

Philip Boffey
Project Manager
A46 Newark Bypass
National Highways
2 Colmore Square
Birmingham
B4 6BN
Tel: 0300 123 5000
16 May 2024

By Email

Dear Martin Almond,

A46 transport & air quality construction traffic note

1 Air Quality Assessment – Construction traffic data clarification

1.1 Introduction

It has been noted that the Transport Assessment and Environmental Statement are reporting different values for HGV flows during the construction phase. This paper responds to this query in two parts.

Part 1.2 explains the reasons why the traffic values in the Transport Assessment and the Environmental Statement need to be expressed in different units, hence the perceived discrepancy. Part 1.3 picks up on a specific traffic value where a correction related to this query is required. However, this correction does not change the approach to the environmental assessment carried out, or its outcome – it is detailed herein for completeness of our response.

1.2 Reasons for reporting different HGV flow values

This inconsistency is due to the individual assessments requiring the use of different types of traffic flows, though it can be confirmed the same underlying data has been used to calculate these flow values. The calculations are summarised below:

- Table 8-2 in the Transport Assessment (**TR010065/APP/7.4**) shows the peak construction year daily construction vehicle volumes for a working day with a total two-way HGV value of 1,484 vehicles. This value is the combined total of HGVs entering/exiting all of the construction site accesses.
- Paragraph 5.5.11 of Chapter 5 (Air Quality) (**TR010065/APP/6.1**) states that *“It is estimated that there would be a maximum across the study area on any road of 131*

two-way heavy-duty vehicle (HDV) Annual Average Daily Traffic (AADT) movements associated with the construction phase". This value refers to the individual construction site access that has the largest number of HGVs entering/exiting the site. This is an AADT value which is calculated by taking the annual number of construction vehicles and dividing by 365. This means weekends and days where there are no-construction activities are also included in the calculation which will reduce the overall average value.

Note that the air quality modelling uses values expressed as HDVs which is a combination of HGVs and buses. For this Scheme HDVs and HGVs are identical as buses are not explicitly modelled and are captured in the HGV values.

1.3 Corrected value

Chapter 5 (Air Quality) (**TR010065/APP/6.1**) at paragraphs 5.5.9 and 5.5.10 present the methodology as set out in the Design Manual for Roads and Bridges (DMRB) LA 105 Air Quality, to determine the need for an assessment of construction traffic associated with the Scheme. DMRB LA 105 states:

'5.5.9 The criteria are:

- *AADT $\geq 1,000$; or*
- *HDV AADT ≥ 200 ; or*
- *a change in speed band; or*
- *a change in carriageway alignment by ≥ 5 metres*

5.5.10 Notwithstanding the above criteria, as stated in DMRB LA 105, the assessment of construction traffic impacts on sensitive receptors shall be proportionate and limited to the areas of key risk of exceeding air quality thresholds.'

Paragraph 5.5.11 of Chapter 5 (Air Quality) (**TR010065/APP/6.1**) indicates that the maximum number of construction vehicle movements across the study area on any road are estimated to be:

- 254 two-way total construction vehicle movements on an annual average daily traffic (AADT) basis
- 131 two-way heavy-duty vehicle (HDV) movements on an AADT basis

The construction traffic movements of 254 and 131 are values at one construction compound which is not the maximum value on any one road, as some roads will include construction vehicles accessing other compounds. Having reviewed the calculations, the maximum construction traffic movements would occur in 2025 and would be:

- 510 two-way total construction vehicles movements on an annual average daily traffic (AADT) basis
- 402 two-way HDV movements on an AADT basis

These are forecasted to use the section of the A46 between Farndon Roundabout and Cattle Market Roundabout.

The correction of 254 to 510 total AADT movements does not exceed the DMRB LA 105 screening threshold of 1000 AADT and does not therefore need to be considered further in the air quality assessment.

The correction of 131 to 402 HDV movements causes an exceedance the DMRB LA 105 screening threshold of 200 AADT. Whilst this number exceeds the screening threshold, the approach to scope out construction traffic within the Environmental Statement remains unchanged on the basis that:

- The construction phase is temporary; and
- as stated in DMRB LA 105, the assessment of construction traffic impacts on sensitive receptors shall be proportionate and limited to the areas of key risk of exceeding air quality thresholds.

Paragraph 5.5.11 confirms that baseline air quality conditions demonstrate that there are no areas within the study area at risk of exceeding the air quality thresholds. Furthermore, modelled base year (2022) concentrations presented in Table 5-12 of Chapter 5 (Air Quality) (**TR010065/APP/6.1**) show that nitrogen dioxide (NO₂) concentrations are well below the air quality threshold and there is no risk of causing an exceedance during the construction phase.

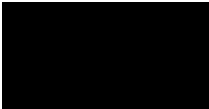
2 Conclusion

The values in the Transport Assessment and the Environmental Statement assessment need to be shown in different values as these have been converted into different units for the purpose of these two documents. However, both have been informed by the same construction traffic data.

Likewise, whilst there has been an error in the number of construction vehicle movements referred to in Chapter 5 (Air Quality), the decision made during the Environmental Assessment to scope out construction traffic impacts and the conclusion reached that there are no significant air quality effects as a result of the Scheme does not change based on the DMRB LA 105 assessment methodology followed.

In conclusion, as clarified above, the assessments and conclusions contained within the Transport Assessment and the Air Quality Chapter of the Environmental Statement as submitted are robust and therefore should be considered to meet the necessary requirements of an acceptable application for development consent.

Yours sincerely



Philip Boffey
Project Manager

Email: 