

## Technical Details and Installation Instructions

### **Purpose**

This document is for the express purpose of assisting designers, architects, Building Consent Authorities and trade persons to achieve the correct installation of this product.

### **Limitations**

This product is limited in its usage to all the contrarians and design limitations of NZS 3604, Timber Frame Buildings and all amendments, and AS/NZS 4210, for Masonry materials and Workmanship and its amendments—Specifically for masonry veneers.

Villa Veneer is limited to single story construction as unreinforced veneer. However with engineer specified design it can be used in multi story construction.

### **Acceptable Solution**

This product meets the requirements of AS/NZS 4455 as a masonry veneer and can be used for the purposes of providing adequate means of weather tightness as a cladding to residential dwellings in New Zealand. The stated unconfined compressive strength of this product is 12.5Mpa.

### **Mortar**

Addition of a water proofing agent in the mortar mix is recommended. Refer to suppliers for recommendation on waterproofing selections and application.

(Note: generally the requirements for mortar are covered under NZS 4210)

### **Sealers**

The use of a surface sealer is recommended in all cases except where an alternative treatment is to be used (e.g. painting)

Sealer selection criteria and application requirements are available from the various suppliers.

### **Responsibilities**

The purchaser is responsible for ensuring that those involved in the application, installation and continued usage of this product, read, understand, and interpret this document as part of the manufacturers instruction.

### **Laid product deemed accepted**

The manufacturer accepts no liability or responsibility for any incorrect or poor installation of this product. Once the product has been laid it is deemed to have been accepted in full.

# VILLA VENEER BRICK TECHNICAL MANUAL

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The manufacturer accepts no liability or responsibility for the installation or take down costs incurred by any party.

## **Recommendations**

We recommend that this document be provided to your Local Building Consent Authority at the time of application for a building consent. We further recommend the use of a Registered Master Mason specialising in brick veneers for the installation of this product.

## **Warrantee**

This product complies with and exceeds fifteen year durability requirements of N.Z.B.C. B2

## **Warning**

The technical details and information provided in this document correspond to the best of our knowledge and experience , with all legislative requirement and good trade practice. All information provided must, in every case, be taken as an indicative and is subject to confirmation by experienced qualified practical applicators and professional designers;

For this reason, anyone who intends to use the product must ensure *beforehand* that it is suitable for the envisaged application. In every case the user alone is fully responsible for any consequences deriving from the use of this product.

## **Technical help and advice**

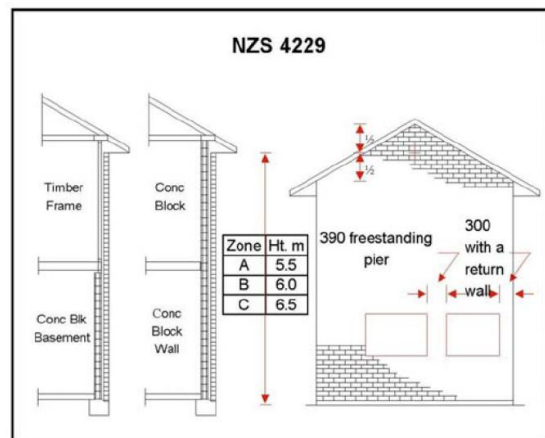
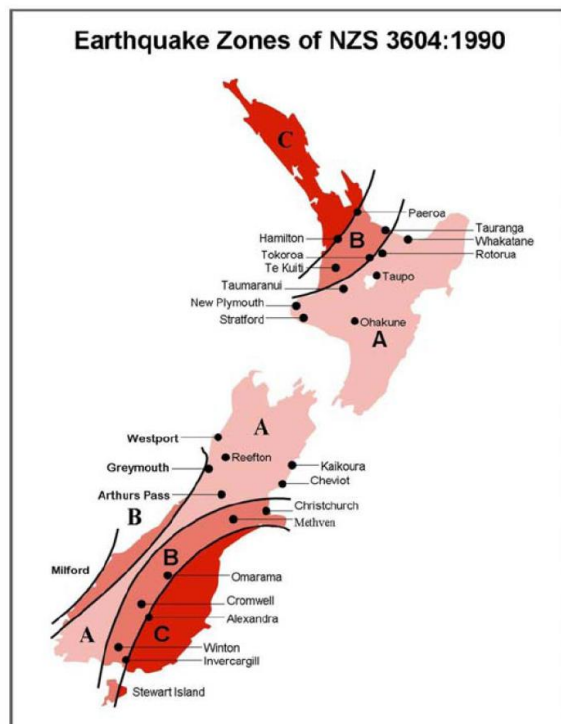
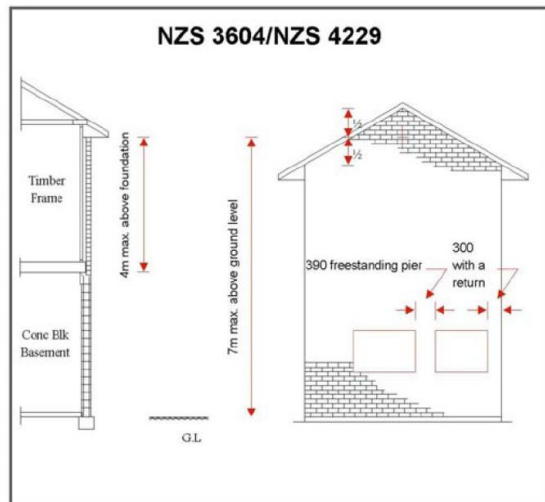
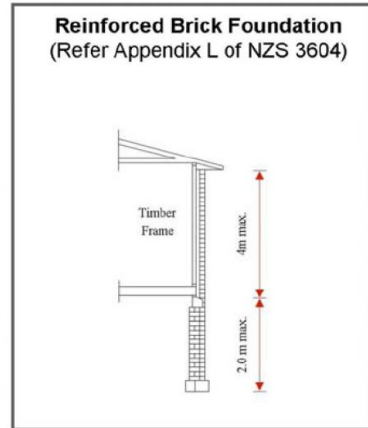
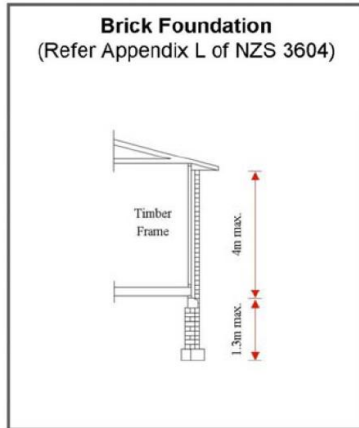
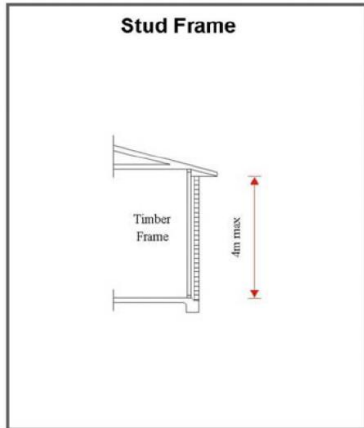
Phone (03) 449 3140 , Fax (03) 449 3144, or Email Keith Millar at [keith@viblock.co.nz](mailto:keith@viblock.co.nz)

**Erection of brickwork and clean down should be in accordance with best trade practises.**

**For long term maintenance information refer to Manufacturer as detailed above.**



## Design Dimension Limits for Concrete Brick Veneer not requiring Specific Design As Permitted by NZS 3604, 4229 - Buildings And Their Attached Veneers



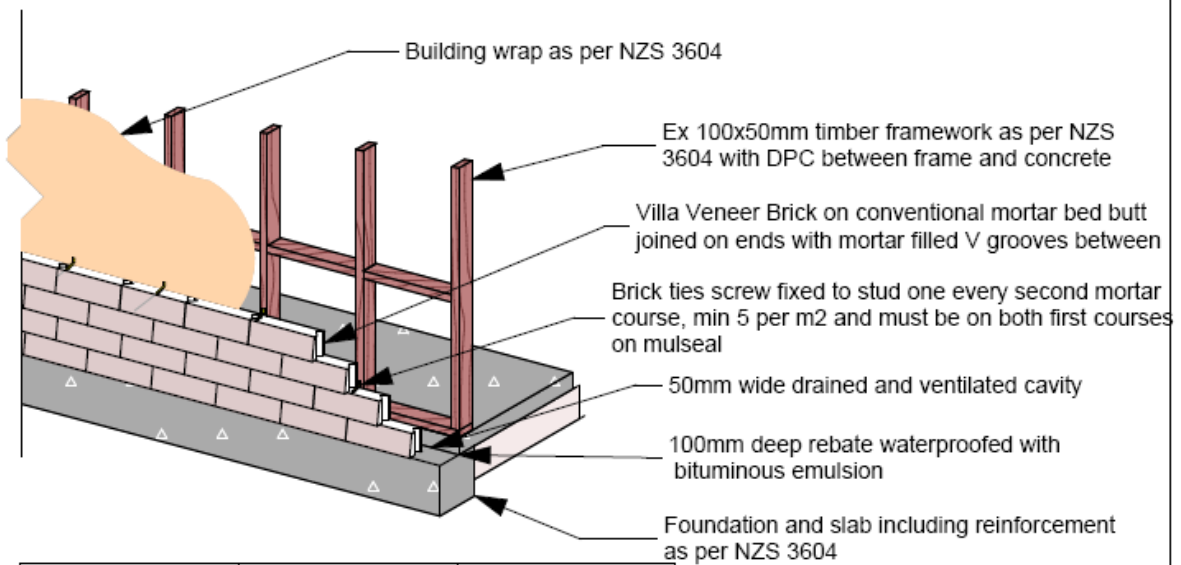
### Non Specific Design

Veneer heights, wall ties and supporting structures must comply with the requirements of NZS 3604 and/or NZS 4229, otherwise specific design will be necessary. All workmanship for concrete brick veneers shall comply with the requirements of NZS 4210.

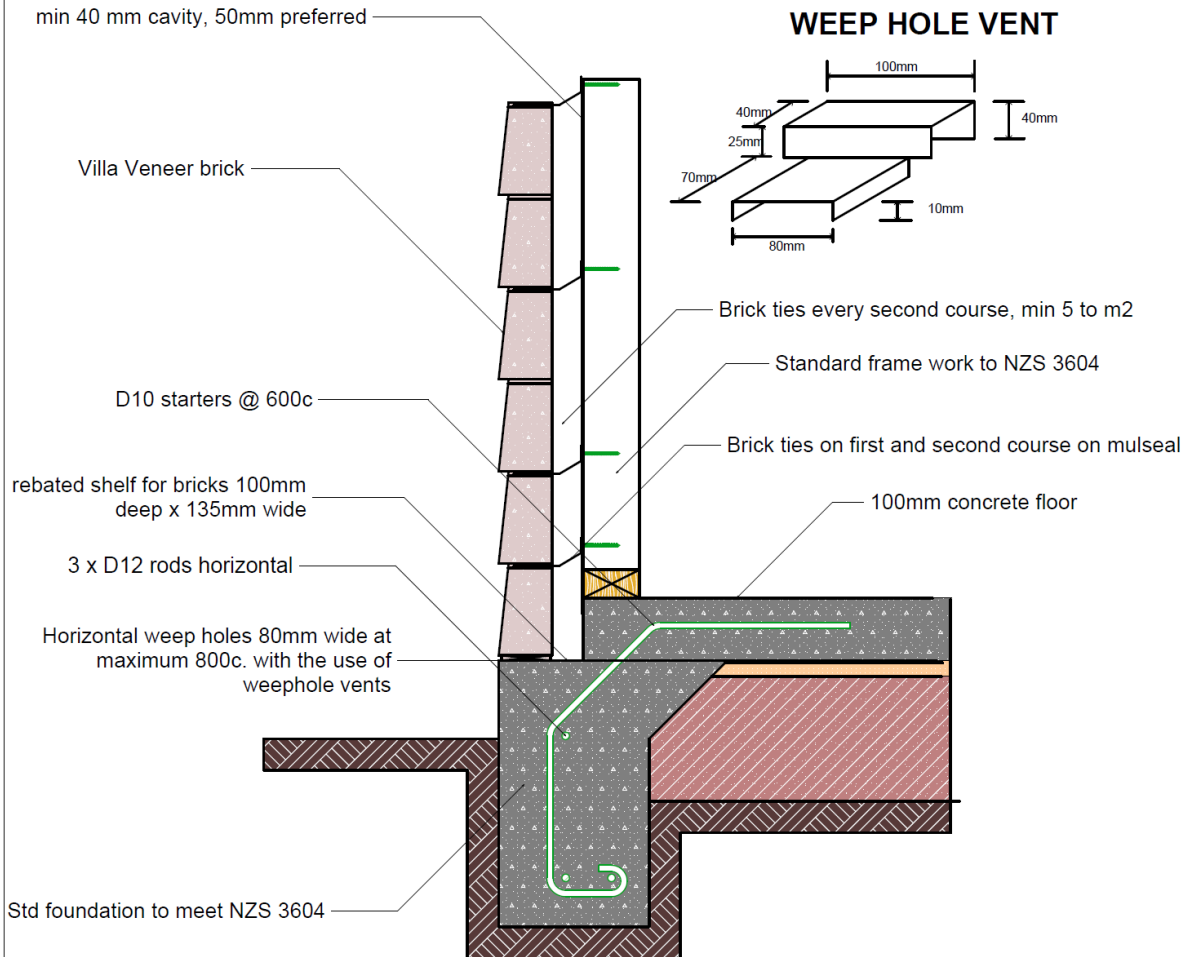
Not to Scale



## Installation example



Product specification	Villa Veneer Bricks	Column or corner brick
<b>Size</b>	400 l x 140 h x 85 w	285 l x 140 h x 85 w
<b>Average dry weight (kg)</b>	7.5	5.3
<b>Units per m2</b>	17	24
<b>Average mean compressive strength</b>	12.5 MPa	12.5MPa
Meets requirements of AS/NZS 4455,4456 & NZS 4210, 3604 Although Villa Veneer Bricks meet the NZ Building code requirement as an acceptable solution , we recommend that you check with your local authority before specifying Villa Veneer Brick for your building project		
Complies with and exceeds 15 year durability requirments of N.Z.B.C. B2		

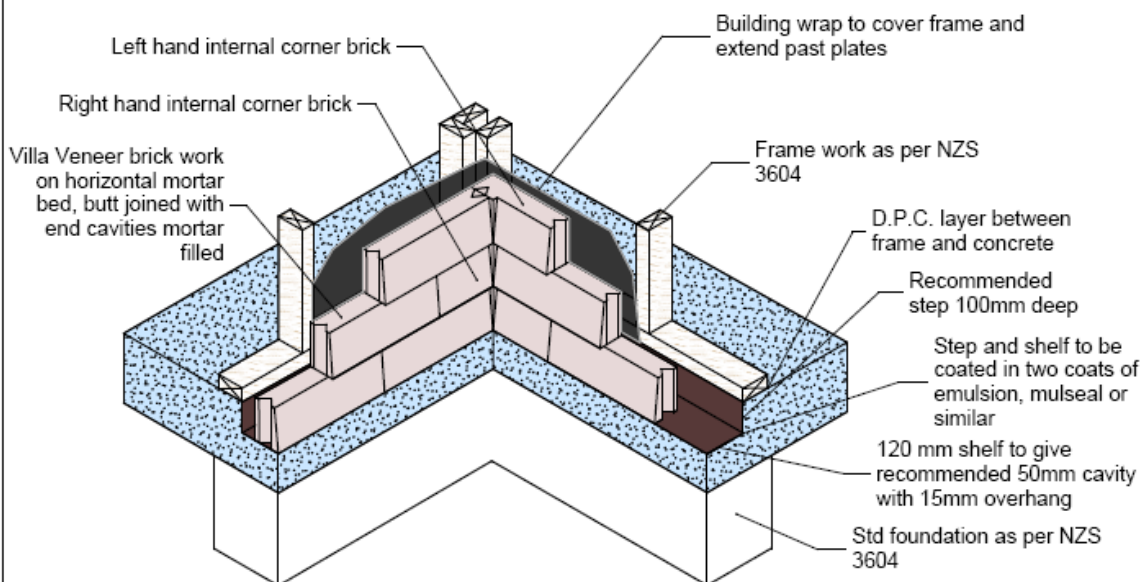
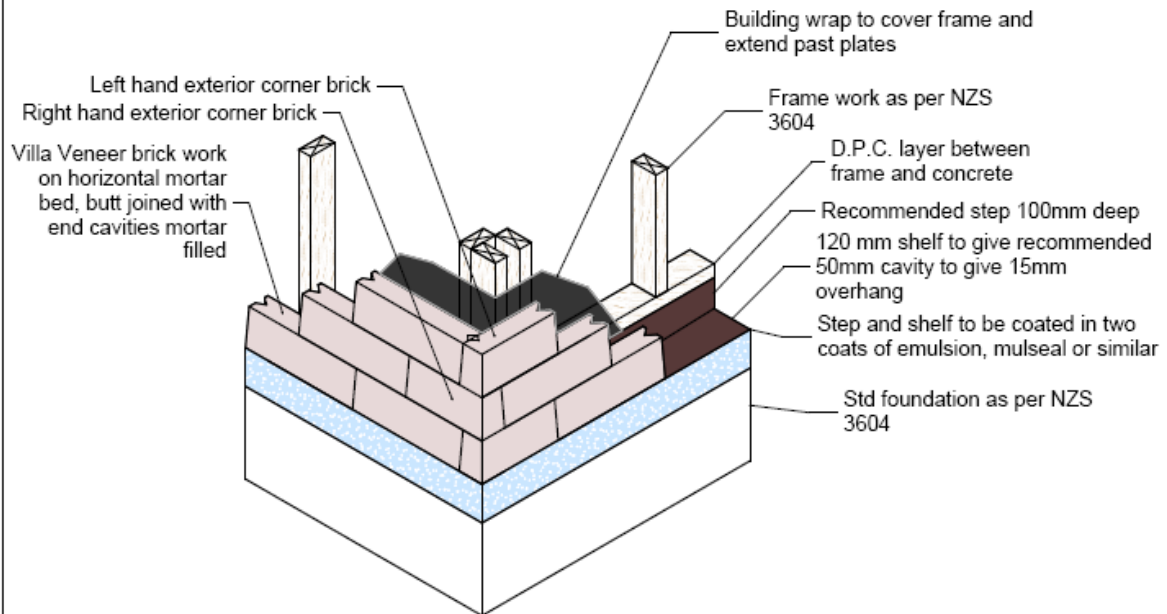


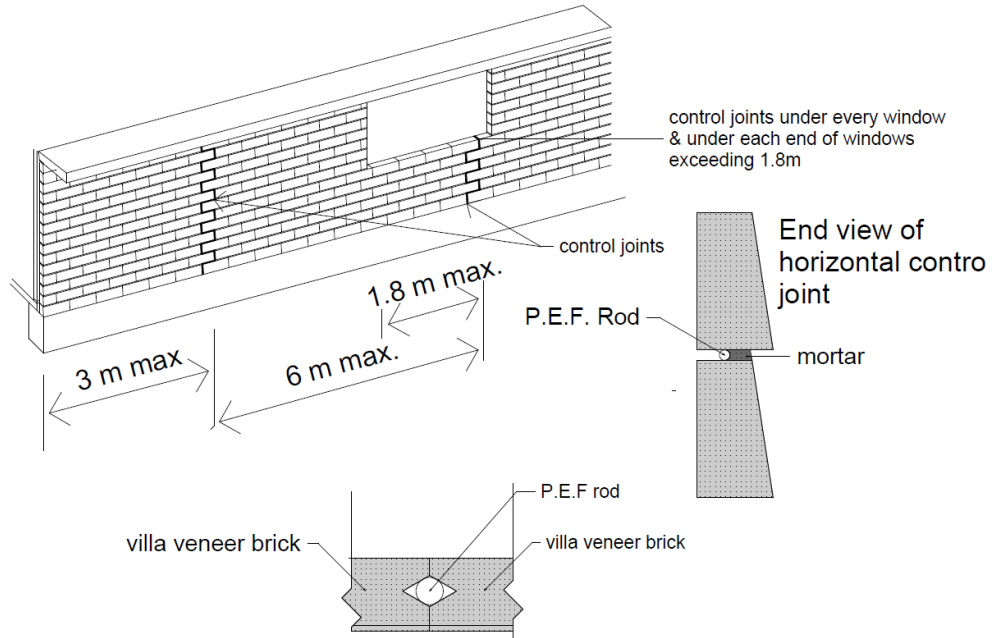
## IMPORTANT NOTE

Villa veneer recommend horizontal weep holes for aesthetic purposes, but as cavity must be completely clear behind weepholes to facilitate adequate air movement, a weep hole vent must be used against the footing to ensure that this is the case. Please check with local Building Control Authority to ensure that this is acceptable in your area. Alternatively vertical weepholes as in a standard brick wall may be employed at centres not exceeding 800mm.

# VILLA VENEER BRICK TECHNICAL MANUAL

## VILLA VENEER





Control joints must be no more than 3m from cnrs and max 6m apart

Vertical Control Joint

All masonry will expand and contract due to temperature changes and drying which may result in random cracking. Ground settlement may also cause cracking

The use of control joints is an effective method for minimilising unsightly random cracking

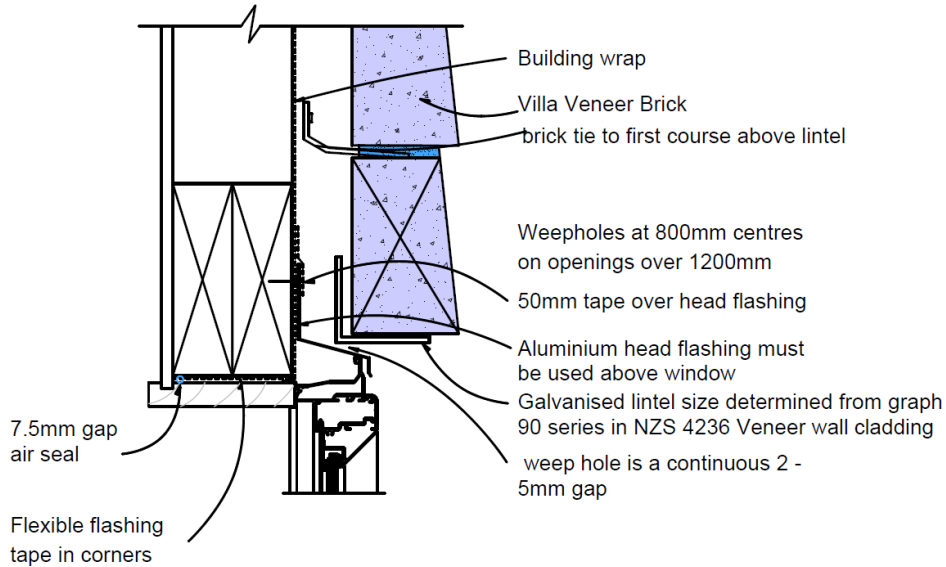
### Control Joint Construction

The following method is used for forming control joints.

- a; Before the mortar fully sets remove from the horizontal joint in a saw tooth line as shown on the above diagram
- b; The un-mortared joint should remain open as long as practicable to allow time for shrinkage to occur.
- c; Place a 12 to 15mm P.E.F.rod into the joint 30mm back from the front face to form a continuous backing strip. Mortar to front of P.E.F.rod to front face of block
- d; Correct installation of control joints will ensure cracking is minimised and contained mainly to these joints.
- e; Vertical control joints on butt laid veneer are to have a 30mm or greater P.E.F rod inserted to diamond shaped void as per diagram above.
- f; If necessary joints can be remortared or filled with colour matching silicon if cracking persists.



## Window Head - Aluminium



**Note:** Scale 1:5

- For openings greater than 2.0m, provide a landing for the lintel of 200mm for each side of the opening.
- For openings less than 2.0m allow 100mm each side of opening.
- 80mm horizontal weepholes to openings over 800mm @ max 800c

**Important:**

- All lintel bars must be propped until mortar is set (7 days).
- It is important to allow the first 3 courses of the brickwork over an opening to set before laying any more bricks above.
- Provide brick ties within the bottom two courses.

## Flat Soffit Detail

10mm ventilation gap or fit against soffit with 10mm mortar joint and provide weepholes 80mm wide in mortar horizontally at max 800c as per base detail to provide adequate air circulation

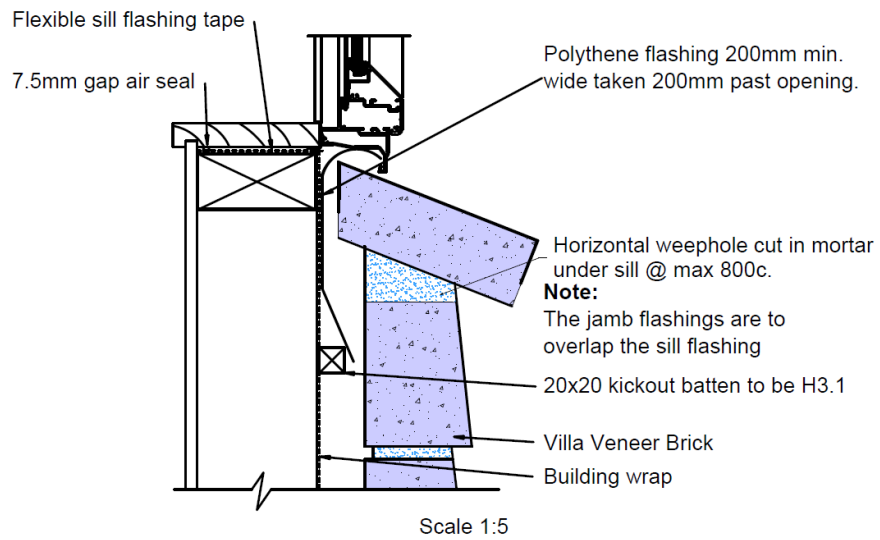
Top of cavity must be sealed with sheet lining

Villa veneer brick

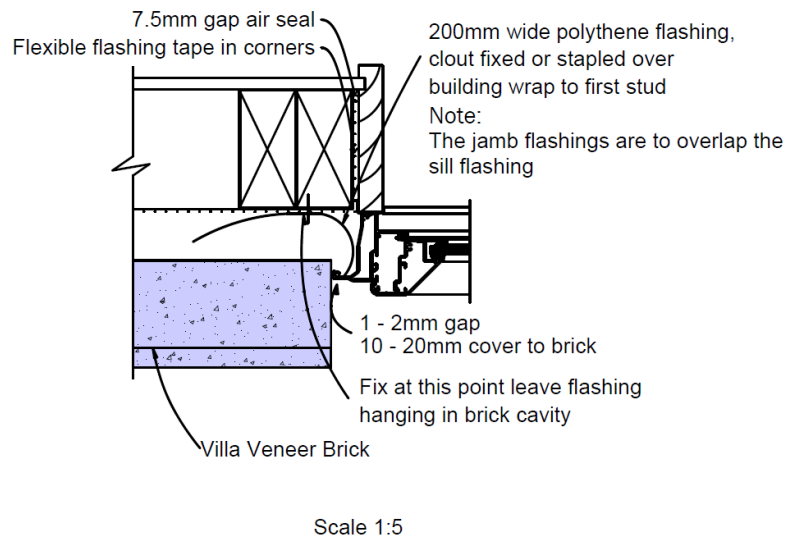
Scale 1:5

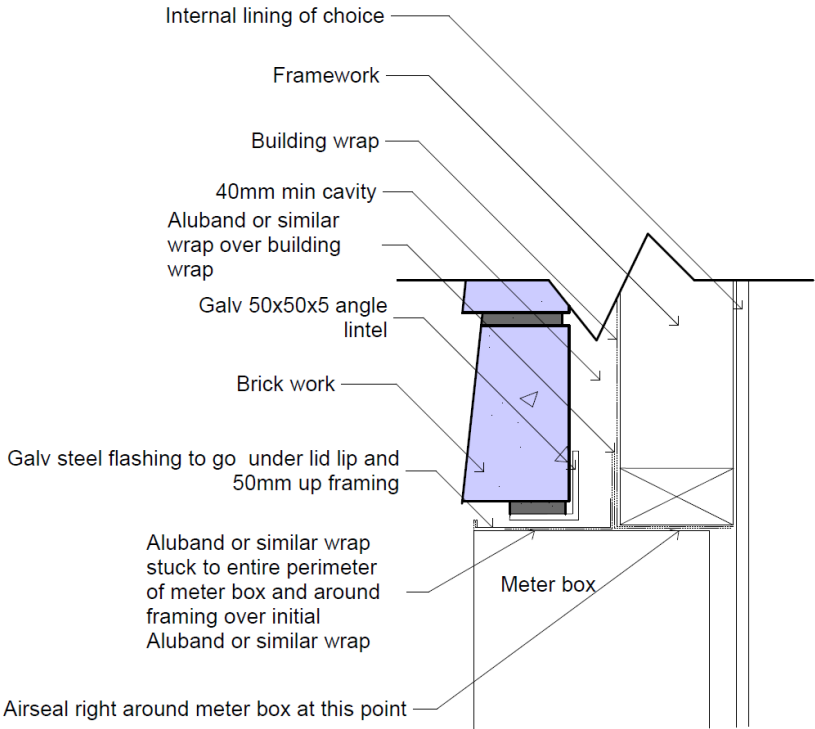


Window Sill - Aluminium

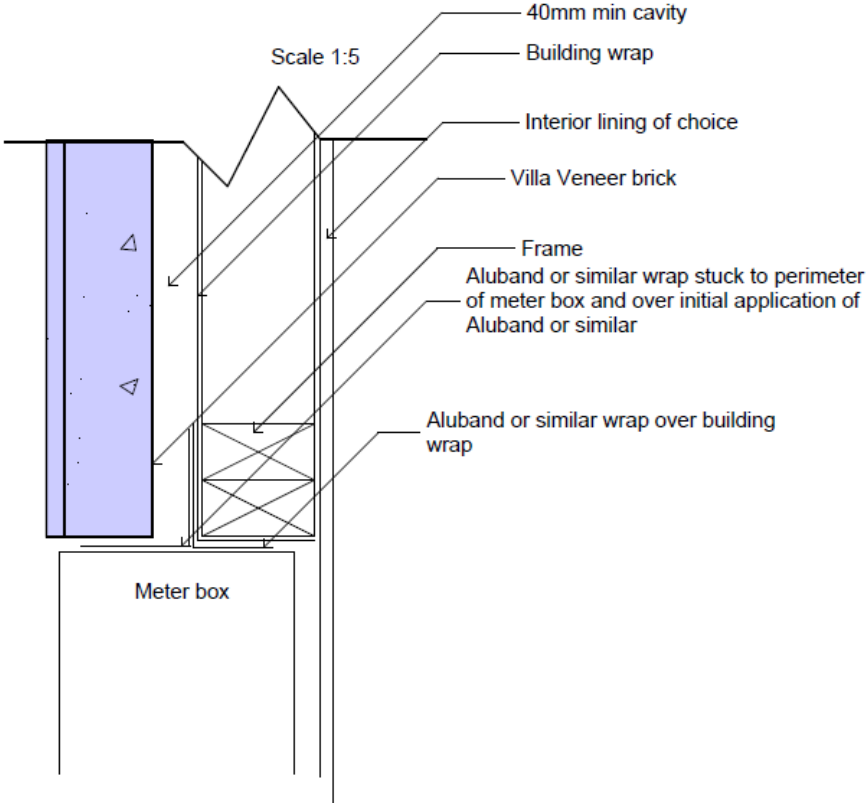


Window Jamb - Aluminium

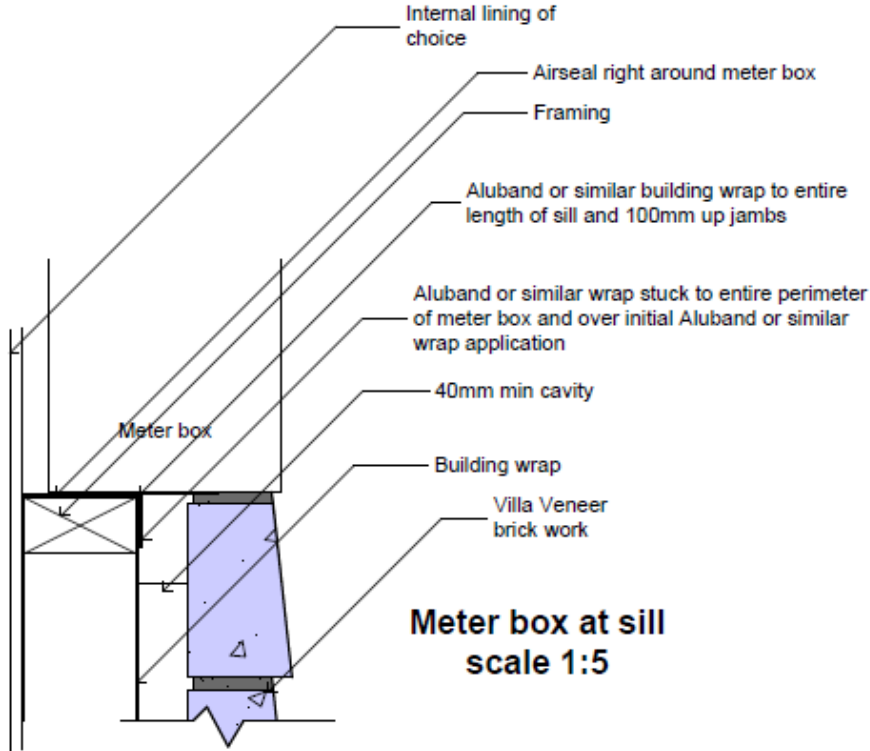


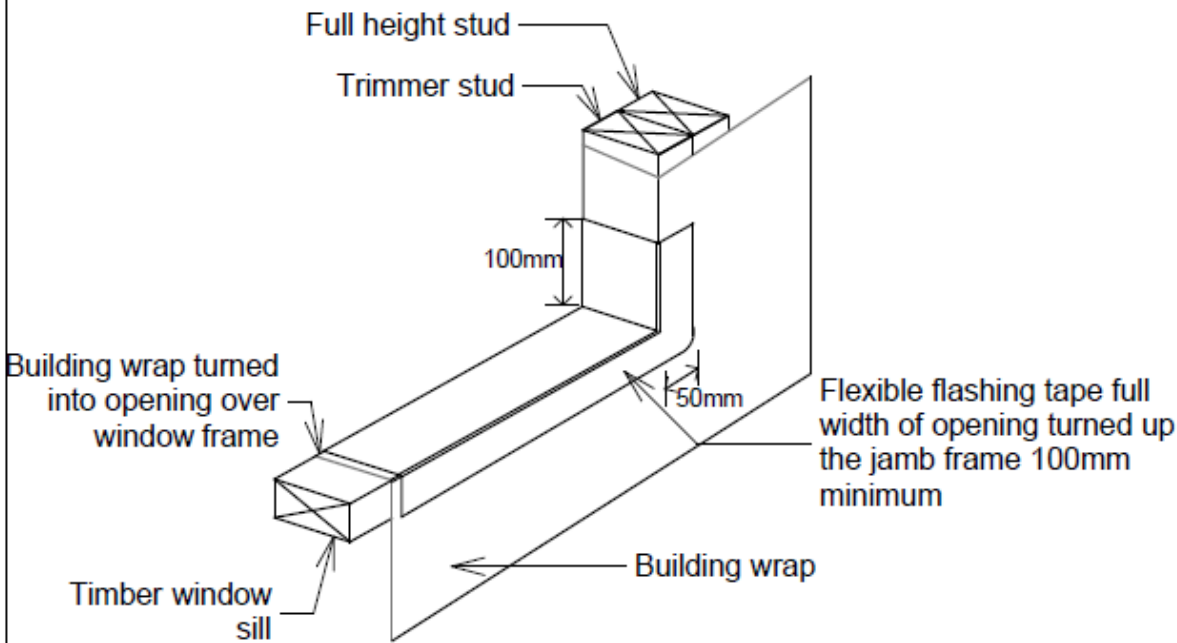


**Meter box at head  
scale 1:5**



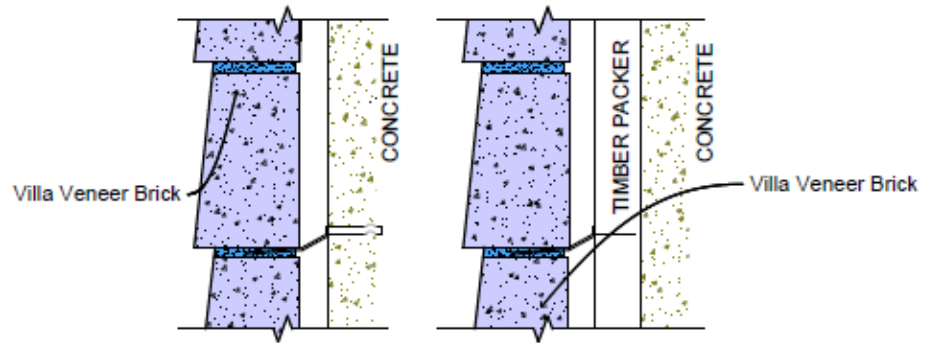
**Meter box at jamb  
Scale 1:5**







Brick Veneer On Concrete

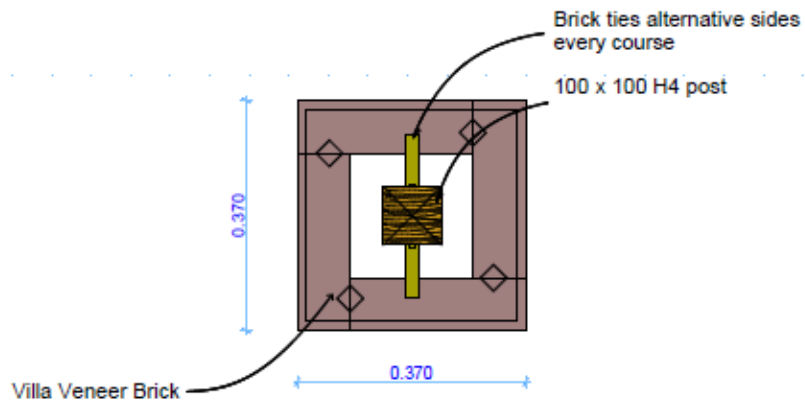


**OPTION 1**  
 Using direct fixing to concrete Fixing - Rawplug MH56MMSS 5 x 38mm Spike or similar, 2 coats of bitumen emulsion to concrete. If required cut ties short and cold galv.  
 Min. cavity 40mm

**OPTION 2**  
 Using 40mm H3 timber packer Std. screw fixed ties cut short and cold galv. if required. Min. cavity 60mm. Recommended cavity 40mm from cavity batten to brick

Scale 1:5

Villa Veneer Brick Column - Timber Post



Scale 1:10