

20.105 Stanley House Hotel and Spa

Sustainability Statement

This Statement accompanies a full planning application and Listed Building Consent application for the proposed development of Stanley House Hotel and Spa, Mellor, Blackburn. The focus of the statement is in regard to proposed and / or potential betterment of the premises in energy use and sustainability terms.

Orientation / Solar Gain

The proposed building orientation is highly influenced and somewhat restricted by the original 2008 planning approval upon which the design is based. Where additions are sought, the proposals look to harness solar gain in eastern, southern and western elevations, according to principle day time and evening uses and where necessary, look to control gains through brie soleil and generous roof overhangs. This is evident in such areas as the proposed restaurant extension which is heavily glazed to accept the morning sun, whilst southerly elevations are protected against high midday summer sun through the use of overhangs.

Thermal Envelope

New structures will prioritise best practice design principles through using a fabric first approach to construction, maximising thermal properties of the building envelope using thermal modelling programmes, and simple, buildable, robust detailing. Providing a well detailed and constructed, air tight construction with high degree of thermal properties will ensure a sound base from which further sustainable technologies to operate efficiently and effectively.

Sustainable Technologies

Thermal modelling programmes and best practice design principles will, at detailed design stage, be used to test various methods of construction and sustainable technologies to ensure a cost effective sustainable solution to the completed build. Technologies currently being explored as supplementary to passive principles are as follows:

- Ground Source Heat Pumps to landscaped areas;
- Air source heat pumps;
- District heating
- HVAC systems with heat recovery;
- Photovoltaics
- Solar-thermal technology

Drainage Systems

Sustainable drainage systems were put in place as part of the development built out from the 2008 planning approval in the form of surface water attenuation ponds in the north-east corner of the site. This attenuation pond accepts surface water drainage from the existing bedroom wing and links to further natural ponds to the north east, forming natural habitats and a wildlife corridor buffer zone to road. It is proposed that the construction of the bedroom wing, and potentially the northern spa development will also feed into this already sustainable system.

Further attenuation is proposed through the development of 'blue roof' systems – green roof areas with the potential to store water and attenuate run off. Over 1,600m² of proposed roof space is currently allocated for potential 'blue roof' systems providing a high degree of flexibility in the sustainable urban drainage system design. This will be further supported through the limiting hardstanding areas where possible and use of permeable hard standings where absolutely necessary.

Electrical

In addition to the consideration and research into appropriate on-site renewable energy systems, the development will look to limit energy use through a sensored lighting approach both internal and externally in appropriate locations.

Electric car charging spaces are to be installed in line with government guidelines at the time of construction with appropriate ratios proportionate to the size of development and future government aspirations and regulations.