

Level 11, 345 George Street, Sydney NSW 2000 02 9241 4188 sydney@northrop.com.au www.northrop.com.au ABN 81 094 433 100

05.08.2019

Ref: SY182476-SL-01-4

Ethos Urban 173 Sussex St, Sydney NSW 2000

To whom it may concern,

## Re: Loreto Kirribilli Innovation Centre - S4.55 Letter of Support

Northrop has completed a review of the updated documentation package for Loreto Kirribilli Innovation Centre for compliance against the project's sustainability objectives. The observed alterations do not alter our targeted building performance or objectives in a significant way and our previously submitted reporting can be relied upon for development approval processes. We do note the following alterations to the achievement of the end sustainability objectives;

- Ventilation strategy Natural ventilation was considered as part of the design development (as noted in Building Services Concept Report Section 3.2.2) however, due to consent condition B6 (acoustics) and the requirement for high levels of thermal comfort in the learning spaces, the project has adopted a mixed mode ventilation strategy that provides outdoor air directly to the spaces. This differs from the initial design that drew air from the façade through the use of room exhausts. In order to improve on the original outcomes this has been coupled with the use of adaptive thermal comfort and an expanded temperature range, to ensure that the project aims for minimal air-conditioning energy use is maintained. The current design allows the project to better control the use of outdoor air to maintain comfort within the space and effectively manage the project acoustic requirements.
- Mechanical Ventilation of staff rooms As a mixed mode system is now proposed across the building these spaces now have the option of utilising natural ventilation or utilising tempered out door air (air conditioned.) Staff rooms are also provided with openable windows, which can be used only if the acoustic conditions meet Condition B6.
- Use of air-conditioning within the Weights Area and Lower Ground Movement Studio As occupants of the PDHPE areas are likely to have high metabolic rates the decision was made to utilise conditioning in these spaces. Daylight access to these spaces is limited; this was considered in the use of these spaces as the Weights Area and Movement Studio as these generally do not require detailed focus work where high levels of daylight is desired.

If you have any concerns or queries about the above, please feel free to contact the undersigned.

Yours sincerely

Ian Van Eerden

Associate | Sustainability Group Manager

Northrop Consulting Engineers Pty Ltd M 0448 019 904 | D 02 9156 3077

Date	Rev	Issue	Author	Verifier
02.08.2019	2	S4.55 Letter of Support	I.Van Eerden	A.Girgis
05.08.2019	3	S4.55 Letter of Support	I.Van Eerden	A.Girgis
05.08.2019	4	S4.55 Letter of Support	I.Van Eerden	A.Girgis