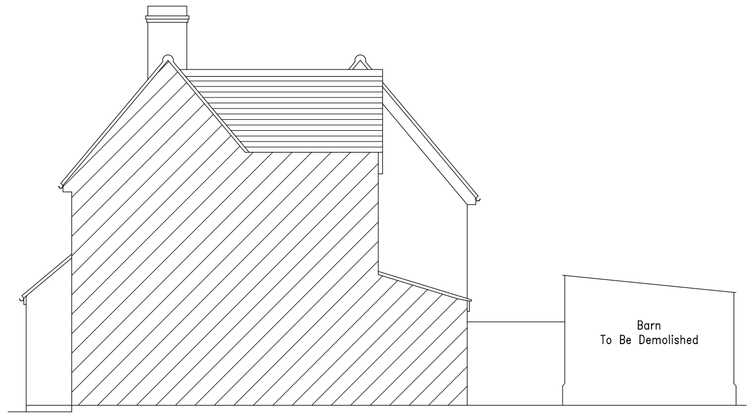


Existing Side Elevation

Scale 1 : 100



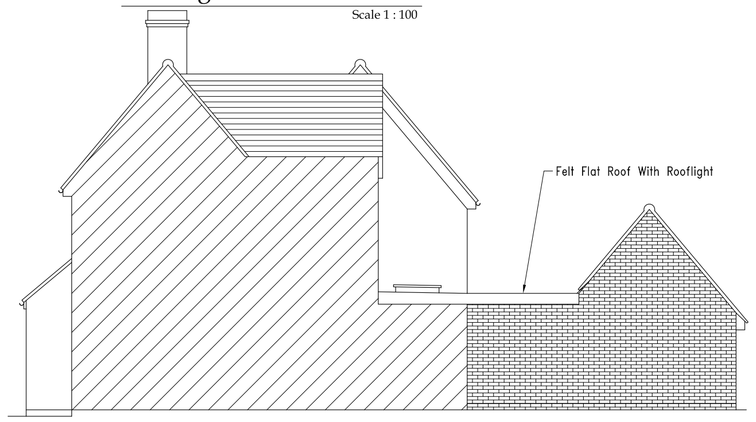
Existing Rear Elevation

Scale 1 : 100



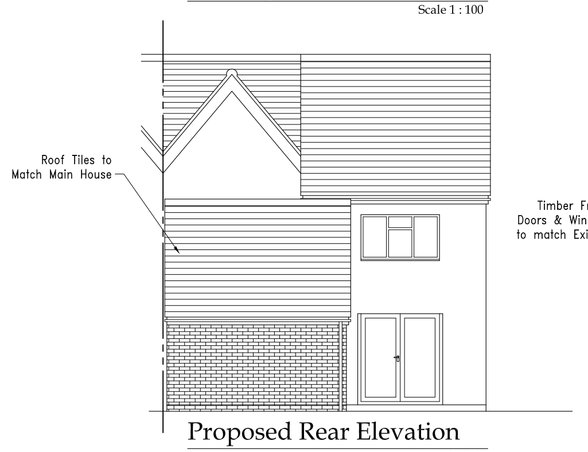
Existing Side Elevation

Scale 1 : 100



Proposed Side Elevation

Scale 1 : 100



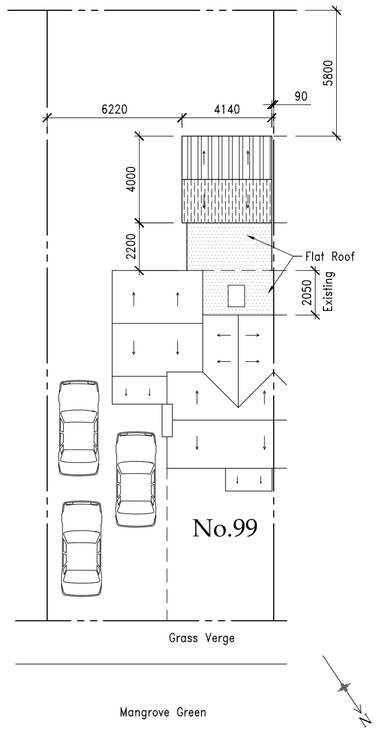
Proposed Rear Elevation

Scale 1 : 100



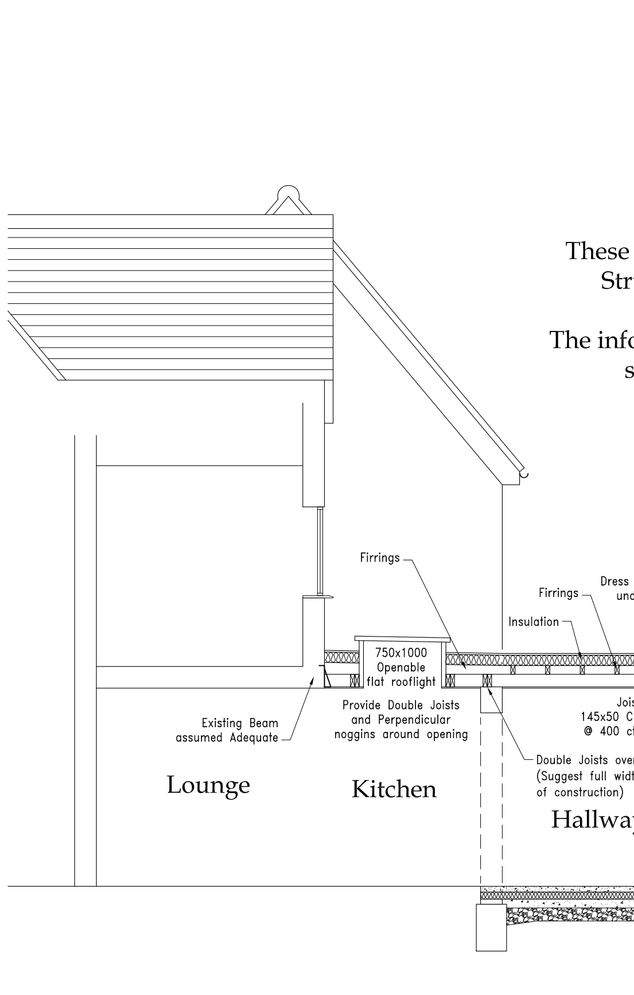
Proposed Side Elevation

Scale 1 : 100



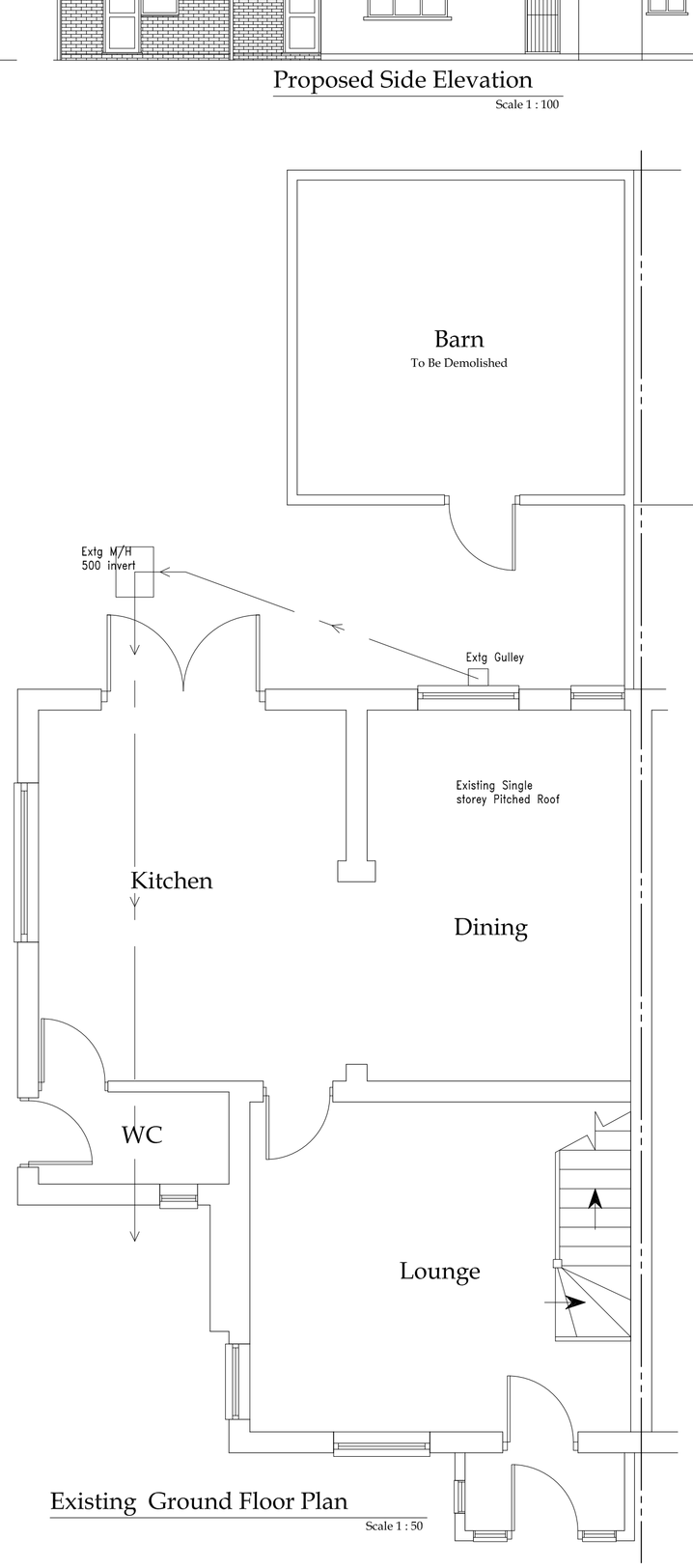
Proposed Block Plan

Scale 1 : 200



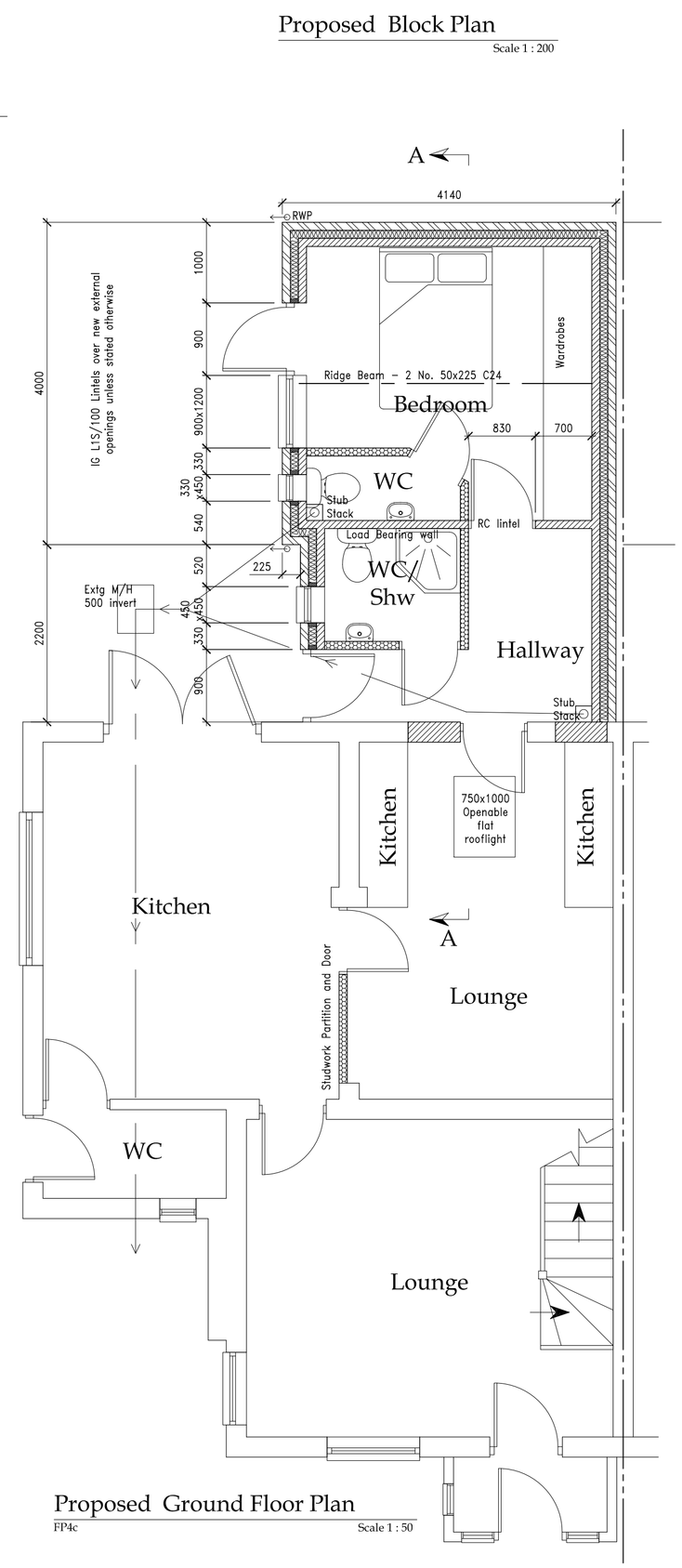
Section A-A

Scale 1 : 50



Existing Ground Floor Plan

Scale 1 : 50



Proposed Ground Floor Plan

FP4c

Scale 1 : 50

SPECIFICATION

Building Contractor to check all dimensions prior to commencement, Any changes, omissions or discrepancies to be reported immediately, Construction details to comply with Robust Details as published by D.T.L.R.

Demolition of existing Barn: –
Care to be taken to ensure integrity of neighbours barn, suitable reinforcement implemented if required.
Any hazardous waste to be assessed and removed by licenced competent person(s)

Existing Structure & Foundations: –
Expose & check with Local Authority suitability for additional loading, underpin / extend as required,

New foundations of 450 x 1000m deep in C20p Concrete. There were no trees nearby to affect foundation design. a trial hole must be dug and foundation depths based on soil type must be agreed with local authority inspector.
Foundations must be to full depth of any adjacent drain invert, drains to be surrounded with pea shingle & have bridging lintels inserted over

Drainage: –
Demolish existing Gully, and construct a Stub stack(s) fitted with Air admittance Valve, above flood line.
Connect to existing Pipework below ground using 100 dia uPVC laid to 1 : 40 fall (max) with a 100mm pea shingle bed & surround, any drains with less than 600mm cover are to have concrete paving slabs laid as a bridge above pipes, with min 75mm granular fill between. any minor changes in direction to be with long radius bends.

Floor Construction: – To achieve 0.22 W/m²K
65mm min. sand/cement screed with wire mesh reinforcing, to bring level with existing, on 1200g polythene vapour barrier directly over 80mm Celotex GA3000z insulation board, lay 20mm Celotex vertically at perimeter to screed level on 100mm C20P concrete, 1200g polythene d.p.m turned up at edges & linked to d.p.c. on sand blinding & 150mm min well compacted hardcore.

Wall Construction: – To achieve 0.28 W/m²K
Outer leaf of 102mm face brick to match existing, Inner leaf of 100mm Toplite Standard blocks (or similar with a value of at least 0.20 W/m²K),
Above decorative brick course, both courses of Blocks, rendered and painted.
100mm Cavity, concrete filled to within 225 below dpc. Remainder of cavity
fully filled with Rockwool Cavity insulation batts (insulation to be at least 150 below top of floor insulation) Stainless steel wall ties, 225 min length (Ancon Stafix or similar) to be @ 750 horizontal and 450 vertical centres (300 at reveals). Fit Proprietary Cavity Closers to reveals.
Blockwork supporting beams/lintels to be 7N/mm² min.
Provide Cavity tray with weep holes over lintels.
Internal walls to be shielded with a 13mm two coat plaster finish.

Steel Beams to be encased with 19mm Gypsum plasterboard with wire binding at 100mm pitch & skimmed with 7mm plaster coat, or be Brush Painted with intumescent paint, to achieve 30 min fire resistance.

Partitions: –
Studwork 75x50 C16 @ 400 ctrs raised off a 75x50 sole plate.
lined with 12.5mm P/bd Foil backed in wet areas.
Fill void with mineral wool (10 Kg/m³ min) to provide combined acoustic insulation of 15 Kg/m³

Roof Construction: –
Note: all timber specifications are taken from TRADA span tables,
Tiles suitable for 15° pitch on 50x25 treated softwood battens, on one layer Tyvek Supra (or similar),
Draped over rafters, which are birdsmouthed & truss clipped over 50x100 C16 wall plate.
Wallplates strapped to walls @ 1200 ctrs
Install proprietary Eaves Carrier to protect breathable felt from UV light.

Sloping Ceilings; fit 100mm Celotex GA3100 between rafters. & PL3040 board (40+12 p/bd) under rafters. in order to achieve 0.18W/m²K (Continue insulation vertically where differing ceilings join to establish contiguous insulation.
Flat Roof; (warm deck): – To achieve 0.18 W/m²K
13mm granite chippings hot bonded in bitumen on three layers polyester based roofing felt laid in accordance with manufacturer's instructions,
Over Celotex TD4126 (insulated Decking) over Vapour control layer turned up at edge & lapped with waterproofing layer, all laid on firings to create a fall of 1:40 min
Joists supported on restraint type Joist hangers

Lateral Resraint provided by 30x5 Galvanised steel restraint straps @ 2m max ctrs, anchored vertically to walls & rafter,
Ceiling finished with 12.5mm foil backed P/bd
Facias to be 25mm uPVC. Soffits to be 10mm uPVC with 10mm continuous air gap & fitted with an insect grill. all to match existing.

Rainwater Disposal: –
Ø100mm gutters & 70mm downpipes to match existing.
Provide a new soakaway, designed in accordance with BRE digest 365. of at least 2 cubic metres, below invert & filled with clean hardcore 5M min from building. Served by Ø100mm uPVC drains laid to fall 1 : 40 min with pea shingle bed & surround. Note: Local inspector may require that this is provided at the front of the site.
Alternatively connect to existing surface water system if acceptable to Water Company.

Windows & Doors: –
To achieve a U value of 1.6 W/m²K
All new windows to match existing in appearance. Timber Framed, double glazed with low E glass En 0.5 with a 20mm air gap, frames to incorporate trickle vents of 5,000sq.mm (equivalent area) to Habitable rooms
Glazing in doors, side panels & other critical locations to be safety glass as defined in BS6206: 1981.
Rear of Window frame to overlap cavity closer by 30mm, apply sealant to front & rear of frames. (see Robust construction details).
All openings to be measured prior to manufacture of windows.

Glazing allowance,
Existing glazing lost = 1.94m²
New Floor area = 20.5m² x 25% =5.25m² Total glazing allowable = 7.19m²
Proposed New Glazing = 5.96m²

Ventilation/extraction : –
Mechanically ventilated, & ducted to external air, fan to have an extract rates as follows.
WC = 15L/sec
Kitchen = 60L/sec or 30L sec if via extractor hood.
All new internal doors to have 7600mm² air gap (10mm clear gap over floor covering).

Plumbing: –
New above ground waste = 38 dia uPVC pipe via S'traps. Combined wastes = 50 dia uPVC pipe.
Any waste runs in excess of 4m to be fitted with a 50mm air admittance valve and be permanently accessible.

all work to BS5572 & CP301. W/C's to have rear outlet P'trap, to connect to Extg system as shown using 100 dia uPVC pipe min fall 1:40. Provide accessible rodding points at any change in direction (all pipes)

Electrical: –
All electrical work to comply with Part P (Electrical Safety) & carried out by qualified individual Registered under Self-competent scheme. Work to be available for inspection as required by local Authority.
Installation certificate BS7671 to be provided.
Electricity meter to be relocated to a suitable external wall

Lighting: –
75% of all new light fittings to fitted with bulbs of at least 45 lumens per circuit-Watt,

Smoke Detection: –
Provide a self contained mains powered inter connected smoke alarms, with battery back up, at Bedroom & Hallway, and a heat detector in the Kitchen area, min 300mm from any light fittings or walls, alarms to be permanently wired to a separately fused circuit at the distribution board. Wiring to be to IEE wiring regulations.

Space Heating: –
Additional new radiators to be fitted with individual Thermostatic valves. System to be professionally commissioned & proved to be adequate & is working at maximum efficiency. Proper operational instruction to owners must be provided.

General: –
Particular care to prevent air leakage, Seal all service penetrations with expanding foam or suitable sealant, for large voids mineral wool or other material may be used to provide backing for the sealant.

CDM 2015
AAC Design, have taken all reasonable steps to ensure the design on these plans and materials or products specified are as safe as can be expected for all concerned.
Once plans are issued to the client, AAC Design no longer has any on-going responsibilities regarding the construction methods and procedures adopted
AAC Design Do Not agree to be either the Ongoing Principal Designer, nor the Principle Contractor.
The Client Must appoint a Principal designer or contractor in writing, who will be responsible for all aspects of CDM compliance and health and safety of all involved.

Scale's 1:50 1:100

partner LABC

AAC Design

House Extension Design Specialists

Title:	Proposed Single Storey Rear Annexe Following Demolition of existing Barn		
Property:	99 Mangrove Green, Cockernhoe, Herts, LU2 8QE		
Client:	Mr & Mrs Childs	Drawing size	A1
Scale's:	1:50 1:100	Date: March 2018	Drawing No. 0642 / Rev A
3rd ANGLE		Sheet: 1 of 1	

Important: These Plans are designed for use by competent construction contractors that are familiar with current Building Regulations And Who are capable of making alternative decisions should the need arise.