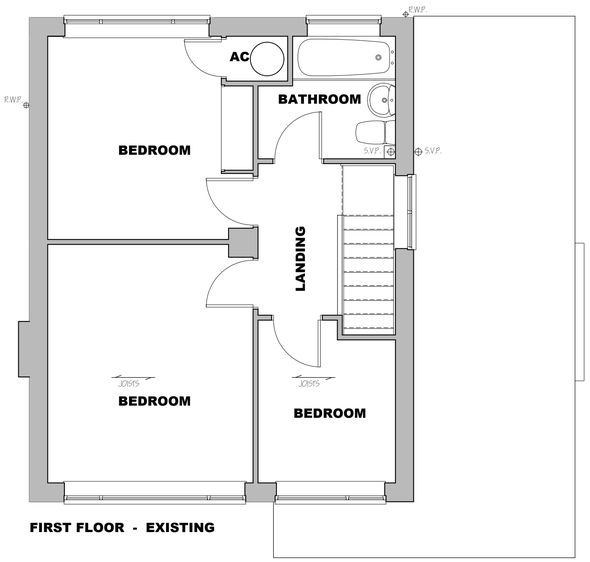
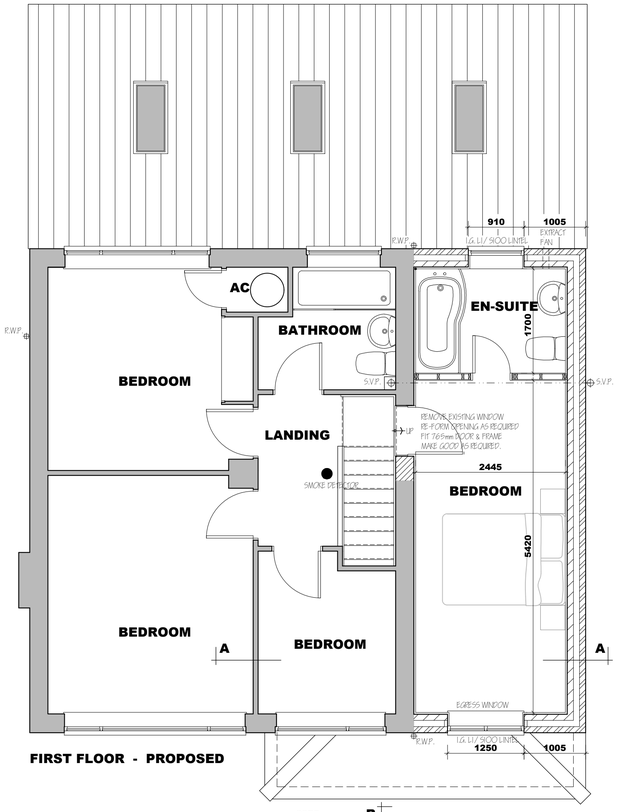
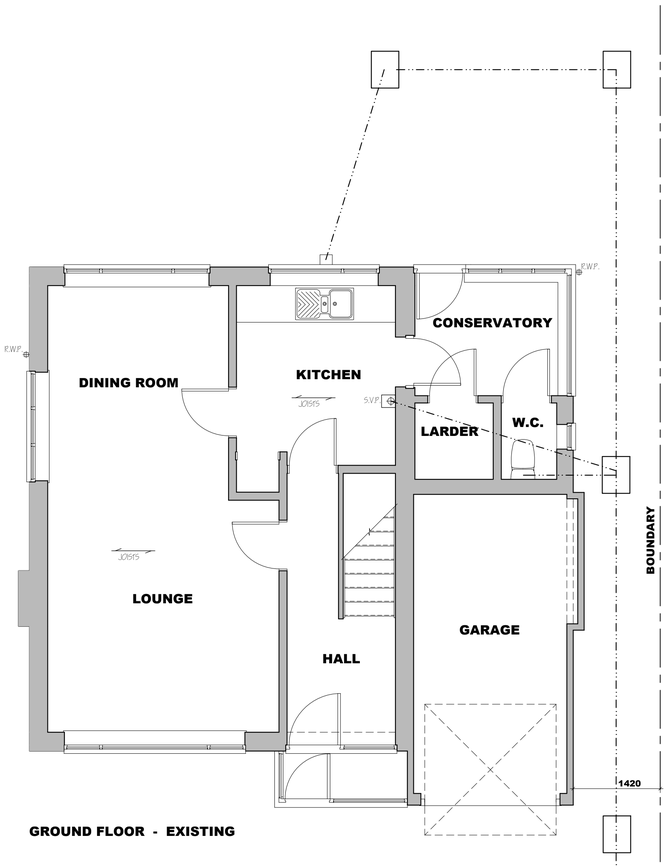


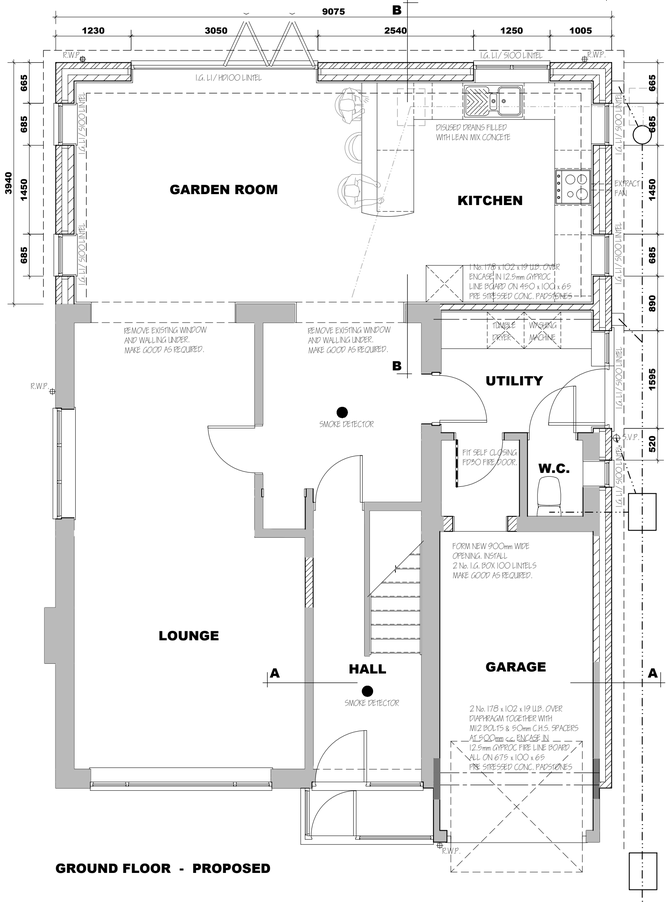
FIRST FLOOR - EXISTING



FIRST FLOOR - PROPOSED



GROUND FLOOR - EXISTING



GROUND FLOOR - PROPOSED

FIRST FLOOR CONSTRUCTION
22mm T&G. Flooring grade chipboard on 47 x 200 SC5 grade joists stamped 'DRY' or 'KD' to indicate moisture content of 20% or less all in accordance with BS. 4978, at 400c/ c. 30 x 2.5 galvanised. steel anchor and lateral restraint straps to joist at max. 1.5m c/ c straps to he run over min. 3No. joists with solid bridging beneath: Provide herring bone strutting min. 38 x 38 at mid span of joists where span exceeds 2.5m: Provide 2No. joists bolted toagether under all first-floor walls where not supported on block work below. 100mm Isowool Acoustic slab infill between joists
All joists where built into external wall to receive mastic seal all round.

CEILINGS / INSULATION. (EXISTING & PROPOSED)
Roof Level: Flat ceilings lay 400mm total thickness of Knauf Earthwool Loft Roll 40 glass mineral wool insulation. 100mm between joists & 300mm (2 layers 150mm) over Joists
15mm Gyproc wallboard with skim finish.
'U' value of 0.10 W/ m K.

FOUNDATIONS.
Under cavity walls as shown provide 225 x 700 strip concrete foundations as follows: all C20 mix to B.S. 5328: pt1 1991.
All foundations taken down to bear on load bearing strata min. depth of 450mm below ground level to top of foundations: should shrinkable soil conditions be found on site then foundations shall be taken down to a minimum depth of 1000mm below ground level.
In all cases foundations are to be designed in accordance with N.H.B.C. Foundation Practice Guidance Notes where localised trees and shrubs are present.

SUB STRUCTURE WALLING.
100mm dense concrete blocks to B.S. 6073 pt.1 1981: DPC to external wall positioned in accordance with CP 102 min. 150 above finished ground level: Weak mix concrete infill to base of cavity no closer than 225 to DPC. All brickwork below DPC to be F.L. quality.

WALLING.
300mm cavity walling to consist of 20mm Sand/ Cement render to B.S. 5262: 100mm Plasmor Aglite Ultima 4.2 N/ mm2 (Thermal Conductivity 0.42W/ mK) solid insulation blocks 100mm cavity: Build into cavity 90mm 'Kingspan Kooltherm K106' (Thermal Conductivity 0.019W/ mK) insulation boarding in accord with makers instructions and Agrement Cert. No 94/ 3080.
Maintain 10mm clear cavity. 100mm 'Plasmor Aglite Ultima' 4.2 N/ mm2 (Thermal Conductivity 0.42W/ mK) solid insulation blocks or similar: Cavity walls tied toagether using stainless steel vertical twist ties set 750 horizontally and 450 vertically all to B.S. EN 845 wall ties positioned at 300 vertical centres at all unbonded closures of cavity: Close cavities with ''Thermabate'' preformed closer and provide bitumen felt DPC to C.P. 121: All work to be carried out in accordance with BS Code of Practice 121 Pt.1. 1973. Internal walls of 100mm Plasmor Aglite Ultima 4.2 N/ mm2 (Thermal Conductivity 0.42W/ mK) solid insulation blocks.
Movement joints to be installed in blockwork in accordance with B.S. 5628 pt. 3 1985.
All External Walls to receive 12mm Plasterboard on plaster dabs
'U' value 0.18 W/ m2K.
Stud walls to consist of 38 x 89 C.L.S. timber studs at 600mm c/ c, both sides to be clad with 12.5mm Gyproc SoundBloc and skim. 25mm Isowool Acoustic partition roll infill between studs.

FOUL DRAINAGE
Foul drainage pipes to be 110mm dia. UPVC, to B.S. 4660:1989 flexibly jointed and laid to makers' instructions to a fall of 1:80 bed and surround with 100mm pea gravel: Where pipes pass under floors encase in 150mm pea gravel: Where pipes pass under drives surround in 150mm concrete with flexel joints to correspond with joints in pipe work. Provide 65 x 100 pre-stressed concrete lintel bridging where pipes pass through walls, provide compressible filler around pipe, opening marked both sides of wall with ridged sheet material: Soil and vent pipes to be 110mm dia. PVC to B.S. 4514: 1969 and to extend 900mm above window head terminating with PVC balloon. Waste pipes to be generally 40mm dia. If over 3.0m long run increase to 50mm dia. All PVC to B.S. 5255: 1979 complete with rodding eyes at every change of direction: Bath, basins and sink to have 75 deep seal traps: Shower to be raised on 150mm plinth with access plate to anti-syphon trap and 50mm waste. All redundant drains to be grubbed out or filled with lean-mix concrete. Condensation drainage from boiler flues to discharge via min. 22mm diameter pipe work through a 75mm condensation trap. Alternatively an additional trap should be provided externally to provide the required seal, an air gap should be provided between the boiler and the trap.

SURFACE WATER DRAINAGE.
112mm dia. half round rainwater gutters to 68mm dia. rainwater pipes: 110mm dia. underground pipes flexibly joined to a fall of 1:80 pipes bedded and surrounded in pea gravel and discharge to 1.2m dia. soak away min. 9.0m to edge from dwelling.

MAIN PITCHED ROOF CONSTRUCTION.
Concrete interlocking tiles to BS EN 490-2011. Laid in accordance with B.S 5534:2014 on 25 x 38 softwood treated battens on tyvek® supro BBA certificate: 08/ 4948 or similar over rafter unsupported breather membrane fitted in full accordance with manufacturers instructions in all cases to be lapped by 150mm vertically and 300mm horizontally. Tiles to be laid with min. head lap of 75mm and to be fixed in accordance with reqaird to wind speed, roof pitch and exposure catecgory as detailed in B. S 6399, Pt 2. Twinaplate specialist made prefabricated roof trusses to comply with B.S. 5268 part 3 1988. TRUSS CALCS TO BE SUBMITTED TO L/ A. MIN. 28 DAYS PRIOR TO ERECTION.
Trusses to be at 600c/ c to a pitch to match Existing. 38 x 100 ridge rode binder 38 x 100 ceiling binders: All trusses to be strapped to wall plate by 30 x 2.5 galvanised metal straps acting as anchor and lateral restraint straps at max. 1.5m c/ c. provide solid bridging beneath straps: 47 x 100 wall plate bedded on sand and cement: 25 x 175 fascia boards: 6mm ext. grade plywood soffit complete with 10mm wide continuous air gap and fly proof screen: All structural timber to be min.SC3 grade. stamped 'DRY' or 'KD' to indicate moisture content of 20% or less all in accordance with BS. 4978. Where span of trussed rafter exceeds 5.0m provide additional bracing within the plane of the webb in accordance with Truss Plate Assoc. tech. bulletin sheet 4: At new roof intersection provide 25 x 100 lay boards and diminishing trusses at 600 c/ c.

REAR EXTENSION PITCHED ROOF CONSTRUCTION.
'Forticrete Certurion' Low Pitch Concrete interlocking tiles .
Laid in accord with manufacturers instructions on 25 x 38 softwood treated battens on tyvek® supro BBA certificate: 08/ 4948 or similar over rafter unsupported breather membrane fitted in full accordance with manufacturers instructions in all cases to be lapped minimum 300mm in all directions.
Loose rafters 47 x 175 SC5 grade timbers at 400mm c.c.
To be strapped to wall plate with 30 x 2.5 galvanised metal straps acting as anchor and lateral restraint straps at max. 1.2m c/ c.

VENTILATION.
All windows to have opening lights that open to
30 degrees or more and to provide the equivalent of 1/ 20th the floor area of each room. Should opening lights be to less than 30 degrees provide the equivalent of 1/ 10th the floor area of each room. Background ventilation to windows to provide a minimum total of 60,000 mm. sq. permanent free air ventilation per dwelling. Based upon a minimum of 5,000 mm. sq per habitable room and 2,500 mm. sq per kitchen, utility room, bathroom, en-suite, wet room and cloak room.
The following rooms to have in addition to the above wall mounted mechanical extractor fan (Specific Fan Power (SFP) to be no worse than 0.5W.l/ s) Recommended extract rates:
Kitchen min. 60 litres per second.
Utility rooms min. 30 litres per second.
Bathroom/ En-suite min. 15 litres per second, which may be operated intermittently and to have a 15 minute over-run.
W.C. min. 6 litres per second with 15 minute over-run.
Electrical Engineer to provide L/ A. Building Control with a suitable Commissioning Certificate upon completion.
Flow rate test results to be deposited with L A Building Control no more that 5 days after final test.

GLAZING.
Double glaze extension throughout with p.v.c.u windows BFRC rating in BAND C or better.
All windows and doors to have min. 'U' value of 1.4 W/ m2K or better. i.e. 'Saint-Gebain Glass UK Ltd PLANITHERM TOTAL +' with 16mm air gap.
All glazing between F.F.L. and 800mm high and between F.F.L. and 1500mm high in doors and side lights to be safety glass to B.S. 6206. All windows/ doors to be draught sealed.

SPACE HEATING.
Upgrade and extend existing heating system as required
The heating system should be controlled by time and temperature zone controls with compatible delayed start thermostat. Time and Temperature control is defined as either A. Separate plumbing circuits, either with their own programmer, or separate channels in the same programmer Or B. Programmable TRV's or communicating TRV's that are able to provide time and temperature function.
Hot water system to be thermostatically controlled with timer switch.
Hot Water Storage - 2501 HWSC declared loss, no greater than 1.67kWh/ 24hrs.
All hot water pipe work to be insulated to B.S. 5422:2001.
Heating flow rate temperature is to be between 36 - 45 Deg. C
Heating Engineer to provide L/ A. Building Control with a suitable Commissioning Certificate in accordance with that published as part of the Benchmark Code of Practice upon completion. And to confirm that the system has been designed and installed to the guidance of the BRE Trust report FB59
All un-vented hot water systems and packages to be fitted with a minimum of two independent safety devices, these shall be in addition to any thermostats provided on the system.

SMOKE / HEAT DETECTORS.
Provide ceiling mounted mains operated self-contained
Smoke Alarms to BS 5839-1:2013 in positions shown on plan.
Provide ceiling mounted mains operated self-contained
Rate of Rise Alarms to BS 54-9 Type 'R' in positions shown on plan.
Detectors should be sited a maximum 3.0m from any Bedroom door and 7.0m from any other door. And be sited a minimum of 300mm from any wall or light fitting.
Where more than one detector is to be provided, they will be interconnected. All permanently wired to a separate fused circuit at distribution board.

ELECTRICAL INSTALLATIONS.
All electrical work to meet the requirements of Approved Document Part P (Electrical Safety) and must be designed, installed, inspected and tested by a person competent to do so.
All electrical switches, socket outlets, telephone and T.V. points to habitable rooms to be positioned at appropriate heights between 450mm & 1200mm from F.F.L.
Electrical consumer units to be positioned so that switches are mounted between 1350mm & 1450mm above F.F.L.
Prior to completion of the works the Local Authority must be satisfied that either: -
An electrical installation certificate issued under a competent person's scheme has been issued.
OR
An appropriate installation certificate has been issued for the work and that it has been signed by a person competent to do so.

LIGHTING.
To all habitable rooms provide energy efficient light fittings capable only of taking lamps having a luminous efficacy greater than 45 lumens per circuit watt and a total output greater than 400 lamp lumens.
External lighting is to be fitted with Dawn-Dusk or movement sensors and capable only of taking lamps having a luminous efficacy greater than 45 lumens per circuit.
All lighting to be in accordance with the Domestic Building Services Compliance Guide.

WATER
Provision is to be made for wholesome water to be drawn off wherever drinking water is drawn off. Also, to any wash basin, bidet, fixed bath or shower in any room containing a sanitary convenience.
Water of suitable quality is to be provided to all sanitary fittings with flushing devices. Pressure, flow rate and reliability to be sufficient for operating all sanitary appliances.
Potable water is to be supplied by any statutory water undertaker or licensed water supplier.
Potential consumption of wholesome water is to be limited to be not more than 125 litres per person per day. Water efficiency calculations are to be submitted to L/ A Building Control not later than 5 days after work is completed.
Recommendations:

Bath	150 litre max capacity
Showers	Flow Rate 10 litre/ minute
Taps	Flow Rate 5 litres/ minute
W.C.	Dual flush Full 6litre Half 3 litre
Washing Machine	5.1 litre/ kg Dry Load
Dish Washer	0.9 litre/ place setting

Hot water supply to any fixed bath to be regulated to ensure maximum temperature of delivered water will not exceed 48 deg.C. by the use of an in-line blending valve or other appropriate

LIMITATIONS.
This drawing is limited in the amount of information contained and does not purport to contain a full specification of the works. It is solely for the purpose of obtaining Planning/Building Regulation approval.
The drawing must not be used for any other purpose than above.
All dimensions shall be taken from site from actual work. Under no circumstances shall measurements be scaled from this drawing for construction or ordering purposes.
All given dimensions shall be checked by the Builder/Contractor and will be his responsibility from commencement of site works.
The works will not be supervised or inspected on site by C.A.D. or any representative thereof. It is the client or their appointed agents responsibility to control workmanship, substitution of materials, adherence to specification, variations to contract etc. Also to ascertain sub-soil suitability prior to the construction of any foundations.

COPYRIGHT RESERVED.
Copies of this drawing must be made only with the written permission of Cooper Architectural Design.

STANDARDS.
All materials to be new unless otherwise stated and all components and materials etc. to be used fitted and installed etc. in strict accordance with manufacturers instruction and relevant Code of Practice.
Materials shall conform to appropriate British Standard Specification or BBA Certificate or European Code equivalent.

HEALTH & SAFETY.
The Employer/Client shall ensure that the selected contractor is conversant with and adopts all measures necessary to achieve compliance with Health & Safety legislation for Building Sites and Work Places.
The Employer /Client is advised that should the works need to comply with the Construction Design and Management Regulations on independent Planning Supervisor will be required.

SCOPE OF THE WORKS.
The works shall comprise of all that is shown on the drawing and details. Work that may not be specifically shown but may be reasonably inferred as necessary to carry out the works shall be deemed to be included.

LABC CONSTRUCTION DETAILS
Available at -
www.labc.co.uk/ registration-schemes/ constructiondetails

E1MCFF4	-	Lintel
E3MCFF4	-	Cill
E4MCFF4	-	Jamb
E5MCFF9	-	Beam & Block Floor
E5MCFF22	-	Floor Slab. Ins. Under
E6MCFF4	-	Intermediate Floor
E10MCFF4	-	Eave - Flat Ceiling
E11MCFF4	-	Eave - Sloped Ceiling
E12MCFF4	-	Gable - Pitched Roof
E16MCFF4	-	Corner - Full Fill
E17MCFF4	-	Inverted Corner - Full Fill
E18MCFF7	-	Party Wall - Ext. Wall Junction
P1PCFF2	-	Party Wall - Floor Junction
P4PMCFF2	-	Party Wall - Roof Junction

ROOM DIMENSIONS ARE INTERNAL OF WALL FINISHES

revision	date	init.	revision details.
Status	Planning		PRELIMINARY
	Building Regs.		

COOPER ARCHITECTURAL DESIGN
90 WINSOVER ROAD
SPALDING, LINC'S PE11 1HA
Tel: 01775 711174
Mobile : 07808 125 778
E-MAIL : c.a.d@btconnect.com

Client.
MR R BARRETT

Project.
PROPOSED EXTENSIONS
12 GREENFIELDS
HOLBEACH
LINCS
PE12 7BJ

Drawing.
EXISTING
FLOOR PLANS - ELEVATIONS

Scale 1:50 1:100 @A1	Drawing No. 2313-01
Date. OCT. `23	Drawn. JC