



External Materials Guide for New Development

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Introduction

Of the many natural and man made features of the environment which go to make up the identity of a particular area, the traditional building materials are one of the most important.

Up until the industrial revolution most buildings were constructed in materials derived from natural sources and made locally by hand.

For centuries the most plentiful raw material for building construction in Essex was timber from the many forests and woodlands which covered large areas of the county. The majority of the pre 19th century buildings in Essex therefore are of timber framed construction with wattle and daub infill panels. Oak was most commonly used, with elm being employed to a lesser extent

Although early buildings had their timber frames exposed, revealing the high quality of construction and materials, most timber framed buildings in North Essex are plastered externally and it is these plastered buildings which arguably make the greatest contribution to the character of the towns and villages in the Borough.



The other most readily available naturally occurring raw material in Essex was clay. The Romans brought brick making to Britain and although this largely died out on their departure the Saxons and Normans reused Roman bricks for their own buildings.



There are several examples of this still to be seen in Colchester such as Holy Trinity Church and St Botolphs Priory. Close trading links with the Low Countries during the middle ages saw the spread

of brick building and brick architecture to Britain particularly to the eastern counties.



Brick making developed, as an indigenous craft and brick buildings of renaissance designs, often with elaborate and ornate detailing became highly fashionable and an expression of wealth and status in the 16th and 17th centuries. Layer Marney Towers represents the best Tudor example in Colchester of brick architecture.

In the 19th century the railway system made it practical to transport building materials in large quantities from other parts of the country. As local timber supplies in Essex began to run out and it became cheap to bring slates from quarries in Wales, the timber frame and clay tiled roof tradition began to give way to brick masonry construction and slates.

By the end of the century most towns in Essex had their own local brickworks. Today only a few remain producing handmade soft red bricks and tiles.



In the latter half of the 20th century, town-planning legislation has done much to prevent settlements sprawling out haphazardly into the countryside.

But apart from historic towns and villages designated as Conservation Areas, planning has been relatively ineffective in protecting local character and identity.

Outside the cores of historic settlements developers have been allowed to choose from a wide range of 'anywhere' type materials in a seemingly endless variety of hues and colours.

Unfortunately this has served to water down and in some cases completely submerge local character and identity.

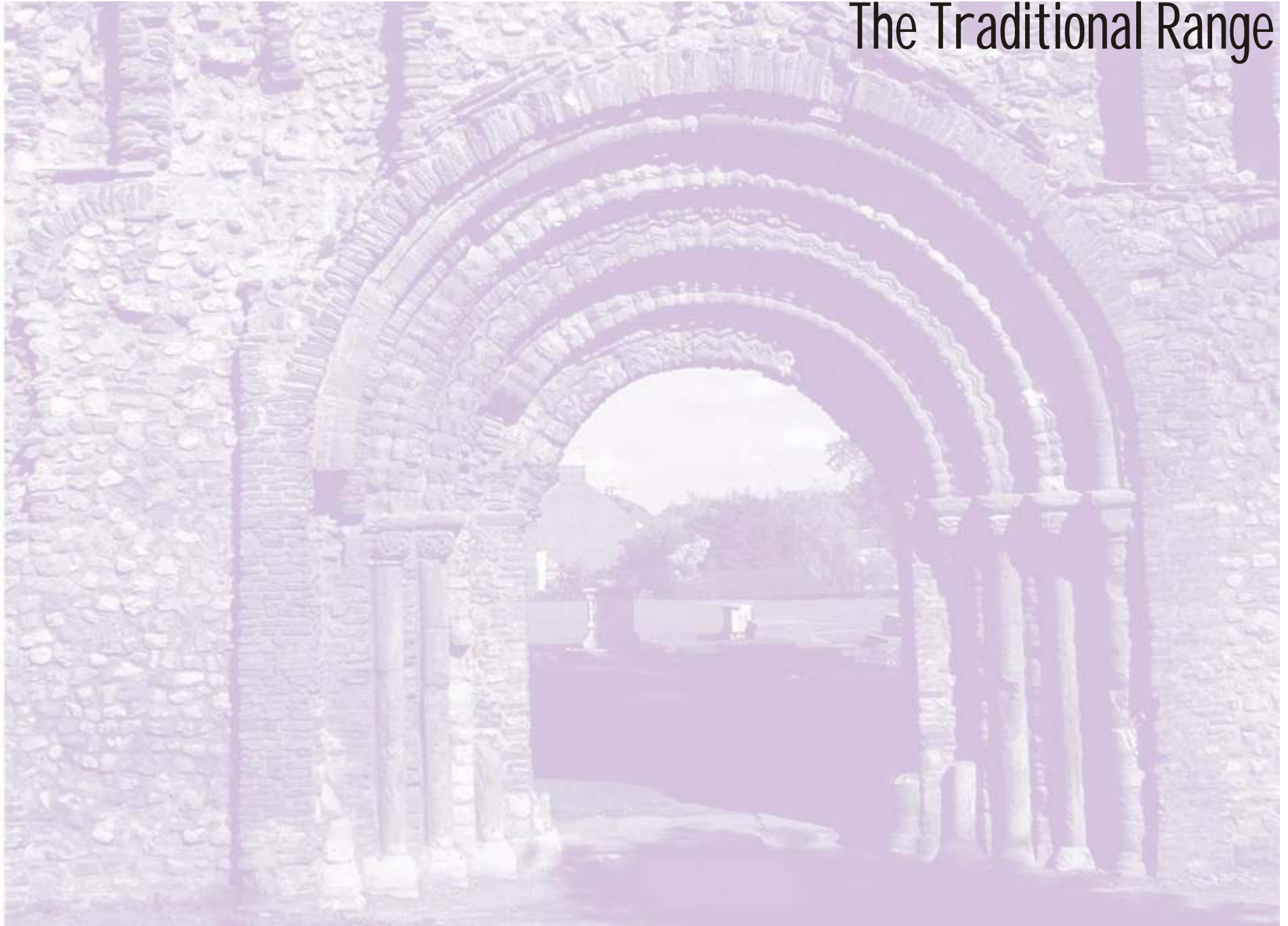
There is little advice on this subject available to builders, who understandably tend to use whatever materials are most readily available at the right price, whilst national companies often prefer their own corporate designs and an accompanying standardised range of materials wherever they build, irrespective of the particular locality. Some enlightened local firms however have realised the marketing opportunities to be gained from using materials from the traditional local palette and national house builders are now beginning to follow this lead.



The Colchester Borough Local Plan recognises a need to protect the unique character of the Borough. One way of helping to achieve this is by encouraging the use of building materials from the traditional local range or similar modern alternatives. The purpose of this guide therefore is twofold. Firstly to describe, in basic terms, the traditional range of building materials found in North East Essex and secondly to provide guidance on the types of materials suitable for maintaining, reinforcing or re-establishing local character and identity in Colchester.



The Traditional Range



Walling:

1. Rendering



This was used as a protective coat on buildings of timber framed construction. It was usually either limed white or colour washed.



Sometimes timber-framed buildings rested on a plinth constructed in brickwork, which could be tarred, plastered, or weatherboarded.



During the 16th century it became fashionable in the eastern counties to decorate timber framed buildings with patterns scratched or impressed into the external plasterwork. This is known as “pargetting”. In its most basic form it consists of a series of framed panels containing simple patterns. However as an art form it was developed to a high level of sophistication with skilled craftsmen producing a rich variety of fashionable architectural symbols and motifs.



2. Weatherboarding

Feather edged elm weather boarding was also widely used as a cladding for timber framed buildings. It was normally painted on domestic buildings and tarred black or painted on commercial and agricultural buildings. These buildings also often rested on a brick plinth.



3. Stucco

From the late 17th century onwards a smooth plaster known as stucco was used to resemble stone. Sometimes this was rusticated by horizontal lines formed in the plaster.



In the 18th century it became fashionable to remodel the front of medieval buildings in a classical style by constructing a façade with a parapet gutter and stucco finish. There are several examples to be seen in Dedham



4. Brickwork

Most pre 20th century brick buildings were constructed in soft, orangey red stocks.



These were laid in a variety of bonds giving a rich textured appearance. Until the latter part of the 19th century they were normally pointed in lime mortar.



Soft red “rubbers” and lime putty were used for arches. Over burnt bricks were sometimes employed to create patterns in the brickwork.



Blue and dark red engineering bricks imported from the Midlands were used in situations where strength or robustness was required such as for arches, at corners and for retaining walls.

In the 19th century, Suffolk White bricks became popular. Their colour and smooth textured finish combined with a creamy white mortar that disguises the jointing made them a good alternative to stone and well suited to simple symmetrical designs.



Often their use was confined to the facade with the side and rear walls being constructed in cheaper red stocks. Buildings constructed with these bricks are a familiar part of the North Essex rural and urban scene.



Colchester has a particularly rich heritage of brick architecture ranging from the 18th century through to the Victorian and Edwardian era.



This includes not only the whole of New Town, a large planned suburb and Colchester Garrison, both built in the latter part of the 19th and early 20th century, but also a fine range of elegant Georgian and Victorian houses and villas and many of the town's taller buildings that give Colchester its distinctive “crunchy skyline”.



The highest of these, the six tower blocks at Essex University, are unusual in that although not at all traditional in appearance, they are nevertheless constructed in load bearing brickwork.



Yellow London stock bricks can be found in the Borough, but they are not typical. These were made in brickworks in and around London from surface clay mixed with lime ash and domestic waste.





In Colchester they were delivered as ballast on the sailing barges plying backwards and forwards to the capital and examples of their use can be seen on the riverside warehouses at Wivenhoe, East Colchester and the Hythe.

5. Stonework

There is no naturally occurring stone in Essex. Where stone has been used it is imported. Examples in Colchester are mainly public buildings such as churches.

Stone was also used for dressings and detailing such as the Town Hall. The nearest stone quarries are in Kent which produce ragstone. The tower of the former church in Lion Walk is clad in ragstone.



The Roman Town Wall is built in Septaria nodules, a chalky conglomerate found on the margins of estuaries in neighbouring Suffolk.



Flint is used with rubble and brickwork largely for boundary walls, but is not commonly found in the Borough as it lies outside the main chalk band which runs south west /north east across the country just to the north. St Johns Abbey Gatehouse displays a fine example of the East Anglian technique of “flushwork” involving a mixture of flints and limestone.



6. Clay Lump

Buildings built in clay lump are extremely rare in Essex and being plastered externally, have the same appearance as timber framed buildings.

Roofing:

1. Clay plain tiles

The roofs of medieval timber framed buildings in Essex tended to be steep, in excess of 47.5 degrees and were clad in handmade clay peg tiles.



These tiles are orangey brown in colour and are fixed to the roof in such a way that they overlap two other tiles. Their camber, irregular shape and attractive weathering characteristics make them a memorable part of the street scene in most historic towns and villages in the county.



Machine made clay plain tiles, produced mainly in the Midlands were commonly used in the Borough during the latter part of the 19th and early 20th centuries. They are similar in appearance to the hand made product but have much less character being regular in profile, smoother, less textured and of a more uniform colour



2. Thatch

This is also found on some timber framed cottages mainly in the north of the Borough. Today reed is commonly used in re-thatching because it is longer lasting, but in Essex wheat straw was the traditional material, being more

readily available locally as a by product of arable farming.

Thatch is rarely used today on new buildings. A recent example however is at New Hall Harlow where thatch has been used as a roof material on buildings of very contemporary design.



3. Clay Pantiles

Whilst commonly found on many buildings in Norfolk and Suffolk, pantiles are not typical on domestic two storey buildings in Colchester. Such materials were first imported into the country from Holland in the 18th Century.

They were also often used as ballast in sailing barges. They could be used on roof pitches down to 30-35 degrees. The size of a pantile was set in the 18th Century at 13.5inches x 9.5inches x .5inch.

They interlock by means of a single sideways lap. In north Essex these tiles are used mainly on single storey domestic outbuildings, farm and commercial buildings.



4. Welsh Slate

This was widely used throughout the county in the latter part of the 19th Century, normally in association with brickwork. Slates were used on pitches down to 30 degrees and are found on domestic commercial and agricultural buildings.

Slates were also used as a cheaper and more durable replacement for thatch. Ridges and hips were clad in lead or clay tiles (the latter sometimes in contrasting terracotta)



5. Lead and Copper

This was traditionally used to cover areas of flat and shallow pitched roofs as well as for cupolas, dormers, valleys, ridges and hips.



Appropriate Use of Materials



Several manufacturers produce materials that are similar in appearance to those traditionally used in North Essex, generally made from natural materials. In order to preserve and reinforce Colchester's local identity the Council will usually require these materials to be used on new development in the Borough. The only exceptions are likely to be: -

Extensions to existing buildings which are already constructed in non-traditional materials.

Small infill and backland schemes in suburban streets, which lack a strong local identity and where most existing buildings are not constructed in materials from the traditional north Essex range.



Buildings or groups of buildings of striking innovative contemporary architecture whose design and construction does not suit the use of traditional materials. These will include buildings that stand alone in a landscaped setting, are specifically intended to make a strong architectural statement or play a particular townscape role for example as a focal point in the street scene or as a local landmark. Such buildings will usually only be acceptable if they can be shown by reason of their appearance to positively enhance the quality of the public realm. Usually large scale detailed drawings will be required together with a design statement that supports and justifies the particular contemporary approach



In Conservation Areas materials should be chosen from the local traditional range of handmade natural products. Only in exceptional circumstances will non-traditional materials be allowed



The selection and use of traditional materials should be unambiguous. They should not be mixed and matched at will, but used logically in the manner for which they were originally intended. For instance brickwork should appear to be load bearing and not simply applied as a veneer.

Windows and door openings in brickwork should be inset (preferably by at least a half brick depth) to give an impression of structural solidity.



Arches or lintels should be used to provide apparent support to the walling above. "Hanging brick" soldier courses, which have no structural strength, should be avoided.



Brickwork can however be used legitimately to express or emphasise the form or proportions of a building as string courses, plinths, pilasters and quoins, to create a distinctive surface texture (bonding and jointing) or to create a decorative effect (polychromatic brickwork and diaper work)



Where appropriate the use of English and Flemish bonds will be encouraged. This will particularly apply to important facades, in conservation areas and on extensions to listed buildings.



These give facing brickwork a more visually interesting and richer texture than the more common place stretcher bond, now used almost universally



Render in Essex was traditionally used as a relatively thin surface coating to timber framed buildings or as stucco to provide the illusion of stonework.

Where the intention is to capture the character of timber framed construction window and door openings should be close to the face of the wall.



The use of arches and lintels over the openings should be avoided, as this will suggest the building to be of masonry construction and therefore appear visually ambiguous

By contrast stucco (either smooth, or rusticated by false joint marking) is used to convey the impression of stonework. When render is used in this context, deeper reveals and heavier cills and window heads will be appropriate.



Pargetting is a traditional surface finish and was once an important art form particularly characteristic of East Anglia.



Although it has proved difficult to execute satisfactorily with modern cement based renders, which tend to give a harsh mechanical appearance, it does offer the potential of providing new buildings with an unmistakable Essex character.



An excellent advisory leaflet on this subject is available from Essex County Council.

Clay plain tiles should not be used on low roof pitches (under 47.5 degrees).

Summary



Building materials should be selected from the following traditional local range:

Hand made clay plain tiles



Although machine made clay plain tiles lack the character of their handmade counterparts and will rarely be acceptable in Conservation Areas some are sufficiently similar in appearance to be generally satisfactory for use elsewhere in the Borough. Care should however be taken to ensure that they do match as closely as possible the orangey brown colour, sandy surface texture and curved profile of the handmade tiles that were traditionally used in this region.

When using machine made clay plain tiles a good match for weathered tiles can sometimes be achieved by mixing a range of colours together.



Welsh slates or other natural slates of similar appearance

Artificial slates may be acceptable (outside Conservation Areas) so long as they are of a similar colour (blue/black) and dimensions. Interlocking concrete products that claim to be slates, in reality bear little resemblance to the genuine article and will therefore not usually be acceptable



Clay pantiles

These are not commonly found on two storey buildings in Essex and therefore should usually be confined to single storey extensions and outbuildings.



Lead and Copper

These may be used on low roof pitches. Other proprietary materials of similar appearance to lead and copper may be appropriate.



Horizontal feather-edged weather boardin.

This should usually be painted on domestic buildings and tarred black (ideally with coal tar varnish) on agricultural and commercial buildings. Artificial fibrous weatherboarding may be acceptable outside Conservation Areas. Stained boarding is not traditional and should not be used on buildings of vernacular design.



Shiplap boarding, much used during the 1960s and 1970s on suburban housing estates all over the country, but with no local traditional precedent in Essex should also be avoided

Creamy coloured Suffolk White bricks

These should be preferably handmade, used in a Flemish bond with a cream coloured mortar.



Soft orangey red or multi red stock

Ideally handmade and used in Flemish bond with a cream coloured mortar. Hard, smooth surfaced, wirecut, dark red, brown and pale red bricks should not be used in Colchester as they are not generally traditional to the area.



Painted brickwork

This can be an attractive alternative to smooth render where a coloured façade is required for a building with a low pitched slate clad roof

Yellow London stock bricks

Sometimes appropriate on riverside sites such as the Hythe.



Smooth render - painted

A range of colours may be used although these should predominantly be from the earth range. Strong colours can be used exceptionally perhaps to emphasise the townscape role of a particular building that may turn a corner, terminate a view, represent a focal point in the street scene or project forward of its neighbours.



Pargetting offers the opportunity to use an historic local art form and add a special richness to otherwise plain rendered elevations. However great care is needed in its execution to secure a satisfactory result. It is recommended that panelling and patterning are both kept generally simple.





Note 1

Whilst concrete products may be cheaper and can be made to resemble natural clay materials when new they have different weathering properties and do not age so attractively. Their artificial colouring dulls and fades, giving way to the tawdry grey / brown colour of the composite material. For this reason they will not usually be allowed.

Note 2

Ground surfacing materials should be chosen to complement the buildings and enhance the appearance of the public realm. Separate guidance will be provided to cover this aspect of new development.

Note 3

A wider range of materials may be considered appropriate for agricultural and industrial buildings. Corrugated iron, either black or red oxide coloured was widely used in the past as a roofing material on large-scale commercial and agricultural buildings, creating a not unpleasant appearance.



A variety of metal and composite sheeting products are available that create a similar corrugated effect. These can be used with particular effect in combination with horizontal boarding or sheeting on the walls of the building.



In the countryside dark or neutral colours should be used and green avoided unless in a very dark shade. It is impossible to match the many constantly changing hues and colours of natural vegetation. In the Essex countryside black weatherboarded barns are the most characteristic of building types. They sit well in the landscape. New buildings should therefore continue the tradition of dark coloured wall and roof cladding.



Case Studies



St Peters Street, Colchester

High density development by Hopkins Homes in Colchester Town Centre. Warehouse style riverside apartments in soft multi red brickwork with slate roofs. Good use of coloured render and weatherboarding on houses. The overall mix of traditional vernacular materials compliments the nearby historic Dutch Quarter. Stand out feature: redbrick and stucco coachhouses and corner turning units.



School Road, Messing.

Residential development grouped around a new village green. Range of traditional materials, predominantly render and clay plain tiles in a rural setting. Stand out features detached houses joined together to create continuous frontage enclosing the village green.



Wivenhoe Quay, Wivenhoe

Medium/high density riverside development by Persimmon Homes and Bovis Homes.

Good use of painted weatherboarding to projecting gables on three storey buildings, coloured render and stucco, used effectively at focal points in the street scene, on the edge of the development next to the river and overlooking adjacent marshland.

Stand out feature: a variety of public spaces, good quality ground surfacing materials and carefully located street furniture enhances the overall appearance of the environment.



Colne View, Hythe Quay, Colchester.

Medium/high density mixed use development of shops, school, houses and apartments by Barratt Eastern Counties on a former gasworks site next to the river at The Hythe.

Streets of predominantly redbrick and slate terraced housing echo the nearby Victorian suburb of New Town, with taller warehouse style units on Hythe Quay providing an appropriate scale and enclosure to the main road. Limited use of render and plain tiles on corner turning buildings provides variety.

Stand out feature: orangey red brickwork and good block paving to the main square and buff coloured anti slip surface used in lieu of blacktop to adjoining streets



University Quays, Lightship Way, Colchester.

Essex University student accommodation at the Hythe. Good blend of traditional and contemporary materials used to create a distinctive new character on a former industrial site at the Hythe. Stand out features: well designed paving, warm red brickwork, robust new railway bridge and public art enhance legibility and the street environment



South Central, Magdalen Street, Colchester.

High density town centre mixed use development by Higgins Homes comprising apartments, houses and a business enterprise centre. Post modern/classical style architecture of mainly white stucco, creamy white brickwork and slate roofs creates a striking and widely visible local landmark. Stand out features: good use of fibrous weatherboarding and black corrugated metal on the business centre. Creamy white brickwork.



School Lane Copford

Low density development on edge of village, integrates well into its rural setting. Subtle variation in character and style to achieve a sensitive village extension



High Street Rowhedge

New riverside village housing uses vernacular materials to successfully integrate the buildings into the landscape of the Colne valley.



The External Materials Guide for New Development

Public Consultations

This document was circulated for technical consultation to: -

Essex County Council
East of England Regional Assembly
GO-East
Essex Learning and Skills Council
Essex Association of Local Councils
CABE
The Civic Trust
English Partnerships
House Builders Federation
Major Developers (via a local forum)
Local Agents
Local Architects
Colchester Civic Society
CPRE
Parish and Town Councils
Council Officers and Members

This document is also available in an electronic format as a PDF
and can be viewed on line at www.colchester.gov.uk

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