

ELECTRICAL INSTALLATION

ALL ELECTRICAL INSTALLATION TO BE IN FULL ACCORDANCE WITH BS 7671 AND WITH THE LATEST EDITION OF THE IEE WIRING REGULATIONS AND SHOULD BE CARRIED OUT IN ACCORDANCE WITH CURRENT INSTALLATION TECHNIQUES APPLICABLE TO THE MATERIAL AND EQUIPMENT BEING USED.

NOTE THAT 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 DOWN-LIGHTERS IN CEILING VOIDS TO BE EITHER BOXED IN WITH 12.5MM PLASTERBOARD OR FITTED WITH AN INTUMESCENT COVER TO MAINTAIN HALF HOUR FIRE RESISTANCE. FIXED INTERNAL LIGHTING IS TO BE IN ACCORDANCE WITH APPROVED DOCUMENT L18. FIXED ENERGY EFFICIENT LIGHT FITTINGS, THAT ONLY TAKE LAMPS HAVING A LUMINOUS EFFICACY GREATER THAN 40 LUMENS PER CIRCUIT-WATT, ARE TO BE PROVIDED IN NUMBERS NOT LESS THAN THE GREATER OF 1 PER 25M2 DWELLING FLOOR AREA (EXCLUDING GARAGES) OR PART THEREOF, OR 1 PER FOUR FIXED LIGHT FITTINGS. A LIGHT FITTING MAY CONTAIN ONE OR MORE LAMPS. SWITCHES AND SOCKET OUTLETS TO BE PROVIDED FOR LIGHTING AND OTHER EQUIPMENT IN HABITABLE ROOMS AT APPROPRIATE HEIGHTS BETWEEN 450MM AND 1200MM FROM FINISHED FLOOR LEVEL.

ALL ELECTRICAL WORK COVERED BY PART P (ELECTRICAL SAFETY) MUST BE DESIGNED, INSTALLED, INSPECTED AND TESTED BY A PERSON COMPETENT TO DO SO. THIS PERSON MUST BE REGISTERED WITH AN AUTHORISED SELF-CERTIFICATION SCHEME (EG BRE CERTIFICATION, ELECSA, NICEIC, OR NAPIT CERTIFICATION) OR THE INSTALLATION SUPERVISED BY AN ELECTRICIAN QUALIFIED TO AT LEAST CITY & GUILDS 2391 (17TH EDITION). PRIOR TO COMPLETION AN APPROPRIATE BS 7671 ELECTRICAL CERTIFICATE MUST BE PROVIDED BY THE COMPETENT PERSON AND FORWARDED TO THE LOCAL AUTHORITY WITHIN 30 DAYS OF INSTALLATION.

WINDOWS AND EXTERNAL DOORS

WINDOWS ARE TO PROVIDE MINIMUM OPENING LIGHTS EQUAL TO 1/20 (5%) OF THE FLOOR AREA OF THE ROOM SERVED AND PROVIDE, MINIMUM BACKGROUND VENTILATION VIA CONTROLLED TRICKLE VENTILATORS TO ACHIEVE 4000 SQ MM IN THE KITCHEN AND BATHROOM WINDOWS AND 8000 SQ MM TO ALL OTHER HABITABLE ROOMS. PART OF THE VENTILATION OPENING MUST BE 1.75M ABOVE FLOOR LEVEL.

THE WINDOWS ARE TO BE GLAZED WITH 24MM (4:16:4) SEALED DOUBLE GLAZED (LOW-E: EMISSIVITY OF 0.05) UNITS (ARGON FILLED) WITH A MAXIMUM 'U' VALUE OF 1.6 W/M2K, OR A WINDOW ENERGY RATING OF BAND D OR BETTER. ALL GLASS SHALL BE IN ACCORDANCE WITH BS 6262:1978. OBSCURE GLAZING IS TO BE PROVIDED TO ALL BATHROOMS AND CLOAKROOMS. ALL WINDOWS AND DOORS ARE TO BE WEATHER STRIPPED. SAFETY GLAZING IN ACCORDANCE WITH BS 6206:1981 SHALL BE FITTED IN THE FOLLOWING CRITICAL LOCATIONS:

- (1) ALL GLAZED DOORS
- (2) ALL FULL HEIGHT SIDELIGHTS
- (3) ANY WINDOW WITHIN 300MM FROM A DOOR OPENING UP TO A HEIGHT OF 1500MM
- (4) ANY WINDOW BETWEEN FINISHED FLOOR LEVEL AND 800MM ABOVE THAT LEVEL.

ALL WINDOW AND DOORS MUST COMPLY WITH DOCUMENT Q OF THE BUILDING REGULATIONS (SECURITY) WINDOWS AND DOORS TO MEET BS PUBLICATION PAS 24:2012 AND BE FITTED WITH SECURE DOOR SETS FRAMES TO BE MECHANICALLY FIXED TO THE STRUCTURE.MULTI POINT LOCKING SYSTEMS TO PAS3621 WITH KITEMARKS. GLAZING TO BSEN356. ROOFLIGHTS TO BE IN ACCORDANCE WITH PARAGRAPHS 2.2 AND 2.3.

CAVITY CLOSERS

PROVIDE INSULATED VERTICAL DPC OR PROPRIETARY CAVITY CLOSER INSTALLED IN ACCORDANCE WITH MANUFACTURES INSTRUCTIONS. ALL CAVITIES TO BE CLOSED AT WALL PLATE LEVEL AND ALONG VERGES WITH ROCKWOOL CAVITY CLOSERS. NEW CAVITY TRAYS TO BE INSTALLED IN EXISTING EXTERNAL WALL WHERE PROPOSED EXTENSION ABUTS.

EXTERNAL CAVITY WALL BRICKWORK:

EXTENSIONS – OUTER SKIN TO COMPRISE 102.5MM THK FACING BRICK WITH A 100MM PARTIALLY FILLED CAVITY AND 100MM THICK THERMALITE SHIELD BLOCKWORK INNER SKIN. CAVITY TO BE CLOSED AT WINDOW, DOOR JUNCTIONS AND AT EAVES LEVEL WITH BLOCKWORK OR PROPRIETY CAVITY CLOSURE. SKINS TO BE TIED TOGETHER WITH STAINLESS STEEL WALL TIES SPACED AT 700MM CENTRES HORIZONTALLY AND 450MM VERTICALLY AND AT 225MM CENTRES AT WINDOW AND DOOR REVEALS. PROVIDE ADDITIONAL TIES WITHIN 225MM OF SIDE OPENINGS AT NO MORE THAN 300MM CENTRES. AT ALL LOW ROOF ABUTMENTS ENSURE STEPPED DPC'S CAVITY TRAY WITH STOP ENDS ARE PROVIDED AND LINKED TO CODE 5 LEAD DRESSED BENEATH CAVITY TRAYS AND OVER ROOF SLOPES WITH ALTERNATE PERPENDS LEFT OPEN FOR WEEP HOLES ALL AS NECESSARY TO FORM WEATHER PROOF JUNCTION. PROVIDE POLYTHENE LAPPED AND CONTINUOUS CAVITY TRAYS WITH STOP ENDS, ABOVE ALL LINTELS AND OVER SHORT PIERS BETWEEN CLOSELY SPACED OPENINGS. PROVIDE OPEN PERPENDS OR PVCU PROPRIETARY PERPENDS AT 300MM CENTRES, MINIMUM 2 NUMBER PER OPENINGS. BOND NEW BRICKWORK TO EXISTING WALLS WITH GALVANIZED STEEL MASONRY CONNECTORS AND TIES RAWBOLTED TO EXISTING WALLS. 50MM THICK KINGSPAN KOOLTHERM K8 INSUALTION OR SIMILAR APPROVED CAVITY WALL INSUALTION TO ACHIEVE A U VALUE OF 0.28W/M2K. THE CAVITY IS TO BE FILLED WITH LEAN MIX CONCRETE UP TO A LEVEL OF 225MM BELOW DPC. PROVIDE PERPENDS WEEP HOLES EVERY FOURTH VERTICAL JOINT IN THE OUTER LEAF AT THE BASE OF THE CAVITY AT 150MM BELOW THE DPC. MAINTAIN A CONTINUOUS CAVITY BETWEEN NEW AND EXISTING WALLS. THE CAVITY IS TO BE CLOSED AT OPENINGS USING PROPRIETARY CAVITY CLOSURE 'THERMABATE' OR SIMILAR APPROVED INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. WALLS TO BE FINISHED INTERNALLY WITH DOT AND DAB 12.5MM PLASTERBOARD AND A 3MM THICK SKIM PLASTER FLOATED SMOOTH.

PITCHED ROOF

50 X 200MM SOFTWOOD RAFTERS (C24) AT 400MM CENTRES BIRDS-MOUTHED OVER 100 X 75MM SOFTWOOD WALL PLATE BEDDED TO TOP OF INTERNAL CAVITY SKIN WALL AND HELD DOWN WITH 30 X 5MM X 1.2M LONG GALVANISED STEEL STRAPS BENT AT RIGHT ANGLES TO GIVE MIN 75MM FIXING TO THE TOP OF THE WALL PLATE.TOP OF RAFTERS TO BE BIRDMOUTHED ONTO A 150 X 50 WALLPLATE. MECHANICALLY FIXED TO WALL. LATERAL AND VERTICAL RESTRAINT STRAPS ARE TO BE PROVIDED TO ROOF MEMBERS IN ACCORDANCE WITH BS 5628 FROM THE ROOF TO ADJACENT PARALLEL WALLS AT MAXIMUM 2M CENTRES USING 30 X 5MM GALVANISED STEEL STRAPS TURNED DOWN 150MM MINIMUM OVER BLOCKWORK AND FIXED OVER SOLID BLOCKING TO A MINIMUM OF THREE RAFTERS. ROOF TILES ARE TO BE CONCRETE TILES AND TO BE FIXED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND TO BS 5534 ON 38 X 25MM PRESERVATIVE TREATED SOFTWOOD BATTENS ON KINGSPAN 'NILVENT' BREATHABLE MEMBRANE. NEW VAULTED ROOF TO BE INSULATED BETWEEN THE RAFTERS WITH 130MM KINGSPAN K7 INSULATION.THE ROOF WILL BE PLATED ON THE UNDERSIDE WITH 12.5MM THK DOUGLAS FIR PLY NAILED WITH 4MM DIA X 75MM LONG NAILS AT 75MM CTRS TO THE UNDERSIDE OF THE RAFTERS.THE ROOF WILL BE FINISHED INTERNALLY WITH KINGSAFN K18 DRY LINING BOARD COMPRISING OF 25MM INSULATION AND 12.5MM PLASTERBOARD. A 50MM AIR GAP IS TO BE MAINTAINED FROM EAVES LEVEL TO RIDGE. SEPARATE BUT LINKING QUILT IS TO BE LAID OVER THE SOFTWOOD WALL PLATE AND WEDGED INTO THE CAVITY TO AVOID COLD BRIDGING AND CLOSE THE CAVITY. THE ROOF IS TO BE CROSS-VENTED BY PROPRIETARY EAVES VENTILATOR EQUIVALENT TO A 25MM CONTINUOUS AIR GAP WITHIN EAVES. TO ENSURE A CLEAR AIR FLOW FROM EAVES VENTS THROUGH TO ROOF SPACE, PROPRIETARY VENTILATION TRAYS ARE TO BE FIXED BETWEEN RAFTERS. DOUBLE RAFTERS AROUND VELUX OPENINGS.

DESIGN AND LEGISLATION

THE FOLLOWING NOTES ARE INTENDED TO BE USED FOR BUILDING REGULATIONS APPROVAL AND CONSTRUCTION PURPOSES. ANY DISCREPANCIES IN DIMENSIONS OR CONSTRUCTION INFORMATION SHOULD BE REPORTED TO THE ARCHITECT BEFORE ANY FURTHER WORK IS CARRIED OUT. DO NOT SCALE FROM DRAWINGS, WORK TO FIGURED DIMENSIONS ONLY.

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ARCHITECTS DETAILS AND SPECIFICATIONS.

FIRE DETECTION

SMOKE DETECTION TO BE FITTED IN CIRCULATION SPACES ON EACH FLOOR AND A HEAT DETECTOR TO BE INSTALLED IN THE KITCHEN. ALL TO BE MAINS WIRED AND BATTERY BACK UP INTERLINKED.

ALL LEVELS TO BE CHECKED ON SITE

ALL DISCREPANCIES BETWEEN INFORMATION SHOWN ON THE DRAWINGS AND THE INFORMATION IN THE SPECIFICATION TO BE REFERRED TO THE ARCHITECT PRIOR TO PROCEEDING.

VENTILATION SYSTEMS

THE EXTRACTION SYSTEM IN THE PROPOSED BATHROOM TO BE 30 1/s.

MORTAR MIXES

MORTAR FOR STONE AND BLOCK WORK SHALL BE AS SPECIFIED BY THE MANUFACTURER OR SUPPLIER.

BELOW GROUND DRAINAGE (IF NEEDED):

ALL DRAINS UNDER THE BUILDING SHALL BE SURROUNDED WITH AT LEAST 100MM OF GRANULAR MATERIAL. WHERE THE CROWN OF THE PIPE IS WITHIN 300MM OF THE UNDERSIDE OF THE FLOOR SLAB THE PIPE SHALL BE PROTECTED BY REINFORCED CONCRETE COVER SLABS WITH FLEXIBLE FILLER AND AT LEAST 75MM OF GRANULAR MATERIAL BETWEEN THE TOP OF THE PIPE AND THE UNDERSIDE OF THE FLEXIBLE FILLER BELOW THE SLABS. WHERE DRAINS PASS THROUGH EXTERNAL WALLS THEY ARE TO BE PROTECTED WITH A PRE-STRESSED CONCRETE LINTEL OVER WITH MINIMUM 150MM END BEARINGS AND 50MM CLEARANCE ALL AROUND THE PIPE. THE OPENING IS TO BE MASKED WITH RIGID SHEET MATERIAL ON BOTH SIDES TO PREVENT THE INGRESS OF VERMIN AND FILL MATERIAL. THE VOID AROUND THE PIPE WHERE IT PASSES THROUGH THE CONSTRUCTION SHALL BE FILLED WITH A COMPRESSIBLE SEALANT TO PREVENT ENTRY OF GAS. THE LENGTH OF PIPE PASSING THROUGH THE WALL IS TO BE KEPT AS SHORT AS POSSIBLE AND 600MM LONG MAXIMUM ROCKER PIPES ARE TO BE USED EITHER SIDE OF THE WALL STRUCTURE TO PROVIDE FLEXIBILITY. ROCKER PIPE JOINTS TO BE POSITIONED MAXIMUM 150MM FROM THE FACE OF THE WALL/STRUCTURE. ACCESS POINTS IN THE FORM OF RODDING EYES, ACCESS FITTINGS, INSPECTION CHAMBERS OR MANHOLES TO BE PROVIDED AT THE FOLLOWING POINTS:
(1) ON OR NEAR THE HEAD OF EACH DRAIN RUN
(2) AT A BEND AND AT A CHANGE IN GRADIENT.
(3) AT A CHANGE IN PIPE SIZE
(4) AT A JUNCTION UNLESS EACH RUN CAN BE CLEARED FROM AN ACCESS POINT.

450MM DIAMETER PLASTIC INSPECTION CHAMBERS SHALL BE CONSTRUCTED WITH 150MM THICK C20 CONCRETE BASE AND SURROUNDED WITH 150MM OF PEA SHINGLE FOR INVERT LEVELS OF 1000MM OR LESS. MANHOLE AND OR INSPECTION CHAMBERS SHOULD HAVE REMOVABLE NON-VENTING COVERS TO BE EITHER DUCTILE IRON OR PRESSED STEEL DEPENDENT UPON LOCATION AND LOADING CONDITIONS. INSPECTION CHAMBERS INSIDE BUILDINGS SHALL HAVE MECHANICALLY FIXED AIRTIGHT COVERS. FOUL AND SURFACE WATER DRAINAGE ARE TO BE KEPT AS SEPARATE SYSTEMS WHERE SEPARATE SYSTEMS EXIST ON SITE.

MATERIALS

CONTRACTOR / SUB-CONTRACTOR / STRUCTURAL ENGINEER TO CHECK DIMENSIONS PRIOR TO ORDERING OF MATERIALS. ANY DISCREPANCIES TO BE REPORTED TO PROJECT DESIGNER. ALL COMPONENT SIZES AND REFERENCES TO BE CHECKED PRIOR TO ORDERING OF MATERIALS. ALL MATERIALS SHALL BE FIXED, APPLIED OR MIXED IN ACCORDANCE WITH MANUFACTURES INSTRUCTIONS AND SPECIFICATION. ALL MATERIALS SHALL BE SUITABLE FOR THE PURPOSE THEY ARE USED. SUBJECT TO CONFIRMATION OF THE PROJECT DESIGNER – 'SIMILAR APPROVED' MATERIALS OF EQUAL PERFORMANCE MAY BE SUBSTITUTED WHERE THOSE SPECIFIED ARE NOT AVAILABLE.

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WALL PLATE STRAPS

1000mm PLATE STRAPS TO BE USE EVERY 600mm.

PART-P ELECTRICIAN

ALL ELECTRICAL WORK WILL BE UNDERTAKEN BY A 'PART P' REGISTERED ELECTRICIAN.

ABOVE GROUND DRAINAGE:

EXISTING DRAINAGE SYSTEM SHOWN ON DRAWINGS IS ASSUMED AND IS SUBJECT TO CONFIRMATION ON SITE AT TIME OF CONSTRUCTION. ALL FOUL AND SURFACE WATER DRAINAGE SHALL BE KEPT SEPARATE IF SEPARATE SYSTEMS EXIST ON SITE. SURFACE WATER DRAIN RUNS TO BE 100 DIAMETER PVCU LAID AT A MINIMUM GRADIENT OF 1:60 WITH 150 MM PEA SHINGLE BED & SURROUND UNLESS ORTHERWISE SPECIFIED. FOUL WATER DRAIN RUNS TO BE 100MM DIAMETER PVCU LAID AT A MINIMUM GRADIENT OF 1: 40 WITH 150MM PEA SHINGLE BED & SURROUND UNLESS OTHERWISE SPECIFIED.

RAINWATER GOODS: 100MM WIDE PVCU SEMI CIRCULAR SECTION GUTTERS LAID TO FALLS TO DISCHARGE INTO 65MM ROUND RAINWATER DOWNPIPES.

GENERAL NOTE

WORKMANSHIP AND MATERIALS COMPLY WITH: BUILDING REGULATIONS N.H.B.C REQUIREMENTS, BRITISH STANDARDS OR CODES OF PRACTICE OTHER AUTHORITATIVE DOCUMENTS.

PLUMBING INSTALLATION

COMPLETE INSTALLATION TO BE SUBJECT TO AND CAPABLE OF WITHSTANDING TESTING IN ACCORDANCE WITH BS 5572 : 1978. ABOVE GROUND FOUL DRAINAGE PIPEWORK SHALL BE PVCU TO BS 4514. PIPEWORK MUST BE DESIGNED IN ACCORDANCE WITH BS 5572 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 CHANGE IN DIRECTION. NO BRANCH CONNECTION TO BE WITHIN 450MM ABOVE FOOT OF SOIL PIPE. 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 HAND BASIN:	32MM DIA NOM.
SIZE SHOWER:	32MM DIA NOM.
SIZE OVERFLOW:	19MM DIA NOM.

SIZE ALL FITTINGS TO HAVE 75MM DEEP SEAL TRAPS. PROVIDE WASTE PIPES FOR WASHING MACHINE AND DISHWASHER WHERE APPLICABLE. ALL WASTE PIPES SHALL BE LAID TO FALLS (25MM PER METRE RUN). ALL PLUMBING SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

THE MAXIMUM LENGTH OF WASTE PIPES SHALL BE AS FOLLOWS:

32MM PIPE	1.7M MAXIMUM LENGTH
40MM PIPE	3M MAXIMUM LENGTH
50MM PIPE	4M MAXIMUM LENGTH
100MM PIPE	6M MAXIMUM LENGTH

SOIL AND VENTILATING STACKS TO TERMINATE MINIMUM 900MM ABOVE ANY WINDOW HEAD WITHIN 3M HORIZONTALLY. SOIL PIPES PASSING THROUGH HABITABLE ROOMS (INCLUDING KITCHENS) TO BE LAGGED WITH MINIMUM 50MM SOUND DEADENING QUILT AND WITH TWO LAYERS OF 12.5MM PLASTERBOARD ON 38 X 38MM SOFTWOOD FRAMING FINISHED WITH 3MM THICK PLASTER SKIM. ACCESS AND RODDING EYE FITTINGS TO BE PROVIDED TO ENSURE ALL PIPEWORK IS ACCESSIBLE AS REQUIRED. PIPEWORK LAID BETWEEN JOISTS TO BE ADEQUATELY SUPPORTED.

WALL TIES

TO BE STAINLESS STEEL TIES OR SIMILAR FIXED AT 300mm CENTERS VERTICALLY AND 750MM HORIZONTALLY STAGGERED WITHIN A DISTANCE OF 225mm FROM VERTICAL EDGES OF ALL OPENINGS, MOVEMENT JOINTS AND ROOF VERGES. WALL TIES TO BE ANCON ST1 300mm OR SIMILAR APPROVED.

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Do not scale off this drawing

All dimensions are to be checked on site and any discrepancies to be referred to the designer before proceeding. All levels to be checked on site All discrepancies between information shown on the drawings and the information in the specification to be referred to the designer prior to proceeding. All component sizes and references to be checked before ordering

Position of existing drain runs to be confirmed prior to proceeding and drains checked as necessary.

All relevant boundary positions are to be checked prior to proceeding

Building regulation drawings can be used for building estimates, however for an accurate quote builders must attend site as these drawings do not account for all aspects of the building works.