

**Proposed Extension to No 15 Golf Road, Sandfields, Port Talbot.**

**For: Mr Gareth Tobin**

**Specification**

**Note**

The extension is to be constructed so no part of the building encroaches onto the adjacent property, namely the foundations, roof structure and any boundary enclosure.

**Construct new extension as detailed below:**

**Foundations:** provide concrete strip foundations (stepped where necessary) size 630 x 225mm (25n/mm<sup>2</sup> mix) laid on suitable ground to a minimum 750mm depth and to approval of Building Control Inspector.

**Sub-structure:** cavity wall comprising inner skin of 100mm concrete block (7N/mm<sup>2</sup>) with 125mm cavity filled with lean-mix concrete to within 150mm of dpc level and 100mm concrete block outer skin.

**Ground floor:** 40mm sand/cement screed laid on 100mm concrete slab laid on 1200 gauge polythene membrane on "Kingspan" or similar insulation boards (100mm thickness) on 1200 gauge damp proof membrane laid on 50mm stone dust blinding on approx 150mm thickness of well consolidated hardcore base well compacted with a mechanical compaction plate. Provide 20mm insulation strip to external perimeter of concrete floor slab to prevent cold bridging. Ensure continuity of damp proof membrane in floor slab with dpc in inner skin of cavity wall.

**Super-structure:** cavity wall comprising 100mm concrete block outer skin to all walls, 125mm cavity partially filled with "Kingspan" or similar insulation batts (75mm thickness) or similar approved batts secured to inner skin ensuring a 50mm clear cavity and a 100mm concrete block inner skin.

Skins tied together with stainless steel double triangle wall ties incorporating insulation retaining discs at max 450mm centres vertically and 750mm horizontally, ties located at 225mm centres vertically at reveals. Close cavities at reveals with insulation block and batts including vertical dpc and provide 25mm check rebate to inner reveals. Close cavities at top of walls with non-combustible material. Bond new walls to existing using "Furfix" profiles including cutting a vertical slot in the existing external brickwork to incorporate a vertical dpc.

Provide 100mm wide horizontal dpc to both skins of cavity wall, min 150mm above external path level.

Internal skin of cavity walls and original house walls (previously external) to be rendered and skimmed with gypsum plaster (13mm-2 coat work).

**Lintels:** build in steel "Catnic" or similar approved lintels over external window/bi-fold door openings to all elevations with min 225mm end bearings. Include for stepped dpc over lintels (450mm girth) and provide insulation packing to void below dpc to eliminate thermal bridging across cavity. Provide stepped dpc under upvc window sill and door threshold.

**Flat roof structure:** 225x50mm SC4 timber roof joists fixed at 450mm c/c's onto 100x50mm timber wall plates bedded level onto the inner skin of the cavity walls and secured to block-walls with 30x5mmx1200mm long galvanised anchor straps at maximum 2m centres.

Provide 100x50mm tapered firrings to top of joists to provide falls. Provide solid strutting between roof joists at mid point of structure and 50x25mm timber cross battens to top of firrings for cross ventilation purposes. Provide 18mm thick OSB3 composite sheeting over cross battens covered with either a rubber sheet or a fibreglass finish undertaken to manufacturers instructions.

Form opening in structure to receive double glazed aluminium roof lantern approx size 3.0x1.5m including additional timber members, up-stands, joist hangers, straps, casings, etc.

Provide a cavity tray flashing together with a code 4-lead cover flashing at the roof junction between new roof and existing house cavity wall.

Roof insulation: provide 150mm thick "Kingspan" or similar approved insulation boards between roof joists together with 25mm thick insulation board to underside of roof joist finished with 12.5mm vapour-check plasterboard ceiling with gypsum plaster finish. Provide 38x38mm timber noggins between joists and at perimeter to support plasterboard edges.

Provide white upvc fascia boards and soffits incorporating circular vents to promote cross ventilation to roof space. Rainwater gutters/down pipe to be white upvc, square-line profile, inclusive of all associated fittings.

External window and bi-fold doors to be double glazed grey aluminium , sizes 3000x1400mm and 3000x2100mm. Window/doors to incorporate 24mm double-glazed sealed units (6/12/6) incorporating low-emissivity glazing. Glazing in windows below a sill height of 800mm to be glazed in safety glass to comply with BS6262. Window opening to be not less than 1/20<sup>th</sup> of floor area for rapid ventilation purposes. Window to incorporate trickle ventilators (min 8000mm<sup>2</sup>) for background ventilation purposes.

Sanitary ware: supply and install sink unit in new kitchen island location indicated on floor plan Provide 75mm deep seal trap to all waste pipes and all associated hot/cold water pipework and waste connections. New waste to discharge into internal sealed gully under island. Box in all pipework where exposed.

All electrical work is to comply with Building Regulations – Approved Document P. All electrical works are to be undertaken by a person registered under an approved "Competent Person Scheme" or the contractor is to provide a completed copy of the Electrical Installation Certificate to the Local Authority on completion. Provide switched and socket outlets for lighting and other equipment in the extension at appropriate heights between 450mm and 1200mm from finished floor level. Contractor to liaise with Client with regard to quantity, type and location of fittings prior to first fix. Provide energy efficient light fittings to new extension.

Install mechanical extract ventilation via wall mounted extract fan to kitchen (60-litres/second capacity or 30 litres/second if incorporated in cooker hood), fan to be vented externally.

Drainage: provide and lay new 100mm dia upvc drainage pipes connected to existing inspection chamber in garden. Encase new drains in 150mm concrete surround under extension and bridge over with concrete lintels where pipes run under walls. New rainwater gully to be discharged into a garden soakaway, min 5000mm from extension

Lay new concrete paving slabs to perimeter of extension on well-consolidated hardcore.

### **Miscellaneous Works**

Carefully demolish external cavity walls to kitchen as shown on plan and cart away debris. Provide temporary support to walls/floor joists above during works.

Build in 2no 203x102mmx23kg/m universal steel beams over kitchen opening with minimum 225mm end bearings to support existing cavity walls/floor joists above. Beams supported on 100mm thick concrete pad stones seated on existing cavity walls and encased in 2no layers of 12.5mm plasterboard with skimmed finish for fire protection purposes. Make good disturbed areas to walls, ceiling and floor to match existing surfaces.

Remove small window from utility/wc and reform opening to create a new door opening. Provide new concrete lintels over opening with min 150mm end bearings. Make good disturbed areas to walls and floor to match existing surfaces. Provide new door, lining, architraves, ironmongery, etc. Remove existing door, lining, etc. to utility/wc and block up opening. Make good disturbed areas to walls and floor to match existing surfaces.

Remove existing rear external soil and vent pipe and rainwater hopper head including discharging waste pipes from bathroom. Provide new 110mm-dia upvc soil and vent pipe to receive ground and first floor waste connections from bathroom.

Extend existing central heating system into new extension, including pipework and radiators.