

24019-L01-SW

Steve Day

C Project

44 Fox Dene

Godalming

Surrey GU7 1YQ

08/09/2024

Dear Steve,

PARK LANE SERVICE STATION –NOISE FROM EXISTING CAR WASH

Further to the issue of our noise impact assessment reference *24019-R01-D* dated 20th August to support planning for installation of a 2-bay Jet Wash at Park Lane Service Station, we understand that a comment (dated 13th August) has been received relating to noise from the existing rollover car wash located to the west of the site.

It should be noted that noise from the existing, consented, car wash constitutes part of the existing noise climate, and any complaints regarding noise from this unit are not directly relevant to this application.

Notwithstanding this, as requested, we are writing to provide an indicative assessment of worst-case noise impact from this unit.

Noise Impact of Existing Rollover Car Wash

As the unit is enclosed, the worst affected residential receptor would be the rear of 301 Purbrook Way, which has a line of sight to the unit opening.

The rollover car wash is understood to operate from 08:00h to 21:30h. The ambient noise level measured during the noise survey, adjacent to 95 Park Lane, was 63dB_{LAeq,T} during the daytime (07:00h-19:00h) and 59dB_{LAeq,T} during the evening (19:00h-23:00h). The ambient noise level was observed to be controlled by vehicle movements on Park Lane and Purbrook Way and within the site.

We would expect ambient noise levels at 301 Purbrook Way to be no lower than this (and potentially greater) due to proximity to the road.

The existing rollover car wash is an Istobal M12+ with a manufacturer's quoted sound pressure level of 76dB_{LAeq,T} at 2m during the drying cycle, which is understood to be the loudest part of the wash cycle. This does not take into account any screening provided by the car wash enclosure.

The rear façade of 301 Purbrook Way is 25m from the opening of the enclosure. With no allowance for any screening provided by the car wash enclosure, a simple distance correction based on an opening area of 3m x 3m would result in a sound pressure level of 54dB_{LAeq,T} at the residential façade when the rollover car wash is in a drying cycle.

This is 9dB lower than the daytime ambient noise level, and 5dB lower than the evening ambient noise level. The drying cycle is a limited part of the overall wash cycle. On this basis, we would not anticipate that noise from the existing rollover car wash has an adverse impact on residential amenity.

Noise Impact of Proposed Jet Wash Bays

As demonstrated within the noise impact assessment submitted for planning, the specific sound level arising from the proposed new jet wash units at 301 Purbrook Way is 37dB_{L_{Aeq,T}}. This assumes constant use of both proposed bays during a 1-hour periods as a worst case.

The evening (19:00h-23:00h) background sound level used in the assessment at 301 Purbrook Way is 56dB_{L_{A90,1hr}}. The measured background sound level at 95 Park Lane during the same period is 51dB_{L_{A90,1hr}}. Even if the measured background sound level is used to consider noise impact at 301 Purbrook Way, the BS142 noise impact assessment for consistent use during a 1-hour evening period would be as presented in Table 1, below.

Table 1: BS4142 Assessment, 301 Purbrook Way

Item	Calculation	Relevant Clause	Comments
Measured background sound level – evening	51dB _{L_{A90,1hr}}	8.2	The typical background sound level measured during the evening period (19:00h-23:00h).
Specific sound level	37dB _{L_{Aeq,T}}	7.3.6	A prediction made using the methodology outlined in the noise impact assessment, includes all sources, screening and distance corrections.
Assessment made during the daytime period, so reference period is 1 hour		7.2	-
Acoustic feature correction	+3dB	9.2	Potentially acoustically distinct characteristics
Rating Level	40dB _{L_{A,r,T,r}}	9.2	The predicted Rating Level during the daytime and night-time period.
Excess of Rating Level over background sound level - evening	-11dB	11	-
Assessment indicates low likelihood of adverse impact		11	Predicted Rating Level does not exceed the lowest measured background level. This is an indication of the development having a low impact.
Uncertainty of the assessment	Minor	10	The predicted Rating Level is based on established prediction methodologies. The background sound level at the NSR has been established by the noise survey.

It can therefore be seen that the predicted BS4142 rating level at 301 Purbrook Way is more than 10dB below the background noise level during the evening period 19:00h-23:00h and would therefore not be expected to adversely impact residential amenity.

Yours Sincerely,



Susan Witterick

Director, dBx Acoustics Ltd