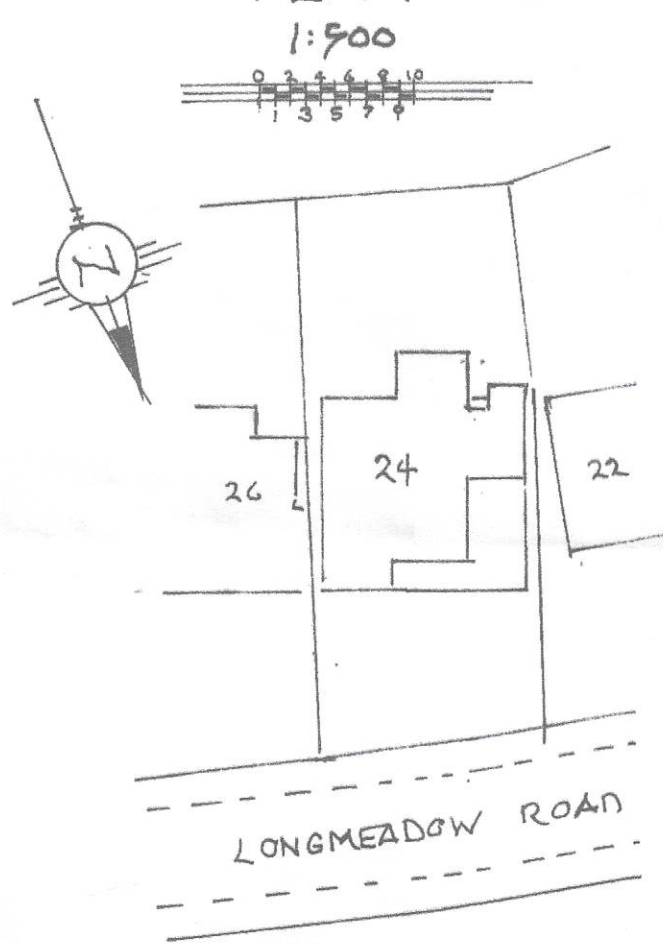
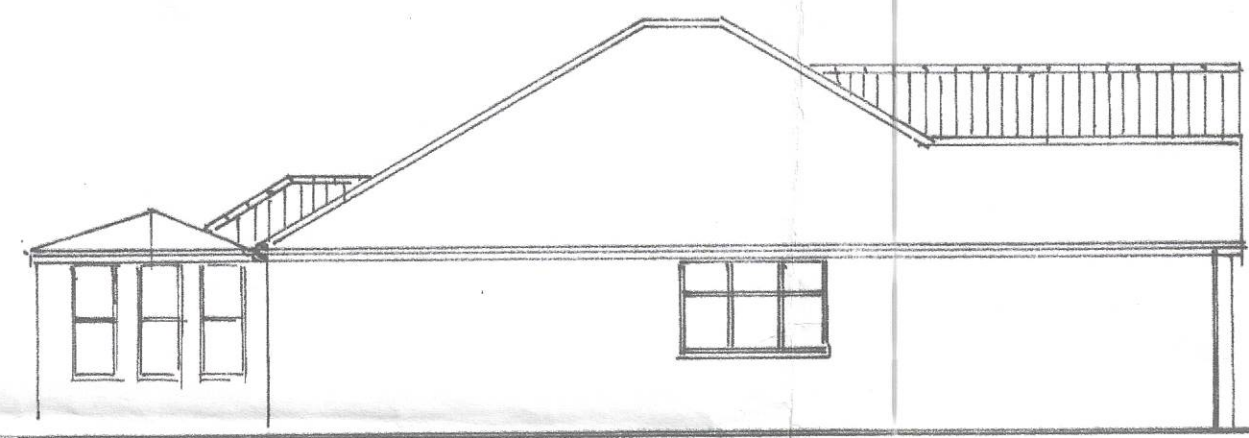


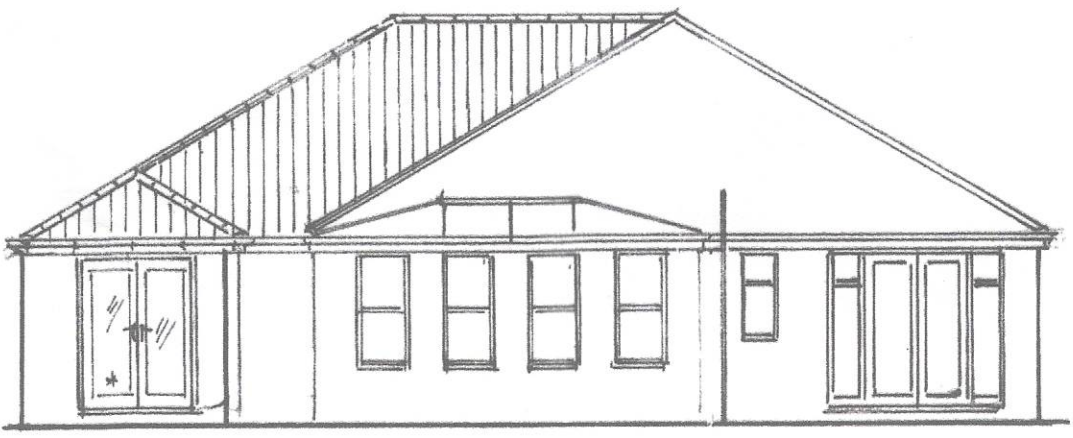
SITE PLAN



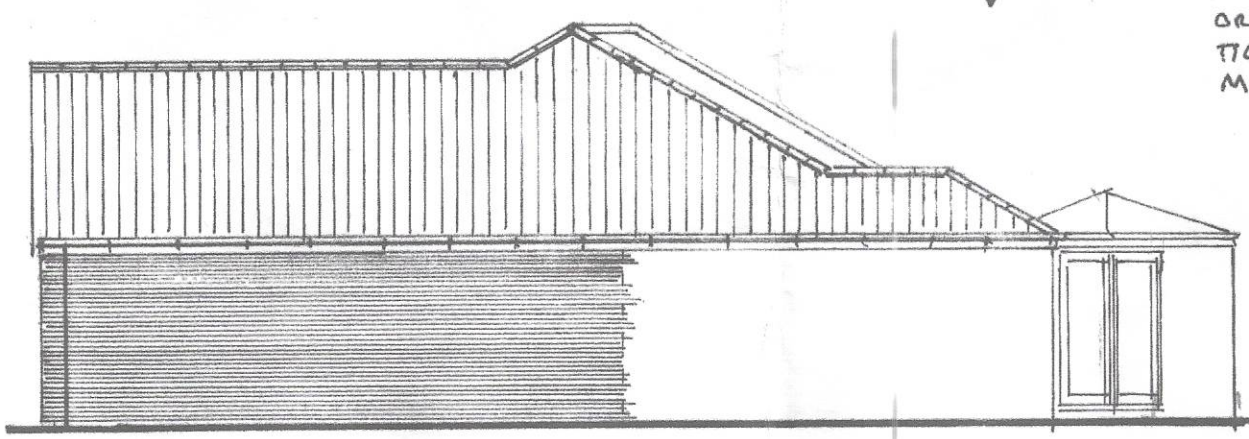
SIDE ELEVATION A 1:100



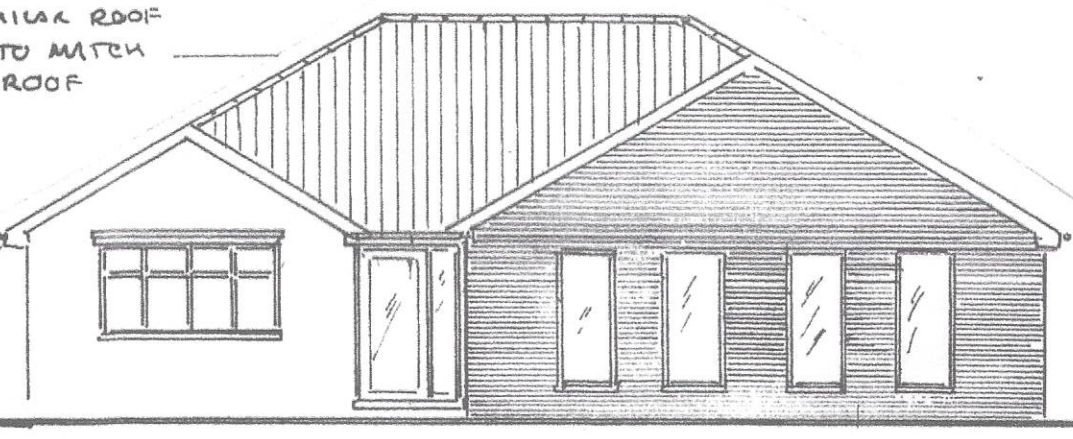
REAR ELEVATION 1:100



SIDE ELEVATION B 1:100



FRONT ELEVATION 1:100



STEEL CHECKS

(A) 203 x 133 mm 25 kg/m U.B. SPAN 5600

LOADS CEILING 2x1.8 x 5.6 x 0.5 10.08
EXT. ROOF 1.5 x 5.6 x 1.0 8.4
W 18.48 KN

BENDING BM $\frac{WL^2}{8} = 12.936 \text{ KNm}$

$2yd \frac{M}{pbc} = 78.4 \text{ cm}^2 \checkmark$

DEFLECTION $\delta_p \frac{1}{360} = 15.5 \text{ mm}$

$\delta_a \frac{5WL^3}{384EI} = \frac{42.26}{EI} = 8.5 \text{ mm}$

(B) 254 x 146 mm 37 kg/m U.B. SPAN 7200

LOADS EXT. ROOF 1.5 x 7.2 x 1.0 = 10.8
CEILING 1.0 x 7.2 x 0.5 = 3.6
W = 14.4 KN
P = 9.24 KN

POINT LOAD FROM A

BENDING BM $\frac{WL^2}{8} + P \times \frac{L}{4} = 12.96 + 16.6 \text{ KNm}$

$2yd \frac{M}{pbc} = 29.6 \text{ KNm}$

DEFLECTION $\delta_p \frac{1}{360} = 20 \text{ mm}$

$\delta_a \frac{5WL^3}{384EI} + \frac{P \times L^3}{48EI} = \frac{49.98 + 71.85}{EI} = \frac{121.8}{EI} = 12 \text{ mm} \checkmark$

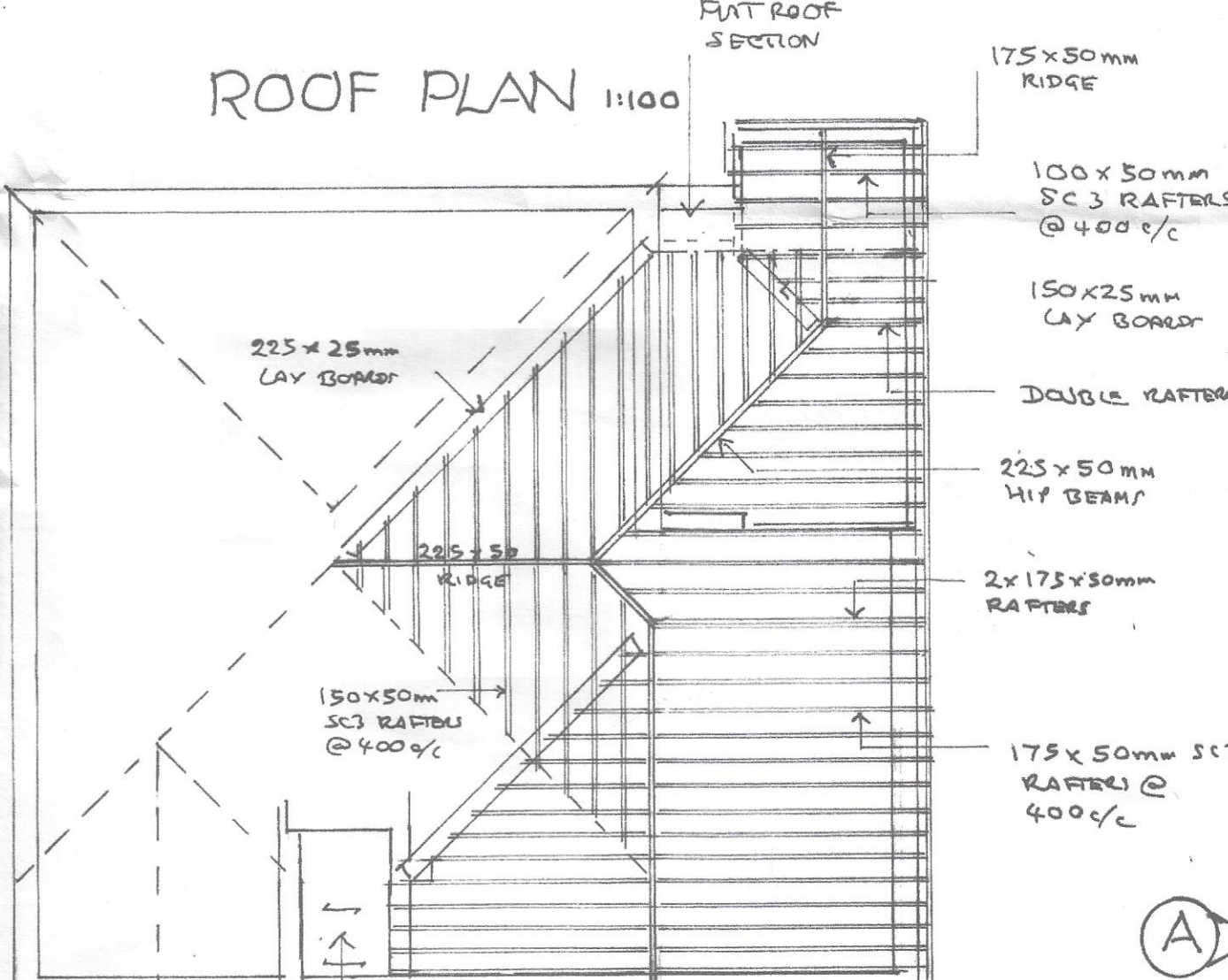
WINDOWS

ALL NEW WINDOWS AND ROOF LIGHTS IN U.P.V.C OR H.W. FRAMES TO HAVE 20MM SEALED DOUBLE GLAZED UNITS INCORPORATING LOW EMISSIVITY 'K' GLASS TO ACHIEVE A MAXIMUM 1.4W/M² K VALUE.

VENTILATION

ALL HABITABLE ROOMS TO HAVE AT LEAST 8000MM² BACKGROUND VENTILATION PROVIDED THROUGH TRICKLE VENTILATIONS BUILT INTO WINDOW FRAMES OR 2 NO 225 X 150MM AIR BRICKS WITH LOUVRED CONTROLLABLE PLASTER VENTS, AT LEAST 4000MM² BACKGROUND VENTILATION TO BE PROVIDED TO KITCHENS, BATHROOMS AND UTILITY ROOMS. WINDOW FRAMES TO INCORPORATE OPENING VENTS EQUIVALENT TO AT LEAST 5% OF THE FLOOR AREA OF THE ROOM SERVED.

ROOF PLAN 1:100



ROOF COVERING

SELECTED MATCHING ROOF TILES/SLATES NAILED TO TREATED S.W. BATTENS WITH LAP TO SUIT ROOF PITCH IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS OVER 'TYVEK' BREATHABLE SARKING FELT LAID OVER RAFTERS AS SPECIFIED. 300MM FIBREGLASS QUILT INSULATION OVER AND BETWEEN JOISTS ON 9MM PB AND SKIM CEILING.

SECTION 1:50

FLAT ROOFS AT FRONT AND REAR: G.R. CONCRETE BY SPECIALIST ON 15mm FLY OVER 150mm KENTIMAN EPS ON RAFTERS OVER 100x50mm JOIST @ 400/c

WALL CONSTRUCTION

TWO COAT SAND CEMENT RENDER TO MATCH EXISTING ON 100MM CONCRETE BLOCKWORK OR SELECTED FACING BRICK OUTER LEAF 100MM CAVITY WITH DRITHER 32 ULTIMATE FULL FILL 100MM CELCON SOLAR BAK INNER LEAF WITH 32.5mm 'K' PROCE' THERMAL BOARD FOR 0.18U VALUE. STAINLESS STEEL CAVITY TIES TO BE PROVIDED AT 450 = 750MM CENTRES AND AT 300MM CENTRES AROUND ALL OPENINGS. INSULATED 'THERMABATE' OR SIMILAR CAVITY CLOSERS WITH INSULATED CATNIC OR I.G. PROPRIETARY GALV. STEEL UNTOLS TO BE PROVIDED OVER ALL CAVITY WALL OPENINGS WITH A MINIMUM 150MM END BEARING. TIMBER STUD PARTITIONS 75 X 50MM STUDDING WITH MINERAL WOOL INFILL AND 12MM PB AND SKIM BOTH SIDES.

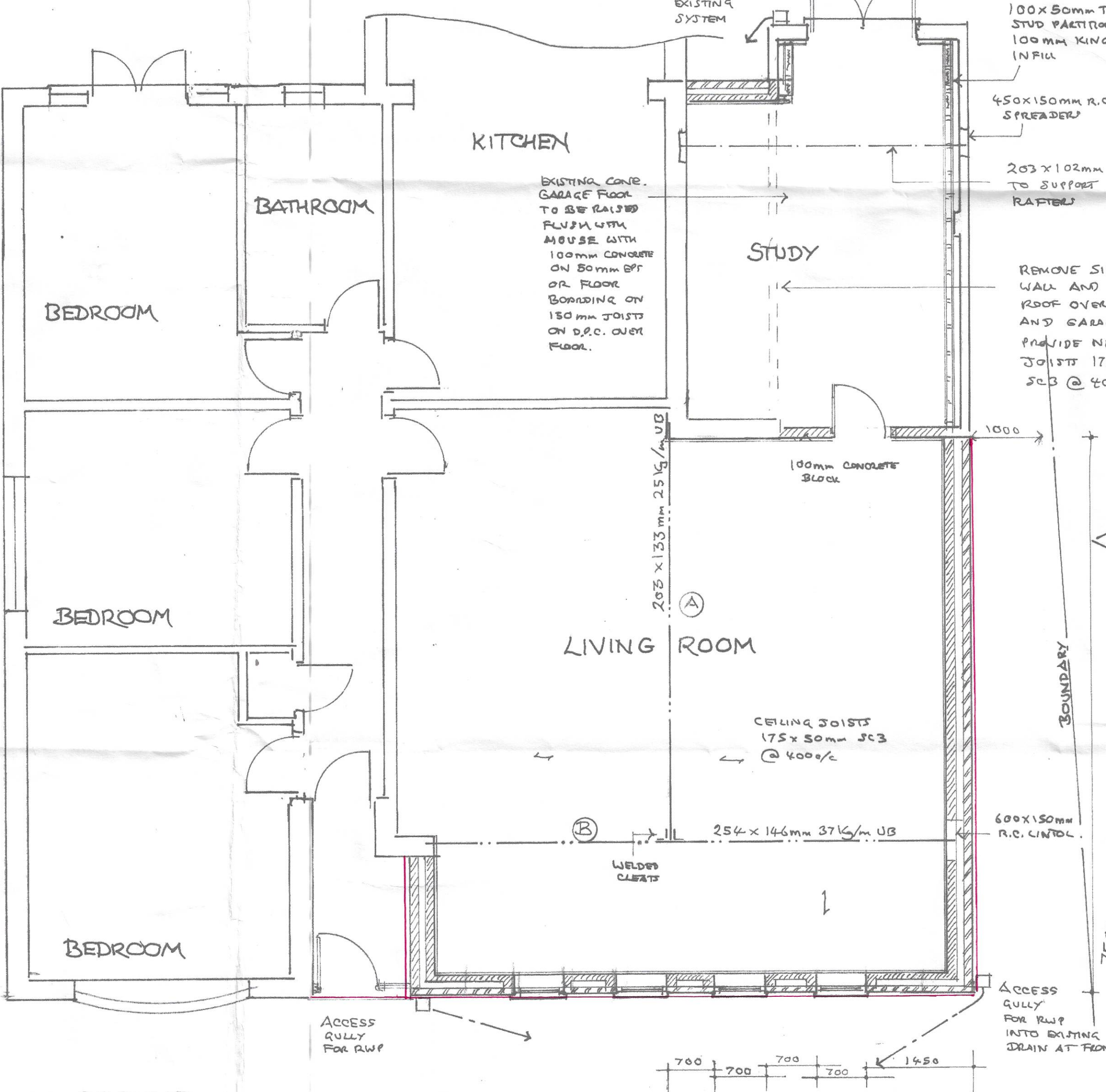
GROUND FLOOR

100MM CONCRETE SLAB WITH SELF LEVELLING SCREED AND FINISH TO CLIENT'S CHOICE ON 120MM 'CELOTEX' ON 1200 G VISQUEEN DPM ON 50MM SAND BUNDING OVER 150MM WELL CONSOLIDATED BRICK HARDWARE. INSULATION BOARD TO BE TURNED UP AT EDGE OF SLAB, D.P.C. AND D.P.M. TO BE LAPPED AND BONDED.

FOUNDATIONS

TWO LEAVES BRICKWORK BELOW D.P.C. LEVEL WITH CONCRETE CAVITY FILL UP TO 225MM BELOW D.P.C. LEVEL STRIP CONCRETE FOOTINGS MINIMUM 600MM X 200MM THICK AT LEAST 100MM DEEP BEARING ON FIRM CLAY SUB STRATA, OVERALL SIZE AND DEPTH TO SUIT GROUND CONDITIONS IN AGREEMENT WITH THE B.C.O./A.I.

GROUND FLOOR PLAN 1:50



DRAINAGE

ALL NEW DRAINS TO BE LAID USING 100MM DIAMETER HEPSLEVE OR U.P.V.C. PIPES AT 1:40 MINIMUM SELF-CLEANING GRADIENT. DRAINS UNDER BUILDING AND WITHIN 1M OF FOUNDATIONS TO BE ENCASED IN CONCRETE SURROUND, DRAINS PASSING THROUGH FOUNDATIONS TO BE BRIDGED OVER WITH P.C.C. LINTOLS AND ROCKER PIPE USED EITHER SIDE OF WALL 100MM DIAMETER S.V.P.'s TO RECEIVE UPPER FLOOR FITTINGS WITH WIRE BIRD CAGE TERMINAL AT LEAST 900MM ABOVE THE HIGHEST WINDOW VENT OPENING AND ABOVE ROOF LEVEL. ALL NEW SANITARY FITTINGS TO HAVE ANTI VAC TRAPS WITH WASTES CONNECTED SEPARATELY INTO SOIL STACKS. ALL WASTES TO BE MADE ACCESSIBLE.

GENERAL NOTES

ALL DIMENSIONS INCLUDING ROOF PITCHES TO BE CHECKED BY CONTRACTOR BEFORE WORK COMMENCES. ALL WORK TO COMPLY WITH CURRENT BUILDING REGULATIONS AND CARRIED OUT TO THE COMPLETE SATISFACTION OF THE DISTRICT B.C.O. ALL TIMBER TO BE TREATED WITH PRESERVATIVE. ALL NEW STEELWORK TO BE ENCASED IN 12M GYPSUM 'FIRELINE' BOARD FOR 30 MINUTES FIRE PROTECTION. ALL GALV. LINTOLS TO BE INSULATED AND ENCASED WITH 12MM PLASTERBOARD AND SKIMFOR 30 MINUTES FIRE PROTECTION. ALL ELECTRICAL WORK TO BE UNDERTAKEN BY NICEIC APPROVED CONTRACTOR WITH AN INSTALLATION CERTIFICATE TO BE PROVIDED ON COMPLETION. ALL NEW RADIATORS TO BE FITTED WITH THERMOSTATIC VALVES AND C.H. BOILERS TO BE REPLACED IF NECESSARY WITH CONDENSING TYPE BOILERS AND INSTALLED BY A CORGI REGISTERED CONTRACTOR. TOUGHENED OR LAMINATED SAFETY GLASS TO BE USED IN ALL CRITICAL LOCATIONS.

CLIENT

MR & MRS COULTER

SCHEME

SINGLE STOREY EXTENSION AT SIDE AND FRONT

ADDRESS

24 LONGMEADOW ROAD
KNOWSLEY VILLAGE
L34 0HS

DRAWING TITLE

PROPOSALS

NUMBER

PK002

REVISION

A

DATE

FEBRUARY 2023

SCALES

1:50
1:100

