Response to the latest Report Reference: 13384.RP01.PNA.0 from RBA Acoustics, and addition of acoustic fencing.

The acoustic fence is a welcome addition to the Air Source Heat Pump installation, and a first attempt to try and reduce the noise that we have to endure. Unfortunately, it has made no substantial reduction in the noise.

Standing in our lounge with the door open we measured the pump operating at 44 to 46db, and in our garden 56db. The pump can still be heard and felt throughout our home, when it is operating.

The new fence that the applicant installed himself, appears to be made from 1.8m high acoustic panels that have been raised up to a height of approximately 2m to 2.1m, bringing them to the same height as the existing boundary fence. This falls short of the reports recommended acoustic fencing "minimum height of 2.2m from the ground".

The RBA Acoustics report states on page 2 section 4.1 that the survey was "unattended". The applicant carried out the ambient sound recordings and took the measurements upon which the sound calculations were made.

The site plans submitted by the applicant for this report, as well as the initial application, are 3 years out of date. They neglect to show our extension to the rear of our property, which was constructed before the ASHP was installed in its current location.

The measurements submitted by the applicant for the report are from the Air Source Heat Pump to our upstairs bedroom window. BS4142 guidance would suggest the nearest noise sensitive receptor at our house is our downstairs extension Bifold glass doors that open into our lounge/dining room. This is approximately 6 to 7 meters closer to the Air Source Heat Pump than our upstairs bedroom window.

We measure the distance from our bifold doors to the pump to be 9 to 10m approx. The original Noise Assessment submitted by the applicant stated a distance of 10m, the Design and Access Statement stated 12m and the distance given for the RBA Acoustics report calculations by the applicant is now stated as 17m.

The plant calculations also state in page 10 Appendix C – Plant Calculations, that "*The condenser unit is fitted with an inverter driver such that the fan ramps up and down slowly with duty, such that there is not intermittency In addition, the unit does not exhibit any tonal components that would warrant a tonal correction. As such, not distiguidable noise characteristics are considered apartment at the nearby receptor that would warrant any acoustric feature corrections in accordance with the methodology in BS 4142."*
We have not once heard the ASHP ramp up and down slowly with duty. It always operates at a constant speed and volume all through the day. Acoustic corrections may well be required, and they have not been carried out.
As stated in our initial objection, the unit produces a deep thrumming noise that you can feel as well as hear and the noise is a constant.

Due to the incorrect site plan and measurements submitted for this report, and lack of acoustic corrections, we believe that the RBA Acoustics report submitted is possibly flawed and cannot determine with any accuracy if the installation of a fence will produce the required reduction in sound levels.

Not only do we have a lawful right to enjoy our house without constant intrusive noise, we also have the right to enjoy our garden without constant intrusive noise. This report does not take the noise levels in our garden into account.

As stated in our initial objection, the Manufacturers installation instructions for the Air Source Heat Pump state that **the pump requires 60cm clearance either side, for its safe and correct operation**. It should also be located at a minimum of 1m from our boundary to comply with building regulations. In its current location, the pump did have 30cm clearance to our boundary wall, and now the fence has been installed it has virtually no clearance at all.
Ignoring the clearances required by the manufacturer could result in serious overheating and operational issues.
The heat pump with its required clearances does not fit in its current location.

This is an industrial size 31 KW heat pump. Twice the power of the maximum size usually allowed to heat a home under permitted development. The pump is too large and too loud to be used close to neighbouring residents, which is the reason Worthing Planning confirmed last July that it is was not allowed under permitted development.

If a planning application for this Air Source Heat Pump was initially sought prior to its installation, for the purposes of heating a swimming pool, using an industrial size 31KW heat pump, installed by an unaccredited installer in a position that causes an intrusion to neighbouring residents whilst not complying with the Manufacturers own installation instructions/requirements or building regulations, would it be approved? If not, why should it be approved retrospectively?

We reiterate, this Air Source Heat Pump installation is heating a Swimming pool, not a home. It is not a necessity, it is for a luxury item, and it should not be allowed to have such a negative impact on other people's lives as it currently has.

It is possible to have the pump professionally relocated and enclosed in a soundproof housing and/or replaced with a newer quieter unit. It is also possible for an alternative form of heating to be used, such as solar, gas or electric. Or, if cost is the major factor, the pool in question could be returned to being unheated as it was for at least 10 years prior to the current installation after the original gas heater was removed.

We are seeking a permanent resolution to this long ongoing issue, such as a correctly installed heating system that doesn't impose intolerable disruption and ongoing stress to neighbouring residents.
Small adjustments designed to slightly reduce the noise are not going to be sufficient.