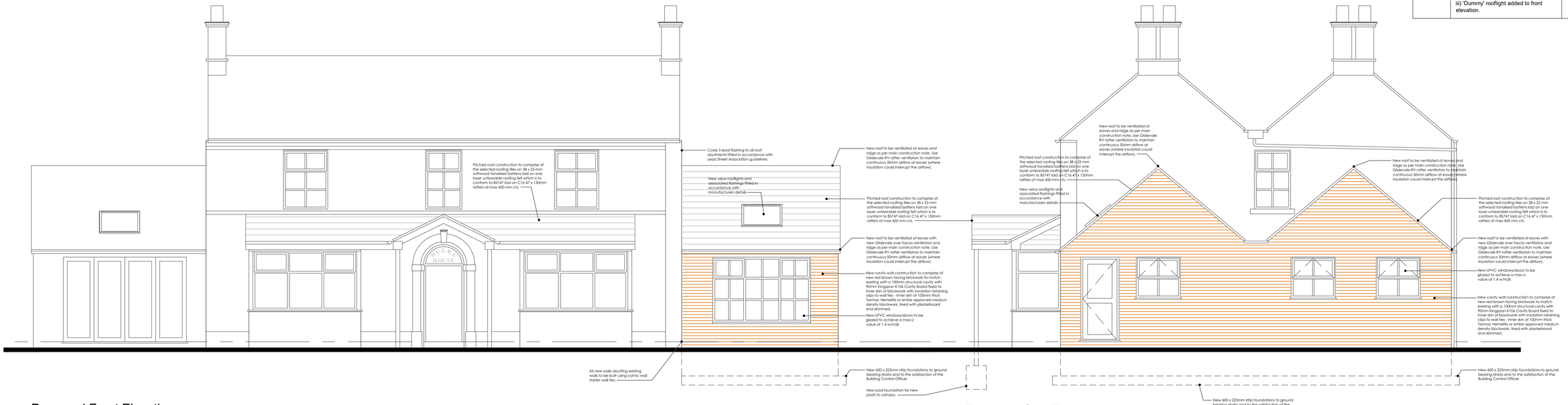
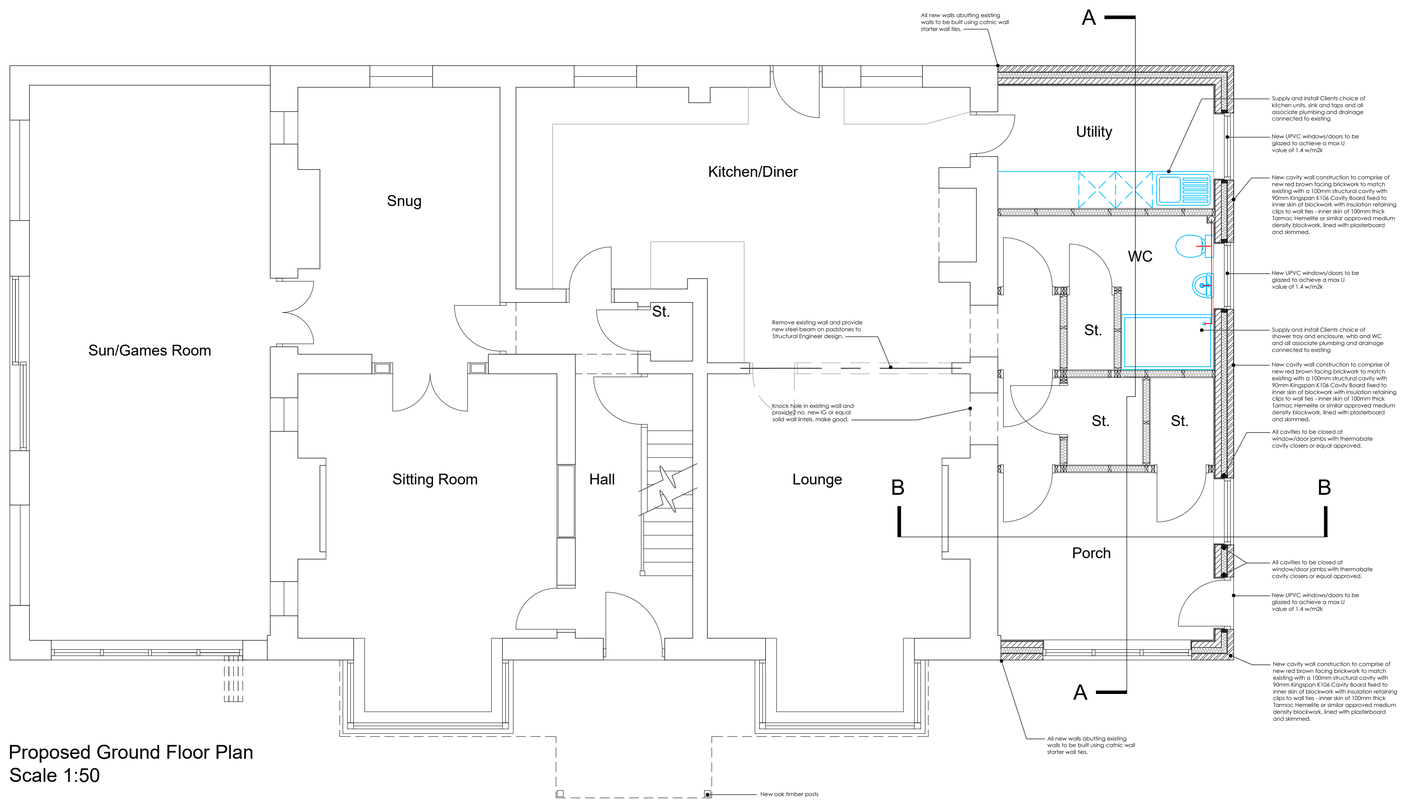
| Revisions | | |
|---|---|---|
| Rev. | Comments | Date |
| A | i) Double door into entrance changed to single.<br>ii) Window added to side of single door to entrance lobby.<br>iii) 'Dummy' rooflight added to front elevation. | Aug '19 |




Proposed Front Elevation
Scale 1:50

Proposed Side Elevation
Scale 1:50




Proposed Ground Floor Plan
Scale 1:50

**FOUNDATIONS**
New foundations to comprise concrete strip foundations under external walls to be minimum 600 x 225 mm. If ground conditions at foundation level are unsuitable then foundations should be laid at an increased depth or the use of one layer bS03 reinforcement mesh with min 30 mm concrete cover in foundations to approval of Building Control Inspector. Trading Standards.
Solid internal walls foundations shown to be at 100 mm concrete blocks built up off concrete commons below ground at 450 x 225 mm foundations, where shown.
Provide 3 no. courses of facing brickwork below ground level and concrete common brickwork for all walls below ground level with a weak mix concrete up to 150 mm below dpc in cavity. Non load bearing internal walls that are not taken down to foundation level are to be built up off thickened out floor slab 400 x 225 mm.
New foundations shown on this drawing have been shown at the minimum required depth of 1000 mm below ground level. If upon excavation it is found that ground conditions or effect of any adjacent tree roots at this level are unsuitable then foundations shall be laid at an increased depth on adequate load bearing strata. Final depth of foundations to be approved by Local Authority Building Control Department.

**EXTERNAL WALLS**
New cavity wall construction to comprise new 102.5mm facing brickwork to match existing with a 100mm structural cavity with 90mm Kingspan K106 Cavity Board fixed to inner skin of blockwork with insulation retaining clips to wall ties - inner skin of 100mm thick Tarmac Hemelite or similar approved medium density blockwork, lined internally with plasterboard and skim. Provide min. DD140 type 4 stone cills to all windows complete with insulation upstands of 90mm min. Provide jamb and 450mm x 450mm vertical cavity trays 300mm vertically and 150mm from 225mm away from the edge of openings. External walls to be constructed to achieve a maximum U value of 0.30 w/m2k. Cavity tray dpcs to be built into walling over all vents, all bricks, lintels, service boxes and anything that crosses the cavity with weep holes every third pasend. Provide cavity tray to top of cavity wall insulation in gables. Close cavity at eaves with a fire resistant material.

**VENTILATION**
Provide mechanical extract ventilation in kitchen capable of extracting at a min rate of 60 litres per second and trickle ventilation installed at head of windows capable of min 4000 mm2 clear air opening. Also provide mechanical extract ventilation to en-suites and bathroom capable of extracting at a min rate of 15 litres per second. Provide mechanical extract ventilation to utility to extract at a min rate of 30 litres per second and to WC to extract at a min rate of 6 litres per second. Where no opening light is available operated intermittently with light switch with a 15 min overun facility. Provide 100 mm dia upvc pipe terminating with grille built into external wall.

**RAINWATER**
New rainwater goods to be round section upvc 115 mm dia half round eaves gutters and 63 mm dia rainwater downpipes fixed in positions shown to discharge into new trapped storm water gullies where required. Rainwater goods to be BS4514. New rainwater pipes to connect in new storm gulley with combined rodding access, with stoneware bends and 150 mm concrete bed and surround. Fit cast iron grating and frame to gulley.
If storm water does not connect into existing drainage system then provide new via 1100 mm dia soakaway min 4.6 m away from any building or boundary and to be 1000 mm deep below lowest incoming invert. To be filled with clean stone or broken bricks with top soil replaced.

**TIMBER PARTITIONS**
Construct new partition walls in positions shown to be of 75 x 50 mm softwood vertical studs at max 400 cts. 75 x 50 mm softwood noggins fixed horizontally at max 600 mm cts. Provide 25 mm thick isowool acoustic partition roll (1200) insulation quilt between and finish both sides with 12.5 mm thick gyproc wallboard ten plasterboard with filled and taped joints and skim finish.Internal stud walls between habitable rooms and rooms containing sanitary appliances to be constructed to achieve an airborne sound reduction index of 40.2R(db) ,density 470kg/m3

**GENERAL NOTES**
All facing bricks to be free from defects, handled and not flipped, hand stacked and properly covered. Care shall be taken to ensure that the faces of bricks are kept free from mortar. No chipped or damaged bricks are to be used in the work.
All structural timber shall be C24 stress graded and pressure impregnated with an approved preservative.
Builder to enquire into the correct local statutory authority for the use of electric, gas and water services to allow for re-siting, encasing or stoppage of said services.

**FIRE DETECTION**
If no automatic fire detection is installed then there should be a suitable number of mains operated self-contained smoke alarms which confirm to BS5839-6: 2004 - Grade D - categegory LD3 standard. The system must be mains operated to BS5446-1: 2000 standard with standby power (battery backed up or capacitor) All self-contained smoke alarms to be fixed to ceiling at least 300 mm away from any light fittings and within 7 m of kitchen and living room and 3m of bedrooms interconnected and permanently wired to a separate fused circuit. Provide smoke to ceiling of car port linked to internal smoke alarms so that all alarms sound in the event of a fire to one location.

**METAL STRAPS**
Galvanised MS 32 x 2.5 x 600 mm long holding down straps to pitched roofs at 1800 mm maximum centres with 90o twist 125 mm from top fixed to joists and to wall. Galvanised MS 32 x 6 mm lateral support straps at 2 m max centres to timber floors and gables fixed to timbers and bend down 100 mm into cavity behind inner leaf. Roof straps 1500 mm long, floor straps 1100 mm long. All straps to have supporting noggins not less than ¾ the depths of joists/rafters.

**WINDOWS**
All windows to be glazed to achieve a max U value of 1.4 w/m2k in accordance with BS6262 and for safety glazing in critical locations to BS EN12150
Windows to first floor habitable rooms to be fitted with escape windows total area of 0.33m2 - when opened at right angles to the frame with a minimum clear opening of 450mm in any direction (note that 450mm x 450mm will not achieve opening of 0.33m2 and that panes per window may need to be reduced to achieve sizes (ie windows shown as 4 panes may need to be 3 panes, subject to planning authority approval).
Provide windows as schedule or drawings with background ventilation via trickle vents installed in head of windows - min 10000mm2 to all habitable rooms & 5000mm2 to kitchen, bathroom, utility and wc.

**NEW DRAINAGE**
All new drains to be 100 mm dia Hepworths supasleeve vitrified clay pipes laid in straight lines at 1 in 40 m falls on trimmed trench bottoms with flexible joints, backfilled with selected as dug materials.
Provide 150 mm dia sleeve pipe with reinforced concrete lintels over a flexible joint each side where drains pass through foundation brickwork. New 100 mm drains laid to falls and surrounded with 150 mm concrete where they pass under or within 1m of building building.

**ROOF**
Pitched roof construction to comprise of the selected roofing tiles on 38 x 25 mm softwood tanalised battens laid on one layer unbreatable roofing felt which is to conform to BS747 laid on min C16 47 x 150mm rafters spaced at max 400 mm cts. Last 3 no. rafters running parallel to gable walls to be strapped at max 2000 mm cts with 30 x 5 mm Expamet hot dipped galvanised mild steel straps to BS2989. Provide 12.5 mm plasterboard to underside of first floor ceiling tape and fill joints and skim to finish. Provide 100 x 50 continuous ceiling beares and 100 x 25 diagonal wind bracing and horizontal ceiling bracing. Provide 100 x 75 mm softwood tanalised wall plate to be fixed to top of inner skin of blockwork at max 1200 cts with 30 x 2.5 mm Expamet hot dipped galvanised mild steel straps to BS2989
Roof to be insulated at ceiling level with 100 mm fibreglass quilt insulation between joists and 200 mm fibreglass quilt insulation over at 90° constructed to achieve 0.13 w/m2k. Where ceiling is roof slope (warm roof) these are to be insulated with 100mm Kingspan K7 insulation board within the zone of the truss rafters (if truss rafters are not min. 150mm deep batten out the underside to ensure 50mm air gap to allow roof ventilation to be continuous, fit additinal 82.5mm Kingspan K18 Insulated Plasterboard to the underside of rafters, to achieve a maximum U value of 0.13 w/m2k

**CEILINGS**
12.5 mm plasterboard and skim, taped and filled joints with plaster skim finish. Ceilings to underside roof spaces to have 100 mm fibreglass quilt insulation between joists and 270 mm fibreglass quilt insulation over at 90°, to achieve a maximum U value of 0.13 w/m2k
Where ceiling is roof slope (nearest the eaves) these are to be insulated with 100mm Kingspan K7 insulation board within the zone of the truss rafters (if truss rafters are not min. 150mm deep batten out the underside to ensure 50mm air gap to allow roof ventilation to be continuous, fit additinal 82.5mm Kingspan K18 Insulated Plasterboard to the underside of rafters, to achieve a maximum U value of 0.13 w/m2k

**SANITARY**
New sanitaryware to be Clients choice of shower, wash hand basin and WC.. Shower to have 40 mm dia pvc waste pipe with a 76 mm deep seal trap. Wash hand basin to have 32 mm dia pvc waste pipe with a 76 mm dia deep seal trap and WC to have 100 mm dia pvc waste pipe with a 50 mm deep seal trap. All to be connected into svp back inlet gulley or manhole. See drawing for position and runs of pipework.
Also shower tray to have 75 mm deep seal trap with 50 mm dia upvc waste pipe. Provide 40 mm upvc waste pipe to new kitchen sink to be connected to a back inlet gulley via 76 mm deep seal trap.
All new above ground drainage to be connected into existing system..

**DAMP PROOF COURSE**
Provide and fix new vertical and horizontal dpcs to all jamb and cill closers. DPC to BS743 to all walls min 150 mm above ground level. All cavities closed at jamb of openings with Thermabate cavity closers or equal approved.

**ELECTRICAL INSTALLATION**
All electrical switches and sockets in habitable rooms are to be fixed no lower than 450mm from floor and no higher than 1200mm from floor.
All electrical works to be by an approved NICEIC contractor and to be in accordance with BS rules and regulations.
The design installation, inspection and testing of the electrical installation will be carried out in accordance with BS7671 2001 and approved document part 'p'.
Installation, testing and commissioning certificates will be required upon completions of works
Installer should be registered with Part P competent person self-certified scheme and qualified to complete BS 7671 installation certificates.

**HEATING**
New gas boiler to be condensing type with a minimum 'SEDBUK' value of 86% complete with balance flue and guard to outside wall.

**WEEPHOLES**
Provide vertical weepholes in perpends above all cavity trays/ door and window openings at max 900mm cnts - provide vertical stop ends to all cavity trays

**BRICKWORK EXPANSION JOINTS**
Provide vertical brickwork expansion joint in walls to Building Control Approval with Aerofil 1 compressible closed cell polyethylene filler complete with polysulphide flexible sealant - colour to match adjacent surface finish

**STEELWORK**
See Structural Engineer's drawing for all steelwork calculations and details if provided otherwise, all lintelwork to sit on three course deep RC padstones min 450 mm long and encased in 12.5 mm plasterboard and skim. All beams as purlins in roof space to have 100 x 75 mm wall plate bolted at max 900 mm cts to beam.

**PARTY WALL ACT**
**Any works that are carried out within close vicinity of party wall to be carried after any requi notification to adjoining owner under the terms of the party wall act 1996.**

**ROOF VENTILATION**
Provide Tyvek Supro breathable felt or alternatively provide Glidevale roof ventilation to all roofs with insulation at ceiling level. Ref RV along full length of eaves and Fe Glidevale ref FV100 continuous ventilation along eaves equivalent to a 10 mm opening. All fixed in accordance with manufacturers recommendations.
Where there are sloping insulated ceilings provide Glidevale ref RV between rafters and Glidevale ref FV250 continuous ventilation along top of eaves, equivalent to a 25 mm opening. Provide Glidevale ref MR50 at roof abutment with cavity wall and Glidevale ref C ridge ventilators installed at 2.4 m centres to all ridges where roof is insulated.

**LEAD**
Provide Code no. 4 lead flashing and soakers where Parlico roof abuts cavity wall. Lead to be dressed up over soakers min 150 mm and to be linked to cavity tray at abutment. Cavity tray to be fixed in accordance with manufacturers recommendations.

**CONCRETE**
**Shall be in accordance with NHBC standards of as required by an Engineer or Control Officer.**

**LINTELS**
Provide prefabricated IG steel lintels to BS5977 Part 2 1983 with corrosion protection and continuous integral insulation. Installed in accordance with the manufacturers recommendations, on a mortar bed, allowing a nominal 150 mm bearing at each end and suitable for the load.
Internal Lintels to be IG box lintels installed in accordance with the manufacturers recommendations, on a mortar bed, allowing a nominal 150 mm bearing at each end and suitable for the load

**AIR PERMEABILITY**
Building to be constructed to acheive a max. air permeability value of 5m³/(h.m²)

**AIR BRICKS**
Provide 215 x 150 mm airbrick to provide combustion air complete with fly proof internal screens to rooms containing gas appliances.

**GROUND FLOOR**
Ground floor construction is to comprise of 75 mm sand/cement screed laid on 500 gauge visqueen separating layer dpm, securely lapped and taped at joints and linked to dpc) laid on 150 mm Kooltherm K3 insulation board and 50mm wide turned up at edge of slab laid on 150 mm concrete ground floor slab, laid on 1200 gauge visqueen dpm turned up at edge of slab & linked to dpc in wall on 50 mm sand blinding on 150 mm well compacted subfrate free hardcore.Ground floor to be constructed to achieve a maximum U value of 0.13 w/m2k.

**EXISTING DRAINAGE**
All existing drainage runs to Sands Road are assumed and shall be ascertained by Contractor upon commencement of work.

Mr and Mrs Duncan Barber

Proposed Single Storey Side Extension and Canopy to front:

Hulme House,
Hulme Village,
Stoke On Trent,
Staffordshire,
ST3 5BQ.

Proposed Plan and Front /Side Elevations

| Scale | July |
|---|---|
| 1:50 @ A1 | 2019 |

Drawing Number
02A