INTRODUCTION

The details in this section have been developed for hollow concrete block construction. Details are given for the junction with a range of roof, ground floor and internal floor types, as well as at external wall apertures.

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 material chosen, as well as on the desired U-value.

Due to the practicalities of fixing insulated dry lining to blockwork, depending on insulation restraint, board thickness, boards should be fixed according to relevant 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.

A vapour control layer should be installed on the warm side of the insulation to minimise the risk of interstitial condensation on the cold masonry behind the insulation. Care should be taken to avoid gaps in the vapour control layer at all joints, edges and service penetrations. A services cavity on the inside of the insulation can be used to facilitate fixing the insulation, allow the vapour control layer to be inspected and for services to be run without perforating the vapour control layer.

Where these details are used for the Target U-values and constructions described in Table D6 of TGD L 2021 the psi values published in Table D6 may be used to calculate the actual thermal bridging heat loss for the key thermal bridging junctions in that dwelling.

Technical Guidance Document B and Supplementary Guidance to TGD B provides guidance in relation to the provision of cavity barriers in air cavities, cavity barriers within combustible insulation layers and fire protection of structural elements.

The 2021 edition of the ACDs updates the drawings to take account of industry practice. The performance requirements remain the same as for the 2011 edition.
### Table D6

<table>
<thead>
<tr>
<th>Junction detail Identifier</th>
<th>Junction detail</th>
<th>Section 6 - Hollow Block Construction</th>
<th>Target U-values</th>
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<tr>
<td></td>
<td></td>
<td>Hollow Block with internal insulation U-value = 0.18 W/m²K</td>
<td>0.18</td>
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<tr>
<td></td>
<td></td>
<td>(roof U = 0.16)</td>
<td>0.18</td>
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</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 for the wall 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 = 0.16 to 0.2 W/m²K; Ground Floor = 0.12 to 0.18 W/m²K.

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 Psi (ψ) value to be valid, i.e. if for 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 wall insulation is continuous and not bridged by the balcony slab.

5. Value of Ψ is applied to each dwelling.

6. Psi value is for whole junction. Half the value should be applied to each dwelling on either side of the junction.
## THERMAL PERFORMANCE

**CHECKLIST (TICK ALL)**

- Ensure continuity of wall and floor insulation
- Install perimeter insulation with a minimum R-value of 4.35 m²K/W
- Floor insulation to tightly abut blockwork wall

## AIR BARRIER - CONTINUITY

**CHECKLIST (TICK ALL)**

- Seal between wall and floor air barriers with suitable airtightness tape or a flexible sealant
- Seal all penetrations through air barrier with suitable air tightness tape, grommets or flexible sealant

## GENERAL NOTES

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L

Refer to Technical Guidance Document Part C for details on radon protection

## OPTION (TICK ONE)

**AIR BARRIER - OPTIONS**

- Air tightness membrane and tapes, or
- Masonry leaf with insulated dry-lining and effective vapour control layer, or
- Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners

Complying with checklist will help achieve design air permeability and may effect a reduced testing regime.
**Ground Floor - Insulation Below Slab**

**THERMAL PERFORMANCE CHECKLIST** (TICK ALL)

- Ensure continuity of wall and floor insulation
- Install perimeter insulation with a minimum R-value of 4.35 m²K/W
- Floor insulation to tightly abut blockwork wall

**AIR BARRIER - CONTINUITY**

- Seal between wall and floor air barriers with suitable airtightness tape or a flexible sealant
- Seal all penetrations through air barrier with suitable air tightness tape, grommets or flexible sealant

**GENERAL NOTES**

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L

Refer to Technical Guidance Document Part C for details on radon protection

**OPTION (TICK ONE)**

Air tightness membrane and tapes, or

Masonry leaf with insulated dry-lining and effective vapour control layer, or

Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners

*Complying with checklist will help achieve design air permeability and may affect a reduced testing regime.*
Provide similar air seals at all internal partitions.

Install insulation with a minimum R-value of 4.35 m²K/W between the wall and the joist, or held in place with battens between joists.

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 with suitable airtightness tape, grommets or flexible sealant.

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L.

Refer to Technical Guidance Document Part C for details on sub-floor ventilation.

Complying with checklist will help achieve design air permeability and may effect a reduced testing regime.
**THERMAL PERFORMANCE**

Continue wall insulation across floor abutment zone. Place insulation with a minimum R-value of 4.35 m²K/W against wall, held in place by nogging or battens.

**AIR BARRIER - CONTINUITY**

Seal between wall air barriers with suitable air tightness tape or mortar joints around built-in joists should be carefully pointed with flexible sealant or joists may be fitted with proprietary shoes as they are installed. Seal shoe to blockwork face with a flexible sealant.

Seal all penetrations through air barrier with suitable air tightness tape, grommets or flexible sealant.

Note: Dotted blue line is notional, to depict continuity of air barrier through floor.

**GENERAL NOTES**

Timber floor joists may be laid in joist hangers rather than being built-in.

For timber engineered joists, proprietary filler pieces must be fitted on both sides of web, between top and bottom flanges. Refer to manufacturers' details.

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L.

Refer to Technical Guidance Document B and Supplementary Guidance to TGD B for guidance on cavity barriers and fire protection of structures.

**OPTION**

Air tightness membrane and tapes, or

Masonry leaf with insulated dry-lining and effective vapour control layer, or

Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners.

Complying with checklist will help achieve design air permeability and may affect a reduced testing regime.
### THERMAL PERFORMANCE

**CHECKLIST (TICK ALL)**

- Insulation to separating wall/party wall to be taken one meter in from external wall

### AIR BARRIER - CONTINUITY

**CHECKLIST (TICK ALL)**

- Seal between wall and floor air barriers with suitable airtightness tape or a flexible sealant
- Seal all penetrations through air barrier with suitable air tightness tape, grommets or flexible sealant

### GENERAL NOTES

- See Technical Guidance Document B for guidance on fire safety and Technical Guidance Document E for guidance on sound insulation
- An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L
- Read this detail in conjunction with details G.01, Masonry Separating Wall Head

### AIR BARRIER - OPTIONS

**OPTION (TICK ONE)**

- Air tightness membrane and tapes, or
- Masonry leaf with insulated dry-lining and effective vapour control layer, or
- Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners
General Notes

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L

Read this detail in conjunction with details G.02, Masonry Partition Wall Head

Option

Air barrier - options

- Air tightness membrane and tapes, or
- Masonry leaf with insulated dry-lining and effective vapour control layer, or
- Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners
### General Notes

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L.

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

### Air Barrier - Options

- Air tightness membrane and tapes, or
- Masonry leaf with insulated dry-lining and effective vapour control layer, or
- Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners.

### Air Barrier - Continuity

Seal between wall and floor air barriers with suitable air tightness tape or a flexible sealant.

Maintain continuity of air barrier behind stud partition wall.

Seal all penetrations through air barrier with suitable air tightness tape, grommets or flexible sealant.

Complying with checklist will help achieve design air permeability and may effect a reduced testing regime.

### Thermal Performance

Ensure insulation with a minimum R-value of 2.50 m²K/W between the external wall and the partition stud.

(Tick all)
Ensure continuity of insulation throughout junction.
Ensure full depth of insulation between and over joists abuts eaves insulation.

**AIR BARRIER - CONTINUITY**

- Seal between wall and ceiling air barriers with suitable air tightness tape or a flexible sealant.
- Seal all penetrations through air barriers with suitable air tightness tape, grommets or a flexible sealant.

**GENERAL NOTES**

- Use of over and under-joist/rafter insulation eliminates the cold bridge caused by joist/rafter.
- Use vapour permeable roof underlay in accordance with third party certification.
- Eaves insulation must not hinder free water drainage below the tiling battens.
- An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L.
- Refer to Technical Guidance Document B and Supplementary Guidance to TGD B for guidance on cavity barriers and fire protection of structures.
- Read this detail in conjunction with detail 6.13, Ventilated Roof - Attic Floor Level For Unventilated rafter void dormer see 1.11.2.

**THERMAL PERFORMANCE**

**CHECKLIST (TICK ALL)**

- Ensure wall insulation or cavity barrier, as appropriate, tightly abuts underside of ceiling joist.
- Ensure gap between wall plate and vapour permeable membrane is completely filled having a minimum R-value across the insulation thickness of 3.00 m²K/W.
- Ensure continuity of insulation throughout junction.
- Ensure full depth of insulation between and over joists abuts eaves insulation.

**OPTION (TICK ONE)**

- Air tightness membrane and tapes, or
- Masonry leaf with insulated dry-lining and effective vapour control layer, or
- Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners.
Ensure continuity of insulation throughout junction

Ensure gap between wall plate and proprietary eaves vent is completely filled with insulation having a minimum R-value across the insulation thickness of 2.50 m²K/W

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

Ensure wall insulation or cavity barrier, as appropriate, tightly abuts underside of ceiling joist

AIR BARRIER - CONTINUITY

Seal between wall and ceiling air barriers with suitable air tightness tape or a flexible sealant

Seal all penetrations through air barriers with suitable air tightness tape, grommets or a flexible sealant

Complying with checklist will help achieve design air permeability and may effect a reduced testing regime.

GENERAL NOTES

Thermal performance of junction can be improved by incorporating an eaves wind barrier (plywood, OSB, softboard or other suitable material)

Use of over-joist insulation eliminates the cold bridge caused by the joist

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

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L

Refer to Technical Guidance Document B and Supplementary Guidance to TGD B for guidance on cavity barriers and fire protection of structures

Read this detail in conjunction with detail 6.13, Ventilated Roof - Attic Floor Level

OPTION (TICK ONE)

Air tightness membrane and tapes, or

Masonry leaf with insulated dry-lining and effective vapour control layer, or

Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners
**Eaves - Insulation Between and Under Rafters - Ventilated Rafter Void - Dormer**

**THERMAL PERFORMANCE**

- Ensure insulation is installed tightly between rafters and is in contact with under-rafter insulation
- Ensure gap between wall plate and proprietary eaves vent is completely filled with insulation having a minimum R-value across the thickness of 2.65 m²K/W
- Ensure full depth of insulation between and over joists abuts eaves insulation
- Ensure continuity of Insulation throughout junction
- Ensure wall insulation or cavity barrier, as appropriate, tightly abuts underside of ceiling joist

**AIR BARRIER - CONTINUITY**

- Seal between wall and ceiling air barriers with suitable air tightness tape or a flexible sealant
- Seal all penetrations through air barriers with suitable air tightness tape, grommets or a flexible sealant
- Full-depth nogging installed between ceiling joists to carry air barrier through ceiling zone, sealed to air barrier in roof with flexible sealant or airtight tape

**GENERAL NOTES**

Thermal performance of junction can be improved by incorporating an eaves wind barrier (plywood, OSB, softboard or other suitable material)

Use of over and under-joist/rafter insulation eliminates the cold bridge caused by the joist/rafter

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

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L

Refer to Technical Guidance Document B and Supplementary Guidance to TGD B for guidance on cavity barriers and fire protection of structures

Read this detail in conjunction with detail 6.15, Gable - Insulation Between and Under Rafters - Ventilated Rafter Void

**OPTION**

- Air tightness membrane and tapes, or
- Masonry leaf with insulated dry-lining and effective vapour control layer, or
- Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners

Complying with checklist will help achieve design air permeability and may affect a reduced testing regime.
Ensure gap between wall plate and under rafter insulation is completely filled with insulation having a minimum R-value across the insulation thickness of 2.65 m²K/W.

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 under joists abuts eaves insulation.

Ensure wall insulation or cavity barrier, as appropriate, tightly abuts underside of ceiling insulation.

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 under joists abuts eaves insulation.

Ensure gap between wall plate and under rafter insulation is completely filled with insulation having a minimum R-value across the insulation thickness of 2.65 m²K/W.

Ensure wall insulation or cavity barrier, as appropriate, tightly abuts underside of ceiling insulation.

**AIR BARRIER - CONTINUITY**

- Seal between wall and ceiling air barriers with suitable air tightness tape or a flexible sealant.
- Seal all penetrations through air barriers with suitable air tightness tape, grommets or 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).

Use of over and under-joist/rafter insulation eliminates the cold bridge caused by the joist/rafter.

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

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L.

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L.

Refer to Technical Guidance Document B and Supplementary Guidance to TGD B for guidance on cavity barriers and fire protection of structures.

Read this detail in conjunction with detail 6.15, Gable - Insulation Between and Under Rafters - Ventilated Rafter Void.

**AIR BARRIER - OPTIONS**

- Air tightness membrane and tapes, or
- Masonry leaf with insulated dry-lining and effective vapour control layer, or
- Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners.
Ensure gap between wall plate and over rafter insulation is completely filled with insulation having a minimum R-value across the thickness of 2.38 m²K/W

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 joists abuts eaves insulation

Ensure wall insulation or cavity barrier, as appropriate, tightly abuts underside of ceiling joist

Complying with checklist will help achieve design air permeability and may affect a reduced testing regime.

Air barrier - Options

- Air tightness membrane and tapes, or
- Masonry leaf with insulated dry-lining and effective vapour control layer, or
- Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners

Refer to Technical Guidance Document B and Supplementary Guidance to TGD B for guidance on cavity barriers and fire protection of structures

Read this detail in conjunction with detail 6.16, Gable - Insulation Between and Over Rafters - Unventilated Rafter Void
**THERMAL PERFORMANCE**

**CHECKLIST (TICK ALL)**

- Ensure full depth of insulation between and over joists extends to inner face of wall
- Compressible insulation between last truss or joist, and gable wall having a minimum R-value across the thickness of 2.50 m²K/W
- Ensure wall insulation or cavity barrier, as appropriate, tightly abuts underside of ceiling joist

**AIR BARRIER - CONTINUITY**

**CHECKLIST (TICK ALL)**

- Seal between wall and ceiling air barriers with suitable air tightness tape or a flexible sealant
- Seal all penetrations through air barriers with suitable air tightness tape, grommets or a flexible sealant

**GENERAL NOTES**

The use of over-joist and insulation eliminates the cold bridge caused by the joist

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L

Refer to Technical Guidance Document B and Supplementary Guidance to TGD B for guidance on cavity barriers and fire protection of structures

Read this detail in conjunction with detail 6.08 Eaves - Unventilated Attic, or 6.09 Eaves - Ventilated Attic

**OPTION (TICK ONE)**

**AIR BARRIER - OPTIONS**

- Air tightness membrane and tapes, or
- Masonry leaf with insulated dry-lining and effective vapour control layer, or
- Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners

Complying with checklist will help achieve design air permeability and may effect a reduced testing regime.
**Use of under rafter insulation eliminates the cold bridge caused by the rafter**

**Ensure top of wall is levelled with mortar to correct pitch**

**Ensure insulation continuity throughout junction**

**Pack gap between rafter and wall with insulation**

**Ensure wall insulation or cavity barrier, as appropriate, tightly abuts underside of ceiling insulation**

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

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**THERMAL PERFORMANCE CHECKLIST (TICK ALL)**

- Fit insulation over top of wall within gable ladder with a minimum R-value across the thickness of 4.35 m²K/W
- Ensure top of wall is levelled with mortar to correct pitch
- Ensure insulation continuity throughout junction
- Pack gap between rafter and wall with insulation
- Ensure wall insulation or cavity barrier, as appropriate, tightly abuts underside of ceiling insulation
- Ensure insulation is installed tightly between rafters and is in contact with under-rafter insulation

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

- Seal between wall and ceiling air barriers with suitable air tightness tape or a flexible sealant
- Seal all penetrations through air barriers with suitable air tightness tape, grommets or a flexible sealant

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**GENERAL NOTES**

Use of under rafter insulation eliminates the cold bridge caused by the rafter

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

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L

Refer to Technical Guidance Document B and Supplementary Guidance to TGD B for guidance on cavity barriers and fire protection of structures

Read this detail in conjunction with detail 1.11.2

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**OPTION (TICK ONE)**

**AIR BARRIER - OPTIONS**

- Air tightness membrane and tapes, or
- Masonry leaf with insulated dry-lining and effective vapour control layer, or
- Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners

Complying with checklist will help achieve design air permeability and may effect a reduced testing regime.
Gable - Insulation Between and Under Rafters
- Ventilated Rafter Void

**THERMAL PERFORMANCE CHECKLIST**
(TICK ALL)

- Fit insulation over top of wall with gable ladder with a minimum R-value across the thickness of 4.35 m²K/W
- Maintain 50mm ventilated void above top of insulation
- Ensure top of wall is levelled with mortar to correct pitch
- Ensure insulation continuity throughout junction
- Pack gap between rafter and wall with compressible insulation
- Ensure wall insulation or cavity barrier, as appropriate, tightly abuts underside of ceiling insulation
- Ensure insulation is installed tightly between rafters and is in contact with under-rafter insulation

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

- Seal between wall and ceiling air barriers with suitable air tightness tape or a flexible sealant
- Seal all penetrations through air barriers with suitable air tightness tape, grommets or a flexible sealant

**GENERAL NOTES**

- Use a proprietary eaves ventilator to ensure ventilation in accordance with Technical Guidance Document F. Installation of the eaves ventilator must not prevent free water drainage below the tiling battens
- Use of under rafter insulation eliminates the cold bridge caused by the rafter
- An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L
- Refer to Technical Guidance Document B and Supplementary Guidance to TGD B for guidance on cavity barriers and fire protection of structures
- Read this detail in conjunction with detail 6.10.1, 6.10.2, 6.11.1 and 6.11.2

**OPTION**
(TICK ONE)

- **AIR BARRIER - OPTIONS**
  - Air tightness membrane and tapes, or
  - Masonry leaf with insulated dry-lining and effective vapour control layer, or
  - Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners
**THERMAL PERFORMANCE CHECKLIST (TICK ALL)**

- Fit insulation over top of wall within gable ladder. Fully fill void between wall head and over-rafter insulation with a minimum R-value across the thickness of 2.17 m²K/W
- Ensure top of wall is levelled with mortar to correct pitch
- Ensure insulation continuity throughout junction
- Pack gap between rafter and wall with insulation
- Ensure wall insulation or cavity barrier, as appropriate, tightly abuts underside of ceiling insulation
- Ensure insulation is installed tightly between rafters and is in contact with over-rafter insulation

**GENERAL NOTES**

- Vapour permeable roof underlay to be used in accordance with approved third party certification
- Use of over-rafter insulation eliminates the cold bridge caused by the rafter
- An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L
- Refer to Technical Guidance Document B and Supplementary Guidance to TGD B for guidance on cavity barriers and fire protection of structures
- Refer to detail 6.12, Eaves - Unventilated - Insulation Between and Over Rafters

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

- Seal between wall and ceiling air barriers with suitable air tightness tape or a flexible sealant
- Seal all penetrations through air barriers with suitable air tightness tape, grommets or a flexible sealant

**AIR BARRIER - OPTIONS**

- Air tightness membrane and tapes, or
- Masonry leaf with insulated dry-lining and effective vapour control layer, or
- Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners
Fully fill void between top of wall and underside of roof deck with a minimum R-value across the thickness of 4.35 m²K/W.

Ensure wall insulation or cavity barrier, as appropriate, tightly abuts underside of ceiling insulation.

Ensure full depth of over deck insulation extends to roof edge.

BS 5250:2011 + A1:2016 provides for a high performance vapour barrier to be laid above the deck, turned up at perimeter of the insulation and sealed to weathering membrane.

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L.

Refer to Technical Guidance Document B and Supplementary Guidance to TGD B for guidance on cavity barriers and fire protection of structures.

Use compatible materials during construction.

**AIR BARRIER - OPTIONS**

- Air tightness membrane and tapes, or
- Masonry leaf with insulated dry-lining and effective vapour control layer, or
- Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners.

Complying with checklist will help achieve design air permeability and may effect a reduced testing regime.
### THERMAL PERFORMANCE

**CHECKLIST (TICK ALL)**

- Ensure roof insulation tightly abuts inner face of parapet wall
- Insulation with a minimum R-value of 4.35 m²K/W (in heat flow direction perpendicular to wall surface)
- Ensure wall insulation dry-lining tightly abuts underside of ceiling joist

### AIR BARRIER - CONTINUITY

**CHECKLIST (TICK ALL)**

- Seal between wall and ceiling air barriers with suitable air tightness tape or a flexible sealant
- Seal all penetrations through air barriers with suitable air tightness tape, grommets or a flexible sealant

### GENERAL NOTES

- BS 5250:2011 + A1:2016 provides for a high performance vapour barrier to be laid above the deck, turned up at perimeter of the insulation and sealed to weathering membrane
- An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L
- Refer to Technical Guidance Document B and Supplementary Guidance to TGD B for guidance on cavity barriers and fire protection of structures

### AIR BARRIER - OPTIONS

**OPTION (TICK ONE)**

- Air tightness membrane and tapes, or
- Masonry leaf with insulated dry-lining and effective vapour control layer, or
- Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners
## (6) WALLS: INTERNAL INSULATION-HOLLOW BLOCK

### THERMAL PERFORMANCE

**CHECKLIST (TICK ALL)**

Ensure wall insulation having a minimum R-value of 0.65m²K/W overlaps frame by a minimum of 15mm.

### AIR BARRIER - CONTINUITY

**CHECKLIST (TICK ALL)**

- Seal all penetrations through air barriers with suitable air tightness tape, grommets or a flexible sealant.
- Ensure air barrier continuity between the window/door frame and the wall air barrier.
- Seal between wall air barriers with suitable air tightness tape.

### GENERAL NOTES

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L.

### OPTION (TICK ONE)

<table>
<thead>
<tr>
<th>AIR BARRIER - OPTIONS</th>
</tr>
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<td>Air tightness membrane and tapes, or</td>
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<tr>
<td>Masonry leaf with insulated dry-lining and effective vapour control layer, or</td>
</tr>
<tr>
<td>Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners</td>
</tr>
</tbody>
</table>

*Complying with checklist will help achieve design air permeability and may affect a reduced testing regime.*
### THERMAL PERFORMANCE

**CHECKLIST (TICK ALL)**

Ensure wall insulation having a minimum R-value of 0.65m²K/W overlaps frame by a minimum of 15mm.

### AIR BARRIER - CONTINUITY

**CHECKLIST (TICK ALL)**

- Seal all penetrations through air barriers with suitable air tightness tape, grommets or a flexible sealant.
- Ensure air barrier continuity between the window/door frame and the wall air barrier.
- Seal between wall air barriers with suitable air tightness tape.

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### GENERAL NOTES

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L.

### OPTION (TICK ONE)

#### AIR BARRIER - OPTIONS

- Air tightness membrane and tapes, or
- Masonry leaf with insulated dry-lining and effective vapour control layer, or
- Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners.

Complying with checklist will help achieve design air permeability and may affect a reduced testing regime.
### Air Barrier - Options

**Detail 6.21, 2021**

**Air Barrier - Continuity**

Checklist (Tick All)

- Seal all penetrations through air barriers with suitable air tightness tape, grommets or a flexible sealant
- Ensure air barrier continuity between the window/door frame and the wall air barrier
- Seal between wall air barriers with suitable air tightness tape

**General Notes**

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L

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</table>
### THERMAL PERFORMANCE

**CHECKLIST (TICK ALL)**

Ensure insulation joins at corners

### AIR BARRIER - CONTINUITY

**CHECKLIST (TICK ALL)**

- Seal all penetrations through air barriers with suitable air tightness tape, grommets or a flexible sealant
- Seal between wall air barriers with suitable air tightness tape

### GENERAL NOTES

An effective vapour control layer, which may serve as an air barrier, should be provided on the warm side of the insulation in accordance with Appendix B of Technical Guidance Document L

### OPTION (TICK ONE)

**AIR BARRIER - OPTIONS**

- Air tightness membrane and tapes, or
- Masonry leaf with insulated dry-lining and effective vapour control layer, or
- Insulated plasterboard system sealed to achieve appropriate air tightness, bedded on dabs and mechanically fixed, with continuous ribbon of adhesive around all openings, along top and bottom of wall and at internal and external corners

Complying with checklist will help achieve design air permeability and may effect a reduced testing regime.