

**Specification for construction**

**Foundations**

Foundations to external load bearing walls nominally to be 750x225mm set centrally under walls. New foundations to be taken down below ground to level of existing foundations. Concrete to be ST3/CEN 3 or equivalent grade all to be in accordance with BS.5328 and BS.8110.

**Damp proof courses**

To be from 2000 gauge black polythene to BS.6515 or bitumen based to BS.6398 laid to both leafs of external walls. External walls d.p.c. to be laid minimum 150mm above ground level with d.p.c. to inner leaf linked to floor d.p.m. All d.p.c.s to be bedded on mortar. All vertical and horizontal cavity closures to incorporate an insulated d.p.c.

**Wall construction**

Sub-structure  
Thermalite, or similar, blocks to be used below ground level.  
Mortar type to be used in accordance with BS.5628 Part 3.

Walls above ground.  
External walls to consist of 3no courses of engineering brickwork plinth (one course below ground level), 102.5mm Forterra Woodside Mixtute brickwork to match existing, 10mm residual cavity kept clean of mortar droppings, 140mm thick rigi board insulation (Thermaclass Cavity Wall 21 or similar) self adhesive tape at all joints and wall tie locations, 100mm medium dense blockwork inner leaf with Dampor insulated dpc cavity closers at reveals.  
All vertical and horizontal joints to be closed.  
Cavity wall ties to be stainless steel fixed at 450mm vertical centres, 225mm at reveals and 750mm maximum horizontal centres.  
Internal finish to blockwork to be 13mm thick two coat plaster all to achieve minimum overall U value of 0.18 W/m<sup>2</sup> K.

**Ground floor**

100mm thick concrete floor slab on separating layer of 500 gauge polythene laid over 100mm thick Kingspan Thermafloor TF70 zero ODP insulation on 1200 gauge polythene sheet dpm laid over well compacted hardcore, sand blinding, with joints well lapped and bedded.  
Dpm turned up inner face of wall and back into blockwork.  
New ground floor slabs to have 25mm thick upstand of insulation around external walls.  
Floor construction to achieve a minimum U value of 0.18 W/m<sup>2</sup> K.

**Lintels**

Lintels generally to be IC type insulated pressed steel to BS.5977 Part 2 to suit relevant openings with minimum 150mm end bearing installed strictly in accordance with manufacturers instructions.

**Drainage (below ground)**

New rainwater pipes to be connected to existing drainage.  
All drainage to comply with BS.8301:1985. Pipes are to be 110mm dia. Hepworth Supersleve upvc bedded and surrounded by 100mm granular material, single size aggregate to BS.882.  
Pipes to be laid in a maximum gradient of 1:40 and a minimum gradient of 1:80. Pipes passing through walls are to be provided with a concrete lintel over with a 50mm gap all round the pipe with the opening being masked each side with a rigid sheet material.  
A flexible joint is to be provided within 500mm of the building external face.

**Roof construction**

Marley Mendip double pantile interlocking concrete roof tiles to match existing tiles on 25x50mm treated softwood battens, piling to suit tiling on BS.747 type 1B reinforced roofing felt on trussed rafters.  
Contractor to determine tile fixing specification from manufacturers published literature with due consideration for each location, anticipated wind velocities and individual roof pitches.  
Wall plates generally 100x250mm treated softwood with half lapped joints and fully bedded, strapped down to supporting wall with 30x5x1000mm galv. ms strips at 1800mm centres.  
Trussed rafters to be designed and manufactured by approved specialist and fixed together with 100x25mm sawn softwood binders and bracing in strict accordance with BS.5268 Part 3:1985 (and any subsequent amendment) at max. 600mm centres.  
Provide 30x5x1000mm galv. ms vertical restraint straps to external walls at ceiling level fixed to wall and rafters at max. 2000mm centres.  
Provide 30x5mm galv. ms horizontal restraint straps to gable wall fixed to rafter of first three roof trusses at max. 2000mm centres complete with solid blocking support and edge packing.

**Roof space ventilation/insulation**

Provide eaves to eaves ventilation equivalent to 10000sq.mm/metre run together with ventilated dry ridge system giving 5000sq.mm/metre run.  
Insulation to roof space to be 1no. layer of 100mm quilt insulation between rafters with 1no. layer 200mm quilt insulation laid at right angles over rafters to give a minimum U value of 0.15 W/m<sup>2</sup> K.

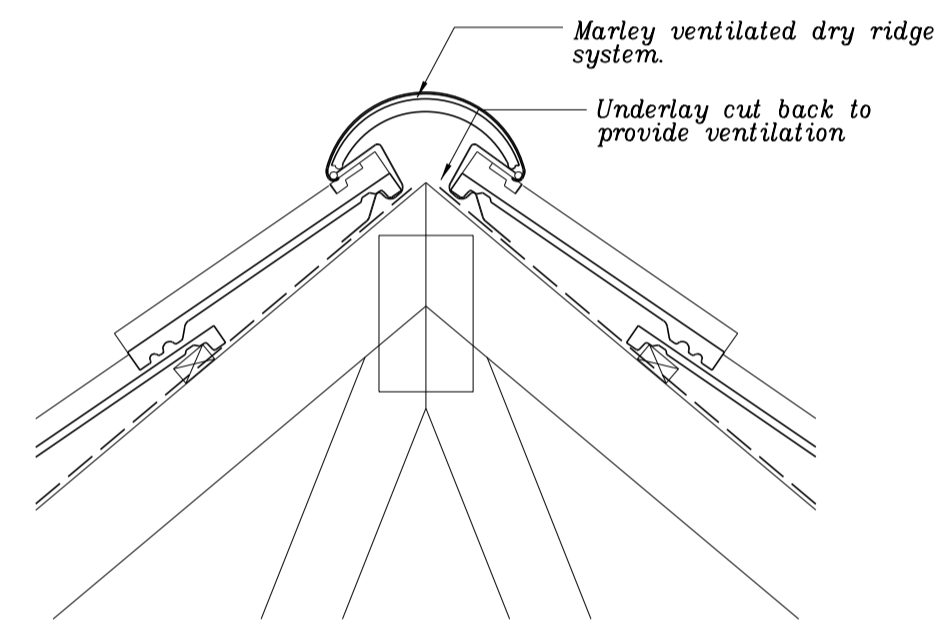
**Storm water drainage (above ground)**

Black upvc guttering to match existing fixed level using metal gutter brackets at max. 1000mm centres with 85mm dia. rainwater pipe sealed to back inlet gully at ground level connected to existing drainage.

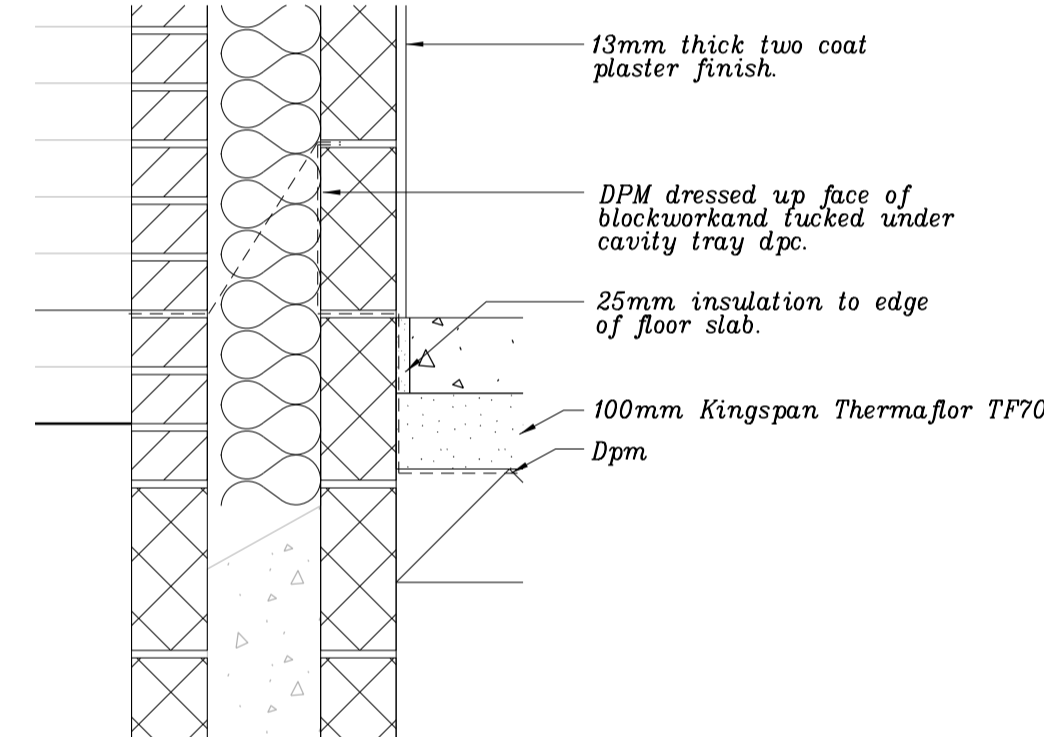
**General notes**

- All fully glazed doors, side screens or panels are to be glazed in accordance with BS.6262 and BS.6206 with either toughened or laminated safety glass.
- All windows to be double glazed and draught proofed. Sashes are to provide a minimum of 1/20 of the floor area as opening vents.
- All habitable rooms are to have a minimum of 8000 sq.mm trickle vents provided to windows.
- All new windows are to be fitted with Pilkington low E or equivalent glazing to achieve a minimum U value of 1.4 W/m<sup>2</sup> K.

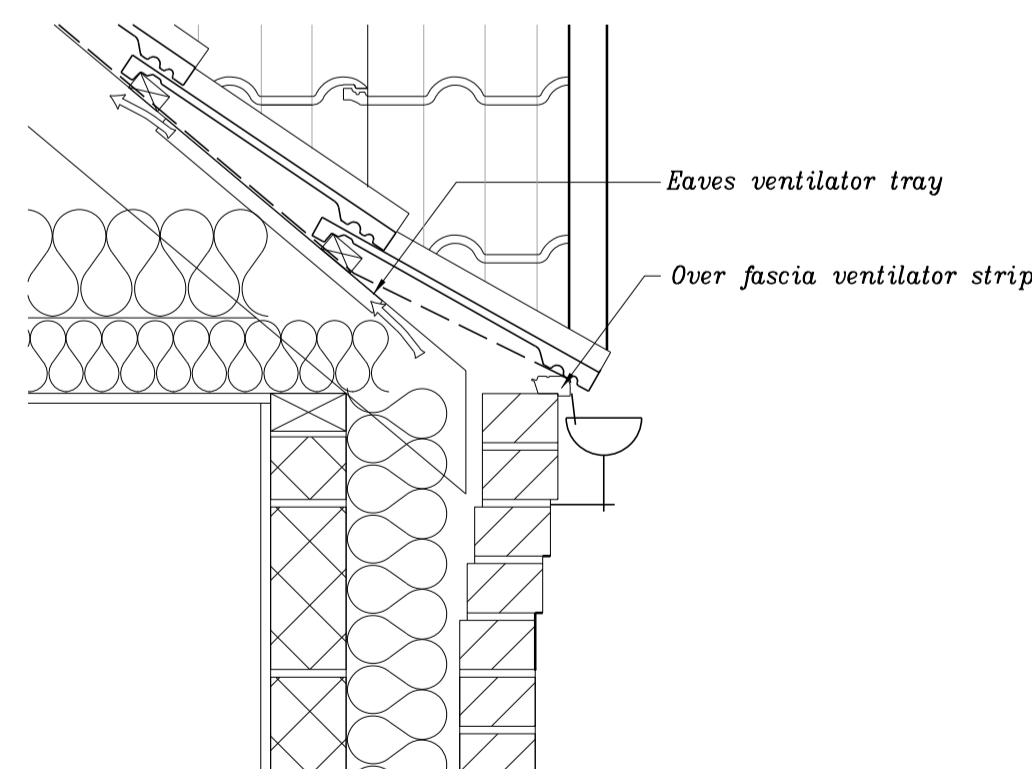
All electrical works required to meet the requirements of Part P ( Electrical Safety ) must be designed, installed, inspected and tested by a person competent to do so.  
The fixed internal lighting is to have a minimum of 1no. energy efficient light fitting for every 25sq.m of floor area or one per four fixed lights.



**Ridge detail**



**Detail at floor**



**Ventilated eaves detail**

PROJECT:  
**Proposed rear extension  
1 Church Fields Close  
Billinghay  
Lincs. LN4 4FZ**

CLIENT:  
**Mr & Mrs P. Rudd**

DRAWING:  
**Proposed section and  
constructions notes**

DATE: **March 2023** SCALE: **1:50@A1**

DRAWING NO:  
**454 -300**

NO DIMENSIONS ARE TO BE SCALED OFF THIS DRAWING.  
ALL DIMENSIONS ARE TO BE VERIFIED ON THE SITE.