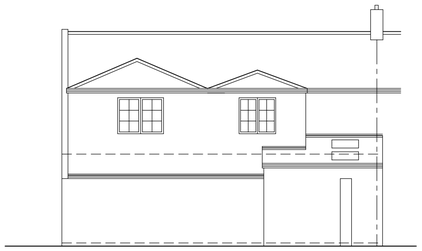
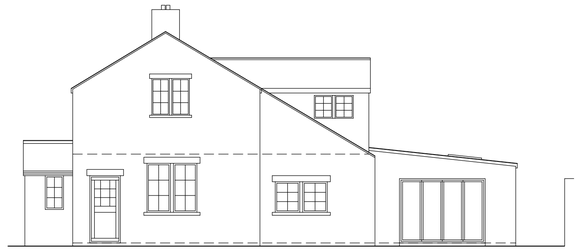
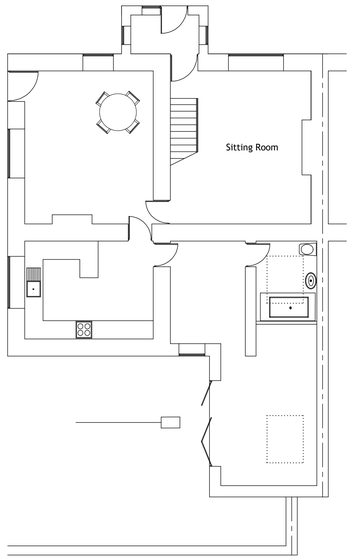


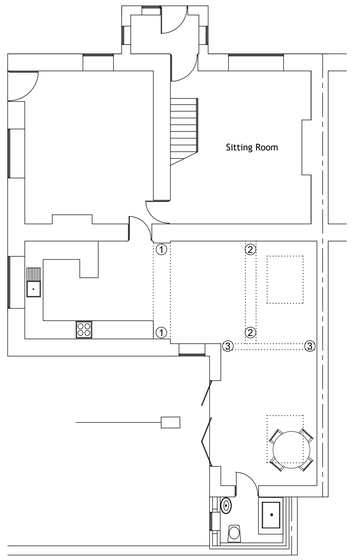
Existing Rear Elevation



Existing Side Elevation



Existing Ground Floor



Proposed Ground Floor

ITEMS:
1: Beam: Beam 1
Span: 3.2 m.
Reactions (unfactored/factored): R1: 33.55/53.33 kN R2: 33.55/53.33 kN
Use 3No 152 x 152 x 37 UC S355
Bearing R1: 464 x 100 mm padstone
Bearing R2: As R1
Sections to be bolted together with tube spacers or suitable alternative connection at max 0.6m c/s
2: Beam: Beam 2
Span: 3.2 m.
Reactions (unfactored/factored): R1: 16.32/25.94 kN R2: 16.32/25.94 kN
Use 203 x 203 x 46 UC S355
Bearing R1: 204 x 100 mm padstone
Bearing R2: Not specified
3: Beam: Beam 3
Span: 3.15 m.
Reactions (unfactored/factored): R1: 25.03/39.90 kN R2: 11.99/19.03 kN
Use 203 x 203 x 46 UC S355
Bearing R1: 250 x 100 mm padstone
Bearing R2: 300 x 100 mm padstone
4: End plate connection
Beam [Item 2]: 203x203x46 UC connects to web of beam [Item 3]: 203x203x46 UC
Unfactored/factored load carried by connection = 16.32/25.94 kN
Use 150mm long 8mm S275 end plate with 2 pairs of M20 bolts at 70 c/s
Connection capacity: 99.3 kN O

WALLS-
100mm Sandstone outer leaf with 75mm cavity timber innerleaf wall built off 150 x 50mm wall plate use timber frame construction 11mm OSB board or similar and DPC on outer face with 50mm thick capping layer with 150 x 50mm struts @600c/cs. Use 100mm thick Kingspan K12 between posts fixed within fixed in accordance to manufacturer's instructions and 12.5mm lightweight plaster (U value 0.18w/m2odeg. C).
Cavity fill to terminate 225mm below lowest dpc.
100mm 'cavity closures' at all openings.
Blocks to be laid in stretcher bond in 1:1:6 cement mortar.
Patent cavity trays to be inserted above flashings at all abutments and above openings.
Stainless steel vertical twist type wall ties to DD140, every 750 horizontally and 450 vertically and staggered. Vertical centres of ties to be 225mm at all jambs.
Brickwork to be tied to existing and all cavities to be maintained.
Cavity closed at top of wall with slate or similar non-combustible material.
Horizontal dpc 150 minimum above ground level and provide Bituthene tanking lapped into the dpc.
All materials below ground level. Are to be frost resistant. Fill cavity to ground level with weak mix.

GROUND FLOOR
As plan.

PARTITION WALLS
Use 100 x 50mm timber struts at 600 c/cs built of 100mm x 50 mm wall plate. For partition walls in bedrooms use 50mm mineral wool to provide sound proofing.

FOUNDATIONS-
700mm x 225mm deep strip foundation 900mm below ground level incorporating C385 reinforced mesh. Foundations at boundary walls to be trench fill type 450mm thick. BS8004:2015.

DRAINS
100mm dia. upvc drains surrounded in pea gravel (150mm). All gullies to be back inlet types and roddable.
All drains running under building to be encased in 150mm concrete with 12mm flexcell joints @ 1500mm ccs.
Foundations to be stepped below drains with reinforced concrete lintels over to support bwk.
Drain trenches within 1m of foundation to be backfilled with concrete up to underside of foundation.
Manholes to be built in 225mm 2nd class engineering bwk on 150mm thick concrete base.
Provide medium covers to all manholes.

ABOVE GROUND DRAINAGE-
100m dia. Upvc half-round gutters and 100mm dia. rwps.
38mm dia. waste pipes and 75mm deep seal traps to all sanitary appliances when connected to 100mm dia. upvc svp.

WINDOWS-
Double-glazed timber windows with 4/16/4 glazed units with PILKINGTON K glass with 20mm air gap.
(Low-E En=0.15)-U value=1.4W/m2 degC- ventilation openings equal to 1/20th floor areas, + 8000mm2 background ventilation to comply with PAS 24.

MECHANICAL EXTRACT-
Provide mechanical extracts direct to open air in the following rooms:-
- **Bathrooms** 15 Litres/sec
- **Bathrooms without windows** 15 Litres/sec. The extract fan is to be connected to the light switch and have a 30 min overrun, provide 10mm gap under door for ventilation.
- **Wcs separate from bathroom** 6 Litres/sec
- **Kitchens** 30 Litres/sec adjacent to the hob or 60 Litres/sec elsewhere.
- **Utility room** 30 Litres/sec

Where the sanitary accommodation is internal provide a 10mm gap under door for ventilation.

LINTELS-
Lintels are to be Catnic CG07/100 or similar unless stated on plan. Lintels are to have 150mm end bearing and be rendered to give ½ hour fire resistance. All lintels to external walls are to be insulated and have the ends closed with dpc.

SAFTEY GLAZING-
All glazing in critical areas to be laminated or toughened in accordance with BS 6206.
Manifestation to be provided where appropriate.

ELECTRICALS-
13 amp ring main and lighting circuit to comply with latest edition of IEE regulations. Number and position of sockets to Client's instructions. 'All new electrical work is to be designed, installed, inspected and tested in accordance with BS 7671:2001 or an equivalent standard. These installation works are to be undertaken by a person registered with an electrical self certification scheme, or alternatively by a suitably qualified person, with a certificate of compliance produced by that person to Building Control upon completion of the works'.

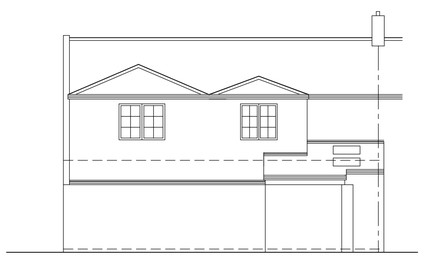
SERVICES-
Note existing boiler to be checked by GAS SAFE registered installer to assess capability for additional radiators to the new rooms. Provide thermostatic radiator valves.

MEANS OF ESCAPE-
DWELLINGS: Provide mains-operated self-contained smoke detectors to BS 5446: PART1. The alarms may be wholly mains operated with a secondary power supply such as batteries.
All smoke alarms to be interlinked and permanently wired to a separately fused circuit on the distribution board.
INNER ROOMS-to have escape windows with unobstructed openable area that is at least 0.33m2 and at least 450 high and 450 wide at 800mm min. and 1100mm max from the floor.

GENERAL-
All electrical work is to conform to BS 7671:2018 and current IEE Regulations. Sockets and light fittings to be the client's choice and design please refer to guidance stipulated in section 4.24 of A.D. L1B section 12 & table 40 of Domestic Building Serves Compliance Guide 2010 edition.
Sockets and light switches are to be positioned between 450mm and 1200mm from finished floor level.
Before any construction commences the adjoining owners consent must be obtained for any work on the boundary.
Architraves and skirting to match existing
Internal and external doors are to be client's choice and design.
Insulate all heating and hot water pipes under the floor.
Any new radiators are to be fitted with thermostatic radiator valves to control room temperature.
Refuse collection to be maintained
Provide mains operated interlinked smoke detectors to BS 5446:2000 PART: 1, on all floors, within 3m of a bedroom and 7.5m to any other rooms. The detectors are to be wired to a separately fused circuit and distribution board. The detectors are to be ceiling mounted at least 300mm from walls and light fittings. Units designed for wall mounting may be used if they are fixed above the level of all doors and are fixed in accordance with the manufacturers instructions. The sensors in predominately flat ceilings are to be between 25 and 600mm below the ceiling, (25-150mm in the case of heat detectors) sensors should not be fitted to heaters or air conditioning outlets.
The existing foundations, walls and lintels are to be checked for suitability before work commences.
All structural timbers to be tanalised.

NOTE-
These plans have been prepared for the purposes of ensuring compliance with the requirements of the Building Regulations and Planning legislation and should not be used as working drawings.
All work to comply with the Building Regulations 2010 and associated legislation.
All dimensions and levels to be checked by Contractor on site.
Any variations or discrepancies to be reported to the designer.
All work on common boundaries to be carried out with the written permission of the adjoining owner.
PARTY WALL etc ACT 1996:- It is the responsibility of the owner to serve satisfactory notice on any adjoining owner affected by these proposals. An advisory booklet is available from DOE Publications, Blackhorse Road, London, SE99 6TT.

COMPLIANCE WITH CONSTRUCTION-
There are no particular processes or construction methods that produce unusual risks to health and safety during construction or in subsequent maintenance works. All usual precautions are to be taken to protect the workforce and the building occupants.
All materials and products are to be used in accordance with the manufactures instructions, British Standards, Codes of Practice and good building practice.
Where the works are subject to Local Authority interest, say by way of a grant, the contractor is to make himself aware of any requirements.
The contractor is to inform the Health and Safety Executive should any of the works falls within their interest.
The contractor is advised to visit the site so as to become thoroughly acquainted with the scope and extent of works, to satisfy themselves as to accessibility of the site and to make their own risk assessment of the project.
Arrangements to visit the site must be made through the client.



Proposed Rear Elevation

Proposed Side Elevation

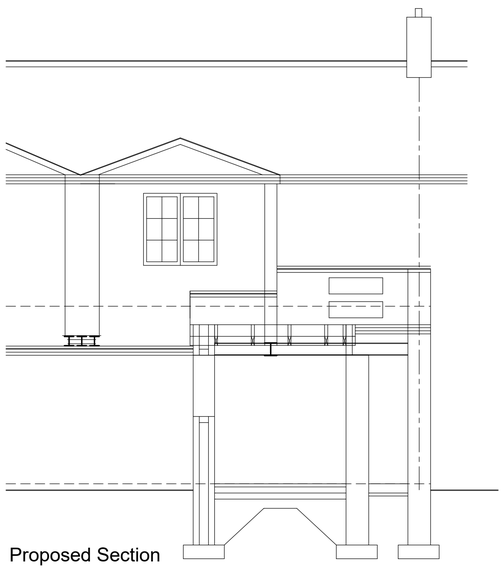
Flat Roof:-
Use Fibreglass finish to newly formed flat roof on 110mm thick Kingspan TR26 LP/FM warm roof on vapour layer fixed to 18mm plywood on joists 47 x 145 mm @ 600c/cs grade SC4 with 100x0 mm firrings 12.5mm plasterboard and skim. Use 50mm thick Kingspan capping layer to underside of joists.

Cavity Tray system linked to lead code 4 flashings

Use Catnic Lintels CG090/100 to all openings.

Use Cavity trays where appropriate and cavity closures to all openings.

Floor :- 50mm of sand cement screed on 100mm thick concrete on 110mm thick GA4000 Celotex insulation on grade 1200 damp proof membrane on sand blinding on 225mm thick concrete pad foundation. 25mm of perimeter insulation to be used around the concrete floor to prevent cold bridging. Cavity insulation is to extend 150mm below level of floor insulation to protect against cold bridging. Cavity fill is to stop a minimum of 225mm below lowest DPC level.



Proposed Section

Scale bar
0m 1m 2m 3m 4m

Proposed Internal Alterations and Single Storey Rear Extension at No.42 Painshawfield Rd, Stocksfield.

Plans Showing Existing and Proposed Floor Layout's, Elevation's and Section.

Scale 1:100 & Section 1:50 Feb : 2024