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ECO LOGICAL AUSTRALIA PTY LTD ABN 87 096 512 088 www.ecoaus.com.au

Ref No: 17SYD 8196

6 June 2019

Dear Rob

Re: Updated report on assessment of potential overshadowing of heritage gardens at 337 – 347 New South Head Road, Double Bay.

LOFTEX has contracted Eco Logical Australia (ELA) to undertake an assessment of the impact to the heritage listed gardens at Overthorpe (337 – 347 New South Head Road, Double Bay) of potential overshadowing. This limited overshadowing is a potential impact of the proposed development to the north of these gardens at 2-10 Bay Street and 294 – 298 New South Head Road, Double Bay.

ELA senior ecologist, Toni Frecker and ELA arborist, Elizabeth Hannon, surveyed these gardens on 29th August 2017, with consideration of the shadow diagrams prepared by Tzannes Associates (Figure 1). Literature reviewed prior to attending the site survey included

- Aboricultural Impact Assessment Report Proposed Mixed-Use Development 2 -10 Bay Street and 294 298 New South Head Road, Double Bay. (Andrew Morton, 2017)
- Overthorpe Full LEP listing (OEH 2004)
- Register of Significant Trees (Woollahra Council).

A description of the gardens including both the overstorey, mid storey and groundcover species is provided in Morton (2017).

The canopy present, within areas indicated in the shadow diagrams (Figure 1) as potentially being impacted by the proposed development, includes *Phoenix Canariensis* (Canary Island Date Palm) and *Cinnamomum camphora* (Camphor Laurel). The assessment provided in Morton (2017) states that the groundcover species present are very shade tolerant and this was confirmed during the site survey undertaken by ELA.

The potential overshadowing is unlikely to have an impact on the present gardens in the area indicated in the shadow diagrams, as all groundcover species are shade tolerant, and are currently shaded by the present canopy species for extended periods. The canopy species which may be potentially impacted by increased shading during the mid-year period are mature and unlikely to have reduced vigour due to this small change in sunlight. As the present tree canopy within Overthorpe Gardens creates the current micro-climate and additional overshadowing from the proposed development is very limited, the current micro-climate within the gardens will not be impacted by the proposed development.

No weed species were recorded during the ELA site inspection, and the gardens are well maintained, such that overshadowing is unlikely to increase weed invasion or infestations in the gardens.

Updated report

An initial review of the planning proposal by Council has resulted in a requirement that the previous ELA report be updated to also consider the entire proposed building height/FSR envelope, rather than just the concept plan envelope. A revised Concept Scheme Overshadowing figure has been provided by Tzannes Associates that includes this information (Figure 1). ELA notes that the maximum building height/FSR envelope, while technically permissible, is not proposed to be built along New South Head Road and only results from the sloping nature of the site. As such, for determining the impacts of this planning proposal, the concept scheme would be the relevant tool to assess the impact on shadows rather than the maximum envelope.

The revised potential overshadowing is still considered unlikely to have an impact on the present gardens in the area indicated in the proposed building height/FSR shadow diagrams, as all groundcover species are shade tolerant, and are currently shaded by the present canopy species for extended periods. As previously stated, the canopy species which may be potentially impacted by increased shading during the mid-year period are mature and unlikely to have reduced vigour due to this increased, but still small change in available sunlight resulting from consideration of the larger shading area. Based on Figure 1, all areas of vegetation would still receive 3 hours of sunlight, even in Winter.

Please contact me if you have any questions regarding this revised assessment.

Dr Frank Lemckert Principal Scientific Ecologist

References

Morton A. 2017. Aboricultural Impact Assessment Report – Proposed Mixed-Use Development 2 -10 Bay Street and 294 – 298 New South Head Road, Double Bay Earthscapes Horticultural Services Berowra

Office of environment and Heritage 2004. *Overthorpe - Full LEP listing* available at http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=2711282

Woollahra Municipal Council 1991. *Register of Significant Trees Volume 2 of 4 Significant Trees under Private Ownership* prepared by Landarc Landscape Architects Rose Bay



Figure 1 Updated shadow diagram (Tzannes Associates)