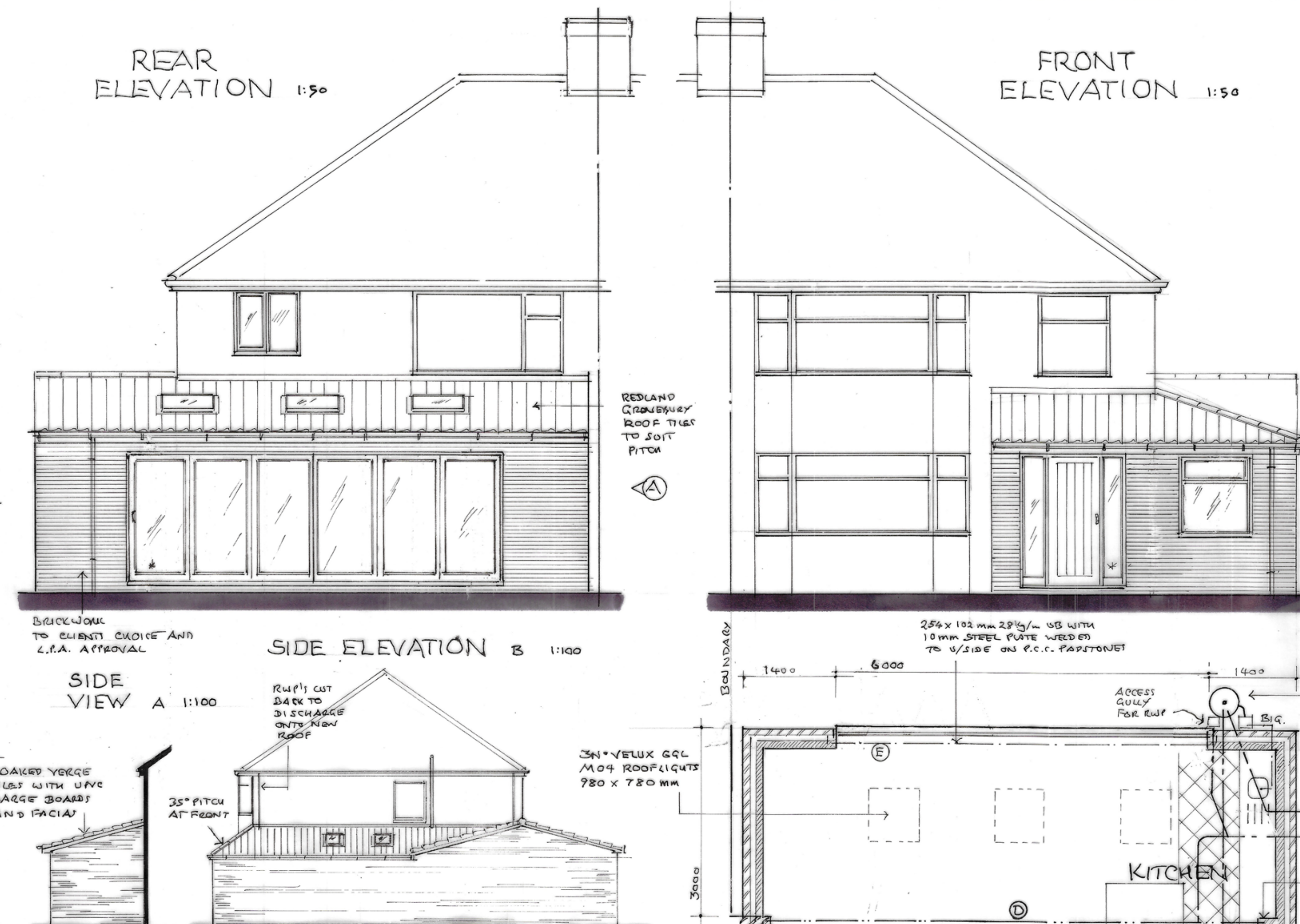
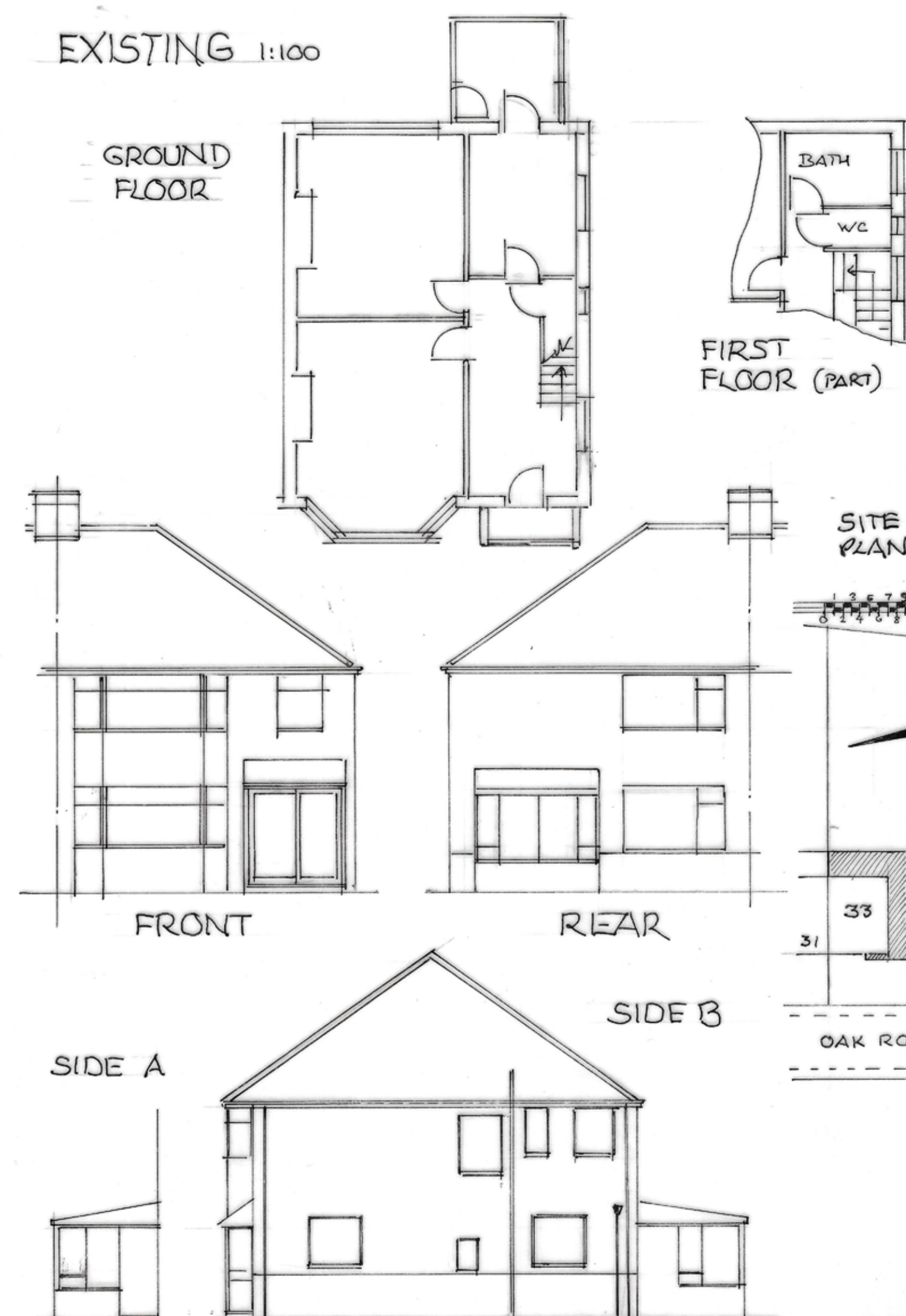


EXISTING 1:100

REAR ELEVATION 1:50

FRONT ELEVATION 1:50

LOCATION PLAN



**STEEL CHECKS**

**A** 178x102mm RS3 SPAN 2500  
LOADS FLOOR 1.3x2.5x2.5 = 8.125 kN (W)  
BM WL/8 = 2.54 kNm  
Z<sub>p</sub> M/8 = 16 cm<sup>3</sup> / δ<sub>p</sub> 1/360 = 6.9 mm  
δ<sub>a</sub> SUL<sup>3</sup> = 1.65 / EI = 0.5 mm ✓  
384EI

**B** 203x102mm UB SPAN 3200  
LOADS FLOOR 1.3x3.2x2.5 10.4  
BM WL/8 = 2.6x3.2x2.5 18.3  
ROOF 1.2x3.2x2.0 7.7  
Z<sub>p</sub> M/8 = 14.55 kNm  
Z<sub>p</sub> M/8 = 88 cm<sup>3</sup> / δ<sub>p</sub> 1/360 = 8.8 mm  
δ<sub>a</sub> SUL<sup>3</sup> = 15.5 / EI = 3.5 mm ✓  
384EI

**C** 406x178mm 67kg/m UB SPAN 8000  
LOADS BRICK 2.6x8.0x2.2 45.76  
ROOF 1.2x8.0x2.0 19.2  
FLOOR 2.1x8.0x2.5 42.0  
W 106.96 kN  
POINT LOAD FROM A+B+E P = 4.06+18.19+(2.5x2) = 27.25 kN  
BM WL/8 = 106.96+55 = 161.96 kNm  
Z<sub>p</sub> M/8 = 982 cm<sup>3</sup> / δ<sub>p</sub> 1/360 = 22.2 mm  
δ<sub>a</sub> SUL<sup>3</sup> + δ<sub>a</sub> = 713+230.7 = 1003.7 = 20 mm ✓  
384EI 48EI

**D** LOADS  
BRICK 2.6x8.0x2.2 45.76 SPAN 8000  
ROOF 1.2x8.0x2.0 22.4  
W 68.16 kN  
ALTERNATE SINGLE UB 305x305mm 137kg/m UB  
LOADS C 106.96 POINT LOAD P = 27.25  
D 68.16  
BM WL/8 + P/4 = 175.12+54.5 = 229.62 kNm  
Z<sub>p</sub> M/8 = 229.62 kNm  
δ<sub>a</sub> SUL<sup>3</sup> + δ<sub>a</sub> = 1167.47+290.7 = 1458.17 = 21 mm ✓  
384EI 48EI

**E** 254x102mm 28kg/m UB SPAN 6200  
LOADS ROOF 2.0x6.2x2.0 24.8  
BRICK 0.25x6.2x2.2 3.4  
BM WL/8 = 21.86 kNm W 28.2 kN  
Z<sub>p</sub> M/8 = 133 cm<sup>3</sup> / δ<sub>p</sub> 1/360 = 17.2 mm  
δ<sub>a</sub> SUL<sup>3</sup> = 87.58 / EI = 10.4 mm ✓  
384EI

**WALL CONSTRUCTION**

TWO COAT SAND CEMENT RENDER TO MATCH EXISTING ON 100MM CONCRETE BLOCKWORK OR SELECTED FACING BRICK OUTER LEAF 100MM CAVITY WITH ROCKWOOL INSULATION BATS FULL RILL 100MM CONCRETE BLOCKWORK. INNER LEAF WITH TWO COAT PLASTER FINISH TO GIVE A MAXIMUM 0.28 'U' VALUE. STAINLESS STEEL CAVITY TIES TO BE PROVIDED AT 450x750MM CENTRES AND AT 300MM CENTRES AROUND ALL OPENINGS. INSULATED THERMABATE OR SIMILAR CAVITY CLOSERS WITH INSULATED CATNIC OR I.G. PROPRIETARY GALV. STEEL UNITS TO BE PROVIDED OVER ALL CAVITY WALL OPENINGS WITH A MINIMUM 150MM END BEARING. TIMBER STUD PARTITIONS 75x50MM STUDDING WITH MINERAL WOOL INFILL AND 12MM PB AND SKIM BOTH SIDES.

100MM CAVITY FILLED WITH 100MM DETHREME INTERNAL LEAF 100MM CELCON 'SOLAR' BLOCK 32.5mm QTYTEC THERMAL BOARD LINING. FOR 0.18 'U' VALUE

**MECHANICAL VENTILATION**

ALL BATHROOMS AND SHOWER ROOMS TO BE FITTED WITH A MECHANICAL EXTRACT FAN CAPABLE OF AT LEAST 15 LITRES/SECOND EXTRACT RATE. KITCHENS TO HAVE EITHER A MECHANICAL EXTRACT FAN CAPABLE OF 60 LITRES/SECOND OR A COOKER HOOD CAPABLE OF 30L/s. MECHANICAL EXTRACT FANS SERVING WINDOWLESS BATHROOM/SHOWER ROOMS/W.C. CUBICLES TO PROVIDE AT LEAST 3 AIR CHANGES PER HOUR WITH A 15 MINUTE OVER RUN FACILITY.

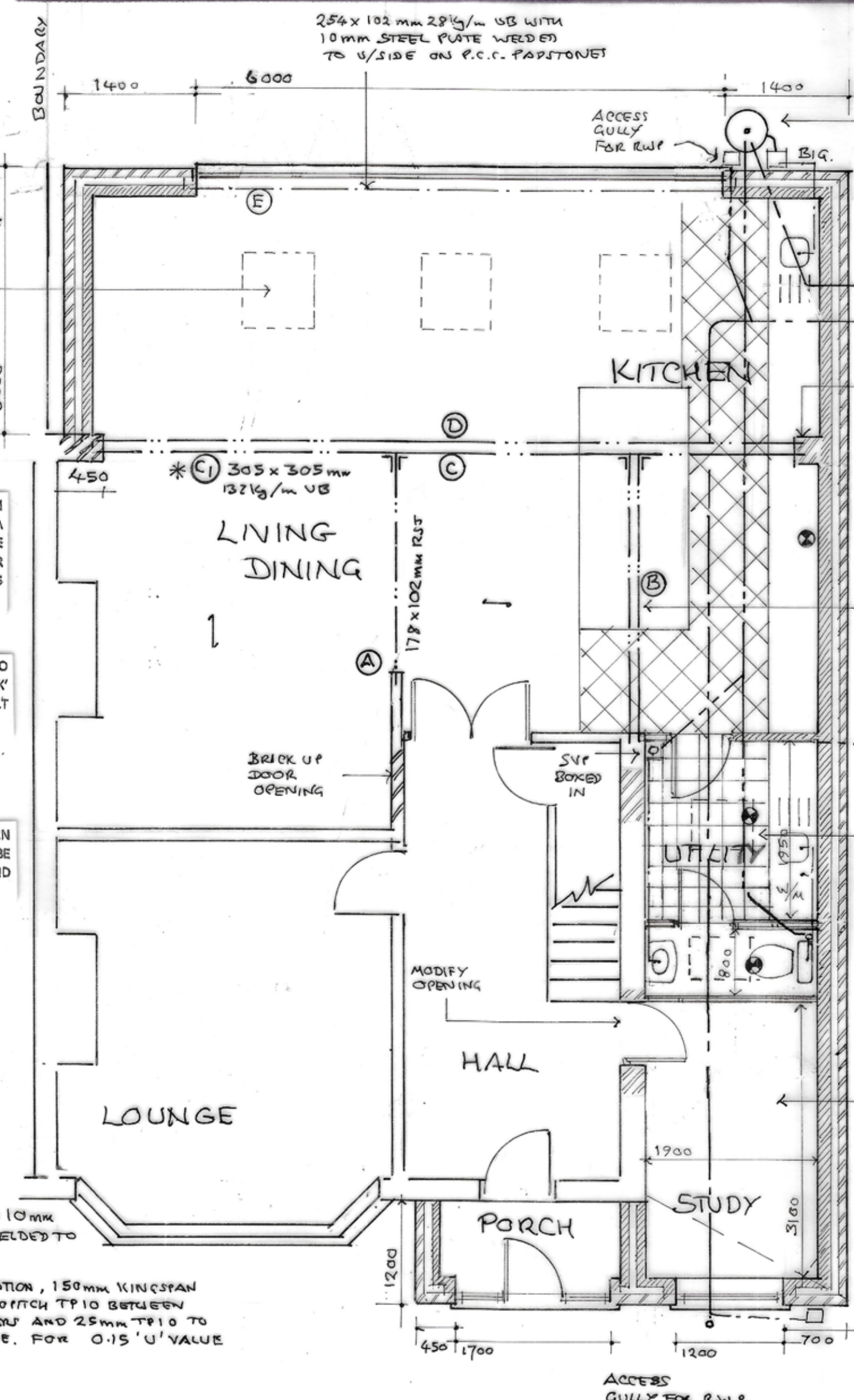
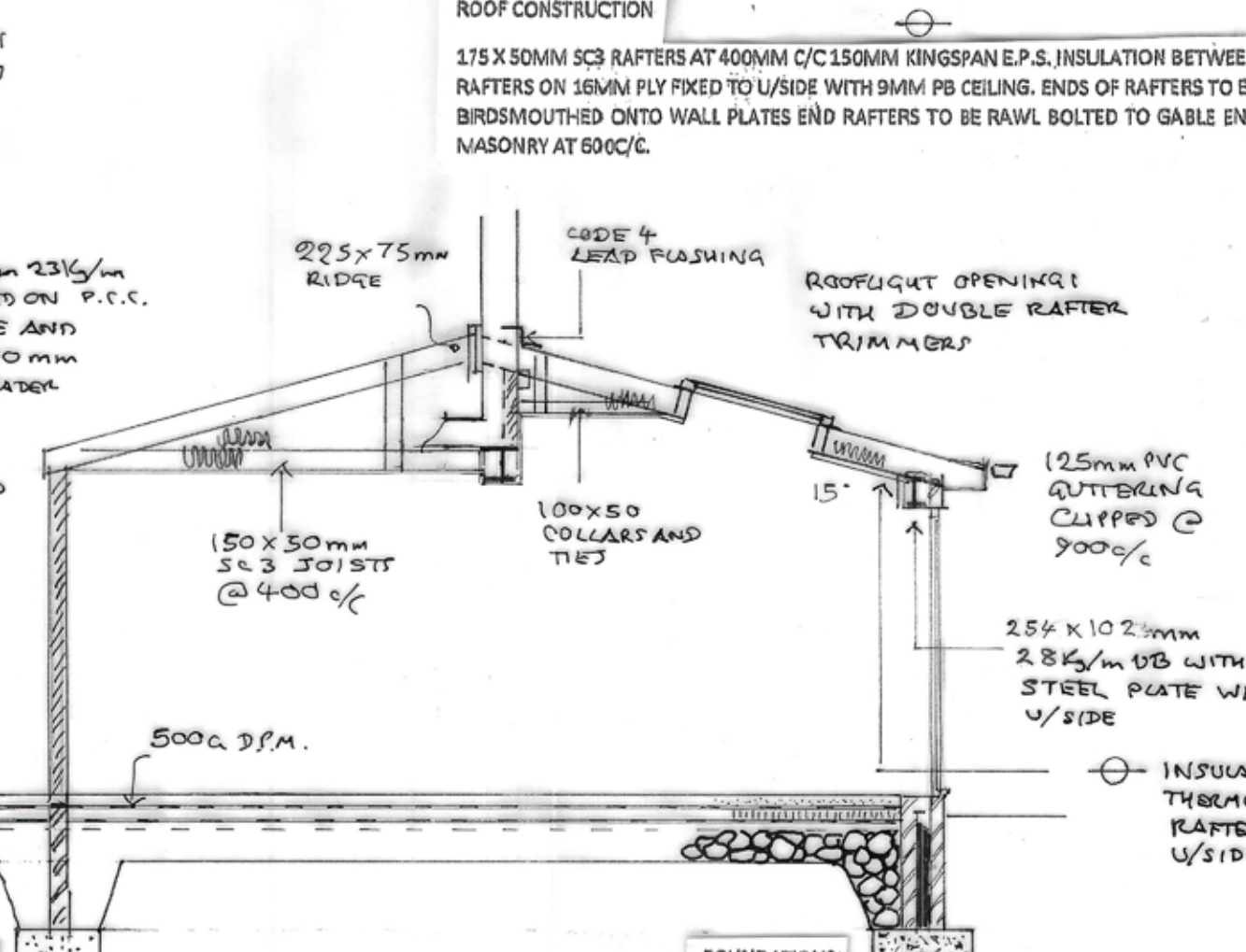
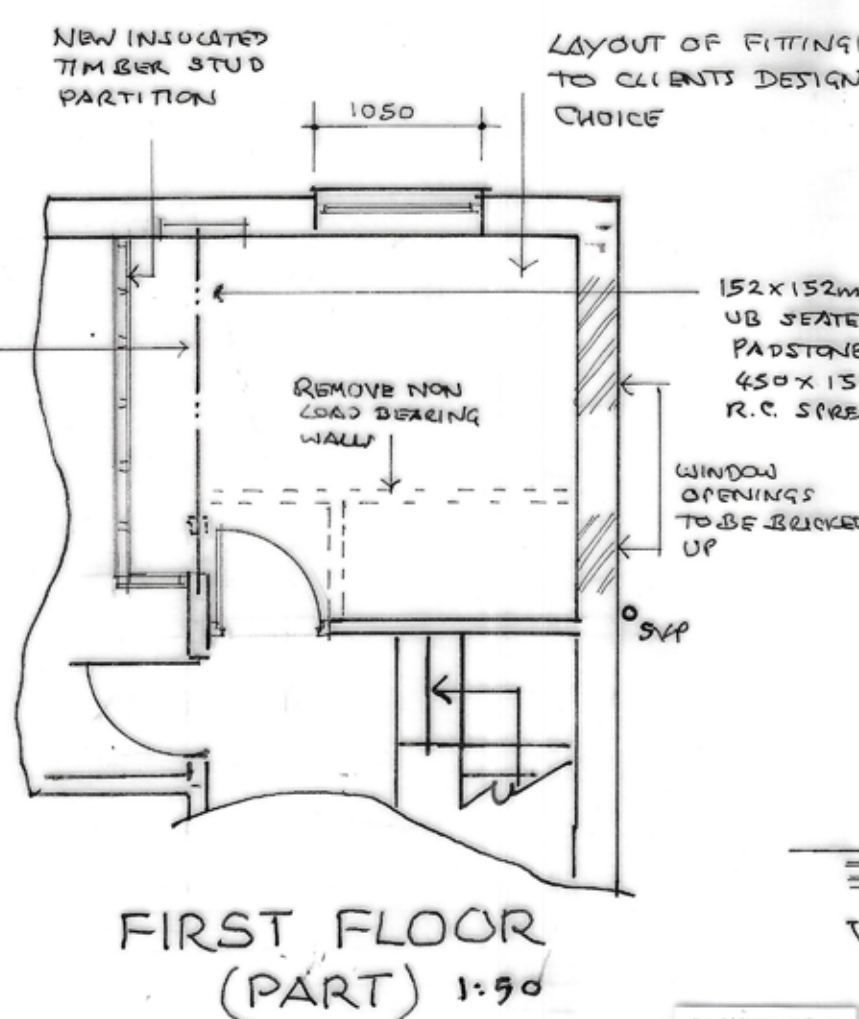
**ROOF COVERING**

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

**ROOF CONSTRUCTION**

175x50MM SC3 RAFTERS AT 400MM C/C 150MM KINGSPAN E.P.S. INSULATION BETWEEN RAFTERS ON 16MM PLY FIXED TO U/SIDE WITH 9MM PB CEILING. ENDS OF RAFTERS TO BE BIRDSTOPPED ONTO WALL PLATES END RAFTERS TO BE RAWL BOLTED TO GABLE END MASONRY AT 600/C.



**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/M<sup>2</sup>K VALUE.

**VENTILATION**

ALL HABITABLE ROOMS TO HAVE AT LEAST 8000MM<sup>3</sup> BACKGROUND VENTILATION PROVIDED THROUGH TRICKLE VENTILATORS BUILT INTO WINDOW FRAMES OR 2 NO 225x150MM AIR BRICKS WITH LOUVRED CONTROLLABLE PLASTER VENTS. AT LEAST 4000MM<sup>3</sup> 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.

**DRAINAGE**

ALL NEW DRAINS TO BE LAID USING 100MM DIAMETER HEPSELEVE 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. UNITS 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. LININGS 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. E. BLAXNEY

**SCHEME**  
SINGLE STOREY  
EXTENSION AT SIDE  
AND REAR

**ADDRESS**  
33 OAK ROAD  
HUYTON  
L36 5XY

**DRAWING TITLE**  
33 OAK RD

**NUMBER**  
1

**REVISION**  
A

**DATE**  
AUGUST  
2022

**SCALES**  
1:50  
1:100

1:100 1 2 3 4 5 6 7 8 9 10  
1:50 1 2 3 4 5

GROUND FLOOR PLAN 1:50