

Infrastructure NSW

Walsh Bay Arts Precinct

Section 4.55 Modification 7 Noise
Impact Assessment

Issue 3 | 27 January 2022

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number

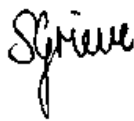
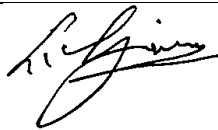
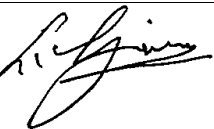
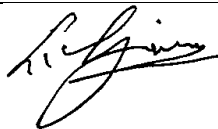
Arup Pty Ltd ABN 18 000 966 165

Arup Pty Ltd
Level 5
151 Clarence Street
Sydney NSW 2000
Australia
www.arup.com

ARUP

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		Name	Cynthia Nguyen	Samuel Grieve	Mathew Simon
		Signature			
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References

- [1] Environment Protection Authority, “Industrial Noise Policy,” Environment Protection Authority, Sydney, 2000.
- [2] Arup, “WBACP - SSDA - Noise and Vibration Impact Assessment,” Arup, Sydney, 2017.
- [3] Arup, “274902-AC01-v5-WBAP Noise Management Plan,” Arup, Sydney, 2020.

1 Introduction

This Noise Impact Assessment (NIA) has been prepared by Arup on behalf of Infrastructure NSW (INSW) for Walsh Bay Arts Precinct (WBAP) (SSD 8671), to support a Section 4.55 SSDA modification.

The WBAP (SSD 8671) was approved by the Minister for Planning 17 May 2018.

A modification to SSD 8671 is sought to allow

- Additional uses of Commercial spaces 2, 3 and 4
- The installation of additional louvres within the Sydney Dance Company (SDC) tenancy
- The installation of additional louvres within the Sydney Theatre Company (STC) tenancy

It is noted, external façade works for STC are covered by SSD 8671. No changes to internal fitout and refurbishment works are proposed, therefore no modification to SSD 7561 is sought.

2 Site description

2.1 WBAP and surrounds

The WBAP comprises of Pier 2/3, Wharf 4/5, and Wharf 4/5 Shore Sheds. The site has a street frontage to Hickson Road as shown in Figure 1.

The site is part of the Walsh Bay area, which is located adjacent to Sydney Harbour within the suburb of Dawes Point.



Figure 1: WBAP site including STC and surrounds

2.2 Noise sensitive receivers

The most potentially affected receivers are residential premises identified in Figure 2 and listed in Table 1. These are in accordance with receivers identified in SSD 8671 Condition E6.



Figure 2: Site location, noise sensitive receivers

Table 1: Residential receivers

Receiver	No. of floors
Shore 6/7 apartments Level 1, 2, 3, 4 & 5	6
1-23 Lower Fort Street (North Terraces)	3
25-79 Lower Fort Street (South Terraces)	3
2-34 Pottinger Street Terraces	3
Pier 6/7 apartments	7

3 Noise emission assessment

3.1 Additional uses of Commercial spaces

Noise emissions from the operations of Commercial spaces 2, 3 and 4 (shown in Figure 3) as food and beverage retailers have been assessed and deemed to comply provisions are outlined in the WBAP Noise Management Plan [3]. The deemed to comply scenario conservatively assumes overall internal noise levels due to patrons and staff of 75 dBA, and also includes 10 outdoor patrons for Commercial 2 and 64 for Commercial 3 and 4. Noise emissions from the deemed to comply scenario are predicted to meet noise criteria.

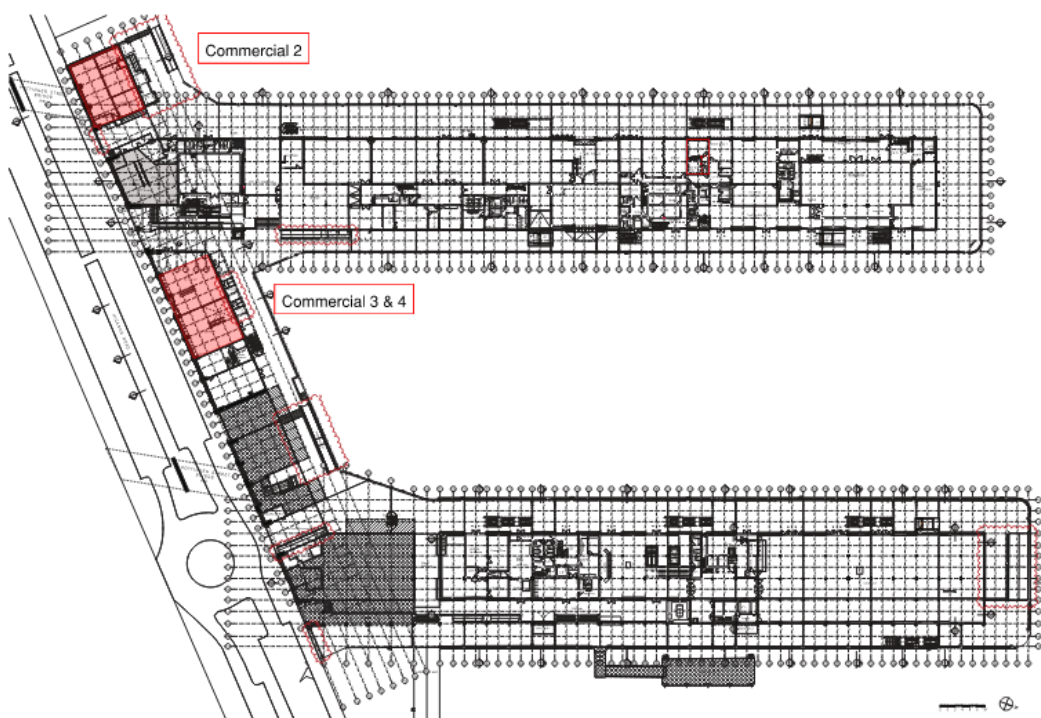


Figure 3: Commercial 2, 3 and 4

The proposed additional use of these Commercial spaces as cultural uses, i.e. hosting singing and dancing rehearsals internally, is predicted to marginally reduce overall noise impact by approximately 1 dB at surrounding receivers, including worst affected residences at Pier 6/7 apartments.

Although the internal noise levels from singing and dancing activities are anticipated to be louder than from patrons dining, the removal of patrons dining outdoors has offset the internal noise increase, resulting in an overall reduction in noise emissions from the venues.

No exceedances or adverse acoustic impacts as a result of these additional uses are anticipated.

3.2 Installation of additional louvres in STC and SDC

A small section of louvres is proposed to be added to the already partly louvred facades of STC and SDC facades. The increase in anticipated noise impacts is likely to be minor, i.e. less than 1dB, due to the proportionally small increase in louvred façade compared to existing.

The accuracy of predicting increases in noise impacts due to additional louvres to STC and SDC facades would, however, be limited due to:

- the inconsistent existing façade of these venues to be replaced by louvres; and
- the different speaker locations within various studios in STC and SDC.

A more reliable means of determining and maintaining compliance with noise emission criteria is considered to be the direct measurement of noise emissions from both venues once the louvres are installed, and the potential reduction of noise limiter settings within the venues to meet compliance with external noise criteria.

Following the installation of louvres at STC and SDC, noise emissions will be assessed to determine compliance with external noise criteria using the following methods:

- Following the installation of louvres, attend site early morning or late evening to minimise extraneous noise influence.
- Conduct a background noise measurement at Pier 6/7 apartments, the worst affected residences by SDC and STC studios.
- Play pink noise through the in-house sound system in SDC and STC studios where additional louvres are to be installed. All studios shall play noise concurrently such that each studio internal noise level is equal where possible.
- Increase pink noise equally across each studio till contributions at Pier 6/7 are 10dB above background. Measure noise levels in SDC & STC studios and at residences to determine the transfer function between studios and locations.
- Determine the internal noise limit corresponding to noise criteria at Pier 6/7.

4 Conclusion

Noise impacts due to proposed modifications at WBAP have been assessed, with the following outcomes:

Additional use of Commercial spaces

The use of Commercial space 2, 3 and 4 as cultural use for rehearsal spaces is anticipated to be lower than the currently approved use of food and beverage retail. No adverse acoustic impacts are anticipated.

Installation additional louvres in STC and SDC

The potential adjustment of sound system noise limiters within SDC and STC following the installation of additional louvres to the facades shall be conducted based on noise measurements. Limiter settings shall be reduced as required to maintain compliance with noise emission criteria at worst affected receivers.