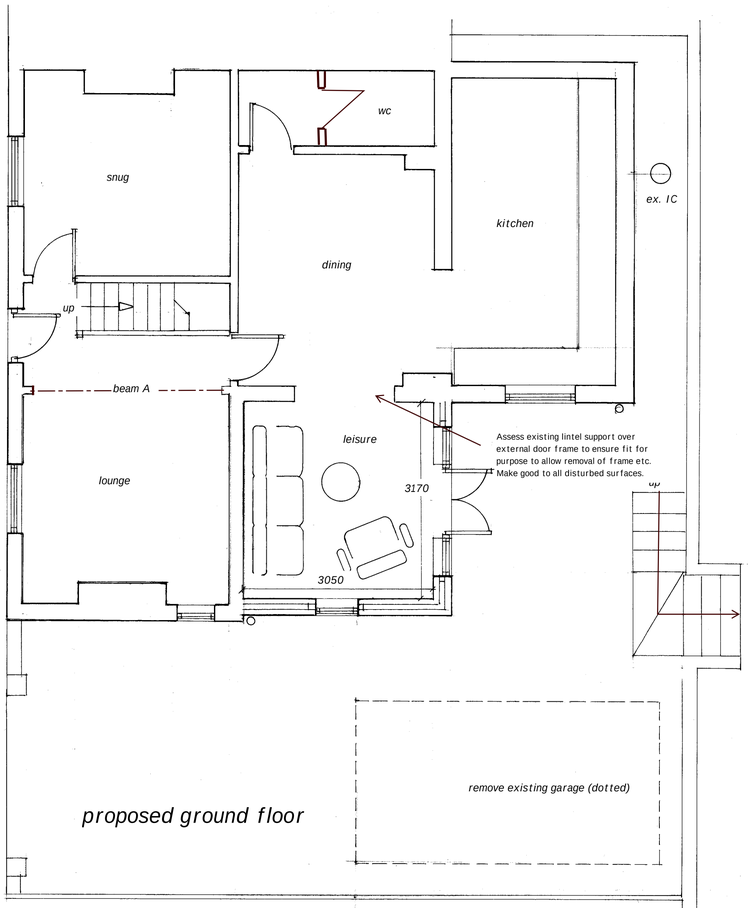
Proposed Two Storey Extension at 98 Godley Lane, Dilhorne, Staffs.

Scales 1:50 + 1:100 *dwg ref GL1b April 2016*

**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. All works to be carried out with full agreement of adjoining neighbours and any disturbance to boundary line to be made good to satisfaction of all parties.*

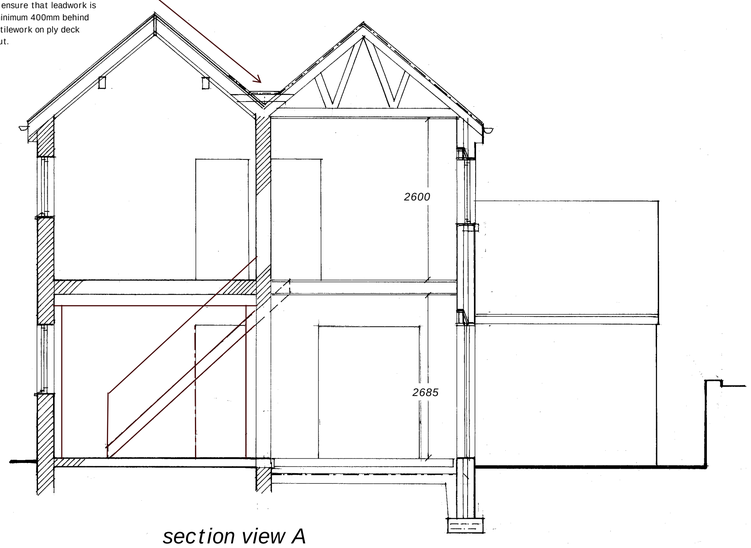


proposed ground floor

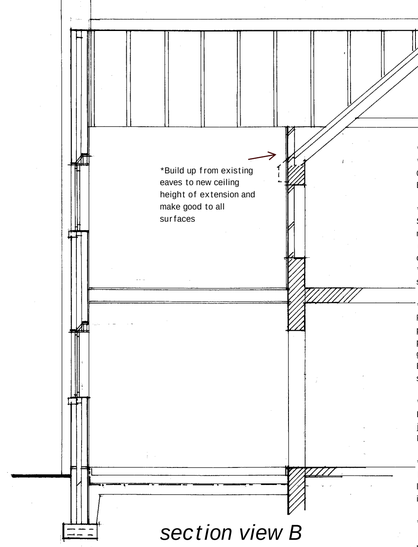
side elevation

rear elevation

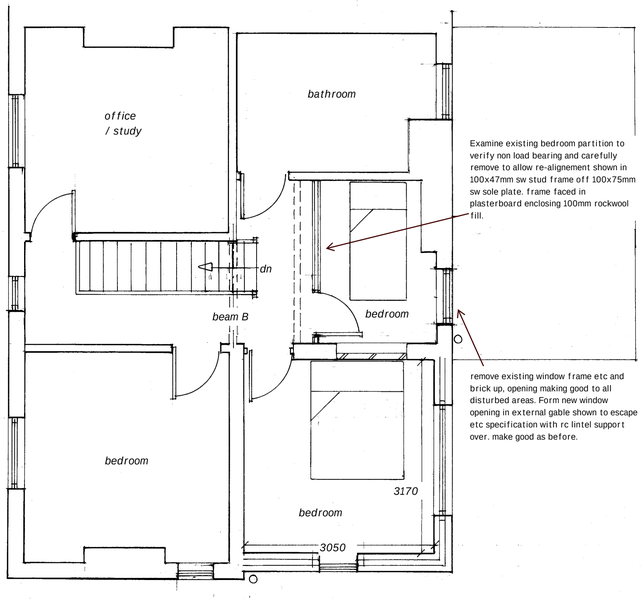
**Form valley gutter at junction of new roof and existing rafters viz: Code 5 lead laid across 21mm external quality ply laid to fall 1:60 across treated sw cradles to outlet hopper. * ensure that leadwork is carried minimum 400mm behind adjacent tilework on ply deck throughout.*



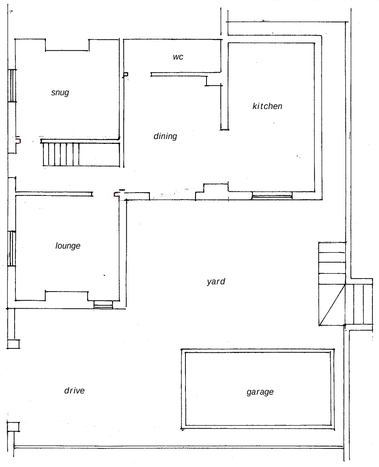
section view A

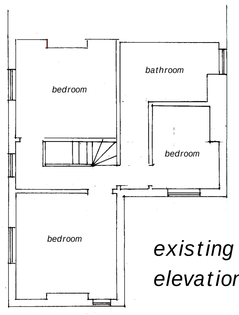


section view B

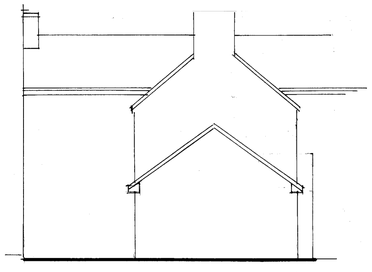


proposed first floor





existing layout and elevations 1:100



***New Stair**
Carefully remove existing flight and winders and install new floor trimmer as required to allow installation of standard sw flight with equal risers (max 210mm) and equal treads to ensure max 42 degrees pitch. Handrail set at 900mm to pitch line and maintain minimum 2000mm headroom throughout.
Form new opening at first floor to span landing and new stair supported by new steel beam (Beam B) as indicated.

*** Structural Works**
Carefully needle and prop existing superstructure as necessary to allow formation of new structural openings shown subject to inspection and approval of inspecting authority.
* Install steel beams on reinforced concrete pad stones 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
Beam A - 203x133x25kg UB
Beam B - 152x89x16kg UB

Rainwater
To disharge to existing gullies where practical otherwise new trapped accessible gullies connected to existing system or create new garden soakaway chambers to satisfaction of inspecting authority.

***General Specification**
***Preliminary Works**
Carefully demolish existing sectional garage and remove all rubble from site to approved tip facility.
Expose existing drain as necessary to assess drain lines and potential impact on extension footprint.

***Walls (External):**
Selected brickwork finish to match existing, min 100mm cavity enclosing Dritherm 32 insulation fill to manufacturer specification and internal leaf of 100mm load bearing thermal blockwork
(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.

***Roof (two storey)**
Plain double lap tiles to match existing 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 2000mm 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.

***Roof Insulation:**
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/m2k U-Value.

***Foundation Detail:**
lay new 600mm wide trench filled concrete strip to abut adjacent foundations reinforced with 2 no layers B503 steel fabric at depth to suitable bearing strata and also carried to agreed depth with inspecting authority.

***Lintels**
Install Catnic or similar combined steel lintels over new openings with minimum 150mm end bearings to manufacturer spec. *Note ensure heavy duty beam over folding doors is capable of supporting the door track loadings if required. - contractor to confirm with supplier otherwise use UB option (Beam C).

***Floor - Ground**
Floor finish to client requirement on min 60mm screed or power float finish to 100mm concrete slab reinforced with A142 fabric mesh) on 1200g dpm over Celotex GA 4000 (70mm) insulation board (habitable areas) turned up in 25mm thickness at floor perimeter to dpc to avoid cold bridge. Lay further dpm linked to dpc over well blinded natural stone, sulphate free hardcore compacted in maximum 150mm layers.
This or similar construction to achieve max 0.22 w/m2K U value - P/A ratio = 0.7.

***Floor - First:**
21mm t&g boarding across 170x47mm sw C16 joists at max 400mm 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 Rockwool between joists. *Note any notching of floor joists for services to be minimal and compliant with BS5268 part 2-1991.

***Fenestration:**
Install high performance double glazed upvc units to match existing style using Pilkington Low E 'k' glass and min 25mm cavity – max 1.60 w/m2 k U-Value.
Install recon. stone cills to match existing .
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
* 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.

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