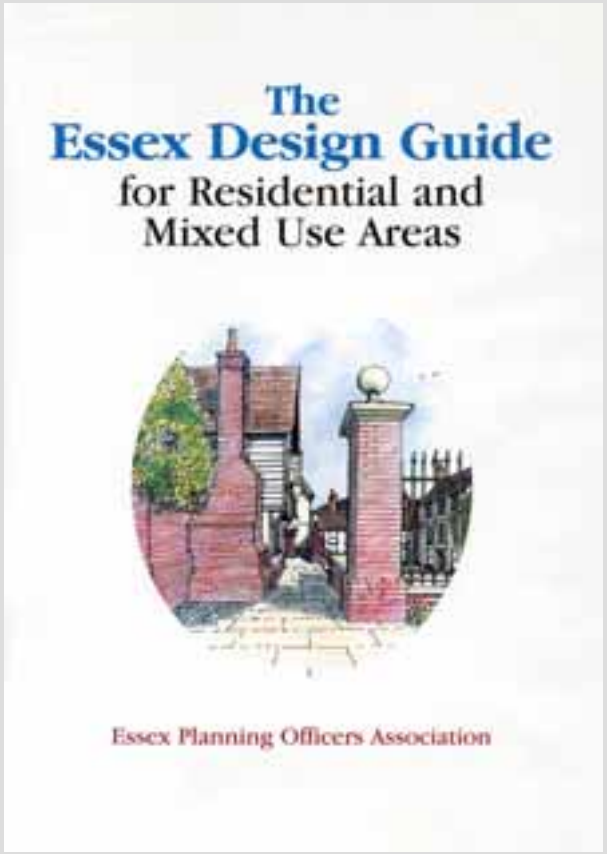


Essex Planning Officers Association,

***The Essex Design Guide for Residential and Mixed Use Areas*, 1997**

Fig. 1, 2

Spectrum of visual density –
Gamma della densità visiva

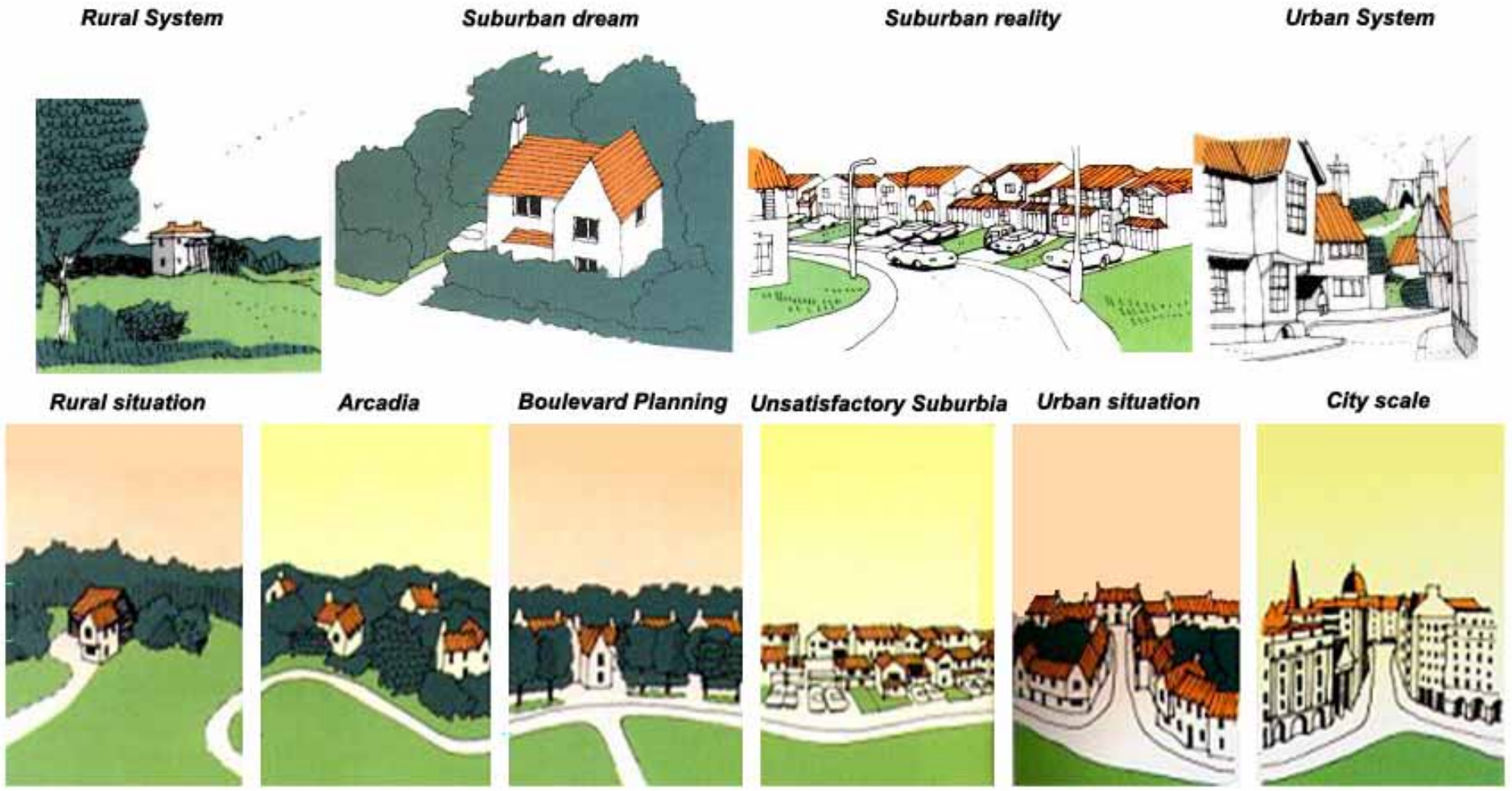


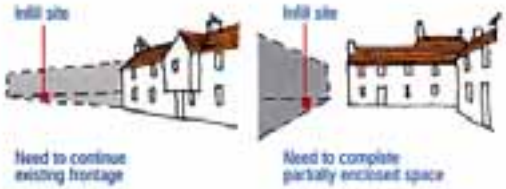
Fig. 3

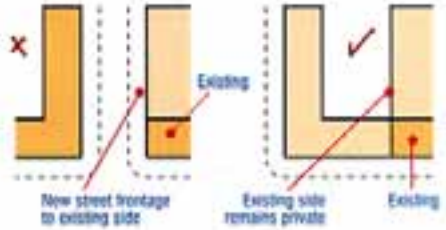
Site Appraisal

The planning applicant should carry out an appraisal of the site before designing the scheme. IN THE CASE OF SITES LARGER THAN 1 HECTARE (2.5 ACRES) THIS SITE APPRAISAL MUST PRECEDE OR ACCOMPANY THE PLANNING APPLICATION.
The site appraisal should cover the following aspects, which should be plotted on a plan:

- An analysis of visual and physical character of the site and the visual and physical relationship of the site to its townscape and landscape context.
- Views into and out of the site, landmarks in the surrounding area.
- Existing movement pattern and desire lines across and around the site.
- Access points to the site.
- Existing and potential nodal points within or near the site.
- Existing buildings and structures on and adjacent to the site and whether they are to be retained.
- Wayleaves and easement strips that cannot be built on.
- Slopes, wind shelter, overshadowing.
- Trees, their spread, height and condition, hedges, boundary features and whether they are to be retained.
- Wildlife habitats and whether they are to be preserved.

Decisions should be made as to where built frontages are required and to what scale in terms of building heights. For example, an existing road frontage may need continuation, or a space which is already partly enclosed may need completion or the enclosure by the new development. Attention should also be paid to ensure that the new development is a good neighbour to existing properties, for example that the sides and rears of existing properties do not become a frontage to a new road or publicly accessible area.





Existing key views and landmark buildings should be identified and respected by the new scheme. Similarly, points where new key buildings and views are required should be established, and the desirable form they should take.

Site appraisal –
Lettura del sito

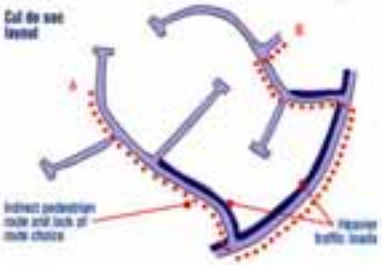
Fig. 4

Permeability and legibility of layout Arcadia, Boulevard planning –
Permeabilità e leggibilità della struttura insediativa

demands of traffic. This layout may, in part, be suggested by the topography, natural desire lines and accesses to the site. The street system should be 'plumbed' for traffic circulation, pedestrian use or cycleways after its form has been established by urban design criteria.

Permeability

It should be possible for pedestrians and cyclists to move freely between all parts of a layout, both locally and on a wider scale. The disadvantage of a layout based entirely on culs-de-sac and loops is that routes for pedestrians are indirect and boring and therefore pedestrian movement is discouraged. This creates dead areas which are vulnerable to property-related crime. Furthermore, cul-de-sac layouts result in higher traffic levels on feeder roads, with a consequent loss of amenity to residents of these roads.

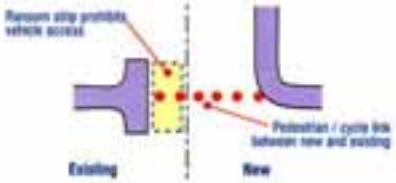


A more permeable layout offers the pedestrian a choice of routes, which offers greater visual interest and therefore generates a higher level of pedestrian activity, and thus security. If there are more pedestrians around in the street there is a greater chance of casual social encounters and less chance of thieves being able to gain access unobserved to houses or cars. In order to allow free movement the ideal would be a deformed grid based on the small residential block. The advantages of culs-de-sac and loops in preserving amenity and quiet and supervised space can be combined with those of a permeable layout for pedestrians by bringing heads of culs-de-sac together, by creating pedestrian/cycle streets between parts of the road system, and by creating pedestrian/cycle links across major roads that would otherwise form a barrier.

There should be good connections between adjacent housing schemes, and wherever possible a choice of route between one location and another. Where it is not possible for traffic routes to link old and new residential areas, either because of 'ransom strips' having been left by developers, or

else because of the undesirability of introducing new traffic into existing residential areas, there is often no reason why pedestrian and cycle links cannot be made between one area and another.

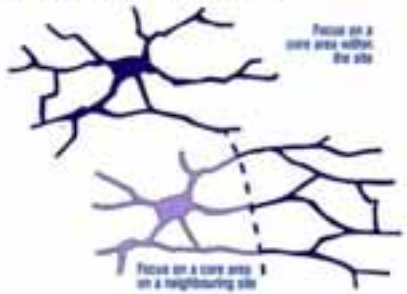
The aim of permeability is not, however, one that should be pursued to the exclusion of the need expressed below to focus the layout on cores and nodal points.



Legibility

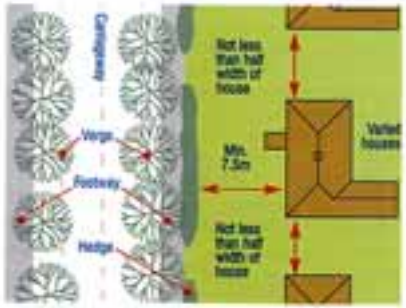
The Core

The street network should focus on a core area of greatest pedestrian concentration. Large developments may need to provide this core on site. Smaller developments may focus on an existing core on a neighbouring site.



provide the link between one house and the next, with more planting at the rear to unify the composition and contain the space between the houses. Care must be taken to ensure that there is sufficient space for trees to establish and mature. The road is a shared visual space for motorists and pedestrians.

The length and variety of linear spaces needed to avoid monotony is broadly governed by the principles explained on page 23.



2. Avenues of trees line the roads and contain the space for the motorist. At intervals, islands of trees appear to terminate vistas - buildings are scarcely noticeable. The pedestrian is contained within an inner space formed by the roadside trees and front garden hedges and trees.

Such layouts work particularly well when the streets form straight avenues or meander in a gentle, serpentine manner.

Boulevard Planning

Densities up to 20 houses per hectare (8 houses per acre).

A further variation is possible with a layout relying on a subtle combination of landscape and buildings. Part of the composition will rely on creating and enclosing spaces by trees and hedges, and part will be reliant on building groups. The right relationship must be created between the height of buildings and trees and the width of the spaces between them, following the principles on page 21.

Whilst the use of detached houses is possible in this context, the effect depends on the use of a common architectural style and detailing for all the houses, on locating garages to the rear, and on using gateways, arches, railings, etc to link the houses into one composition. Similarly the houses must be positioned in a strict geometric pattern. It is this geometry of crescent, circus, oval or rectangle that will provide the necessary order. The success of such layouts is dependent on abundant and appropriate tree planting. Sparing use should be

Fig. 5, 6

Pedestrian scale – La scala del pedone

Relationships of house to road – Relazioni tra casa e strada

As already explained, the prime underlying principle of all urban places should be the creation of a **pedestrian scaled** environment by means of **enclosing space by buildings**. If space is not satisfactorily enclosed, an attractive urban place cannot be achieved. Similarly chains of spaces must be structured in such a way as to add up to a meaningful urban place.

Pedestrian Scale

In order to encourage walking, and to create spaces in which people feel comfortable, any publicly accessible spaces must be visually satisfactory to the pedestrian.

This means that spaces must be visually comfortable in terms of their height to width ratio (see below), balance of static and dynamic spaces (page 22) and their visual length (page 23).

Pedestrian movement is sufficiently slow to allow scrutiny of one's surroundings and to examine and decode a wealth of visual information, much of it at an unconscious level. Without an abundance of visual stimuli the pedestrian experiences boredom and alienation.

There must be sufficient visual interest within the planes of the enclosing buildings to engage the eye. Repetition of similar building forms should be avoided, except where formal spaces are being created and there is compensatory detailed design enrichment. At the same time there should be sufficient density of interest in changes of frontage width and building line, surface texture of facing materials, window and door types, features such as gables, projecting wings, bays, etc. and a varied skyline with chimneys and dormers, to encourage the pedestrian to explore. There is a spectrum between a chaotic proliferation of detail at one end and severe simplicity at the other. Between these extremes an acceptable balance must be struck. Visual variety will be enhanced where there is also variety of building types and uses, ie not purely residential.

Visual variety

Severe simplicity

Height of Buildings and Width of Spaces

In order to create satisfactory enclosure of space related to the human scale it is necessary to establish a suitable ratio between the width of the space and its enclosing buildings. An ideal relationship for pedestrian-dominated dynamic spaces is for the width of the space to be equal to or less than the height of the enclosing planes.

Relationship of House to Road

In order to enclose space effectively, buildings will normally be sited at the back edge of the public footway.

This will require car parking to be sited between houses, beneath upper storey structures, or within garages to the rear. This has the advantage of reducing the visual impact of on-site parked cars. It also has the advantage of increasing the amount of site area available for private rear gardens.

The enclosure of urban space is made impossible where the fronts of houses are all set back from the road sufficiently to accommodate a visitor parking space in front. This may occur due to the use of integral garage house types, or because the houses are in a terrace without parking accommodated beneath or behind houses.

For this reason, only sparing use of integral garage house types should be made, or else visitor spaces should be located elsewhere than in front of garages. Garages may with advantage be freestanding so that they can be located anywhere on the plot. In the case of terraces, visitor parking should be located at the end of the terrace or behind, unless the terrace fronts an enclosed or partially enclosed parking court or square, see top right.

Attention should be given to the provision of covered, secure cycle storage in a position at least as convenient as the garage, possibly by widening the garage to accommodate cycles. One of the greatest deterrents to cycle use for local trips is the inconvenient location of cycle storage at home.

There is, exceptionally, a role for front gardens in layouts at densities over 20 dwellings per hectare (8 dwellings per acre). One or two dwellings in a street sequence may be set back to create an incidental feeling of extra space and greenery. Alternatively, three-storey houses are tall enough to maintain a feeling of enclosure even with front gardens, which, in such cases, should be large enough to contain a tree.

Fig. 7, 8

Solid and void – Pieno e vuoto

Modelling – Andamento volumetrico

Integral garage doors can be unduly dominant and damage the scale

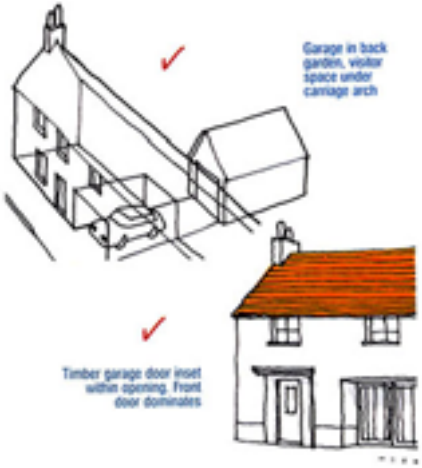
The prominent positioning of garage doors at the end of a cul-de-sac, road junction or bend in a road constitutes a visual downgrading of the townscape just at the point where a strong element, such as a 'landmark' house (see page 13), is required. The solution is to be more flexible in the positioning of garages so that they can be turned in various directions or combined to form larger structures that perform a more positive role in the townscape.

Prominent positioning of garages at bend in road

Sideways-facing garage

Double garages placed back to back to form barn-like structure

In the case of integral garages in terrace houses, the metal up and over door is a feature of poor visual quality, and a better solution is often to locate the garage in the back garden, with the visitor parking space within a carriage arch under the building. A well designed timber door inset within an opening at least 200 mm deep is also an acceptable solution.

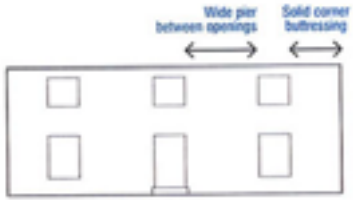


Garage in back garden, visitor space under carriage arch

Timber garage door inset within opening. Front door dominates

Solid and Void

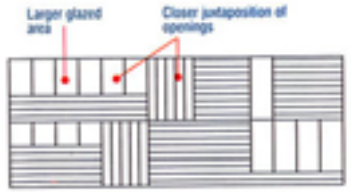
Normally, in the case of masonry buildings, the total area of window and door openings should be less than the area of solid wall. Openings should be arranged so as to emphasise the visual strength of the wall by allowing as wide a solid pier as possible between openings, and keeping openings as far away as possible from the corners of the building to give an impression of solid corner buttressing.



Wide pier between openings

Solid corner buttressing

Masonry building



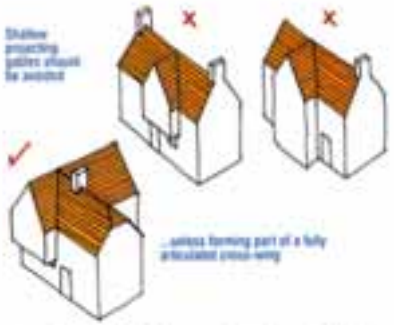
Larger glazed area

Closer juxtaposition of openings

Framed building

Modelling

The three-dimensional modelling of buildings by set-backs, projecting bays or gables should be manipulated in order to play a deliberate role in the street scene (see pages 21 and 23). It also contributes the effects of shadowing and the play of light.



Shallow projecting gables should be avoided

...unless forming part of a fully articulated cross-wing

An overhanging first floor or jetty is a useful device which has the effect of visually separating each floor of a house, allowing more flexibility in the pattern of fenestration (see page 41). Houses, or parts of houses, that rise to three storeys are useful ingredients in the townscape. They can enclose space, terminate a view or add variety.

Overhanging jetty allows more flexibility of fenestration

Insertion of three storey element adds variety

Present day requirements have led to a tendency to group a number of single storey elements outside the main, two-storey volume of the house around the entrance. These may include an enclosed porch, bin store, cloakroom and meter cupboards. Whilst enclosed porches can be a buffer against the

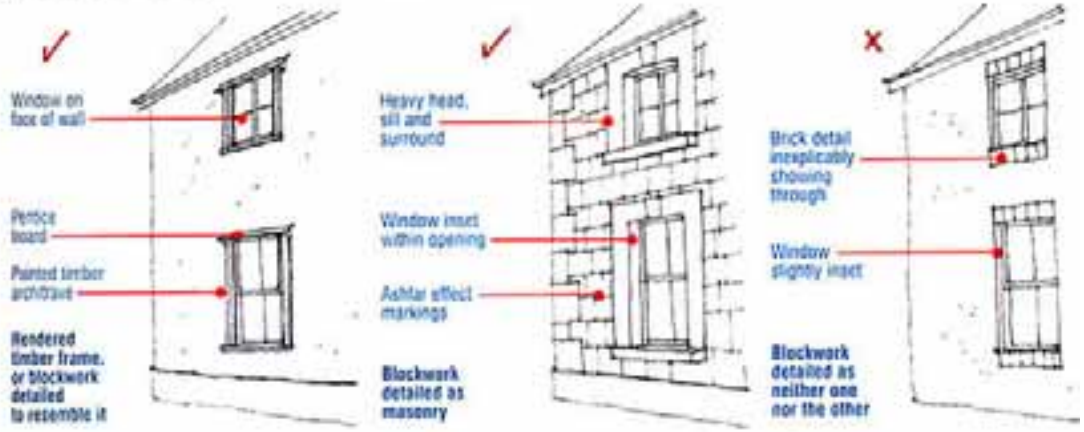
Ancillary accommodation in front of the house damages its relationship with the street

Fig. 9, 10

Appropriate Detailing for the Materials Used

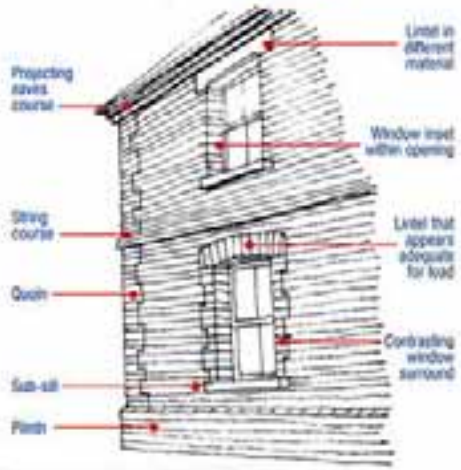
For a fuller treatment of this subject, please refer to Essex County Council's Design Guide Practice Note No. 2, Building Details.

Detailing should be used which emphasises the character of the material and has often evolved traditionally. The solidity of brickwork should be expressed by inserting doors and windows within



openings by at least a half brick depth and using sub-cills. Openings should have an arch or lintel which appears adequate to carry the load of the brickwork above. A lintel may be picked out in a different material. The form of the building may be emphasised by string courses, plinths and projections at the eaves. Variations in bond and colour can be used to decorative effect. Corners and openings can be emphasised by quoins and window surrounds in a different colour or material.

Rendered or boarded timber framed buildings should have windows and doors near the face of the wall surface to express the thinness of the construction. Painted timber architraves around the openings and pentice board heads will further emphasise this character.



Some common forms of brick detailing
Traditionally a more 'humble' building would not have quoins, projecting eaves course, string course, window surround or contrasting brick colours.

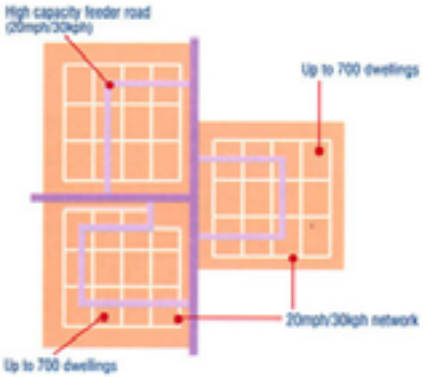
Appropriate use of materials, appropriate detailing for the materials used –

Uso appropriato dei materiali e dei relativi dettagli costruttivi

Fig. 11

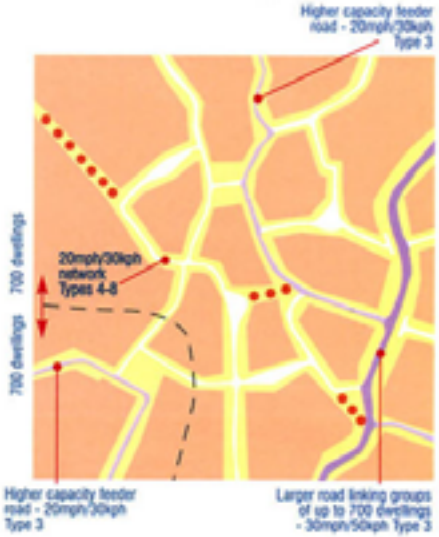
the speed and throughput of traffic to be carried by the road contained within it. By 'calming' traffic in residential areas in this way, there should be a corresponding benefit in increased pedestrian safety and thus the pleasantness and usefulness of the environment to the pedestrian.

All new residential areas should be divided up into elements not exceeding 700 dwellings. Each of these elements, and any new development less than 700 dwellings in size and containing a road over 100 m in length* is to be served entirely by roads of a design speed of under 20 miles per hour (30 km per hour).



Rather than a hierarchy of road types, a number of adoptable road types are recommended here which comply with this requirement. In order to restrict speed, it is preferable to use changes of alignment, ie bends, rather than physical obstructions, such as speed humps and chicanes, which should only be used in those less frequent cases where straight sections of road are required for urban design reasons.

It is recognised that a very extensive 20 mph (30 kph) network could be slow and frustrating to drive through and could slow up access for the emergency services. Such networks should therefore be designed in such a way that it is not necessary to travel farther than a quarter of a mile (0.4 km) through the network to reach a feeder road offering a more direct route out. There will also be larger roads which link groups of residential areas of 700 dwellings.



Generally, for the reasons stated on page 11, there should be a tendency to construct networks from linked roads rather than culs-de-sac, which should be limited in length and number and restricted to those parts of a site which cannot be served in any other way.

Whilst the road types and configurations recommended here will be adopted for the purposes of maintenance, it is open to planning applicants to propose other solutions which achieve the same purposes and these will be considered on their merits.

Access to Non-Residential Uses

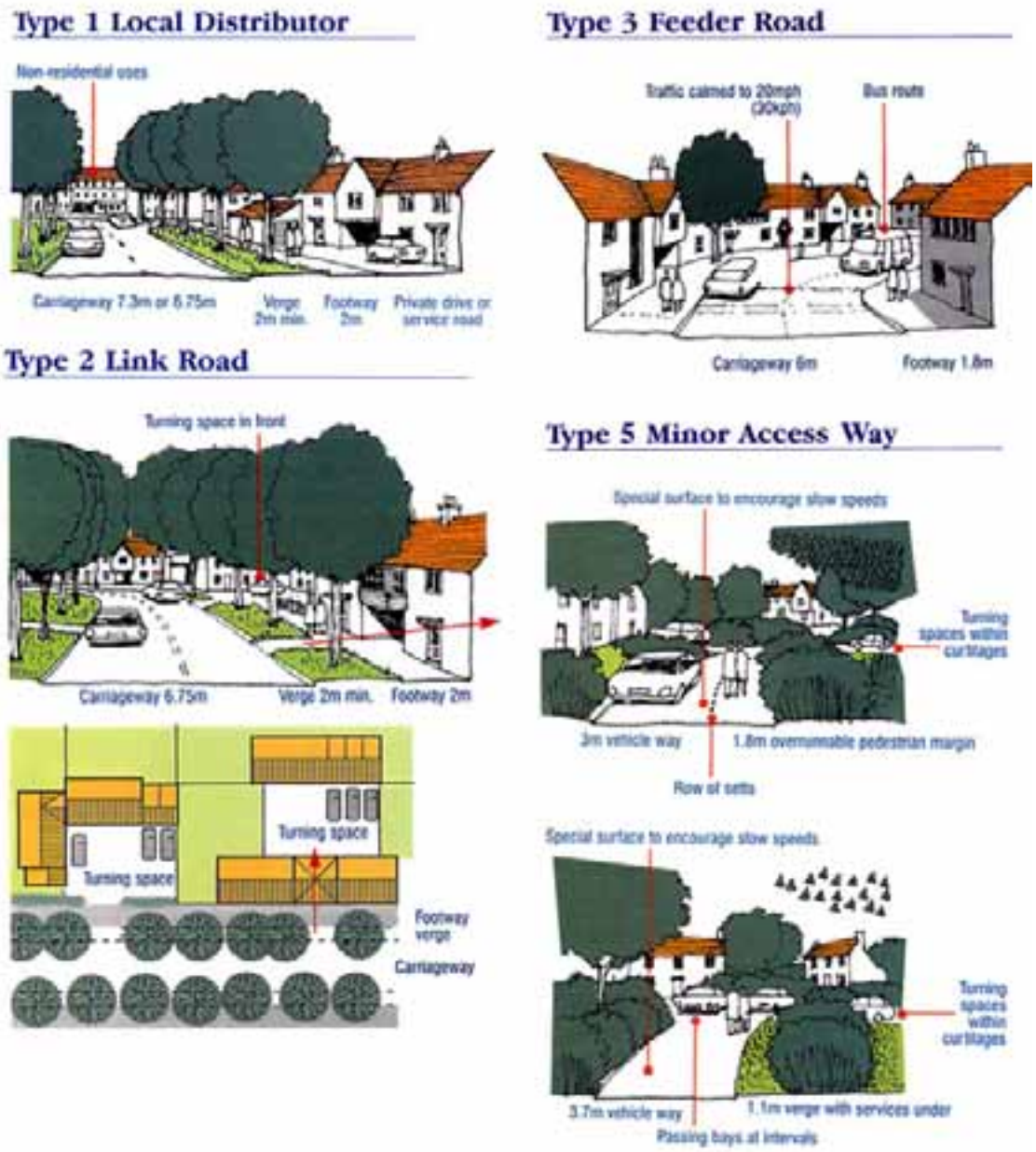
Non-residential uses such as schools, churches, community halls, shops and small businesses may be located within a 20 mph (30 kph) zone but must be served by a road no smaller than Type 3 (see page 58). Businesses likely to be regularly serviced by vehicles larger than 7.5 t, eg a retail store or supermarket, must be served on their delivery side by a road no smaller than Type 2 (see page 57), or else a 6 m wide one-way loop road.

Schools should not be located on a road terminating in a cul-de-sac. In addition to staff car parking they should be provided with adequate parent car

* *Equally this applies to a number of shorter roads the farthest extremity of which is more than 100 m from the entrance to the development measured along the road.*

Vehicular movement
– Movimento veicolare

Fig. 12



Road types –
Tipologie di strada

Fig. 13

Location of case studies –
Localizzazione dei casi studio

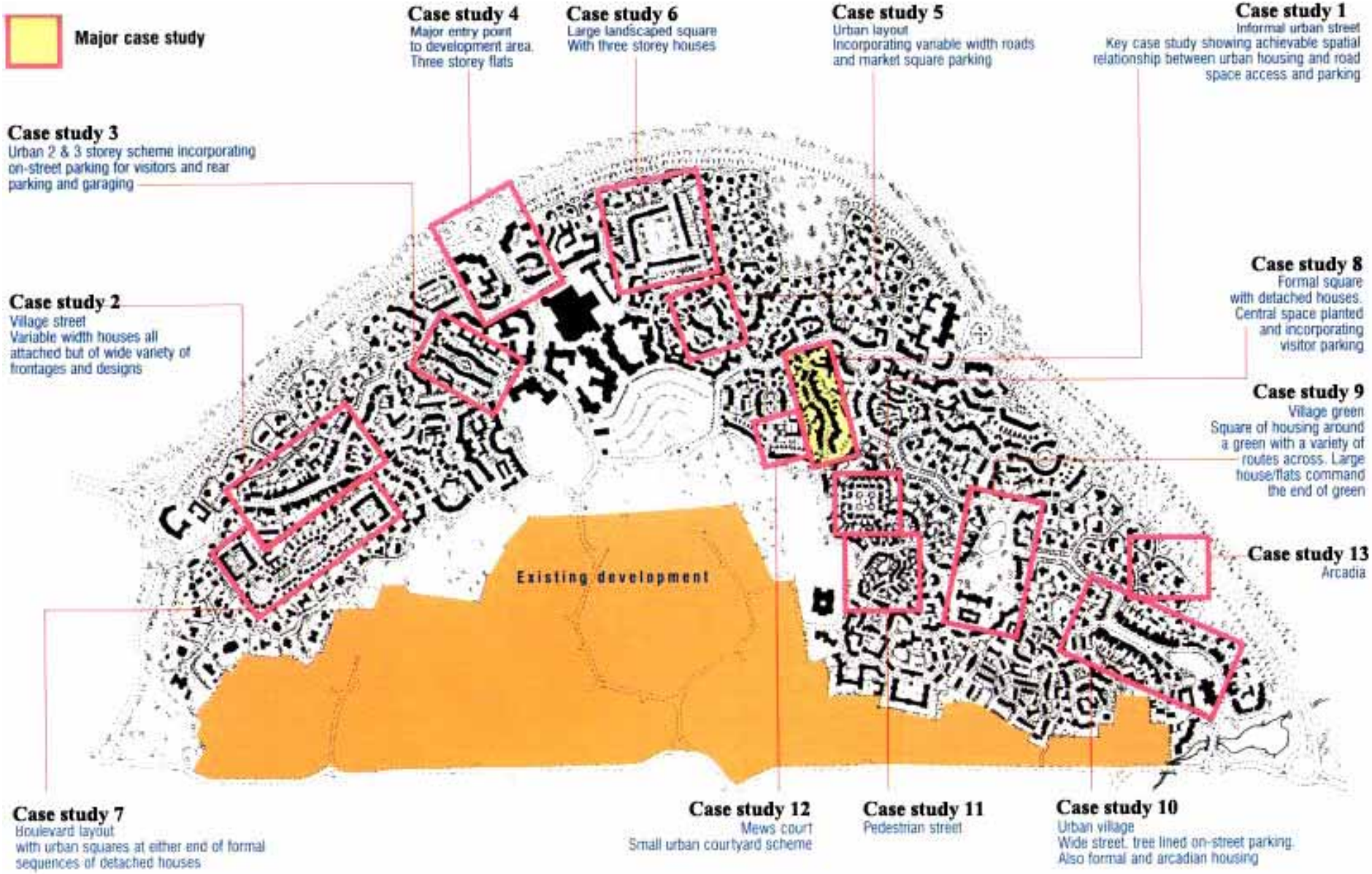


Fig. 14

Large development comprising case studies –

Insediamento di gandi dimensioni comprendente i casi studio

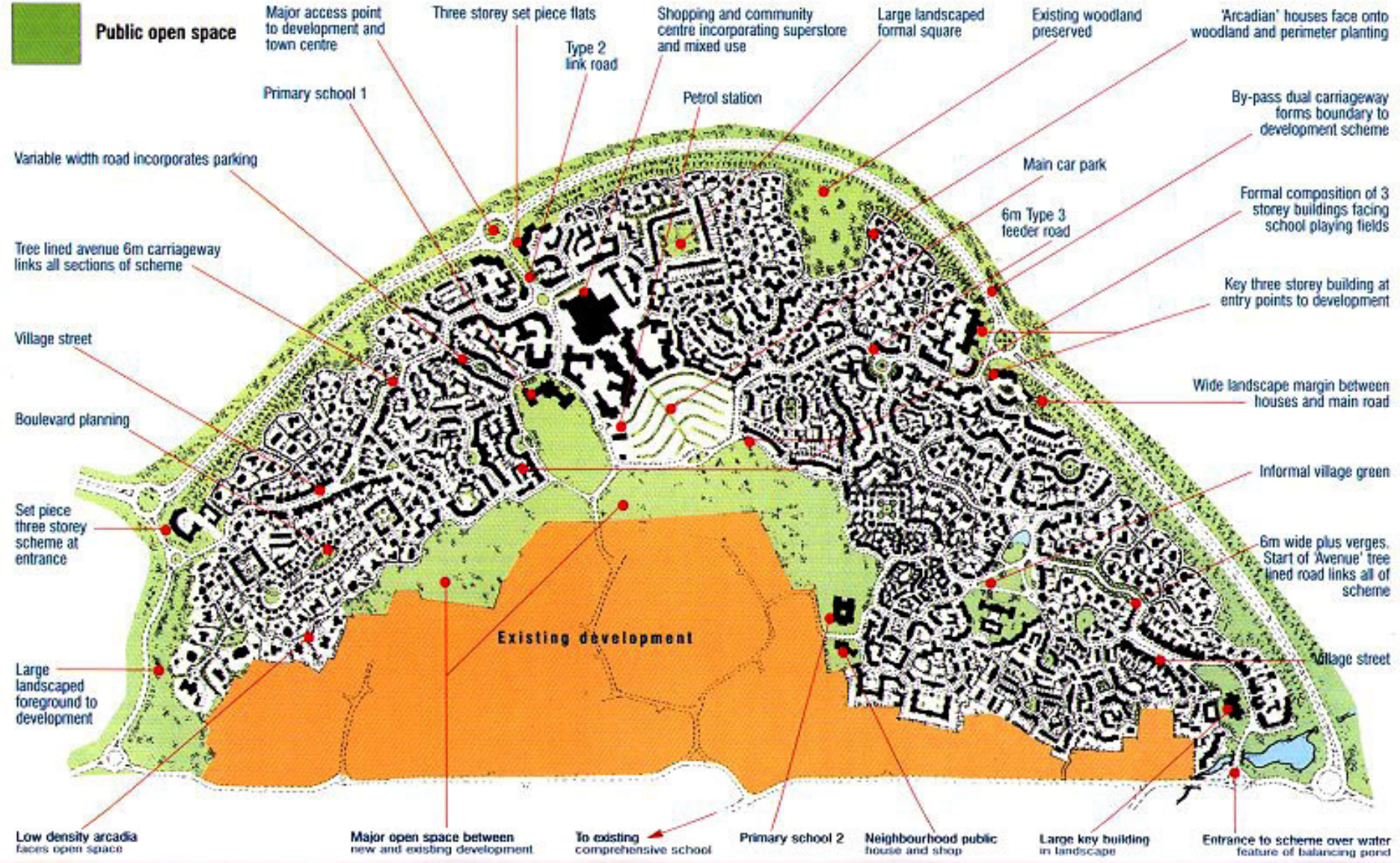
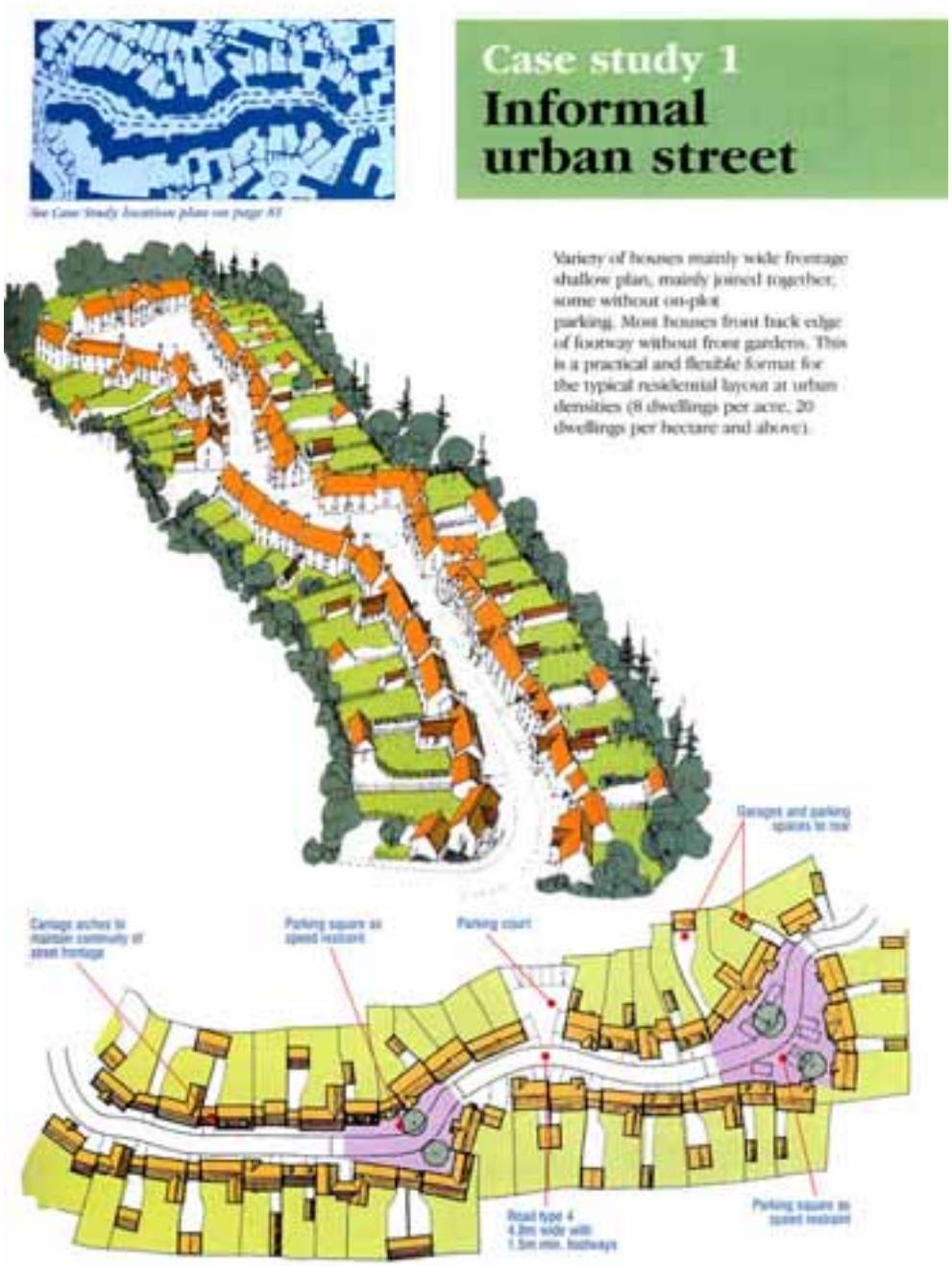


Fig. 15

Case study – Caso studio

Example of unsatisfactory solution –

Esempio di soluzione insoddisfacente



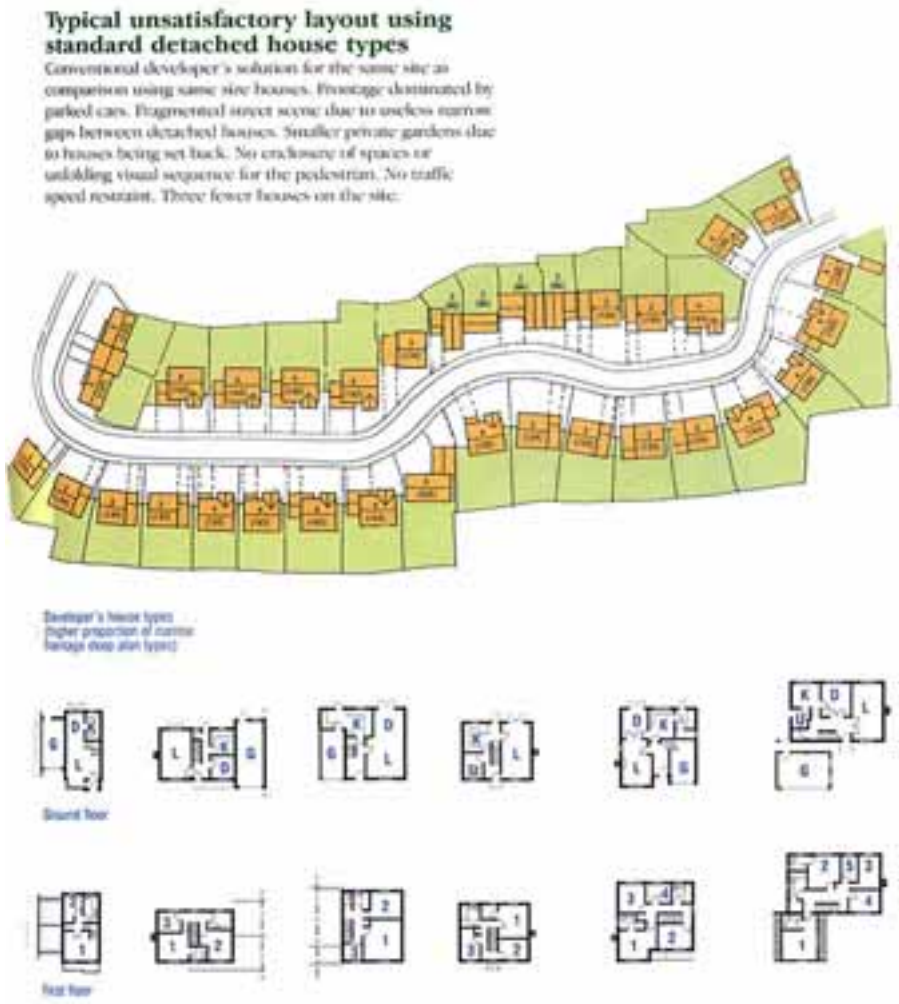


Fig. 16, 17

Case study – Caso studio

Fig. 18

Case study – Caso studio

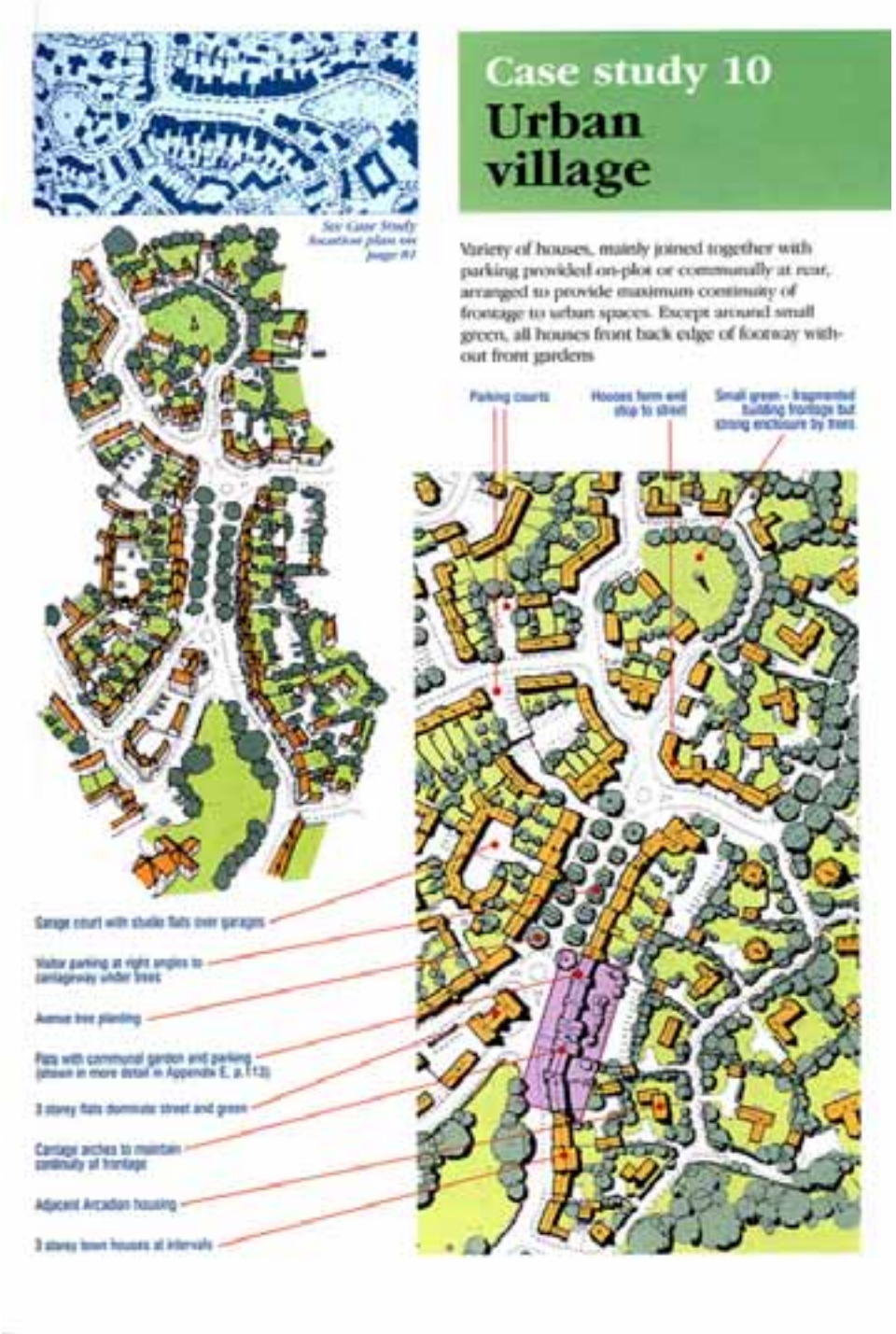


Fig. 19