

Jim Betts  
Secretary  
Department of Planning, Industry & Environment  
GPO Box 39  
SYDNEY NSW 2001

Attention: Lisa Mitchell

Dear Mr Betts,

## SUBMISSION TO BOTANY BAY DUPLICATION SSI-9714

### 1. INTRODUCTION

This submission has been prepared by Urbis Pty Ltd (**Urbis**) on behalf of Qantas Airways Limited (**Qantas**) in relation to the State Significant Infrastructure Application (**SSIA**) for the Botany Rail Duplication Project (**the Project**).

Qantas currently has a State Significant Development Application (**SSDA**) before the Department of Planning, Industry and Environment (**DPIE**) proposing the relocation of their existing flight training centre from its current location within Sydney Kingsford Smith Airport (**the Airport**) to a new location within their landholdings at 297 King Street, Mascot.

The purpose of this submission is:

- To reinforce the critical importance of ensuring that the Project does not impact on the operation of Qantas' existing and new Flight Training Centre;
- To detail Qantas' position in respect to noise and vibration impacts from the Project such that Qantas' interests are best reflected in any approval granted for the Project.
- To outline other keys components of the SSIA that have the potential to impact on the existing and new Qantas Flight Training Centre.

This submission should be read in conjunction with the Acoustics Consultant Advice prepared by Norman Disney & Young (**NDY**) and provided at **Attachment A**.

### 2. BACKGROUND

The Qantas Flight Training Centre project received State Significance status in February 2019 on the recommendation of the Independent Planning Commission (**IPC**). The SSDA has been referred to the IPC for determination following a recommendation of approval from DPIE. Relevant documentation, including the DPIE assessment is available here: <https://www.planningportal.nsw.gov.au/major-projects/project/9961>

The Qantas project is occurring as a direct result of Roads and Maritime Services' (**RMS**) Gateway Project, which will render the existing Qantas Flight Training Centre untenable for the following reasons:



- The widening of Qantas Drive to facilitate the Gateway Project will require the partial demolition of the existing Flight Training Centre which will result in the demolition of the pool, classrooms and emergency procedures training area that are critical to Qantas' operations; and
- The noise and vibrations associated with the construction and operation of the Gateway Project will exceed Civil Aviation Safety Authority's (CASA) regulatory requirements in relation to the operation of simulators, which necessitates their relocation.

Without a functioning and compliant Flight Training Centre, Qantas are unable to maintain the legislated level of training for their pilots and cabin crew. If pilots and cabin crew do not meet the training requirements as regulated by CASA then they are unable to fly. This has an obvious knock-on effect of Qantas being able to effectively run their business.

Absent for the Gateway Project, Qantas would not be moving from their existing flight training centre due to the latent economic value, ongoing functionality and strategic location of the existing training centre.

Qantas supports the Government's investment in road and rail infrastructure, however, this cannot come at the expense of Qantas' business and operational continuity, which is predicted on having an operational flight training centre. It is critically important that the existing and proposed Flight Training Centre's operational viability is protected during the construction of the Botany Rail Duplication, consistent with the planning principle: noise attenuation as set out in *Stockland Developments v Wollongong Council and others [2004] NSWLEC 470 at 6*.

### 3. REVIEW OF SSI-09714 AND IMPLICATIONS FOR QANTAS

Having reviewed the Environmental Impact Statement (EIS) and supporting Technical Reports, the potential key issues and impacts on the existing and new Qantas Flight Training Centre are:

- Stakeholder consultation with Qantas as an adjacent landholder.
- Noise impacts during construction works.
- Vibration impacts during construction works.
- Truck access during construction to occur via Gate 19 along King Street to the rail line.
- Cumulative traffic impacts on the road network.

These matters are discussed in more detail below.

#### 3.1. STAKEHOLDER CONSULTATION

Section 4.2.2 of the EIS outlines the stakeholder consultation that was undertaken prior to and during the preparation of the SSIA. Whilst Qantas is listed as a 'key project stakeholder' and ongoing consultation has occurred between ARTC and Qantas, there is no formal commitment in the EIS for this to continue.

Given the potential wider impacts should Qantas' operational capability be impacted, it is requested that the following measures be implemented through the EIS and approval process for the SSIA:

- Condition of consent requiring ARTC to engage directly with Qantas on their needs and requirements to ensure that the protection of Qantas' interests is given the highest priority at every level.



- Condition of consent requiring ARTC to protect Qantas' operational capability at all times during construction and operation.

## 3.2. NOISE AND VIBRATION

The existing Qantas Flight Training Centre has been identified as an 'Other Sensitive' Receiver (Non-Residential) in Figure 3 of the Noise and Vibration Technical Report. It is of concern to Qantas however, that the documentation has failed to recognise the new Flight Training Centre location as an additional sensitive receiver. This is presumably due to the fact that the new Flight Training Centre is yet to be approved.

As highlighted previously, the SSDA for the new Qantas Flight Training Centre has been recommended for approval by DPIE and has been referred to the IPC for determination. It is therefore anticipated that the approval of the new Flight Training Centre will be granted prior to the approval for the Project. On this basis, it is requested that the new Flight Training Centre is formally listed and assessed as a sensitive receiver as part of the SSIA.

### 3.2.1. Construction Noise Impacts

In relation to predicted construction noise impacts, the Noise and Vibration Technical Report at Section 5.4 states:

*"The Qantas Flight Training Centre is predicted to be subject to 'high' impacts during the worst-case scenarios when noise intensive equipment is being used nearby."*

Further, the Noise and Vibration Technical Report at Section 5.9 states in relation to the new Flight Training Centre location:

*"Whilst the worst-case impacts could be 'high' at certain times, works which use less noise intensive equipment or works that are further away from the facility would result in much lower impacts."*

*"Works at this location would also be undertaken during possessions, which would limit the impacts to discrete periods. It should also be noted that the works in this location, which are predominantly related to realigning the existing tracks to align with the new duplicated track south of this location, would be similar to typical maintenance activities of the existing Botany Line."*

The Qantas Flight Training Centre operates 24 hours a day, 7 days a week. These predicted noise impacts (even at discrete times) could potentially prejudice Qantas' ability to maintain a functioning and compliant Flight Training Centre. As indicated in the NDY advice at **Attachment A**, the most critical pilot training activities can be affected by individual noise events rather than cumulative/average noise levels. As such, the maximum predicted noise level ( $L_{max}$  level) for the new Qantas Flight Training Centre, which is a key metric for Qantas, should be clearly stated in the Noise and Vibration Technical Report to allow Qantas to review impacts.

Qantas requests the following measures be implemented through the EIS and approval process for the SSIA:

- Both the existing and new Qantas Flight Training Centres are listed as sensitive receivers for the purposes of acoustic and vibration assessments;
- The maximum predicted noise level ( $L_{max}$  level) for the new Qantas Flight Training Centre should be clearly stated in the Noise and Vibration Technical Report to allow Qantas to review impacts.
- Any approval granted for the Botany Rail Duplication contain explicit conditions that place maximum noise and vibration limits on the proposal that reflect the internal noise criteria outlined in Table 1 and 2 to protect Qantas' operational requirements;

- During construction of the proposal, real time noise and vibration monitoring is to be carried out within and external to the existing and new Qantas Flight Training Centres throughout construction. This is to include continuous internal noise and vibration logging within all operational Simulator Rooms and Cabins at both locations throughout the proposal's construction. If proposed construction works approach or exceed the internal noise and vibration thresholds outlined in Tables 1 and 2 then the works must be stopped; and
- Obligation to be placed on any contract entered into for the proposal that ensures that ARTC and their contractors are required to protect the existing and new flight training centre's operational capacity at all times.

Table 1 – NDY specified Noise Criteria for Existing Qantas Flight Training Centre

Location	Internal Noise Criteria	Indicative External Noise Criteria
Training Rooms	45 dBA (internal) $L_{eq,15m}$	74 dBA
Computer Based Training / IT Rooms	45 dBA (internal) $L_{eq,15m}$	67 dBA
Simulator Rooms	Sufficient to meet simulator cabin criteria	68 dBA
Simulator Cabins <sup>2</sup>	10 dB below QANTAS simulator cabin noise 'initial background noise criteria' in each specified octave band (63Hz-8kHz)	(see above)
Emergency Procedures Training	45 dBA (internal) $L_{eq,15m}$	71 dBA
Emergency Procedures Pool	5dB above background noise levels (background measured when unoccupied) $L_{eq,15m}$	To be determined

Table 2 – NDY specified Vibration Criteria for Existing Qantas Flight Training Centre

Location	Construction Vibration Criterion
Training Rooms	4mm/s (z axis) and 2.8mm/s (x and y axis) rms 1-80 Hz (human comfort) 50mm/s PPV at 4Hz and above (structural integrity)
Computer Based Training and IT Rooms	4mm/s (z axis) and 2.8mm/s (x and y axis) rms 1-80 Hz (human comfort) 50mm/s PPV at 4Hz and above (structural integrity)
Simulator/Monitor Rooms	3mm/s PPV (equipment integrity) 50mm/s PPV at 4Hz and above (structural integrity)
Simulator Cabins <sup>3</sup>	Perceptibility (0.1mm/s rms) in the cabin
Emergency Procedure Areas	8mm/s (z axis) and 5.8mm/s (x and y axis) rms 1-80 Hz (human comfort) 50mm/s PPV at 4Hz and above (structural integrity)

### 3.2.2. Construction Vibration Impacts

The Noise and Vibration Technical Report at Section 3.1.1.4 recognises that the effects of vibration from construction works can be divided into three categories:

- "Those in which the occupants of buildings are disturbed (human comfort).
- Those where building contents may be affected (building contents).
- Those where the integrity of the building may be compromised (structural or cosmetic damage)."

Notwithstanding the above, the assessment for the Project is limited to cosmetic damage or human comfort vibration related impacts during construction. There is no assessment in the EIS and



supporting Technical Report of sensitive receivers where building contents may be affected, such as the simulators within the Qantas Flight Training Centre.

NDY has reviewed the Noise and Vibration Technical Report (refer **Attachment A**) and notes:

*"The most vibration-intensive activity listed in the Report is vibratory rolling. Data in the Appendices implies a roller of up to 12T, although the body of the report references 13-18T rollers.*

*The design of the new Qantas FTC has considered rollers of up to 12T, and if rollers larger than this are to be used near the FTC this may affect the facility operationally."*

Given the potential for vibrations during the construction phase to exceed CASA's regulatory requirements in relation to the operational requirements of the simulators, it is requested that the measures outlined in Section 3.1 of this submission be implemented through the EIS and approval process.

In addition, Qantas requests the following measure be implemented through the EIS and approval process for the SSIA:

- Condition of consent restricting the use of rollers of greater than 12T near the new Qantas Flight Training Centre.

### **3.3. TRAFFIC AND TRANSPORT**

#### **3.3.1. Site Access**

Qantas understands that the existing site access at the western end of King Street (Gate 19) will be used by construction vehicles and a site compound will be established within the railway corridor adjacent to this gate. Based on the Traffic and Transport Impact Assessment, there is currently no intention to close King Street during the construction phase of the Project. This is supported by Qantas as the new Flight Training Centre relies on access from King Street.

Once the new Qantas Flight Training Centre is operational and ARTC is well into their construction timeframes, ongoing consultation between ARTC and Qantas will be essential to ensure that construction vehicles accessing the rail corridor via King Street do not impact on the operation of the Flight Training Centre.

In addition, there is no reference or assessment in the documentation of the Qantas Catering Bridge (Qantas Service Road), which passes over the Botany Rail alignment. On this basis, it is assumed that there is no intention to close or restrict access to the bridge during the construction phase. This is supported by Qantas.

It is requested that the following measure be implemented through the EIS and approval process for the SSIA to minimise any disruption to Qantas' site access arrangements:

- Condition of consent requiring ARTC to engage directly with Qantas on their needs and requirements to ensure that the protection of Qantas' interests is given the highest priority at every level.

#### **3.3.2. Cumulative Traffic Impacts**

Section 8.5 of the EIS addresses cumulative construction impacts on the surrounding traffic network and states in relation to the new Qantas Flight Training Centre:

*Should construction of this facility overlap with construction of the project, the increased amount of traffic between the two projects is not expected to result in significant impacts on the existing traffic network.*



It is noted that the discussion of cumulative impacts in the Traffic and Transport Impact Assessment (Section 5.4) does not include the new Qantas Flight Training Centre. The basis for this statement in the EIS is therefore unclear and should be addressed accordingly. Should construction of the two projects overlap, some cumulative construction traffic impacts are likely to occur given both projects would rely on construction vehicles utilising King Street. In this regard, the EIS states:

*“Where more than one project occurs in the same area consecutively, there may also be a combined effect from the increased duration of impacts on nearby receivers. This effect is termed ‘construction fatigue’. There is the potential for construction traffic fatigue for drivers, pedestrians and cyclists who currently utilise the local road network. This is due to several consecutive and ongoing projects in the area including Airport East, Airport North, Sydney Gateway road project, Qantas Flight Training centre and the currently proposed project.”*

It is requested that consultation with relevant stakeholders be included as an additional safeguard for increased heavy vehicles in the road network to manage any potential cumulative traffic impacts between the Project and new Qantas Flight Training Centre.

## 4. CONCLUSION

We understand that ARTC has requested that the Minister for Planning and Public Spaces declare the project as critical SSI. Given that third party appeal rights are not available in relation to critical SSI and therefore to protect Qantas’ interests, Qantas request the following:

- Both the existing and new Qantas Flight Training Centres are listed as Sensitive Receivers for the purposes of the EIS and supporting Technical Reports.
- Condition of consent requiring ARTC to engage directly with Qantas on their needs and requirements to ensure that the protection of Qantas’ interests is given the highest priority at every level.
- Condition of consent requiring ARTC to protect Qantas’ operational capability at all times during construction and operation.
- Request the EIS and any approval granted for the Project implement the recommended mitigation measures and conditions of consent outlined in this advice.

Qantas will be looking to the DPIE for strict enforcement of the conditions to ensure compliance.

Should you have any queries regarding this matter please contact me on 0437 230 736.

Yours sincerely,

pp. *N Lawler*

Charlie Westgarth  
Senior Manager, Property Development  
Qantas Airways Limited



**ATTACHMENT A**      Acoustics Consultant Advice from NDY





# Consultant Advice

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From:	Thomas Warren	Date:	13 Nov. 19	File No:	S25504\148\J-121\ca191112s0013	Pages:	3
Project:	Qantas Flight Training & Simulator Centre (Tender No. 9760)					No:	J-014[2.0]
	Attention	Company	Email				
To:	Charlie Westgarth	Qantas Airways Limited	charlie.westgarth@qantas.com.au				

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## Acoustics - Botany Rail Duplication Comments

This document provides commentary and seeks clarification in some areas for the noise and vibration effects of the Botany Rail Duplication project on the proposed new Qantas Flight Training Center (FTC) facility on King Street.

This advice is based on Norman Disney & Young's review of the SLR Noise and Vibration Technical Report ref. 610.17858-R01-v1.5 (referred to here as the Report).

### CONSTRUCTION NOISE

#### Classification

The existing FTC has been treated as a sensitive receiver (Educational) in the Report, however this classification does not appear to have been applied to the new FTC.

The new FTC has been designed to incorporate some noise and vibration mitigations within the building fabric, however still contains sensitive simulation equipment and classrooms and should be classified as a sensitive receiver for construction noise and vibration impacts.

#### Noise Levels

Section 5.9 of the Report identifies that at times the noise impacts on the new FTC may be "high", implying a >20dB exceedance of the NML (Noise Management Level). With the classification of the new FTC not stated, the reference NML for this assessment is not clear, and the total noise levels predicted are not given.

It would be helpful for the maximum predicted levels to be clearly stated at the new FTC to allow Qantas to review any impacts.

We note that the most critical pilot training activities can be affected by individual noise events (rather than cumulative/average noise levels) and as such the  $L_{max}$  levels are a key metric for Qantas.

### CONSTRUCTION VIBRATION

The most vibration-intensive activity listed in the Report is vibratory rolling. Data in the Appendices implies a roller of up to 12T, although the body of the report references 13-18T rollers.

The design of the new Qantas FTC has considered rollers of up to 12T, and if rollers larger than this are to be used near the FTC this may affect the facility operationally.

It should be clarified that rollers of greater than 12T will not be used near the new FTC.



## OPERATIONAL NOISE

Operational noise of the rail corridor is predicted to increase slightly at the new FTC, with levels of 75 dBA  $L_{eq}$ . The design basis of the new FTC was for levels of up to 74 dBA  $L_{eq}$ . The difference between the design basis and SLR calculated levels for the future operation is not significant.

In addition to the above comments on the above-mentioned report, we request the following requirements be imposed on the applicant.

- Any approval granted for the Botany Rail Duplication contain explicit conditions that place maximum noise and vibration limits on the proposal that reflect the internal noise criteria outlined in Table 1 and 2 to protect Qantas' operational requirements;
- During construction of the proposal, real time noise and vibration monitoring is to be carried out within and external to the existing and new Qantas Flight Training Centres throughout construction. This is to include continuous internal noise and vibration logging within all operational Simulator Rooms and Cabins at both locations throughout the proposal's construction. If proposed construction works approach or exceed the internal noise and vibration thresholds outlined in Tables 1 and 2 then the works must be stopped; and
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Emergency Procedure Areas	8mm/s (z axis) and 5.8mm/s (x and y axis) rms 1-80 Hz (human comfort) 50mm/s PPV at 4Hz and above (structural integrity)



We trust the above information is of assistance; please contact the undersigned with any queries.

**NORMAN DISNEY & YOUNG**

A handwritten signature in blue ink that reads 'TD Warren'.

Thomas Warren  
Senior Associate | Acoustic Section Manager  
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