Description of Building and Proposed Project Development

This Statement has been prepared by Repowering London on behalf of The Calthorpe Project to secure planning permission for the installation of solar photovoltaic panels on the roof of the existing Calthorpe Project office and cafe building.

This proposal is part of a number of measures led by the Calthorpe Project to reduce their carbon footprint and increase public awareness of climate change. The feasibility work to date, including this planning application, has been supported by the GLA's London Community Energy Fund, and the capital costs of the project will be funded by grant funding and donations.

The project follows similar Solar Energy schemes supported by the social enterprise Repowering London in partnership with local residents in Lambeth and Hackney.

1. Elmore Gardens, Loughborough Estate, SW9 7TH (37kWp solar array)
2. Styles Gardens, Loughborough Estate, SW9 7XD (45kWp solar array)
3. Roupell Estate, SW2 2SA (52kWp solar array)
4. Banister House, Hackney, E9 6BP (102 kWp solar array)

The project has the support of:
1. The London Borough of Camden Council
2. The GLA's LCEF team

Site Assessment

The site itself is bounded by Ampton Street to the North, Cubitt Street to the East, Grays Inn Road to the West and the UCL Eastman Dental Institute to the South. The proposed project will be installing solar PV panels on the roof spaces of the building (see Layout Drawings).

The site is located on the edge of the Bloomsbury Conservation Area. Due to the low nature of the roof of the building the solar panels will be partially visible from street level on Gray's Inn Road. This is considered in more detail in the Heritage Statement.

The buildings were selected for the following reasons:

1. Suitability for Solar PV installation – consideration has been given to roof size, structure and shading.
2. Conservation issues – there is an existing green roof on the buildings proposed, which the solar installation will be integrated with.
3. Visual impact- solar panels will not be installed on the highest part of the buildings to reduce visual impact of the solar panels.
4. Community Benefits – the project will generate a steady income over the next 20 years from the Government Feed-in-Tariff and the sale of electricity onsite and export to the National Grid, which will benefit the Calthorpe Project and its users by reducing operating costs.

The Solar PV System

The proposed PV array will consist of a 10.5 kWp system comprising of 35 x 300W solar PV panels spread over the flat roof, which will provide electricity to the centre building. The system is estimated to generate an annual energy yield of 10,100 kWh, capable of saving 4,656.10 kg of CO_2e per year. The system will include 1 inverter to convert the solar output to the correct voltage of alternating current for use within the premises. Supporting electrical infrastructure including cabling will also be part of the installation.

Any energy not used on site will be sent to the National Grid. The system will be configured so as to maximise on-site usage of the electricity generated spread over the next 20 years which will benefit the Calthorpe Project by reducing the amount that needs to be bought from a supplier.

A total of 57.75 m^2 of solar panels will be installed on the roof:

35 x panels on the roof of the building = 57.75m^2

Further details of these installations that include Layout Drawings and street level views of the school are attached in the appendix below.

The photovoltaic modules are glass fronted, aluminum framed modules. The modules have an anti-reflective coating to enhance solar energy capture and therefore appear duller than conventional glass due to lack of reflection and glare. The layout has been designed to minimize the shading from surrounding buildings and other structures on the roof to provide a higher energy yield.

On flat roofs panels will be roof-mounted using metal or plastic A-frames secured by ballast. No roof penetration will be required, and wind-loading calculations will determine the ballast requirement. The panels and A-frames will be approximately 180mm high.

Access

As a single storey building, access will be via scaffolding towers or other methods in compliance with relevant legislation and HSE guidance.

Construction Impacts

A Construction Management Plan (CMP) will be developed and this will be a requirement of the tender document. This plan will cover:

- the notification of neighbors regarding specific works;
- advance notification of road or access way closures;
- details regarding parking, deliveries and storage (including details of the routing of delivery vehicles to and from the site and the accommodation of all site operatives', visitors' and construction vehicles loading, off-loading, parking and turning within the site during the construction period);
- other measures to mitigate the impact of construction upon the operation of the highway and the amenity of the area.

Sustainability Statement

The purpose of this onsite renewable energy generation project is to provide electricity for the Calthorpe Project Office and Café and serve as an educational tool for the project's visitors. The project will encourage sustainable behavior by the community, through awareness raising to reduce unnecessary energy use.

The Calthorpe Project in partnership with Camden Council and Repowering London intend the project to be an example project to other community centres and encourage the surrounding communities to take positive action to mitigate climate change.

Heritage Statement

The Calthorpe Project project proposal is for the Calthorpe community centre and cafe. The project area is adjacent to the Catherine Bond Bloomsbury conservation area to the south-east of the Camden conservation area boundary. There are no listed buildings within the project area (see Figure 4 for a map of the Camden Conservation Area in relation to the centre).

In Camden's Appraisal and Management Strategy for the Bloomsbury Conservation Area, Grey's Inn Road is recognized as having "a more varied character than the quieter side streets with a coarser grain where piecemeal development has occurred over the 19th and 20th centuries characterised today by a mix of commercial, community and hospital uses….There is greater variety in the materials used along Gray's Inn Road, particularly in the later developments which employ stone, glass, steel and concrete". The Calthorpe Project is recognised as a local Site of

Nature Conservation Importance and is described as a “haven in a busy, urban area, acting as an important focal point for the local community”.

In this context, the small scale of the solar installation is in keeping with the visual appearance and values of the existing Calthorpe Project building. Consideration has been given to minimise the visual impact and external appearance of the solar installation on the surrounding buildings. The visibility of the panels from street level or from buildings of the same or lower height has been minimised across the scheme. All panels will be below the highest point of the roof. There will be no wall-mounted panels but the panels will be partially visible from street level as well as to the surrounding buildings due to the low nature of the roof of the community centre. However, the majority of the panels will be screened from street level by the surrounding vegetation and installation on the east side of the roof.

APPENDIX 1: Street Level Views

Figure 1: Calthorpe community energy and garden street view, from Grays Inn Road

Figure 2: Ariel view of the Calthorpe centre and garden

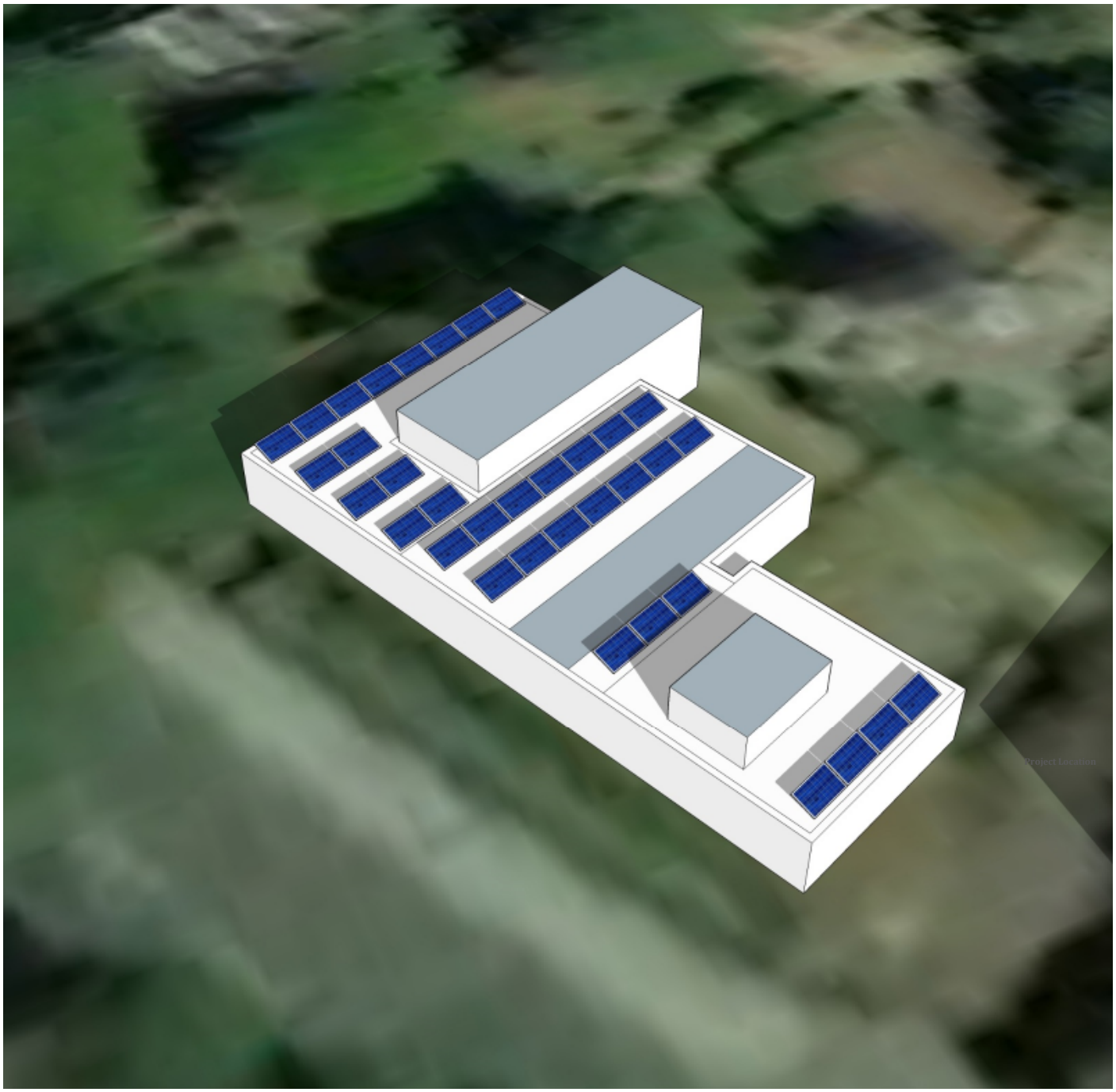

Figure 3: Ariel view of the proposed solar panel layout

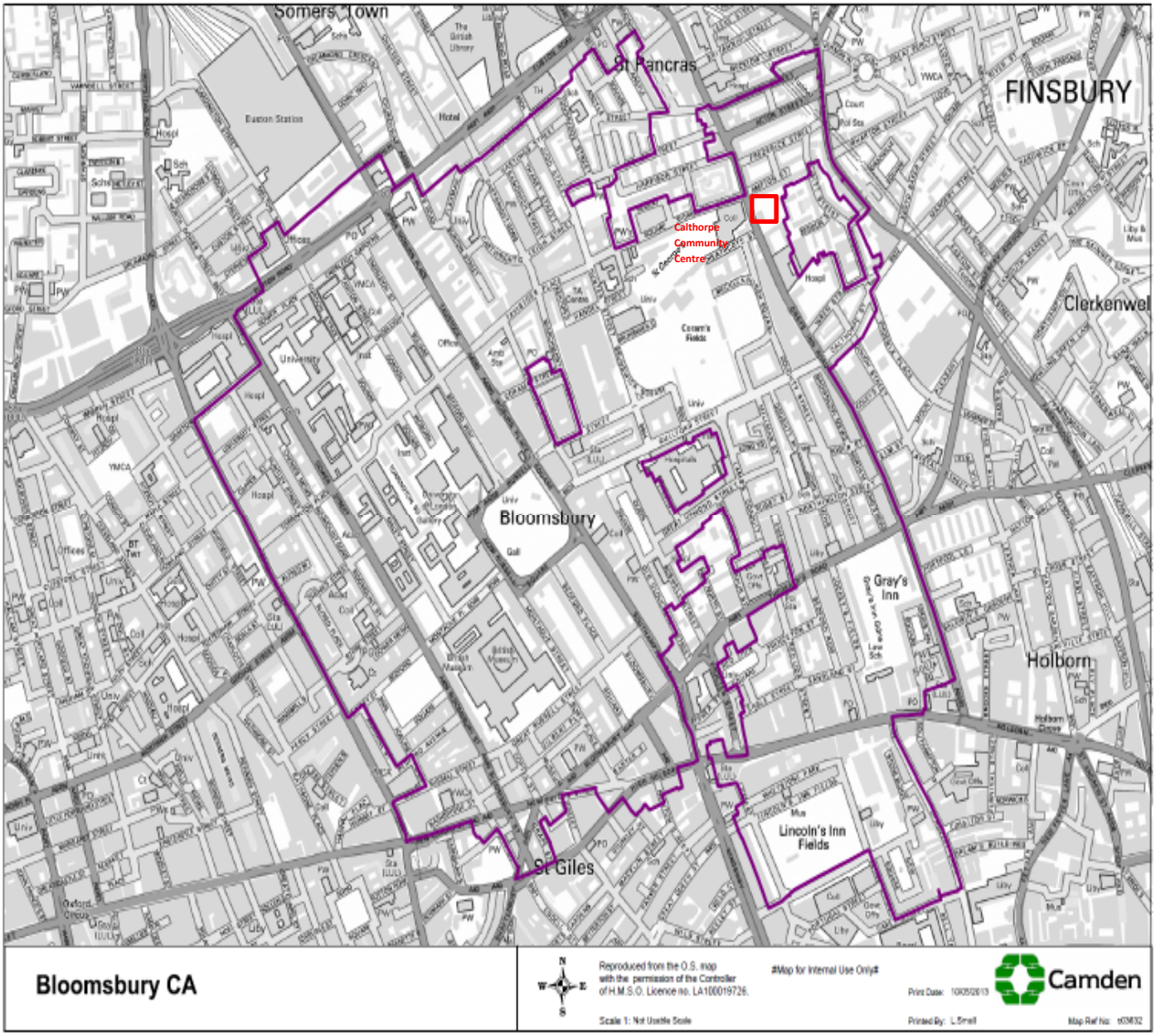

Figure 4: Arial view of the Avondale and Avondale Park Gardens Conservation Area

5.247 Gray's Inn Road is a wide, busy route linking High Holborn in the south to King's Cross in the north. It has a more varied character than the quieter side streets with a coarser grain where piecemeal development has occurred over the 19th and 20th centuries characterised today by a mix of commercial, community and hospital uses. The more recent buildings tend to be taller with larger footprints. Smaller scale 19th century buildings can be found close to the junctions with Frederick Street and Ampton Street on the east side and between Cromer Street and the entrance to Argyle Square on the west side. There is greater variety in the materials used along Gray's Inn Road, particularly in the later developments which employ stone, glass, steel and concrete, although the predominant material is London stock brick. The architectural detailing also has consistent themes including a strong vertical definition with the same rhythmic window patterns and height as buildings in more residential parts of the sub area. 5.248 The only formal open space in the sub area is St Andrew's Gardens, located east of Gray's Inn Road, a former 18th century burial ground which became a garden in the 19th century. The Calthorpe Project on Gray's Inn Road is a local Site of Nature Conservation Importance.

The site on the east side of Gray's Inn Road, occupying Nos 258-274 (even), immediately south of Ampton Street, has been home to the Calthorpe Project since 1984. The site comprises a community garden, comprising a series of intimate spaces created by local people as the outcome of a campaign to thwart an office development. Today the garden is a landscaped haven in a busy, urban area, acting as an important focal point for the local community. Close to the Gray's Inn Road frontage stands a onestorey community building, designed by Architype in 1991. Employing a post-and-beam structure, it is clad in timber with overhanging eaves and has a flat roof planted with herbs.

The Calthorpe Project, a well-established community garden on a cleared site on the east side of Gray's Inn Road to the south of Ampton Street should be included in the Conservation Area.