SPECIFICATION

FOUNDATIONS:
STRIP FOUNDATION TO GENERALLY COMPRISE;
600mm WIDE x 300mm DEEP. C30 MIX CONCRETE CAST MIN 1000mm BELOW GROUND LEVEL REINFORCED WITH 2no LAYERS B503 MESH.FOUNDATIONS TO BE DESIGNED IN ACCORDANCE WITH NHBC STANDARD CHAPTER 4.2 - 'BUILDING NEAR TREES'..

WHERE FOUNDATIONS ARE ADJACENT TO EXISTING FOUNDATION THE ACTUAL FOUNDATION DESIGN WILL DEPEND ON SITE CONDITIONS AND DEPTH OF THE ADJACENT FOUNDATIONS.

WHERE DRAINS ARE PRESENT THE FOUNDATIONS ARE TO BE TAKEN DOWN TO THE INVERT OF THE DRAIN OR TO SUCH A DEPTH WHERE NO BUILDING LOAD IS TRANSFERRED ONTO THE DRAIN.

WHERE SULPHATES ARE PRESENT IN THE GROUND, SULPHATE-RESISTING CEMENT IS TO BE USED IN THE CONCRETE MIX.

BEFORE WORK COMMENCES ON SITE - DIG TRIAL PIT TO ESTABLISH TYPE OF FOUNDATION USED FOR THE EXISTING STRUCTURE AND LEFT READY FOR INSPECTION BY THE (BCO) AND/OR STRUCTURAL ENGINEER (SE) BEFORE ANY FURTHER WORK IS CARRIED OUT.

ALL CONCRETE WORK IS TO BE CARRIED OUT ACCORDING TO BS 8100 1986.

DRAINAGE:
ALL DRAINS TO BE 110mm UPVC PIPES AND FITTINGS LAID TO FALLS IN 150mm PEA GRAVEL BED AND SURROUND AND FITTED WITH RODDING EYES OR SUITABLE ACCESS WHERE REQUIRED.

FOUNDATIONS ARE TO BE TAKEN DOWN TO BELOW THE DRAIN INVERT LEVEL, WITH A CONCRETE LINTEL BUILT OVER TO BRIDGE THE DRAIN WHERE DRAINS PASS THROUGH WALLS/BELOW BUILDINGS.

INSPECTION CHAMBERS AND ACCESS:
TO BE PROVIDED AT CHANGES OF DIRECTION AND TO BE EITHER PROPRIETARY PLASTIC CHAMBERS OR BRICK BUILT AS REQUIRED. COVERS AND FRAMES TO BE AIR-TIGHT AND SOLIDLY BEDDED IN 1:3 MORTAR. RODDING EYES TO BE POSITIONED ON THE DRAIN RUN TO ALLOW FOR UNRESTRICTED RODDING OF THE DRAIN AND HAVE A SEALED REMOVEABLE COVER AT THE POINT OF ACCESS.

RAINWATER DOWNPIPES AND WASTE PIPES ARE TO DISCHARGE INTO BACK-INLET GULLYS CONNECTED TO THE DRAIN RUN. GULLYS TO BE ENCASED IN 150mm CONCRETE.

100mm CAVITY WALLS:
BELOW DAMP PROOF COURSE (DPC) LEVEL, CONSTRUCT TWO SEPARATE LEAVES OF COMMON BRICK AND TRENCH BLOCKS WITH OUTER SKIN TO BE RED ENGINEERING TO MATCH EXISTING BELOW DPC TAKEN DOWN TO 3NO, COURSES BENEATH FINAL GROUND LEVEL ON EXTERNAL WALLS.

STAINLESS STEEL HRT4 225mm WALL TIES SPACED AT MAX 750mm C/C'S HORIZONTALLY AND MAX 450mm C/C'S VERTICALLY DOUBLE UP NUMBER OF TIES AROUND OPENINGS, FIT WALL TIES IN ACCORDANCE WITH BS 1243:1978.

100mm CAVITY TO BE FILLED WITH LEAN-MIX CONCRETE TO 50mm BELOW GROUND LEVEL. DPC TO BE 'HIGHLOAD' PITCH POLYMER OR SIMILAR LAID ON A MORTAR BED, ABOVE DPC, CONSTRUCT TWO SEPARATE LEAVES:

EXTERNAL LEAF: 1000mm SOLID CONCRETE BLOCKWORK WITH 2no SAND/CEMENT RENDER TO MATCH EXISTING.
CAVITY: 100mm, WITH 100mm KNAUF 'DRITHERM' CAVITY BATTS.
INTERNAL LEAF: 100mm THERMALITE 'SHIELD' BLOCK CRUSHING STRENGTH 4 N/mm sq.

BLOCKWORK TO BE RETURNED INTO REVEALS WITH INSULATED DPC BUILT TIGHTLY IN AS WORK PROCEEDS.

PROVIDE A CAVITY TRAY OVER ANY ITEM THAT BRIDGES THE CAVITY (I.E. AIR BRICKS, GAS METER BOXES, VENT, DUCTS ETC.). ALL OPENINGS IN EXTERNAL WALLS ARE TO INCORPORATE A DPC. ALL FRAMES IN OPENINGS TO BE MASTIC POINTED TO THE MASTIC MANUFACTURERS RECOMMENDATIONS. MASTIC IS TO COMPLY WITH BS4254 OR BS5889. CAVITY TO BE CLOSED WIDTH THERMOBATE 100 CAVITY CLOSERS (OR SIMILAR) AS WORK PROCEEDS.

LINTELS TO ALL OPENINGS TO BE MANUFACTURED BY CATNIC, TYPE CG100 WITH HORIZONTAL DPC AND 2no WEEPHOLES. UNLESS OTHERWISE STATED.

MASONRY CONNECTIONS:
NEW MASONRY TO BE EITHER MECHANICALLY CONNECTED TO EXISTING MASONRY OR BRICK/BLOCK BONDED TO THE EXISTING MASONRY, DECISION BASED ON BRICK SIZE, APPEARANCE AND CUSTOMER REQUIREMENTS. CUT SLOT AND BUILD IN VERTICAL DAMP PROOF COURSE IF FURFIX OR OTHER MECHANICAL CONNECTIONS ARE EMPLOYED.

SOLID GROUND FLOOR SLAB:
FLOOR SLAB CONSTRUCTION GENERALLY IS TO COMPRISE:
ALL VEGETABLE GROWTH AND DELETERIOUS MATTER STRIPPED OFF SITE.
CONCRETE SLAB 150mm THICK WITH C30, 50mm SLUMP (1:2:4:20mm AGGREGATE) CONCRETE MIX ON 500 GAUGE SEPARATION MEMBRANE ON 75mm KINGSPAN 'KOOLTHERM K3 FLOORBOARD' RIGID FOAM INSULATION ON 1200 GAUGE VISQUEEN DPM MADE CONTINUOUS WITH THE DPC ON 150mm INERT WELL CONSOLIDATED HARDCORE BLINDED WITH SAND.

INSULATION IS TO BE CARRIED UP AROUND THE SLAB AROUND THE EXTERNAL PERIMETER OF THE SLAB/WALL.

FLOOR FINISH TO BE EITHER FLOATED TROWEL FINISH TO THE SLAB OR THE SLAB IS TO BE LEFT LOW AND FINISH WITH FIBRE REINFORCED SCREED AT 60-75mm THICK.

LEAN-TO ROOF STRUCTURE;
ROOF TIMBERS TO COMPRISE GENERALLY;
- RAFTERS: 150x50mm C16 TIMBER @ 400mm CENTRES.
- CEILING JOISTS: 150x50mm C16 TIMBER @ 400mm CENTRES.
- WALLPLATE: 100x75mm BEDDED ON MORTAR WITH 1200x30x5mm GALV M.S. RESTRAINT STRAPS AT MAX 1500mm CENTRES.
- EAVES AND BARGE: CONTINUATION FROM THE EXISTING HOUSE.

UPVC FASCIA AND SOFFIT TO INCORPORATE VENTILATION - VENTILATION ONLY REQUIRED WHERE NON-BREATHABLE FELT HAS BEEN USED. THEREFORE, IN ACCORDANCE WITH APPROVED DOCUMENT F (VENTILATION) A 10mm CONTINUOUS GAP FOR THE FULL PERIMETER TOGETHER WITH A PROPRIETARY ROOF SPACE VENTILATOR. LEAVE A 25mm AIR-GAP BETWEEN THE UNDERSIDE OF THE FELT AND THE BRICKWORK AND ENSURE

THE GAP IS LEFT CLEAR WITH A SUITABLE PROPRIETARY BAFFLE FOLLOWING THE INSTALLATION OF THE ROOF INSULATION.

ROOF SLOPE/CEILING INSULATION:
TIGHTLY FIT 130mm KINGSPAN 'KOOLTHERM K7 ROOFBOARD RIGID INSULATION BETWEEN RAFTERS, MAKING SURE THAT MIN 50mm AIR-GAP IS MAINTAINED ABOVE THE INSULATION WITH A FURTHER 50mm OF K18 DRY-LINING BOARD ACROSS THE UNDERSIDE OF THE RAFTERS/CEILING JOISTS.

ENSURE THAT A MINIMUM AIR GAP OF 50mm IS MAINTAINED BETWEEN THE INSULATION AND UNDERSIDE OF SLATERS FELT WHERE USED FOR FREE PASSAGE OF AIR FOR VENTILATION. USE 50x50mm SOFTWOOD BATTENING FIXED TO THE UNDERSIDE OF THE RAFTERS IF NECESSARY TO ACHIEVE AIR GAP.

ENSURE VERTICAL, SLOPING AND HORIZONTAL INSULATION IS MADE CONTINUOUS, FILL AWKWARD JUNCTIONS WITH EXPANDING FOAM.

TOTAL CONSTRUCTION OF ROOF TO ACHIEVE A U-VALUE OF **0.20W/M2.K.** FOR THE ROOF STRUCTURE.

CONCRETE TILE ROOF COVERING;
CONCRETE TILE ROOF COVERING TO COMPRISE;
MARLEY WESSEX OR MENDIP (MIN PITCH 15°) FIXED STRICTLY IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS ON 25x38mm TANNALIZED S/W TILING LATH GENERALLY TO SUIT TILE GAUGE ON 'TYVEK' OR SIMILAR 'BREATHABLE' SLATERS FELT LAID AND LAPPED ACCORDING TO MANUFACTURERS STRICT RECOMMENDATIONS. WHERE IMPERVIOUS SLATERS FELT IS USED ENSURE THAT A MINIMUM 50mm AIR GAP IS MAINTAINED BETWEEN THE INSULATION AND UNDERSIDE OF THE FELT. ALSO ENSURE THAT A FREE FLOW OF AIR IS ACHIEVED BETWEEN THE UNDERSIDE OF THE FELT AND THE INSULATION.

WINDOWS:
STYLE, CONFIGURATION AND SIZE OF WINDOWS TO BE TO CLIENT'S DISCRETION AND SHOULD BE AGREED BEFORE SUPPLYING WINDOWS.

WINDOWS TO HABITABLE ROOMS TO HAVE OPENING LIGHTS GIVING RAPID VENTILATION NOT LESS THAN 1/20th OF THE FLOOR AREA OF THE ROOM. ALL WINDOWS TO HAVE TRICKLE VENTILATION PROVIDING AT LEAST 10,000 sq.mm, TO EACH HABITABLE ROOM.

WINDOWS, DOORS & ROOFLIGHT AREAS GENERALLY, TO HAVE A COMBINED AREA NOT GREATER THAN 25% OF THE NEW FLOOR AREA, UNLESS AGREED WITH THE BUILDING CONTROL OFFICER.

GLAZING:
NEW UPVC DOUBLE GLAZED TO BS9001 AND BBA CERTIFICATION. GLAZING TO BE 28mm (4:20:4) SEALED DOUBLE ARGON FILLED GLAZED (LOW-E: EMISSIVITY OF 0.15) UNITS WITH A U-VALUE MINIMUM 'U' VALUE OF **1.6W/M-sq K.** ALL GLASS SHALL BE IN ACCORDANCE WITH BS6262:1978. OBSCURE GLAZING IS TO BE PROVIDED TO ALL BATHROOMS AND CLOAKROOMS. ALL WINDOWS AND DOORS ARE TO BE WEATHER STRIPPED.

ALL SAFETY GLAZING TO CONFORM WITH BS 6206:1981 WHERE GLAZING HAS BEEN SPECIFIED ON PLANS, TOUGHENED/LAMINATED GLASS AND/OR SAFETY PLASTICS WILL BE FITTED IN THE FOLLOWING AREAS:-

1. IN THE WALLS BETWEEN FINISHED FLOOR LEVEL AND 800mm VERTICAL HEIGHT
2. IN DOORS BETWEEN FINISHED FLOOR LEVEL AND 1500mm VERTICAL HEIGHT
3. WITHIN 300mm EITHER SIDE OF A DOOR BETWEEN FINISHED FLOOR LEVEL AND 1500mm VERTICAL HEIGHT.

PITCHED ROOF INSULATION WITHIN JOISTS TO LEVEL CEILING:
CEILING AREA IS TO BE INSULATED WITH 2no LAYERS OF ROCKWOOL ROLLBATT INSULATION QUILT, TOTAL THICKNESS 300mm. THE FIRST LAYER OF 100mm INSULATION QUILT TO BE LAID BETWEEN THE JOISTS COMPLETE WITH A SECOND LAYER OF 200mm INSULATION LAID AT RIGHT ANGLES ACROSS THE TOP OF THE CEILING JOISTS. SEPARATE BUT LINKING QUILT TO BE LAID OVER THE WALLPLATE AND WEDGED INTO THE BRICKWORK WITHIN THE EAVES TO STOP COLD-BRIDGING. PACK THE SPACE BETWEEN THE LAST RAFTER AND THE GABLE WALL WITH INSULATION. THE ROOF IS TO ACHIEVE A U-VALUE THROUGH THE JOISTS OF AT LEAST **0.16W/sq.m.K.**

ENSURE THAT ELECTRICAL CABLES HAVE BEEN SIZED TO ALLOW FOR EFFECTS OF INSULATION WHERE THEY ARE BURIED.

ENSURE THAT A MINIMUM AIR GAP OF 50mm IS MAINTAINED BETWEEN THE INSULATION AND UNDERSIDE OF SLATERS FELT WHERE USED FOR FREE PASSAGE OF AIR FOR VENTILATION. USE 50x50mm SOFTWOOD BATTENING FIXED TO THE UNDERSIDE OF THE RAFTERS IF NECESSARY TO ACHIEVE AIR GAP.

ABOVE GROUND DRAINAGE & PLUMBING:
COMPLETE INSTALLATION TO BE SUBJECT TO AND CAPABLE OF WITHSTANDING TESTING IN ACCORDANCE WITH BS5572:1978. ABOVE GROUND FOUL DRAINAGE PIPE WORK SHALL BE PVC-U TO BS4514. PIPEWORK GENERALLY TO HAVE MIN FALL OF 2 DEGREES.

PIPEWORK MUST BE DESIGNED IN ACCORDANCE WITH BS5572 AND INSTALLED TO ENSURE THAT APPLIANCES DRAIN EFFICIENTLY WITHOUT CAUSING CROSSFLOW, BACKFALL, LEAKAGE OR BLOCKAGE. NO AIR FROM THE DRAINAGE SYSTEM SHALL ENTER THE BUILDING. PROVIDE ADEQUATE SUPPORT TO LENGTHS OF PIPEWORK AND AT JUNCTIONS AND CHANGES IN DIRECTION. NO BRANCH CONNECTION TO BE WITHIN 450mm ABOVE FOOT OF SOIL PIPE. ALL PVC-U PIPEWORK TO BE TO BS4514.

MINIMUM PIPE SIZES FOR SANITARY PLUMBING TO BE:

WC'S, SOIL PIPES	100mm DIA NOM. SIZE
COMMON PIPE WASTES	50mm DIA NOM. SIZE
BATH, SINK	50mm DIA NOM. SIZE
HANDBASIN	32mm DIA NOM. SIZE GENE
SHOWER	32mm DIA NOM. SIZE
OVERFLOW	19mm DIA NOM. SIZE

ALL WASTES TO HAVE 75mm DEEP SEAL TRAPS. PROVIDE WASTE FOR WASHING MACHINE AND DISHWASHERS WHERE APPLICABLE. ALL WASTE PIPES SHALL BE LAID TO FALLS (25mm PER METER RUN), ALL PLUMBING SHALL INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.

THE MAXIMUM LENGTH OF WASTE PIPES SHALL BE AS FOLLOWS:

32mm PIPE	1.7m MAX LENGTH
40mm PIPE	3.0m MAX LENGTH
50mm PIPE	4.0m MAX LENGTH
100mm PIPE	6.0m MAX LENGTH

SOIL AND VENTILATING STACKS AT 'HEAD' OF DRAIN RUN TO BE VENTILATED TO THE EXTERNAL AIR VIA RIGID DUCTING WITHIN ROOF SPACE TO TERMINATE VIA TILE OR RIDGE TILE VENTILATOR (MINIMUM 900mm ABOVE ANY WINDOW HEAD WITHIN 3.0m HORIZONTALLY), TOP OF S.V.P TO BE FITTED WITH A DURABLE WIRE CAGE.

SOIL PIPES PASSING THROUGH HABITABLE ROOMS (INCLUDING KITCHENS) TO BE LAGGED WITH MINIMUM 50mm SOUND DEADENING QUILT AND WITH 2no LAYERS OF 12.5mm PLASTERBOARD ON 38x38mm SOFTWOOD FRAMING. ACCESS AND RODDING EYE FITTINGS TO BE PROVIDED TO ENSURE ALL PIPEWORK IS ACCESSIBLE AS REQUIRED. PIPEWORK LAID BETWEEN JOISTS TO BE ADEQUATELY SUPPORTED. UNDERGROUND PIPES WITH LESS THAN 750mm GROUND COVER SHALL BE INSULATED. ALL RISING MAINS TO BE INSULATED.

VENTILATION:
WINDOWS TO HABITABLE ROOMS TO HAVE OPENING LIGHTS GIVING RAPID VENTILATION NOT LESS THAN 1/20th OF THE FLOOR AREA OF THE ROOM. ALL WINDOWS TO HABITABLE ROOMS TO HAVE TRICKLE VENTILATORS TO GIVE AT LEAST 10,000 cu.mm.

PROVIDE MECHANICAL VENTILATION TO THE KITCHEN OF 60ltrs/sec. ALL DUCTING THROUGH EXTERNAL WALLS.

ELECTRICAL INSTALLATIONS:
THE DESIGN, INSTALLATION, INSPECTION AND TESTING OF THE ELECTRICAL INSTALLATIONS IS TO BE IN FULL ACCORDANCE WITH BS7671:2001, THE LATEST EDITION OF THE IEE WIRING REGULATIONS AND APPROVED DOCUMENT P OF THE BUILDING REGULATIONS.

THE INSTALLATION GENERALLY SHOULD BE CARRIED OUT IN ACCORDANCE WITH ACCEPTED INSTALLATION TECHNIQUES APPLICABLE TO THE MATERIAL AND EQUIPMENT BEING USED.

ALL WORK IS TO CARRIED OUT BY AN NICEIC OR SIMILAR SELF-CERTIFIED CONTRACTOR, OR ALTERNATIVELY BY A SUITABLY QUALIFIED PERSON , WITH A CERTIFICATE.

DETAILS OF THE POSITION OF ALL ELECTRICAL FITTINGS IS TO BE SPECIFIED BY THE CLIENT, THESE DETAILS ARE TO BE APPROVED BY CERTIFIED CONTRACTOR PRIOR TO ANY ELECTRICAL INSTALLATIONS BEING CARRIED OUT.

NOTE: ALL CABLES WHICH ARE COVERED OR SURROUNDED WITH THERMAL INSULATION TO BE DE-RATED IN ACCORDANCE WITH APPENDIX A OF BRE 'THERMAL INSULATION: AVOIDING RISKS' 2002 EDITION. ALL DOWNLIGHTERS IN CEILING/FLOOR VOIDS ARE TO BE EITHER BOXED-IN WITH 12.5mm PLASTERBOARD OR FITTED WITH AN INTUMESCENT COVER TO MAINTAIN HALF-HOUR FIRE RESISTANCE.

SERVICES AND FITTINGS WITHIN THE ROOF SPACE ARE TO BE PROTECTED FROM OVERHEATING. LIGHTING CIRCUIT CABLES TO BE MINIMUM 1.5sq.mm WITHIN INSULATION. ALL OTHER CABLE RUNS TO BE SUPPORTED BY AND CLIPPED TO ROOF TIMBERS AND BE KEPT CLEAR OF INSULATION.

ALL LIGHT SWITCHES AND SOCKET OUTLETS ARE TO BE SITED BETWEEN 450mm AND 1200mm ABOVE FINISHED FLOOR LEVEL.

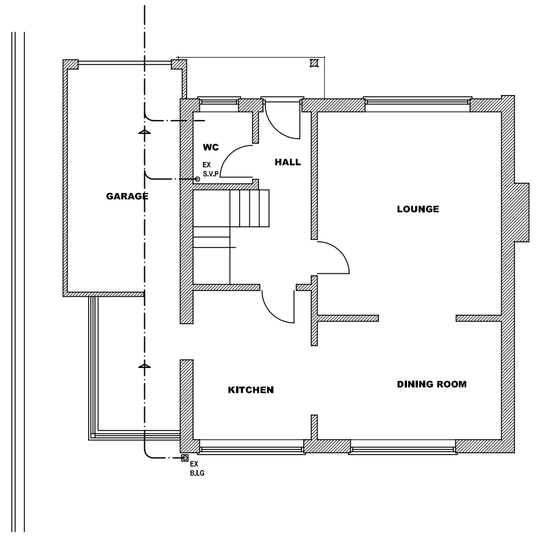
EFFICIENT LIGHTING:
PROVIDE A SINGLE FIXED LIGHTING OUTLET (TAKING ONLY FLUORESCENT TUBES OR COMPACT FLUORESCENT LAMPS) TO THE HALLWAY, UTILITY AND CLOAKROOM.

HEATING SYSTEM;
THERMOSTATIC RADIATOR VALVES ARE TO BE FITTED TO ALL NEW RADIATORS INSTALLED ON THE EXISTING HEATING SYSTEM WITHIN THE EXTENSION. DETAILS OF NEW OR EXTENSION TO EXISTING HEATING SYSTEM TO BE FORWARDED TO BCO BEFORE INSTALLATION IS CARRIED OUT.

GENERAL:
ANY QUERIES THE CONTRACTOR MAY HAVE SHOULD BE INVESTIGATED IMMEDIATELY AND THOROUGHLY AND CONFIRMED BY EITHER THE CLIENT AND/OR DRAUGHTSMAN.

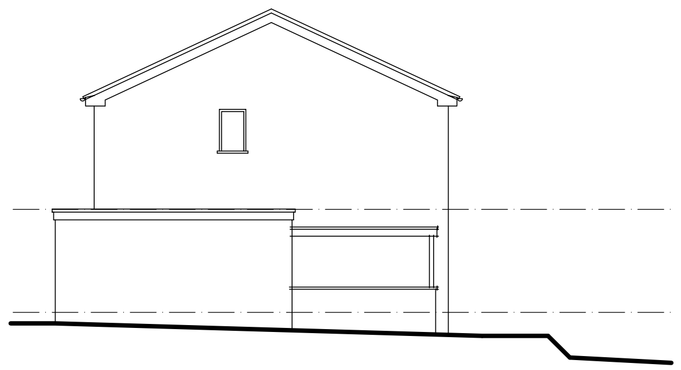
ALL DIMENSIONS TO BE CHECKED BEFORE IMPLEMENTING WORKS, DIMENSIONS CAN BE SCALED FROM THE DRAWINGS FOR SETTING OUT PURPOSES, BUT WHERE DRAWINGS HAVE BEEN SCALED CONFIRM THE DIMENSIONS WITH THE CLIENT AND/OR DRAUGHTSMAN.

CONTRACTOR TO SATISFY HIMSELF AS TO THE POSITION OF GAS, ELECTRICITY AND WATER MAINS BEFORE ALL WORK COMMENCES AND ESTABLISH WHETHER PROTECTION OR RELOCATION OF SERVICES IS REQUIRED. ESTABLISH FEES AND RELOCATION COSTS ASSOCIATED WITH THE WORKS.





EXISTING REAR ELEVATION

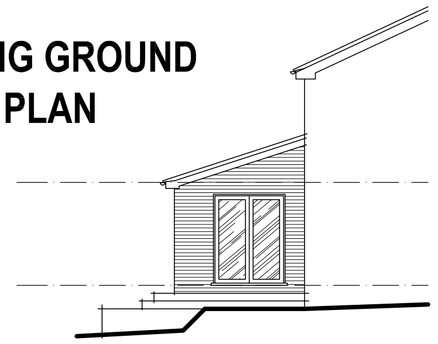


EXISTING SIDE ELEVATION



EXISTING FRONT ELEVATION

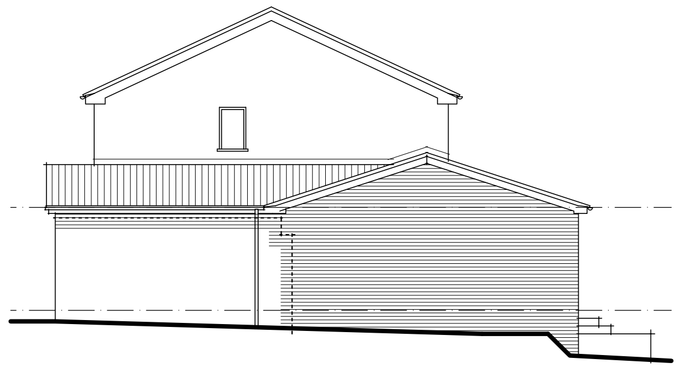
EXISTING GROUND FLOOR PLAN



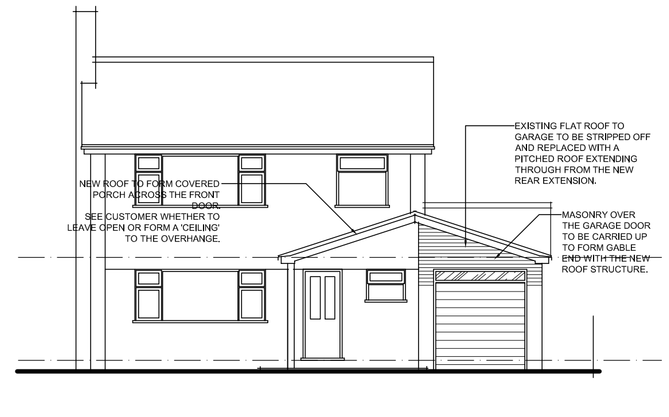
PROPOSED SIDE ELEVATION



PROPOSED REAR ELEVATION

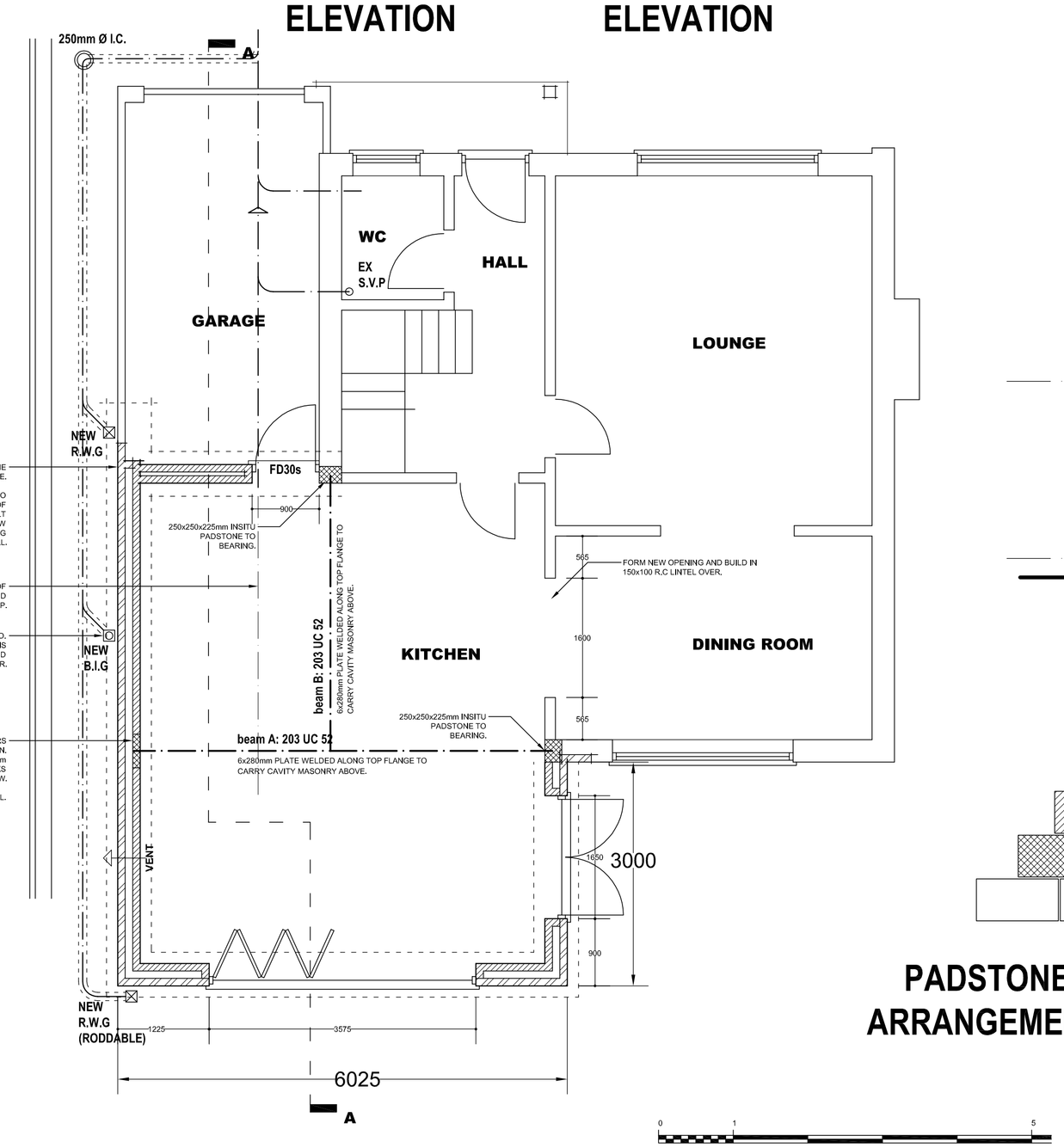


PROPOSED SIDE ELEVATION



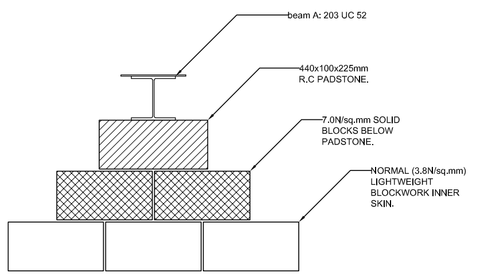
PROPOSED FRONT ELEVATION

0 1 5
SCALE 1:100 @ A1

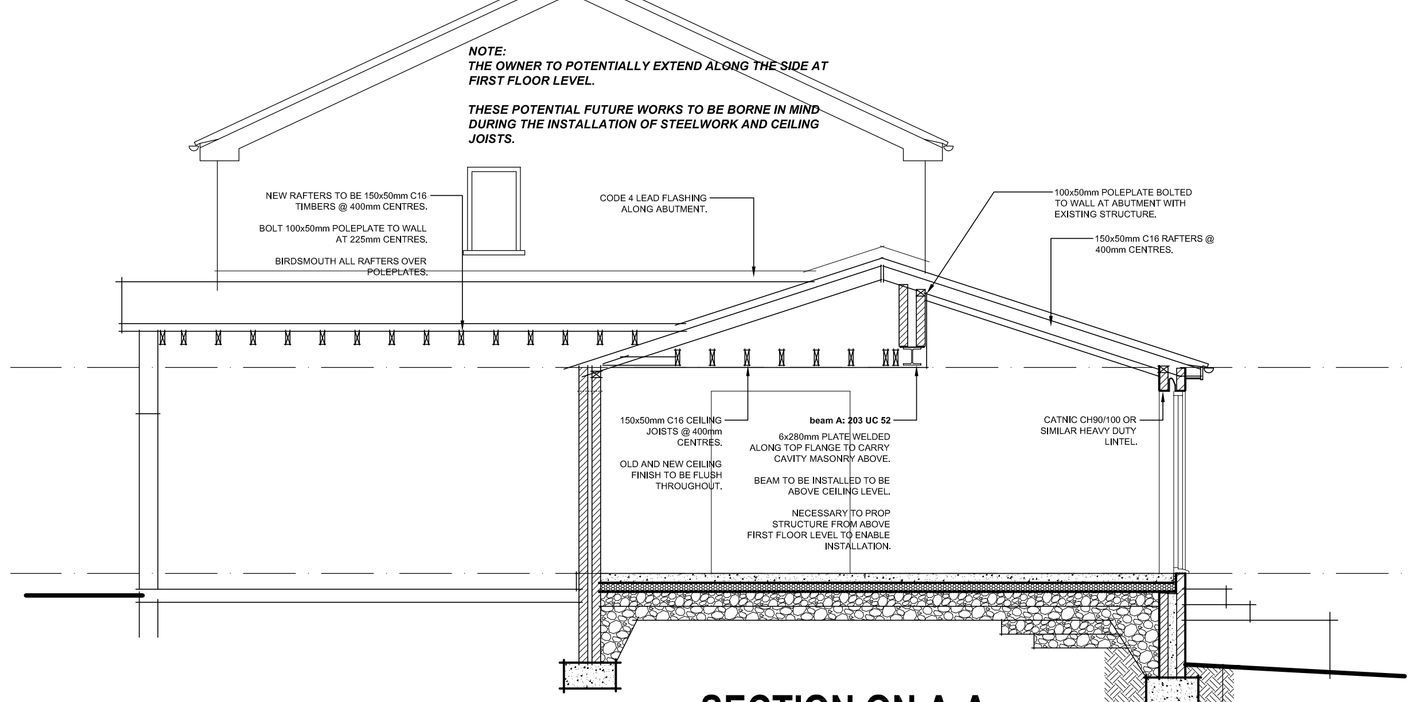


PROPOSED GROUND FLOOR PLAN

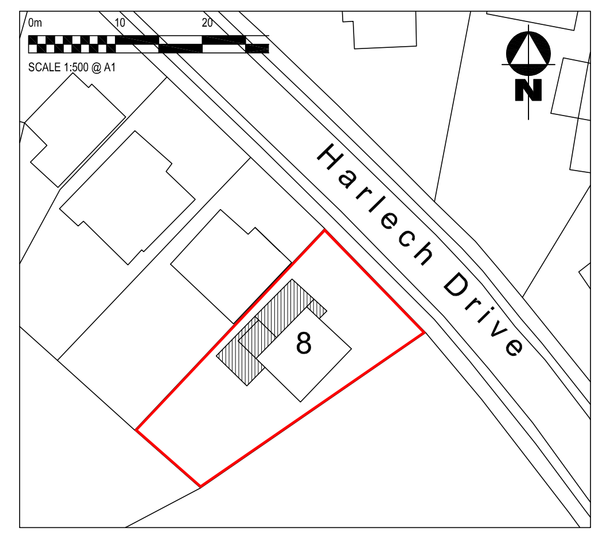
0 1 5
SCALE 1:50 @ A1



PADSTONE & BLOCKWORK ARRANGEMENT BELOW BEAM A



SECTION ON A-A



SITE PLAN (SCALE 1:500)

C (13.09.17): O/S plan added.

B (3.08.17): Detail added.

A (18.07.17): Extend roof through to front porch.

Rev:

Project:
Rear Single-Storey Extension, at:
8 Harlech Drive, Knypersley,
Stoke-on-Trent, Staffordshire, ST8 7AX.

Title:
General Arrangement.

Client:
Mrs S. Wootten,
8 Harlech Drive, Knypersley,
Stoke-on-Trent, Staffordshire, ST8 7AX.

Date:	Scale:	Drawing No.	Rev
June 2017	1:20, 1:50, 1:100, 1:500 & 1:1250 @ A1	1121/ A1/01	C