*IMPORTANT NOTE:*
*THIS DRAWING IS INTENDED FOR THE LOCAL AUTHORITY BUILDING CONTROL DEPARTMENT TO HELP ILLUSTRATE COMPLIANCE TO THE BUILDING REGULATIONS. SHOULD THE BUILDER CHOOSE TO FOLLOW THE DRAWING, THEY ARE TO TAKE FULL RESPONSIBILITY FOR THE CONSTRUCTION OF THE BUILDING INCLUDING THE COMPLIANCE TO THE BUILDING REGULATIONS, WORKMANSHIP, LOCATIONS OF STEELS, FINAL DETAILS AND APPEARANCE OF THE BUILDING. DIMENSIONS, LEVELS AND EXISTING CONSTRUCTION MATERIALS ARE TO BE CHECKED ON SITE PRIOR TO THE CONSTUCTION OF THE PROPOSED WORKS BY THE BUILDER.*
*ALL STRUCTURAL ALTERATIONS TO BE OVERSEEN BY A STRUCTURAL ENGINEER. REFER TO STRUCTURAL ENGINEER S DETAILS FOR STEEL LOCATIONS AND SIZES.*

DORMER ROOF
Dormer roof to achieve a U-value of or less than 0.18W/m²K:
Warm deck flat roof construction: GRP roof finish on 18m OSB3 tounge and groove decking all on external quality ply on 140mm Celotex Crown-Bond insulation, mechanical fixings (allowing for thermal bridging of fixings) giving the flat roof a U-value of 0.17 W/m²K. Insulation to sit on 1:60 firrings, on 200x50mm softwood timber joists @ 400mm centres. Roof finished internally with flush ceiling of 12.5mm plasterboard and skim

DORMER WALLS
Dormer walls to achieve a U-value of or less than 0.28 W/m²K.
Dormer wall construction:

1. Vertical tile cladding external finish
2. 25x38mm preservative treated battens (vertical counter battens to be provided to ensure resistance of not more than 0.6 mms/g)
3. 22mm W.P.B. external quality plywood backing
4. 50mm GA3000 Celotex insulation outside the studs
5. 100x50mm head and sole plates and vertical studs (with noggins) at 400mm centres
6. 70mm GA3000 Celotex insulation between the studs, giving the wall a U-value of 0.19 W/m²K
7. Cavity / remaining cavity between studs
8. Polythene 1000 gauge VCL
9. Walls finished internally with 12.5mm plasterboard and skim

NEW PITCEHED ROOF
New Pitched Roof to achieve a U-value of or less than 0.16W/m²K:
Pitched Roof / Ventilated - Insulation Between & Under Rafters
Plain clay roof tiles, including batten space,Sarking felt,
Well Ventilated Cavity - minimum 50mm,
Celotex Insulation between rafters - 150mm Celotex FR5000,
Cavity - 25 x 47mm fixing batten between plasterboard and under rafter insulation
Celotex Insulation below rafters, taped joints as VCL Celotex PL3040 (40 + 12.5mm)
150mm x 75mm rafters @ 400 c/c, giving the roof an overall U-value of 0.14 W/m²K,
Ceilings finished internally with plasterboard and skim.

PROPOSED 2ND FLOOR
Build-up:
18mm chipboard
120mm sound-deadening mineral wool insulation between proposed 200mm joists
British Gypsum Gyproc Fireline Plasterboard, providing 30 min fire resistance (or similalr)

INTERNAL STUD PARTITIONS
100mm x 50mm softwood treated timbers studs at 400mm centres with 50 x 100mm head and sole plates and solid intermediate horizontal noggins at 1/3 height or 450mm. Provide min 10kg/m³ density acoustic soundproof quilt tightly packed (e.g. 100mm Rockwool or Isowool mineral fibre sound insulation) in all voids the full depth of the stud. Partitions built off doubled up joists where partitions run parallel or provide noggins where at right angles, or built off DPC on thickened concrete slab if solid ground floor. Walls faced throughout with 12.5mm plaster board with skim plaster finish. Taped and jointed complete with beads and stops.

Code 5 lead flashing min. 150mm upstand

Roof Lights Min U-value of 1.6 W/m²K.
Roof lights to be double glazed with 16mm argon gap and soft low-E glass. Window Energy Rating to be Band C or better. Roof lights to be fitted in accordance with manufacturer's instructions with rafters doubled up to sides and suitable flashings etc.

ROOF LANTERN WALL
Lead external finish. 100mm Celotex GA3000 insulation inbetween the studs. 100x50mm timber studs. Polythene 1000-gauge VCL. Plasterboard internal finish.

WARM FLAT ROOF
Flat roof to achieve a U-value of or less than 0.18W/m²K:
Warm deck flat roof construction: GRP roof finish on 18m OSB3 tounge and groove decking all on external quality ply on 140mm Celotex Crown-Bond insulation, mechanical fixings (allowing for thermal bridging of fixings) giving the flat roof a U-value of 0.17 W/m²K. Insulation to sit on 1:60 firrings, on 200x50mm softwood timber joists @ 400mm centres. Roof finished internally with flush ceiling of 12.5mm plasterboard and skim

CAVITY WALL – (RENDER, 75mm INSULATION)
External wall to achieve a U-value of or less than 0.28 W/m²K.
Render external finish. Outer leaf to be 100mm blockwork.
50mm clear cavity. 75mm Celotex CW3000 insulation giving the wall a U-value of 0.2 W/m²K. Inner leaf to be 100mm blockwork.
Walls finished internally with plasterboard on dabs and skim.

Air Brick and Adjustable Cavity Vent

GL

Lean mix cavity fill 225mm below DPC. (leave at least 150mm gap between infill and wall insulation to avoid thermal bridging)

At least 1000mm depth depending on ground conditions to be agreed with BCO as per structural engineer design

Dense block K value1.13
e.g. Lafarge Stancrete

624mm wide proposed concrete trench foundations. Concrete mix to conform to BS EN 206-1 and BS EN 8500-2

All roof timbers to be pressure treated to prevent infestation of longhorn beetle.

30mm perimter insulation

150mm Ventilation Void

Assumed existing foundations

Existing floor structures to be determined on site and connections between new floor and existing floors to be determined accordingly with vents to be provided in external walls to allow any suspended timber floor construction to breathe

Existing structure including foundations, beams, walls and lintels carrying new and altered loads are to be exposed and checked for adequacy prior to commencement of work and as required by the Building Control Officer

Floor to achieve a U-value of or less than 0.22W/m²K:

BEAM AND BLOCK FLOOR
Beam and block floor to achieve or have a U-value of less than 0.22 W/m²K:
1. Floor finish as chosen by client
2. 65mm cement screed
3. Polythene, 500 gauge separating layer
4. 100mm Celotex GA4000 insulation, giving the floor an overall U-value of 0.17 W/m²K
5. Bridged floor deck to engineer's details
6. Min. 150mm vent space
7. Ground

KEY:

- Thermal insulation
- Acoustic insulation
- Proposed drains
- Existing drains
- Proposed rain water
- Existing walls to be removed
- Code 5 lead
- DPM/Breahter Membrane
- Proposed floor
- Existing structure
- (SA) Smoke alarm
- (HD) Heat detector
- FD30 Fire Door - 30mins

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Detailed Section

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| Scale @ A1<br>1 : 25 | Drawing number<br>FLU |
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1 **Section 1**
1 : 25