

Typical details for historic buildings  
and conservation areas

# Historical Buildings Guidance

June 2017



## Foreword

Essex has a rich heritage of historic buildings which make a significant contribution to its landscape and to its towns and villages, enhancing the environment in which people live and work. The county also has a fine tradition of caring for its old buildings. Essex County Council has been providing a specialist advice on conservation areas and listed buildings for 40 years, whilst the *Essex Design Guide*, now in its third edition, has provided a framework for ensuring that new development complements the old. This new guidance on architectural details continues this work, and is intended to ensure that new build in historic areas is sympathetically designed and of the highest standard. I commend it to architects, surveyors and property owners alike.

**Jeremy Lucas**

Cabinet Member for Heritage, Culture and the Arts

Produced by the **Built Environment Branch** of **Essex County Council** as part of the **Essex Design Initiative**.

This document was prepared by Corrie Newell with assistance from the Essex County Council Historic Buildings team and the Essex Conservation Officers Forum.

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## Typical Details For Historic Buildings and Conservation Areas

The design of vernacular buildings is often based on elements of deceptive simplicity, harmoniously proportioned and complemented by sympathetic materials and subtle details. Good design on its own is inadequate without appropriate materials and good detailing. These create textural effects and plays of light and shadow, and avoid awkward junctions where component parts meet. They often incorporate generations of experience and knowledge about the behaviour and handling of different materials, and how to protect vulnerable areas from wear and tear. Changes in construction techniques in the 20th century have led to a loss of understanding of traditional materials and architectural forms, with results that all too often can be ugly and disfiguring.

This document illustrates details suitable for use on historic buildings, and also for traditionally built houses and new build that conforms to the principles of the *Essex Design Guide*, to which it is a supplementary Practice Note. Its contents were discussed at Essex County Council's Architectural Details Conference at Cressing Temple in September 2007, and a draft was circulated for technical consultation to the Essex Conservation Officers Forum in 2008. In using this guidance, and when considering works to a listed building or in a conservation area, consult your Local Planning Authority and Conservation Officer at an early stage.

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## Floors

Traditional floors can impart great character to interiors. Careful specification and detailing is essential to maintain them successfully and avoid damp problems. Originally floors were constructed straight off the ground without damp-proof courses or membranes. Instead, damp was removed by evaporation through porous and breathable materials.

Where there are problems with damp, these are caused by a change of conditions which then seal the moisture in and drive the damp up the walls. Common reasons for this include lack of ventilation, an increase in external ground levels, introduction of concrete floors and installation of damp-proof courses and membranes.

Where the external ground level is too high and cannot easily be lowered so it is below internal floor level, a perimeter drainage system like a French drain may be constructed to discharge ground water away from the building without undermining the foundations.

More permeable floors can be constructed using limecrete (where lime is substituted for concrete), with a base of loose fill aggregate without fines to avoid capillary action.

Alternatively, concrete can be isolated from the walls and from any vulnerable surfaces by a breather gap such as permeable slabs or limecrete with a grille.

This breather gap can be constructed from new, or retro-fitted. A lightweight insulating aggregate can be incorporated in the limecrete such as chopped hemp or lightweight granules such as leca.

Traditional floors found locally in Essex include timber boards on timber battens or joists, fired clay pammets, brick pavers and tiles. The earliest floor boards were oak and then elm, used originally in wide boards and often rebated. In the 18th century imported softwood was introduced and boards became narrower. Old boards should be preserved and carefully repaired. Floor materials imported from other parts of England include limestone and York stone used in 18th and 19th century houses and (more rarely) slate floors in 19th or 20th century houses. 20th century finishes include wood block, tiles, terrazzo and mosaic. Where these are used on a traditional breathable floor on a damp base, plastic or polyurethane based sealers and plastic or rubber backed carpets should be avoided as they trap moisture.



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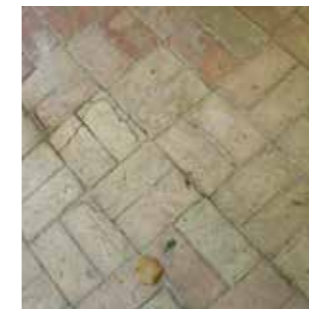
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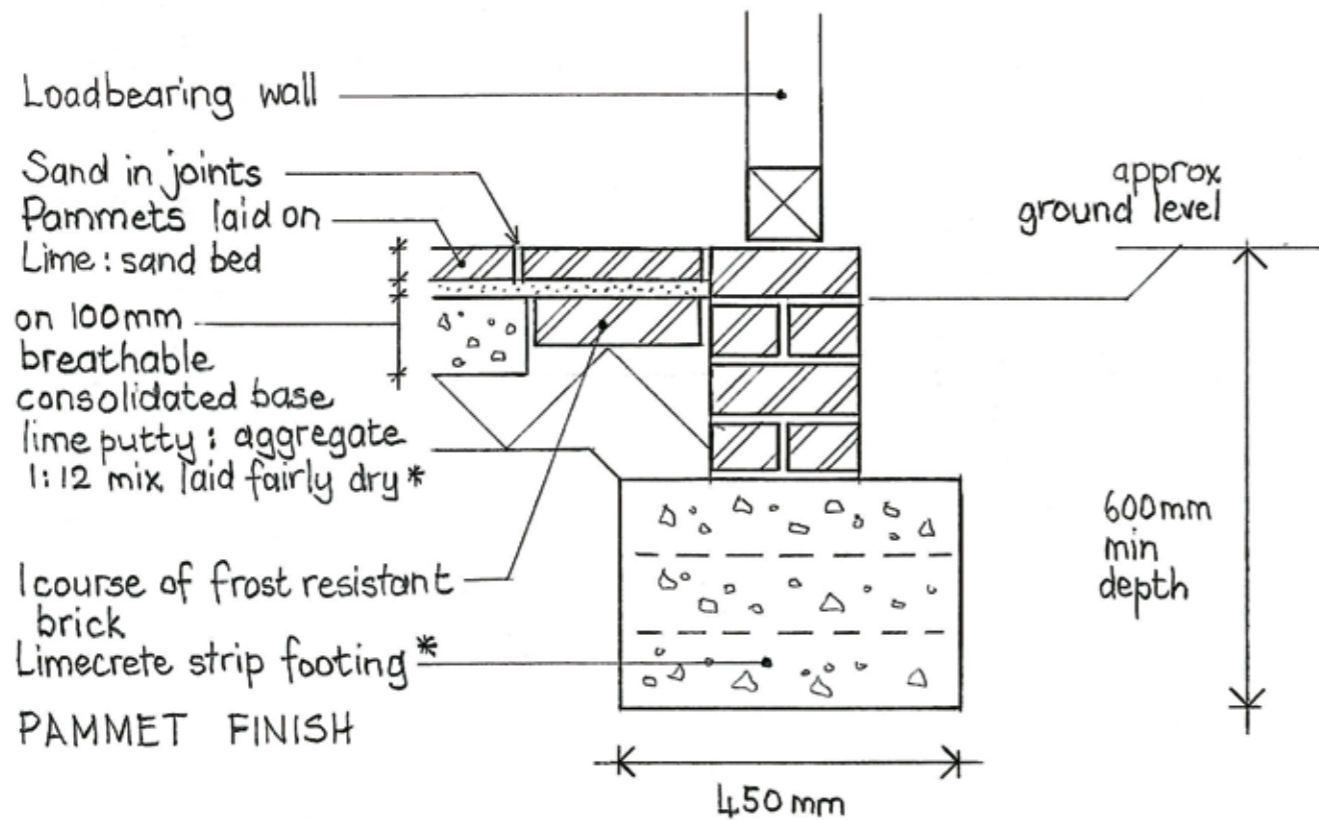
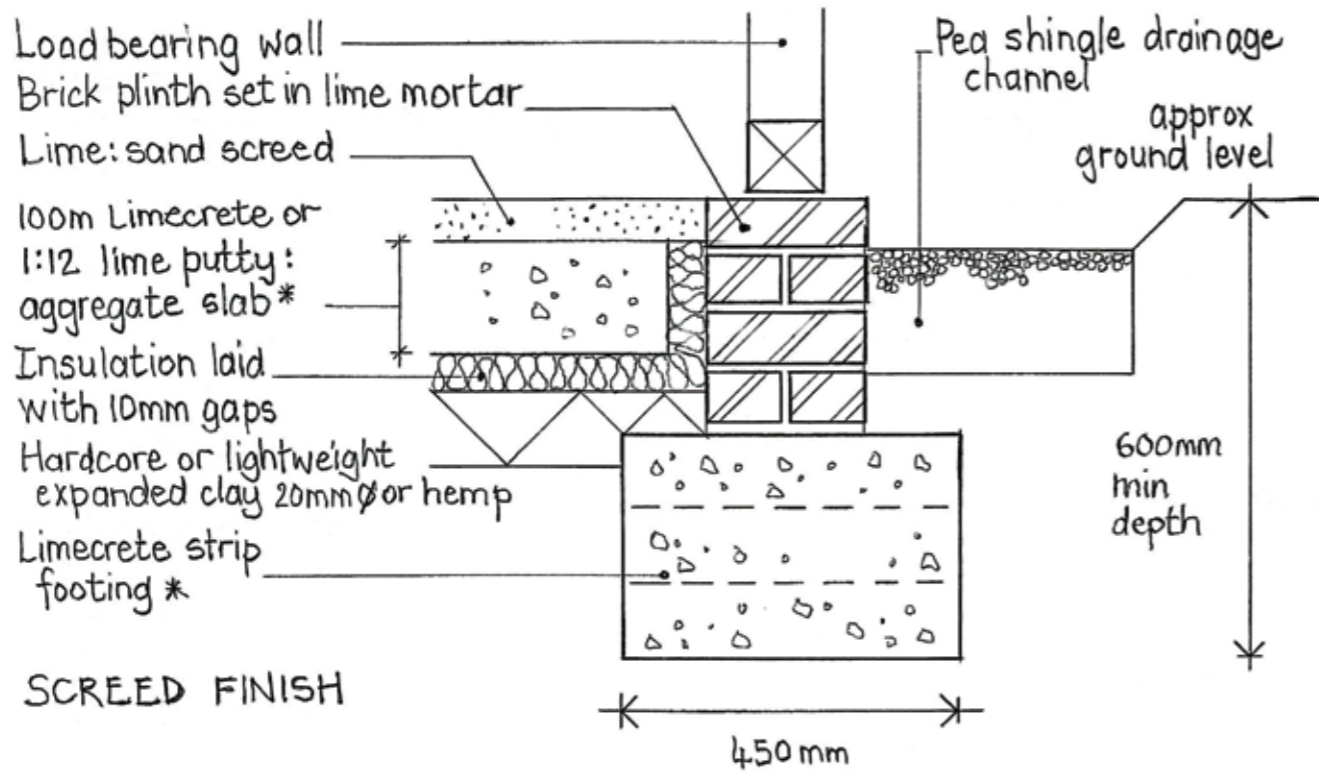
16

### References

- SPAB Technical Pamphlet - Care and Repair of Old Floors
- The Georgian Group Guides - No. 11 Floors
- The Victorian Society Guides - Number Two: Decorative Tiles
- Fawcett, J. 1998 *Historic floors: their history and conservation*, Oxford: Butterworth-Heinemann.
- [www.limecrete.com](http://www.limecrete.com)

- 1 Red and gault clay floor tiles
- 2 Gault clay pammets
- 3 Oak boards
- 4 Brick pavers laid on edge in herringbone pattern
- 5 Clay pammets.
- 6 Wide oak floorboards
- 7 Medieval encaustic clay tiles
- 8 Brick pavers
- 9 Mosaic
- 10 Gault brick pavers laid in herringbone pattern
- 11 19th century machine made clay tiles
- 12 19th century machine made clay tiles
- 13 Early 20th century mosaic from Frinton
- 14 Clay tile border
- 15 Elm board floor
- 16 Victorian clay tiles

## NEW BREATHABLE FLOOR AND FOUNDATION



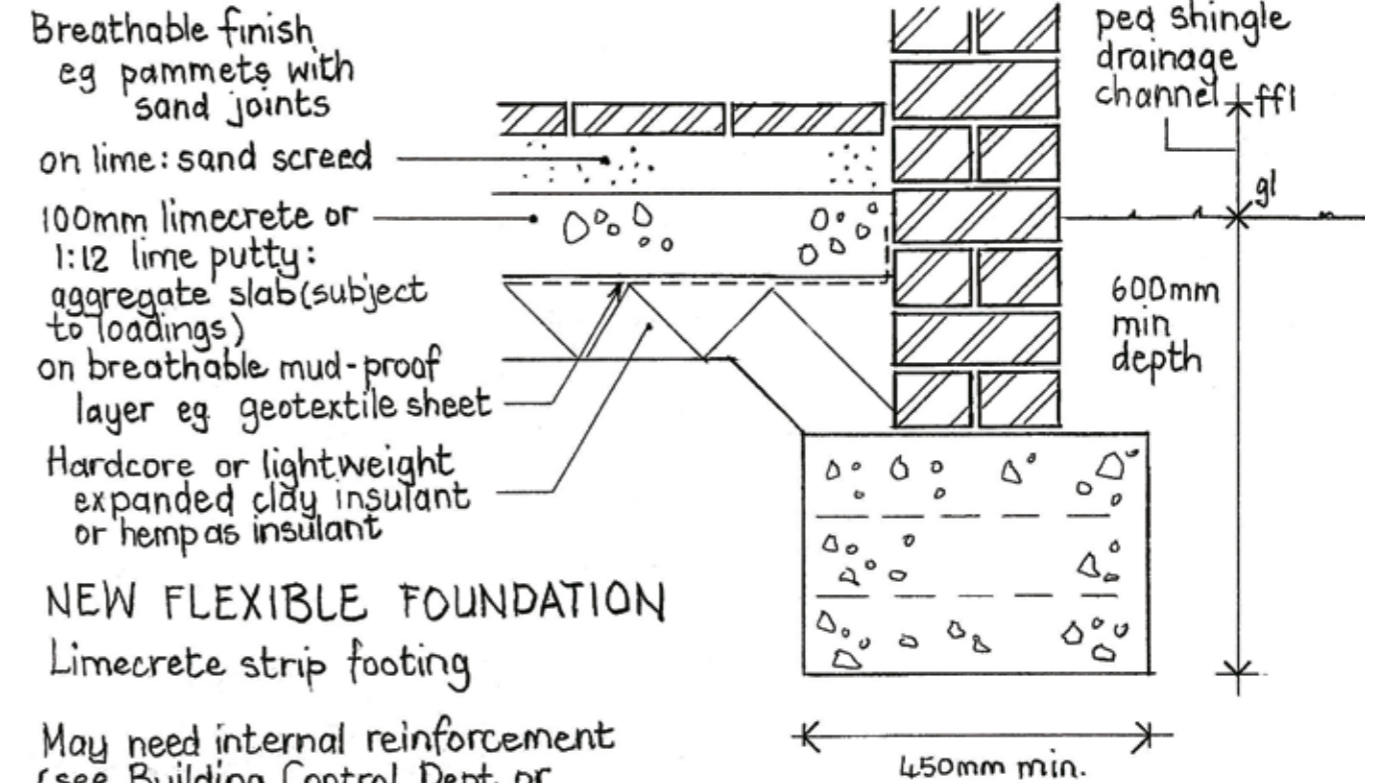
\* subject to loadings so refer to Building Control or limecrete supplier eg Ty Mawr for mix and advice on reinforcement

## FLOORS & FOUNDATIONS

Scale 1:10

### PERIMETER DETAILS

#### NEW BREATHABLE FLOOR

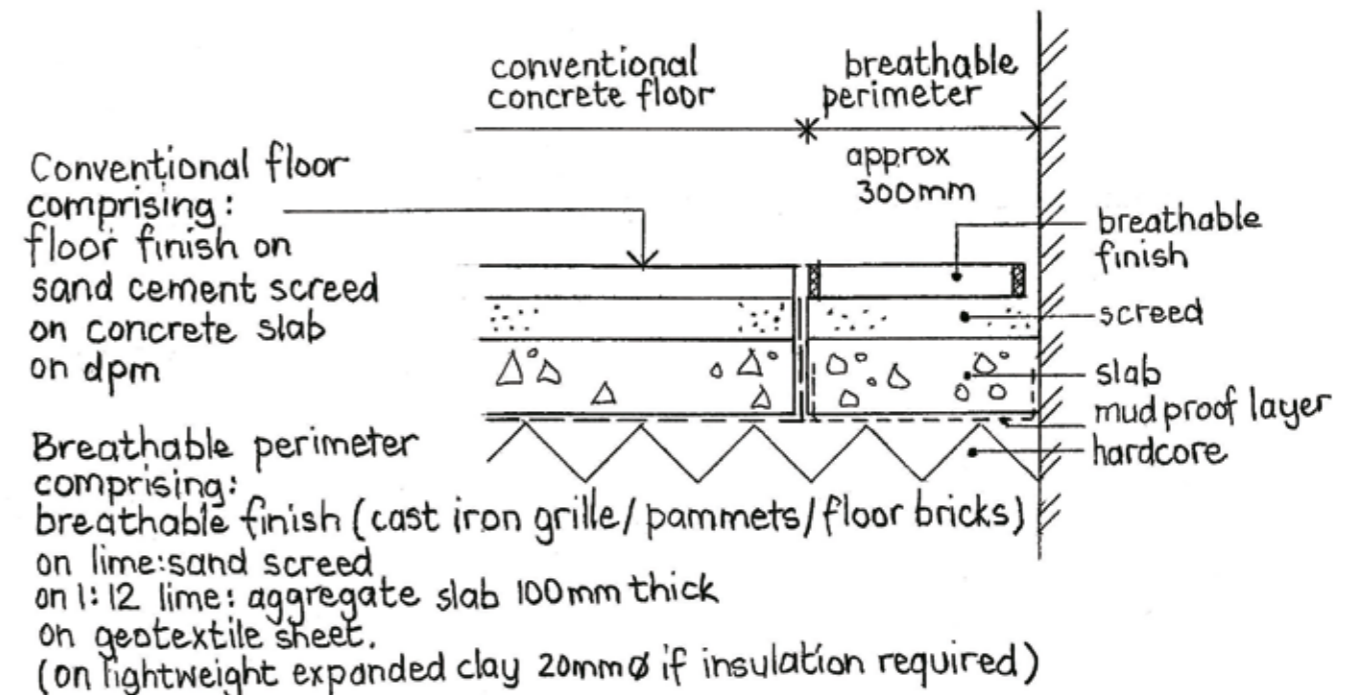


#### NEW FLEXIBLE FOUNDATION

Limecrete strip footing

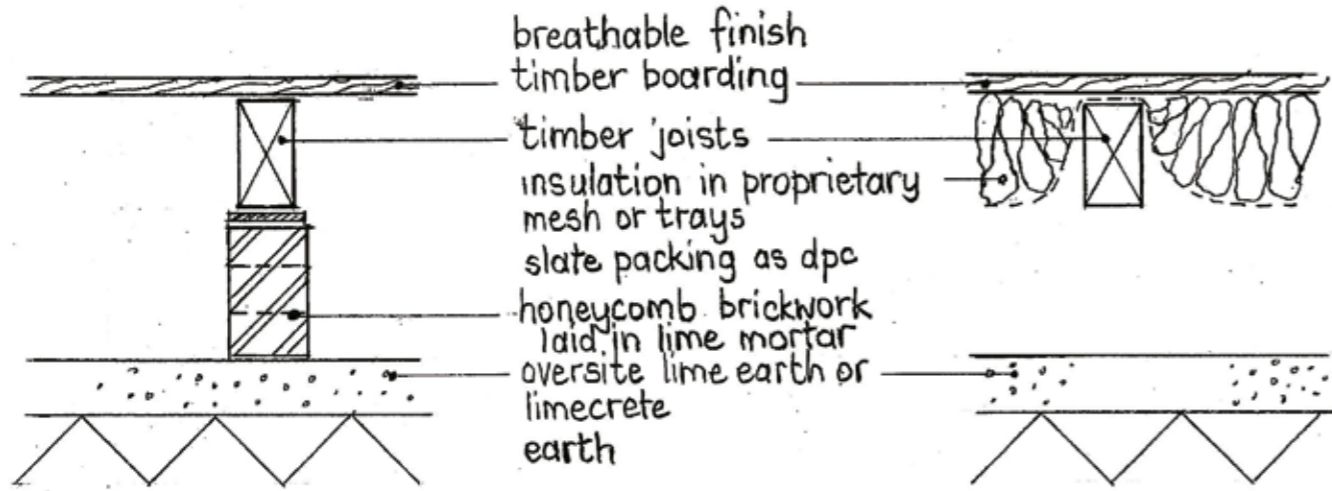
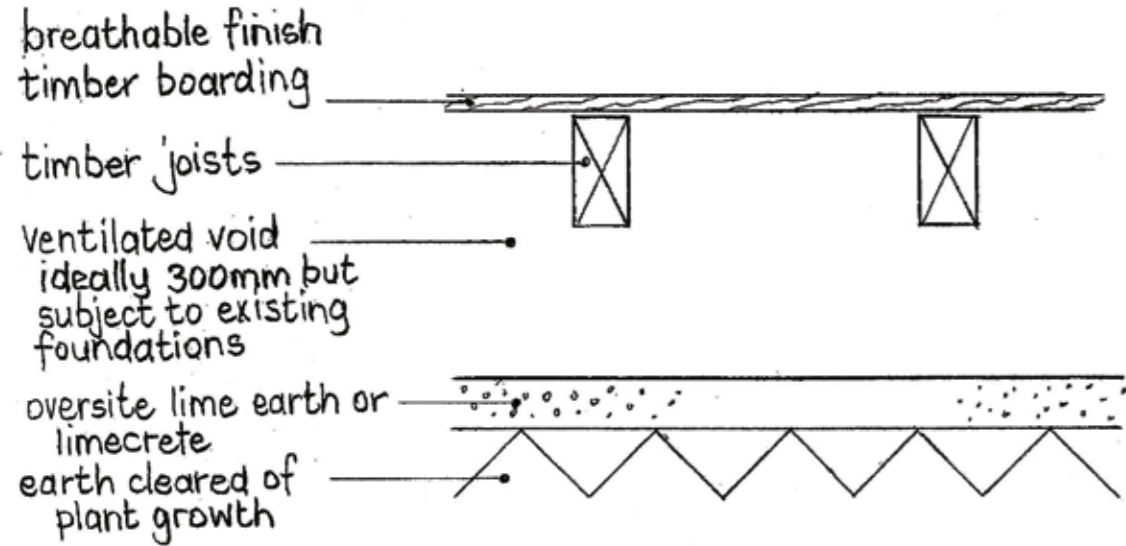
May need internal reinforcement (see Building Control Dept or supplier (eg. Ty Mawr))

### BREATHABLE PERIMETER



# SUSPENDED TIMBER FLOORS

Scale 1:10



SLEEPER WALL

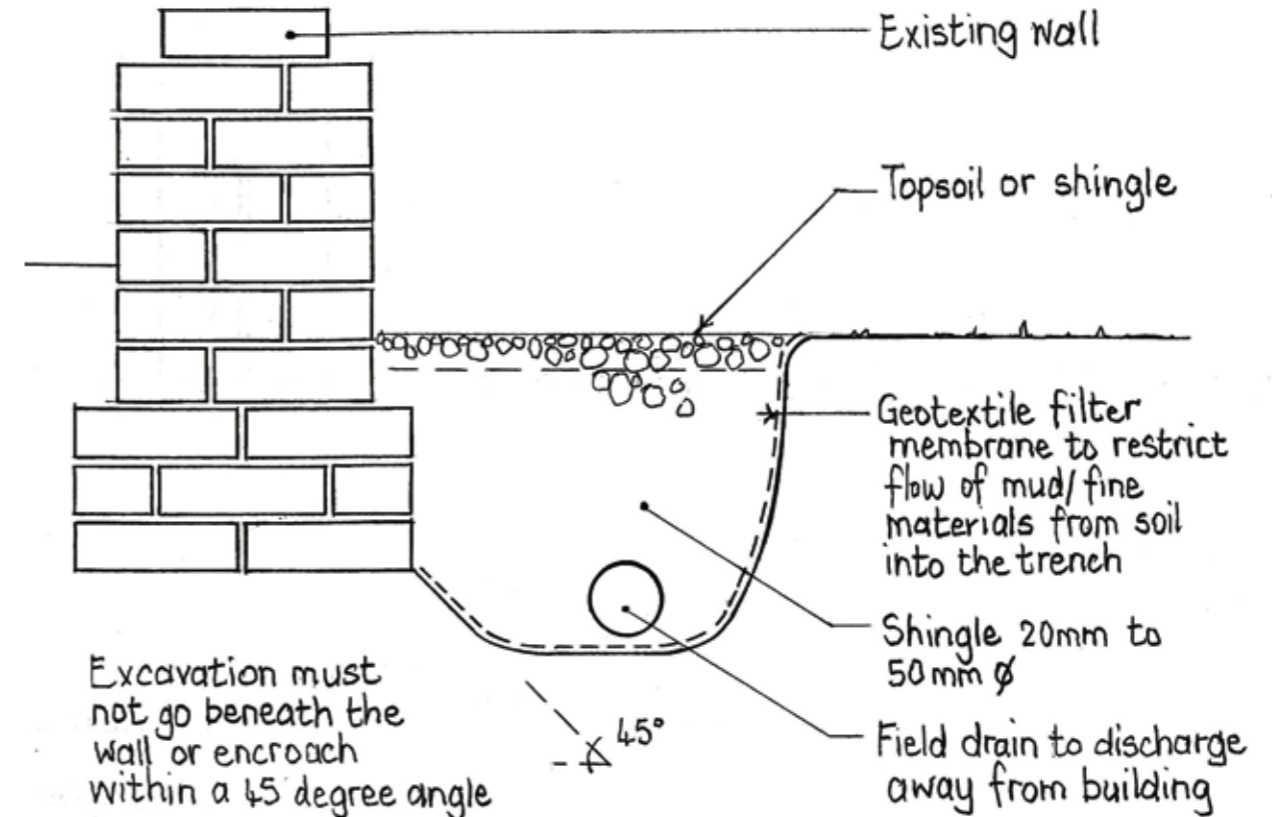
INSULATED  
FLOOR

Ventilated void - BRE recommends at least 300mm deep with airbricks providing 40mm square per 300mm length of wall.

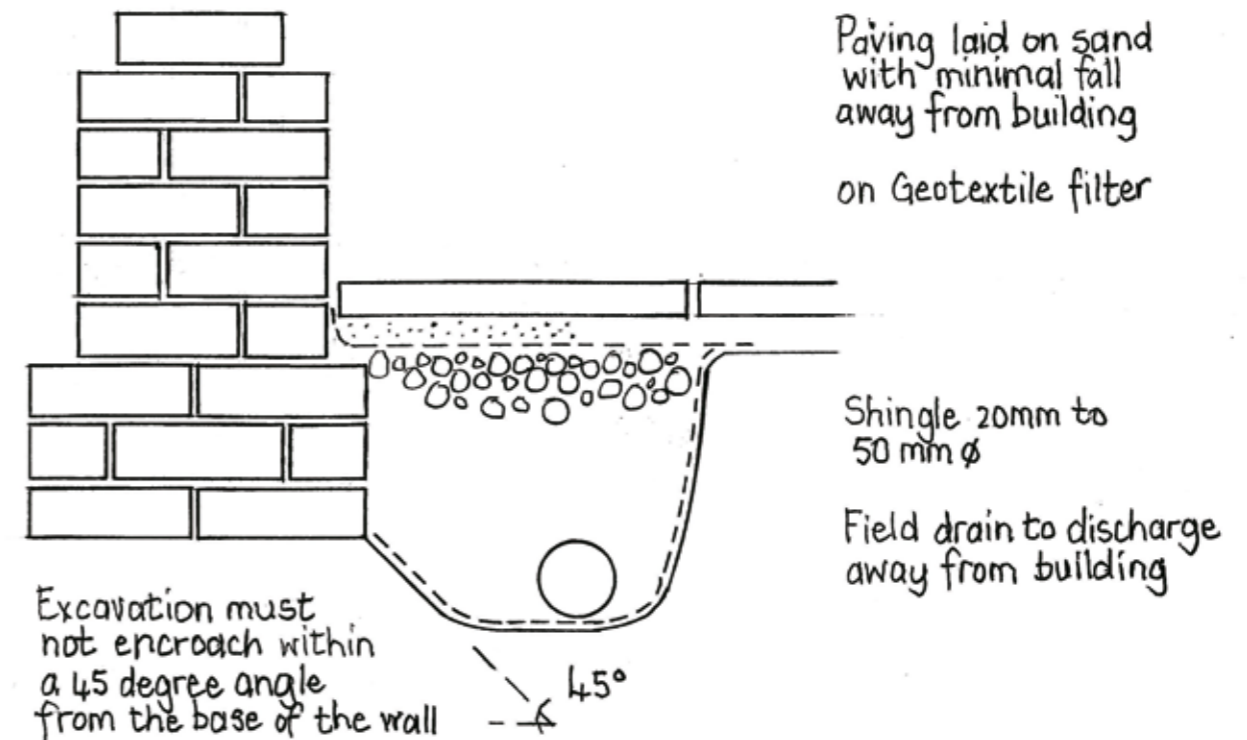
For existing buildings where the earth supports no growth, the oversite may be omitted.

# PERIMETER DRAINS

Scale 1:10



FRENCH DRAIN



PAVING DRAIN

## Walls and cladding

Walls were originally constructed using locally available materials which include timber framing and weatherboarding, wattle and daub, brick, and lime renders. Old walls and finishes should be retained and repaired wherever possible.

Brickwork should be in soft red, yellow stock or white gault bricks to match the locality, using a traditional bond such as Flemish bond, English bond or (for boundaries) garden wall bond. Stretcher bond is too monotonous and dates from the introduction of cavity walling in the 20th century and so is only appropriate for buildings of that period.

Weatherboards should be substantial, at least 175-200mm deep by 25mm thick (6"-7"x1") oak, elm or, more commonly, softwood, to give an exposed face of at least 150mm. The boards are usually feather-edged and may have simple mouldings on the bottom edge such as chamfers or beads. Shiplap

boards date from the 19th and 20th century and are most typical of railway or commercial buildings. Waney-edged boards are found on some late 19th century Arts and Crafts houses. Oak and elm boards were originally left unpainted, but softwood would be painted. Colours were usually white or off-white on the main house and black tar or naturally weathered oak or elm for outbuildings.

It is recommended that external plaster should be of lime on wooden laths. Pointing should be in lime mortar which is softer than the material it is bonding together so that moisture can escape through the joints. Cement should not be used on historic structures. It is damaging to all building types as it is impervious and inflexible, trapping moisture and causing damp and rot, and unable to accommodate movement and stresses within the fabric.



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### References

Conservation in Practice – Weatherboarding

Conservation in Practice – Wattle and Daub

Conservation in Practice – Plastering and Limewash

Conservation in Practice – Repointing

All by Essex County Council Historic Buildings and Design Section

Information Sheet 9 - An Introduction to Building Limes by Michael Wingate

Society for the Protection of Ancient Buildings

The Georgian Group Guides

No. 2 Brickwork

No. 5 Render, Stucco and Plaster

The Victorian Society Guides

Number Seven: Brickwork

Schofield, J. 1995 *Lime in Building - A practical guide*, Black Dog Press.

Holmes, S. and Wingate M. 1997 *Building with Lime - a practical introduction*, Intermediate Technology Publications.

1 Tudor type soft red bricks in lime mortar

2 Handmade soft red (17th century) bricks with flush lime mortar

3 Stock bricks with tuck pointing

4 Limewash

5 Flemish bond brickwork with dark (burnt) headers

6 Tarred weatherboard

7 Beaded weatherboard with vent

8 Tarred weatherboard with vent

9 Salt glazed decorative airbrick

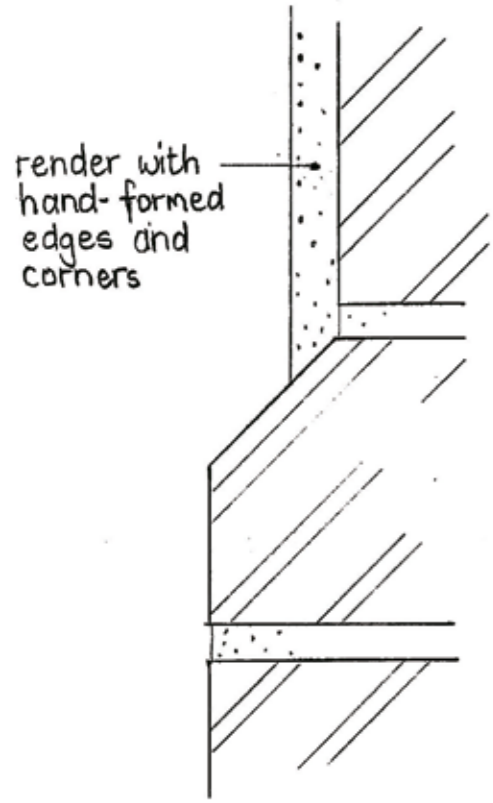
10 Soft red brick with coloured flush pointing

11 Early 18th century brick work

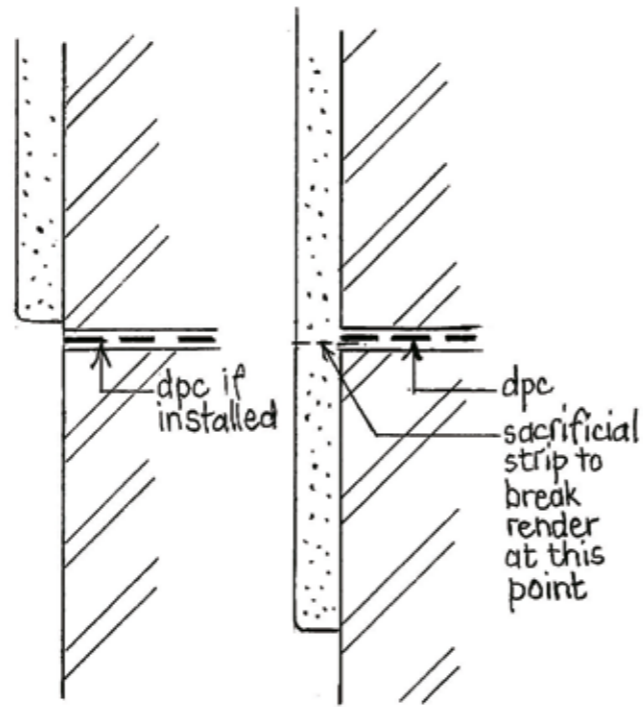
12 Restored tuck pointing

# RENDER / PLINTH DETAIL

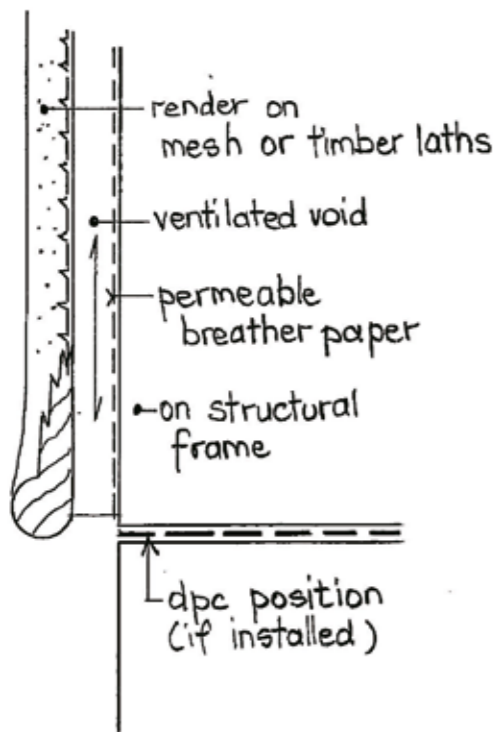
Scale 1:2



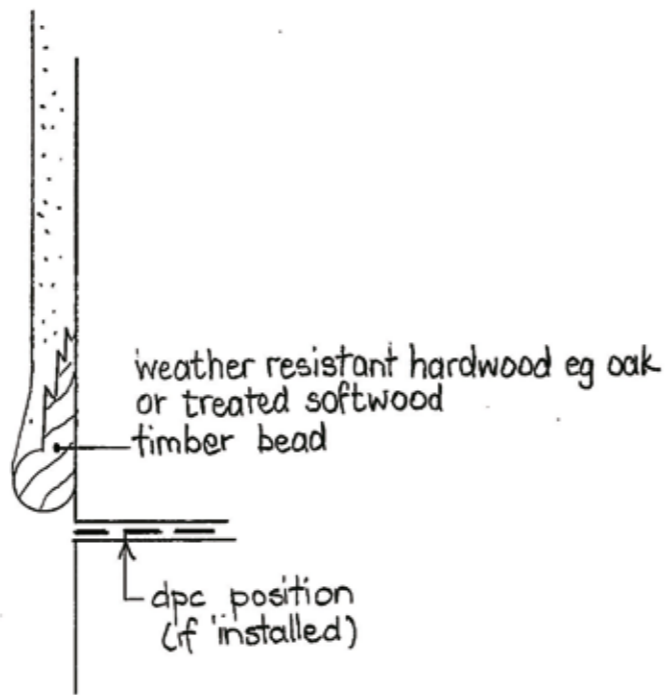
PLINTH BRICK



HAND-FORMED EDGE



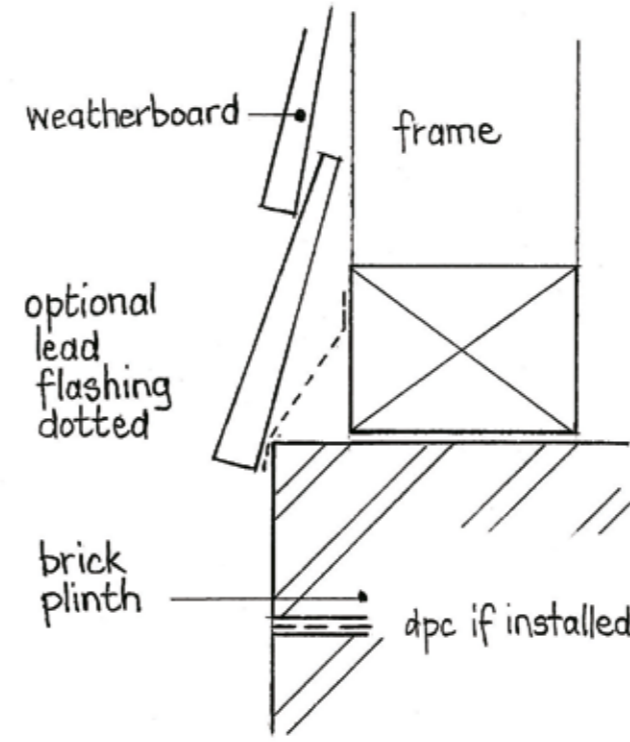
TIMBER BEAD  
① With ventilated void behind render



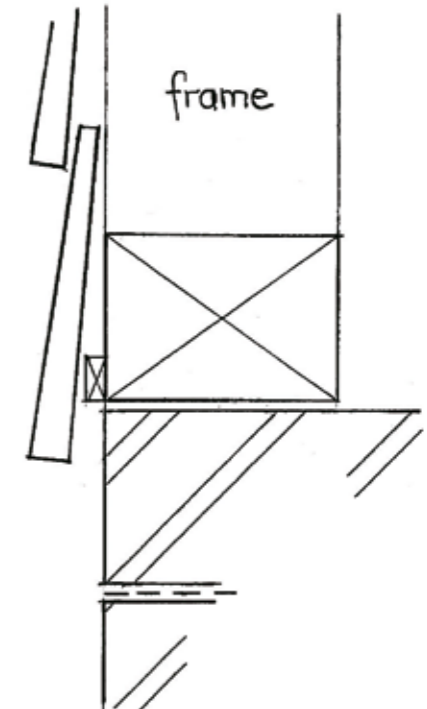
TIMBER BEAD  
② Traditional detail

# PLINTH & LEAD FLASHINGS

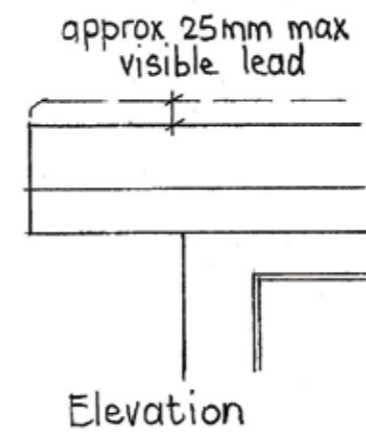
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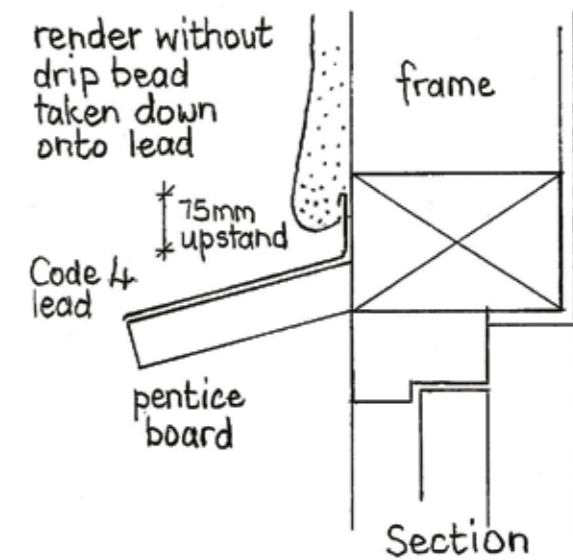
PROJECTING PLINTH



FLUSH PLINTH



Elevation



Section

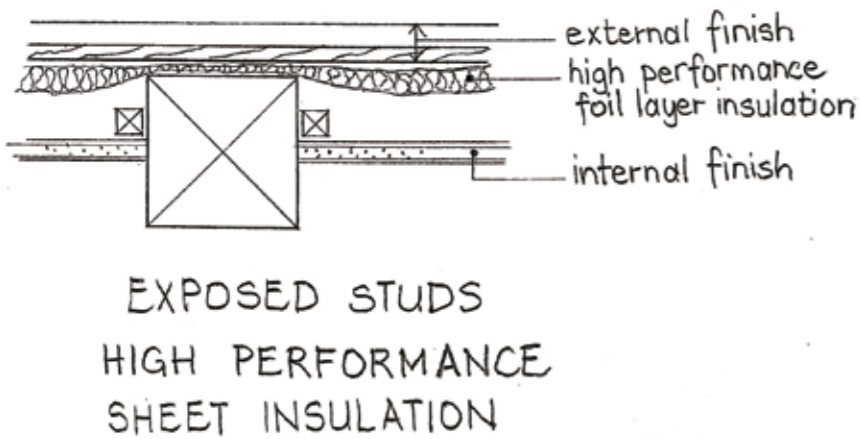
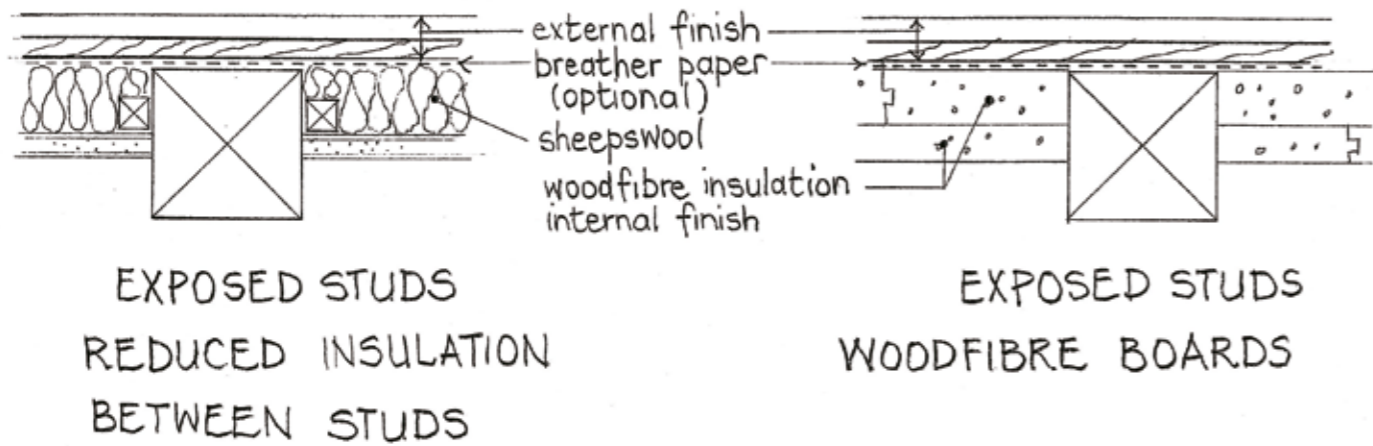
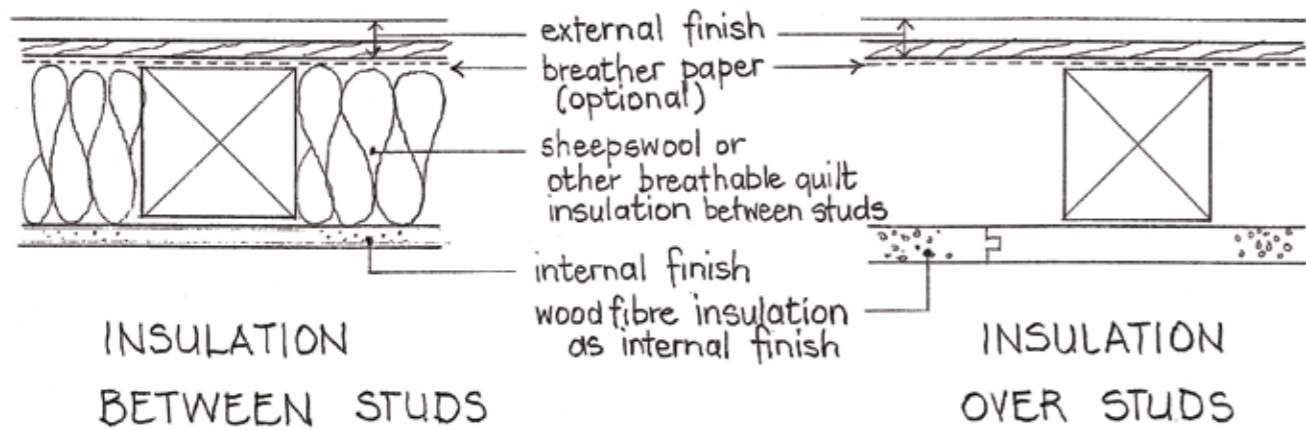
## LEAD FLASHING OVER PENTICE BOARD (Optional)

Section shows typical lead upstand in render



# WALL INSULATION - TIMBER FRAME

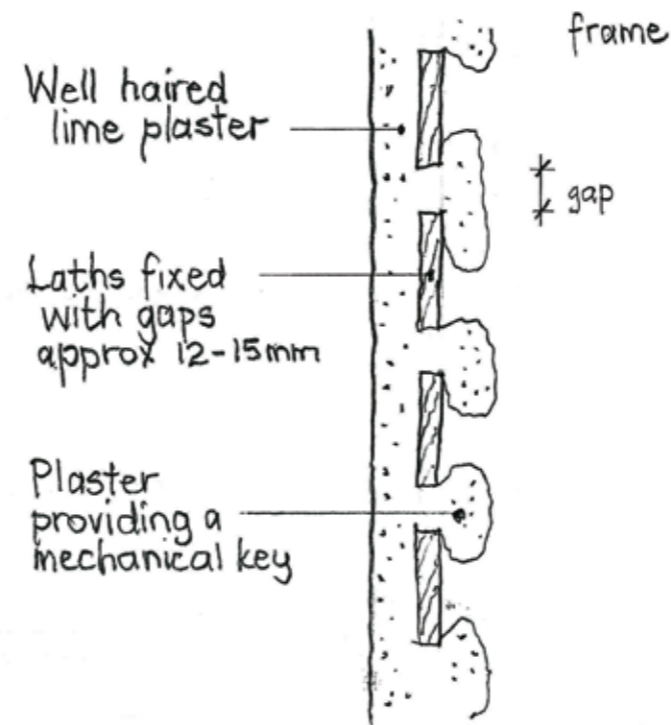
Scale 1:10



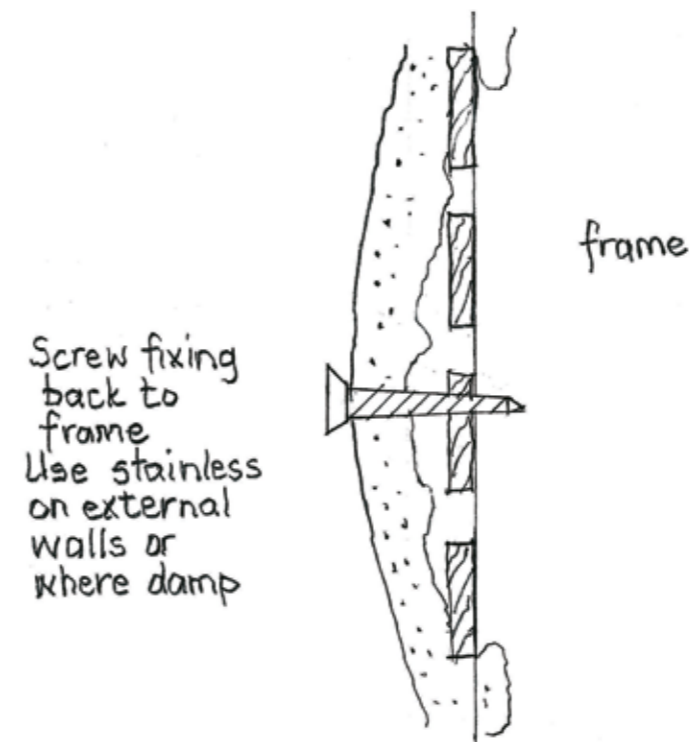
Note: sheet is plastic based, so monitoring & ventilation is necessary.

# LATH AND PLASTER DETAIL AND REPAIR

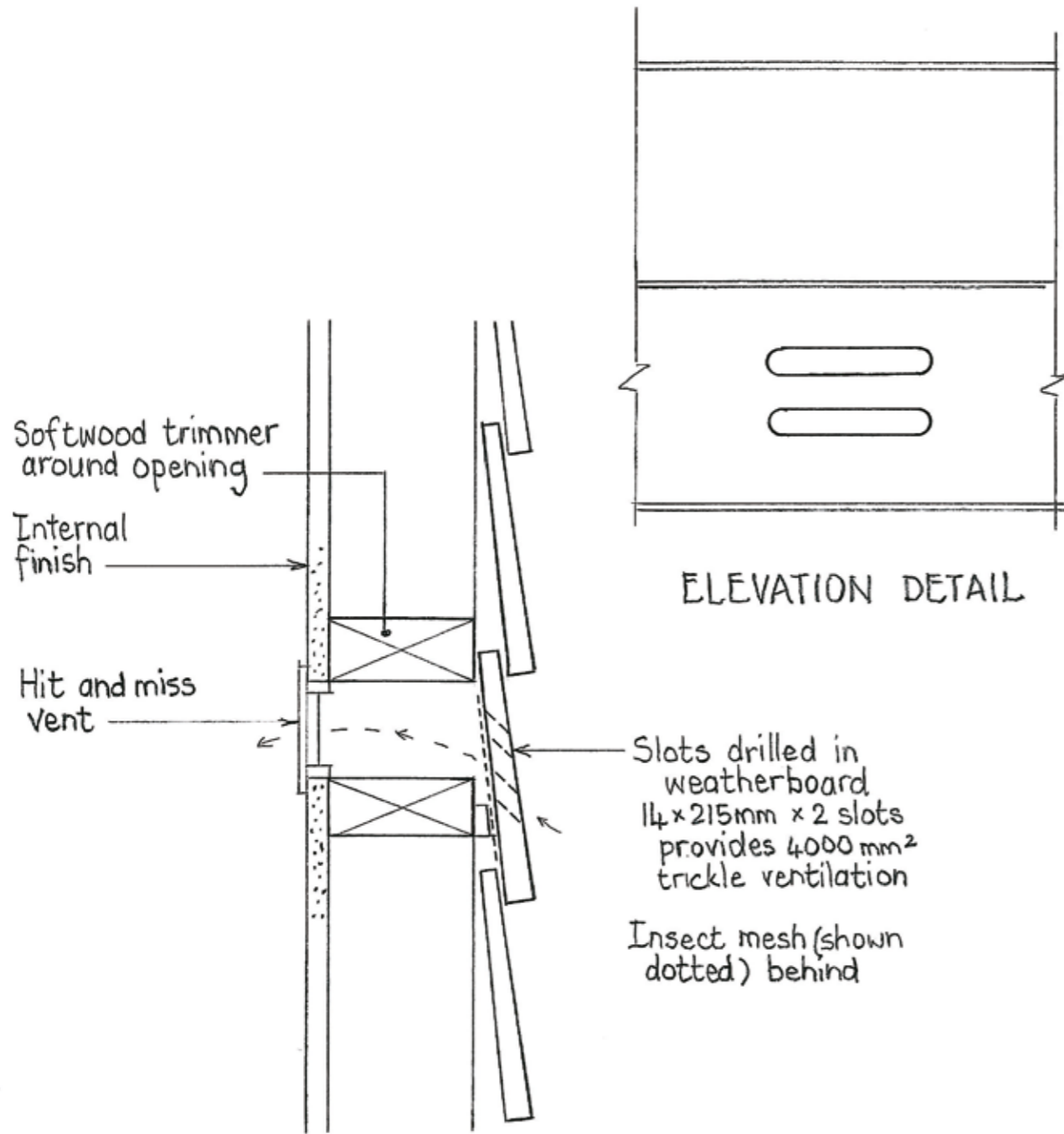
Scale 1:2



## LOCALISED REPAIR WHERE KEY HAS FAILED



WEATHERBOARD VENT Scale 1:5



Old church wall built of rubble laid to courses. It includes Roman brick, peg tile, flint, septaria, tufa, Ragstone and Reigate stone.

## Roofs

Undulating roofscapes of old handmade pegtiles are one of the most attractive features of Essex towns and villages. Other traditional materials found in the county are pantile, timber shingle and thatch. From the 19th century onwards, Welsh slate was commonly imported. Original materials should be retained wherever possible. The roof pitch is determined by the physical properties of the covering material and the traditions of the locality. In Essex, plain tile is laid at at least 45° and generally between 47° - 50°. For slate or pantile it is at least 30°, usually 35°-40°, and thatch at least 55°. Pantile was typically used on single storey buildings.

Plain tile should be handmade if used on a building erected before the end of the 19th century. It should be laid with half tiles at the verge rather than tile-and-a-half, which gives a typically unfortunate zip-like appearance.

Eaves are very simple with open rafter ends rather than soffits. Verges should also avoid soffits and should have a plain clay tile undercloak. Where bargeboards are used, they should be under the verge tiles rather than over the tiles (the detail more typical of Suffolk and Norfolk). Roofs may have parapetted eaves and verges instead. Hips should be finished in half round tiles, unless they are in the Arts and Crafts style in which they may be finished using bonnet tiles.

Rooflights should be in cast metal with traditional detailing and set level with the roof. Where part of a vernacular design, exposed leadwork should be minimised by using secret gutters. Glass tiles are found on pantile roofs and are much less obtrusive than rooflights, which if unavoidable should be to the low

profile 'conservation' pattern.

Gutters are cast iron (cast aluminium may be used subject to Listed Building advice).

Lead flashings are characteristic of the Georgian period and later. Vernacular buildings have lime mortar, reinforced across wide joints using galleting (small pieces of tile) or using tile slips as covering to the mortar.

Dormers should be inobtrusive features in the roof plane. Eighteenth century classically proportioned buildings may have dormers with sash windows, strongly detailed reveals and eaves, and double pitched or curved roofs, but vernacular dormers have casement windows, thin reveals, open rafter feet and pitched plain tile or slate roofs.

Thatching in Essex is traditionally in longstraw with a simple flush ridge. Openings are limited and rooflights are not used on a traditional thatch roof. Thatched roofs normally do not have gutters. Where used, gutters are in timber and much wider, usually formed from two planks fixed together as a V. For new thatch roofs, refer to the Dorset Model. Woodburners produce a very high temperatures and are a fire risk to thatch, so if they are used, flues need to be well insulated.

Vents should be unobtrusive. Proprietary vents are available from Keymer and Tudor Tiles. Small ventilation gaps can be incorporated in the lime bedding joint to ridge tiles and between open rafters at the eaves. There are examples of attractive historic patterned timber grilles and fret patterns in soffits of Georgian buildings that could influence new design.

Ventilation outlets should be sited at the rear and grouped together where possible, or incorporated into chimneys.



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- 1 Handmade plain tile
- 2 Handmade pantile
- 3 Longstraw thatch
- 4 Cleft oak shingles
- 5 Welsh slate
- 6 Glass pantiles

- 7 Decorative machine made tiles
- 8 Natural slate
- 9 Open eaves detail
- 10 Scalloped rafter feet
- 11 Decorative bargeboard

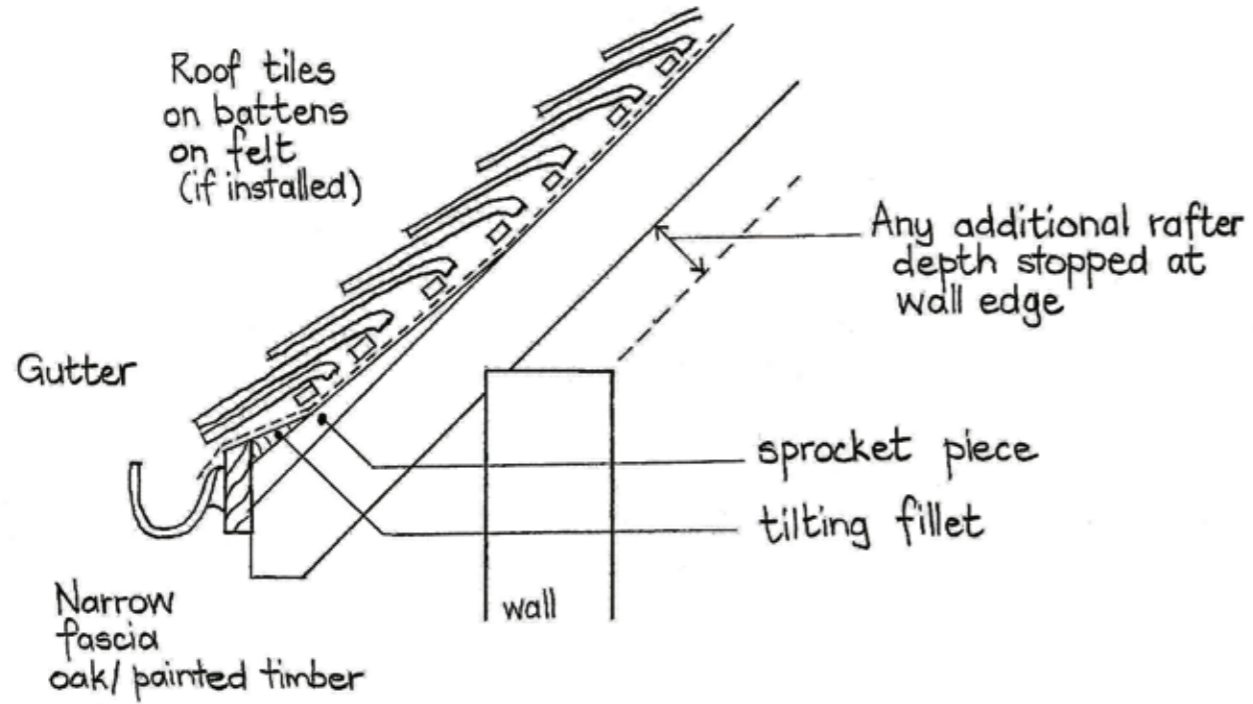
- 12 Longstraw thatching
- 13 Dormer window
- 14 Flush cast iron rooflight shown open
- 15 Victorian fishscale tiles
- 16 Tudor pegtile roofs

### References

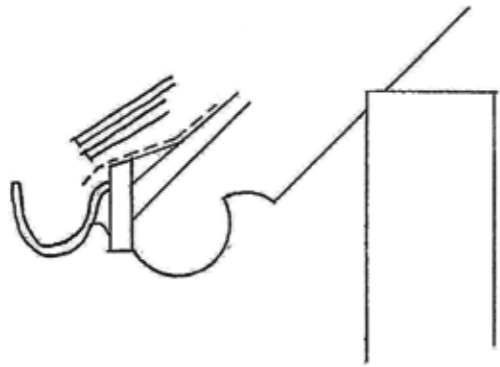
The Georgian Group Guides  
No. 10 Roofs  
[www.dorset-technical-committee.org.uk](http://www.dorset-technical-committee.org.uk)

# EAVES DETAIL

Scale 1:10



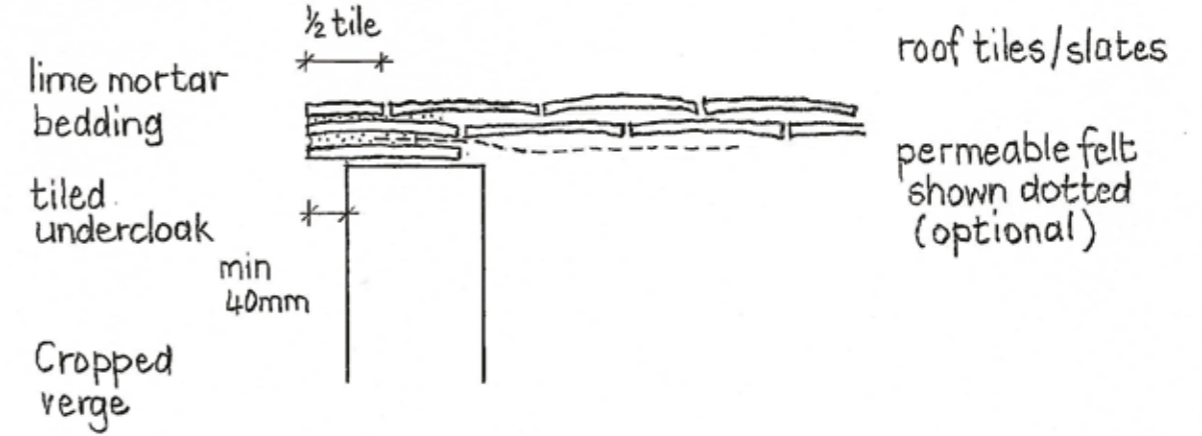
## OPEN RAFTER FEET & NARROW FASCIA



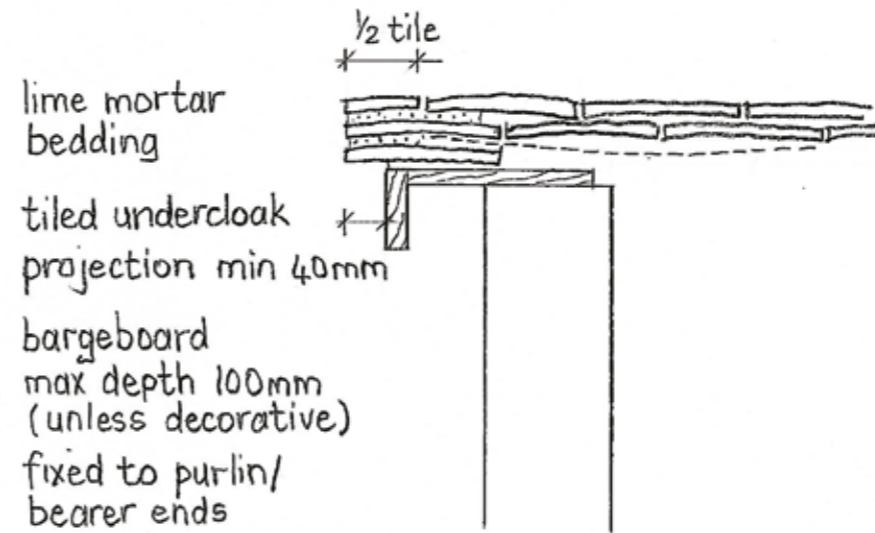
## DECORATIVE OPEN RAFTER FEET

# VERGE DETAIL

Scale 1:10



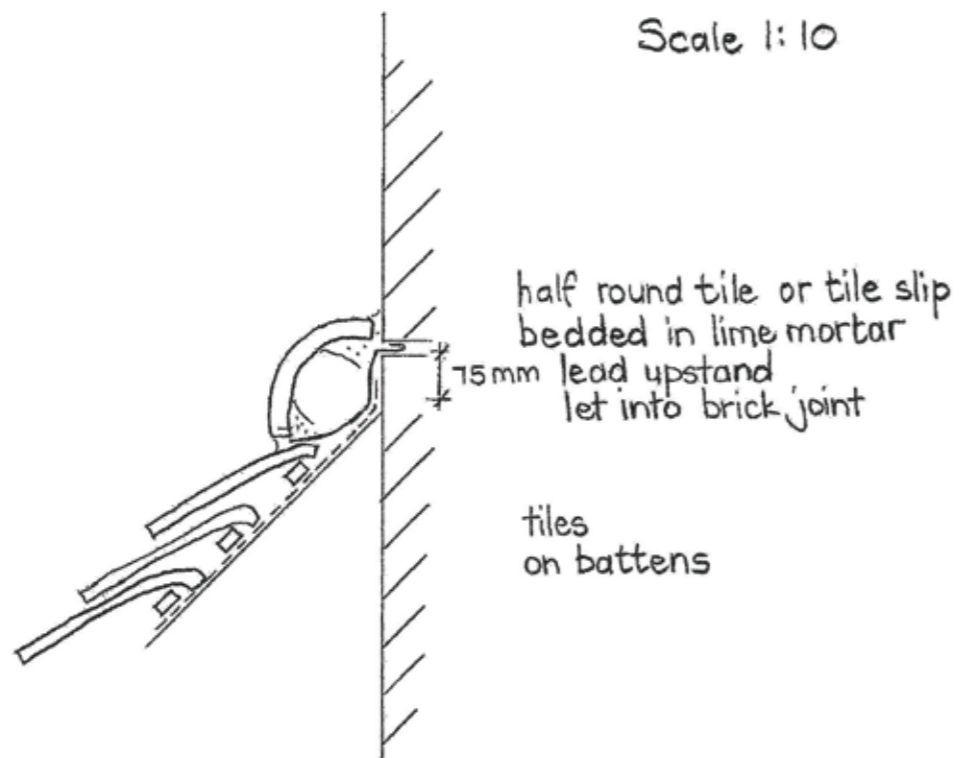
## VERGE



## VERGE WITH PROJECTING BARGEBOARD

# ROOF DETAILS- SECRET LEADWORK

Scale 1:10

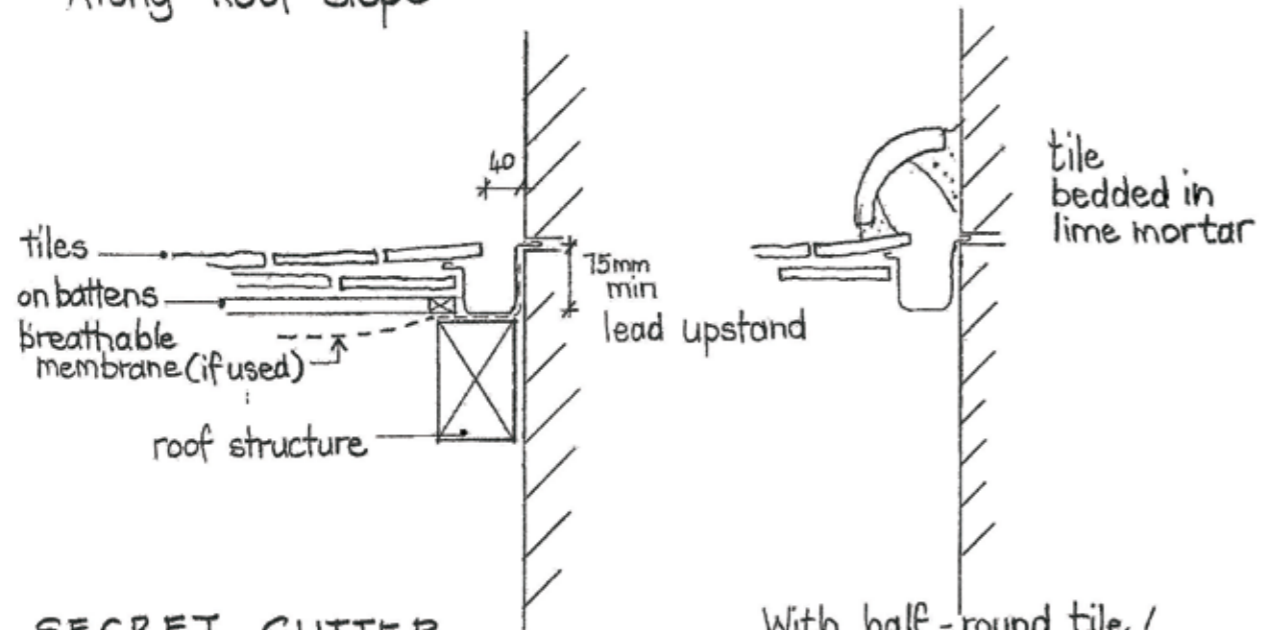


half round tile or tile slip bedded in lime mortar  
15mm lead upstand let into brick joint

tiles on battens

## SECRET LEAD FLASHING

Along Roof slope



tiles on battens  
breathable membrane (if used)  
roof structure  
15mm min lead upstand

tile bedded in lime mortar

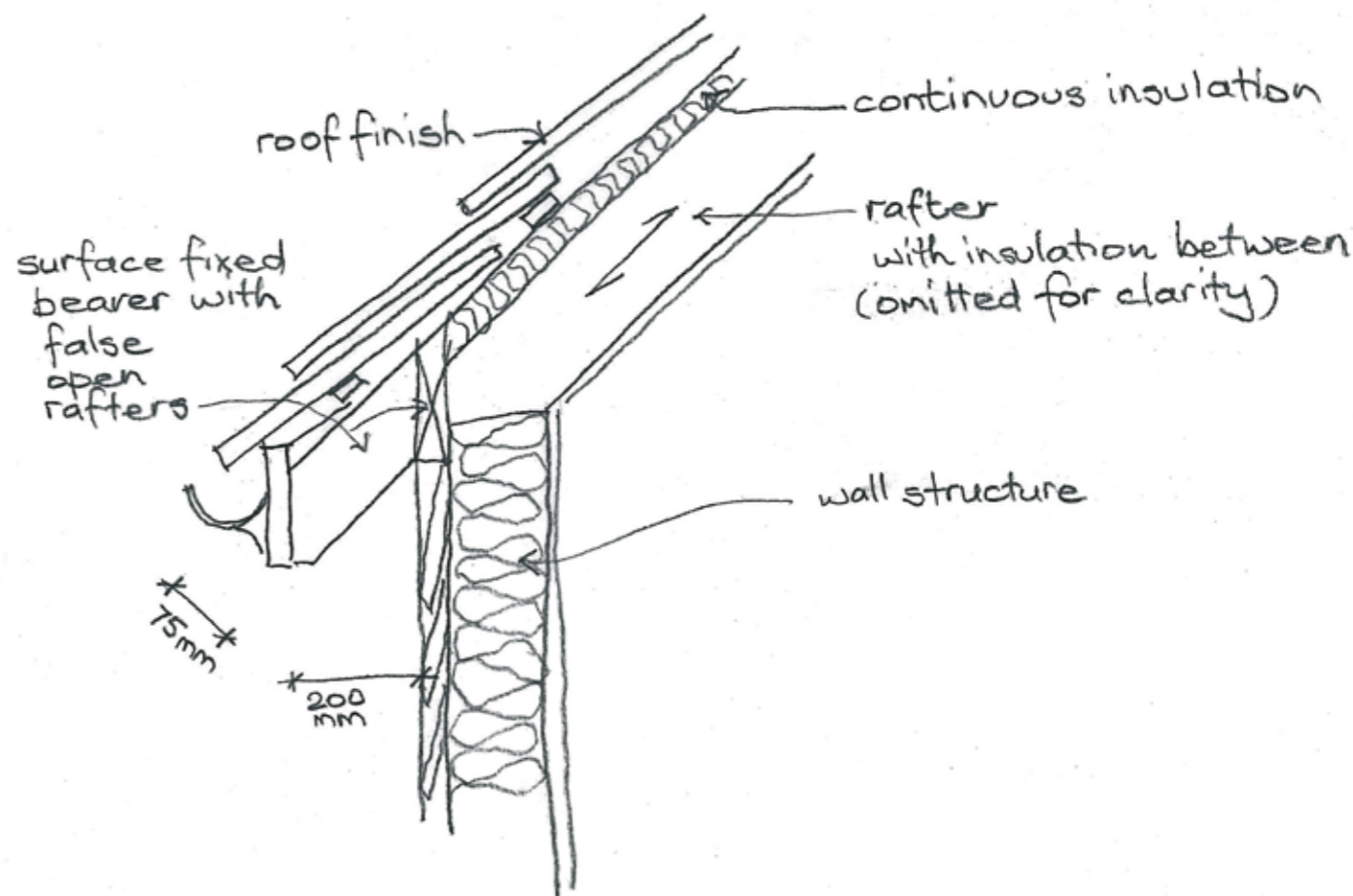
## SECRET GUTTER

Across Roof Slope

With half-round tile / tile slip cover

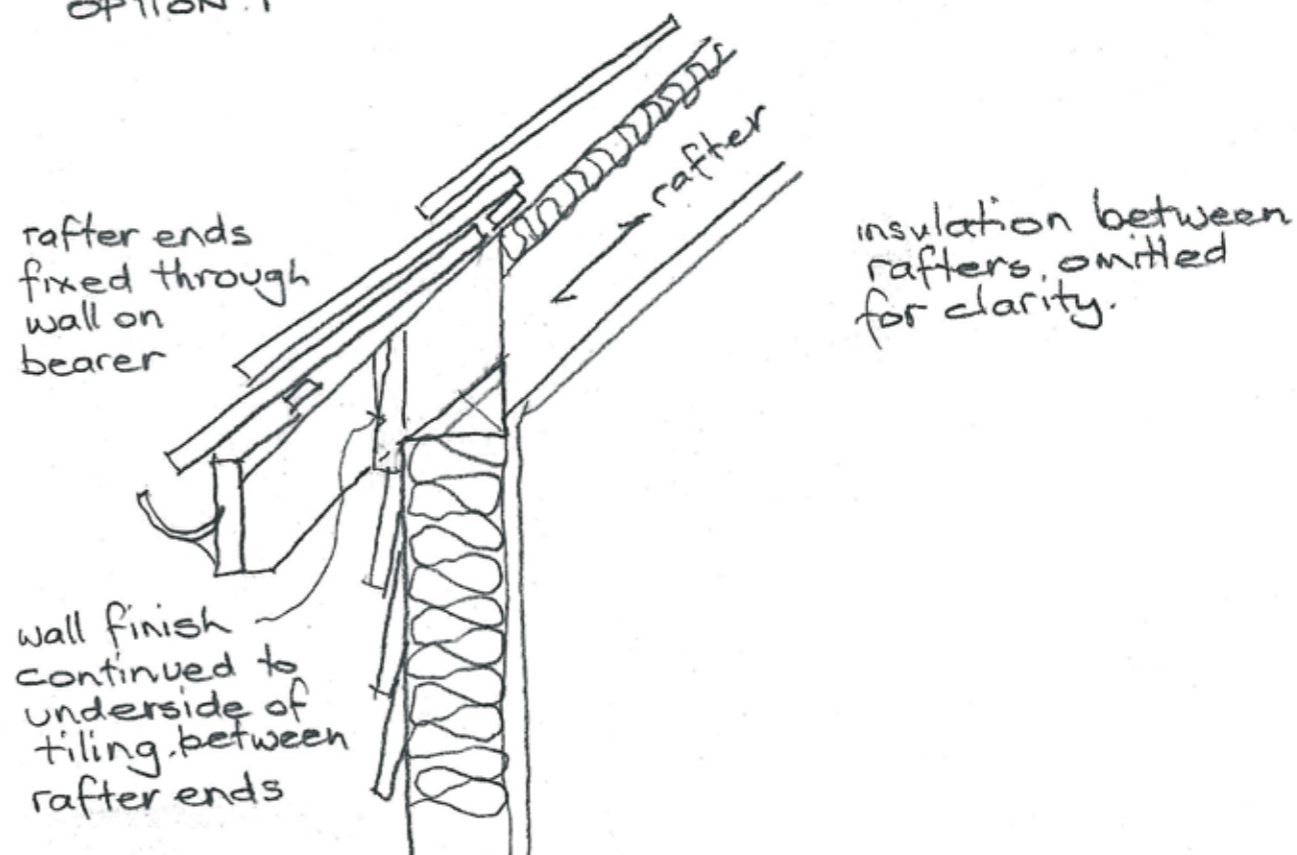
See Wall Details for lead flashing details in render

# OPEN RAFTER FEET DETAILS



roof finish  
continuous insulation  
rafter with insulation between (omitted for clarity)  
surface fixed bearer with false open rafters  
wall structure  
75mm  
200mm

## OPTION 1



rafter ends fixed through wall on bearer  
insulation between rafters, omitted for clarity.  
wall finish continued to underside of tiling between rafter ends

## Windows

Windows are the eyes of a building. Ill proportioned and poorly detailed replacements in unsympathetic materials are disfiguring. Windows and doors in masonry walls such as brick or flint should reflect the solidity of the wall by being inset at least 100mm. In timber framing they should be level with the outside face of the wall to reflect the thinness of the construction and should have a painted timber pentice board at the head for weathering and sometimes also an architrave to add interest.

Openings in rendered blockwork can be detailed as either masonry or timber-framed and the solidity of the wall can be emphasised using ashlar markings in the render.

Traditional windows are in timber and can be either vertical sliding sash, horizontal sliding sash (sometimes known as Yorkshire sash) or outward opening side hung, top hung or fixed casement windows. They should be symmetrical and balanced, usually with a vertical emphasis of casements and glazing panes. Fixed lights should match opening lights in appearance. Window cills should be substantial with an outer face of at least 40mm.

The earliest casements were metal frames with leaded lights. Georgian vertical sliding sashes became more fashionable from the 18th century and were used regularly until the late 19th and early 20th century.

Sash windows originally did not have horns (the projections at the bottom of the upper sash). From about 1875, horns became more common as they provided a stronger timber joint. The horn looks more prominent if the window has a large section frame, and therefore if the frame is large to accommodate double glazing, windows should avoid having horns.

The casement window regained popularity from the late 18th century onwards. Side opening casements were sometimes used on

less important elevations in combination with sashes on more important elevations.

Opening lights should finish flush with the casement, although sometimes the mullions are larger and project further outwards giving a more pronounced shadow line. 'Stormproof' casements (where the casements project in front of the frame) are modern and appear more bulky than a traditional window.

Timber windows may be subdivided with glazing bars and the size and design varies according to the style and date of the window. The earliest sash windows of circa 1700 had very thick glazing bars about 40mm (1 5/8") wide and ovolo in section. Glazing bars then became narrower until circa 1800 when they were very fine and sometimes as little as 16mm (5/8"). They had a variety of fine mouldings of which ovolo, lambs-tongue and astragal were the most common. Generally glazing bars for single glazing are 18mm (3/4") wide and of ovolo section, and the glass is putty fixed.

Existing windows should be retained and repaired *in-situ* if at all possible and any original glass should be retained. The texture and play of light in original crown and cylinder glass windows cannot be reproduced with new. It is often very thin so should be treated carefully. Double glazed windows are not normally acceptable in listed buildings but may be used in most conservation area and conservatory situations.

The reflection and glazing edge detail distinguish double glazing from single. Tinted or non-reflective glass has a very different reflection to ordinary float glass or old glass and is not normally acceptable. Secondary glazing can be used to improve resistance to noise and thermal loss but should be able to be opened for cleaning and to provide air movement around the window frame.

These can be timber or proprietary secondary glazing units. The frame should line up with the frame and glazing bars of the window.

Trickle vents spoil the appearance of windows but there are alternatives like well designed pentice board vents, wall vents or eaves vents. If they cannot be avoided, it is possible to conceal them behind a batten fitted to the top of the frame.

20th-century historic buildings are a special case and any alteration will need to be informed by an appreciation of the original construction and architectural style, which may involve the retention or reinstatement of aluminium or steel windows. Crittalls, an Essex firm based originally in Braintree, were market leaders in the design and production of metal windows.

### References

- Conservation in Essex No. 4. Historic Buildings
- Conservation in Essex No. 7. Conservatories and Historic Buildings  
Essex County Council
- The Georgian Group Guides: No. 1 Windows
- Carpenter, R. 2007 *Mister Pink - the architectural legacy of W.F. Crittall*, Essex County Council
- Tutton, M. and Hirst, E. eds 2007 *Windows. History, repair and conservation*, Donhead Publishing



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- 1 Old iron casements with leaded lights
- 2 Late 19th century vertical sliding sash window with horns
- 3 19th century side opening casements
- 4 Early 19th century marginal light vertical sash window without horns

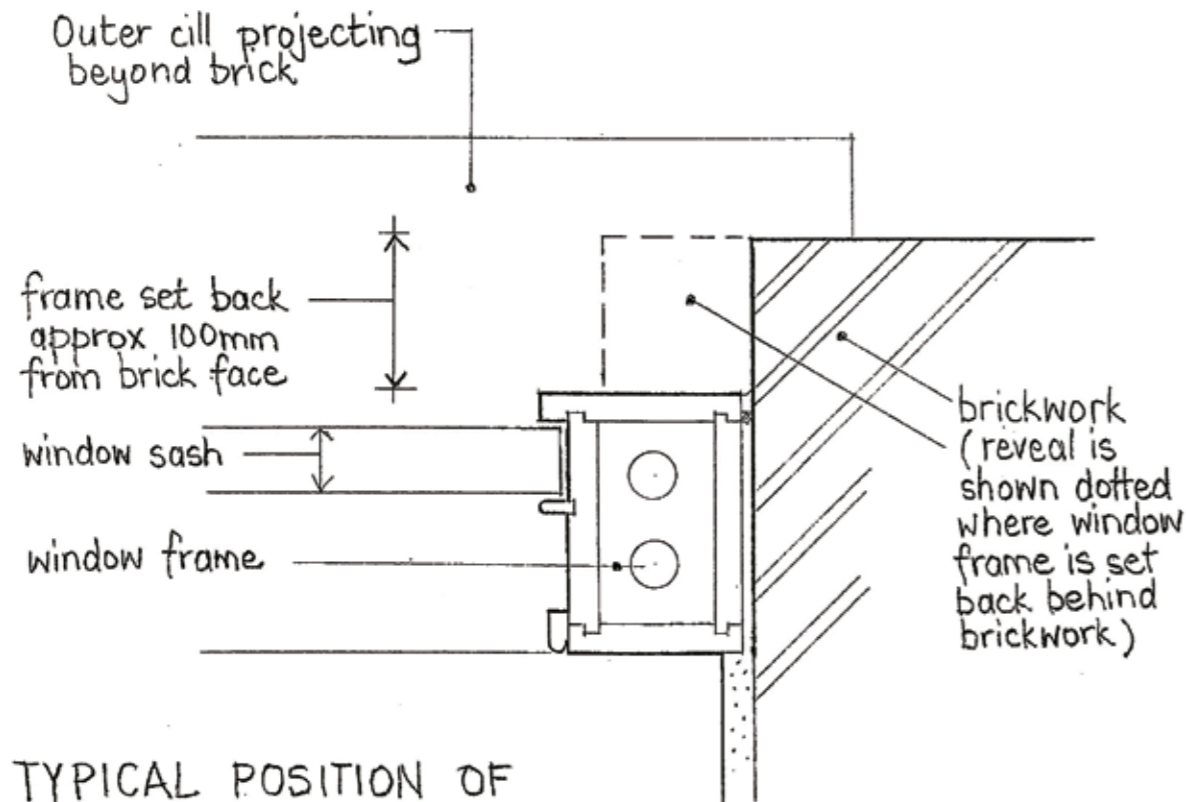
- 5 20th century Crittall side opening steel casements
- 6 19th century cast iron side opening casement windows
- 7 Horizontal sliding sash windows
- 8 Early 19th century vertical sliding sash without horns
- 9 Georgian sash with thick glazing bars beneath a decorative gauged brick arch

- 10 19th-century Venetian window
- 11 Crittall window
- 12 Early 20th-century windows with top lights and stained glass

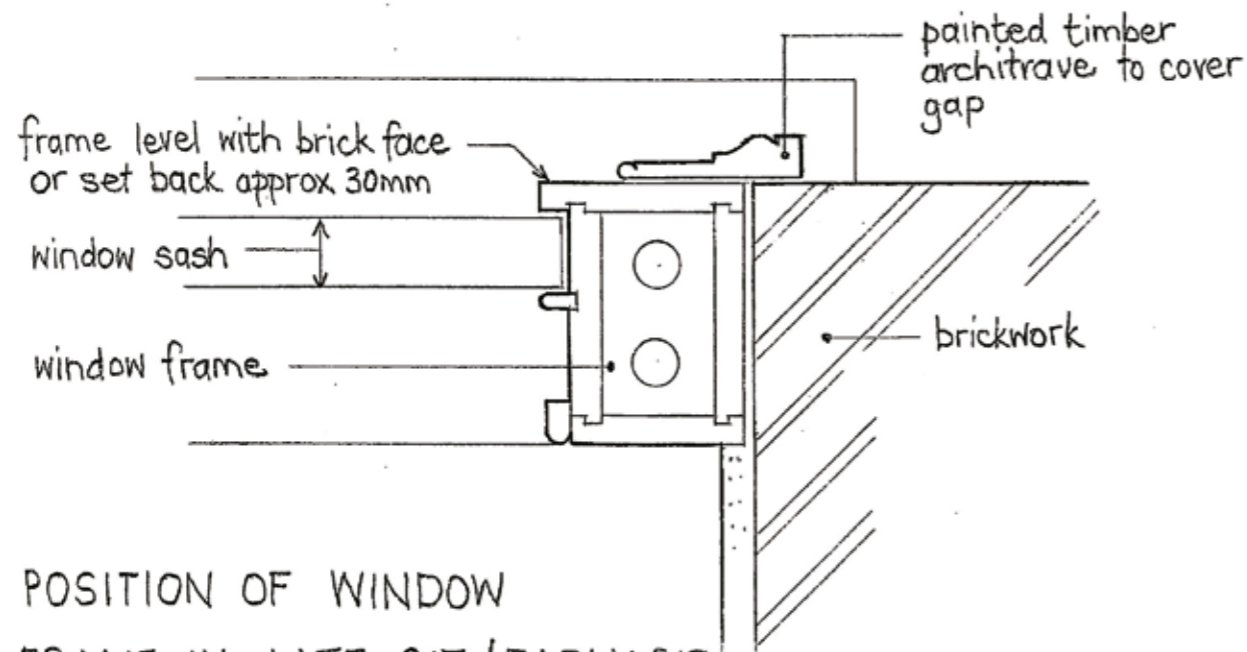


Early 19th-century Gothic vertical sliding sash

WINDOW OPENINGS IN BRICK Scale 1:5  
PLAN DETAIL

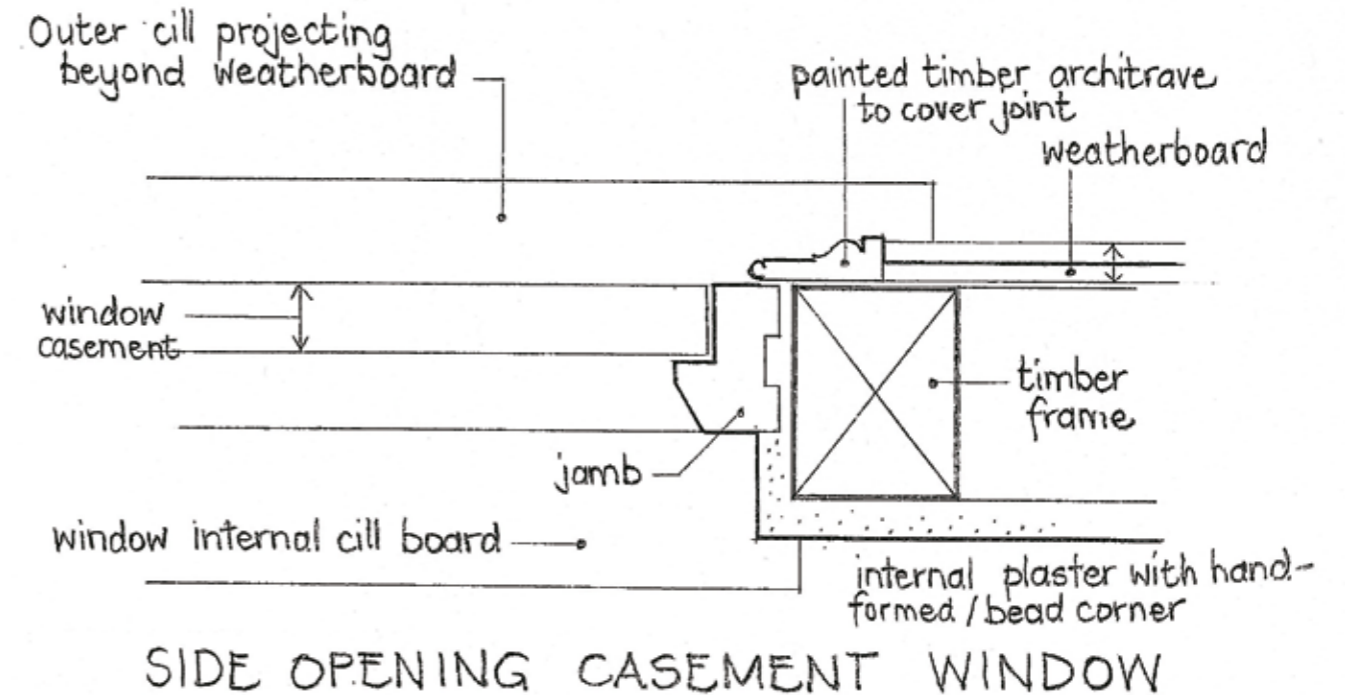


TYPICAL POSITION OF WINDOW FRAME IN BRICK / MASONRY

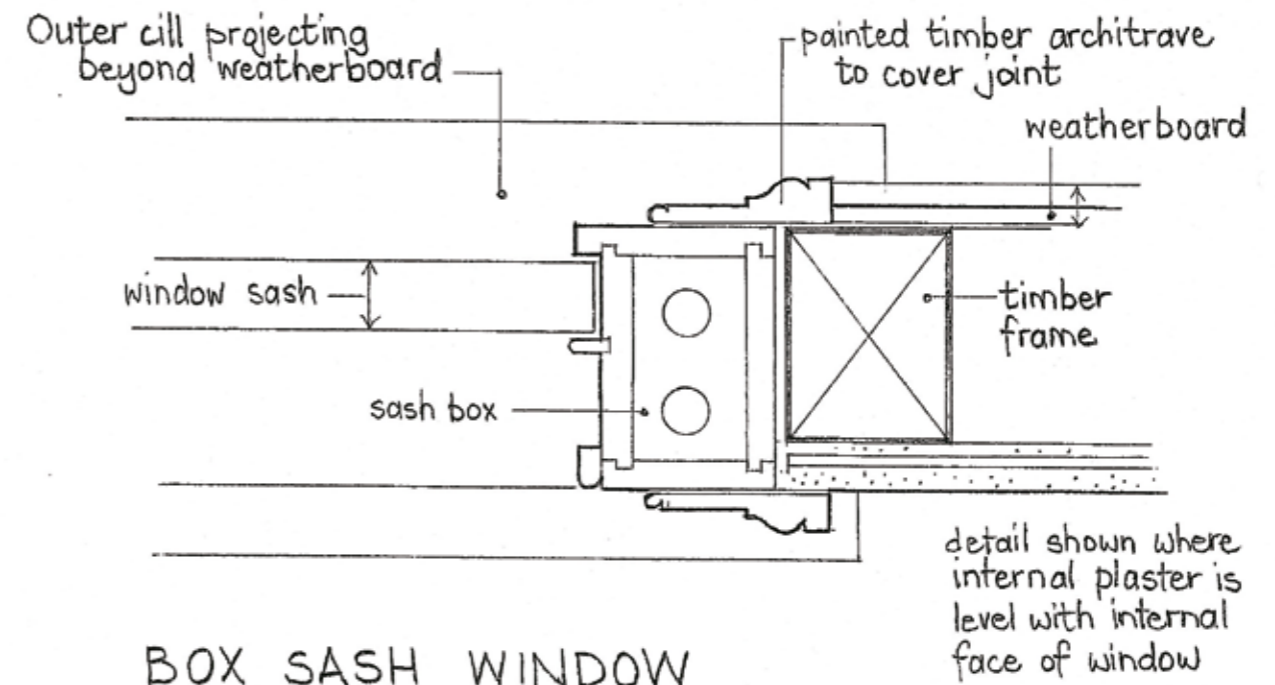


POSITION OF WINDOW FRAME IN LATE C17 / EARLY C18 PERIOD OR LATER "QUEEN ANNE" STYLE.  
(sometimes slightly set back so outer face of architrave is level with brickface)

WINDOW OPENINGS IN WEATHERBOARD & RENDER  
PLAN DETAIL 1:5

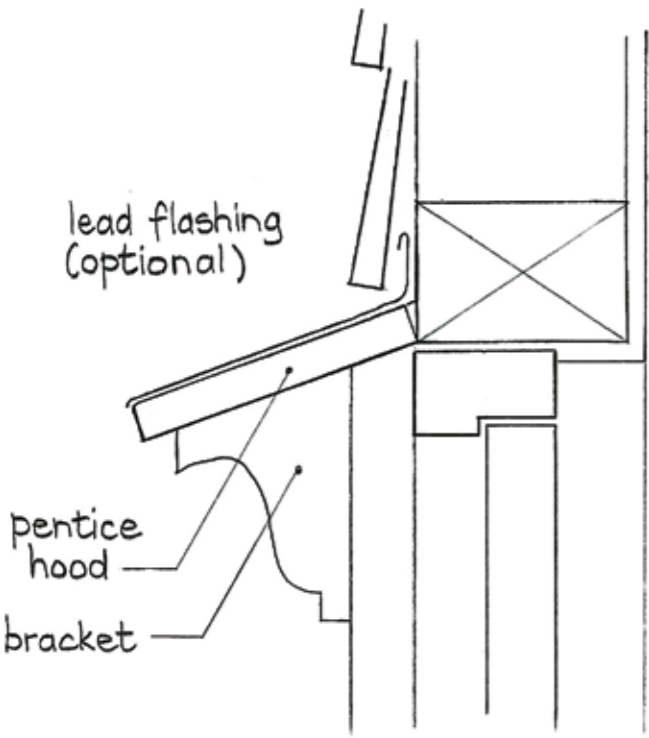


SIDE OPENING CASEMENT WINDOW

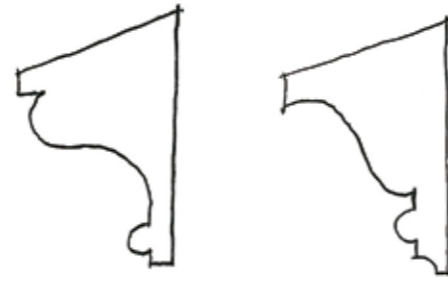


BOX SASH WINDOW  
PLAN DETAIL





PENTICE HOOD WITH BRACKETS



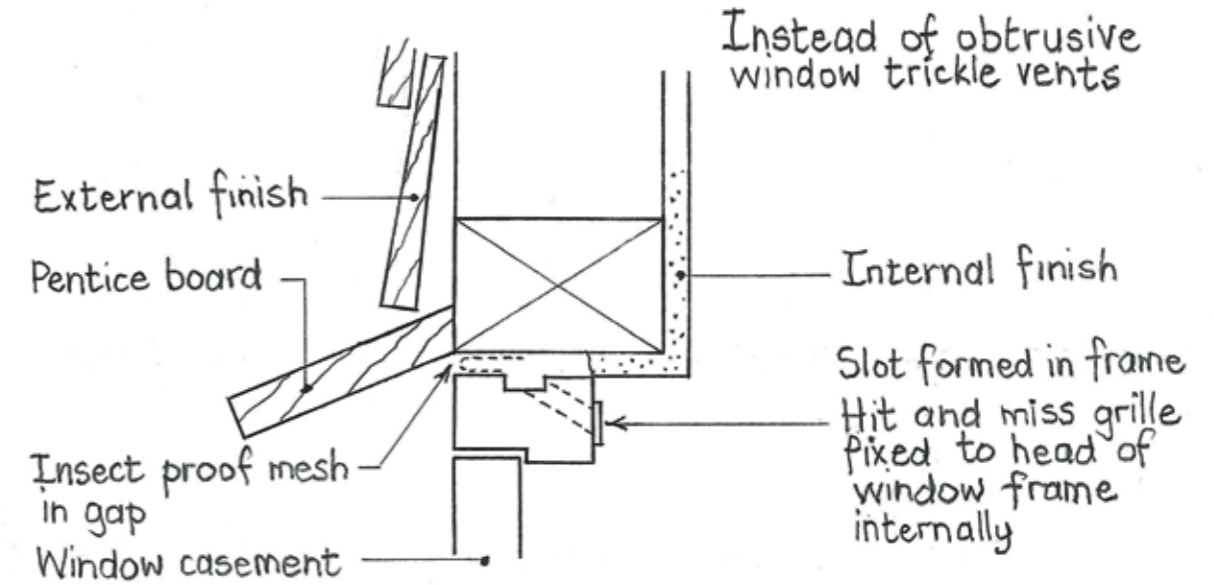
Typical Alternative Brackets



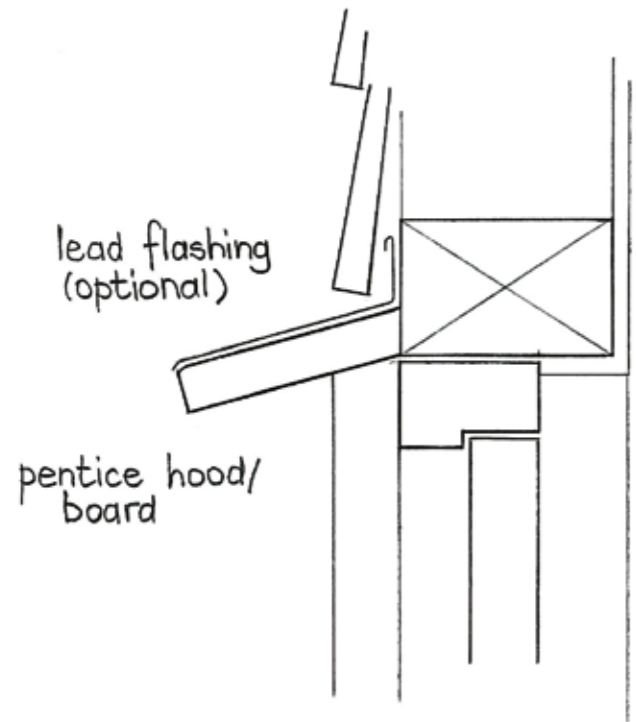
WINDOW VENTILATION

Scale 1:5

PENTICE BOARD VENTILATION

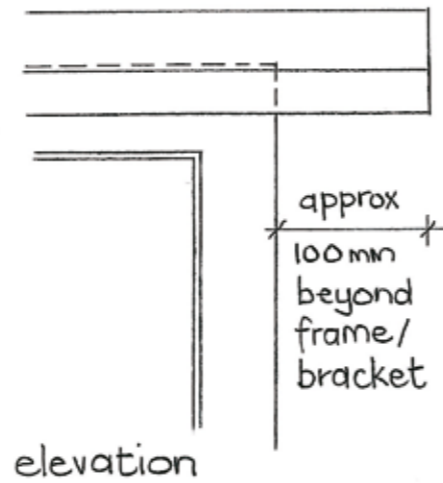


Also see wall vent detail.



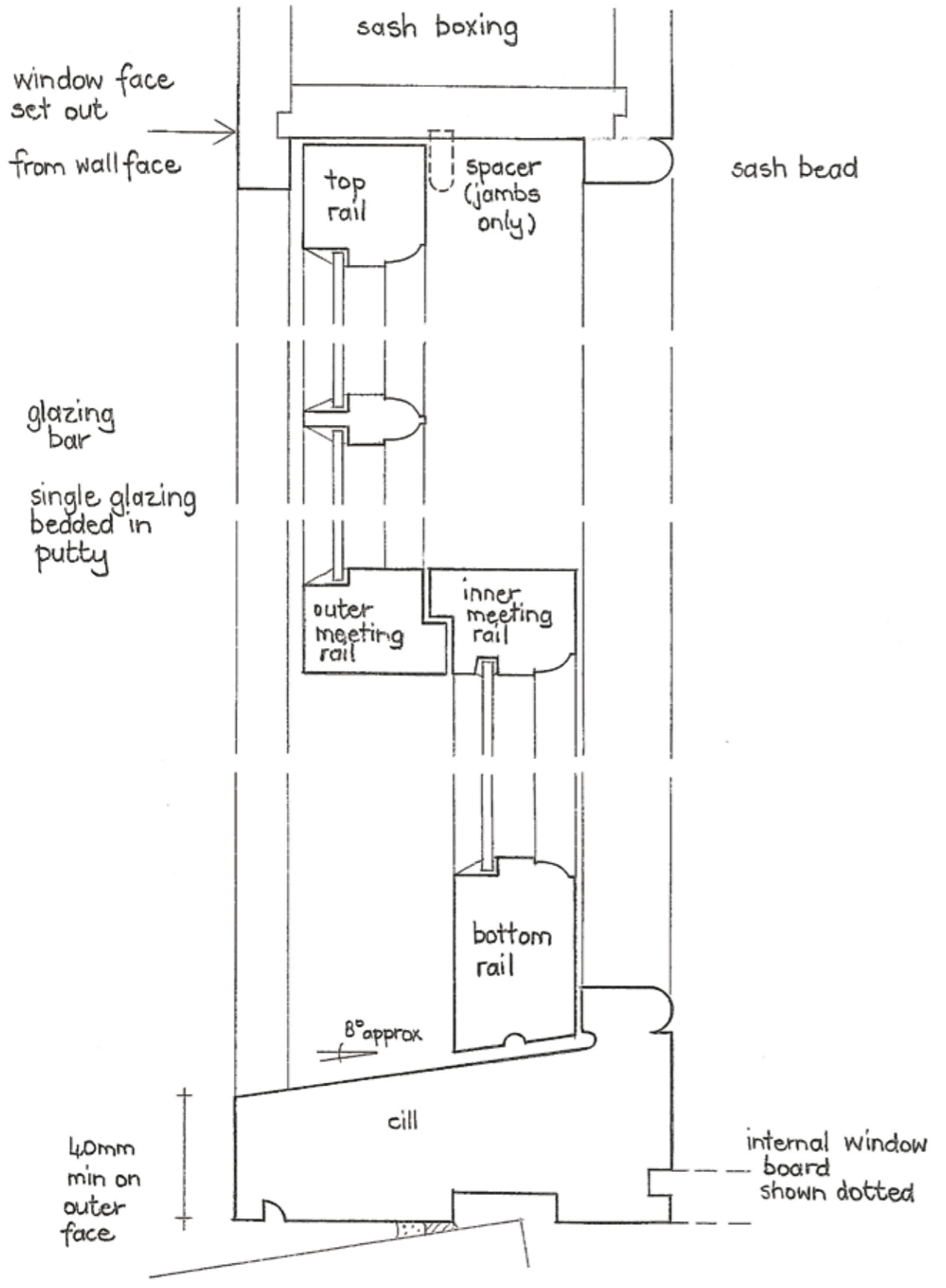
PENTICE BOARD

See Plinth & Lead Flashings for details in render



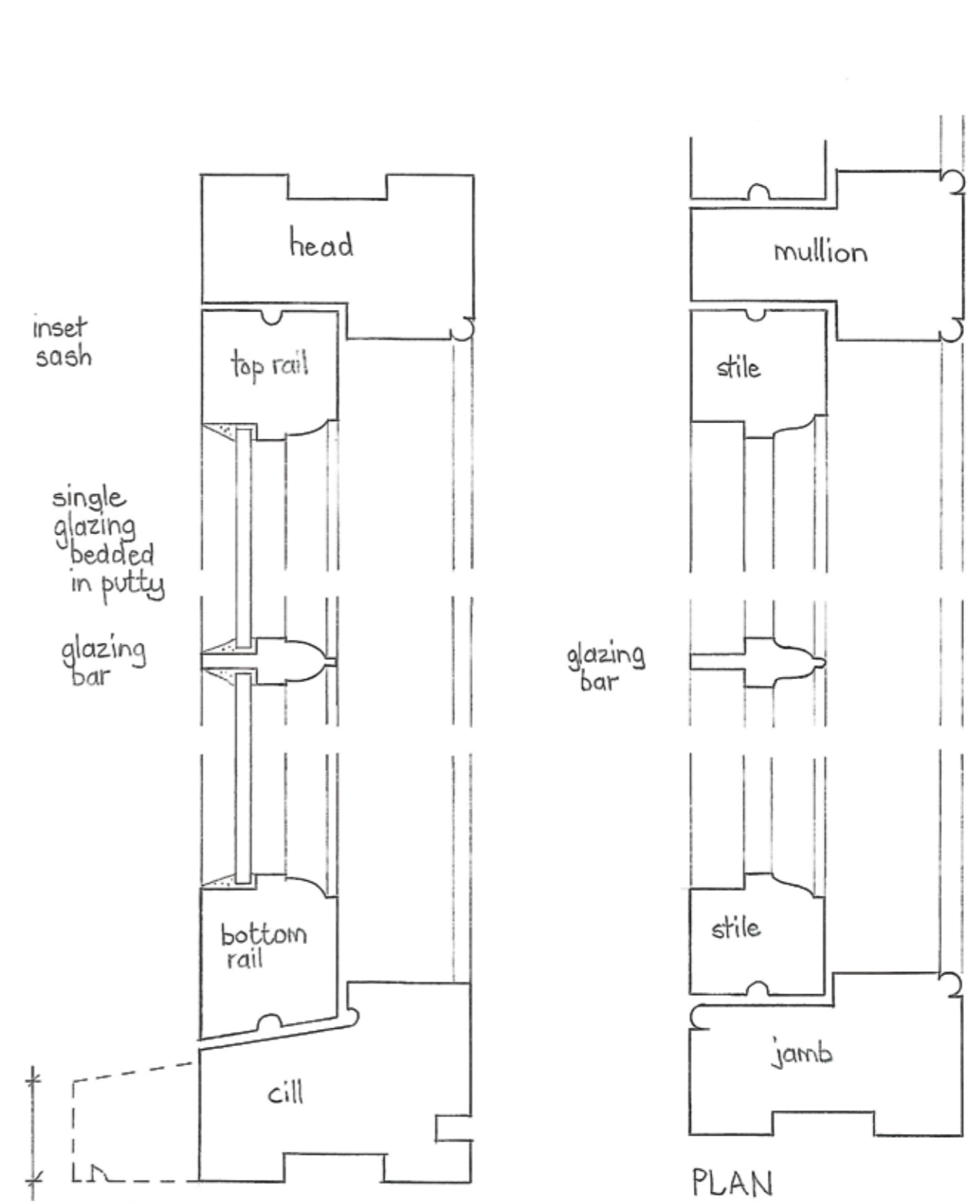
elevation

BOX SASH WINDOW - Scale 1:2



VERTICAL SECTION

FLUSH CASEMENT WINDOW SINGLE GLAZED Scale 1:2



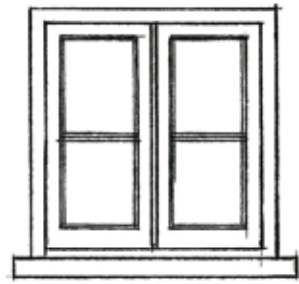
SECTION

OVOLO MOULDINGS

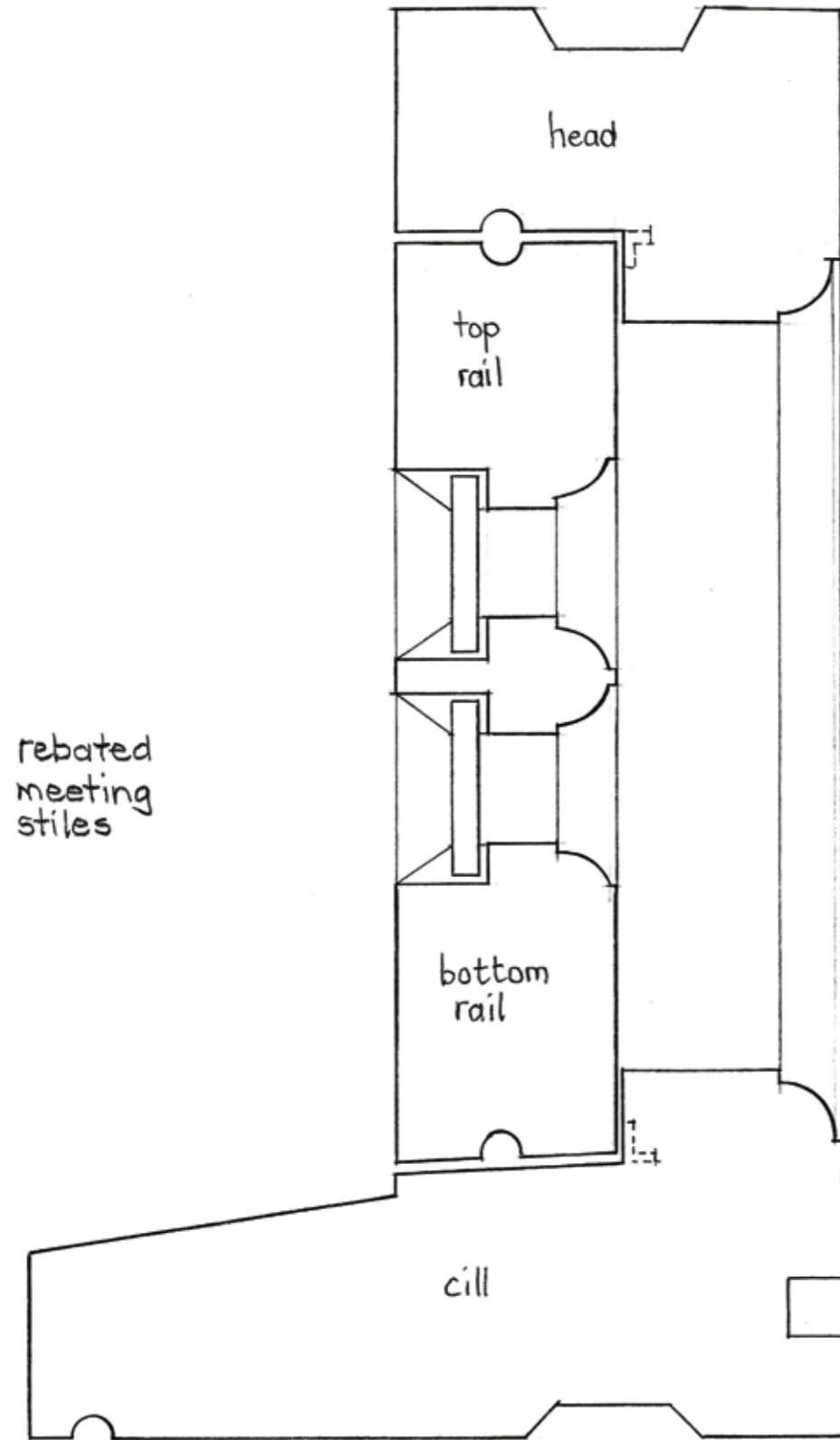
PLAN

(ALTERNATIVE) LAMBSTONGUE MOULDINGS

FLUSH CASEMENT WINDOW Scale Full Size  
 SINGLE GLAZED  
 WITH REBATED MEETING STILES

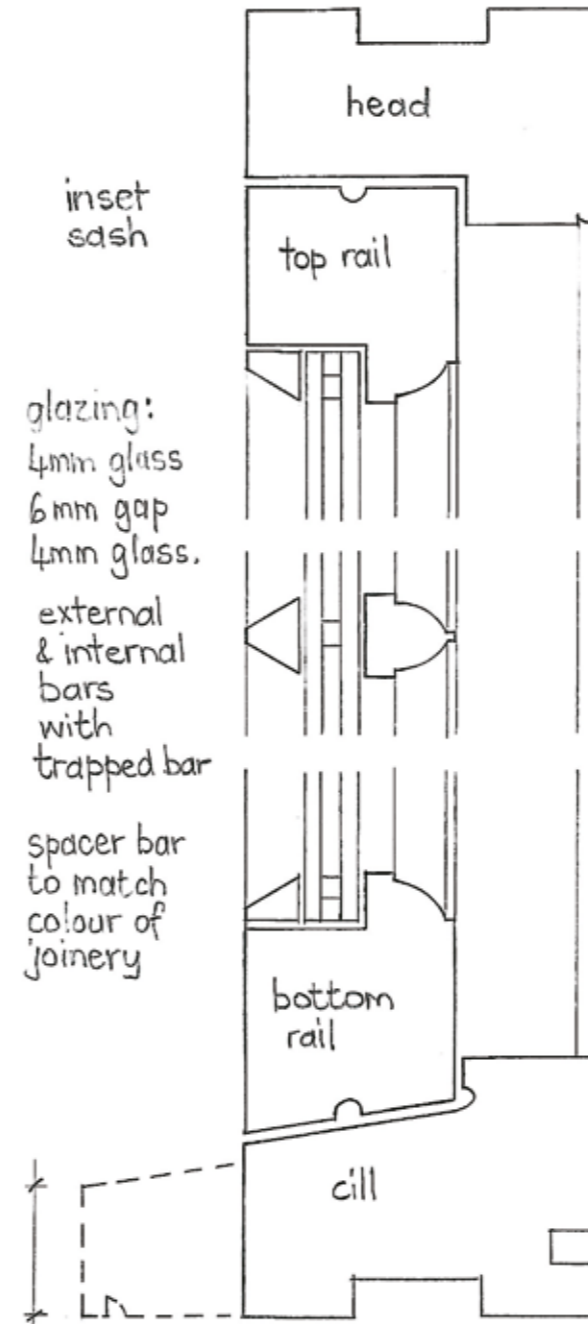


PLAN

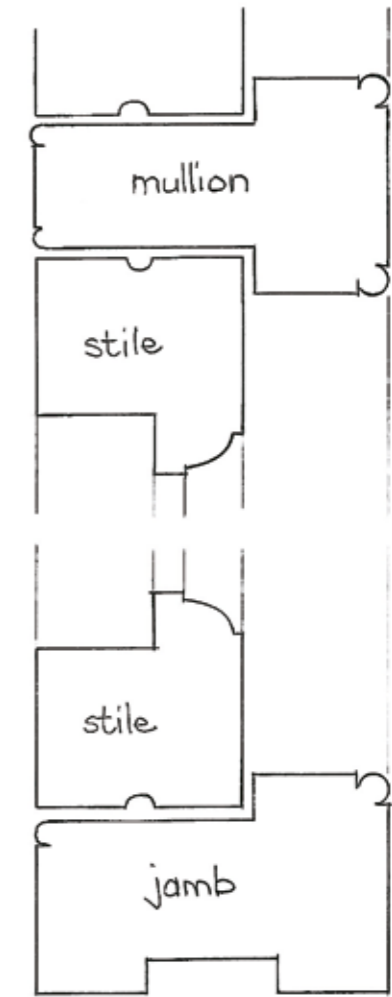


SECTION

FLUSH CASEMENT WINDOW Scale 1:2  
 DOUBLE GLAZED WITH FACE GLUED BARS  
 (Use is subject to local Conservation Officer advice)



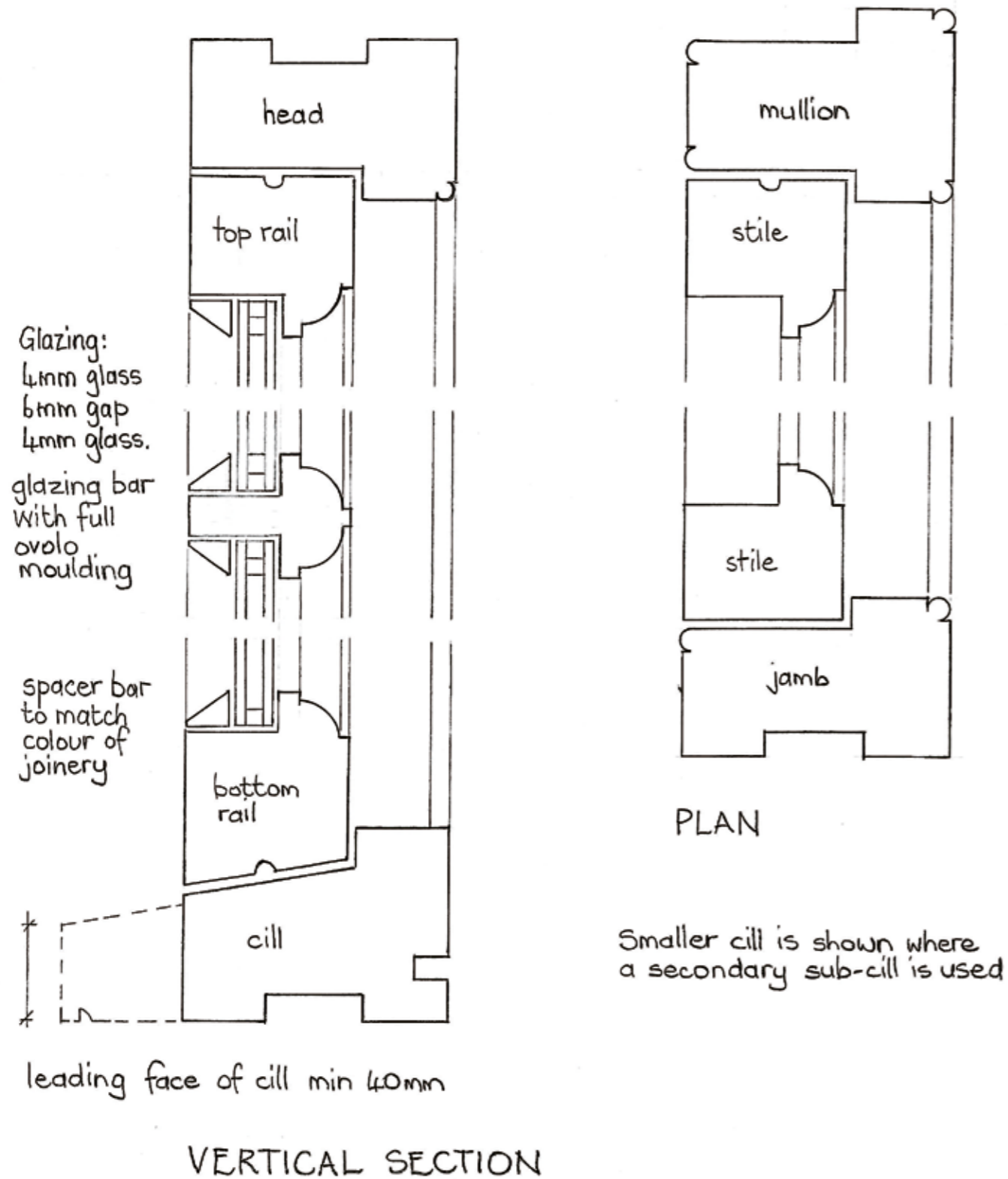
VERTICAL SECTION  
 leading face of cill min 40mm



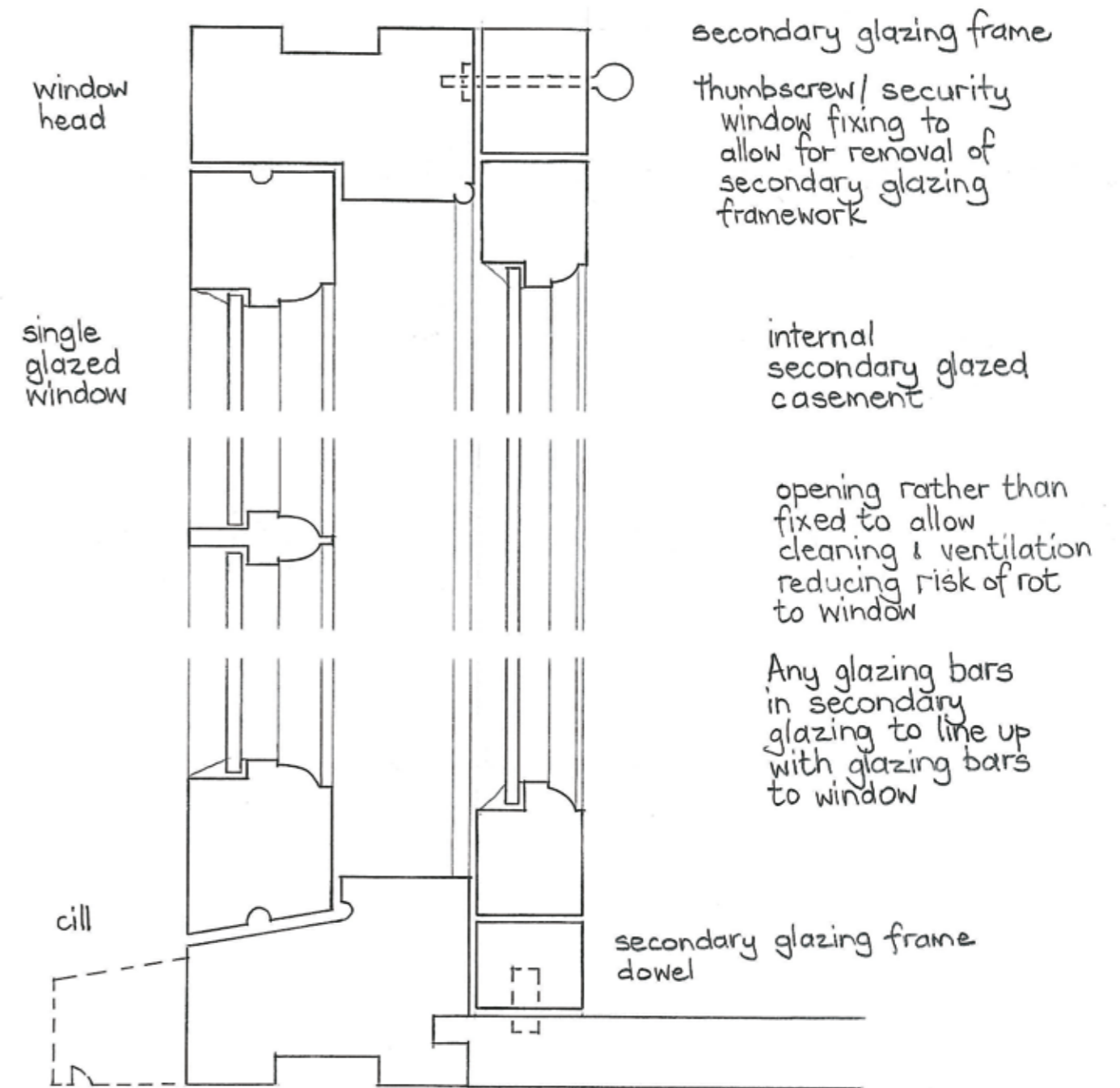
PLAN

smaller cill is shown where a secondary subcill is used.

FLUSH CASEMENT WINDOW Scale 1:2  
 DOUBLE GLAZED WITH INDIVIDUAL PANES  
 (Use is subject to local Conservation Officer advice)

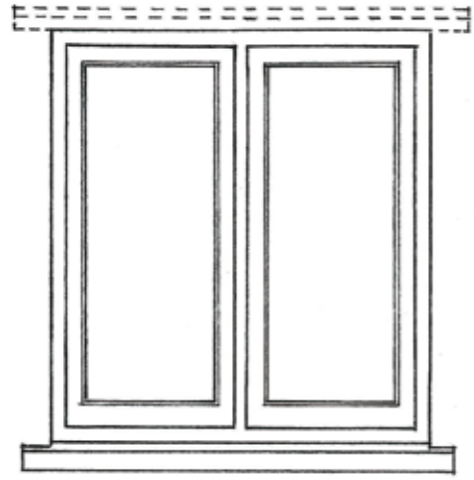


SECONDARY GLAZING Scale 1:2  
 INTERNAL SECONDARY CASEMENT

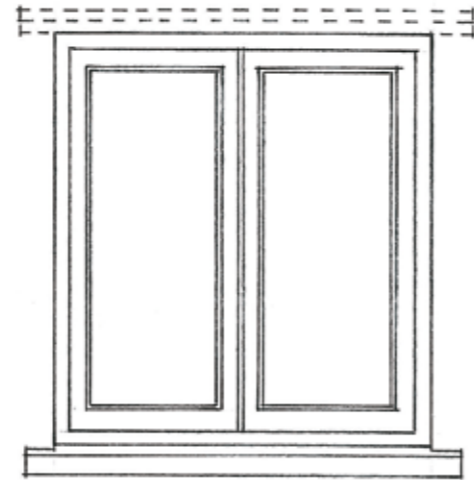


FLUSH SIDE CASEMENT WINDOWS  
ELEVATIONS

Scale 1:20

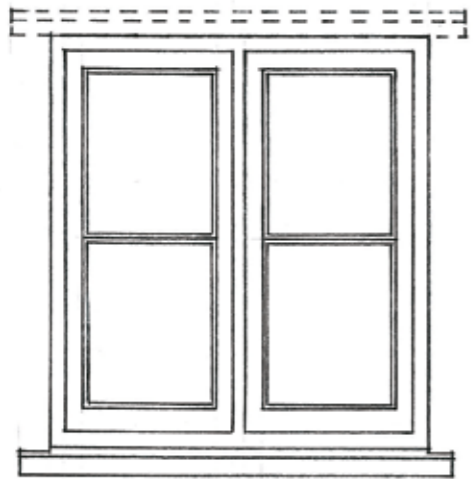


Single pane

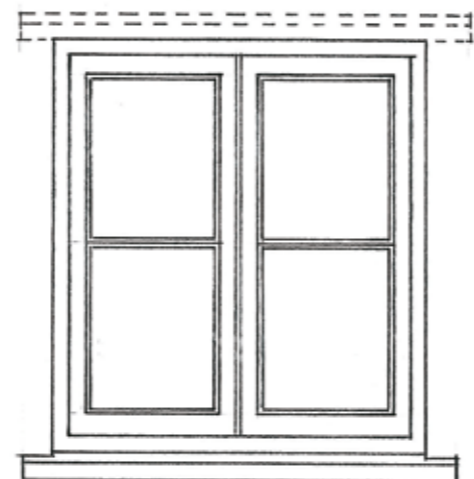


Single pane  
without central  
mullion

pentic board shown dotted



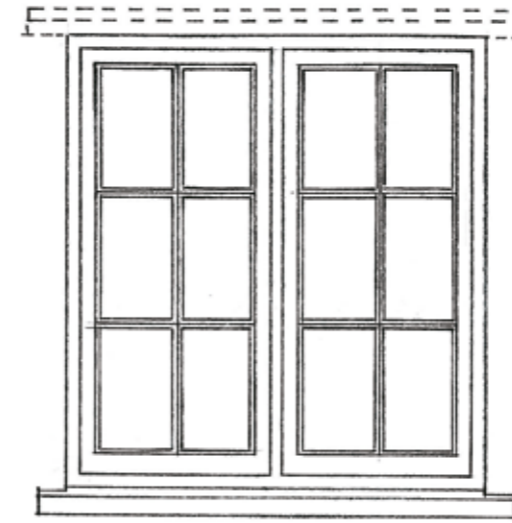
2- pane casements



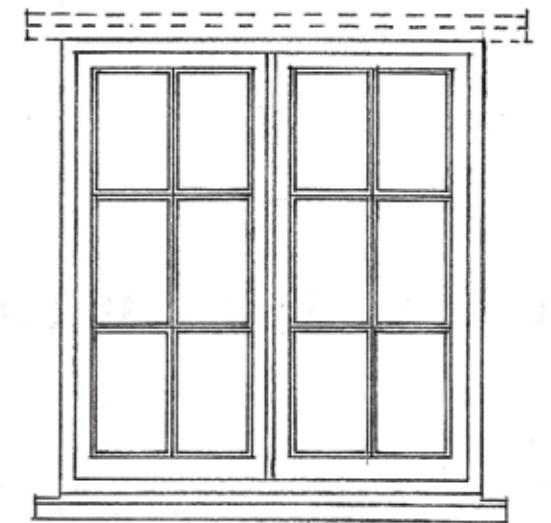
2- pane casements  
without central  
mullion

FLUSH SIDE CASEMENT WINDOWS  
ELEVATIONS

Scale 1:20

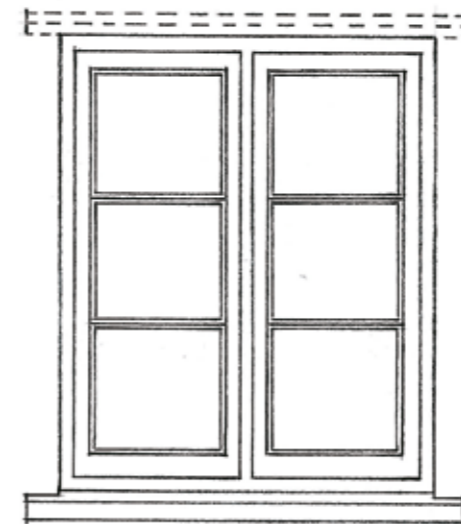


6- pane casements

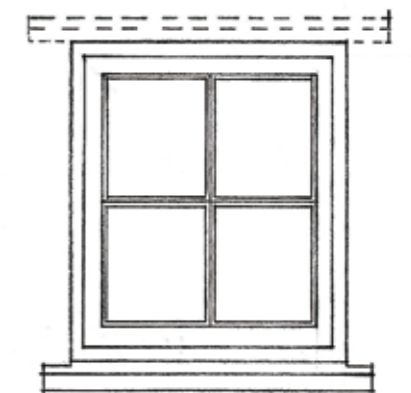


6- pane casements  
without central  
mullion

pentic board shown dotted



3- pane casements



4- pane  
casement

## Doors

A front door stamps its identity on a house and can have a critical effect on its appearance. Doors and ironmongery should be appropriately detailed for the period of the building and where existing, they should be retained in preference to replacement.

The earliest timber doors had vertical boards, sometimes with mouldings, and ledges or a squared frame of thin timber nailed to the back. With minor variations this style of door was common until the early 20th century when boarded doors became fully framed. Panelled doors became fashionable from the later 17th century, particularly in higher status buildings. Initially doors were usually two panelled; six panelled doors became popular from the early 18th century, and four panelled in the 19th century.

The arrangement and size of the panels could vary, as could the mouldings around them. The edge mouldings were cut into the frame on the more important side of the door and the panel fixed from the back with beads.

On the most expensive doors the centre of the panel was given raised and fielded mouldings

Historic doors are thinner than many modern doors, but used better quality timber. Unless doors were in a high quality wood such as oak or mahogany, they were painted. Stripping pine doors is a late 20th century fashion that has no historic basis and the process of removing original paint from doors permanently loses historic finishes and can weaken the structure and joints of the door.

Original ironmongery should be retained. Its elegance, tactile nature and patina cannot be reproduced. New ironmongery should be practical and respect the style of the door and the products commonly sold as reproduction door furniture are out of place. Ironmongery based on historic precedent is readily available from specialists. Philips and crosshead screws date from the 20th century and therefore traditional slot head screws are more appropriate for earlier doors.



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### References

Conservation in Essex No. 4. Historic Buildings  
Conservation in Essex No. 7. Conservatories and Historic Buildings  
Essex County Council

The Georgian Group Guides  
No. 3 Doors  
No. 8 Ironwork

The Victorian Society Guides  
Number 1 Doors

Hall, L. 2005 *Period house fixtures and fittings 1300-1900*, Newbury: Countryside Books.

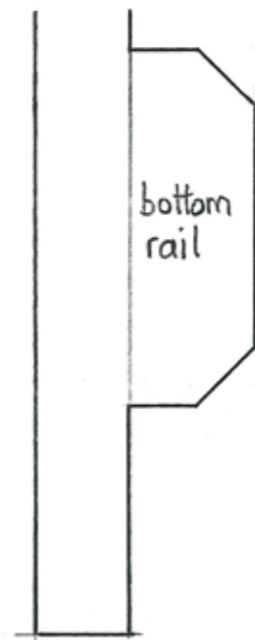
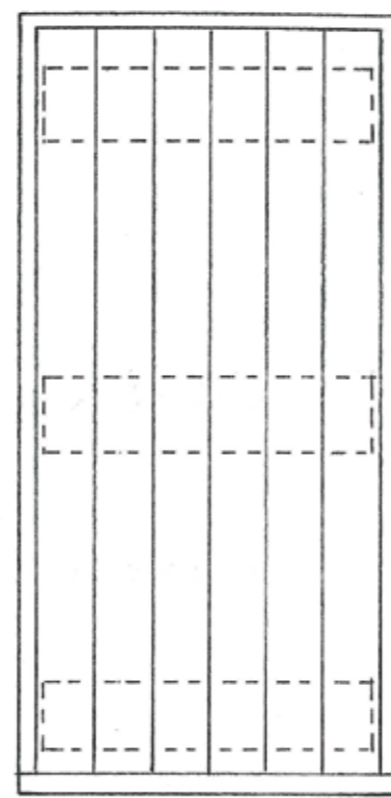
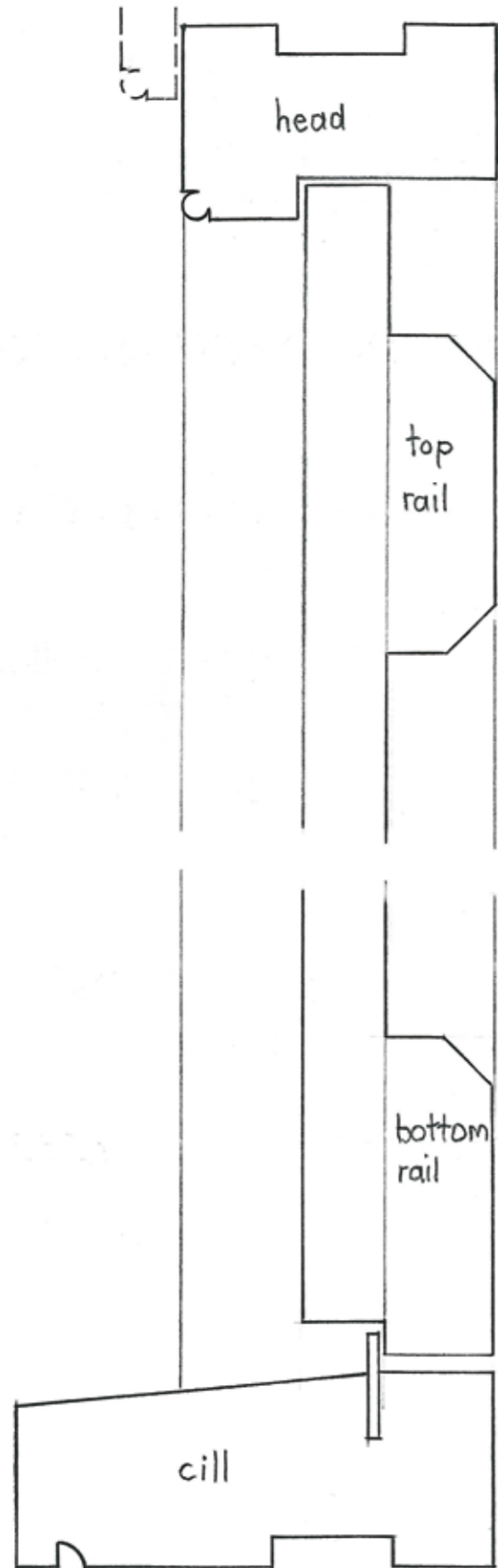
1 Boarded internal door  
2 Ventilated door  
3 External boarded door  
4 Wide boarded door  
5 Stable doors  
6 Early 19th-century  
6-panelled door with  
semicircular brick head  
and fanlight

7 6-panelled door and  
doorcase with glazed  
upper lights  
8 Early 19th-century 6-panel  
door, fanlight and doorcase  
9 Door with glazed margin  
lights and doorcase

10 6-panel door and canopy  
11 6-panel door, fanlight and  
canopy  
12 Internal 6-panelled door

# BOARDED DOOR

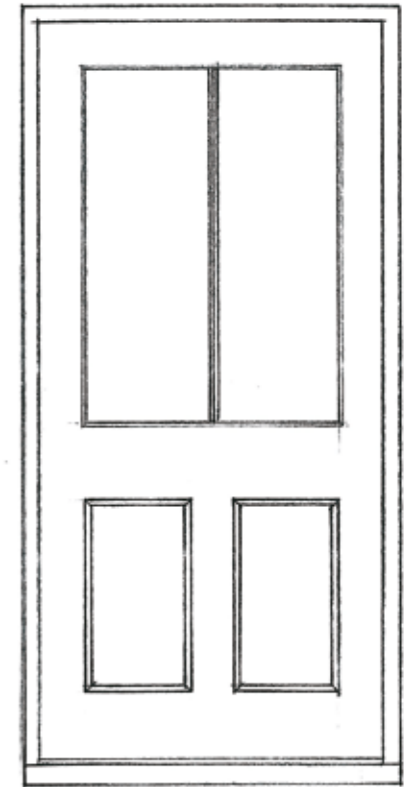
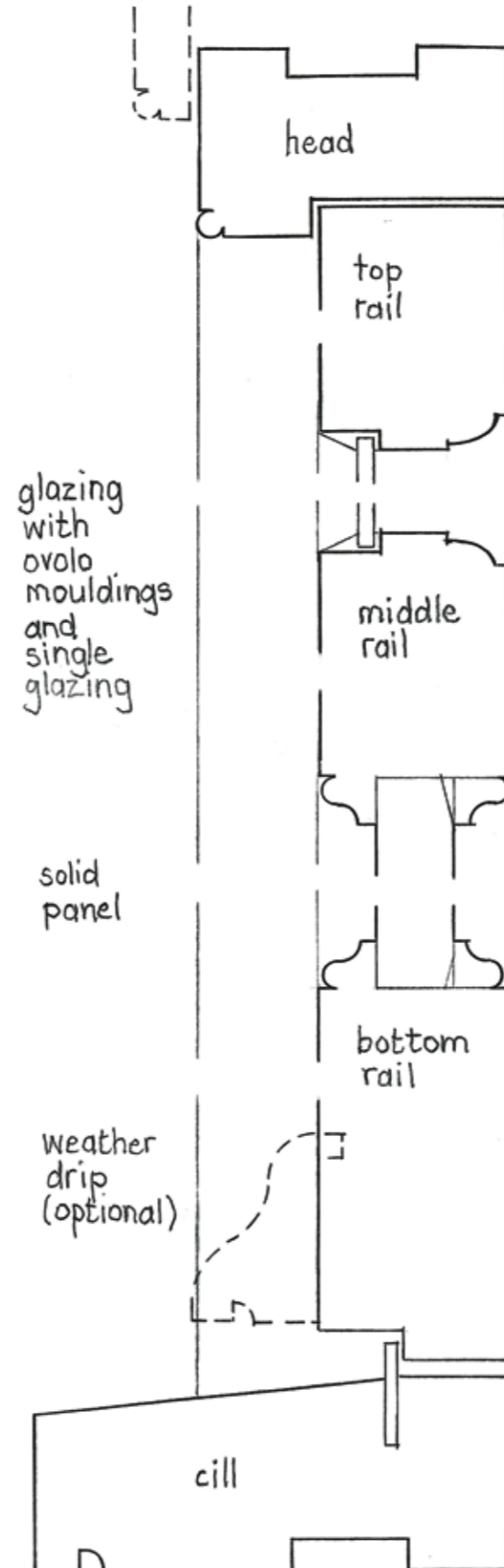
Scale 1:2  
1:20



Bottom rail for internal doors and outward opening external doors

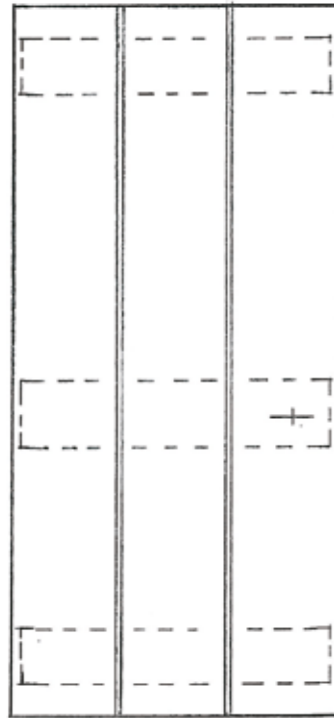
# GLAZED PANELLED DOOR

Scale 1:2  
1:20

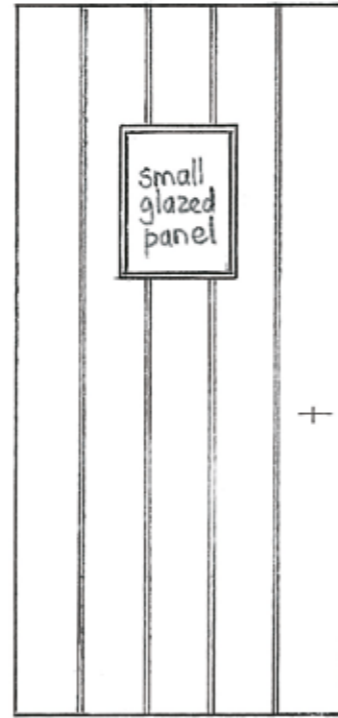


TYPICAL BOARDED DOORS

Scale 1:20



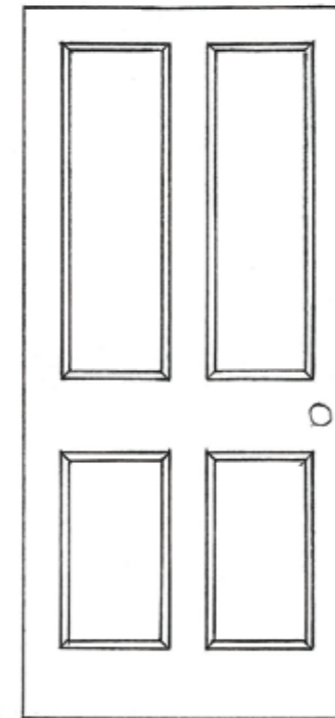
wide boards  
plain butted edges or  
bead butt boards with small beads approx 8mm  $\phi$   
or more decorative mouldings  
ledges on inside of door  
diagonal braces are a late C19 and more modern detail



TYPICAL 3 & 4 PANEL DOORS

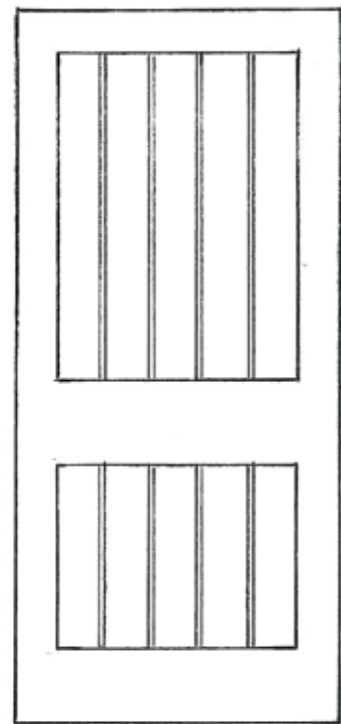
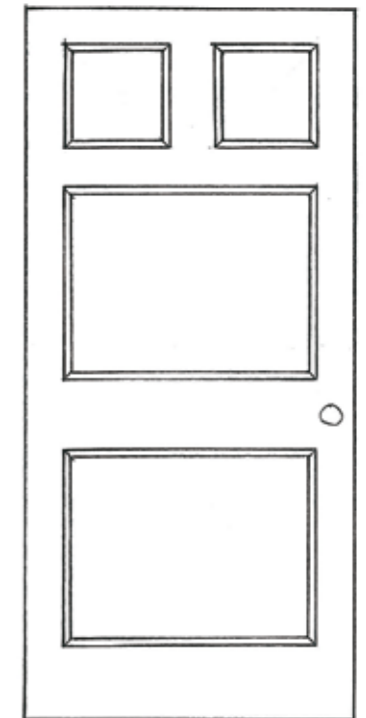
Scale 1:20

Painted timber (or expensive woods eg walnut)



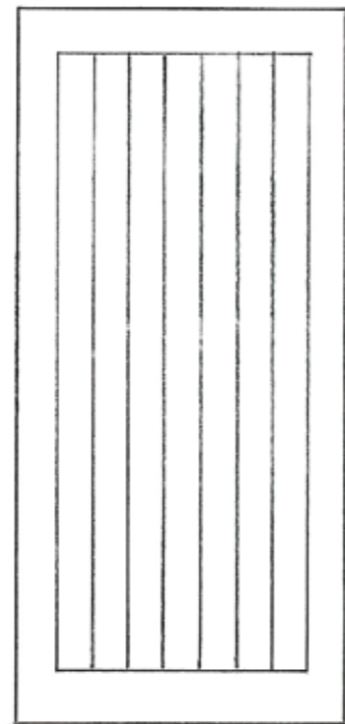
top panels may be glazed

Raised & fielded panels for important status doors  
Flat panels elsewhere

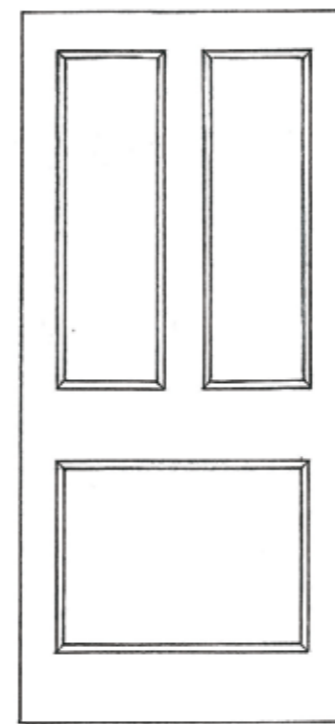


narrow or wide boards  
bead butt or V joint  
often has stop chamfers to panel edges

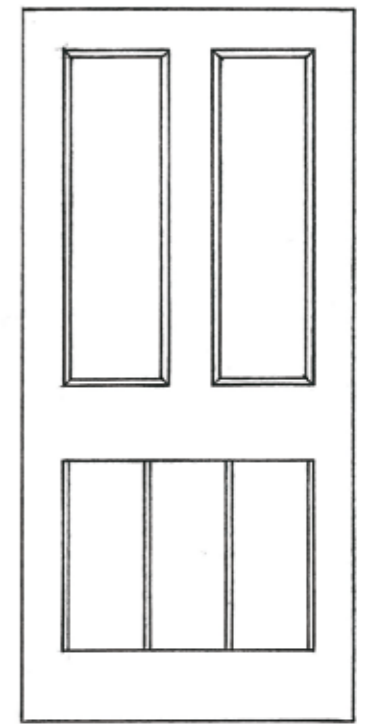
late C19 type  
Varnished oak or painted timber



C20 type  
Framed and boarded



top panels may be glazed

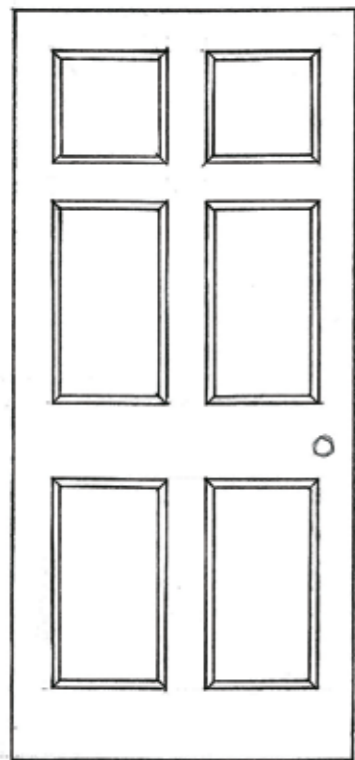


late C19 with beaded boards.  
finish may be varnished oak.



TYPICAL 6-PANEL DOORS Scale 1:20

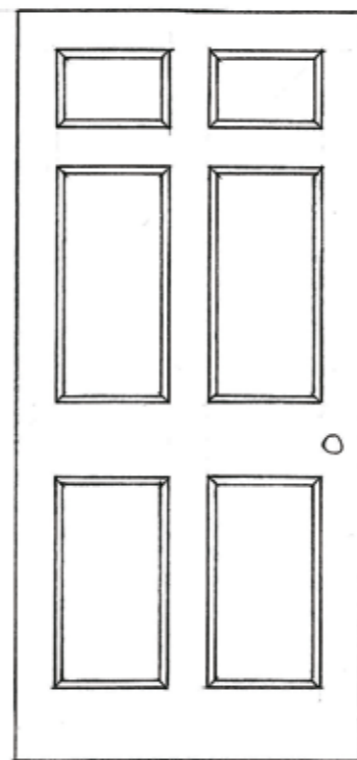
Painted timber (or expensive woods eg walnut)



top panels  
may be glazed

Raised & fielded  
panels

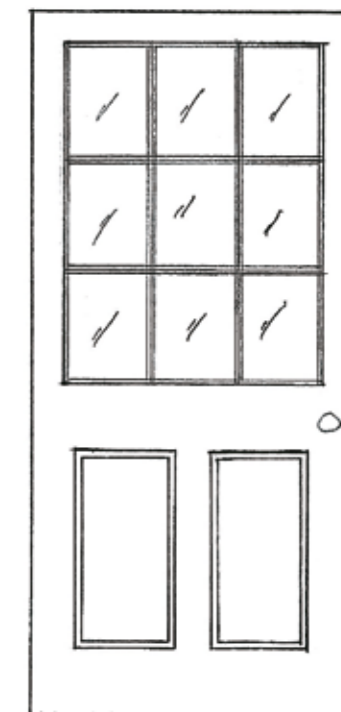
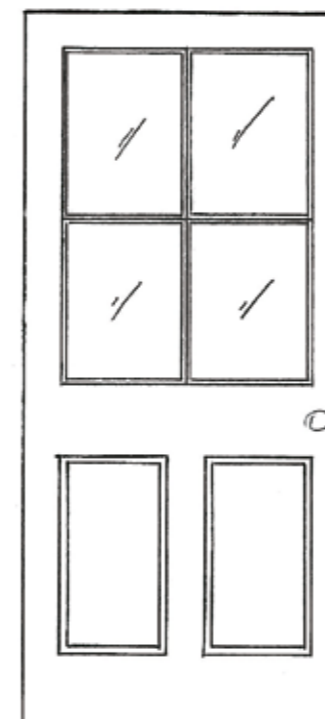
or flat panels



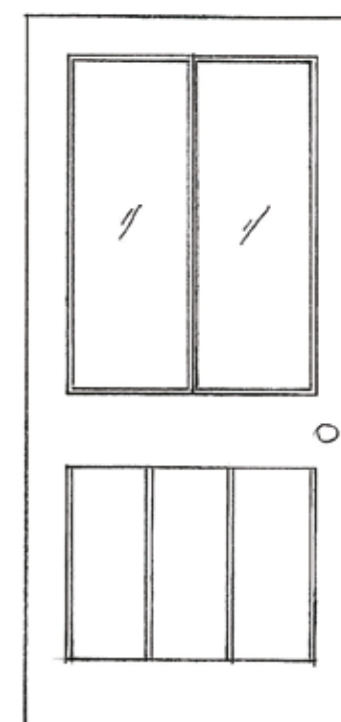
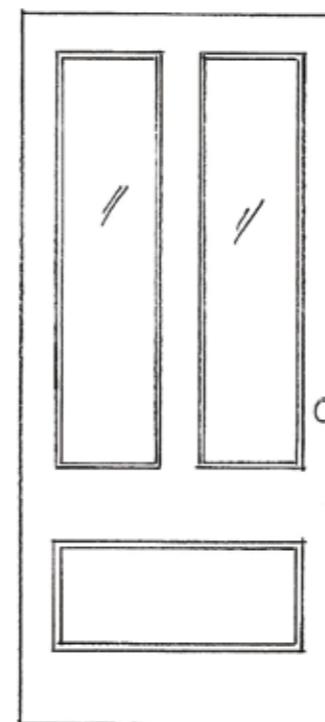
TYPICAL HALF-GLAZED DOORS Scale 1:20

Painted timber

Scale 1:20



circa 1800-1820 may  
have marginal lights.



late C19 with  
beaded boards

## Boundaries

Boundary treatments can have an immense impact on the setting and appearance of buildings and the areas in which they are situated. Walls and gates enclosing a listed building require planning permission. Historic boundaries should be retained.

Larchlap and close boarded fences are unacceptable: picket fences, wattle fencing and brick and flint walls are much more sympathetic. In rural areas, post and rail, simple park railings and hedges are the most common and appropriate

Railings can be wrought or cast iron. There are still foundries that produce prefabricated cast iron railings similar to local historic examples. Hooped railings were popular but if they are to be reproduced they should be constructed in a continuous run rather than in panels and match the original base detail continuing to ground level without terminating at a rail. Square rails should have square arrisses rather than the rounded corners characteristic of hollow rolled section steel and they should be at least 20mm wide. Traditional paint colours are off-white stone colour, mid to dark blue, black, dark green, brown and grey.

Gates can be wrought or cast iron, or wood. Wooden gates are preferred to iron ones. Hanging rails and meeting rails are often taller than the rest of the gate.

The design of a gate within railings should match the height, horizontal levels and general design of the railings. The size, materials and design of gates should be compatible with the status of the building and entrance. Thus an intricately designed wrought iron gate would be appropriate for a significant country house rather than an urban terrace.

Masonry walls should be capped using a traditional capping tile or brick on edge. Capping tiles are usually clay and can be half-round, angle or double curved. Creasing tiles are a 20th-century detail and therefore not appropriate for buildings of an earlier vernacular character. Brickwork should be in soft red, yellow stock or white gault bricks to match the locality, using a traditional bond such as Flemish bond, English bond or garden wall bond.

Stretcher bond is too monotonous and dates from the introduction of cavity walling and so is only appropriate for walls around 20th century buildings. Soft red bricks should not be bedded or pointed in a cement mortar. Instead a lime mortar should be used that is softer than the brick. A flush joint is usually the most appropriate joint for a traditional brick wall.



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### References

The Georgian Group Guides  
No. 8 Ironwork

The Victorian Society Guides  
Number Six: Cast Iron

1 Hooped iron railings

2 Picket fence

3 Carefully detailed close  
boarded fence

4 Hooped iron railings

5 Double hooped iron railings  
and gate

6 Flint wall with half-round  
gault brick capping and  
boarded gate with rails

7 Crinkle-crankle red  
brick wall

8 Cast iron railings

9 Woven wattle fence

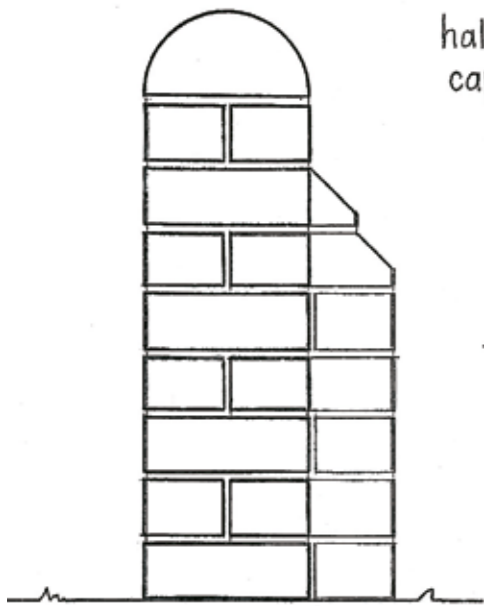
10 Soft red brick wall with  
dentil course below the  
capping

11 Brick wall with half-round  
capping

12 Boarded fencing

# BOUNDARY WALLS - BRICK

Scale 1:10

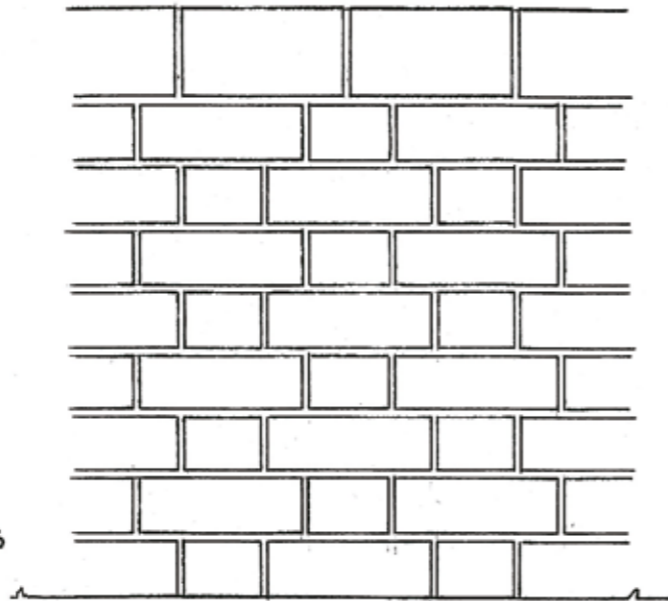


half round capping

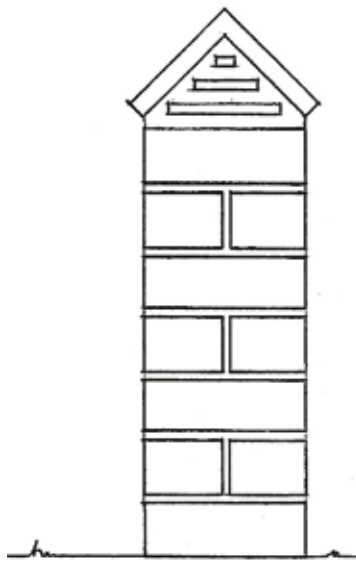
buttress bonded into wall

traditional brick bond

Flemish bond shown with narrow perpends

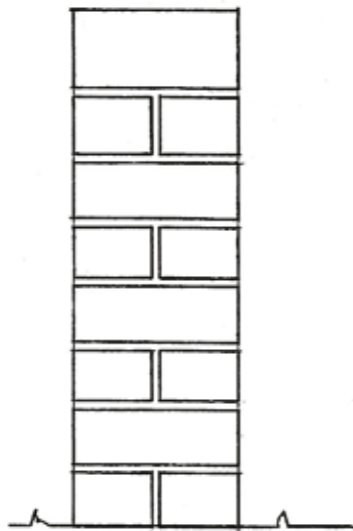


## HALF ROUND CAPPINGS



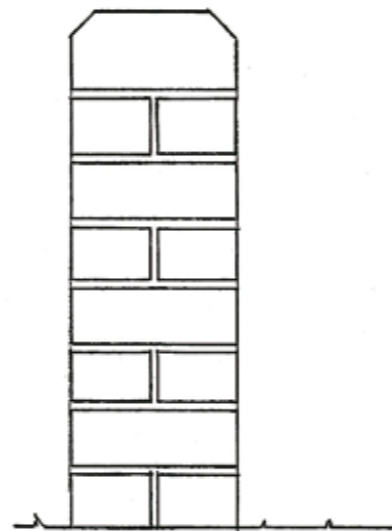
### ANGLE

If a hollow capping is used, tile gallet the ends to reduce mortar cracking.



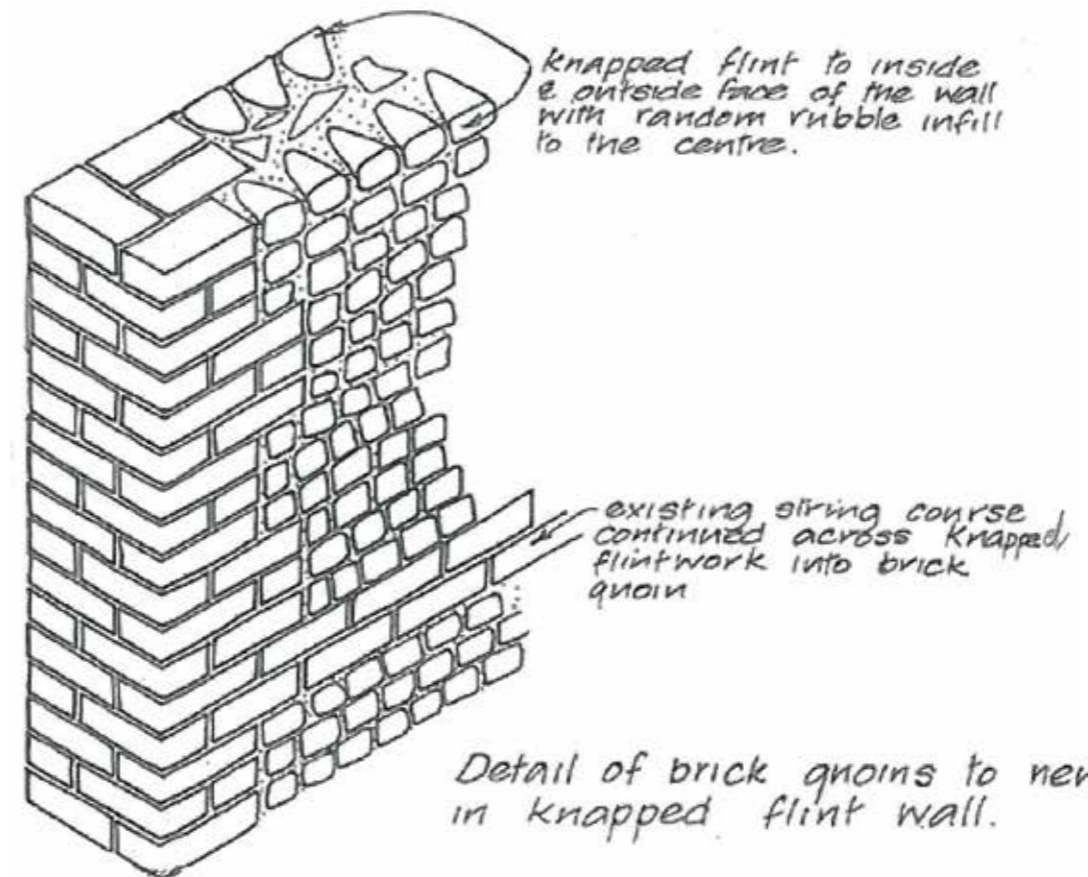
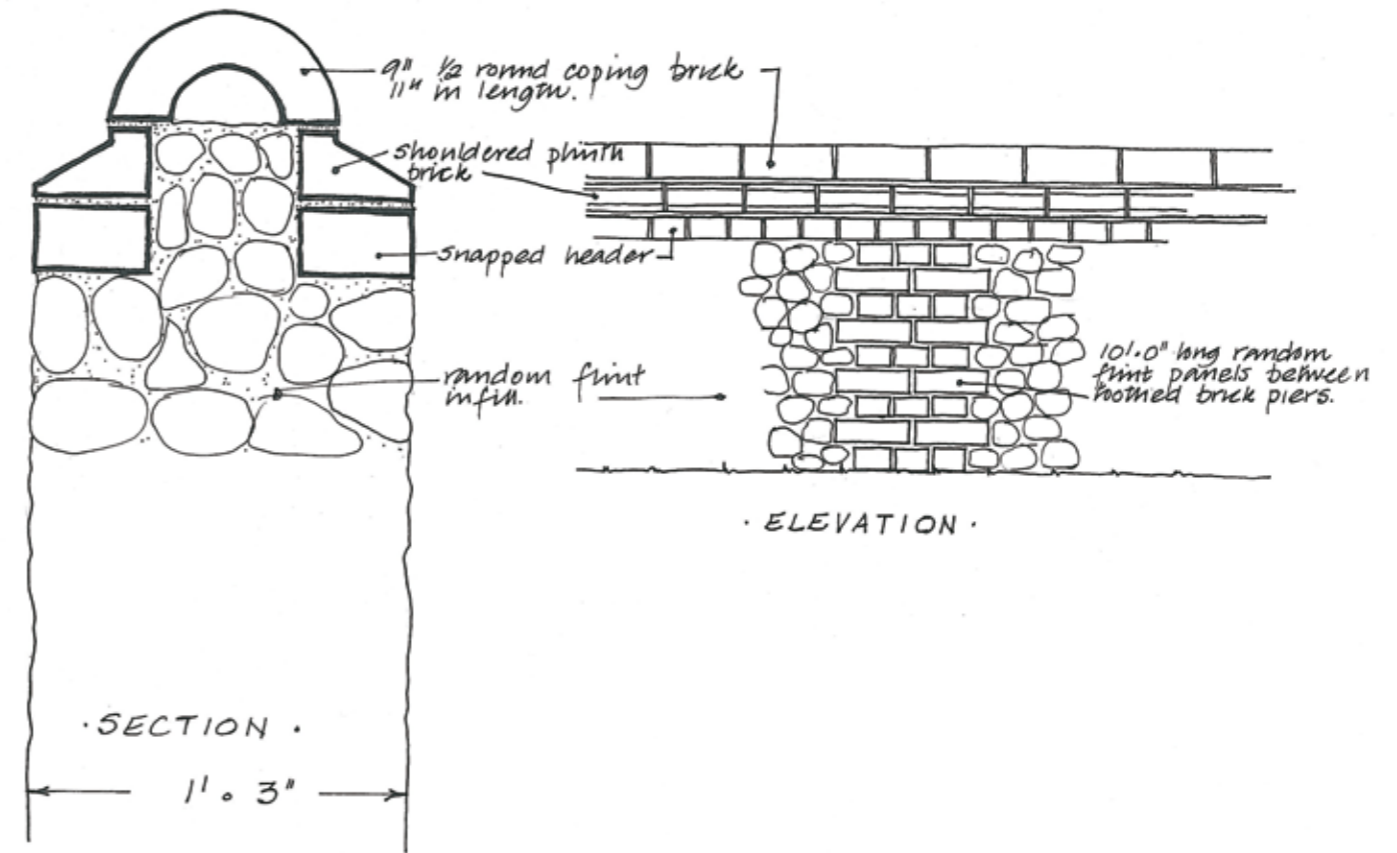
### BRICK ON EDGE

(without tile creasing)



### DOUBLE PLINTH

# BRICK AND FLINT WALLS



## Guidance on Repairs

### SPAB Technical Pamphlets:

*The Repair of Timber Frames and Roofs*

*The Care and Repair of Thatched Roofs*

*The Care and Repair of Flint Walls*

*Care and Repair of Old Floors*

*Conservation of Decorative Leadwork*

The Society for the Protection of Ancient Buildings

37 Spital Square London E1 6DY

[www.spab.org.uk](http://www.spab.org.uk)

### Georgian Group Guides:

No. 1 Windows

No. 2 Georgian Brickwork

No. 3 Doors

No. 5 Render, Stucco and Plaster

No. 8 Ironwork

No. 10 Roofs

No. 11 Floors

No. 12 Stonework

The Georgian Group, 37 Spital Square London E1 6DY

[www.georgiangroup.org.uk](http://www.georgiangroup.org.uk)

### The Victorian Society Guides:

Number One: Doors

Number Two: Decorative Tiles

Number Six: Cast Iron

Number Seven: Brickwork

The Victorian Society, 1 Priory Gardens, Bedford Park, London W4 1TT

[www.victorian-society.org.uk](http://www.victorian-society.org.uk)

### Essex County Council Historic Buildings Advice Leaflets

Plastering and Limewash

Repointing

Weatherboarding

Pargetting

Conservation in Essex No. 4. Historic Buildings

### English Heritage Practical Building Conservation Series

Volume 1: *Stone Masonry*

Volume 2: *Brick, Terracotta and Earth*

Volume 3: *Plasters, Mortars and Renders*

Volume 4: *Metals*

Volume 5: *Wood, Glass and Resins*

John and Nicola Ashurst. English Heritage 1988

## General References

Cathedral Communications Ltd *The Building Conservation Directory*, published annually

[www.buildingconservation.com](http://www.buildingconservation.com)

Essex Planning Officers Association 1997 *The Essex Design Guide for residential and mixed use areas*, Essex County Council (revised edition 2005).

Fawcett, J. 1998 *Historic floors: their history and conservation*, Oxford: Butterworth-Heinemann.

Hall, L. 2005 *Period house fixtures and fittings 1300-1900*, Newbury: Countryside Books.

Holmes, S. and Wingate M. 1997 *Building with Lime - a practical introduction*, Intermediate Technology Publications.

Schofield, J. 1995 *Lime in Building - a practical guide*, Black Dog Press.

Tutton, M. and Hirst, E. eds 2007 *Windows. History, repair and conservation*, Donhead Publishing

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