

## Consultant Advice Notice

<b>Project:</b>	Waterloo Metro Quarter	<b>Project No.</b>	1024873
<b>Subject:</b>	Building 3 & 4 – ESD response to DA submissions	<b>Doc No.</b>	e.g. CAN-01
<b>Author:</b>	David Clark	<b>Date:</b>	15 <sup>th</sup> Feb 2021
<b>Attention:</b>	Perry Milledge – Mirvac Simon Joseph – John Holland	<b>Revision:</b>	B

This CAN provides ESD commentary on Comments on Sustainable Development in the “Response to Submissions Report – Southern Precinct” being prepared by Urbis. It has been updated following comments on the first version issued on 13<sup>th</sup> February.

Comment	Cundall response
<b>General</b>	
Consider advancing sustainable outcomes.	The project is advancing sustainable outcomes across a range of environmental and social impacts and is independently certified and/or recognised through internationally recognised third party rating tools and schemes: <ul style="list-style-type: none"> <li>6 star Green Star Communities and 5 star Green Star Design &amp; As-Built (Green Building Council of Australia)</li> <li>One Planet Community (Bioregional Australia)</li> </ul>
<b>Green Star</b>	
Encourages the Applicant and DPIE to move to the new Green Star Buildings tool.	As outlined in the ESD Report provided at Appendix O, the project will be registered for Green Star Design & As-Built version 1.3. Projects can register with this tool until 31 December 2021.
<b>Rating Tools</b>	
The City supports the energy ratings scores and methodologies used to achieve these efficiencies.	This comment is noted.
The City also supports the use of Section J, rather than NatHERS to achieve thermal performance in the social housing building.	The social housing building is a Class 2 residential building. In NSW, compliance with Section J1 of NCC 2019 for the sole occupancy dwellings is demonstrated using BASIX (a minimum energy score of 25 is required, this project achieves 30). NatHERS is used to calculate heating and cooling energy loads (in MJ/m <sup>2</sup> ) that are then used as inputs to the BASIX assessment (for thermal comfort compliance and to calculate heating and energy consumption in the apartments as part of the total energy calculation for the building). NatHERS is therefore being used for the social housing because it is required as part of BASIX and Section J.
<b>Energy efficiency</b>	
The PV panels should be relocated to avoid overshadowing in the morning and maximise energy generation.	The PV panels are located on Level 23 within the permissible building envelope. There is no roof space available within the permissible building envelope for PV on Level 24 due to roof top plant (sprinkler tank, mechanical plant and hydraulic plant). The PV panels to the west of the lift core will be inclined to optimise energy generation in the afternoon. This will help

	create a smoother energy generation profile overall than all panels facing due north, and align more closely with the peak cooling demand which will occur in the afternoon.
Additional PV or non-trafficable green roof could be provided to the roof of the social housing building.	Green roofs and PV were considered for the Building 4 roof however could not be accommodated within the permitted building envelope. An option was also explored for the podium roof level however this was considered impractical due to construction interface requirements and on-going access to the station roof for maintenance.
The size and capacity of the PV array must be clearly stated on the plans.	On Building 3 a 17.5 kW system is provided. The size and number of panels will be confirmed during design development. The preliminary design assumes 42 x 420W panels with a total panel area of approximately 100m <sup>2</sup> . A minimum area of 150 m <sup>2</sup> is allocated for the installation of the panels of the roof (including spacing and access for maintenance).
<b>Potable water savings</b>	
The onsite rainwater harvesting detentions are small but reasonable. The City encourage the developer to investigate larger detention systems.	The space for tanks within the podium is limited and the size of the tanks have been maximised to suit the space available. The tanks have been sized to suit both the rainwater catchment area and the irrigation demand within the buildings.
Hydraulic plans are to be updated to identify their capacity and connection to irrigation supply.	Noted. The hydraulic plans will be updated in design development by the hydraulic design consultant engaged by WL Developer.