INTRODUCTION

The details in this section have been developed for a range of partial and fully filled cavity wall constructions to support TGD L 2011. The Introduction document "Limiting Thermal Bridging and Air Infiltration Acceptable Construction Details" provides practical information with regards to implementation of these details onsite. This guide should be read in conjunction with these details. Details are given for the junctions with a range of roof, ground floor and internal floor types, as well as at external wall opes.

The details are indicative. They focus on the issues of thermal performance and air tightness. Other issues are not considered fully. Insulation thicknesses for the main building elements have not been provided, as these depend on the thermal properties of the materials chosen, as well as on the desired U-value.

Masonry materials shown on the drawings are blocks and bricks. Other masonry materials, including precast and insitu concrete, may be substituted without loss of thermal performance or increased technical risk. The use of thermally resistant materials, beyond that depicted, will naturally increase the thermal performance of the building fabric.

All materials and workmanship are to be installed to Technical Guidance Document D "Materials and workmanship."

The suitability of full fill cavity construction depends on the site exposure and the nature of the outer leaf. For further information, see BR 262 "Thermal Insulation: Avoiding Risks" and relevant Irish Agrément Board certificates.

These diagrams illustrate good practice for design and construction of interfaces only in respect to ensuring thermal performance and air barrier continuity. The guidance must be implemented with due regard to all other requirements imposed by the Building Regulations.

Where cavity insulation is used with internal insulation the combination of both sets of details should be used which will provide the best limitation of thermal bridging and ensure air tightness.

Where these details are used for the Target U Values and constructions described in Table D1 of TGD L 2011 the psi values published in Table D1 may be used to calculate the actual Thermal Bridging heat loss for a dwelling for the key thermal bridging junctions in that dwelling.
### Table D1 - Insulation In Cavity (I) WAllS:- INSULATION IN CAVITY

<table>
<thead>
<tr>
<th>Junction detail identifier</th>
<th>Junction detail</th>
<th>U-value = 0.21 W/m²K, 150mm full fill or partial fill cavity (1) [Note: U = 0.36] (Floor U = 0.21)</th>
<th>U-value = 0.15 W/m²K, 150mm full fill or partial fill cavity and internal insulation (1) [Note: U = 0.14] (Floor U = 0.13)</th>
<th>U-value = 0.15 W/m²K, 200mm full fill or partial fill cavity and internal insulation (1) [Note: U = 0.14] (Floor U = 0.13)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 1 Details</td>
<td></td>
<td>ψ-value (W/km²)</td>
<td>ψ-value (W/km²)</td>
<td>ψ-value (W/km²)</td>
</tr>
<tr>
<td>1.01a Ground floor - Insulation above slab</td>
<td></td>
<td>0.170</td>
<td>0.072</td>
<td>0.196</td>
</tr>
<tr>
<td>1.01b Ground floor - Insulation above slab plus lightweight block</td>
<td></td>
<td>0.080</td>
<td>0.042</td>
<td>0.093</td>
</tr>
<tr>
<td>1.02a Ground floor - Insulation below slab</td>
<td></td>
<td>0.163</td>
<td>0.108</td>
<td>0.191</td>
</tr>
<tr>
<td>1.02b Ground floor - Insulation below slab plus lightweight block</td>
<td></td>
<td>0.070</td>
<td>0.061</td>
<td>0.083</td>
</tr>
<tr>
<td>1.03 Timber Suspended Ground Floor</td>
<td></td>
<td>0.219</td>
<td>0.102</td>
<td>0.227</td>
</tr>
<tr>
<td>1.04 Concrete Intermediate Floor within a dwelling</td>
<td></td>
<td>0.000</td>
<td>0.039</td>
<td>0.000</td>
</tr>
<tr>
<td>1.04a Concrete Intermediate Floor within a dwelling</td>
<td></td>
<td>0.064</td>
<td>0.087</td>
<td>0.045</td>
</tr>
<tr>
<td>1.05 Timber intermediate floor within a dwelling</td>
<td></td>
<td>-0.001</td>
<td>-0.020</td>
<td>-0.001</td>
</tr>
<tr>
<td>1.05a Timber separating floor between dwellings</td>
<td></td>
<td>0.041</td>
<td>0.051</td>
<td>0.029</td>
</tr>
<tr>
<td>1.06.1 Masonry Solid Separating Wall (plan)</td>
<td></td>
<td>0.045</td>
<td>0.066</td>
<td>0.032</td>
</tr>
<tr>
<td>1.06.2 Masonry Cavity Separating Wall (plan)</td>
<td></td>
<td>0.051</td>
<td>0.072</td>
<td>0.036</td>
</tr>
<tr>
<td>1.07 Masonry Partition Wall</td>
<td></td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>1.08 Stud Partition Wall</td>
<td></td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>1.09/1.10 Eaves - Unventilated/ventilated attic</td>
<td></td>
<td>0.049</td>
<td>0.030</td>
<td>0.053</td>
</tr>
<tr>
<td>1.11/1.12 Eaves - Unventilated/ventilated attic at ceiling</td>
<td></td>
<td>0.028</td>
<td>0.024</td>
<td>0.037</td>
</tr>
<tr>
<td>1.11/1.12.2 Eaves - Unventilated/ventilated insulation between and under rafters - Dormer</td>
<td></td>
<td>0.014</td>
<td>0.013</td>
<td>0.013</td>
</tr>
<tr>
<td>1.13 Eaves - Ventilated - insulation between and under rafters - Pitched ceiling</td>
<td></td>
<td>0.021</td>
<td>0.020</td>
<td>0.036</td>
</tr>
<tr>
<td>1.13.1 Eaves - Ventilated - insulation between and under rafters - Pitched ceiling with flat ceiling</td>
<td></td>
<td>0.020</td>
<td>0.017</td>
<td>0.017</td>
</tr>
<tr>
<td>1.14 Eaves - Insulated - insulation between and over rafters - Dormer</td>
<td></td>
<td>0.009</td>
<td>0.011</td>
<td>0.034</td>
</tr>
<tr>
<td>1.15 Ventilated Roof - Attic floor level</td>
<td></td>
<td>0.272</td>
<td>0.152</td>
<td>0.210</td>
</tr>
<tr>
<td>1.16/1.17 Gable - Insulation between and under rafters - Unventilated/ventilated rafter void</td>
<td></td>
<td>0.067</td>
<td>0.041</td>
<td>0.063</td>
</tr>
<tr>
<td>1.18 Gable - Insulation between and over rafters - Unventilated rafter void</td>
<td></td>
<td>0.096</td>
<td>0.058</td>
<td>0.071</td>
</tr>
<tr>
<td>1.19 Flat Roof - Eaves</td>
<td></td>
<td>0.040</td>
<td>0.039</td>
<td>0.038</td>
</tr>
<tr>
<td>1.20 Flat Roof - Parapet</td>
<td></td>
<td>0.152</td>
<td>0.059</td>
<td>0.206</td>
</tr>
<tr>
<td>1.21 Open - Split lintels - Steel and concrete</td>
<td></td>
<td>-0.003</td>
<td>0.005</td>
<td>0.001</td>
</tr>
<tr>
<td>1.22 Open - Perforated steel lintel (stainless steel)</td>
<td></td>
<td>0.261</td>
<td>0.138</td>
<td>0.236</td>
</tr>
<tr>
<td>1.23.1 Open - Pre-stressed concrete lintels</td>
<td></td>
<td>-0.005</td>
<td>0.004</td>
<td>0.001</td>
</tr>
<tr>
<td>1.23.2 Open - Pre-stressed concrete lintels - proprietary closer</td>
<td></td>
<td>0.007</td>
<td>0.012</td>
<td>0.006</td>
</tr>
<tr>
<td>1.24 Open - Jamb with closer block</td>
<td></td>
<td>0.028</td>
<td>0.026</td>
<td>0.031</td>
</tr>
<tr>
<td>1.25 Open - Jamb with proprietary cavity closer</td>
<td></td>
<td>0.006</td>
<td>0.011</td>
<td>0.006</td>
</tr>
<tr>
<td>1.26 Open - Concrete Forward Sill</td>
<td></td>
<td>0.006</td>
<td>0.015</td>
<td>0.019</td>
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<tr>
<td>1.27.1 Comer</td>
<td></td>
<td>0.044</td>
<td>0.032</td>
<td>0.035</td>
</tr>
<tr>
<td>1.27.2 Inverted Comer</td>
<td></td>
<td>-0.069</td>
<td>-0.053</td>
<td>-0.095</td>
</tr>
</tbody>
</table>

1. ψ values for a Target U-value for the wall of 0.21 W/m²K can be used for a range of U-values down to 0.18 W/m²K for the construction type specified. The U-values of the flanking elements to the wall can vary from the flanking element target U-value as follows: Pitched roof insulation on slope, insulation on ceiling = 0.13 to 0.16 W/m²K; Flat Roof = 0.16 to 0.2 W/m²K; Ground Floor = 0.16 to 0.21 W/m²K.

2. ψ values for a Target U-value of 0.15 W/m²K can be used for a range of U-values from 0.12 W/m²K to 0.17 W/m²K for the construction type specified. The U-values of the flanking elements to the wall can vary from the flanking element target U-value as follows: Pitched roof insulation on slope, insulation on ceiling 0.11 to 0.16 W/m²K; Flat Roof = 0.11 to 0.17 W/m²K; Ground Floor = 0.12 to 0.18.

3. Where two building elements have one U-value above its target while the other is below its target U-value, the aggregate percentage change from the respective target U-values in the table should not exceed +20% for the ψ (ψ) value to be valid, i.e., if the 0.15 U-value wall, if the U-value was increased by 10% above the wall target U-value (from 0.15 to 0.165), then the roof U-value could be at most 10% below the roof target U-value (from 0.14 to 0.126), because the aggregate change would then be 20%.

4. This is an externally supported balcony (the balcony slab is not a continuation of the floorslab) where the insulation is continuous and not bridged by the balcony slab.

5. Value of Ψ is applied to each dwelling.

6. Ψ value is for whole junction. Half the value should be applied to each dwelling on either side of the junction.
(I) WALLS:- INSULATION IN CAVITY

Ground Floor - Insulation above slab

THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

- Ensure partial fill insulation is secured firmly against inner leaf of cavity wall
- Floor insulation to tightly abut blockwork wall
- Ensure wall insulation is installed at least 225 mm below top of floor insulation

AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

- Seal between wall and floor air barrier with a flexible sealant OR seal gap between skirting board and floor with a flexible sealant
- Seal all penetrations through air barrier using a flexible sealant

GENERAL NOTES

The wall insulation installed below the wall DPC must be fit for purpose with regards to water absorption

Keeping cavities clean of mortar snots and other debris during construction

Detail applicable:- Ground-bearing floor; raft foundation; in-situ suspended ground floor slab; pre-cast suspended ground floor. Insulation above slab, with timber floor finish

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

ACCEPTABLE CONSTRUCTION DETAIL

Ground Floor - Insulation above slab

DETAIL 1.01a, 2011
Ensure wall insulation is installed at least 225 mm below top of floor insulation.

Floor insulation to tightly abut blockwork wall.

Ensure partial fill insulation is secured firmly against inner leaf of cavity wall.

Ensure block with a maximum Thermal Conductivity of .20 W/mK in the direction of heat flow is used and that block is suitable for use in foundations in all conditions. Block is to be installed so to avoid any effect of moisture on Thermal Conductivity.

Air barrier with a flexible sealant OR seal gap between skirting board and floor with a flexible sealant.

Seal all penetrations through air barrier using a flexible sealant.

GENERAL NOTES
The wall insulation installed below the wall DPC must be fit for purpose with regards to water absorption.

Keep cavities clean of mortar snots and other debris during construction.

Detail applicable:- Ground-bearing floor; raft foundation; in-situ suspended ground floor slab; pre-cast suspended ground floor. Insulation above slab, with timber floor finish.

ACCEPTABLE CONSTRUCTION DETAIL

Ground Floor - Insulation above slab

DETAIL 1.01b, 2011
THERMAL PERFORMANCE
CHECKLIST (TICK ALL)

Ensure partial fill insulation is secured firmly against inner leaf of cavity wall

Install perimeter insulation with a min. R-value of 1.0 m²K/W

Floor insulation to tightly abut blockwork wall

Ensure wall insulation is installed at least 225 mm below top of floor

225 mm min.

AIR BARRIER - CONTINUITY
CHECKLIST (TICK ALL)

Seal between wall and floor air barrier with a flexible sealant OR seal gap between skirting board and floor with a flexible sealant

Seal all penetrations through air barrier using a flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

The wall insulation installed below the wall DPC must be fit for purpose with regards to water absorption

Keep cavities clean of mortar snots and other debris during construction

Detail applicable: Ground-bearing floor; raft foundation; in-situ suspended ground floor slab; pre-cast suspended ground floor; concrete and screed. Insulation below slab

ACCEPTABLE CONSTRUCTION DETAIL

Ground Floor - Insulation Below Slab

OPTION (TICK ONE)

AIR BARRIER - OPTIONS

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes
THERMAL PERFORMANCE
CHECKLIST (TICK ALL)

Ensure partial fill insulation is secured firmly against inner leaf of cavity wall

Install perimeter insulation with a min. R-value of 1.0 m²K/W

Floor insulation to tightly abut blockwork wall

Ensure wall insulation is installed at least 225 mm below top of floor

Ensure block with a maximum Thermal Conductivity of 0.20 W/mK in the direction of heat flow is used and that block is suitable for use in foundations

AIR BARRIER - CONTINUITY
CHECKLIST (TICK ALL)

Seal between wall and floor air barrier with a flexible sealant OR seal gap between skirting board and floor with a flexible sealant

Seal all penetrations through air barrier using a flexible sealant

GENERAL NOTES

The wall insulation installed below the wall DPC must be fit for purpose with regards to water absorption

Keep cavities clean of mortar sots and other debris during construction

Detail applicable: - Ground-bearing floor; raft foundation; in-situ suspended ground floor slab; pre-cast suspended ground floor; concrete and screed. Insulation below slab

OPTION (TICK ONE)

AIR BARRIER - OPTIONS

☐ Masonry inner leaf with wet-finish plaster, or

☐ Masonry inner leaf with scratch coat, and finished with plasterboard, or

☐ Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

☐ Airtightness membrane and tapes

ACCEPTABLE CONSTRUCTION DETAIL

Ground Floor - Insulation Below Slab Plus Lightweight Block

DETAIL 1.02b, 2011
(1) WALLS: INSULATION IN CAVITY

**THERMAL PERFORMANCE CHECKLIST (TICK ALL)**

- Secure partial fill insulation firmly against inner leaf
- Pack gap between floor joist and blockwork wall with compressible insulation if over 25mm; otherwise inject approved insulating expanding foam. Min. R-value of 0.63 m²K/W
- Ensure wall insulation is installed at least 200 mm below top of floor insulation
- Ensure insulation is in contact with the underside of timber flooring

**AIR BARRIER - CONTINUITY CHECKLIST (TICK ALL)**

- Seal between wall and floor air barrier with a flexible sealant OR seal gap between skirting board and floor with a flexible sealant
- Seal joints in timber floor with suitable glue. Fully support and fix any square edge joints in the decking to the joists
- Seal all penetrations through air barrier using a flexible sealant
- Provide similar air seals at all internal partitions

**GENERAL NOTES**

- Thermal performance of junction can be improved significantly by using blockwork with a thermal conductivity of ≤20 W/mK in direction of heat flow in foundation internal wall or alternatively by extending depth of insulation in cavity
- The wall insulation installed below the wall DPC must be fit for purpose with regards to water absorption
- Keep cavities clean of mortar slabs and other debris during construction
- If installing compressible insulation, use netting to ensure full insulation depth between joists
- If injecting expanding foam between joist and external wall, take care to avoid bridging wall dpc

**OPTION (TICK ONE) AIR BARRIER - OPTIONS**

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

**ACCEPTABLE CONSTRUCTION DETAIL**

Timber Suspended Ground Floor

DETAIL 1.03, 2011
Seal gap between skirting board and floor with a flexible sealant

Seal between the wall air barrier and the top and underside of the floor slab. (Dotted blue line is notional, to depict air barrier continuity through floor zone)

Seal all penetrations through air barrier using flexible sealant

Ensure partial fill insulation is secured firmly against inner leaf of cavity wall

Continue cavity wall insulation across floor abutment zone

GENERAL NOTES
Keep cavities clean of mortar snots and other debris during construction

ACCEPTABLE CONSTRUCTION DETAIL
Concrete Intermediate Floor within a dwelling

DETAIL 1.04, 2011
Seal gap between skirting board and floor with a flexible sealant
Seal between the wall air barrier and the top and underside of the floor slab. (Dotted blue line is notional, to depict air barrier continuity through floor zone)
Seal all penetrations through air barrier using flexible sealant
Ensure continuous mortar bed between floor slab and top of blockwork wall
Ensure partial fill insulation is secured firmly against inner leaf of cavity wall
Continue cavity wall insulation across floor abutment zone

GENERAL NOTES
Keep cavities clean of mortar snots and other debris during construction

ACCEPTABLE CONSTRUCTION DETAIL  Concrete Intermediate Floor within a dwelling  DETAIL 1.04a, 2011

(1) WALLS:- INSULATION IN CAVITY

THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

Ensure partial fill insulation is secured firmly against inner leaf of cavity wall
Continue cavity wall insulation across floor abutment zone

AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

Seal gap between skirting board and floor with a flexible sealant
Seal between the wall air barrier and the top and underside of the floor slab. (Dotted blue line is notional, to depict air barrier continuity through floor zone)
Ensure continuous mortar bed between floor slab and top of blockwork wall
Seal all penetrations through air barrier using flexible sealant

Complying with checklist will help achieve design air permeability

AIR BARRIER - OPTIONS

OPTION
(TICK ONE)

Masonry inner leaf with wet-finish plaster, or
Masonry inner leaf with scratch coat, and finished with plasterboard, or
Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
Airtightness membrane and tapes

THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

Ensure partial fill insulation is secured firmly against inner leaf of cavity wall
Continue cavity wall insulation across floor abutment zone

AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

Seal gap between skirting board and floor with a flexible sealant
Seal between the wall air barrier and the top and underside of the floor slab. (Dotted blue line is notional, to depict air barrier continuity through floor zone)
Ensure continuous mortar bed between floor slab and top of blockwork wall
Seal all penetrations through air barrier using flexible sealant

Complying with checklist will help achieve design air permeability

AIR BARRIER - OPTIONS

OPTION
(TICK ONE)

Masonry inner leaf with wet-finish plaster, or
Masonry inner leaf with scratch coat, and finished with plasterboard, or
Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
Airtightness membrane and tapes
Keep cavities clean of mortar snots and other debris during construction.

Suspended timber floors may be laid in joist hangers rather than built in.

Where wall supports joists, thermal performance and airtightness of junction can be improved significantly by using joist hangers with shoes standing off the wall face.

For timber engineered joists, proprietary filler pieces must be fitted on both sides of the web between top and bottom flanges. (See manufacturer’s details.)

Ensure partial fill insulation is secured firmly against inner leaf of cavity wall.

Continue cavity wall insulation across floor abutment zone.

Mortar joints around built-in joists should be recessed or struck and carefully pointed with flexible sealant. Alternatively, joists may be fitted with proprietary shoes as they are installed. Seal shoe to blockwork face with a flexible sealant. (Dotted blue line is notional, to depict continuity of air barrier through floor zone)

Seal between wall air barrier and blockwork, above and below the floor assembly.

Seal all penetrations through air barrier using a flexible sealant.

Complying with checklist will help achieve design air permeability.

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes
Mortar joints around built-in joists should be recessed or struck and carefully pointed with flexible sealant. Alternatively, joists may be fitted with proprietary shoes as they are installed. Seal shoe to blockwork face with a flexible sealant. (Dotted blue line is notional, to depict continuity of air barrier through floor zone)

Keep cavities clean of mortar snots and other debris during construction

For timber engineered joists, proprietary filler pieces must be fitted on both sides of the web between top and bottom flanges. (See manufacturer's details.)

Detail is diagramatic only. Where floor is a separating floor, acoustic insulation should be provided. See TGD-E

Complying with checklist will help achieve design air permeability

OPTION (TICK ONE)

Masonry inner leaf with wet-finish plaster, or

Masonry inner leaf with scratch coat, and finished with plasterboard, or

Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes
THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

Ensure partial fill insulation is secured firmly against inner leaf of cavity wall

Continue cavity wall insulation across abutment zone. (Use appropriate material where cavity barrier or full-fill insulation is employed)

AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

Seal all penetrations through air barrier using a flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

Keep cavities clean of mortar snots and other debris during construction

See TGD-B for guidance on fire safety and TGD-E for guidance on sound insulation

Read this detail in conjunction with detail G-01.1 and G-01.2, Masonry Separating Wall Head

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS

Masonry inner leaf with wet-finish plaster, or

Masonry inner leaf with scratch coat, and finished with plasterboard, or

Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes

ACCEPTABLE CONSTRUCTION DETAIL

Masonry Solid and Cavity Separating Wall

DETAIL 1.06.1 + 1.06.2, 2011
Complying with checklist qualifies builder to claim value in Table 3 of IP 1/06 and Table K1 of DEAP 2006.

**Masonry Partition Wall**

**THERMAL PERFORMANCE**

- Ensure partial fill insulation is secured firmly against inner leaf of cavity wall
- Continue cavity wall insulation across abutment zone

**AIR BARRIER - CONTINUITY**

- Seal all penetrations through air barrier using a flexible sealant
- Seal between air barrier on external wall and the blockwork, to the partition wall. (Dotted blue line is notional, to depict air barrier continuity through partition, depending on whether partition toothed into external wall or braced with ties)

**GENERAL NOTES**

- Keep cavities clean of mortar snots and other debris during construction
- Read this detail in conjunction with detail G-02, Blockwork Partition Head

**ACCEPTABLE CONSTRUCTION DETAIL**

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

Complying with checklist will help achieve design air permeability.
Complying with checklist qualifies builder to claim value in Table 3 of IP 1/06 and Table K1 of DEAP 2006.

**DETAIL 1.08, 2011**

**Stud Partition Wall**

### THERMAL PERFORMANCE

- **CHECKLIST (TICK ALL)**
  - Ensure partial fill insulation is secured firmly against inner leaf of cavity wall
  - Continue cavity wall insulation across abutment zone

### AIR BARRIER - CONTINUITY

- **CHECKLIST (TICK ALL)**
  - Install external air barrier before stud; or install barrier before partition lining and seal all gaps between air barrier and stud with flexible sealant. (Dotted blue line depicts air barrier continuity through partition stud member)
  - Seal all penetrations through air barrier using a flexible sealant

### GENERAL NOTES

- Keep cavities clean of mortar snots and other debris during construction

- Read this detail in conjunction with details G-03, Timber Stud Partition Head, or G-04, Metal Stud Partition Head as appropriate

### ACCEPTABLE CONSTRUCTION DETAIL

**Stud Partition Wall**

**AIR BARRIER - OPTIONS**

- **OPTION (TICK ONE)**
  - Masonry inner leaf with wet-finish plaster, or
  - Masonry inner leaf with scratch coat, and finished with plasterboard, or
  - Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
  - Airtightness membrane and tapes

Complying with checklist will help achieve design air permeability.
**THERMAL PERFORMANCE CHECKLIST (TICK ALL)**

- Ensure continuity of insulation throughout junction
- Ensure full depth of insulation between and over joists abuts eaves insulation
- Ensure gap between wall plate and proprietary eaves vent is completely filled with insulation having a min. R-value across the insulation thickness of 3.00 m²K/W
- Ensure partial fill insulation is secured firmly against inner leaf of cavity wall.

**OPTION (TICK ONE)**

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

**GENERAL NOTES**

Keep cavities clean of mortar snots and other debris during construction
Use of over joist insulation is considered best practice, as it eliminates the cold bridge caused by the joist
Use vapour permeable roof underlay in strict accordance with third party certification
Eaves insulation must not hinder free water drainage below the tiling battens
Ensure cavity is closed with firestopping insulant or proprietary cavity barrier
Read this detail in conjunction with detail 1-15, Roof at Attic Floor Level

**AIR BARRIER - CONTINUITY CHECKLIST (TICK ALL)**

- Bed wall plate on continuous mortar bed
- Fix ceiling first, and seal all gaps between ceiling and masonry wall with either plaster, adhesive or flexible sealant
- Seal all penetrations through air barrier using a flexible sealant

Complying with checklist will help achieve design air permeability
THERMAL PERFORMANCE

Ensure continuity of insulation throughout junction

Ensure full depth of insulation between and over joists abuts eaves insulation

Ensure gap between wall plate and proprietary eaves vent is completely filled with insulation having a min. R-value across the insulation thickness of 3.00 m²K/W

Ensure partial fill insulation is secured firmly against inner leaf of cavity wall. If using partial fill insulation, tuck compressible insulation down into the head of the cavity

Detail is indicative for thermal purposes. Where continuity of insulation is maintained throughout the junction, alternative structural design may be used.

General Notes

Thermal performance of junction can be improved by incorporating an eaves wind barrier (plywood, OSB, softboard or other suitable material) around insulation to be sealed to connect with the ventilator strip thereby mitigating wind chill from the vent inlet in the eaves

Keep cavities clean of mortar snots and other debris during construction

Use of over joist insulation is considered best practice, as it eliminates the cold bridge caused by the joist

Use a proprietary eaves ventilator to ensure ventilation in accordance with BS5250. Installation of the eaves ventilator must not prevent free water drainage below the tiling battens

Ensure cavity is closed with firestopping insulant or proprietary cavity barrier

Read this detail in conjunction with detail 1-15, Roof at Attic Floor Level

Acceptable Construction Detail

Eaves - Ventilated Attic

Air Barrier - Options

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

Complying with checklist will help achieve design air permeability
(1) WALLS- INSULATION IN CAVITY

**THERMAL PERFORMANCE**

Ensure continuity of insulation throughout junction

Ensure insulation is installed tightly between rafters and is in contact with under-rafter insulation

Ensure full depth of insulation between and over joists abuts eaves insulation

Ensure gap between wall plate and proprietary eaves vent is completely filled with insulation having a min. R-value across the insulation thickness of 4.0 m² K/W

Ensure partial fill insulation is secured firmly against inner leaf of cavity wall. If using partial fill insulation, tuck compressible insulation down into head of cavity

**AIR BARRIER - CONTINUITY**

- Bed wall plate on continuous mortar bed
- Install double, full depth timber nogging between floor joists, and seal between nogging, ceiling and upper stud wall with a flexible sealant. (Dotted blue line is notional, to depict air barrier continuity through noggings.)
- Fix ceiling first, and seal all gaps between ceiling and masonry wall with either plaster, adhesive or flexible sealant
- Seal all penetrations through air barrier using a flexible sealant

**GENERAL NOTES**

Keep cavities clean of mortar sots and other debris during construction

Vapour permeable roof underlay to be used in strict accordance with approved third party certification

Installation of the eaves insulation must not prevent free water drainage below the tiling battens

If required by BS5250, use vapour control plasterboard or separate vapour control layer behind plasterboard

Use of over joist and under rafter insulation is considered best practice, as it eliminates the cold bridge caused by the joist/rafter

Ensure cavity is closed with firstopping and/or proprietary cavity barrier

Read this detail in conjunction with detail 1-16, Gable - Unventilated Rafter Void

**OPTION (TICK ONE)**

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

**ACCEPTABLE CONSTRUCTION DETAIL**

Eaves - Insulation between and under rafters - Unventilated Rafter Void - Dormer

**DETAIL I.11.1 + I.11.2, 2011**
THERMAL PERFORMANCE

CHECKLIST (TICK ALL)

Ensure continuity of insulation throughout junction
Ensure insulation is installed tightly between rafters and is in contact with under-rafter insulation
Ensure full depth of insulation between and over joists abuts eaves insulation
Ensure gap between wall plate and proprietary eaves vent is completely filled with insulation having a min. R-value across the insulation thickness of 4.00 m²K/W
Ensure partial fill insulation is secured firmly against inner leaf of cavity wall. If using partial fill insulation, tuck compressible insulation down into head of cavity

AIR BARRIER - CONTINUITY

CHECKLIST (TICK ALL)

Bed wall plate on continuous mortar bed
Install double, full depth timber nogging between floor joists, and seal between nogging, ceiling and upper stud wall with a flexible sealant. (Dotted blue line is notional, to depict air barrier continuity through noggings.)
Fix ceiling first, and seal all gaps between ceiling and masonry wall with either plaster, adhesive or flexible sealant
Seal all penetrations through air barrier using a flexible sealant

GENERAL NOTES

Thermal performance of junction can be improved by incorporating an eaves wind barrier (plywood, OSB, softboard or other suitable material) around insulation to be sealed to connect with the ventilator strip thereby mitigating wind chill from the vent inlet in the eaves
Keep cavities clean of mortar sots and other debris during construction
Use a proprietary eaves ventilator to ensure ventilation in accordance with BS5250. Installation of the eaves ventilator must not prevent free water drainage below the tiling battens
If required by BS5250, use vapour control plasterboard or separate vapour control layer behind plasterboard
Use of over joist and under rafter insulation is considered best practice, as it eliminates the cold bridge caused by the joist/rafter
Ensure cavity is closed with firestopping insulant or proprietary cavity barrier
Read this detail in conjunction with detail 1-17, Gable - Ventilated Rafter Void

OPTION (TICK ONE)

Masonry inner leaf with wet-finish plaster, or
Masonry inner leaf with scratch coat, and finished with plasterboard, or
Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
Airtightness membrane and tapes

ACCEPTABLE CONSTRUCTION DETAIL

Eaves - Insulation between and under rafters - Ventilated Rafter Void - Dormer

DETAIL 1.12.1 + 1.12.2, 2011
**THERMAL PERFORMANCE**

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<tr>
<th>Checklist (Tick All)</th>
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<td>Ensure continuity of insulation throughout junction</td>
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<tr>
<td>Ensure gap between wall plate and proprietary eaves vent is completely filled with insulation having a min. R-value across the insulation thickness of 4.0 m² K/W</td>
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**AIR BARRIER - CONTINUITY**

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<td>Seal all penetrations through air barrier using a flexible sealant</td>
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**GENERAL NOTES**

- Thermal performance of junction can be improved by incorporating an eaves wind barrier (plywood, OSB, softboard or other suitable material) around insulation to be sealed to connect with the ventilator strip thereby mitigating wind chill from the vent inlet in the eaves.
- Keep cavities clean of mortar slabs and other debris during construction.
- Use a proprietary eaves ventilator to ensure ventilation in accordance with BS5250. Installation of the eaves ventilator must not prevent free water drainage below the tiling battens.
- If required by BS5250, use vapour control plasterboard or separate vapour control layer behind plasterboard.
- Use of over joist and under rafter insulation is considered best practice, as it eliminates the cold bridge caused by the joist/rafter.
- Ensure cavity is closed with firestopping insulant or proprietary cavity barrier. Read this detail in conjunction with detail 1-17, Gable - Ventilated Rafter Void.

**OPTION (Tick One)**

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<tr>
<td>Masonry inner leaf with scratch coat, and finished with plasterboard, or</td>
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<tr>
<td>Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or</td>
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<tr>
<td>Airtightness membrane and tapes</td>
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**ACCEPTABLE CONSTRUCTION DETAIL**

- Eaves - Insulation between and under rafters
- Ventilated Rafter Void - Pitched ceiling

**DETAIL 1.13.1 + 1.13.2, 2011**
# Eaves - Insulation between and over rafters - Unventilated Rafter Void - Dormer

## THERMAL PERFORMANCE

**CHECKLIST**

- Ensure continuity of insulation throughout junction
- Ensure insulation is installed tightly between rafters and is in contact with over-rafter insulation
- Ensure full depth of insulation between and over rafters abuts eaves insulation
- Ensure gap between wall plate and proprietary eaves vent is completely filled with insulation having a min. R-value across the insulation thickness of 4.0 m² K/W
- Ensure partial fill insulation is secured firmly against inner leaf of cavity wall. If using partial fill insulation, tuck compressible insulation down into head of cavity

## AIR BARRIER - CONTINUITY

**CHECKLIST**

- Bed wall plate on continuous mortar bed
- Install double, full depth timber nogging between floor joists, and seal between nogging, ceiling and upper stud wall with a flexible sealant. (Dotted blue line is notional, to depict air barrier continuity through noggings.)
- Fix ceiling first, and seal all gaps between ceiling and masonry wall with either plaster, adhesive or flexible sealant
- Seal all penetrations through air barrier using a flexible sealant

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## GENERAL NOTES

Keep cavities clean of mortar sots and other debris during construction
Vapour permeable roof underlay to be used in strict accordance with approved third party certification
If required by BS5250, use vapour control plasterboard or separate vapour control layer behind plasterboard.
Use of over rafter insulation is considered best practice, as it eliminates the cold bridge caused by the joist/rafter
Ensure cavity is closed with firestopping insulant or proprietary cavity barrier
Read this detail in conjunction with detail 1-18, Gable - Insulation between and over rafters - Unventilated Rafter Void

## OPTION (TICK ONE)

**AIR BARRIER - OPTIONS**

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

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**ACCEPTABLE CONSTRUCTION DETAIL**

Eaves - Insulation between and over rafters Unventilated Rafter Void - Dormer

DETAIL 1.14, 2011
### THERMAL PERFORMANCE

**CHECKLIST (TICK ALL)**

- Continue wall insulation 1 meter above ceiling level.
- Ensure full depth of insulation between and over joists extends to inner edge of wall.
- Pack compressible insulation between last truss or joist, and gable wall. Min. R-value of 1.5 m² K/W.
- Ensure partial fill insulation is secured firmly against inner leaf of cavity wall.

### GENERAL NOTES

Thermal performance of junction can be improved significantly by using blockwork with a thermal conductivity of ≤20 W/mK in direction of heat flow in external wall at attic floor level or alternatively by running insulation of R-value 1.5 m² K/W vertically up internal face of gable wall to a height of 450 mm above ceiling level.

- Keep cavities clean of mortar snots and other debris during construction.
- Use of over joist insulation is considered best practice, as it eliminates the cold bridge caused by the joist.
- Cavity must be closed along the verge.
- Read this detail in conjunction with details 1-09: Eaves - Ventilated Attic, or 1-10: Eaves - Unvented Attic, as appropriate.
- Where different block materials are being used consideration should be given to avoid cracking in plaster at the junction between the block materials.

### AIR BARRIER - OPTIONS

**OPTION (TICK ONE)**

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes.

### ACCEPTABLE CONSTRUCTION DETAIL

**Ventilated Roof - Attic Floor Level**

**DETAIL 1.15, 2011**
(I) WALLS- INSULATION IN CAVITY

Gable - Insulation between and under rafters - Unventilated Rafter Void

THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

Fit insulation over top of wall within gable ladder. A min R-value of 4.35 m² K/W is required

Ensure top of wall is levelled with mortar to correct pitch, and that wall insulation is taken up level with wall top

Ensure insulation continuity throughout junction

Ensure full depth of insulation between and under rafters extends to wall. Pack gap between rafter and wall with compressible insulation

Ensure insulation is installed tightly between rafters and is in contact with under rafter insulation

Ensure partial fill insulation is secured firmly against inner leaf of cavity wall

AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

Seal all penetrations through air barrier using a flexible sealant

Fix ceiling first, and seal all gaps between ceiling and masonry wall with either plaster, adhesive or flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

Keep cavities clean of mortar snots and other debris during construction

Use vapour permeable roof underlay in strict accordance with third party certification

Ensure cavity is closed with firestopping insulant or proprietary cavity barrier

Read this detail in conjunction with detail I-11 I: Eaves - Insulation between and under rafters - Unventilated Rafter Void

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS

Masonry inner leaf with wet-finish plaster, or

Masonry inner leaf with scratch coat, and finished with plasterboard, or

Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes

ACCEPTABLE CONSTRUCTION DETAIL

Gable - Insulation between and under rafters - Unventilated Rafter Void

DETAIL 1.16, 2011
THERMAL PERFORMANCE

CHECKLIST (TICK ALL)

- Fit insulation over top of wall within gable ladder to give a minimum R-value of 4.35 m² K/W.
- Ensure top of wall is levelled with mortar to correct pitch, and that wall insulation is taken up level with wall top.
- Ensure insulation continuity throughout junction.
- Ensure full depth of insulation between and under rafters extends to wall. Pack gap between rafter and wall with compressible insulation.
- Ensure insulation is installed tightly between rafters and is in contact with under rafter insulation.
- Ensure partial fill insulation is secured firmly against inner leaf of cavity wall.

AIR BARRIER - CONTINUITY

CHECKLIST (TICK ALL)

- Seal all penetrations through air barrier using a flexible sealant.
- Fix ceiling first, and seal all gaps between ceiling and masonry wall with either plaster, adhesive or flexible sealant.

Complying with checklist will help achieve design air permeability.

GENERAL NOTES

- Keep cavities clear of mortar spots and other debris during construction.
- Ventilate roof build-up in accordance with BS5250.
- If required by BS 5250, use vapour control plasterboard or separate vapour control layer behind plasterboard.
- Use of under rafter insulation is considered best practice, as it eliminates the cold bridge caused by the rafter.
- Ensure cavity is closed with firestopping insulant or proprietary cavity barrier.

OPTION (TICK ONE)

AIR BARRIER - OPTIONS

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes.
THERMAL PERFORMANCE

CHECKLIST (TICK ALL)

- Fit insulation over top of wall within gable ladder. Fully fill void between wall head and over-rafter insulation. A min. R-value of 2.17 m² K/W is required
- Ensure top of wall is levelled with mortar to correct pitch, and that wall insulation is taken up level with wall top
- Ensure full depth of insulation between and over rafters extends to wall. Pack gap between rafter and wall with compressible insulation
- Ensure insulation is installed tightly between rafters and is in contact with over-rafter insulation
- Ensure partial fill insulation is secured firmly against inner leaf of cavity wall

AIR BARRIER - CONTINUITY

CHECKLIST (TICK ONE)

- Seal all penetrations through air barrier using a flexible sealant
- Fix ceiling first, and seal all gaps between ceiling and masonry wall with either plaster, adhesive or flexible sealant

GENERAL NOTES

Keep cavities clean of mortar snots and other debris during construction
Vapour permeable roof underlay to be used in strict accordance with approved third party certification
If required by BS 5250, use vapour control plasterboard or separate vapour control layer behind plasterboard
Use of over rafter insulation is considered best practice, as it eliminates the cold bridge caused by the rafter
Ensure cavity is closed with firestopping insulant or proprietary cavity barrier
Read this detail in conjunction with detail 1-14: Eaves - Insulation between and over rafters - Unventilated Rafter Void

ACCEPTABLE CONSTRUCTION DETAIL

Gable - Insulation between and over rafters
Unventilated Rafter Void

DETAIL 1.18, 2011
### THERMAL PERFORMANCE

**Checklist (Tick All)**

- Ensure full depth of over roof insulation over joists extends to roof edge
- Fit insulation over wall top within gable ladder. Fully fill void, ensuring that insulation is installed tightly between joists and is in contact with roof deck. A min. R-value of 5.00 m² K/W is required
- Ensure wall top is level and that wall insulation is taken up level with wall top
- Ensure partial fill insulation is secured firmly against inner leaf of cavity wall

### AIR BARRIER - CONTINUITY

**Checklist (Tick All)**

- Seal all penetrations through air barrier using a flexible sealant
- Fix ceiling first, and seal all gaps between ceiling and masonry wall with either plaster, adhesive or flexible sealant

**Complying with checklist will help achieve design air permeability**

### GENERAL NOTES

- Keep cavities clean of mortar sots and other debris during construction
- BS5250 requires vapour control layer to be installed between deck and insulation
- Turn up vapour control layer at edge of roof insulation, lap with roof waterproofing layer, and seal
- Ensure cavity is closed with firestopping insulant or proprietary cavity barrier

### ACCEPTABLE CONSTRUCTION DETAIL

**Flat Roof - Eaves**

**Option (Tick One)**

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes
(I) WALLS: INSULATION IN CAVITY

**THERMAL PERFORMANCE**

**CHECKLIST (TICK ALL)**

- Insulation upstand having a minimum R-value of 1.10 m² K/W (in heat flow direction perpendicular to wall surface) around parapet
- 300 mm minimum between top of insulation upstand and bottom of horizontal roof insulation
- Ensure roof insulation tightly abuts inner face of parapet wall
- Ensure partial fill insulation is secured firmly against inner leaf of cavity wall

**GENERAL NOTES**

Thermal performance of junction can be improved significantly by using blockwork with a thermal conductivity of ≤20 W/mK in direction of heat flow in external wall at roof level or alternatively by extending insulation vertically up internal face of parapet wall to a height of 450 mm. Keep cavities clean of mortar snots and other debris during construction. BS5250 requires vapour control layer to be installed between deck and insulation. Turn up vapour control layer at edge of roof insulation, lap with roof waterproofing layer, and seal. Where different block materials are being used consideration should be given to avoid cracking in plaster at the junction between the block materials.

**AIR BARRIER - CONTINUITY**

**CHECKLIST (TICK ALL)**

- Seal all penetrations through air barrier using a flexible sealant
- Fix ceiling first, and seal all gaps between ceiling and masonry wall with either plaster, adhesive or flexible sealant

Complying with checklist will help achieve design air permeability

**OPTION (TICK ONE)**

**AIR BARRIER - OPTIONS**

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

**ACCEPTABLE CONSTRUCTION DETAIL**

**Flat Roof - Parapet**

**DETAIL 1.20, 2011**
### THERMAL PERFORMANCE CHECKLIST (TICK ALL)

- Ensure partial fill insulation is secured firmly against inner leaf of cavity wall
- Continue insulation to width of the cavity
- Stainless Steel angle to support outer leaf

### AIR BARRIER - CONTINUITY CHECKLIST (TICK ALL)

- Seal all penetrations through air barrier using a flexible sealant
- Apply flexible sealant to all interfaces between internal air barrier and window / door frame members

### GENERAL NOTES

- Keep cavities clean of mortar snots and other debris during construction

### AIR BARRIER - OPTIONS

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

Complying with checklist will help achieve design air permeability.

**ACCEPTABLE CONSTRUCTION DETAIL**

- **Ope - Split Lintels - Steel and Concrete**

**DETAIL 1.21, 2011**
### THERMAL PERFORMANCE

**CHECKLIST (TICK ALL)**

- Ensure partial fill insulation is secured firmly against inner leaf of cavity wall
- Continue insulation to width of the cavity
- Stainless steel lintel with perforated base plate. Base plate thermal conductivity not exceeding 7 W/mK. Thickness of lintel material no more than 3mm

### AIR BARRIER - CONTINUITY

**CHECKLIST (TICK ALL)**

- Seal all penetrations through air barrier using a flexible sealant
- Apply flexible sealant to all interfaces between internal air barrier and window / door frame members

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### GENERAL NOTES

Keep cavities clean of mortar snots and other debris during construction

### OPTION (TICK ONE)

**AIR BARRIER - OPTIONS**

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

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**ACCEPTABLE CONSTRUCTION DETAIL**

Ope - Perforated Steel Lintel (Stainless Steel)
### THERMAL PERFORMANCE

- Ensure partial fill insulation is secured firmly against inner leaf of cavity wall
- Continue insulation to width of the cavity
- Install proprietary cavity closer with path of minimum thermal resistance through the closer of not less than 4.29 m² K/W (manufacturers certified data)
- Ensure all gaps around and between lintels are tightly packed with insulation

### AIR BARRIER - CONTINUITY

- Seal all penetrations through air barrier using a flexible sealant
- If forming the air barrier to the walls with a blockwork inner leaf or a scratch coat on blocks, install a flexible sealant between the cavity closer and blockwork wall
- Apply flexible sealant to all interfaces between internal air barrier and window / door frame members

### GENERAL NOTES

- Keep cavities clean of mortar snots and other debris during construction

### OPTION (TICK ONE) - AIR BARRIER - OPTIONS

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

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**ACCEPTABLE CONSTRUCTION DETAIL**

**Ope - Pre-stressed concrete lintels**

**DETAIL 1.23.1 + 1.23.2, 2011**
(1) WALLS: INSULATION IN CAVITY

THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

Ensure partial fill insulation is secured firmly against inner leaf of cavity wall

Install proprietary cavity closer or block of insulation with path of minimum thermal resistance through the closer of not less than 2.40 m² K/W (manufacturers certified data)

AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

- Seal all penetrations through air barrier using a flexible sealant
- Apply flexible sealant to all interfaces between internal air barrier and window / door frame members
- If a proprietary cavity closer is used, when forming the air barrier to the walls with a blockwork inner leaf or a scratch coat on blocks, install a flexible sealant between the cavity closer and blockwork wall

Complying with checklist will help achieve design air permeability

GENERAL NOTES

Keep cavities clean of mortar snots and other debris during construction

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

ACCEPTABLE CONSTRUCTION DETAIL

Ope - Jamb with closer block

DETAIL 1.24, 2011
**THERMAL PERFORMANCE CHECKLIST (TICK ALL)**

Ensure partial fill insulation is secured firmly against inner leaf of cavity wall

Install proprietary cavity closer or block of insulation with path of minimum thermal resistance through the closer of not less than 4.30 m²·K/W (manufacturers certified data)

**AIR BARRIER - CONTINUITY CHECKLIST (TICK ALL)**

- Seal all penetrations through air barrier using a flexible sealant
- Apply flexible sealant to all interfaces between internal air barrier and window / door frame members
- If forming the air barrier to the walls with a blockwork inner leaf or a scratch coat on blocks, install a flexible sealant between the cavity closer and blockwork wall

**GENERAL NOTES**

Keep cavities clean of mortar snots and other debris during construction

**OPTION (TICK ONE)**

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

*Complying with checklist will help achieve design air permeability*
THERMAL PERFORMANCE

CHECKLIST (TICK ALL)

Install proprietary cavity closer or block of insulation with path of minimum thermal resistance through the closer of not less than 2.90 m² K/W (manufacturers certified data)

Ensure partial fill insulation is secured firmly against inner leaf of cavity wall

AIR BARRIER - CONTINUITY

CHECKLIST (TICK ALL)

☐ Seal all penetrations through air barrier using a flexible sealant

☐ Apply flexible sealant to junctions between plaster/plasterboard and sill board, and between sill board and window frame

☐ Ensure air barrier continuity between the window and the wall air barrier line

☐ If forming the wall air barrier with a blockwork inner leaf or with scratch coat on blockwork, install a flexible sealant between the cavity closer and blockwork wall

Complying with checklist will help achieve design air permeability

GENERAL NOTES

Keep cavities clean of mortar snots and other debris during construction

AIR BARRIER - OPTIONS

OPTION (TICK ONE)

☐ Masonry inner leaf with wet-finish plaster, or

☐ Masonry inner leaf with scratch coat, and finished with plasterboard, or

☐ Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

☐ Airtightness membrane and tapes
**THERMAL PERFORMANCE**

**CHECKLIST (TICK ALL)**

Ensure partial fill insulation is secured firmly against inner leaf of cavity wall

**AIR BARRIER - CONTINUITY**

**CHECKLIST (TICK ALL)**

Seal all penetrations through air barrier using a flexible sealant

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**GENERAL NOTES**

Keep cavities clean of mortar snots and other debris during construction

See TGD-B for guidance on fire safety and TGD-E for guidance on sound insulation

Read this detail in conjunction with detail G-01, Masonry Separating Wall Head

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**OPTION (TICK ONE)**

**AIR BARRIER - OPTIONS**

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

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**ACCEPTABLE CONSTRUCTION DETAIL**

**Corner / Inverted Corner**

**DETAIL 1.27.1 + 1.27.2, 2011**
THERMAL PERFORMANCE

CHECKLIST (TICK ALL)

Ensure partial fill insulation is secured firmly against inner leaf of cavity wall

Ensure thickness of lintel material is not more than 3.2mm

Ensure lintel is fully insulated and does not have a base plate

AIR BARRIER - CONTINUITY

Ensure air barrier continuity between the window and the wall air barrier line

GENERAL NOTES

OPTION (TICK ONE)

Masonry inner leaf with wet-finish plaster, or

Masonry inner leaf with scratch coat, and finished with plasterboard, or

Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes

ACCEPTABLE CONSTRUCTION DETAIL

Galvanised Steel top hat lintel detail bridging masonry cavity wall

Diagram 1, 2011
Concrete Back sill detail (insulation below wood sill section)

**THERMAL PERFORMANCE CHECKLIST (TICK ALL)**

- Install insulation under sill with a min. R-value of 0.65 m²·K/W
- Install perimeter insulation with a min. R-value of 1.09 m²·K/W
- Ensure partial fill insulation is secured firmly against inner leaf of cavity wall

**AIR BARRIER - CONTINUITY**

- Ensure air barrier continuity between the window and the wall air barrier line

**GENERAL NOTES**

**OPTION (TICK ONE) AIR BARRIER - OPTIONS**

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

Complying with checklist will help achieve design air permeability
**THERMAL PERFORMANCE**

- Ensure continuity of insulation throughout junction
- Ensure full depth of insulation between and over joists abuts eaves insulation
- Ensure gap between wall plate and proprietary eaves vent is completely filled with insulation having a min. R-value across the insulation thickness of 3.00 m²K/W
- Ensure partial fill insulation is secured firmly against inner leaf of cavity wall.

Detail is indicative for thermal purposes. Where continuity of insulation is maintained throughout the junction, alternative structural design may be used.

**AIR BARRIER - CONTINUITY**

- Bed wall plate on continuous mortar bed
- Fix ceiling first, and seal all gaps between ceiling and masonry wall with either plaster, adhesive or flexible sealant
- Seal all penetrations through air barrier using a flexible sealant

Complying with checklist will help achieve design air permeability

**GENERAL NOTES**

**OPTION (TICK ONE) AIR BARRIER - OPTIONS**

- Masonry inner leaf with wet-finish plaster, or
- Masonry inner leaf with scratch coat, and finished with plasterboard, or
- Inner leaf with plasterboard on dabs, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes