TECHNICAL NOTE

DATE:	23 April 2024	**CONFIDENTIALITY:**	Public
SUBJECT:	Vehicle Trips for EIA Screening Note		
PROJECT:	Farnham & Hilldene	**AUTHOR:**	Allan Trulock
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INTRODUCTION

This note has been prepared by WSP, on behalf of the applicant for the Farnham & Hilldene site in the London Borough Havering (LBH), to provide the estimated number of vehicle trips generated by the existing site and the proposed development.

The note will be used in the EIA Screening Letter submitted to LBH to understand the net impact of the development proposals in terms of the number of daily vehicle trips generated.

The note will set out the existing quantum of development on the site with the estimated number of existing vehicle trips derived from parking surveys. The estimated vehicle trips generated by the proposed development will also be presented to identify the net change in vehicle trips for the site.

EXISTING SITE

The site currently comprises 117 residential units and 8,825 sqm of retail use.

There are 248 pay & display parking spaces on-site and 104 permit holder parking spaces. The pay & display parking spaces are operational Monday to Saturday 8am to 6.30pm with a maximum duration of stay of 3 hours. The permit holder parking spaces are operational Monday to Saturday 8am to 6.30pm and are within controlled parking zone HH1.

Parking surveys were undertaken on-site in January 2024 on a weekday and a Saturday between 8am and 6.30pm to understand the existing parking demand for the retail units. The parking counts were undertaken every hour. The pay & display parking survey results are shown in Table 1.

Table 1 – Pay & Display Parking Survey Results

Time	Wednesday 31/01/24	Saturday 03/02/24
0800 hours	25	23
0900 hours	56	58
1000 hours	67	86
1100 hours	80	122
1200 hours	83	128
1300 hours	91	95

1400 hours	86	116
1500 hours	57	113
1600 hours	73	99
1700 hours	79	85
1800 hours	59	52
1830 hours	49	57
Total	**805**	**1,034**

Table 1 shows the number of cars parked in the pay & display spaces every hour over the survey period. The turnover of the parking spaces is unknown from the survey data provided, which did not survey the duration of stay. It is unlikely visitors would stay for longer than one hour due to the retail provision on offer and the nature of the local centre, therefore an estimate of approximately 800 vehicle arrivals and 800 vehicle departures on an average day over a week would be reasonable.

To estimate the existing volume of car trips generated by the residential units the residential parking survey results have been reviewed. The residential parking surveys were undertaken on Wednesday 31/01/24 and Thursday 01/02/24 between midnight and 0500 hours in accordance with the Lambeth residential parking survey methodology. The survey results showed 26 cars parked in the permit holder spaces on the Wednesday and 24 on the Thursday. The parking surveys also recorded cars parked on yellow lines and within some of the pay & display parking spaces during the night time, which would be permitted with the controlled parking zone HH1 being operational Monday to Saturday 8am to 6.30pm. A total of 40 cars were surveyed on the Wednesday and 39 on the Thursday, which includes the cars parked within the permit holder pays. Therefore, a total of 40 cars for the 117 existing residential units would be applied. A daily trip rate of 1.5 arrivals and 1.5 departures would be applied to the 40 cars which would result in 120 two-way residential car trips a day.

To estimate delivery vehicle trips for the retail and residential uses, delivery vehicle trip rates used by WSP in the past for other planning applications have been applied, 1.35 daily vehicle arrivals per 100 sqm for the retail use and 0.125 daily vehicle arrivals per unit for the residential use.

Table 2 shows the estimated existing daily vehicle trips generated by the 117 residential units and 8,825 sqm of retail use, as described above.

Table 2 – Estimated Existing Daily Vehicle Trips

Use	Daily Arrivals	Daily Departures	Daily Total Two-way
Retail cars	800	800	1,600
Retail delivery	119	119	238
Residential cars	60	60	120
Residential delivery	15	15	30
Total	**994**	**994**	**1,988**

DEVELOPMENT PROPOSALS

The development proposals include up to 500 residential units and 7,000 sqm of retail use. The number of car parking spaces proposed is still work in progress as the layout develops, however there will be up to 300 car parking spaces in total.

Table 3 shows the difference between the existing and proposed floor areas / units and associated parking spaces for each use.

Table 3 – Existing and Proposed Development Comparison

Item	Existing	Proposed	Change
Residential units	117	500	+383
Residential parking spaces	104	200	+96
Retail use (sqm)	8,825	7,000	-1,825
Retail parking spaces	248	100	-148

The proposals include a reduction in retail floor area by approximately 20% and a reduction in retail pay & display car parking by approximately 60%. A conservative estimate would be a 20% reduction in retail car trips due to the decrease in retail floor area and the reduction in pay & display parking spaces. It should be noted the proposals would reduce pay & display parking from 248 spaces to approximately 100 spaces, however from the survey results, the pay & display parking spaces are not currently fully utilised, with a peak of 128 cars parked. The development proposals will include design and operational measures to encourage travel by public transport and active travel, therefore a reduction in car trips generated by the proposed retail is likely. To estimate the number of delivery vehicle trips for the proposed retail use, the same vehicle trip rates have been used as applied for the existing retail use. Table 4 shows the estimated daily vehicle trips for the proposed retail development, which would see a 20% reduction based on the existing retail car trips.

Table 4 – Estimated Proposed Daily Retail Vehicle Trips

Use	Daily Arrivals	Daily Departures	Daily Total Two-way
Retail car trips	640	640	1,280
Retail delivery trips	95	95	190
Total	735	735	1,470

The proposals include up to 500 residential units, an increase of 383 units, and approximately 200 residential parking spaces, an increase of 96 spaces. A ratio of 1.5 daily arrivals trips and 1.5 daily departure trips per parking space would be considered reasonable. To estimate the number of delivery vehicle trips for the proposed residential units, the same vehicle trip rates have been used as applied for the existing residential units. Table 5 presents the estimated daily vehicle arrivals based on 1.5 arrivals per parking space, 200 spaces.

Table 5 – Estimated Proposed Daily Residential Vehicle Trips based on Proposed Parking Provision

Use	Daily Arrivals	Daily Departures	Daily Total Two-way
Residential car trips	300	300	600
Residential delivery trips	63	63	126
Total	363	363	726

SUMMARY

Table 6 shows the difference between the existing and proposed number of retail and residential vehicle trips over a day, based on the assumptions set out in the note.

Table 6 – Existing and Proposed Vehicle Trips

Use	Estimated Existing Daily Two-way Trips	Estimated Proposed Development Two-way Trips	Change
Retail	1,838	1,470	-368
Residential	150	726	+576
Total	**1,988**	**2,196**	**+208**

It is concluded the estimated change in daily two-way vehicle trips would not be significant in EIA terms.