

81 Avenue Road

Strategic Summary of Mechanical and Electrical Building Services

- 1.0 The use of renewable technologies has been considered and the most appropriate options for this scheme is the use of solar PV panels.

It is proposed to provide approx. 10kWp of PV panels as calculated in the SAP.
- 2.0 The heating will be by means of a centralised high efficiency low NOX gas fired condensing boiler plant rated at SEDBUK A.
- 3.0 All heating pipework will be thermally insulated to meet Building Regulations Part L requirements.
- 4.0 Automatic heating controls will provide both programmed timed operation and thermal control to manage the heat input to individual habitable rooms.
- 5.0 Energy metering will be provided to enable occupants to be aware of instantaneous and cumulative energy usage.
- 6.0 Domestic hot water will be generated by primary heating from the central boiler plant piped to local indirect hot water cylinders. Cylinders will be factory fitted with high efficiency thermal insulation.
- 7.0 Domestic hot water controls will provide both timed operation and thermal control to achieve maximum efficiency and operational cost saving.
- 8.0 All heating pumps will be variable speed inverter driven to achieve maximum efficiency and to reduce power absorption under low load conditions.
- 9.0 Domestic water will be pumped from lower ground floor level to the accommodation. Load controls will be provided and pumps will be inverter driven to ensure minimum electrical power consumption.
- 10.0 The property will be provided with direct individually metered mains water connections.
- 11.0 Mechanical ventilation will be provided by high efficiency MVHR unit in accordance with Part F of the building regulations.

- 12.0 Mechanical ventilation to the pool area will be achieved with a high efficiency heat recovery plant, waste heat will be utilised for pool water heating.
- 13.0 Comfort cooling will be provided by a packaged air source heat pump system, VRF system, each internal unit will be provided with individual control for maximum efficiency.
- 14.0 100% of all fixed Lighting will be by high efficiency luminaires with 45 lumens /Watt light source either by LED or fluorescent lamps.
- 15.0 On completion of the works the occupants will be provided with comprehensive as installed manuals and drawings to fully detail the installed services. The manuals will detail steps to be taken to ensure how the user can ensure minimum energy usage.

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