

Land Use, Planning & Transportation Department
South Dublin County Council
County Hall
Tallaght,
Dublin 24 D24 A3XC

For the attention of Planning Compliance

12th June 2023

Re: - Reg. Ref. SD22A/0467 – Alterations and associated repairs to the existing two storey corner extension to the rear, (north-east), of the house, including the provision of a new flat roof with a roof-light; Proposed new two storey flat roofed extension with roof-light(s) to the rear (south-east) with associated alterations to the existing building & development as approved under Planning Application Ref. No. SD21B/0530; Proposed new site entrance, (piers, vehicular and pedestrian gates) from the back (east), of the property, onto Laurel Park; Proposed solar panels; New garden wall with associated gates; All ancillary site works above and below ground.

Location: Oak Lodge, New Road, Dublin 22 D22F516

Dear Sir/Madam

We are writing to you, as appointed Engineering Consultants, on behalf of the client, Thomas & Hazel Reilly, on the above development, specifically in relation to **Condition 2** of the above Planning Grant dated 23rd February 2023

Condition 2 of forementioned Planning Grant states the following: -

“The Conservation Officer has concern in relation to the insertion of the solar panels is the weight bearing on the existing roof and the interventions to allow additional support.

- *Prior to the commencement of development, the applicant/developer shall submit the following for the written agreement of the Planning Authority:*
- *(i) confirmation of such interventions on foot of an engineer’s report should be submitted.*
- *(ii) use of solar panel tubes and fire safety therefore it is considered that the following details should be requested as RFI in order to obtain full details in relation to the insertion of solar panels.*
 - *Information on the panel loads and their effect on the existing roof.*
 - *The effects of any increase in loading should be identified to ensure this impact is addressed with regard to safety structural issues and any direct impact to the original roof.*
 - *Details and specifications should be included on how the panels will be mounted. Associated works and additional services/items etc should be included as part of the methodology for the insertion of the photovoltaic panels in order to identify and highlight any such works to facilitate their use on a Protected Structure. Also ensuring the system will be correctly installed addressing both minimal impact approach to the original built fabric and also to address any possible fire safety issues”.*

Response:

The proposed solar panel/tube system for the works at Oak Lodge, Clondalkin, Dublin 22 under Planning Grant No 0342 on the above Reg. Ref. selected, is the Joule 'Acapella'.

This system provides water heating only and details are included by way of an Installation Manual and NSAI Agreement Board Certificate No 10/0353.

Within the above documentation details of the panel loads along with fixing information are included which highlights their effect on the existing roof. As described previously within the Planning Documentation lodged with the application, it is proposed to fit a thirty-tube system of solar panels to the south facing section of roof facing into the valley. The proposed system will have an overall area of approximately two square metres and installed as follows: -

- (1) The initial installation process involves locating a supporting timber rafter on the existing roof in the locality of the proposed support frame.
- (2) The existing slate at the first fixing point is removed with care and Joule bracket type SKRP-7-00000001/2 is fixed to the timber rafter as shown in Photo 1 below. This process is continued until all the support positions are located and mounting brackets are fixed.



Photo 1

- (3) There are three possible anchor fixing position scenarios. The first is at the join of two slates, or in the middle of a slate and finally positioned between the middle and edge of a slate. Each position requires specific fixing, slate cutting and flashing (using the Solar Flash system by Hallclip Ltd.), which are described in detail on Page 21 of the Joule "Acapella" installation guide.

The fact that the panels sit slightly above the line of the roof maintains airflow over the existing slates. The proposed solar panels will not be visible from outside the roof valley making their visual impact on the building minimal to negligible.

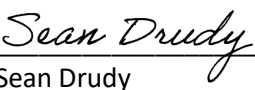
On consideration of the loading from the proposed solar collector on the existing roof, which takes the form of 'A' Type timber trusses (rafter size 110mm x 32mm @ 270c/c), the addition of some 0.56Kn per central fixing (2 No per rafter), the existing rafters will require the addition within the roof space, a new Grade C24 110mm x 32mm timber bolted, to existing to provide additional carrying capacity.



The installation of the solar collector heating system will be strictly monitored on site to ensure that the works are carried out to specification and eliminate any potential damage to the existing building fabric and any fire safety issues.

Should you have any concerns on the attached please contact the under-signed for any clarification

Your Sincerely


Sean Drudy
Director of SCD Consulting
Encl.

