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International Chinese School Ltd
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AUSTRALIA

Attn: Peter Jamieson

International Chinese School, 211 Pacific Highway, St Leonards - External Play Area Noise

1 INTRODUCTION

This letter reviews traffic noise levels at the proposed open space proposed for the school. The school intends to apply for the use of Gore Hill Oval as well as providing a landscaped area adjacent to the Pacific Highway boundary (refer figure attached). Gore Hill Oval and associated outdoor spaces are set back from the Highway. An assessment has been carried out of traffic noise impact on the proposed use of a landscaped area adjacent to the Pacific Highway boundary as an external play area.

2 PLANNING GUIDELINES AND ASSESSMENT CRITERIA

Clause 102 of the NSW State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP) requires that, for an educational facility affected by a road carrying more than 20,000 vehicles per day, the consent authority must take into consideration any guidelines that are issued by the Secretary for the purposes of this clause and published in the Gazette. While the Pacific Highway would fall into this road classification, I am not aware of any gazetted guidelines issued specifically for the purpose of assessing noise in outdoor school spaces.

The NSW State Environmental Planning Policy (Educational Establishments and Child Care Facilities) (Education SEPP) states the following as one of the planning principle that should be considered when assessing a school proposal:

Principle 5—amenity:

Schools should provide pleasant and engaging spaces that are accessible for a wide range of educational, informal and community activities, while also considering the amenity of adjacent development and the local neighbourhood.

Schools located near busy roads or near rail corridors should incorporate appropriate noise mitigation measures to ensure a high level of amenity for occupants.

Schools should include appropriate, efficient, stage and age appropriate indoor and outdoor learning and play spaces, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage and service areas.

I am not aware of any specific NSW requirements for noise levels in outdoor spaces within school grounds.

The NSW EPA Road Noise Policy provides recommended internal noise levels within school classrooms, but does not specifically mention school outdoor spaces. The closest land use category mentioned in the Policy is "Open Space (active use)", for which the Policy recommends an $L_{Aeq(15\text{ hr})}$ 60 assessment criterion.

Section 3.2 of the RNP states:

- The assessment criteria are non-mandatory. They are intended to provide a basis for establishing appropriate noise level targets and the need for mitigation.
- Noise level conditions are set by applying the noise assessment criteria as the targets and then applying all feasible and reasonable measures. Therefore, noise levels higher than the criteria may be accepted where it is demonstrated that the criteria cannot be met by applying all feasible and reasonable mitigation measures.

3 ASSESSMENT AND DISCUSSION

As part of the previous assessment of noise impacts, noise monitoring was carried out at the school boundary at the location of the proposed outdoor space.

Based on the monitoring the noise level within the outdoor space will vary between approximately 65 dB(A) and 70 dB(A) L_{eq} during school hours depending on the location within the proposed play area. Noise levels will exceed the RNP active recreation criterion by 5 to 10 dB(A).

In this regard, subjectively, a 5 dB(A) noise increase is where such a noise difference starts to become clearly noticeable, and a 10 dB(A) difference is a doubling (or halving) of noise.

In considering whether it is reasonable or feasible to mitigate the exceedances it is noted that:

- Acoustic barrier walls around the recreation space could be erected to fully or partly mitigate traffic noise impacts. However barriers have other negative impacts on amenity including visual and security, as well as being subject to vandalism.
- There are a number of existing passive and active recreation spaces and schools on the Pacific Highway and other busy roads that are impacted by noise levels exceeding the EPA active recreation space criteria that are able to function, albeit with a reduced level of amenity.

These include:

- Demonstration School in North Sydney
- Cammeraygal High School
- Greenwich Public School
- Cammeray Public School
- Lindfield Public School
- Ravenswood

There is also extensive recent residential development along the Pacific Highway notwithstanding noise levels would also exceed the residential criteria in the RNP.

On this basis, while it is feasible to mitigate traffic noise to the proposed outdoor space, it may not be reasonable to do so given the space would still function as an outdoor space (with a reduced level of acoustical amenity) and considering the potential associated negative impacts of barrier walls.

4 CONCLUSION

The acoustical amenity of the proposed open space proposed for the school has been considered, given its proximity to the Pacific Highway.

There are no NSW guidelines or requirements directly applicable to traffic noise impacts to school open spaces. The closest guideline is the NSW Road Noise Policy which recommends an $L_{Aeq(15\text{ hr})}$ 60 assessment criterion for active recreation uses. If noise levels exceed the criterion, then the Policy requires that feasible and reasonable mitigation of noise levels should be considered.

Traffic noise levels at the proposed outdoor space will be typically between 65 and 70 dB(A) (depending on location within the space).

In considering the application of mitigative treatment it is noted that:

- It is not unusual for noise levels to exceed that Road Noise Policy assessment criteria adjacent to moderately and very busy roads for a range of uses. These uses still function adequately, although with a reduced level of amenity.
- The assessment undertaken indicates the proposed outdoor space will have a reduced level of acoustical amenity, but would still be able to function as an active recreation space.
- Traffic noise can be fully or partly mitigated by erecting barrier walls around the outdoor space. However barriers have other negative impacts on amenity including visual and security, as well as being subject to vandalism. Therefore, while it is feasible to do so, it may not be reasonable to mitigate noise levels using barriers in this case.

We trust this information is satisfactory. Please contact us should you have any further queries.

Yours faithfully,



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