

Your ref
Our ref 247436-11
File ref

ARUP

Capital Project Control
PO Box 610
Paddington NSW 2021
For the attention of Paul Altree-Williams

Level 10 201 Kent Street
PO Box 76 Millers Point
Sydney 2000
Australia
t +61 2 9320 9320
d +61 2 9320 9658
f +61 2 9320 9321
jorg.kramer@arup.com
www.arup.com

26 August 2016

Dear Paul

Redevelopment of Arthur Phillip High School & Parramatta Public School Operational Water and Energy conservation and efficiency – EPA comments

This letter is in response to a comment received to the planning submission SSD 7237 for the above mentioned project. A summary of the overall environmentally sustainable design strategy for this project had been provided in the document entitled “Redevelopment of Arthur Phillip High School & Parramatta Public School – Development Application ESD Report” dated 10/3/2016.

The NSW Environment Protection Authority has provided a submission in respect of the project under the heading “SSD7237 – Parramatta Schools Re-development Project - EIS” and dated 17/6/2016, which included comment on water and energy conservation and efficiency. The comment (noted under 3.3 in the submission) text reads:

“The EPA acknowledges that the Appendix 12 (ESD Report) sets out a clear statement of the sustainability measures to be integrated into the design of both schools to maximise water and energy conservation and efficiency.

The EPA suggests that the proponent adopt appropriate systems to quantify and compare the performance of the various water and energy conservation and efficiency measures against agreed performance benchmarks.”

In response and as clarification further to the ESD Report noted above, we note that quantifying water and energy conservation in operation will be facilitated by metering and monitoring provisions for either service:

- Water – district cold water supply to the hot water system, recycled water system, and other high water uses will be individually metered via pulse type meters and monitored by the BMCS. Sub-metering will be provided for canteens/cafes; amenities and change rooms etc; mixed irrigation system; and any other major water use.
- Energy – sub-metering will be provided to separately monitor lighting and general power, individually (per floor) for class/lecture/tutorial areas; office/admin spaces; and laboratories. Sub-meters are to be connected and monitored by BMCS.

This level of sub-metering will provide a detailed breakdown and allow analysis and conclusions about the performance of the various measures adopted in operation. These can be compared against the 'standard practice' and 'best practice' benchmarks set out in the energy and water credits of the Green Star Education v1 tool referred in the EFSG requirements.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Jorg', followed by a long horizontal stroke.

Jorg Kramer
Senior Consultant

cc Louise Jarvis (Grimshaw Architects)
Louise Browne (Grimshaw Architects)
Julian Soper (Arup)
Wesam Hyari (Arup)
Alex Rosenthal (Arup)