

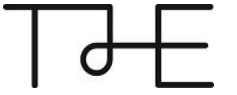
## **PV Location & Extent (Briefing note)**

### **17 Charterhouse Street**

On behalf of: Anglo American and De Beers

October 2018

## DOCUMENT CONTROL



Version	Date	Author	Checked by	Status
1.0	7 September 2018	M Cotton	A Freire	Final
2.0	24 October 2018	M Cotton	A Freire	Updated following feedback from B4

Project reference: TE0245

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# INTRODUCTION

This Briefing Note sets out the location and extent of photovoltaic cells (panels) to be installed on 17 Charterhouse Street, London EC1N 6RA. The note has been developed in-line with the requirements of Condition 7, as set out within the planning decision notice for the building dated 24<sup>th</sup> January 2018. The note also includes a commentary on any changes between the consented design – as detailed in the Energy Statement (Rev 2) dated 24<sup>th</sup> November 2017 and the proposed design as a result of design development.

## Planning condition 7:

The building was granted full planning permission in January 2018 (Application Ref: 2017/4586/P), subject to a Section 106 Legal Agreement and conditions including Condition 7 which relates to confirmation of the location and extent of photovoltaic cells on the building.

**Condition 7:** *“Prior to first occupation of the buildings, detailed plans showing the location and extent of photovoltaic cells to be installed on the building shall have been submitted to and approved by the Local Planning Authority in writing. The measures shall include the installation of a meter to monitor the energy output from the approved renewable energy systems. The cells shall be installed in full accordance with the details approved by the Local Planning Authority and permanently retained and maintained thereafter.*

*Reason: To ensure the development provides adequate on-site renewable energy facilities in accordance with the requirements of Policy G1, CC1 and CC2 of the London Borough of Camden Local Plan 2017”*

# NUMBER OF PV PANELS

Detailed plans showing the location and extent of the photovoltaic panels have been included on the following pages – See Drawings 1 & 2. The table below provides a summary of the number of PV panels included in the consented scheme and the proposed scheme, and includes a commentary on the changes in the numbers.

Location	Consented scheme - no. of panels	Proposed scheme - no. of panels	Commentary
St Andrews House block	40	-	The structural engineer (Ramboll) have confirmed that there is insufficient structural information regarding the existing roof to enable the safe installation of panels on this roof.
Saffron Hill Block (roof)	37	37	No change to quantity / location.
Saffron Hill plant room (vertically mounted)	8	11	An additional 3 panels have been incorporated. The panels will be mounted on the plant screen and will hang vertically. The slight reduction in performance of vertically mounted panels has been factored into the energy calculations.
Saffron Hill plant room (above plant area)	42	-	The structural engineer (Ramboll) has confirmed that the installation of PV panels on a structure above the new plant room area is not structurally feasible.
2003 Extension roof	-	12	Room for 12 panels has been identified on the 2003 extension. The panels will be located between the existing Building Management Unit (BMU) which will remain in place to provide abseiling anchor points for the window cleaning contractor.

Drawing 3 overleaf shows the PV metering to enable the energy generated from the panels to be monitored.

# S106 & BREEAM Impact Review

The energy model for the building has been updated to reflect the final fit out design and amendments to the number and location of PV panels. In summary:

## S106 (Planning) targets - Impact:

- Renewable contribution: The renewable contribution has reduced from 9.5% (planning stage) to 8.4%.
- The carbon offset payment has increased from the 'pre-implementation S106 Energy plan', submitted to Camden on the 06.03.18, and it is above the payment level calculated at the planning stage. Therefore there is a potential additional payment of £4,775 which would need to be made to Camden.
- Carbon reduction target: The calculated reduction in CO<sub>2</sub> emissions beyond the Part L 2013 baseline (for the new / extended elements only) is 10.2%. The reduction calculated at planning and included in the S106 agreement is 18.4%. Although the reduction in CO<sub>2</sub> emission beyond Part L 2013 baseline is lower than before, the absolute CO<sub>2</sub> emissions for the fit out are reduced when compared to the proposed shell and core performance.

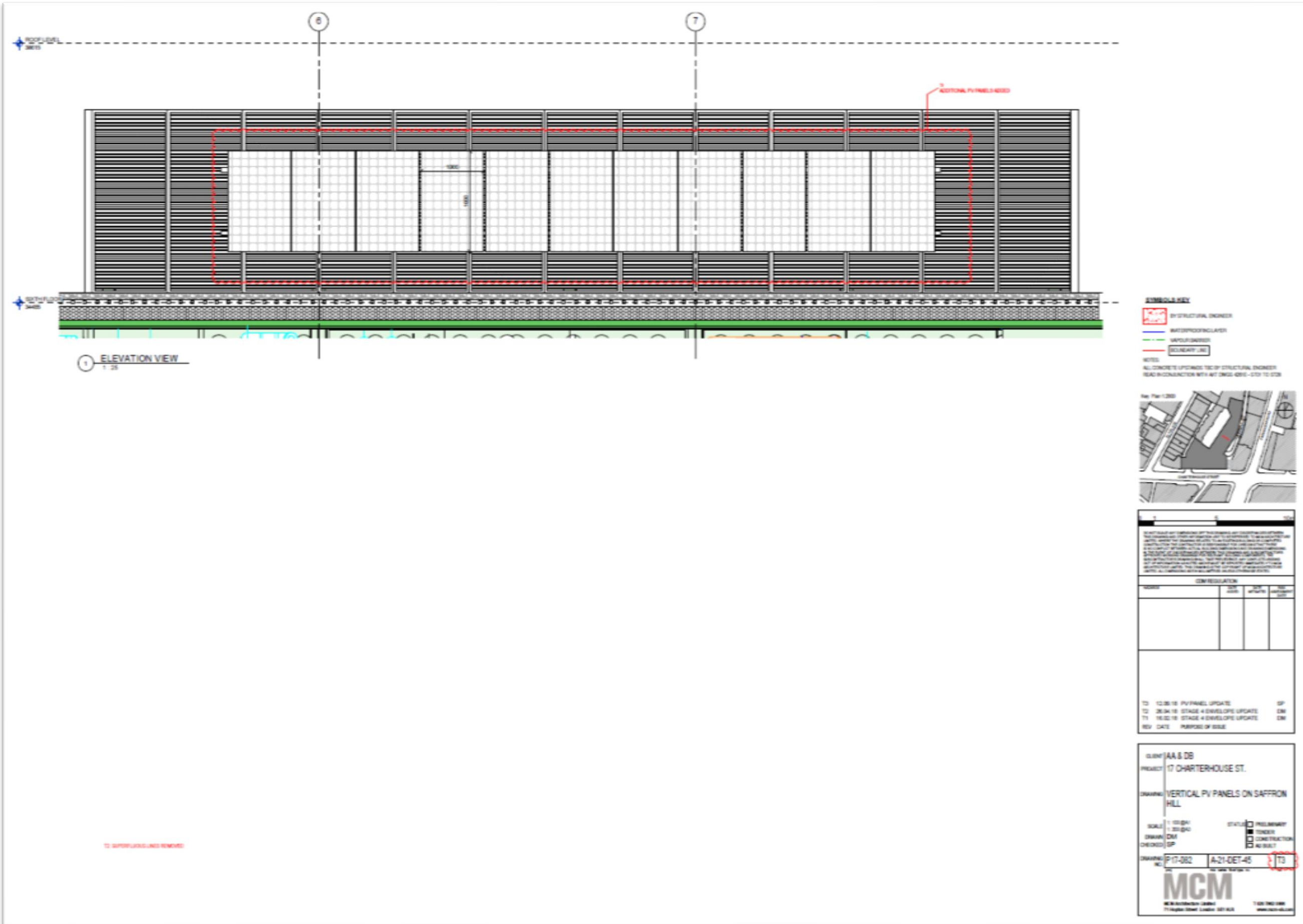
## BREEAM - Impact:

- The BREEAM energy calculation (Ene01) has been updated based on the revised PV area in order to calculate the Energy Performance Ratio (EPR):
  - Planning stage EPR<sub>ndr</sub>: 0.98 = 15 credits (out of 15)
  - Proposed building EPR<sub>ndr</sub>: 0.98 = 15 credits (out of 15)
- Therefore there is no impact on the number of BREEAM Ene01 credits



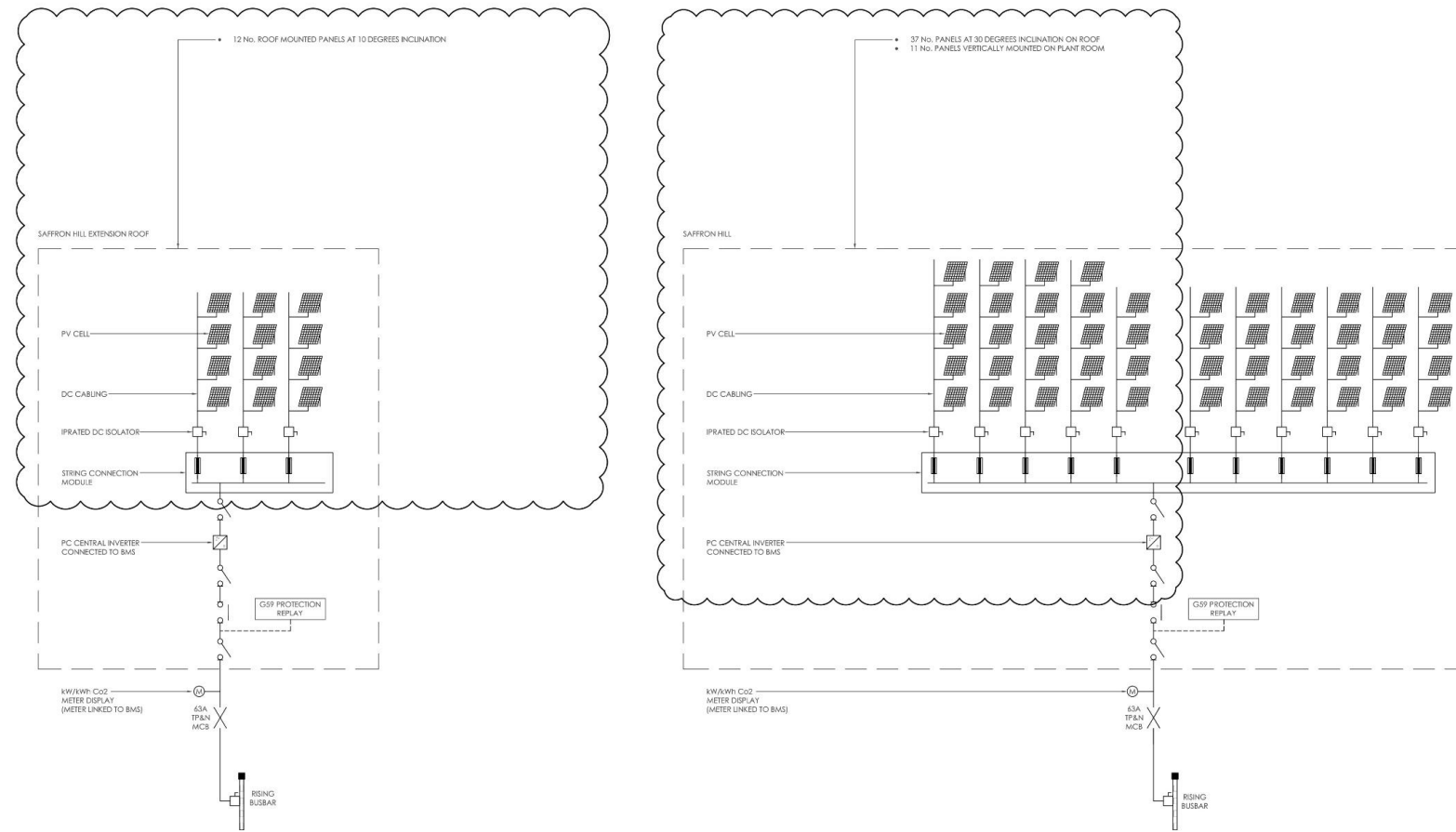


Drawing 2: Saffron Hill plant room elevation - showing extent of vertically mounted photovoltaic panels





# Drawing 3: Electrical Services PV schematic



Rev	Date	Description	By	Chk
T4	08.10.18	REVISED FOR PLANNING	YB	RT
T3	13.04.18	REVISED STAGE 4 ISSUE	YB	RT
T2	29.01.18	REVISED STAGE 4 ISSUE	YB	RT
T1	18.12.17	STAGE 4 ISSUE	YB	RT

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- ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF GDM IF IN DOUBT. ASK.
- APPROXIMATE PANEL SIZE: 1.4m x 1m
- MINIMUM PANEL EFFICIENCY 16.3%
- FINAL LOCATIONS OF PANEL TO BE AGREED WITH ACM & TWIN AND EARTH
- REFER TO 7278-E-99-SC01 FOR DETAILS OF POWER DISTRIBUTION.

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Electrical Services  
 PV SCHEMATIC

Issue: NIS@AD  
 Date: NOV 2017  
 Drawn: A.J.G.  
 Checked: RT

STAGE 4 ISSUE

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