

# Consultant Advice



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From:	Michael Lewis	Date:	30 Jul. 19	File No:	S25504\148\J-21\ca190730s0021	Pages:	5
Project:	Qantas Flight Training & Simulator Centre (Tender No. 9760)					No:	J-010[1.0]
	Attention	Company	Email				
To:	Charlie Westgarth	Qantas Airways Limited	charlie.westgarth@qantas.com.au				

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## Acoustics - Response to Comments on SSDA Submission

This Consultant Advice provides NDY's comments to Agency and stakeholder submissions received during the public exhibition of the SSD 10154 for the development of a new flight training centre at 297 King Street, Mascot.

### **Respondent: ARTC**

#### ***Respondent Comment to be Addressed.***

*5. Appendix X – Noise and Vibrations Emissions Assessment Section 11.4.1 - Section 11.4.1 of the Noise and Vibration Assessment notes that there is some equipment typically used during construction projects that could impact the proposed facilities. ARTC notes that this and other equipment is often used as part of standard maintenance and operations within the full extent of its corridor boundary (which could be within 20 metres of the proposed facility). ARTC does not support limitation to its standard operations and maintenance in proximity of the proposal.*

#### **NDY Response.**

NDY's acoustic design allowance is based on the premise that ARTC will need to limit their noise/vibration to the levels outlined in the Interim Construction Noise Guideline (ICNG) to avoid structural damage to building with a proximity of our building. The EP Hall and SIM vibration solution is designed to handle up to this limit.

The building has been designed to mitigate vibration from compliant construction activities including from the rail. Measures include structural isolation, structural design, location of sensitive activities to appropriate parts of the site – these measures allow Qantas to meet operational vibration limits while exposed to the higher vibration levels allowable during construction activities. The activities identified in the Acoustic SEARS report are identified because they are predicted to exceed allowable construction limits both to Qantas and to other neighbouring receivers along the corridor.

#### ***Respondent Comment to be Addressed.***

*13. General - Cumulative impacts associated with the range of projects proposed within proximity should be considered. ARTC encourages proactive communication with the local community around potential noise and traffic impacts to ensure clear delineation between projects*

#### **NDY Response.**

Section 14.3 Noise and Vibration Management of the preliminary Construction Management Plan outlines the measures that will be required to be adhered to, which will include consultation and consideration of proposed simultaneous and/or sequential works in the surrounding areas.



**Respondent: Bayside Council**

***Respondent Comment to be Addressed.***

*Operational Noise.*

*Noise from the operation of the flight training centre is not to exceed the requirements contained in part 6.3.12 – Noise and hours of Operation of the Botany Bay DCP 2013.*

**NDY Response.**

Section 8 of the Assessment of Noise and Vibration Emissions (SEARs) report prepared by NDY outlines the Operational Noise Impact Assessment, which takes into consideration Part 6.3.12 of the DCP referenced above.

***Respondent Comment to be Addressed.***

*Transport Planning.*

*The proximity to the Port Botany freight rail line to this flight training centre (and the use of flight simulators) are in close proximity to the vibrations and zone of influence imparted from that rail line. Consideration is to be given to the proximity of the project to the Australian Rail Track Corporation's project to duplicate the Port Botany freight rail line*

**NDY Response.**

Section 10 the Assessment of Noise and Vibration Emissions (SEARs) report prepared by NDY outlines the Assessment of Impact From External Sources on the Development. In this assessment consideration has been given to both expected construction works (road, rail and adjoining properties) as well as increased volume of aircraft, rail and road traffic.

The facility has been designed to incorporate the required acoustic treatments to mitigate the effects of the expected noise and vibration

**Respondent: SACL Landside**

***Respondent Comment to be Addressed.***

*The only other issue Sydney Airport wishes to raise is the need to ensure exposure of the proposed flight training centre to elevated noise levels is effectively managed.*

*Depending on the final timing of the development, the new flight training centre may be exposed to elevated noise levels during construction of the Sydney Gateway road project. As the road project will involve significant alterations to the existing Qantas Drive and other nearby road infrastructure, we anticipate that construction equipment and methods will likely generate high impact noise levels, including the use jackhammers and excavators with rock breaker attachments. The equipment will be used in close proximity to the proposed flight training centre. This same issue may also arise during other future construction activities nearby, such as the rail duplication and other building construction projects.*

*Once the Sydney Gateway road project is completed, we also anticipate that the volume of traffic using Qantas Drive will increase, therefore exposing the new flight training centre to elevated road traffic noise levels.*

**NDY Response.**

Section 10 the Assessment of Noise and Vibration Emissions (SEARs) report prepared by NDY outlines the Assessment of Impact From External Sources on the Development. In this assessment consideration has been given to both expected construction works (road, rail and adjoining properties) as well as increased volume of aircraft, rail and road traffic.



**Respondent Comment to be Addressed.**

*Finally, as the Sydney Gateway road project will necessitate the removal of several on-airport buildings on the western side of Qantas Drive, areas to the east of Qantas Drive, including the proposed location of the flight training centre, will be newly exposed to elevated noise from on-airport ground-based aviation activities. These activities include aircraft engine ground running, which is essential for effective and safe aircraft operations and maintenance. Preliminary noise assessments indicate that existing noise levels at the location of the proposed flight training centre due to these essential activities could increase by up to 15 dB(A) once the buildings are removed. To further reduce the propagation of noise as a result, noise attenuation should be considered as part of the Sydney Gateway road project.*

**NDY Response.**

Section 10 the Assessment of Noise and Vibration Emissions (SEARs) report prepared by NDY outlines the Assessment of Impact From External Sources on the Development. This includes assessment of noise from aircraft movements. Section 10.2.2 of the above report nominates that data for noise from aeroplanes is based on the highest  $L_{s,max}$  measured out of 17 recorded plane flyovers. The measured results ranged between 75 and 83 dBA  $L_{s,max}$  and 2dB have been added to for tolerance.

We request Sydney Gateway is to be requested to provide further details/data on estimated increase in ground-based aviation activities. What is the baseline assumption for the change of 15 dB – the absolute level is more relevant than the change from an impacts perspective.

**Respondent Comment to be Addressed.**

*We understand that Roads and Maritime is aware that operation of the flight training centre is likely to be sensitive to these elevated noise levels. Accordingly, we believe that, as part of the proposal, flight simulator bays should be positioned within the new centre at suitable locations and that simulator bays on exposed building facades are appropriately acoustically insulated from likely external noise sources so as to provide appropriate acoustic conditions within the simulator bays and cabins.*

**NDY Response.**

Section 10 the Assessment of Noise and Vibration Emissions (SEARs) report prepared by NDY outlines the Assessment of Impact From External Sources on the Development. In this assessment consideration has been given to both expected construction works (road, rail and adjoining properties) as well as increased volume of aircraft, rail and road traffic.



## **Respondent: Transport for NSW**

### ***Respondent Comment to be Addressed.***

*Sydney Gateway is currently in the planning stage and a decision on the final route is still to be made; Further changes to the design may take place. A proposed route will be outlined as part of the Commonwealth and New South Wales planning process which will include preparation of an Environmental Impact Statement (EIS). This will be displayed for community feedback; Property owners who are directly impacted by Sydney Gateway and its current design have been contacted. Further information on the road project can be found on the Sydney Gateway webpage: [www.rms.nsw.gov.au/sydneygateway](http://www.rms.nsw.gov.au/sydneygateway). The Sydney Gateway project would involve the road construction along Qantas Drive in the vicinity of the proposed flight training centre. Depending on the timing of the development, the proposed flight training centre may be exposed to elevated noise levels as a result of the following: Construction equipment and methods are likely to generate high impact noise in the vicinity of the subject site; Increased traffic volumes along Qantas Drive due to the Sydney Gateway project and the subject development; and There will also be increased noise from ground-based aviation activities due to the removal of buildings. It is requested that the applicant considers the above issues in relation to the layout and design of the proposed development.*

### **NDY Response.**

Section 10 the Assessment of Noise and Vibration Emissions (SEARs) report prepared by NDY outlines the Assessment of Impact From External Sources on the Development. In this assessment consideration has been given to both expected construction works (road, rail and adjoining properties) as well as increased volume of aircraft, rail and road traffic.

## **Respondent: Submission 4 - Travelodge**

### ***Respondent Comments to be Addressed.***

- We object to a 24-hour operation for internal fit as being detrimental to our business in terms of lost business and reputational damage unless strict, responsive and enforceable penalties / outcomes are assured by Qantas and its appointed contractor.*
- We object to deliveries being outside of construction hours. These should be within construction hours and done via Coward Street and Qantas Drive to avoid additional noise issues associated with construction.*
- We object to after hour construction and removal of cranes to avoid additional noise issues associated with construction on top of any extended trading hours.*
- We would request a revised building program focused on noisy construction between 0800 and 1600 with noise monitoring with mutually agreed noise levels between parties and within Australian standards. With strict, responsive and enforceable penalties / outcomes assured by Qantas and its appointed contractor.*

### **NDY Response.**

The Construction Noise Criteria are outlined in Section 7.3 of the Assessment of Noise and Vibration Emissions (SEARs) report prepared by NDY. The stated criteria has been based on complying with the airborne noise limits outlined in the Interim Construction Noise Guidelines (ICNG) issued by the Department of Environment and Climate Change NSW.

In summary, the above guideline states that during normal working hours (daytime) any construction noise should be limited to +10dBA above background noise and outside normal hours it is to be no more than +5 dBA above background. The noisiest activities will occur only during daytime hours, and activities at other times will be relatively low-noise activities which comply with the RBL + 5 night-time criterion (noting that the night-time RBL is much lower, resulting in lower noise limits).



Further details of how the Contractor is to prepare and comply with a Construction Noise Management Plan to ensure they meet these requirements.

Section 14.3 Noise and Vibration Management of the preliminary Construction Management Plan provide further details on the measures that will be required to be adhered to, which will include consultation and consideration of proposed simultaneous and/or sequential works in the surrounding areas.

Kind Regards

**NORMAN DISNEY & YOUNG**

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