79 Lancaster Road

Design, Access & Heritage Statement

THOUGHTS
WORKSHOP

1.0 INTRODUCTION

This document has been prepared to accompany the submission of a Householder Planning Application for the installation of Photovoltaic Panels (PV) panels on the rear elevation of 79 Lancaster Road with an internal battery storage system. The proposal also includes the installation of a small Air Source Heat Pump (ASHP) on the rear wall of the main house which will be used to heat and cool the new loft conversion and will be powered by the energy produced from the PV panels.

Figure 01 - Photograph of rear elevation viewed from rear garden of 79 Lancaster Road

2.0 SITE AND SURROUNDINGS

The site is located on the South side of Lancaster Road within the Stroud Green Conservation Area. The property is a four storey Victorian mid-terrace single family home. The area is predominantly residential in character and appearance consisting of similar types of properties.

Running along the rear of the property, parallel to the Lancaster Road, is Parkland Walk, a disused railway line which is now a popular green walking and cycling route. The section of Parkland Walk adjacent to Lancaster Road sits on raised ground with vegetation lining either side of its banks. 79 Lancaster Road is screened, and therefore not visible, from Parkland Walk by a thick layer of evergreen trees, shrubs and bushes.

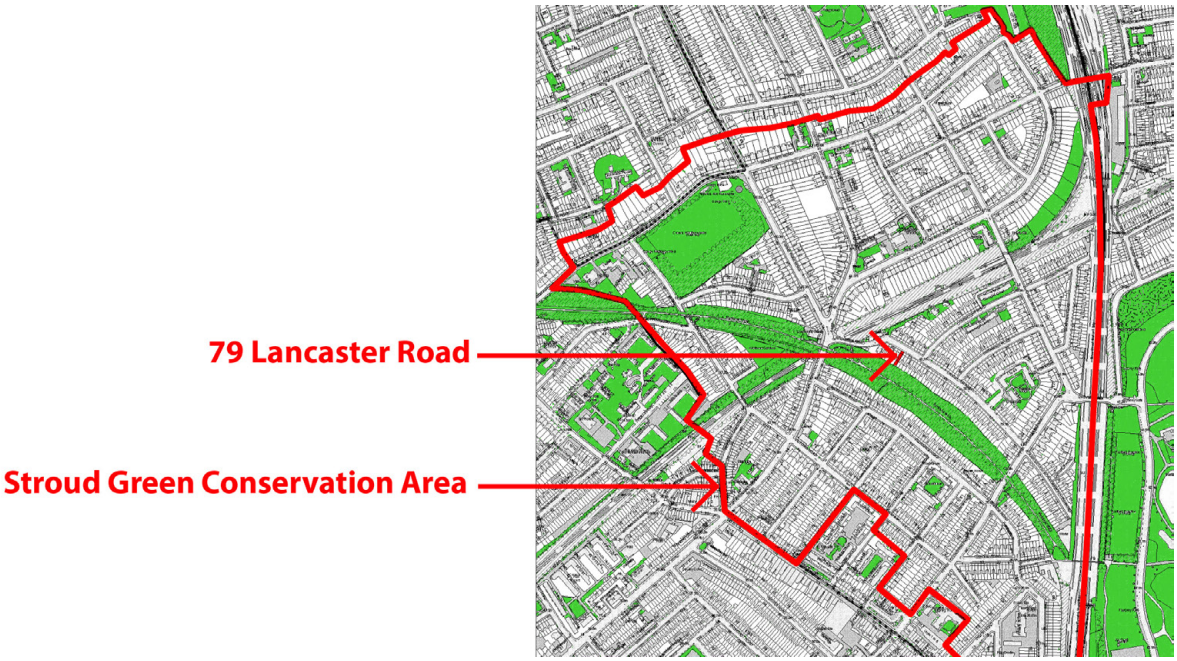

Figure 02 - Stroud Green Conservation Area map

Figure 03 - Aerial photograph of Parkland Walk and 79 Lancaster Road

Figure 04 - Photograph of Parkland Walk viewed from rear garden of 79 Lancaster Road

Figure 05 - Photograph of rear of 79 Lancaster Road viewed from Parkland Walk

3.0 PROPOSAL

The proposal is to install 4no. PV panels on the flat roof of the rear dormer and 4no. PV panels on the rear outriggger pitched roof alongside an internal battery storage system. The proposal also includes the installation of a small ASHP on the rear wall of the main house above the pitched roof of the rear outrigger to heat and cool the new loft conversion which will be powered by the PV panels.

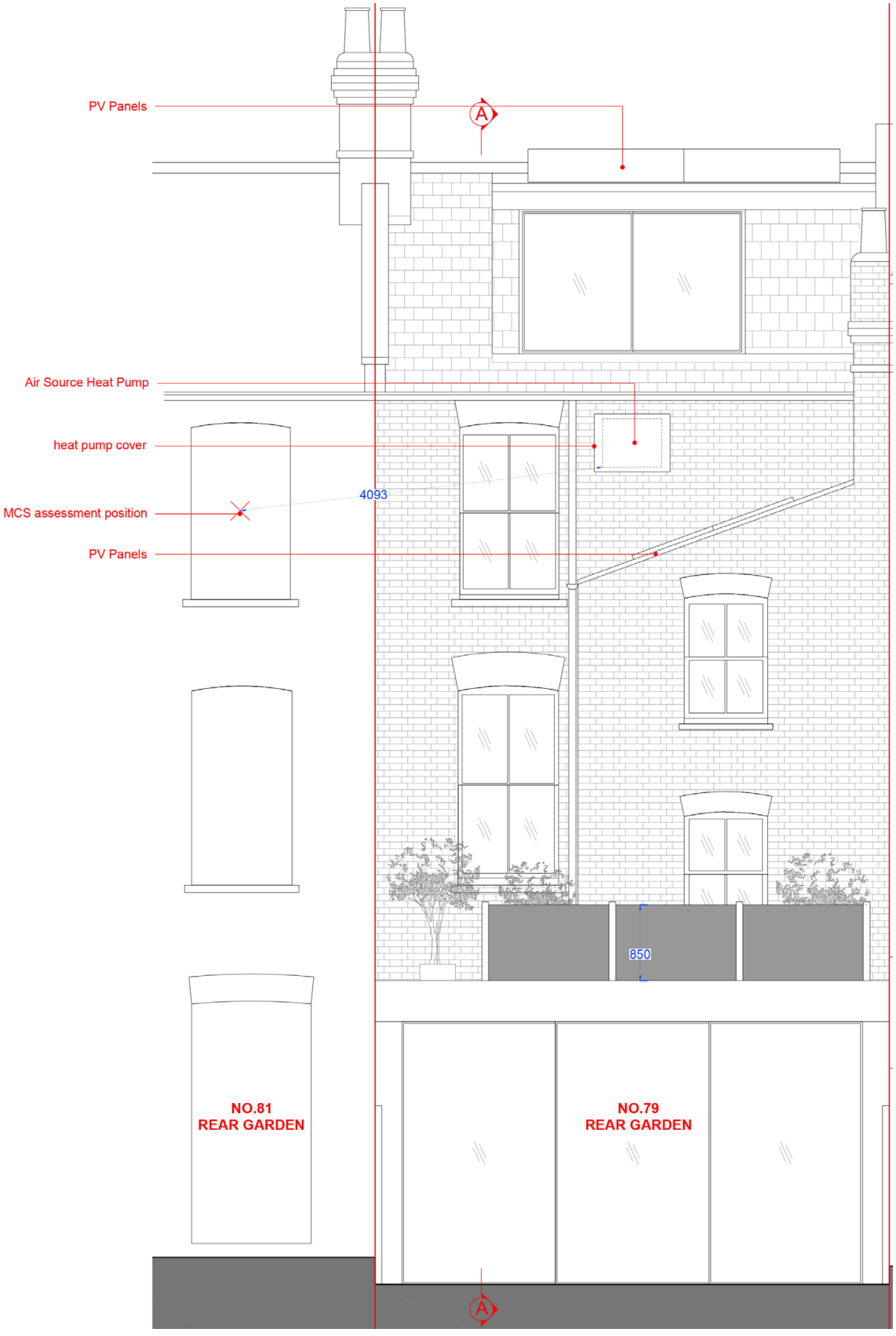

Figure 06 - Rear elevation drawing showing the proposed PV panels and ASHP

4.0 DESIGN AND SUSTAINABILITY

The PV system has been designed to suit the specific site constraints and to maximise the amount of sustainable energy being produced. An intergated optimiser will ensure that the highest energy yield is achieved for each solar panel, regardless of their orientation and any shading or soiling issues. The battery storage will take up excess power created by the panels so that this energy doesn't go to waste and is used up at night or on less sunny days. The system will be installed by an MCS Certified installer and will linked to the Smart Meter and an application to allow tracking of its performance.

The cooling heirarchy has been applied in the design to reduce the potential for overheating and limit reliance on mechanical air conditioning. The the new south facing glazing in the loft has been specified as solar-control glass to reduce the effects of solar heat gain. In addition there are openable windows to the front and rear of the loft to allow for effective cross ventiallation.

In a four-storey house such as this hot air from all the floors below naturally rises to the loft via convection, making it the warmest space in the home. This effect is further compounded by climate change and rising temperatures, hence the requirement for cooling in the loft on the hottest days. In the summer when cooling could be required, the PV panels will be producing their highest yield meaning that the ASHP would be completely powered be renewable energy produced at source. The projections for the energy production throughout the year have been outlined below which far exceed the expected energy consumption of the ASHP.

To reduce the heating requirements all the external windows and doors in the house, including on the front and rear elevation, have been upgraded to energy effecient low-e double glazed units. In addition the property benefits from a well insulated rear ground floor extension (application ref: HGY/2018/0345) and highly airtight and thermally effecient loft conversion (application ref: HGY/2024/1726). The convection effect of hot air rising from the lower floors of the house will also help to reduce the need for heating in the loft during colder months. The battery storage also allows energy produced by the PV panels during the day to be used for heating at night.

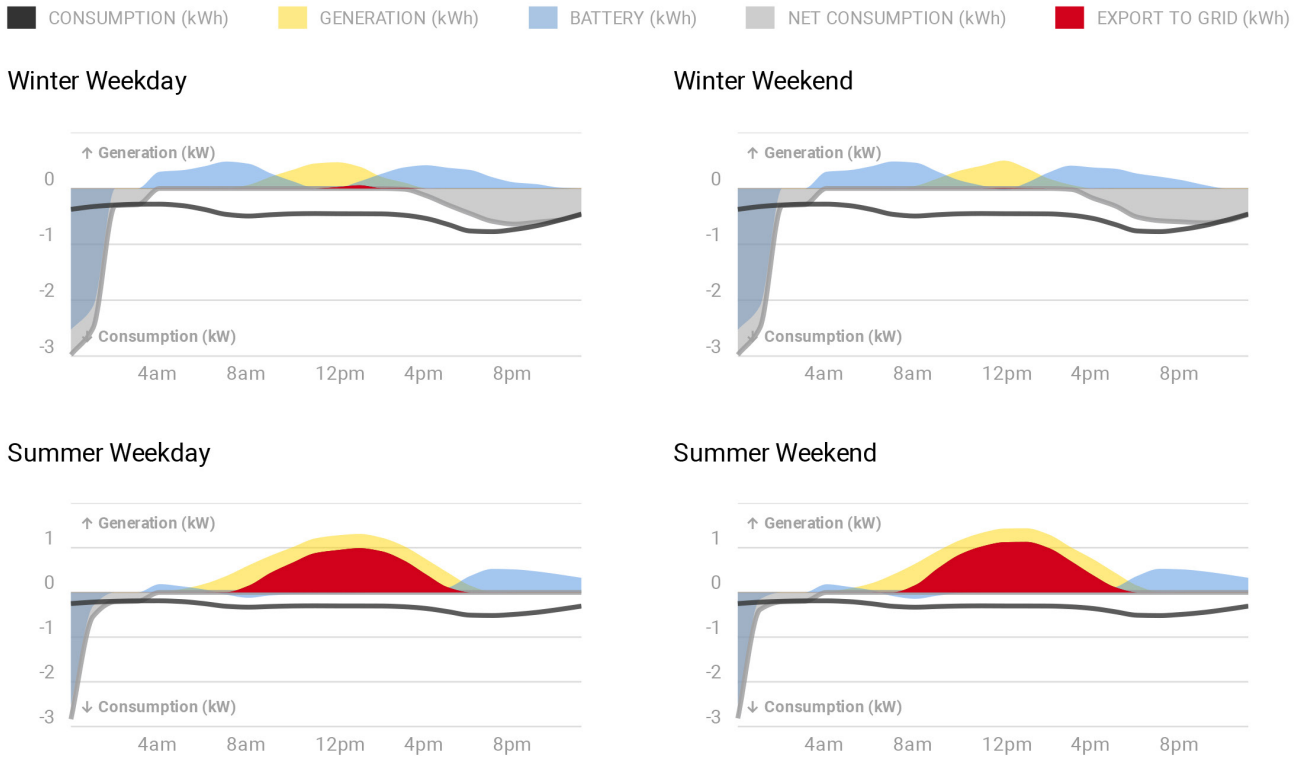

Figure 07 - Charts modelling daily consumption, generation, and export to grid throughout the year

5.0 ACCESS & AMENITY

The impact on the neighbour's amenity has been thoroughly assessed, ensuring that the proposed design does not adversely affect their daylight, privacy, outlook, noise levels, or sense of enclosure. The air source heat pump (ASHP) operates at a very low sound pressure of 50 dB, measured at a distance of 1 meter. An MCS Air Source Heat Pump Calculation has confirmed that the proposal complies with the permitted development noise limit and will be included as a supplementary document with the planning application.

The public's amenity will also not be negatively impacted as the rear of the property is screened from the footpath on Parkland Walk.

Access into the property will not be affected by this proposal.

6.0 HERITAGE

The design of this extension aims to preserve the historical character and features of the main-house and its surroundings. The proposed PV panels and ASHP are not visible from any road and are screened from the public footpath on Parkland Walk by a dense layer of evergreen vegetation, as indicated in the pervious section.

The ASHP unit is compact, measuring approximately 663 x 541 x 290 mm, and is installed on the rear wall of the main house above the pitched roof of the rear outrigger. A decorative heat pump cover will help minimize its visual impact on the building's external appearance.

The PV panels on the rear outrigger pitched roof will have a minimal projection from the surface of the existing roof finish and fall within GPDO. The PV panels on the rear dormer are set back from the edge of the roof and the dormer itself is set back from the rear wall of the house.

Figure 08 - Image of heat pump cover

7.0 POLICY CONTEXT

National Planning Policy Framework 2021

London Plan 2021

Haringey Local Plan 2017

Note: The Stroud Green Conservation Area did not have a Conservation Area Appraisal and Management Plan or any published guidance available at the time of submission.

8.0 SITE PLANNING HISTORY

79 Lancaster Road:

HGY/2018/0345 - Erection of single storey rear infill / rear extension. Granted 18/5/2018.

HGY/2024/1726 - Formation of a rear dormer and insertion of 3x rooflights. Granted 20/06/2024.