Design and Access Statement

Installation of an Air Source Heat Pump

26 Weavers Way, London NW1 0XE

Summary

This application seeks planning permission to install one Air Source Heat Pump measuring 800 x 285 x 550 mm at 26 Weavers Way, NW1 0XE. This will have no significant visual or noise effect on the area or on neighbours. It will be located on the side of the house (at the end of the terrace, to the east), to maximise the distance from neighbours, and be hidden behind existing bushes so as not to be visible from the road or adjacent properties.

Background

26 Weavers Way is an end-of-terrace house built in the 1970s. It is not in a heritage or conservation area, and is not a listed building. The walls are brick, and existing drain pipes are black plastic. There are a number of established bushes on the east side of the house (at the end of the terrace).

Proposal

We propose to install a Mitsubishi MXZ-2F53VF3 multi-split system inverter heat pump at ground level on the east side of the house, as illustrated in the attached architectural drawings. This location maximises distance from the adjoining properties. The unit will be located behind the existing bushes, to minimise visual and noise impact and maximise efficiency. The associated pipework up the side of the house will be hidden inside a single black PVC drainpipe, matching the existing drainpipes on the house.

This single outdoor unit will connect to two indoor units in the upstairs bedrooms, providing both heating (in place of the existing radiators, powered by a gas boiler) and cooling.

Appearance

The external heat pump unit will not be visible from the street or adjacent properties as it will be entirely behind the existing bushes. The drainpipe containing the pipework will be visible, but impact will be minimal as it will match the existing drainpipes on the house.

Noise

The selected heat pump unit has a sound pressure level of 51 dBA for heating and 46 dBA for cooling, according to the manufacturer specification sheet (attached). This is comparable to a household fridge. This will be further attenuated by the bushes in front of the unit. The

closest nearby property window is approximately 13 metres away, in the block of flats to the southeast.

Energy and environmental considerations

The house has cavity wall insulation, and double-glazed windows. Loft insulation has recently been topped up to the recommended 270 mm. The ground floor is solid, so no more insulation is practical there.

For heating in winter we currently use a gas boiler connected to radiators. This heat pump system will be used to heat the upstairs instead, reducing gas usage. For cooling in summer we have so far been relying on passive cooling with open windows and fans, but in peak summer temperatures this has proved insufficient, with the bedrooms still too hot to sleep at night. Using the heat pump system to cool just the bedrooms will help this with minimal energy impact.

The selected system uses R32 refrigerant, which has much lower GWP and higher efficiency than alternatives such as R410A. Locating the external unit in the shade of the existing bushes will also increase efficiency, by avoiding direct sunlight on it.

Amount

The proposal does not involve any change in accommodation.

Layout

There are no layout implications for this proposal.

Scale

The selected heat pump unit is a small and compact unit and so will have no impact on the general domestic scale of the building.

Use

The proposal does not involve any change of use.

Access

The proposal does not involve any changes to the existing access of the house.