

4 June 2019

610.18631-L03-v1.1 WB4\_5 predictions.docx

Port Authority of New South Wales  
PO Box 25  
MILLERS POINT NSW 2000

**Attention: Christa Sams**

Dear Christa

## **White Bay Cruise Terminal Noise Attenuation Program Vessels at White Bay Wharf 4 and 5 - Residences Triggered for Property Treatments**

### **1 Introduction**

SLR Consulting Australia Pty Ltd (SLR) has been engaged by the Port Authority of New South Wales (Port Authority) to investigate vessel noise from White Bay Cruise Terminal (WBCT) whilst cruise vessels are simultaneously berthed at White Bay Wharf 5 (WB5) and White Bay Wharf 4 (WB4). WB5 is the main berth used by vessels at the WBCT, with WB4 only used occasionally when there are two vessels in port.

SLR Report 610.13361.00200-R01 – ‘White Bay Cruise Terminal - Cruise Operations Noise Impact Mitigation Strategy’ dated 17 November 2017 identified residences where predicted noise levels exceeded the Vessel Noise Attenuation Program (VNAP) Eligibility Noise Criteria. Residential eligibility is based on a 55 dBA night-time criterion with a reference cruise vessel located at WB5.

This report considers additional residences that would be eligible with a reference cruise vessel located at WB5, and a second reference cruise vessel located at WB4. The purpose of the investigation is to identify those additional residential properties where predicted noise levels indicate eligibility under the Port Authority's Noise Attenuation Program (NAP). For a property to be considered eligible under the NAP the noise level at the property must be equal to (or greater than) night-time 55 dBA, evening 60 dBA and daytime 70 dBA when measured or modelled in the free field.

The predicted noise levels have been determined using the noise model developed for SLR report 610.13361.00200-R01. The noise model was modified to incorporate a second vessel berthed at WB4 and used to predict noise levels from vessels berthed at WB5 and WB4 (assuming a reference vessel noise level of 58 dBA).

#### **1.1 Residential Locations**

**Figure 1** presents the residential properties identified as eligible in SLR Report 610.13361.00200-R01 with one vessel at WB5 (in orange), and additional properties identified as eligible with one vessel at WB5, and a second vessel at WB4 (in yellow).

**Figure 1 Residential Locations WB5 and Additional Residential Locations WB5+WB4**



## 2 Predicted Results at the Residential Locations

The predicted noise levels for the additional properties as coloured yellow in **Figure 1** are presented in **Table 1**. The table presents the predicted noise level at each level, with the noise level at the most impacted façade shown.

**Table 1 Predicted Intrusive Noise Levels - Additional Receivers Meeting Eligibility Criterion with Vessel WB4 + Vessel WB5**

Residential Location	Predicted Intrusive Noise Level (dBA re 20 µPa) <sup>1, 2, 3</sup>					WBCT NAP Eligibility Noise Criteria
	Ground Level	First Level	Second Level	Third Level	Fourth Level	Night/ Evening/Day
1B Grafton Street <sup>4</sup>	35	36	39	54	55	55/60/70
4 Grafton Street	54	55	-	-	-	
22 Adolphus Street	52	55	-	-	-	
11 Adolphus Street	53	53	55	-	-	
28 Stephen Street	51	55	-	-	-	
41 Stephen Street	56	56	-	-	-	

Residential Location	Predicted Intrusive Noise Level (dBA re 20 $\mu$ Pa) <sup>1, 2, 3</sup>					WBCT NAP Eligibility Noise Criteria
11 Vincent Street	56	56	56	-	-	55/60/70
13 Vincent Street	55	55	-	-	-	
15 Vincent Street	55	55	-	-	-	
16 Vincent Street <sup>5</sup>	54	55	56	-	-	
17 Vincent Street	55	55	-	-	-	
18 Vincent Street	54	55	-	-	-	
19 Vincent Street	55	55	-	-	-	
21 Vincent Street	55	55	-	-	-	
36 Ann Street	53	55	-	-	-	
20 Jane Street	53	55	-	-	-	
22 Jane Street	52	55	-	-	-	
24 Jane Street	56	-	-	-	-	
26 Jane Street	56	56	-	-	-	
28 Jane Street	56	56	-	-	-	
9 Donnelly Street	53	53	56	-	-	
9A Donnelly Street	56	56	-	-	-	
11 Donnelly Street	56	56	56	-	-	
13 Donnelly Street	57	57	57	-	-	
15 Donnelly Street	55	55	56	-	-	
17 Donnelly Street	56	56	56	-	-	
19 Donnelly Street	55	55	-	-	-	
21 Donnelly Street	55	55	-	-	-	
23 Donnelly Street	55	55	-	-	-	
25 Donnelly Street	55	55	-	-	-	
27 Donnelly Street	55	55	-	-	-	
29 Donnelly Street	55	55	-	-	-	
31 Donnelly Street	55	55	-	-	-	
33 Donnelly Street	55	55	-	-	-	
35 Donnelly Street	55	55	-	-	-	
39 Donnelly Street	55	55	-	-	-	
41 Donnelly Street	55	55	-	-	-	
6 Bradford Street	51	55	55	-	-	
8 Bradford Street	54	55	55	-	-	

Note 1: Intrusive noise level complies with the NAP Eligibility Noise Criteria 55 dBA at night.

Note 2: Intrusive noise level meets or exceeds the NAP Eligibility Noise Criteria 55 dBA at night.

Note 3: Highest total noise level at the worst affected façade.

Note 4: the property at 1B Grafton Street is impacted at the upper level on the western facade only.

Note 5: the property at 16 Vincent Street is identified as an apartment complex.

### 3 Discussion

Based on the noise levels presented in **Table 1**, the following observations are made:

- A total of 39 additional properties were identified, of which there are 27 two level buildings, 10 three level buildings, one five level building and one single level building.

I trust the preceding meets your current requirements. If you have any questions or would like any further information, please do not hesitate to contact me on (02) 9427 8100.

Yours sincerely



JOHN SLEEMAN

Checked/GT Authorised by: JS
---------------------------------