

Supplementary Air Quality Inquiry Note

Land North of Wicken Road and West of School Lane, Newport

Appeal by Mr David Hill and Gladman Developments Ltd

Prepared by Malcolm Walton of Wardell Armstrong LLP

Application Reference: UTT/18/1026/OP

DTLR Reference: APP/C1570/W/19/3223694

26th September 2019

- 1.1 I am Malcolm Walton. My qualifications and experience are set out in my proof of evidence on Air Quality matters dated 12th August 2019.
- 1.2 This note has been prepared in response to the evidence and statement presented to the Inquiry on 24th September 2019 by Mr David Mayle, a resident of Newport.
- 1.3 In his written statement, Mr Mayle initially comments about traffic issues, particularly regarding junction capacity within Newport. I understand that these matters were dealt with by the Appellants transport consultant, Mr Burbridge of ICENI in his evidence.
- 1.4 In respect of air quality issues, Mr Mayle comments on air quality modelling capability - particularly with regard to Cold Start emissions, the assessment of queuing vehicles and he suggests that the cumulative impacts of other, already permitted development, has not been considered.
- 1.5 Wardell Armstrong has carried out a detailed air quality assessment of the proposed development in full accordance with the DEFRA Local Air Quality Management Technical Guidance report (LAQM.TG16)¹. This guidance is designed to support local authorities in carrying out their duties under the Environment Act 1995. LAQM is the statutory process by which local authorities monitor, assess and take action to improve local air quality. In terms of dispersion modelling of emissions, the technical guidance states its purpose is to “promote best practice” and to “help obtain as reasonable results as practically possible from dispersion models and increase the confidence in model predictions” (Para 7.372).
- 1.6 It is readily acknowledged that the predicted results from a dispersion model may differ from measured concentrations for many reasons such as; use of estimates of background concentrations, meteorological data uncertainties, variations in traffic flow, uncertainties associated with monitoring data and many other variables including Cold Start emissions. Any assumptions/deficiencies in the modelling technique are ‘corrected’ during model verification and adjustment.
- 1.7 TG 16 states *“To ensure a robust Detailed Assessment for road traffic sources, it is recommended that model verification is carried out. Verification involves a comparison between predicted and measured concentrations at one or more suitable*

¹ LAQM Technical Guidance (TG16) DEFRA Feb 2018
<https://laqm.defra.gov.uk/documents/LAQM-TG16-February-18-v1.pdf>

local sites, and adjustment of the modelled concentrations if necessary” (Para 6.11). Model verification is therefore an important consideration in providing reliable conclusions for any air quality assessment. TG 16 sets out a detailed verification and adjustment methodology which we adhere to.

- 1.8 In order to most accurately assess the different sensitive receptor locations (individual dwellings close to roads), we have compared only appropriate monitoring location measurement results with similarly located receptor locations, for example the two dwellings close to the M11 motorway were verified against UDC monitor UT010 also located next to the M11. All the receptors considered within Saffron Walden have been verified with the measured concentrations from nine UDC monitoring tubes located within the Saffron Walden AQMA.
- 1.9 In respect of the modelling for the Wicken Road/High Street junction which is the location of most concern to residents and a particular ‘pollution hotspot’, we have used the UDC monitoring data for diffusion tube UT039 (located on a street sign at the junction) for verification of the predicted levels at receptors in the vicinity of this junction.
- 1.10 In accordance with TG16, with the use of an adjustment factor (2.4 at the Wicken Rd/High St junction), the model replicates the pollution levels experienced around the Wicken Rd/High Street junction for the base year considered (2018).
- 1.11 Future year pollutant predictions (with and without) the proposed development are then assessed with associated increased traffic flows and an assumption that queue lengths will worsen. It should be noted that any localised emissions that aren’t fully represented in the initial modelling assessment (such as Cold Start emissions which will already be taking place from existing local vehicles at the junction), will be taken into consideration during the verification process. Therefore, any deviation between modelled data and real life monitored conditions are incorporated in all modelled scenarios by the use of local road side monitoring data. In this case, all modelled scenarios for the Wicken Rd/High st junction have been uplifted by the adjustment factor of 2.4.
- 1.12 Furthermore, in order to minimise variables/reduce uncertainty and produce a robust assessment, the model incorporates traffic data supplied by Icenl which includes twenty five committed developments in the local area. Mr Burbridge advises that this data has also been subject to Tempro growth (effectively double counting some traffic movements). The list of committed developments included in

the assessment is included in Mr Burbridge's evidence and for ease, is attached as Appendix 1.

- 1.13 We have also undertaken a sensitivity analysis to ensure that future emissions are not under predicted. The sensitivity analysis, comprising a 'reasonable worst case' approach in which 2018 background concentrations and a more pessimistic future fleet composition have been applied to the 2022 opening year and 2024 future year scenarios. It has been assumed that all future Euro 6d diesel cars and vans only perform to Euro 6c standards. Furthermore, it has also been suggested that the bus fleet in and around Newport and Saffron Walden is slightly older than the national average. Therefore the 2018 Euro bus fleet composition has been used for both the 2022 and 2024 sensitivity analyses. This is considered to be a highly conservative approach, as it is likely that there will be some improvement in background air quality, and vehicle emissions, before 2022/2024.
- 1.14 The assessment concludes that during the operational phase, the impact of road traffic associated with the proposed development will be negligible at all existing sensitive receptors considered around the proposed development site in Newport and also within the Saffron Walden AQMA in 2022 and 2024. A robust sensitivity analysis also shows that there will be a negligible impact at all receptors in Saffron Walden and Newport receptor locations both in 2022 and 2024. The proposed development does not lead to an exceedance of the relevant air quality objectives at any location, in Newport or within the Saffron Walden AQMA.

CONCLUSIONS

- 1.15 The Wardell Armstrong detailed air quality assessment, carried out in accordance with national technical guidance for the assessment of local air quality management (as set out by DEFRA under Part IV of the Environment Act 1995), predicts a negligible and not significant air quality impact at all existing sensitive receptors considered in both Newport and Saffron Walden associated with the development of the appeal site.
- 1.16 The assessment incorporates a robust sensitivity analysis which considers no future improvement in background concentrations, more pessimistic emissions from the future vehicle fleet, an older bus fleet in operation within the study area, committed developments in the area and increased queuing conditions at the Walden Rd/High Street traffic junction.

1.17 We have demonstrated that the proposed development will not lead to an unacceptable risk from air pollution, nor will it lead to any breach of national objectives as required by national policy. This is not in dispute with the LPA, Uttlesford District Council or Rule 6 party, Newport Parish Council. It is therefore my opinion that there are no material reasons in relation to air quality why the proposed scheme should not proceed.

Appendix 1

Committed Developments Included Within Transport Assessment / Proof

Location	Number of units and application reference		Included within Transport Assessment (Bancroft Consulting)	Included within Proof of Evidence (Iceni Projects)
Land north of Hope Cottage, Whiteditch Lane	1 ✓	UTT/14/1708/FUL	No	Yes
Tudhope Farm, Whiteditch Lane	2 ✓	UTT/16/1756/FUL	No	Yes
Land adjacent Holmwood, Whiteditch Lane	2 ✓	UTT/14/1639/FUL	No	Yes
Land adjacent Holmwood, Whiteditch Lane	1 ✓	UTT/14/3815/FUL	No	Yes
Land at Holmwood, Whiteditch Lane	12 ✓	UTT/15/0879/OP	No	Yes
Land Adjacent Bury Grove, Whiteditch Lane	2 ✓	UTT/15/1942/FUL	No	Yes
Land opposite Branksome, Whiteditch Lane	15 ✓	UTT/14/1794/OP	No	Yes
Land South Of Bury Grove, Whiteditch Lane	20 ✓	UTT/16/2024/FUL	No	Yes
Branksome, Whiteditch Lane	1 ✓	UTT/16/0280/FUL	No	Yes
Land rear of Branksome, Whiteditch Lane	2 ✓	UTT/15/1664/OP	No	Yes
Land south of Wyndhams Croft Redbank	15 ✓	UTT/14/3266/OP	No	Yes
Redbank	5 ✓	UTT/16/2538/FUL	No	Yes
Land at Whiteditch Lane	4 ✓	UTT/17/0436/FUL	No	Yes
Rear of Bury Water Lane	Care home complex	UTT/16/0459/OP	Yes	Yes
Land at Bury Water Lane	100 ✓	UTT/13/1769/OP	Yes	Yes
Land West of Cambridge Road	34 ✓	UTT/15/2364/FUL	No	Yes
Land West of London Road	99 ✓	UTT/15/1869/FUL	Yes	Yes
Bricketts, London Road	25 ✓	UTT/16/1290/OP	No	Yes
Land to The East of Whiteditch Lane	5 ✓	UTT/17/0140/OP	No	Yes
Greenways Whiteditch Lane	1 ✓	UTT/17/1395/OP	No	Yes
Land to the south of Debden Road	1 ✓	UTT/18/2032/FUL	No	Yes
Land West of Tudor House	3 ✓	UTT/18/1056/FUL	No	Yes
Land East of Frambury Lane	4 ✓	UTT/17/2611/FUL	No	Yes
Land at Old Mill Lane	1 ✓	UTT/19/0717/LB	No	Yes
Land south of Wicken Road	150 ✓	UTT/17/2868/OUT	Yes	Yes
Total Applications:			4	25

$$\begin{array}{r} 505 \\ - 150 \\ \hline 355 \end{array}$$

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