efficiency and biodiversity
- Retaining, protecting and enhancing existing habitats
- Ensuring that green infrastructure is integrated across the site.

In summary,

- The development should support rich and varied biodiversity
- Existing landscape and wildlife assets including landform, water, and vegetation should inform the spatial development of the site. Existing ecological systems and natural habitats must be safeguarded and enhanced.
- Ensuring an evidence-based approach is followed in order to develop a site-specific ecology strategy which is appropriate for a particular site and surrounding habitat networks.
- Biodiversity-led approach - make biodiversity net gain the primary driver and follow biodiversity net gain good practice principles. Developments should utilise Biodiversity Metric (e.g. Biodiversity Metric 3.0, British Standard for BNG – BS 8683.) or any subsequent replacement
- Protect key habitats and species, enhancing and incorporating them into any new development.
- Connect to wider surrounding habitats - e.g. through the use of green corridors
- Apply mitigation hierarchy (CIEEM, CIRIA and IEMA 2016; Baker et al., 2019):
  1) avoid damage,
  2) minimise damage,
  3) restore or rehabilitate damaged habitats
  4) only compensate any residual damage through offsetting as a last resort.
- All habitats and landscape within a development should be managed, monitored, and maintained for the long term.

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The proposed green and blue infrastructure strategy should aim to connect existing habitats and improve access for people by creating multi-purpose corridors wherever feasible, which can integrate protected nature conservation sites and their supporting landscape into a stronger ecological network.

Development proposals should include measures to encourage biodiversity by creating varied habitats and a rich diversity of trees and planting throughout the built environment.

The design approach to biodiversity and the natural environment for Borough Green will seek to protect and enhance existing habitats and link the site to the surrounding natural environment.

Biodiversity Net Gain - Process & Approach

- Apply the Mitigation Hierarchy
- Avoid losing biodiversity that cannot be offset by gains elsewhere
- Be inclusive and equitable
- Address risks
- Make a measurable Net Gain contribution
- Achieve the best outcomes for diversity
- Be additional
- Create a Net Gain legacy
- Optimise sustainability
- Be transparent

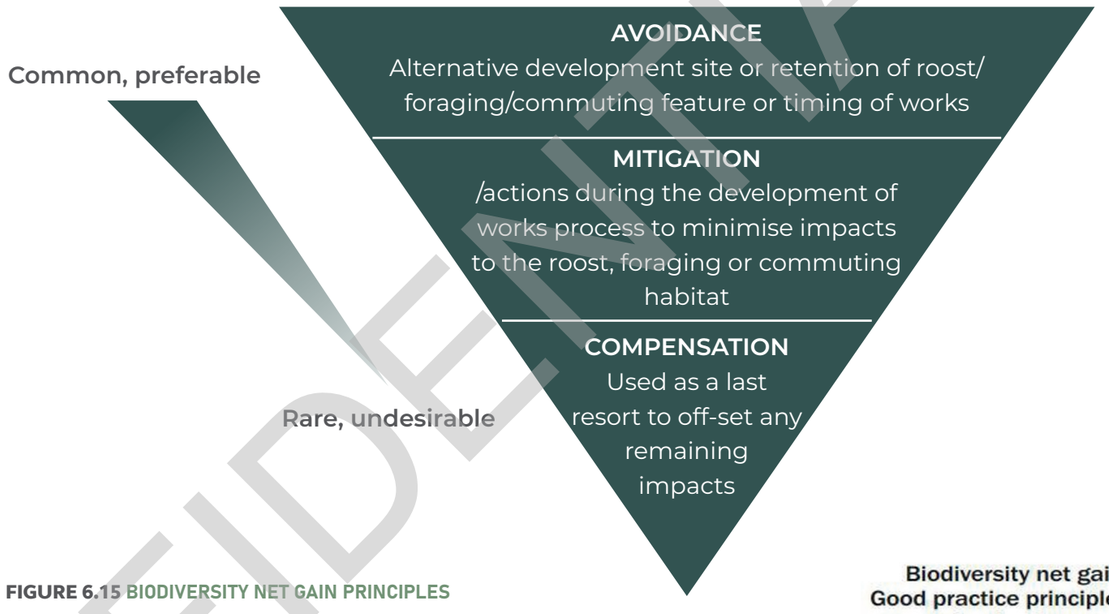
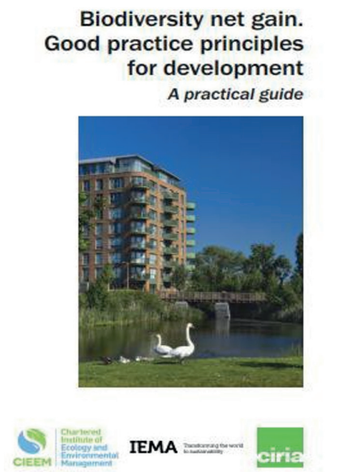


FIGURE 6.15 BIODIVERSITY NET GAIN PRINCIPLES

Policy and Guidance

- Environment Bill: developments will need to deliver a minimum 10 per cent net gain. Biodiversity net gain must be measured using a recognised biodiversity metric (Biodiversity Metric 3.0)
- Natural England Toolkits
- Small Sites Metric (SSM)
- Environmental Benefits from Nature Toolkit, 2021 - this toolkit builds on existing BNG assessments to begin to assess impacts of natural capital benefits
- 'Planning for a Healthy Environment – Good practice guidance for green infrastructure and biodiversity' 2012 (Town and Country Planning Association)
- Building with Nature - Standards Framework 2.0
- Biodiversity net gain: a practical guide' (CIEEM, CIRIA and IEMA, 2016)



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6.10 Integrated Water Management

Climate change is likely to impact on water supply and management due to increasing irregularity in precipitation patterns and a higher likelihood of droughts. Water is becoming an increasingly scarce resource as demand continues to increase dramatically. Any development should ensure adequate water supply and efficient use, whilst maintaining and improving the quality of ground and surface water.

The key water infrastructure (potable supply, wastewater collection and wastewater treatment) required to support the proposed housing and employment growth planned for Borough Green Gardens should be identified, along with any constraints and opportunities that may impact the integrated water management strategy and water infrastructure design.

Sustainability aims include reducing water consumption through the effective use of water and wastewater and finding other methods that can reduce the burden on water resources

The surface water management strategy comprises a range of SuDS components, which collectively forms the wider surface water management and flood mitigation strategy. A SuDS management hierarchy should be used to remove any polluted runoff from diffuse sources, such as roads, providing effective natural treatment at source prior to discharge into local watercourses.

Development proposals should not increase flood risk (in line with NPPF and local policy requirements). Stewardship is an important consideration which needs to involve stakeholders, the LLFA as approvers and the water authority as adopting body. Design proposals should be developed in line with the LLFA requirements, CIRIA SuDS manual and the SSG requirements.

Water plays a pivotal role in place making, by understanding and incorporating the site's existing natural water features, new drainage routes and features, which will reflect the existing and proposed green infrastructure. SuDS can be designed into most urban settings, ranging from hardsurfaced areas to soft landscaped features. The use of SuDS can also allow the potential creation of new wildlife corridors and spaces.

The provision of SuDS should be a key aspect of new development. SuDS should be used to manage flood risk within and beyond the site using effective surface water management solutions to achieve overall runoff capture and infiltration rates better than the existing levels, aiming to reduce overall risk to downstream communities.

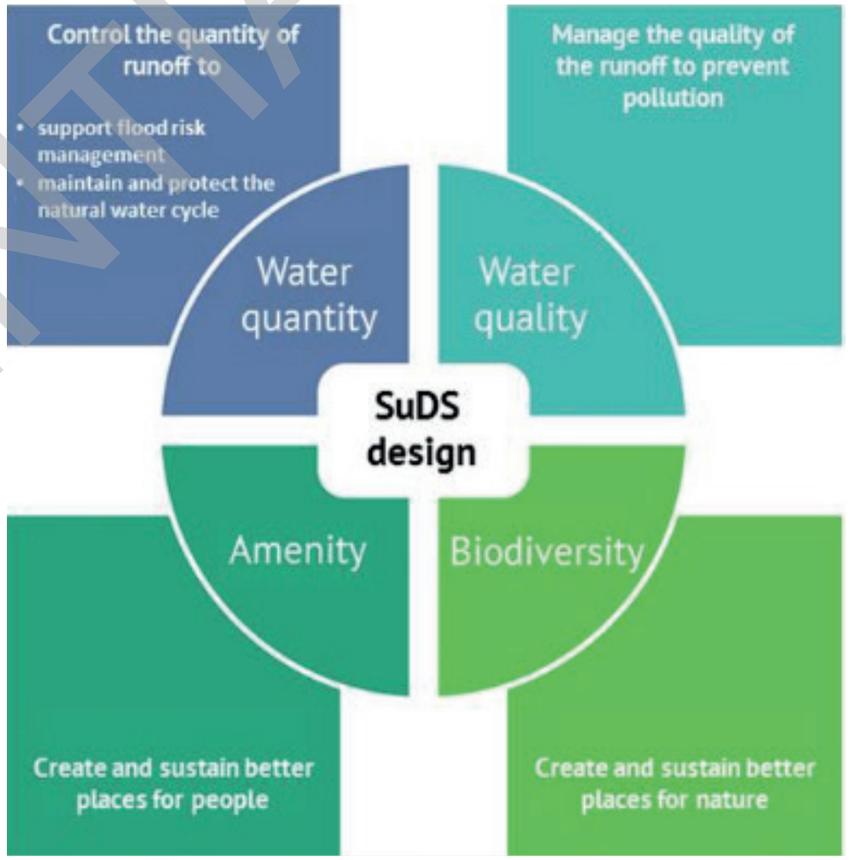

FIGURE 6.16 THE PRINCIPLES OF SuDS DESIGN

The four pillars of SuDS design

The overarching principles of SuDS design is that ***surface water runoff should be managed for maximum benefit.***

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The use of SuDS can provide storm water management, reduce surface water discharge and maximise available water resource from rainfall. SuDS should be used to collect, treat, transport and store water. These systems mimic natural drainage processes to reduce the effect on the quality and quantity of runoff from developments.

The aim is to minimise water demand through the incorporation of extensive water efficiency and reuse measures. Proposals should aim to reduce flood risk and promote good water quality standards, as well as creating assets for leisure and visual amenity, and providing multi-functional benefits.

A detailed surface water management strategy should be produced which comprises of chains of these linked SuDS components which complement one another, such as; infiltration areas, rain gardens, swales, ditches, attenuation basins, ponds, permeable paving (with storage), green roofs and bioretention features, water quality treatments, as well as floodplain and open space buffers. A combination of SuDS measures often results in the most cost-effective and efficient drainage solution.

SuDS Component	Benefits Provided	Example Application Area
Rainwater harvesting tanks	Water Reuse, Attenuation, Water Treatment	Housing, Employment
Plot Level Soakaways	Attenuation, Water Treatment, Infiltration, (Biodiversity), (Amenity)	Housing
Permeable Paving	Attenuation, Water Treatment, (Infiltration), (Water Re-Use)	Housing, Employment
Green roofs	Attenuation, Water Treatment, (Water Reuse), Biodiversity, Education, Amenity, (Open Space), (Character), micro-climate	Employment, Housing
Bioretention Areas	Attenuation, Water Treatment, (Infiltration), Biodiversity, Education, Amenity, Micro-Climate	Housing
Swales	Attenuation, Water Treatment, (Infiltration), Biodiversity, Education, Amenity, (Open Space), (Character), Micro Climate	Housing, Roads, GI corridors
Infiltration Basins	Attenuation, Water Treatment, Infiltration, Open Space, Character	Strategic GI
Wetlands/ ponds	Attenuation, Water Treatment, (Infiltration), Biodiversity, Education, Amenity, Open Space, Character, Microclimate	Employment, Strategic GI
Detention Basins	Attenuation, Water Treatment, (Infiltration), Amenity, Open Space, Character	Strategic GI

FIGURE 6.17 INTEGRATED WATER MANAGEMENT

SUDS EXAMPLES

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There are substantial benefits that can be achieved for the people that will live in and around new development. The benefits that can be achieved by SuDS will be influenced by the site, but they fit broadly into four categories; water quantity, water quality, amenity and biodiversity. They all have their own design objective.

When designed well, SuDS can increase property value, mitigate local flood risk, moderate microclimates and provide new sources of water. They can benefit ecology by creating new ecological habitats that encourage biodiversity whilst simultaneously providing valuable amenity space for communities to enjoy and contribute towards enhancing the landscape.

Existing water features, such as small ponds, wetlands and canals can also be incorporated at strategic locations to provide flood attenuation and maximise biodiversity and amenity whilst enhancing the character and place making identity of any development. The use of SuDS can also allow the potential creation of new wildlife corridors and spaces.

Building layouts and road geometry should respond to the natural topography to allow surface flow to be routed away from sensitive receptors. A variety of storage structures can be used to provide attenuation storage, including ponds, basins, permeable paving and cellular storage.

There are many actions that can be taken to minimise water consumption and all should be considered when installing WCs, showers, taps and white goods etc within new developments.

These include:

- Use of grey-water systems to collect shower, bath and tap water and recycle this for toilet flushing
- Low-water-use WCs, showers, taps and appliances
- Wastewater recycling and rainwater harvesting for toilet flushing, washing machines, etc.
- Reed beds
- Avoidance of large water-using features (e.g. pools, etc.), fed by mains water
- Rainwater collector systems for watering gardens and landscaped areas

1. Extensive Green Roof

2

3

4

5. Detention basin

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GREEN ROOFS

Green roofs have many advantages. Besides being attractive, they have the capacity for rainwater retention and for for the roof itself to heat up less. Green roofs can also contribute to greater biodiversity in urban areas, capture of particulate matter and runoff from green roofs is cleaner.

LIVING WALLS

There are many benefits to a living wall, not only do they look attractive but they also contribute to environmental objectives by providing a natural habitat for wildlife and positively impacting upon air quality. There are a range of living wall systems and products available and the adjacent precedent images illustrate a number of approaches. The type of plants suitable will be dependent on the approach taken and factors such as orientation and the level of shade.

BLUE ROOFS

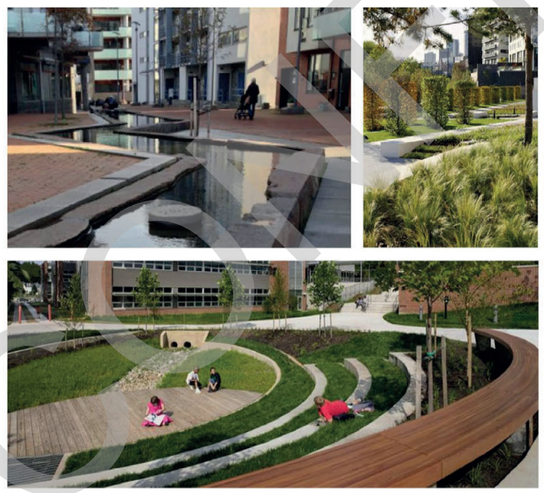
Blue roofs provide a number of benefits. Firstly, they help keep buildings cool which in turn lowers cooling cost as there is no need to rely on expensive air conditioning units. They can also help reduce the risk of localised flooding, as they are specifically designed to mitigate this by storing excess rainwater. The voids within the roof substrate can provide additional storage of rainfall runoff. This makes a contribution to the attenuation of surface water runoff and complimenting other ground level SuDS drainage facilities. They also help keep buildings cool which in turn lowers cooling cost as there is no need to rely on expensive air conditioning units.

ARCHITECTURAL

STREETS

GREEN OPEN SPACE

HUBS



FOOD PRODUCTION

PLAY

FIGURE 6.18 SUSTAINABLE DRAINAGE FEATURES

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6.11 Flood Risk and Drainage

EXISTING WATERCOURSES

The closest watercourse is the River Bourne which flows from Borough Green, south towards Hadlow, and then into the River Medway. The River Bourne is the source of a higher risk within the Borough Green town area, However, the area of the site north of Borough Green is within Flood Zone 1.

FLOOD ZONES

Mapping of the flood zone extents obtained from EA's online portal, highlights the areas in which the site encroaches into Flood Zone 3 (see Figure 6.19). From this figure, it is clear that only the area towards the south west of the site lies within Flood Zone 3. Where possible, new development should be avoided in the area highlighted towards the south west of the site.

KEY CONSIDERATIONS

The National Planning Policy Framework (NPPF) requires that inappropriate development in areas at risk of flooding should be avoided by directing development away from the areas at highest risk. Where development is necessary in these areas, this should be undertaken without increasing flood risk elsewhere and ensuring the development is safe for its lifetime. The areas of medium and high surface water flood risk associated with the various watercourses / drainage channels within the site will need to be considered. Where possible, any development would need to be planned in such a way that these existing surface water flow paths can be maintained in their current form. However, should this prove to pose an unacceptable level of constraint to the development, then it may be possible to divert flows from upstream by alternative corridors.

Surface water runoff from the development will also need to be controlled. Both local and national planning policy dictates that where viable, surface water should be infiltrated to ground. Given the nature of the site, and made ground it is unlikely that infiltration will be a feasible solution, and therefore it is recommended that maintaining existing drainage routing towards onsite watercourse is progressed.

The presence of various watercourses and drainage channels across the site provides a potential receptor for surface water runoff, but where discharging surface water runoff to watercourses, planning policy dictates that runoff rates be restricted to greenfield runoff rates. To attenuate flows to greenfield runoff, the development will require attenuation in the form of either above or below ground storage. The Masterplan will need to provide for sufficient space for such attenuation features to be located, and approximate sizing and location will be provided as part of the next stage of work. As a rule of thumb, however, at least 10% of the development area should be allowed for at the lowest point of each catchment (this is subject to topography and shape and number of proposed attenuation features).

OPPORTUNITIES

The presence of various watercourses / drainage channels across the site area provides a potential receptor for surface water runoff from the development. Maintaining these open water features and incorporating them within "blue" or "green" corridors through the development would provide additional wildlife and recreation & amenity benefits.

Similarly, whilst attenuation features will need to be provided, if these are provided in the form of above ground features such as swales, ponds, and basins, these also provide wildlife and recreation and amenity benefits. The use of features such as swales, ponds, and basins are encouraged in local and national planning policy as they not only provide attenuation, but also provide treatment of urban runoff, reducing hydrocarbon pollution and siltation of receiving watercourses downstream.

Other opportunities include

- New development designed to enable the efficient use of potable water in residential and non-residential buildings
- Developments designed to incorporate rainwater / greywater harvesting
- Integration of Sustainable Urban Drainage Systems (SuDS) to capture and treat surface water to improve water quality
- Use of green, brown and blue roofs.

The adjacent plan shows the potential drainage for the site, based upon Surface Water Drainage Concept Masterplan Sheet 1 of 2 drawing (dwg no. C85795-SK100) and Surface Water Drainage Concept Masterplan Sheet 2 of 2 (dwg no. C85795-SK101) produced by JNP Group (Stage 1 Flood Risk and Drainage Baseline Assessment, November 2018).

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Key

- Development Parcels
- Open spaces
- Sports pitches
- Trees and Hedgerows
- Attenuation ponds
- Flood Zone 3
- Flood Zone 2
- Waterways
- Public rights of way
- Relief road
- Secondary roads
- Railway
- Site boundary
- Motorway
- Main A Roads

FIGURE 6.19 DRAINAGE AND CATCHMENT AREAS

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6.12 Green and Blue Infrastructure Summary

The adjacent figure presents the green and blue infrastructure strategy and the diagram below presents the key potential green and blue infrastructure metrics..

1.4ha approx. general amenity space (within development parcels)

36.3ha strategic landscape (semi-natural areas, hedgerows and woodlands)

3.47ha equipped play areas

4.3ha primary school grounds

Site area **135.2ha**

Total GI **59.8ha**

10.5ha+ sports pitches

6.1ha sustainable drainage and attenuation ponds

DESIGN CHECKLIST

Development proposals to support rich and varied biodiversity. Existing landscape and wildlife assets including landform, water, and vegetation should inform the spatial development of a site. Existing ecological systems and natural habitats must be safeguarded and enhanced.

Ensuring an evidence-based approach is followed in order to develop a site-specific Ecology strategy which is appropriate for a particular site and surrounding habitat networks.

Biodiversity-led approach - make biodiversity net gain the primary driver and follow biodiversity net gain good practice principles. Developments should utilise Biodiversity Metric (eg Biodiversity Metric 3.0, British Standard for BNG – BS 8683.)

Protect key habitats and species, enhancing and incorporating them into any new development.

Connect to wider surrounding habitats - eg through use of green corridors

Apply mitigation hierarchy (CIEEM, CIRIA and IEMA 2016; Baker et al., 2019):
1) avoid damage,
2) minimise damage,
3) restore or rehabilitate damaged habitats, and
4) only compensate any residual damage through offsetting as a last resort.

All habitats and landscape within a development should be managed, monitored, and maintained for the long term.

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Key

- Development Parcels
- Open spaces
- Sports pitches
- Trees and Hedgegrows
- Attenuation ponds
- Public rights of way
- Relief road
- Secondary roads
- Railway
- Site boundary
- Motorway
- Main A Roads

FIGURE 6.20 GREEN INFRASTRUCTURE STRATEGY

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6.13 A Sustainable Transport Approach

At the outset of developing a sustainable transport strategy it is important to develop a vision, and then validate it through target-setting and the adoption of interventions and policies.

Sustainable travel choices should be enabled and encouraged: by the masterplan, by the site's infrastructure, and by the messaging on first occupation. Reducing the need to travel long distances can support sustainable travel choices. **High speed broadband** and **20 minute neighbourhoods** both reduce the need to travel by car.

For those trips that must be made by motor vehicles, the focus should be on **road safety**, encouraging trips to be made outside of peak times, and **providing for people with disabilities** (for whom active travel may not be an option).

Validating this approach will involve setting mode share targets, and agreeing other metrics which can be used to measure the effectiveness of the interventions.

The movement approach for Borough Green Gardens should reflect the features of a sustainable transport system which could include the following:

- High frequency, reliable and convenient public transport;
- Minimised walking distances to public transport routes and mobility hubs;
- Key public facilities and amenities at mobility hubs and along public transport routes;
- Higher density housing at mobility hubs and along public transport routes;
- Legible neighbourhoods that encourage travel by active travel modes, and reduce vehicle speeds;
- Reducing the need to travel through co-location of land use for residences, employment and services;
- Enabling charging of Ultra Low Emission Vehicles and Electric Vehicles, including buses and taxis, where possible;
- Having ongoing travel Planning measures in place such as information campaigns, community groups and car share / car clubs;
- Adopting a servicing strategy whereby goods deliveries and freight movements should be carried out sustainably where possible. Consideration should be given to freight consolidation schemes and the safe interaction of goods vehicles and other modes of travel; and
- Adopting a car parking strategy which strikes the right balance of providing for car ownership where this is needed, but discouraging excessive reliance on the private car.

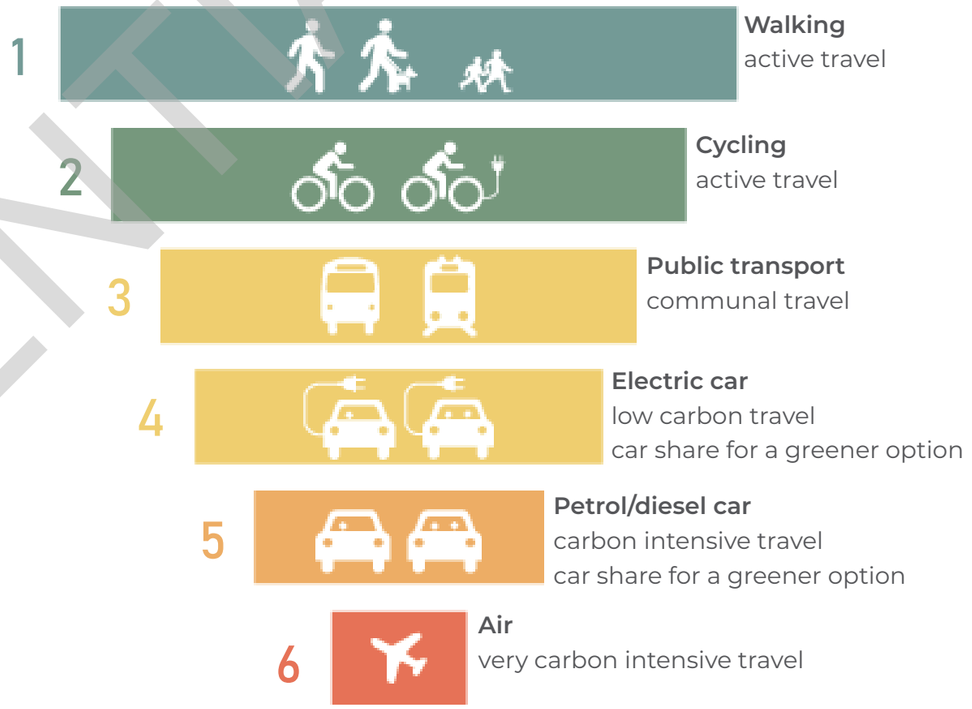

FIGURE 6.21 LOW CARBON TRANSPORT HIERARCHY

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COMMUNITY OF SHORT DISTANCES

The promotion of sustainable transport choices can allow for significant sustainability gains. The adjacent figure sets out the key elements of the 20 minute neighbourhood, a concept which originated in Paris and has been adopted in other cities, such as Glasgow.

This 'Community of Short Distances' can be promoted by locating relatively high residential density with mixed land uses, alongside an efficient public transport system. It also promotes an urban layout which encourages walking and cycling, low energy consumption and reduced pollution.

The Borough Green Gardens proposals should reflect this model by creating a series of connected pedestrian friendly streets to link into the wider network and to promote active travel. For Borough Green Gardens, this approach has been refined to encourage a walkable community based upon 5 (400m), 10 (800m) and 25 (2km) minute walkable catchments (see active travel section). The majority of the site is within a 2km radius of the railway station.

One of the key objectives of a sustainable development strategy is to promote active travel. Active and sustainable modes of transport should be promoted by creating safe, direct, and attractive routes for pedestrians and cyclists. This should extend to careful consideration of land use location, combined with compact urban forms with increased densities, to maximise the number of residents within easy walking distance of key facilities.

Proposed active travel networks should build upon the existing rights of way network to provide strong integration with the adjacent settlements. Application of Street for Healthy Life, and current cycle guidance which seeks to separate cycles from motor traffic.

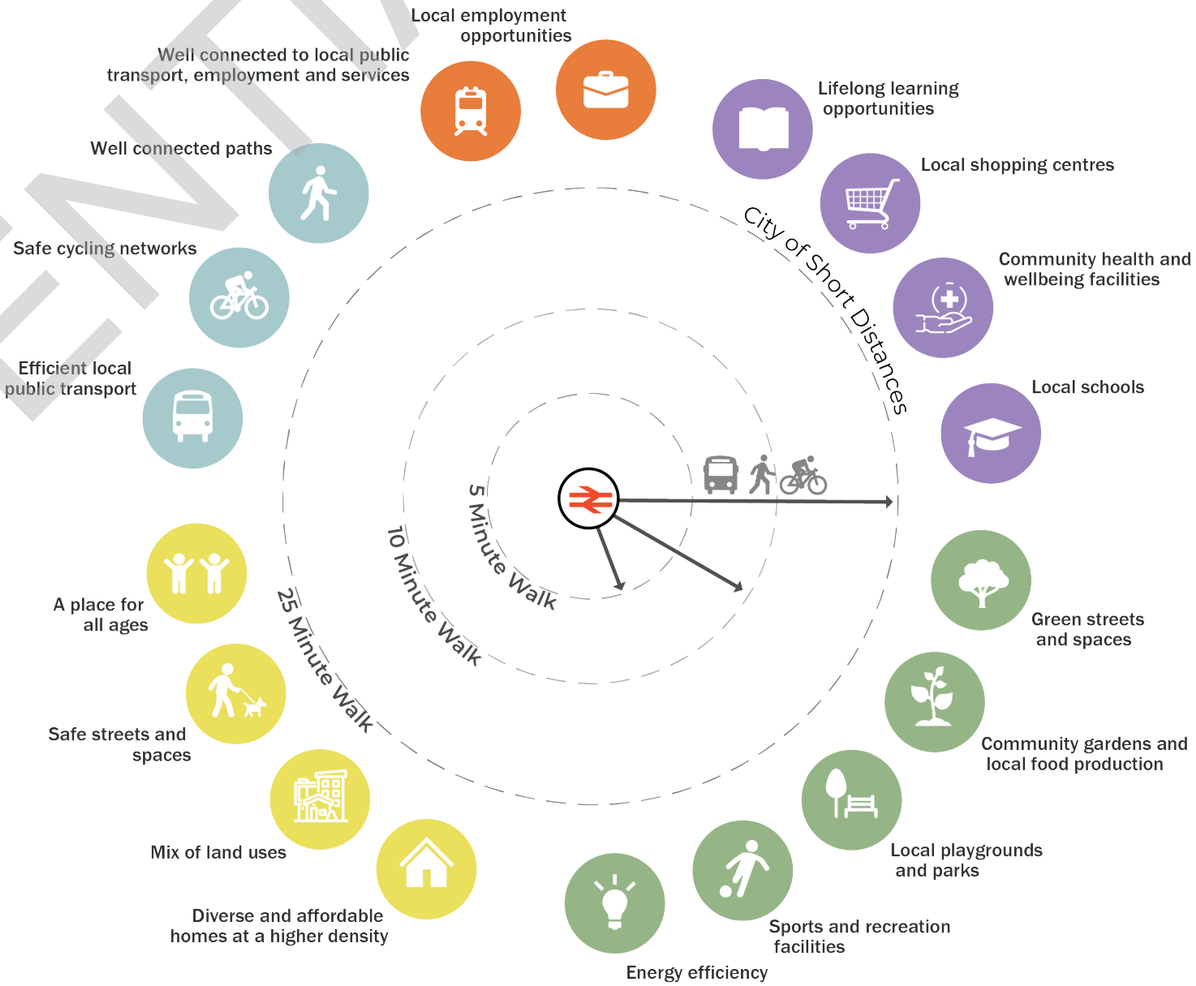

FIGURE 6.22 COMMUNITY OF SHORT DISTANCES

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6.14 Connected and Legible Streets

A key principle is to prioritise non-car based travel modes in the design by maximising the potential to use public transport, walk or cycle. There should be a clear focus on quality public transport, which enables choice and provides a realistic alternative to using the car. This will need to include access to a range of destinations, not only the town centre.

The structure of a site and its relationship to surrounding areas is fundamental to the layout and design of all new development. The objective should be to make sure that the structure is well integrated with any surrounding streets and has a permeable internal layout.

A permeable network of streets will provide a structure based on a choice of direct walking and cycle routes from within the site and to its periphery. The advantage of this approach is that it promotes more sustainable forms of movement. Places should be convenient and easily accessible to all users, especially pedestrians, people with disabilities, parents/carers or those with young children and the elderly. There should be a clear hierarchy of streets, squares and parking courts to create a legible structure which is pedestrian friendly.

Legibility refers to the degree to which people can understand and identify with the built environment. Landmark buildings, marker buildings and a clear hierarchy of routes and intersections should increase the legibility of development. Building and layout design, planting and views should be employed to form visual focal points, achieve orientation and identity and create legible routes.

Landmarks in the form of interesting design, public art, public spaces and key buildings can provide crucial focal points to help aid wayfinding around built up areas. These can be particularly helpful to newcomers to an area or the very old/ very young. The design of the street should aim to create a pedestrian friendly environment.

CONNECTED AND LEGIBLE STREET PRECEDENT

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6.15 Safe Streets

The quality of a route will often determine people's choice of transport mode. People are more likely to walk or cycle if the street is safe, visually interesting and lively. They are less likely to walk and cycle if the road is dominated by fast flowing traffic, backed on to by the garden fences and with only the occasional other pedestrian or cyclist.

The interface between buildings and public space is of major importance. Where possible, new development should provide active frontages on to all major public realm areas so the building design should ensure sufficient interest and articulation to provide an interesting interface with public spaces. Ground floor door and windows fronting onto the street should be employed to provide activity, and provide increased opportunities for social interaction by providing entrances on to the street.

Ownership of space is one of the key determinants of well managed safe and secure land. Where ownership of space is unclear, anti-social behaviour can take hold and create safety, security and maintenance problems. By establishing a clearly defined street and block structure a clear delineation is made between private and public space.

Development layouts should seek to 'explain' the character of the area and so encourage appropriate speeds and positive interaction of motor vehicles with other uses without obvious use of traffic signage and 'artificial' traffic calming measures.

Traffic calming is a useful way of controlling vehicle speeds where speeds are either excessive and/or inappropriate for the type and use made of a road. The following is a list of types and principles that are associated with traffic calming:

- Reducing speeds to 20mph i.e. in 'school streets' and other areas where children are likely to be
- Allocating some streets as strategic with traffic priority, and others quieter providing opportunities for play i.e. 'Home Zones'
- Use of car parking standards to reduce car ownership per household

FIGURE 6.23 EYES ON THE STREETS

EXAMPLES OF ACTIVE STREETS AND GOOD PUBLIC SAFETY

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6.16 Movement Strategy

HIGHWAYS AND VEHICULAR MOVEMENT

The proposed movement framework is based upon the existing road and street hierarchy as follows:

- M26 is located to the north of Borough Green;
- A227 Borough Green Road is a single carriageway road, and is subject to a 30mph speed limit within the vicinity of the site. As the road bridges over the M26 to the north of the site, the speed limit increases to 40mph. To the north, the A227 links the site to Wrotham, the A20 and the westbound on-slip of the M20. To the south, the A227 links the site to Borough Green and the A25 which in turn provides onward connections to the M26 Junction 2a;
- The A25 spans from the M25 in the west to the A20 in the east, passing through Sevenoaks, Ightham and Borough Green. The A20 spans from the A2, just south of the River Thames near London City Airport, to the west, to the M20 junction on the outskirts of Ashford to the east providing access to London, other key towns and destinations.

In addition, the provision of the relief road (see Relief Road Feasibility Review, Arcadis, 2023) will form a key part of this hierarchy. Further detail on the road and street hierarchy is set out in Section 7.

The provision of a relief road will help to ease congestion in the surrounding areas. In particular, one of the key aims of the relief road is to relieve congestion through the village centre to create a more pedestrian and cycle friendly environment in this area. The location of the relief road to the north of the site will help to limit segregation.

Crossings of the relief road will be facilitated at key points by signalised, at grade, crossings. The routes will be more integrated into the development.

All streets in Borough Green Gardens should be designed to be safely used by cyclists. In housing areas all streets other than the main access roads will be designed to restrict speed to 20mph and for cyclists to safely share the road space with other users, without the need for separate cycleways.

Road safety will be of paramount importance throughout Borough Green Gardens. This will be achieved through restricting speeds in residential areas, traffic calming and physical design, and by creating an overall environment which promotes personal safety. The needs of cyclists and pedestrians should be given priority over those of other road users.

SUSTAINABLE TRAVEL

Drawing upon the key principles set out in the vision, the overall aim of the movement strategy is to provide a comprehensive and integrated approach to movement for Borough Green.

The railway station is a focal point for sustainable travel and an integral element of the movement strategy. Clear and legible links from residential areas will ensure ease of access and will build upon the existing public rights of way (PRoW) network to provide strong integration with the existing settlement.

The overall objective will be to encourage people to walk or cycle within the neighbourhood by the provision of a strong primary network of active travel routes, including footways and cycleways along the main access roads, separate from the carriageway.

These routes are to be direct, pleasant and safe to use with highway crossings at grade. Built form and landscaping should be designed to give maximum surveillance along all footpath/cycle routes.

Throughout the movement network, there is an opportunity to incorporate active travel routes associated with high quality green infrastructure, creating a network that is both practical and aesthetic.

MOVEMENT PRECEDENTS

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M20

Wrotham

A227

M26

M26

A20

Wrotham Heath

A25

A25

A25

St Mary's Platt

Key

- Development Parcels
- Open spaces
- Attenuation ponds
- Trees and Hedgegrows
- Public rights of way
- Relief road
- Secondary road
- Tertiary roads
- Railway
- Site boundary
- Motorway
- Main A Roads

FIGURE 6.24 MOVEMENT STRATEGY AND RELIEF ROAD ALIGNMENT

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TRAFFIC SURVEY AND MODELLING

Traffic surveys were commissioned by Vectos and were undertaken in 2017 at strategic locations within Borough Green. The surveys used Automatic Number Plate Recognition (ANPR) to determine those vehicles that travel through Borough Green between the A20, A25 and A227.

The 2018 Transport Assessment prepared by Mott Macdonald identified that the following junctions (see figure 6.25) in Borough Green were already over capacity in the baseline year of 2017:

- Junction 23: London Road A20 (N), M20, London Road A20 (E), A227, Bull Lane;
- Junction 24: Borough Green Road A25, Dark Hill Road, Borough Green Road (SSW), Ightham By-Pass A25, Borough Green Road (A227);
- Junction 25: London Road A20 (E), London Road A20 (N), Maidstone Road A25;
- Junction 31: Gravesend Road A227, Pilgrims Way, London Road A20 (S) and A20 (W).

As part of the evaluation of relief road options Mott MacDonald were commissioned by the Council to carry out modelling work to assess the impacts of various relief road alignments.

In 2021, Mott MacDonald performed updated forecasting and analysis of the traffic in and around Borough Green Gardens. The purpose of this assessment was to forecast future traffic and analyse capacity on surrounding junctions to determine 'trigger points' for the timing of construction of the western and eastern portions of the relief road.

Mott MacDonald concluded the following:

'This review has subsequently identified that junction 23 is the critical junction of the 8 key junctions in Borough Green and will trigger the requirement for a Partial Relief Road at 450 development units by 2027. Following this, Junctions 24 and 25 are shown to also trigger the need for a Partial Relief Road by 2029 (1,080 development units). If the PRR is delivered at the earlier trigger point at 2027 (450 units), it would benefit and improve the performance of all relevant junctions despite only being triggered by junction 23.

By 2029, the delivery of the Full Relief Road is necessary to relieve the traffic demand at junction 23. Junctions 24 and 25 would need the Relief Road by 2031. All other junctions are shown to be able to operate within capacity and acceptable levels of performance without the need for a full RR'.
(Mott MacDonald, 2021)

Mott MacDonald also performed traffic modelling analysis based on Arcadis' Options 5 and 6 (Mott MacDonald for Tonbridge and Malling Borough Council, 2022). Only Options 5 and 6 were analysed in this report as all other options start and finish at the same junctions and would therefore have limited impact on transport modelling completed to date.

The key outcome of this additional transport modelling work is that the partial relief proposals (Options 5 and 6) are similar to each other and the previous alignments in their performance, but that Option 6 is predicted to provide a more robust transport solution in the wider area, both for the partial and full relief roads. Modelling shows that Option 6 will maintain within-capacity performance at all surrounding junctions for all future forecast scenarios up to 2031.

The modelling showed that Option 6 was more likely to result in a more balanced split of traffic turning movements via the A25 and the Relief Road through Junction 24 due to the resultant different routing choices associated with these options.

The adjacent figure shows the preferred option for the relief road alignment, in the context of the wider movement network for the village.

The proposed relief road is to connect the western part of the site at the junction with the A25 to a new junction with the A227 in the centre of the site, linking to the A20 at the eastern boundary of the site.

The relief road aims to relieve the level of through traffic travelling along the A25 through the village centre, and hence reduce congestion and air pollution.

KCC would prefer a relief road with a speed limit of 40mph, rather than a road integrated into the development proposals, and therefore a route that provides a boundary to development has been selected as the preferred option, minimising segregation of parts of the development, minimising crossings required and providing an opportunity to integrate more sustainable transport options.

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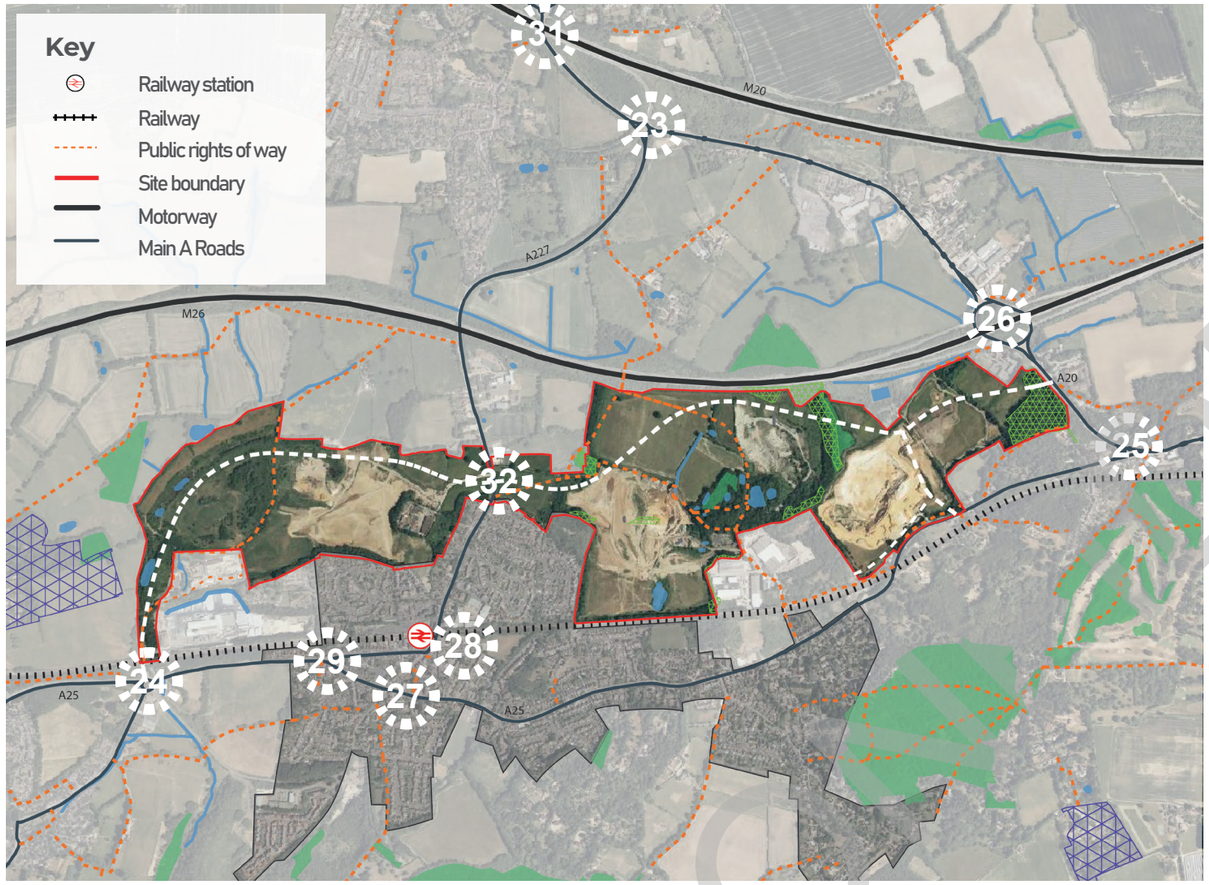

FIGURE 6.25 PROPOSED RELIEF ROAD ALIGNMENT AND JUNCTIONS (MOTT MACDONALD REPORT)

In summary, following a review of the options developed, further transport modelling was undertaken and Option 6 provided the best spread of traffic to the wider area, providing journey choice on the A25 to the east of Platt Industrial Estate. Given this and KCC requirements for a relief road rather than a route that could be more integrated to the development proposals, Option 6 has been considered the preferred approach.

Natural England agreement to a route is critical to the delivery of this relief road and the Borough Green Gardens development. At this stage it is understood that their preference would be for a more centralised routing corridor, rather than a northern peripheral route, and detailed design of the northern peripheral route will need careful consideration of the impact on the AONB.

Consideration of alternative junction types on the A227 may facilitate better pedestrian and cycle connectivity to the school to the north. Future relief road work should consider the proposed junction position with the A20 (near to the M26 roundabout). .

The relief road comprises the following (as shown in the section below):

- 7.3m width carriageway
- 3m shared footway/cycleway to the north
- 3m cycle route, 2m footway to the south (eg 5m active travel route. Cycle route to be provided in line with LTN 1/20).

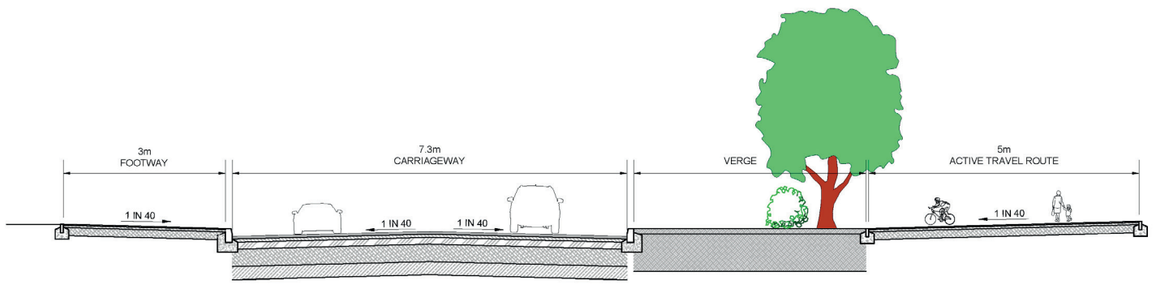

FIGURE 6.26 PROPOSED ROAD SECTION

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ACTIVE TRAVEL

One of the key objectives of the brief is to promote active travel based upon the existing rights of way network. Active and sustainable modes of transport should be promoted by creating safe, direct, and attractive routes for pedestrians and cyclists. This should extend to careful consideration of land use location, combined with compact urban forms with increased densities, to maximise the number of residents within easy walking distance of key facilities.

There are currently no dedicated cycle facilities in the Borough Green and Wrotham area, and no links to the National Cycle Network. The Tonbridge & Malling adopted cycling strategy includes a proposal for to create a link between Borough Green and Wrotham village. The TMBC Active Travel Strategy – Cycle Routes Consultation proposes a number of potential routes (as shown on the adjacent figure). Proposals to provide a local cycle route network will be updated in the Local Cycling and Walking Infrastructure Plan.

The construction of the relief road presents an opportunity to create an east-west cycle route along its full length. There is also an opportunity to create a number of north-south active travel links through the proposed network of green space linking the more different residential areas of the site.

Ref	Route	Description	Type of Facility
	Borough Green Gardens	Route alongside the proposed bypass road with links into the strategic site.	Shared footways alongside the bypass road with on-road traffic calmed routes within the site and off-road connections for improved permeability.
	North Downs Link	Recreational route to Wrotham and the North Downs.	Along quiet lanes and the A227 Borough Green Road (following the building of the bypass).
	A25	Route along A25 Borough Green Road/Maidstone Road (following the building of the bypass).	On-road along the A25 with traffic calming, gateways and other features to discourage through-traffic and reduce vehicle speeds.
	Borough Green Gardens to Station Link	Link into the Borough Green Gardens strategic site from the train station.	Possible new walking/cycling link into Fairfield Road from the site with off-road connection to the station.

KEY

- A25
- North Downs Link
- Borough Green Gardens
- (Alignment tbd)
- Borough Green Gardens To Station Link (Alignment tbd)
- Potential Future Development Sites
- Train Station
- Key Destinations

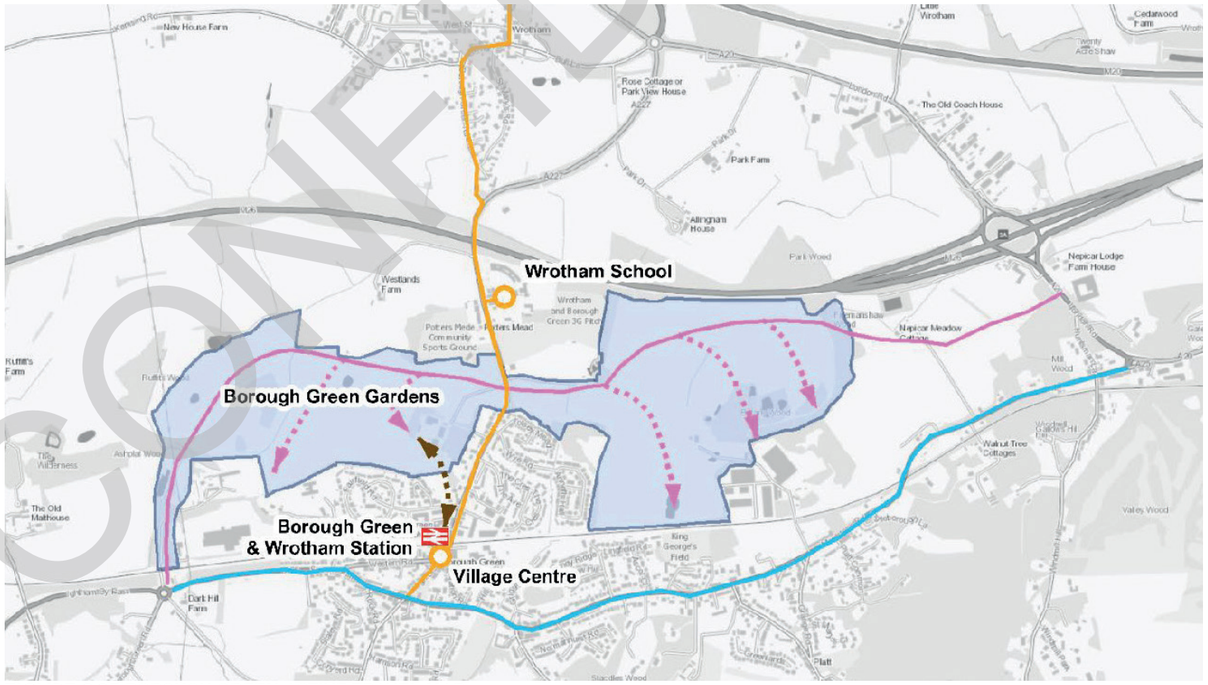

FIGURE 6.27 BOROUGH GREEN ACTIVE TRAVEL MAP

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Figure 6.28 highlights the following PROW's located within the site boundary. There are opportunities to build upon this extensive PRoW network and provide north-south active travel routes which integrate the new development into the adjacent settlement.

There are a number of PRoW (see Figure 6.28) which can be strengthened and integrated into the proposed active travel network as follows:

» PRoW MR229, which extends from Fen Pond Road in a north-westerly direction through the landscape to the north of the western section of the site

» PRoW MR229 runs alongside the M26 motorway to where it meets PRoW MR244, PRoW MR291, MR290 (footpath) and MR289 (footpath) extend between Platt Industrial Estate and the A20 along, or in the vicinity of, the southern site boundary.

» A number of PRoW traverse the site. In the western section of the site, PRoW MR244 (footpath) extends from the south-west corner of the site in a north-easterly direction past Cricketts Farm, through the site and into the landscape to the north, meeting the A227 in the vicinity of Wrotham School;

» In the western section of the site, PRoW MR251 runs eastwards from the A227 towards Botany Wood and passes out of the southern site boundary at Platt Industrial Estate. PRoWs MR250 (footpath), MR252 (footpath) and MR247A/B (restricted byway) form a loop extending northwards from PRoW MR251 (footpath including partial temporary closure) to the east of Wrotham School. PRoW MR247A (bridleway) extends via a footbridge over the M26 motorway into the landscape to the north of the site;

» Further east, PRoW MR248 (restricted byway) extends to the north-west from the A25 in the vicinity of Meadow Cottage through Nepicar Farm and towards Nepicar Meadow Cottage. The route of the PRoW subsequently runs in a north-easterly direction along the northern site boundary, joining the A20 in the vicinity of Nepicar House.

A number of PROW's potentially intersect with the proposed relief road route and measures will be required that suitable crossing points or diversions are put in place to maintain these routes as follows:

» MR244 – to the north western corner of the site

» M251 – at the intersection between the PROW and the A227

» MR247A – in the centre of the site at the northern boundary

» MR247B – at the centre of the site

» M248 – to the eastern side of the site near Wrotham Heath

Beyond the site there are also connections to the north to connect to the east-west oriented North Downs Way National Trail (located approximately 1.4km to the north of the site at the foot of the steep slope of the North Downs Ridge).

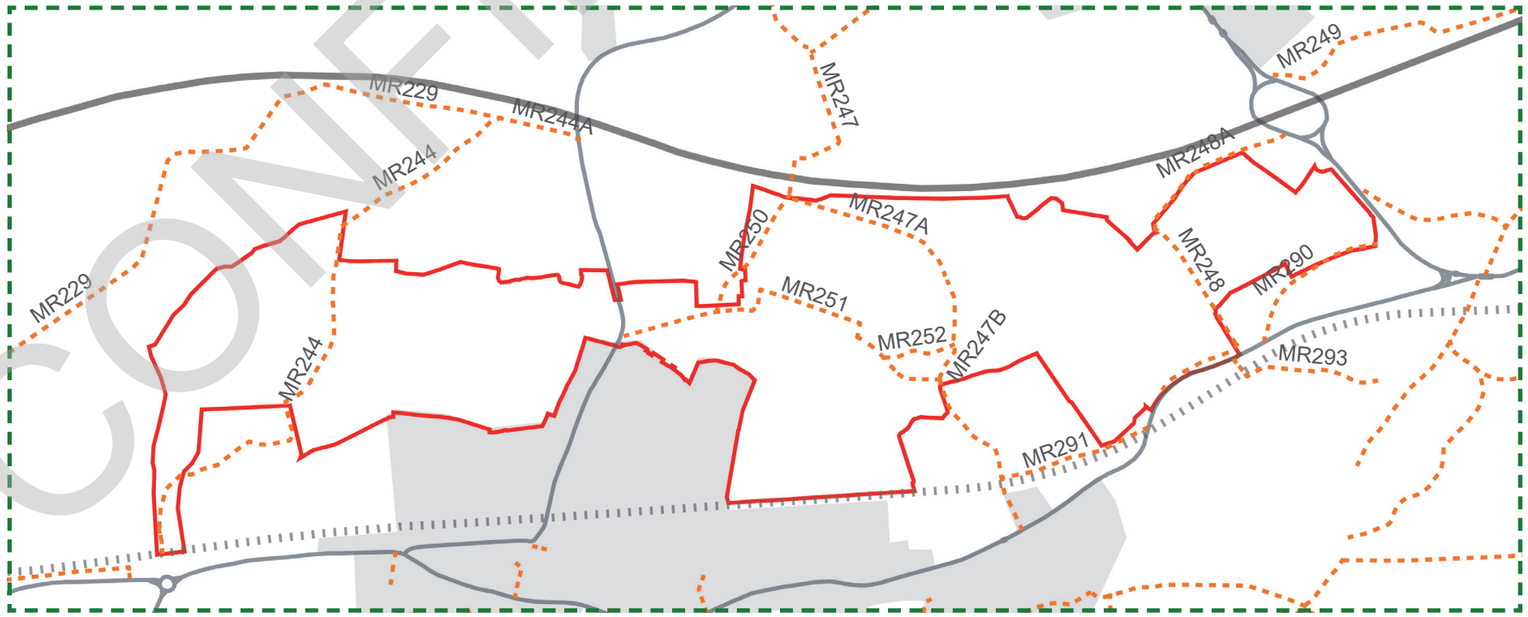

FIGURE 6.28 EXISTING PUBLIC RIGHTS OF WAY

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6.18 Car Parking

It is important to recognise that even with a transport hierarchy that prioritises sustainable modes. the motor car is still an important part of the transport mix for new developments. This is particularly true for people whose mobility is impaired and who may rely on cars to access services.

National and local parking standards should be followed, and make specific provision for people with disabilities, and these should be followed closely. In terms of the quantity of parking that is provided for different land uses, parking standards are set out in Appendix G (Parking Standards: Residential Development) of the former TMBC Local Plan (see adjacent table).

Parking Standards: Residential Development

Garages (and car barns unless the right to enclose them for use as storage is simultaneously removed by condition) do not form part of the supply-side in any parking provision calculation.

LOCATION	CITY/TOWN CENTRE	EDGE OF CENTRE	SUBURBAN	SUBURBAN EDGE/VILLAGE/RURAL
ON-STREET CONTROLS	On-street controls preventing all (or all long stay) parking	On-street controls, residents' scheme and/or existing saturation (Note 3)	No, or very limited, on-street controls	No on-street controls, but possibly a tight street layout
NATURE OF GUIDANCE	MAXIMUM (Note 1)	MAXIMUM	MINIMUM (Note 5)	MINIMUM (Note 5)
1 & 2 BED FLATS	1 space per unit	1 space per unit	1 space per unit	1 space per unit
FORM	Controlled (Note 2)	Not allocated	Not allocated	Not allocated
1 & 2 BED HOUSES	1 space per unit	1 space per unit	1 space per unit	1.5 spaces per unit
FORM	Controlled (Note 2)	Allocation possible	Allocation possible	Allocation of one space per unit possible
3 BED HOUSES	1 space per unit	1 space per unit	1.5 spaces per unit	2 independently accessible spaces per unit
FORM	Controlled (Note 2)	Allocation possible	Allocation of one space per unit possible	Allocation of one or both spaces possible
4+ BED HOUSES	1 space per unit	1.5 spaces per unit	2 independently accessible spaces per unit	2 independently accessible spaces per unit
FORM	Controlled (Note 2)	Allocation of one space per unit possible	Allocation of both spaces possible (Note 6)	Allocation of both spaces possible (Note 6)
LOCATION	**CITY/TOWN CENTRE**	**EDGE OF CENTRE**	**SUBURBAN**	**SUBURBAN EDGE/VILLAGE/RURAL**
ADDITIONAL VISITOR PARKING (Note 4)	Public car parks	Communal areas, 0.2 per unit maximum	On-street areas, 0.2 per unit	On-street areas, 0.2 per unit

NOTES

1. Reduced, or even nil provision is encouraged in support of demand management and the most efficient use of land.
2. Parking/garage courts, probably with controlled entry.
3. Reduced, or even nil provision acceptable for rented properties, subject to effective tenancy controls.
4. May be reduced where main provision is not allocated. Not always needed for flats.
5. Lower provision may be considered if vehicular trip rate constraints are to be applied in connection with a binding and enforceable Travel Plan.
6. Best provided side by side, or in another independently accessible form. Tandem parking arrangements are often under-utilised.

FIGURE 6.29 PARKING STANDARDS

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6.19 Mobility Hubs and Electric Vehicle Charging

MOBILITY HUBS

A key element in the promotion of sustainable travel is the provision of a network of mobility hubs. Mobility hubs provide a focus for shared transport initiatives, including Car Club, cycle and electric cycle hire. The Integration of different kinds of hubs together, bring the benefits of integration and modal interchange including the following:

- Cycle Hubs. A Cycle Hub is a safe and secure place to lock bicycles under cover, protected by CCTV and a swipe-card entry system.
- Delivery Hubs. A Delivery Hub is a safe and secure pick-up and drop-off point for packages ordered online. There is potential to provide a 'Last Mile Logistics Hub', where the package will be delivered on either bike or foot for the last part of its journey. This will help towards Net Carbon Zero ambitions by cutting the negative impact of freight on the environment.

All hubs should be provided with mapping of the surrounding area, similar to Legible London.

ELECTRIC VEHICLE CHARGING STATION

Most EV charging point networks offer a mix of slow, fast and rapid charging options. Charging points can also be installed on lighting columns for overnight or longer-stay charging. Fast and rapid charging points can be installed on streets near commercial areas, in car parks and at transport hubs, with destination chargers provided at locations where users may spend more time and are well lit and overlooked, such as town centres and in retail zones.

Building Regulations Part S now also includes for electric car charging to be provided for residential dwellings – one per dwelling (Approved Document S: Infrastructure for the charging of electric vehicles (publishing.service.gov.uk) - see below extract.

This section deals with requirement S1 from Part S of Schedule 1 and regulation 44D of the Building Regulations 2010.

Requirement

The erection of new residential buildings

S1. (1) A new residential building with associated parking must have access to electric vehicle charge points as provided for in paragraph (2).

(2) The number of associated parking spaces which have access to electric vehicle charge points must be—

(a) the total number of associated parking spaces, where there are fewer associated parking spaces than there are dwellings contained in the residential building; or

(b) the number of associated parking spaces that is equal to the total number of dwellings contained in the residential building, where there are the same number of associated parking spaces as, or more associated parking spaces than, there are dwellings.

(3) Cable routes for electric vehicle charge points must be installed in any associated parking spaces which do not, in accordance with paragraph (2), have an electric vehicle charge point where—

(a) a new residential building has more than 10 associated parking spaces; and

(b) there are more associated parking spaces than there are dwellings contained in the residential building.

LOW CARBON TRANSPORT EXAMPLES

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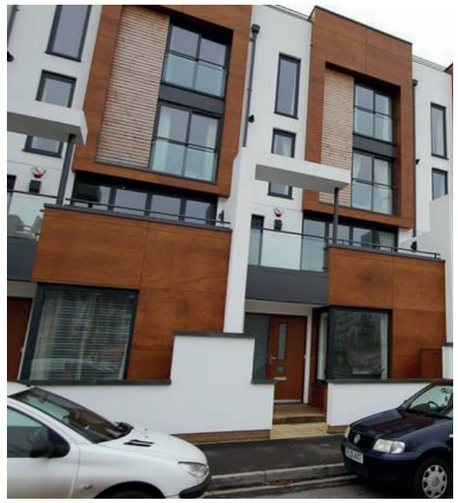
6.20 High Quality Design

Good design adds value to development schemes in terms of environmental performance, community and social well being and commercial viability. It contributes to a sense of place by reinforcing the local pattern of development and grain of the urban landscape. At the same time, it should be innovative and forward-looking, combining a creative mix of contemporary and traditional styles.

Good design should promote a sense of well-being and pride in an area through an obvious investment in the design process. Clear and coherent design should create a more legible or understandable built environment, which enhances accessibility and ease of movement.

Contemporary design should allow for sustainability, for example by being energy efficient and promote alternative 'clean' technologies, and built to last through being capable of accommodating change.

As long as scale, quality and materials are respected, contemporary styles need not sit uncomfortably within historic development. In broad terms, well designed 21st century architecture should sit comfortably with, and complement, well designed traditional built environments.



BUILDING PRECEDENTS

DESIGN CHECKLIST

- Creation of a high quality public realm i.e. street furniture, public art and green infrastructure.
- Innovative architecture showcasing both traditional and contemporary styles.
- High quality and accessible green space for residents to utilise.
- Varying approaches to built form providing opportunities for unique character areas.
- Good quality and locally sourced building materials, reflecting the character of the surrounding area.
- The built form should be well proportioned and there should be a clear demarcation between public and private space.

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6.21 Built Form

The National Design Guide states that:

"Compact forms of development bring people together to support local public transport, facilities and local services. They make destinations easily accessible by walking or cycling wherever this is practical. This helps to reduce dependency upon the private car.
Well-designed new development makes efficient use of land with an amount and mix of development and open space that optimises density. It also relates well to and enhances the existing character and context.

Built form is determined by good urban design principles that combine layout, form and scale in a way that responds positively to the context. The appropriate density will result from the context, accessibility, the proposed building types, form and character of the development."

Development proposals should consider the urban form and surrounding context. Urban design analysis should seek to understand the pattern and grain of urban form. The street structure of new development should respect the historic urban pattern, and should respond to the prevailing urban form.

The proposed scale, massing and building height of the new development in Borough Green Gardens should reflect the existing built form context and the proposed land use.

6.22 Density and Building Height

The average density of the development is approximately 35-40 dwellings per hectare.

Density varies between character areas which is described in more detail in Section 7.

Built height also varies between character areas and should relate to existing landform with higher buildings located in the less sensitive lower parts of the site.

↑ 30 dph

↑ 50 dph

↑ 70 dph

↑ 90 dph

FIGURE 6.30 BUILDING DENSITIES

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6.23 Sustainable Construction for Net Zero Carbon

FABRIC FIRST

A 'fabric first' approach to building design involves maximising the performance of the components and materials that make up the building fabric itself, before considering the use of mechanical or electrical building services systems. This can help reduce capital and operational costs, improve energy efficiency and reduce carbon emissions. A fabric first method can also reduce the need for maintenance during the building's life.

Buildings designed and constructed using the fabric first approach aim to minimise the need for energy consumption through methods such as:

- Maximising air-tightness.
- Using super-high insulation.
- Optimising solar gain through the provision of openings and shading.
- Optimising natural ventilation.
- Using the thermal mass of the building fabric.
- Using energy from occupants, electronic devices, cookers and so on.

Focussing on the building fabric first, is generally considered to be more sustainable than relying on energy saving technology, or renewable energy generation, which can be expensive, can have a high embodied energy and may or may not be used efficiently by the consumer.

Having energy efficiency integrated into the building envelope can mean occupants are required to do less to operate their building and not have to adjust their habits or learn about new technologies. This can result in less reliance on the end user regarding the building's energy efficiency.

Fabric first building systems can be constructed off site, resulting in higher quality and so better performance, reduced labour costs and an increased speed of build.

The government's approach to zero carbon homes and zero carbon non-domestic buildings adopts the fabric first approach. Developers are required first to avoid or mitigate regulated emissions by using on-site energy efficiency measures (such as insulation and low energy heating systems) to achieve a minimum Fabric Energy Efficiency Standards, then to adopt on-site zero carbon technologies (such as solar panels) and finally to use off-site measures to deal with any remaining emissions.

FUTURE HOMES STANDARD

The Future Homes Standard (FHS) that complements the building regulations Part L, sets the ambition of a 75-80% reduction in CO2 emissions for new homes built from 2025, together with the elimination of fossil fuel-based heat sources. The FHS also introduces the notion of the 'zero-carbon ready' home – e.g., homes that will not require costly retro-fit to meet zero-carbon standards.

Building regulation Part L and Part F will have further amendments to reflect the Fabric Energy Strategy, low temperature heating systems (such as air source heat pumps) etc.

BUILDING PRECEDENTS

ADAPTABILITY

Buildings and spaces should be designed so that they can be adapted and changed over time, without huge energy and financial costs. Similarly, layouts should be designed and planned to allow for future expansion beyond a particular site boundary.

FLEXIBLE GROUND FLOORS

Buildings should be designed to allow for changes in ground floor use over time in response to market opportunities. An important factor in delivering the flexibility required to facilitate mixed use is plot / building widths and these should be considered carefully by designers.

To minimise the amount of work involved to change uses, ground floors should be designed to be flexible. Flexibility can be incorporated by designing high floor to ceiling heights and by selecting a construction technique that allows easy modifications to the layout.

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6.24 Comfort and 'Healthy Homes'

The National Design Guide promotes healthy, comfortable and safe internal and external environments. Comfort relates to a range of issues including building space standards, heating, noise and air quality, internal and external storage, sunlight, daylight and ventilation. The quality of internal space needs careful consideration in higher-density developments, particularly for family accommodation, where access, privacy, daylight and external amenity space are also important.

'Healthy Homes' incorporate:

- Light – is optimised with generous access to natural light
- Sound Insulation – and good double glazing to promote quiet and tranquil home environments
- Materials – including well-designed ventilation systems that promote good indoor air quality
- Resilience – designed in with homes able to adapt to changing occupants
- Comfort – using passive design to prevent both overheating and excessive heating costs
- Sensors – that monitor indoor conditions and increase resident awareness
- Bedrooms – that promote healthy sleep, relaxation and respond to circadian rhythms
- Systems – are energy efficient and include low-emission heating, cooling and ventilation systems
- Security – is built in: home environments are safe and secure
- Storage – including space provision to promote stress-free functional living
- Connected – to local amenities, public transport, and pedestrian routes into wider communities
- Living Space – that provides stimulating environments for social engagement and play
- Windows – including layouts that maximise views out and natural ventilation opportunities
- Quiet Space – provides settings for focused work, privacy, thinking, relaxation and reflection
- Kitchens – that promote positive family interaction
- Laundry – provision to avoid moisture, mould growth and pollutant build-up in the home
- Home Working - space in the home for working with fibre broadband 'fibre to the premises'
- Age Friendly - Encourage access to the outdoors and physical activity, providing space for mobility aids and avoiding isolation.

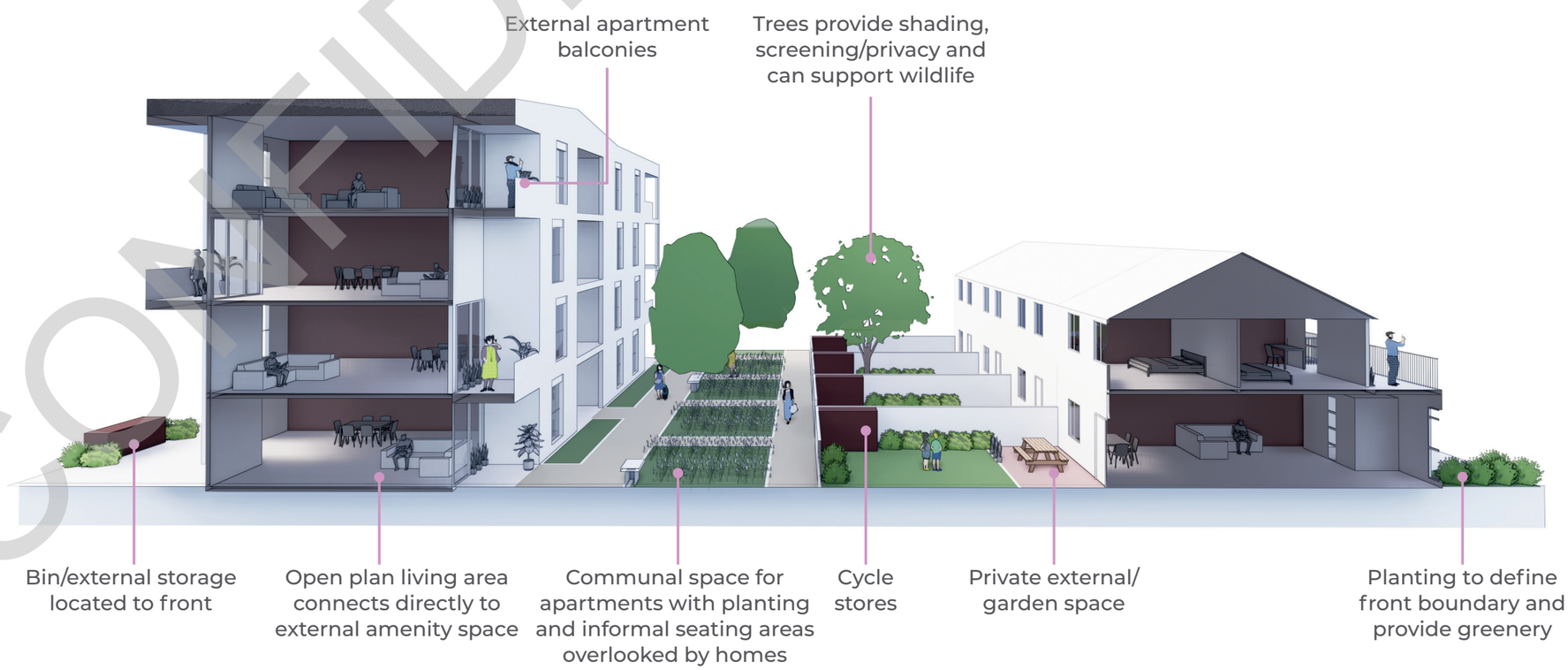

FIGURE 6.31 LIVING SPACE EXAMPLE

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6.25 Geotechnical And Quarry Sites Restoration

A large portion of the land outlined within the site boundary has been subject to ongoing and historical quarrying and landfilling operations. Operations have involved the extraction of industrial silica sand, building sand clay and subsequent landfilling of the voids created.

Within (and adjacent to) the Borough Green Gardens site there are five quarries/landfills: Borough Green Sand Pit and Quarry, Park Farm Quarry, Nepicar Land Farm Quarry, Celcon Bowl (Ightham Sandpit) and Robert Body Haulage. All of the quarries have ceased production and are either fully restored or in the process of restoration, with the exception of Borough Green Quarry and Nepicar Land Farm which remain active quarries.

Detailed ground investigations will be required for the whole site as more detailed development proposals are prepared.

Within the design phase of the proposed development the following constraints should be considered:

- Due to the land use history across the area, ground conditions are likely to be highly variable with areas of deep infilling of inert material. A previous investigation completed at Celcon Bowl has described made ground as reworked clay with regular brick, concrete and clinker and occasional plastic, wood and steel reinforcement.
- Geo-environment and geotechnical investigation would be required prior to any development to understand the ground conditions and undertake design.
- Review of landfilling documentation and protocols, assessing imported material classification, compaction and restoration details, landfill license and permits. All documentation associated with the landfill sites should be reviewed and an understanding established on how these potentially impact the proposed development.
- There is potential of generation and accumulation of landfill gases as a result of historical landfilling, with particular focus on Celcon Bowl (Ightham Sandpit), which has already reported elevated carbon dioxide and methane concentrations, warranting the adoption of gas protection measures in new buildings.
- Determine the presence and risk of contamination to receptors such as the controlled water environment and human health. Remediation may be required as a result of historic and ongoing activities.
- Dewatering of ponds and infilling of any substantial pits, most notably Land Park Farm Quarry which has been abandoned.

Quarry Sites

1. Ightham Sandpit
2. Borough Green Quarry
3. Borough Green Sand Pit
4. Park Farm Quarry
5. Nepicar Farm Quarry

Key

- Quarry sites
- Railway
- Site boundary
- Motorway
- Main A Roads

FIGURE 6.32 QUARRY SITES

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6.26 Noise And Vibration

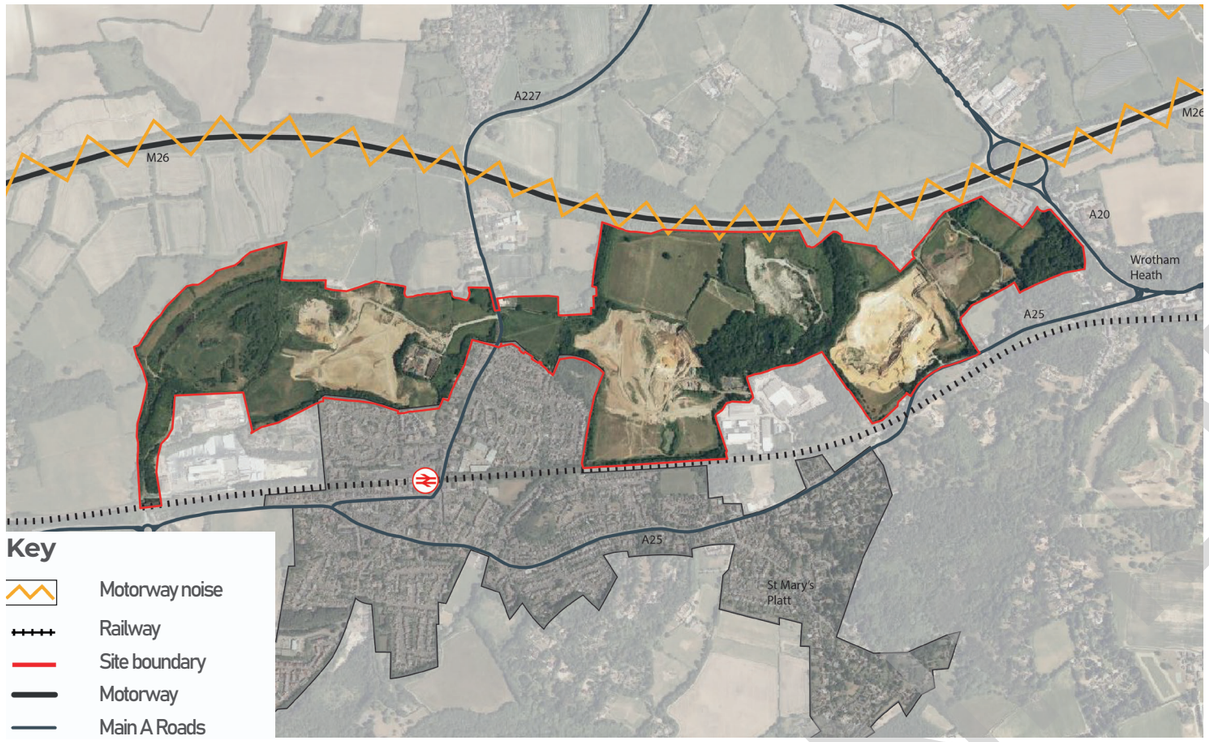


FIGURE 6.33 KEY SOURCES OF NOISE AND VIBRATION

The M26, A25 and Maidstone East railway line are the most significant sources of noise and vibration in proximity to the site. Schools, community space and dwellings may need to be set back away from these sources or acoustic mitigation measures could be required. The industrial/business parks are also potential sources of noise that should also be a consideration in the siting of sensitive receptors.

Noise Important Areas are designated on the local road network. The closest of these is to the south of the site at the junction between the A25 and A227. It is considered unlikely that the proposed development would lead to a significant increase in noise levels within the NIAs, however, this should be taken into consideration. The proposed relief road through the development site presents an opportunity to reduce congestion on the local road network and reduce associated noise levels.

Noise

Daytime road traffic noise has the potential to impact on internal noise levels as well as externally on the amenity of garden areas. Night-time road traffic presents the potential for sleep disturbance and would therefore be of concern internally.

Day-time (07:00 – 23:00) and night-time (23:00 – 07:00) ambient (LAeq,T dB) noise should be established through baseline surveys and compared to the indicative noise risk assessment levels from the 'ProPG: Planning & Noise Professional Practice Guidance on Planning & Noise New Residential Development' (June 2017). This comparison will provide an indication of noise risk in terms of suitability for residential development.

For areas at medium and low risk, to ensure that noise does not present a significant adverse impact to residential amenity, a good acoustic design process will need to be followed. The ProPG guidance recommends the development of an Acoustic Design Statement (ADS) which should clearly demonstrate how the adverse impacts of noise will be mitigated and minimised in the finished development.

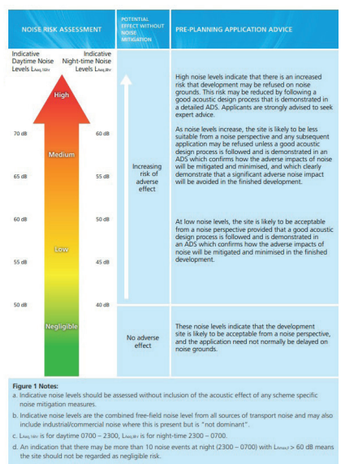
There is an increased risk that residential development may be refused on noise grounds within close proximity to the M26 as a result of the likely increased noise risk rating. As such, in these areas consideration would need to be given to the type of dwellings (for example, apartment types with no external amenity space facing onto the main roads) or the locating of commercial/ industrial uses.

Desktop study and review of available information indicates that commercial activities on the industrial parks present a further potential noise constraint to residential development. Baseline surveys should be conducted in proximity to these areas to provide an indication of suitability for residential development.

Vibration

Existing levels of ground borne vibration have the potential to constrain development in the vicinity of the Maidstone East railway line. Away from this feature no significant sources of ground borne vibration have been identified that would be considered likely to constrain residential development.

It is recommended that a Vibration Dose Value (VDV) survey is undertaken, and results compared against the VDV ranges. However, it is likely that a suitable standoff distance from the railway line accommodated within the design would be sufficient to avoid any constraints on residential development.



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6.27 Utilities Infrastructure

EXISTING UTILITIES

Figure 6.34 below highlights sewers picked up by GIS mapping. A sewer runs through the site along the line of the A227, along the eastern boundary of the area shown on the plan as 'R1'. A sewer also runs from the railway line along the south of the 'R3' area, northeast towards the interchange. The size and depth of these sewers needs to be confirmed from asset plans.

Figure 6.35 shows the existing gas lines through and in the vicinity of the site.

KEY CONSIDERATIONS

There are no overhead lines through the site.

It is anticipated that network reinforcement is likely to be required to accommodate a significant increase in existing demand, however this is unlikely to impact the layout of development proposals.

New utilities as part of the development proposals will be located within the proposed highway corridors, and therefore will have a limited impact, however there may be the need for new substations, gas governors, foul drainage pumping stations etc.

OPPORTUNITIES

The area is well served by existing utility infrastructure, which should provide opportunity for providing new connections to serve any future developments, subject to capacity enquiries with the relevant providers. Opportunities for integrating renewable energy solutions into the development proposals should be investigated, in order to minimise additional loadings on existing infrastructure. The opportunity to improve telecoms infrastructure and provide higher broadband speeds should also be investigated further.

Although there is a good level of existing utility infrastructure in the area which may be able to serve any future development, no discussions with the relevant providers have taken place in relation to new connections or spare capacity within existing networks.

RECOMMENDATIONS

Early discussions should be held with relevant utility providers to confirm the viability of any development within the easement / stand-off zones described in this section, and to investigate the possibility of any potential diversions. Where existing utility infrastructure may be a constraint to development, consideration should be given to commissioning utility surveys, so that their positions are accurately identified. These surveys would be carried out in support of planning applications.

Obtaining more detailed plans from the Water Authority would be of benefit so as to fully identify the existing sewerage networks, including pipe sizes and invert levels, so that more detailed assessments can be made of potential connections for future development.

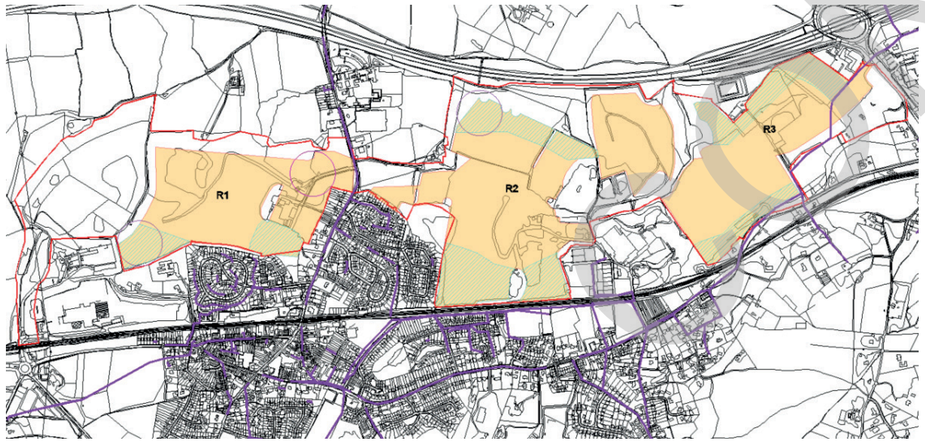

FIGURE 6.34 SEWERS THROUGH THE SITE FROM GIS MAPPING

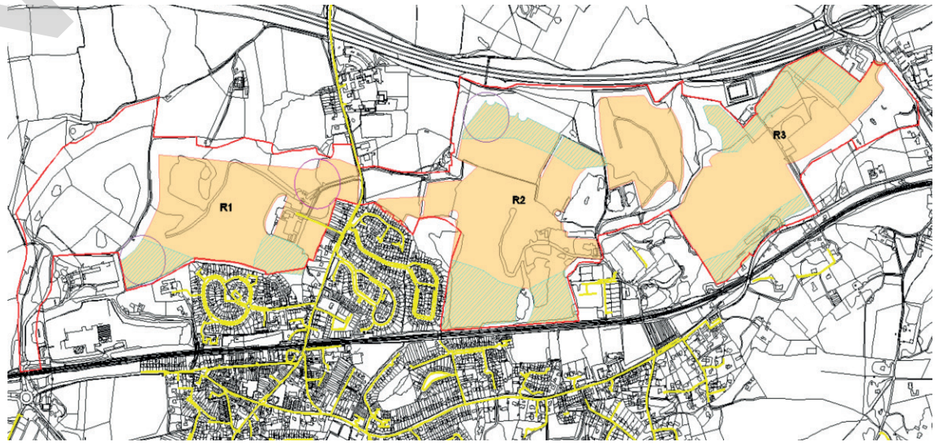

FIGURE 6.35 GAS LINES THROUGH THE SITE FROM GIS MAPPING

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6.28 Air Quality

Assessments undertaken by Mott Macdonald as part of the Local Plan Air Quality Evidence Base predict that there would be no exceedance of NO2 or Particulate Matter objectives within the site in 2025 or 2031. This takes into account the road traffic that would be generated by the proposed development and other proposed developments in the area.

An Air Quality Management Area (AQMA), located south of the site, was declared for NO2 in 2013. The AQMA covers parts of Sevenoaks Road (A25), Western Road and the High Street in Borough Green. The Mott MacDonald assessment predicts that there would be a moderate beneficial impact on air quality within the AQMA due to the diversion of traffic from roads in the AQMA to the new relief road.

6.29 Materials and Waste

The environmental impact of materials and resources used during construction is crucial to the whole life carbon performance of a development. Early commitment to reducing the embodied carbon and environmental impact of materials and resources, and considering sourcing, conservation and re-use can help achieve more sustainable outcomes. Utilising materials that are local and resilient can further reduce longer term negative environmental impacts. The management of waste can deliver positive environmental and economic outcomes.

Development should make sure that sustainability objectives are enshrined as part of any new developments – these include minimising the generation of waste associated with demolition, excavation and construction, promoting the use of local and responsibly sourced materials, and undertaking whole life cost and whole life carbon reviews to support long term cost efficiencies.

Examples of how this can be achieved include:

- Use of materials with a low embodied environmental impact
- Specify reusable / recyclable and materials with high recycled content.
- Achieve zero construction waste to landfill
- Use the BRE Green Guide to Specification for materials in construction
- Design for disassembly and adaptability
- Design for durability and resilience

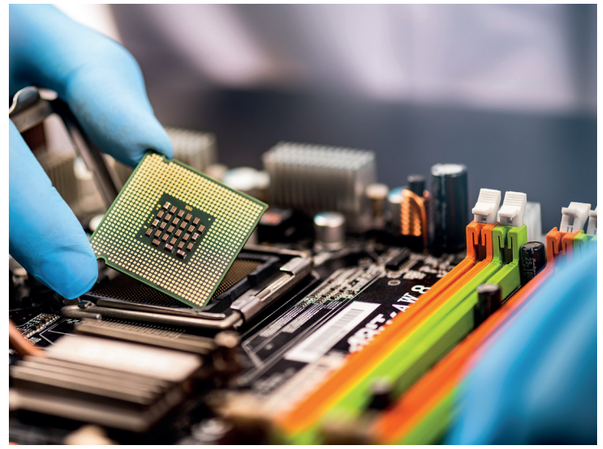
6.30 Digital Connectivity/Smart Cities

Technology must be an enabler to deliver better solutions for residents and visitors. It is difficult to predict how exactly digital will evolve in the future, or to immediately define Borough Green resident's specific needs from the opportunities that this digital revolution will present. Therefore, it is important that the physical infrastructure (pipes, ducts, cables etc.) is designed and incorporated in new communities to make sure the necessary power and connectivity allowing for future operation of digital systems. The aim is to promote a forward-thinking, positive approach to digital provision and connectivity.

Smart technologies with potential for application in the development of sustainable dwellings and communities include:

- Superfast or fibre-optic broadband internet services
- District heating systems
- Balancing energy loads between communities
- Proactive maintenance
- Smart tags
- Storing utilities
- 5G connectivity

These advances are already beginning to suggest changes to building design and work and community spaces. They are also beginning to have an impact on the logistics of deliveries and shopping, while autonomous vehicles are predicted to be at the forefront of future developments in transport.



EXAMPLES OF SMART TECHNOLOGY

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6.31 Indicative Land Use Budget

The main land use within Borough Green Gardens will be residential, with a range of supporting uses including schools and open spaces. The Development Framework Plan illustrates the distribution of housing and the pattern of streets.

The pattern of densities responds to design objectives, in particular the use of traditional urban form principles. In addition, the location of the schools and the pattern of movement is also reflected in the pattern of densities. The densities decrease from the centre to the periphery of the development, which follows the traditional pattern of settlement density and urban form.

The other major land use for Borough Green Gardens is employment which is located to the east of the site area.

The adjacent diagram breaks down the proposed land use percentages for the strategic framework.

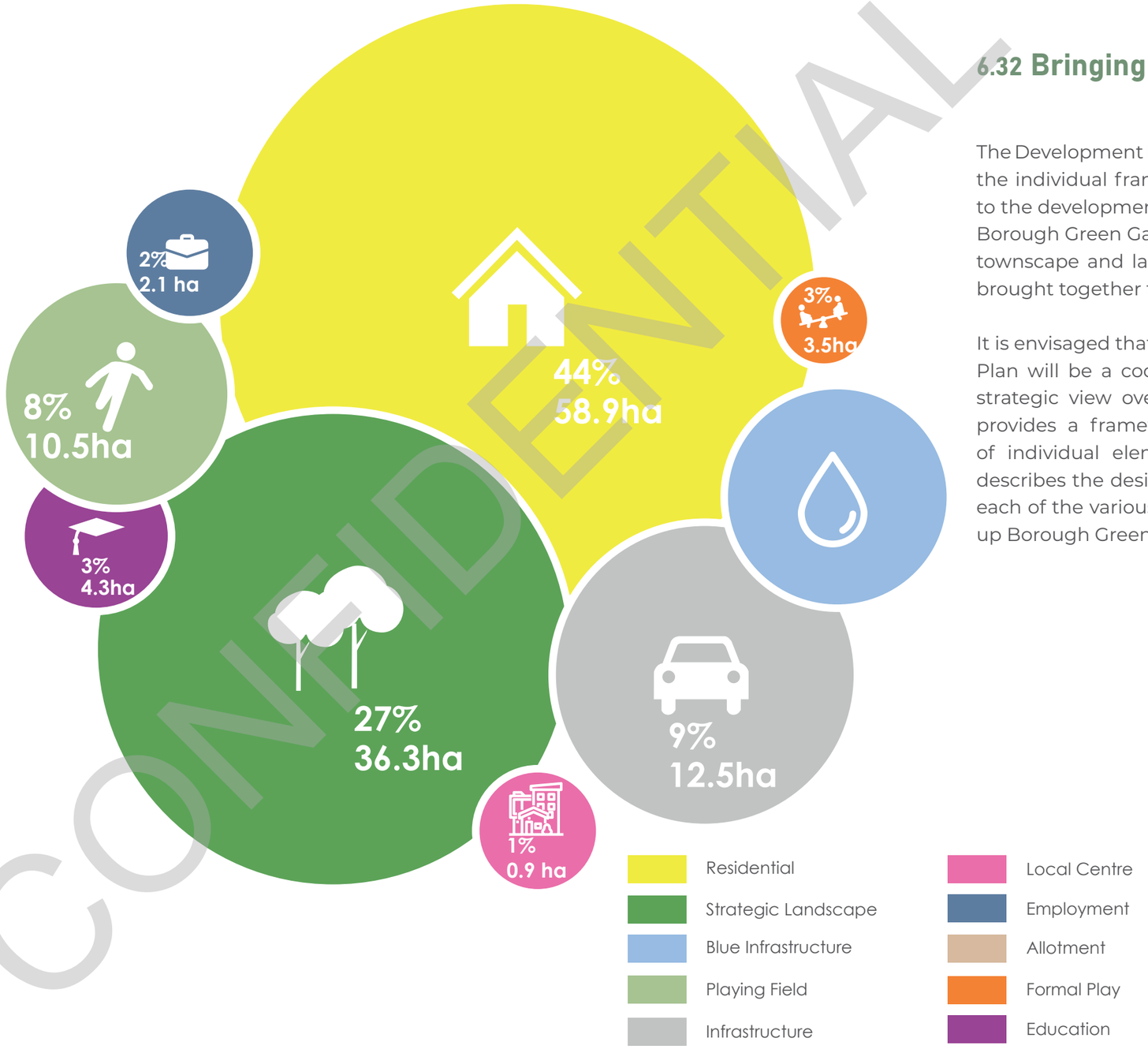

FIGURE 6.36 INDICATIVE LAND USE

6.32 Bringing It All Together

The Development Framework Plan illustrates how the individual framework 'layers' can be applied to the development area to achieve the vision for Borough Green Gardens. The plan illustrates how townscape and landscape strategies have been brought together to create a new 'place'.

It is envisaged that the Development Framework Plan will be a coordinating plan which takes a strategic view over the development area and provides a framework for the detailed design of individual elements. The following chapter describes the design principles that will apply in each of the various 'character areas' which make up Borough Green Gardens.

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M20

A227

M26

A20

A25

A25

Key

- Residential
- Employment
- Education
- Community centre
- Open spaces
- Sports pitches
- Play spaces
- Trees and Hedgerows
- Attenuation ponds
- Waterways
- Public rights of way
- Relief road
- Secondary roads
- Railway
- Site boundary
- Motorway
- Main A Roads

FIGURE 6.37 DEVELOPMENT FRAMEWORK

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CHARACTER AREAS & DESIGN GUIDANCE

07 CHARACTER AREAS & DESIGN GUIDANCE

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7.1 Design Guidance

When designing areas within the masterplan, national government literature has been taken into consideration.

NATIONAL DESIGN GUIDE

The National Design Guide illustrates how well-designed places that are beautiful, enduring and successful can be achieved in practice. It is based on national planning policy, practice guidance and objectives for good design as set out in the National Planning Policy Framework.

FIGURE 7.1 NATIONAL MODEL DESIGN CODE

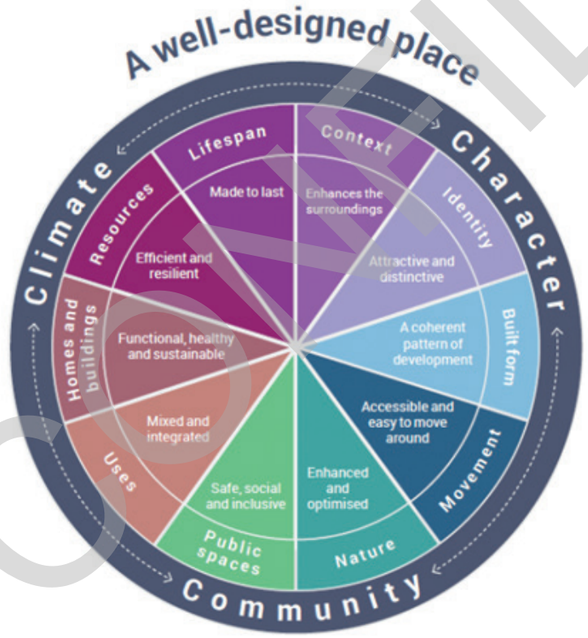

FIGURE 7.2 TEN DESIGN CHARACTERISTICS OF THE NATIONAL DESIGN GUIDE AND NMDC

7.2 Design Coding

NATIONAL MODEL DESIGN CODE

The National Model Design Code (NMDC, 2021) sets out a consistent process and approach that should be followed when producing design codes and guides at a local level as well as providing a toolkit of information and example rules across ten themes of good design.

The purpose of the National Model Design Code is to provide detailed guidance on the production of design codes, guides and policies to promote successful design. It expands on the ten characteristics of good design set out in the National Design Guide, which reflects the government's priorities and provides a common overarching framework for design.

The Borough Green Gardens development brief work sits at stages 1 and 2 of the process, which focuses on visioning. This is not just developing a vision for the area as a whole, but starting to develop different character areas or "area types" as they are referred to in the guide, and developing a vision for each type, to enable the development of coding rules.

The National Model Design Code Process

1. Analysis

1A - Scoping: Agreeing on the geographical area to be covered by the code and the policy areas that it will address.

1B – Baseline: Bringing together the analysis that will underpin the code and inform its contents.

2. Vision

2A – Design Vision: Dividing the area covered by the code into a set of typical 'area types' and deciding on a vision for each of these area types.

2B – Coding Plan: Preparing a plan that maps out each of the area types and also identifies large development sites from allocations in the local plan.

2C – Masterplanning: On larger sites working with land owners and developers to agree a masterplan for each of the development sites establishing the key parameters and area types.

3. Code

3A – Guidance for Area Types: Developing guidance for each area type by adjusting a set of design parameters.

3B – Code Wide Guidance: Agree on a set of policies that will apply equally across all area types.

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7.3 Local Character

Previous sections have highlighted the importance of landscape character and its influence on the creation of local distinctiveness and identity in terms of development proposals.

The National Design Guide states that:

"The identity or character of a place comes from the way that buildings, streets and spaces, landscape and infrastructure combine together and how people experience them. It is not just about the buildings or how a place looks, but how it engages with all of the senses.

Local character makes places distinctive. Well-designed, sustainable places with a strong identity give their users, occupiers and owners a sense of pride, helping to create and sustain communities and neighbourhoods."

The Guide goes on to say that well-designed places, buildings and spaces should have a 'positive and coherent identity that everyone can identify with, including residents and local communities, so contributing towards health and well-being, inclusion and cohesion'. They should have a character that suits the context, its history, how we live today and how we are likely to live in the future.

Good design comes from a thorough understanding of place and context. One of the keys to a successful masterplan is to achieve this understanding of the physical context through character and design analysis and to reflect this in the masterplan proposals through the formulation of character areas. The analysis should go beyond the view from the site boundary. The site's context includes the town, neighbourhood or village.

Future masterplans and planning applications will need to show how they comply with the general design guidance and characteristics set out for each character area.

7.4 Heritage

The successful integration of heritage assets in proposals is an important component in achieving good growth. It provides an opportunity to celebrate sense of place, by connecting to heritage, landscape, the regional and local experience, connectivity, local distinctiveness and sustainable living.

An area's sense of place and identity is shaped by local history, culture and heritage, and how these have affected the built environment and the wider landscape.

Building on the existing features and heritage, these settlements will further strengthen the character individual places and build cohesion of their local communities.

Heritage and landscape design should be considered together in order to integrate existing landscape assets alongside cultural heritage to create distinct places and identities. The can be achieved through the following:

- Use of green infrastructure to preserve below ground archaeology;
- Massing and scale and streetscapes that is appropriate to the historic landscape;
- Draw inspiration from vernacular architecture and character of the historic environment;
- Respect important views; and
- Use heritage to shape how we perceive and experience a place

For Borough Green Gardens there is potential to link to the area's heritage of brick manufacturing and mineral working.

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7.5 Area Types and Masterplanning

The National Model Design Code introduces the concept of “area types” that share similar characteristics. By grouping area types together, it is possible to create common coding rules for similar areas. This is intended to simplify the process, reduce the burden of producing the codes and make them easier to understand once produced.

For existing areas, area types can be derived from the existing character of the place and developed through character studies. The aim is that area types should propose what a place should look like, as opposed to what it currently is. For areas with a strong, positive existing character, such as a conservation area, the area type might code for development that fits in with the current condition. For areas which have little or no positive character, where significant change is desired, the area type designation and related rules may propose something very different from the current condition.

The adjacent illustrations show the example area types from the National Model Design Code. These can be used as a starting point to create bespoke area types at a local level

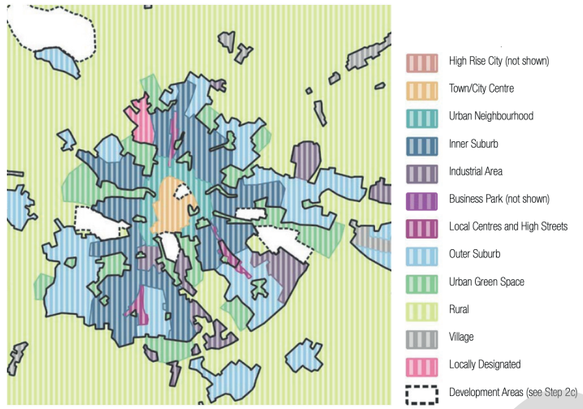

FIGURE 7.3 AN EXAMPLE CODING PLAN SETTING AREA TYPES

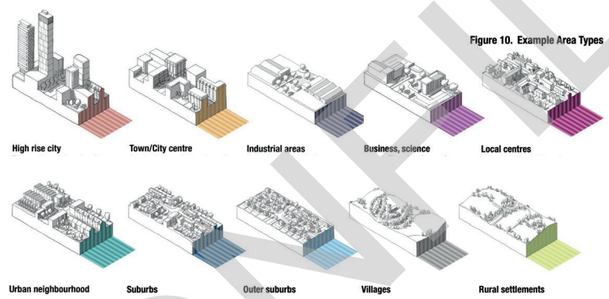

FIGURE 7.4 EXAMPLE AREA TYPES FROM THE NATIONAL MODEL DESIGN CODE

7.6 Stage 3: Coding

Following the formulation of character areas, a set of coding rules can be set to realise the vision. Additional generic design guidance for the development is also produced at this stage.

It is important to distil down the essential characteristics that typify each area type and focus on coding for those. It is not necessary to provide coding rules across all ten themes of the National Model Design Code, neither is it necessary to provide rules for every element set out within a theme.

When developing the area types, it is also important to consider the interaction with the street hierarchy. For future design code work, it may be useful to develop something similar to the matrix below, showing an example street section for each level of the street hierarchy in different contexts.

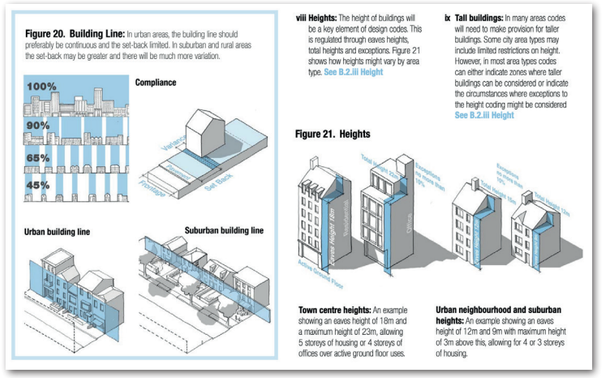

FIGURE 7.5 EXTRACT FROM THE NATIONAL MODEL DESIGN CODE

GOOD PRACTICE EXAMPLE - Huncoat

For the Huncoat Garden Village in Lancashire, a number of differing character areas were defined to inform the design. The aim was to foster the locally unique character of Huncoat, as part of developing an identifiable place. These character areas have informed the subsequent design code. In March 2021, Hyndburn Borough Council (HBC) were selected as one of 14 Pilot local authorities across England by the MHCLG to test the new National Model Design Code.

The design code has been prepared to complement the masterplan and provides guidance on the design parameters, technical standards and specifications to achieve quality and beauty. The code acts as a primary point of reference that translates design quality objectives and policies in various national, regional and local guidance into specific and tailored design parameters to guide and enforce the future development at Huncoat.

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7.7 Area Types and Character Areas

PROPOSED CHARACTER AREAS

Within these communities a number of character areas are proposed (the broad concept for each is described over the following pages):

- Relief Road Environs;
- Urban Core Area;
- Parkland Frontage and Rural Edge;
- Gateways and Mixed Use Retail;
- Education; and
- Employment.

The proposed character areas take into account the following factors:

- Traditional urban forms and character of settlements in Borough Green and the surrounding villages;
- Proposed land uses and in particular the location of new facilities;
- Pattern of open spaces and watercourses through the site and existing vegetation;
- Local vernacular and architectural styles of local buildings and the surrounding landscape.

Each of these areas will have a distinctive identity, which together will create a strong sense of place for this part of the development. It should be recognised that this is a development for the 21st Century which should seek to develop innovative, quality housing at the cutting edge of sustainable design. At the same time, the new housing will need to respect the traditional urban form and historic character of the area. It is envisaged that to achieve this, future design coding work will promote sensitive use of traditional materials in a contemporary manner.

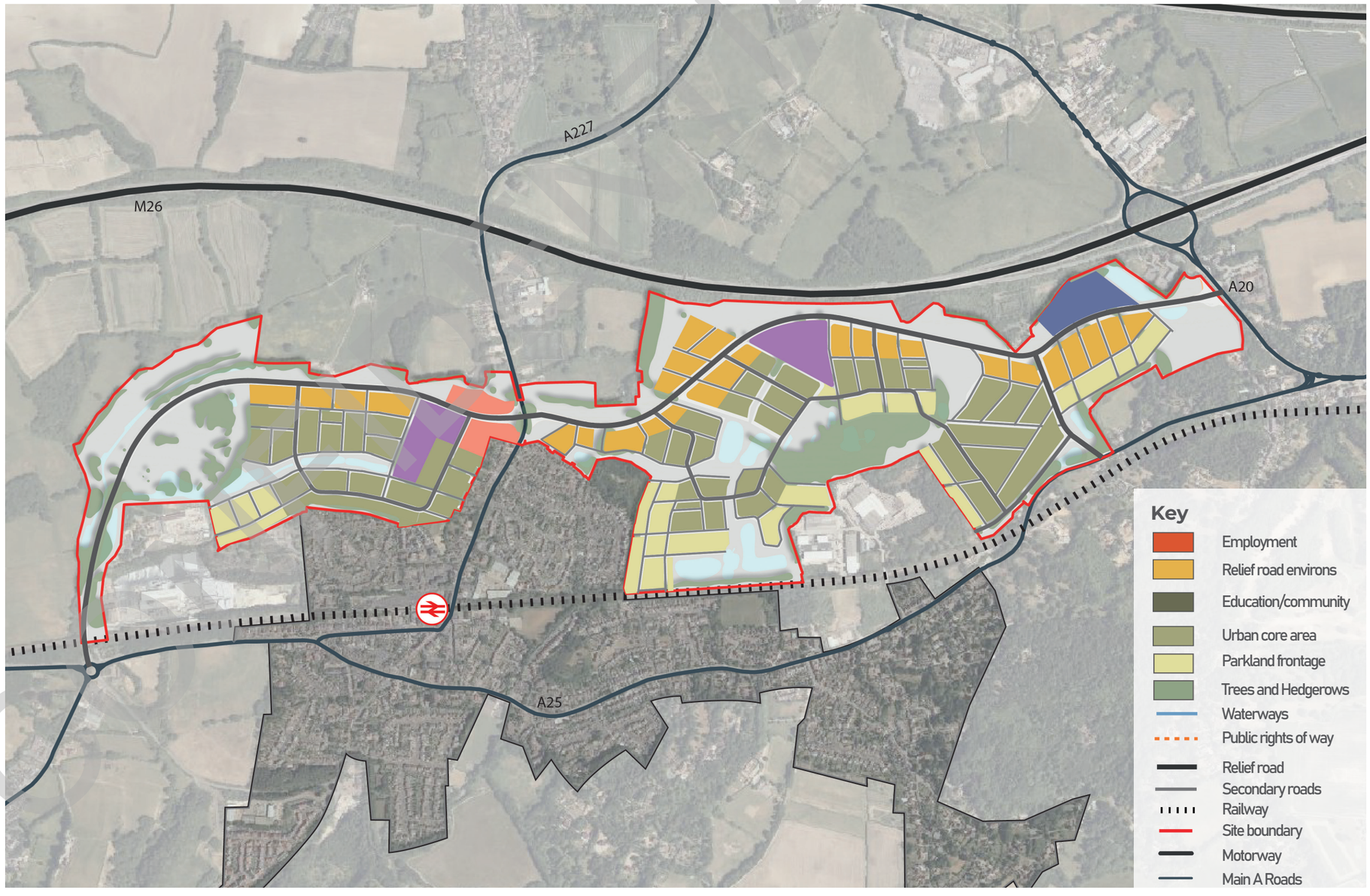

FIGURE 7.6 PROPOSED RESIDENTIAL CHARACTER AREAS

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7.8 Proposed Character Areas

RELIEF ROAD ENVIRONS

Summary	» The Relief Road Environs Character Area primarily forms the northern edge to the development.
Activities/Role	» An attractive environment incorporating the main relief road through Borough Green Gardens in a strong landscape structure to integrate new development into the wider AONB setting.
Street Design and Layout	» Buildings should address the relief road positively by facing on to the road. » Only limited direct access to properties is proposed along the relief road (subject to agreement with the Highway Authority).
Public Spaces	» The area will include space for active travel and SuDS, as well as public space to define key nodes, gateways, junctions and arrival points (linking to the Gateways and Mixed Use Retail character area).
Integration with Adjacent Areas	» A close relationship with proposed residential areas and mixed use retail/local centre, providing areas of activity and focal points along the relief road.
Density	» Approx. 40 - 50 dwellings per hectare.
Built Form	» A mix of 2 and 2.5 storey buildings with the occasional 3 storey at prominent landmark locations (i.e. to terminate vistas). » There can be variation in building height to create complexity and interest. » Majority of dwellings to be apartments, town houses or terraced housing with occasional semi-detached units. » Character to be reinforced by grass verges and street trees.
Gardens	» All houses will have private rear gardens.
Parking	» Parking for town houses Is to be provided through a comblnatlon of on plot parking to the front of the house, or through a limited number of smaller courtyard parkiing areas. Internal courtyards will serve as parking areas for apartments and for terraced units.
Boundary Treatment and Security	» Frontages to include a combination of hedges, railings, low plinth walls and low brick walls. Rear and side boundaries to consist of fencing or brick walls. » Clear demarcation of public and private areas. » Buildings to overlook green space.
Landscape/ Public Realm / Planting	» This character type should have a strong landscape structure integrating the residential buildings Into the adjacent road corridor and the wider AONB setting. New tree and shrub planting will provide a strong buffer to the relief road and the new residential community.

FIGURE 7.7 RELIEF ROAD ENVIRONS

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URBAN CORE AREA

Summary	» The Urban Core Character Area forms the majority of the residential land throughout the site. Built form will be of varying density throughout the site. Towards the centre, buildings will consist of townhouses and terraces in clearly defined blocks. Towards the edges, built form will become looser, consisting of semi-detached and detached buildings. » Development will be linked via a series of streets and green spaces, providing residents with a safe and legible network in which to navigate and also provide opportunities for social interaction.
Activities/Role	» A multi-functional area, accommodating a range of uses to create a vibrant and active area.
Street Design and Layout	» Traditional urban feel. » A network of streets and series of spaces, squares and greens which closely follow the topography of the site. Development arranged in blocks with well-defined perimeters.
Public Spaces	» A rich and varied townscape, incorporating a complex pattern of spaces which will help create a strong sense of place.
Integration with Adjacent Areas	» There is a clear relationship with the relief road area, thus allowing for a seamless transition between the two areas.
Density	» Approx. 30 - 35 dwellings per hectare.
Built Form	» Predominantly 2 - 2.5 storey buildings, with opportunities for 3 storey buildings at key nodal points, acting as landmarks and gateways. » A mix of terraces, semi-detached and detached type dwellings. » Building style inspired by local character.
Gardens	» All houses will have private rear gardens where possible.
Parking	» Predominantly on-plot parking and limited street parking for visitors.
Boundary Treatment and Security	» Frontages to include a combination of hedges, railings, low plinth walls and low brick walls. Rear and side boundaries to consist of fencing or brick walls.
Landscape/ Public Realm / Planting	» Landscape treatment will have a suburban quality appropriate to this edge of village location.

FIGURE 7.8 URBAN CORE AREA

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PARKLAND FRONTAGE AND RURAL EDGE

Summary	» Area includes all the housing areas that front onto the green space network. » The areas of frontage will act as a soft green edge, blending in harmoniously with the surrounding countryside. » Areas of parkland will provide space for recreational and leisure activities and also act as a landscaped doorstep into the development.
Activities/Role	» To create a positive interface between the new development and areas of green space to extend the parkland character into the residential area.
Street Design and Layout	» Informal/organic pattern of development which responds to the existing topography and landscape of the area. » Sensitive to existing boundaries and views.
Public Spaces	» Proposed green space will be strongly linked to the wider open space network, providing a transition between residential and parkland/rural edge.
Integration with Adjacent Areas	» This area will provide the transition between the urban core and the green parkland character. » The adjacent parkland areas will be a resource for informal leisure, and will provide 'green links' for pedestrian and cycle movement as well as being a corridor for wildlife.
Density	» Predominantly 25 - 35 dwellings per hectare.
Built Form	» Predominantly 2 storey buildings with occasional 2.5 storey buildings overlooking parkland areas. » Semi-detached and detached buildings in single plots. » Buildings set informally within each plot. » Building lines will respond to the topography.
Gardens	» All houses will have private rear gardens. » Lower-density properties will have front gardens in order to integrate the residential environment into the parkland area.
Parking	» Parking will be provided through on-plot parking.
Boundary Treatment and Security	» Back to back gardens will be created. » Clear demarcation of public and private areas. » Buildings to overlook green space.
Landscape/ Public Realm / Planting	» Very strong landscape structure. » Informal, semi-natural character. » Existing trees and hedgerows retained.

FIGURE 7.9 PARKLAND AND RURAL EDGE FRONTAGE

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GATEWAYS AND MIXED USE RETAIL

Summary	» Gateways with higher density buildings and tree planting will be located on prominent entrances around the site and act as key arrival points. » Community clusters will be situated around green areas, forming a social space for residents to enjoy and become a space for celebration, village fêtes, leisure, social activity and social congregation.
Activities/Role	» To act as a high-quality, landmark entrance to Borough Green Gardens. » To create a sense of community and place within sections of the development.
Street Design and Layout	» A perimeter block layout with buildings overlooking the street.
Public Spaces	» Entrance to this area requires an attractive public realm, linked to the wider open space network.
Integration with Adjacent Areas	» Close association with the relief road environs and the parkland and rural edge frontages.
Density	» Approx. 40 - 50 dwellings per hectare.
Built Form	» Buildings to have a vertical emphasis to act as landmarks (3-4 storeys in height) and define entry points/gateways. » Community clusters to be gathered organically around a public space (mainly terraced/town houses) with the lowering of density further out.
Gardens	» All houses will have private rear gardens. Apartments are likely to include a mixture of shared and private amenity space.
Parking	» Parking for apartments to be provided at the rear of the block. » Parking areas to include tree planting to reduce visual impact of cars. » Parking for town houses to be provided through a combination of on-plot parking to the front or smaller courtyard parking.
Boundary Treatment and Security	» A clear definition of public and private areas. » Buildings fronting all open space. » Frontage boundaries to include a combination of railings, low plinth walls and low hedge planting where appropriate .
Landscape/ Public Realm / Planting	» A key element could include a piece of distinctive public art or sculptural building form near any key junctions.

FIGURE 7.10 GATEWAYS AND MIXED USE RETAIL

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EDUCATION

Summary	» The Education Character Area includes education facilities located within the site. The design of schools is not to be considered in isolation to the surrounding area, but strongly integrated in terms of layout, building form, landscape and materials.
Activities/Role	» The proposed primary schools are a key community facility and a focal point for activity in each residential area.
Street Design and Layout	» The primary schools should be integrated into the prevailing form.
Public Spaces	» Gathering space for school pick up can be integrated into the wider public realm to create a series of linked public spaces.
Integration with Adjacent Areas	» The primary schools should be a central focus of the residential areas and strongly linked in terms of active travel routes. » The layout of buildings and school grounds should relate to the wider street and block structure.
Density	» N/A
Built Form	» Built form to relate in terms of scale and massing to adjacent residential and parkland areas.
Gardens	» N/A
Parking	» Parking to be provided for school employees and visitors. Vehicle turning/servicing areas should be linked to the school drop off area.
Boundary Treatment and Security	» Boundary treatment required to provide a secure environment for children.
Landscape/ Public Realm / Planting	» School grounds to have a strong landscape structure and treatment, including play space, and spaces to support education (eg Learning through Landscapes) and wildlife.

FIGURE 7.11 EDUCATION

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EMPLOYMENT

Summary	» The Employment Character Area primarily relates to the proposed employment area to the north-east of the site, but would potentially include all proposed areas of employment located throughout the site. » A connected street layout will link into the wider movement network and a strong landscaped edge will make sure that it compliments the surrounding countryside and respects the wider AONB setting.
Activities/Role	» This employment area will provide a mix of B1, B2 and small scale B8 (and ancillary uses), and will reflect the Nepicar Park site to the north of the M26.
Street Design and Layout	» Site layout to make sure that new buildings positively address the proposed relief road.
Public Spaces	» Public spaces for lunchtime relaxation are to be strongly related to parkland and rural edge.
Integration with Adjacent Areas	» Connected street layout linking into residential areas. » Close relationship with the parkland and rural edges with a strong landscape boundary to this interface. » B2 and B8 uses are to be located adjacent to the M26, away from residential areas.
Density	» N/A
Built Form	» Up to 2 storey industrial buildings proposed (large footprint logistics buildings to be avoided). » Built form to positively address the proposed relief road.
Gardens	» N/A
Parking	» Any parking and vehicle turning/servicing areas should be located away from the public facing side of the development (eg away from the relief road).
Boundary Treatment and Security	» The active elements of buildings will be orientated to maximise surveillance over public areas.
Landscape/ Public Realm / Planting	» Very strong landscape edge and structure integrating development in the wider AONB setting. » Informal, semi-natural character. » Existing trees and hedgerows retained, where possible.

FIGURE 7.12 EMPLOYMENT

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7.9 Street Hierarchy

Within this section, the street hierarchy is outlined and the design of each street type is described with respect to dimensions, materials, street trees, street furniture and boundary treatments.

Streets and roads make up three-quarters of all public space. How they are designed therefore has a significant impact on people's lives.

The adjacent street hierarchy plan (Figure 7.14) shows the various elements of the suggested street hierarchy for Borough Green Gardens. The plan proposes a hierarchy of road and street types as follows:

- Primary routes - the relief road;
- Secondary routes - the spine roads through the new settlement;
- Tertiary routes - minor residential streets;
- Homeway/greenway - zone shared surfaces including play streets; and
- Shared driveways.

Residential areas within Borough Green Gardens should be designed in accordance with the Kent Design Guide, providing a hierarchy of primary and secondary routes to serve development parcels.

Future coding work should consider how the area types and street hierarchy relate to one another, to show the differences in street design across different character areas/area types.

The Kent Design Guide states that a development should consist of range of spaces these include:

- Industrial, Commercial and mixed use areas
- Street
- Avenue
- Boulevard
- Crescent
- Square
- Green
- Lane
- Mews
- Courtyard
- Private Developments
- Culs de sac
- Homezone

The Guide also lists a range of street types, including:

- Local Distributor Road
- Major Access Road
- Minor access road
- Minor Access Way, Lane
- Shared Private Drive
- Path
- Homezone

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M20

Wrotham

A227

M26

M26

A20

Wrotham Heath

A25

A25

A25

St Mary's Platt

Key

- Development Parcels
- Open spaces
- Attenuation ponds
- Trees and Hedgegrows
- Public rights of way
- Relief road
- Secondary road
- Tertiary roads
- Railway
- Site boundary
- Motorway
- Main A Roads

FIGURE 7.13 STREET HIERARCHY PLAN

draft

7.10 Road and Street Hierarchy

RELIEF ROAD/PRIMARY ROUTE

The relief road is the primary route through Borough Green Gardens. This route not only provides access to the new residential community, but also seeks to relieve congestion on the existing road network through the village centre.

The relief road will be designed in accordance with the Design Manual for Roads and Bridges (DMRB) as required by Kent County Council (KCC) who will be the Adopting Authority. The relief road comprises a 7.3m carriageway, with footways either side and a segregated cycleway to the south.

It is assumed that direct access to residential properties will not be permitted, and that access points into the residential area will be required at appropriate junction spacings agreed with KCC. Figure 7.16 shows a typical ghost island right turn junction.

Through the development area, the relief road will be located through a number of areas of different character, as shown on the adjacent figure.

The following pages also show sections of the relief road through these different areas. In the residential area, the relief road will be fronted by medium density development comprising town houses, terraced housing and apartments.

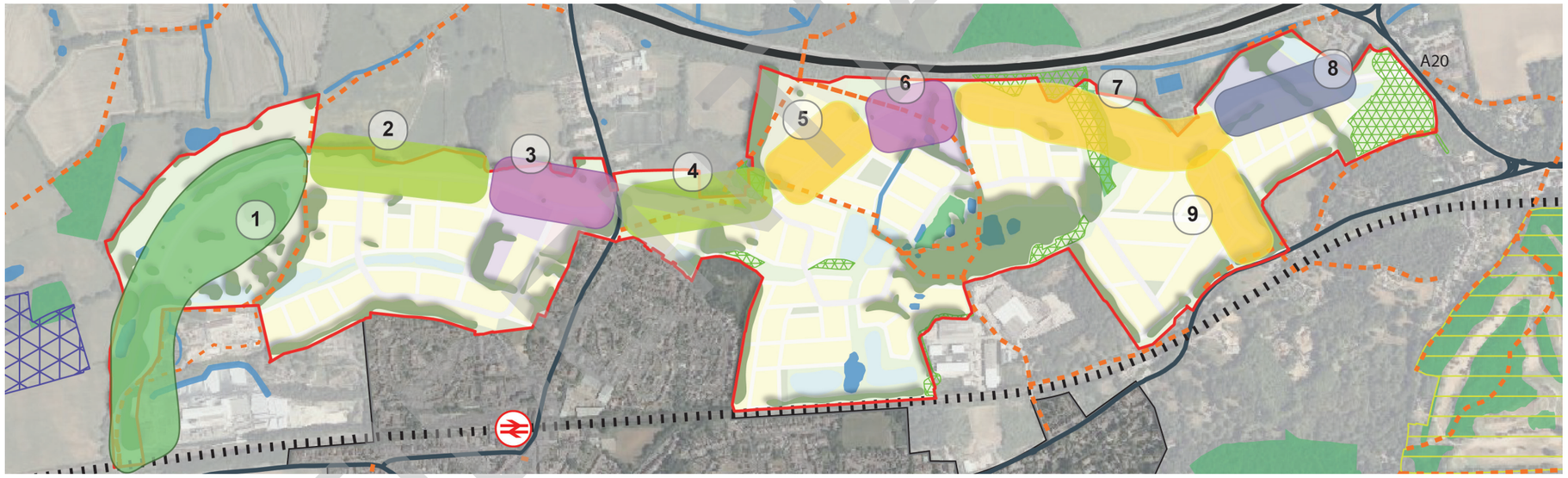

FIGURE 7.15 RELIEF ROAD/PRIMARY ROUTE PLAN

The road corridor will also include areas of green space, with tree and shrub planting to both define the route, provide screening and integrate the road within the wider AONB setting to the north. Through the employment area to the east, the northern side of the relief road will be fronted by commercial/industrial uses set within a strong landscape structure.

Key

- Development Parcels
- Attenuation Ponds
- Vegetation

1. Western landscape - design approach to respect the rural edge and AONB setting - landscape led approach;
2. Residential edge - character influenced by open landscape and AONB to the north and new residential community to the south;
3. Community hub - opportunity to emphasise place-making function and potential to slow traffic speeds in the vicinity of the school and local centre;
4. Residential edge - character influenced by green space and AONB to the north and new residential community to the south;
5. Residential core - character influenced by green space/M26 and AONB to the north and new residential community to the south;
6. Education hub - opportunity to emphasise place-making function and potential to slow traffic speeds in the vicinity of the school;
7. Residential core - relief road alignment through the residential environment requires a greater place-making treatment and slower traffic speed;
8. Employment gateway - relief road to accommodate/provide access for vehicle movements to the proposed employment site; and
9. Residential Core - forms the majority of the residential land through the site, with the relief road providing a link to the south.

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This central section of the relief road is fronted by housing on either side.

FIGURE 7.17 RELIEF ROAD SECTION

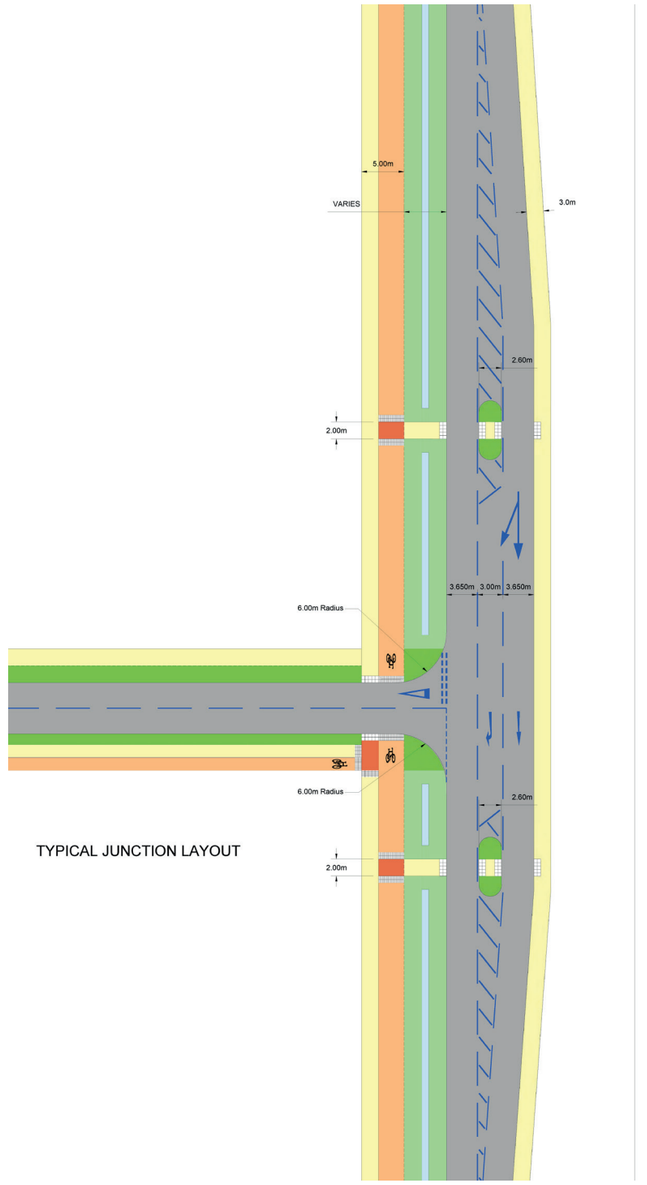

FIGURE 7.16 TYPICAL GHOST ISLAND RIGHT TURN JUNCTION

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The western section of the relief road is fronted by housing on the southern side with verge/ green space to north to provide screening.

FIGURE 7.18 RELIEF ROAD SECTION

draft

The eastern section of the relief road is fronted by housing to the south and employment land to the north.

FIGURE 7.19 RELIEF ROAD SECTION

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SPINE ROAD/SECONDARY ROUTE

The spine roads form the main circulation routes throughout the site, providing corridors for active travel and bus routes and linking the residential areas with the proposed community facilities. Bus stops will be located at various points along the route, within a walkable catchment of 400m.

FIGURE 7.20 SPINE ROAD/SECONDARY ROUTE SECTIONS

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TERTIARY STREETS

Tertiary streets comprise minor residential streets, comprising a conventional street structure with a defined carriageway, kerb and footways, plus on street parking, verges and street tree planting.

FIGURE 7.21 TERTIARY STREET SECTIONS

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HOMEWAY/GREENWAY

Homeways (or Homezones) are residential streets in which the road space is shared between drivers of motor vehicles and other road users, with the wider needs of residents (including people who walk and cycle, and children) in mind. The aim is to change the way that streets are used and to improve quality of life, by making them places for people, not just for traffic (Department for Transport, 2005a).

Homeways in Borough Green Gardens are to be designed primarily to meet the needs of pedestrians, cyclists, children and residents and where the speeds and dominance of cars is reduced.

Variations on the Homeways street type, include Mews (a simple shared space) and play streets which incorporate elements of informal and natural play. Similarly, a Greenway comprises a shared street as part of a green corridor or adjacent to a green space/rural edge.

FIGURE 7.22 HOMEWAY/GREENWAY SECTIONS

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SHARED DRIVEWAY

In general terms, these routes tend to front on to green spaces, requiring a softer treatment to define these routes. This type of street will have an informal character and will have a road alignment that meanders and changes direction as it responds to the topography and natural features of the site.

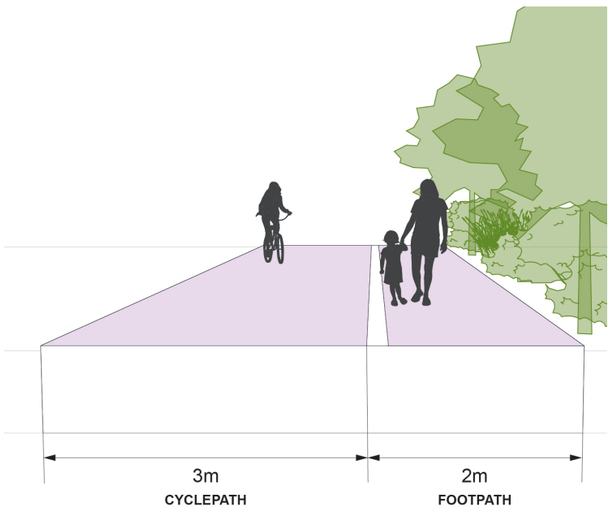
Kent Design Guide

- Private shared drives will provide access to a limited number of individual dwellings;
- a single track serving between 2 and 5 dwellings but with support for HGV (fire appliance, delivery vehicle) access and turning.
- excessive distances between dwellings and the highway should be avoided, and a maximum distance of 25m is recommended.

ACTIVE TRAVEL/GREEN LINK

Active travel/green links are important routes providing segregated walking and cycling routes through Borough Green Gardens.

SEGREGATED CYCLEPATH AND FOOTPATH



SHARED CYCLEPATH AND FOOTPATH

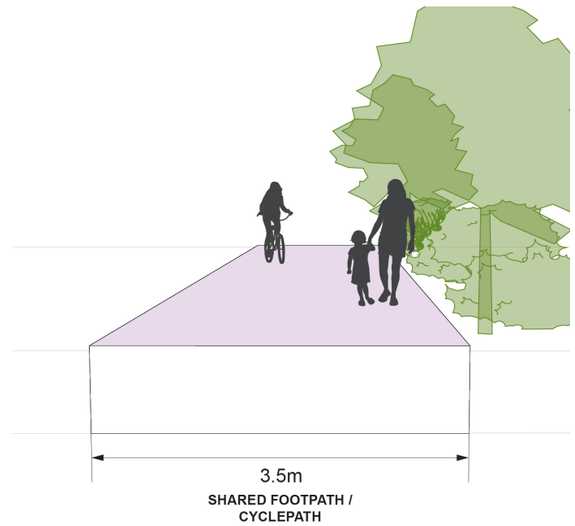


FIGURE 7.23 ACTIVE TRAVEL STREET PROFILES

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7.11 Materials and Design Elements

BUILDING MATERIALS

To reflect the vernacular character of the town, the architectural styles, details, and materials of proposed developments should be carefully considered to match and/or complement the existing neighbourhood. However this existing vernacular character can, and should, be interpreted in a contemporary manner to create a distinctive and modern development.

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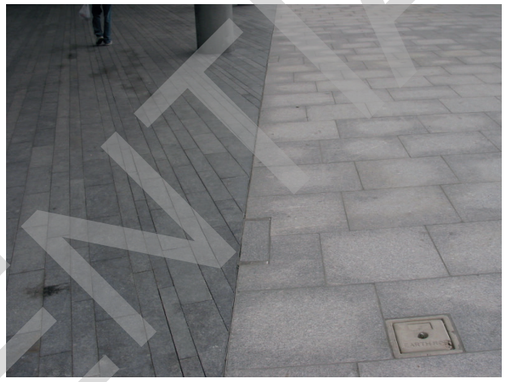
PUBLIC REALM MATERIALS

The choice of paving materials plays a key role in defining the quality of the streetscape and public realm, and also in defining areas for specific uses and activities. How materials are used will vary according to the type of space and the proposed activity. Design should consider both safety and attractiveness. The aim is to provide a consistent treatment of street surfaces that relate to the different functions. Materials can indicate, for example, vehicular or parking areas within the street, boundaries between spaces and pedestrian crossing points.

It is important to create strong visual unity within the street space, and surfacing materials should be selected from a range of similar colours and/or textures, using relatively subtle but clear changes to demarcate the varying functions. Subtle palettes of materials should be used and reflect the use and function of street activity.

The suggested materials should reflect the character of the town and relate to other adjacent proposed developments, so that the public realm treatment is co-ordinated between spaces. It is also suggested to make new materials complement and contrast existing ones, as can be seen in the adjacent images.

Hard landscaping materials should be aesthetically pleasing, robust, with good weathering characteristics and easy to maintain. They should also be sourced from sustainable and ethical sources.



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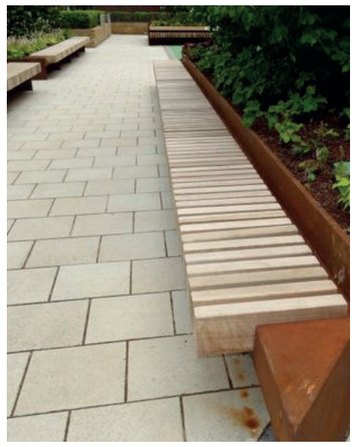
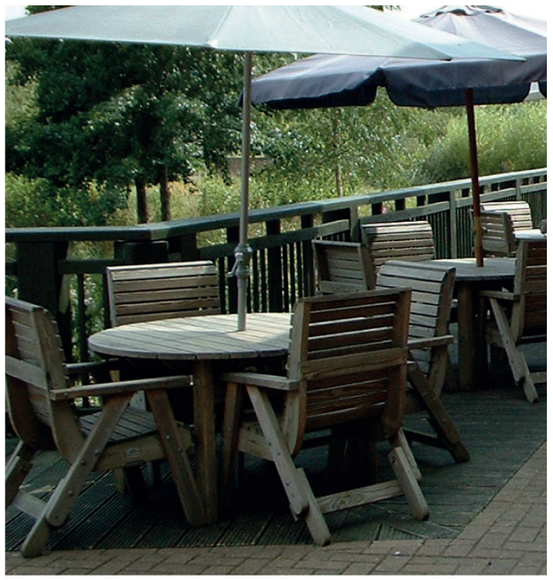
STREET FURNITURE

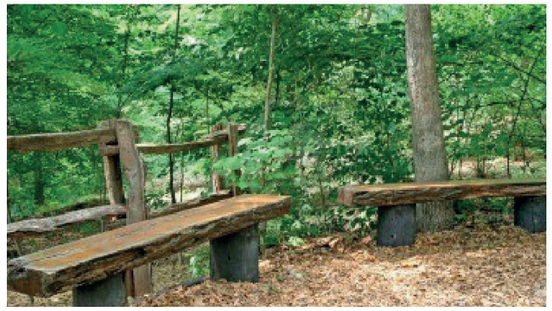
Street furniture plays an important role in contributing to the character of places and is an important element in creating quality streetscapes. The aim is to provide a co-ordinated range of bollards, seating, litter bins, finger post signage and lighting columns. The adjacent precedent images showcase a mixture of items.

A potential approach to a range of street furniture types can include the following:-

- Street lighting;
- Seating and benches;
- Bollards;
- Litter bins;
- Signage;
- Cycle parking.







STREET FURNITURE PRECEDENTS

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LIGHTING

Street lighting is an important element of any urban area both in terms of community safety and aesthetics. The style of street lighting is an important aspect and should be used consistently throughout development to provide uniformity. The adjacent photographs provide examples of a contemporary style to street lighting columns. .

Low level street lighting along residential streets and homeways should be included to avoid light overspill into habitable rooms.

Lighting should be considered alongside other types of street furniture to provide a co-ordinated approach

LIGHTING PRECEDENTS

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SIGNAGE AND WAYFINDING

Signage and wayfinding should enhance the legibility of the area by providing clear directional information and highlighting the status of key destination points and places of interest. The aim for any waymarking strategy should be to create a coherent system of signage linking local facilities and wider destinations.

As well as directions, signage can also be used to inform visitors about an area, whether it be heritage or environmental information. This can be achieved through the use of interpretation boards, which can also be seen on the adjacent images.

The adjacent photographs show a range of different types of sign including finger posts and information boards, showing a co-ordinated approach to directional signage/finger posts and information signage.

SIGNAGE AND WAYFINDING PRECEDENTS

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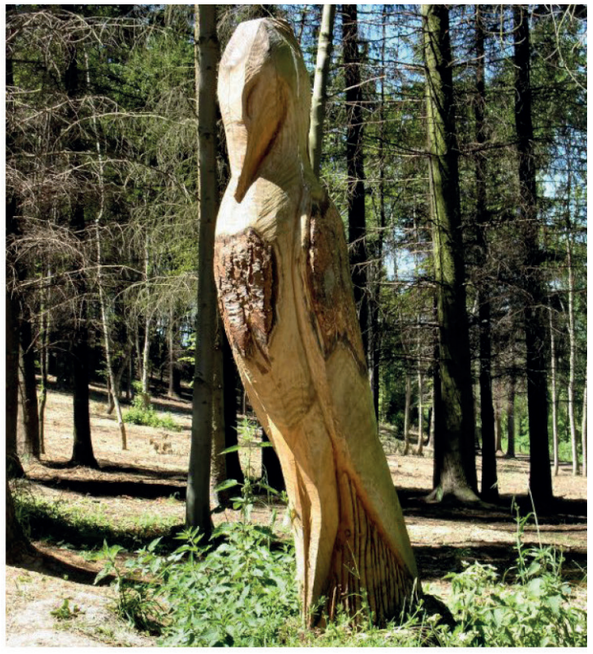
PUBLIC ART

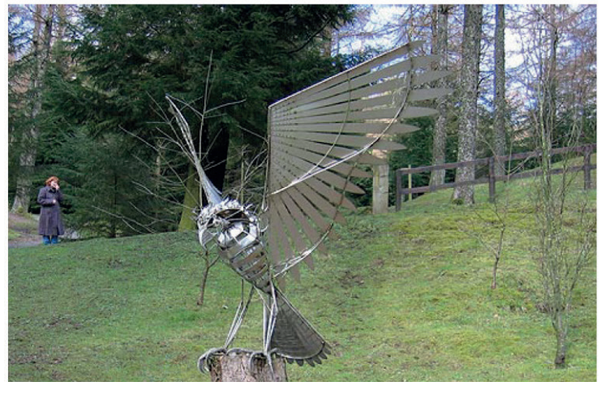
Public art can play an important role in the public realm by contributing to local distinctiveness and identity as well as providing a focus to public spaces. Public art can provide a link to the history of an area or can reflect a particular theme, such as the river or canal. Public art installations should be sited in highly visible locations such as proposed green spaces, along key desire lines/pedestrian links, mobility hubs or associated with community facilities.

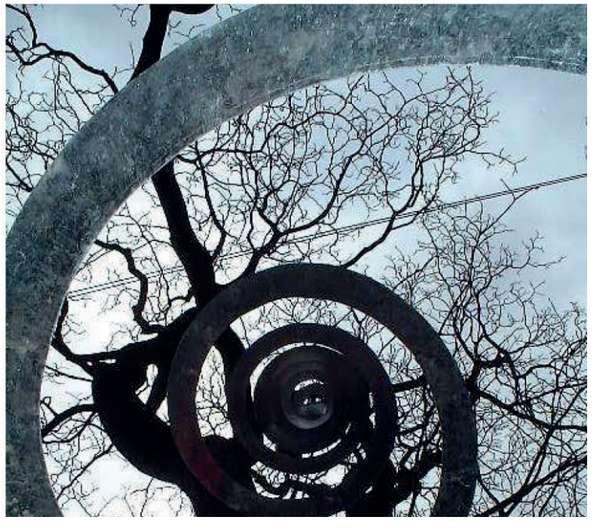
Public art should be representative of the local area and should be suitable for either an urban or rural edge setting.

1. In an urban setting public art should be more contemporary, and could be influenced by historical events or surrounding nature.
2. Public art located in green spaces should have strong nature inspired themes and add interest to public spaces or movement corridors.

The adjacent precedent images showcase some contemporary examples of public art that can be used in new development.







PUBLIC ART PRECEDENTS

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8

DELIVERY & STEWARDSHIP

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08 DELIVERY & STEWARDSHIP

8.1 Introduction

This section sets out the key delivery issues and next steps if a site is taken forward as a new site allocation within the emerging Local Plan. Should an allocation be taken forward at this location, the Development Brief would be adopted for development management and investment purposes.

8.2 Phasing

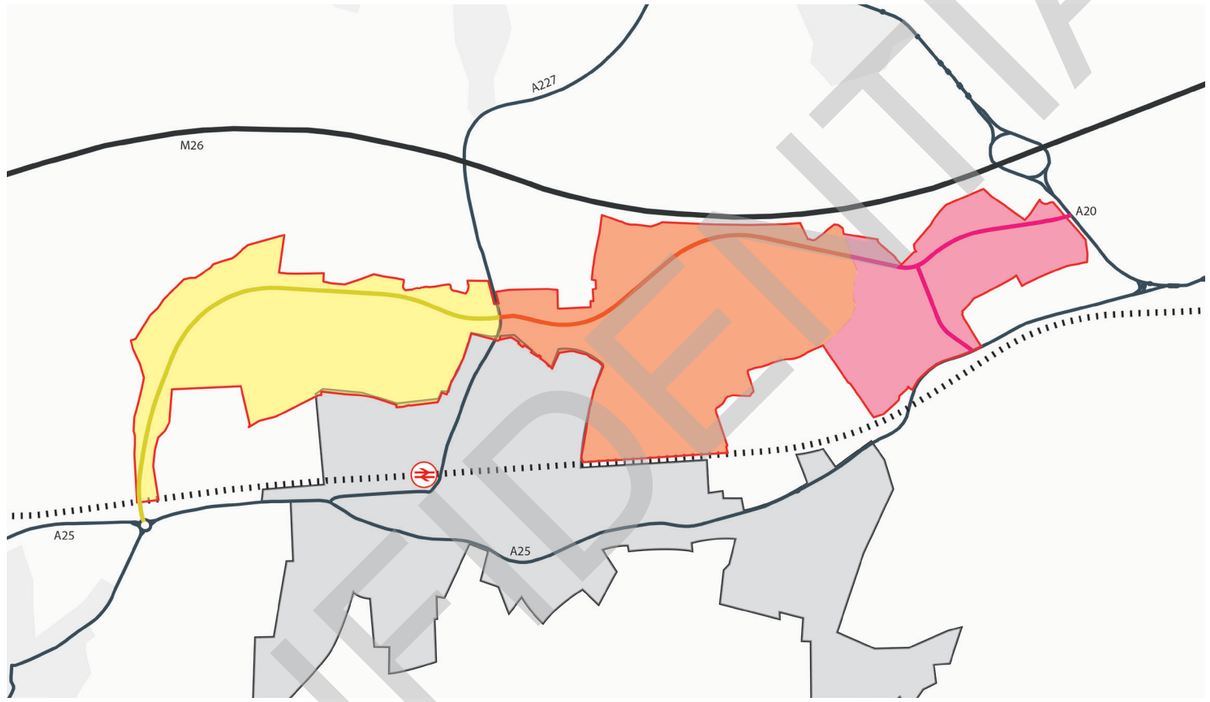

FIGURE 8.1 INDICATIVE PHASING APPROACH (BASED UPON INFORMATION INCLUDED IN WITHDRAWN TONBRIDGE & MALLING BOROUGH LOCAL PLAN - REGULATION 22 SUBMISSION JANUARY, 2019)

The adjacent Figure 8.1 presents an initial indicative phasing approach for Borough Green Gardens (based upon Figure 6: Borough Green Gardens Masterplan Area in the Tonbridge & Malling Borough Local Plan - Regulation 22 Submission January, 2019).

The proposed indicative housing trajectory for Borough Green Gardens is shown below is an extract from the former Appendix E: Housing Trajectory for LP25 Sites (withdrawn Tonbridge & Malling Borough Local Plan - Regulation 22 Submission January, 2019. This table showed the proposed timescales for Phases 1A and 1B (2,100 homes), plus Phase 1C (900 homes) but is no longer a valid or up to date trajectory. School provision will also need to be considered as an integral part of any phasing approach.

Site Ref	Site Name	Ward	Yield	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	Up to 2031	Post 2031
h	Borough Green Gardens Phase 1A + 1B	Borough Green and Long Mill	2,100						40	160	240	320	320	320	320	1,720	380
	Borough Green Gardens Phase 1C	Borough Green and Long Mill	900													0	900

TABLE 8.1: EXTRACT FROM APPENDIX E: INDICATIVE HOUSING TRAJECTORY FOR LP25 SITES (WITHDRAWN TONBRIDGE & MALLING BOROUGH LOCAL PLAN - REGULATION 22 SUBMISSION JANUARY, 2019)

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8.3 Transport and Infrastructure

Phasing is critical to the delivery of the relief road (see Relief Road Feasibility Review, Arcadis, 2023) and is intrinsically linked to ongoing quarry workings and a number of other key items which will affect the timings of delivery of the relief road as follows:

- Traffic impact on wider highway junctions
- Backfilling of quarries to achieve levels required for development and delivery of the relief road, and associated planning consents
- Timings for delivery of the development – ideally the relief road would be constructed at the same time as the development, minimising abortive works

Delivery of the route will also be dependent on access to quarries being backfilled, and earthworks required to deliver the routes ahead of restoration works being completed. Planning consents allow some queries to continue beyond the Plan period and this could impact delivery of the route within the timescales modelled.

The delivery of infrastructure at the appropriate time, and in line with the viability of the development of Borough Green Gardens to provide an appropriate cash flow model, may be critical to the successful delivery of this site.

8.4 Involving the Community

Involving the local community in the development of proposals for Borough Green Gardens will form an important element of future stewardship and management arrangements.

Other garden communities elsewhere in the UK have used a variety of options and structures to bring together existing residents - and ultimately provide a vehicle for new residents to participate in. Creation of a community forum is one such vehicle.

Establishing a project website would be an appropriate first step in engaging with the local community, and using this as a landing page for residents wanting to find out more about the project, about how they can be involved and what the next steps and timeframes are. The project website can be accompanied by appropriate 'branding' for Borough Green Gardens, establishing its identity and distinctiveness.

BOROUGH GREEN GARDENS FORUM

Initial discussions have been held with respect to the creation of 'Borough Green Gardens Forum'. The Forum is envisaged to be central to engagement activities and chaired by a non-political independent person. Membership could comprise representatives of the local community. The remit of the Forum is to provide a way of raising and advising on local issues, aspirations and opportunities as they relate to the Borough Green Gardens project.

Suggested steps to be taken in relation to the Forum are to:

- Confirm remit and structure of the Forum (e.g. approximate membership numbers, core representation)
- Invite expressions of interest from the community for membership of the Forum (via press release / social media / letters to identified community groups and businesses).
- Draft guidelines to guide conduct at Forum meetings.
- Establish first group meeting .

Understanding motivations and barriers to engagement helps to inform the development of a successful engagement strategy. Reasons why people might want to get involved in the Forum include that they care about their area, that they feel part of a community, or that they have a desire to improve / protect services and facilities; equally barriers to engagement can include lack of time, lack of interest or where people might not believe they 'can make a difference'.

Northstowe Healthy New Town, South Cambridgeshire

https://www.scambs.gov.uk/community-safety-and-health/community-forums/northstowe-community-forum/

Community forum hosted on the South Cambridgeshire District Council website. The forum has terms of reference and a code of conduct. It is chaired by a local ward member and provides an opportunity for residents to raise issues of interest or concern with a view to enhancing the quality of community life and the environment in Northstowe.
There is also a Northstowe Community Working Group which meets quarterly and takes an active role in terms of meeting new residents and building a programme of community activities as part of the ongoing monitoring and maintenance stage of project delivery.

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8.5 Stewardship

INTRODUCTION

'Long-term stewardship of an asset simply means ensuring that it is properly looked after in perpetuity.' (TCPA, 2017).

Stewardship includes the physical maintenance and management of projects, but also includes future developments to sustain those places to achieve the desired social, economic and environmental outcomes.

This section sets out initial thoughts on potential approaches to stewardship as a basis for initial discussions with landowners and key stakeholders.

WHY STEWARDSHIP IS IMPORTANT

The aftercare and development of places is an essential component in the creation of sustainable developments. Too often little thought is given to the intended long-term legacy, with little attention given to aftercare, who is responsible for assets, how much the aftercare will cost and how it is funded and how different elements are managed together. Over time this leads to a deterioration of the design, resulting in unwanted outcomes such as spaces which people do not want to use, poor establishment of soft landscape or new development and uses adversely impacting on the design intentions.

BOROUGH GREEN GARDENS

The long term management and maintenance of all assets in Borough Green Gardens is an essential part of delivering sustainability measures, linking to community involvement and future monitoring.

Consideration should be given at an early stage to the future management arrangements for Borough Green Gardens' infrastructure and facilities. By considering these stewardship issues at an early stage, future maintenance and management issues can be addressed and approaches developed to secure future use and maintain quality standards.

The management and maintenance of green and blue infrastructure, and the various facilities and land uses, particularly areas of green space, woodland, community facilities, and play areas will require particular consideration. Such uses do not normally generate revenue and this might need to be recognised in determining the scale of S106 obligations, for example. The Council may have a significant role to play in the future management of such uses, alongside a management company or trust.

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HOW CAN SUCCESSFUL STEWARDSHIP BE ACHIEVED?

Successful stewardship requires collaboration between a range of stakeholders working towards a shared outcome – i.e. to care for an asset indefinitely. It requires a body to take responsibility for the assets and work with stakeholders to achieve common aims and objectives. Different stakeholders have different roles to play – some are actors (those who manage on the ground), enablers (such as administrations and funding bodies), facilitators (organisations which bring different stakeholders together) and society at large who use the scheme. Successful stewardship takes a holistic view, bringing the different parties together for the good of the scheme and the community it is based in.

There are many different ways to achieve this which depend on the place and type of project, the team delivering the project, the anticipated asset owners and the people who are to use the asset in the long term. This could comprise one or a combination of the following:

- **Management** by the developer/ owner (this is more typical for developments with no shared infrastructure or for a single developer),

- **Adoption** by a Local Authority (this is common for infrastructure such as highways which are designed in accordance with their standards, or where the Local Authority is the developer),

- Creation of a **Stewardship Body** for the project, for example community owned and run bodies.

- **3rd party provider** to undertake long-term stewardship (similar to the stewardship body in terms of its function, however an established provider with no community ownership).

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> *"Good places are important to all of us. As individuals, we are drawn to them and their ability to provide for our needs, to make us feel safe and even happy. As a society, good places are a focal point of social and economic activity, and help to define our collective sense of identity...Good places are not a luxury, they are a necessity."*
>
> Living Places – An Urban Stewardship & Design Guide for Northern Ireland

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8.6 Key Steps for Successful Stewardship

PLANNING

Start considering stewardship at the beginning of the project. This should include topics such as:

- Engagement with the community and other stakeholders on the topic of stewardship. Are there existing bodies that could be expanded to include this project, identify community needs and ways to meet them.
- Aims and objectives for the long term – should build upon the project's design principles, and set short, medium and long term aims and objectives. These aims and objectives should have buy in from all stakeholders. Should respond at a local level to the site needs and be underpinned by suitable planning policy.
- Establish likely long term asset ownerships – determining the end owner of all elements will provide clarity as to the ownership, and will determine any particular requirements. This should be undertaken as an early part of the design process given that it is a fundamental consideration, and can influence the intended design outcome.
- Defining roles and responsibilities – adoption by local authorities or other statutory bodies, establishment of management companies or community interest companies.
- Identifying management and maintenance requirements.
- Setting out a long-term Stewardship Plan which explores which models and approaches are best suited for the project. Stewardship Plan also conveys the design intent and long term development long after the design teams have completed their work.
- Estimating ongoing costs and identifying appropriate funding to undertake the required aftercare and development. This should influence the decision making in terms of stewardship body, facilities provided and managed, and opportunities for revenue streams.
- Periodic review of the outcomes being achieved against the aims and objectives.

FUNDING

Successful stewardship requires suitable revenue funding to be in place to undertake its intended activities. Most stewardship bodies will need two sources of finance:

- Capital investment (including development capital – required at the start of an organisation's life, but also throughout its existence for developing and piloting new ideas and growth capital – to purchase, develop or refurbish a building or land or to upgrade equipment); and
- Working capital – helpful to support what may be an uneven cash flow; and a revenue stream (income necessary to cover everyday running costs and sometimes to fund capital investment – usually generated though services, contracts and/or income from trading).

The amount of funding required should be considered at the design stage, with good design promoted which reduces ongoing burdens evaluated prior to construction. Funding generation could be from a few different sources as noted below, and a strategy should be in place which meets the requirements:

- Endowments and investments. Possible options include agreements to benefit from land and property increases, S106 agreements or Community Infrastructure Levys (CIL).
- Earning incomes. This can include selling goods or services, or directly through assets such as the use or hire of facilities.
- Maintenance and service charges. A service charge is typically levied by landlords to tenants in exchange for providing services to properties, such as the upkeep of communal and shared areas.
- Public sector funding. This could include a proportion of the council tax funding, or subsidies granted to the stewardship body. It could also include public sector commissions, where contracts are awarded to the stewardship body to provide Council funded services.
- Charitable funding. Grants from charitable institutions vary in size and their requirements. Whilst useful, they rarely form a long term source of income.
- Loans and equity finance. The ability of the stewardship body to borrow funds or offer shares to the public depends on the type of body which has been established.

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8.7 Selecting and Running the Stewardship Body

Various stewardship body organisations are possible as set out below. To be successful the chosen vehicle should best meet the needs of the community it is intending to serve, requires good governance with representation for local residents and stakeholders and needs the right skills and capacity within its membership to fulfil its functions.

- **Management companies** are probably the most commonly used form of stewardship body. They are companies set up to manage assets (land, property or facilities) as part of a development. Membership/ownership of the companies is very often extended to residents, who become members or shareholders, depending on the constitution of the company. The extent of participation in the management and executive functions of the company depends on the terms under which the company is established – usually, the ultimate control of assets and expenditure is not passed across to residents until the development is complete, with the developer holding 'golden shares' and weighted voting rights until that time.

- **Community land trusts (CLTs)** are 'non-profit, community-based organisations run by volunteers that develop housing, workspaces, community facilities or other assets that meet the needs of the community'. CLTs 'are owned and controlled by the community' and can make sure assets such as housing 'are made available at permanently affordable levels' (TCPA, 2017). They are not a legal entity in their own right and so can adopt one of several legal forms. CLTs have so far mainly been used for smaller-scale projects (developing tens rather than hundreds or thousands of homes).

- **Development trusts** are 'community organisations created to enable sustainable development in their area. They use self-help, trading for social purpose, and ownership of buildings and land to bring about long-term social, economic and environmental benefits in their community' (TCPA, 2017). They are similar to community land trusts but have no legal definition and can adopt a range of constitutional forms and business models. They have traditionally been used in the regeneration of an existing area rather than in the development of a new community.

- **Other types of trust**. A trust is a way of holding assets that separates legal ownership from economic interest. Assets are usually owned by trustees and managed in the interests of the beneficiaries according to the terms of the trust. Trusts can be unincorporated or incorporated and can take a number of legal forms.

- **Community interest companies (CICs)** are a special type of limited company which exist to benefit the community rather than private shareholders. CICs are set up to use their assets, income and profits for the benefit of the community they are formed to serve, and must embrace special features such as an asset lock, which ensures that assets are retained within the company to support its activities or otherwise used to benefit the community. The CIC is particularly suitable for those who are not aiming to make profits for individuals but do not want the administrative or governance burden of taking on charitable status. They are more flexible than some other legal forms, and there are a variety of capital structures available to meet the needs of members and the organisation.

- **Industrial and provident societies** are organisations conducting an industry, business or trade, either as a co-operative or for the benefit of the community

- **Co-operative societies** are run for the mutual benefit of their members, with any surplus income usually being reinvested in the organisation to provide better services and facilities. They often take the form of an industrial and provident society (see above), but can take a number of different legal forms. There are a number of different types of co-operative society which differ according to their core activity (for example housing co-operatives, consumer cooperatives, worker co-operatives), but which are all based on the same legal structure.

- Some **housing associations or registered social landlords** provide services to communities beyond their role as social landlords. They might be contracted by a local authority to maintain the public realm or run community centres. They might, themselves, own these assets if there are facilities they have built as part of their own housing development.

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8.8 Considerations in Planning for Stewardship Summary from 'Long Term Stewardship' (Town and Country Planning Association, 2017)

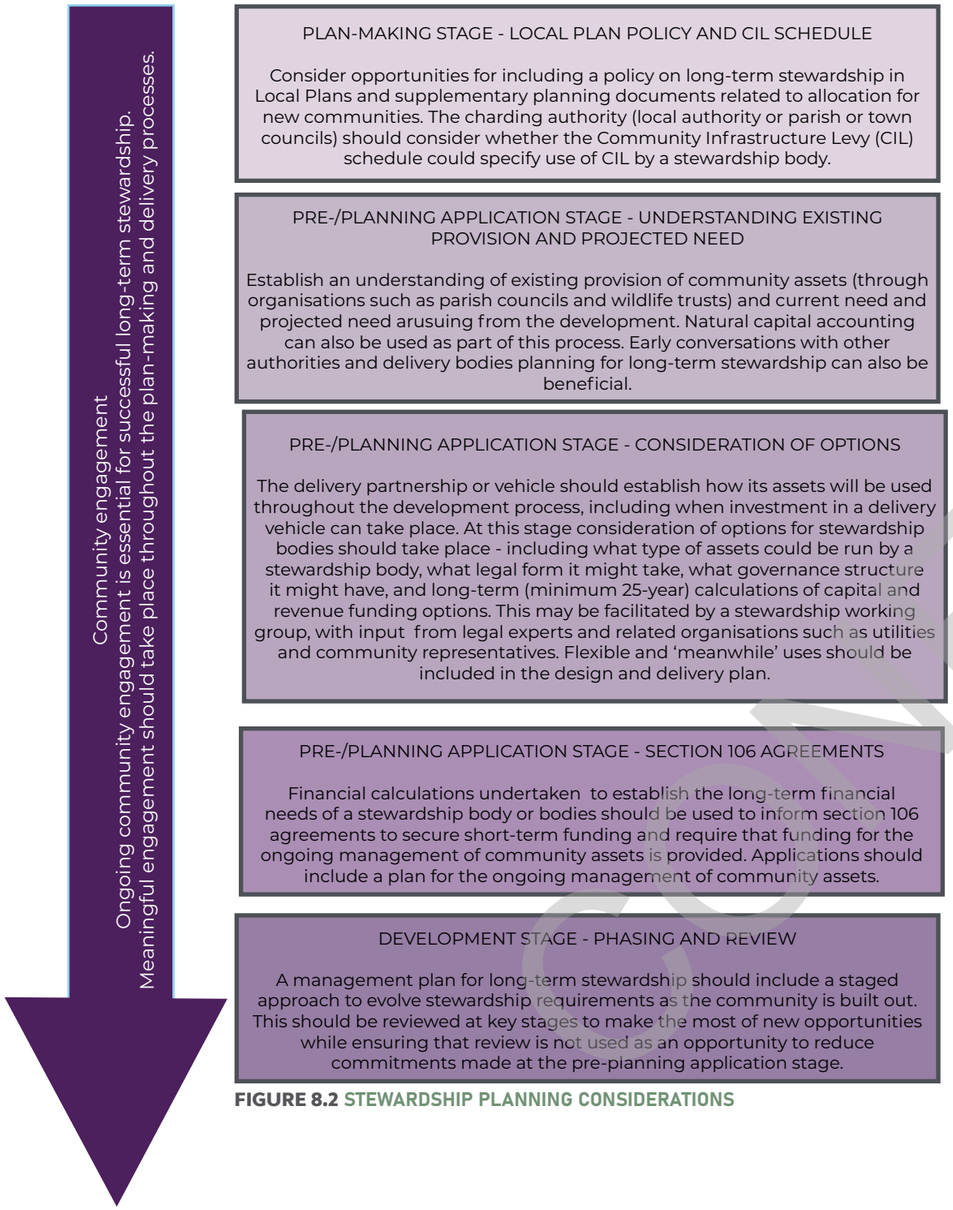

FIGURE 8.2 STEWARDSHIP PLANNING CONSIDERATIONS

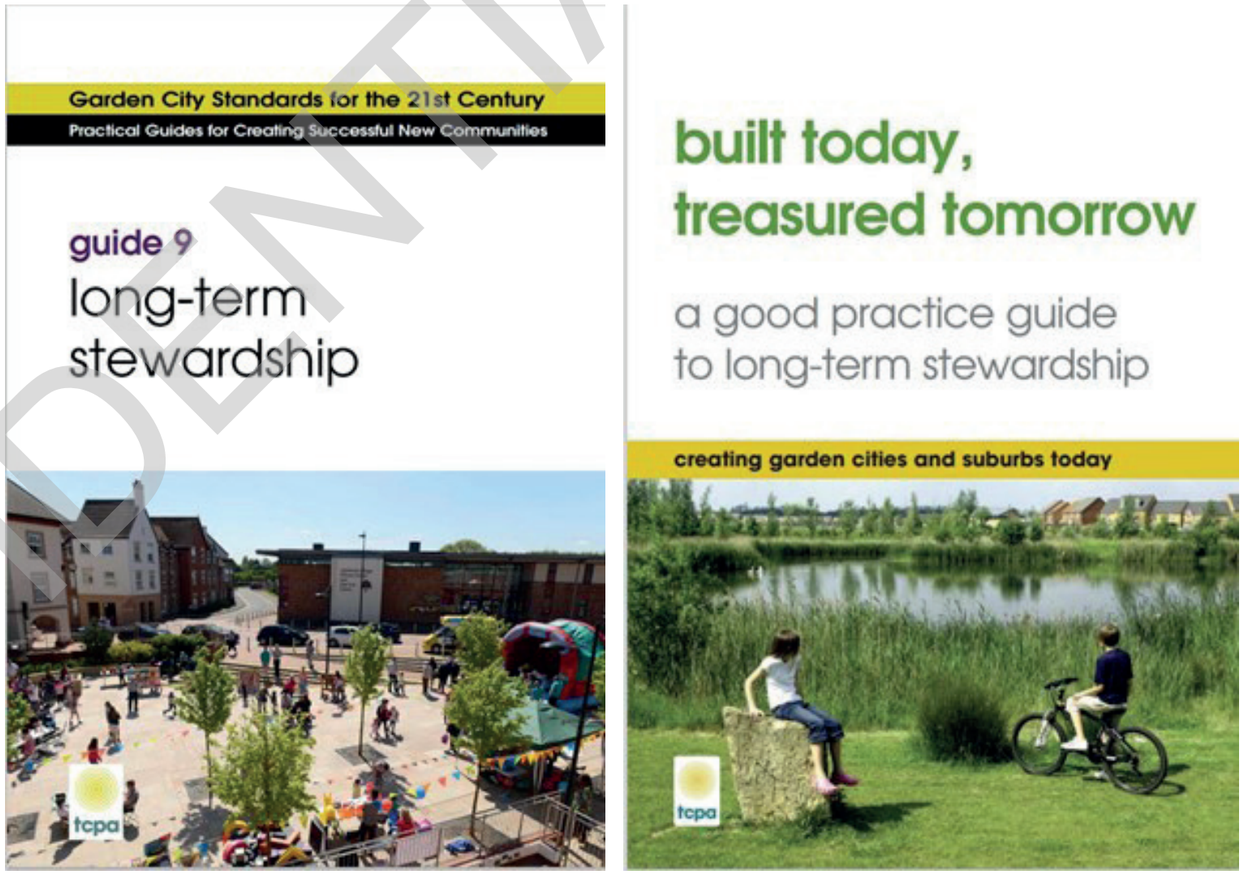

FIGURE 9.3 STEWARDSHIP GUIDANCE DOCUMENTS

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8.9 Defining, Measuring & Monitoring Success

KEY PERFORMANCE INDICATORS (KPIs)

The approach must make sure sustainability and a commitment to net zero carbon is embedded in every aspect of Borough Green Gardens by:

- Defining the vision, principles and objectives for the garden community in collaboration with stakeholders;
- Clearly defining KPIs and targets tailored to the ambitions for each objective (standard, best practice, aspirational) to ensure successful implementation;
- Establishing a clear process for guiding, evaluating and improving sustainability performance during the development of a masterplan;
- Engaging key stakeholders to ensure sustainability is embedded throughout the process; and
- Presenting opportunities to identify value through Whole Life Value Assessment, Cost Benefit Analysis and Natural Capital Valuation.

A set of KPIs need to be established to help monitor and track the changes linked to the delivery of future development proposals. The potential KPI selection process should build upon aims, objectives and policies set out in key Council documents and strategies (such as the Local Plan), and should be agreed with Council officers, external stakeholders and potential data owners.

EXAMPLE: LINKING DESIGN PRINCIPLES AND KPIS

The principles and KPIs shown below were applied to a similar new settlement.

Principles

1. Complement local communities
2. Ease of movement and good connectivity
3. Strong sense of community
4. Unique and bespoke
5. Performative landscape
6. Promote healthy and active lifestyle
7. Designing for climate change resilience
8. Diversity of housing
9. Enhance employment opportunities in the locality
10. A vision that is deliverable.

Potential datasets for KPIs need to reflect the following:

- Accuracy of the data
- Usability and area the data is linked to
- Source of the data
- Description of the dataset: what is the data describing and how it could be used?
- Cost and ease of gathering data
- Commitment to monitoring

KPIs

- Healthy Life Expectancy
- Biodiversity
- Carbon Footprint
- Energy Efficiency
- Open and natural spaces
- Accessibility of services
- Economic KPIs
- House types
- Community facilities
- Renewable energy generation
- Life satisfaction
- Trees established
- Hedges
- EV Charge points
- Apprenticeship Programme
- Ecosystem services
- Deprivation
- Inactivity

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APPENDIX: 01

RELIEF ROAD & LAND USE OPTIONS AND SWOC

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Concept Option Development

OPTION 1 (BARTON WILLMORE)

Key Features:

- Based upon Barton Willmore concept
- Local centre and primary schools located along relief road
- Employment - eastern gateway
- Relief road character to respond to adjacent land uses and contribute to place-making function
- Relief road to follow northerly alignment on western part of site
- Explore potential for 30mph speed limit in the eastern part, and 20mph in vicinity of schools
- Complementary traffic calming required in existing village centre /A25

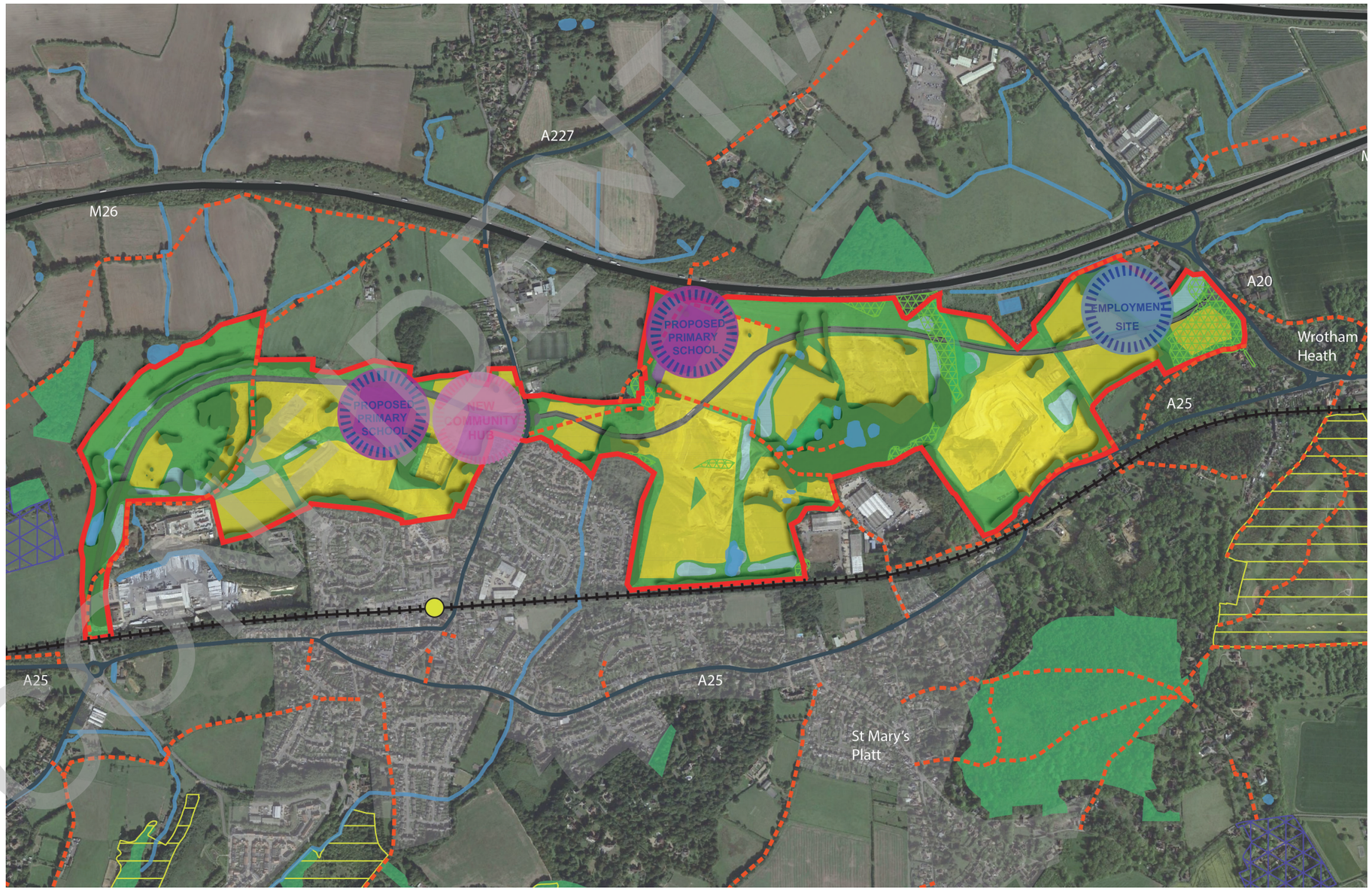

FIGURE 9.1 CONCEPT OPTION 1 (BASED UPON BARTON WILLMORE PLAN)

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STRENGTHS

- Landscape/AONB – relief road located on northern boundary creates potential for screening and visual integration with landscape, locating road infrastructure near to existing motorway. Primary schools located adjacent to northern boundary of site to provide greener northern edge to screen development. Employment screen to north-east less visually intrusive.
- Connectivity – primary schools, local centre and employment area located adjacent to relief road/employment area located at eastern gateway/junction with A20
- Movement – eastern section of relief road designed to prioritise movement
- Active travel – less severance in development area due to more northerly alignment of relief road
- Noise – location of employment on northern boundary allows potential for motorway noise mitigation
- Minimises severance between development parcels, although some still identified.

WEAKNESSES

- Landscape/AONB - impact on Firemanshaw Wood Ancient Woodland/proximity to AONB boundary to the north
- Place-making – less opportunity for relief road to have a place-making function in the eastern sections due to the more northerly alignment
- Road safety – primary school located adjacent to relief road
- Active travel – less integration of public rights of way network/ footpaths due to likely movement priority of eastern relief road
- Public transport – less potential to provide integrated bus stops on faster speed eastern relief road
- Separate primary and secondary routes also required for the development

OPPORTUNITIES

- Landscape/AONB - opportunities for incorporating native structural planting along the northern and southern boundaries of the site, combined with low-density development within the AONB at Ightham Quarry. Aligned to maximise the screening effect of proposed structural planting on the northern boundary.
- Movement – change central A227 roundabout to signalised junction that may make at grade crossings for pedestrians / cyclists easier. Further modelling required to confirm this.
- Place-making opportunities/landmark buildings (relief road/A227/A20 gateway) – remaining link Relief Road design.
- Land being made available such that this route could be delivered early in the development programme
- Provides an emergency route for motorway closures once A25 downgraded

THREATS/CONSTRAINTS

- Relief road design (movement takes priority)
- Landscape/AONB/ecology/ancient woodland
- Noise and vibration/air quality/ground conditions
- Existing watercourse/drainage/flood risk
- Utilities/foul sewer

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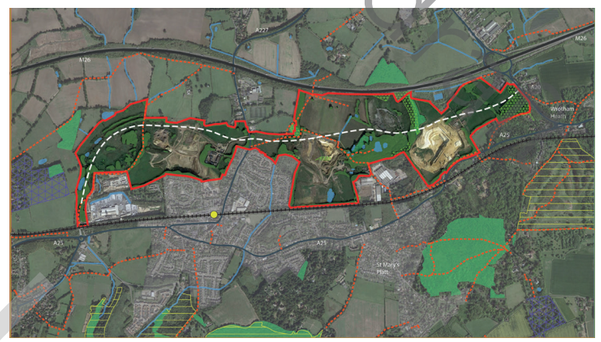

OPTION 2

Key Features:

- Local centre and primary schools located within residential areas away from relief road in western part of site
- Employment - eastern gateway
- Relief road to follow more central alignment through the eastern part of the site and designed to prioritise its place-making role - explore potential for 30mph speed limit in this eastern part, and 20mph in vicinity of schools
- Complementary traffic calming required in existing village centre /A25

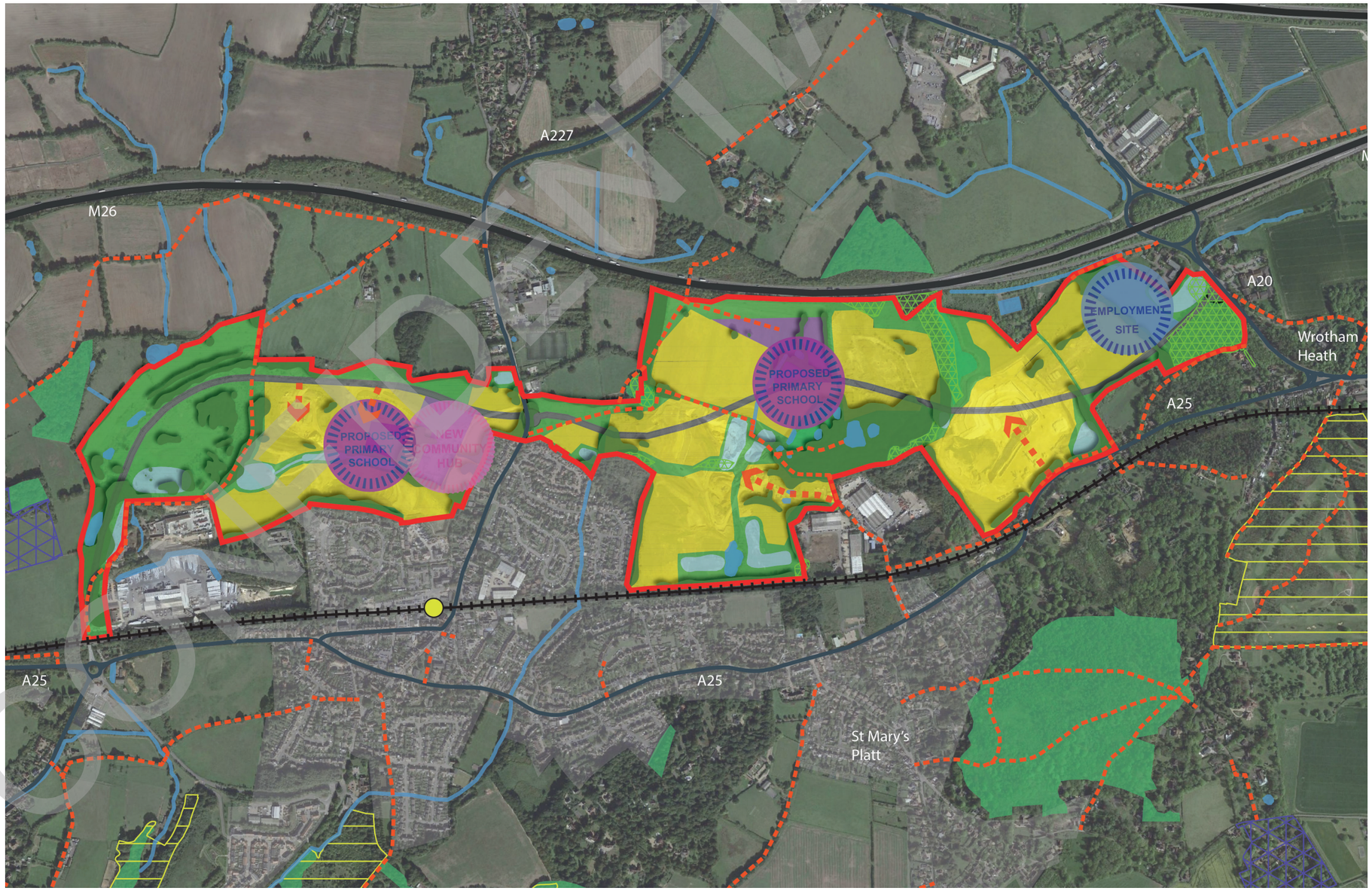

FIGURE 9.2 CONCEPT OPTION 2

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STRENGTHS

- Landscape/AONB – local centre (and higher density housing) located towards centre of site to reduce impact. Relief road routing directly to the south of the Firemanshaw Wood ancient woodland to reduce impact on this area
- Connectivity – western primary school and employment area located adjacent to relief road/employment area located at eastern gateway/A20
- Road safety – western primary school located away from relief road/opportunity for lower speeds in central eastern section if relief road designed to prioritise place-making
- Place-making – eastern section of relief road on more central alignment – less likely to be designed to DMRB and with greater place-making
- Active travel – better integration of public rights of way in eastern phases if relief road has a greater place-making function
- Noise – location of employment on northern boundary allows potential for motorway noise mitigation

WEAKNESSES

- Landscape/AONB - Potential impacts due to location of residential near to northern boundary/AONB in eastern section. Loss of deciduous woodland south of Firemanshaw Wood, impacts to PRoW MR251, MR247B and MR248
- Severance – more central relief road alignment may cause severance if designed primarily for movement. Additional crossings will be required to allow connectivity across this segregating central spine road to the development parcels either side
- Road safety – primary school located adjacent to relief road

OPPORTUNITIES

- Landscape/AONB - opportunities for incorporating native structural planting along the northern and southern boundaries of the site
- Movement – change central A227 roundabout to signalised junction that may make at-grade crossings for pedestrians and cyclists easier. Further modelling required to confirm this
- Place-making – opportunity for taller/higher density landmark buildings built into lower topography/ primary schools centrally located - opportunity for landmark buildings to support orientation. Further modelling required to confirm localised chance to road through village centre to confirm impact on surrounding highway network and downgrading of A25

THREATS/CONSTRAINTS

- Relief road design (movement vs place-making) – alternative emergency route required along A20 / A227 if neighbourhood centre area downgraded. Further modelling required to confirm acceptability of this
- Landscape/AONB/ecology/ancient woodland
- Noise and vibration/air quality/ground conditions
- Existing watercourse/drainage/flood risk
- Utilities/foul sewer
- Land availability – delivery of eastern section dependant on timing of completion of existing quarry workings

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OPTION 3

Key Features:

- Local centre and primary schools located within residential areas away from relief road in western part of site
- Employment - southern gateway
- Relief road to follow most southerly alignment through the eastern part of the site, south of the woodland area, connecting to the A20
- Designed to prioritise its place-making role - explore potential for 30mph speed limit in this eastern part
- Complementary traffic calming required in existing village centre /A25

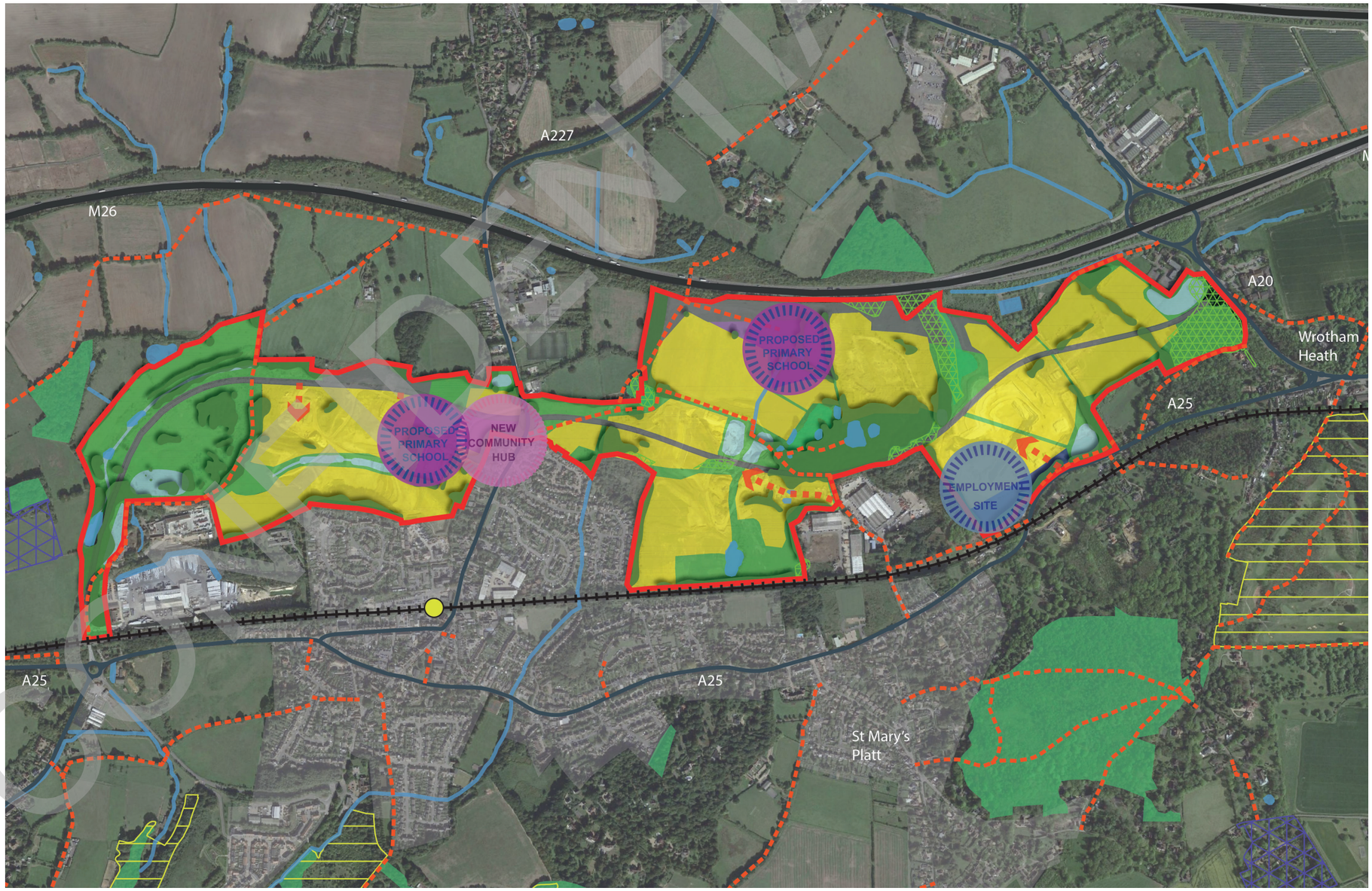

FIGURE 9.3 CONCEPT OPTION 3

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STRENGTHS

- Landscape/AONB – relief road route directly to the south of the Firemanshaw Wood ancient woodland avoids direct impacts
- Connectivity – western primary school located adjacent to relief road. Employment area located near A25
- Place-making – eastern section of relief road on more central alignment – less likely to be designed to DMRB and with greater place-making. Further modelling required to confirm localised change to road through village centre to confirm impact on surrounding highway network and downgrading of A25
- Active travel – better integration of public rights of way in eastern phases if relief road has a greater place-making function
- Public transport – increased potential to provide integrated bus stops on slower speed eastern relief road
- Prioritises access to industrial land, away from A25

WEAKNESSES

- Landscape/AONB - potential impacts due to location of residential uses near to northern boundary/AONB in eastern section. Routing would require removal of woodland near Platt Industrial Estate. Location of employment to south may have greater visual impact
- Severance – more central relief road alignment may cause severance if designed primarily for movement. Additional crossings will be required to allow connectivity across this segregating central spine road to the development parcels either side
- Vehicular movement – eastern section of relief road on more southerly alignment. This is likely to be designed as a movement corridor with higher traffic speeds
- Road safety – primary school located adjacent to relief road/potential for higher traffic speeds away from housing frontage
- Noise – location of employment on southern boundary limits potential for motorway noise mitigation

OPPORTUNITIES

- Landscape/AONB - opportunities for incorporating native structural planting along the northern and southern boundaries of the site
- Movement – location closer to Platt Industrial Estate creates an opportunity for direct access from the relief road without additional road infrastructure being included
- Place-making – opportunities/landmark buildings (relief road/A227/A25 gateway). Further modelling required to confirm this

THREATS/CONSTRAINTS

- Relief road design (movement vs place-making) – alternative emergency route required along A20 / A227 if neighbourhood centre area downgraded. Further modelling required to confirm acceptability of this
- Landscape/AONB/ecology/ancient woodland
- Noise and vibration/air quality/ground conditions
- Existing watercourse/drainage/flood risk
- Utilities/foul sewer
- Land ownership – delivery of eastern section dependant on timing of completion of existing quarry workings.

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OPTION 4

Key Features:

- Local centre and primary schools located along relief road in western part of site
- Employment - southern gateway
- Relief road to follow more southerly alignment through the eastern part of the site connecting to the A25 and designed to prioritise its place-making role - explore potential for 30mph speed limit in this eastern part, and 20mph in vicinity of schools
- Complementary traffic calming required in existing village centre /A25

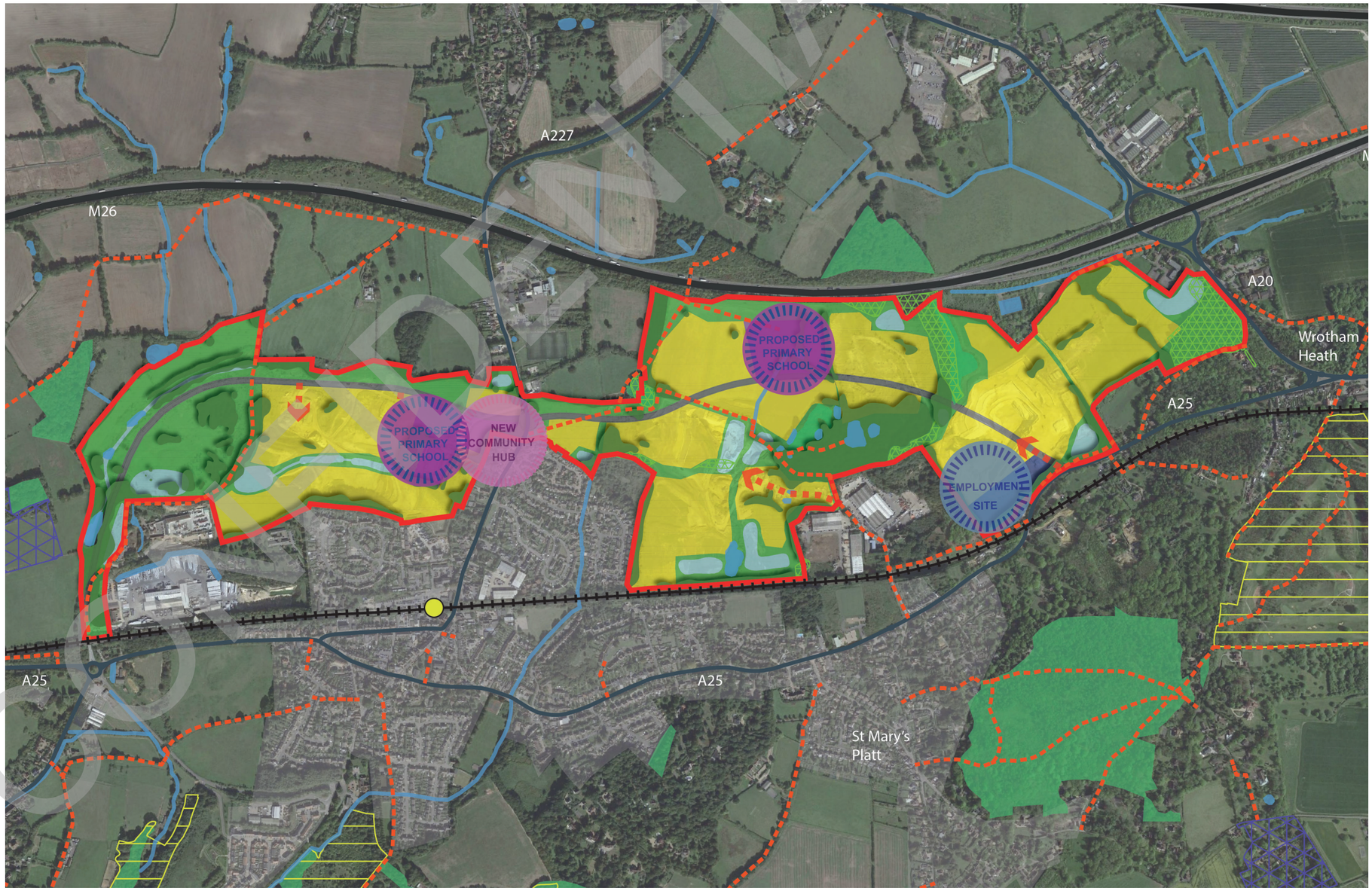

FIGURE 9.4 CONCEPT OPTION 4

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STRENGTHS

- Landscape/AONB – no impact to PRoW MR248. Relief road route directly to the south of the Firemanshaw Wood ancient woodland avoids direct impacts. Less impact on existing trees, hedgerows and vegetation to east at Nepicar House/Farm
- Connectivity – primary schools, local centre and employment area located adjacent to relief road
- Place-making – eastern section of relief road on more central/southern alignment – less likely to be designed to DMRB and with greater place-making. Further modelling required to confirm localised change to road through village centre to confirm impact on surrounding highway network and downgrading of A25
- Active travel – better integration of public rights of way in eastern phases if relief road has a greater place-making function
- Public transport – increased potential to provide integrated bus stops on slower speed eastern relief road
- Prioritises access to industrial land, away from A25

WEAKNESSES

- Landscape/AONB - Potential impacts due to location of residential near to northern boundary/AONB in eastern section. Southerly relief road routing - potential impact on woodland north of Platt Industrial Estate (eastern section). Location of employment to south may have greater visual impact
- Severance – more central/southerly relief road alignment may cause severance if designed primarily for movement. Additional crossings will be required to improve connectivity
- Vehicular movement – eastern section of relief road on more southerly alignment. Likely to be designed as movement corridor with higher traffic speeds
- Road safety – primary schools located adjacent to relief road/ potential for higher traffic speeds away from housing frontage
- Noise – location of employment on southern boundary limit potential for motorway noise mitigation

OPPORTUNITIES

- Landscape/AONB - opportunities for incorporating native structural planting along the northern and southern boundaries of the site. Opportunities for green infrastructure in eastern section incorporating retained features and PRoW links
- Movement – location closer to Platt Industrial Estate. Opportunity for direct access from the relief road without additional road infrastructure being included
- Place-making – opportunities/landmark buildings (relief road/A227/A25 gateway). Further modelling required to confirm this

THREATS/CONSTRAINTS

- Relief road design (movement vs place-making) – alternative emergency route required along A20 / A227 if neighbourhood centre area downgraded. Further modelling required to confirm acceptability of this
- Alternative access point onto A25 may alter / exacerbate traffic at A25 / A20 junction. Further modelling required to confirm acceptability of this
- Landscape/AONB/ecology/ancient woodland
- Noise and vibration/air quality/ground conditions
- Existing watercourse/drainage/flood risk
- Utilities/foul sewer
- Land availability – delivery of eastern section dependant on timing of completion of existing quarry workings.

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OPTION 5

Key Features:

- Local centre and primary schools located along relief road in western part of site
- Employment - southern gateway
- Relief road to follow southerly alignment through the eastern part of the site connecting to the A25 and designed to prioritise its place-making role - explore potential for 30mph speed limit in this eastern part, and 20mph in vicinity of schools
- Complementary traffic calming required in existing village centre /A25

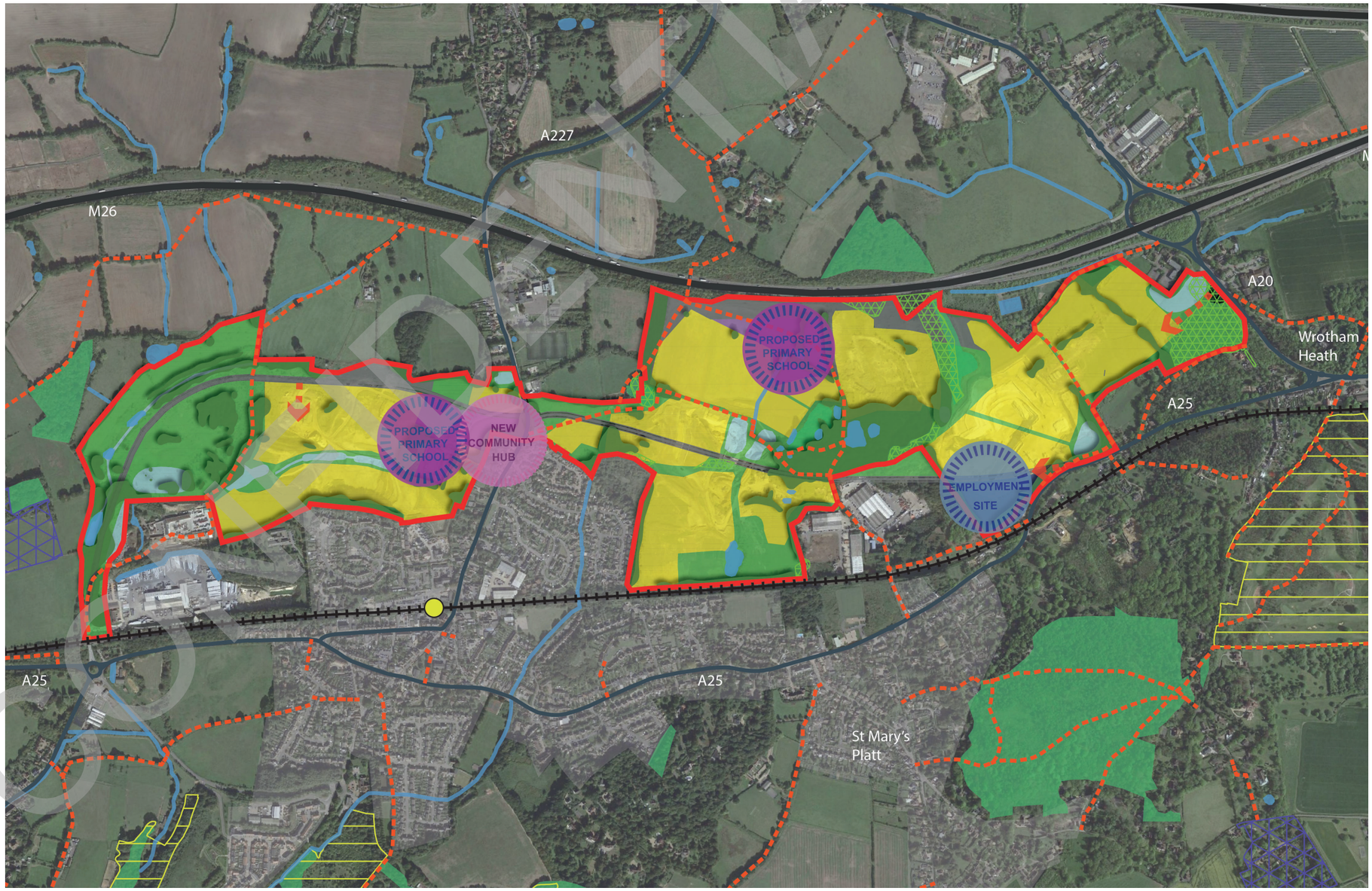

FIGURE 9.5 CONCEPT OPTION 5

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STRENGTHS

- Landscape/AONB – relief road route runs through Platt Industrial Estate so less impact on existing trees, hedgerows and vegetation within Firemanshaw Wood ancient woodland
- Connectivity – primary schools, local centre and employment area located adjacent to relief road
- Place-making – eastern section of relief road on more central/southern alignment. Less likely to be designed to DMRB and with greater place-making. Further modelling required to confirm localised change to road through village centre to confirm impact on surrounding highway network and downgrading of A25
- Active travel – better integration of public rights of way in eastern phases if relief road has a greater place-making function
- Public transport – increased potential to provide integrated bus stops on slower speed eastern relief road
- Prioritises access to industrial land, away from A25

WEAKNESSES

- Landscape/AONB - potential impacts due to location of residential uses near to northern boundary/AONB in eastern section. Southerly relief road routing has potential impact on woodland north of Platt Industrial Estate (eastern section). Location of employment to south may have greater visual impact
- Severance – more central/southerly relief road alignment may cause severance if designed primarily for movement. Additional crossings will be required to improve connectivity
- Vehicular movement – eastern section of relief road on more southerly alignment – likely to be designed as movement corridor with higher traffic speeds
- Road safety – primary schools located adjacent to relief road/ potential for higher traffic speeds away from housing frontage
- Noise – location of employment on southern boundary limits potential for motorway noise mitigation

OPPORTUNITIES

- Landscape/AONB - opportunities for incorporating native structural planting along the northern and southern boundaries of the site. Opportunities for green infrastructure in eastern section incorporating retained features and PRoW links
- Movement – location within Platt Industrial Estate. Opportunity for direct access from the relief road without additional road infrastructure being included
- Place-making – opportunities/landmark buildings (relief road/A227/A25 gateway). Further modelling required to confirm this

THREATS/CONSTRAINTS

- Threats/Constraints
- Relief road design (movement vs place-making) – alternative emergency route required along A20 / A227 if neighbourhood centre area downgraded. Further modelling required to confirm acceptability of this
- Alternative access point onto A25 may alter / exacerbate traffic at A25 / A20 junction. Further modelling required to confirm acceptability of this
- Landscape/AONB/ecology/ancient woodland
- Noise and vibration/air quality/ground conditions
- Existing watercourse/drainage/flood risk
- Utilities/foul sewer
- Land availability – requires Platt land to deliver this route and delivery of eastern section is dependant on timing of completion of existing quarry workings.

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OPTION 6

Key Features:

- Local centre and primary schools located along relief road in western part of site
- Employment - eastern gateway
- Relief road to follow more northly alignment through the eastern part of the site connecting to the A25 and designed to prioritise its place-making role - explore potential for 30mph speed limit in this eastern part, and 20mph in vicinity of schools
- Complementary traffic calming required in existing village centre/A25

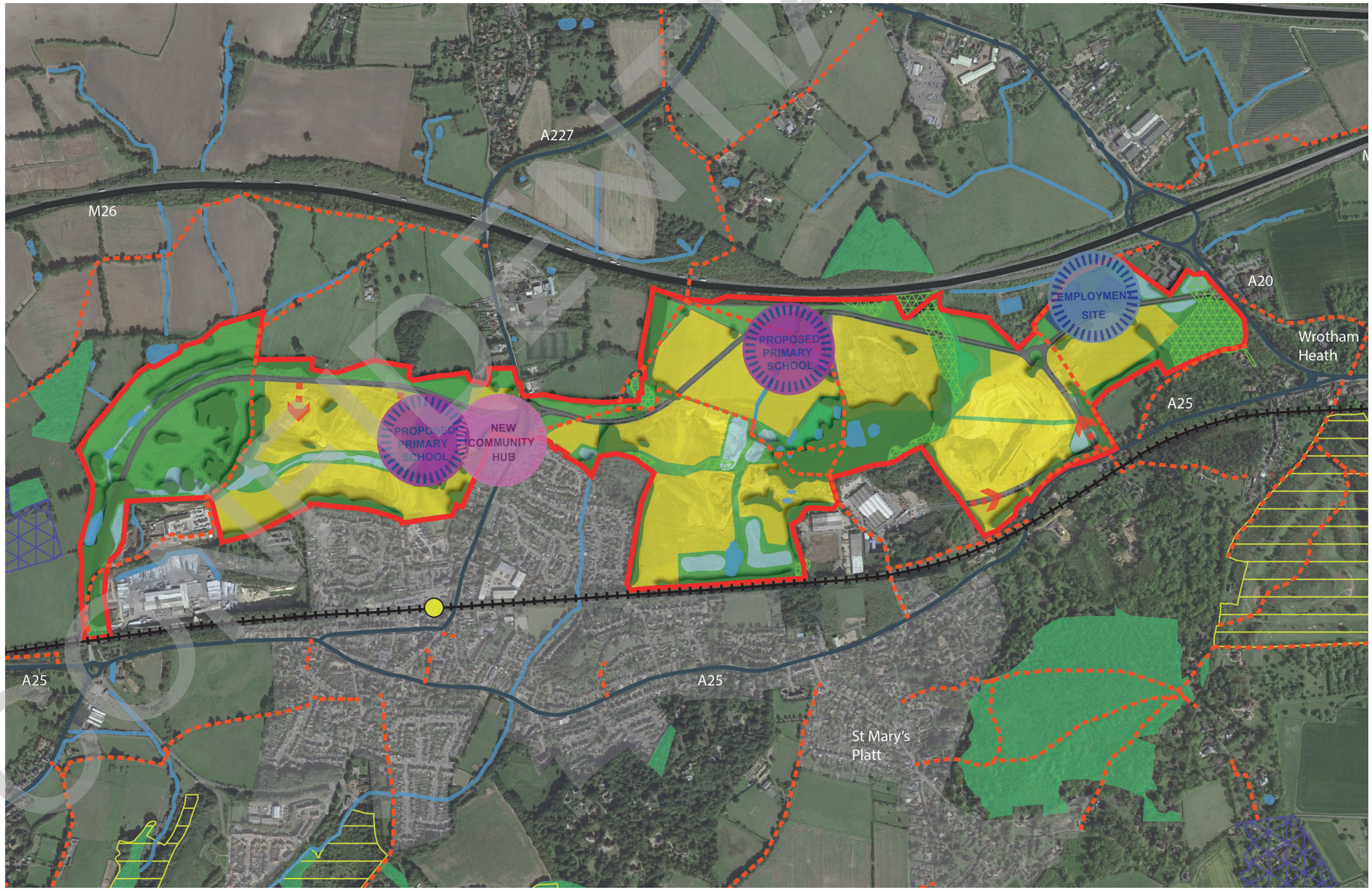

FIGURE 9.6 CONCEPT OPTION 6

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STRENGTHS

- Landscape/AONB – relief road located on northern boundary creates potential for screening and visual integration with landscape, locating road infrastructure near to existing motorway. Primary schools located adjacent to northern boundary to provide greener northern edge to screen development. Employment located to north-east less visually intrusive.
- Connectivity – primary schools, local centre and employment area located adjacent to relief road/employment area located at eastern gateway/junction with A20
- Movement – eastern section of relief road designed to prioritise movement, but increases options for connectivity to east and south
- Active travel – less severance in development area due to more northerly alignment of relief road
- Noise – location of employment on northern boundary - potential for motorway noise mitigation
- Minimises severance between parcels – least proposed of all options.
- Prioritises access to industrial land, away from A25

WEAKNESSES

- Landscape/AONB - impact on Firemanshaw Wood Ancient Woodland/proximity to AONB boundary to the north
- Road safety – primary school located adjacent to relief road
- Active travel – less integration of public rights of way network/ footpaths due to likely movement priority of eastern relief road
- Public transport – lower potential to provide integrated bus stops on faster speed eastern relief road, but more options for connection to A25
- Separate primary and secondary routes also required for the development

OPPORTUNITIES

- Landscape/AONB - opportunities for incorporating native structural planting along the northern and southern boundaries of the site, combined with low-density development within the AONB at Ightham Quarry. Aligned to maximise the screening effect of proposed structural planting on the northern boundary.
- Movement – change central A227 roundabout to signalised junction that may make at grade crossings for pedestrians and cyclists easier. Further modelling required to confirm this
- Place-making opportunities/landmark buildings (relief road/A227/A20 gateway) – remaining link Relief Road design.
- Land being made available such that this route could be delivered early in the development programme, and southern route brought forward later. Further modelling required to confirm acceptability of this
- Provides an emergency route for motorway closures once A25 downgraded

THREATS/CONSTRAINTS

- Landscape/AONB/ecology/ancient woodlandNoise and vibration/air quality/ ground conditions
- Existing watercourse/drainage/flood risk
- Utilities/foul sewer

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APPENDIX: 02

SOCIO-ECONOMIC REVIEW

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Borough Green Socio-Economic Research

INTRODUCTION

This document describes research relating to current demographic, retail and land use trends in Borough Green and sets out the socio-economic baseline to inform the vision for the Borough Green Gardens settlement. The document provides a summary of Borough Green's demographic and economic profiles and an analysis of the town's retail elements in the form of a health check appraisal.

Borough Green is a small rural village on the A25 in Kent, midway between Sevenoaks and Maidstone. The civil parish was created on 1st April 1934 by Statutory Instrument (SI) 1934/261. The civil parishes of Platt and Plaxtol were created at the same time from Wrotham Urban District Council after a boundary review in 1932.

Borough Green is the smallest Parish in Kent by land area and yet is one of the most densely populated non-urban areas with an approximate population of 3,600.

BASELINE DATA – POPULATION AND ECONOMIC PROFILES

This section describes the general demographic and economic trends for Borough Green and evaluates the scale and extent of the settlement in comparison to the wider study areas. The research presents baseline data for four tiers of study area, where the tiers of study areas, where the tiers represent administrative boundaries of varying scales governed by different jurisdictions. Study areas are defined as follows:

- Borough Green (local study area)
- Tonbridge and Malling Borough Council (district level study area)
- Kent County Council (County level study area)
- South-East (regional study area)

Population Profile – General

The adjacent table illustrates the population profile for the local and wider study areas between 2011- 2018. Borough Green is a rapidly growing parish area with its population growth level between 2011-2020 substantially exceeding the growth levels in the wider study areas. It is noted that wider study areas of Tonbridge and Malling and Kent County are characterised predominantly by rural localities, hence their lower population density. The population density of Borough Green is almost comparable to that of the South East region as a whole.

Study Area	2011	2020	Population Growth	Population Density per hectare (2011)	Population Density per hectare (2020)
Borough Green	3,680	4,296	16.7%	16.9	19.8
Tonbridge and Malling	121,087	132,571	9.5%	5.0	5.5
Kent County Council	1,466,466	1,589,057	8.4%	4.1	4.5
South East	8,652,784	9,217,265	6.5%	18.5	4.8

[Source: ONS 2011[1] via Nomis web.co.uk]

TABLE 1: POPULATION GROWTH AND DENSITY – CENSUS 2011 VS POPULATION ESTIMATES FOR 2020

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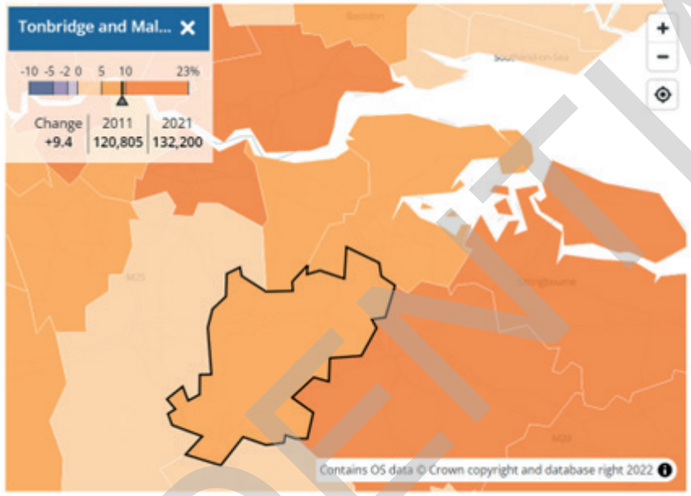
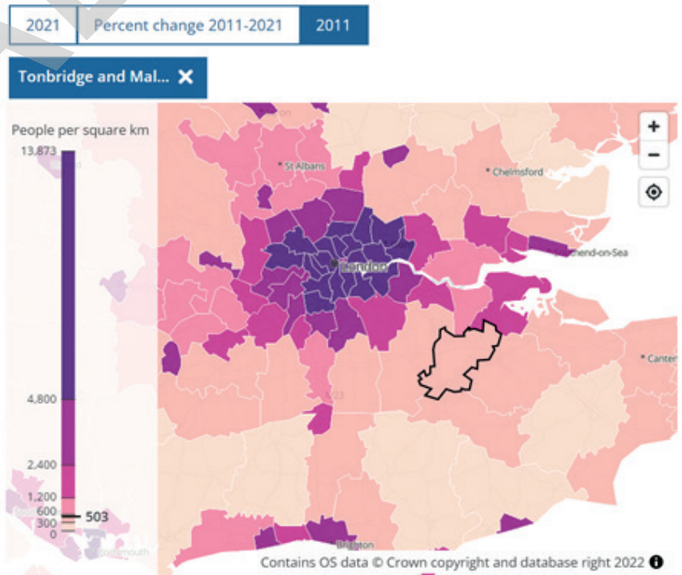
In examining more up to date data sources at district level from emerging Census 2021 data, we can also see how population change between 2011 and 2021 is manifested in Tonbridge and Malling.

Population density, particularly changes between 2011 and 2021 also offers us an interesting lense to explore how the District looks within its wider neighbourhood.

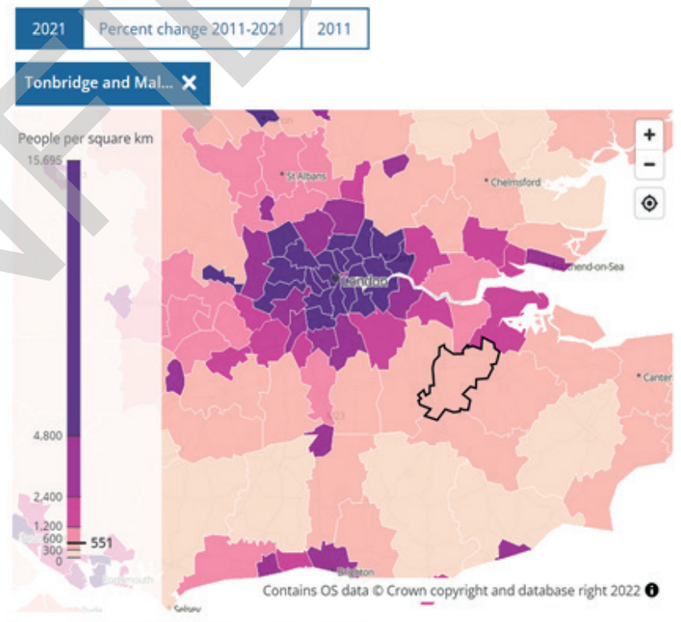
For the following maps, population density for 2021 has been calculated using population estimates rounded to the nearest hundred in the Census 2021 data sets.



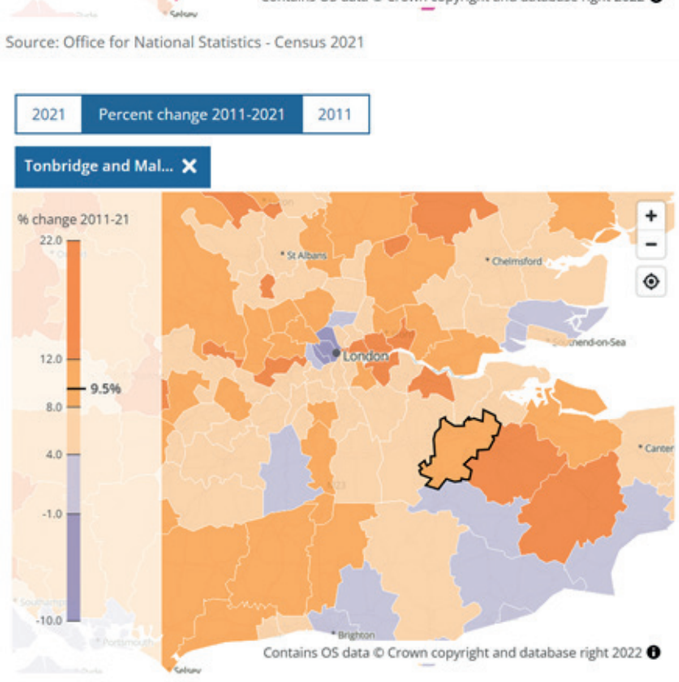
Source: Office for National Statistics - Census 2021



Source: Office for National Statistics - Census 2021



Source: Office for National Statistics - Census 2021



Source: Office for National Statistics - Census 2021

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Population Profile - Gender

The below table displays the distribution of gender within Borough Green as well as the rest of wider study areas between 2011-2020. The female population represents a greater proportion in Borough Green by a slightly greater extent in comparison to other wider study areas. A similar breakdown for 2021 for Borough Green is not yet available from the Census 2021 data releases.

According to the latest Census 2021 data release (2 November 2022), the Tonbridge and Malling figures are shown in the table extract below: 67,847 females and 64,354 males (Dataset: TS008 Sex Census 2021). These figures are comparable with the 2020 projections previously published by the ONS and shown in the table above. Data from the Census 2021 is shown as a screen shot of the data grabs from the Census 2021 web pages. More data is systematically being added for public view and it would benefit the context study to revisit the data sets on a regular basis. There are clear benefits to having up to data date sets given the ongoing debates at DLUHC and in Parliament around housing targets.

Population Profile – Age

Tables 3 & 4 below show the age profile for residents within Borough Green and the wider study area. The table clearly demonstrates that Borough Green is most populated by the age range 45-64 comprising 25.7% of the total population which is 0.4% below the regional average. The local study area (Borough Green) has a higher proportion of residents above 65 years of age in comparison to the wider study area. In particular, 75-84 age range exceeds the regional average by 2.6%. This may be associated with Borough Green's appeal as an affordable location to empty nesters and the ageing of population predominant across the United Kingdom.

Borough Green has a lower proportion of residents between the ages 0-64 at local authority and regional levels. It has the lowest percentage of those aged between 0-14 yrs against other upper tier study areas, suggesting that it has the lowest birth rate and a lower number of young families.

Study Area	2011		2020	
	Male	Female	Male	Female
Borough Green	1,777 (48.4%)	1,895 (51.6%)	2,004 (46.66%)	2,244 (52.25%)
Tonbridge and Malling	59,207 (49%)	61,598 (51%)	64,720 (48.82%)	67,851 (51.18%)
Kent County Council	715,613 (48.9%)	748,127 (51.1%)	779,800 (49.07%)	809,300 (50.93%)
South East	4,239,298 (49.1%)	4,395,452 (50.9%)	4,542,600 (49.28%)	4,674,600 (50.72%)

[Source: ONS 2011 via Nomis web.co.uk]

TABLE 2: **POPULATION DISTRIBUTION BY SEX – CENSUS 2011 VS POPULATION ESTIMATES FOR 2020**

Study Area	0-14 years	15-24 years	25-44 years	45-64 years	65-74 years	75-84 years	85 +
Borough Green	684 (18.6%)	327 (8.9%)	888 (24.2%)	944 (25.7%)	402 (10.9%)	309 (8.4%)	118 (3.2%)
Tonbridge and Malling	24,984 (20.7%)	12,219 (10.1%)	30,684 (25.4%)	32,491 (26.9%)	11,041 (9.1%)	6,950 (5.8%)	2,436 (2%)
Kent County Council	283,554 (19.4%)	164,730 (11.3%)	366,183 (25%)	386,967 (26.4%)	137,517 (9.4%)	87,948 (6%)	36,841 (2.5%)
South-East	1,642,084 (19%)	969,055 (11.2%)	2,289,335 (26.5%)	2,252,256 (26.1%)	763,695 (8.8%)	501,118 (5.8%)	217,207 (2.5%)

[Source: ONS 2011 via Nomis web.co.uk]

TABLE 3: **AGE PROFILE – CENSUS 2011**

Study Area	0-14 years	15-24 years	25-44 years	45-64 years	65-74 years	75-84 years	85 +
Borough Green and Ightham*	998 (18.9%)	526 (10%)	1,230 (23.3%)	1,449 (27.5%)	523 (9.9%)	370 (7%)	181 (3.4%)
Tonbridge and Malling	132,571 (19.1%)	25,372 (10.5%)	13,946 (23.7%)	31,367 (27.7%)	36,699 (9.9%)	13,186 (6.6%)	8,703 (2.5%)
Kent County Council	291,403 (18.3%)	175,112 (11%)	379,104 (23.9%)	420,663 (26.5%)	172,318 (10.8%)	106,869 (6.7%)	43,588 (2.7%)
South-East	1,668,105 (18.1%)	1,043,891 (11.3%)	2,254,184 (24.5%)	2,439,081 (26.5%)	948,713 (10.3%)	603,253 (6.5%)	260,038 (2.8%)

*Borough Green Parish specific data is not available. It is reflective of both Borough Green and Ightham

[Source: ONS 2011 via Nomis web.co.uk]

TABLE 4: **AGE PROFILE – POPULATION ESTIMATE 2020**

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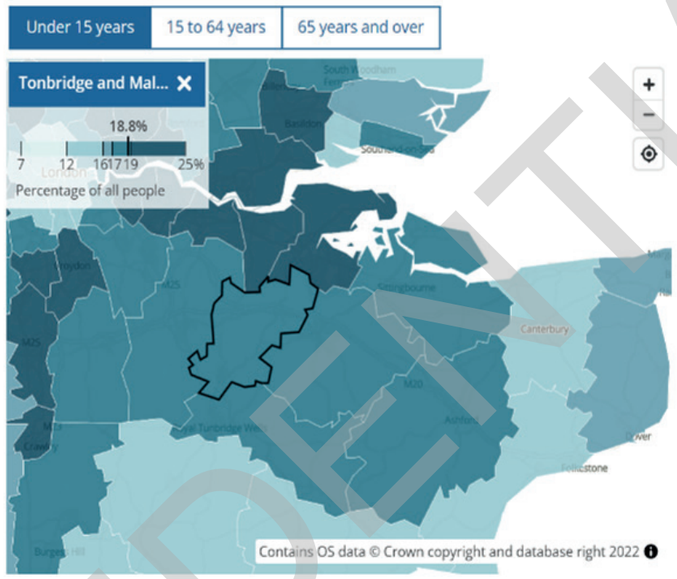
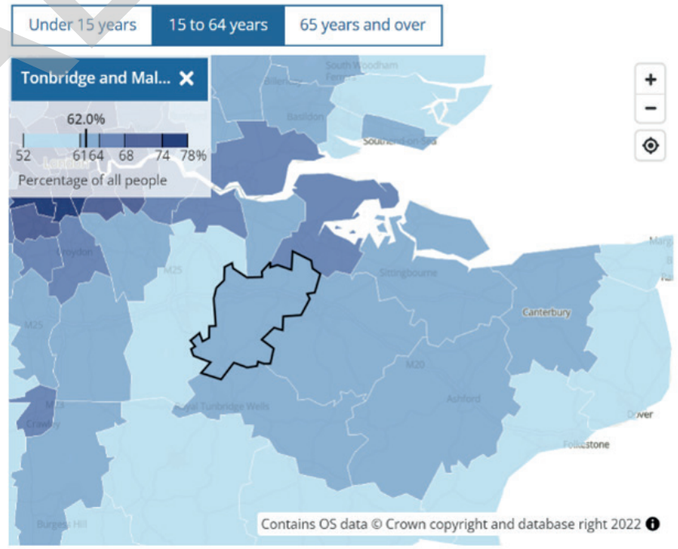
Further information is now available from the Census 2021 data releases. These not only show population profiles, but also show the age structure for the district. It is therefore useful to look at this data in the context of the wider region in the south east across the three census age groups, <15 years old, 15-64, and >64.

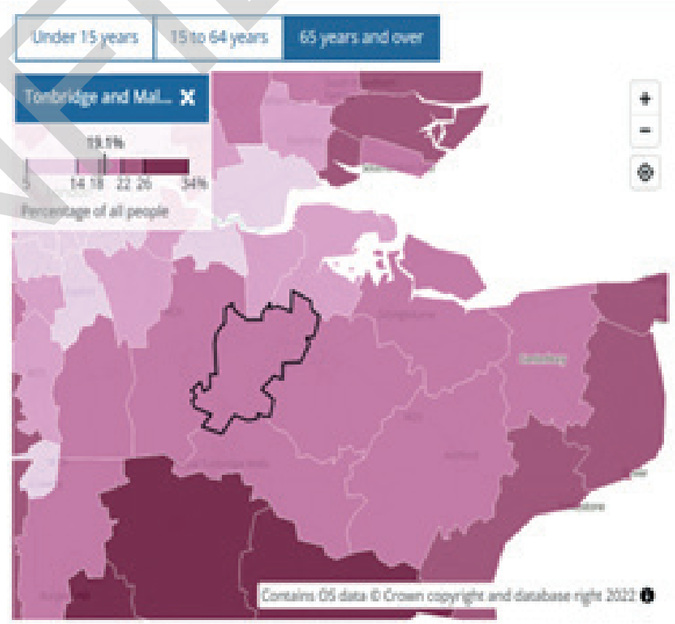
The region of England with the highest median age was the South West (44 years) and the region of England with the lowest median age was London (35 years). Across England and Wales, the local authorities with the highest median age were North Norfolk (54 years), Rother (53 years) and East Lindsey (52 years). The local authority with the lowest median age was Tower Hamlets (30 years), followed by Nottingham, Cambridge, Oxford and Manchester (all 31 years).



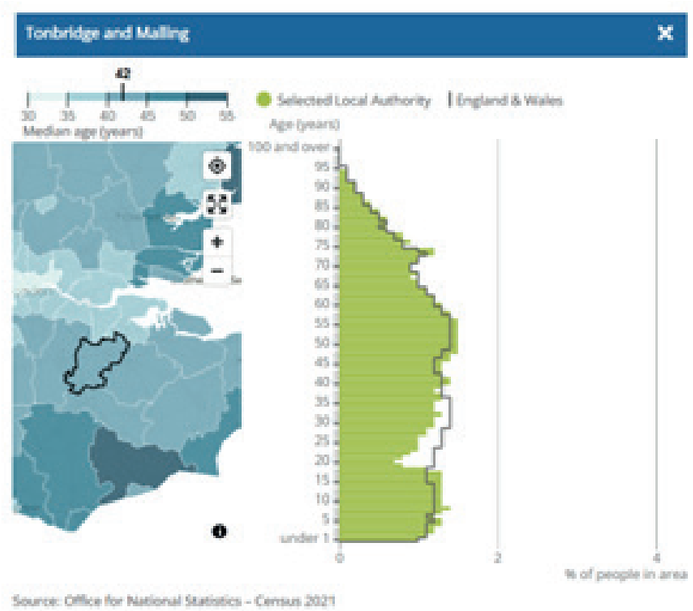
Source: Office for National Statistics - Census 2021



Source: Office for National Statistics - Census 2021



Source: Office for National Statistics - Census 2021



Source: Office for National Statistics - Census 2021

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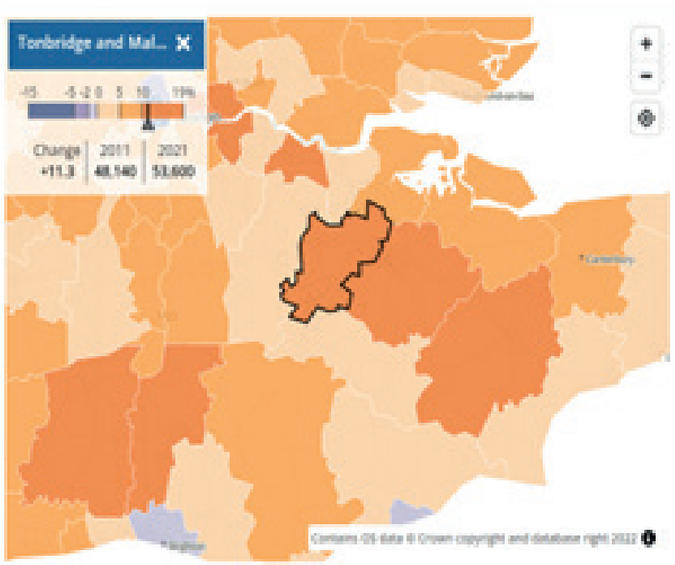
Changes in the number of households between 2011 and 2021 show an increase of 11.3% in Tonbridge and Malling. Kent showed a total number of households in 2021 at 648,393 while Medway had 111,458. Tonbridge and Malling had 53,573 (Dataset: TS041 Number of Households, Census 2021).



Source: Office for National Statistics - Census 2021

Lower Tier Local Authorities Code	Lower Tier Local Authorities Label	Count
E07000105	Ashford	53583
E07000106	Canterbury	63792
E07000107	Dartford	45696
E07000108	Dover	50548
E07000109	Gravesham	41724
E07000110	Maidstone	71208
E07000111	Sevenoaks	49013
E07000112	Folkestone and Hythe	48338
E07000113	Swale	60495
E07000114	Thanet	62200
E07000115	Tonbridge and Malling	53573
E07000116	Tunbridge Wells	48223

Household composition for Tonbridge and Malling is shown in the table below (Dataset: TS003 Household composition, Census 2021)

Lower Tier Local A	Lower Tier Local Authorities Label	Household composition (15	Household composition (15 categories) Label	Count
E07000114	Thanet	13	Multiple-family household: With dependent children	1599
E07000114	Thanet	14	Multiple-family household: Other, including all full-time students and all aged 66 years and over	2186
E07000115	Tonbridge and Malling	-8	Does not apply	0
E07000115	Tonbridge and Malling	1	One person household: Aged 66 years and over	6831
E07000115	Tonbridge and Malling	2	One person household: Other	6867
E07000115	Tonbridge and Malling	3	Single family household: All aged 66 years and over	5775
E07000115	Tonbridge and Malling	4	Single family household: Married or civil partnership couple: No children	6060
E07000115	Tonbridge and Malling	5	Single family household: Married or civil partnership couple: Dependent children	9897
E07000115	Tonbridge and Malling	6	Single family household: Married or civil partnership couple: All children non-dependent	3468
E07000115	Tonbridge and Malling	7	Single family household: Cohabiting couple family: No children	3290
E07000115	Tonbridge and Malling	8	Single family household: Cohabiting couple family: With dependent children	2771
E07000115	Tonbridge and Malling	9	Single family household: Cohabiting couple family: All children non-dependent	435
E07000115	Tonbridge and Malling	10	Single family household: Lone parent family: With dependent children	3356
E07000115	Tonbridge and Malling	11	Single family household: Lone parent family: All children non-dependent	2102
E07000115	Tonbridge and Malling	12	Single family household: Other single family household: Other family composition	223
E07000115	Tonbridge and Malling	13	Multiple-family household: With dependent children	1054
E07000115	Tonbridge and Malling	14	Multiple-family household: Other, including all full-time students and all aged 66 years and over	1444
E07000116	Tunbridge Wells	-8	Does not apply	0

For those households, deprivation characteristics by dimension are provided in the Census 2021 (Dataset: TS011 Households by deprivation dimensions)

Lower Tier Local Authorities Code	Lower Tier Local Authorities Label	Household deprivation (6 categories) Code	Household deprivation (6 categories) Label	Count
E07000114	Thanet	1	Household is not deprived in any dimension	25596
E07000114	Thanet	2	Household is deprived in one dimension	22482
E07000114	Thanet	3	Household is deprived in two dimensions	10956
E07000114	Thanet	4	Household is deprived in three dimensions	2910
E07000114	Thanet	5	Household is deprived in four dimensions	256
E07000115	Tonbridge and Malling	-8	Does not apply	0
E07000115	Tonbridge and Malling	1	Household is not deprived in any dimension	28883
E07000115	Tonbridge and Malling	2	Household is deprived in one dimension	17151
E07000115	Tonbridge and Malling	3	Household is deprived in two dimensions	6164
E07000115	Tonbridge and Malling	4	Household is deprived in three dimensions	1314
E07000115	Tonbridge and Malling	5	Household is deprived in four dimensions	63
E07000116	Tunbridge Wells	-8	Does not apply	0
E07000116	Tunbridge Wells	1	Household is not deprived in any dimension	26644
E07000116	Tunbridge Wells	2	Household is deprived in one dimension	14989
E07000116	Tunbridge Wells	3	Household is deprived in two dimensions	5298
E07000116	Tunbridge Wells	4	Household is deprived in three dimensions	1188
E07000116	Tunbridge Wells	5	Household is deprived in four dimensions	104
E07000117	Burnley	-8	Does not apply	0

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Population Profile - Ethnicity

Table 5 presents data relating to ethnicity within Borough Green in comparison to the wider study area. White ethnic groups are generally predominant in all study areas and represent the largest portion in Borough Green and Tonbridge and Malling in particular. The regional study area (South-East) comprises the highest representation from other ethnic groups, specifically, the proportion of Asian groups are over double (2.6%) that of the local study area.

While no clear data on ethnicity is yet available from the Census 2021 data releases, the data we have breaks down residency by country of birth and the data for Tonbridge and Malling is shown below (Dataset: TS004 Country of birth).

Study Area	White	Mixed/Multiple Ethnic Groups	Asian/Asian British	Black/African/Caribbean	Other
Borough Green	3,509 (95.6%)	58 (1.6%)	88 (2.4%)	5 (0.1%)	12 (0.3%)
Tonbridge and Malling	115,872 (95.9%)	1,677 (1.4%)	2,431 (2%)	421 (0.3%)	404 (0.3%)
Kent County Council	1,371,102 (93.7%)	22,107 (1.5%)	47,614(3.3%)	16,216 (1.1%)	6,701 (0.5%)
South-East	7,827,820 (90.7%)	167,764 (1.9%)	452,042 (5.2%)	136,013 (1.6%)	51,111(0.6%)

[Source: ONS 2011 via Nomis web.co.uk]

TABLE 5: **ETHNICITY PROFILE – CENSUS 2011**

The Census 2021 data shows that combined, the number of residents with a country of birth other than the UK or the EU is 7,436.

Lower Tier Local Authorities Code	Lower Tier Local Authorities Label	Country of birth (12 categories) Code	Country of birth (12 categories) Label	Count
E07000114	Thanet	9	The Americas and the Caribbean	661
E07000114	Thanet	10	Antarctica and Oceania (including Australasia) and Oth	372
E07000114	Thanet	11	British Overseas	30
E07000115	Tonbridge and Malling	-8	Does not apply	0
E07000115	Tonbridge and Malling	1	Europe: United Kingdom	120359
E07000115	Tonbridge and Malling	2	Europe: EU countries: European Union EU14	2298
E07000115	Tonbridge and Malling	3	Europe: EU countries: European Union EU8	1139
E07000115	Tonbridge and Malling	4	Europe: EU countries: European Union EU2	778
E07000115	Tonbridge and Malling	5	Europe: EU countries: All other EU countries	197
E07000115	Tonbridge and Malling	6	Europe: Non-EU countries: All other non-EU countries	621
E07000115	Tonbridge and Malling	7	Africa	2244
E07000115	Tonbridge and Malling	8	Middle East and Asia	3079
E07000115	Tonbridge and Malling	9	The Americas and the Caribbean	1000
E07000115	Tonbridge and Malling	10	Antarctica and Oceania (including Australasia) and Oth	460
E07000115	Tonbridge and Malling	11	British Overseas	32
E07000116	Tunbridge Wells	-8	Does not apply	0
E07000116	Tunbridge Wells	1	Europe: United Kingdom	99728
E07000116	Tunbridge Wells	2	Europe: EU countries: European Union EU14	3040
E07000116	Tunbridge Wells	3	Europe: EU countries: European Union EU8	1795

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Economic Profile - Employment

Table 6 shows the economic activity and inactivity rates for Borough Green and the wider study areas. Borough Green has a higher proportion of people economically active (54%) when compared to Tonbridge and Malling and the South-East region. Self-employment and entrepreneurship are a strong trend in Borough Green, represented by the highest proportion in the relevant category (7.1%) in comparison to other upper tier study areas.

In looking at the Census 2011 data, it can be seen that Borough Green has the highest proportion of retirees, as represented by 439 residents (9.3%), followed by Kent County Council which has 8.2% of its population as retirees.

Economic Profile – Labour Market

Table 7 provides an overview of the labour market composition in Borough Green and its upper tier study areas. The table indicates that the knowledge industry is strongly represented in general with the Professionals group being accounted for 18.4% of those in workforce, followed by Associate professionals (15.4%). Workers in management (11.8%) and administrative (13.3%) roles also represent a significant portion, confirming a substantial number of residents (58.6%) have office-based jobs which are likely to be based elsewhere or offer remote working options.

Those working in the retail industry would be best represented by Caring and Leisure or Sales and Customer categories which contribute to 14.7% of the entire workforce in Borough Green. The retail sector in Borough Green is not proportionally large in comparison to other wider study areas. The occupation with the lowest proportion in Borough Green is the process plant and machinery group at 4.6%.

	Borough Green	Tonbridge and Malling	Kent County Council	South-East
Economically Active	2,561 (54%)	86,435 (53.3%)	1,055,397 (54.3%)	6,274,341 (53.8%)
Self-Employed	336 (7.1%)	9,768 (6%)	114,681 (5.9%)	691,572 (5.9%)
Unemployed	72 (1.5%)	2,580 (1.6%)	41,541 (2.1%)	216,231 (1.9%)
Economically Inactive	743 (15.7%)	23,396 (14.4%)	317,489 (16.3%)	1,753,157 (15%)
Retired	439 (9.3%)	12,531 (7.7%)	159,127 (8.2%)	859,293 (7.4%)

[Source: ONS 2011 via Nomis web.co.uk]

TABLE 6: **EMPLOYMENT STATUS PROFILE – CENSUS 2011**

Occupation	Borough Green	Tonbridge and Malling	Kent County Council	South-East
Managers/Directors	11.8%	12.9%	11.6%	12.3%
Professionals	18.1%	17.1%	16.1%	18.7%
Associate	15.4%	13.9%	12.6%	13.8%
Administrative/secretary	13.3%	12.8%	11.7%	11.5%
Skilled Trades	12.7%	11.4%	12.3%	11.1%
Caring and Leisure	8.4%	8.7%	9.8%	9.3%
Sales and Customer Service	6.3%	7.6%	8.4%	7.9%
Process, plant and machinery	4.6%	5.9%	6.7%	5.7%
Elementary occupations	9.2%	9.7%	10.8%	9.7%
Total – All Usual Employed Residents over Age 16	1,747	60,326	692,749	4,288,569

[Raw Data Source: ONS 2011 via Nomis web.co.uk]

TABLE 7: **POPULATION DISTRIBUTION BY OCCUPATION – CENSUS 2011**

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Economic Profile – Qualifications Gained

Table 8 provides an overview of skills distribution across all tiers of study areas.

Qualification	Borough Green		Tonbridge and Malling		Kent County		South-East	
No qualifications	667	22.3%	19,135	20.0%	265,326	22.5%	1,333,955	19.1%
Level 1 qualifications	424	14.2%	14,401	15.0%	173,165	14.7%	946,056	13.5%
Level 2 qualifications	503	16.8%	16,945	17.7%	199,627	16.9%	1,110,706	15.9%
Apprenticeship	136	4.6%	3,874	4.0%	44,992	3.8%	253,423	3.6%
Level 3 qualifications	338	11.3%	11,646	12.2%	145,519	12.3%	892,915	12.8%
Level 4 qualifications and above	779	26.1%	25,967	27.1%	291,211	24.7%	2,093,693	29.9%
Other qualifications	141	4.7%	3,853	4.0%	60,346	5.1%	361,918	5.2%
Schoolchildren and full-time students: Age 16 to 17	90	3.0%	3,215	3.4%	34,334	2.9%	193,805	2.8%
Schoolchildren and full-time students: Age 18 and over	75	2.5%	2,405	2.5%	47,557	4.0%	329,933	4.7%
Full-time students in employment	27	0.9%	1,155	1.2%	18,052	1.5%	119,336	1.7%
Full-time students unemployed	4	0.1%	154	0.2%	4,374	0.4%	25,735	0.4%
Full-time students, economically inactive	44	1.5%	1,086	1.1%	24,960	2.1%	183,812	2.6%
Total	2,988		95,821		1,180,186		6,992,666	

[Source: ONS 2011 via Nomis web.co.uk]

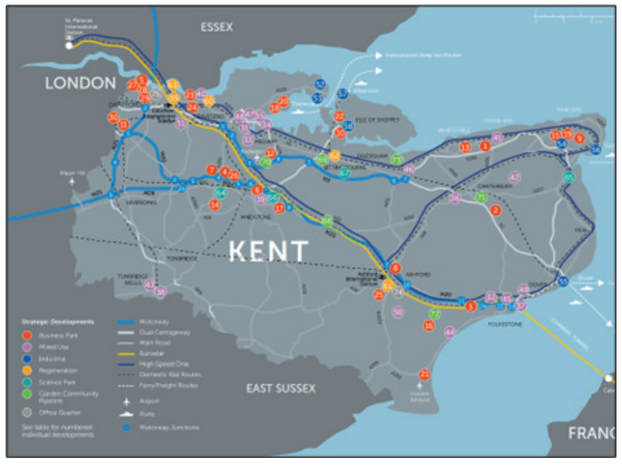
TABLE 8: QUALIFICATION DISTRIBUTION BY OCCUPATION – CENSUS 2011

PROPERTY MARKET REVIEW

The council's Economic Recovery Strategy sets out a vision to 'maximise the strengths of the local area to help create a resilient, dynamic and inclusive economy that fosters sustainable growth'. In order to achieve this vision, the Borough Council has a number of priorities:

- Supporting town centres and helping independent retailers;
- Measures to help support people into employment;
- Promotion of the borough;
- Business support and finance;
- Enabling the delivery of key strategic investment projects.

New developments include NIAB East Malling, a new £11.3m GreenTech Hub for Advanced Horticulture opened in May 2022; Panattoni Park, Aylesford, a flexible grade-A industrial and logistics space at the former Aylesford Newsprint site; Tonbridge Trade Park Work a £20m investment delivering 15 modern trade/industrial units; Arc Logistics Park near Snodland, a £25m investment providing 125,000ft² (11,613m²) of industrial units along with two ancillary drive-thru facilities; the Royal British Legion Industries' Centenary Village, delivering £8m investment in expert care and new facilities for the elderly, £12m investment in single person apartments and homes, and £2m investment in community services and a community centre; and infrastructure investment increasing the capacity of the Leigh Flood Storage Area (LFSA) and Hildenborough Embankment Scheme. Some of these developments can be seen at numbers 4 (Click Aylesford), 7 (Equites Park, Snodland), 14 (Kings Hill, West Malling), 26 (Panattoni Park), and 64 (Advanced Technology Horticultural Zone, East Malling) on the map below (taken from the Kent Market Property Review 2022).



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Policy Context for Retail Activities in Borough Green

The Kent County Council committee for Growth, Economic Development and Communities conducted a Members' Visit to Tonbridge & Malling Borough Council in March 2022. This is part of the rolling programme of visits to the districts designed to gain an understanding of the economic development and regeneration opportunities and challenges within each district. The key issues identified during the visit were:

- Flood Defence - Leigh Expansion and Hildenborough Embankment Scheme
- Flooding in the Borough is nationally significant
- Road Capacity - Blue Bell Hill (M2 Jct 3) and issues arising from Lower Thames Crossing.
- Sustainable Transport Measures – A20 improvements to footways and cycling infrastructure and routes around Tonbridge.
- Education – additional primary provision in Borough Green/Wrotham and Aylesford/ Ditton.
- Lack of skills and training provision in the Borough and west Kent
- Health – existing pressure on GP surgeries and from projected growth.
- Adult Social Services – need for greater C3 accommodation and C2 for mental health and older people.
- Sports Recreation and Open Space – decreased by around 6%.
- Biodiversity – strengthening the Green Infrastructure and Ecological Network.
- Utilities – power network is under stress in terms of the resilience of the network and the amount of generation capacity.
- Potential to review the buildings and site containing KCC Library, Adult Education and Youth Service provision on, and adjacent to, Tonbridge High Street.

The key projects noted during the visit included:

- Tonbridge Town Centre
- Peters Village
- Panattoni Park Aylesford
- Centenary Village (RBLI)
- East Malling Research
- Borough Green Gardens
- Bushey Wood (Land at Eccles)

This section sets out the existing local policy context concerning retail activities in Borough Green and discusses the details of a health check appraisal undertaken for the Borough Green Retail Centre.

Tonbridge and Malling Borough Core Strategy (2007)

The Tonbridge and Malling Borough Core Strategy 2007 is a high-level policy document which sets out the long-term vision, aims and objectives for the borough's sustainable growth in the future that would meet the resident's social, economic and environmental needs.

Para 2.5.13 of the Core Strategy establishes a general position to retain the scale of retail centres. The review of retail hierarchy identified that there is limited scope for additional retail floorspace in general, with an exception for Borough Green and 2 other centres which could benefit from limited redevelopment opportunities subject to site availability.

Borough Green is excluded from the list of rural settlements which are restricted to minor housing development opportunities per Para 6.3.5 and Policy 13 and is earmarked for its potential to address rural affordable housing needs in accordance with Para 6.3.31.

Para 6.3.32 of the Core Strategy 2007 identifies Borough Green as a strategic housing location to address the increasing demands for rural affordable housing and recommends this objective to be facilitated in a sustainable approach. The sustainable housing growth in Borough Green will be accommodated through identifying sites in proximity to its retail centre which already demonstrates a good balance of shops, services and community facilities.

Key Policy Statements within the Strategy relevant to the future of Borough Green's retail growth include:

- CP12 – seeks to permit development relating to conversions, changes of use or housing and employment in Borough Green (District Centre) and only supports development of this nature adjoining Borough Green settlement where there are no suitable sites within the surrounding locality.
- CP18 – Identifies land to the south of Borough Green for a strategic housing location to meet housing needs in the more remote part of the Malling rural area.
- CP22 - supports retail development that enhances the vitality and viability of existing retail centres and respects their role in the hierarchy (defined centres have priority).

Tonbridge and Malling Economic Recovery Strategy 2021-2023

The Borough's Economic Recovery Strategy is a short-term strategy seeks to mitigate the impacts of Covid-19 pandemic on the local economy and chooses partnership working as its main approach. It sets out the scene for the local economy by identifying challenges such as unstable labour market, high unemployment rate, businesses in hardship, changing trends in retail sector, a need for steady increases in development activities, existing net-zero commitments and weak industrial sectors (i.e. tourism).

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The strategy identifies that a set of initiatives should be established to elevate the level of retail experience in local centres through diversifying the range of activities on offer in each town centre and strengthening the images of these centres as local destinations. The structure of the framework is derived entirely from the Kent and Medway Economic Renewal and Resilience Plan.

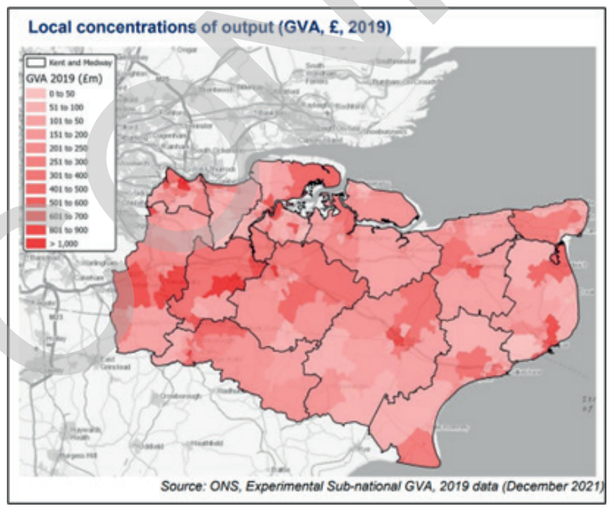
The key priorities outlined under 'Open for Business' theme are considered most relevant to the study area and are as follows:

- Completion of Town and District and Local Shopfront Schemes.
- Develop a new West Kent Retail Support Programme to support our High Streets
- Pilot a project to trial out a SMART places initiative within the borough.
- Investigate role of the Council in encouraging vehicle charging points in key town centre locations across the Borough.
- Set up a Town Centre Regeneration Fund to support investment that will help to stimulate confidence in our high streets.

Kent and Medway Economic Strategy

This replaced the Economic Renewal and Resilience Plan prepared in summer 2020 to support recovery from the Covid-19 pandemic, taking a longer-term view to 2030 and identifying county's shared priorities for sustainable economic growth. The new Economic Strategy, endorsed by Kent and Medway Economic Partnership (KMEP), provides a basis for joint working between Kent County Council, Medway Council and the Kent Districts, as well as with the business community. It supports discussions with Government, in relation to future investment opportunities and potential devolutionary asks associated with a 'county deal' or similar arrangements.

The distribution of output across Kent and Medway is relatively dispersed, although with a somewhat higher concentration in key locations in the west of the county. In 2019, the two largest concentrations of GVA were around the major business parks at Crossways (near the M25 at Dartford) and Kings Hill. The areas surrounding the town centres at Maidstone, Tunbridge Wells, Sevenoaks and Ashford also generated substantial output, along with Chatham Maritime, Sandwich/ Discovery Park and the area including the Port of Dover.



West Kent Economic Priorities for Growth

The West Kent Economic Priorities for Growth is a sub-regional economic strategic statement with a core focus on the delivery of projects for improving business environment, placemaking and a stronger sense of community and supporting innovation. This Strategy was developed by the focuses on developing the shared themes and issues for the three LPAs including Tonbridge and Malling, Seven Oaks and Royal Tunbridge Wells.

The Strategy sets out the socio-economic implications associated with West Kent's proximity to London. Statistically, a large portion of high skilled residents commute to London for work, presenting barriers for local knowledge economy. Nevertheless, local businesses benefit from additional spending power and relatively lower operating costs. A portion of local enterprises are lifestyle businesses reflecting the sub-region's proximity to London.

The following are the potential areas of intervention which are relevant to Borough Green, as identified by the Strategy:

- 3.2 Provision of digital infrastructure
- 4.2 Delivery of commercial spaces to streamline inward investment and business growth, Small to medium enterprises (SME) in particular.
- 5. Engendering a strong West Kent sense of place with town centres and a sustainable rural environment
- 5.2 Sustainable housing development
- 5.3 Vibrant town centres incorporating integrated office, retail, leisure and residential units- not directly applicable to Borough Greens, the high-level concept can be considered.

Tonbridge and Malling Local Plan

Borough Green contains a commercial oriented area which is earmarked under the Local Plan to accommodate local economic activities. The below image displays the designated boundary for the Borough Green Retail Centre.

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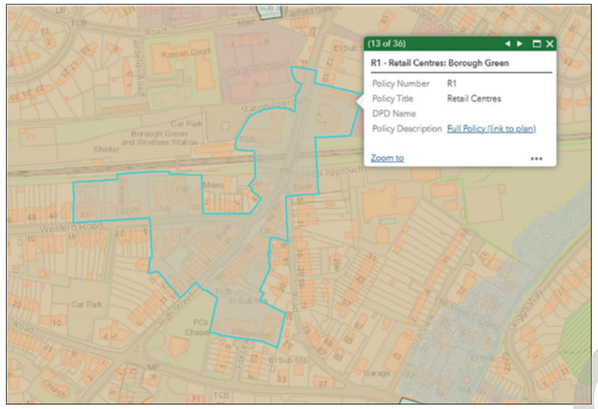
Health Check Appraisal for Borough Green Retail Centre

This section discusses the outcomes of a health check appraisal undertaken on the Borough Green Retail Centre, including the current level of retail activity and any scope for sustainable growth. For the purposes of this appraisal, desktop assessment was conducted utilising online map tools and local business listings The retail units referenced in the section below are in accordance with the LPA boundary.

The figure below depicts the Borough Green Retail Centre and its boundaries and Table 9 presents the itemised list of different land uses in the retail centre.



Borough Green service centre plays a key role and function in providing retail and shopping facilities for its catchment population. There are a total of 32 retail units within the designated district centre boundary which are predominantly concentrated along high street and the northern side of Western Road. The retail core of Borough Green is along the northern section of High Street, and the eastern section of Western Road. Situated towards the north of the centre boundary, Sainsbury's Local (Wrotham Road) and Co-Op Food (Station Approach) act as the anchor stores for the centre. The majority of the units in Borough Green are occupied by independent retailers with only 6 national operators being present.

The retail centre is linear, organically formed area which runs along High Street and Western Road that merge in the middle. It includes the station surroundings to the north of the railway. The retail centre comprises a mix of shops and dwellings that are predominantly two to three storeys in height.

Transport options available in the Borough Green Retail Centre is considered moderate. It has a relatively good railway connection operated by Southeastern railway to other major centres within and outside Kent. The centre also contains five bus stops offering public transit options to West Malling, Seven Oaks, Larkfield, Gravesend, Wrotham, and Blue Water. The centre abuts the Western Road Car Park which has a capacity of 76 car spaces and offers some off-street parking to a limited extent.

Category	No.	%	UK Av.
Convenience	6	19	9
Comparison	6	19	31
Retail Service	9	28	14
Leisure Services	10	31	24
Financial and Business Services	1	3	10
Vacant	0	0	11
Total	**32**	**100**	**100**

[Source: Google Maps, April 2021]

TABLE 9: **BOROUGH GREEN RETAIL CENTRE - LAND USE PATTERNS**

Use type - Comparison Goods Units

The comparison goods provision contributes to 19% (6) of the total units within Borough Green local centre, significantly below the national average (31%). This discrepancy is expected given the size of the centre and its local function catering to the immediate needs of residents. All comparison goods retailers are situated along High Street and Western Road with the largest being the Ford car dealership and smallest being Borough Green Garden Machinery. Whilst the comparison goods provision in the centre is low, there are a number of units which fall outside of the centre boundary including BG Pet Store and Cotor Flooring Limited, both of which are situated on the North-west side of Western Road.

Use type - Retail Services

There are nine retail service units present in Borough Green which represents 28% of the total units in the centre being double the national average (14%). Retail services are distributed sporadically throughout the centre including four hairdressers, an optician, a dry cleaners, a travel agent, a funeral director and nail salon.

Use type - Leisure Services

Leisure services are most prevalent within Borough Green, comprising ten of the total units. The proportion of leisure service units accounts for 7% higher than the national average (24%). There are two national operators within the sector: Costa Coffee and Coral. Most leisure units are fast food take aways and cafes.

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Use type - Financial & Business Service
Borough Green only has one financial and business service unit; Ibbey Mosely (estate agents) which is located on High Street. With only 3% of provision of the total units, this falls 7% below the national average.

Use type - Vacant
In accordance with April 2021 Google Maps view, there were no recorded vacancies within Borough Green which demonstrates a healthy centre in terms of occupancy.

Miscellaneous Town Centre Uses
In addition to retail, commercial and leisure units, a range of complementary uses support the vitality and viability of the centre. Though mainly located towards the edge of the retail core, Borough Green comprises the following: The Borough Green and Wrotham railway station; Borough Green Primary School; Veterinary Surgery; Kent Council fire station (out of centre); Lloyds Pharmacy; ATM (Natwest); Woodland Chiropractic; 3no. Churches (Borough Green Baptist Church, St Joseph's Roman Catholic Chapel and Church of the Good Shepherd); and Village Hall.

Additionally, towards the north-east of the centre is the Bourne Enterprise Centre, comprising several industrial units.

Surrounding Shopping Centres
Borough Green centre provides a key role within the surrounding area as it is a hub village for Platt, Wrotham, Ightham, Plaxtol, Shipbourne and Stansted. Despite being a small centre, Borough Green has the largest retail offering within an 7km radius due to the rural nature of the wider areas. Below is a list of the nearest shopping centres in order of closest proximity:

- New Ash Green Shopping Centre (Longfield) – 8km to the north
- Mid Kent Shopping Centre (Maidstone) – 13.2km to the east
- Broadway Shopping Centre (Bexley Heath) – 14.5km to the south-east
- Tunbridge Wells Shopping Park – 15km to the south
- Fremlin Walk Shopping Centre (Maidstone) – 15km to the south-east
- The Mall Maidstone – 15.5km to the south-east
- Fountains Retail Park (Tunbridge Wells) – 15.5km to the south
- Walnuts Shopping Centre (Orpington) – 17km to the north-west

Visual Appeal and Amenities
The quality of retail experience is determined by high visual appeal, streetscape, and sufficient public amenities. In this regard, the level of retail experience in Borough Green is considered adequate but would require greatly benefit from an uplift or modernisation. Along Western Road, modern shopfronts and relatively new-build dwellings with aesthetically pleasing frontages contribute to the visual appeal of the street. There are active shopping frontages with modern fascia signs for numerous retail units along high street. The retail centre also contains a sufficient number of street furniture including benches, litter bins, street lighting and a consistent line of bollards along the pavement to the west of the street. The streets are clean and well-kept with minimal evidence of litter, graffiti and the shopping environment appears safe and inviting for visitors. Throughout the centre, the paving appears to be dated which detracts from the overall visual quality.

Opening Hours
Borough Green comprises a diverse range of uses open throughout different times in the day. The vast majority of shopping units are open between 9am-5pm Monday to Saturdays with the exception of Sainsbury's Local (6am-10pm), Co-Op (7am-10pm) and Nisa (8am-9pm). With only 1 public house (Robin Hood) in the centre and 4no. restaurants/takeaways the night-time economy is relatively poor. The foregoing units are open until 11pm with the exception of Robin Hood (12pm-10pm).

Borough Green Character Statement
The following excerpts from Borough Green Character Areas Supplementary Planning Document summarise the historic background for the parish area as well as the evolution of its built form over time.

Historically, Borough Green was occupied by Ancient Britons approx. 100BC and by 1559 evidence suggests the areas was occupied by tenants of the Manor of Wrotham. The village stands at a crossing point of the A25 which runs west-east from Sevenoaks to Maidstone and the A227 which runs north-south from Gravesend towards Tonbridge. In 1795 the village was not evident on a map, though in 1840 there were small, isolated clusters of buildings and the road layout of High Street and Station Road were visible.

Borough Green's growth resulted from its position on the clay vale between the North Downs and the greensand ridge. The village began expanding in the 1830s with houses being constructed along High Street and in Station Road. In the 19th century the only buildings along High Street related to Yew Tree Farm. The first houses and shops to be built were on the east side from the current village hall car park to the junction with the A227. By 1897 a bakery on the west side (now Nat West 10 Bank) and the stores had been constructed together with the Railway Hotel (now the Henry Simmonds) north of the railway and the Chapel at the A25 junction. Bridge House was built in 1887/89 by Joseph Walls whose firm bought most of Yew Tree Farm.

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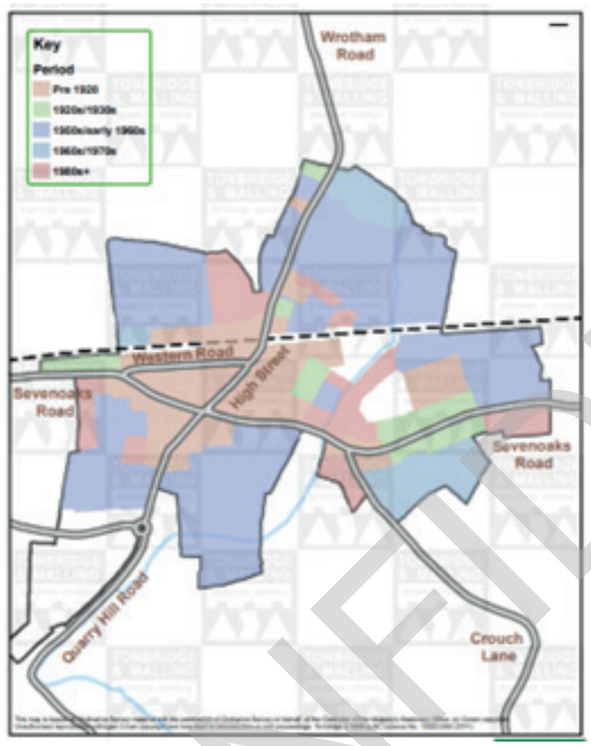
The first large development was in 1877 when the owners of Yew Tree Farm sold 56 acres for the construction of Western Road and the Fairfield area was laid out in 1-2 acre plots. The western side of the High Street was developed in the early 1900s with the ten tall shops being built by a Mr Gregory between 1904 and 1908. By 1900 there were 200 houses in the village.

Borough Green was split between 3 separate parishes, Wrotham, Ightham and Platt (after 1843) and did not become a separate ecclesiastical parish until 1973. Throughout the 19th century, various other development occurred, though the most rapid expansion comprised private and public housing developments extending outwards from the village centre over former farmland and quarries post war period. This comprised local shops and community facilities including recreation grounds, a modern medical centre, village hall, churches and primary school.

The adjacent Map (extracted from the Borough Green Character Areas SPD 2011) presents an analysis of Borough Green's growth over time and offer an indication of transformation of its built form during the 20th century and beyond.



REFERENCES

- Tonbridge and Malling Borough Core Strategy (2007)
- Tonbridge and Malling Boroug Local Plan
- West Kent Economic Priorities for Growth
- Borough Green Character Areas Supplementary Planning Document
- Kent Property Market Review 2022
- Transport Strategy for the South East
- Kent and Medway Economic Strategy

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APPENDIX: 03

DESIGN REVIEW PANEL

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Design South East Design Review Panel 1

INTRODUCTION

The initial Design South East Design Review Panel workshop was carried out on 13th May 2021 during the Covid-19 outbreak in 2020/21. An independent site study including desktop research and a digital walk-around (in a similar fashion to that which would have been conducted on-site) was carried out by the applicant team.

SUMMARY

This report covers a review of the development brief for Borough Green Gardens. We acknowledge the depth of research done by the design team. However, there is still work to be done to ensure this project delivers a high-quality new place. Firstly, a robust and compelling vision of the qualities that Borough Green Gardens needs to embody, as well as the processes to achieve this vision, must be developed.

This strategic site would benefit from ongoing workshops and reviews to steer the development in the right direction, and we are pleased to note the council's request to retain the current panel through to, at least the 'Outline planning application' stage.

KEY RECOMMENDATIONS

1. Rationalise and set out an achievable vision for Borough Green Gardens, considering the wider needs of the existing community.
2. Ensure the development exemplifies what makes a good community at Borough Green Gardens by developing a clear picture of the role of the community in their place going forward.
3. Define the sites connectivity, integration, and relationship with the existing village and the surrounding settlements and landscape setting.
4. Clearly outline the schemes commitments to the existing community in Borough Green, including how this development can add to their quality of life.
5. Develop the site structure, including its landscape character and the distribution of the various proposed uses.
6. Ensure on-going collaboration between stakeholders to ensure the vision for Borough Green Gardens development is not impeded as the project progresses.

DETAILED COMMENTS AND RECOMMENDATIONS

1. THE VISION

1.1. The baseline documents capture important information about Borough Green Gardens in terms of the site conditions, transport, environmental conditions, socio-economies etc. However, the vision has not responded to these findings. The result is that it is not spatial, lacks rationale, and is not place specific.

1.2. It is important that the vision provides useful prompts for the development as it comes forward. The vision should be linked to a framework plan that sets out in broad terms how the site is arranged.

1.3. The form and distribution of employment throughout the site could form part of the vision. Setting a target such as one job per home within the site would aid in measuring success in the future. It would generate a measurable target for which a strategy could be developed later in the design process.

1.4. The quantum of development at Borough Green Gardens and its relationship to the existing village population (7,000 people), requires a wider visionary approach that considers the site and the village as one entity. Ultimately, it lends itself to a town settlement as opposed to a village extension.

1.5. Given the scale of the proposal, it is likely that Borough Green will become a town rather than remain a village. This scale of growth brings with it opportunities, but to realise this potential, both new and existing need to be integrated through connectivity, landscape, social infrastructure, and community. Capturing this in the vision is critical.

1.6. The process for creating the vision for Borough Green Gardens is as important as the vision itself. It plays a pivotal role in gaining stakeholder support. As the vision progresses, iterative consultation should be built into its development to ensure stakeholders buy in to the aspirations for this new place.

COUNCIL RESPONSE

We agree that the vision is not sufficiently place specific and lacks socio-economic and local history evidence to inform this. We do not think that a target such as 'one job per home' is workable, and is not otherwise referenced in the current draft Local Plan.

ACTIONS

To extend the baseline to include a socio-economic place profile (by LSOA and wards), to then use this to inform an update of the development vision.

2. LANDSCAPE

2.1. The site presents a rich and varied landscape, with a great deal of potential to use this as an asset with which to create a distinctive place. Therefore, a landscape led approach which leverages the sites existing landscape qualities should be developed.

2.2. The landscape history of the site provides a useful starting point when considering how this site should be designed. On-site assets include quarries, woodland, waterbodies, and dramatic topography. Given the breadth of landscape character across the site, the design should seek to use this to create distinctiveness.

2.3. The topography generated by the quarrying activities on site needs careful consideration. Grading the site too much could erode the sense of place and erase the site's history. Instead, these and other assets should be responded to positively and used as part of the narrative for the landscape framework.

2.4. The existing quarries create spatial 'pockets' within the existing topography. As such, the design team should explore a series of distinctive green spaces for each of these features. The different landscape areas should lead to notably different design responses, for example parks on level ground and within the sloped terrain etc.

2.5. Part of the vision for this new community may include how the people interact with and use the landscape.

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COUNCIL RESPONSE

The design team are seeking to adopt a landscape led approach which takes account of realistic future site levels, mindful of current extraction and filling activities. A green infrastructure response to an appropriate level of detail will be included in the framework plan/development brief.

ACTIONS

To develop a landscape approach in the development brief which maximises the opportunities which arise from the differing site levels. It is expected that this will be informed in more detail going forwards by ground stability and engineering advice at master planning stage.

3. COMMUNITY

3.1. As discussed, the vision for Borough Green Gardens needs to define and describe the aspirations for community creation. This should be informed by investigating and responding to the needs and deficits of the existing community, so that the design of this site offers something to people beyond the red line boundary.

3.2. Using the existing community as a design prompt would help understand the social context of the site and would then help shape which facilities and services it should contain. An analysis of the existing community by a specialist consultant would identify the existing social nodes and help facilitate a response that makes the most of the social context.

COUNCIL RESPONSE

In extending the baseline work to cover socio-economic aspects of the existing settlement, consideration will be given to current community facilities and areas of under provision identified including community, sport, leisure and recreation facilities.

ACTIONS

Undertake a review of existing community facilities and identify and deficiencies in existing provision, and opportunities to address these through the provision of new facilities on-site and elsewhere within the settlement. Mindful of the legal tests for s106 obligations, it is likely that opportunities to address these deficiencies will be identified in the development brief, some of which may not be directly linked to the delivery of the BGG site itself.

4. MOVEMENT AND CONNECTIVITY

4.1. Borough Green Gardens should seek to integrate with existing travel and movement networks in the surrounding areas. For it to work as a sustainable settlement, 'sustainable travel' connections should be made to the existing network.

4.2. Further review of all existing and potential (North-South) connections into the village is required. A vision for the A227, as the main access to the village and the station, should be prepared. Interventions/improvements required to enhance connectivity should be identified, even if they fall outside the red line.

4.3. The rationale for the relief road is not convincing, and it embodies the negative connotations usually associated with a bypass. If possible, a relief road should be avoided so as to prevent compromising the quality and character of the development.

4.4. Opportunities to consider the relief road as two sections of different character and function should be explored in further detail.

4.5. Special care should be given to the site's edge conditions and its connections to the surrounding areas. How it interfaces with its surroundings is key in making sure it integrates with its context.

5. SUSTAINABILITY COMMITMENTS

5.1. Within the Local Plan, TMBC have responded to the climate emergency and aims to be carbon neutral by 2030. The vision for Borough Green Gardens must respond to
the Local Plan and embed commitments to sustainability. It should be accompanied by a pathway to achieve net zero carbon within Borough Green Gardens. Embedding these principles from the onset is critical if this target is to be realised.

COUNCIL RESPONSE

Future communities have a part to play in ensuring that the council achieves its climate change aspiration. However, we are mindful that the government does not intend for standards regarding carbon neutrality to be stet at the local level, and that a national level playing field should be supported in the house building sector. We are therefore anticipating that the Future Homes Standards will be the key consideration in this regard.

ACTIONS

To take account of anticipated national policy and guidance on Future Homes Standards (no gas appliances from 2025), and to also take account of current draft policies for electric vehicle charging and provision of active travel infrastructure to reduce transport based emissions arising from the development

COUNCIL RESPONSE

The consideration of wider sustainable travel connectivity in particular walking and cycling is ongoing through the preparation of a new active travel strategy (incorporating LCWIP) for the borough. This work takes account of the location of all strategic sites in the draft Local Plan, and will be subject to public consultation later in 2021. The route proposals identified for the A227 and A25 will be referenced appropriately in the development brief.

The rationale for the relief road is extensive, as set out in the para 116 topic paper which forms part of the evidence base for the current draft Local Plan. Work to consider the character and function of the road is ongoing (for consideration at the next design review workshop), subject to further traffic modelling and highways advice at this time.

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ACTIONS

To take account of further highways and transport advice as this becomes available, and to integrate this into the framework plan for the site. Set up a meeting with consultants DHA to share and discuss the wider active travel proposals for Borough Green.

6. DESIGN COMMITMENTS

6.1. To fully embrace the characteristics of a modern garden community, it is critical to ensure that community engagement and involvement is reflected in the design commitments for Borough Green Gardens.

6.2. Positive public engagement should be rooted within the design process from the onset, to promote ownership of public green spaces, play facilities and schools, as well as to influence their design.

6.3. To a large extent the proposed density (35-45 dwellings per hectare) is critical in determining the character of Borough Green Gardens. High densities on this site are supported by the Panel but need to be delivered in such a way as not to reduce design quality or impact negatively on the landscape and setting of the AONB.

6.4. An LVIA should be used as a design tool to test masterplan options, such as, exploring if the topography associated with the quarries may present opportunities for the introduction of taller buildings without impacting adversely on the landscape setting.

COUNCIL RESPONSE

The council has prepared landscape evidence to inform the development brief and to support the draft Local Plan allocation. This includes an LVIA and LSCS which are being referenced to inform the framework plan options that are being appraised. These will be discussed with the panel at the next workshop.

ACTIONS

To take account of the landscape evidence and any further advice in preparing framework plan options.

7. MATERIALS AND DETAILING

7.1. The approach to materials and detailing was not discussed at this workshop. The development is at the inception stage, and we expect this will be taken into consideration as the scheme progresses. Paragraph 130 of the National Planning Policy Framework (2018) states: 'Local planning authorities should also seek to ensure that the quality of approved development is not materially diminished between permission and completion, as a result of changes being made to the permitted scheme (for example through changes to approved details such as the materials used).'

7.2. In order to be consistent with this national policy, the applicant team and local authority should note Design South East's general guidance on material quality and detail. At planning application stage, the quality of the detailing should be demonstrated through large scale drawings at 1:20 and 1:5 of key elements of the building/landscape and should be accompanied by actual material samples which should be secured by condition as part of any planning approval.

COUNCIL RESPONSE

The above comments are noted and will be for future planning applicants to address.

ACTIONS

None

8. ENERGY STRATEGY

8.1. The approach to energy efficiency was not discussed at this workshop. Our guidance is that at the planning application stage the proposal must produce a clear energy strategy which details how the development will optimise thermal performance, minimise the demand for energy, supply the remaining energy requirements efficiently and optimise the use of renewables in order to align with the Government's emerging zero carbon policy. This strategy should be informed by detailed modelling work informed by respected calculation methods.

COUNCIL RESPONSE

The provision of an energy strategy is not currently a validation requirement for planning applications submitted to Tonbridge & Malling as indicated on our local validation matrix. This may be reviewed going forwards in response to the climate change agenda, the introduction of Future Homes Standards and review of our Local Plan.

ACTIONS

None

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