

REVERB ACOUSTICS

Noise and Vibration Consultants

Our Ref: 20-2480-L2

24 March 2021

Catalyst Project Consulting Pty Ltd
5/91 Hannell Street
WICKHAM NSW 2293

Attention: Nick Whitton

email: nick.whitton@catalystpc.com.au

RE: - REQUEST FOR ADDITIONAL INFORMATION HILLSBOROUGH INDOOR STADIUM

This letter has been prepared in response to a request for additional information from Lake Macquarie City Council (LMCC) for the proposed Hillsborough Indoor Stadium at 62 & 62A Hillsborough Road and 109-117 Waratah Avenue, Hillsborough. This letter is to be read in conjunction with Reverb Acoustics Report 20-2480-R1, dated May 2020 (referred to as RA-R1 in this letter). Further information is presented below:

COUNCIL REQUEST: *Updated Acoustic Report: The Acoustic Report prepared by Reverb Acoustics, dated May 2020 models noise associated with car movements along Waratah Avenue at much lower rates than predicted within the Arcadis Traffic Modelling Report, dated 17 November 2020. Based on the Arcadis modelling, vehicle trips on Waratah Avenue may be up to 335 vehicles per hour. The submitted report models 55 cars per hour during the weekday peak and 125 cars per hour during a weekend special event. The Report needs to be updated to reflect the anticipated traffic volumes to ensure that noise criteria are met at residential receivers. Please also ensure that the Acoustic Report covers all hours of proposed operation and if it is found that the development exceeds acoustic targets for traffic noise, mitigation measures should be recommended.*

REVERB RESPONSE: The Seca Solution Traffic report¹ suggests that up to 335 vehicles will arrive at the site during a 2 hour period, together with 335 vehicles departing the site. This equates to 335 vehicle movements during a busy 1 hour period, i.e. during special events. The report further suggests that the site could generate up to 200 vehicle movements/hour during busy weekends. The traffic report has also assumed that 90% vehicles will depart the site via Waratah Avenue and 27% will enter the site via Waratah Avenue. Nonetheless, to provide a measure of conservatism we have assumed that all vehicles will use the Waratah Avenue access.

Table 1 shows calculations to predict the traffic noise impact at residences along Waratah Avenue during peak periods, for the revised traffic numbers:

¹ Seca Solution Pty Ltd (9 February 2021). *Proposed New Indoor Stadium, 62 & 62A Hillsborough Road and 109-117 Waratah Avenue, Hillsborough, NSW.*

Building Acoustics-Council/EPA Submissions - Modelling - Compliance - Certification

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Table 1: Traffic Noise Calculations Waratah Avenue - dB(A)Leq (T)

Traffic and Receiver	Peak Day	Weekend Special Event
Vehicle Type	Cars	Cars
Movements per hour	200	335
Vehicle Sound Power	92	92
Received Noise Level, Lmax	60.5	60.5
Average Distance to Rec, m	15	15
Received Noise Level	52.4	54.7
Criteria	55dB(A), Leq 1hr	
Impact	0	0

The above Table shows the noise impact from traffic movements associated with the development are predicted to be compliant with the criteria during day (7am-10pm) at residential receivers along Waratah Avenue and considered acceptable.

We assume this concludes our involvement in the project thus far. However, should you require further information, please contact the undersigned.

Steve Brady M.A.S.A. A.A.A.S.
Principal Consultant