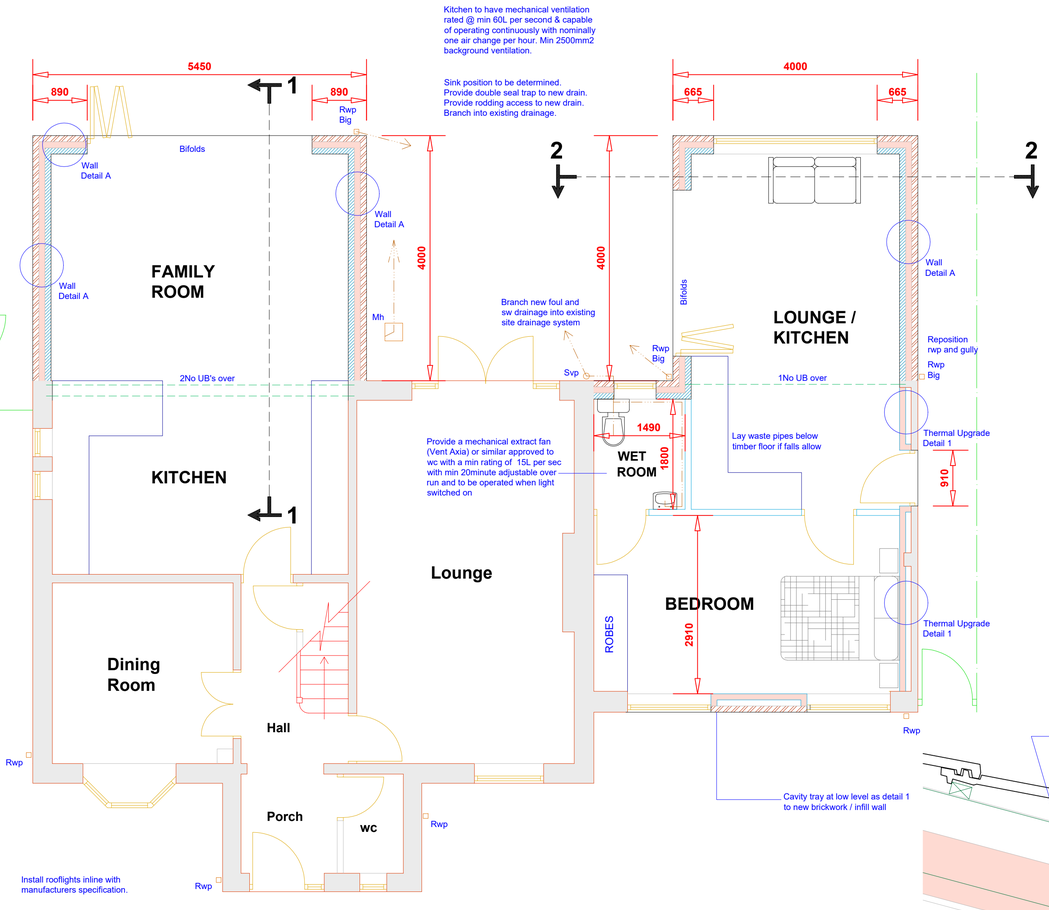
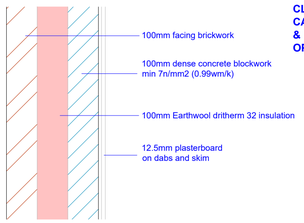


PROPOSED GROUND FLOOR PLAN



DETAIL A

ROOF CONSTRUCTION - TRUSSED

External covering roof tiles to be suitable of the pitch and to match existing. All fixed on 38 x 25mm s.w. treated tile laths for 400cts rafter span or 50 x 25mm s.w. battens for 600mm rafter span. Lay Klober Roofing Products Permo ForteRoofing Underlay / vapour permeable underlay for use in non ventilated cold and warm roof applications to meet the requirements of BS 5534: 2002 and as approved and certified by the British Board of Agrément. All Permo underlays to be classed as low resistant underlays in accordance with BS 5534: 2002. with Monarflex-Eaves Guard 1.5mm HDPE laid over top of fascia and with min 250mm overlap with roofing felt. On Specialist trussed rafters to BS 5268 part 3 2006 @ 600cts. Trussed Rafters to be strapped to the gable walls at max 1800cts with min 6 x 30mm m.s. L straps mechanically fixed to the gable wall with nylon sheathed fixings min 100mm long and screwed through at max 200cts. Provide s.w. noggings flush with top of the rafters as rest for L straps, firmly fix noggings between rafters. Straps to go over min 3no rafters. Trussed Rafters connected to 100 x 75mm C16 wall plates strapped down at max 1800cts 6 x 30mm mild steel straps firmly hammer fixed to internal block leaf. The ceiling level insulation shall be Knauf Earthwool Loft Roll 44 100mm thick rolled tight and compact between the ceiling joists with a further 2no layers of 150mm Knauf Earthwool Loft Roll 44 laid in the opposite direction over the ceiling joist layer, total thickness 400mm. Provide 12.5mm foilbacked plasterboard and skim to provide 0.11w/m2K. Ventilation at eaves with min 25mm perimeter gaps with incorporated insect mesh.

BATHROOM & PLUMBING.

New Toilet to have 100dia pvc waste pipe sealed to nearest svp. Provide a supply of mains cold water to WC C/W stop valve. New WHB to have min 50dia pvc waste with min 75 double sealed trap, or anti vactap if waste run is too long, seal waste into nearest svp. New Shower to have min 50dia pvc waste with min 75 double sealed trap, or anti vac trap if waste run is too long, seal waste into nearest svp. Provide a mechanical extract fan (Vent Axia) or similar approved to new En-Suite, with a min rating of 15L per sec, with min 20minute adjustable over run, and to be operated when light switched on. Kitchen sink waste to be min 50mm with 75 DS trap. Bath / showers to have fitment which will limit hot water to 48°C.

CLIENT / CONTRACTOR TO PROVIDE STRUCTURAL CALCULATIONS TO BUILDING CONTROL PRIOR TO CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CLIENT / CONTRACTOR TO OBTAIN STRUCTURAL CALCULATIONS FOR STEEL BEAMS, PADSTONES & PIERS PARTICULARLY TO LARGE GLAZED OPENINGS.

ANY EXISTING FW / SW SYSTEMS IN EXISTENCE ARE TO BE MAINTAINED IF POSSIBLE. DRAINS ARE TO BE TRACED ACCURATELY PRIOR TO COMMENCING DRAINAGE WORKS, TO ENABLE NATURE OF DRAINAGE (SEPARATE OR COMBINED) A CCTV SURVEY SHOULD BE UNDERTAKEN. CLIENT / CONTRACTOR TO ENTER IN TO ANY BUILD OVER AGREEMENT WITH THE GOVERNING WATER AUTHORITY PRIOR TO WORKS COMMENCING.

HD — HEAT DETECTOR WITHIN KITCHEN AREA

Install a smoke alarm system to BS 5446 part 1. Mains operated interlinked system with battery backup.

LIMITING AIR LEAKAGE:-

Cavity wall insulation to be taken below DPC level to the underside of floor slab insulation

The cavity wall insulation and roof insulation must meet at the top of the wall

Take cavity wall insulation to full extent of the gable walls within roof space

provide a min 25mm upstand of insulation around perimeter of new concrete floor slabs, where the floor slab touches outside walls (at door thresholds)

All cavity closures to be insulated

Any glazing within doors and adjacent windows to be safety glazing up to 1500mm above floor / ground level to BS 6206 class C.

U-value for all new glazing to be 1.6 w/m2k
min 16mm air gap & low E glazing to be used

Radiators to be fitted with thermostatic valves

Existing drainage to be fully investigated on site prior to commencement of works

Provide 75mm fibreglass insulation to stud wall with 15mm 10kg/m2 dense plasterboard and skim to deaden sound within all bedrooms, bathrooms and en suites.

Any new or replacement boilers fitted should have a SEDBUK rating of 92%
Gas boilers now require one of the following:
Flue gas heat recovery, weather compensation, load compensation, smart thermostat with automation and optimisation

Any glazing within doors and adjacent windows to be safety glazing up to 1500mm above floor / ground level to BS 6206 class C.

U-value for all new glazing to be 1.6 w/m2k
min 16mm air gap & low E glazing to be used

Radiators to be fitted with thermostatic valves

ELECTRICAL WORK.

All electrical work to meet the requirements of Part P (electrical safety) will be designed, installed, inspected and tested by a person competent to do so.

Prior to completion the Local Authority must be satisfied the either:-

An electrical installation certificate issued under a Competent Person Scheme has been issued; or

Appropriate certificates and forms defined in BS 7671 (as amended) have been submitted that confirm that the work has been inspected and tested by a competent person. A competent person will have sound knowledge and experience relevant to the nature of the work undertaken and to the technical standards set down in BS 7671, be fully versed in the inspection and testing procedures contained in the regulations and employ adequate testing equipment.

GENERAL WORK TO CONVERT GARAGE.

Provide DPM to existing floor slab and provide 125 x 50mm C16 preservative treated joists to build up height of garage floor to meet level of existing dwelling. Infill timber joists with 125mm Kingspan K103 floor insulation and provide 18mm t & g boarding screwed to timber joists as 'Thermal Upgrade Detail 1'

Contractor to dryline existing Garage wall with 42.5mm Kingspan K18 board fixed to 75 x 50mm C16 studs @ 400cts with 50mm Kingspan Thermawall TW50 insulation between. Provide with 75 x 50mm C16 timber sole head & side pieces to be adequately plugged & screwed to wall floor & ceiling over. Provide 50mm clear cavity from existing Garage wall all to give a min. U value of 0.25 W/m²K.

The ceiling level insulation shall be Knauf Earthwool Loft Roll 44 100mm thick rolled tight and compact between the ceiling joists with a further 2no layers of 150mm Knauf Earthwool Loft Roll 44 laid in the opposite direction over the ceiling joist layer, total thickness 400mm. Provide 12.5mm foilbacked plasterboard and skim to provide 0.11w/m2K.

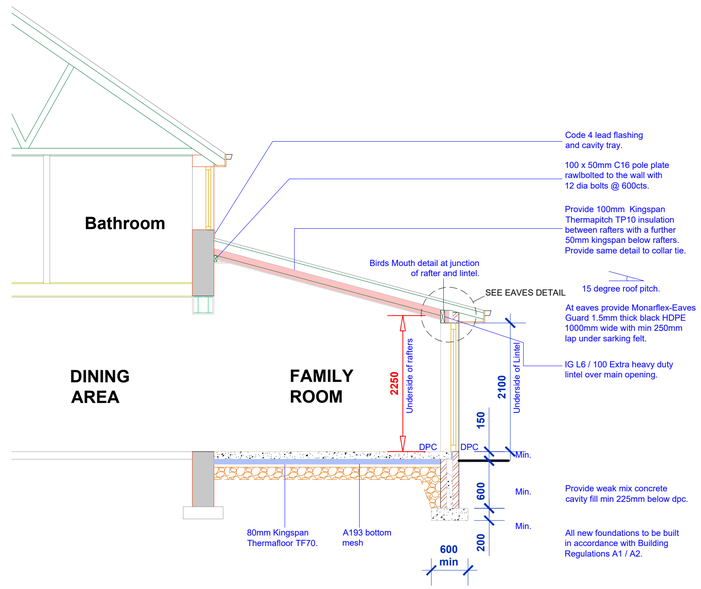
New window to existing garage door opening. New brick external leaf to match existing and be built up from thickened concrete toe dry line internally as 'Thermal Upgrade Detail 1'

Foundation to A1/2 or suitable lintels to be provided supporting brickwork over, alternatively provide calculations to prove adequacy of toe and evidence build up on site.

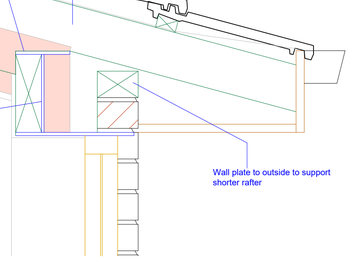
New windows and roof lights - fully draught-proofed and double-glazed in Low emissity 'K' glass with 16mm argon filled air gap to give a U-value = 1.6W/m2.K (or Window energy rating - band C; or Centre-pane U-value = 1.2W/m2.

New and Replacement Glazed Doors (more than 50% glazed) - fully draught-proofed and double-glazed in Low emissity 'K' glass with 16mm air filled air gap to give a U-value = 1.8W/m2K.

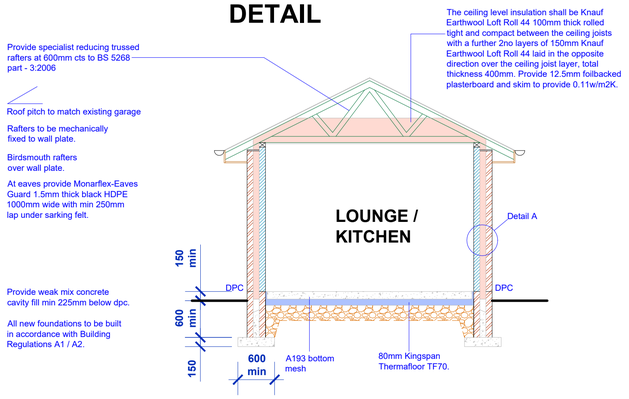
New and replacement Doors (less than 50% glazed and solid doors) - fully draught-proofed and double-glazed with 16mm air filled air gap to give a U-value = 1.6W/m2.K



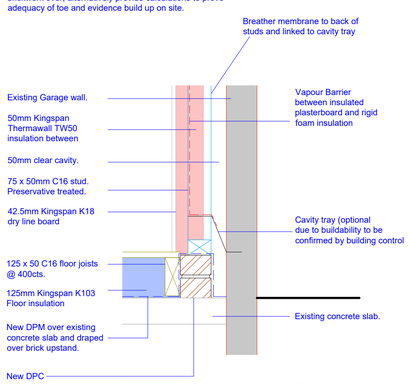
SECTION 1 - 1



EAVES DETAIL



SECTION 2 - 2



THERMAL UPGRADE DETAIL 1

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The contract for the works is between the client and his / her contractor. Contractor to visit site, study the details provided within the drawing and be familiar with both the work to be carried out in accordance with the details provided. Any stated dimension must be checked prior to any form of construction. All works and materials to comply with all relevant British Standards and carry a genuine BBA certificate. The materials specified within this drawing are a guide for the contractor as they are recognised materials with genuine BBA certificates etc. Any contractor who decides to use any different materials than that noted on the drawing must inform James Campbell Associates Ltd.

Any discrepancies discovered or items found that where not visible at the time of the initial survey should be reported to James Campbell Associates Ltd for consultation with our client.

CONSTRUCTION NOTES:-

FOUNDATIONS & SLAB.

Any new Ground floor slab to be well tamped, complete with smooth finish. Slab depth to be 150mm min with A193 bottom mesh. Slab to be cast on min 80mm Kingspan Thermafloor TF70 insulation to give 0.22w/m2k with a separation layer min. 500g between. On DPM, laid with 150mm laps and to be continuous with wall DPC, on 50mm sand blinding, on 200mm well consolidated hardcore, on well prepared ground. Foundations to be min 600 x 150mm thick concrete strip footings. Concrete to be generally grade RC28 / 35 Concrete. Take foundations below invert levels of any adjacent drainage. Building Inspector to approve foundation depths in relation with prevailing ground conditions. Any walls below DPC level to be 102 concrete commons with cavity filled with weak mix concrete to min 225mm below finished floor level.

CAVITY WALL CONSTRUCTION.

External cavity walls to be brickwork to match existing with 100mm full fill Earthwool dritherm 32 insulation and 100mm dense concrete blockwork min 7n/mm2 (0.99w/k) all to give min 0.28w/m2k. Provide vertical DPC to window & door reveals. Cavity wall to be tied internally with min 225mm stainless steel housing ties @ 5 ties per m2, ties to BS 1243. Ties to be at 300mm vertical cts adjacent to window & door openings. Top of cavity wall to be closed with supalux or a proprietary approved system Ensure new blockwork is toothed into all existing brickwork or use proprietry crocodile ms ties. Internal finish to be 12.5mm plasterboard on dabs and skim to achieve min 0.28w/m²k.

DAMP PROOF COURSE.

Horizontal DPC to be placed at a min height of 150mm above external ground level & at Finished Floor Level as detailed. DPC laid between mortar beds, DPC to be pluck pvc min 500 microns 2000g to BS 6515 1984. Provide vertical DPC's to all openings tightly fitted evenly between cavity closure method. Min 225mm wide vertical DPC.

INTERNAL WALLS.

New partitions to comprise, 75 x 50mm s.w. timber studs @ 400cts, 75 x 50mm s.w. timber sole head & side pieces to be adequately plugged & screwed to wall floor & ceiling over. Faced both sides with 12.5mm plasterboard & skim provide min 75mm fibreglass quilt between studs to act as sound deadening, 75 x 50mm s.w. timber noggings at max 600mm horizontal cts laid in staggered pattern across length of stud wall. Provide double floor joists under timber stud partitions running parallel to floor joists. New internal masonry walls to comprise 100mm concrete blockwork min 7n/mm2 crushing strength built up from independent foundation depth to be determined by Building Control. Min 450mm wide x 150mm thick concrete strip footing, provide dpc at finished floor level below floor slab to be 102mm concrete commons. Provide PC lintels to doorways and RC lintels to openings between 900 and 1800mm, opening larger than 1800mm, lintels to be designed by the Structural Engineer.

WINDOWS & LINTELS.

Window & door openings to have Catnic combined galvanised steel lintels with a full fill insulation to lintel void, provide a cavity tray over each lintel with min 500 micron dpm min 450mm wide. Windows to be double glazed upvc or timber s.w. or h.w. to clients requirements. Double glazed units to have inner pane of Pilkington Optitherm or similar to give 1.6w/m2K. Provide opening casements to give min 10% of O.F.A. Habitable rooms with windows to have closeable 'trickle' ventilators built into unit. Background ventilation rated @ 5000mm2. Kitchen to have mechanical ventilation rated @ min 60L per second & capable of operating continuously with nominally one air change per hour. Min 2500mm2 background ventilation. Utility Room to have mechanical ventilation rated @ min\ 30L/ sec & capable of operating continuously with nominally one air change per hour.

ROOF CONSTRUCTION - LEAN TO.

External covering roof tiles to be suitable of the pitch and to match existing. All fixed on 38 x 25mm s.w. treated tile laths for 400cts rafter span or 50 x 25mm s.w. battens for 600mm rafter span. Lay Klober Roofing Products Permo ForteRoofing Underlay / vapour permeable underlay for use in non ventilated cold and warm roof applications to meet the requirements of BS 5534:2002 and as approved and certified by the British Board of Agrément. All Permo underlays to be classed as low resistant underlays in accordance with BS 5534: 2002. with Monarflex-Eaves Guard 1.5mm HDPE laid over top of fascia and with min 250mm overlap with roofing felt. On 200 x 50mm C16 rafters @ 400cts. Rafters to be strapped to the gable walls at max 1800cts with min 6 x 30mm m.s. L straps mechanically fixed to the gable wall with nylon sheathed fixings min 100mm long and screwed through at max 200cts. Provide s.w. noggings flush with top of the rafters as rest for L straps, firmly fix noggings between rafters. Straps to go over min 3no rafters. Rafters connected to 100 x 75mm C16 wall plates strapped down at max 1800cts 6 x 30mm mild steel straps firmly hammer fixed to internal block leaf. Provide 100mm Kingspan Thermapitch TP10 insulation between rafters with 50mm kingspan rigid foam insulation below the rafters to give 0.15w/m2c provide 12.5mm foilbacked plasterboard & skim finish. Ventilation at eaves with min 25mm perimeter gaps with incorporated insect mesh.

EAVES & RAINWATER GOODS.

Fascia overhang to be determined on site, depending upon window head level, or as detailed on drawing. Any fascia projecting over boundary to be constructed min 10mm from facing brickwork max projection with guttering 150mm. Fascias to be 20mm tanalised s.w. or similar approved upvc to clients requirements. Any soffits to 8mm exterior quality plywood or upvc. 100mm half round pvc gutter colour to match existing with 63 diameter pvc rwp or square sectioned pvc rwp. Rwp's sealed into Back Inlet Gullies. Any eaves or gutter overhanging boundaries to have prior written permission before construction commences. The Party Wall (1996) may apply, it is the responsibility of the building owner to ensure full compliance with the Party Wall (1996) act.

DRAINAGE.

New underground drainage to be Hepsleve or similar to BS 65 on granular bed laid to 1 in 40 falls with flexible connections. Protection of drains passing under or near footings with 150mm concrete surround. P.C. lintels provided over drains passing through footings, surround drainage pipes min 450mm under floor slab construction with lean mix concrete. Written permission to be obtained before work commences to excavate pavements or highways to make necessary drainage connections. All drainage work to be approved on site by L.A. Building Inspector. Check adequacy of existing drains & manholes prior to new drainage connections & backfilling, test drainage installation before backfilling & ensure drainage trenches are adequately compacted to reduce future subsidence & undulations. New manhole construction to be 215mm class B engineering brickwork on 150mm concrete base on well prepared sub-soil & 150mm well consolidated hardcore. Alternatively for shallow domestic drainage purposes use quality approved black PVC inspection chambers with connectable sections c/w pvc stops ends to un-used connection ducts. Any Inspection Chambers within building to have double sealed bolt down type cover fully grease sealed.

MISCELLANEOUS.

All timber carcassing for structural elements to be C16 grade or GS & MGS graded. Timber to be clean, sound & merchantable free from excessive knots etc & moisture attack from external yard storage prior to site delivery.

Any steel lintels / beams to be red oxide treated (min 2 coats) with cut end burrs filed off. Minimum 150mm end bearing where possible & on concrete padstones firmly bonded into walls. surround steelwork in 12.5mm fireline board to give min 30mins fire protection, provide plaster skim finish.

Tooth new cavity wall construction into existing & run cavities through continuously free from mortar snots enabling moisture bridging cavity. Alternatively provide vertical break & DPC added in existing outer facing brickwork. Catnic S/S strong hold wall connectors or similar approved to be used to join new 7 existing cavity walls, as BS 5628 part 1 1985. Insert galvanised wall ties at every 3 vertical brick courses.

DRAWING TITLE

PROPOSED DETAILS

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PROJECT

SINGLE STOREY REAR EXTENSION & GARAGE CONVERSION

LOCATION

1 Verdant Way
Burnedge
Rochdale

DRAWN:-	Frank James Smith	DRAWING NUMBER:-
DATE:-	November 2020	**20.2354.2**
SCALE:-	1:50 1:100 at A1	
ISSUE:-		