



54.5499.L2:MSC

23 September 2024

Raad Property Acquisition No 10 Pty Ltd
2A Gregory Place
PARRAMATTA NSW 2150

Attention: Mr. R. Raad

Dear Sirs,

REQUEST FOR FUTHER INFORMATION FROM CUMBERLAND CITY COUNCIL
DEVELOPMENT APPLICATION DA2033/0775
2 BACHELL AVENUE, LIDCOMBE

I have been recently provided a letter from Cumberland City Council dated 30 July 2024 requesting further information in relation to the above development application.

Under General Planning Comments:

- item 5 refers to light industry with the applicant to provide further details in relation to the proposed 4am start for proposed 'light industries' with a requirement for the hours of operation to be addressed in the acoustic report.
- Item 7 referred to one submission raising construction noise from construction.

The letter under a sub-heading of Environmental Health identifies following a review by Council's Environmental Health Unit the following was raised:

1. *Amended acoustic report detailing recommendations for fit out of gym regarding noise attenuation and impact and recommendations of noise from demolition, excavation, and construction activities on nearby noise sensitive receivers.*

The acoustic report (our ref 53.5499.R1B - dated 17 October 2023) identified in Section 3 a range of acoustic criteria applicable to the development with reference to Part C of the DCP, EPA policies, the Transport and Infrastructure SEPP, Liquor and Gaming criteria and the AAAC Guideline for Childcare Centre Acoustic Assessments.

In responding the acoustic "issues" raised in the RFI it is necessary to place the acoustic issues in the context of the acoustic report and the existing acoustical environment.

As a result of ambient noise monitoring (discussed in Section 5), as required by the EPA, the acoustic criteria applicable to the different noise emission sources were identified and from the ambient data the control of external noise intruding into the development was addressed.

From the ambient data set out in Table 1 and Appendix D of the acoustic report it can be seen that the acoustic environment of the area is not quiet and is subject to noise from industry, a rail corridor and noise from a significant traffic flow on Bachell Avenue.

The EPA's *Noise Policy for Industry* (NPfI) provides specific instructions as to identifying noise targets for the operation industrial premises and identifies mechanical plant on commercial premises is considered as an industrial noise source. Section 2.5 of the NPfI presents Leq and maximum levels targets for noise emitted from industrial sources during the nighttime period.

Table 4 presents the derived EPA Project specific noise level targets where for the majority of the time the intrusiveness noise target is the governing acoustic control that are significantly under the existing ambient Leq level (in Table 1), and the industrial noise amenity targets set out in Table 4.

The consequence of the design intrusiveness design targets identifies on an acoustic basis the proposed development will not create an adverse acoustic impact.

Bachell Avenue is not a local road and under the EPA's *Road Noise Policy* (RNP) traffic noise is assessed at the façade of residential receivers for the traffic daytime period of 7am – 10pm as an $L_{Aeq, 15 \text{ hour}}$ level whilst for the nighttime period of 10pm – 7am is assessed as an $L_{Aeq, 9hr}$. Section 6.3 of the acoustic report identifies the existing traffic noise levels are above the EPA RNP recommended levels, thereby setting a traffic target of 2dB above the existing levels.

Response to acoustic items

General Planning/Comments Item 5 – Light industries

The light industries are contained within the building complex with substantial acoustic attenuation afforded by the building and distance to residential receivers and as such would have negligible acoustic impact.



The POM identified that tenancy activities prior to 6am are for loading and unloading by the tenants (no truck deliveries) activities that are to occur inside the premises (i.e. doors closed). The arrival and departure of tenants' vehicles to and from Bachell Avenue were included in the road traffic noise assessment and established full compliance with the RNP criteria.

It is noted that the project specific noise levels targets for the industrial noise of the entire site (mechanical plant + industrial industries) are governed by the Project Noise Level Targets in Table 4.

The light industries would be subject to separate development applications noting that the definition of light industry in the LEP is to not create offensive noise.

Under the NPfI each industrial premises would be subject to the intrusiveness noise target in Table 4 as if operating on its own and then an amenity noise target.

The last paragraph on page 26 of the acoustic report identifies the cumulative level of mechanical plant was set at 5 dB(A) below the targets in Table 4.

One could adopt the NPfI approach in Section 2.4.2 of applying a cumulative amenity level of noise from all industries in the development to be 5 dB(A) below the targets in Table 4 (as was applied for mechanical plant) or the multiple new noise-generating premises approach where the individual project amenity noise level for each industry occupancy is $= 10 \log (10^{(ANL-5 \text{ dB}/10)}/N)$. The ANL is the relevant amenity noise level from Table 2.2 of the NPfI and N is the number of proposed additional industrial premises.

For example for light industry commencing at 4am, assume 10 such premises (N=10). From Table 4 south of building A the Project Amenity level is 45 leading to an amenity_{period} target of 30 dB(A) that when converted to a 15 minute Leq becomes 33 dB(A).

General Planning/Comments Item 7 – Construction Noise

The demolition of the existing buildings, excavation of the site and construction of the development will occur over time. The nature and timetabling of the construction of the site is unknown at the present time.



It is correct that any construction for a such a sized site will involve the use of trucks and create noise and therefore the second bullet point is factually correct in terms of trucks and creating noise. The issue of degrading the noise environment has not been substantiated.

With the uncertainty of obtaining a development consent it is premature to provide a Construction Management Plan at the DA stage and not an item raised in Part C of the Cumberland DCP, Section 3.11 (Visual and acoustic privacy) Clause C8.

It is expected any approval issued for the development would refer to the *Interim Construction Noise Guideline* (INCG) to establish standard construction house and *Noise Management Levels* (NML) for construction noise.

Environmental Health item 1 – Gym fit out

The provision detailed recommendations for fit out of a gym is premature and impossible to occur at the DA Stage for the proposed development.

The operation of a gym can involve high levels of music and spruiking to encourage the participants to move/participants and can create impulsive noise (vibration induced into the structure) from weight-drops, dropping balls or running in sync.

The provision of vibration isolation and noise attenuation for a gym is dependent upon the equipment provided, types of activities/classes, and layout of the gym (which is unknown at this time).

The council have not identified acoustic/vibration criteria to apply to a gym in a commercial building.

Part C of the Cumberland DCP, Section 3.11 (Visual and acoustic privacy) Clause C8 does not provide any reference to internal noise or vibration targets for adjacent occupancies.

The EPA do not have vibration criteria specifically related to gyms.

Australian Standard AS 2107-2016 does not apply to sounds that are not categorised as steady-state or quasi-steady-state.



A number of Councils have imposed an inaudibility criterion in residential occupancies where gyms are located in the same building, where the issue of disturbance to residents has been before the Land & Environment Court of NSW.

The Association of Australasian Acoustical Consultants (AAAC) issued a *Guideline for Acoustic Assessment of Gymnasiums and Exercise Facilities* (Version 1.0) in February 2022 that provided:

- general noise emission criteria to residential receivers
- impulsive noise emission criteria to residential receivers
- general noise emission criteria to non-residential receivers
- impulsive noise emission criteria to non-residential receivers, and
- vibration emission criteria (recommending the preferred acceleration values for impulsive and continuous vibration with respect to the NSW EPA *Assessing Vibration: a technical guideline*).

In November 2023 the AAAC issued AAAC Guideline for Gymnasium and Exercise Facility Assessment, Explanatory Notes that reference criteria from the ANC Gym Acoustics Guidance (Acoustics & Noise Consultants is an organisation in the UK similar to the AAAC). The ANC criteria are based on Noise Rating (NR) curves and measurements using G weighting then converted to LA max levels (not adopted by the ANC in their 2023 guide. The AAAC Explanatory Notes do not apply the inaudibility criterion.

In the absence of any EPA criteria and that AS 2021 does not apply, and Council have not specified acoustic/vibration criteria for gyms then it will be necessary for the approval to require a full acoustic assessment for the gym as part of a development application for consent to operate the gym and identify the criteria to apply.

From an acoustic design concept at the planning stage the gym (in terms of addressing potential noise/vibration disturbance) has been located in a space with no occupancies below.

Environmental Health item 1 – Demolition, Excavation and Construction

As noted above in the response to General Planning/Comments Item 7 – Construction Noise, it is impossible to undertake an acoustic assessment of noise from demolition, excavation, and construction activities without any certainty of a consent.



Typically a Construction Management Plan and a Construction Noise Management Plan are required prior to the issue of a Construction Certificate when the design has been finalised and a staging Plan has been developed.

The demolition, excavation and construction phase are distinct and separate components and require a staging timetable and work methodology to be prepared. The initial phase of the construction is below ground with the building erected over the below ground works located at different locations on the site.

The construction noise criteria applied by council to other similar sized developments has not been provided for our review.

Cumberland Design Excellence Panel Meeting Minutes

Separate to the RFI I have been provided meeting minutes of the Design Excellence Panel with a request to comment on acoustics under the sub-heading of *Parking, circulation and servicing*.

On page 3 is an item referring to the exhaust system to be coordinated with acoustics.

The second paragraph on page 27 of the acoustic report identified the mechanical plant nominated for the DA was subject to acoustic analysis with attenuators specified for exhaust and supply fans. Appendix H1 provided the resultant noise contours for the car park fans and all air condensers operating simultaneously. Therefore the exhaust system has already been coordinated from an acoustic point of view.

On the top of page 4 the second bullet point refers to commercially operating a dog daycare on the top of the building. The comment does not convey what the acoustic report is to advise and recommend.

Investigation of dog complaints over 40 years has found the majority of the noise disturbance in residential areas is related to unattended dogs who are bored.



Noise assessments and compliance testing of professional kennels and vet clinics in residential areas has identified the need to ensure the dogs at rest are not in a moist environment not in a perceptible cross flow, have sloping floor to remove urine, have natural timber or similar to chew and have controlled interaction with other dogs. It is not uncommon to have a fully sound proofed room for any dogs that are distressed.

From an acoustic perspective it is necessary to note that the background level for the elevated floors will be higher due to the exposure to the industrial areas to the northern and east and a greater exposure to traffic.

The dog daycare is expected to generate some noise for some dogs at play. However the requirement for safety balustrades around the outdoor areas of the dog daycare will provide acoustic shielding to other receivers and that to the child care centre there are similar barriers to reduced external environmental noise. To respond to the panel comment the balustrades for the dog daycare could be set at 1.8metres in height to accord with the terrace areas on Level 5 of Buildings B & C.

From an acoustic perspective there would be no acoustic impact from the dog daycare on office users when in their offices by reason of the acoustic attenuation of the building construction.

The next bullet point following the dog daycare item refers to child-care centre acoustic requirements to be co-ordinated.

Section 6.6 of the acoustic report identified the acoustic requirements of the AAAAC Child Care Centre Guideline and identified the proposed design for the number of children to attend the child care centre fully complied with the outdoor play criteria by a substantial margin, satisfied the cumulative criteria for indoor noise + mechanical plant + onsite traffic below the background level.

All of the acoustic requirements under the AAAC Guideline were coordinated into the architectural plans and road traffic assessment.



Licensed Premises Criteria

The acoustic report identified the LA10 Noise Condition used by Liquor and Gaming NSW and adopted the cumulative noise emission concept for the development to apply for all 7 licensed premises as a conservative approach by setting the noise target for each licensed premise 8 dB below the cumulative design target set out in Table 7 of the acoustic report.

As a result of the Government's 24-Hour Economy Legislation (Vibrancy Reforms) Amendment Act, Liquor and Gaming NSW has been designated at the lead regulator for entertainment sound coming from licensed premises.

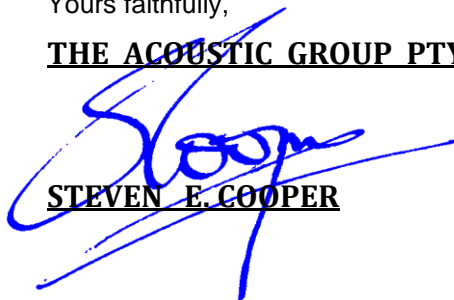
Amendments have been made to relevant pieces of legislation (effective from 1 July 2024) that results in noise-related conditions of development consent and 'offensive noise pollution' laws no longer apply when such matters are regulated by the Liquor Act 2007.

Therefore the Council cannot include noise limits for noise emitted from the operation of licensed premises.

However, I am instructed the Applicant in the interest of maintaining acoustic compliance with a safety margin still apply the design limit for licensed premises specified in the acoustic report.

Yours faithfully,

THE ACOUSTIC GROUP PTY LTD



STEVEN E. COOPER

