

17 April 2019

15456

Anthony Witherdin
Director, Modification Assessments
Department of Planning & Environment
320 Pitt Street
Sydney NSW 2000

Attention: Andrew Beattie, SIA Team Leader

Dear Andrew,

RE: Response to Submissions SSD 7372 MOD 5 – O'Connell Street Public School

On 18 January 2019, the Department of Planning and Environment (the Department) invited public authorities to provide comments on Modification 5 of SSD 7372 for the O'Connell Street Public School. The Modification 5 works comprise the installation of a shade sail adjacent to Building D within the north-west corner of the site. The works are within the State Heritage Register curtilage of the Marsden Rehabilitation Centre Group (former Kings School) SHR 00826.

In total, two agency submissions were received from both the City of Parramatta Council (Council) as well as the Office of Environment and Heritage (OEH). Council did not object to the proposed sail and provided comments to the Department via email concluding that:

"Given that the shade structures are not permanent or irreversible and are not prominently visible from the street frontage, Council has no concerns to raise in relation to the modification proposal".

However, comments were made by OEH regarding the height and positioning of the shade structure, with concerns regarding the impact on the heritage integrity of Building D of the former Kings School.

This response should be read in conjunction with the following attached documentation:

- Response to Submissions Table prepared by Ethos Urban (**Attachment A**);
- Response to Heritage Division of OEH Submission prepared by TZG (**Attachment B**);
- Updated Structural Sunshade Drawings prepared by Northrop (**Attachment C**); and
- Arborist Report prepared by McArdle Arboricultural Consultancy (**Attachment D**).

We trust that the appended documentation responds to the issues raised within the submissions and by DPE. Should you wish to discuss this further, please don't hesitate to contact me on 9956 6962 or ktudehope@ethosurban.com.

Yours sincerely,



Kate Tudehope
Associate Director
02 9956 6962
ktudehope@ethosurban.com



Julia Moiso
Urbanist
02 9956 6962
jmoiso@ethosurban.com

Attachment A – Response to Submissions Table

Table 1 **Response to Submissions**

Issue	Response
<i>The large shade sail is to be reduced in height to sit below the first-floor openings. Consideration should be given to a flatter sail design which corresponds more closely to the height of the triangular sail.</i>	<p>The design of the shading structure has been revised to reduce the height of the shade sail by 700mm. Whilst this is still higher than the first floor openings of Building D, the shading structure cannot be reduced further in this location due to the elevated ground height at the eastern end of the playground, where the structure has a height of 2100mm from existing ground level. 2100mm is the minimum recommended height contained in Part 3.8.2 Vol 2 of the Building Code of Australia.</p> <p>It is important that the height of the revised shading structure remains at 2100mm, as any further reduction in height breaches both the BCA recommendations, as stated above, and could provide opportunities for vandalism and intrusion into the property. This is due to the topography of this part of the site, and the shading structure's location adjacent to the site boundary. The site is bound by a retaining wall and fence, which could potentially enable intruders to climb onto the shading structure and enter into the school grounds. If the shade sail is lowered further, this may present an opportunity for intruders to scale the fence and enter the premises. Principles established through Crime Prevention Through Environmental Design (CPTED) reiterate the importance of 'target hardening' to prevent opportunities for criminal activity. 'Target hardening' in this instance is ensured by the height of the proposed shading structure, which limits climbing opportunities for potential offenders.</p> <p>Lastly, whilst the shade sail has been redesigned to accommodate OEH's concerns as far as possible, a flatter sail cannot be accommodated due to the manufactured composition of the sail fabric. The sail fabric has a density which enables high UV protection to the occupants of the playground. Due to the dense nature of the sail fabric, the overall structure must be designed to ensure that efficient water run off solutions are incorporated into the design in order to prevent fabric damage, which may diminish the effectiveness of the sail for sun protection. If the sail structure is designed to be flat, intense rainfall may result in water pooling which can cause the sail fabric to stretch and sag from the weight of the water, damaging the structure and rendering it ineffective.</p> <p>Additional heritage advice was sought from TZG Heritage which supports the revised design and its relationship with Building D and the wider site. Refer to Appendix B submitted with this submission.</p>
<i>The size of the shade structures is to be reduced so that they do not extend further north than Building D.</i>	<p>Whilst both TZG Heritage and City of Parramatta Council are of the opinion that the shading structure is largely not visible from the public domain, the shading structure design has been revised to mitigate any potential heritage impacts and enable compliance with OEH's request to align the shading structure to the northern building line of Building D.</p> <p>In order to modify the design to comply with OEH's recommendation, the secondary triangular structure has been deleted as it cannot conform to</p>

Issue	Response
	<p>the revised design. This presents a reduction of approximately 22% of shaded area within the playground and alters the location of footing B and C to be more central within the playground. Any further reduction to the shade sail size would render the purpose of the shade structure ineffective.</p>
<p><i>Request arborist input to assess the integrity of the TPZ and root system of the existing Frangipani Tree in relation to the proposed shading structure footings.</i></p>	<p>Arborist input was sought to assess the integrity of the existing Frangipani Tree, and its relationship with the proposed shading structure. The report sets out recommendations to ensure the health of the tree is maintained and monitored over the course of the design and construction phases.</p> <p>The report concludes that the proposed shade sail may impact the Frangipani Tree canopy and root system. The height of the structure is 3.5 metres and footing D of the shading structure is 100mm in diameter. As the structure will enter the TPZ at 2.5 metres on the north eastern side, the tree will still be able to absorb solar gain from the northern and the western sides. At 3.5 metres, the tree canopy is likely to be impacted, but the structure is located outside the structural root zone, maintaining the health of the root system.</p> <p>As a result of the shade structure, the Frangipani Tree is likely to experience direct solar loss, as the tree requires high levels of sunlight. However, the arborist is of the opinion that the shading structure will reflect light from the top of its surface, increasing solar gain to the tree. The arborist concludes that this is a suitable approach in order to maintain the health of the tree.</p> <p>The report recommends that the roots of the tree should remain intact, and that the footings of the shade structure should have a clearance of 200mm to any major root or canopy branch. The design of the shading structure has been revised slightly to accommodate this recommendation.</p>

We trust that the above information is sufficient to enable your continued assessment of this application. If you have any further questions, please do not hesitate to contact Kate Tudehope on ktudehope@ethosurban.com or 9409 4932.

Yours sincerely,



Kate Tudehope
Associate Director
02 9409 4932
ktudehope@ethosurban.com



Julia Moiso
Urbanist
02 9133 0394
jmoiso@ethosurban.com