

Mid Sussex District Council
Planning Department
Oaklands Road
Haywards Heath
West Sussex
RH16 1SS

14th November 2024

Dear Officers

Royal Botanic Gardens Kew (Wakehurst), Wakehurst Place, Selsfield Road, Ardingly, RH17 6TN | Proposed Air Source Heat Pumps

Introduction

Enclosed is an application for planning and listed building consent made on behalf of Royal Botanic Gardens, Kew (RBGK), in support of the installation of new air source heat pumps (ASHPs) in the existing plant area to the rear of the Stables at Wakehurst in Ardingly, Surrey. The proposed description of development for the planning and listed building consent application is:

“Replacement of the existing oil tank fired boilers with a new Air Source Heat Pump system and associated works.”

As part of the decarbonisation project, two new Water Source Heat Pumps will also be installed within the existing boiler room, however as these works are internal, planning permission is not explicitly required for this.

Application content

This application has been submitted to Mid Sussex District Council (MSDC) via the Planning Portal (ref: PP-13544397). This letter provides the planning justification and context. The following also forms part of the application:

- Application form;
- Design, Access and Heritage Statement, prepared by Martin Ashley Architects;
- Noise Impact Assessment, prepared by Hoare Lea;
- Location Plan (ref. 2280-01/00/01 Rev B);
- Existing Site Plan (ref. 2280-01/00/02 Rev B);
- Existing Ground Floor Plan (ref. 2280-01/00/03);
- Existing First Floor Plan (ref. 2280-01/00/04);
- Existing North and South Elevations (ref. 2280-01/00/05);
- Existing East and West Elevations (ref. 2280-01/00/06);
- Proposed Ground Floor Plan (ref. 2280-01/01/01);
- Proposed North and South Elevations (ref. 2280-01/01/02);
- Proposed East and West Elevations (ref. 2280-01/01/03);
- Proposed Demolition Plan (ref. 2280-01/02/01);
- Proposed Demolition – North and South Elevations (ref. 2280-01/02/02);
- Proposed Demolition – East and West Elevations (ref. 2280-01/02/03);
- ASHP Package Isometric Detail;
- Technical Specification for R32 e-series Modular Chiller Range.

The relevant application fee of £648 (inc. service charge) has also been submitted via the Planning Portal, based on a site area of 236 sqm.

Site and surroundings

Royal Botanic Gardens, Wakehurst | Wakehurst, which is owned by the National Trust but used and managed by RBGK, is a popular visitor attraction located approximately 2km north of Ardingly, West Sussex, that is open to the public all year around, attracting over 400,000 visitors per annum. Wakehurst is recognised as both a tourist destination and centre of research of international importance, and

comprises a famous collection of trees and shrubs. Kew's mission is "to inspire and deliver science-based plant conservation worldwide, enhancing the quality of life".

The principal building within the grounds, Wakehurst Mansion, is Grade I listed. The adjacent Stables building is Grade II* listed. The site also provides the location for the Millennium Seed Bank, as well as ornamental gardens, woodlands, water gardens and wetlands. The picturesque landscaped grounds cover over 535ha and comprise a vast collection of trees and shrubs. A large area of the site is a Grade II* listed Registered Park and Garden.

The tree collections at Wakehurst are managed by RBGK. None of the trees on site are subject to Tree Preservation Orders, nor do they sit within a conservation area. The native trees are managed under an approved Forestry Commission Woodland Management Plan, whilst the botanic collections are managed in line with the Designed Landscape Plan, which identifies a number of botanically important trees on the site.

The application site | The site subject to this application comprises an existing service compound located to the rear of the Grade II* listed Stable block, to the north of the Mansion. The service compound contains oil tanks, a generator building, yard and boiler room, surrounded by a wall. The wall is predominantly of modern construction, however part of the wall to the south (between the application site and the Stables) is historic, with non-historic block wall built on top as a later addition.

Summary of heritage significance

Heritage designations | The main heritage asset within the setting of the application site is the Grade II* listed Stables block. The application site itself is of modern 1970s construction and does not form part of the original Stables block. It is not included in the listing description, nor is it referenced in the Archaeology Data Service's extensive description of the Stables. Only the upper storey and roof to the rear of the Stables is seen from the service road to the north of the application site –the rear facade is largely concealed behind a wall and vegetation. Wakehurst Mansion itself (Grade I listed) is approximately 30m south of the site and is shielded from the application site by the Stables block. The application also sits on the boundary of the Grade II* listed Registered Park and Garden designation.

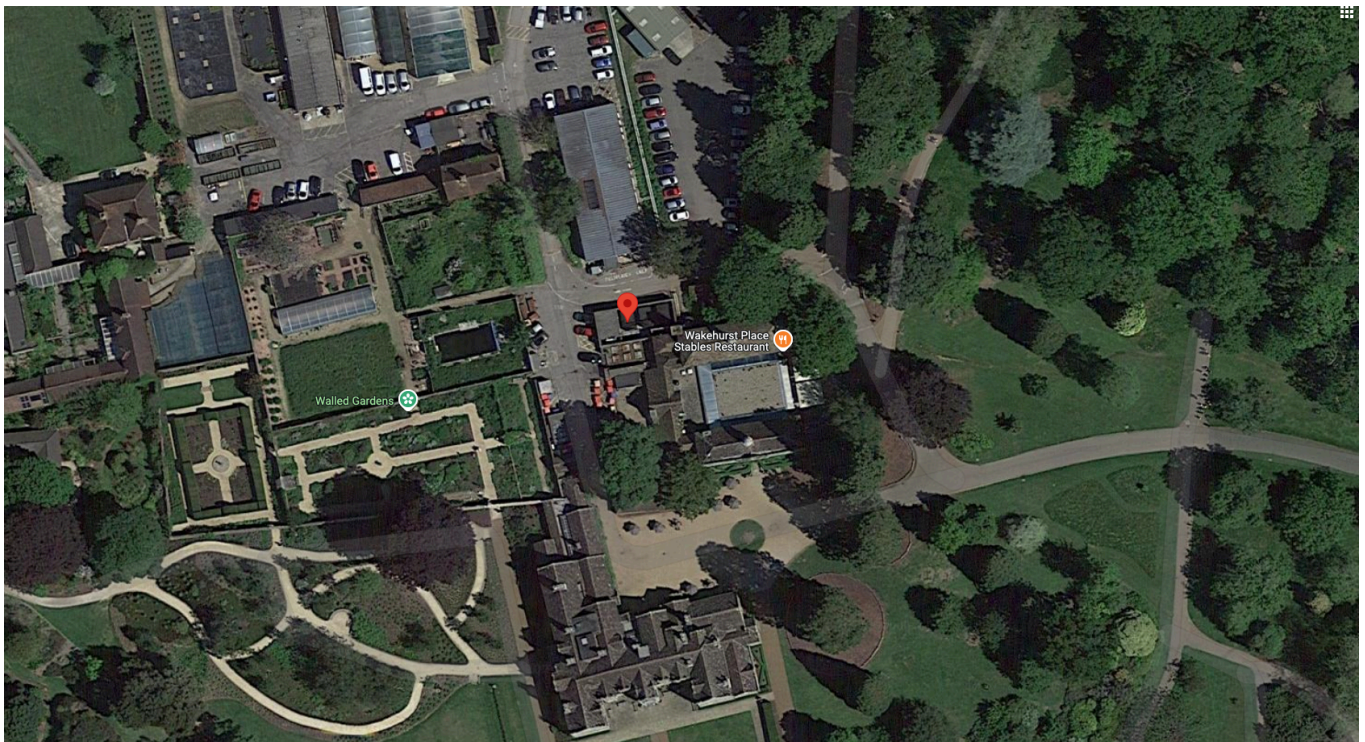


Image 1: Aerial view of application site (red marker) and surrounding context

The Stables | As a Grade II* listed building, the Stables is regarded as a heritage asset of high significance in NPPF terms. The Stables was listed in 1957. The building dates from the 18th century and is faced with ashlar. The Historic England list entry provides the following description: "C18. Two storeys. Five windows. Ashlar. Stringcourse, cornice and parapet. Long and short quoins. The centre window-bay projects with similar quoins and a pediment over in the parapet. Horsham slab roof. Octagonal bell-turret with cupola. Large round-headed

doorway.” The Stables are now in use as a café/restaurant for visitors to Wakehurst Place. The building has been extensively altered internally, therefore much of the internal plan form and fabric are not original.

The Mansion | This building is Grade I listed and is therefore regarded as a heritage asset of the highest significance. It is three storeys and is built of Sussex sandstone ashlar with a Horsham slab roof. It was built by Sir Edward Culpeper in 1590, and originally formed a complete courtyard, but the south side was demolished before 1697. The east and west sides were shortened by two-thirds in 1848 and refaced on their south front with old stone. The north-east wing and the single storey wing on the east were added by the Marchioness of Downshire in 1869-70. The Mansion was restored in 1890, and the north porch was added in 1903. Therefore, only part of the original 16th century house remains in the front section, and this is considered to be of a high level of significance.

Registered Park and Garden | The site lies on the boundary of the Grade II* listed Registered Park and Garden. The Historic England listed entry describes it as, “An early to mid C20 plantsman's and collector's garden laid out by Gerald Loder, which has subsequently been enlarged and developed since 1965 as part of the Living Collections of the Royal Botanic Gardens, Kew.” The list entry also describes the main areas of the gardens and pleasure grounds – the most notable parts predominantly lie to the south and west of the Mansion (including the pond, Tony Schilling Asian Heath beds, island Specimen bed, Southern Hemisphere Garden, the Winter Garden, the Walled Garden, the Sir Henry Prince Garden and The Pleasaunce). The list entry also describes the wider parkland – again, the most notable features are predominantly to the south, including The Slips garden, the Bog Garden, Black Pond, the Water Gardens and Westwood Valley.

Relevant planning history

There does not appear to be any relevant planning history for the application site itself (i.e. the service compound). There is extensive planning history for the wider site at Wakehurst, which is not repeated in detail here, however, some of the most pertinent applications in relation to the Stables block and energy infrastructure on the site are outlined below:

- **DM/20/0136** | Refurbishment of the catering outlets at the Stables Restaurant and alterations to associated toilet facilities. Approved 02/03/20.
- **13/01969/FUL + 13/03041/FUL** | Erection of a new boiler house to enclose a 500kW wood chip boiler which will serve the majority of the site heat demands and connection of the heat output from the biomass boiler to the existing plant rooms via the installation of heat distribution pipe work. The thermal stores, integral wood chip store and all ancillary equipment will also be installed within the new boiler house. Approved 08/08/13 + 17/10/13.
- **04/01765/FUL + 04/01766/LBC** | Proposed extension to the Stables restaurant and partially infill the existing courtyard to provide additional all weather seating. The proposal includes some demolition and alterations of the existing structure. Approved 16/09/04 + 24/09/04.
- **AR/018/89 + AR/019/89** | proposed conversion of the ground floor of the Stable/Garage Block into a cafeteria and restaurant with the conversion of the first floor of the south block into a staff recreational and lavatory facility. Approved 22/09/89.

Need for the proposals

The Wakehurst site is not on the mains gas grid, therefore buildings and glasshouses are heated by oil or LPG. There are two substations providing electrical capacity to Wakehurst – the Stables block substation provides electricity for the majority of the site, and the Millennium Seed Bank is serviced by its own separate substation. The Stables block boiler house currently comprises two large oil-fired boilers and three external oil tanks to supply them – this provides 85% of the site’s oil consumption.

RBGK’s Sustainability Strategy sets out a commitment to become Climate Positive by 2030, with a priority of replacing older boiler stock for low carbon heating replacements. As part of this strategy, RBGK are seeking to introduce electrical ASHPs within new projects at Wakehurst, including the Stables block substation.

Application proposal

The proposals comprise the removal of the existing boilers, oil tanks and associated external pipework, and the installation of three new ASHP units which will serve the ground floor Stables Restaurant and kitchens, the ancillary accommodation and the offices on the floor above and provide fabric protection heating to the Mansion House. Attenuation measures are proposed around the units to mitigate noise impact. To ensure adequate airflow reaches the ASHPs it is proposed that a section of the existing modern wall to the north is demolished and a louvred timber fence system erected in its place. This will help to screen the ASHPs from the north but will also allow sufficient ventilation. On the southern side of the ASHPs, an historic wall dated to 1938 with tooled stonework had previously been increased in height to match the other enclosure walls, probably at the time the compound was constructed in 1974. To allow maximum air flow to the ASHPs, it is proposed that this wall is reduced to its former historic height of approx. 1.1m. The historic blockwork will be retained, with

only the modern blockwork above being carefully removed and new copings installed in stonework to match other historic walls around the site.

Aside from the ASHPs, a new Thermal Store will be created within the existing compound. This will involve the construction of a simple rendered wall which will be painted in a natural stone colour. The store will be made weathertight with a new single ply membrane flat roof structure that is supported from the existing walls. A new opening for an access door will be made in the existing northern (modern) wall.

In addition, two new Water Source Heat Pumps will be installed inside the existing boiler room, but as this is internal, planning permission is not explicitly required for this element.

Planning process

Planning permission is required for the installation of the ASHPs as well as the associated infrastructure and works.

Planning (Listed Buildings and Conservation Areas) Act 1990 (S. 1[5]) sets out the definition of listed buildings and curtilage, stating that this refers to the listed building itself, any object or structure fixed to the building, or any object or structure within the curtilage of the building which, although not fixed to the building, forms part of the land and has done so since before 1st July 1948. The wall in question has both 1938 and 1974 construction elements. It is not part of the original historic stables but is part of the later 1938 Sir Henry Price works, however the Stables listing is unspecific on the wall's inclusion. In this case, listed building consent is sought for the proposed amendments to the wall on the southern side. Listed building consent is not required for any other element of the proposals.

Planning framework

Designations | The site lies within the High Weald National Landscape (formerly AONB), within the Countryside Area of Restraint, and on the boundary of the Grade II* Registered Park and Garden. The site is within the Ashdown Forest 7km Zone of Influence. The area approx. 300m to the north is a Site of Special Scientific Interest (SSSI). It also forms part of the Ardingly Neighbourhood Plan Area.

NPPF | The National Planning Policy Framework (NPPF, 2023) forms part of the national planning policy context and is a material consideration in the decision-making process. Paragraph 88 confirms that planning policies and decisions should enable sustainable rural tourism and leisure developments which respect the character of the countryside. Chapter 14 is concerned with meeting the challenge of climate change; specifically paragraph 157 supports the transition to a low carbon future by supporting renewable and low carbon energy and associated infrastructure. Paragraph 163 confirms that when determining planning applications for renewable and low carbon development, local planning authorities should not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to significant cutting greenhouse gas emissions, and should approve the application if its impacts are (or can be made) acceptable. In determining planning applications, local planning authorities should give significant weight to the need to support energy efficiency and low carbon heating improvements to existing buildings (paragraph 164).

Adopted Development Plan | The adopted Development Plan, which the proposals are to be assessed against, comprises the Mid Sussex District Plan 2014-2031 (adopted March 2018), the saved policies of the Mid Sussex Local Plan (adopted May 2004), and the Ardingly Neighbourhood Plan (adopted March 2015). The Council has also adopted a Mid Sussex Design Guide Supplementary Planning Document (adopted November 2020). Policies and guidance of note here include:

- **Mid Sussex District Plan 2014-2031** | *Policy DP12 (Protection and Enhancement of Countryside)* seeks to protect the countryside in recognition of its intrinsic character and beauty. *Policy DP16 (High Weald Area of Outstanding Natural Beauty)* states that development within the High Weald AONB will only be permitted where it conserves or enhances natural beauty and has regard to the High Weald AONB Management Plan. The policy confirms that small scale proposals which support the economy and social well-being of the AONB that are compatible with the conservation and enhancement of natural beauty will be supported. *Policy DP17 (Ashdown Forest Special Protection Area (SPA) and Special Area of Conservation (SAC))* identifies that new development likely to have a significant effect on the Ashdown Forest SPA and SAC, either alone or in combination with other development, will be required to demonstrate that adequate measures are put in place to avoid or mitigate any potential adverse effects. *Policy DP24 (Leisure and Cultural Facilities and Activities)* states that development that provides new and/or enhanced leisure and cultural activities and facilities will be supported. *Policy DP26 (Character and Design)* requires all development to be well designed and sensitive to the countryside – in particular, it should create a pedestrian-friendly layout. *Policy DP28 (Accessibility)* states that all development will be required to meet and maintain high standards of accessibility so that all users can use them safely and easily. *Policy DP34 (Listed Buildings and Other Heritage Assets)* requires development to

protect listed buildings and their settings. *Policy DP36 (Historic Parks and Gardens)* confirms that the character, appearance and setting of a registered park, or park or garden of special local historic interest will be protected. *Policy DP39 (Sustainable Design and Construction)* requires proposals to improve the sustainability of development and should use renewable sources of energy. *Policy DP40 (Renewable Energy Schemes)* states that proposals for new renewable and low carbon energy projects will be permitted provided that any adverse local impacts can be made acceptable, with particular regard to landscape and visual impacts, ecology and biodiversity, and residential amenity,

- **Saved Policies of the Mid Sussex Local Plan** | *Policy C1 (Protection of the Countryside)* states that proposals for development in the countryside will be resisted and restricted to, in appropriate cases, proposals for quiet informal recreation and/or tourism related developments. *Policy C4 (High Weald Areas of Outstanding Natural Beauty)* states that development will not be permitted in the AONB unless it is reasonably necessary for the purposes of agriculture or some other use which has to be located in the countryside.
- **Ardingly Neighbourhood Plan** | *Policy ARD9 (Heritage Assets)* requires development proposals affecting a listed building or conservation area or their setting to conserve or enhance the special quality and distinctive character of Ardingly. *Policy ARD 20 (Wakehurst Place and Millennium Seed Bank)* supports development proposals which will enable Wakehurst Place and the Millennium Seed Bank to expand to meet new and changing needs as both a tourist destination and centre of research of international importance, provided that the design is sympathetic to the heritage assets and the important landscape setting.
- **Mid Sussex Design Guide SPD** | This document aims to help deliver high quality development across the district that responds appropriately to its context and is inclusive and sustainable.

Historic England Guidance | Historic England Advice Note 18 “Adapting Historic Buildings for Energy and Carbon Efficiency” (July 2024) provides clarity on approaches to improve the energy efficiency and support carbon reduction of historic buildings, whilst conserving their significance. Specifically, the advice note confirms that changing boilers, heating and hot water systems to low carbon alternatives, such as heat pumps, will generally be acceptable. Having an effective low carbon heating system is one of the best ways of enhancing an historic building’s energy efficiency. In the majority of cases, replacement of existing systems will not cause harm to special interest, and the impact of heat pumps can generally be minimised through careful siting, design and screening. Furthermore, the note clarifies that the opportunity should be taken to remove unsightly plant equipment made redundant by the heat pump, for instance oil tanks. This can sometimes offset any harmful impact of installing a pump. The advice note also confirms that listed building consent is normally required for the installation of heat pumps which are fixed to a building – this implies that listed building consent is not normally required for the installation of heat pumps not fixed to a building.

Planning policy assessment

The primary planning policy considerations in the determination of the enclosed application for the installation of the ASHPs are the visual impact on the landscape character of the National Landscape and countryside; the impact on heritage assets and their setting; energy and sustainability considerations; biodiversity and ecological impacts; and amenity impact. These are each considered in relation to the planning policy framework in turn below.

Visual impact | The visual impact of this proposal is a key consideration, particularly being located within the High Weald National Landscape where great weight is given to conserving landscape and scenic beauty.

The application site is currently an existing compound comprising oil tanks, gas boilers and hardstanding surrounded by an existing wall. The immediate surrounding area is developed in nature, comprising buildings, ancillary structures, car park and access roads. Given the location of the application site, nestled amongst existing buildings to the north and south, and with a line of established trees to the east and further to the west beyond the walled garden, the proposals will be discreet and inconspicuous, and will not be visible from the wider surroundings. Furthermore, the proposed structure is considered to be of fairly modest size in comparison to the more substantial adjacent buildings including the Stables and Mansion. The proposals are within the existing compound in a back of house area of the wider Wakehurst estate where the public would not normally be present, therefore the visual impacts are further limited.

Overall, the proposals will preserve the landscape character of the High Weald National Landscape and surrounding countryside in accordance with relevant Policies DP12, DP16 of the Mid Sussex District Plan, Saved Policies C1 and C4, and Policy ARD 20 of the Ardingly Neighbourhood Plan.

Impact on heritage assets | The accompanying Design, Access and Heritage Statement further considers the proposal’s impact on heritage assets. The main heritage assets to consider are the setting of the Grade II* registered park and garden and the Grade II* listed Stables.

The proposals will not otherwise be visible within views to or from the Grade I listed Mansion and will not affect its setting. Therefore, there will be no heritage impact on this asset. Similarly, due to their location nestled between existing buildings and their unobtrusive and discreet nature in a back of house area of the estate, the proposals will not be visible from the wider park and garden. The proposals are located in an already developed area of the park, and will not impact on the setting of the historic gardens.

Turning to the Grade II* listed Stables, the application site is to the rear of this building. The height of the ASHPs and attenuation does mean that the top of the structure will be visible above the surrounding wall, however they will fall well below the height of the Stable block. Given that the application site is tucked away behind the building, the proposals will not be visible from the most prominent and significant part of the Stables (i.e. the front). The proposal would be most notable in close up views from the north and west, however this area is located away from places of visitor interest, and is not on a route which is frequently used by visitors – the access road is predominantly used by staff and for deliveries and servicing. Therefore, the proposals will have limited impact in terms of experiential significance. Notwithstanding, visibility does not necessarily equate to harm as confirmed by case law. Furthermore, the accompanying Design, Access and Heritage Statement confirms that other locations for the new ASHPs have been considered, but the proposed location is the only place a unit of the required size can be discretely located close enough to the existing boiler room. A remote location would require an excessive amount of new pipework, making the ASHP less efficient in the process – and potentially having a greater impact on surrounding heritage assets.

Whilst there will be some limited impact on the setting of the Stables, this is clearly outweighed by other public benefits – including energy and sustainability benefits which are considered further below and in the accompanying Design, Access and Heritage Statement. In addition, the existing oil tanks and boilers will be removed which will help to offset any harm caused through the installation of the new ASHPs. On balance, it is considered that the benefits of the proposed scheme will outweigh any limited heritage impact.

In terms of physical impact on heritage fabric, the proposed works are limited to the removal of existing plant and its reinstatement with ASHPs and associated infrastructure, together with partial demolition of a section of the existing modern wall to the north and installation of a fence and access door, and alterations to the wall to the south. Only modern fabric is impacted and there will be no interventions to historic fabric. Therefore, there will be no adverse physical impact on the heritage fabric.

Overall, due to the siting and scale of the proposals, there will be some limited impact on the setting of the Stables when viewed from the rear, however this will be clearly outweighed by other public benefits, including the contribution to national and local objectives to reduce carbon emissions and address climate change. The proposals are therefore in accordance with MSDC District Plan Policies DP34 and DP36, as well as Chapter 16 of the NPPF.

Energy + sustainability considerations | As explained above, the proposals form part of RBGK's wider sustainability aims to become Climate Positive by 2030. This aligns with national planning policy and legislation, as the UK has a legally binding target to reduce its emissions to Net Zero by 2050 under the Climate Change Act, which also introduced a series of carbon budgets up to 2050 with set interim targets for emissions reductions. The proposed ASHPs, which are a low carbon alternative to gas boilers, will reduce utilities costs, reduce greenhouse gas emissions, reduce reliance on the grid with associated transmission losses, and will contribute towards increasing local energy resilience. The NPPF sets out the importance of placing significant weight on the need to support energy efficiency and low carbon heating improvements to existing buildings, and confirms that such applications should be approved if their impacts can be made acceptable. The proposals also align with local planning policy, specifically Policies DP39 and DP40, which supports low carbon energy schemes provided any adverse local impacts can be made acceptable.

Biodiversity and ecological impacts | The site consists of only the compound and hardstanding, with no floral vegetation on site, therefore it is of a low ecological value. The development is exempt from the biodiversity gain planning condition under Part 4(1-3) of the Exemptions Regulations 2024 for the following reasons:

- The development does not impact an onsite priority habitat.
- The development impacts (a) less than 25 square metres of onsite habitat that has biodiversity value greater than zero; and (b) less than 5 metres in length of onsite linear habitat.

Overall, the proposals will not impact biodiversity or ecology on site and are wholly in accordance with national and local planning policy.

Amenity impact | A Noise Impact Assessment, prepared by Hoare Lea, is submitted in support of the application. This identifies that the closest residential premises is Wakehurst Farmhouse, located approximately 100m to the west. There is also staff accommodation associated with the Stables block which is used on an ad hoc basis by Kew staff. Therefore, the Noise Impact Assessment has recommended that noise ingress to this area is also considered.

The Noise Impact Assessment confirms that noise monitoring has been conducted on site to establish the prevailing ambient sound levels. Based on this, the plant noise limit criteria at 1m from the Farmhouse should not exceed a rating level of 30dB. It is further recommended that if the staff accommodation is to be used, plant noise limits be controlled to no more than LAeq 40dB outside the closest bedroom window during the night time. This should enable internal levels of less than LAeq 30dB be achieved with windows open for background ventilation. The precise make and model of the ASHPs are still to be determined, (see engineer's documents for ASHP details) but attenuation is proposed to mitigate potential noise disturbance. RBGK are happy to accept a condition on the planning permission which restricts noise levels as set out above.

Overall, given the proposed plant noise limits, the proposals will not result in any adverse amenity impacts and are in accordance with Policy DP26 of the MSDC District Plan as well as British Standards.

Summary

Planning permission is sought for the replacement of the existing oil tank fired boilers with a new Air Source Heat Pump system and associated works in the existing compound to the rear of the Stable block at Wakehurst. Listed building consent is also sought for the proposed minor changes to the southern boundary wall to facilitate the wider proposals. The proposals will contribute to RBGK's Sustainability Strategy which sets out a commitment to become Climate Positive by 2030, with a priority of replacing older boiler stock for low carbon heating replacements.

The proposals are of a scale that is appropriate to the character and function of the surroundings. Due to the sensitive location and the existing screening that is offered by buildings and trees, the proposals will not have a significant impact on the nearby listed buildings or the surrounding environment. The submitted Noise Impact Assessment confirms that there will be no amenity impacts on surrounding occupiers, provided the proposals conform to noise limits.

Overall, there will be no significant impact on the landscape character of the AONB and countryside as a result of the proposed works, nor on the setting of the Grade II* registered park and garden or any other surrounding heritage assets. The proposals are discreetly located in an existing back of house area, and it is considered that removal of the existing boilers and oil tanks will ensure the area is kept free from clutter.

The proposals therefore comply with all NPPF and Mid Sussex District Council's planning policy objectives.

If you have any questions, please contact Lindsay Egner at lindsay@theplanninglab.com (0207 257 9363).

Yours faithfully

The Planning Lab