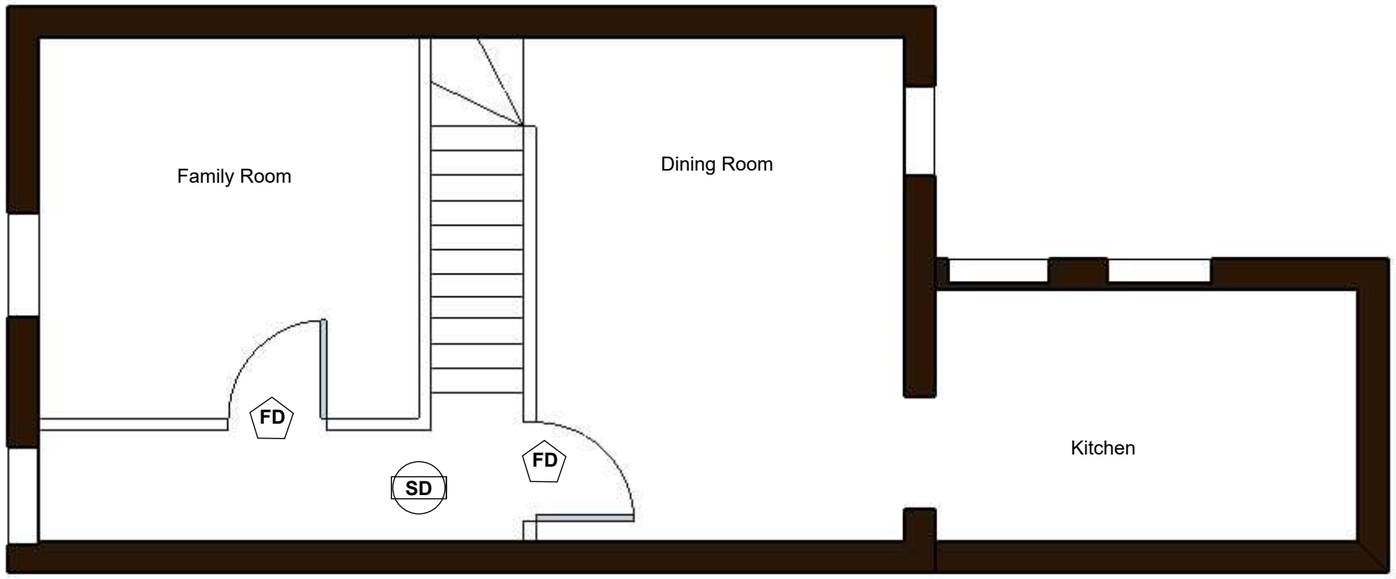

SD smoke detector

FD Fire Doors: all doors marked FD are to be self closing FD 30 fire doors with 30 minute fire resistance and manufactured to BS 476: Part 2

. . . . . 1/2hr rated partitions

All existing internal walls are assumed to be 100mm dense concrete block construction on full foundations. Site investigations are to be undertaken to prove

Scale 1:50

0 5 10

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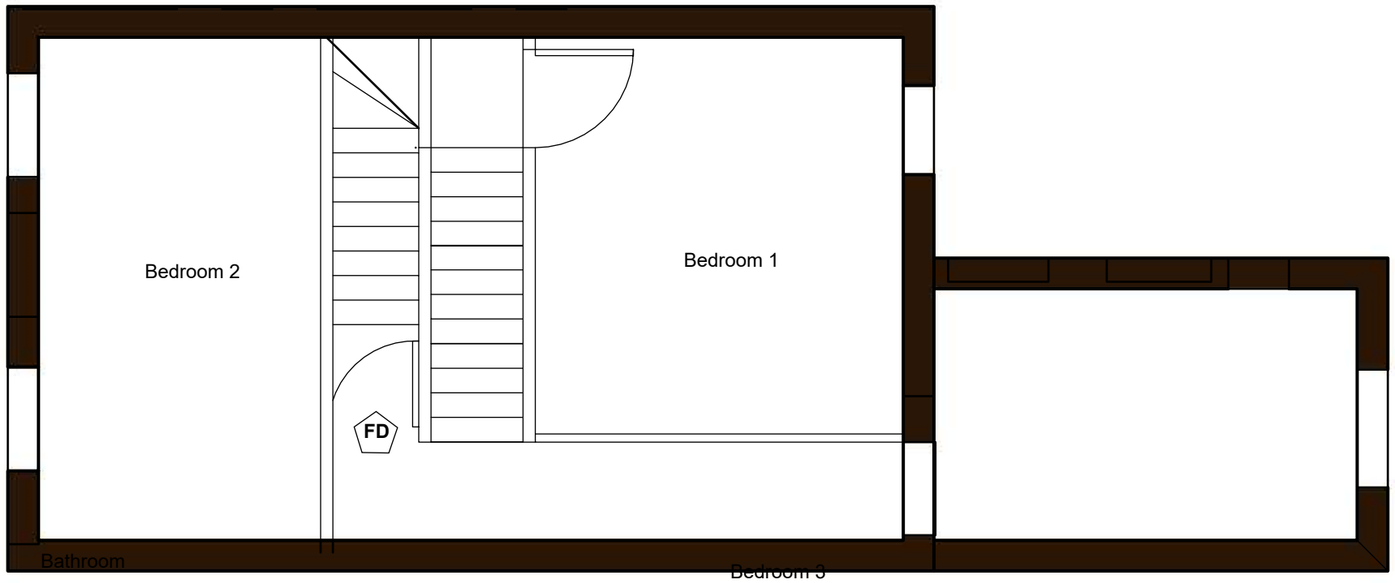
Ground Floor Plan

A.1



Gable End Walls / Party Walls
U-Value achieved minimum 0.30W/m2K
215mm brickwork
72.5mm Kingspan Kooltherm K18 with joints
taped across brickwork and 25x50mm battens
@ 600mm c/c fixed through insulation to walls
with 12.5mm wallboard finish

Scale 1:50

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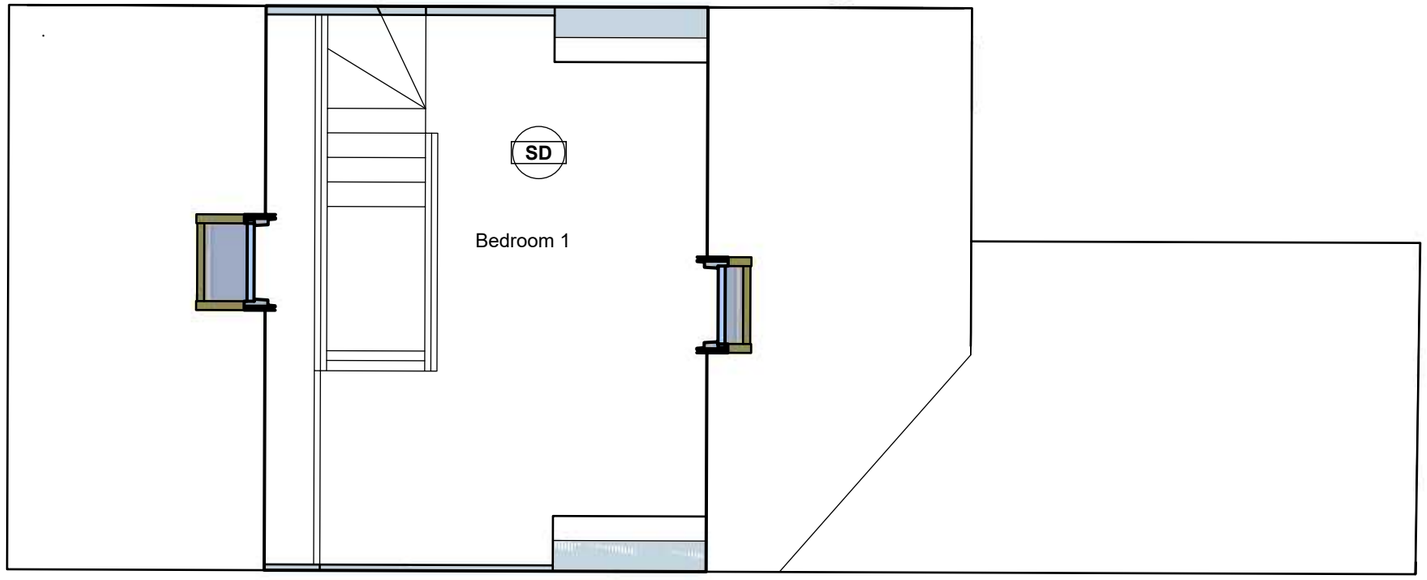
First Floor Plan

A.1



Internal partitions are to ex 47x100mm sw studding at 400mm c/c with noggins at midpoint, 12.5mm plasterboard both sides c/w 3mm plaster skim, sound batt insulation between all to provide 1/2hr fire protection.

Scale 1:50

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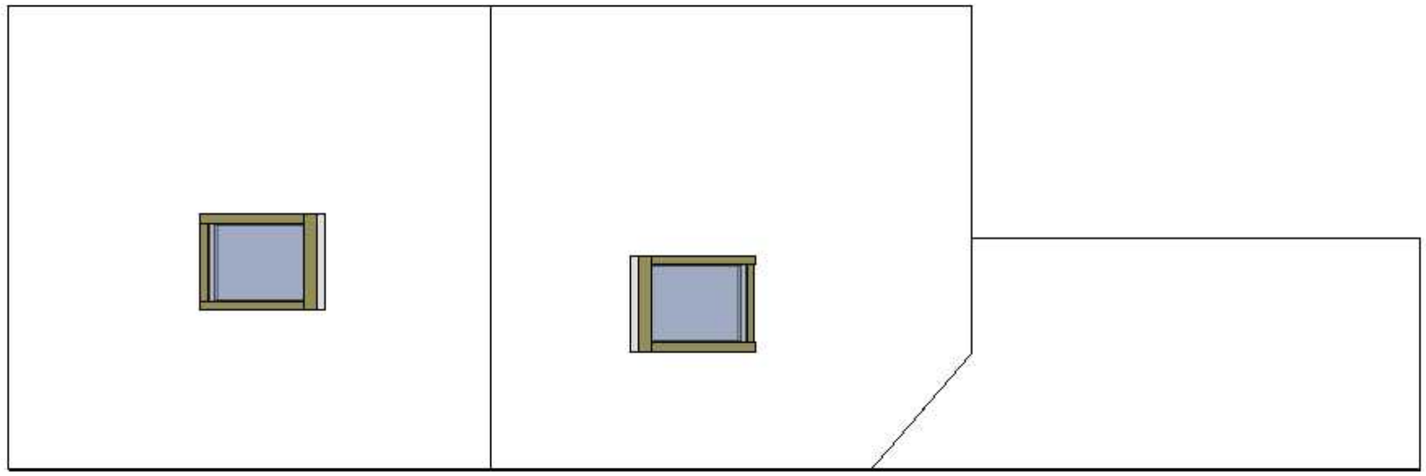
Loft Plan

A.1



Roof felt to existing roof is to be confirmed as to complying with BS 747 1F reinforced felt.

Existing ridge tiles to be fitted with ventilators to provide equivalent of 25mm continuous ventilation.

Existing facias and soffits to be provided complete with ventilation equivalent to 25mm continuous ventilation strip.

Existing party wall to be built up tight to underside of existing roof felt to achieve fire separation

Scale 1:50

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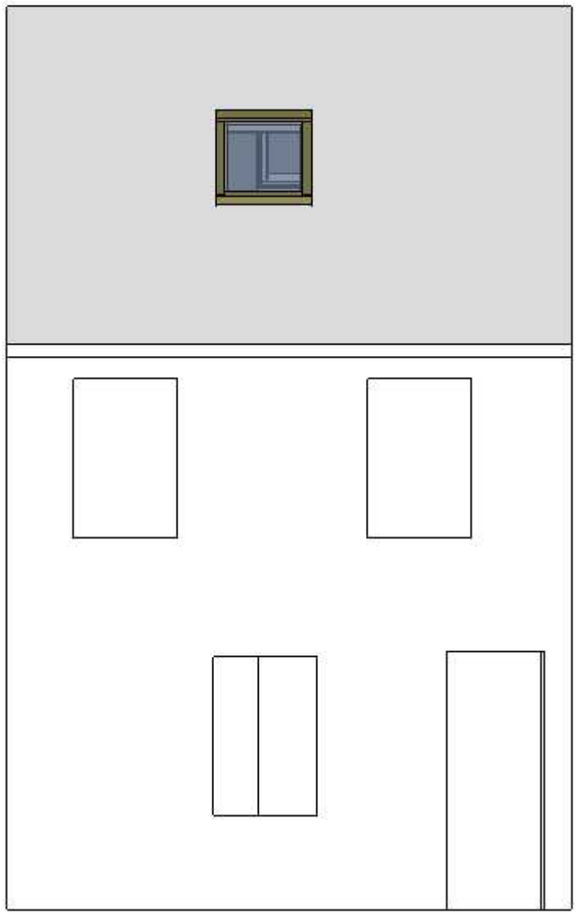
Roof Plan

A.1



Scale 1:50

0 5 10

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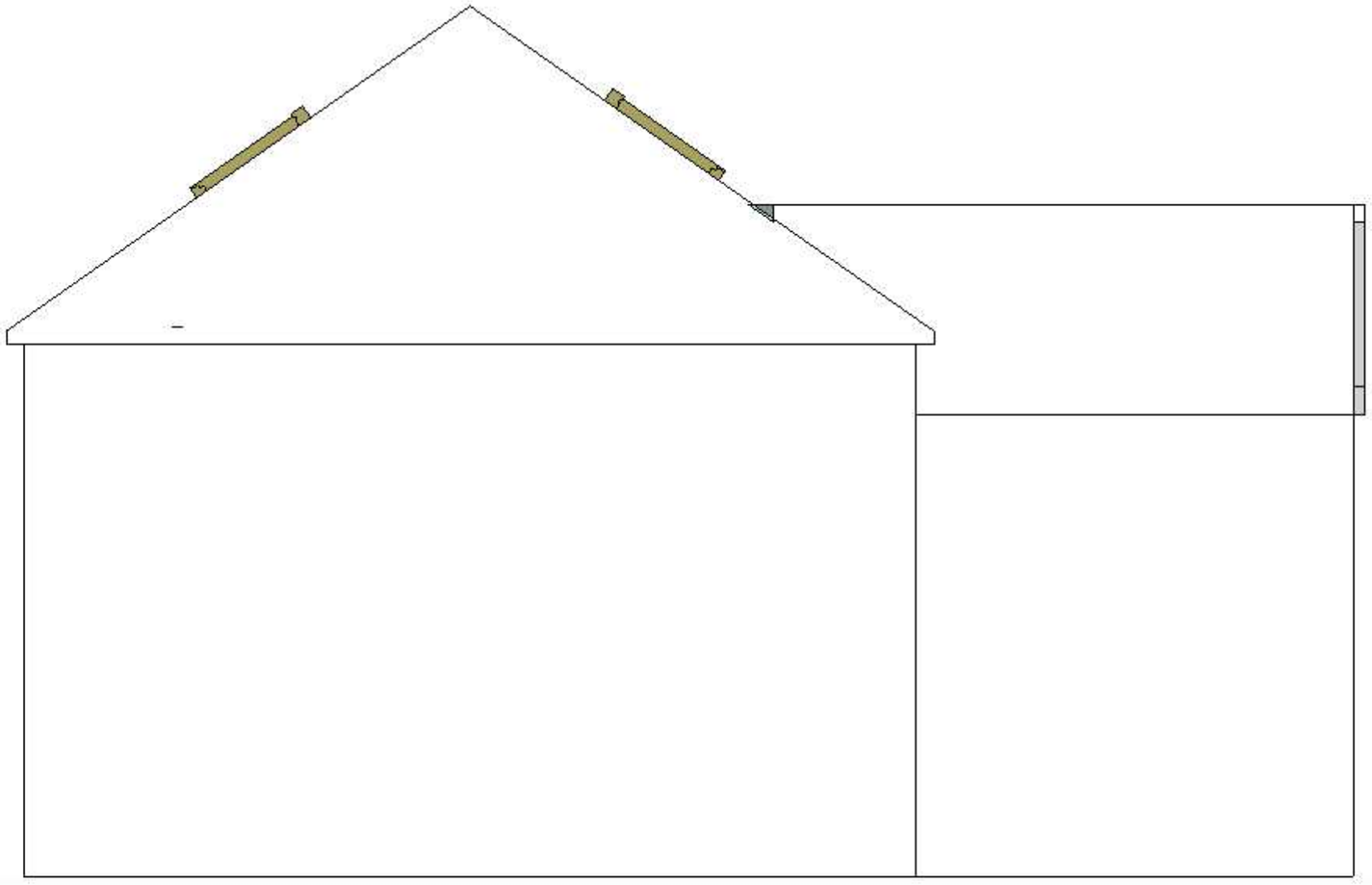
Front Elevation

A.1



Scale 1:50

0 5 10

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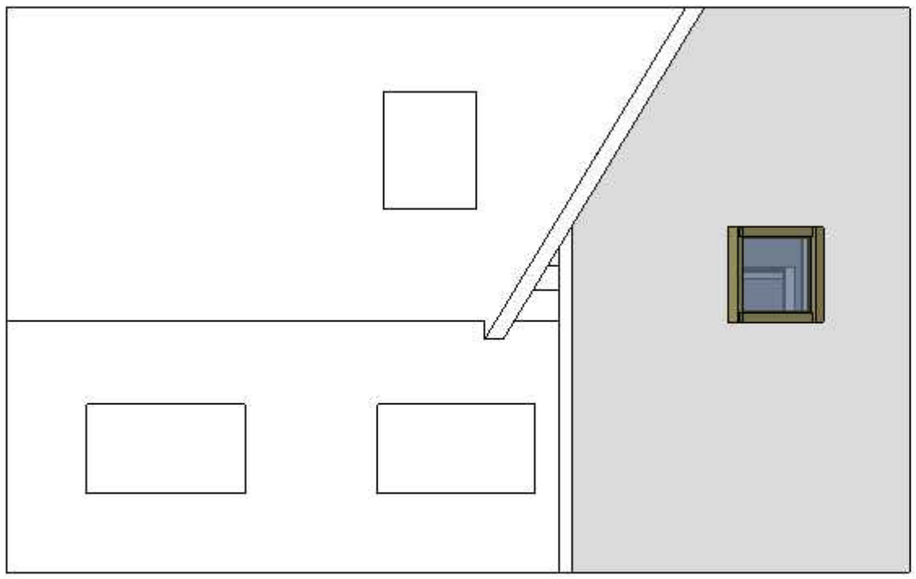
Right Elevation

A.1

Scale 1:50

0 5 10



Proposed

A.1

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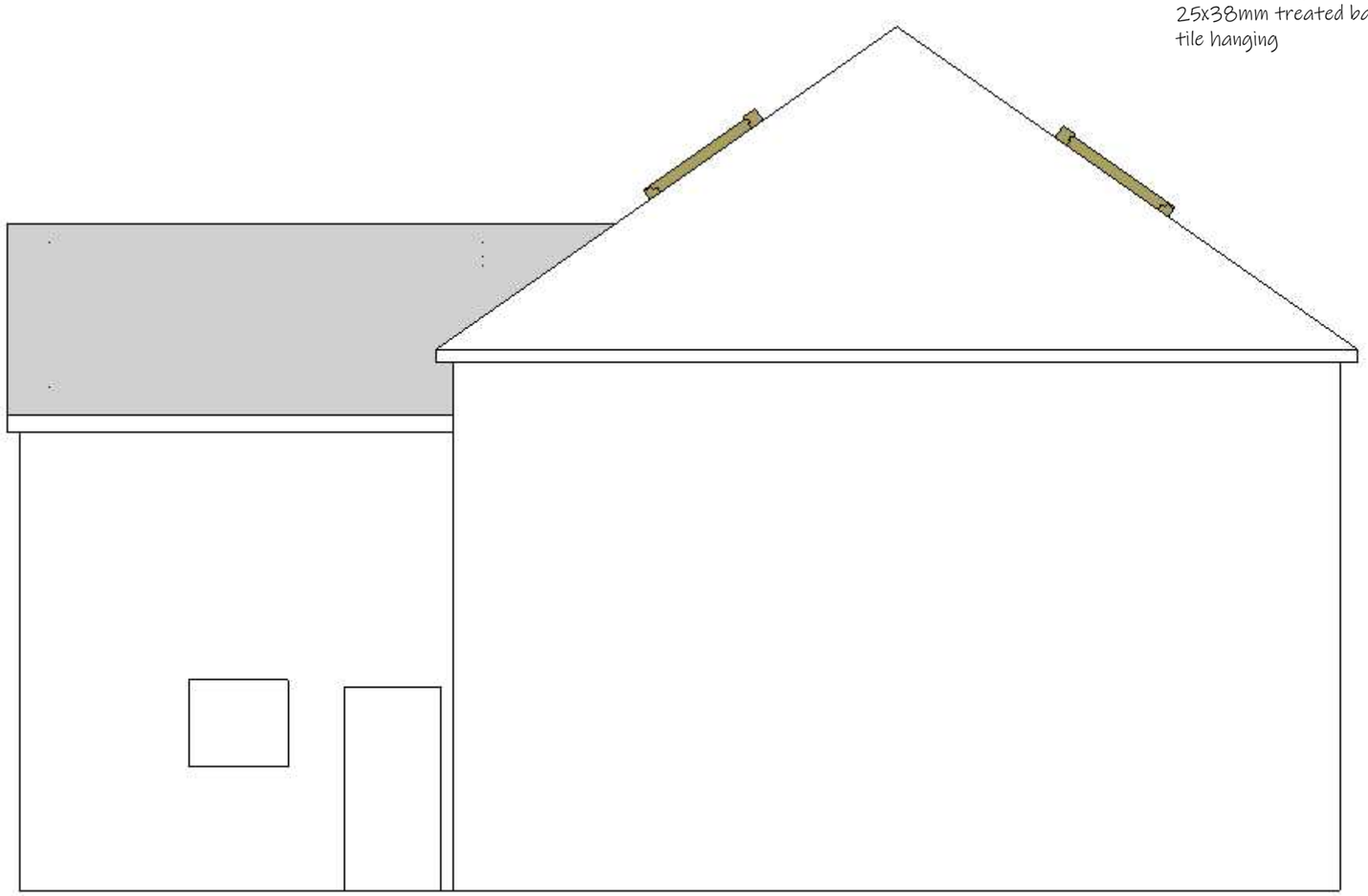
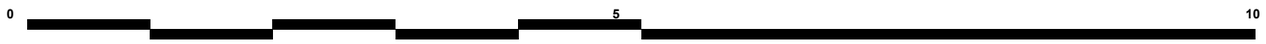
All glazing to side elevations to be obscured glazed.

Walls
12.5mm foil backed plasterboard
35mm Gyproc Thermaline Plus finish to internal surfaces
50x100mm studwork to cheeks at 600mm c/c
100mm Fibreglass between studs
breather membrane
18mm WBP plywood
25x38mm treated battens on BS747 1F reinforced felt
tile hanging



Scale 1:50



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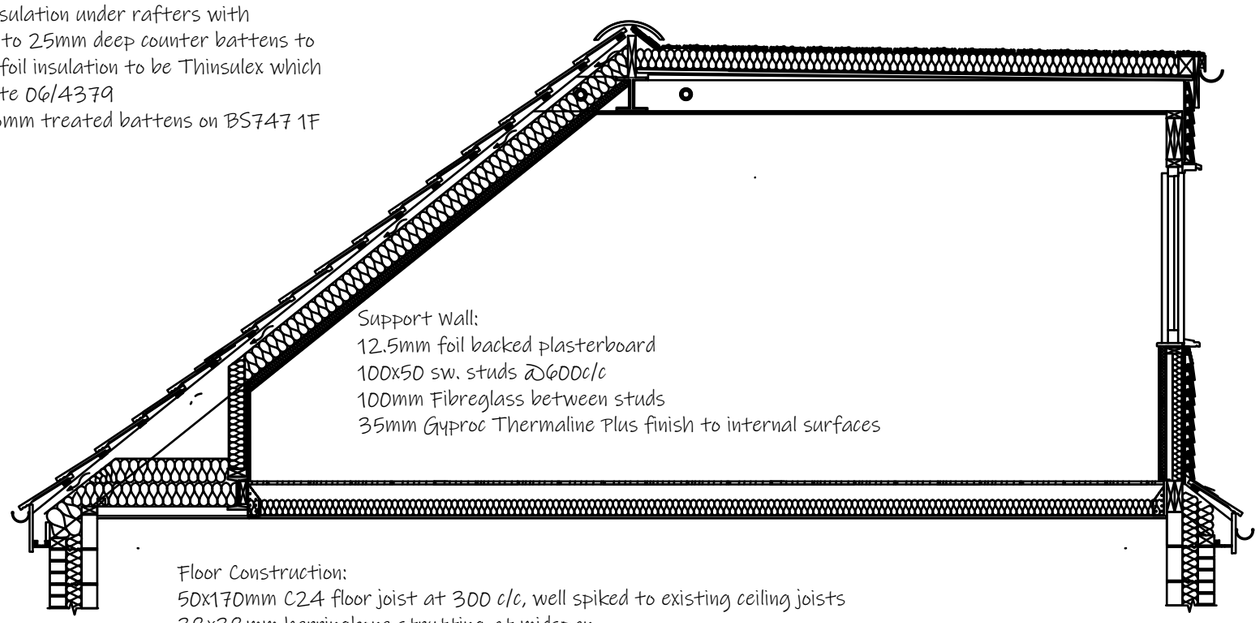
Left Elevation

A.1

Existing Roof:
12.5mm foil backed plasterboard
50x100mm exist. rafters at 360 c/c, with new 50mm section to underside to provide depth for ventilation
Or new 50x147 rafters alongside
80mm Celotex tuff-R GA3000 between rafters
One layer of multifoil insulation under rafters with plasterboard attached to 25mm deep counter battens to create air space. Multi foil insulation to be Thinsulex which carries a BBA certificate 06/4379
Existing tiles on 25x38mm treated battens on BS747 1F reinforced felt



Support Wall:
12.5mm foil backed plasterboard
100x50 sw. studs @600c/c
100mm Fibreglass between studs
35mm Gyproc Thermaline Plus finish to internal surfaces

Floor Construction:
50x170mm C24 floor joist at 300 c/c, well spiked to existing ceiling joists
38x38mm herringbone strutting at midspan
22mm t&g chipboard flooring
½ hr fire rated batt insulation
12.5mm foil backed plasterboard

New Dormer Roof:
12.5mm foil backed plasterboard
New 50 x 150m joists at 300mm c/c,
50mm ventilation space
100mm Celotex XR3000 between joists
40mm Celotex GA3000 under rafters with plasterboard attached to 25mm deep counter battens to create air space.
18mm WBP plywood
3 layer felt roof on tapered ex50mm treated battens on, laid to low slope in accordance with manufacturers instructions.
Flat roof chippings are to be hot bedded.

Walls
12.5mm foil backed plasterboard
35mm Gyproc Thermaline Plus finish to internal surfaces
50x100mm studwork to cheeks at 600mm c/c
100mm Kingspan Thermawall TW55 between studs
breather membrane
18mm WBP plywood
25x38mm treated battens on BS747 1F reinforced felt
tile hanging

9mm Supalux to be used beneath tile son side of dormer to achieve required fire resistence.

All existing internal walls are assumed to be 100mm dense concrete block construction on full foundations. Site investigations are to be undertaken to prove

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Technical Section

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Building Control Notes

Smoke Detectors: to be provided in positions marked SD. Detectors are to be mains operated with battery back up and linked together.

Detectors are to sited within the circulation space within 7.5m from habitable rooms and more than 300mm from any walls or light fittings.

Linked smoke detectors to be provided on first and second floor circulation areas where noted.

Windows: all new windows are to be double- glazed with inner pane of low emissive glass making an air gap of 16mm. Windows are to be fitted with trickle vents capable of providing 8000 sqmm in habitable rooms and 4000 sqmm in any others.

Escape Windows: rooflights to be have an unobstructed openable area of at least 0.33 sqm and at least 450mm high by 450mm wide. MOE escape type roof light to be placed with lowest edge minimum 600mm and maximum 1000mm from floor level, maximum 1700m for eaves

Glazing: any glazing in windows and sidelights to be glazed in toughened safety glass to BS 6206 1981.

All glazing within 30 fire resisting partitions be upgraded to provide equal fire resistance.

Ventilation: mechanical ventilation in bathroom to be provided capable of 15 litres per second ventilation. New rooflight to have trickle ventilator capable of providing 4000 sqmm of background ventilation.

New rooflight to have trickle ventilator capable of providing 4000 sqmm of background ventilation.

A minimum of 5000mm2 of background ventilation is to be provided to all rooms.

Roof Space Ventilation: eaves on both main roof and dormers to have 25mm continuous strip ventilation. A minimum 50mm gap is to provided between roof covering and insulation to ensure adequate ventilation.

Ridge Ventilation: ridge ventilation to be provided equivalent to a continuous 10mm strip. 50mm ventilation space to be provided between insulation underside of roofing felt.

Partitions: internal partitions are to be checked for structural adequacy.

All new partitions are to be supported on double floor joists

Dormer Structural Stability: stability of dormer roof and walls is to be achieved through 18mm WBP nailed directly to structural members.

Floor and Wall Restraints: wallplates and floor joists to be fixed with 1200mm long glavanised steel restraint straps at maximum 1200mm centres. Fix strap at every timber and build ends into brickwork.

Joist hangers to be British Kite Marked BS 6178.

Openings: Openings for rooflights and stairs to have double joists/rafters, bolted together with c/w dog-tooth connectors.

Sound Insulation: The floor and ceiling construction have been designed as a discontinuous assembly whereby the ceiling and floor construction are separated thereby preventing direct transfer of sound. In accordance with the various guidance notes issued by the OPDM, the floor boarding is to be 22mm chipboard with the existing lath and plaster ceiling remaining in place. The void is to be insulated with 50mm 1/2hr fire batt insulation, as per Rockwool Fire Pro, which has a published acoustic rating of 42db on its own. This entire assembly is to meet the 43db acoustic rating required by Section E of the Regulations.

Rockwool Firepro floor insulation to be suspended on chicken wire.

The sound resistance between the second floor and neighbouring dwelling will be equal to that of the first floor.

Electrical/Heating: layouts and specific requirements are to be determined by builder.

Each bedroom is to be provided with a light fitting capable of accepting lamps with a luminous efficacy greater that 40 lumens per circuit-watt.

The heating system will be a hydronic system extended from the existing system. Each radiator is to be fitted with thermostatic valves. No unvented hot water system is proposed.

Under the requirements of the Building Regulations only a competent person will carry out the alterations to the hot water / space heating system.

In accordance with Section P of the Regulations, a competent person is to be employed to design, install, inspect and test all electrical installations.

TRV's are to be provided to all new radiators.

Partition Fire Resistance: all partitions marked -

- - - - - - - -

are to be of 30 minute fire resisting construction.

All existing partitions marked
are be checked for 30 fire resistance and up graded accordingly.

Floor Fire Resistance: existing ground and first floor ceiling to have 30 fire resistance.

Steel Beams: to be encased in Gyproc Fireline board or equivalent to achieve ½ hr fire resistance

Staircase: new staircase to have a maximum rise of 200mm, with a minimum going of 220mm. Maximum pitch of stair flight to be 42 degrees and clear headroom of 2.00m measured from the pitch line of the stair. Staircase to have a clear width of 800mm. Handrail to be 900mm above line of stairs with open side having balusters spacing at a maximum 100mm clear spacing.

Winders to the staircase will be a minimum 50m at their narrow end.

The staircase is to be conventional free standing unit, with balustrading and newel posts glued and screwed to the staircase strings in accordance with traditional joinery practices.

Where a doorway opens into the staircase, a minimum of 400mm will be provided between opening and staircase.

Staircase to be constructed of 27x230mm Parana pine strings, 21mm Parana pine treads and 9mm moisture resistant plywood risers. Winder treads to be constructed with 21mm MDF. Newel posts to be 82mm turned posts in Hemlock, tenoned to strings. Balustrading to consist of 44x60mm Hemlock handrail and 27mm square spindles.

Balustrades to be nonclimbable.

Guarding: Any opening below 800mm from floor level is to be provided with guarding in accordance Section K2 of the Building Regulations.

Guttering and Downpipes: The roof will be drained using 112mm UPVC gutter along its eaves, with a 68mm downpipe in locations as shown on drawings. Downpipe to drain to existing guttering

Joist Hangers: All floor joists are to be supported on joist hangers where bearing on external walls. Joist hangers to be British Kite Marked BS 6178.

Fire Doors: all doors marked FD are to be self closing FD 30 fire doors with 30 minute fire resistance and manufactured to BS 476: Part 2.

Thermal Insulation:
In accordance with Regulations, U-values Approved Document L1B 2006 of the Building for building elements shall comply with the following requirements:

Dormer Timber Walls:
- U-value achieved minimum 0.28W/m2K
- Outer surface of tiles on battens
- 100 x 50mm timber studwork
- 100mm Kingspan Thermawall TW55
- 35mm Gyproc Thermaline Basic laminate finish to internal surfaces

Pitched Roof Ceilings – vented cold deck
- U-value achieved minimum 0.16W/m2K
- 50mm ventilation space
- 100mm fibreglass insulation between joists
- 170mm fibreglass insulation over joists

Gable End Walls / Party Walls
- U-Value achieved minimum 0.28W/m2K
- 215mm brickwork
- 72.5 Kingspan Kooltherm K18 with joints taped across brickwork and 25x50mm battens @ 600mm c/c fixed through insulation to walls with 12.5mm wallboard finish

Flat Roof – cold deck
- U-value achieved minimum 0.18W/m2K
- 50mm cross ventilation space
- 100mm XR3000 Celotex between joists
- 40mm GA3000 Celotex under joists
- 12.5mm wallboard finish

Pitched Roofs – vented cold deck
- U-value achieved minimum 0.16W/m2K
- Tile and battens
- Battens to underside of rafters lengthwise to create 130mm deep member
- 50mm ventilation space
- 80mm Celotex tuff-R GA3000 between rafters
- One layer of multifoil insulation under rafters with plasterboard attached to 25mm deep counter battens to create air space. Multi foil insulation to be Thinsulex which carries a BBA certificate 06/4379

Construction is to minimise thermal bridging and air leakage.

Doors and Windows: to have an energy rating (WER) band C or U-value 1.6W/m2K.

Foundations: existing foundations are to be exposed and checked for adequacy prior to construction.

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Building Control Notes

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