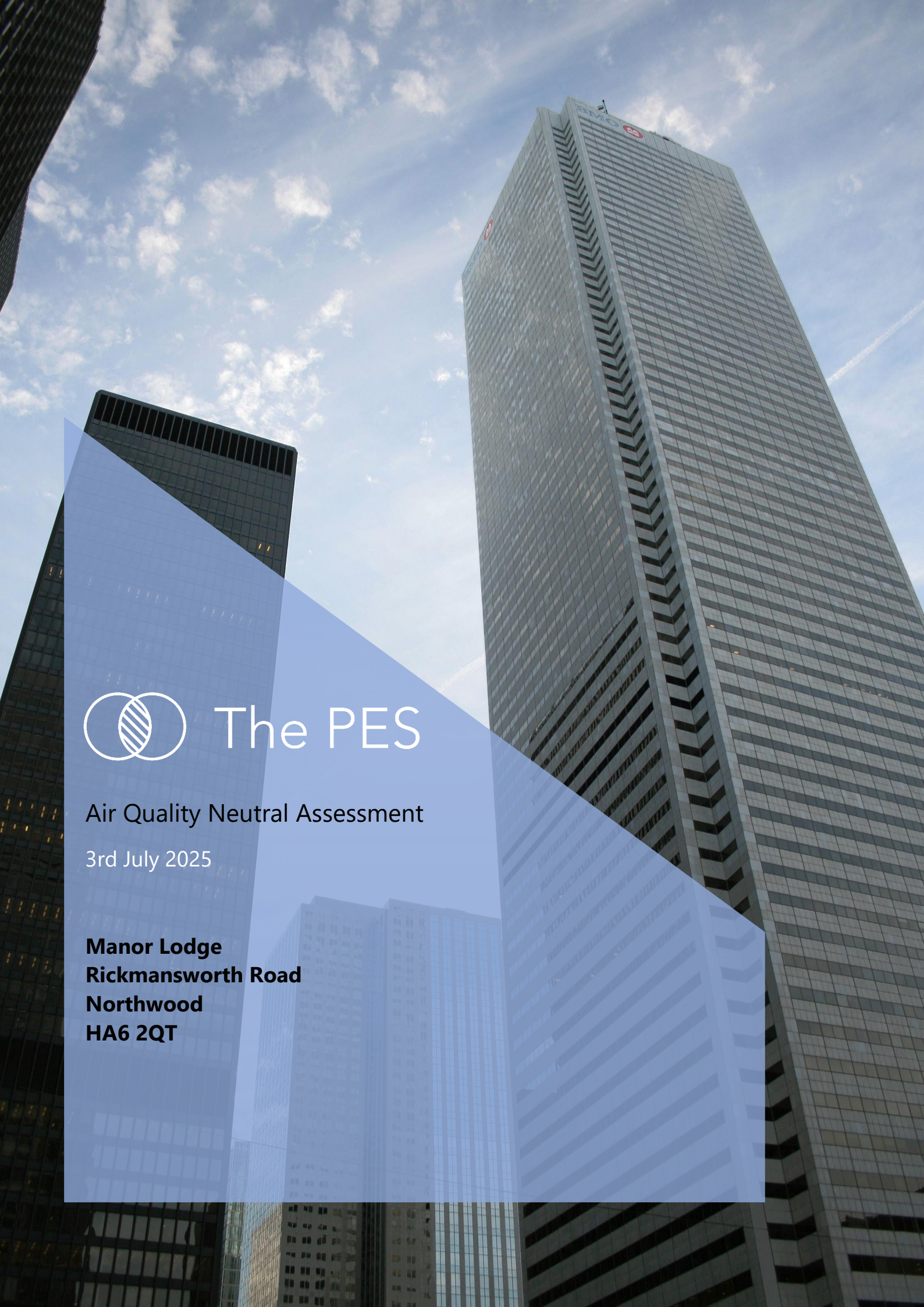

The PES

# Air Quality Neutral Assessment

3rd July 2025

**Manor Lodge**
**Rickmansworth Road**
**Northwood**
**HA6 2QT**

**Air Quality Neutral Assessment**

## 1.0 Background

The project at Manor Lodge is for the redevelopment of the site, delivering 6 x no. new build dwellings.

The applicant has requested a review of the air quality neutral status for the proposed development.

There is a single dwelling on site at the moment, so this report will consider the net uplift of 5 dwellings.

### 1.1 Air Quality Neutral

Air Quality Neutral' is a term for developments that do not contribute to air pollution beyond allowable benchmarks, as set out by the GLA. These are separated into:

- Building Emissions Benchmark (BEB) - emissions from equipment used to supply heat and energy to the buildings
- Transport Emissions Benchmark (TEB) - emissions from private vehicles travelling to and from the development (occupiers)

Additionally, Policy SI 1 of the London Plan includes requirements for new development to be Air Quality Neutral:-

Chapter 9 - Sustainable Infrastructure

Policy SI 1 - Improving air quality

B To tackle poor air quality, protect health and meet legal obligations the following criteria should be addressed:

1) Development proposals should not:

a) lead to further deterioration of existing poor air quality

b) create any new areas that exceed air quality limits, or delay the date at which compliance will be achieved in areas that are currently in exceedance of legal limits

c) create unacceptable risk of high levels of exposure to poor air quality.

2) In order to meet the requirements in Part 1, as a minimum:

a) development proposals must be at least Air Quality Neutral

### 1.2 Air Quality Neutral Assessment

This section presents an air quality neutral assessment in accordance with The London Plan Guidance Air Quality Neutral LPG (Feb 2023).

'Air Quality Neutral' (AQN) is a term for developments that do not contribute to air pollution beyond allowable benchmarks. The benchmarks, set out in this guidance, are based on research and evidence carried out by building and transport consultants.

#### 1.2.1 Excluded Developments

Developments, including major developments which do not include additional emissions sources are assumed to be Air Quality Neutral and do not need an Air Quality Neutral assessment. This would include, for example, developments that have no additional motor vehicle parking, do not lead to an increase in motor vehicle movements , and do not include new combustion plant such as gas-fired boilers.

The applicant has confirmed the following details foe the proposed conversion project as follows:-

- All heating and domestic hot water systems will be electrically driven – Ref Energy and Sustainability Statement – Love Design Studio – March 2025
- The proposal includes 2 parking spaces per dwelling – as required by the regional and local parking standards.

#### 1.2.2 Building Emissions

In accordance with the Air Quality Neutral Guidance document (AQNG), the project is air quality neutral by default, as it does not introduce any new fossil fuel combustion plant.

#### 1.2.3 Transport Emissions

The Transport Emission Benchmark (TEB) is defined as the predicted number of trips per m2 of floorspace (GIA) over a year (trips/m2/year) for non-residential use, or the anticipated number of trips per dwelling (trips/dwelling/year) for residential use.

As the project is in the Northwood West Focus Area, the full procedure for the Transport Emissions Benchmark (TEB).

The TEB only estimates car or light van trips generated by the development occupiers. These trips are likely to be generated by residents, customers or employees. The TEB does not include trips generated by deliveries and servicing, taxis or heavy vehicle movements from non-occupiers.

Table 1: Benchmarked Transport Emissions

| Pollutant/Land Use | Number of Dwellings or GIA ($m^2$) | TEB (trips/annum) Inner London | Total Trips |
|---|---|---|---|
| | | | |
| Residential | 5 | 447 | 2,235 |
| | | | |
| **TOTAL TRIPS** | | | **2,235** |

The submitted Transport Assessment prepared by PJA (March 2025) for the project confirms a daily trip rate at 5.736 driven cars or vans/dwelling, an annual total of **10,468.** Accordingly, the project could be liable for damage costs calculated as follows:-

Benchmark emissions

| Land Use | Benchmark Trip Rate | Ave Distance per trip | NOx (g/veh-km) | PM2.5 (g/veh-km) | Total NOx (kg) | Total PM2.5 (kg) |
|---|---|---|---|---|---|---|
| Residential | 2,235 | 11.4 | 0.35 | 0.028 | 8.92 | 0.71 |
| **TOTALS** | | | | | **8.92** | **0.71** |

Actual emissions

| Land Use | Actual Trip Rate | Ave Distance per trip | NOx (g/veh-km) | PM2.5 (g/veh-km) | Total NOx | Total PM2.5 |
|---|---|---|---|---|---|---|
| Residential | 10,468 | 11.4 | 0.35 | 0.028 | 41.78 | 3.34 |
| **TOTALS** | | | | | **41.78** | **3.34** |

Offset calculation

| | Benchmark | Total Predicted emissions | Excess emissions | Damage Cost (£/tonne) | Annual Offsetting amount (£) |
|---|---|---|---|---|---|
| Transport NOx | 8.92kg | 41.78kg | 32.86kg | 8,148 | 267.74 |
| Transport PM2.5 | 0.71kg | 3.34kg | 2.63kg | 74,769 | 196.64 |
| Total Annual Offset | | | | | 464.38 |
| **Total Offset** | | | | | **£18,839** |

### 1.3 Mitigation

The GLA guidance on Air Quality Neutral assessment is clear that; if development is still not able to meet the benchmarks, the next step is to seek agreement with the local planning authority to secure on- or off-site mitigation measures, with on-site measures preferred. Mitigation measures should exceed the minimum requirements in the London Plan policies.

Accordingly, the design team for the Manor Lodge Project are proposing the following works as part of the site development:-

- 2 x EV charging point per dwelling, enable each dwelling to operate 2 x electric cars.
- A new cycle access to be provided adjacent to the southern vehicular access gate providing access directly from the footway on Rickmansworth Road.
- each house will have 2 secure cycle spaces and in addition, 2 short stay spaces will be provided within the site boundaries.

### 1.4 Conclusion

The Manor Lodge redevelopment has been designed in accordance with the latest Air Quality Neutral (AQN) guidance.

While the development exceeds the benchmark transport emissions and is therefore nominally liable for an offset payment, the proposed on-site mitigation measures—comprising two EV charging points per dwelling, improved cycle access, and dedicated cycle storage—are expected to significantly reduce actual transport emissions associated with the site. These measures go beyond the minimum policy requirements and support sustainable travel choices for future residents.

Accordingly, it is considered that the proposed mitigation will sufficiently mitigate against the need for an offset payment.