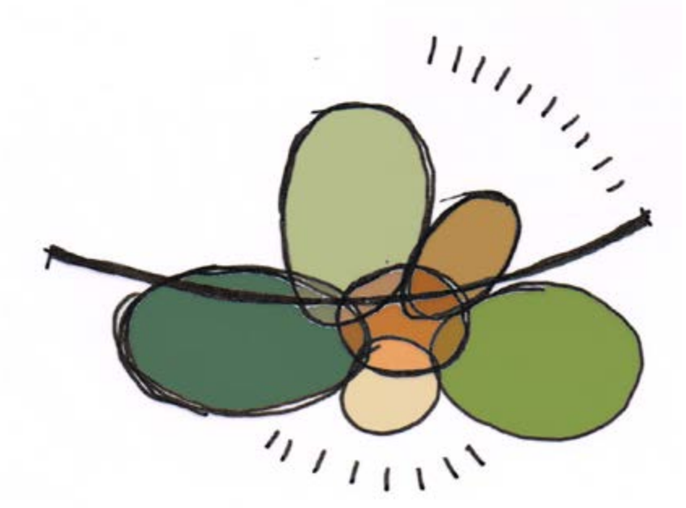
Part 2
Principles and Concepts

March 2022

FARRELLS

Introduction : Part 2



The Primary Character Influences :

1. North Downs
2. Escarpment
3. HS1 & M20 corridor
4. Stanford & Westenhanger
5. Saltwood
6. Lympne
7. Aldington
8. Sellindge & Barrow Hill

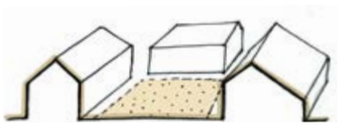
The second part of this report takes the research collected and generates a set of ten principles which we believe are key defining character elements to consider when designing new buildings in this specific area of Kent.

The ten principles can and should be applied across the site, but we belive that there are four distinct character areas that should be responded to individually. These areas are defined in chapter 2.

The final chapter includes four generic case studies of different densities.
In each case we have applied the ten principles in manners which demonstrate how a contemporary design could practically include a local sense of character.

The Ten Principles

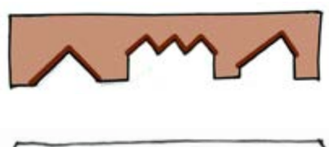
1. A Patchwork Landscape



2. Loose Courtyards

3. Dynamic Street Sections

4. Diversity of Type



5. Roof Forms

6. The Ground Floor Base

7. Facades, Materials and Craftsmanship

8. Edge Details

9. Colour and Reflectivity

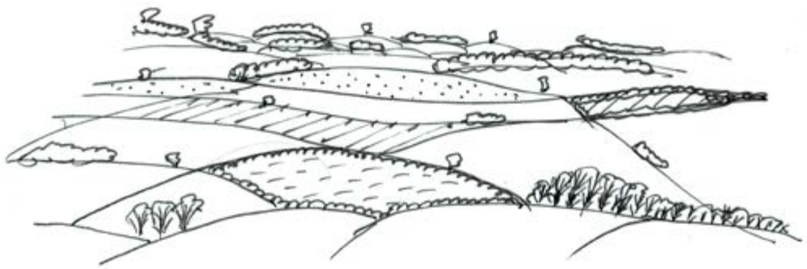
10. Windows and Frames

1 Patchwork Landscape Patterns

Geometric hatch patterns come from Hop gardens, Orchards and the larger ploughed fields of modern farms. This patchwork landscape reflects the hills and ownership patterns of historic farmlands in Kent.

In order to maintain the character of the landscape from the viewpoints along the North Downs, this existing pattern should be respected and retained wherever possible: **New infrastructure, open spaces, plot boundaries and large buildings should integrate into the existing landscape.**

The landscape should be reflected and complemented by architectural form, colour, texture and character.



1 Patchwork Landscape Patterns

Landscape inspiration : the geometric patterns of orchards.

1 Patchwork Landscape Patterns

Barrow Hill Sellindge : A linear settlement along the roman road, with clusters of homes around loose courtyard spaces.

Stanford : another naturally uneven linear settlment clustered on the roman road. Note the variety of industrial and rural farmstead settlements surrounded by farmland.

Hythe : High density market street following the landscape, stepping down to a full range of densities towards the north and south.

The Bayle, Folkestone : A dense urban arrangement of buildings that follow the topography, holding the street edge, maximising frontages and open green spaces.

Sellindge : The contrast between new development and traditional variety of terraces, semi-detached and farmhouses along the roman road.

The clustered settlements surrounding the site all reflect the organic, patchwork landscape. The natural clustering of buildings has a clear, practical benefit : reducing the number of roads and servicing, minimising travel distances and maintaining open green space and farmlands. This is noticably different to the more evenly spread density of contemporary developments which lack the same variety of use, tenure and space.

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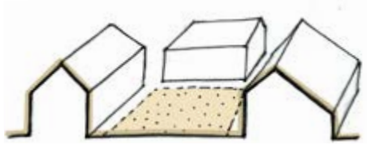
Hythe : High density market street following the landscape, stepping down to a full range of densities towards the north and south.

2. Loose Courtyards



A traditional and contemporary farmstead courtyard in Stanford

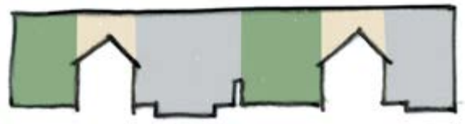
Hillhurst Farm

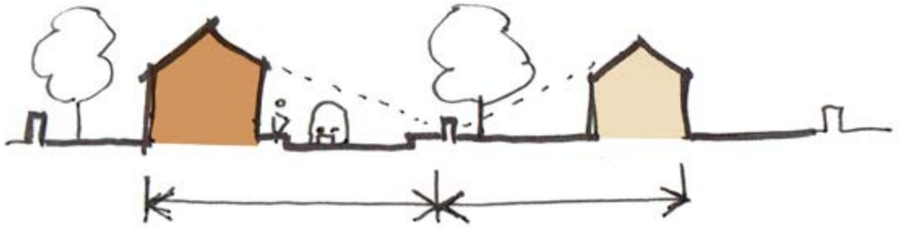
A cluster of contemporary homes forming an open courtyard in Barrow Hill

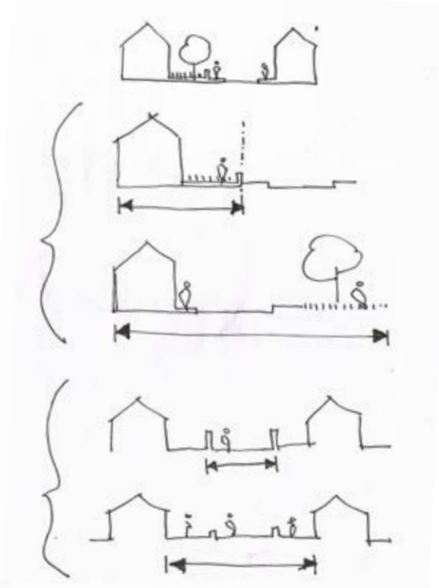
Using the same character and sense of place created by traditional Kentish farmsteads, new development should cluster around open courtyard spaces.

New buildings and linked garden walls should be arranged to form networks of loose courtyard spaces.

3. Dynamic Street sections







The most interesting and memorable parts of the surrounding villages include simple streets: These spaces are comfortable and dynamic because they have assymetric street relationships.

In the best examples houses sit directly on the pavement edge to one side of the street, while the other opens onto green spaces and fileds.

More often, the street is balanced by a variety of buildings which either sit right on the pavement and claim the street in an extroverted manner, or step back behind a garden becoming more introverted.

This generates an experience which is simulatneously urban and pleasantly green.

Stone Street

Stanford

Mersham

Sandgate

Lympne

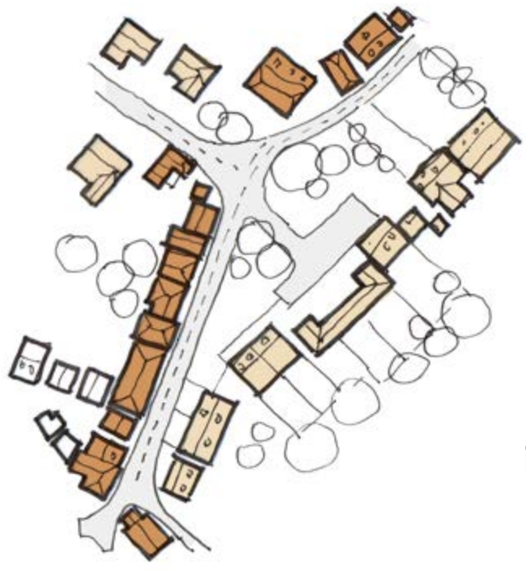
3. Dynamic Street sections

Mersham

Mersham

Lympne

Saltwood

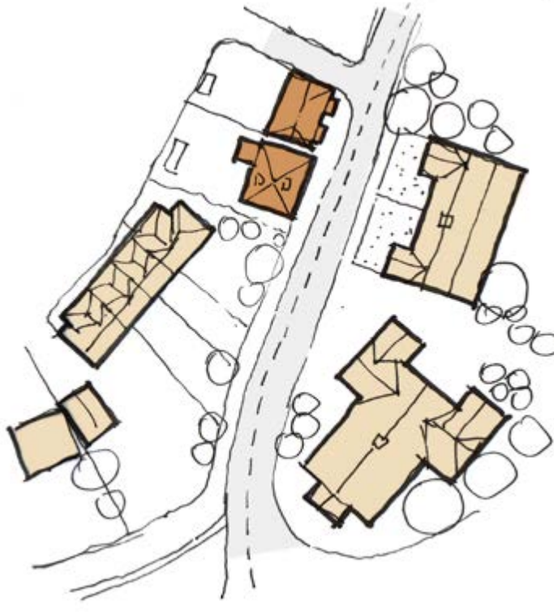


The Street

Mersham

Aldington Street,

Lympne



Rectory Lane.

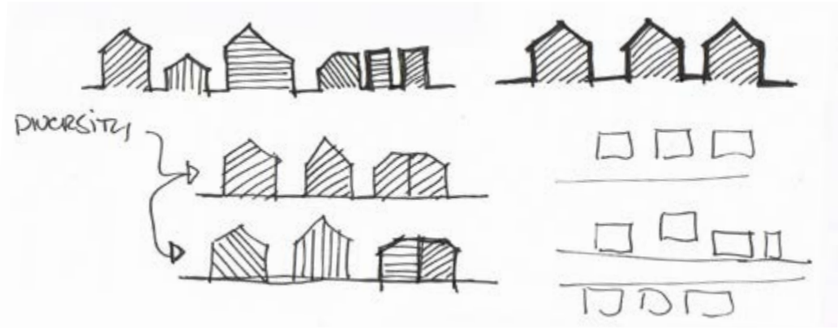
Saltwood

Key:

'Extrovert' Houses

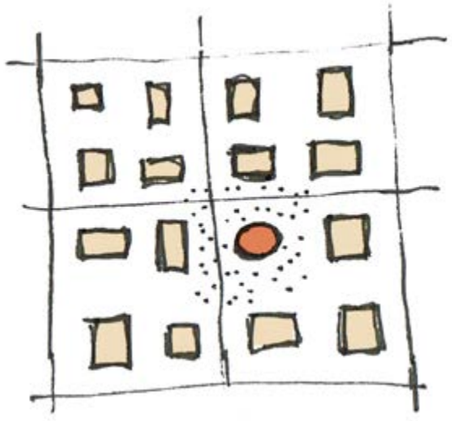
'Introvert' Houses

4. Diversity of Tenure and Type



Kent towns and villages include a wide range of building styles and types, the composition tends to be rather dramatic and even contradictory. This wide variety of free spirit and individuality is a key part of the area's character.

Large housing developments tend to maintain a single design sensibility which does not challenge thier identity. Even schemes which use a diverse mix of materials tend to maintain the same internal plan layouts. This leads to a sense of comfortable consistency that contrasts with the character of historic villages.



Acknowledging that any new garden village will be planned and will not benefit from generations of organic growth, a sense of diversity needs to be created more deliberately. We believe a challenging building, such as a self-build house or a one-off design needs to be required at regular intervals within the general fabric. This element should be seperate and in addition to landmark buildings like gatehouses or amenity blocks.

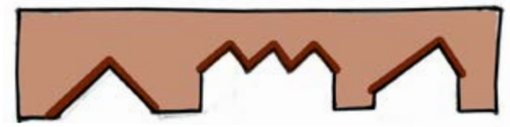
4. Diversity of Tenure and Type

Variety and interest in the historic urban grain and townscape are provided by **landmark** buildings such as Churches, community or town halls, schools and other such significant buildings.

The main focus of this document is to provide guidance for the more "everyday" fabric of less individually distictive structures such as houses, apartments, retail and commercial buildings. While these buildings attract less attention than the more visible landmarks, there are always far more of them. Together they generate a quiet, but significant contribution to the character, identity and vibrancy of everyday experience.

Landmark buildings are expected to require a far higher level of bespoke design input, high quality detailing and material choices, responding both to context and individual identity.

5. Roof Forms



Old Barn with PV panels and interesting plinth detail

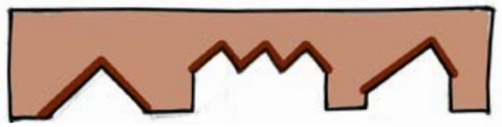
Kent has a wide selection of interesting, but simple roof details to consider : Barns, cat slides, low eaves, large and steep 45 degree pitches and sculptural arrangements of multi-pitches.

The predominant roofing material hisorically was plain clay tiles and occasionally slate. Tile hanging extends the roof material into the vertical plane, allowing some contemporary buildings to become nothing but a single roof form.

The practical requirement of a chimney has changed, reducing the need and opportunitiy of vertical design elements, although they can still be used for passive ventilation.

New buildings also benefit from PV panels, while green roofs and mono-pitches definitley should be included, We believe designs should include very simple, bold roof lines and scultpural chimney details.

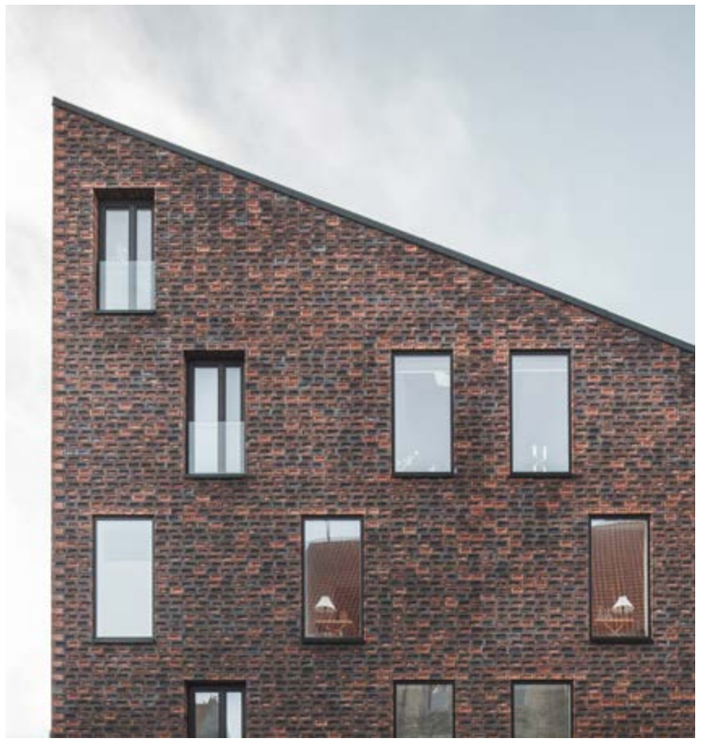
5. Roof Forms



Sketches of houses and terraces found in the surrounding areas, with focus on roof forms.

A range of contemporary interpretations. The basic roof pitch, a simple barn style extrusion, can become many interesting sculptural forms.

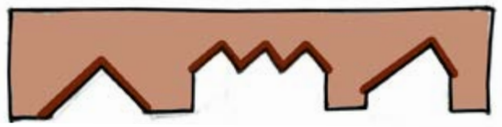
5. Roof Forms



These buildings in Copenhagen by Vilhelm Lauritzen Architects are great examples of simple residential roof forms reinvented as large apartment buildings.

While the context could not be more different, the creative use of tile hanging and brick cladding would be appropriate strategies to the location in Kent.

5. Roof Forms



Green Roofs would be particularly suitable for any large roofscapes on the site which are visible from the Kent Downs.

There are multiple great examples of green roofs in the surrounding area, such as the National Trust White Cliffs Visitor Centre and the Pines Calyx.

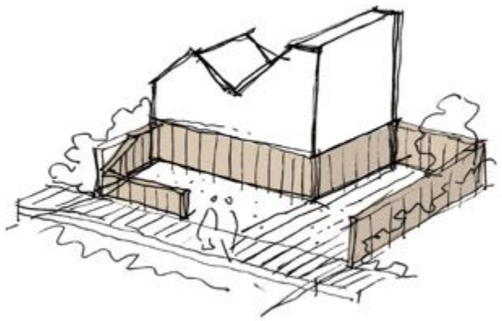
Chalk Grassland roofs are the most appropriate type for the location and would be preferable to generic Sedum Roofs.

6. Ground Floor Plinth

The strongly defined base of a building, with jettying upper floors is a typical vernacular detail.

The plinth often extends into the landscape, defining loose courtyards and gardens.

Contemporary designs will often reintrpret the strong base reading, even going as far as to inset the entire ground floor. This can work very well on sloping sites and high density townhouses or mews.

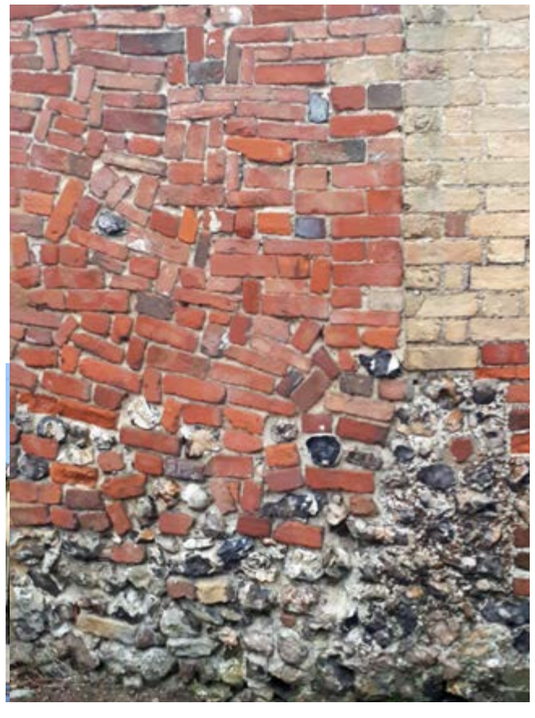


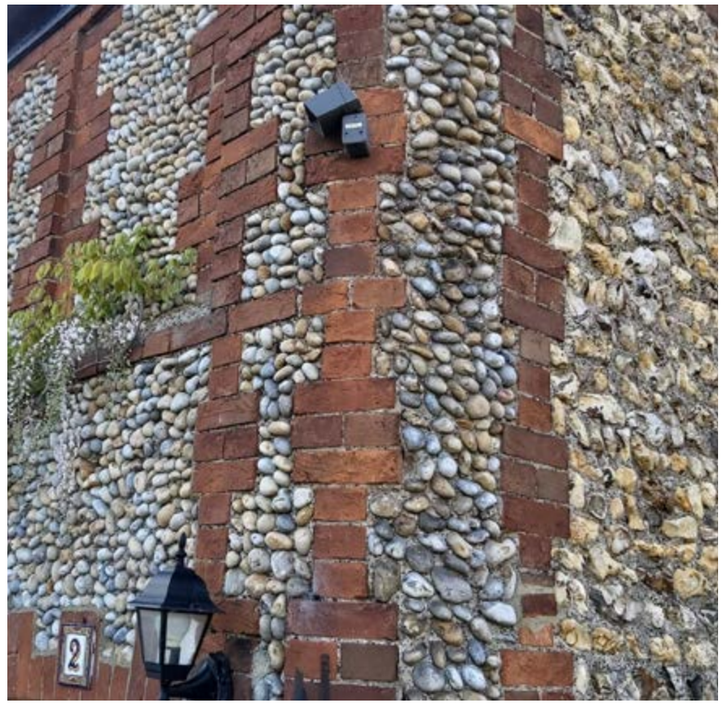
A wonderful international design concept, with very clear plinth reading

6. Ground Floor Plinth

In Kent, the base is often defined with Ragstone cladding. The soft sandstone is very challenging to cut square, so in most examples the walls are a rustic rubble bond. Garden walls and ground floor levels are often a repaired patchwork of stone and brick in a messy, unplanned medley of materials.

Left image:
Example of inappropriate, engineered stone cladding plinth, in Sandgate.





7. Facades, Materials and Craftsmanship


1.

2.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6.

From observation, buildings in this area of Kent experience a very wide range of weather conditions on different facades.

Over time the individual surfaces are eroded by wind, rain, sunlight and vegetation, leading to an organic layering of materials and very clear edge details. The same brick or painted surface will very quickly look quite different from one face to another when left to weather.

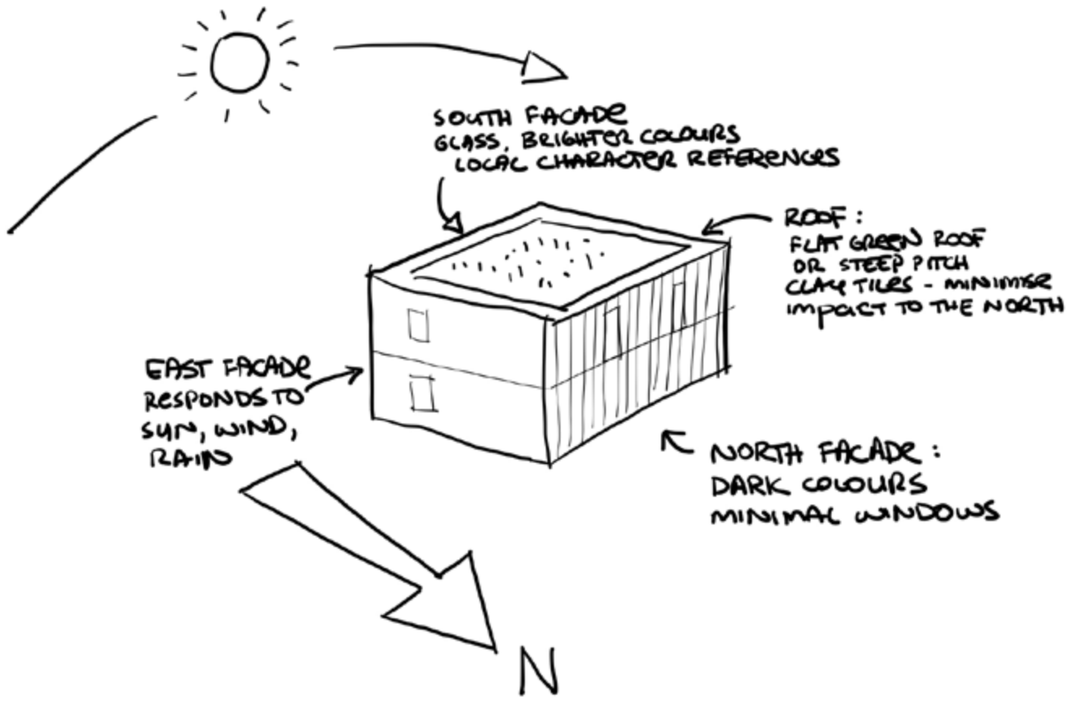
The landscape also generates a variety of appropriate responses:

1. North Facing elevations wil need to be dark colours, matt materials and minimal glass areas.
2. South Facing elevations open to sunlight and the escarpment, These will naturally require more glass and can be brighter colours
3. East and West facades will need to respond to wind and rain in specfic manners.

Images :

1. Aldington : Brick edge, with distinct weathered facades.
2. Hythe: White building, with different weatherboarding and painted brick facades
3. Stanford : Facebrick and tile hanging on each facade
4. Sandgate: Weatherboarding painted black and white.
5. London: Contemporary detail with clearly defined facade treatments
6. Harlow: Contemporary edge detail.

7. Facades, Materials and Craftsmanship

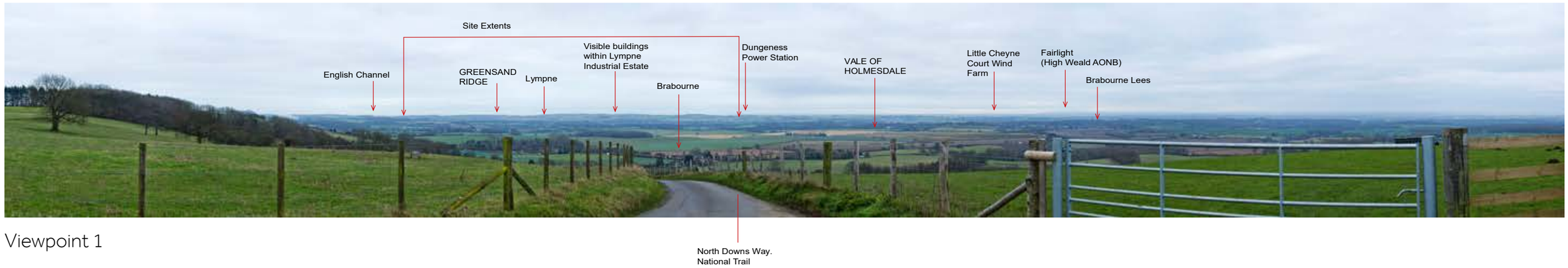


The landscape and context of the site generates a variety of appropriate responses:

1. North Facing elevations wil need to be dark colours, matt materials and minimal glass areas. This will ensure that the long views are respected and maintained from the Kent Downs AONB to the north (as discussed in the first part of this report)

2. South Facing elevations open to sunlight and the escarpment, These will naturally require more glass and can be brighter colours

3. East and West facades will need to respond to wind and rain in specfic manners.



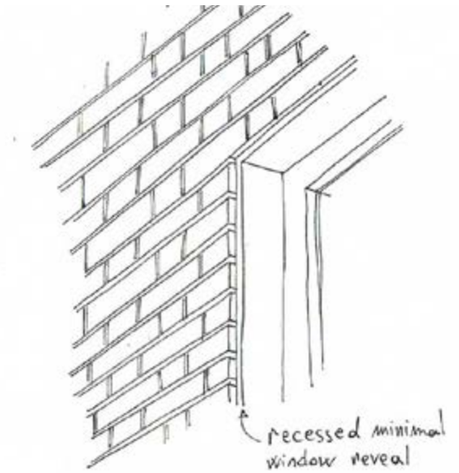
Viewpoint 1

7. Facades, Materials and Craftsmanship

Brickwork in Kent is a great example of a single material that can be re-interpreted in endless contemporary manners.
The vernacular examples include half timbered structures, with decorative brick infill, thin mathematical tiles and patterned brickwork using burnt headers.

Contemporary manufacturing provides far more consistent modules to work with, which can become rather dull in a full facade. Modern construction does however allow us to use non-structural brick slips in a wonderful range of creative patterns that can be achieved in modular systems without the level of craftsmanship required on site historically.

Crafted and patterned facades on very simple architectural forms should be a defined design objective.



Contemporary international examples of extremely creative brick slip panels. The opportunities to re-invent the material are endless.

7. Facades, Materials and Craftsmanship

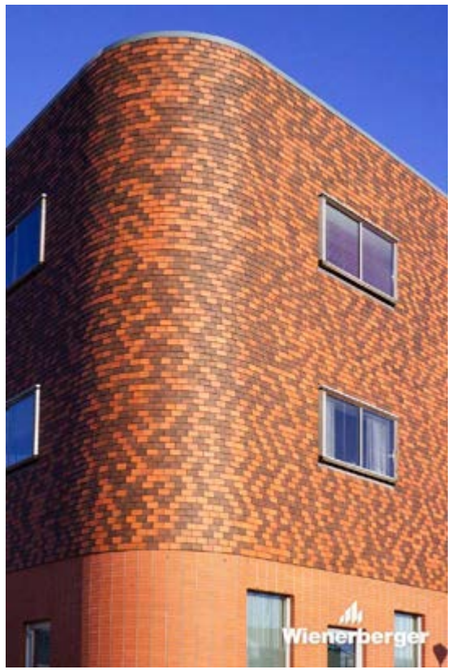
The prevailing colours and materials in the area are all a product of the underlying geology and have helped create the local distinctiveness. Soft orange and red brick are the norm in Kent but there are local pockets, particularly in locations closer to railways, where yellow brick is also used.

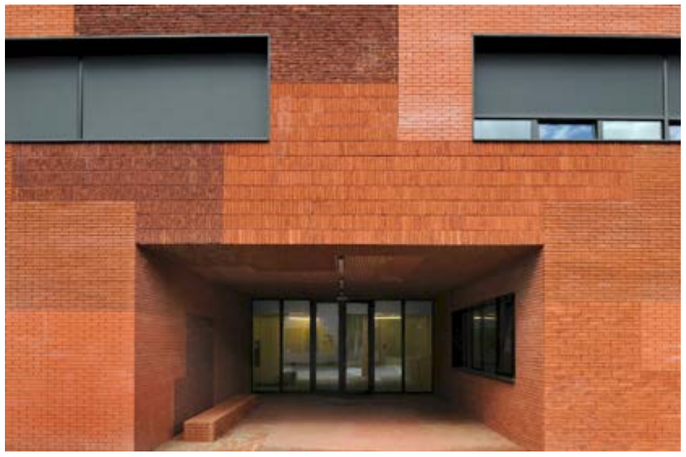
Red brick interspersed with burnt headers is also a local characteristic in some areas of the Kent Downs.

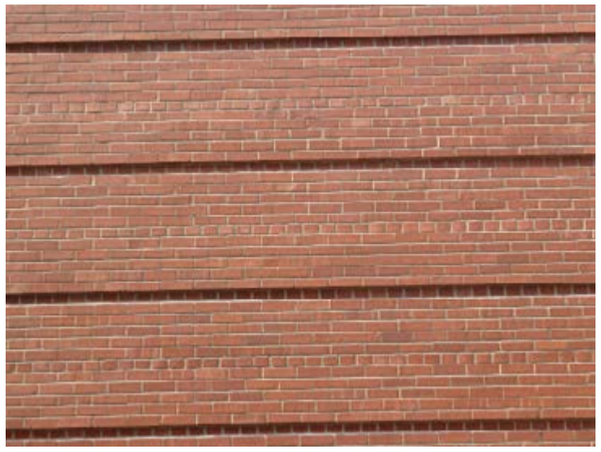
Other brick colours such as pale beige and greys should be used sparingly and only where appropriate. These types of bricks have little relevance to local context or historic Kentish vernacular and fail to promote local distinctiveness.

The type of bonding in brickwork, should also reflect local styles, as should mortar which is generally a lime based mortar. While lime based mortar is likely to be impractical at large scale, care can be taken to use modern alternatives that match the same light grey colour tones.

7. Facades, Materials and Craftsmanship

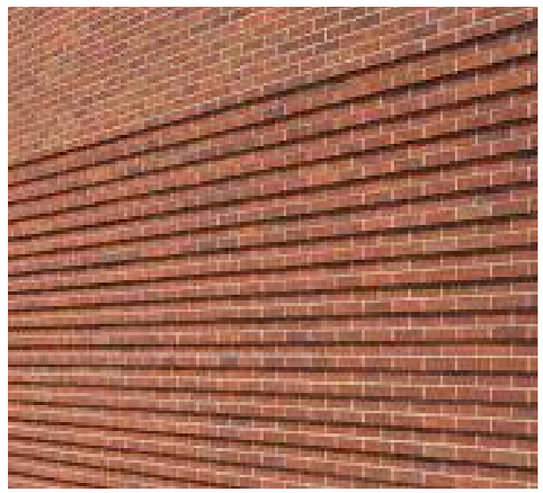






Contemporary international examples of traditional brickwork used in creative ways.

7. Facades, Materials and Craftsmanship



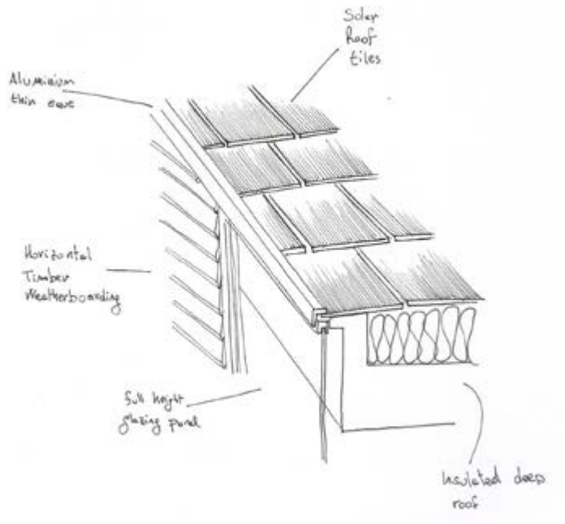
Contemporary international examples of traditional brickwork used in creative ways. Note the top image with wonderful, rustic and random brick courses that would also be very appropriate to the area.

8. Edge Details

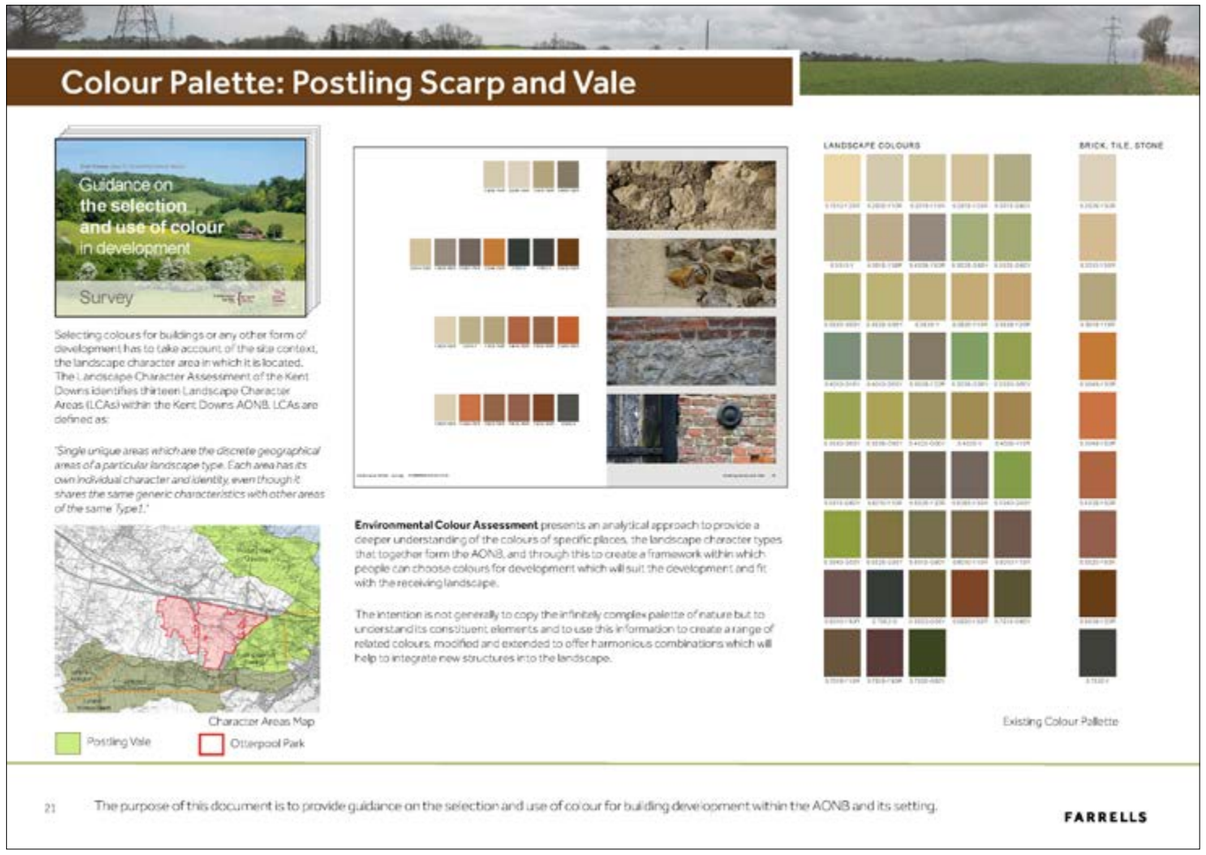
The variety and nature of materials in Kent seems to naturally generate a requirement for careful edge detailing. These details exist primarily at corners, window and doors, eaves and roof lines,

While vernacuar examples are usually quite pragmatic, the better contemporary examples of creative edge detaling are spectacular: Great details expose the nature of materials like tile, timber or stone and turn very simple forms into beatifully crafted pieces of architecture. The succesful examples of detailing celebrate the elegance and light or thin quality of facade materials.

There are many contemporary examples of roof eaves and soffits becoming very thick, heavy details that bear no resemblance to the elegance of historic details.
While these conditions are generated by structural and insulation requirments, they should be creatively and carefully detailed.



9. Colour and Reflectivity



The colour guidance document provided by the KDAONB (Kent Downs Area of Outstanding Natural Beauty) has already defined the range of recommended palletes for the location.

There are however a good few examples of very colourful buildings which make total, creative spectacles of themselves. (See images below)

They also reflect the free will and spirit of the area. **There should be spaces made for unique landmarks that stand out from and challenge the fabric with forms, material and colour.**

When matching natural materials or paint colours, it is worth considering the final relectivity of materials:

There are many examples of recent buildings which use modern materials with high gloss surfaces like weatherboarding panels, composite stone or metal. These facades stand out from the subdued matt fabric of the area and begin to show weathering very quickly.

For further information, the Otterpool Park Environmental Colour Assessment report can be referred to for site specific colour analysis and guidance.

10. Windows and Frames

The three key points to consider are:
Glass should be limited on north facing facades wherever possible. Recessed and angled panes could be used to reduce consistent reflective surfaces.

North facing glass should be low-transmissive and tinted in colour, preferably screened with matt metal or timber louvers where possible. This will reduce reduce reflectivity and visible internal lighting.

Many large developments use a range of materials and textures to create interest, but maintain a single consistent window detail. This reduces the diversity and interest which exists in villages which have grown organically over time. A variety of window details would be an appropriate strategy.

The contemporary nature of glass is decidedly different to historical examples. Vernacular buildings used small panels of glass in vertical openings, almost always framed by bright white wooden edges. The windows pop out as bright lines, defining dark glass within a darker facade material. Contemporary glass is larger, smoother, more relective and transparent in comparison. Most new buildings chose to use dark frames which reduce the contrast of facade elements. We don't believe contemporary glass should be forced to mimic history, it is a material that reflects the technologies and sensibilities of its age.

Traditional frames, painted bright white, in contrast to the darker glass and wall materials,

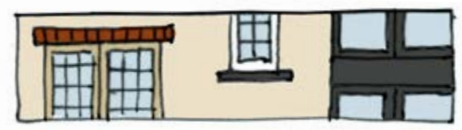
White frames with painted white reveals

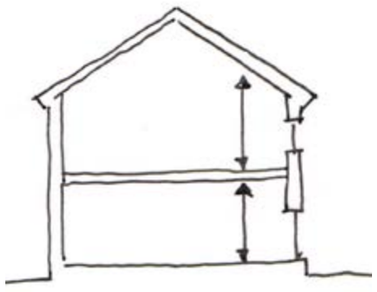
A busy facade of many parts blended together simply by the use of a single paint colour for wall, roof, windows and doors.

Contemporary high contrast design. Many modern buildings use dark frames to reduce the visual complexity of an elevation

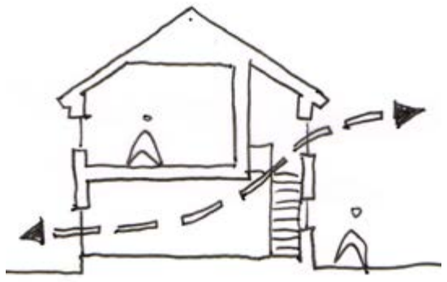
Carefully controlled amount of glass, tilted towards the south.

10. Windows and Frames

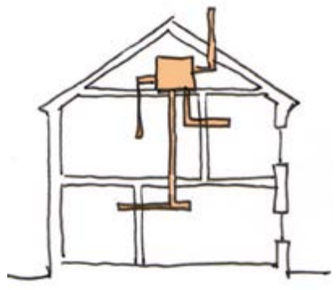




Generous floor-to-ceiling dimensions improve quality, percieved comfort and natural ventilation.



Windows should be arranged to allow for cross ventilation

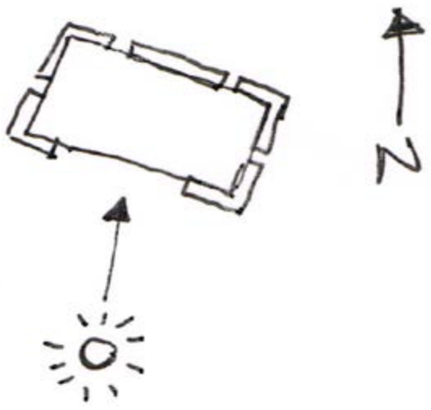


MHVR systems and district district heat exchangers should be planned

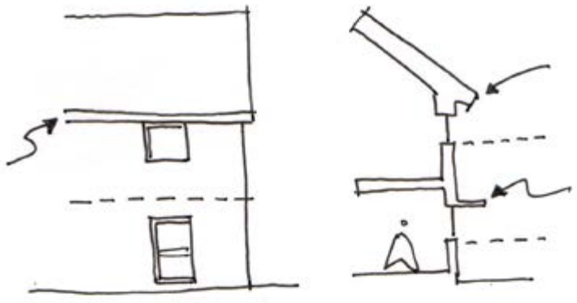
Window size and location are elements which affect the entire building envelope and performance.

The environmental impact and embodied energy are important considerations in selecting materials, but are outside of the scope of this study.

These will be picked up in the sustainability and energy strategies for Otterpool Park.

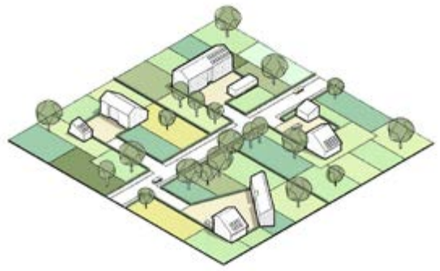


Large windows should be orientated south to maximise light, while reducing overheating



Windows above 800mm with shading maximise light.

Case Studies



1. Rural

4 DPH = 2500sq.m sites

Based on barns and farmstead courtyards

Large 4 Bed house or semi-detached clusters

2. Low Density

Up to 25 DPH = 400sq.m sites

Traditional free standing, 3 and 4 bed houses

Conventional, policy compliant designs

3. Suburban

Up to 45 DHP = 220 sq.m sites

Semi-detached Houses and Terraces

Tight, carefully clustered housing that challenges housing policy.

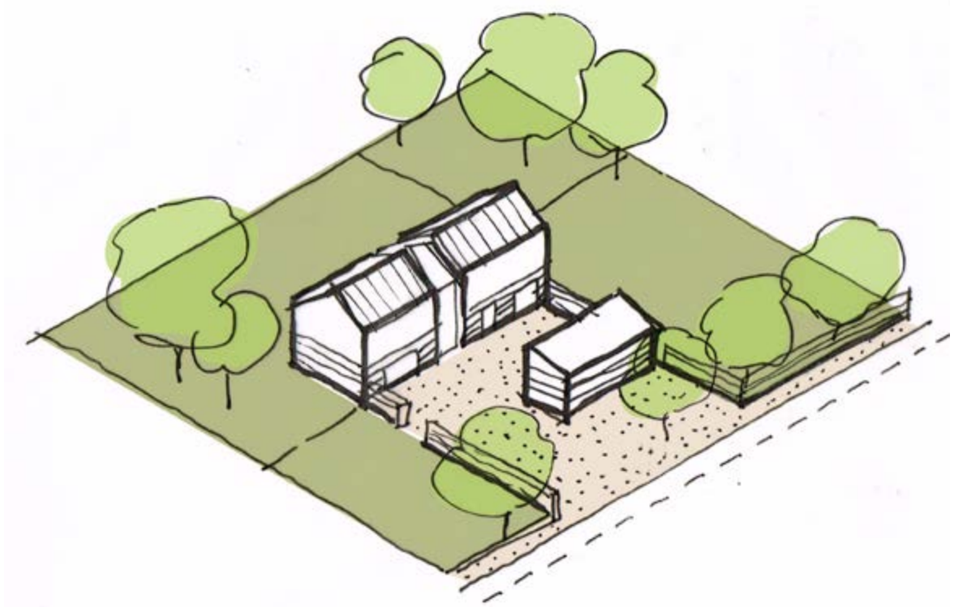
4. Urban

Up to 100 DPH

4 storey buildings and Mews Houses

limited to central areas. The increase in density offers well designed communal amenities and public spaces.

Rural



1. Rural

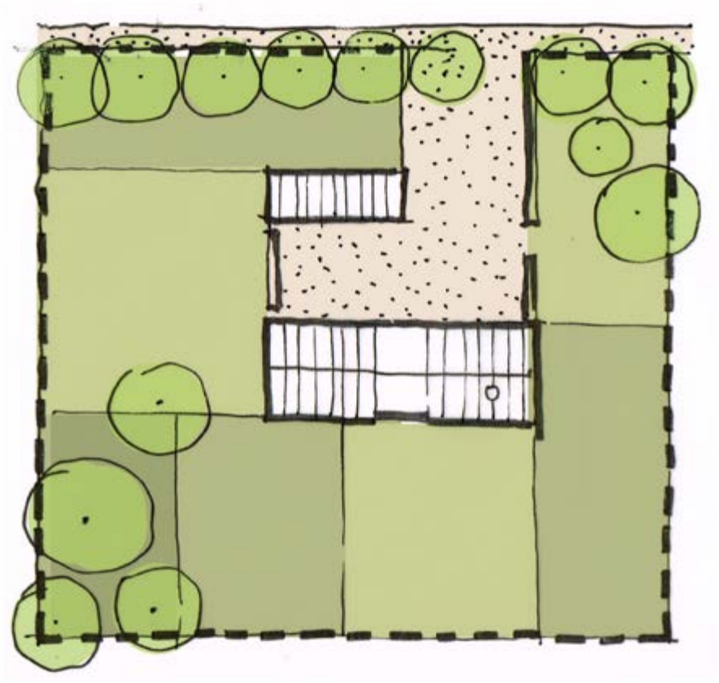
4 DPH = 2,500sq.m sites

Based on barns and farmstead courtyards

Large 4 Bed house or semi-detached clusters

- Simple building forms
- Loose private courtyard within large site
- Garden walls define landscape
- Dynamic Street Section
- Ground floor plinth

Rural

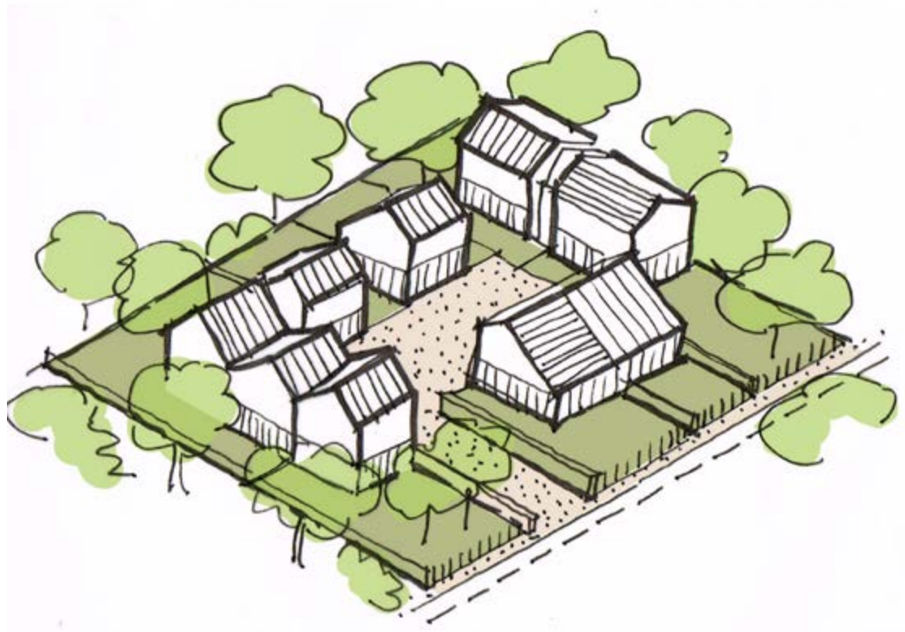


Generic Site Plan

Generic 1 Hectare Tile

Four sites with individual courtyard homes clustered together

Low Density



2. Low Density

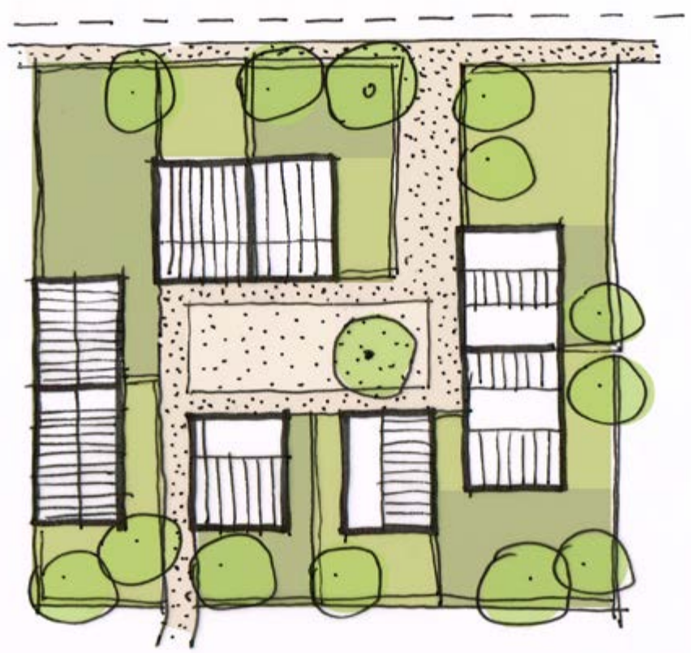
25 DHP

Free Standing Houses

Semi-detached housing

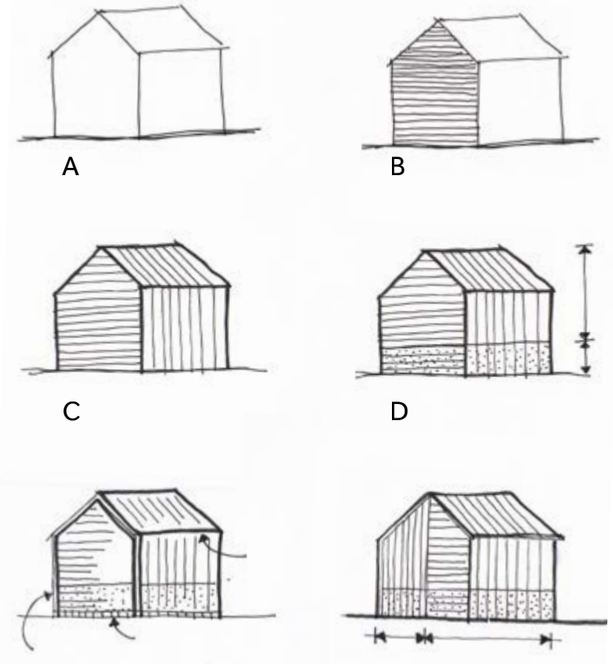
- Simple building forms
- Shared courtyard cluster
- Dynamic Street Sections
- A variety of roof forms
- Ground Floor Plinth
- Reflectivity and Colour respond to outlook

Low Density



Site plan

Generic 1 Hectare Tile



A cluster of 8 homes around a loose courtyard, with vehicle access and footpath.

A Simple building form

B Materials assigned to specific facade conditions

C Facade and roof form blend

D Ground Floor plinth expressed with texture change and clear datum

E Creative edge detailing of corners, Eaves and Plinth

F Brickwork/weatherboarding patterns express internal arrangements

Low density settlements like the Sellindge and Barrow Hill footprints above exist directly adjacent to the site.

Suburban

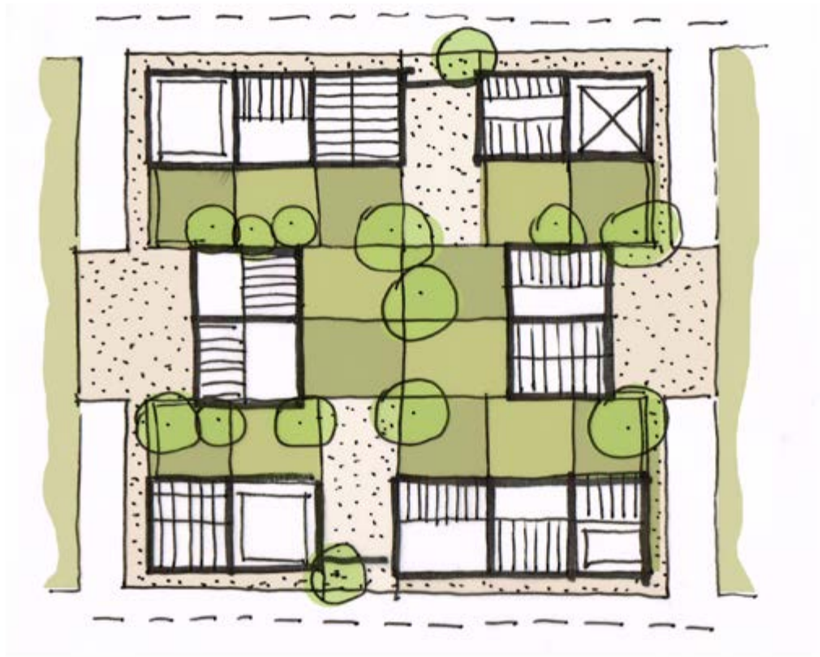
3. Suburban

up to 45 DPH

Semi-detached & Terrace Housing

- Shared courtyard cluster
- Dynamic Street Section
- A variety of roof forms
- Ground Floor Plinth
- Variety of scale and tenure

Suburban



Site plan

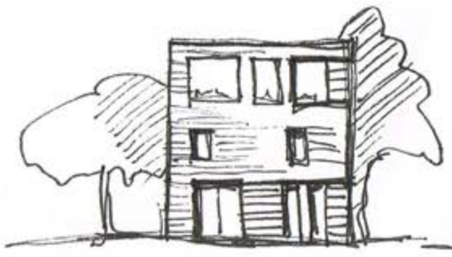
A cluster of up to 14 semi-detached and terrace houses, creating public courtyards and more intimate garden spaces.

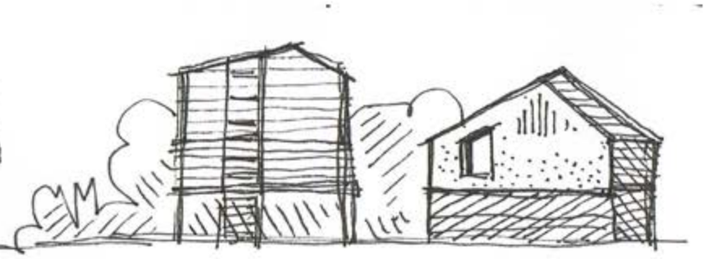
Generic 1 Hectare Tile

Tightly arranged homes can work very effectively when located next to open green spaces that provide variety of spaces. This strategy matches traditional development patterns most directly.

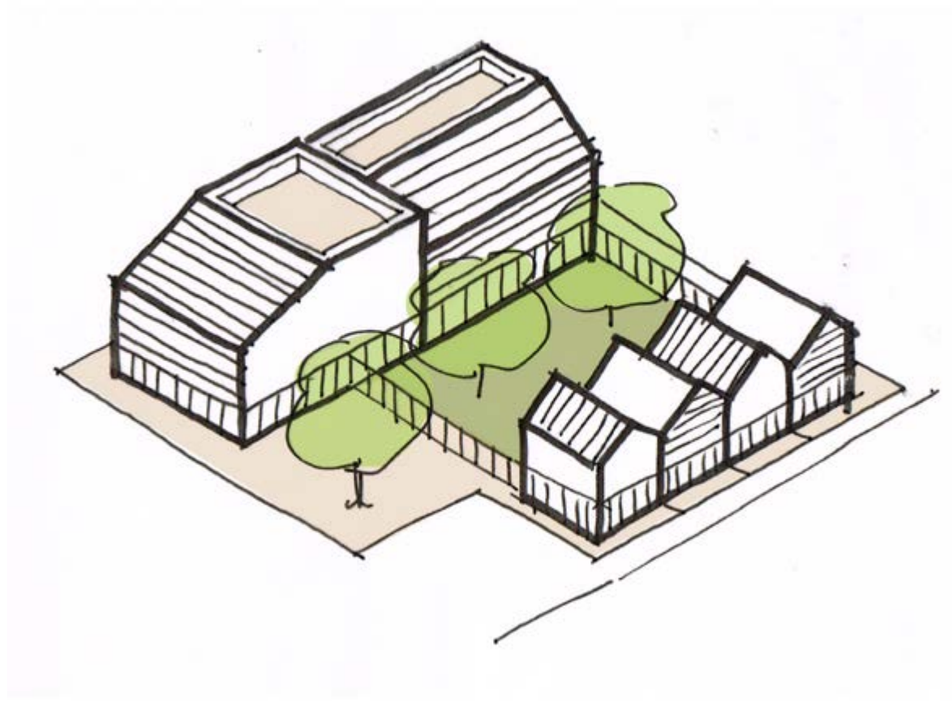
Hythe

A similar range of densities along the High Street, balanced with lower density houses and open green spaces.





Urban



4. Urban

4 storey buildings and Mews Houses

limited to central areas.

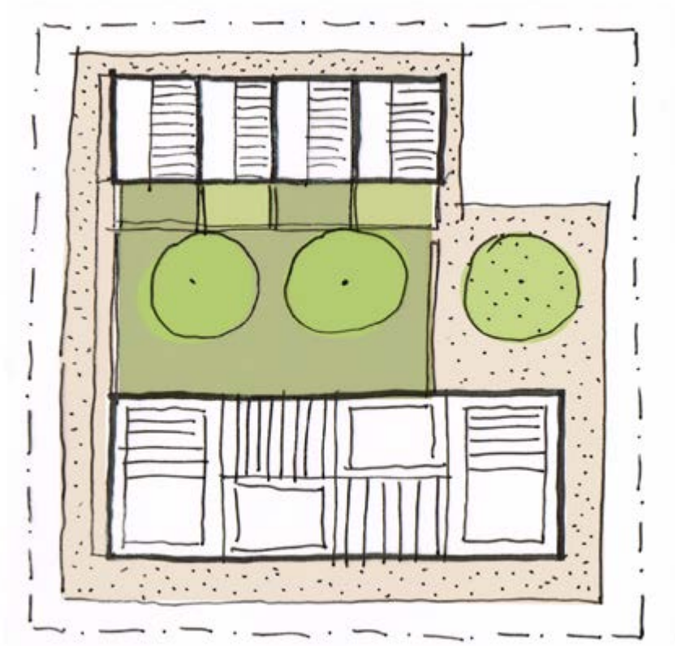
The increase in density offers well designed

communal amenities and public spaces.

Private amenity space policies will need to be challenged to achieve interest and variety.

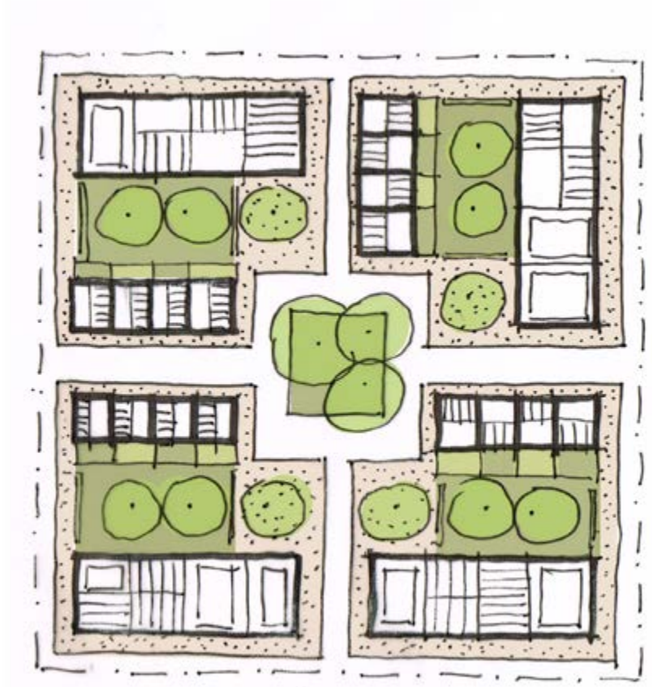
- Shared Amenity space
- Heirarchy of open Public spaces
- Up to 4 Storey Apartments
- Mews Houses
- Opportunity for unique buildings

Urban



Site plan

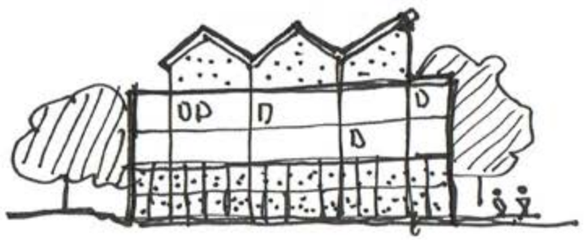
A mix of an apartment block and a row of terrace or mews houses generate a variety of height, tenure and denisty around communal and public spaces.



Generic 1 Hectare Tile

Folkestone

A similar range of densities in the Bayle area, building arrangements forming high quality public open spaces.



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