

SGT Building Design

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Specification

Loft Conversion including
Hip to Gable and Rear Dormer
at



Job No. 1013

Rev A

Specification to be read with drawing nos. 1014-01, 02, 03, 04, 05, 06 and structural engineer's design details

PROPOSALS

It is proposed to change the side hip to a gable wall and provide a flat roof rear dormer. The proposals are Permitted Development under the Town and Country Planning Act 1990 as confirmed by the Certificate of Lawful Development issued by Watford Borough Council – Reference 10/00406/LDC.

EXTERNAL WALLS TO GABLE END (Solid Construction)

215mm **Celcon Solar** blocks (*BBA Cert No. 95/3096*). External finish to be stone chippings to match existing over 2 No. 8mm thick coats of render (mix - 1:2:9, cement:lime:sand) in accordance with BS5262:1991. Internal finish to be 40mm **Gyproc Thermaline Super** insulated plasterboard and skim finish. U-value of wall - 0.30 W/m²K.

Note – Existing timber wall plate to be removed prior to erecting gable wall construction.

Mortar mix to be Class III to BS 5628:Part 1:1978 or 1:1:6, cement:lime:sand.

STEEL BEAMS/TRIMMERS/COLUMNS

Steel beams, ridge support post, trimmers and bearings to structural engineer's design details. **Ensure correct grade of timber is used as specified.**

Refer to drawing 1013-05 and structural engineers design details.

Existing through lounge beam to be exposed and checked for adequacy. Refer to structural engineer's details sheet 8 – min. 178 x 102 –19Kg/m UB required.

LOFT FLOOR

Loft floor to be 21mm T & G flooring grade chipboard on min. 50mm x 150mm C16 grade timber joists @ 400mm centres supported on **Simpson Strongtie JHA** joist hangers fixed over beams and to timber bolted to steel. Timber noggins at mid-span and to ends. 100mm mineral wool insulation between joists for sound insulation on chicken wire stapled to edge of joists.

FIRST FLOOR LANDING

First floor landing to be overlaid with 6mm hardboard stapled to existing floorboards to upgrade fire resistance.

EXISTING ROOF CONSTRUCTION

50mm x 150mm C16 grade timber rafters to be fixed to existing rafters @ approx. 400mm centres. Eaves voids to be insulated with 270mm thick **Rockwool Rollbatts** . 100mm Kingspan Kooltherm K7 insulation to be provided between rafters with 40mm fixed below rafters. Clear 50mm ventilation gap to be maintained above insulation to sloping ceilings. 12.5mm plasterboard and skim to finish. Double up and bolt rafters either side of rooflights. Provide ventilation to ridge and eaves as shown on section drawing. Vented ridge tiles to achieve 5,000mm² ventilation area per metre run of roof.

FLAT ROOF CONSTRUCTION (Cold Deck)

Bitumen bedded stone chippings covering the whole surface to a depth not less than 12.5mm on three layers of built up roofing felt complying with BS 747:1977(1986) laid in accordance with CP144:Part 3:1970. 21mm exterior quality plywood decking on firing pieces to provide a minimum fall of 1:40 (25mm/m). Roof joists to be 50mm x **175mm** C16 grade timber @

400mm. Insulate dormer roof with 130mm Kingspan TP10 insulation between joist and 20mm below.

25mm ventilation gap to be provided above fascias with proprietary ventilators (i.e. **Glidevale FV250** Ventilators and gutter bracket extension pieces).

Ceiling finish to be 12.5mm plasterboard with a 5mm Gypsum plaster skim.

DORMER CONSTRUCTION

Vertical tile hanging on 38mm x 19mm tanalised s.w. timber battens on breathable felt membrane on 22mm external quality plywood sheeting screwed to 50 mm x 100mm C16 grade timber studwork insulated with 100mm Kingspan TP10 insulation. Dormer cheeks to be built off of doubled rafters or trimmers as shown on plans. Dormer cheek within 1.0m of party wall boundary line to be lined on the outside of the studwork behind ply with 9.5mm **Masterboard** to provide fire protection from both sides. Timber head beams over openings to be 2 no. 50mm x150mm C16 grade joists bolted at 600mm centres.

Code 4 window flashings to be provided to dormer. Code 4 lead or Zinc soakers to be provided at abutment of pitched roof and dormer taken up below felt to dormer and dressed over felt to pitched roof.

LINTELS

Lintel to gable window to be **Catnic** CN71A. Lintel to be installed with at least 150mm end bearings. Void within lintel to be filled with insulation material to prevent cold bridging.

INTERNAL WALLS/PARTITIONS (Studwork)

50mm x 100mm vertical timber studs @ 600mm centres (400mm centres to shower/wc) with top and bottom plates and intermediate noggins. 100mm **Rockwool** insulation between studs and 12.5mm **Gyproc SoundBloc** plasterboard (10.6Kg/m²) to both sides with joints taped and skimmed.

NEW STAIRCASE

New timber staircase to access loft room. Exact measurements to be determined once new floor construction is in place. Approximate dimensions as follows:- goings-min. 230mm, min going at newell post to be 50mm, risers-approx. 192.5mm, max. pitch-42 degrees, width 700mm, headroom to be minimum 2.0m (absolute min. headroom to be 1.9m above pitch line over flights and landings. Handrail to be provided at 900mm above pitch line of stair. Ballustrading to stairs to be constructed so as not to allow a 100mm diameter sphere to pass through it at any point. Height of ballustrading to be 1100mm.

FIRE PROTECTION TO STEEL BEAMS

Encasement to steel beams to be expanded metal lathing (EML) with minimum 12.5mm thick Gypsum plaster finish to achieve a 30 minute period of fire resistance. Alternatively beams to be painted with intumescent – fire resisting – paint to achieve 30 minute period of fire resistance. i.e. Nullifire or similar product.

SAFETY GLAZING

Glazing within 800mm of finished floor level in internal and external walls/partitions to be toughened or laminated safety glazing achieving a Class C standard when tested to BS 6206:1981.

Glazing within 1500mm of finished floor level in doors or side panels within 300mm of a door to be toughened or laminated safety glass achieving at least a Class C standard when tested to BS 6206:1981. If the width of a panel exceeds 900mm then that panel should achieve at least a Class B standard when tested to BS 6206:1981.

Glazing in small panes (maximum area 0.5m², maximum width 250mm) should comply with the above or may be annealed glass at least 6.0mm thick.

GLAZING

All new windows to be PVC-U fitted with double glazed units with a minimum 20mm gap between panes and low-e glass (i.e. Pilkington k-glass). Maximum U-value of 1.8W/m²K.

VENTILATION

Ventilation to habitable room to be provided by opening windows at least $\frac{1}{20}$ th of the floor area of the room. Some part of the ventilation opening to be at least 1.75m above floor level.

Ventilation to shower room to be provided by mechanical extract ventilation capable of extracting at a rate of not less than 15 litres per second operated intermittently.

Background ventilation to be provided to habitable room having a total area not less than 8000mm². (i.e. a trickle ventilator, which should be controllable and secure and located, so as to avoid undue draughts.)

Background ventilation to be provided to shower room having a total area of not less than 4000 mm².

All mechanical extract ventilation to extract to external air.

ABOVE GROUND DRAINAGE

Waste plumbing to be Osma MUPVC solvent weld system or similar complying with BS 4514:1983, laid in accordance with BS 5572:1994.

Trap and branch sizes as follows:

Appliance Type	Trap & Branch Pipe Minimum diameter (mm)	Maximum length of run (m)
Wash Hand Basin	32 (<i>max. gradient 20mm/m</i>)	1.7
"	40	3.0
Bath/Shower	40	3.0

All appliances to be fitted with 75mm deep seal traps. Rodding access to be provided at all changes of direction.

Vertical stack to be 110mm diameter **Osma**soil system vented to external air. Top of ventilation stack to terminate at least 900mm above any opening into the building within 3.0m and be fitted with a balloon grating.

Drainage runs and stack position as shown on plans.

RAINWATER GOODS

Rainwater goods to be **Osma Roundline** PVC-U system or similar. 112mm diameter half round gutters, 68mm diameter downpipes.

FIRE DOORS

Doors on plans noted as fire doors to be minimum 44mm thick FD20 firecheck doors fitted into fire door frames. Fire doors and frames to comply with BS 476:Part 22:1987. Doors to be hung on 3 No. 100mm steel butt hinges. Use existing frames if suitable and provide 25mm x 35mm timber door stops glued and screwed to existing frame.

SMOKE DETECTORS

Smoke/Heat detectors/alarms to be provided as noted on plans. The smoke alarms should be mains-operated, interlinked and conform to BS 5446:1990 - components of automatic fire alarm systems for residential premises, Part 1 Specification for self-contained smoke alarms and point-type smoke detectors. Smoke detectors to have battery back up.

LIGHTING

New lighting to proposed loft rooms to be by way of energy efficient units having a luminous efficiency greater than 40 lumens/circuit watt – e.g. fluorescent tubes or compact fluorescent lamps, (**not** GLS tungsten lamps with bayonet cap or Edison screw bases).

ELECTRICAL WORK

Provide electrical sockets and lighting to Client's requirements.

All electrical installations required to meet the requirements of Part P (Electrical Safety) **must** be designed, installed and tested by a person competent to do so. Prior to completion the Council should be satisfied that the requirements of Part P has been complied with. This may require an appropriate BS 7671 electrical installation certificate to be issued for the work by a person competent to do so.

A person who is a competent person registered with an electrical self-certification scheme authorised by the Secretary of State should preferably, undertake the proposed installation work. In this case, this person is responsible for ensuring compliance with BS 7671: 2001 and all relevant Building Regulations. On completion of the work, the person ordering the work should receive a signed Building Regulations self-certification certificate, and the relevant building control body (The Local Authority) should receive a copy of the certificate. The person ordering the work should also receive a duly completed Electrical Installation Certificate as or similar to the model in BS 76713 (see paragraphs 1.6 to 1.12). As required by BS 7671, the certificate must be made out and signed by the competent person or persons who carried out the design, construction, inspection and testing work.

CENTRAL HEATING

Extend existing central heating system to be relocated to suit and extended to serve new radiators. Suitability/condition of existing boiler to be checked. Extended system to be fitted with a suitable control device (i.e. a room thermostat or thermostatic radiator valves).

Where the existing boiler is to be replaced, the replacement boiler should be a gas condensing boiler with a SEDBUK of not less than 86% together with appropriate controls.

Work to any gas appliance/gas heating system to be carried out by a **Gas Safe** Registered Installer competent to do so.

THE PARTY WALL ACT

It is the owners responsibility to ensure that the requirements of the **Party Wall etc. Act 1996** are complied with. A copy of an Explanatory Booklet on the Party Wall etc. Act 1996 can be downloaded from the government website - **www.communities.gov.uk**. A full written agreement should also be obtained to build the side extension astride the boundary line.
