

AIR QUALITY HEADLINE CONSTRAINTS AND IMPACT ASSESSMENT IN RESPECT OF THE PROPOSED REDEVELOPMENT AT THE SCOUT AND GUIDE HEADQUARTERS, READING, RG2 7HG.

ACCON UK Limited (ACCON) has been commissioned by Nigel Phillips to carry out an air quality Headline Constraints and Impact Assessment in respect of the proposed redevelopment of the Scout and Guide Headquarters, 163 Northcourt Avenue, Reading, RG2 7HG.

The proposed development is for the demolition of the existing Scout and Guide Headquarters building and the construction of a new two-storey Scout and Guide Headquarters building on the site.

This Headline Constraints and Impact Assessment has been produced to determine whether the proposed development is likely to impact on the local air quality and if the local air quality will have an adverse impact on the proposed development when complete and operational.

The proposed development is located within Reading Borough Council (RBC) and the rear of the development site is located within the Reading AQMA which covers the A327 – Shinfield Road. The AQMA was declared for NO₂ in 2009.

The proposed development site is identified in **Figure 1**.

Figure 1: Proposed Site Layout



Local Air Quality

Background concentrations of air pollutants for the site have been obtained from the DEFRA pollutant concentration maps¹. **Table 1** identifies the background pollutant concentrations at the site for the proposed opening year of 2025 and for 2019 in respect of the local relevant monitoring sites.

Table 1: Background Concentrations of Pollutants

Location and Year	NO _x µg/m ³	NO ₂ µg/m ³	PM ₁₀ µg/m ³	PM _{2.5} µg/m ³
Site - Opening Year Site 2025 473500, 171500	15.98	11.89	13.92	9.69
Local monitoring sites - 2019 473500, 170500	21.09	15.27	16.01	11.33

Local Monitoring Sites

RBC monitors local air quality through an automatic monitor and diffusion tube monitoring network. Two sites were selected to identify modelled pollutant concentrations close to the development site. The monitoring sites selected were the diffusion tube sites closest to the development, these sites are located within the AQMA. 2019 data was selected as it is the most up to date data published by RBC, this is a worst case scenario as air quality pollutant concentrations are predicted to decrease into the future.

The 2019 annual mean NO₂ concentrations for the monitoring sites are identified in **Table 2**. The annual mean NO₂ National Air Quality Objective (NAQO) of 40µg/m³ was not exceeded at either of the monitoring sites. Additionally, the proposed development is approximately 60 metres from Shinfield Road and pollutant concentrations will decrease with distance from the A327.

Table 2: Local Monitoring Data

Monitor Site	Grid Reference		2019 Annual Mean NO ₂ (µg/m ³)	2019 % Data Capture	Distance to Development Site (m)
	X	Y			
Shinfield Road / Whitley Wood Road	473338	170269	26	83	830 south of the site
Shinfield Road / Cedar Rd	473354	170482	34	92	630 south of the site

Traffic Flows

The proposed redevelopment of the site is not predicted to produce more traffic movements than the current Scout and Guide Headquarters, with there being no increase in car parking area which will provide 7 car parking spaces for the use of the Scout and Guides Headquarters. The intended use of the facility is to be for the local catchment area, therefore walking and the proposed provision of additional safe and secure cycle parking will promote more sustainable transport to the facility. The Site also has good public transport connections with a

¹ DEFRA, *Background Mapping Data for Local Authorities*

number of bus stops within close proximity, the closest is a 100m walk to the site (which some users of the site already utilise).

Traffic flows and vehicle split data has been obtained from the Department for Transport for the A327 Shinfield Road, which is situated within the AQMA. Shinfield Road had an Average Annual Daily Traffic count of 14,322 (2.4% HDV) in 2019, therefore it is our professional opinion that any additional traffic produced from the redevelopment would not have an impact on the AQMA.

Air quality impacts

The proposed development is unlikely to have any impacts on the local AQMA, due to the nature of the redevelopment which is not predicted to produce more traffic movements on to the road network with the development only providing seven parking spaces. Additionally, the intended use for the Scout and Guides Headquarters is for people within the local area such that any additional traffic will be very localised. If there is any increase in pollutant concentrations, they would be considered negligible and would not significantly affect the AQMA where concentration levels in 2019 were already below the Air Quality Objective Levels (**Table 2**).

The proposed Fire pit which is estimated to be used approximately 20 times a year will not be of concern. Although it is located within the Reading AQMA, the AQMA is only designated for NO₂, therefore the Particulate Matter produced as a result of the fire pit will not negatively impact the AQMA.

Air quality constraints

There is not predicted to be any constraints in terms of air quality on the redevelopment with both the background concentration levels for the development site in 2025 (**Table 1**) and monitored diffusion tube concentrations from 2019 (**Table 2**) being below the Air Quality Objectives. Air quality at the site is not considered to be a concern as the pollutant concentrations at the diffusion tubes are predicted to decrease into the future as well as the site being located approximately 60 metres from Shinfield Road and pollutant concentrations will decrease with distance from the road.

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