

Stellen Consulting Level 1, 27 Belgrave Street Manly NSW 2095

PO Box 151 Freshwater NSW 2096

27 May 2021

The Pittwater House Schools c/- Neeson Murcutt Architects Pty Ltd Level 2, 9 Roslyn Street Potts Point NSW 2011

Lilian Szumer <lilian@neesonmurcutt.com>

Dear Lilian

We have reviewed the proposed s4.55 amendments to The Pittwater House Schools project, against both the stormwater and overland flow designs approved with DA2019/1274.

The impact and proposed changes to both the stormwater and overland flow design are summarised below.

## Stormwater

The amendments include removal of the existing amphitheatre roof shown on architectural drawing DA05. The stormwater falling on the existing amphitheatre roof collects via a system of gutters and downpipes to a central pit and discharges into the stormwater conveyance pipes.

Once the roof is removed and replaced with shade sails, the stormwater will fall into the amphitheatre and collect at the walkway entrance shown in Figure 1. The new stormwater will be collected in a conventional 200mm grated box drain and connected to the existing stormwater conveyance pipe.



Figure 1. Stormwater that would have fallen on the roof will be collected in a linear drain

There will be no net change to stormwater flows offsite as a result of the s4.55 amendment.



## **Overland flow**

The key s4.55 amendment relevant to overland flow—adjustment of the lift access area—is shown in Figure 5.

Figure 2 shows it is clear of the 1%AEP overland flow.



Figure 2 Predevelopment 1%AEP flow

Figure 3. Predevelopment PMF flow

The construction of the flood bund on the oval (described in our report P170688-RP-FL-001 dated 25 October 2019) will be completed during Stage 2 of the project. This means a temporary situation where the predevelopment PMF flows (shown in Figure 3) remain and interact with the Stage 1 works (shown in this s4.55 amendment).



Figure 4. A larger scale segment of Figure 2 showing the PMF flows





Figure 5. New layout around canteen area, including new lift and access platform

No works impact the PMF flows on any other properties.

No changes to existing floor levels are proposed.

Like the original proposal, a new lift and associated widening of the access area at Level UG is proposed. For the temporary arrangement, the PMF flow arriving from the oval will be diverted via a 150mm hob—either an extension of the retaining wall or a landscaped mound—along a dedicated landscaped channel section before rejoining its pre-development flow path along the western side of the South Wing building.



Figure 6. Hob shown in magenta diverting flow through landscaping to re-join original flow path

The lift entry point at RL18.84 is approximately 1.2m above the PMF water surface level (where 150mm deep water flows along ground surface at RL17.5). The entry point is also protected by the bund.

Once Stage 2 is completed, the temporary bund becomes redundant and can be removed.



## Conclusion

The proposed s4.55 amendments do not impact the stormwater runoff or conveyance. Only a minor change from roof collection to surface collection is required.

The amendments do not affect the 1%AEP overland flow and are protected from the PMF flows.

In reference to s7.7 of our report P170688-RP-FL-001 dated 25 October 2019, the responses to all flood controls remain unchanged.

Please contact me with any questions regarding this report.

Kind regards,

luli.

lan Warren Managing Director

Stellen Consulting Level 1, 27 Belgrave Street, Manly, NSW 2095 T. 0450 460 496 E. ian.warren@stellenconsulting.com.au



## Architectural drawings referenced

_	DRAWING No.	DRAWING TITLE	SCALE	
ς	DA 01 DA 02	COVER SHEET	1:1, 1:1500	04 02
ξ	DA 03	SITE ANALYSIS	1:200, 1:2000, 1:1000	02
	DA 04	SITE PLAN	1:500	03 Ž
	DA 05	DEMOLITION PLANS	1:500	<sup>1</sup> <sup>2</sup> <sub>02</sub>
ζ	DA 07 DA 08	LIBRARY + STUDENT SERVICES ELEVATIONS + SECTIONS SOUTH + WEST WING UNIVERSAL CORE PLANS	1:200	
3	DA 08.1	SOUTH + WEST WING UNIVERSAL CORE PLANS	1:200	01
ζ	DA 08.2	SOUTH + WEST WING UNIVERSAL CORE PLANS	1:200	01
ζ	DA 08.3	SOUTH + WEST WING SECTION + ELEVATIONS	1:200	
Ę	DA 10	SHADOW DIAGRAMS	1:1500	Ĵ2
ξ	DA 11 DA 12.1	SCHEDULE OF COLOURS AND MATERIALS NOTIFICATION PLAN	uuu	
	DA 12.2 DA 12.3 DA 13.1	NOTIFICATION PLAN NOTIFICATION PLAN SECTION 4.55 CONSTRUCTION METHODOLOGY	1:200, 1:500	
	DA 13.2	CONSTRUCTION METHODOLOGY	1:1500	01
	DA 13.3	CONSTRUCTION METHODOLOGY	1:1500	01