

## **MSC 020 Acoustic Assessment**

### **1.0 – Introduction and Site Location**

**1.1** This MSC 020 Acoustic Assessment accompanies a Discharge of Conditions application relating to application **DC/23/02505 – Conversion of an agricultural barn to form holiday accommodation at Hillview Farm, Laxfield Road, Fressingfield, Eye, Suffolk, IP21 5PY.**

**1.2** Condition 14 states the following:

*Prior to the installation of any proposed Air Source heat pump, the applicant shall provide full details of all Air Source heat pump plant associated with the proposed development. A full acoustic assessment relating to the air source heat pump noise from the site shall be undertaken in accordance with "MCS 020 - MCS Planning Standards for permitted development installations of wind turbines and air source heat pumps on domestic premises".*

*This assessment shall be carried out by a competent person and confirmation of the findings of the assessment and any recommendations shall have been submitted to the Local Planning Authority and agreed prior to the installation.*

**1.3** This statement will provide an acoustic assessment for the proposed air source heat pump (ASHP) for the above site, in accordance with 'MCS 020 – MCS Planning Standards for permitted development installations of wind turbines and air source heat pumps on domestic premises.'

### **2.0 – MCS 020 Assessment**

**2.1** The proposed dwelling will be served by a 'Daikin EPGA16DAV3' air source heat pump, full details including sound power levels are shown on the Daikin technical data sheet. The ASHP will be located North on the site, as shown on the proposed site plan accompanying this application.

**2.2** An acoustic assessment for the ASHP has been carried out in accordance with MCS 020, which requires the following:

- a. The air source heat pump product shall be certified in accordance with MCS 007.*
- b. The air source heat pump shall be installed by an MCS Contractor in accordance with MIS 3005, and*
- c. The installation shall be carried out in compliance with the calculation procedure contained in Table 2. MCS Contractors must complete 'results / notes' column in Table 2 for each step of the calculation procedure to show it has been followed.*

**2.3** The 'Table 2' calculation has been completed for the proposed ASHP to the closest noise sensitive receptor. The assessment position is the first-floor bedroom window of Hill View House which is 40m away from the location of the proposed ASHP.

Step	Details	Result	Details / Notes
1	Manufacturer Sound Power Level	66 dB(A)	Daikin EPGA16DAV3
2	Directivity 'Q'	4	Close to two reflective surfaces
3	Distance from ASHP to Closest Neighbouring Property	40	Distance calculated from proposed CAD site plan
4	DB Distance Reduction	-31	Figure from Note 4 Table based on distance (Step 3) and Q factor (Step 2)
5	Barrier Attenuation	-10	Hedge / Tree screening in line of sight
6	Sound Pressure Level at Receptor	25	Calculation (Step 1) + (Step 4) + (Step 5)
7	MSC Planning Background Noise Level	40 dB(A)	Background noise level in accordance with MCS 020
8	Difference between Background and ASHP Noise Level	15	Calculation (Step 7) – (Step 6)
9	Decibel Corrected (Rounded)	40	Figure rounded as per Note 7 of MCS 020
10	Step 9 Equal to or Lower than 42 dB(A)	Yes	Lower than 42 therefore complies with MCS 020

### 3.0 – Summary / Justification

- 3.1** In conclusion, the calculation for the proposed ASHP **comply** with 'MCS 020 – MCS Planning Standards for permitted development installations of wind turbines and air source heat pumps on domestic premises.'
- 3.2** We feel that this statement clearly demonstrates that the air source heat pump in the location proposed and with existing hedge / tree screening will minimise detriment to nearby residential properties.