

13 August 2014

WM Project Number: 02147-SJ
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Tom Maidment
The Village Building Co. Limited
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Dear Tom

Re: South Jerrabomberra Development - Review of Noise and Air Assessment

Wilkinson Murray has conducted a review of the noise assessment prepared by Pacific Environment Limited (PEL) for Queanbeyan Council in relation to potential future noise impact associated with South Jerrabomberra titled:

- *Planning Proposal Area within South Jerrabomberra –Noise Assessment Report - ACO-NW-001-08832 dated 29th July 2014, and;*

The following sections detail our comments on this review

NOISE

A review of potential noise impact on the subject site has been conducted in the PEL report. The issues have been identified as aircraft noise, traffic noise (road and rail) and industrial noise.

Aircraft Noise

The South Jerrabomberra site is outside the current Canberra Ultimate Capacity ANEF 20 contour. The report notes that the *closest site boundary is approximately 150m away from the 20 ANEF contour.*

Assessment of aircraft noise impact is purported to be conducted in accordance with the following policies and standards:

- *NSW Department of Planning Section 117 Ministerial Direction Chapter 3.5 "Development Near Licensed Aerodromes."*
- *AS 2021 – Acoustics – Aircraft Noise Intrusion – Building Siting and Construction.*
- *Queanbeyan City Council Aircraft Noise Assessment Guidelines.*

In the case of residential properties these policies and standards require mitigation of aircraft noise for properties in areas of ANEF 20 or greater. In areas outside the ANEF 20 development is classified as "acceptable" and no treatment is required.

Therefore, under the requirements of AS2107 and NSW Department of Planning the South Jerrabomberra Site is suitable for residential development **without** any need for acoustic treatment of aircraft noise. However the PEL assessment has adopted the internal noise criteria detailed in Table 3.3 of AS2021:2000 and proceeded to establish recommended treatments of any future residential dwellings.

The PEL assessment appears then to ignore the relevant requirements associated assessment procedures to go on and classify the entire South Jerrabomberra site as acoustically "sensitive" to aircraft noise. There is no basis for this classification apart from the fact that noise levels are predicted to be up to 76 dBA at some time in the future by aircraft that currently do not operate out of Canberra Airport.

It is worth noting the following:

- The Canberra Ultimate Capacity ANEF has been prepared on optimistic aircraft movements forecasts that have failed to eventuate.
- Noise contours have been derived on current aircraft, such as 747-400 aircraft, which will be obsolete at the time of Ultimate Capacity. The current draft Canberra Plan refers to 747-800 aircraft which are typically 5 dB quieter than 747-400 aircraft, however these have not been included in ANEF modelling for the airport. As a result aircraft maximum noise levels and associated contours could be expected to reduce.
- A s117 of the nearby South Tralee site which proposed treatment for aircraft noise at residences outside the ANEF 20 contour was formally declined by the minister.
- AS2017:2000 remains the relevant planning documents endorsed by the NSW Government. A recent updated draft by Standards Australia has no changes that would affect planning outcomes on the site.

Therefore based on the review of the PEL assessment it is considered that their conclusions of the report, being treatments and notification by a Section 149 Certificate of future residences are required, are not necessary or warranted. In fact they contradict current standards and NSW policies.

Industrial Noise

The report acknowledges that industrial noise across the site meets acceptable levels. Future assessment is based on a "worst case" scenario where Industrial development in Hume continues adjacent to the site.

It is considered that there is merit in an acoustic buffer / visual zone between the site and Hume Industrial area where higher density development may occur. This could consist of some apartment style residential development that was designed to mitigate any potential continuous noise impact from future industrial activities based on predictions of future industrial noise presented in the PEL report.

Any development in this area would also shield any industrial noise to any residences to the east of a buffer zone. It is worth noting that the recommended 3 metre barrier is considered impractical and of

little acoustic benefit given the proposed distance from Hume and the modelled height of industrial noise sources.

Traffic Noise

The PEL assessment references the Infrastructure SEPP which is applied for developments adjacent to roads which have at 20,000 to 40,000 AADT. As the site is not adjacent to any road that has this capacity the application, or assessment of the site with respect to this policy is not required or applicable.

In the case of internal traffic it appears that external 1 hr. traffic noise levels have been calculated, although not presented. Therefore it is not possible to ascertain what magnitude of traffic noise is predicted and therefore what mitigation measures may be required.

It is suggested, consistent with normal practice, that traffic noise mitigation measures can be addressed a subdivision DA design stage where any noise mitigation, such as fences or improved glazing, can be determined on accurate traffic forecasts.

Local traffic within the subdivision will be typical of many other developments across the state and accordingly can be adequately managed.

Rail Noise

A previous assessment has been conducted by Renzo Tonin Associates and reviewed by ourselves for South Tralee. These findings are considered applicable to the South Jerrabomberra site

Only limited residential (or similar) development (shop top housing, caravan parks and hotel/ motel accommodation) is permissible within the 250 m buffer zone. There is no requirement for building setback distances for residential developments outside the buffer zone.

- *For residential and/or other noise and vibration sensitive land uses within the 250 m buffer zone.*
- *A rail noise assessment should be undertaken for noise sensitive buildings within 40 m of the Goulburn to Bombala Railway line;*
- *A rail vibration assessment should be undertaken for vibration sensitive buildings within 60 m of the Goulburn to Bombala Railway line.*

SUMMARY OF REVIEW

The PEL noise assessment incorrectly assesses the impact aircraft and traffic noise on the site. In reality provision of measures to address industrial noise are most relevant to the site. Noise from rail and road traffic can be managed by applying standard noise criteria applicable to residential developments.

Based on a review of the noise assessment the following findings are made.

- Not treatment or notification of future residences in the South Jerrabomberra Site is necessary or warranted.

- The use of a buffer zone between Hume and future residential areas should be considered where any development in the zone should adopt suitable design to protect the acoustic amenity of future occupants.
- Traffic noise from the Monaro Highway is not an issue on site. Noise from internal traffic should be assessed and managed at detailed design stage were detailed modelling can be conducted.
- Rail Noise on the site is consistent with the findings of the RTA assessment at South Tralee.

These finding could be submitted to council for their consideration.

We trust this meets you needs. Please contact us if you have any further queries.

Yours faithfully

WILKINSON MURRAY

A handwritten signature in black ink, appearing to read 'Brian Clarke', written in a cursive style.

Brian Clarke
Senior Associate