## INTRODUCTION

The details in this section relate to partitions and separating or party walls. 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. They are applicable to all types of external wall construction.

The details are indicative. They focus on the issues of thermal performance and air tightness. Other issues are not considered. 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 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"

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.

| | General Details | Target U-Values | |
|---|---|---|---|
| Junction detail identifier 2011 Edition | Junction detail | U-value[1] = 0.21 W/m$^2$K, (roof U = 0.16) (floor U = 0.21) | U-value[2] = 0.15 W/m$^2$K, (roof U = 0.14) (floor U = 0.15) |
| | | ψ-value (W/mK) | ψ-value (W/mK) |
| **Section G** | **General Details** | | |
| G.01.1 | Masonry Separating (cavity) Wall Head - Section [3] | 0.511 | 0.484 |
| G.01.2 | Masonry Separating (solid) Wall Head - Section [3] | 0.488 | 0.458 |
| G.02 | Masonry Partition Head - Section | 0.000 | 0.000 |
| G.03 | Timber stud Partition Head - Section | 0.000 | 0.000 |
| G.04 | Metal Stud Partition Head - Section | 0.000 | 0.000 |
| G.05.1 | Solid Masonry Separating Wall through ground floor | 0.201 | 0.240 |
| G.05.2 | Solid Masonry (narrow) partitionWall through ground floor | 0.138 | 0.150 |

1. ψ values for a Target U-value for the wall of 0.21 W/m$^2$K can be used for a range of U-values down to 0.18 W/m$^2$K 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/m$^2$ K; Flat Roof = 0.16 to 0.2 W/m$^2$K; Ground Floor = 0.16 to 0.21 W/m$^2$K.

2. ψ values for a Target U-value for the wall of 0.15 W/m$^2$K can be used for a range of U-values from of 0.12 W/m$^2$K to 0.17 W/m$^2$K 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/m$^2$ K; Flat Roof = 0.11 to 0.17 W/m$^2$K; Ground Floor = 0.12 to 0.18.

3. Psi value is for whole junction. Half the value should be applied to each dwelling on either side of the junction.

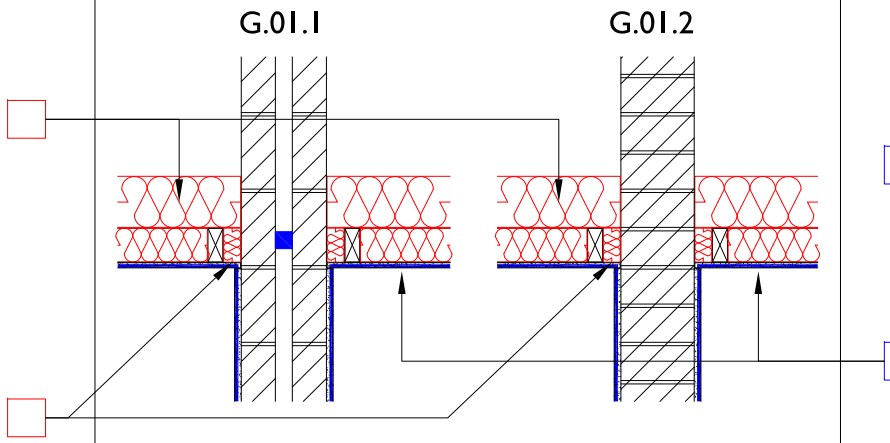
# Masonry Separating Wall Head - Section



## THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

- ☐ Ensure full insulation depth between and over trusses/joists extends to wall
- ☐ Pack compressible insulation between last truss/joist and separating wall. Minimum R-value of 2.50 $m^2$ K/W




## AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

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

*Complying with checklist will help achieve design air permeability*

## GENERAL NOTES

Read this detail in conjunction with:-
Details 1-06, 2-05, 3-06: Masonry Separating Wall - plan

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

Thermal performance of junction can be improved significantly by extending insulation vertically up party wall to a height of 450 mm above ceiling level

Masonry:- blockwork; brickwork; insitu concrete; precast concrete

## 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



Masonry Separating Wall Head - Section

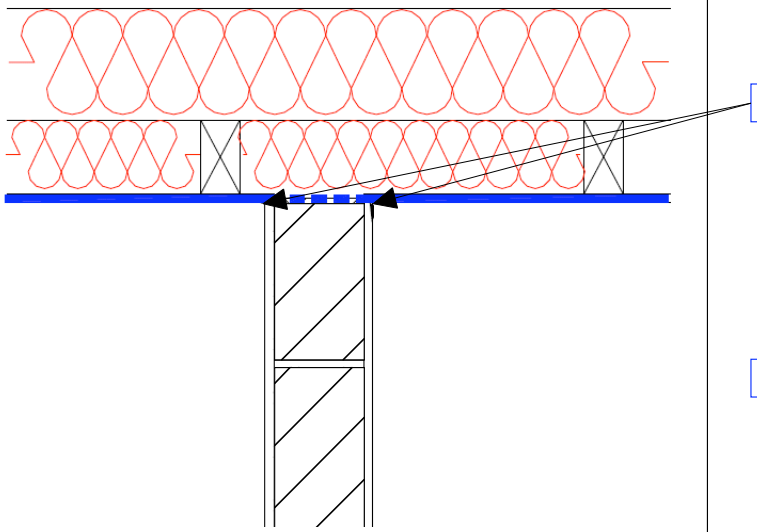
# Masonry Partition Head - Section



## THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

- ☐ Ensure full insulation depth between and over trusses/joists extends over head of partition



## AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

- ☐ Fix ceiling first, and seal all gaps between ceiling and masonry wall with either adhesive or flexible sealant. Dotted blue line depicts continuity of air barrier through the head of the partition blockwork
- ☐ Seal all penetrations through air barrier using flexible sealant

*Complying with checklist will help achieve design air permeability*

## GENERAL NOTES

*Read this detail in conjunction with:-*
Details 1-07, 2-06, 3-07: Masonry Partition Wall - plan

*Masonry:-* blockwork; brickwork; insitu concrete; precast concrete. Read this detail in conjunction with detail 1-07, Masonry Partition Wall

## AIR BARRIER - OPTIONS

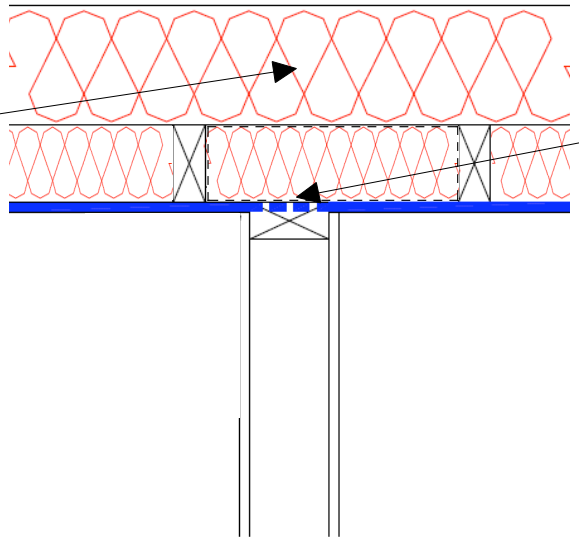
OPTION
(TICK ONE)

- ☐ Plasterboard ceiling, or
- ☐ Airtightness membrane and tapes

## THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

☐ Ensure full insulation depth between and over trusses/joists extends over head of partition



## AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

☐ Fix ceiling first, and seal all gaps between ceiling and head of partition with flexible sealant before installing partition linings. (Dotted blue line depicts continuity of air barrier through the head stud member)

☐ Seal all penetrations through air barrier using flexible sealant

*Complying with checklist will help achieve design air permeability*

## GENERAL NOTES

*Read this detail in conjunction with:-*
Details 1-08, 2-07, 3-08, 4-08: Lightweight Partition Wall - plan

Read this detail in conjunction with detail 1-08, Stud Partition Wall

## AIR BARRIER - OPTIONS

OPTION
(TICK ONE)

☐ Plasterboard ceiling, or

☐ Airtightness membrane and tapes

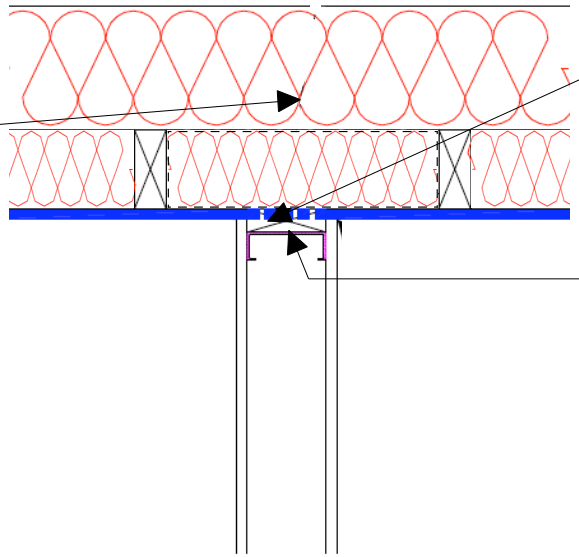
# Metal Stud Partition Head - Section



## THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

☐ Ensure full insulation depth between and over trusses/joists extends over head of partition



## AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

☐ Fix timber head plate to underside of joists to take metal channel

☐ Fix ceiling first, and seal all gaps between ceiling and head plate with flexible sealant before installing partition linings. (Dotted blue line depicts continuity of the air barrier through the partition head plate)

☐ Seal all penetrations through air barrier using flexible sealant

*Complying with checklist will help achieve design air permeability*

## GENERAL NOTES

*Read this detail in conjunction with:-*
Details 1-08, 2-07, 3-08, 5-06: Lightweight Partition Wall - plan

## AIR BARRIER - OPTIONS

OPTION
(TICK ONE)

☐ Plasterboard ceiling, or

☐ Airtightness membrane and tapes



Metal Stud Partition Head - Section

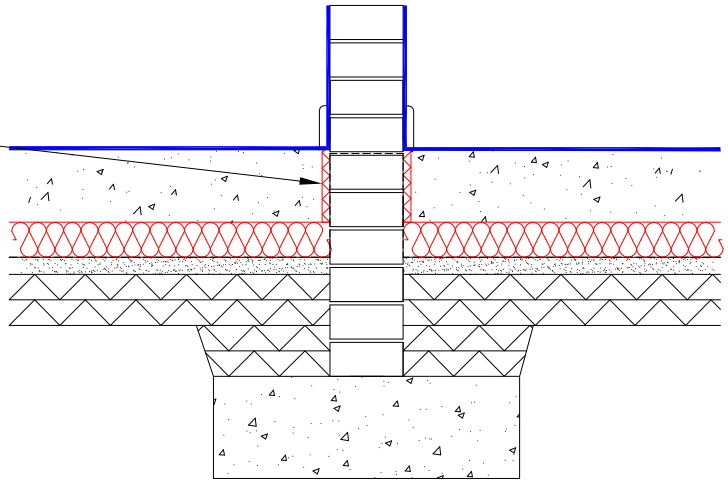
# Masonry Separating Wall through Ground Floor



## THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

- ☐ Install perimeter insulation with a min. R-value of 1.14 $m^2K/W$
- ☐ Floor insulation to tightly abut blockwork wall



## 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

*Complying with checklist will help achieve design air permeability*

## GENERAL NOTES

OPTION
(TICK ONE)

## AIR BARRIER - OPTIONS

- ☐ Airtightness membrane and tapes



Masonry Separating Wall through Ground Floor

DETAIL G.05.1, 2011

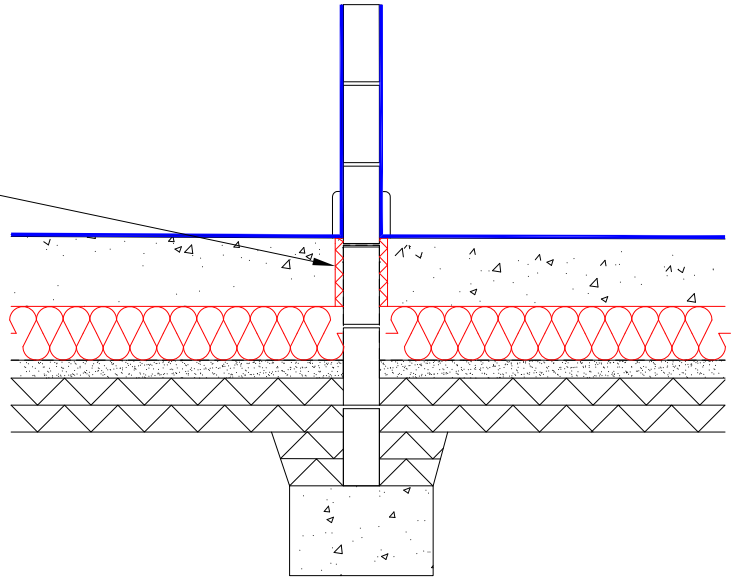
# Solid Masonry (narrow) Partition wall through ground floor



## THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

☐ Install perimeter insulation with a min. R-value of 1.14 $m^2K/W$



## AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

## GENERAL NOTES

OPTION
(TICK ONE)

## AIR BARRIER - OPTIONS

☐ Airtightness membrane and tapes