



LANDSCAPE ARCHITECTS

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Attn – Chris McGillick – Director, Ethos Urban

S19-0011 LIVERPOOL HEALTH AND ACADEMIC PRECINCT_LETTER MSCP CLOUSTON_CL
21.8.20

LIVERPOOL HOSPITAL MULTI STOREY CAR PARK (SSD 10388) - RESPONSE TO AGENCY SUBMISSIONS

CLOUSTON Associates are the Landscape Architects for the LHAP (SSD 10388) project. The following responses address key comments received from Liverpool City Council.

COMMENT - Synthetic Turf

The LDR indicates artificial synthetic turf is proposed to be used on site where shading is an issue with the car park (page 9). It is recommended the RTS considers whether there are any other more natural alternatives rather than use synthetic turf. The Planning and Assessment Group (PAG) should consider potential issues associated with using synthetic turf as opposed to using natural non-invasive grass including:

- *natural grass provides a cooler surface than artificial turf surfaces which get much hotter and absorb radiant heat (sunlight) and potentially add to the urban heat island effect by radiating the heat back into the air*
- *natural grass surfaces (as opposed to synthetic grass) provide some habitat value for certain native fauna.*

CLOUSTON Response: Natural grass surfaces have been used where microclimatic conditions support healthy growth. Approximately two thirds of the site is proposed as natural grass. In remaining areas the expected levels of use and the degree of shade coverage is such that a natural turf (including shade tolerant species) is unlikely to sustain adequate growth and recovery. In this case synthetic grass is considered a practical and more sustainable alternative. Heavily shaded areas where synthetic turf is proposed is also unlikely to absorb significant heat from sunlight.

COMMENT - Urban Heat Island Effect

EES recommends that to assist mitigate the urban heat island effect, improve the urban tree canopy and local biodiversity the SSD should:

- *replace the removed trees with local native species from the vegetation community that once occurred in this locality rather than plant exotic species or non-local natives*
- *use advanced trees, preferably with a minimum plant container pot size of 75 litres, or greater to increase urban tree canopy cover.*

CLOUSTON Response: Species that reflect Cumberland Plain Woodland vegetation communities are included where these are known to perform in urban landscapes while also providing amenity for open space users. Proposed trees pot sizes will be minimum 75 litres, however the opportunity to include any plants grown from local provenance of the Georges River district is highly constrained by the very urbanised nature of the site, its microclimate and the project's multi-staging timeframes. The latter would be unlikely to permit adequate growing-on time for the plants to achieve the stock size that Council is requiring.



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COMMENT – Trees in At-Grade Parking Area

Replace some of the parking bays (i.e. within the proposed at-grade carpark), with garden beds that include mature trees, to provide shade and mitigate the impacts of urban heat within the site.

CLOUSTON Response: For the seven level Multi Storey Car Park additional trees have been added into the at-grade car park, providing additional canopy cover, habitat and heat island mitigation. The tree planting utilises structural soil systems to provide trees with the best opportunity to reach full mature size. This focus on soil conditions ensures that a small number of trees can maximise positive impacts.

Yours faithfully

CLOUSTON Associates

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