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Items highlighted in yellow represent amendments made to the previously submitted Design and Access Statement. A dedicated Schedule of Amendments can be found at the end of this document detailing each amendment and where in the document it is located.

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1. THE VISION

A UNIQUE VILLAGE WITH A LIVING AND WORKING COMMUNITY Surrounded by Kent's dense woodland, Fort Halstead is currently known only

Surrounded by Kent's dense woodland, Fort Halstead is currently known only as a place closed off. Take a walk now and you'll find a place that conceals, and reveals its history with every turn.

As the site opens up, it will become a revelation—its wooded landscape and hidden history instilling an excitement to venture out to discover more. In doing so, this place can serve visitors, residents and employees on different levels. Taking a holistic approach to design that builds in environmental, social, cultural and economic needs, Fort Halstead has the potential to become a truly unique village—creating an active, healthy and innovative way of life among woodland.



1.0 THE VISION

Reinvigorating the past...

The Vision of a new sustainable development at Fort Halstead has been characterised into four key elements:

ECONOMIC

An economic hub of continued innovation, opening the doors to new businesses

Fort Halstead has always been a place for innovation. The new Enterprise campus could take this thinking forward and shape an excellence around a specific topic and attracting pioneers and retaining QinetiQ as a business of international importance.



From secluded to inviting...



ENVIRONMENTAL

Restoring the landscape and protecting the surrounding ancient woodland

The extraordinary activities at Fort Halstead have shaped it's landscape. With its enclosed woodland, dramatic slopes and expansive grasslands, the site offers curiosity, excitement and wonder to these diverse spaces. While the remains of the bunkers give the village a unique character which contrasts with its natural surroundings.



From concealing to revealing...



Refreshing the present...

SOCIAL

An intriguing and open site for a people of all ages to enjoy

Fort Halstead is opening its doors to the public and transforming from a private to a social site. With 635 new homes and a business campus it will house a new community connected to the network of local villages, shaping itself as a new village that becomes a place for contemplation and healthy living.



From industrial to natural...



CULTURAL

Discovering the history of Fort Halstead

Opening up the site for the existing local community to discover the history of Fort Halstead. Telling the story of events in a sensitive, engaging and immersive way.



From history to heritage...



Realising the Vision...

Below lists the proposed interventions which will help in delivering the four elements in creating a sustainable development at Fort Halstead.

ECONOMIC

- New Innovation and Education Hub to significantly contribute to the existing employment opportunities in the area. The innovation and education hub will provide a variety of employment space including office, research and development and light industrial uses
- Provide local employment opportunities to reduce the need to travel
- Retention of existing employer QinetiQ on site
- Retention and integration of key existing buildings within the employment area

ENVIRONMENTAL

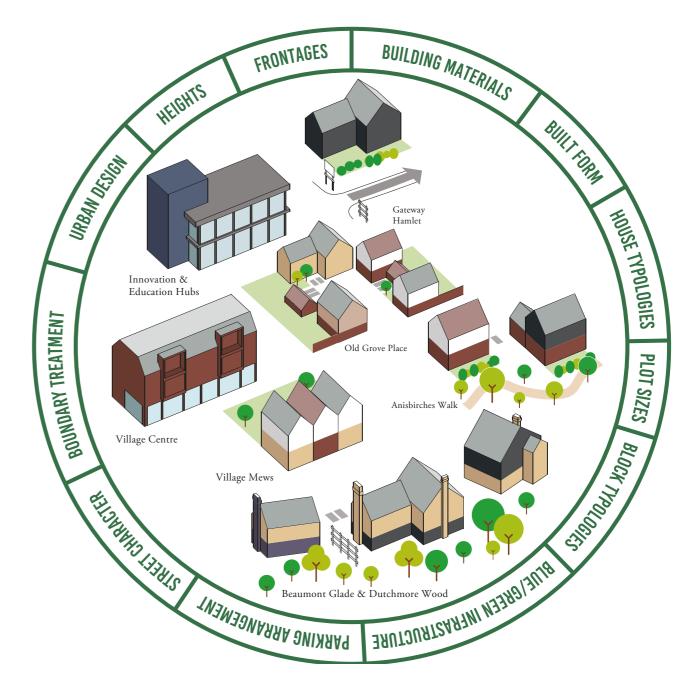
- Protection, enhancement and maintenance of ancient woodland and retention of key tree groups within the site
- Sustainable drainage
- Network of green and recreational spaces, providing every resident with access to a green link within 100m of their home
- Encouraging sustainable transport i.e. new bus link, reducing the reliance on the private car
- Promotion of healthy lifestyle through creation of safe, attractive and convenient walking and cycling routes
- Locally sourced building materials
- Sustainable energy strategy

SOCIAL

- Providing community and retail facilities in the village centre
- Land safeguarded for a new primary school on site
- Diverse range of house types including size, architectural style and tenure.
- New early years nursery on site
- Permeable road network with a wide range of traffic calming measures to create a people and childfriendly environment

CULTURAL

- Opening of the 19th Century Fort to the public
- Refurbishment of the listed buildings in the Village Centre and Fort
- Retention of the bunker area to form part of the heritage walking trail within the site



Masterplan 'ingredients'



2. INTRODUCTION

2.1 INTRODUCTION

FORMAT OF THE PLANNING APPLICATION AND THE PURPOSE OF THIS DOCUMENT

This planning application, has been prepared and submitted on behalf of the applicant, Merseyside Pension Fund (MPF), for the redevelopment of the existing defence research complex at Fort Halstead ('the Site').

The planning application is a hybrid which comprises some elements submitted in outline and some elements in detail. The aspects of the planning application submitted in outline include a new mixed-use development up to 635 new homes and employment areas. All matters will be reserved, except means of access and the refurbishment of Q13 & Q14 buildings which is submitted for full detailed planning. A Listed Building application is also be submitted for Q14.

Specific design guidance which features in both the Outline and Detailed Design and Access Statements, is extracted and compiled into this Design Principles Document which is formally submitted for approval as part of the planning application.

In accordance with the Town and Country Planning (Development Management Procedure) (England) Order 2015, the planning application also seeks approval, at this stage, for:

- Use
 - The uses proposed for the development and any distinct development zones identified within the site
- Amount of development
 - The amount of development proposed for each use
- Access
 - The location of pedestrian, cycle, equine and vehicular access points
- Scale parameters The upper limit for all building heights

FORT HALSTEAD HYBRID PLANNING APPLICATION DOCUMENT STRUCTURE



Q13 & Q14)

Design Principles Document

Chapters extracted from both the Design & Access Statement and the Village Centre document to be submitted for planning approval.

Extracts include:

- Character Areas Guidance (outline)
- · Access and Movement Chapter (outline)
- Crow Drive Character Areas (outline)
- Village Centre Design Guidance (detailed)

PAGE 8 FORT HALSTEAD - DESIGN PRINCIPLES

2.1 INTRODUCTION

DESCRIPTION OF DEVELOPMENT

Fort Halstead lies to the north of Sevenoaks, and close to the south-eastern edge of the M25. It is bounded by the A224/Polhill Road to the east, Star Hill and Lime Pit Lane to the west and south, respectively, and a number of farm properties and Great Stockholme Wood to the north.

The site itself is currently occupied by Dstl and QinetiQ as a defence research complex, with a range of industrial buildings scattered throughout the site. The existing larger scale industrial buildings are connected with internal roads, served by large areas of hardstanding used for parking and access with smaller storage buildings and bunkers as well as areas of amenity grassland and mature trees completing the picture of the current development. The surrounding mature woodland is a key characteristic of the site, which envelopes the majority of the current built-up area and provides a high degree of enclosure and privacy.

The application as outlined in this document is for the following:

In detail:

- Demolition of existing buildings;
- Change of use and works to buildings Q13 and Q14 (including landscaping and public realm);
- Primary and secondary accesses.

In outline:

- Development of business space (use classes B1a/b/c) of up to 27,659 sqm GEA;
- Works within the 'X' enclave relating to energetic testing operations, including fencing, access, car parking;
- Development of up to 635 residential dwellings;
- Development of a mixed-use village centre (use classes A1/A3/A4/A5/B1a/D1/D2);
- Development of a one form entry primary school;
- Change of use of Fort Area and bunkers to Historic Interpretation Centre (use class D1) with workshop space;
- Roads, pedestrian and cycle routes, public transport infrastructure, car parking, utilities infrastructure, drainage;
- Landscaping, landforming and ecological mitigation works.



Illustrative masterplan



3. CHARACTER AREA GUIDANCE

3.1 CHARACTER AREAS

INTRODUCTION

Fort Halstead will contain a number of distinct character areas, creating an interesting series of spatial and visual experiences as one moves through the site. Utilising the historical road network, subtle differences in design, the scale of buildings and their relationship to adjacent landscape spaces will help to define the different character areas, whilst maintaining an overall sense of unity across the site.

There should be a broad range of different house types and groupings across the development, within individual streets and spaces to create a variety of homes. This will ensure Fort Halstead is a place with a distinct character.

There are seven character areas, these are:

• Gateway Hamlets

Small groups of high-quality homes, each with its own distinct character, in low density neighbourhoods, arranged to mark entrances to the development.

Old Grove Place

Homes focused around the Entrance Green, in a series of intimate courtyards; the area incorporates existing mature trees which line Crow Drive.

Anisbirches Walk

Homes nestled amongst mature trees, framing either side of the Green Link, providing the main east-west pedestrian and cycle route through the site.

Beaumont Glade & Dutchmore Wood

Homes arranged around streets and mews courtyards, transitioning to lower density housing around the edges, with views onto surrounding areas of ancient woodland.

Village Mews

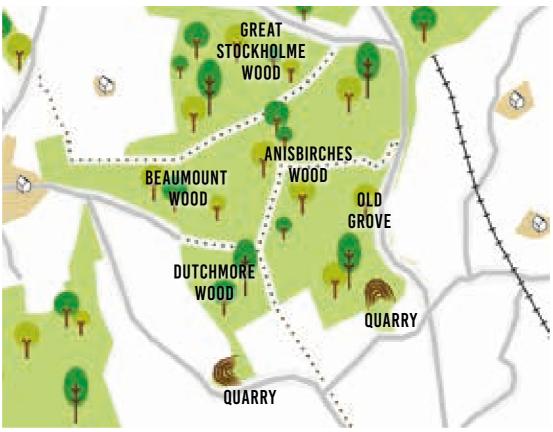
Narrow-fronted homes around shared-surface mews streets, creating a gradual intensification towards the larger buildings and facilities found in the Village Centre.

Innovation & Education Hub

A high quality, R&D and technology focused business & education campus, which could potentially deliver a primary school alongside a variety of employment opportunities in both new and refurbished buildings, allowing people to both live and work at Fort Halstead.

The Fort & Village Centre

The historical core of Fort Halstead and to its north, the higher density mixed-use area, forming the focus for the wider site.



Names of the character areas have been inspired by its surrounding context and history of place. Map of 1895



3.1 CHARACTER AREAS

CONTENTS OF THE CHAPTER

Each section within this chapter describes one of the character areas, providing important guidance on the key characteristics of each. Supported by illustrative plans, artist's impressions and precedent photos, this chapter aims to give a design narrative toward the look and feel of the village.

Each section contains the following elements:

- A brief introduction setting out the location, vision and key features of the character area.
- An illustrative view giving a general impression of the character area and how it should look and feel.
- A table setting out each area's urban design principles, including key layout principles, frontage characters and parking typologies.
- A diagram and illustrative masterplan demonstrating how the layout principles come together to create a neighbourhood.
- A table setting out open space principles including green/blue infrastructure, street character and boundary treatments.
- Illustrative plans and sections to demonstrate how the open space principles could be delivered.
- A table setting out architectural design principles including plot layout parameters and materials.
- A number of architectural precedent images which illustrate some or all of the characteristics described by the preceding guidance.

Text and diagrams set within an orange box are used to indicate mandatory design principles that *must be followed* to ensure the development will be of a high quality.

Mandatory Design Principles





Sample pages illustrating the Village Mews Character Area

3.1 CHARACTER AREAS





3.2 GATEWAY HAMLETS

URBAN DESIGN

KEY LAYOUT PRINCIPLES

- Large detached and semi-detached homes arranged to create an informal 'organic' frontage to the woodland.
- Buildings in the centre of the parcels arranged around shared courtyard spaces.
- Generous spacing between homes, and careful consideration of outlook from individual homes, to create greater sense of space within.

FRONTAGE CHARACTER

Stepped Frontage

- Predominantly detached with semidetached dwellings in key locations (e.g. at corners, location terminating views from green space).
- Building line steps to create visual interest and variation in the street scene.
- Varied roof profile.
- Car parking typologies: on-plot corner; onplot between dwellings.

Staggered Frontage

- **Detached** dwellings of different forms.
- A mix of wider and narrower gaps between buildings to reinforce informal character.
- Variation in setback from the public realm to create organic frontage line.
- Buildings positioned at different angles and overlooking public space or route.
- Frontage may include the rear/flank walls of garages, linked to dwellings by garden walls.
- Car parking typologies: on-plot corner; on-plot between dwellings, forecourt; onstreet visitor parking

CAR PARKING TYPOLOGIES

TYPOLOGIES

DESCRIPTION

On-Plot Corner



- Located around the corner from main dwelling frontage
- Usually serves individual dwelling on corner plot, but may serve more than one (e.g. semi-detached) providing up to a maximum of 4 spaces
- Parking bay(s) enclosed by brick garden wall

On-Plot Between Dwellings



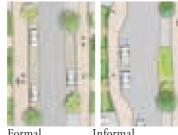
- Parking spaces must be set behind the building line (an exception may be made where the dwelling is set back from the back of footway by more than 4m)
- Parking spaces will be provided in either car ports or garages
- No more than two cars allowed in tandem parking

Forecourt



- Applies to large dwellings only
- Front boundary will be walls, cleft fencing or hedgerows
- Gates to be inward opening
- Maximum width of access from street 3m

On-Street Visitor Parking



- Designed to prevent parking on verges and pavements
- Max. 3 parallel parking bays without landscaping between
- Marked bays should be a minimum 2.4m wide x 6m long



Extract from Layout Plan - Gateway Hamlet



Illustrative Masterplan - Gateway Hamlet



Indicative location of LEAP

FORT HALSTEAD – DESIGN PRINCIPLES PAGE 17

3.2 GATEWAY HAMLETS

OPEN SPACE

GREEN/BLUE INFRASTRUCTURE

- The bunkers retained as a significant landscape and recreation feature forming an important part of the site heritage walk (Refer to Demolition Plan 00556I PP04).
- Homes carefully positioned to respect and respond to individual character of ancient woodland edge.
- Street trees of 5–6m high to be incorporated into the streetscape where appropriate.

FRONT BOUNDARY TREATMENTS

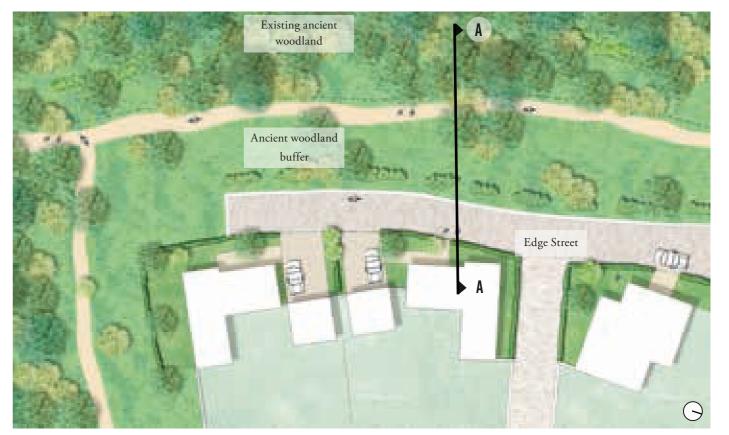
- Open and naturalistic.
- Boundary defined by low hedge or area of shrub planting to provide privacy but maintain openness.

Timber posts to protect edges of ancient woodland from encroachment of vehicles (may also incorporate low level lighting).

STREET CHARACTER

- · Low grade, informal lanes along the woodland edge, providing the minimum amount of hard surfacing for both access and servicing requirements, with no black top.
- Where possible, homes served from the rear to retain pedestrian only, green frontage to woodland.
- Parking to be generally screened from view in car ports or garages.
- No white lines to demarcate carriageway.

Refer to Access & Movement chapter in the DAS



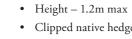
Illustrative Street Plan - Edge Street

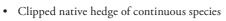


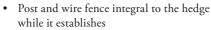
TYPOLOGIES Low Hedge













EXAMPLES

Planting Area



• Height – maximum 600mm

- Set back maximum 2m
- Low clipped hedge with shrub planting
- Suitable along mews shared surfaced streets



Timber Posts



- Height maximum 800mm
- Suitable for demarcating the edge of key public green spaces
- · Lighting could be incorporated into design

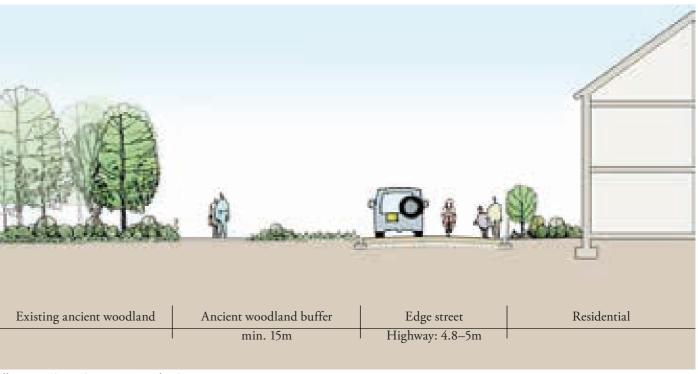


No Boundary



• Plot boundary defined by distinct change of surface material (e.g. cobbles) or by the edge of private lawn in front of the building





Illustrative Street Section AA - Edge Street

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3.2 GATEWAY HAMLETS

ARCHITECTURAL DESIGN

BUILT FORM

- 2 storey homes (refer to Building Heights Parameter Plan 00556I_PP02)
- Potential for unusual form or composition.
- Contemporary villas with distinct features and consistent
- Layered façades, use recesses, projections and balconies to create depth and add visual interest.
- Homes to be designed with large openings to maximise outlook into the surrounding woodlands and maximise internal daylight levels inside buildings.

FACING MATERIALS

- Use of light-weight and natural materials to respond to woodland setting.
- Primarily natural and dark stained timber boarding, create strong contrasts of colour and texture, whilst complementary to its woodland setting.



Precedent image of contemporary villas within a woodland setting (Vilnius, Lithuania)

Primary Materials



Dark stained timber cladding

Secondary/Feature Materials



Roof



Large glass windows and balconies Dark grey or Black metal cladding



Grey metal standing seam Green roof





Indicative use of material palette

Western Gateway – dark stained timber cladding



Precedent image of villas overlooking green space (Cornwall Hotel Spa, Cornwall)



Precedent image of timber-clad villas (Manor Wood Grove, Surrey)



3.3 OLD GROVE PLACE

URBAN DESIGN

KEY LAYOUT PRINCIPLES

- The Entrance Green at the junction of Crow Drive and Mitchell Road forms the focus for the parcel.
- Regular frontage along Crow Drive to creates a sense of a formal arrival.
- A series of small formal courtyards run perpendicular to the main streets with dwellings arranged around them.
- Dual-frontage units on the eastern edge respond both to the internal courtyard and existing woodland setting.

FRONTAGE CHARACTER

Regular Frontage

- Predominantly **detached** with **semi-detached** dwellings in key locations (e.g. at corners).
- Similar typology and arrangement, generally aligned with the street.
- Garages and driveways set behind the building line, with some use of rear parking.
- Car parking typologies: on-plot between dwellings

Side-Gable Frontage

- **Detached** dwellings of similar form.
- Frontages facing onto the courtyard with an active gable end fronting Crow Drive.
- Houses along Crow Drive connected by connecting garden walls to reinforce the formal and linear frontage character.
- Frontage may include the rear/flank walls of garages, linked to dwellings by garden walls.
- Minimal gaps between buildings to create a high degree of enclosure
- Parking will be located within the shared courtyard.
- Car parking typologies: shared courtyard parking, on-plot corner; on-plot between dwellings.

Staggered Frontage

- Terraced, semi-detached and detached dwellings of similar form.
- Small clusters of houses arranged around the shared courtyard to create natural surveillance and a high degree of enclosure to reinforce its formal character.
- Dual aspect housing with active frontages onto both the shared courtyard and surrounding woodland.
- A mixture of narrow and wide fronted units.
- Variation in setback from the public realm to create a staggered building line.
- Car parking typologies: on-plot frontage; on-plot corner; on-plot between dwellings.

CAR PARKING TYPOLOGIES

TYPOLOGIES

DESCRIPTION

Shared Courtyard Parking



- Parking to be accommodated in allocated spaces, car ports or detached car barns
- Parking spaces to be accessed from the shared courtyard space
- Max 4 spaces in a row separated by landscape
- No more than 6 spaces in a single car port or barn structure
- Natural surveillance required from adjacent dwellings
- Flat over garage (FOG) house types are encouraged with this parking arrangement to provide natural surveillance

On-Plot Corner



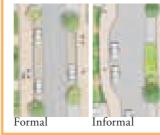
- Located around the corner from main dwelling
- Usually serves individual dwelling on corner plot, but may serve more than one (e.g. a terrace of houses) providing up to a maximum of 4 spaces
- Parking bay(s) enclosed by brick garden wall

On-Plot Between **Dwellings**

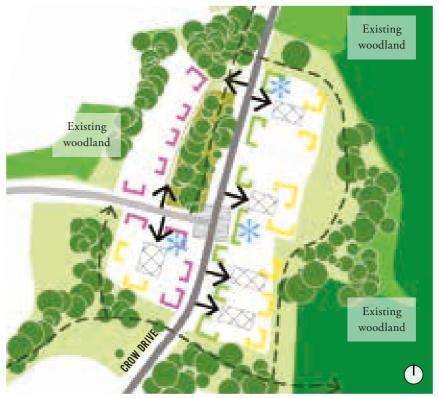


- Parking spaces must be set behind the building line (an exception may be made where the dwelling is set back from the back of footway by more than 4m)
- Parking spaces will be provided in either car ports or integral garages
- In the courtyards, structures to accommodate parking spaces must be attached or linked to the property. Detached garages may be permitted where houses front onto green space
- No more than two cars allowed in tandem parking

On-Street Visitor Parking



- Designed to prevent parking on verges and
- Max. 3 parallel parking bays without landscaping between
- Marked bays should be a minimum 2.4m wide



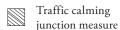
Extract from Layout Plan

Key

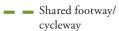
* Feature building

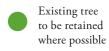
Indicative access into development parcel

Shared courtyard

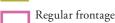


Edge street











Staggered Frontage



Illustrative Masterplan

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3.3 OLD GROVE PLACE

OPEN SPACE

GREEN/BLUE INFRASTRUCTURE

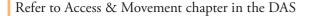
- Entrance Green incorporates retained tree groups, creating a mature feel and enhancing the strong sense of arrival.
- Mature trees help to visually integrate the development with the surrounding woodland context creating an attractive approach into the development.
- Woodland ground flora is proposed landscape planting scheme underneath the trees comprising a mixture of shade tolerant shrubs, ornamental grass and tall herbaceous plants to reinforce the existing woodland character and to create an attractive arrival space.

FRONT BOUNDARY TREATMENTS

- Formal boundary treatment softened by landscaping.
- Along the eastern side of Crow Drive, the boundary will be defined by a
 connecting garden wall with woodland ground flora planting in front, to
 soften the interface with the public realm.
- Within the courtyards, planting or hard paved areas will be used to demarcate public and private space.
- Estate railings with planting behind will define the boundary on the western side of the Entrance Green, fronting Crow Drive.
- Timber posts to demarcate the edge of the Entrance Green and other public open spaces (may also incorporate lighting).

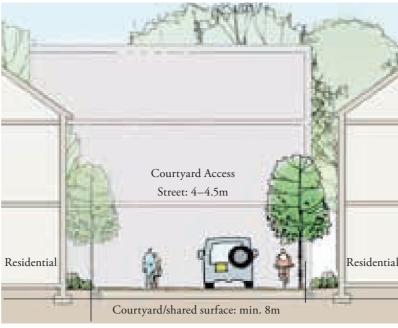
STREET CHARACTER

- Relatively formal along main streets with a good degree of enclosure cars to be set back behind the building line.
- Courtyards designed as pedestrian priority with emphasis on creating welcoming shared communal spaces and reducing impact of parked cars.

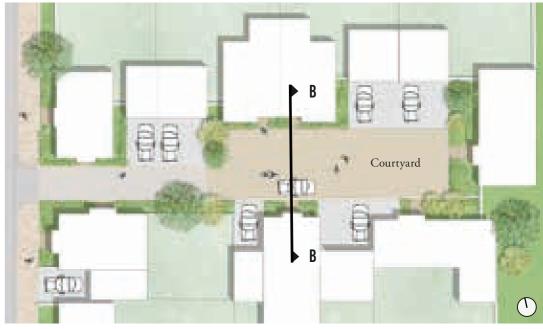




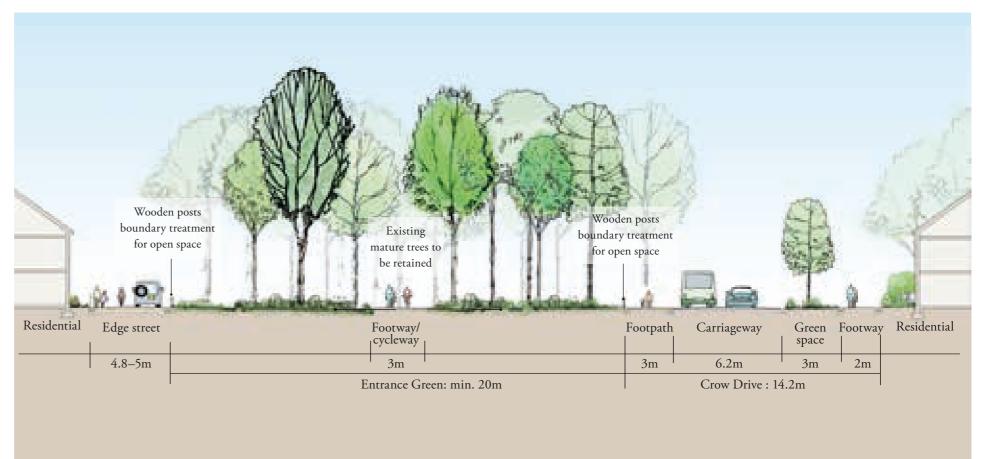
Example of footway/cycleway through entrance green – The Avenue, Saffron Walden



Illustrative Street Section BB – Courtyard



Illustrative Plan - Courtyard



Illustrative Street Section CC - Entrance Green

3.3 OLD GROVE PLACE

ARCHITECTURAL DESIGN

FRONT BOUNDARY TREATMENTS

TYPOLOGIES

DESCRIPTION

EXAMPLES

Connecting Garden Wall



- Total height 2.4m max
- The material must be the same material as the adjoining
- Clipped hedge of continuous species



Planting Area Or Hard Paved





- Height maximum 600mm
- Set back maximum 2m
- Low clipped hedge with shrub planting
- Suitable in the shared surface courtyard



Estate Railing



- Height 1.2m max
- Building set-back minimum
- Powder coated black metal railings with gates to match
- Varied shrub planting behind

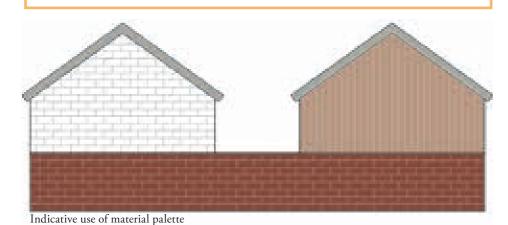


Timber Posts



- Height maximum 800mm
- Suitable for demarcating the edge of key public green
- Lighting can be incorporated into design





BUILT FORM

- Up to 2.5 storeys with occasional feature buildings up to 3 storeys (refer to Building Heights Parameter Plan 00556I_
- Mainly large detached and semi-detached houses.
- A contemporary interpretation of the Arts and Crafts style with varied elevation composition with steep pitches arranged around a shared courtyard.
- Feature elements such as wide porches, bay windows and balconies and/or brick chimneys used to emphasise key buildings and elevations.
- Large picture windows are encouraged to create strong connections between the inside and outside of buildings.

FACING MATERIALS

- Primarily red-multi brick at base level, and a mix of white brick and timber boarding above ground level. Buff brick and dark stained timber as feature materials.
- Generally lighter colours, with darker materials used for emphasis on landmark/corner dwellings and garages.
- No change of material for connecting garden walls to create an appearance of continuity.









Pale buff brick



timber cladding

timber cladding



Roof



Dark grey tiles



Precedent of floating garden wall - The Avenue, Saffron Walden



Precedent of courtyard housing – The Avenue, Saffron Walden



3.4 INNOVATION & EDUCATION HUB

URBAN DESIGN

KEY LAYOUT PRINCIPLES

- A potential primary school located at the heart of the hub, with safe crossing points to the Village Centre. It must have a secure boundary.
- The school drop-off will be accessed from the employment entrance, however will be segregated off to provide a safe child-friendly environment.
- Office, research and development and workshop uses, creating the opportunity for a varied, enterprising community of businesses.
- Relatively formal, generally orthogonal groupings of buildings, defining a series of courtyard spaces varying in both size and shape with some containing retained trees.
- Key existing buildings retained and reused.
- Buildings maximise active frontage to Crow Drive on the western edge and form an attractive entrance to the innovation and education
- Retained cottages create a focus for views south along Crow Drive.

FRONTAGE CHARACTER

Dual Employment Frontage

- Buildings are dual aspect, with views to Crow Drive and existing woodlands.
- Carefully landscaped parking areas to the inward facing and side frontages of buildings.

Courtyard Employment Frontage

- Employment uses of varying types and size.
- Create sense of enclosure around open space.
- Located at different angles to each other to create informal-shaped
- Carefully landscaped shared courtyard with parking and loading areas in front of buildings.

School Frontage

- The building aligned with the existing street frontage which also provides sufficient drop-off area.
- Building frontage design to respond to the important views from the Village Green and provide sufficient level of security and privacy.

BOUNDARY TREATMENTS

- Hard paved and/or planted area at front of buildings providing privacy strip.
- Tall brick walls to screen service areas. Secure fence around the school
- Timber/metal posts used to define pedestrian zones to protect trees and planted areas within courtyard areas (may also incorporate lighting around green edges).



Eastern Hub – Illustrative Masterplan



Eastern Hub - Extract from Layout Plan

Key

Dual employment

Courtyard employment frontage

■ School frontage

Indicative zone for office/small enterprise

Indicative zone for light industry

Indicative secure school

→ Indicative parcel access

Indicative school

Indicative loading for larger vehicles

Indicative internal street Shared footway/

cycleway

P Indicative car park

Existing tree to be retained Existing building to be

retained and refurbished Indicative pocket green

--- Secure school boundary

FORT HALSTEAD - DESIGN PRINCIPLES **PAGE 25**

3.4 INNOVATION & EDUCATION HUB

OPEN SPACE

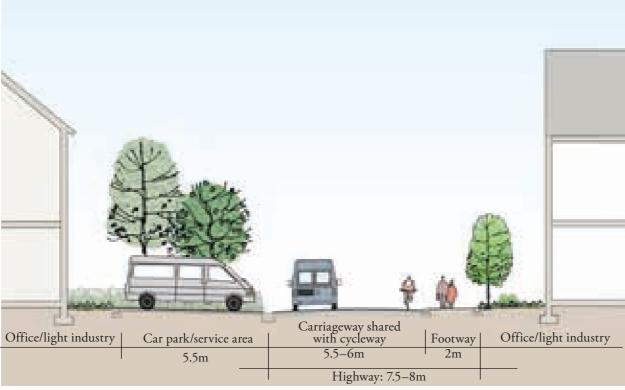
GREEN/BLUE INFRASTRUCTURE

- Single species trees set at regular intervals along Crow Drive to define strong avenue character.
- Pockets of existing trees retained and enhanced as amenity green spaces within the layout.
- Courtyard spaces sensitively landscaped to provide opportunities for social interaction and avoid over dominance of car parking.

STREET CHARACTER

- Parking areas broken up with green spaces to accommodate landscape and/or tree planting and minimise visual impact.
- Appropriate traffic calming measures included within the access roads and parking areas to limit vehicle speeds and encourage pedestrian and child friendly environment.
- Appropriate levels of parking provided alongside secure and convenient cycle storage facilities.
- Service access for light industrial uses located to the back/side of buildings, with main building entrance for pedestrians at front, accessed from central courtyard space.
- School building to be set back from Crow Drive to provide a generous drop-off and temporary parking area.
- The size and location of service areas and waste storage facilities carefully considered and discretely placed to avoid visual intrusion and nuisance from daily use.





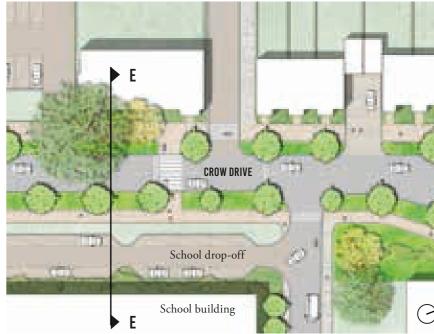
Street section DD - Street in Innovation Hub



Street section EE – Crow Drive



A1 building to be retained



Street plan – school drop-off and Crow Drive

3.4 INNOVATION & EDUCATION HUB

ARCHITECTURAL DESIGN

BUILT FORM

- Up to 3 storeys in height (refer to Building Heights Parameter Plan 00556I_PP02).
- Simple forms, inspired by large rural buildings, with contemporary detailing.
- Massing and roof form carefully controlled buildings appearing over bulky.
- Sensitive retained buildings as well as new residential buildings on the other side of Crow Drive.

FACING MATERIALS

Predominantly dark coloured metal cladding and large glazed areas, particularly at building entrances.

FRONT BOUNDARY TREATMENTS

TYPOLOGIES

DESCRIPTION

EXAMPLES

Planted Area or Hard Paving



- Height maximum 600mm
- Set back maximum 2m
- Low clipped hedge with shrub planting
- Suitable along the Mews shared surfaced streets



Timber Post



- Height maximum 800mm
- Suitable for demarcating the edge of key public green spaces
- Lighting can be incorporated into design



Office/R&D buildings at Alconbury Weald, Huntingdon

Primary Materials



Dark grey or black Large areas of

Secondary/Feature Materials







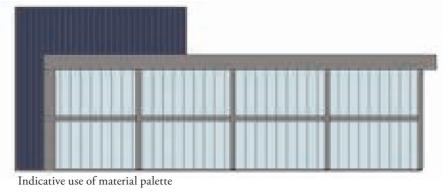
Dark coloured weatherboarding Timber cladding













Innovation Hub at Alconbury Weald, Huntingdon

FORT HALSTEAD - DESIGN PRINCIPLES PAGE 27





3.5 VILLAGE CENTRE

URBAN DESIGN

KEY LAYOUT PRINCIPLES

- · Retain and refurbish existing buildings of historic and architectural interest as the key feature for the Village
- New buildings to the west of Grade II listed building Q14 should have full 3 storeys, with the 4th storey set back in order to respect the setting and protect the view of its western elevation from the Fort (more detailed guidance can be found in the Village Centre Design Guide).
- Maximise active frontage to all areas of public realm and minimise gaps between buildings to ensure good degree of enclosure.
- Buildings at key locations within the plan, such as at gateways and buildings terminating vistas, are defined as feature buildings. These should have a distinct character reflecting the importance of their location and proximity to existing historic buildings, whilst also providing a means of effective wayfinding.
- Building frontages facing the Village Square and Village Green should be distinctive in both form and silhouette, providing an appropriate back-drop to these important spaces that lie at the heart of the new community.
- Potential older people's housing area to be located adjacent to the Village Centre, with potential communal facilities fronting the Village Centre.

FRONTAGE CHARACTER

Mixed-Use and Employment Frontage

- Continuous, formal frontage facing onto key public
- Consists of **mixed-use** and **office** blocks with a consistent building line and where possible with gaps only for access to parking and pedestrian routes.
- It is encouraged that all buildings are dual aspect to provide sufficient overlooking onto public space and shared parking areas.
- · Similar setback to create a strong rhythm and continuous building line.
- Separate buildings entrances for residential and other uses to be located on the outward-facing elevation
- Unified roof profile.
- Car parking typologies: communal, on-street visitor.

CAR PARKING TYPOLOGIES **TYPOLOGIES**

DESCRIPTION

Communal

· Communal parking areas are used predominately for apartment blocks and employment buildings



For Residential buildings:

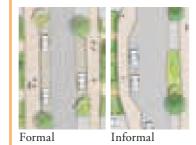
- Parking areas will be located to the rear of buildings, away from key public spaces and frontages.
- Residential parking areas will contain no more than 20 parking bays.
- There should be no more than 5 spaces in a row without landscaping between
- Walls should be used to clearly define the entrances to rear parking courts as well as screen parked cars from the street and create a good sense of enclosure.
- · Parking areas will be overlooked and appropriately lit at night



For Mixed-Use and Employment buildings:

- A larger number of cars can be served from a single parking area, but it would need to be sensitively designed and considered on a case-by-case basis.
- No more than 6 spaces in a row without landscaping
- The layout of parking to be formed to create a rhythm to the landscape
- Parking areas to be positioned behind buildings and away from key frontages to avoid dominating public open spaces with vehicles.

On-Street Visitor Parking



- Designed to prevent parking on verges and pavements
- Max. 3 parallel parking bays without landscaping between them
- Marked bays should be a minimum 2.4m wide x 6m long

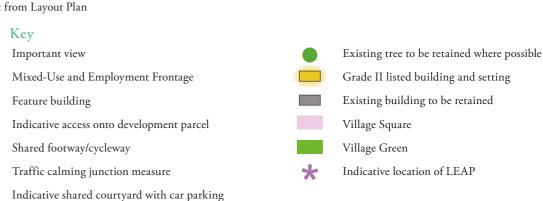




Extract from Layout Plan

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PAGE 30 FORT HALSTEAD - DESIGN PRINCIPLES

3.5 VILLAGE CENTRE

OPEN SPACE

GREEN/BLUE INFRASTRUCTURE

- Create a clear sequence of open spaces from the Fort to the Green Link, including the Village Square and Village Green, with continuous shared footway/cycleway with a minimum width of 3m wide.
- The Village Green should have some formality in its layout, responding to the surrounding built environment, but also reflecting the more naturalistic character typical of the commons and greens found within the local area.
- Outdoor facilities: an equipped play area to be provided in the Village Green.
- A minimum of 5m green space should be provided between QinetiQ's fence line and proposed footway/cycleway.

STREET CHARACTER

- General character: relatively formal with a good degree of enclosure.
- Vehicular accesses onto the mixed use and employment areas should be located from Penney Road and Lennard-Jones Road.

FRONT BOUNDARY TREATMENTS

- Railing on low wall with hedge.
- No boundary, set back planted area or low wall for mixed use Village Centre and Employment.
- Wooden posts for Village Green.
- 1m service zone minimum clear of vegetation is required between the QinetiQ's demise and fence line. QinetiQ's fence line should sit within their demise.

Refer to Access & Movement chapter in the DAS

FRONT BOUNDARY TREATMENTS

TYPOLOGIES DESCRIPTION EXAMPLES

Low Wall/Railing on Low Wall With Hedge



- Total height 1.2m max
- Powder coated black metal railings with gates to match
- Clipped native hedge of continuous species
- This boundary treatment is appropriate for the Innovation Quarter and Mixed-Use areas



Planted Area Or Hard Paving





- Height maximum 600mm
- Set back maximum 2m
- Low clipped hedge with shrub planting
- Suitable along the shared surfaced streets in the mews

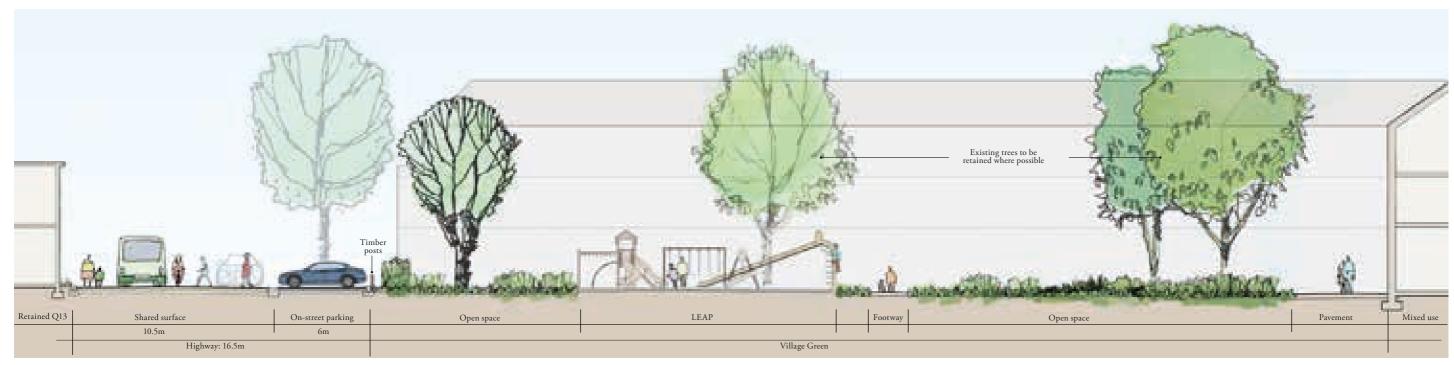


Timber Post



- Height maximum 800mm
- Suitable for demarcating the edge of key public green spaces
- Lighting can be incorporated into design





Street Section FF - Village Green

FORT HALSTEAD - DESIGN PRINCIPLES PAGE 31

3.5 VILLAGE CENTRE

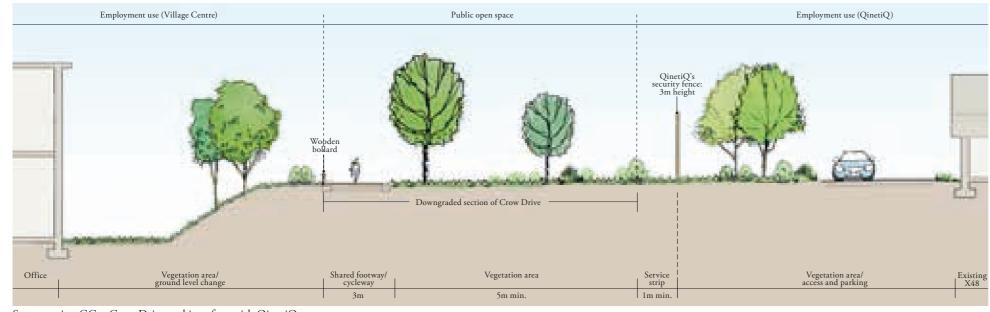
OPEN SPACE



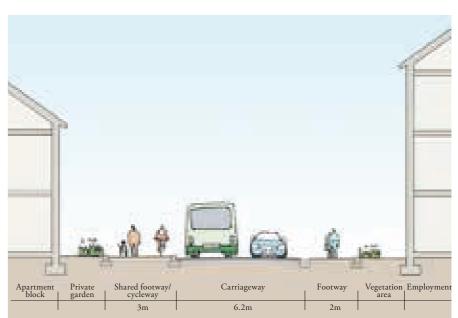


Illustrative Masterplan

Street plan – Penny Road



Street section GG – Crow Drive and interface with QinetiQ



Street Section HH – Penney Road

3.5 VILLAGE CENTRE

ARCHITECTURAL DESIGN

BUILT FORM

• 3–4 storeys, with mixed-use area up to 4 storeys; employment area and residential area up to 3 storeys. (Refer to Building Heights Plan 00556I_PP02).

ARCHITECTURAL CHARACTER

- High-quality contemporary design, taking inspiration from the retained buildings in the Village Centre.
- Buildings adjacent to retained buildings should have flat roofs. Remaining buildings in the village centre should have a mixture of pitched and flat roofs.
- Both the residential and employment buildings in the village centre should be consistent in architectural style and language.

MATERIALS

- Red brick and red multi-brick as primary material, secondary use of white painted bricks and timber cladding. Red clay tiles and greys tiles to be used for pitched roofs.
- Crittall style windows on the new buildings and crittall style windows with mandatory T-shape glazing bars on the refurbished buildings in the Village Centre.



Apartments with ground floor mixed-use (Great Kneighton, Cambridge)



Precedent image of refurbished listed building (Barry, Wales)



Precedent image of ground floor use (Nieuwe Park, Rozenburgschool)



Glass lift abutting existing building (Hackney Town Hall)

Primary Materials



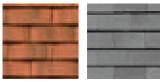






White painted brick Timber cladding

Roof



Grey slate tiles

T-shaped profile

Windows



Indicative use of material palette





3.6 VILLAGE MEWS

URBAN DESIGN

KEY LAYOUT PRINCIPLES

- Similarly sized, linked or terraced homes fronting onto a series of intimate shared-surface streets running north-south through the parcel.
- A small number of detached and semi-detached homes creating more informal frontage to public green space.
- Small apartment blocks along the southern edge of the parcel create a sensitive transition to the larger blocks in the Village Centre.
- Level changes sensitively incorporated into the layout through careful arrangement of homes and wellconsidered retaining walls within back gardens.
- Feature buildings with special architectural treatment to be used in key locations.

FRONTAGE CHARACTER

Regular Frontage

- Consists mainly of semi-detached houses with apartment blocks or detached units at key locations (e.g. on corners).
- Small spacing between buildings and similar setbacks to create strong building lines along the primary and secondary vehicular routes.
- Car parking typologies: on-plot between dwellings, communal/shared courtyard.

Stepped Frontage

- Consists of predominantly **detached and semi- detached** houses.
- Building line steps to create visual interest and variation in the street scene.
- Varied roof profile.
- Car parking typologies: on-plot corner, on-plot between buildings.

Mews Frontage

- Strong repetition of terraced or linked dwellings of similar forms.
- Minimal spacing between homes to create a high degree of enclosure.
- Similar setback to create strong rhythm and building line.
- Unified roof profile.
- Car parking typologies: on-plot between dwellings, on-plot frontage, on-street visitor parking.

CAR PARKING TYPOLOGIES

TYPOLOGIES

DESCRIPTION

On-Plot Corner



- Located around the corner from main dwelling frontage
- Usually serves individual dwelling on corner plot, but may serve more than one (e.g. a terrace of houses) providing up to a maximum of 4 spaces
- Parking bay(s) enclosed by brick garden wall

On-Plot Between Dwellings



- Parking spaces must be set behind the building line (an exception may be made where the dwelling is set back from the back of footway by more than 4m)
- Parking spaces will be provided in either car ports or integral garages
- Along the internal streets, structures to accommodate parking spaces must be attached or linked to the property, with the expectation of housing fronting onto green space, where detached garages may be permitted
- No more than two cars allowed in tandem parking

Communal/



- Communal parking areas are used predominately for apartment blocks
- Parking areas will contain no more than 20 parking bays.
- There should be no more than 5 spaces in a row without landscaping between.
- At the entrance(s) to rear parking courts, walls should be used to clearly define the entrance, screen parked cars from the street and create a good sense of enclosure.

On-Street Visitor Parking

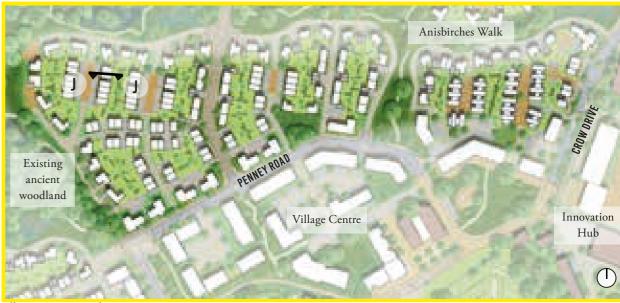


- Designed to prevent parking on verges and payements
- Max. 3 parallel parking bays without landscaping between
- Marked bays should be a minimum 2.4m wide x 6m long

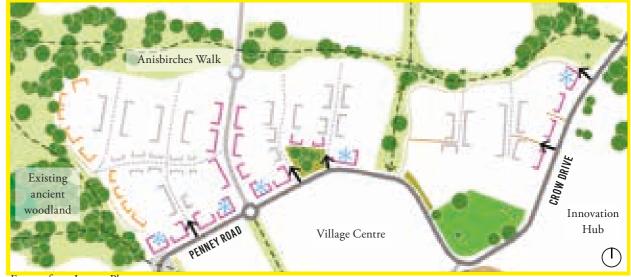
On-Plot Frontage



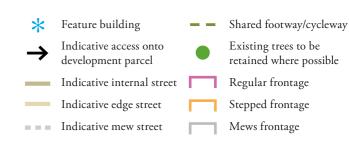
- Max 4 spaces in a row separated by landscape
- Not to serve more than 8 dwellings on any one side of the street
- Chevron parking can be used if desired



Illustrative Masterplan



Extract from Layout Plan



FORT HALSTEAD - DESIGN PRINCIPLES PAGE 35

3.6 VILLAGE MEWS

OPEN SPACE

GREEN/BLUE INFRASTRUCTURE

- Street trees and incidental landscaping planted regularly within the street scene.
- No significant green spaces within development parcel access to surrounding green areas prioritised.

FRONT BOUNDARY TREATMENTS

- Generally narrow, hard paved or planted area at front of homes providing privacy strip.
- Timber posts to define public open spaces (may also incorporate lighting around green edges).
- Low native hedge with planting behind.

STREET CHARACTER

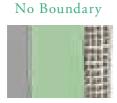
- Mews streets designed to naturally slow traffic and encourage social interaction by their restricted width (carriageway max. 5m wide), attractive shared-surface character and inclusion of street trees/landscaped areas.
- Where possible vehicles parked in between homes, behind building line, typically in car ports. Otherwise parking to be located on-plot in front of homes.
- Limited on-street parking for visitors only.

Refer to Access & Movement chapter in the DAS



Illustrative street plan – Mews street

FRONT BOUNDARY TREATMENTS TYPOLOGIES DESCRIPTION



 Plot boundary defined by distinct change of surface material (e.g. cobbles) or by the edge of private lawn in front of the building



EXAMPLES

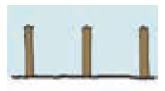
Planting Area or Hard Paved



- Height maximum 600mm
- Set back maximum 2m
- Low clipped hedge with shrub planting
- Suitable along the Mews shared surfaced streets

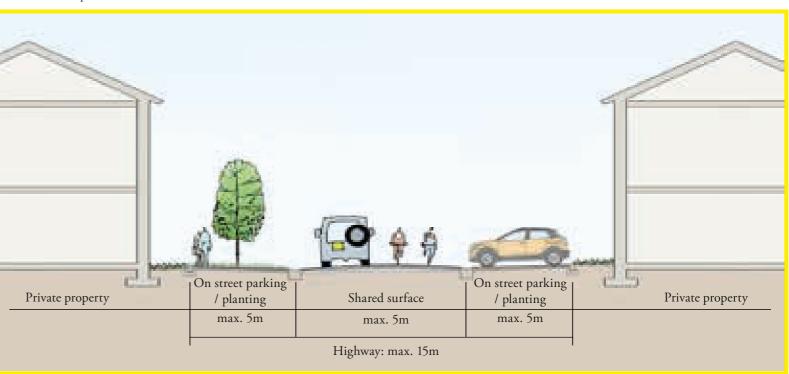


Timber Posts



- Height maximum 800mm
- Suitable for demarcating the edge of key public green spaces
- Lighting can be incorporated into design





Illustrative street section JJ – Mews street

PAGE 36 FORT HALSTEAD – DESIGN PRINCIPLES

3.6 VILLAGE MEWS

ARCHITECTURAL DESIGN

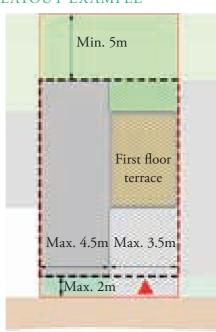
BUILT FORM

- Simple architectural forms and limited materials with repeated rhythm gives the area a strong character.
- More urban forms with clean lines, softened by subtle textures and layering of façade elements.
- Houses of up to 2.5 storeys, and 3 storey apartments on the southern edge.
- Narrow fronted house types with streetfacing gables prevalent, plotted as linked or semi-detached.
- On the mews streets, innovative compact housetypes are encouraged, with narrow street-facing gables (ie. 4.5m wide) with integrated parking zones.
- Along the mews streets, smaller private rear gardens are encouraged with minimum depths of 5m.
- Where smaller private rear gardens are proposed (less than 8m deep) an alternative private amenity space will need to be included i.e. first floor terrace.
- Where larger private rear gardens are proposed (more than 8m deep), more conventional house types may be utilised.

FACING MATERIALS

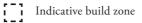
• White brick for the top, and red multibricks and pale buff bricks used as base materials, with lighter materials used in narrower streets to reflect more light.

NARROW-FRONTED PLOT LAYOUT EXAMPLE



Key

Indicative plot boundary



Indicative building footprint

On-plot parking/garage zone

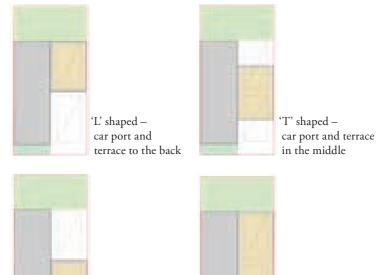
Front/side garden as defensible space (private amenity space)

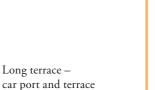
Back/side garden (private amenity space)

First floor terrace (private amenity space)

Vehicular access

ALTERNATIVE PLOT LAYOUT OPTIONS





along length of property

Primary Materials - Top

Primary Materials - Base





Pale buff brick

Roof





Grey slate tiles



Precedent of visitor parking on a Mews street (Denwenthorpe)

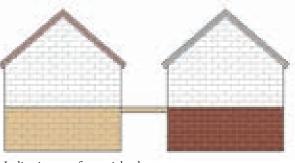


'L' shaped -

car port and

terrace to the front

Precedent image showing a narrow fronted house type with first floor terrace (Newhall, Essex)



Indicative use of material palette



Precedent of lighter materials used to reflect more light (Lavenham, Housing by Project Orange).



3.7 ANISBIRCHES WALK

URBAN DESIGN

KEY LAYOUT PRINCIPLES

- Dwellings of various sizes forming an active frontage to the main east-west Green Link.
- Predominantly large detached houses on the northern side, arranged at a variety of angles in a consciously informal manner and with no vehicular access along the green space.
- Generally smaller, semi-detached homes on the southern side, arranged in a more ordered way and forming frontage to a series of private drives along the green edge.
- Homes along the northern edged are accessed via shared courtyards at the rear.

FRONTAGE CHARACTER

Staggered Frontage

- Detached dwellings of different form
- A mix of wider and narrower gaps between buildings reinforces informal character of the setting.
- Varying set back from the public realm creates organic frontage line.
- Buildings positioned at different angles to the space or route they face, and to each other.
- Optimising views of green space.
- Car parking typologies: on-plot corner; shared courtyard; rear parking courts (for apartments only).

Stepped Frontage

- Predominantly semi-detached with detached dwellings in key locations (e.g. at corners, location terminating views from green space).
- Building line steps to create visual interest and variation in the street scene.
- Varied roof profile.
- Active house frontages overlook the Green Link and provide natural surveillance.
- Car parking typologies: on-plot corner; on-plot between dwellings; rear parking courts (for apartments only).

CAR PARKING TYPOLOGIES

TYPOLOGIES

DESCRIPTION

On-Plot Corner



- Located around the corner from main dwelling frontage
- Usually serves individual dwelling on corner plot, but may serve more than one (e.g. a terrace of houses) providing up to a maximum of 4 spaces
- · Parking bay(s) enclosed by brick garden wall

On-Plot Between Dwellings



- Parking spaces must be set behind the building line (an exception may be made where the dwelling is set back from the back of footway by more than 4m)
- Parking spaces will be provided in either car ports or integral garages
- Along the mews streets, structures to accommodate parking spaces must be attached or linked to the property, with the expectation of housing fronting onto green space, where detached garages may be permitted
- No more than two cars allowed in tandem parking

Shared Courtyard Parking

- Parking to be accommodated in allocated spaces, car ports or detached car barns
- Parking spaces to be accessed from the shared courtyard space
- Max 4 spaces in a row separated by landscape
- No more than 6 spaces in a single car port or barn structure
- Natural surveillance required from adjacent dwellings
- Flat over garage (FOG) house types are encouraged with this parking arrangement to provide natural surveillance

Rear Parking Courts



- Communal parking areas are used predominately for apartment blocks
- Parking areas will contain no more than 10 parking bays.
- There should be no more than 5 spaces in a row without landscaping between.
- At the entrance(s) to rear parking courts, walls should be used to clearly define the entrance, screen parked cars from the street and create a good sense of enclosure.



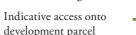
Illustrative Masterplan





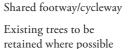
Indicative internal street

Indicative edge street



Indicative mews streetShared footway/cycleway

Indicative location of



Indicative location of MUGA

Stepped frontage

Staggered frontage

FORT HALSTEAD - DESIGN PRINCIPLES PAGE 39

3.7 ANISBIRCHES WALK

OPEN SPACE

GREEN/BLUE INFRASTRUCTURE

- Green Link incorporates retained mature trees as focal points, helping to create a mature landscape
- Planting has an informal, semi-natural character providing a soft transition to the built form.
- Naturalistic play area included within the space encourages social interaction.
- Green Link is the key shared pedestrian/cycle route through the village, providing good, off-road connections to the Village Green, Village Centre and the Fort.

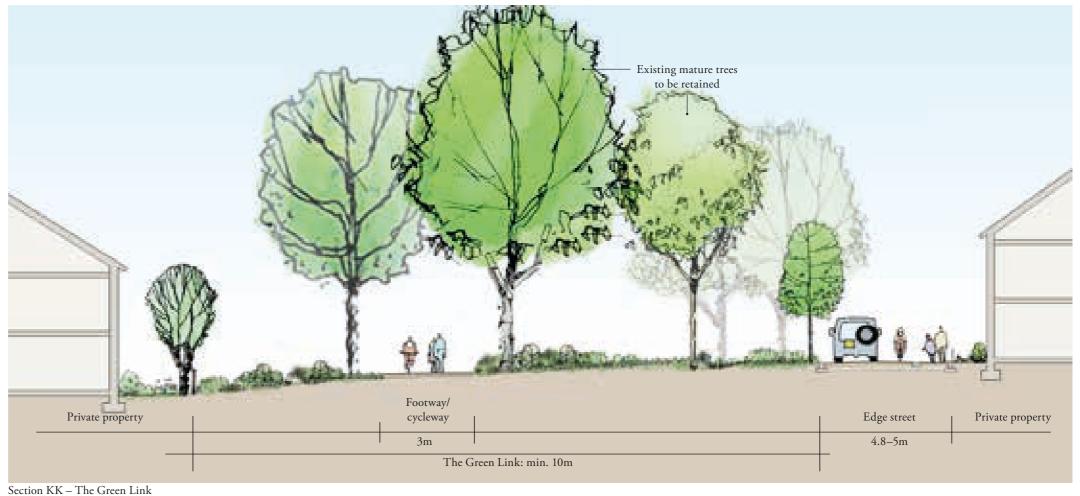
STREET CHARACTER

- No vehicular access along the northern edge of the Green Link. Access to homes to be provided from the north.
- Informal, edge streets on the southern edge of the space provide limited access to homes without through traffic to limit impact on quality of space.
- Vehicular access to green areas to be restricted through careful landscaping and appropriate use of timber bollards.

FRONT BOUNDARY TREATMENTS

- Generally open and naturalistic.
- Boundary defined by estate railings and/or native hedge to provide privacy and simultaneously maintain
- Timber posts used to protect edges of Green Link from encroachment of vehicles (may also incorporate
- Low woodland ground flora and shrub planting, planted in drifts beneath trees to create strong naturalistic green setting.

Refer to Access & Movement chapter in the DAS







3.7 ANISBIRCHES WALK

ARCHITECTURAL DESIGN

BUILT FORM

- Up to 2.5 to 3 storey homes to the north of the Green Link, up to 3 storey homes to the south (refer to Building Heights Parameter
- High-quality, contemporary homes with generous balconies and large areas of glazing overlooking the Green Link.
- Mainly detached and semi-detached dwellings.
- Occasional, small villa-style apartment buildings on key corners.

FACING MATERIALS

• Predominantly red bricks with dark stained or white painted timber cladding above ground floor, to emphasise horizontality, with special materials used to highlight feature buildings.



Precedent for Green Link fronted house type (Alford Road, Cranleigh)



painted timber cladding



Primary Materials - Base



Roof









Indicative use of material palette





Precedent for Green Link fronted house type (Alford Road, Cranleigh)



Precedent for Green Link fronted house type (Guildford Barracks, Surrey)



3.8 BEAUMONT GLADE & DUTCHMORE WOOD

URBAN DESIGN

KEY LAYOUT PRINCIPLES

- Large detached and semi-detached homes fronting onto ancient woodland along northern edges of the parcels.
- Smaller link-detached and semi-detached homes form regular frontage to central streets. Small apartment blocks define key street corners in Dutchmore Woods.
- In Beaumont Glade, groups of mews style houses around a series of north-south shared-surface streets with a more intimate character create views out towards the woodland edge and the Green Link.
- In Dutchmore Woods, semi-detached and terraced homes group around shared-surface streets and spaces in the centre of the parcel.
- Level changes sensitively incorporated into the layout through careful arrangement of homes and well-considered retaining walls within back gardens.

FRONTAGE CHARACTER

Regular Frontage

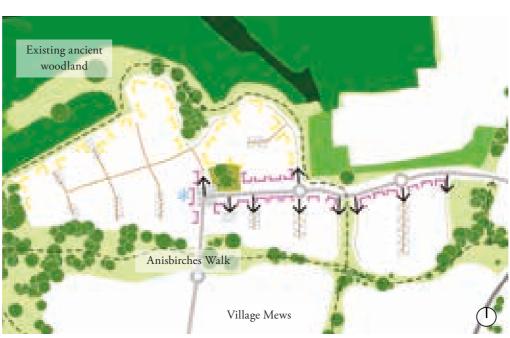
- Semi-detached dwellings along primary vehicular routes with apartment blocks and large detached units in key locations (e.g. at corners).
- Consistent typology and arrangement.
- Aligned with the street frontage to create strong building line along the primary vehicular routes, with some exceptions to define areas of special character.
- Minimal gaps between buildings to create a high degree of enclosure.
- Garages and driveways set behind the building line, with some use of rear parking.
- Car parking typologies: On-plot frontage, on-plot between dwellings, communal.

Staggered Frontage

- Predominantly detached and occasional semi-detached dwellings of different form.
- A mix of wider and narrower gaps between buildings to reinforce informal character.
- Variation in setback from the public realm to create organic frontage line.
- Buildings positioned at different angles to the space or route they face, and to each other.
- Frontage may include the rear/flank walls of garages, linked to dwellings by garden walls.
- Optimising views of green space from plot.
- Car parking typologies: **on-plot corner, on-plot between dwellings**, **shared courtyard, forecourt.**



Illustrative Masterplan – Beaumont Glade

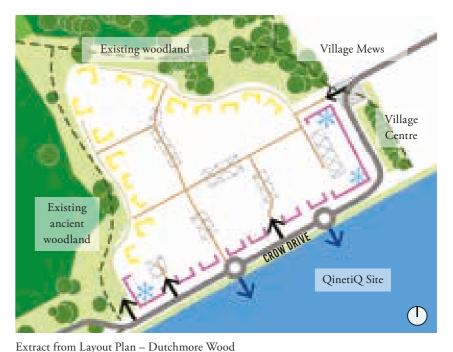


Extract from Layout Plan - Beaumont Glade





Illustrative Masterplan – Dutchmore Wood



Extract from Layout Plan – Dutchmore wood

FORT HALSTEAD - DESIGN PRINCIPLES PAGE 43

3.8 BEAUMONT GLADE & DUTCHMORE WOOD

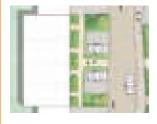
OPEN SPACE

CAR PARKING TYPOLOGIES

TYPOLOGIES

DESCRIPTION

On-Plot Frontage



- Max 4 spaces in a row separated by landscape
- Not to serve more than 8 dwellings on any one side of the street
- Chevron parking can be used if desired

On-Plot Corner



- Located around the corner from main dwelling frontage
- Usually serves individual dwelling on corner plot, but may serve more than one (e.g. a terrace of houses) providing up to a maximum of 4 spaces
- Parking bay(s) enclosed by brick garden wall

On-Plot Between Dwellings



- Parking spaces must be set behind the building line (an exception may be made where the dwelling is set back from the back of footway by more than 4m)
- Parking spaces will be provided in either car ports or integral garages
- Along the internal streets, structures to accommodate parking spaces must be attached or linked to the property, with the expectation of housing fronting onto green space, where detached garages may be permitted
- No more than two cars allowed in tandem parking

Forecourt



- Applies to large dwellings only
- Front boundary will be walls, railings or hedgerows
- Gates to be inward opening
- Maximum width of access from street 3m

TYPOLOGIES

Communal/Shared Courtyard



DESCRIPTION

- Communal parking areas are used predominately for apartment blocks
- Parking areas will contain no more than 20 parking bays.
- There should be no more than 5 spaces in a row without landscaping between.
- At the entrance(s) to rear parking courts, walls should be used to clearly define the entrance, screen parked cars from the street and create a good sense of enclosure.

Ancient woodland buffer Edge Street

Street plan – Edge street

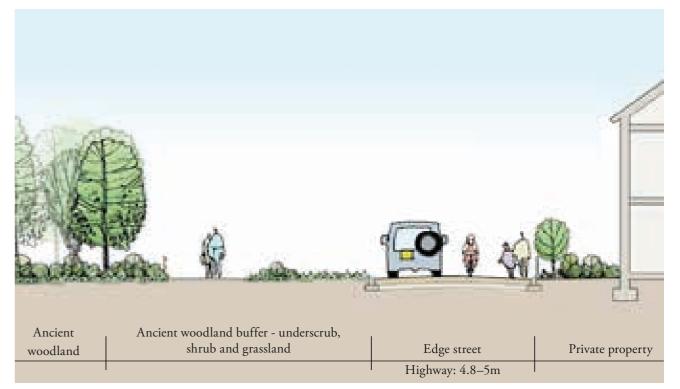
GREEN/BLUE INFRASTRUCTURE

- Where existing mature trees can be retained they should provide a focus for 'Pocket Greens' within the centre of the parcels.
- Public footpath incorporated within the 15m wide buffer to the Ancient Woodland.
- Play area and SuDS ponds incorporated within green space to north of parcels.

STREET CHARACTER

- Lanes along the woodland edge should feel secure and private and not be continuous
- Vehicular access to green areas to be restricted through careful landscaping and appropriate use of timber bollards.

Refer to Access & Movement chapter in the DAS



 $Street\ section\ LL-Edge\ street$

3.8 BEAUMONT GLADE & DUTCHMORE WOOD

ARCHITECTURAL DESIGN

FRONT BOUNDARY TREATMENTS

DESCRIPTION TYPOLOGIES

Native Planting



• Suggest 0.5m high native ground cover planting to create more naturalistic interface, possibly with low railing integrated



EXAMPLES

No Boundary



· Plot boundary defined by distinct change of surface material (e.g. cobbles) or by the edge of private lawn in front of the building



Picket Fencing With Hedge or Shrub Behind



- Height 1.2m max
- Painted timber in light grey or other suitable pale colour, with gates to match
- Low clipped hedge and/or shrub planting behind
- This boundary treatment is appropriate for use



Secondary/Feature Materials

FRONT BOUNDARY TREATMENTS

- Transitioning from open and naturalistic to the north of the parcels to more formal in the south.
- Low hedge/area of shrub planting along northern woodland edge.
- Picket fence with hedge or shrub planting behind, transitioning to low wall with hedge.
- Timber posts to protect edges of open space and prevent inappropriate vehicular access.

BUILT FORM

- High-quality homes of contemporary design with a distinctly rural character.
- Principally 2 storey with some 2.5/3 storey dwellings providing added emphasis on key corners or acting as vista stoppers.
- A mix of detached, link-detached, semi-detached and terraced dwellings.

FACING MATERIALS

Predominantly buff and dark blue brick or dark stained timber cladding with red-multi brick as a feature material. Variety of materials used across both parcels, responding to the transition between adjacent parcels.



Precedent for materials (The Avenue, Saffron Walden)



Precedent for materials (Derwenthorpe, York)



Precedent for woodland edge (Ockford Park, Godalming)

Primary Materials





Dark stained timber Blue brick





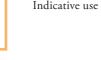




Dark grey tiles



Indicative use of material palette

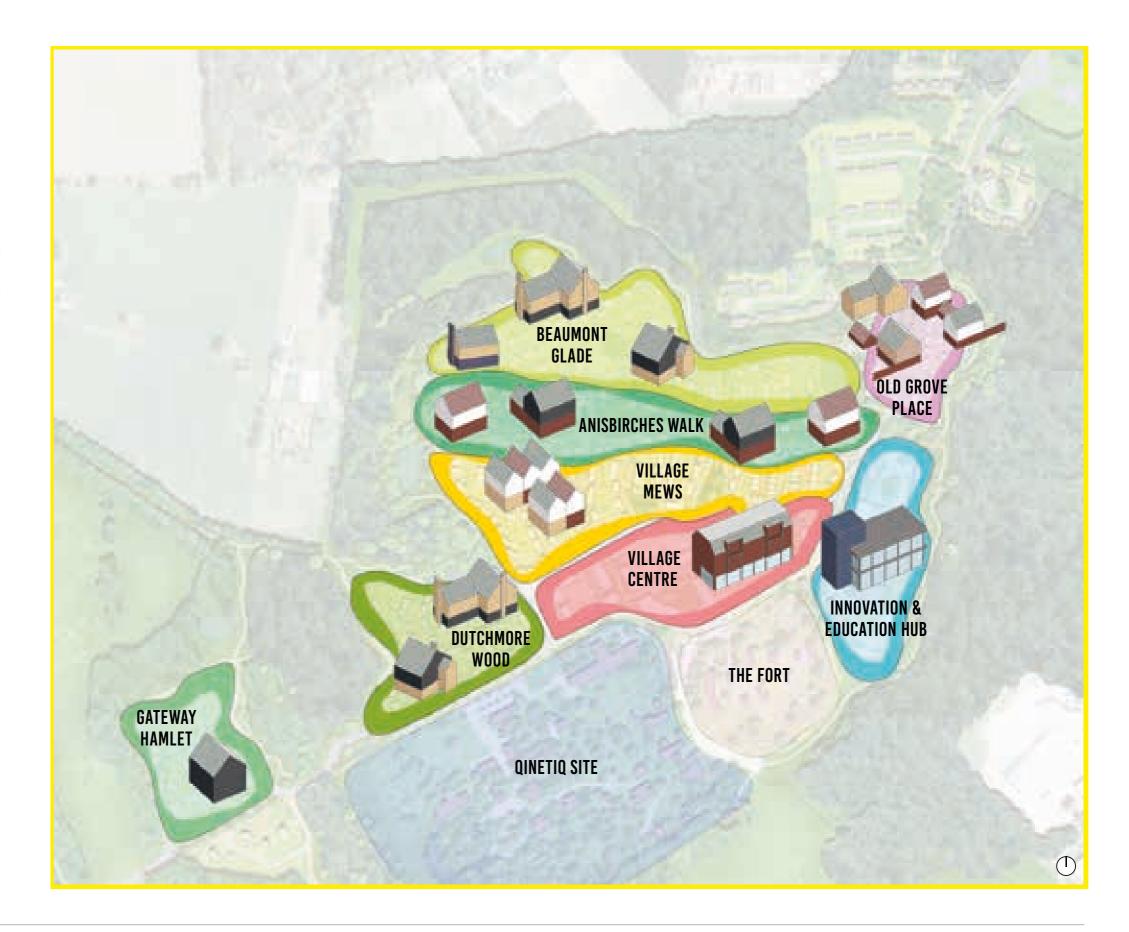


3.9 MATERIALS

MATERIAL PALETTE

Sustainability, local distinctiveness and variety are three key principles influencing the exterior palette of materials at Fort Halstead. By using local materials, the character and identity of the area is reinforced and the need for material transportation is reduced. Depending on context, contemporary materials can be used to produce innovative and unique buildings. Materials vary throughout the new village to reinforce the different character areas within the site and create a legible place.

The table on the following page demonstrates the combination of different character areas within Fort Halstead, whilst also contributing to the local distinctiveness of the Kent Downs AONB.



	HAMLETS		TOP	BASE	FEATURE	ROOF
Gateway Hamlet		Dark stained timber cladding – Western Gateway	Dark stained timber Western Gateway		Red-multi brick Dark grey or black metal cladding	Red tiles Grey slate tiles
Old Grove Place	Floating wall	 Natural coloured timber cladding White brick BASE Red-multi brick 	White brick Natural coloured timber cladding	Red-multi brick	Pale buff brick Dark stained timber cladding	Red tiles Dark grey tiles
Innovation & Education Hub		Predominantly dark coloured metal cladding and large glazed areas, particularly at building entrances	Dark grey or black metal cladding glazing		Timber cladding Dark stained timber cladding	Flat roofs Solar PV tiles or panels
Village Centre		Primary use of red brick and red multi-brick, secondary use of white painted bricks and timber cladding. Red clay tiles and greys tiles to be used for pitched roofs.	Red brick Red-multi brick		White brick Timber cladding Metal: Brown-red cladding	Red tiles Dark grey tiles Crittall
Village Mews		TOP • White brick BASE • Pale buff brick • Red-multi brick	White brick	Red-multi brick Pale buff brick		Red tiles Grey slate tiles
Anisbirches Walk		TOP Dark stained timber cladding Naturally stained or white painted weatherboard BASE Red-multi brick	Dark stained timber cladding Naturally stained or white painted weatherboard	Red-multi brick		Red tiles Dark grey tiles
Beaumount Glade & Dutchmore Wood		 TOP Pale buff brick Dark stained timber cladding BASE Pale buff brick Blue brick 	Pale buff brick	Dark stained timber Blue brick cladding	Red-multi brick	Red tiles Dark grey tiles



4. ACCESS & MOVEMENT

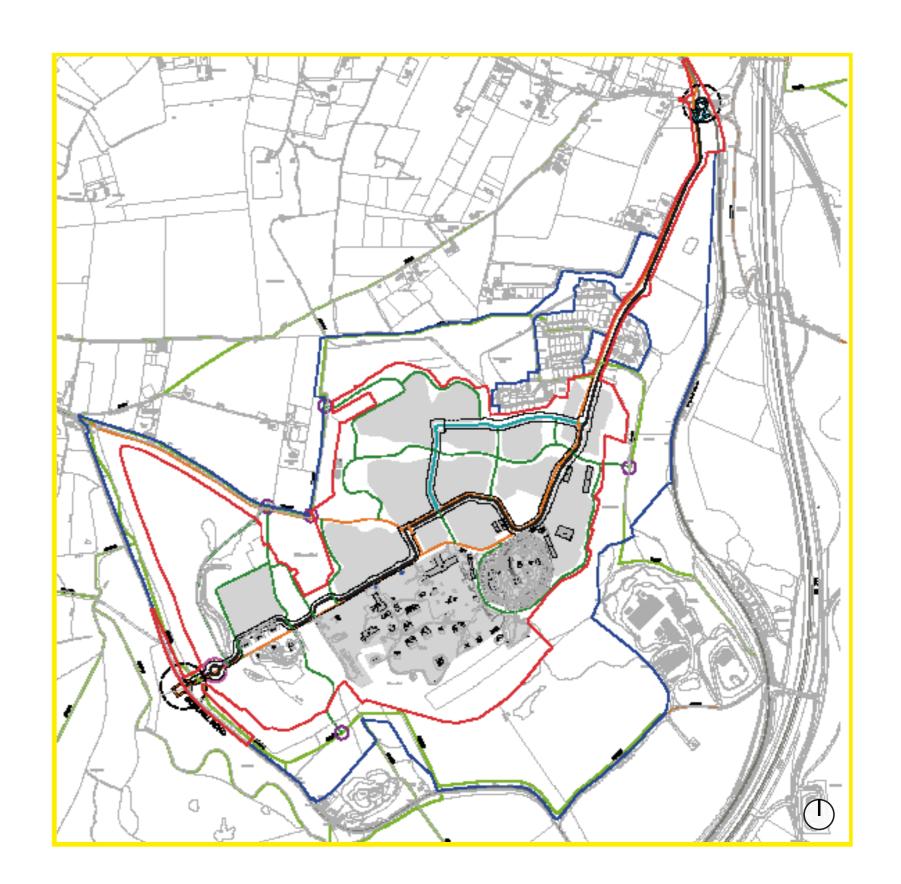
4.1 ACCESS & MOVEMENT STRATEGY

A network of different types of proposed routes contributes to the permeability of the development. It is designed to encourage walking through the development by creating routes that are attractive, direct and overlooked. Less rigid, more organic character of the street network responds to the existing landscape and surrounding woodlands and highlights countryside character of the development.

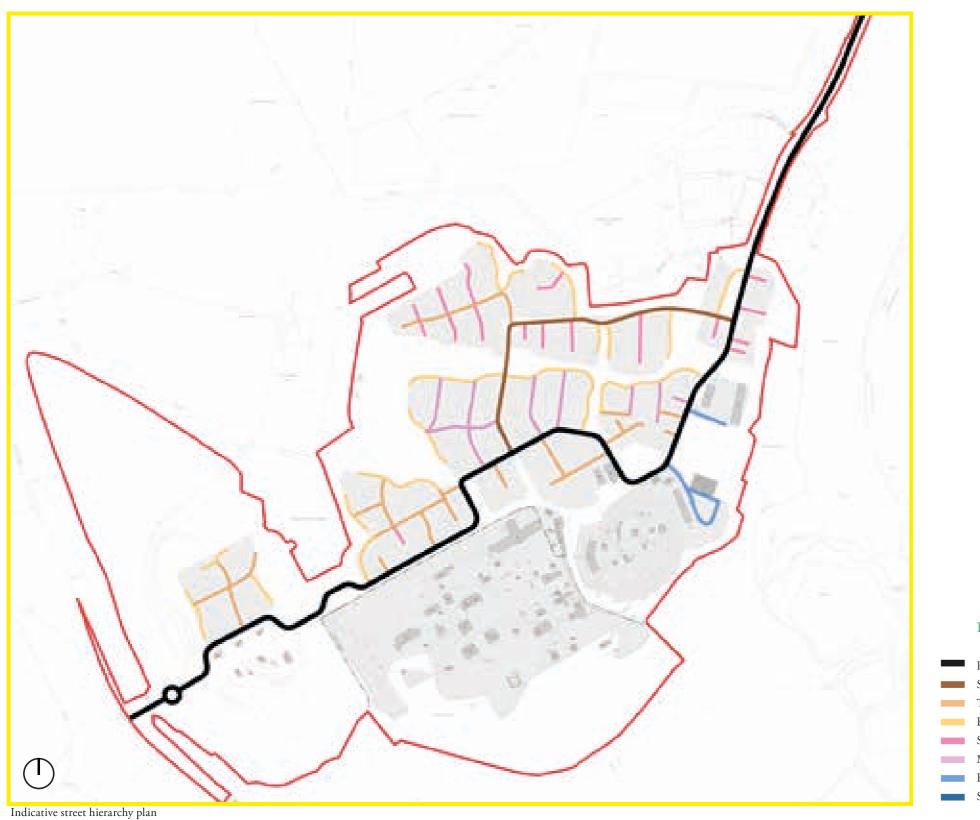
The proposed hierarchy of routes will deliver a comprehensive network of high quality pedestrian and cycle routes across the site providing convenient, accessible, safe, comfortable and attractive facilities for all users.

Key

- Application boundary
- Applicant's Land ownership Boundary
- Development Parcels
- Existing building for potential retention
 - Existing public rights of way (PROW)
- Existing bridleway
- Existing road
- Main access all modes
- Secondary access all modes
- QinetiQ Ltd. access point
- Junction improvement
- Crow Road/Primary Road
- Corridor for primary road*
- Indicative Bus Loop
 Secondary road
- Indicative strategic shared footway cycleway
- Indicative secondary shared footway cycleway
- Connection to existing footway network



4.2 INDICATIVE STREET HIERARCHY



The street network serving the new homes will be based on interconnected streets, shared surfaces and courtyards. The distinctive street hierarchy is designed to provide legibility and easy navigation through the site for residents and visitors. It includes the main road, secondary, tertiary and edge streets each with different layouts and dimensions. Easy access for service and emergency vehicles is ensured by providing several accesses to each development parcel.

Key



Employment & education parcel access

School drop-off

4.3 WALKING & CYCLING ACCESS

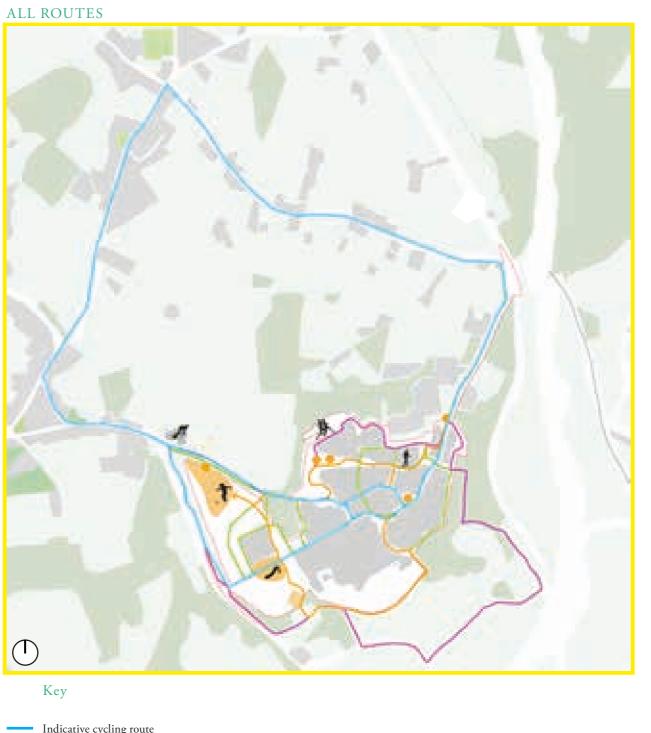
The masterplan prioritises the movement of pedestrians and cycles through the site. This is achieved by the following interventions:

- Reduce traffic speeds design of streets in accordance with requirements for a 20 mph zone;
- Provide a new off-road cycle route through the site between the Polhill access to the Site access and Knockholt Pound;
- A series of "green links" provide other safe shared use pedestrian/cycle links through the site.
- A foot/cycleway adjacent to PRoW SR172 towards Knockholt Pound

Off-Site Enhancements

As with the approved scheme, the village, as well as the wider community, will benefit from the following enhancements:

- New on-road cycle lanes between Polhill and Shanklands Roundabout as well as cycle facilities at the upgraded site access junction. In particular, these enhancements will provide safer access to Knockholt Station;
- Proposed 40 mph speed limit on Star Hill;
- Lighting of the M25 underpass on the bridleway linking Polhill and Filston Way.



CYCLING

8km of cycling route

Indicative cycling route

Indicative pedestrian routes

Indicative running route

Indicative extended running route Indicative recreation route

4.3 WALKING & CYCLING ACCESS

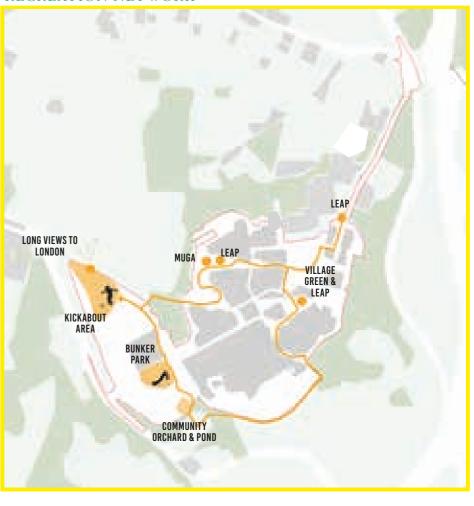
FOOTPATH NETWORK



RUNNING ROUTE



RECREATION NETWORK



7km of walking routes within the neighbourhood

6km of running route

3.6km route connecting all recreational activities in the neighbourhood together

4.4 GENERAL DESIGN GUIDANCE

A LEGIBLE AND PERMEABLE* STREET NETWORK

Fort Halstead has been designed to be a walkable neighbourhood—a place where a range of useful facilities are within a short walking distance of all homes. This encourages people to walk and cycle rather than use the private car for short trips, but in order for this to happen, it is important that the street network is legible and permeable.

The illustrative street hierarchy plan shows a connected network of streets within the site. These form a clear hierarchy, each serving a particular function, from Crow Drive, the primary route running through the site, to the tertiary and edge streets, which are principally designed to accommodate the residents of the adjacent homes. The aim of this hierarchy is both to define a clear pattern of movement within the site and create a variety of attractive, characterful streets.

The location and alignment of Crow Drive and the secondary route is fixed and predominately follows the existing and historic alignment, with the exception of a few locations where deviation has been introduced to incorporate traffic calming measure and encourage slower vehicular movements. The location and alignment of all other street types are shown illustratively. While there is scope for some deviation from the illustrative layout, detailed proposals should follow the principles set out in this chapter, particularly in respect of the hierarchy between different street typologies.

The following detailed principles should be adhered to.

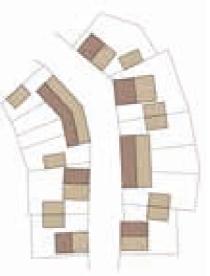
- Streets should interconnect—many cul-de-sac, gated and one-way streets will
 not be acceptable. The only exception may be at edge streets serving a small
 number of homes, but only if it can be designed to adequately accommodate
 the servicing of dwellings and does not sever pedestrian and cycle movements
 through the wider area;
- Each street should be designed to encourage the particular activities intended to take place within it.

STREET ALIGNMENT

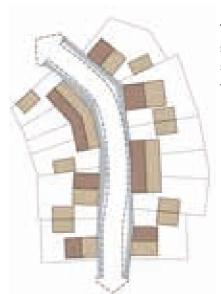
The detailed alignment of streets should be determined by the arrangement of buildings along them and the desire to create varied, interesting places.

- All streets should be designed to naturally slow traffic by visual cues such as built frontage, on street parking, horizontal deflections, landscape and surface materials
- Long straight sections of street should generally be avoided. Where this is not
 practical, additional measures such as those set out above will be required to
 limit speeds

*In urban design terminology, a 'permeable' street network is one which has a variety of pleasant, convenient and safe routes through it. It encourages walking and cycling and makes places easier to navigate through. Conversely, urban forms which lack permeability, e.g. those severed by arterial roads, or with many long culs-de-sac, are considered to discourage movement on foot and necessitate longer journeys by car.



Buildings and gardens are placed to define the preferred urban form.



The space left between is available to form the carriageway and is tracked for movement and for the provision of places where people may park their vehicles.

4.4 GENERAL DESIGN GUIDANCE

JUNCTION DESIGN

Cross roads and T-junctions will be the most common forms of junctions within the street network. In order to allow pedestrians to follow straight desire lines when crossing streets, it is important that junction radii are kept as small as possible.

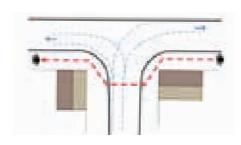
- Vehicle tracking should be undertaken to test designs and achieve tight radii at junctions.
- Radii should generally be less than 6m (to be determined by swept path analysis) with the less trafficked streets achieving a minimum of 4m. Exceptions to this may be made for junctions with the primary road where 6m radii may be required.
- It is acceptable for large vehicles to use the opposite carriageway when turning in areas where traffic is moving at 20mph.
- Widening the street near the junction can help achieve tighter radii.
- Where on-street parking is provided near junctions, wider car parking bays may be used to allow visibility splays to be maintained.
- Street trees can also be located within these visibility splays to allow continuity of street trees.

The adjacent diagrams illustrate this approach, which is also explained in Manual for Streets 1.

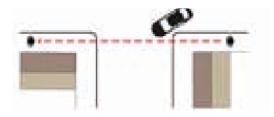
CONSTRUCTION DETAILS

- At the corners of all junctions or other vulnerable areas, footways or other hard-standings should be constructed to the same quality as the carriageway to avoid being damaged by vehicles overrunning the footways or parking.
- The placement of trees, tree pits and utilities should be carefully considered at design stage to ensure a holistic design of the sub base and surfaces to ensure longevity.

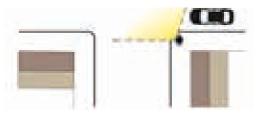
KEY STREET GEOMETRY PRINCIPLES



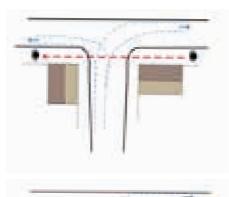
Larger radii force pedestrians to deviate.



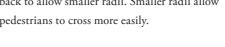
Tighter radii allows pedestrian desire line to be maintained and vehicles turn slowly (10-15 mph)

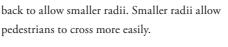


- Pedestrian does not have to look further behind to check for turning vehicles
- Pedestrian can easily establish priority because vehicles turn slowly.

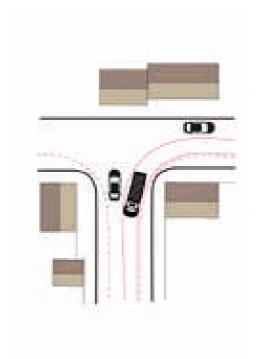


Side street widens at junction & narrows further back to allow smaller radii. Smaller radii allow









- Tighter kerb radii can be used with a wider carriageway. The refuse vehicle turning requirement is still contained within the space, yet vehicles do not dominate.
- By using the same concept of tracking, wider carriageways can be set out to generate tighter junctions. These have much better calming effect on traffic speed.

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5. CROW DRIVE CHARACTER AREAS

5.1 CROW DRIVE

INTRODUCTION

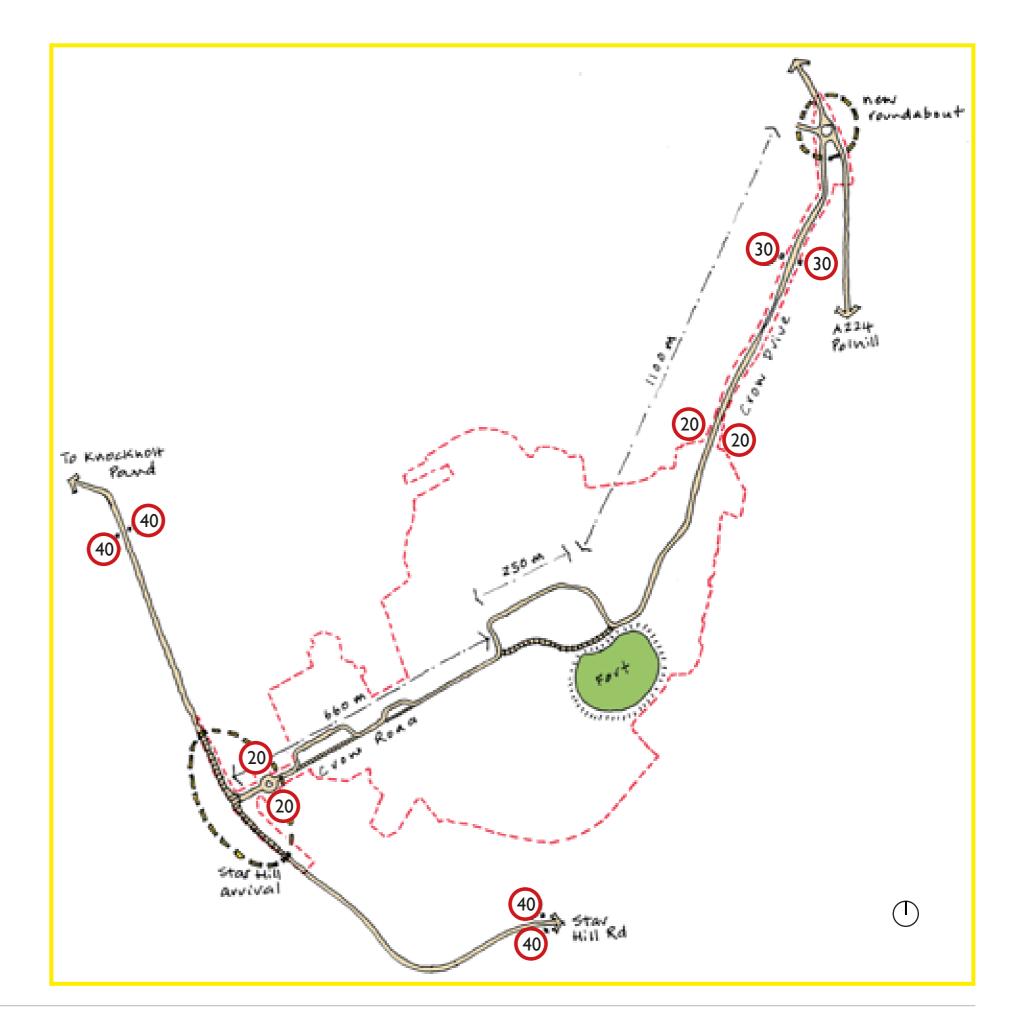
Streets make up the majority of the public realm within Fort Halstead and the detailed design of these streets will play a key role in establishing the character of the place as a whole and the different character of the neighbourhoods within it.

The proposal combines best practice in design, embracing *Manual* for *Streets* and the adopted *Kent Design Guide*, to deliver a new exemplary residential environment for all to enjoy.

Crow Drive is the main route into Fort Halstead from both Polhill and Star Hill. Crow Drive will vary in character and respond to its surrounding built character. The following chapter sets out guiding design principles for future reserved matter applications to ensure the quality and delivery of these different characters.

Text and diagrams set within an orange box are used to indicate mandatory design principles that *must be followed* to ensure the development will be of a high quality.

Mandatory Design Principles



GENERAL PRINCIPLES

Throughout Crow Drive vehicular speeds will be restricted to 20mph or less. The exception to this is the short stretch of the Crow Drive connecting to the Polhill where a 30 mph limit will be applied in order to allow drivers to adjust their speed from leaving the nearby highway network.

The width of the carriageway is 6.75m which will accommodate a bus route. On the northern side of the Crow Drive there will be on a minimum of 2m footway and on the southern side a 3m minimum shared cycle and footway.

Kerbs with a high upstand should be used on the boundary between verge and carriageway to prevent unwanted parking on the green verge. On street parking should be only provided within parallel parking bays and where possible inset between the trees.

LIGHTING ON CROW DRIVE

The lighting along Crow Drive and across the development should aim to reduce sky low, luminaire intensity and light intrusion and thus limit visual impact at night. These issues can be addressed by the careful selection of luminaries that would neither project light upwards nor throw too much light directly onto objects (thereby reflecting back upwards). Whilst reduced levels of illumination is encouraged, no compromise should be made in respect of safety in health, safety and welfare of operatives and visitors.

Key light design measures should include:

- Lighting should be to the minimum level necessary to provide the required level of illumination;
- LED lights are recommended that enable increased control, improve colour definition, and save on energy;
- Luminaires should be designed and oriented to restrict light directionality only to the areas necessary. This should include double asymmetrical luminaires and full horizontal cut-off designs to prevent light spill;
- Lighting should be zoned to provide higher lighting levels along main routes (albeit whilst aiming for minimum standards of illumination); lower lighting levels on minor roads; and no light at all on out outward facing private drives;
- If security lights are to be provided on houses these should be of a full horizontal cut-off design with appropriate accessories to prevent light spill. They should also be fitted with motion sensors with timers set to the minimum value;
- The design to be as uniform as possible.

For more detail on the lighting strategy please refer to the Lighting Assessment Report.

CROW DRIVE GENERAL HIGHWAY FEATURES Speed limit Min. carriageway width 2m footway on one side; 3m shared footway/ Footway/cycleway cycleway on the other side or in the green space Cycleway forward visibility 20m Longitudinal gradient <10% Cross fall <10% Bus access Yes Yes outside of 20mph zone and within 20mph Street lighting zone at locations to be determined Distance between speed 60m - 80m within 20mph Speed Limit Zone restraints features Junction visibility x 2.4m Junction visibility y >25m within 20mph zone, 43m outside 8% (gradients may only be increased if Max longitudinal gradient

1.0% to 5.0%

Cross section gradient

unavoidable due to local topography)

5.2 TRAFFIC CALMING MEASURES

Traffic calming measures aim to encourage safer, more responsible driving and reduce traffic speeds. Traffic calming measures to be designed into Fort Halstead include miniroundabouts, square-abouts, shared surfaces, table tops, road humps, speed cushions and eyots.

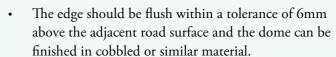
In the Kent Design Guide Chapter 'Making it happen-highways', the maximum length of straight road between speed control features within 20 mph zones is generally 60 to 80 metres.

TYPOLOGIES DESCRIPTION PRECEDENT

Mini-roundabout



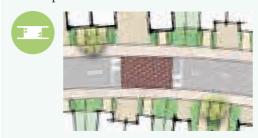
The central dome may be up to 6 metres in diameter and raised to a maximum of 75mm in the centre. The dome height should be in proportion to the roundabout diameter, i.e. for a 2m central island the dome should be raised to a maximum of 50mm in the centre. This should be lowered if buses or frequent HGVs need to cross it.



Potential bus loop to be incorporated into the design of an eyot.



Table tops



- Ramps at the commencement of table junctions and speed tables shall be 1.125 metres long, laid at a gradient of 1 in 15 (6.7%). The maximum height of any vertical deflection in Kent is 75mm.
- For adoptable roads KCC require humps and tabletops to be formed of tegular type blocks, of a standard colour palate to be agreed with KCC. Ramps can be formed of a contrasting colour material, to the specification dictated by KCC.



Overrun strips



- Overrun strips allow larger vehicles to negotiate bends and narrowings without significant visual widening of the main carriageway surface.
- Overrun strips can be formed of a raised shoulder, the edge no greater than 25mm above the carriageway channel line, and can be formed of an edge kerb and cobbled or other similar material differentiating from the carriageway material type.



5.2 TRAFFIC CALMING MEASURES

TYPOLOGIES DESCRIPTION PRECEDENT

Shared surface

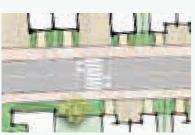


- Shared space is an urban design approach that minimises the segregation between modes of road user. This is done by removing features such as kerbs, road surface markings, traffic signs, and traffic lights.
- Use of contrasting materials allows legibility and understanding between pedestrians and vehicle drivers.



Road humps and cushions





• Hump spacing of 60–80 metres is required for 20 mph zones when used in a series



Eyots





- Eyots are traffic islands in the centre of the carriageway taking the form of an over-runnable edge strip and a solid central island planter.
- The edge of the overrun strip should be flush within a tolerance of 6mm above the adjacent road surface. Eyot geometry will be dictated by vehicle swept path analysis.



Square junction





Raised shared surfaced table within a square, with offset alignment to each entry/exit.

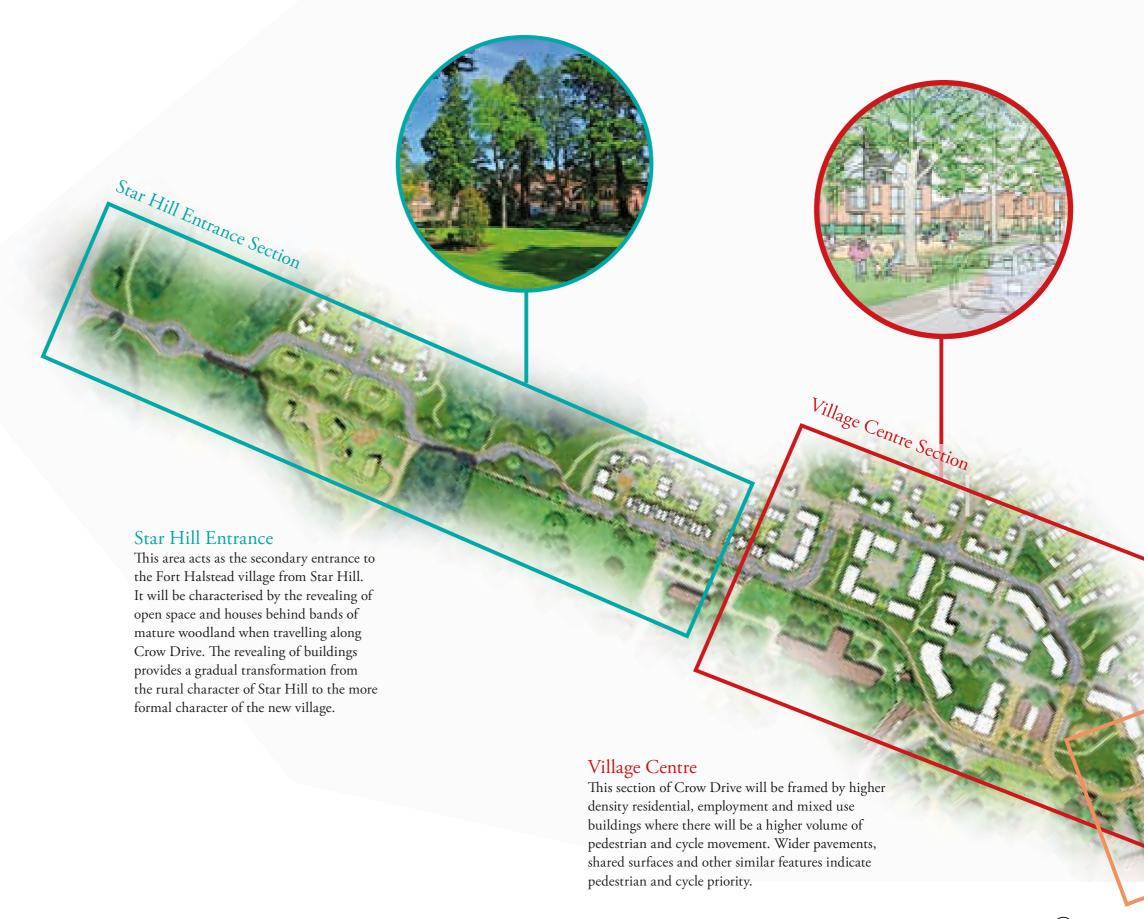


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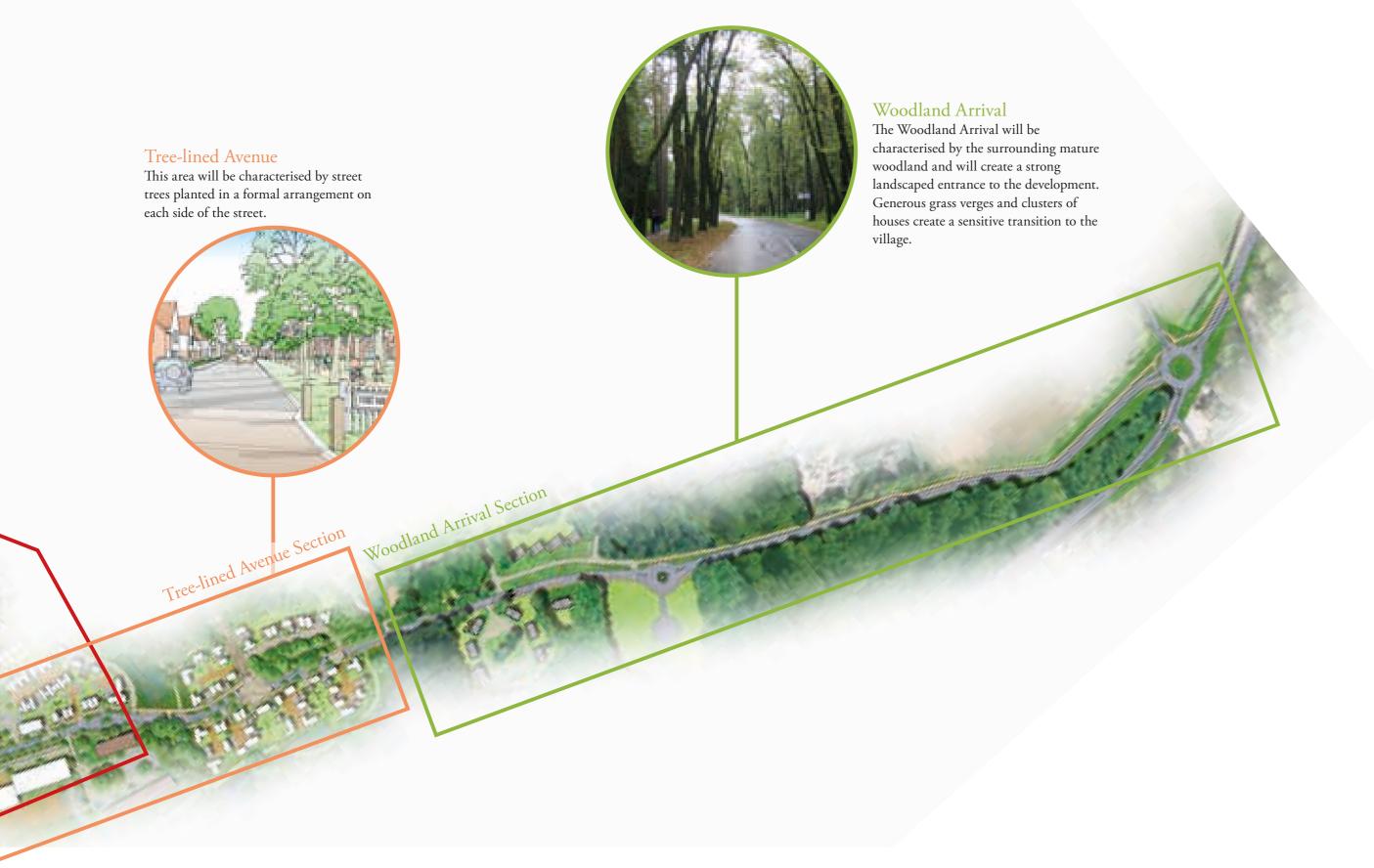
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5.3 CHARACTER AREAS

There are 4 key character area along Crow Drive. These are illustrated here.



5.3 CHARACTER AREAS



5.4 WOODLAND ARRIVAL

The Woodland Arrival forms an informal edge to the residential neighbourhoods, with a woodland character. Generous grass verges and soft, open frontages create a transition to the village.

This section connects Fort Halstead to Polhill (A224). The street will be framed by green space on both sides providing a rural character within existing woodland. Vehicular movements will be calmed naturally by eyots, humps, mini-roundabouts and pedestrian crossings. The main entry point to the 20mph zone will be calmed by a 28m ICD (inscribed circle diameter) compact roundabout with a solid/landscaped central island.

The transition from the Woodland Arrival to the Tree-Lined Avenue and from Star Hill Entrance to the Village Centre should be marked by a feature such as a raised courtesy crossing and a welcome signage.



WOODLAND ARRIVAL

HIGHWAY

Speed limit





Width of adopted highway

Varies

Minimum carriage width

6.75 m

Footway/ cycleway provision min. 2m footway on one side, 3m shared footway/

cycleway on the other side

Highway verge max. 8m wide

HIGHWAY FEATURES

Bus route Yes

On-street parking No

Yes - raised table top, eyot, road hump, mini-Traffic-calming features roundabout, compact roundabout

100mm if required

Road markings

Centre line radii Varies

WOODLAND ARRIVAL

ACCESS

Junction spacing

Minimum junction visibility

Kerb Radius

Direct vehicular access to properties

2.4 x 43m within 30mph, 2.4m x 25m within 25mph zone Determined by swept path analysis, although a

60m min for adjacent roads, 15m for opposite

starting point should be 4m or less

No

PAVING MATERIALS

Carriageway

Kerbs and Edging

To be agreed with KCC

Footway

Asphalt or block paving

LIGHTING

Carriageway

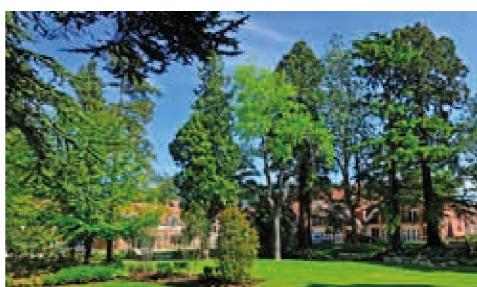
To be agreed with KCC depending on tree

coverage

Asphalt

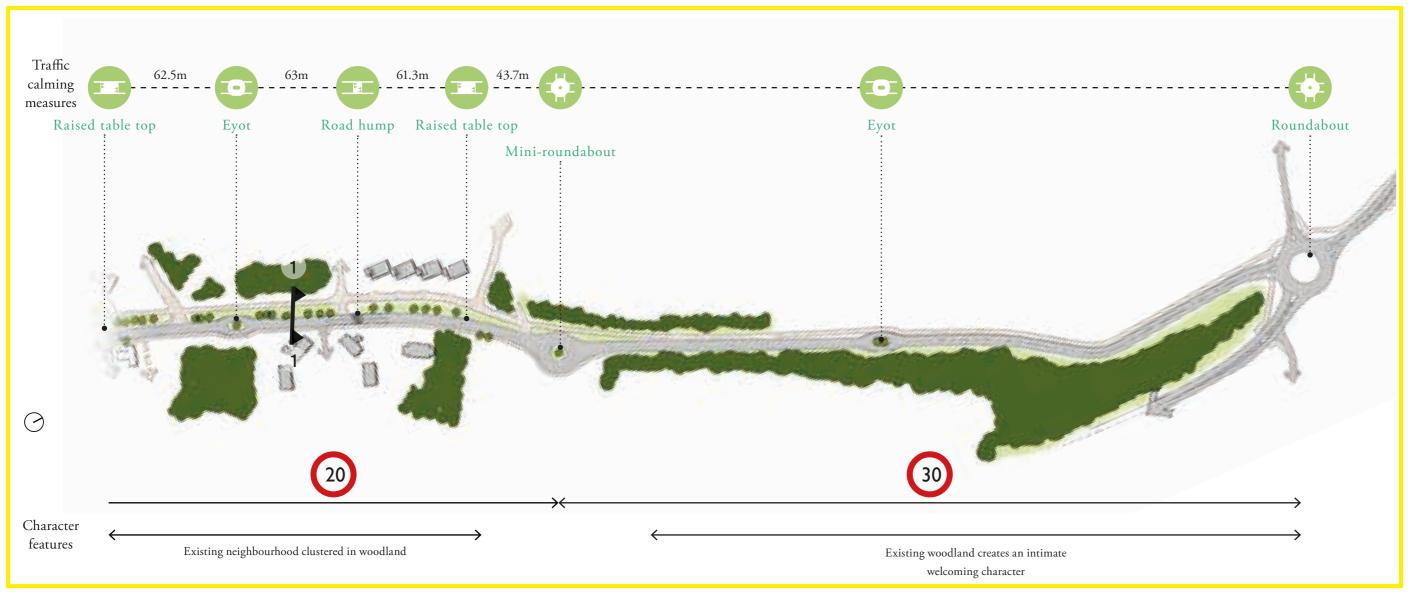


Precedent image of woodland arrival, Moscow



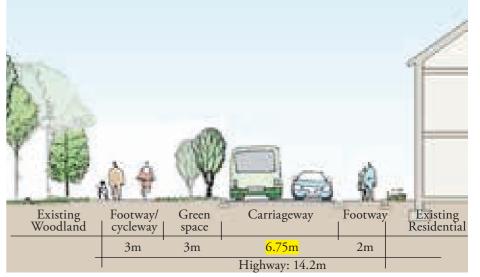
Precedent image of glimpsed views through mature trees, Boxgrove Gardens, Guildford

5.4 WOODLAND ARRIVAL









Precedent image of informal green space within woodland setting, Boxgrove Gardens

Indicative section 1 - 1

Existing housing along Crow Drive

5.5 TREE-LINED AVENUE

This area will be characterised by large street tree species planted in a formal arrangement on each side of the street. A shared surface pedestrian cycle route runs parallel to the north of the avenue adjacent to the green space.

There will be on-street parking and a pedestrian crossing in the Anisbirches Walk section.

Location of Star Hill Entrance Section

TREE-LINED AVENUE

HIGHWAY

Speed limit

20

Width of adopted highway

Varies

Minimum carriage width

6.75 m

Footway/ cycleway provision

Highway verge

2m footway on one side, 3m shared footway/ cycleway on the other side

min. 3m on both sides

HIGHWAY FEATURES

Bus route Yes

On-street parking Yes – parallel

Traffic-calming features

Shared surface, raised table top, Eyot, road hump,

quare

Centre line radii In accordance with Kent Design Guide

TREE-LINED AVENUE

ACCESS

Junction spacing To be agreed with KCC

Minimum junction visibility 2.4 x 25m

Kerb Radius

Determined by swept path analysis, although a

starting point should be less than 4m

Direct vehicular access to properties

Yes – restricted at junctions

PAVING MATERIALS

Carriageway Asphalt, tegular block
Kerbs and Edging To be agreed with KCC

Footway Asphalt, tegular block

LIGHTING

Carriageway To be agreed with KCC depending on tree

coverage



Artist impression of the Tree-Lined Avenue

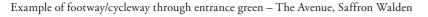


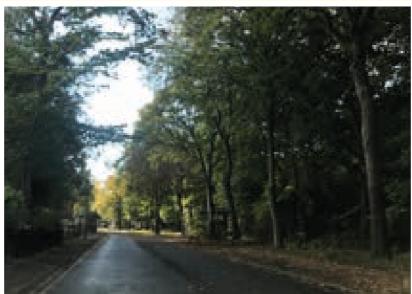
Precedent image of The Avenue, Saffron Walden

5.5 TREE-LINED AVENUE

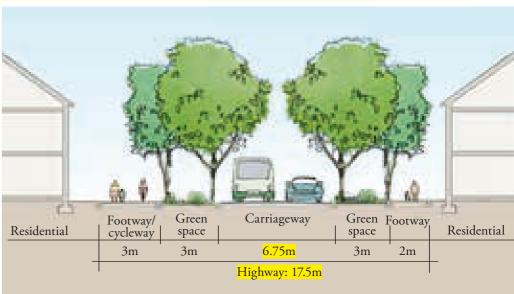








Existing treed area at the approach of Fort Halstead



Indicative section 2 – 2

5.6 VILLAGE CENTRE

The Village Centre section will have a higher volume of pedestrian movement than the typical sections of the Avenue and therefore requires wider pavements and other features that signify pedestrian priority.

The pavement will run up to property boundaries to allow shop fronts in a traditional high street design. Special paving will mark pedestrian crossing points on desire lines and the design of street furniture, lighting, public art and soft landscaping will emphasise the civic importance of the place.

Where Crow Drive runs along the edge of the Village Square and Village Green, it will form an integral part of the square with the carriageway and adjoining pedestrian space at the same level. Changes in material rather than standard kerbs should be used to demarcate pedestrian priority and parking areas.

Bus stops will include raised platforms to allow easy boarding. Tactile paving must be used to indicate safe crossing places for blind and partially-sighted pedestrians.



VILLAGE CENTRE

HIGHWAY

Speed limit

20

Width of adopted highway

Varies

Minimum carriage width

<mark>6.75 m</mark>

Footway/ cycleway provision 2m footway on one side, 3m shared footway/ cycleway on the other side

Highway verge No verges

HIGHWAY FEATURES

Bus route Yes

On-street parking Only permitted around the village green

Traffic-calming features

Yes – mini-roundabouts, squares, shared surface,

overrun strip

Road markings If required

Centre line radii In accordance with Kent Design Guide

VILLAGE CENTRE

ACCESS

Junction spacing To be agreed with KCC

Minimum junction visibility 2.4 x 25m

Determined by swept path analysis, although a

Starting point should be less than 4m Direct vehicular access to

properties

Kerb Radius

No

PAVING MATERIALS

Carriageway Asphalt, tegular block
Kerbs and Edging To be agreed with KCC

Footway

Asphalt, tegular block

LIGHTING

Carriageway

To be agreed with KCC

QINETIQ

Security fence line

3m (max) high fenceline with a service strip clear of vegetation, to be located 1m (min) from QinetiQ's demise (for details of fenceline refer to

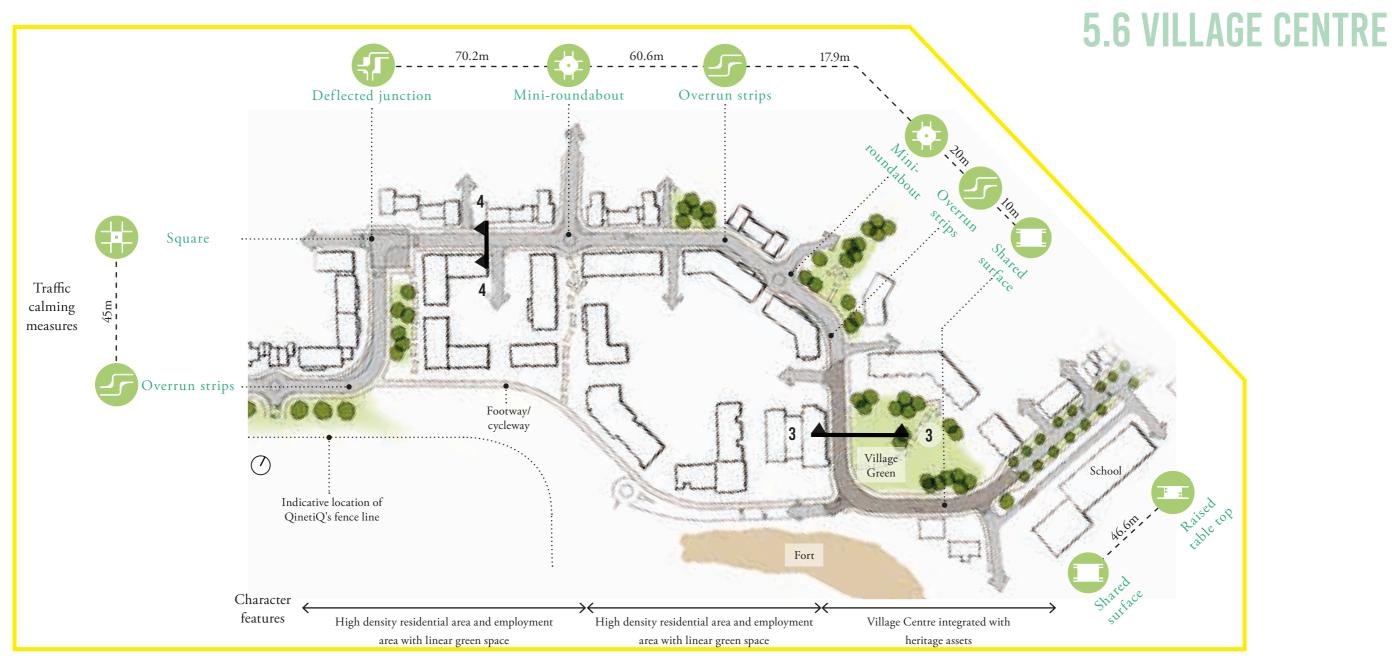
diagrams in the Star Hill Entrance character area)

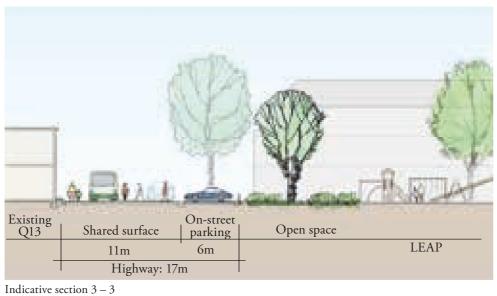


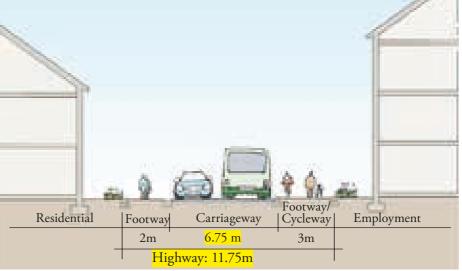
Artist impression of the Village Green



Precedent image of streetscape framed by higher density housing – Newhall, Essex







Indicative section 4 – 4

5.7 STAR HILL ENTRANCE

This section is the secondary route into Fort Halstead from Star Hill to gradually introduce the Fort Halstead village by going through open space within woodland and catching a glimpse of high quality housing at the entrance.

The design of the route incorporates an eyot with formal mature trees at the entrance and zigzag turns to create points of interests, reduce speed and provide a pedestrian-friendly environment with the green space and play area.



STAR HILL ENTRANCE

HIGHWAY

Speed limit

20

Width of adopted highway

11.2 m

Minimum carriage width

6.75 m

Footway/ cycleway provision 2m footway on one side, 3m shared footway/

cycleway on the other side

Highway verge N/A

HIGHWAY FEATURES

Yes Bus route

On-street parking No

Yes – eyots, table tops, overrun strips and mini-Traffic-calming features roundabouts. Bus loop design to be incorporated

into eyot feature.

Road markings 100mm

Centre line radii Varies

STAR HILL ENTRANCE

ACCESS

Junction spacing 60m min for adjacent roads, 15m for opposite

Minimum junction visibility 2.4 x 43m

Kerb radius

Direct vehicular access to

Determined by swept path analysis, although a starting point should be less than 4m

properties

Footway

PAVING MATERIALS

Yes – restricted at junctions

Asphalt

Carriageway To be agreed with KCC

Kerbs and Edging

Asphalt/block paving

LIGHTING

To be agreed with KCC depending on tree Carriageway

coverage

QINETIQ

Security fence line

3m (max) high fence line with a service strip clear of vegetation, to be located 1m (min) from

QinetiQ's demise

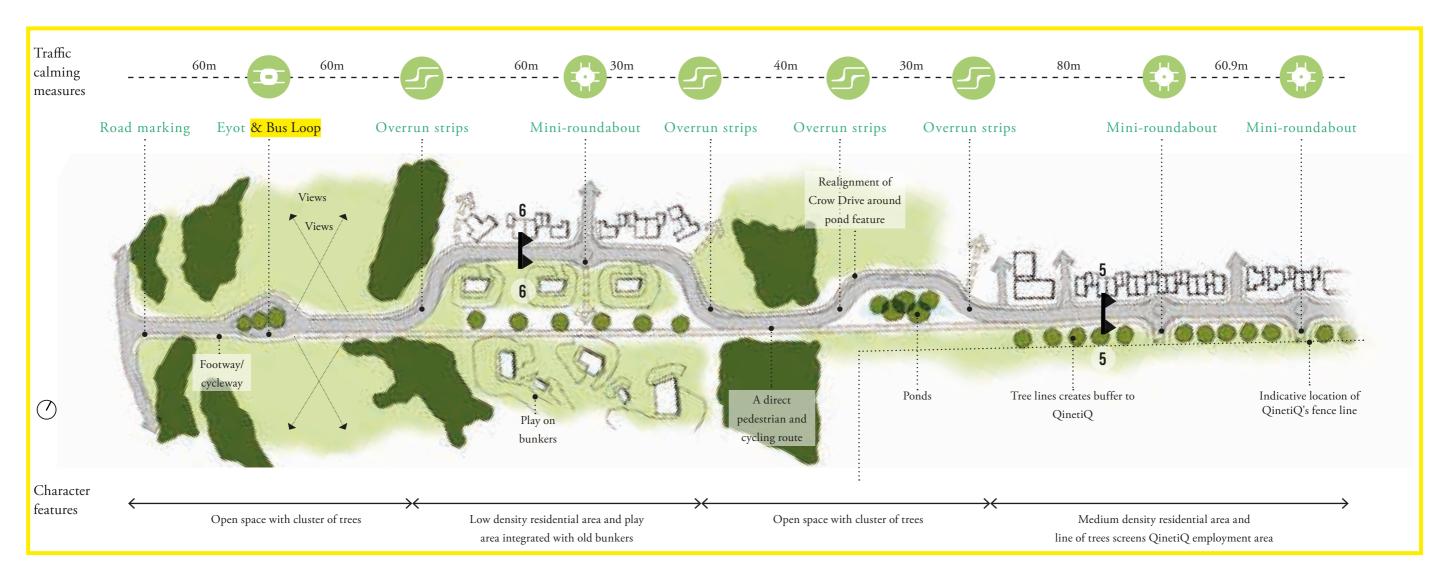


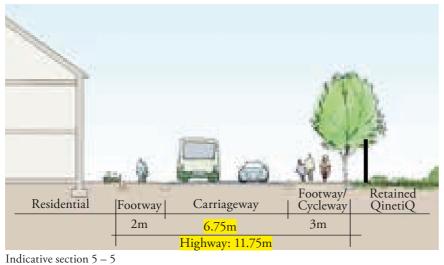
Artist's impression



Shared footpath cycleway through landscape - Graylingwell Park, Chichester

5.7 STAR HILL ENTRANCE







Indicative section 6 – 6

5.8 SURFACE MATERIALS

The following materials represent a preferred palette for the public realm and open spaces at Fort Halstead.

The adjacent table provides a matrix of streetscape materials, which sets out the typical standard required with specific products to be agreed at a later stage.

More bespoke materials for key public spaces should also be agreed at detailed stage. The landscape and public realm materials must be selected to uphold the highest standards of ethical and sustainable procurement.

Consideration should be given to the materials supply, durability, longevity and ease of replacement or replication.

PRINCIPLES:

- Material colours must be muted and of natural tones to complement rather than detract from the buildings and landscape setting.
- A range of appropriate adoptable materials should be used in order to reinforce the street hierarchy and create a safe, comfortable neighbourhood identity.
- The materials palette must also adapt to accommodate the evolving sustainable drainage strategy, for example, by using pervious paving or permeable bound surfacing systems.
- Unnecessary road markings should be avoided as much as possible to reduce road clutter and maintenance costs.
- Avoid white and yellow lining, except on Crow Drive and the Secondary Street.
- Where street lining are deemed absolutely necessary 50mm white centre lines and 50mm wide primrose or yellow lines should be used, not 100mm lines.
- The use of different coloured paving is encouraged to demarcate carriageways, footway/cycleways and parking spaces (particularly on shared surface streets).

STREET TYPE:	CARRIAGEWAY	KERBS/EDGING	SHARED FOOTWAY/ CYCLEWAY	CROSSING POINTS	RAISED JUNCTIONS
Primary roads	Asphalt	Natural stone or textured concrete	Asphalt or block paving	Tactile blister paving or tactile corduroy paving or conservation tactile paving	Concrete road hump or block paving for raised table
Shared surfaces	Block paving	Flush natural stone or textured concrete or conservation style kerbs	Block paving	N/A	Block paving
Parking	Asphalt or block paving	Natural stone or textured concrete or conservation style kerbs	N/A	N/A	N/A
Footpaths in public open spaces	Formal open space: surface course resin bound gravel or natural stone paving Informal open space: self binding gravel	Aluminium edge restraint, concrete, pressure treated timber edging boards.	Block paving or resin bound paving	N/A	N/A
	The same of the sa		持治 工		
Community hub/ Civic spaces	Surface course resin bound gravel or concrete block paving	Aluminium edge restraint	N/A	N/A	N/A

PAGE 72 FORT HALSTEAD – DESIGN PRINCIPLES

5.8 SURFACE MATERIALS

HARD LANDSCAPE MATERIALS MATRIX





An example of formal open space footway/cycleway – buff resin bound gravel with aluminium edge restraint



An example of crossing points with tactile blister paving



An example of informal open space footway – buff self binding gravel with timber edging



An example of shared surface concrete block paving



An example of village centre/square spill out areas featuring natural stone or concrete block paving



An example of defined parking areas with concrete kerbs and block paving



An example of carriageway/shared surface in resin bound gravel and block paving



6. VILLAGE CENTRE DESIGN GUIDANCE

6.1 ILLUSTRATIVE MASTERPLAN

The Village Centre forms the heart of the village as both an employment area and a community hub for the new residents.

The Village Centre incorporates the restoration of two existing buildings; Penney (Q14) which is Grade II Listed and The Q (Q13); both part of the original Q-Building enclave used for the Atomic Bomb Development Programme. These buildings will include employment and community uses. A new mixed-use building (Block B) is proposed alongside Penney (Q14) terminating a new vista toward the Village Centre. The building's architecture will celebrate innovation and reflect the enclave's military history.

A sequence of spaces each with a distinct character complement the uses within the Village Centre. The Village Green is framed by the Fort, the existing cottages and new mixed use buildings. Its design facilitates preservation of existing trees but also includes new spaces; an area of play and an open lawn, each encouraging activity. The Square is a new public space that connects the Village Green with the refurbished buildings; its design is simple and elegant and creates an appropriate setting to the Fort. The Garden Street and Residential Gardens are natural in character and support the residential uses nearby.

KEY

■ Design Guidance boundary

Detailed planning application boundary

The For

The Penney (Q14) (Grade II* Listed)

3 The Q (Q13)

4 Proposed atrium

Garden Street

6 The Square

7 Residential gardens

8 Village Green

9 Locally Equipped Area of Play (LEAP)

The Cottages (A13 and A14)



6.2 ILLUSTRATIVE AERIAL



6.3 ILLUSTRATIVE MIX OF USES

NAME	CLASS	INDICATIVE USE	INDICATIVE GROSS EXTERNAL AREA SQ.M
The Q (Q13)	B1a/B1b	Employment	724
Penney	B1a/B1b	Employment	282
(Q14)	D1/D2	Gym/Community	282
Atrium		Employment	196
Block A	C3	Residential	2110
Block B	C3	Residential	2560
	D1	Community	270
Block C	C3	Residential	1538
	D1	Nursery	240
	A1	Food Store	230
	A3	Café	290
Block D	B1a/B1b	Employment	276
	C3	Residential	554

^{*} Please refer to the Design and Access Statement (Outline Planning) for indicative residential mix.



6.3 ILLUSTRATIVE MIX OF USES

THE SQUARE



PENNEY AND THE Q

The restoration of Q13–14 will provide flexible accommodation. The proposed new atrium will bring the two buildings together as a modern hub for social, employment and meeting space. There is also an opportunity provide additional community uses within the Penney building such as a gym.



COMMUNITY BUILDING (BLOCK B)

The community building is located on the Square. The building entrance addresses the square providing active frontage. Potential uses within the community building include a drop-in GP, pharmacy, flexible space for classes, meetings and community events. Community events such as weekend markets have the potential to spill out onto the Square.

VILLAGE GREEN



FOOD STORE

A small shop is located within the mixed use building (Block C) overlooking the Village Green. Its visible location will support its commercial viability.



CAFE

The cafe is located within the mixed use building (Block C) overlooking the green. There is space for south-facing outdoor seating in this location. The cafe creates natural surveillance over the play areas and a convenient meeting place for the nearby nursery.



NURSERY

A small nursery is located within the mixed use building (Block C) overlooking the green. The nursery has a private play space to the rear, however the close proximity of the village green is an additional benefit of further usable open space.

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6.4 KEY COMPONENT – PLOT 1A

Plot 1A will be in close proximity to the following buildings:

Penney (Q14) – Grade II listed The Q (Q13) The Fort (Scheduled Monument)



The architectural form and character should reflect the military heritage of the existing Q13/14 buildings by creating an architectural interpretation.

A series of clearly defined, mandatory design principles, as highlighted by the blue box outlines, will ensure a successful design outcome for this parcel.

BLOCK A

- Feature corner (1) should be 4 storeys; the top storey must be set back by a minimum of 1.5m forming a terrace.
- The building should be designed with a flat roof, both in order to relate to the existing buildings' architectural language and to limit the overall height as is considered appropriate in this location.
- Building depth is a maximum of 16m.
- The less prominent elevations to Block A facing the Fort should be 2 storeys in height (see architectural design principles on adjacent page).
- Brick 'grid frame' and aligned fenestration must be established throughout Block A.
- Only inset balconies are acceptable.

BLOCK B

- Feature corner (2) should be 4 storeys; the top storey must be set back by a minimum of 1.5m forming a terrace. Ground floor height should not be less than 3.6m floor-to-floor. Ground floor must form a colonnade to ensure 'through views' from the Fort toward Q14.
- The Building should be designed with a flat roof as per Block A.
- Building depth is a maximum of 12m.
- The less prominent elevations to Block B are 3 storeys in height (see architectural design principles on adjacent page).
- Elevational treatment of feature building (2) should focus on the use of visible and robust metal structural elements in order to capture a particular, military-inspired architectural aesthetic approach.
- Only inset balconies are acceptable.



LAYOUT PRINCIPLES:

- → Vehicle access onto development parcel
- Formal frontage with consistent building line addressing public realm
- Building zone with associated landscaping
- Parking zone provided to the rear of buildings with areas of
- Feature corner (1) to address the approach along Crow Drive
- Feature corner (2) to address the square and the Fort
- Building line must not extend over former Q11 building line
- Pedestrian crossing points
- Trees to be retained wherever possible (Refer to British Standards 5837:2012 / Tree Survey))

KEY DIMENSIONS:

- Distance between Penney (Q14) and proposed feature buildings is 14m (ground floor).
- Distance between Penney (Q14) and less prominent elevations of Block B is 15m.
- There is a minimum distance of 5m between proposed buildings and the road infrastructure.
- There is a minimum distance of 10m and a maximum distance of 20m between Block A and B.

There are no dimension tolerances for points 1-2 to ensure views discussed with SDC from the Fort towards the Penney (Q14) are maintained

BUILDING HEIGHTS: Based on maximum storey heights (st) 4 Storey (up to 16m) - flat roof 3 Storey (up to 13.5m) - flat roof 2 Storey (up to 11m) – flat roof CROW DRIVE

MATERIAL PALETTE

PRIMARY WALLS SECONDARY WALLS



match brickwork

FEATURES

Brick: brown-red hues

brick colou of O13-14.

WINDOWS

Black aluminium or steel rainwater

RAINWATER GOODS

Black Crittall style

BALCONIES



Metal: brown-red standing seam to





Metal: black







Glazed: black frame

6.4 KEY COMPONENT – PLOT 1A

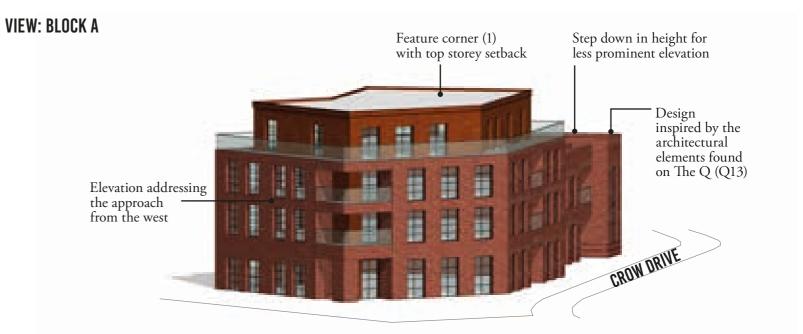
VIEW

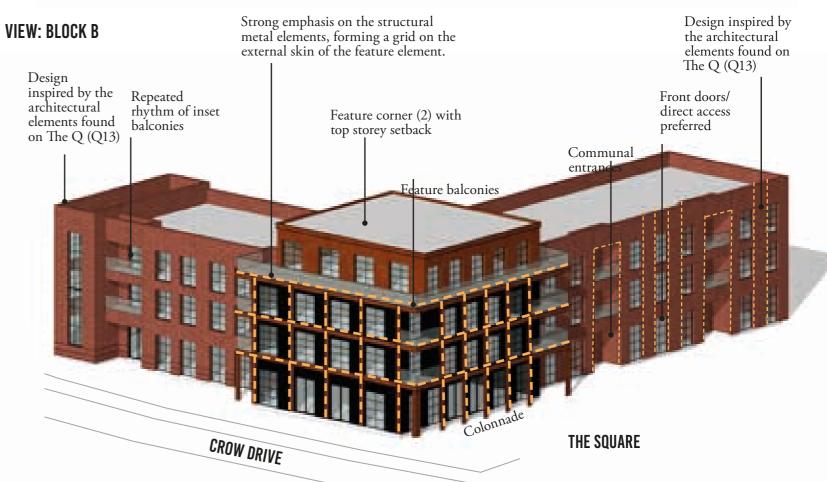
Key plan



Illustrative view of feature corner (2) of Block B adjacent to the Penney (Q14)

ARCHITECTURAL DESIGN PRINCIPLES





6.5 KEY COMPONENT – PLOT 1B

The Village Green marks the heart of the Village Centre.

The space will be defined by mixed use frontage opening onto the Village Green.

The architectural form and character should reflect the military heritage of the existing Q13/14 buildings by creating an architectural interpretation.

A series of clearly defined, mandatory design principles, as highlighted by the blue box outlines, will ensure a successful design outcome for this parcel.



ARCHITECTURAL DESIGN PRINCIPLES BLOCK C & D

- Buildings should be a maximum of 3 storeys.
- Building depth is a maximum of 12m.
- Ground floor height to be no less than 3.6m (floor-tofloor).
- Feature corners to address Penney Road and Crow Drive.
- Blank facades are not permitted
- Mansard roof; eaves line broken at regular intervals by double height bay features.
- Only inset balconies are acceptable.



LAYOUT PRINCIPLES:

- → Vehicle access onto development parcel
- Formal frontage with consistent building line addressing public realm
- Building zone with associated landscaping
- Parking zone provided to the rear of buildings with associated landscape
- Pedestrian zone in front of the buildings
- Village Green and green space
- Feature corners addressing vistas
- Pedestrian crossing points
- Local Equipped Area of Play (LEAP)
- Trees to be retained wherever possible (refer to British Standards 5837:2012 / Tree Survey)

KEY DIMENSIONS:

- Minimum dimension of 7m and maximum of 10m between Block C/D. Active building frontage to both side elevations in between Block C/D.
- 2) Minimum of 7m between building frontage and the Village Green ensuring sufficient public realm circulation zone for mixed uses at ground level.
- 3 The Village Green includes a LEAP.

BUILDING HEIGHTS: Based on maximum storey heights (St) 3 Storey (up to 13.5m of top of ridgeline)

MATERIAL PALETTE

PRIMARY WALLS

FEATURES

Metal: brown-red

colour to complement brick colours

Metal: grey standing seam

ROOF



steel rainwater goods including

Brick: black



Metal: black



Black Crittall style



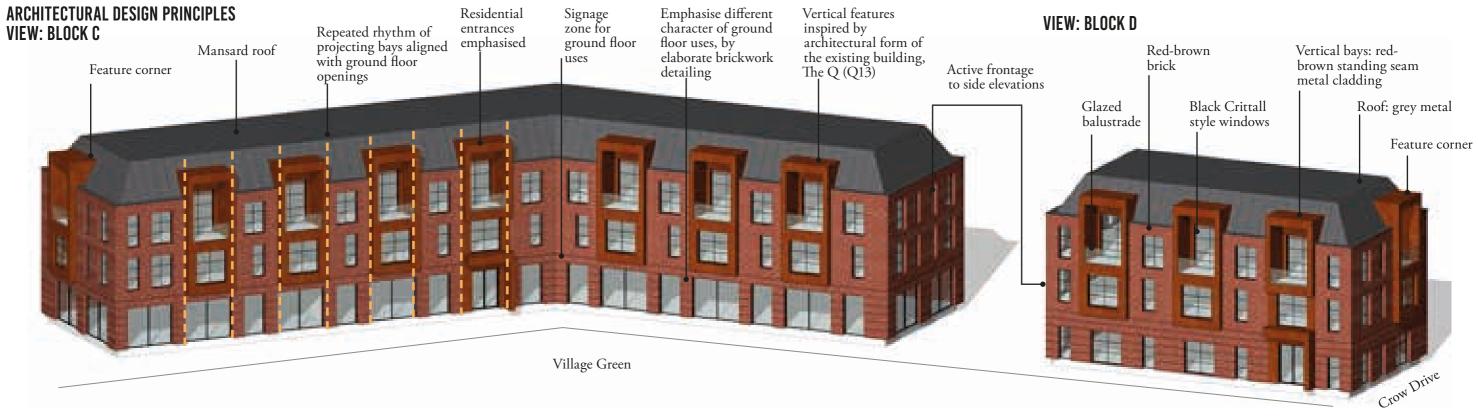


Glazed: black fram

6.5 KEY COMPONENT - PLOT 1B







jtp

6.6 KEY COMPONENT – LANDSCAPE



Illustrative landscape strategy

6.6 KEY COMPONENT – LANDSCAPE



The Square



Village Green



Garden Street



Residential garden

The objective for the Village Centre is to create an attractive, diverse external environment and can be perceived as a place with its own identity.

The Village Centre will offer beautiful and functional outdoor areas, legible both in terms of the hierarchy and urban character, providing a range of enjoyable spaces suitable for relaxation and socialising.

The design seeks to sympathetically integrate the existing and new buildings whilst creating a destination at the heart of this new community.

The landscape design approach focuses on 4 main spaces; the Square, Garden Street, Residential Garden and Village Green. The main design principles for these spaces is summarised below:

THE SQUARE

(Refer to Chapter 2 for further detail of the Square that forms part of the detailed planning application)

GARDEN STREET

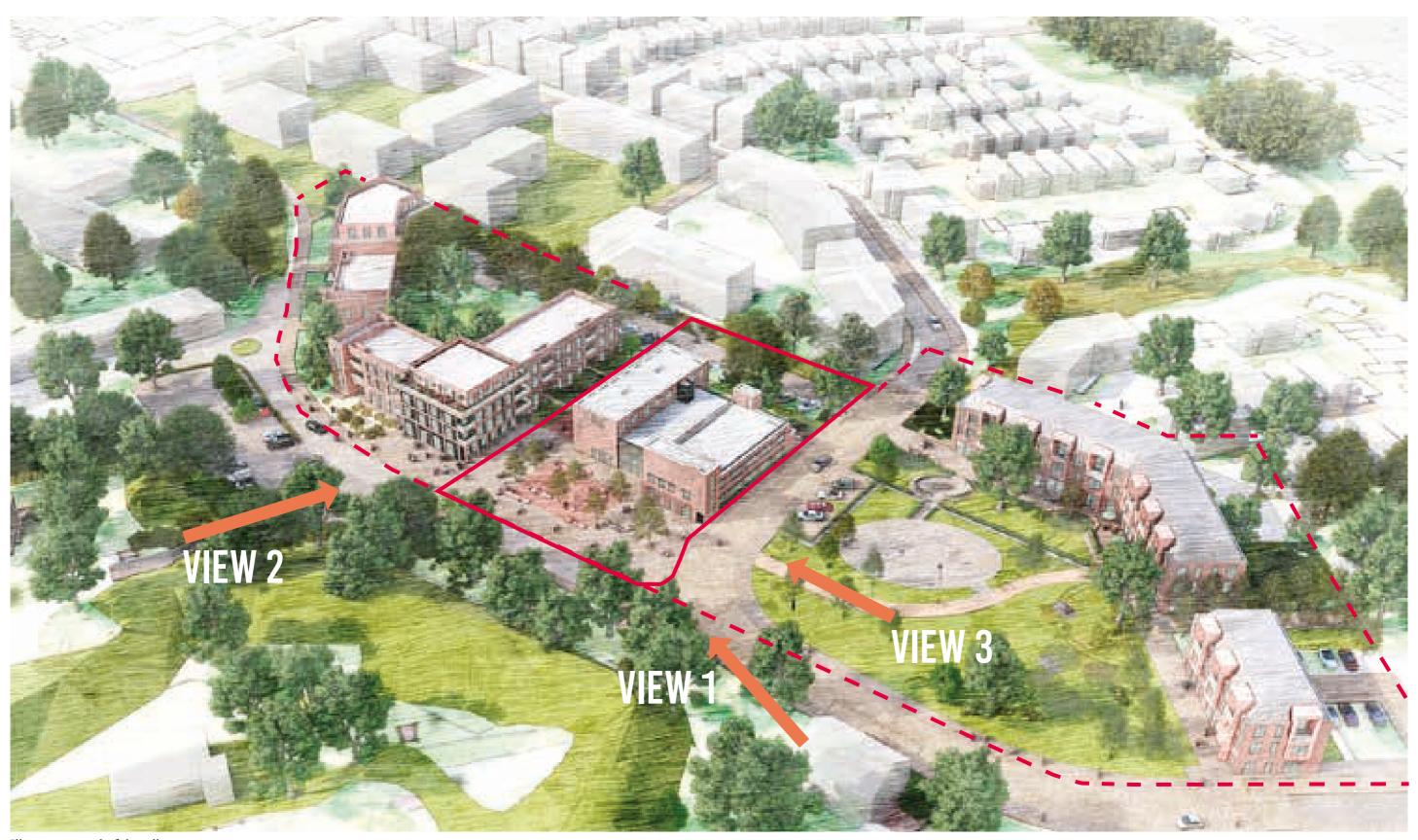
(Refer to Chapter 2 for further detail of the Garden Street that forms part of the detailed planning application)

VILLAGE GREEN

The Village Green comprises an open green space that facilitates preservation of the existing trees and includes new specimen trees. A play area forms a central component of the green and is set within structure planting. Oval seating areas are included along the northern edge of the green, proving for informal gatherings and relaxed socialising.

RESIDENTIAL GARDEN

This area comprises a simple lawn with a number of existing mature trees and new specimen trees.



Illustrative aerial of the village centre



View 1: towards the square



View 2: from the fort entrance towards Penney (Q14)



View 3: towards The Q (Q13) from the village green



SCHEDULE OF AMENDMENTS

SCHEDULE OF AMENDMENTS

CHAPTER	PAGE	BEFORE CHANGE	AMENDMENT	CHAPTER	PAGE	BEFORE CHANGE	AMENDMENT
Chapter 1	Page 4	"With 750 new homes []"	"With 635 new homes []"	Chapter 3	Page 32	Illustrative Masterplan	Updated Crow Drive and Village Mews
Chapter 1	Page 5	"New primary school on site"	"Land safeguarded for a new primary	Chapter 3	Page 34	"Indicative density range: 50–60 dph"	"Indicative density range: 35–55 dph"
Chapter 2	Page 8	"[] a new mixed-use development up to 750 new homes []"	"[] a new mixed-use development up to 635 new homes []"	Chapter 3	Page 35	Frontage Character Table: Regular Frontage "[] communal/shared courtyard."	"[] on-plot between dwellings, communal/shared courtyard."
Chapter 2	Page 8	"(for up to 750 new homes)"	"(for up to 635 new homes)"	Chapter 3 Page 35	Frontage Character Table: Mews	"[] terraced or linked dwellings [] on-	
Chapter 2	Page 9	"Development of up to 750 residential dwellings;"	"Development of up to 635 residential dwellings;"			Frontage "[] terraced dwellings [] on- plot between dwellings, on-street visitor parking."	plot between dwellings, on-plot frontage, on-street visitor parking"
Chapter 7	Page 12	Additional text	"[] which could potentially deliver a primary school alongside []"	Chapter 3	Page 35	Car Parking Typology Table	Updated to reflect changes in parking
Chapter 3	Page 13	Diagram	North-east Gateway Hamlet removed & Residential layout updated	Chapter 3	Page 35	Frontage Diagram and Illustrative Masterplan	Updated to reflect new layout
Chapter 3	Page 15	Diagram	Residential layout updated	Chapter 3	Page 36	Section and plan	Updated to reflect new layout
Chapter 3	Page 15	Key	"Land safeguarded for Primary School"	Chapter 3	Chapter 3 Page 37	Built Form Table "On the mews street,	"On the mews streets, innovative
Chapter 3	Page 16	"Indicative density range: 15–25 dph"	"Indicative density range: 20–30 dph"		street-facing gables will be no wider than 4.5m and parking zones a maximum of	compact housetypes are encouraged, with narrow street-facing gables (ie. 4.5m	
Chapter 3	Page 16	Diagram	North-east Gateway Hamlet removed			3.5m."	wide) with integrated parking zones."
Chapter 3	Page 20	"Indicative density range: 30-40 dph"	"Indicative density range: 25–35 dph"	Chapter 3	Page 38	"Indicative density range: 35–45 dph"	"Indicative density range: 25–55 dph"
Chapter 3	Page 21	Illustrative Masterplan	Updated Crow Drive	Chapter 3	Page 42	"Indicative density range: 20–35 dph for Beaumont Glade, and 50 dph for Dutchmore Wood"	"Indicative density range: 25–45 dph for Beaumont Glade, and 45–50 dph for Dutchmore Wood"
Chapter 3	Chapter 3 Page 24	"The hub includes a primary school []"	"This area also has the potential to deliver				
		a primary school to serve the new and existing residents of Fort Halstead village. With secure grounds it will be located directly adjacent to the key facilities	Chapter 3	Page 43	Illustrative Masterplan	Updated Village Mews	
			Chapter 3	Page 46	Diagram	North-east Gateway Hamlet removed & updated to reflect new layout	
Chapter 3	Page 25	"Primary school located []"	within the village centre." "Potential primary school located []"	Chapter 3	Page 47	Table	Remove references to North-eastern Gateway Hamlet
Chapter 3	Page 25	Updated annotation	"Land safeguarded for Primary School"	Chapter 4	Chapter 4 Page 50–51	Diagrams	Remove reference to NE Gateway Hamlet and update to street hierarchy Added bus loop
Chapter 3	Page 28	Vignette	Education building heights amended				
Chapter 3	Page 30	Illustrative Masterplan	Updated Crow Drive and Village Mews	Chapter 4	Page 52–3	Multiple Diagrams	Residential parcels updated

SCHEDULE OF AMENDMENTS

CHAPTER	PAGE	BEFORE CHANGE	AMENDMENT
Chapter 5	Page 58	Map amended	
Chapter 5	Page 59	Carriageway width	Updated to 6.75m
Chapter 5	Page 60	Traffic calming measure table: Squares precedent	Update photo and add text: "Raised shared surfaced table located at a junction, with the alignment of the road deflecting horizontally on the approach of the turning." Squareabout removed, deflected junction added.
Chapter 5	Page 61	Traffic calming measure table: Eyot	Point added "Potential bus loop to be incorporated into the design of an eyot."
Chapter 5	Page 62–63	Diagram	Updated to reflect changes to Crow Drive
Chapter 5	Page 64–5	Diagrams	Updated to reflect changes to Crow Drive
Chapter 5	Page 66–7	Diagram	Updated to reflect changes to Crow Drive
Chapter 5	Page 68–9	Diagram	Updated to reflect changes to Crow Drive
Chapter 5	Page 70	Table	"Bus loop design to be incorporated into eyot feature."
Chapter 5	Page 70–1	Diagram	Updated to reflect changes to Crow Drive

