FOUNDATIONS.

FOUNDATIONS TO BE EXCAVATED TO A BEARING STRATUM TO THE COMPLETE SATISFACTION OF THE LOCAL BUILDING CONTROL OFFICE AND TO A DEPTH OF NOT LESS THAN 750 FROM FINISHED GROUND LEVEL TO THE UNDERSIDE OF STRIP. FOUNDATIONS TO BE EX 1:2:4 MIX CONCRETE OF STRENGTH 21 N/mm2 AFTER 28 DAYS. FOUNDATIONS STEPPED ON ELEVATION SHALL OVERLAP BY TWICE THE HEIGHT OF THE STEP. THE THICKNESS OF THE FOUNDATION OR 300mm WHICHEVER IS THE GREATER. STEPS IN FOUNDATION SHALL NOT BE OF GREATER HEIGHT THAN THE THICKNESS OF THE FOUNDATION. FOUNDATION SHOULD BE SIZED AS FOLLOWS:
100 WALL THICKNESS - 225 DEPTH X 450 WIDTH
215-350 WALL THICKNESS - 300 DEPTH X 750 WIDTH > 300 WALL THICKNESS-300 DEPTH X WT + 300 WIDTH WALL THICKNESS OF WALL TO BE MEASURED AT THE WIDEST POINT. GENERALLY JUST ABOVE THE CONCRETE STRIP. THE ABOVE FOUNDATION SIZES ARE APPLICABLE ONLY IN LOW RISE CONSTRUCTION WHERE THE SUPERSTRUCTURE LOADING DOES NOT EXCEED 50KN/LINEAR METRE AND WHERE THE SUBSOIL TYPE IS CLAY, SANDY CLAY OR BETTER. WHERE SOFT SPOTS OR ROCK ARE ENCOUNTERED DURING THE EXCAVATION THIS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE LOCAL BUILDING CONTROL OFFICE IMMEDIATELY.

SUB-STRUCTURE BLOCKWORK:

ALL SUBSTRUCTURE BLOCKWORK TO BE CONSTRUCTED EX DENSE CONCRETE BLOCKWORK MINIMUM CRUSHING STRENGTH 10.5 N/mm2. WHERE THE HEIGHT BETWEEN FINISHED FLOOR LEVEL & FINISHED GROUND LEVEL EXCEEDS 600 THE INNER LEAF OF THE CAVITY WALL SHOULD BE INCREASED BELOW FFL TO 215mm AND BY A FURTHER 100mm IN WIDTH FOR EVERY ADDITIONAL 450mm IN HEIGHT. WHERE THE DIMENSION BETWEEN FFL AND FGL EXCEEDS 1400mm AN ENGINEER SHOULD BE CONSULTED.
WHERE DRAINAGE PIPES OR EQUAL PASS THROUGH FOOTINGS THE OPENINGS FOR THESE PIPES TO BE BEAMED OVER USING PCC LINTELS AS PER SCHEDULE. WHERE PIPES PASS THROUGH OPENINGS THE GAP BETWEEN THE PIPE AND THE OPENING TO BE MASKED OFF USING RIGID SHEET MATERIAL TO PREVENT ENTRY OF FILL OR VERMIN.

* GROUND FLOOR CONSTRUCTION. (GROUND BEARING)

100mm SAND/CEMENT MAPAEI TOPCEM FLOOR SCREED ON VISQUEEN 500 GAUGE VAPOUR CHECK ON INSULATION (CHECK SAP REPORT) ON 150MM C30 CONCRETE SUB-FLOOR CAST ONTO INNER LEAF AND LOAD BEARING INTERNAL WALLS AND REINFORCED WITH 1 NO. LAYER A142 ANTI-CRACKING MESH ON VISQUEEN 1200 GAUGE RADON BARRIER (ALL JOINTS TAPED) ON 50MM BLINDING ON MIN 225mm COMPACTED HARDCORE.

* DPC'S

PROVIDE DPC TO COMPLY TO B.S. 743: 1970, LAID ON A LEVEL BED OF MORTAR WITH NOT LESS THAN 75 MM OVERLAP AT ANY JOINTS. DPC TO ALL HEADS, CILLS, JAMBS & THRESHOLDS IN EXTERNAL WALLS. DPC IN WALLS AT FLOOR LEVEL TO BE AT LEAST 150 MM ABOVE FINISHED GROUND LEVEL.
DPC TO INTERNAL WALLS & INTERNAL LEAF OF EXTERNAL CAVITY WALLS TO BE OF SUFFICIENT WIDTH TO BE LAPPED & BONDED TO DPM IN FLOOR.
EVERY 4TH PERPEND ABOVE A HORIZONTAL DPC TO BE LEFT OPEN AS WEEPHOLES.

* SERVICES.

ALL INCOMING SERVICES TO BE BROUGHT INTO BUILDING IN PROP. P.V.C. DUCTS AS FOLLOWS.
HEATING PIPES - 150 DIA.
WATER MAIN - 100 DIA.
TELEPHONE - 90 DIA.

* UNDER FLOOR VENTS.

SOLID FUEL OPEN FIRES TO BE VENTED WITH 2 NO. 100 DIA. PIPES FROM PROP. P.V.C. AIR BRICKS ON DIFFERENT ELEVATIONS. LAST 1000mm OF VENT PIPES TO BE EX. NON- COMBUSTABLE MATERIAL.

UNDERGROUND DRAINAGE.

ALL PIPEWORK TO BE 100 DIA UPVC PIPES TO B.S.4660 AND B.S.5481 1977 LAID TO A MINIMUM FALL OF 1 IN 100. THE SYSTEM SHALL BE VENTILATED AT OR NEAR A MAIN DRAIN AND A BRANCH DRAIN LONGER THAN 10M AT A POINT 900 ABOVE ANY OPENING WITHIN 3 METRES.
ALL DRAINS SHOULD BE LAID EITHER AT A DEPTH WHICH WILL PROTECT IT FROM DAMAGE - MINIMUM 600 UNDER VEHICLE TRAFFIC AREAS OR WITH SPECIAL PROTECTION OVER IT. (I) VEHICULAR AREA - PAVING SLAB 75mm ABOVE PIPE SURROUNDED IN GRANULAR MATERIAL. TO B.S.882 1983.
(ii) NON-VEHICULAR AREA - PAVING SLAB 75MM ABOVE PIPE SURROUND IN GRANULAR MATERIAL. SIDE COVER FOR ALL PIPES SHAL BE 150mm OR THE DIAMETER OF THE WHICHEVER

DRAINAGE - VENTILATION
3.5 THE SYSTEM SHOULD BE VENTILATED AT OR NEAR THE HEAD OF A MAIN DRAIN, AND A BRANCH DRAIN LONGER THAN 10 M. A VENTILATION STACK (SEE PARAGRAPH 2.13) OR, A VENTILATED DISCHARGE STACK (SEE PARAGRAPH 2.15) OR A SEPARATE VENTILATION PIPE SHOULD BE USED. WHERE A SEPARATE VENTILATION PIPE IS USED IT SHOULD TERMINATE EITHER –
(A) IN THE EXTERNAL AIR AT LEAST 900 MM ABOVE ANY OPENING INTO A BUILDING WITHIN 3 M, WITH A CAGE OR COVER WHICH DOES NOT RESTRICT THE AIR FLOW (SEE DIAGRAM 2.3); OR
(B) WITH AN AIR ADMITTANCE VALVE WHICH COMPLIES WITH BS EN 12056: PART 2 AND BS EN 12380.

DRAINAGE - CONSTRUCTION OF ACCESS POINTS
3.14 AN ACCESS POINT SHOULD CONTAIN THE FOUL WATER UNDER WORKING CONDITIONS, RESTRICT THE ENTRY OF GROUND WATER AND RAINWATER, AND BE CONSTRUCTED OF A MATERIAL GIVEN IN TABLE 3.6.
AN INSPECTION CHAMBER OR MANHOLE SHOULD HAVE A HALF ROUND CHANNEL WITH ANY BRANCH DRAIN DISCHARGING INTO THE CHANNEL AT OR ABOVE THE LEVEL OF ITS HORIZONTAL DIAMETER AND AT NOT MORE THAN 90° TO THE DIRECTION OF FLOW. WHERE THE ANGLE OF A BRANCH DRAIN IS MORE THAN 45° A THREE-QUARTER SECTION BRANCH SHOULD BE USED. THE CHANNEL AND ANY BRANCHES SHOULD BE BENCHED UP, AT LEAST TO THE TOP OF THE OUTGOING DRAIN, AT A SLOPE OF 1 IN 12 AND THE BENCHING SHOULD BE ROUNDED WITH A RADIUS OF AT LEAST 25 MM.
EVERY EXTERNAL ACCESS POINT SHOULD HAVE A REMOVABLE NON-VENTILATING COVER OF DURABLE MATERIAL AND SUITABLE STRENGTH.
EVERY ACCESS POINT WITHIN A BUILDING SHOULD HAVE A MECHANICALLY FIXED AIRTIGHT COVER UNLESS THE DRAIN ITSELF HAS A WATERTIGHT ACCESS COVER.
ANY MANHOLE DEEPER THAN 1.0 M SHOULD HAVE METAL STEP IRONS OR A FIXED LADDER.

CAVITY BARRIER -

WHERE EDGE SEALING IS ADOPTED TO ADDRESS THE PARTY WALL BYPASS IT IS ESSENTIAL THAT THE EDGE SEALING IS EFFECTIVE IN RESTRICTING AIR FLOW INTO THE CAVITY AND THAT IT IS ALIGNED WITH THE THERMAL ENVELOPE. SEALING IS REQUIRED AT THE TOP, THE BOTTOM AND VERTICALLY. ALTHOUGH EFFECTIVE EDGE SEALING MAY BE INCORPORATED AS PART OF A CAVITY BARRIER WHICH IS PROVIDED AS A FIRE STOP, A CAVITY BARRIER ON ITS OWN MAY NOT BE EFFECTIVE IN RESTRICTING AIR FLOW INTO THE CAVITY. THEREFORE IN ORDER TO USE THE REDUCED CAVITY WALL U-VALUES IN TABLE 2.3 (0.2 OR 0.0 W/M2.K) IT WILL BE NECESSARY TO DEMONSTRATE THAT THE DESIGN ADOPTED IS LIKELY TO BE ROBUST UNDER NORMAL SITE CONDITIONS.
FOR EXAMPLE, IN A ROOM-IN-THE-ROOF DESIGN, THE INSULATION LAYER IS LIKELY TO FOLLOW THE SLOPING ROOF TO A HORIZONTAL CEILING AND THEN CONTINUE AT CEILING LEVEL. IN SUCH A CASE IT IS IMPORTANT THAT THE PARTY WALL CAVITY SEAL FOLLOWS THE LINE OF THE INSULATION IN THE SLOPING ROOF AND HORIZONTAL CEILING SECTIONS. IN THE CASE OF FLATS, THE SEALING SYSTEM SHOULD FOLLOW THE LINE OF PARTY FLOORS AND OTHER PARTY STRUCTURES AS WELL AS THE MAIN THERMAL ENVELOPE.

OUTLETS:

AN OUTLET FOR A NON-PERMANENTLY WIRED APPLIANCE E.G. SOCKET OUTLET, TELEPHONE OUTLET, ETC., SHOULD BE LOCATED WITHIN HORIZONTAL REACH AND NOT LESS THAN 400 MM AND NOT MORE THAN 1000 MM ABOVE THE FLOOR LEVEL. HOWEVER, THE PROVISIONS OF THIS PARAGRAPH SHOULD NOT APPLY TO ANY OUTLET THAT IS SET INTO A FLUSH MOUNTED FLOOR BOX LOCATED WITHIN AREAS THAT ARE DESIGNED TO BE OPEN PLAN. SOCKET OUTLETS SHOULD BE LOCATED NOT LESS THAN 350 MM FROM ANY RETURN WALL.

SWITCHES AND CONTROLS:

A SWITCHED OUTLET SHOULD CLEARLY INDICATE WHEN IN THE "ON" POSITION (E.G. BY A NEON INDICATOR, OR THE TOP OF THE ROCKER IS COLOURED RED AND EXPOSED WHEN IN THE "ON" POSITION ETC.).
A SWITCH OR CONTROL:-
(A) SHOULD BE LOCATED WITHIN HORIZONTAL REACH;
(B) FOR A PERMANENTLY WIRED APPLIANCE, SHOULD BE LOCATED NOT LESS THAN 400 MM AND NOT MORE THAN 1200 MM ABOVE FLOOR LEVEL. HOWEVER, WHERE THE DESIGN OF THE APPLIANCE REQUIRES THE SWITCH TO BE PLACED AT A HIGHER LEVEL

FRONT ELEVATION...

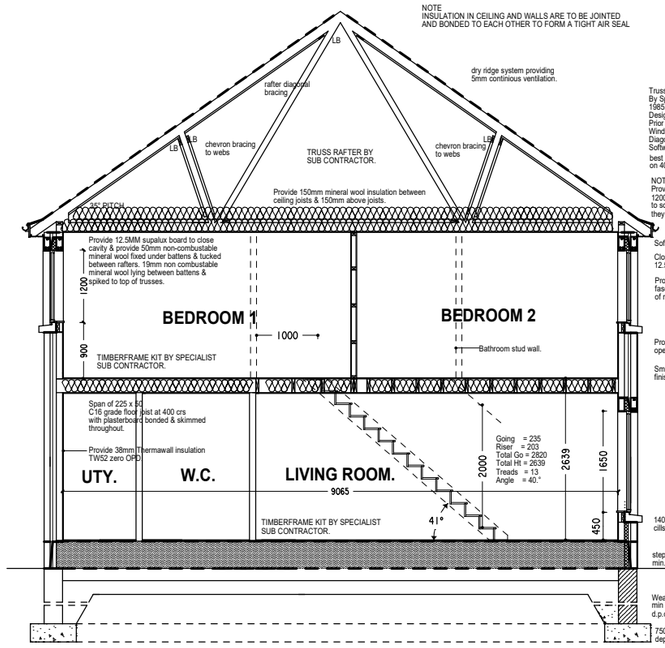
INSULATION:

FLAT CEILINGS: (U VALUE - 0.15W/M²K)
150MM MINERAL WOOL INSULATION BETWEEN JOISTS & 150MM MINERAL WOOL INSULATION OVER JOISTS

WALLS: (U VALUE - 0.30W/M²K)
100MM PLATINUM ECOBEAD FULL FILL INSULATION

FLOORS: (U VALUE - 0.14W/M²K)
SPANTHERM PLUS.

NOTE
INSULATION IN CEILING AND WALLS ARE TO BE JOINTED AND BONDED TO EACH OTHER TO FORM A TIGHT AIR SEAL



SECTION A-A...

Trusses To Be Designed And Manufactured By Specialist sub-contractor, And To Be In Accordance With Bs 5268 Pt3 1985.
Design And Calculations To Be Submitted To Building Control Prior To Erection On Site.
Wind Bracing To Be Bs 5268 Pt3 1985.
Diagonal, Longitudinal And Chevron Bracing To Be 100x25mm Softwood, as per manufacturers instructions

best quality concrete roof tiles
on 40`x 20mm battens on builders felt to B.S.747

NOTE:
Provide prop. galv. m.s. 'bat' straps at 1200 c/c turnon down cavity & screw fixed to solid bridging across 3 no. rafters where they run parallelwith external walls.

Softwood fascia & soffit

Close cavity with
12.5mm Fibreboard

Provide FV 250 Glidevale
fascia vents to both sides
of roof.

Provide stepped dpc down over all
opes in cavity walls (incl. pipes,ducts etc)

Smooth rendered plaster
finish with raised plinth.

140mm concrete
cills with dpc.

stepped dpc 150mm
min. over G.L

Weak mix cavity fill
min 150mm below
d.p.c. level

750 x 300mm strip foundations
depth determined on site.

X SHADING DENOTES SAFETY GLAZING EX. 6.4MM LAMINATED OR TOUGHENED GLASS

SHADING DENOTES OBSCURE GLAZING (STIPOLITE OR EQUAL)

NOTE. ALL GLAZING IN DOORS OR WITHIN 300MM OF FRAME TO BE SAFETY GLAZING EX 6.4MM LAMINATED OR TOUGHENED GLASS.

* WINDOWS:

ALL WINDOWS TO BE DOUBLE GLAZED CASEMENT TYPE WHITE U.P.V.C WINDOWS. GLAZING TO BE VISTATHERM ELITE, LOW E WITH ARGON FILLED CAVITY, U-VALUE 1.4 W/M²/K

WHERE ALL OR PART OF A PANE IS BELOW 800MM FOR WINDOWS OR 1500MM FROM FINISHED FLOOR LEVEL IN DOORS AND ASSOCIATED SIDE PANELS, GLAZING TO BE EX TOUGHENED OR LAMINATED GLASS.
ALL OPENING LIGHTS TO BE FITTED WITH DRAUGHT SEALS
HINGES HANDLES AND LOCKS. NOTE. NO TRICKLE VENTS ON WINDOWS AS PER HEAT RECOVERY SYSTEM MANUFACTURERS DESIGN.

NOTE: WHERE WINDOWS OPEN OUT INTO A SPACE LESS THAN 2M ABOVE GROUND LEVEL TO BE FITTED WITH RESTRICTORS.

A CONTROL FOR A WINDOW, SKYLIGHT OR VENTILATOR WHERE REACH IS UNOBSTRUCTED THE CONTROL SHALL NOT BE MORE THAN 1900MM ABOVE FLOOR LEVEL.
WHERE REACH IS OBSTRUCTED E.G. (KITCHEN UNITS) THE CONTROL SHALL NOT BE MORE THAN 1700MM ABOVE FLOOR LEVEL.

WHERE GLAZING IS DESIGNED TO BE CLEANED FROM OUTSIDE THE GLAZING SHALL BE:
ACCESSED FROM A SAFE PLACE HAVING A FIRM LEVEL SURFACE REACHED FROM AN AREA ADEQUATE IN SIZE FOR THE METHOD OF CLEANING.

WHERE THE HEIGHT TO THE WINDOW SILL IS MORE THAN 6M AND NOT MORE THAN 9M SUITABLE FIXING POINTS FOR ACCESS EQUIPMENT SHALL BE PROVIDED. THE STANDING SURFACE SAHLL BE A PATH OR SIMILAR HARD SURFACE.

WHERE THE HEIGHT TO THE WINDOW SILL IS LESS THAN 6M AND ACCESS IS BY A LADDER THE STANDING SURFACE MAY BE NORMAL SOIL.

CONSTRUCTION MATERIALS AND WORKMANSHIP
CAVITY WALL TIES
4C.11 THE CAVITY WALL TIES SHOULD COMPLY WITH BS EN 845 -1 AND DD 140 2 AND SHOULD BE MATERIAL REFERENCES 1 OR 3 IN BS EN 845 -1. TABLE A.1. AUSTENITIC STAINLESS STEEL WALL TIES SHOULD BE SELECTED IN ACCORDANCE WITH TABLE 4C.5.

4C.12 THE CAVITY WALL TIES SHOULD HAVE A HORIZONTAL SPACING OF 900 MM AND A VERTICAL SPACING OF 450 MM, WHICH IS EQUIVALENT TO 2.5 TIES PER SQUARE METRE. WALL TIES SHOULD ALSO BE SPACED NOT GREATER THAN 300 MM APART VERTICALLY, WITHIN A DISTANCE OF 225 MM FROM THE VERTICAL EDGE OF ANY OPENING, MOVEMENT JOINT AND ROOF VERGE.

CAVITIES TO BE CLOSED AT ALL HEADS, JAMBS AND SILLS AND AT WALLPLATE LEVEL USING 12.5MM SUPALUX. ALL OPENINGS TO BE LINTELLED OVER WITH PCC LINTELS AS SCHEDULE. ALL DOOR OPENINGS TO BE WEATHERED WITH 2 COURSE PRECAST CONCRETE THRESHOLDS. ALL HEADS, JAMBS AND SILLS TO BE FITTED WITH PITCH POLYMER DPC'S WITH RIGID POLYSTYRENE INSULATION BACKING. CONTINUOUS HORIZONTAL DPC'S TO BE PROVIDED TO BOTH LEAVES OF OUTER WALL AT SUBFLOOR LEVEL AND AT A HEIGHT NOT LESS THAN 150 FROM FINISHED GROUND LEVEL.
WHERE ROOFS ABUT EXTERNAL WALLS THE JUNCTION TO BE WEATHERED USING PROP PVC STEPPED CAVITY TRAYS WITH INTEGRAL LEAD FLASHING DRESSED OVER LEAD SOAKERS. PROVIDE PERP VENTS AT STEPPED DPC'S IN OUTER LEAF. TO COMPLY WITH ACCREDITED DETIL MCI-GF-02

PREVENTION OF EXCESSIVE DOMESTIC HOT WATER TEMPERATURES

3.1 WHERE THE OPERATING TEMPERATURE OF DOMESTIC HOT WATER IN THE STORAGE VESSEL IN A DWELLING IS CAPABLE OF EXCEEDING 80 °C UNDER NORMAL OPERATING CONDITIONS (A SITUATION THAT MAY OCCUR IN VESSELS USED AS HEAT STORES AND THOSE CONNECTED TO SOLAR HEAT COLLECTORS OR SOLID FUEL BOILERS THAT DO NOT HAVE INTERVENING CONTROLS BETWEEN THE BOILER AND THE VESSEL CONTAINING THE HOT WATER) THE OUTLET FROM THE STORAGE VESSEL SHOULD BE FITTED WITH A DEVICE, SUCH AS AN IN-LINE HOT WATER SUPPLY TEMPERING VALVE IN ACCORDANCE WITH BS EN 15092. THE IN-LINE HOT WATER TEMPERING VALVE SHOULD BE SET/ADJUSTED TO ENSURE THAT THE TEMPERATURE SUPPLIED TO THE DOMESTIC HOT WATER DISTRIBUTION SYSTEM DOES NOT EXCEED 60 °C.
REDUCING THE RISK OF SCALDING AT BATH

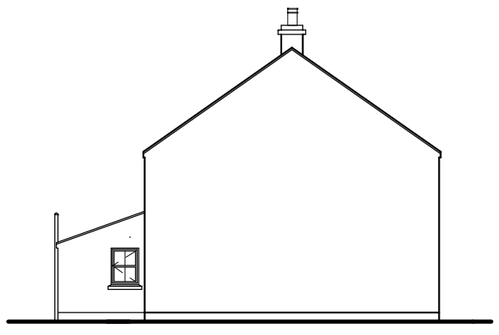
3.2 THE HOT WATER SUPPLY TEMPERATURE TO A BATH SHOULD BE LIMITED TO A MAXIMUM OF 48 °C BY THE USE OF AN IN-LINE BLENDING VALVE OR OTHER APPROPRIATE TEMPERATURE CONTROL DEVICE, WITH A MAXIMUM TEMPERATURE STOP AND A SUITABLE ARRANGEMENT OF PIPEWORK.

3.3 THE ACCEPTABILITY OF IN-LINE BLENDING VALVES CAN BE DEMONSTRATED BY COMPLIANCE WITH THE RELEVANT HARMONISED EUROPEAN STANDARD SUCH AS BS EN 1111 OR BS EN 1287 TO DEMONSTRATE THAT THE MAXIMUM TEMPERATURE OF 48 °C CANNOT BE EXCEEDED IN OPERATION AND THAT THE PRODUCT WILL FAIL-SAFE (I.E. NOT DISCHARGE WATER ABOVE THE MAXIMUM TEMPERATURE). SUCH VALVES SHOULD NOT BE EASILY ALTERED BY BUILDING USERS.

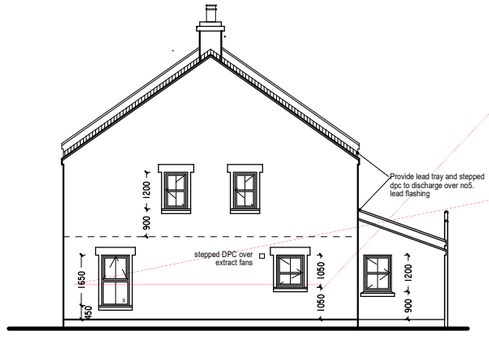
3.4 IN-LINE BLENDING VALVES AND COMPOSITE THERMOSTATIC MIXING VALVES (TMVS) SHOULD BE COMPATIBLE WITH THE SOURCES OF HOT AND COLD WATER THAT SERVE THEM.

3.5 THE LENGTH OF SUPPLY PIPES BETWEEN IN-LINE BLENDING VALVES AND FINAL OUTLETS SHOULD BE KEPT TO A MINIMUM IN ORDER TO PREVENT COLONISATION BY WATERBORNE PATHOGENS. WHERE INTERMITTENT USE OF A BATH IS ANTICIPATED, CONSIDERATION SHOULD BE GIVEN TO HIGH TEMPERATURE FLUSHING TO ALLOW FOR PASTEURISATION OF THE PIPES AND OUTLET FITTINGS. THIS SHOULD BE CONFIGURED AND OPERATED IN SUCH A MANNER THAT PREVENTS INADVERTENT HIGH TEMPERATURE USE.

REAR ELEVATION..



SIDE ELEVATION..



REVISION A: BR3 DEC. 18.

CLIENT
CALMOR PROPERTIES LTD.

PROJECT
AS BUILT DRAWINGS
HOUSING DEVELOPMENT
AT LINDSEY HILL, NEWRY.
HOUSE TYPE 01.
SITES 1 & 2

DRAWING TITLE
ELEVATIONS & SECTION A-A.

DWG. No. BC02A

DATE. FEB 20.

AGENT
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