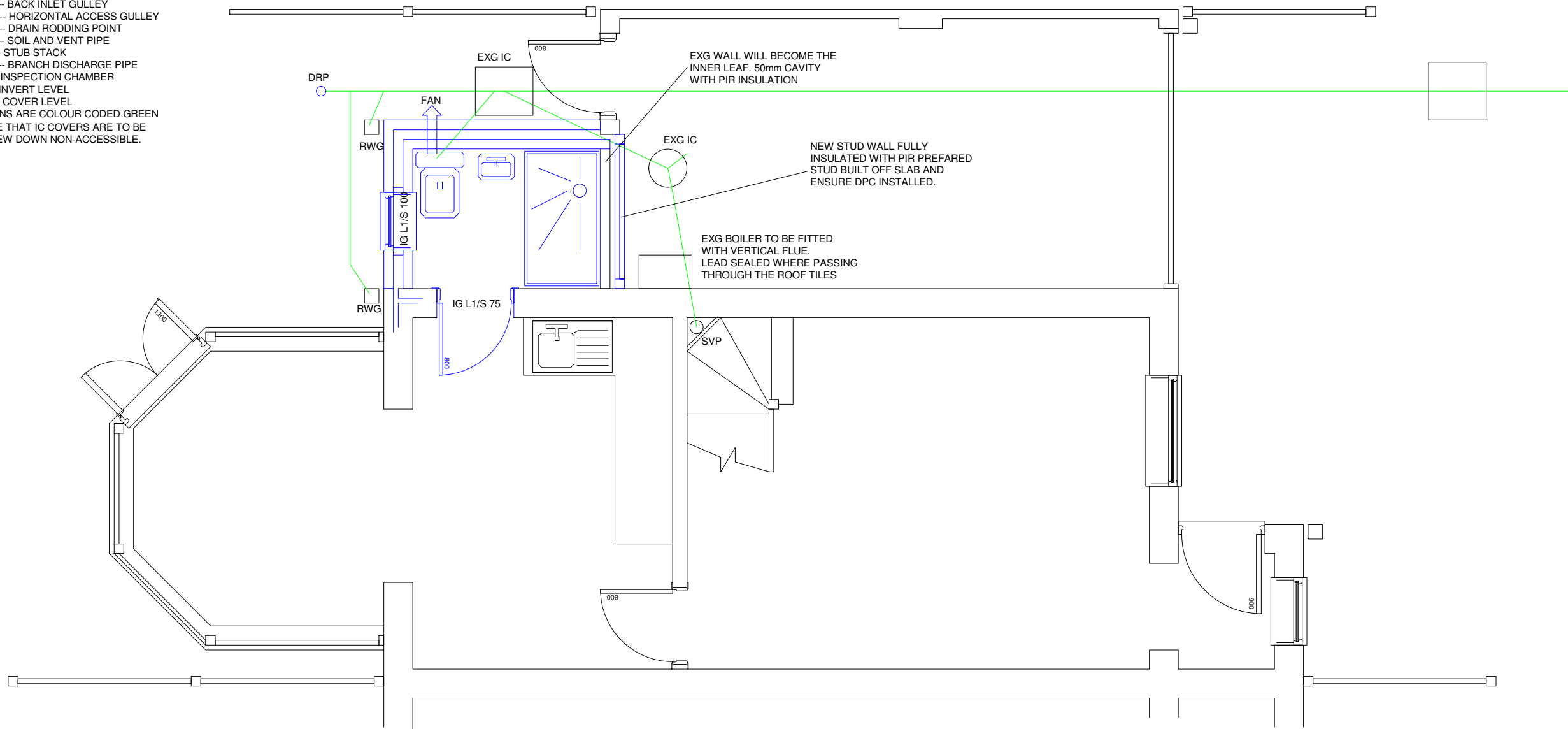


WASTE PIPES.

NEW WASTE PIPES TO BE 50mm dia WITH 75mm DEEP SEAL TRAPS.
ANTI-VAC TRAPS TO BE FITTED TO FITTINGS.

RWG -- RAIN WATER GULLEY
BIG -- BACK INLET GULLEY
HAG -- HORIZONTAL ACCESS GULLEY
DRP -- DRAIN RODDING POINT
SVP -- SOIL AND VENT PIPE
SS -- STUB STACK
BDP -- BRANCH DISCHARGE PIPE
IC -- INSPECTION CHAMBER
IL -- INVERT LEVEL
CL -- COVER LEVEL
DRAINS ARE COLOUR CODED GREEN
NOTE THAT IC COVERS ARE TO BE SCREW DOWN NON-ACCESSIBLE.

PROPOSED GROUND FLOOR PLAN



PITCH ROOF CONSTRUCTION

SELECT TILES FROM LIST PROVIDED & FIX ON 38x25 TANALISED BATTENS, ON ONE LAYER KINGSPAN MILVENT BREATHABLE MEMBRANE. INSULATION BETWEEN AND OVER CEILING JOIST EARTHWOOL. 100mm BETWEEN AND 170mm OVER ROCKWOOL. 100mm BETWEEN AND 170mm OVER CEILING SOFFITS 12mm PLASTER BOARD & 'ARTEX' FINISH. INSULATION LOCATED NOT TO OBSTRUCT CROSS FLOW VENTILATION WHICH IS PROVIDED BY VENT TILES EQUAL TO 25mm CONTINUOUS EAVES OPENING AND 25mm SOFFIT STRIP VENTS. BUILDER IS TO ESTABLISH PRECISE ACHIEVABLE PITCH BEFORE BUYING AND/OR LAYING TILES. REFER TO ARCHITECT IF IN DOUBT.

NOTE THAT WHERE THERE IS AN ANGLED CEILING THEN THIS MUST BE INSULATED AND A 50mm AIR SPACE PROVIDED FOR CROSS FLOW VENTILATION. USE CELOTEX 100mm BETWEEN RAFTERS AND 35mm UNDER RAFTERS. THIS GIVES 0.18W/sqmK. ALTERNATIVELY USE FULL FILL KINGSPAN K7 INSULATION BETWEEN RAFTERS WITH NILVENT BREATHABLE MEMBRANE AND 38x38 COUNTER BATTENS.

RAIN WATER GOODS.

SURFACE WATER TO DISCHARGE FROM ANY NEW ROOF INTO 100 1/2RD GUTTER AND 63da DOWN PIPE.
PIPES AND GUTTERS MADE OF DURABLE PLASTIC AND BE FIRMLY SUPPORTED AND REMAIN WATER TIGHT.

LOFT INSULATION OVER CEILING

INSULATION BETWEEN & OVER CEILING JOISTS USE EARTHWOOL OR ROCKWOOL ROLL 100mm BETWEEN AND 170mm OVER.

INNER & OUTER SURFACES	= 0.18
INSULATION 0.27/0.044	= 6.14
PLASTER BOARD CLG 0.013/0.16	= 0.08
'U' VALUE = 0.156 W/sqmK	= 6.40
'U' VALUE ALLOWABLE = 0.16W/sqmK	

PITCH ANGLES FOR MARLEY TILES

ALL SMOOTH FINISH

PANTILE	75mm HEADLAP	23deg
EURO 9	75mm HEADLAP	30deg
MONARCH	75mm HEADLAP	23deg
BOLD ROLL	75mm HEADLAP	18deg
WESSEX	75mm HEADLAP	15deg
MODERN	100mm HEADLAP	18deg
MENDIP	75mm HEADLAP	23deg
LUDLOW MAJOR	100mm HEADLAP	23deg
DOUBLE ROMAN	100mm HEADLAP	23deg
ANGLIA PLUS	100mm HEADLAP	25deg
LUDLOW PLUS	100mm HEADLAP	23deg

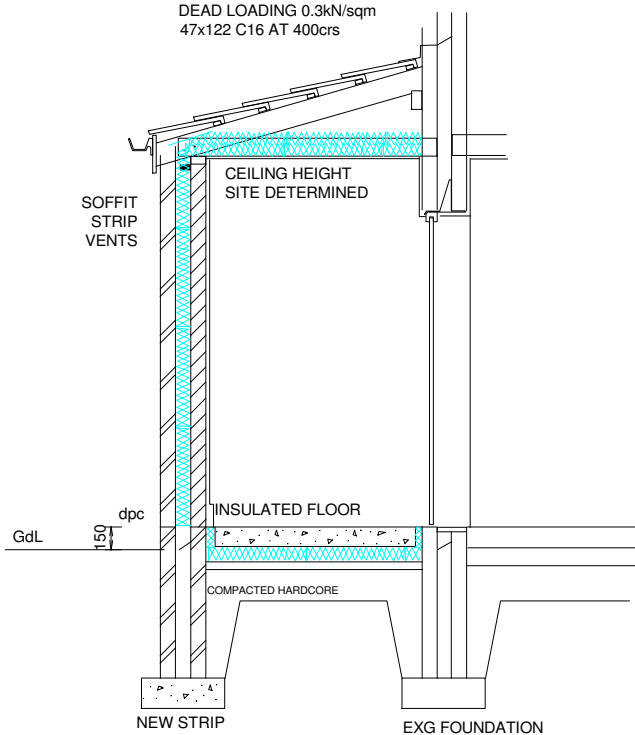
DO NOT USE TILES BELOW RECOMMENDED PITCH.

CAVITY TRAY AND CODE 4 LEAD FLASHING FOR CROSS FLOW VENTILATION USE MONO VENT OR VENT TILES AT 800c/s

TILE TYPE TO BE SELECTED FROM THE LIST IN MAIN NOTES

RAFTER SCHEDULE
IMPOSED LOADING 1.00kN/sqm
DEAD LOADING 0.75kN/sqm
47x122 C16 AT 400c/s

CEILING JOIST SCHEDULE
DEAD LOADING 0.3kN/sqm
47x122 C16 AT 400c/s



SECTIONAL VIEW

CAVITY WALL SPECIFICATION.

OUTER LEAF OF BWK, AN INSULATED CAVITY AND INNER LEAF OF 100mm THICK THERMALITE TURBO BLOCK, ALONG WITH INTERNAL PLASTER FINISH.
OUTER LEAF MAY BE SUBJECT TO PLANNING CONDITIONS.
CAVITY WALL BELOW DPC TO BE OF BWK, CONC, BWK, DENSE CONCRETE BLOCK, OR 7N TRENCH BLOCK.
WALL BELOW DAMP PROOF COURSE (DPC) TO BE AS THICK AS THE WALL ABOVE DPC (IN CASE THE INNER LEAF IS 140)
CAVITY CLOSED AT EAVES AND VERGE.
CAVITY WALL BUILT OFF A CONCRETE FOUNDATION. DPC TO BS743 AND BE AT LEAST 150mm ABOVE GROUND. U-VALUE REQUIRED 0.18 W/sqmK
CAVITY WALL INSULATION IS 90mm THERMACLASS 21 WITH 10mm GAP.
THERMACLASS CAVITY WALL 21 IS A CELOTEX PRODUCT 2.8kg/sqm, 0.021W/mK THERMAL CONDUCTIVITY, FIRE RATING 'E', R-VALUE 4.25m2K/W, RIGID BOARD (PIR) POLYISOCYANURATE, FOIL FACED & BBA CERTIFIED.
EXAMPLE BLOCK, THERMALITE TURBO 100mm THICK HAS 2.9N/mm2 STRENGTH, 470kg/m3 AND 0.11W/mK THERMAL CONDUCTIVITY
EXAMPLE BLOCK, THERMALITE HI STRENGTH 100mm HAS 7.3N/mm2 STRENGTH, 730kg/m3 AND 0.18W/mK THERMAL CONDUCTIVITY.

LINTEL SCHEDULE

TO BS5977: PART 2: 1983, BBA 86/1674 & BBA 85/1453.
LINTELS MUST NOT SUPPORT CONCRETE FLOOR LOADS OR POINT LOADS.
DO NOT USE DAMAGED LINTELS.
END BEARINGS GENERALLY NOT LESS THAN 150mm.
INSIDE OF BEAMS TO BE FILLED WITH FIBREGLASS INSUL.

TIMBER STUD CONSTRUCTION

ALSO LOOK AT STUD WALL TYPES 1 AND 2

DRG. SYMBOL

47x97 C16 TIMBER FRAMEWORK SET 400mm APART AND BOTH SIDES PLATED WITH PLASTER BOARD AND WITH 5mm PLASTER FINISH.
NOTE THAT WALLS SHALL HAVE FULL FIBREGLASS INFILL AND WHERE ACOUSTIC IMPEDANCE IS NEEDED USE 15mm PLASTER BOARD WITH 5mm SKIM FINISH
PLASTER BOARD FIXINGS TO BE 50mm PLASTER BOARD SCREWS SET 250mm c/s.
STUD WALL AT FIRST AND/OR SECOND FLOOR LEVEL TO BE BUILT ON A DOUBLE OR TRIPLED JOIST.

STUD WALL TYPE 1

50x75 C16 TIMBER STUDS AT 400c/s (VERT & HORIZON).
67 ROCKWOOL ACOUSTIC SLAB
13mm PLASTER BOARD EACH SIDE WITH 3mm PLAST. SKIM.
FIRE RESISTANCE = 30mins
ACOUSTIC SOL'N = 44dB

INSULATED GROUND FLOOR

NON-GAS RESISTING WITH 'U' < 0.25W/sqmK
UNDER SLAB INSULATION REQUIRES 200mm THICK OVERSITE HARDCORE FULLY COMPACTED, LEVELLED WITH BLINDING SAND. 1200g DPM LAID OVER AND LAPPED UP SIDES AND LAPPED WITH DPC.
FOR MOST APPLICATIONS USE CELOTEX GA 4000 100t WITH VERTICAL STRIPS OF TB4000 40t TO FIT AROUND THE PERIMETER TO STOP THERMAL BRIDGE. CELOTEX FLOOR INSULATION CONDUCTIVITY 0.22W/mK. LAY A SEPARATING LAYER OF 500g DPM OVER THE BOARDS BENEATH THE CONCRETE SLAB
POUR CONCRETE SLAB TO 150mm THICK ALLOWING FOR SURFACE FINISHES OR LEVELLING COMPOUND
APPLICANT/OWNER SHOULD MAKE ALLOWANCES FOR ANY SETTLEMENT BEFORE APPLYING ANY FINAL DECORATIVE FINISHINGS.
WHERE SPECIALIST FOUNDATION ARE INCORPORATED THERE WILL BE A REQUIREMENT TO ADJUST THIS SPECIFICATION FOR ANY REINFORCED FLOOR SLAB.

STRIP FOUNDATION

GENERALLY IN ACCORDANCE WITH APPROVAL DOC 'A'. CONCRETE STRIP TO NEW BWK AND BLOCK WALLS. BCO INSPECTIONS APPLY IN RESPECT TO DEPTH FOR FROST AVOIDANCE AND FIELD TESTS FOR THE DETERMINATION OF EXCAVATION DEPTH REQUIREMENT ONTO SUITABLE SUB-STRATA THAT IS BELOW LEVEL OF ANY ADJACENT DRAINS AND AWAY FROM INFLUENCE OF ANY TREES SHOULD ANY EXIST CLOSE BY.
EXCAVATION DEPTH IS IN RELATION TO THE GROUND LEVEL AND NOT DPC OR FORMATION LEVEL.
FOUNDATION MUST BE SUITABLE FOR CARRYING A TWO STOREY DEVELOPMENT.
MINIMUM CONC. STRIP SIZE SHALL BE 600mm x 250mm TRIAL TEST HOLES SHALL BE DUG & A DETERMINATION MADE IN REGARDS TO THE FOUNDATION REQUIRED.
CONSIDERATION MUST BE GIVEN TO THE FOUNDATIONS BENEATH STRUCTURAL BEAM BEARINGS AS THEY MAY NEED TO BE WIDER, DEEPER, REINFORCED ETC.
THE BUILDER SHALL CONSULT WITH BUILDING CONTROL PRIOR TO ANY EXCAVATING TO ESTABLISH THE STRATA STABILITY. LOCAL GROUND CONDITIONS SUCH AS FLUID LEVELS IN SOILS AND THE IMPACT OF LOCALISED LOADINGS.
DO NOT UNDERMINE ANY ADJACENT FOUNDATIONS AND EXERCISE CARE WHEN EXCAVATING NEXT TO ANY NEIGHBOURING PROPERTIES. REFER TO PARTY WALL ACT NOTIFICATIONS THAT MAY EXIST BETWEEN APPLICANTS AND THEIR NEIGHBOURS.
IF SPECIAL FOUNDATIONS ARE REQUIRED (IE OTHER THAN STRIP FOUNDS) THEN DIFFERENT PROCEDURES WILL APPLY IE. SOIL SURVEY, GROUND SURVEY, BORE HOLE SURVEY ETC.. WORK MUST NOT PROCEED UNTIL LOCAL AUTHORITY HAVE APPROVED SPECIAL FOUNDY PROPOSALS

ROOM VENTILATION (TOILET)

MECHANICAL EXTRACT VENTILATION FOR RAPID VENTING, AT A RATE OF 6L per sec. WITH INTERMITTENT OPERATING & 15mins. OVERRUN.
ROOM VENTILATION (BATH/SHOWER ROOM)
MECHANICAL EXTRACT VENTILATION FOR RAPID VENTING, AT A RATE OF 15L per sec. WITH INTERMITTENT OPERATING & 15mins. OVERRUN.

GENERAL DRAINAGE NOTES

RIGID PIPES (VITRIFIED CLAY TO BS85) SHALL BE USED WITH WATER TIGHT FLEXIBLE JOINTS.
PIPE RUNS SHOWN ON DRAWING ARE ASSUMED DIRECTIONS AND UNKNOWN DEPTHS.
NEW PIPE RUNS CLOSE TO A BUILDING MAY REQUIRE CONCRETE FILL AND THE SITE CONDITIONS WILL DETERMINE THE FILL LEVELS.
EXG. PIPE RUNS CLOSE TO NEW BUILDINGS MAY REQUIRE RE-EXCAVATION AND/OR IDENTIFICATION TO DETERMINE CONCRETE FILL LEVELS.
ANY NEW OR EXG. DRAIN THAT WILL BE CONCRETE ENCASED & INTEGRAL WITH A SLAB, A FOUNDATION OR A WALL WILL REQUIRE FLEXIBLE JOINTS AND 600mm LONG ROCKER PIPES AT EACH SIDE OF THE INTEGRATED SOLID PIPE RUN.
DEPTH OF COVER OF DRAINS TO BE ESTABLISHED ON SITE.
MINIMUM GRADIENT OF NEW DRAINS TO BE 1:40.
CONNECTIONS OF DRAIN TO DRAIN TO BE OBLIQUE AND IN DIRECTION OF FLOW.
DRAIN ACCESS POINTS (ICs) TO BE PROVIDED AT BENDS, CHANGES OF GRADIENTS, CHANGE OF PIPE SIZE, AND AT THE HEAD OF A LONG DRAIN RUN.
NOTE THAT ICs TO HAVE NONE ACCESSIBLE COVERS.
THE LOCATION OF ANY PUBLIC SEWER WILL NOT BE IDENTIFIED ON THIS DRAWING.
BUILDING CONTROL SHALL IN CONJUNCTION WITH THE DRAINAGE AUTHORITY IDENTIFY THE LOCATION OF ANY PUBLIC SEWER THAT MAY AFFECT THE DEVELOPMENT.
DRAINAGE SPECIFICATION, LAYOUTS, GULLY POSITIONS AND SOIL PIPE LOCATIONS ETC TO BE CONFIRMED ON SITE BY THE BUILDING CONTROL OFFICER.

ESCAPE WINDOW SIZE

WHERE ESCAPE WINDOWS ARE NEEDED, THE OPENINGS FOR ESCAPE PURPOSE SHOULD BE EQUAL TO 0.33sqm WITH A WINDOW BOARD HEIGHT 800 to 1000 FROM FLOOR LEVEL. THE MIN. CLEAR HEIGHT TO BE 450mm OR THE MIN. CLEAR WIDTH TO BE 450mm.

GLAZING REQUIREMENTS

SAFETY GLASS TO BE USED BETWEEN FINISHED FLOOR LEVEL AND 1500mm ABOVE THAT LEVEL.
'U' VALUE TO BE AT LEAST 1.4 IN UPVC WINDOWS AND/OR DOORS
DOUBLE GLAZING WITH 16mm PANE GAP AND LOW 'E' (en = 0.05) FOR PVC-U WINDOWS AND/OR DOORS.
ALL GLAZING WITHIN CRITICAL LOCATIONS MUST SATISFY APPROVAL DOCUMENT 'K'.

THERMAL BRIDGE LIMITATION

REVEALS TO LINTELS, JAMBS AND SILLS ARE TO BE INSULATED. BOX LINTELS TO BE FILLED WITH INSULATION. FRAMES AND SILLS TO OVERLAP THE BLOCKWORK WHERE POSSIBLE BY 30mm min.
INTERNAL FACES OF STEEL LINTELS ARE TO BE COVERED WITH 20mm PLASTER BOARD AND 5mm PLASTER SKIM FINISH.

STRUCTURAL USE OF TIMBER

ALL STRUCTURAL TIMBER MEMBERS ie. JOISTS, RAFTERS, PURLINS, LINTELS, TRIMMERS, TIMBER TIES ETC. SHALL BE IN ACCORDANCE WITH BS 5268:2:2002.
TIMBERS USED SHALL BE C16mm FROM SUPPLIES THAT WERE STAMPED 'DRY' or 'KD'. (REF. TO ANY CALCS)
TIMBERS USED SHALL BE FROM GRADE STRESSED STOCK. MAXIMUM THICKNESS OF ANY MEMBER TO BE 100mm AND MAXIMUM DEPTH OF ANY MEMBER SHALL BE 300mm.
ANY NOTCHES IN A TIMBER MEMBER SHALL BE LIMITED TO MAX. 1/8th DEPTH, BE BETWEEN 1/20th & 1/4 OF SPAN FROM A SUPPORT. DRILLED HOLES TO BE AT THE MIDDLE AXIS OF MEMBER AND NOT MORE THAN 1/4 OF DEPTH, NOT LESS THAN THREE DIAMETERS APART, & BE BETWEEN 0.25 AND 0.4 SPAN.
NAILED JOINTS TO HAVE MIN. 2 SCREW DRIVEN NAILS.
WHERE BEAMS AND TRIMMERS ARE BOLTED TOGETHER THEN THE PREFARED BOLT SIZE IS M16 WITH NUT AND WASHER AND 400mm APART.
DO NOT ASSUME THAT PLANNING PERMISSION FOR VARIATIONS WILL AUTOMATICALLY BE GIVEN. ASSUME FORMAL RE SUBMISSIONS.
31 GENERALLY ALL ELEMENTS OF STRUCTURE TO BE MIN. 12hr FR.
32 IN THE EVENT THAT ROOF LIGHTS ARE BEING INSTALLED, THE BUILDER SHALL ENSURE THAT THE ROOF LIGHT SELECTED IS SUITABLE FOR THE ACHIEVED ROOF PITCH ANGLE. DIFFERENT PITCH ANGLES REQUIRE A SPECIFIC TYPE OF ROOF LIGHT AND INSTALLATION REQUIREMENTS.
FOR PLANNING PERMISSION REQUIREMENTS THE ROOF LIGHT PROJECTION FROM THE ROOF SHALL BE LESS THAN 150mm.
33 ALLOWABLE 'U' VALUES (EXTRACTS FROM AD L1b)
PITCH TILED ROOF 0.15 W/sqmK
EXPOSED PERIMETER WALL 0.18 W/sqmK
MULTIPLE GLAZE WINDOW 1.40 W/sqmK
GLAZED DOORS 1.40 W/sqmK
GROUND FLOORS 0.18 W/sqmK

34 LIGHTING
ENERGY EFFICIENT LIGHT FITTINGS TO BE INSTALLED ON THE BASIS OF THREE PER FOUR FIXED LIGHTING FITTINGS.
35 SMOKE DETECTION ∇ SD
SMOKE DETECTORS TO BE INSTALLED ON ALL FLOORS AND SHOULD BE WIRED DIRECT FROM CONSUMER UNIT AND BE INTERLINKED WITH BATTERY BACK UP.

BALANCED FLUE BOILER DETAILS.

IN THE EVENT OF A NEED TO REPLACE OR PROVIDE A NEW BOILER, NEW REGULATIONS ARE APPLICABLE. THE BOILER/GAS APPLIANCE WITH BALANCED FLUE AND A CAPACITY OF 7-14kW WILL REQUIRE CLEAR 600mm AIR SPACE AROUND THE FLUE OUTLET. OTHER TYPES OF GAS APPLIANCES ARE AFFECTED AND IT IS ADVISABLE THAT THE MANUFACTURERS SPECIFICATIONS BE ADHERED TO. ALTERNATIVELY REFER BACK TO ARCHITECT PRIOR TO INSTALLATION. ANY REPLACEMENT BOILER TO BE CONDENSING TYPE. IF A NEW BOILER IS INSTALLED THEN PROVIDE A CO2 ALARM IN THE ROOM WHERE THE BOILER IS INSTALLED. ALARM WIRED TO THE MAIN FUSE BOX.

COMMISSIONING OF HEATING SYSTEMS

THE SPACE HEATING AND HOT WATER SYSTEM MUST BE INSPECTED AND COMMISSIONED TO ENSURE THE RELEVANT REQUIREMENTS OF L1(b) AND (a) HAVE BEEN COMPLIED WITH. UPON COMPLETION OF THE INSTALLATION THE PERSON RESPONSIBLE FOR ACHIEVING THE COMPLIANCE MUST PROVIDE THE CLIENT AND THE COUNCIL WITH A CERTIFICATED STATING THAT SUCCESSFUL COMMISSIONING HAS BEEN CARRIED OUT. THE PERSON GIVING THE CERTIFICATE MUST HAVE A RECOGNISED QUALIFICATION.

THE COMBUSTION INSTALLATION MUST BE CHECKED BY QUALIFIED INSTALLER AND A REPORT DRAWN UP SHOWING THAT MATERIALS COMPONENTS AND FLUES HAVE PASSED RELEVANT TESTS. REPORT COPIES TO BE GIVEN TO CLIENT AND THE COUNCIL.

FOR THE PURPOSES OF DETERMINING THAT THE COMBUSTION APPLIANCES CAN BE SAFELY INSTALLED, WHERE A HEARTH AND FIREPLACE OR CHIMNEY IS PROVIDED OR EXTENDED A DURABLE NOTICE CONTAINING INFORMATION ON THE PERFORMANCE OF HEARTH FIREPLACE OR CHIMNEY MUST BE AFFIXED IN A SUITABLE PLACE WITHIN THE BUILDING.

THE OWNER/OCCUPIER OF THE BUILDING MUST BE PROVIDED WITH SUFFICIENT INFORMATION WITH THE RELEVANT SERVICES SO THAT THE BUILDING CAN BE OPERATED AND MAINTAINED IN SUCH A MANNER AS TO USE NO MORE ENERGY THAN IS REASONABLE IN THE CIRCUMSTANCES.

KEITH SWAIN DESIGN

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DRAWING NUMBER P13764

PROPOSED DEVELOPMENT

CONSTRUCTION DETAILS

FOR
SHOWER AND WC
AT
111 RAINBOW DRIVE
HAILWOOD L26 7AG

SCALES 1 : 50

sh2 2