

Planning Department
Barnsley MBC
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Ref 19.38

05 October 2021

FAO Richard Gilbert

Dear Richard

Garage Re-design Osborne House Monk Bretton - Planning Application Ref: 2021/1192

Thank you for sending the comments from your Conservation Officer.

The following additional information addresses the concerns with regard to the use of photovoltaic panels on the roof of the proposed garages.

Proposals

The proposals are to include a specific product, namely photovoltaic panels which have been designed to be integrated into the roof of the garages adjacent to the Grade II Listed Osborne House.

We note the Conservation Officers Appraisal where he supports the change of design of the garages but raises a minor concern with regard to the photovoltaic panels.

Osborne House has been the subject of a careful restoration which has been completed by the applicant to a good standard. Because of the need to maintain the integrity of the house and limit the use of modern insulations and window designs the house has a lower level of thermal efficiency than would normally be accepted and will have a higher demand for energy to provide heating and servicing. The use of renewable energy is a sustainable way of balancing the need for conservation, which can limit energy efficiency, with the need to provide acceptable modern living standards. In this case the applicant has considered what options might be available to help to compensate for certain deficiencies in the energy efficiency of the structure without compromising the listed building or its setting. A well-designed system of integrated photovoltaic panels to generate renewable electricity is seen as the solution.

The images that follow show installation of the proposed pv at different stages to show how the GSE Integration in-roof mounting system would look when installed. As opposed to an above roof mounting system – the GSE becomes the roof covering instead of the tiles or slates and is mounted directly after the tiles and felt are installed. The remainder of the roof is then finished with the desired covering to leave a fully watertight roof covering. This allows the use of renewable energy in a manner that avoids the need for more intrusive over-roof panels which stand up around 150-200mm above the roof line.

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Fig 01. Panels installed in similar blue slate roof.

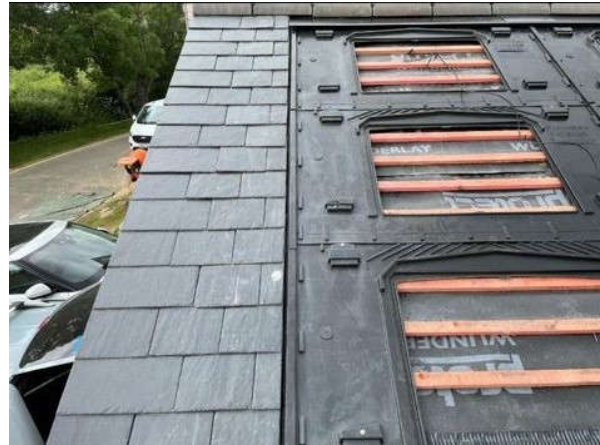


Fig 02. Edge detail of panels in blue slate roof.

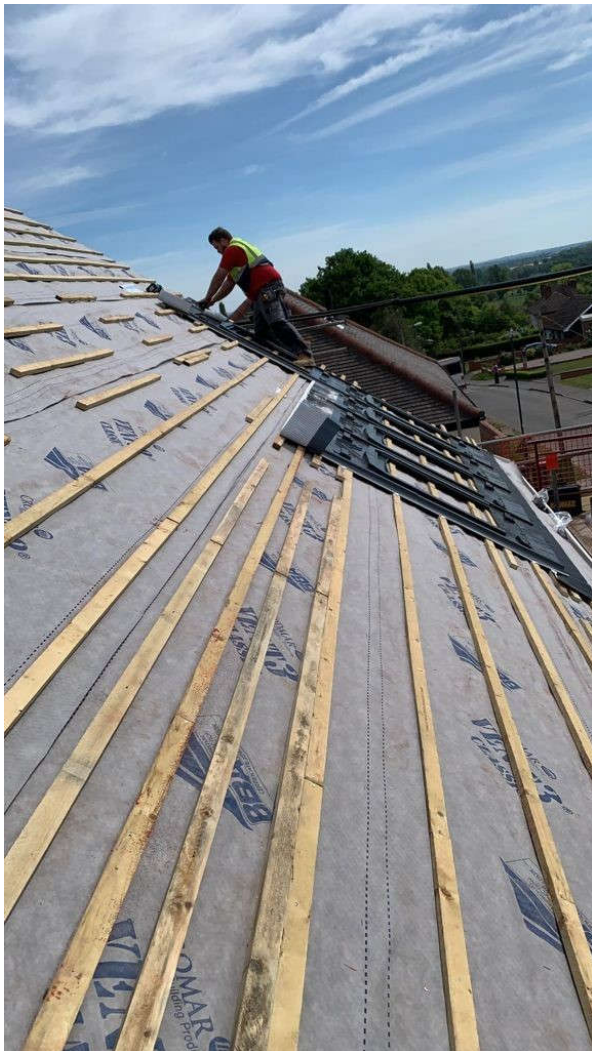


Fig 03. Completed panel installation (not blue slates).

Fig 04. Left image showing installation.

The panels themselves are 1.038m wide and 1.755m in height. When installed they have a flush finish and narrow joints of approximately 25mm between the panels. The panels are a high efficiency mono-panel with a black finish and black frame. They include black mounting clips which give a simple and unintrusive appearance in the roof line.

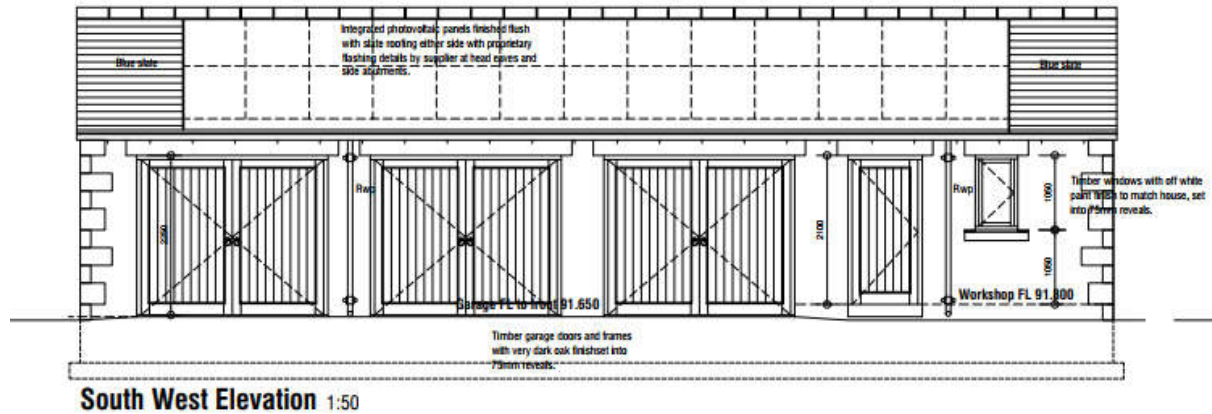


Fig 05. Elevation of garages showing pv panels.

Impact Upon Setting

Osborne House is a Grade II Listed Building and is not directly affected as the pv panels are located on a proposed garage building approximately 13.5 meters to the east of the house. There is potential for the setting to be affected, however the proposed garages are well screened from any areas with public access and cannot be seen from Burton Road, Osborne Mews or the public footpath to the north east site boundary. The only area where the garage roof can be viewed is the 'close-by' setting from within the site to the south and west of the garages.

The separation between the garage and house, lack of prominence of the type of integrated pv panels proposed, the fact that they are flush to the roof and aligned with the slates, and their appearance and colour which are similar to the natural blue slate roofing of the remainder of the garages and house leads us to suggest that any harm to the setting of Osborne House would be minor.

Mitigation

1. Natural screening in the form of boundary wall structures and mature trees and hedges is available and restricts views from all public access area.
2. The roof pitch of the proposed garages has been lowered when compared to the garage design previously approved which helps to limit the visual impact of the pv panels.
3. The use of the pv panels will provide sustainable renewable energy to the site for use in the house, outbuildings and to service electric vehicle charging points.
4. They will help compensate for the limitations on the use of modern insulations and glazing methods inside the house which inevitably mean that the house will be less energy efficient than a more modern equivalent because of the need to maintain its historic integrity, reducing energy bills and improving the chances of making it a more sustainable proposition as a dwelling house for the long term.
5. The pv system can be adapted (internally) once installed and monitored over a period of time to allow the charging of battery pack(s) with any surplus power to ensure the largest percentage of the generated electricity possible is consumed directly on site to maximise the efficiency of the energy use on the site.
6. The existing property has been assessed to have an annual demand for electricity consumption of around 5000kWh. This is a conservative assessment and based upon the use 16 modules as originally proposed it would be likely to generate around 4000kWh annually. It is likely that the demand for electricity could well exceed 5000kWh and so the proposals now show a system using 26 modules which is capable of generating up to 7000kWh, providing the opportunity to 'future-proof' the installation and provide the opportunity to feed back to the grid when and if supply were to exceed demand.

7. Whilst the integrated panels proposed replace the need for tiles, the substructure of the roof remains exactly the same. This would allow for the panels to be replaced with suitable roofing tiles without any structural alterations or roof re-design if there was ever a need to change or replace them in the future.

Summary

The applicant considers that the use of the integrated pv system proposed will have a low visual impact causing minimal harm to the setting of the listed building and will be mitigated by the advantages that it will provide.

Yours sincerely

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