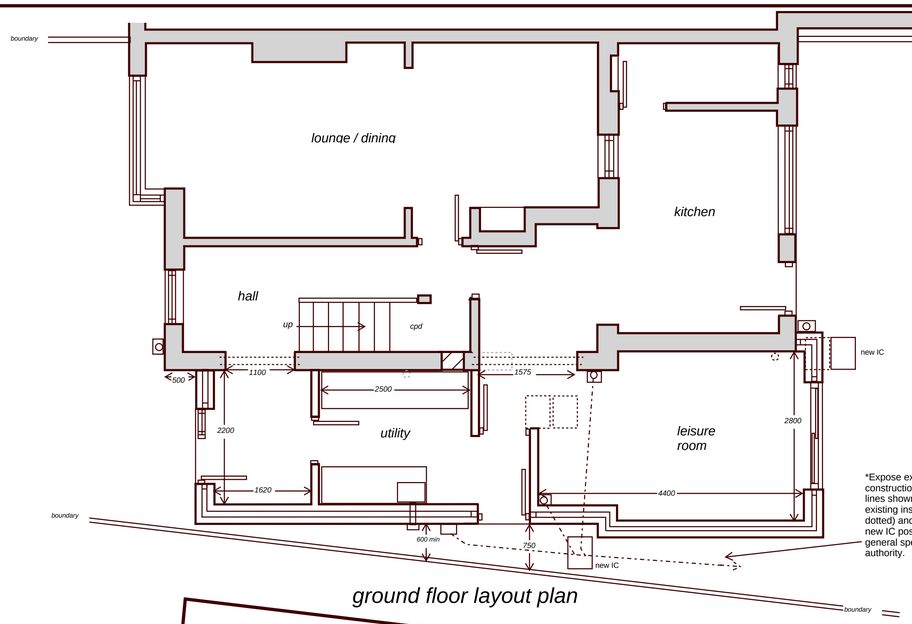
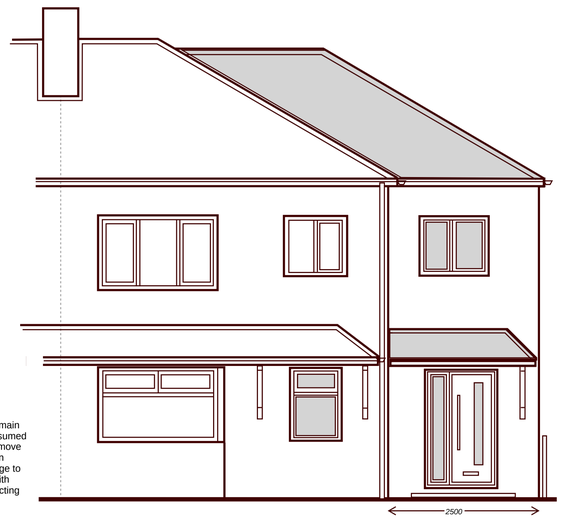


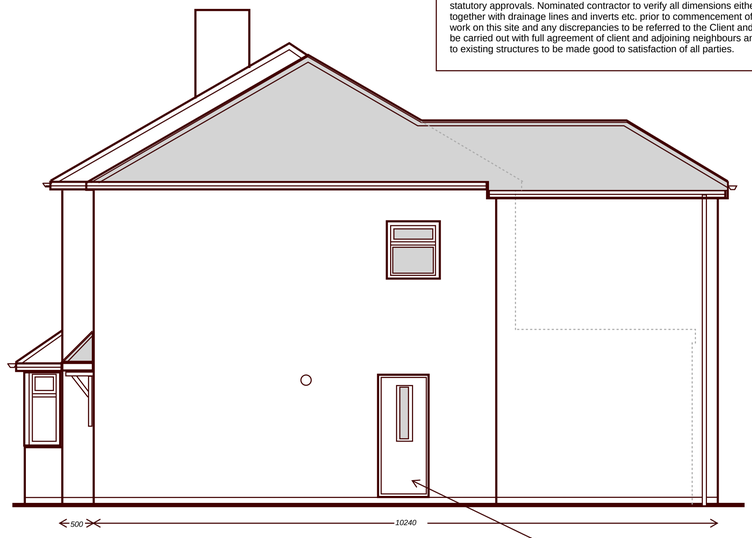
*Expose existing drain runs prior to main construction work and verify that assumed lines shown on plan are correct. Remove existing inspection chambers (shown dotted) and reform drains to discharge to new IC positions shown in accord with general spec. and approval of inspecting authority.

ground floor layout plan



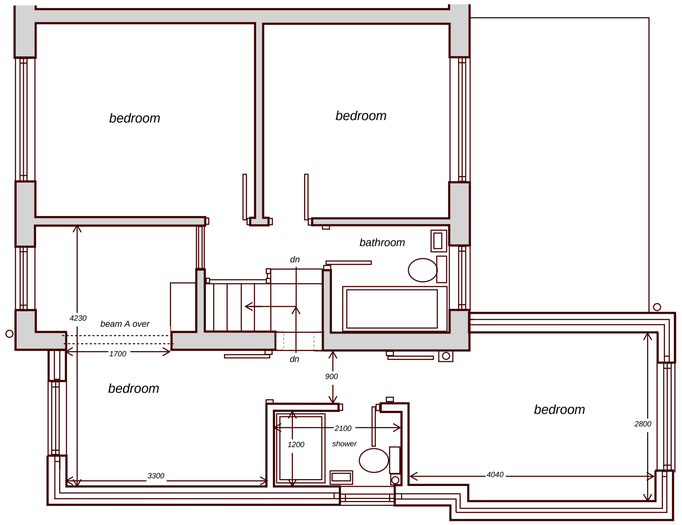
proposed front elevation

*Important Note:
This drawing has been prepared for submission to the local authority for necessary statutory approvals. Nominated contractor to verify all dimensions either written or scaled together with drainage lines and inverts etc. prior to commencement of formal construction work on this site and any discrepancies to be referred to the Client and Agent. All works to be carried out with full agreement of client and adjoining neighbours and any disturbance to existing structures to be made good to satisfaction of all parties.



proposed side elevation

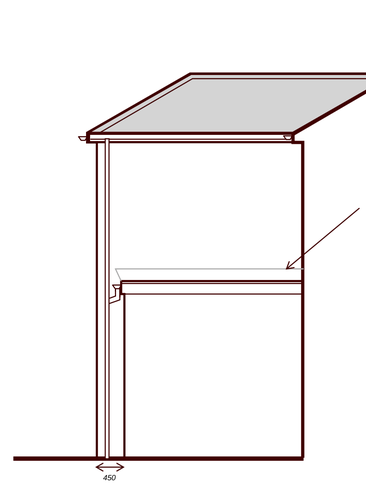
*Utility door to be 30mins fire resistant door and frame set if sited within 1000mm of boundary



proposed first floor layout plan

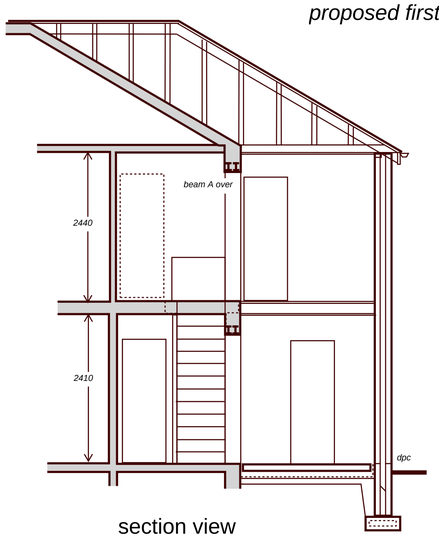


proposed rear elevation



* Strip back existing flat roof to expose cavity wall at side and to allow construction of new first floor walling to general specification.
Install 2000g dpc cavity tray to discharge over new roof upstand and flashing to satisfaction of inspecting authority surveyor. Make good as necessary to existing flat roof finish.

proposed side elevation at rear



section view

*Structural Works
*Install steel beams all encased in gyproc fire line board to achieve min. 30 minutes fire resistance. See Engineer's design sheets for all structural beam etc information.

*Beam schedule (All steel grade S355)
Beam A (bedroom opening) - 2no 127x76x13kg UB

*Note use same beams over other new openings through in to extension or catnic or pc concrete if suitable for span and to satisfaction of inspecting authority.

*General Specification

*Preliminary Works:
Examine existing drainage runs at site to assess falls and lines and verify new drainage layout .
Plan work programme to minimise disturbance to main dwelling.
Remove all rubble from site to an authorised and licensed tip facility.
Check existing foundations to rear extension to assess ground bearing conditions and if fit for purpose to receive new first floor side wall etc.

*Walls (External):
Waterproofed monocouche render finish to match existing walls applied to 100mm load bearing concrete block, min 100mm cavity enclosing Dritherm 32 insulation fill to manufacturer specification and internal leaf of 100mm load bearing thermal block work (eg: Celcon Solar) faced internally with plasterboard on treated battens or cement dabs.This or similar construction to achieve max 0.28 w/m2 k U-Value
*Note: new walling to be effectively bonded to existing structure to satisfaction of inspecting authority surveyor and wall ties to be stainless steel suitable for 100mm cavity width and compliant with DD140. Install Thermabate or similar insulated cavity closures at all opening jambs.

*Internal Walls (non load bearing):
100x47 sw timber stud faced on 100x75mm sole plate and dpc faced with plasterboard incorporating vapour check and enclosing 100mm rock wool insulation.

*Lintels
Install Catnic or similar combined steel lintels over new openings with minimum 150mm end bearings to manufacturer spec. Carefully form new access doorways to extension as indicated and install precast concrete lintels over to manufacturer spec. Make good to all disturbed surfaces.

*New Roof :
Selected plain double lap tiles to match existing fixed in place in accord with manufacturer specification and BS5534 on treated battens on approved breathable membrane over prefabricated trussed hip rafter units by specialist design and supply compliant with BS5268 secured with purpose made steel clips to continuous 100x75mm sw wall plate anchored to supporting walls by approved galvanised ms straps at maximum 1500mm centres.
Ensure all necessary handling, bracing and lateral restraint strapping to roof frame and adjacent structure is completed in accordance with manufacturer specification and compliant with BS5268.

*Foundation Detail:
Subject to prior exposure of existing house foundation lay 600x225mm concrete strip foundation at depth to to suit site conditions and to satisfactory bearing strata to approval of inspecting authority. Reinforce throughout with 2 no layers B503 steel mesh. See preliminary notes for exposure of existing foundation to rear side wall.

*Floor - Ground :
Floor finish to client requirement on min 60mm screed or power float finish to 100mm concrete slab reinforced with A193 steel mesh on 1200g dpm over Celotex GA 4000 (75mm) or similar approved insulation board turned up in 25mm thickness at floor perimeter to avoid cold bridge.Lay further dpm over well blinded 150mm min. compacted natural stone sulphate free hardcore.
*U-Value max 0.22 w/m2k

*Floor - First:
21mm t&g boarding across 170x50mm sw C16 joists at max 450mm centres supported off heavy duty galvanised ms joist hangers fixed to comply with manufacturer specification. Provide suitable strutting at mid span with end wedges as necessary. Under draw joists with plasterboard to achieve min 30 minutes fire resistance incorporating vapour control membrane where required and enclosing 150mm Acoustic Rockwool between joists. *Note any notching of floor joists for services to be minimal and compliant with BS5268 part 2-1991.
Install double joists beneath partition line bolted together with M16 bolts and steel dog tooth washers at 600mm max centres.

*Fenestration:
Install high performance double glazed upvc window units to match existing style using Pilkington Low E 'k' glass and min 25mm cavity – max 1.60 w/m2 k U-Value
Opening casements to represent minimum 5% of adjacent floor as natural vent plus min 10000mm2 trickle ventilators to head of frame.
*Escape Window: Where required provide opening casements to habitable rooms capable of safe egress in emergency i.e. min 0.33m2 clear opening (say 800x450mm) set within 1100mm of internal floor level.
Ensure that all doors and critical window areas are fitted with laminated or toughened safety glazing compliant with current BS:EN:12150.

*Electrical Work:
All notifiable electrical work to be carried out by a suitably qualified contractor registered with an approved national body. A formal completion certificate to be issued in compliance with current Part P building regulations and to satisfaction of inspecting authority surveyor
Note: all lighting to be low energy type to client spec.
*Note install sockets to extension area to requirements of client and provide co-axial and satellite ports if needed.
*Install a mains operated inter-linked smoke alarm system with battery back up to circulation areas and critical locations in compliance with BS5839 and to satisfaction of inspecting authority surveyor.

*Ventilation
Natural ventilation from opening casements plus install mechanical extract fan to new bathroom set to achieve min 15 litres/sec extract rate. Similar provide fan to utility room set to achieve 30 lites/sec extract.

*Heating
All extended space heating to be to the full requirements of a suitably qualified heating engineer and assessment of existing heating system. Install thermostatic control valves as necessary.
Reposition existing gas boiler and balanced flue to new utility in compliance with current Part J Building Regulations and to recommendation of heating engineer.

*Drainage:
Lay new 100mm pvc drains on granular bed at min 1:40 falls to connect to existing system on site. Ensure adequate support and protection to all drains passing through walls and building footprint.
Upvc rainwater goods to match existing carried to existing system as required.
Internal waste plumbing to satisfy BS5572 with 75mm deep seal traps as required. New shower room wastes to discharge to 100mm stub stack fitted with Durgo or similar air admittance valve positioned above flood level of fittings with external branch connection to soil and vent pipe connected to repositioned Inspection Chamber all to satisfaction of inspecting authority. Existing bathroom wastes discharging to soil and vent pipe carried through roof to external air with pvc cage at head and suitable weathering through tiles etc.

Proposed Two Storey Side Extension at Edgeley, School Road, Bagnall ST9 9JP

Scale 1-50 (A1) - proposed layout
Dwg ref SR1d September 2019

Geoff Rouane C.Build.E, MCABE, MRICS.
Chartered Building Surveyor
Tel 07946517767
Email: geoffrouane@btinternet.com