**Building Performance Proposal**

**Hawksdale Estate**

Hawksdale Estate, Little Widget, England

Wates Construction

xx.xx.xxxx Rv1

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1. **Introduction**

The aim of this Building Performance Plan is to review options for improving operational performance of the Hawksdale estate and assess their applicability to the project.

Applicable technologies will be identified within a plan for performance efficiency and meeting remaining energy demand with renewable sources to minimise emitted carbon.

1. **Project Energy Baseline**

The below is an overview of the performance of the project as currently considered within the existing design.

Main Building

* Historic walling & insulation will be retained
* Single Glazed historic windows will be repaired and retained
* A system of radiators will be installed across the building
* A new gas boiler is to be installed in the basement to provide heating for the building
* Fireplaces throughout the building will be used to provide heating room by room
* Lighting systems will be updated with filament bulbs being installed
* Lighting control will be managed by dimmer switches
* Air conditioning will not be installed

New Accommodation

* New ceramic tiled facades will be implemented
* New insulation will be installed
* Double glazed windows will be installed
* Heating will be delivered through new radiators
* A new gas boiler will be installed to provide heating
* New lighting will be installed in the building
* Air conditioning will be installed

Gym & Spa

* Large windows will comprise the majority of the façade for the east face of the gym
* New brickwork facades will be implemented elsewhere
* New insulation will be installed
* Double glazed windows will be installed
* Heating will be delivered through new radiators
* A new gas boiler will be installed to provide heating
* New lighting will be installed in the building
* A new Air Conditioning system will be installed

Across the wider project

* External lighting will be installed across main areas of use such as the external sports facilities, roads, paths and car parks. These lights will be electric filament bulbed lights centrally connected to the site’s energy supply.
* The car park will feature two electric charging points centrally connected to the projects’ energy supply.
* The Church will be externally lit by a spotlight between 9pm and 01:00 during the summer and between 05:30 and 01:00 during the summer. This spotlight will feature a filament bulb.
1. **Reduction Options for Consideration**

Some ideas considered to support in energy optimisation and carbon minimisation are listed below:

* Energy efficient lighting
* Sustainable heating and cooling systems
* Building envelopment
* Glazing
* Renewably powered technologies
1. **Energy Reduction Initiatives**
2. **Renewable Energy Options**

Below is a list of renewable energy options considered to support in meeting energy demand on site with minimal carbon emissions.

1. **Chosen Renewable Sources**
2. **Government Grants and Funding**