



Site plan 1:1250

17 **RAINWATER**
100mm dia. half round PVC guttering, to fall to 63mm dia. RWP, to 100mm dia SGW or Osma drain, on bed and haunch of 150mm pea shingle, to soakaway min 5m from nearest building. Soakaway to be min 1.2m dia by 1.2m deep (Or of size suitable for roof discharge) ALTERNATIVE USE SURFACE WATER SEWER IN GERALD ROAD TO SWA SPECN & AGREEMENT (A1)

18 **VENTILATION**
BATHROOMS, AND UTLILITY
◇ on plan denotes Greenwood Airvac Mechavent S90HT type, or similar, giving 3 air changes per hour, worked off light switches, with Humidistat with over-run timer. Bathroom/WC units to have min 15-litres/sec extraction rate. Utility cupboard with 30-litre/sec rate. Doors to rooms without windows to have min 10mm gap to base.

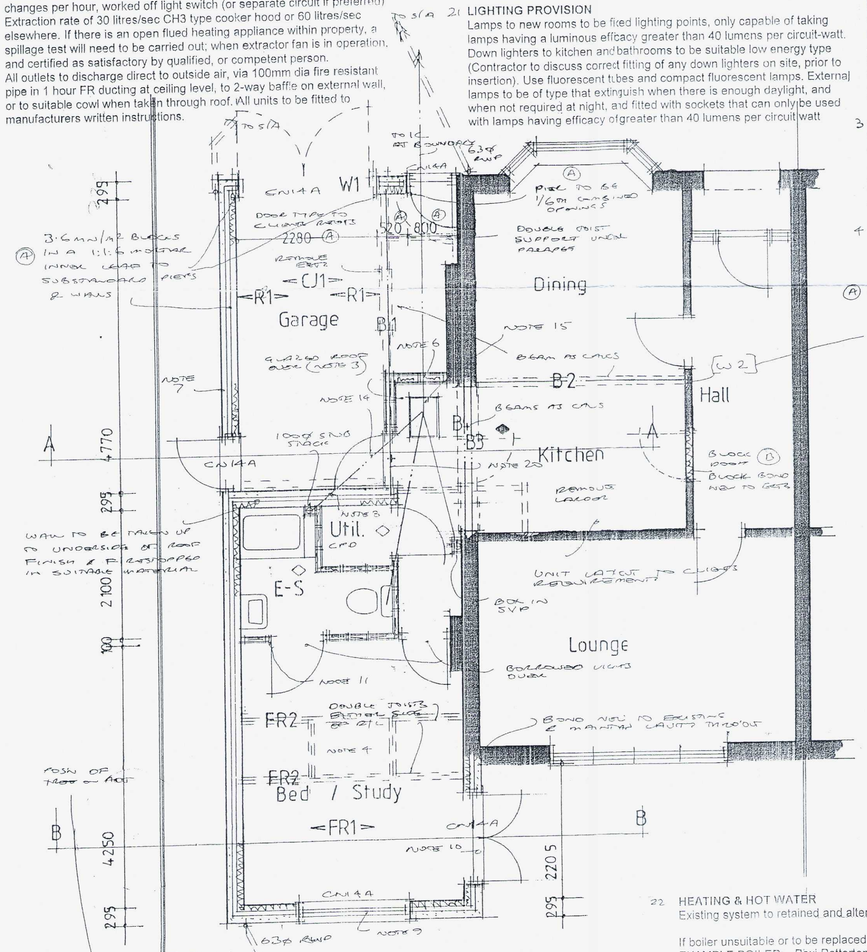
KITCHEN
◈ on plan denotes Greenwood Airvac SK200 type extractor, giving 3 air changes per hour, worked off light switch (or separate circuit if preferred) Extraction rate of 30 litres/sec CH3 type cooker hood or 60 litres/sec elsewhere. If there is an open flued heating appliance within property, a spillage test will need to be carried out; when extractor fan is in operation, and certified as satisfactory by qualified, or competent person.
All outlets to discharge direct to outside air, via 100mm dia fire resistant pipe in 1 hour FR ducting at ceiling level, to 2-way baffle on external wall, or to suitable cowl when taken through roof. All units to be fitted to manufacturers written instructions.

19 **FIRE DETECTION**
(SD) on plan denotes ceiling mounted, mains linked smoke detector, with battery backup to BS5446: Part I

(HD) on plan denotes ceiling mounted, mains linked heat detector, with battery backup as above
All detectors to be linked together.

20 **FIRE DOORS**
+ on plan denotes new half hour, fire resistant self closing door, closing onto 25mm solid or glued and screwed stops. Any glazing in same to be in Georgian wired glass, with pane sizes n/e 0.37m². Maintain min 100mm step up from garage into residential area, with step in suitable non-combustible material.

21 **LIGHTING PROVISION**
Lamps to new rooms to be fixed lighting points, only capable of taking lamps having a luminous efficacy greater than 40 lumens per circuit-watt. Down lighters to kitchen and bathrooms to be suitable low energy type (Contractor to discuss correct fitting of any down lighters on site, prior to insertion). Use fluorescent tubes and compact fluorescent lamps. External lamps to be of type that extinguish when there is enough daylight, and when not required at night, and fitted with sockets that can only be used with lamps having efficacy of greater than 40 lumens per circuit watt



Plan 1:50

R1	-	50 x 97 C16 Grade joists at 400mm centres
CJ1	-	50 x 147 C16 Grade joists at 400mm centres

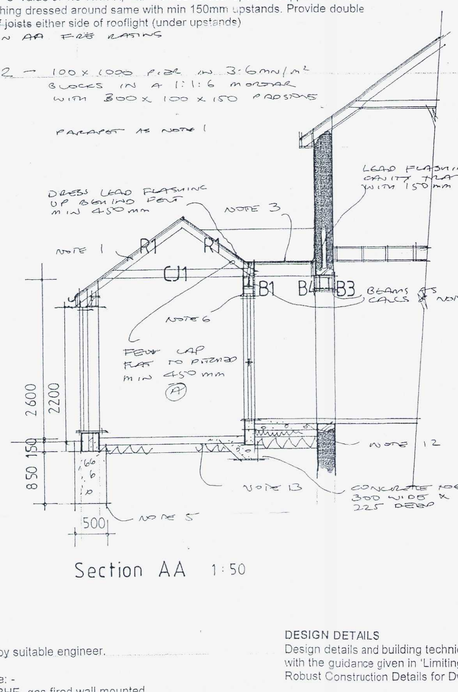
ALL THE ABOVE TO BE READ IN CONJUNCTION WITH ENGINEERS CALCULATIONS AND DETAILS AT ALL TIMES

1 **GARAGE ROOF**
New 'framed' rafters with bolted & spiked fixings at 400mm centres, with 50mm x 100mm rafters. 50mm x 100mm ceiling ties, 25mm x 150mm ridge board. All timbers to be stress graded to C16 grade unless stated otherwise, and roof to be strapped down with 30mm x 5mm m.s. galvanised metal straps at 2m centres. Provide straps at 1.2m centres tied back to rafters where in gable. Cover rafters with untearable felt type 1F, with min 150mm lap to joints. Fix 38mm x 25mm timber battens, and finish with roof tiles to match main house. Boarded or Celuka and fascia to match main house.

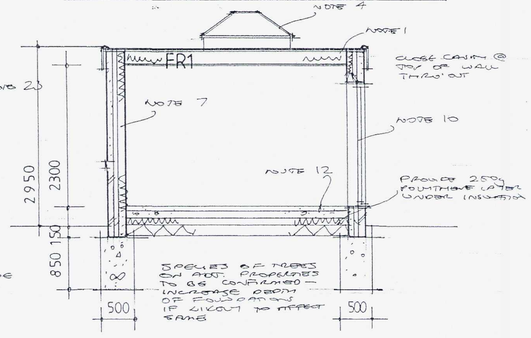
2 **FLAT ROOF**
13mm bitumen bedded chippings finish, on 3 layer glass fibre based felt to BS747, laid to CP144, on 19mm marine ply sheeting on 50mm x 50mm counter battens, on firring pieces, on 50mm x 170mm C16 grade roof joists, at 400mm centres. Insulate between joists with 90mm Celotex Tuff-R GA3090 insulation, and 80mm Celotex Tuff-R GA3080 insulation, cut to a tight fit between joists. Soffit and fascia in softwood or uPVC to match main roof. Provide equivalent to continuous 25mm wide vent in soffit, and (A) Andersen Dri-Vents or similar in flat roof for cross ventilation of same. Roof to be strapped down with 30mm x 5mm galvanised metal straps at 2m centres. Provide 250g polythene vapour barrier stapled to underside of roof joists. Ceiling below in 12.5mm plasterboard and set/Artex finish. 'U' value = 0.2 W/m²K.

3 **LINK ROOF TO KITCHEN**
Double glazed units, in patent glazing bars at 1200mm centres, borne on 63 x 125 plate bolted to existing wall with M12 bolts at 1200mm centres, and onto new wall. Lead flashing dressed up under new roof felt min 450mm. Provide lead flashing and cavity tray at abutment with existing wall, both with 150mm upstands U value of roof = 1.8 W/m²K. Fall to roof to match flat roof.

4 **ROOFLIGHT**
Double glazed pyramid type units, glazing to be as windows to provide min 'U' value of 1.8 W/m²K, with framed vertical upstand/support with lead flashing dressed around same with min 150mm upstands. Provide double roof joists either side of rooflight (under upstands)
(A) M.O. AS FIRE RATING



Section AA 1:50



BB 1:50

FOUNDATION DEPTH SUBJECT TO SOIL INVESTIGATION (A)

BEAM SCHEDULE (A)		
B1	-	203 x 102 x 23 UB Grade 43, min 100mm bearing onto engineering brick padstones
B2 (B)	-	203 x 133 x 30 UB Grade 43, min 100mm bearing onto 300 x 100 x 150mm thick mass concrete padstone and 2no M16 8.8 grade bolts to beam 3
B3	-	152 x 89 x 16 UB Grade 43, min 100mm bearing onto engineering brick padstone and 440 x 100 x 220mm thick mass concrete padstone onto sound masonry
FR1	-	50 x 170 C16 Grade joists at 400mm centres
FR2	-	2/47 x 170 C16 Grade joists spiked/bolted together

5 **FOUNDATIONS**
Walls to be built off min 450/500mm wide trench fill foundations, depth of which is to be agreed on site with Building Inspector dependant on site conditions as there are trees within 35m of proposal. (Confirm on site)
If depth exceeds 1.5m, line inside face of foundation with 25mm Claymaster board supported on 500mm deep toe on foundation. Ensure Claymaster is restrained to prevent uplift during concrete placement.

6 **EXTERNAL GRADE WALL WITHIN GARAGE**
Plaster finish within garage, on XPM lathing on breather type felt, on 12mm ply sheeting, nailed at 150mm centres, on 12mm Fireline board, on 50mm x 100mm timber studding at 400mm centres vertically and horizontally. Insulate between studding with 1 layer of 65mm thick Celotex tuff-R GA3065z insulation boards cut to a tight fit Line internally with 1 layer of 12mm thick Celotex T-Break TB30012 with joints taped to provide vapour barrier, and finish internally with 12.5mm Gyproc wallboard and with min 7mm setting coat plaster finish. Provides min 'U' value of 0.3 W/m²K. Wall up to DPM to be constructed in min 150mm blockwork off concrete oversite.

7 **EXTERNAL WALLS**
100mm facing brickwork plinth to match existing, rendered and colourwashed block above, (100mm Celcon block external leaf) with 95mm cavity, insulated with 45mm Celotex tuff-R GA3045 insulation boards held in place with insulation retaining type wall ties at 750mm centres horizontally, and 450mm vertically, with 100mm Celcon Solar or similar blockwork inner leaf, finished internally with 13mm lightweight plaster. Min 'U' = 0.3 W/m²K. Insulation can be omitted from garage walls. Bearing on all lintels min150mm each end, fitted to manufacturers details, with stop ends and cavity weep vents fitted. All cavities closed at windows and doors etc., with Thermabate or similar insulated cavity closers. Walls also closed at top throughout.
Class A concrete blocks to BS2028 and semi-engineering brickwork below ground level. Provide Astos or similar vertical and horizontal DPC's, horizontal set min 150mm above adjacent ground level. Walls to have min mass per unit area, including plaster, of 300 kg/m².

8 **DRAINS THROUGH WALLS**
If drains pass through new or existing walls, they are to be bedded in, joints formed within 150mm of wall face, with flexible joints each side, and with 600mm long rocker pipes each side of joint, Provide prestressed concrete lintels to all skins of walls. (Where space allows) If space limited, provide prestressed concrete lintel to all skins of wall, to retain min 50mm gap around pipe, and mask opening with rigid material, to prevent ingress of fill or vermin. Void around pipe is to be filled with compressed sealant to prevent entry of gas.

9 **WINDOWS (EXAMPLE TO SHOW COMPLIANCE)**
New windows to be white uPVC units, double-glazed in Pilkington Optifloat 4mm clear glass outer pane, 12mm cavity insulating unit between, (air filled cavity) and 4mm, Pilkington Optitherm glass inner pane. Provides 'U' value of 1.8 W/m²K Units to be fitted with 8000mm² trickle ventilators to habitable rooms, 4000mm² elsewhere. Any glazing within 800mm of floor level to be in toughened or laminated glass to BS6206. Where there is no door to external area, and to first floor bedrooms, one opening light per room to be min 450mm x 750mm for fire escape purposes in case of fire.

10 **EXTERNAL DOORS**
External doors to be glazed in toughened or laminated glass to BS6206, with any wingliight within 300mm ditto. Doors to be in white uPVC, double-glazed units, as windows (with min 12mm air gap between panes) to provide min 'U' value of 1.8 w/m²K.

11 **PARTITIONS**
50mm x 75mm timber studding at 400mm, centres vertically and horizontally, clad both sides in 2 layers of 12.5mm Gyproc Wallboard, or type suitable for site conditions, and finished with 7mm setting coat plaster. Where soundproofing required provide min 25mm of 10kg/m² fibreglass insulation between studs. Provides 1-hour fire resistance. Partitions to be built off double joists or cross noggins.

12 **GROUND FLOOR**
63mm sand/cement screed, reinforced with suitable grade wire-mesh, on 90mm thick Celotex GA3090 floor insulation boards, on 1200g-polythene Radon check barrier/DPM, linked to cavity tray. Seal all joints with waterproof type tape (to ensure gas tight construction) On 100mm concrete, reinforced with A142 mesh min 600mm wide over drain-runs under proposal, on 150mm hardcore. Max thickness of hardcore layers 225mm, with sand blinding between layers. *Omit Radon barrier etc if not required.*

13 **GARAGE FLOOR**
(A) 100mm concrete, on layers of suitable hardcore n/e 225mm thick. WITH A142 MESH AS NOTE 12 OVER DRAIN RUN

14 **FOUL WATER DRAINAGE**
100mm dia. SGW, with flexible joints, or OSMA drains, on bed and haunch of 150mm pea shingle, at 1: 40 gradient to discharge into new or existing IC's

15 **INSPECTION CHAMBER**
Within new extension to have double seal bolt down cover and frame, raised in brickwork to new floor level as required.

16 **PLUMBING TO BSEN 12056**
New sanitary fittings to have 75mm deep seal traps, to be resealing type if shower fitted, With 32mm dia wastes to basins, 38mm dia to Sinks, baths and showers. Wastes to be increased to 50mm dia when of excessive length, and with anti-syphon traps fitted. All wastes fixed to walls, and all with rodding access points at all changes of direction. New SVP's if required (and Stub Stacks) to be uPVC, 100mm dia with wire cage at head, set min 1m above nearest window head level, and with easy bend at base, to discharge into new or existing manholes. All wastes discharging into SVP to do so min 200mm from WC outlet into same. Pressure release valves at head of SVP's or stub stacks to be Hunter Nouveau type or similar.

22 **HEATING & HOT WATER**
Existing system to retained and altered by suitable engineer.

If boiler unsuitable or to be replaced, use: -
EXAMPLE BOILER: - Baxi Potterton 133HE, gas fired wall mounted balanced flue, condensing combination boiler. Rated output 10.6 - 30.0kW. SEDBUK certified seasonal efficiency rating 90.7% - A rated, provided with programmer, TRV's and room thermostats (TWE TO BE CONFIRMED) (A)

23 **BEAM ENCASEMENT**
Steel beams and Catnics to be encased in Carlite metal Lathing, and 13mm vermiculite/gypsum plaster for min 1-hour fire resistance.
ALTERNATIVE encase beam in 2 layers of 12.5mm plasterboard, and finish in min 7mm setting coat plaster.
In all cases maintain min 2m clear headroom under encased beam.

(A) 6-8m TO FOR OFF TAPER ON ADD. PITTISPORUM

DESIGN DETAILS
Design details and building techniques have been specified in accordance with the guidance given in 'Limiting Thermal Bridging and Air Leakage, Robust Construction Details for Dwellings and Similar Buildings 2002'.

FIXED BUILDING SERVICES
A notice will be provided confirming that all new fixed building services have been commissioned in accordance with the procedure in regulation 20c.

PIPES, DUCTS ETC.
Insulation will be carried out to the pipes, ducts and vessels to standards no worse than those set out in the Domestic Heating Compliance Guide

All electrical works to meet requirements of Part P (Electrical Safety) Installations to be design ed installed, inspected and tested by person competent to do so. Council to be satisfied that Part has been complied with by notice of appropriate BS7671 electrical installation certificate for works by person competent to issue same.

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C		
B	BEAM B2 AMENDED	JUNE 10
A	TO B.C CONTROL / ENGINEERS NOTES (A)	FEB 10

client MR. & MRS. REEVES
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drawing EXTENSION
scale 1:50 (1:100 1:1250) Drawn
No. 7509 : 1 (B) (A)
Date DEC '09