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41 Queens Grove, NW8 6HH – Sustainability Statement

Existing Conditions:

Existing Site Parameters

The existing foul and surface water systems are currently both connected to a public sewer. There is currently no provision on the site for sustainable urban drainage systems (SUDS) and all the existing rainwater is currently discharged into the sewerage system.

There is currently provision on the site for the parking of 3 cars (two within the garage and one on the driveway).

Existing Building

The existing building was originally constructed circa 1930. The existing external walls are constructed in solid 9" masonry with a plaster finish internally. There is therefore currently no insulation to the external walls of the building, this is a very thermally inefficient form of construction

The existing external windows and doors are single glazed and have no draft proofing to them. The existing roof also has an inadequate amount of insulation and does not conform to current standards. It is also very unlikely that the existing lower ground floor/ basement floor slab has any insulation beneath it as this was not a typical form of construction when the house was built.

The existing central heating and hot water systems are run from a boiler which is very inefficient by current standards. The existing dishwasher and washing machines are old and very inefficient in terms of their water consumption.

Most of the WC's are over 10 years old and have large cisterns with a capacity of 9 litres or greater.

Proposals in relation to SD9 of the Camden Replacement UDP:

A – Air Quality

The proposed development will not cause significant harm to the air quality of the site.

The scheme has been designed to take into consideration the Air Quality Action Plan by not increasing the number of car parking spaces on the site. It is proposed to improve the existing situation by providing an electric recharging point to the garage to encourage the use of zero emission electric cars in accordance with section 1.57 of the replacement UDP.

B – Water

The proposed development will not cause harm to the existing water environment, water quality or drainage systems and has been designed to mitigate flooding.

The proposed building above ground level has been designed to sit within the footprint of the existing house and existing hard standing/ lightwells to the rear. This means that there will be no increased risk of local flooding due to increased surface run-off during rainfall. At basement level the rear section of the proposed dwelling has been designed to be 900mm below the finished garden level thereby allowing planting above and eliminating surface run-off to this area in accordance with section 1.59 of the replacement UDP.

It is proposed to connect all the new foul and surface water systems into the existing mains connections. It is proposed to use water butts to collect the rainwater to the rear of the property. In this way the rainwater run-off into the existing public sewerage system will be reduced and the rainwater can be reused for the watering of the garden etc.

As stated above the current water systems and appliances within the existing house are over ten years old and are therefore very inefficient in terms of their use of water.

The proposed new house would make use of the following water saving appliances:

- Bathroom toilets will be fitted with slimline cisterns approx. 4.5 litres and dual flush systems.
- The appliances to the building will be new and will be selected to be economical in their use of water.

For the proposed new swimming pool at basement level it is proposed to use an Ozone treatment for the pool water rather than a Chlorine based treatment. Ozone is a much more environmentally friendly form of water treatment and means that any waste water from the swimming pool can also be used on the garden or for the washing of cars etc. as it will not pollute the surface/ ground water.

C – Use of energy and resources

The proposed development has been designed to conserve energy and resources.

The new house will be far more energy efficient than the existing property as the proposed development would be required to conform to current building regulations. This means that in terms of the conservation of fuel and power the new dwelling will be far more energy efficient than the existing house.

The new external walls to the sides and rear of the property will be constructed as cavity walls with cavity wall insulation to achieve a U-value of on average at least 0.30 W/m^2·K. It is proposed to replace the existing roof which is currently thermally inefficient with a new roof structure which will achieve a U-value of an average of 0.20 W/m^2·K. The existing lower ground floor/ basement slab will be broken out and re-laid with new insulation below, this will then tie in with the new basement floor providing a ground floor slab which has an average U-value of 0.22 W/m^2·K. The new flat roof extensions will have an average U-value of 0.20 W/m^2·K.

All the windows to the property will also be replaced with new double glazed units and all will have draft proofing installed to them. These improvements to the basic construction of the house will mean that the property will need much less energy to heat and run it and will conserve fuel far better than the current house.

The property will also have a completely new central heating and hot water system. The new boiler which will run these systems will be a minimum of 78% efficient which would be a vast improvement on the existing system. Also all the new pipework for these systems will be properly lagged which is not the case in the existing house.

Where possible the building materials for the house are to be recycled during the process of the demolition and reused within the new building. The existing bricks are to be reused, where possible, and the existing roof tiles are also to be reused on the new roof. Other waste materials from the demolition process will also, where possible, be sent for recycling. This will include materials such as leadwork and copper piping.

Conclusions

In conclusion the proposed development of this property has been designed to provide a much more sustainable dwelling offering a vast improvement to the existing conditions on the site. This has been proposed in a number of ways:

- Facilities would be provided to encourage the use of more environmentally friendly modes of transport in an endeavour to improve the air quality to the property and surrounding area.
- Water saving devices are to be installed to improve the consumption of water in the property and surface water run-off would be used for the benefit of the property rather that allowing it to drain into the public sewer.
- The new property would be far more energy efficient than the existing house both in terms of heat loss and in terms of the energy it consumes.
- The amount of waste produced by the building process would be limited as much as possible and the waste which is produced would be re-used or recycled where possible.