

Air Quality Mitigation Scheme

Condition 16 – 170212

12 Shaftesbury Road, Reading, RG30 2QP

In accordance with Policy CS34 (Pollution and Water Resources) and Condition 16 of planning consent 170212, Elegant PPM Ltd has produced the following Air Quality Mitigation Scheme for its development of four 3-bed terraced houses at 12 Shaftesbury Road, Reading, RG30 2QP.

Air Tightness

The property is designed to ensure that air does not seep in or out of the building. Air Tightness is measured by how many cubic metres of air leak from the house per square metre. These properties will achieve a rating of less than 2. This ensures that air does not only leak from the building, but it also ensures polluted air does not seep into the building.

Heat Recovery Ventilation System

In order to maintain an acceptable airflow through the properties, a heat recovery ventilation system (HRVS) has been installed. The Nuaire MRXBOX-ECO2 continuously regulates airflow within the properties. It extracts the stale air from within the building and passes it through a heat exchanger, which is then used to pre-warm the incoming external air. This incoming air is passed through G3 grade filters on the fresh air inlet. These filters ensure all airflow into the properties is of high quality. The HRVS also filters outgoing air at the system extract point, so only filtered air is leaving the property into the external environment. Additionally, the HRVS conducts the airflow intake and output from roof level. This means incoming air into the ventilation system will not be subject to vehicular emissions to the same extent as if it was at ground level.

The incorporation of this airflow system also means there are no trickle vents in place throughout the property. There is no need for natural ventilation. Given the high air tightness rating, the only air entering or leaving the properties will be filtered by the HRVS.

Together with highly insulated walls, floors and ceilings, this ventilation system ensures a high air quality environment for all inhabitants. There is also the added benefit of considerably cheaper energy bills.

Cycle Store

Previous plans included bicycle sheds in the gardens of each property. These plans were changed as it was felt that a more sustainable transport option should be encouraged. Residents are less likely to use bicycles if they have to bring them through their property in order to store them safely. By incorporating a secure bicycle store at the front of the development, as plan 3421-L1B shows, it enables easy access to bicycles and decreases the chance of local residents using their cars. Increased use of bicycles by residents will help mitigate any air quality impact caused by new vehicles movements. Residents will also be actively encouraged to use the bus services located a short walk away on the Oxford Road.

Arboriculture

A new Sorbus Aria Lutescens tree has been included at the front of the property. The creation of this new green infrastructure is designed to absorb new pollutants created by the new development, namely carbon dioxide emissions.

Conclusion

The combined effects of the above four mitigation proposals combine to make a mitigation scheme that will protect new residents from poor air quality. The HRVS works in partnership with the Air Tightness of the building to ensure residents are only subject to filtered air inside their properties. Furthermore, the inclusion of a secure bicycle store as well as a new tree, is further evidence of ways potentially poor air quality has been mitigated.