

Wall & Ceiling Construction

Exterior Timber framed

from the Exterior.....
Cladding - fibre cement for external walls or equivalent James Hardie fire rated to A2 s1-d0, minimum of B-s3,d2/optio finish.
25mm Cross Batten
6mm Promat Supalux/Masterboard, or equivalent (if an exterior/boundary/flank wall)
Breathable membrane
12mm OSB ply
200 x 50mm c24 Timbers @ 400mm centre, noggings at <1100mm
Between the timbers
100mm air gap, with 50mm holes drilled for cross ventilation
100mm rigid insulation
Timbers to have a 200x50mm c24 head and base plate - fixed to a 250x50 plate bonded at damp, fixed to the brick work to the brick work with 30x5mm galvanneal fixings @ 600mm centres.
Breathable membrane

25mm rigid insulation
Plastered, plaster board to interior finish (fire resistant board when an exterior wall)

Exterior Masonry

from the Exterior.....
100mm face brick work
25mm Air Gap/Cavity
75mm insulation, such as Knauf DriTherm 37non-combustable glass mineral wall slab, fixed to internal skin
100 celcon/concrete block
Horizontal Damp ProofCourse to be a minimum of 150mm from the floor level. (5)
Insulated cavity closers for each reveal.

Plastered, plaster board to interior finish
cavity closers at each junction with perpendicular brick work
cavity tray where roof meets wall with code 4 lead flashings

Wall ties to be
sited at 700mm horizontal and max 300mm vertical spacing and within 225mm
of any opening or movement joints
set a minimum of 50mm into each masonry leaf.
galvanized aluminium or Stainless Steel (10)construction

All reveals to be fitted with cavity closers (11)

Interior Wall

c24 75 x 50 @ 400mm centres
sound insulation to fill
12.5mm plasterboard and 2.5mm plaster to each side

Party Wall

To be a double boarded to provide a minimum 30min fire protection

Wall between Garage and dwelling

Plasterboard to both sides (fire resistant board when an exterior wall)
Door to be FD30
200 x 50mm c24 Timbers @ 400mm centre, noggings at <1100mm
Between the timbers
100mm air gap, with 50mm holes drilled for cross ventilation
100mm rigid insulation

Interior Dry lining to interior mansoary wall

c16 100 x 50 @ 400mm centres, tied to the exterior wall with stainless profiles or similar.
sited at 700mm horizontal and 450mm vertical spacing.
set a minimum of 50mm into each masonry leaf.
galvanized aluminium construction

Ceilings and Wall covering

12.5mm plasterboard and 2.5mm plaster
where addition fire protection is required to meet a rating of
REI30 (between dwellings or new Floors) double boarding or fire plasterboard is required
British Gypsum Fire Board (Pink) to be taped and jointed and sealed with Fire retardant foam/beading

Loft Party Wall

50mm void/air gap
c24 75 x 50 @ 400mm centres
100mm sound insulation to fill
12.5mm plasterboard and 2.5mm plaster

Mechanical

All electrical works to be carried out in accordance with Approved Document P by a
qualified installer and certification provided.

All lighting to be low energy

All sockets to be a max of 450mm from ground level & switches no more than 1100mm.

All circulation spaces to have mains powered smoke alarms, with back up power and interlinked in conjunction
with BS5446.

All Gas and plumbing work to be carried out by a Gas Safe engineer - all sanitary pipework to
conform to BS EN 12056.

All Sanitary waste to be 171/2 or 42mm (8)

Floor Construction

Timber Suspended

22mm T&G P5 chipboard flooring
200x50mm C24 timber joists @400mm centres
- single galvanneal joist hangers, fixed as per manufacturer spec
- floor void to be fill with 100mm celotex.
Minimum 150mm void to over site

Solid

Soned finish
50mm sharp sand/cement
500 gauge polythene vapour barrier
100mm rigid insulation GASA000
1200 gauge polythene DPM
100mm Concrete to include A142 Anti-Crack mesh
Radon Barrier Membrane to complete floor area
100mm min hardcore base

ALL Floors

To meet 40RWdb for each floor
Chipboard minimum of 22mm
minimum 100mm mineral wool in void
ceiling with a mass/unit area of 10kg/m2 made up by
12.5mm plasterboard and 3mm plaster/skim finish

Passive Ventilation

Windows to be Double glazed with Low emissivity Glass, min 16mm gap
1/20th of the floor area must be opening
Trickle vents to all new windows
Soft Ventilation to be continuous
All timber roof to maintain cross ventilation to enable cross ventilation to the cavity

Mechanical Ventilation

En-Suite & Utility area's (where applicable) to be
ducted @ 6 litres/sec or 3 air changes per hour, connected to lights with a 15 minute over run. (6)

Smoke Alarm

Where suitable Means of Escape (MoE) cannot be achieved a heat detector to be installed in the kitchen
mains linked to the smoke detectors on each floor.

Doors, Windows and Openings

Openings

Catnic Lintel in accordance with manufacturer spans with min 150mm bearings
alternative, a minimum of a double trimmer to the nearest Rafter. All trimmer to be fixed with a star washers between each timber,
at each fixing point.
- minimum of M12 washers, nuts and bolts fixed at 600mm centres, Larger voids to have a 5mm finch plate between each timber.

Windows

All window to be fitted with trickle vents and each habitable room must have an opening equaling at leaste 1/20th (5%)
of the floor area.

Fire escape windows must provide an unobstructed opening of at least 0.33m² with a minimum dimension
of 450mm in height or width. Single side opening windows will need to have a minimum frame width of 610mm to
comply with building regulations and a 2 pane side opening window needs to have a minimum width of 595mm.
Cill to be between 800-1100mm for all Means of Escape windows. (3)

Where the cill height is <800mm or in critical areas, toughened glass must be used in the lower most pane in accordance with BS 6026.

U value = 1.6 W/m2.K and WER Band C

Doors

New Build doors must be a minimum of 775mm wide
U value = 1.8 W/m2.K

Roof Construction

Fiat Roof - Cold Deck - to acheive a T4 fire rating

Replace or butt 200x50mm c24 @400centres
Weatherproof fabric/materials - felt backed EDPM single ply membrane
11mm OSB Ply
Firing pieces 50-0mm at 3m
Breathable Membrane
50mm air gap, cross flow ventilation @ 600mm centres - continuous soffit vent to all elevations
150mm rigid insulation between timbers
25mm rigid insulation (Foiled Bubble with 25mm air gap option)
Plastered, plasterboard to finish

Continuous ventilation around fascias

Fiat Roof - Warm Deck - to acheive a T4 fire rating

Replace or butt 200x50mm c24 @400centres
Weatherproof fabric/materials - felt backed EDPM single ply membrane
150mm rigid insulation between timbers
11mm OSB Ply
Firing pieces 50-0mm at 3m
Breathable Membrane
Roof Joists (50x200mm @ c400mm)
25mm rigid insulation (Foiled Bubble with 25mm air gap option)
Plastered, plasterboard to finish

Continuous ventilation around fascias

Main Roof (subject to Structural calculation)

Replace or butt 200x50mm c24 @400centres

Roof tiles on Breathable Felt and 25mm Batten to be installed to manufacturers specification
* especially where the pitch is<15degrees specify which tile used to meet a low pitch.
50mm air gap, cross flow ventilation
150mm rigid insulation between timbers
25mm rigid insulation (Foiled Bubble with 25mm air gap option)
Plastered, plasterboard to finish

Continuous ventilation around fascias

Roof fixings

mild steel 3 anchors cross section 30x5mm @ 1200 centres

Flashings

Pitched roof
Soakers 100mm under tile and 100mm upstand over lapped per tile
Flashing to cover the tiles by 150mm, 150mm upstand, cut and pointed into exterior wall.

Where any roof is to join a cavity wall, cavity trays to be fitted with code 4 Lead flashing.

Non-Foul water disposal

100mm gutters and down pipe into existing surface water
drains
alternatively soakaway minimum of 5m from any building
and min 1m3
ensure MFLV (No Return Valves) are used.

Where appropriate, a soakaway designed in accordance
BRE Digest 365 for Surface Water disposal, ideally
minimum of 5m from any habitable structure (4)

Drainage

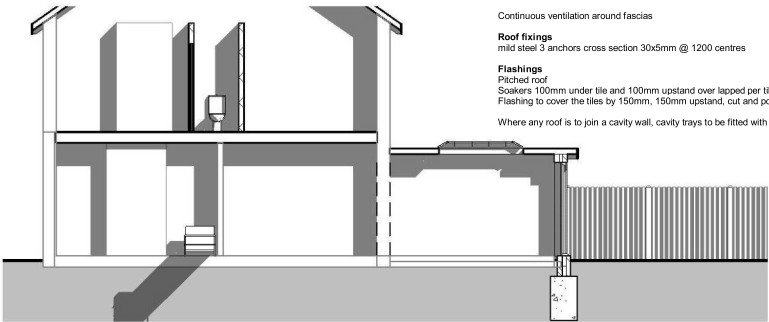
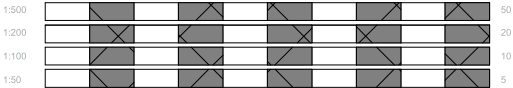
Soil - 100mm approved plastic, laid @ 1:40 bedded and
150mm peashingle haunch
150mm concrete. Concrete lintel to protect if through
foundation
* all drainage specified(if at all) is assumed in the absence
of a complete drainage survey

Damp Course

Engineering Brick to both faces with 100mm gap
Ducted Air bricks spaced @ 1500mm intervals and
a minimum of 75mm above hard-standing

Foundations

minimum of 1000mm deep for single storey
minimum of 1500 for double storey - to Building
Inspectors Approval to suit conditions.
Use only Class A concrete blocks below ground
minimum of 600mm wide
at a ratio of 1:3:6 (cement:sand:aggregate)



* All details are subject to comment and approval by the appointed Building Inspector *
* All measurements to be confirmed on site prior to any manufacture *
* If in any doubt, ask either the author or Structural Engineer.
* Additional details are added to allow for variance at construction stage

All measurement to be checked on site prior to any comment
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Parkers Design Limited - The Studio @ 90, PO9 2PR www.pexd.co.uk - info@parkersdesign.com - 07776 008822

PROJECT

37 Stanhope Road BN17 6AQ

SHEET

Building Regs X Section

CLIENT

Layt

Date Issue Date Scale (@ A3) 1 : 100

Drawn by SW DRAWING NUMBER REV
Checked by SR B 1