3.22 – DOMESTIC SERVICES.

From the incoming supply mains cold water shall be extended to serve:

Sanitary appliances
Kitchen
Heating boiler
Hot water cylinder
Garage hose union tap
Solar heating system

Domestic hot water shall be generated by an un-vented indirect storage cylinder located within the garage of house types A & C and the cylinder cupboard of house type B, with primary heating provided by the low temperature hot water heating system. An electric immersion heater will be provided to the cylinder for back up.

Primary heating of the domestic hot water will be provided by an evacuated tube solar collector panel located on the roof, with flow and return pipework extended from the collector panel to the hot water cylinder. The hot water cylinder will incorporate dual heating coils, one for the solar collector system and the other for the gas fired boiler system.

All domestic services pipework will be concealed within vertical riser ducts or floor/ceiling voids.

Isolating valves shall be provided to each appliance and item of plant/equipment.

Drain valves shall be provided at all low points to enable the entire system to be drained.

Domestic services pipework shall be copper tube with capillary fittings in accordance with Section 2 of this specification.

All pipes passing through walls, floors, ceilings etc shall be provided with RKW Supaplate cover plates manufactured by Brefco UK Ltd.

Domestic services pipework within suspended ceilings, voids, ducts and cupboards shall be thermally insulated with Armaflex Class "O" closed cell flexible thermal insulation in accordance with Building Regulations.

3.23 – HWS CYLINDERS.

The Installer shall supply and install within each house a dual coil indirect cylinder to the following details :

Model	Aquacyl 200 TC
Type	Dual coil un-vented
Capacity	200 litres
Cold Feed Temperature	10^0C
HWS Temperature	60^0C
Electrical supply	240 Volts 1 Phase 50 Hz
Electrical rating	120 watts
Height	1816 mm
Diameter	520 mm

Each cylinder shall be supplied complete with the manufacturers un-vented kit, with the expansion vessel mounted on top of the cylinder.

The HWS cylinders shall be installed strictly in accordance with the manufacturers recommendations.

From the T&P and safety valve outlet of each cylinder a discharge pipe shall be extended to terminate to atmosphere at low level, with the safety valve discharge protected by a 100mm diameter wire cage secured to the wall and identified by an traffolyte engraved label stating "Caution – HWS Safety Valve".

The cylinders shall be as supplied by Ferroli Ltd. Tel No. 08707 282882.

3.24 – SOLAR WATER HEATING.

The Installer shall supply and install to each house a water filled solar collector system to the following details :

Solar collector coverage	2.3 m^2
Height	1125 mm
Width	2235 mm
Depth	92 mm
Absorption coefficient	94%
Weight	41 kg
Glass covering	4mm toughened glass, low iron

Each solar collector panel shall be provided with a flat roof mounting kit provided by the manufacturer, and suitable for the roof construction.

The solar collector shall be interconnected with the dual coil hot water cylinder primary heating coil with 22mm copper tube with capillary fittings in accordance with section 2 of the specification. The solar collector/cylinder pipework system shall incorporate a circulating pump, controls and drainback unit with a Ferroli control system.

Solar water heating services pipework within the garage, floor voids, ceilings, voids, ducts and cupboards shall be thermally insulated with Armaflex Class "O" closed cell flexible thermal insulation in accordance with Building Regulations.

The solar water heating system shall be installed strictly in accordance with the manufacturers recommendations.

The solar water heating system shall be as supplied by Ferroli Ltd. Tel No. 08707 282882.

3.25 – CHLORINATION.

The domestic services installation shall be sterilised in accordance with BS 6700.

The installer shall allow for all chemical injection points or additional facilities required to enable for chlorination.

The Engineer may choose to witness this operation and the installer shall give at least 48 hours notice prior to commencing the chlorination.