



DAC SITE VISIT NOTES Church: King's College Chapel Date: 4 November 2022 Subject: PV panel installation on roof

#### **Building Details**

#### **Present at meeting:**

Nigel Cooper, Philip Orchard, Geoffrey Hunter, Gethin Harvey, Philip Issacs, Shane Alexander, Jon Burgess.

- I. Background
- a. The DAC has considered this proposal at several previous meetings. This visit was intended to view mock-ups installed on the roof. Two previous attempts at arranging a visit had failed. This meant that scaffolding to enable the roof repair works (previously recommended) was already in place, obscuring the view of the mock-up panels.
- b. The DAC had also advised the College to consider whether the installation of roof insulation would be possible and beneficial in this case. A response had been received explaining why roof insulation was not appropriate in this context and the DAC had accepted this.
- c. Members climbed the scaffolding to view the installation from the roof, and also walked around the precincts of the College and nearby streets to view the Chapel from a number of angles.
- d. The location of the mock-ups on the roof had been amended after advice from the City Council, meaning that the top of the panels would not be visible above the line of the parapet, and the bottom row of panels would be largely hidden below the level of the pierced elements of the parapet. The central panels, and part of the top, would be just discernible through the pierced parapet. The colour of the panels would depend on the current lighting conditions, with the panels appearing much darker in relation to the lead roof when sunlight is strong.
- e. This aspect of visibility had been the subject of detailed advice from Historic England, received shortly before the visit. Historic England had accepted that the installation of the panels would be unlikely to harm the fabric of the building, but objected to the installation on the grounds of the visibility of the panels and the impact this would have on the overall significance of the chapel, while nonetheless assessing this visual harm to be "modest".
- f. Historic England had noted that the difference between the colour of the new lead on the roof and the colour of the solar panels would be stark in some light conditions. However, the colour of the lead would be subject to change over time (as evidence by the old lead



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currently on the roof). The visibility of the lead and the panels side by side from any public view point would be very limited.

- g. The main purpose of this visit was to determine the extent of that visibility, and whether or not, in the view of the DAC, this would harm the significance of the building, and whether any such harm would be adequately counterbalanced by the public benefit resulting from the installation.
- h. The views of the City Council and also the Society for the Protection of Ancient Buildings, following the receipt of advice from Historic England, was awaited at the time of the visit.

## 2. Discussion on site

- a. As noted, the location of the panels had been amended to reduce visibility.
- b. The design of the mounting system was intended to mount the panels closely to avoid visible contrast of colour between panels. It was also as low as it could be while permitting adequate airflow between the panels and the new lead roof.
- c. Modelling of the output from the panels indicated that the proposed installation on the chapel roof would generate 50% of the total potential of the entire King's site, were panels installed in all other feasible locations. It was also shown that 40% of the power would be generated on the north slope of the roof.
- d. The current proposal represents an opportunity to install panels while the roof is being prepared. The scaffolding alone had cost around £700k. Re-scaffolding to install panels later would be uneconomical. Designing in the fixings at the point the roof is repaired will also avoid the need to make subsequent fixings through the new roof.
- e. It was reported that informal survey work of visitors photographing the chapel indicated that none of them had noticed the mock-up in place despite this being a different colour to adjacent leadwork, and noting that opportunities to view panels and lead side by side would be much reduced were the entire roof to be covered with panels.

## 3. DAC advice

a. The DAC members visiting acknowledged that there must be some degree of visual harm resulting from the installation.

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- b. Photographs had been provided previously by the applicant and also by Historic England, showing views of the mock-up from various public viewpoints, and these had been noted by the DAC. The subsequent decision to lower the mounting level of the panels would significantly reduce the opportunity to glimpse them above the stonework, particularly from the tower of Great St Mary's.
- c. The DAC members present took the opportunity to seek out a further view from the top level of the Grand Arcade multi-storey carpark, whose view of the south elevation of the chapel was nearly as elevated as the view from Great St Mary's of the north elevation.
- d. Figures visible walking along the ridge of the chapel roof indicated that the ridge would scarcely be visible from the carpark; views through the piercings of the parapet would be from an oblique angle, reducing the visibility through the piercings; this same principle would apply to the crenulations and pinnacles, which would greatly limit any view of the roof further west.
- e. While King's College Chapel is outside the scope of the Church of England's Net Zero Carbon target, it is expected that all buildings under the Faculty Jurisdiction should be treated the same by the DAC.
- f. The DAC's published Environmental Policy Statement, supported by the Diocesan Chancellor, identifies the fifth mark of mission of the Anglican Communion as a "resulting public benefit" under the Duffield Questions: To strive to safeguard the integrity of creation and sustain and renew the life of the earth.
- g. In the face of catastrophic events around the planet proven to be a result of ongoing carbon emmissions, the DAC would regard the installation of a large carbon-neutral generation scheme to be strongly in support of the fifth mark of mission, and therefore a significant resulting public benefit.
- h. In the context of a parish church which was replacing its largely-hidden roof, the DAC would ask the church's parochial church council to consider the installation of both insulation and PV panels as a part of that project, and would need to see robust reasons for not doing so.
- i. In this case, the robustness of the visual harm argument that from certain very select viewpoints, with good eyesight and in certain lighting conditions the panels will be visible is insufficient to outweigh the demonstrated public benefit of this proposal.