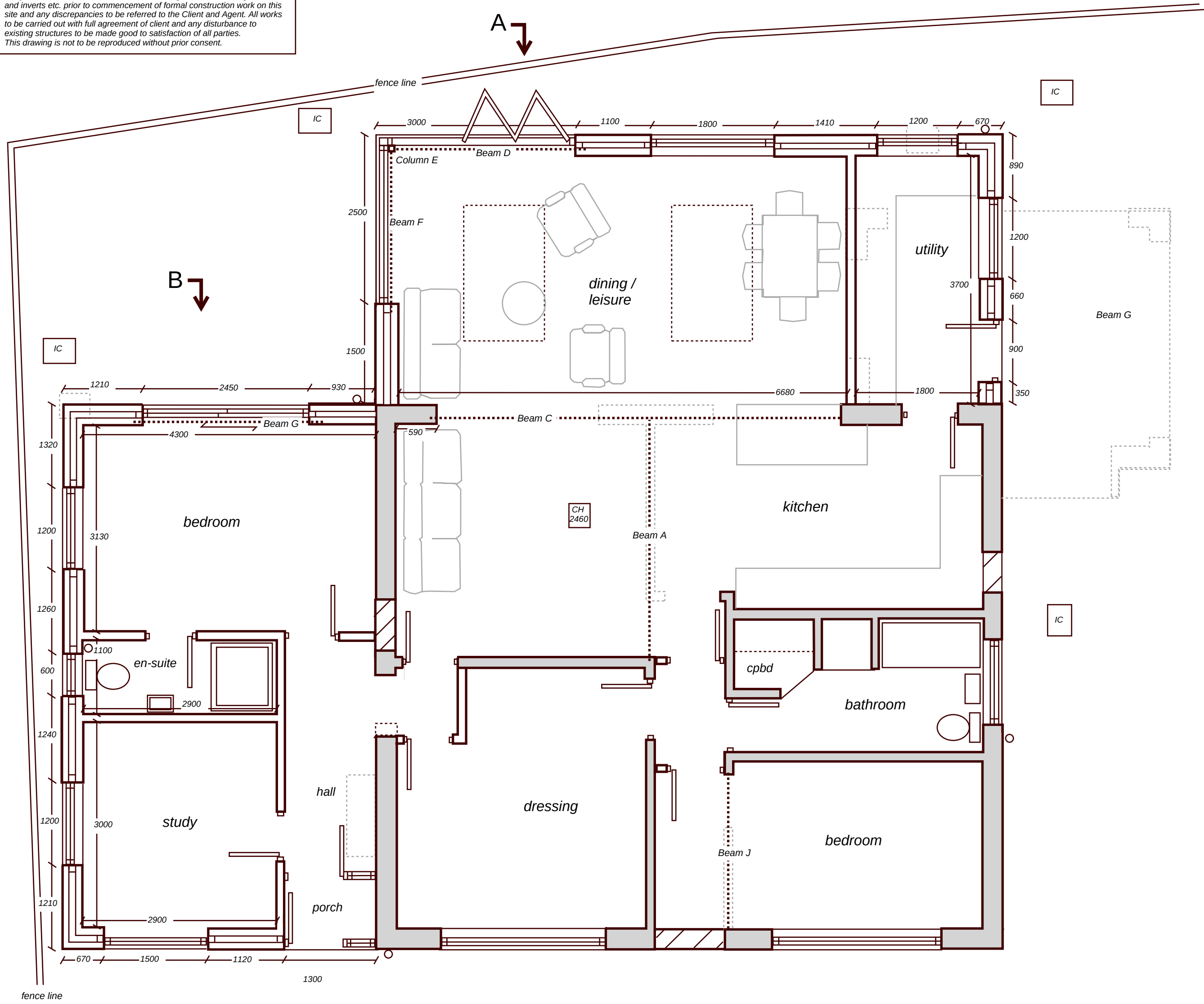
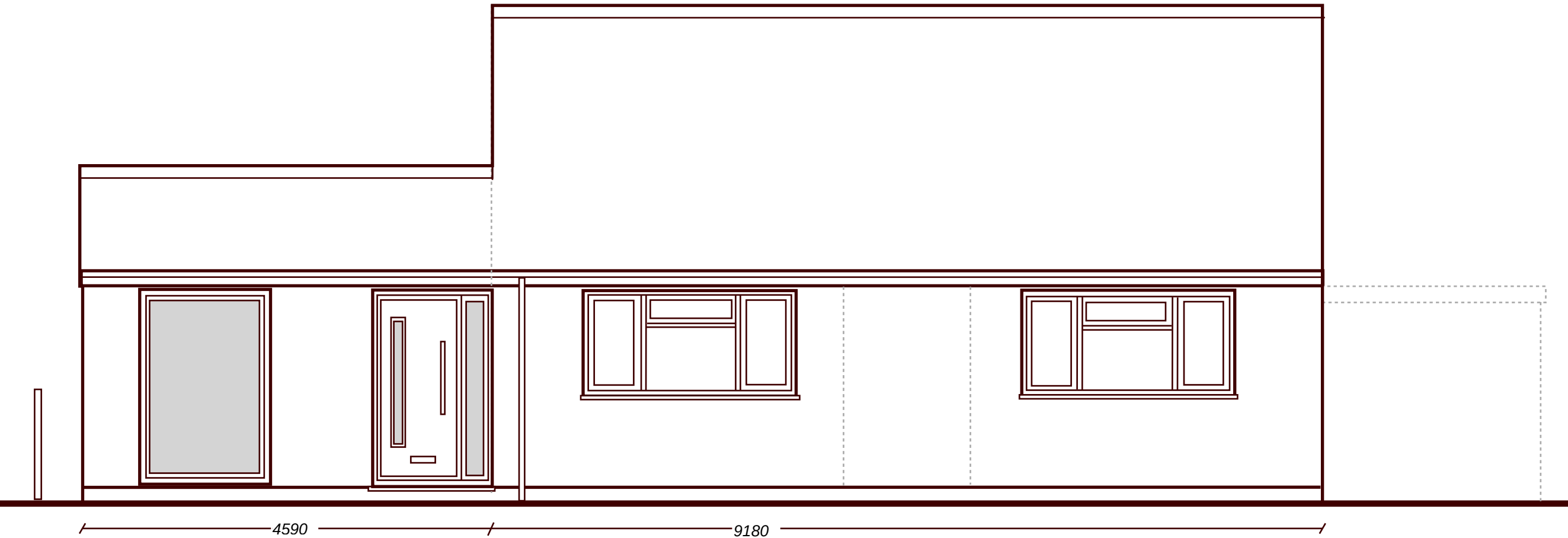


***Important Note:**
This drawing has been prepared for submission to the Inspecting Authorities for necessary Statutory Approvals. Nominated contractor to verify all dimensions either written or scaled together with drainage lines and inverts etc. prior to commencement of formal construction work on 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 any disturbance to existing structures to be made good to satisfaction of all parties.
This drawing is not to be reproduced without prior consent.



proposed floor layout plan



proposed front elevation

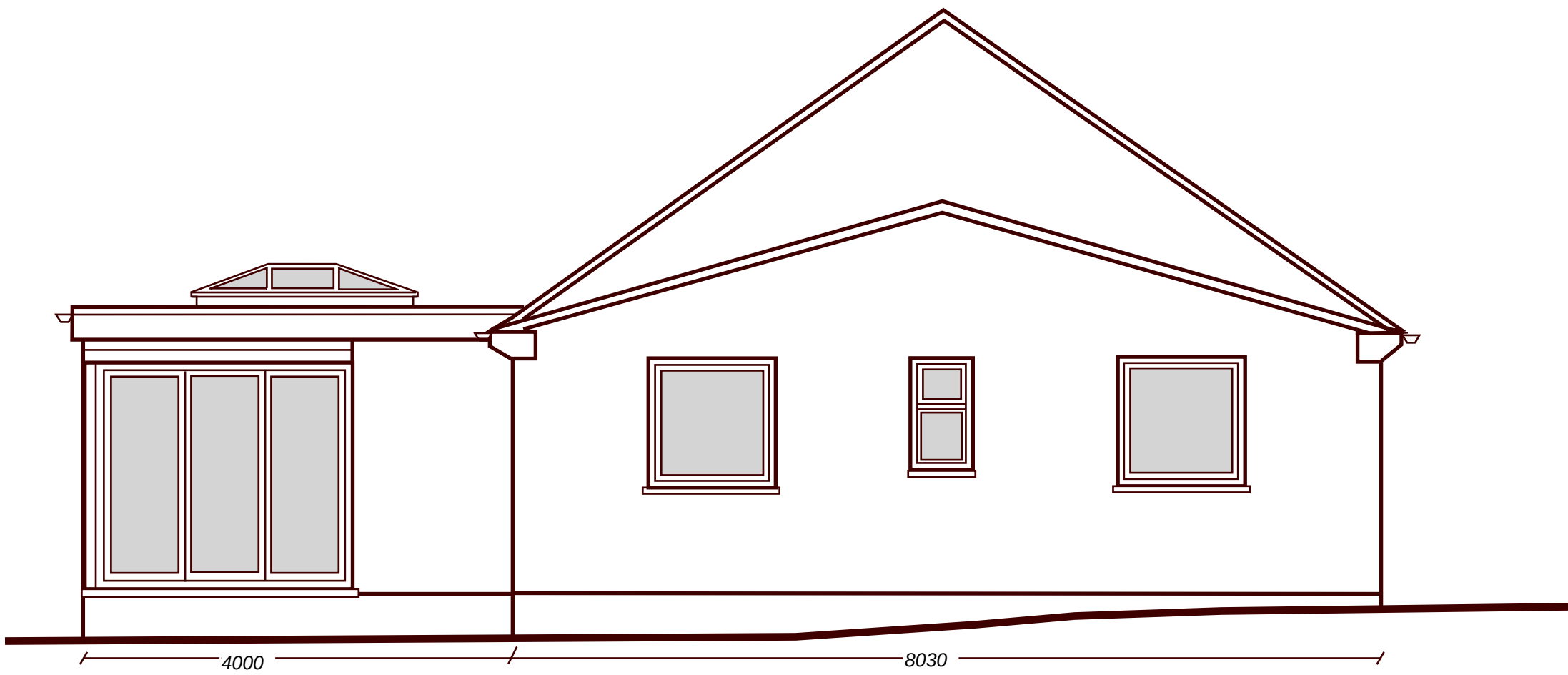
Proposed Extension and Alterations at:
Common Winds, Caverswall Common Lane, Caverswall ST11 9EY

Scale 1-50 (A1) - proposed layout Dwg ref CW2d September 2021 (revised)

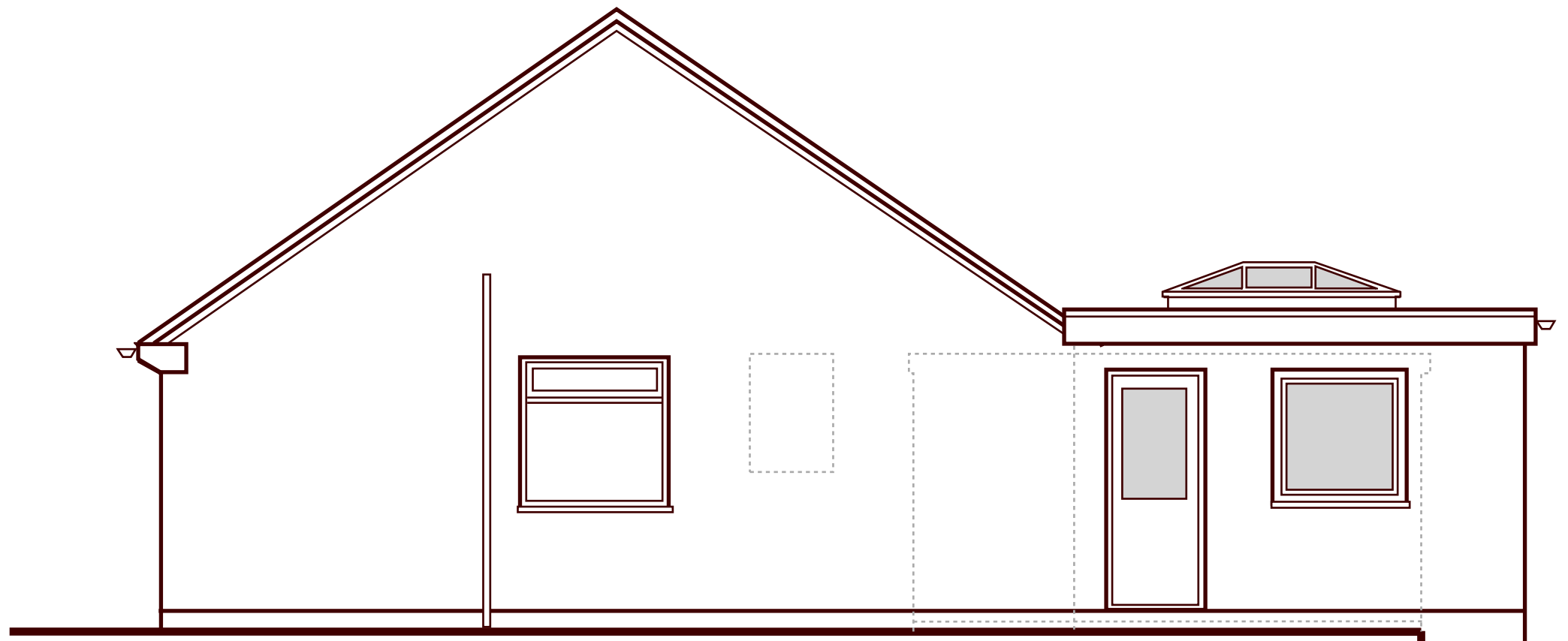
Geoff Rouane C.Build.E, MCABE, MRICS.
Chartered Building Surveyor
Tel 07946517767
Email: geoffrouane@btinternet.com



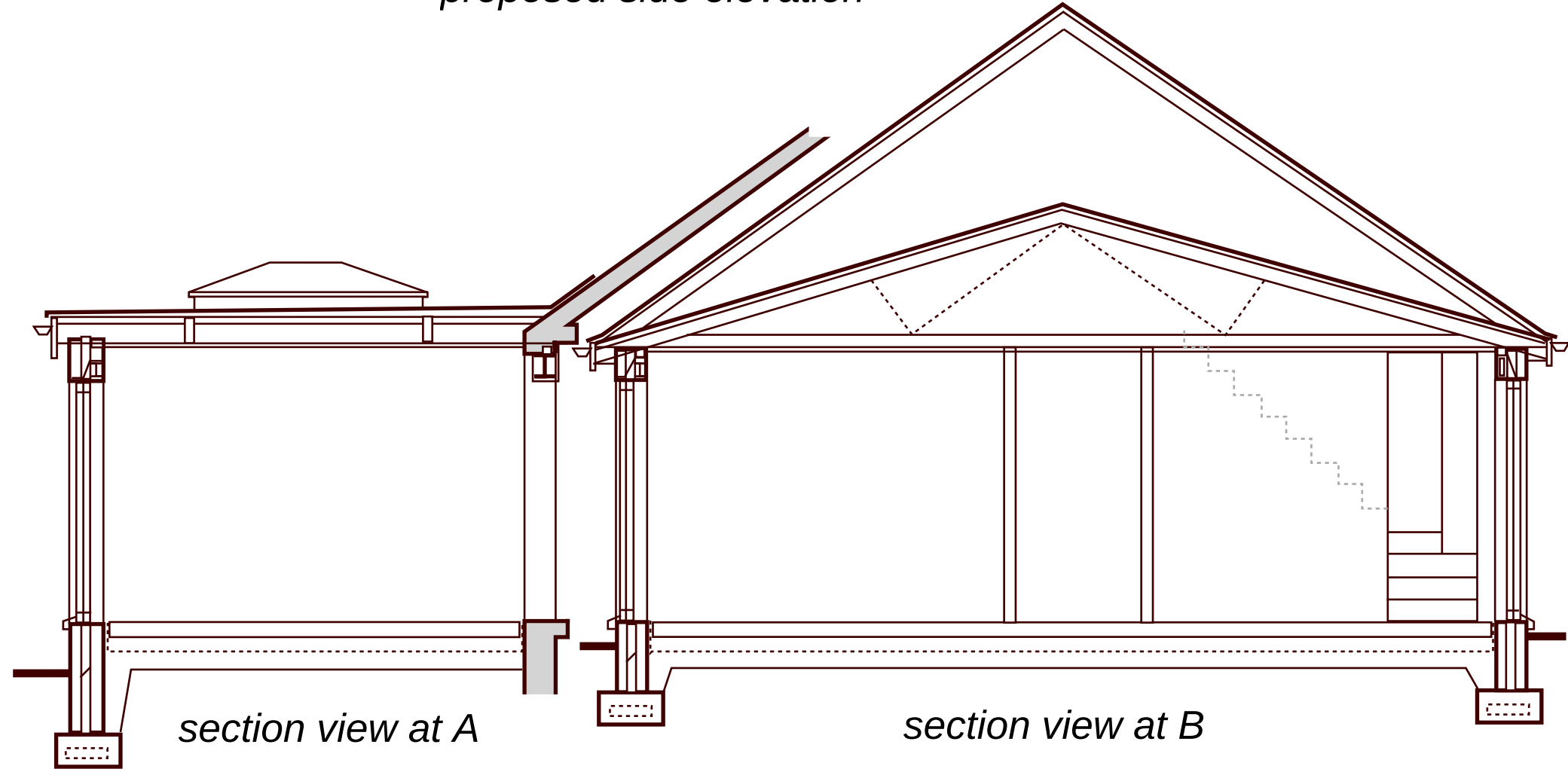
proposed rear elevation



proposed side elevation



proposed side elevation



section view at A

section view at B

***General Specification:**

***Preliminary Works:**
Examine existing drainage runs at site to assess falls and lines and verify new drainage layout.
Carefully demolish existing utility room and remove all rubble from site to an authorised and licensed tip facility.
Examine existing chimney structures to ensure that demolition will not compromise existing roof support etc. Check existing foundations to assess ground bearing conditions etc. and assess soil type to verify new foundation type.

***Walls (External):**
Selected waterproofed render finish to match existing on 100mm load bearing concrete block (engineering quality brick work up to dpc), min 100mm cavity enclosing Driftherm 32 insulation fill to manufacturer specification and internal leaf of approved 100mm load bearing thermal block work 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 set at 5 per m² and at each block course at opening joints.
Install Thermabate or similar insulated cavity closures at all opening jambs.

***Side Extension Roof:**
Concrete single lap profiled tiles to match existing suitable for approx 16 degrees pitch fixed in place in accord with manufacturer specification and BS5534 on treated battens on approved breathable membrane over prefabricated trussed 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 1000mm 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.
Horizontal Ceilings to have 100mm rock wool between joists and a further 200mm thickness laid across joists.
Note: This or similar construction to achieve max 0.16 w/m² k U-Value.

***Rear Extension Flat Roof:**
Approved AA rated single ply membrane by specialist contractor on min 18mm ext ply deck over Celotex TD4000 (126mm) or similar approved insulation and composite deck incorporating vapour control layer and bonded 5mm deck ply face. Ensure all joints are tight with vapour sealant to manufacturer spec. Secure T1 4000 with helical fixings to correct spec. and lay to fall 1:60 across 195 x47mm sw C16 joists at 400mm max centres. Form aperture to receive lantern frames with double joist trimmer arrangement as specified on structural design sheet.

***This or similar construction to achieve max 0.18 w/m² k U-Value**
Joists to be secured at wall bearings on heavy duty galvanised ms joist hangers with min 90mm bearing and to manufacturer specification and to complete satisfaction of Inspecting Authority Surveyor.
Note: install built up fascia shown in pvc cladding.

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

***Ground Floor Slab:**
Extension floor slab to comprise 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 (70mm) or similar approved insulation board turned up in 25mm thickness at floor perimeter to avoid cold bridge. Lay further dpm over well bladed 150mm min compacted natural stone sulphate free hardcore.
Note: - allow for underfloor heating to floor slab if required by client.
*U-Value max 0.22 w/m² k

***Foundation Detail:**
Subject to prior exposure of existing house foundation lay 600x300mm deep concrete strip foundations to new walls at depth to to suit site conditions and to satisfactory bearing strata to approval of inspecting authority. Reinforce throughout with 2 no layers BS03 steel mesh.
***New foundation to create no surcharge on drainage lines at any point.**
All works to be carried out with full agreement of client and Inspecting Authority Surveyor and any disturbance to existing structures to be made good to satisfaction of all parties.

***Drainage:**
Lay new 100mm pvc drains on granular bed at min 1:40 falls including replacement inspection chamber at rear to connect to existing system on site and new serving original bathroom shown.
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 or alternatively taken to approved garden soak away chamber sited clear of buildings and boundaries to satisfaction of the Inspecting Authority Surveyor including a preliminary ground assessment with a percolation test to assess ground strata.
New shower room wastes to discharge to 100mm stub stack fitted with Durgoo or similar air admittance valve positioned above flood level of fittings to manufacturer specifications. Shower waste to discharge to 100mm accessible running trap with branch to new drain from wc.
Internal waste plumbing to satisfy BS5572 with 75mm deep seal traps as required and installed throughout to full satisfaction of inspecting authority surveyor.

***Fenestration:**
Install high performance double glazed aluminium or upvc window units to match existing style using Pilkington Low E 'K' glasses and min 25mm cavity - max 1.60 w/m² k U-Value. Sliding bi fold units at rear by specialist supplier - see structural design sheets for support beam over etc.
Install high performance velux type roof light over new lounge area to client requirements and to manufacturer spec. with double trimmer rebbers etc. as required. (U-Value 1.2 w/m² k).
*Escape Windows: 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.

***Ventilation:**
Natural ventilation from opening casements plus install mechanical extract fan to new shower room set to achieve min 15 litres/sec extract rate.
Also install mechanical extract fan to kitchen area set to achieve min 60 litres/sec extract rate (30 litres/sec if over cooker hood) and provide mech vent to utility (30 litres/sec).

***Heating:**
All boiler alterations and flue discharge criteria plus any extended space heating to be to the full requirements of a suitably qualified heating engineer and assessment of existing heating system plus compliant with current Part J Building Regulations. Install thermostatic control valves as necessary throughout.

***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.
*Install sockets to extension area to requirements of client and provide co-axial and satellite ports as 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.

***Structural Works:**
Check roof support arrangement to ensure assumed loadings in steel work calculations to Beams A and B are verified.
*Install steel beams 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 - 1no 203 x 133 x 25 UB (bolted angle cleat connection to Beam B)
Beam C - 1no 203 x 203 x 74 UC (bolted angle cleat connection to Beam A)
Beam D - 1no 152 x 89 x 16 UB (+260x6mm steel plate welded to bottom flange)
Column E - 60 x 60 x 8 HF SHS S355 (6-40kgm)
Beam F - 1no 152 x 89 x 16 UB (+260x6mm steel plate welded to bottom flange)
Beam G - 1no 152 x 89 x 16 UB (+260x6mm steel plate welded to bottom flange)
Beam H - 1no 203x102 x 23 UB
Beam J - 1no 152 x 89 x 16 UB

***Note:** Contractor to assess bearing capacity of existing retained masonry to receive ends of new Beams and if necessary rebuild in bonded 7N/mm² engineering quality concrete brick/block to required bearing capacity beneath spreader pad stones to full satisfaction of inspecting authority.

***Note:** - install catnic or similar combined steel lintels over new windows elsewhere.