

Technical Note: Requirement for an Air Quality Statement

27 June 2017



1 Introduction

Hallam Land Management is bringing forward an outline planning application for the proposed development of land at Deepcar, Stocksbridge, Sheffield.

Fore Consulting Limited (Fore) has been commissioned by Hallam Land Management to provide highways and transport advice in relation to the site, including the preparation of a Transport Assessment and Residential Travel Plan which have been prepared under a separate cover.

The proposal is to develop the site to provide up to 93 privately owned houses.

1.1 Purpose of this Technical Note

This Technical Note has been prepared to provide an analysis of the predicted Weekday AM and PM peak hour traffic and Annual Average Daily Traffic (AADT) generations associated with the proposed development, drawing on information prepared as part of the accompanying Transport Assessment.

The information is provided to assist in determining whether an Air Quality Statement is required to accompany the planning application, with reference to the following identified thresholds:

- Sheffield City Council's (SCC) Principal Planning Officer has advised during pre-planning application discussions that an Air Quality Statement will be required if the proposed development generates more than 60 two-way vehicle movements in any hour.
- DMRB Volume 11, Section 3 Part 1 HA 207/07 Air Quality sets out the following highways criteria whereby a development is said to impact on air quality. The document states that "affected roads are those that meet any of the following criteria:
 - Road alignment will change by 5m or more.

- Daily traffic flows will change by 1,000 AADT or more.
- Heavy duty vehicle flows will change by 200 AADT or more.
- Daily average speed will change by 10km/hr or more.
- Peak hour speed will change by 20km/hr or more.

2 Peak Hour Development Traffic

The vehicle trip generations have been estimated based on a proposed development of up to 93 privately owned dwellings and have been shown for the identified local study network Weekday AM and PM peak periods, which are also the peak hours for the proposed development.

As noted in the accompanying Transport Assessment, Weekday AM and PM peak hour vehicular trip rates for the proposed development have been obtained from a Transport Note prepared by Hyder on behalf of the approved Bloor Homes residential development. These trip rates have been agreed through Scoping with SCC Highways.

The resulting trip rates are presented in the Table below for the identified peak hours.

Table 1: Average Weekday Vehicular Trip Rates – Peak Hour

Land Use	Unit	Vehicular Trip Rates (per dwelling)			
		AM Peak (0800-0900)		PM Peak (1700-1800)	
		Arrivals	Departures	Arrivals	Departures
Residential	1 Dwelling	0.140	0.490	0.350	0.170

Applying the weekday vehicular trip rates to the proposed quantum of residential development (93 privately owned dwellings) gives rise to the following predicted vehicular generations, as presented in the Table below.

Table 2: Predicted Vehicular Generations – Peak Hour

Land Use	Unit	Vehicular Trip Generations (Vehicles)			
		AM Peak (0800-0900)		PM Peak (1700-1800)	
		Arrivals	Departures	Arrivals	Departures
Residential	93 Dwellings	13	46	33	16

It can be seen that the development is predicted to generate a total of 59 and 49 two-way vehicle trips during the identified Weekday AM and PM peak hours.

The predicted Weekday AM and PM peak hour vehicular trip generations are below the required threshold for an Air Quality Statement (more than 60 two-way vehicle trips in any hour) as identified by Sheffield City Council's (SCC) Principal Planning Officer during pre-planning application.

3 AADT Development Traffic

As discussed above, the peak hour trip generations have been determined through applying a trip rate which had been agreed with SCC Highways as part of an approved development within the locality of the proposed development site. Unfortunately, the supporting Technical Notes prepared on behalf of the approved development do not contain the TRICS output files and therefore it is not possible to determine the daily flows based on the previously agreed peak hour flows. However a review of comparable Edge of Town Centre / Suburban residential sites within the TRICS database demonstrates that the combined AM and PM peak hour trip rates equate to 18.5% of the daily trip rates respectively. Therefore applying this factor to the agreed peak hour trip generations yields the following predicted AADT flow associated with the development.

Table 3: Predicted Vehicular Generations - Daily

Land Use	Unit	Vehicular Trip Generations (Vehicles)
		Daily (Two-way)
Residential	93 Dwellings	583

It can be seen that the development is predicted to generate a total of 583 two-way daily vehicle trips. It should be noted that the above AADT traffic flows are based on the identified weekday vehicular trip generations which are typically higher than weekends. Therefore, the calculated AADT traffic flows are considered to provide a robust assessment.

The predicted daily vehicular trip generations are below the 1,000 AADT threshold set out in DMRB Volume 11, Section 3 Part 1 HA 207/07 Air Quality.

The vast majority of vehicular trips associated with the development will be cars. The development will not generate more than 200 AADT heavy duty vehicle movements. Nor will the development alter any road alignments by more than 5m or increase vehicle speeds on the highway network.

4 Conclusion

This Technical Note has demonstrated that:

- The predicted Weekday AM and PM peak hour vehicular trip generations are below the required threshold for an Air Quality Statement (more than 60 two-way vehicle trips in any hour) as identified by Sheffield City Council's (SCC) Principal Planning Officer during pre-planning application.
- The predicted AADT vehicular trip generations are below the 1,000 AADT highways criteria threshold set out in DMRB Volume 11, Section 3 Part 1 HA 207/07 Air Quality.



Document Control

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