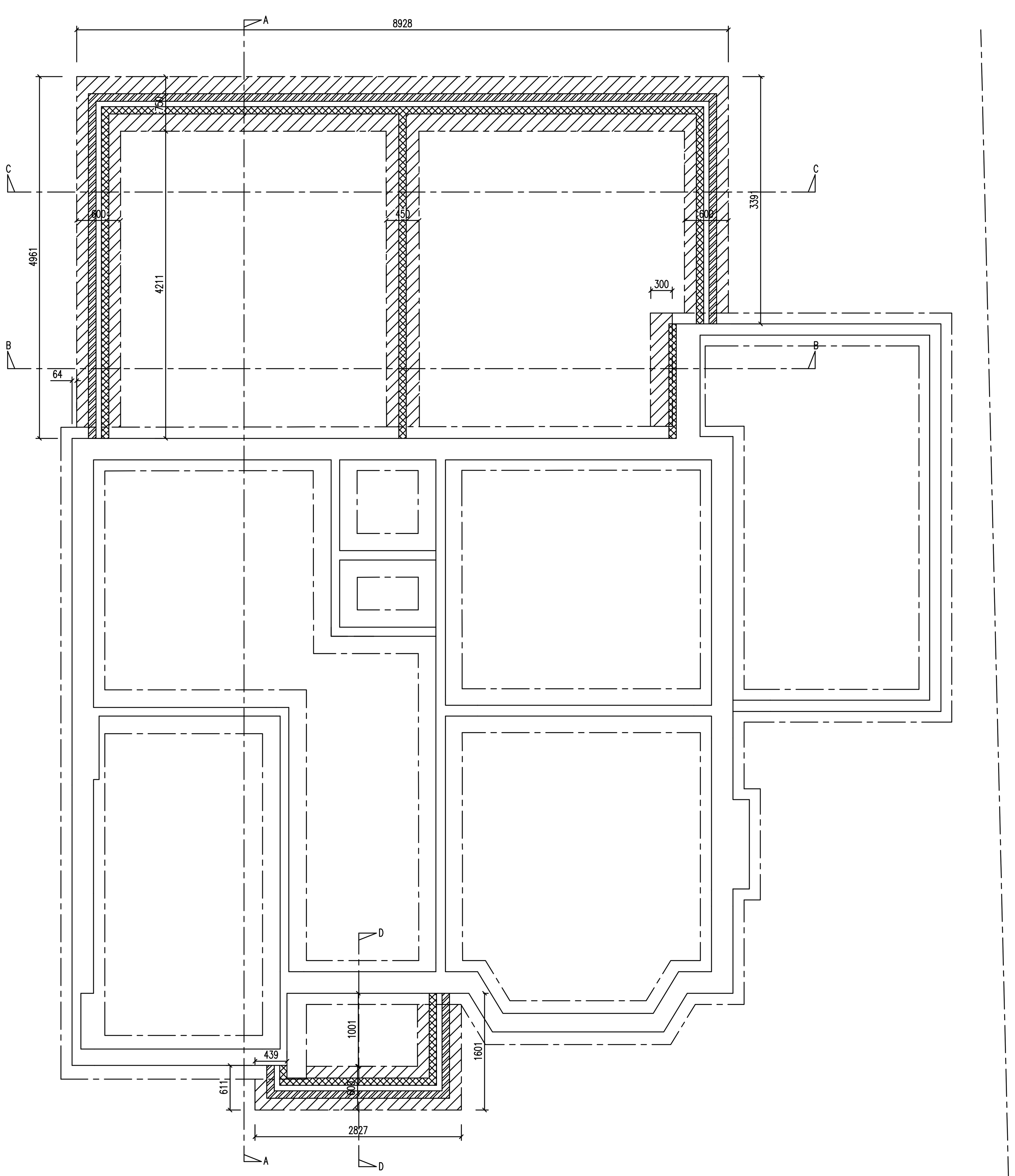
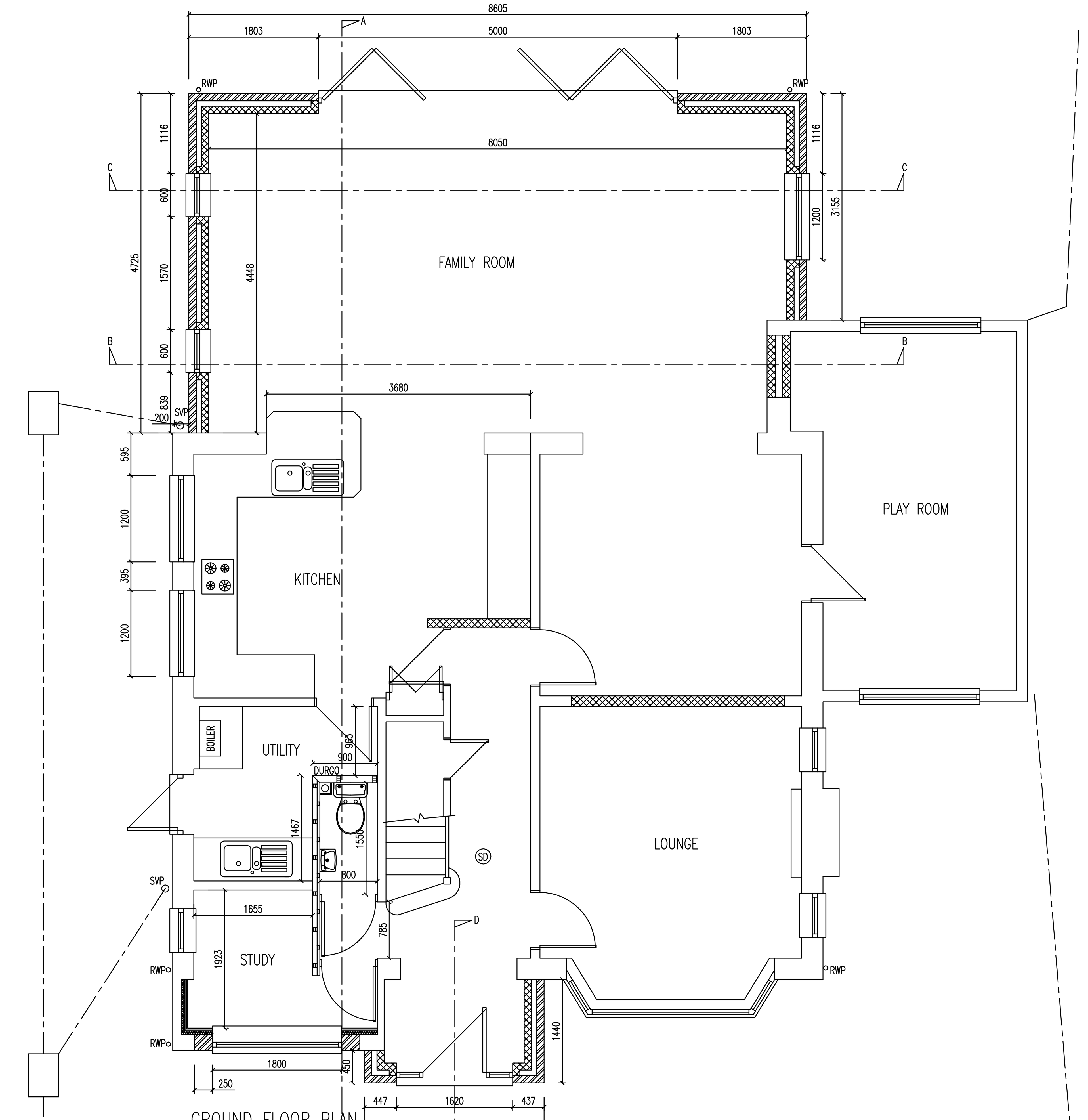
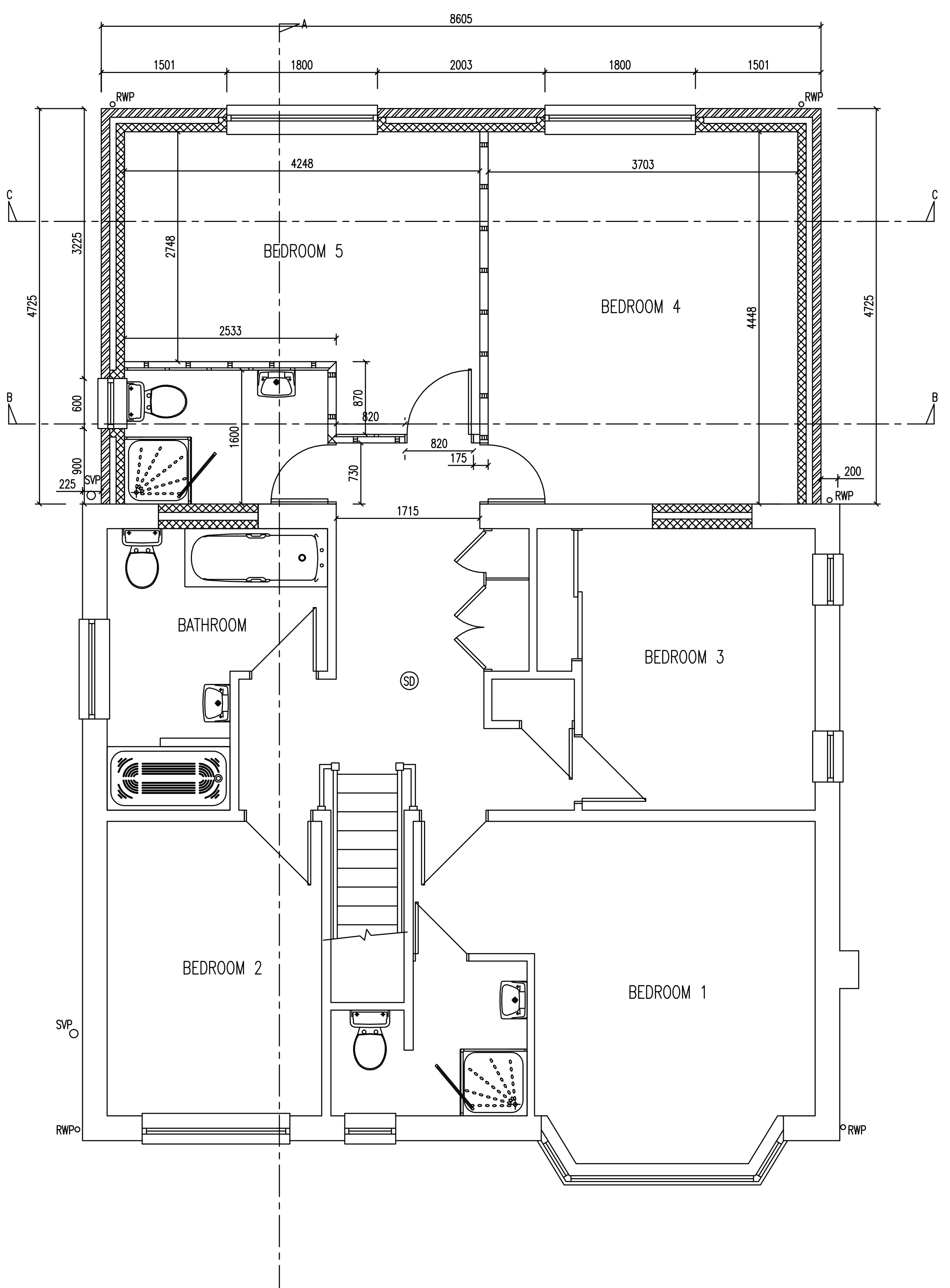




GROUND FLOOR PLAN



FIRST FLOOR PLAN

FOUNDATIONS.
THE NEW FOUNDATIONS ARE TO BE EITHER TRADITIONAL 600 x 250mm DEEP CONCRETE STRIP FOUNDATIONS OR CONCRETE TRENCH FILL, TAKEN DOWN TO A FORMATION LEVEL AS APPROVED BY THE LOCAL AUTHORITY BUILDING INSPECTOR ON SITE AND TO SUIT THE GROUND CONDITIONS. THE FOUNDATIONS WILL BE AT LEAST 900mm BELOW GROUND LEVEL.
THE WALLS UP TO DPC LEVEL ARE TO BE FORMED IN 2 SKINS OF DENCE BLOCKWORK WITH A 75mm CAVITY WHICH WILL BE FILLED WITH LEAN MIX CONCRETE TO A MINIMUM 225 BELOW GROUND LEVEL. THE BRICKWORK TO THE OUTER SKIN OF THE CAVITY WALL WILL BEGIN AT LEAST 3 COURSES BELOW FINISHED GROUND LEVEL.

A SUITABLE HORIZONTAL DPC SUCH AS 'HYLOAD' IS TO BE BUILT IN TO THE WALLS A MINIMUM OF 150mm ABOVE GROUND LEVEL.
ALL VERTICAL AND HORIZONTAL DPC'S ARE TO BE BUILT IN TO BS743 : 1970 (AS AMENDED) STANDARD.

EXTERNAL WALLS
EXTERNAL CAVITY WALLS, 275mm THICK, TO BE OF 102mm THICK BRICKWORK 75mm WIDE CAVITY, 100mm THICK CELCON SOLAR CONCRETE BLOCK INNER SKIN WITH A MINIMUM STRENGTH OF 3.5N/sq.mm.. INTERNAL FINISH TO BE 13mm THICK LIGHTWEIGHT PLASTER. THE BRICKWORK AND BLOCKWORK SKINS ARE TO BE LAID IN 1:6 CEMENT MORTAR.
THE CAVITIES ARE TO BE FILLED WITH 75mm THICK CROWN DRYTHERM 32 INSULATION BATTS, U-VALUE 0.29W/sq.m.K.
ON FIRST FLOOR EXTERNAL SKIN TO BE 100mm BLOCKWORK WITH A 20mm THICK 2 COAT RENDERED FINISH

STANLESS STEEL WALL TIES TO BS 1243: 1979(AS AMENDED) TO BE BUILT INTO THE CAVITY WALLS AT 750mm MAX. HORIZONTALLY AND 450mm MAX. VERTICAL CENTRES. TIES ARE TO BE STAGGERED RISES. INCREASE NUMBER OF TIES AT WINDOW/ DOOR OPENINGS TO 300mm MAX. VERTICAL CENTRES.

WHEN BUILDING NEW WALLS OFF OF EXISTING USE FIRFIX STARTER PROFILES.

ALL VERTICAL AND HORIZONTAL DPC'S ARE TO BE BUILT IN TO BS 743: 1970(AS AMENDED) STANDARD.

PROVIDE ANY REQUIRED EXPANSION JOINTS WITHIN BLOCKWORK WALLS AS RECOMMENDED BY THE MANUFACTURER OF THE BLOCK TYPE USED.

HEADS OF CAVITIES AND CAVITIES AROUND OPENINGS ARE TO CLOSED OFF USING THERMOBATE INSULATED CAVITY CLOSERS

ALL OPENINGS ARE TO HAVE 'IG' GALVANISED STEEL LINTELS OVER, WITH FACTORY FITTED INSULATION INFILL. ALL LINTELS ARE TO HAVE A MINIMUM END BEARING OF 150mm. PROVIDE CAVITY TRAYS OVER LINTELS.

LATERAL SUPPORT TO CAVITY WALLS AND INTERNAL WALLS TO BE PROVIDED BY SEATING OF TRUSSES/JOISTS. WHERE WALLS ARE PARALLEL TO JOISTS GALVANISED STEEL STRAPS, 30 x 50mm ARE TO BE FIXED AT 1800CTRS AT FIRST FLOOR CEILING AND RAFTER LEVELS. NOGGINS ARE TO BE FIXED BETWEEN JOISTS AT STRAP POSITIONS. END OF STRAPS ARE TO BE BUILT INTO BLOCKWORK AND NAILED ACROSS 3 No. TRUSSES/JOISTS.

WHERE ROOFS ABUT EXTERNAL WALLS LEAD FLASHINGS ARE TO BE INCORPORATED IN THE WALLING WITH CAVITY TRAYS OVER WHERE APPLICABLE. LEAD TO BE CODE 4, TO BS 178: 1983.

GROUND FLOOR
THE GROUND FLOOR IS TO CONSIST OF A SUSPENDED CONCRETE FLOORING SYSTEM. THE SYSTEM IS TO BE BY A SPECIALIST MANUFACTURER WHO WILL BE REQUIRED TO PROVIDE FULL DETAILS OF FLOORING LAYOUT, SPECIFICATION AND CALCULATIONS APPLICABLE TO THE SPECIFIC SCHEME. GENERALLY THE SYSTEM IS TO COMPRISE OF 225 & 150mm DEEP PRE-CAST PRESTRESSED CONCRETE FLOOR BEAMS WITH 440 x 215 x 100mm 3.5N/sq.mm BLOCKWORK SPANNED BETWEEN BEAMS. BEAMS ARE TO BE SEATED ON DPC ON BLOCKWORK SUPPORTING WALLS OFFERING MINIMUM 100mm END BEARING. VOID BELOW FLOOR IS TO MEASURE A MINIMUM OF 150mm CLEAR DEPTH FROM BEAM SOFFITS TO SOLUM. THE VOID IS TO BE VENTILATED TO OUTSIDE AIR VIA CRANKED VENTILATORS BUILT IN TO THE PERIMETER CAVITY WALLS AT CENTRES TO ACHEIVE EQUIVALENT 1500sq.mm. CLEAR OPENING TO EACH METRE RUN OF WALL. THE VENTILATORS ARE TO HAVE CAVITY TRAYS OVER.
THE FLOOR FINISH IS TO BE OF MINIMUM 75mm THICK SAND/CEMENT REINFORCED SCREED LAID TO BS 1521: 1972(AS AMENDED) ON 80mm THICK CELOTEX RIGID SLAB INSULATION BOARDS LAID ON STRUCTURAL SLAB CUT STRIPS OF INSULATION BOARD AS UPSTANDS TO FIT AROUND FLOOR PERIMETERS TO ELEIMINATE HEAT BRIDGING. THICKNESS NOT TO EXCEED THICKNESS OF PLASTER AND SKIRTING BOARDS.
UNDERNEATH THE INSULATION LAY A 1200 GAUGE VISQUEEN DPM TURNED UP AT THE SIDES AND LAID UNDER A HYLOAD OR SIMILAR DPC IN THE NEW EXTERNAL 100mm THICK INNER SKIN BLOCK WALL.
THE USE OF A VAPOUR CONTROL LAYER OVER THE INSULATION IS RECOMMENDED BY THE BRE TO MINIMISE THE RISK OF CONDENSATION.

INTERMEDIATE FLOOR
FLOOR TO COMPRISE OF 50 x 195mm CLASS C24 TIMBER JOISTS SPACED AT 300mm CENTRES. THE FLOOR JOISTS ARE TO SPAN AS SHOWN ON THE PLANS ON DRAWING. JOISTS TO BE SUPPORTED ON GALVANISED STEEL HANGERS BUILT INTO THE BLOCK WALLS. THE JOISTS ARE TO BE DOUBLED UP UNDER THE STUD PARTITIONS WHERE THE PARTITION RUNS IN THE SAME DIRECTION AS THE JOISTS AND UNDERNEATH THE BATH POSITION.
THE FLOOR JOISTS ARE TO BE STRUTED BY 2 ROWS OF SOLID OR HERRINGBONE STRUTTING AT ONE THIRD POSITIONS. SOLID STRUTTING SHOULD BE AT LEAST 38mm TIMBER THICKNESS EXTENDING AT LEAST 0.75 TIMES THE DEPTH OF THE JOISTS. HERRINGBONE STRUTTING SHOULD BE AT LEAST 38 x 38mm TIMBER SIZE.
UNDERSIDE OF THE JOISTS ARE TO BE LINED IN 1 LAYER OF 12.5mm PLASTERBOARD PREPARED READY TO RECEIVE A SKIM COAT FINISH.
FLOOR TO UPPER LEVEL TO BE OF 25mm THICK FLOORING GRADE CHIPBOARD NAILED TO JOISTS. FLOOR VOID BETWEEN JOISTS TO BE INSULATED WITH 150mm THICK MINERAL WOOL INSULATION FOR ACOUSTIC INSULATION PURPOSES

INTERNAL WALLS
STUD PARTITIONS ARE TO BE FROM 75 x 50mm TIMBER FRAMING WITH VERTICAL STUDS AT 600mm CENTRES AND FACED WITH ONE SKIN 12.5mm PLASTERBOARD ON BOTH SIDES OF FRAMING WITH PLASTER SKIM COAT. PARTITIONS ARE TO BE FILLED WITH MINERAL WOOL INSULATION.

JOINERY DETAILS.
INTERNAL DOORS TO BE 1981 x 765 x 32mm THICK PANELED PREFORMED DOORS TO RECEIVE A PAINT FINISH FINISH. DOOR LININGS AND ARCHITRAVES ARE TO BE SOFTWOOD PAINTED. SKIRTINGS ARE TO BE 19 x 75mm PAINTED SOFTWOOD TIMBER.

HEATING AND VENTILATION
THE HEATING AND HOT WATER TO THE EXTENSION IS TO BE PROVIDED BY EXISTING GAS FIRED BALANCED FLUE BOILER LOCATED AS SHOWN
THE HEATING OF THE ROOMS IS TO BE PROVIDED BY WET RADIATORS IN THE HOUSE EXTENSION, FITTED WITH THERMOSTATIC VALVES

WINDOWS AND DOORS.
WINDOWS ARE TO BE HIGH QUALITY UPVC WINDOWS FITTED WITH DOUBLE GLAZED UNITS. THE WINDOWS ARE TO BE BUILT INTO BRICKWORK USING PROPRIETARY CRAMPS AND DPC AND MASTIC POINTING TO BE CARRIED OUT AROUND THE REVEAL.
ALL ROOMS TO CONTAIN WINDOWS OFFERING OPENING VENTILATION AREAS NOT LESS THAN 1/20TH THE FLOOR AREA OF THE ROOM, SOME PART OF WHICH IS AT LEAST 1750mm ABOVE FLOOR LEVEL. BACKGROUND VENTILATION TO ALL OCCUPIABLE ROOMS TO BE PROVIDED BY TRICKLE VENTILATORS INCORPORATED IN THE WINDOW HEAD OFFERING 5000sq.mm CONTOLABLE OPENING AREA TO EACH ROOM

THE GLAZING TO THE WINDOWS IS TO BE CLEAR FLOAT GLASS ON THE INNER PANE AND PILKINGTON K GLASS ON THE EXTERNAL PANE WITH AN AIR GAP BETWEEN PANES OF MINIMUM 16mm.
THE U-VALUE OF THE WINDOW IS TO ACHEIVE 1.8W/sq.m.K.

ANY GLAZING WITHIN 800mm OF THE FLOOR LEVEL MUST BE SAFETY GLAZING EITHER TOUGHENED GLASS OR LAMINATED. INDIVIDUAL PANES OF SAFETY GLASS SHOULD BE SUITABLY MARKED IN ACCORDANCE WITH BS6206 SO THAT THEY CAN CLEARLY BE IDENTIFIED.

ANY GLAZING WITHIN DOORS WHICH IS WITHIN 1500mm OF FLOOR LEVEL IS TO BE SAFETY GLAZING. ANY GLAZING SITUATED WITHIN 300mm OF THE DOOR OPENING AND WITHIN 1500mm OF FLOOR LEVEL IS TO BE OF SAFETY GLAZING TO BS 6206 SAFETY PANES ARE TO BE MARKED AS PREVIOUSLY SPECIFIED.

THE WINDOWS TO THE BEDROOM ARE TO HAVE MEANS OF ESCAPE OPENINGS. THE WINDOW SHOULD HAVE AN UNOBSTRUCTED OPENABLE AREA THAT IS AT LEAST 0.33sq.m. AND AT LEAST 450mm HIGH AND 450mm WIDE. THE BOTTOM OF THE OPENABLE AREA SHOULD BE NOT MORE THAN 1100mm ABOVE THE FLOOR.
THIS WINDOW SHOULD BE FITTED WITH ESCAPE WINDOW HINGES.

WINDOWS AND DOORS ARE TO BE SET BACK TO OVERLAP INSULATED CAVITY CLOSER BY A MINIMUM OF 30mm IN ACCORDANCE WITH ROBUST DETAILS

ELECTRICS

PROVISION FOR ENERGY EFFICIENT LIGHTING SHOULD BE MADE IN THE NEW EXTENSION THE LOCATION OF THIS LIGHTING SHOULD BE POSITIONED WHERE IT CAN BE EXPECTED TO HAVE MOST USE, FIXED LIGHTING THAT ONLY TAKE LAMPS HAVING A LUMINOUS EFFICACY GREATER THAN 40 LUMENS PER CIRCUIT-WATT. GUIDANCE ON IDENTIFYING SUITABLE LOCATIONS FOR EFFICIENT LIGHTING IS GIVEN IN GENERAL INFORMATION LEAFLET GIL 20.
WITHIN THIS SCHEME THE LOCATIONS OF EFFECIENT LIGHTING IS TO BE ON THE LANDING AND IN ONE NEW BEDROOM

IF EXTERNAL LIGHTING IS TO BE USED REASONABLE PROVISION SHOULD BE MADE TO ENABLE EFFECTIVE CONTROL AND/OR THE USE OF EFFICIENT LAMPS.
PROVISION CAN BE MADE BY:
a) AUTOMATICALLY EXTINQUISH WHEN THERE IS ENOUGH DAYLIGHT, AND WHEN NOT REQUIREDAT NIGHT; OR
b) HAVE SOCKETS TAHT CAN ONLY BE USED WITH LAMPS HAVING AN EFFICACY GREATER THAN 40 LUMENS PER CIRCUIT-WATT.

MAINS OPERATED SELF CONTAINED SMOKE ALARMS ARE TO BE PROVIDED IN ACCORDANCE WITH BS 5446: PART 1. THE POSITIONS OF THESE DETECTORS WILL BE ONE ON THE FIRST FLOOR LANDING AND ONE IN THE ENTRANCE HALLWAY WITH BATTERY BACK UP

(SD) SMOKE DETECTOR

ALL ELECTRICAL WORK IS REQUIRED TO MEET THE REQUIREMENTS OF PART P (ELECTRICAL SAFETY) MUST BE DESIGNED, INSTALLED AND TESTED BY A PERSON COMPETENT TO DO SO. AN APPROPRIATE BS 7671 ELECTRICAL INSTALLATION CERTIFICATE IS TO BE ISSUED FOR THE WORK ON COMPLETION. P1, P2.

ROOF
ROOF COVERING TO BE CONCRETE PLAIN TILES BY REDLAND OR SIMILAR. TILES TO BE LAID IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS TO FORM A WATERTIGHT COVERING.
TILES ARE TO BE LAID ON 38 x 25mm TREATED SOFTWOOD BATTENS NAILED AT REQUIRED CENTRES ON TYVEK BREATHABLE ROOFING FELT LAID HORIZONTALLY ACROSS ROOF TIMBERS WITH 150mm MINIMUM OVERLAP TO EACH JOINT.
THE MAIN ROOF STRUCTURE IS TO BE OF PREFABRICATED TREATED TIMBER TRUSSES AT 600mm CENTRES BY SPECIALIST SUPPLIER. THE MANUFACTURER IS TO PROVIDE STRUCTURAL CALCULATIONS AND DETAILS OF THE DESIGN OF THE TRUSSES USED IN ALL SITUATIONS. ALL TIMBERS ARE TO BE BRACED USING 100 x 25mm TREATED SOFTWOOD TIMBERS TWICE NAILED TO EACH RAFTER/ JOIST. BRACING TO BE LAPPED OVER MINIMUM TWO TIMBERS WHERE JOINTS ARE REQUIRED. ROOF TO BE CONSTRUCTED IN ACCORDANCE WITH BS5268: PART 3 1985 (AS AMENDED).
ROOF TIMBERS ARE TO BE TWICE NAILED TO 100 x 50mm SC3 GRADE SOFTWOOD WALLPLATE ON MORTAR BED.WALLPLATE TO BE ANCHORED TO THE WALL USING 30 x 2.5mm GALVANISED STRAPS, 900mm LONG BENT OVER THE WALLPLATE 100mm AND SCREWED TO BLOCKWORK AT 2.0M MAX. CENTRES.
ANY TIMBERS WHICH ARE CUT ON SITE ARE TO HAVE THE EXPOSED FACES LIBERALLY COATED WITH SUITABLE PRESERVATIVE.
THE CEILINGS ARE TO BE FORMED USING ONE LAYER OF SQUARE EDGED PLASTERBOARD WITH A SKIM COAT APPLIED FINISHED IN EMULSION PAINT.
THE MAIN ROOF SPACE IS TO BE INSULATED WITH 1 LAYER OF 100mm THICK MINERAL FIBRE QUILT LAID BETWEEN THE JOIST AND THE 1 LAYER OF 150mm THICK LAID AT RIGHT ANGLES TO THE FIRST OVER THE JOISTS.
THE INSULATION IS TO BE TAKEN OVER THE WALL PLATES AND INTO THE EAVES VOID. PROPRIETARY ROOF VENTILATORS ARE TO BE FIXED OVER/BETWEEN RAFTERS ABOVE WALL PLATES TO MAINTAIN AN EQUIVALENT 10mm CONTINUAL AIRFLOW OVER THE INSULATION.
THE ROOF VOID IS TO BE VENTILATED VIA EAVES VENTS INSTALLED TO GIVE THE EQUIVALENT OF A 10mm WIDE CONTINUOUS AIR GAP TO THE LENGTH OF THE ROOF EAVES.
U-VALUE ACHEIVED IS 0.16W/sq.m.K.

PLUMBING AND DRAINAGE
THE PLUMBING SYSTEM IS TO BE INSTALLED IN ACCORDANCE WITH BSEN1256 BRE DIGESTS 248 AND 249, BUILDING REGULATIONS, WATER AUTHORITY REGULATIONS AND NHBC REQUIREMENTS.
WASTE CONNECTIONS FROM FITTINGS ARE TO BE 100mm DIAMETER FROM WC'S AND 38mm FROM WASH BASINS AND 38mm FROM BATH.
THE WC'S ARE TO HAVE 50mm DEEP SEAL TRAPS AND ALL OTHER FITTINGS TO HAVE 75mm DEEP SEAL TRAPS. ALL BRANCH PIPES CONNECTED TO THE STACKS WITH MINIMUM 280mm OFFSET TO WC.
THE NEW SANITARYWARE WASTES ARE TO BE CONNECTED THROUGH THE WALL INTO THE NEW SOIL AND VENT PIPE
VERTICAL SOIL AND VENT PIPES TO BE 110mm DIAMETER TO BS4514:1983 (AS AMENDED) AND FITTED WITH LARGE RADIUS BENDS AT BASES. PIPES ARE TO TERMINATE AT HEAD WITH EITHER A MARLEY 'DURGO' TYPE RELIEF VALVE FITTED ABOVE SPILLAGE LEVEL OF FITTINGS OR TAKEN ABOVE ROOF TO TERMINATE IN EXTERNAL AIR MINIMUM 900mm ABOVE ANY OPENING WINDOWS

DRAINAGE

ALL UNDERGROUND DRAINAGE TO BE CONSTRUCTED IN ACCORDANCE WITH BSEN752 USING 100mm DIAMETER PVC PIPEWORK AND PREFABRICATED INSPECTION CHAMBERS. DRAINS TO BE LAID WITH FLEXIBLE JOINTS TO A NOMINAL 1:50 GRADIENT WITH 150mm PEA SHINGLE SURROUND. PREFABRICATED INSPECTION CHAMBERS UP TO 600mm DEEP REQUIRING ONLY ONE LATERAL CONNECTION ARE TO BE 225mm DIAMETER. AND CHAMBERS UP TO 1000mm DEEP WITH ALLOWANCE FOR UP TO 4 CONNECTIONS ARE TO BE 450mm DIAMETER. CHAMBERS OVER THIS DEPTH OR CHAMBERS SUBJECT TO TRAFFIC LOADINGS ARE TO BE DESIGNED TO SUIT THE SPECIFIC SITUATION BUT GENERALLY WILL BE CONSTRUCTED OF CONCRETE BASE WITH 215mm ENGINEERING BRICKWORK SIDES IN 1:6 MORTAR WITH PREFORMED CHANNELS AND MORTAR HAUNCHING.
INTERNAL MANHOLE COVERS TO BE DOUBLE GREASE SEALED AND SCREWED DOWN.
THE RAINWATER IS COLLECTED FROM THE ROOF VIA 100mm DIA. PVCu TYPE GUTTERING TO MATCH EXISTING, DISCHARGING INTO 63mm DIAMETER PVC DOWN PIPES CONNECTED INTO 100mm DIAMETER UNDERGROUND PIPEWORK
AS PREVIOUSLY DISCRIBED. SURFACE WATER DRAINAGE TO FINALLY DICHARGE INTO EXISTING SURFACE WATER SOAKAWAYS.IF NEW SOAKAWAY REQUIRED IT WILL BE SUPPLIED BY MARSHALLS OR SIMILAR. THE DEPTH OF SOAKAWAY IS TO BE 1000mm BELOW THE INVERT OF THE OUTLET PIPE. NEW SOAKAWAYS TO BE CONSTRUCTED AS IN BRE DIGEST 365
ALL LARGE DIAMETER WASTE PIPES PASSING THROUGH WALLS ARE TO HAVE PRE-STRESSED CONCRETE LINTELS OVER PROVIDED OVER. OPENING AROUND THE PIPE IS TO GIVE 50mm SPACE ALL AROUND. MASK OPENING BOTH SIDES WITH RIGID SHEET MATERIAL TO PREVENT ENTRY OF FILL OR VERMIN
IF PVC DRAIN PIPES ARE SHALLOW, LESS THAN 600mm BELOW GROUND PROVIDE PROTECTION TO DRAINS BY COVERING WITH 150mm LAYER OF PEA SHINGLE WITH 50mm THICK LAYER OF CONCRETE (OR PAVING SLABS) THEN COVER WITH TOP SOIL AND TURF.

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CLIENT
MR. A. COULT

PROJECT
TWO STOREY REAR AND SINGLE STOREY FRONT EXTENSIONS
28 CHESNUT GROVE, FLEET, HAMPSHIRE. GU51 3LW

DRAWING TITLE
DETAILED PLANS

DATE	SCALE
15:09:07	1:50

JOB / DRAWING No.	REV.
07023/BR/003	A