

Your ref
Our ref
File ref

ARUP

By Email,
For the attention of Anthony Khoury
<KhouryA@richardcrookes.com.au>

Level 5
151 Clarence Street
Sydney NSW 2000
Australia
t +61 2 9320 9320
d +61 2 9320 9441
f +61 2 9320 9321
harvey.yang@arup.com
www.arup.com

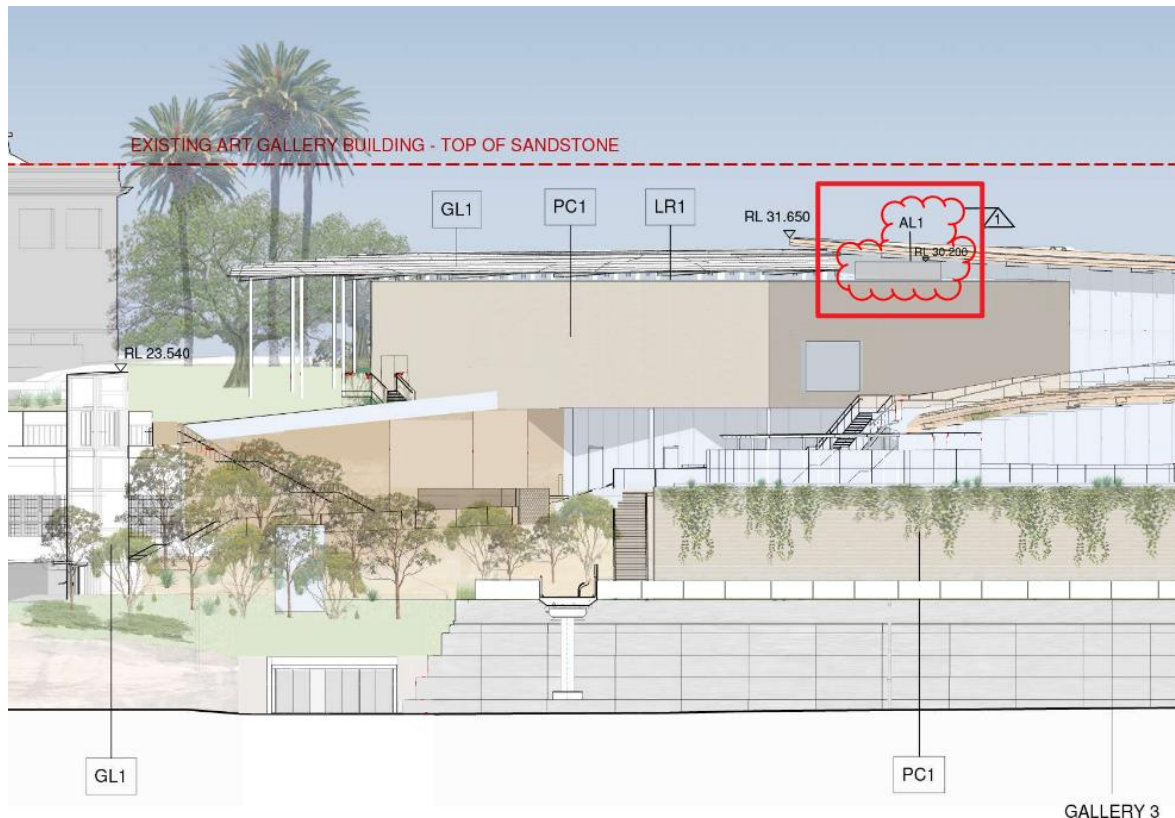
8 November 2021

Dear Anthony,

Acoustic advice on the modification of the building pressurisation system for Sydney Modern

Sydney Modern is seeking the modification of the building pressurisation system on top of the Gallery 1. This letter provides acoustic advice to support the modification (Mod 6) of the design change.

The proposed modification of building pressurisation system includes two building pressurisation fans being added to the roof of the Gallery 1, as clouded in the figure below. The detailed architectural changes are provided in Drawing No. DA_3001 Rev N.



An acoustic assessment for noise emission from these fans has been carried out. The following acoustic treatments have been proposed and included in the design modification to mitigate the noise emission:

- Ductwork to be lined with minimum 100mm internal lining to attenuate the in-duct noise
- Acoustic lagging to the building pressurisation fans to reduce the casing radiated noise
- A solid acoustic screen (1000mm-1050mm high) around the area of building pressurisation fans

Based on the acoustic predictions with proposed acoustic mitigation measures, compliance to the noise limits is achieved to the nearest noise sensitive receivers including onsite occupiable areas.

Yours faithfully



Harvey Yang
Senior Acoustic Consultant, MAAS, AMIOA

cc Nick Boulter <Nick.Boulter@arup.com>
Mitchell Allen <Mitchell.Allen@arup.com>
Christo Derbyshire <DerbyshireC@richardcrookes.com.au>