

Our Ref: X08066



Meriton Apartments
Level 11, 528 Kent Street
Sydney NSW 2000

19th February 2013

Attention: Mr Geoff Hopkins

Dear Sir,
14-18 Boondah Road, Warriewood Child Care Centre Swale

As part of the future child care centre located at Boondah Road Warriewood it is proposed to provide an elevated driveway and parking over the proposed swale along the western boundary. The proposed swale is 10 metres wide with the suspended slab at RL 5.8m.

The swale has been designed to relieve flooding within Macpherson Street during the Probable Maximum Flood (PMF) event. During the PMF event the flow collects within Macpherson Street, once the road corridor has been overtopped, the swale is designed to collect and direct the flow along the site boundary to Fern Creek. The swale has been design to have capacity for the PMF event, preventing flows from entering the child care centre. During the 100 year ARI storm event the swale and child care centre remain flood free.

A HEC RAS model was developed to model the swale with the suspended parking and driveway slab. The model showed a the maximum flood level of 5.15m, which is less than the existing flood level of 5.38m as modelled in HEC RAS for the existing scenario.

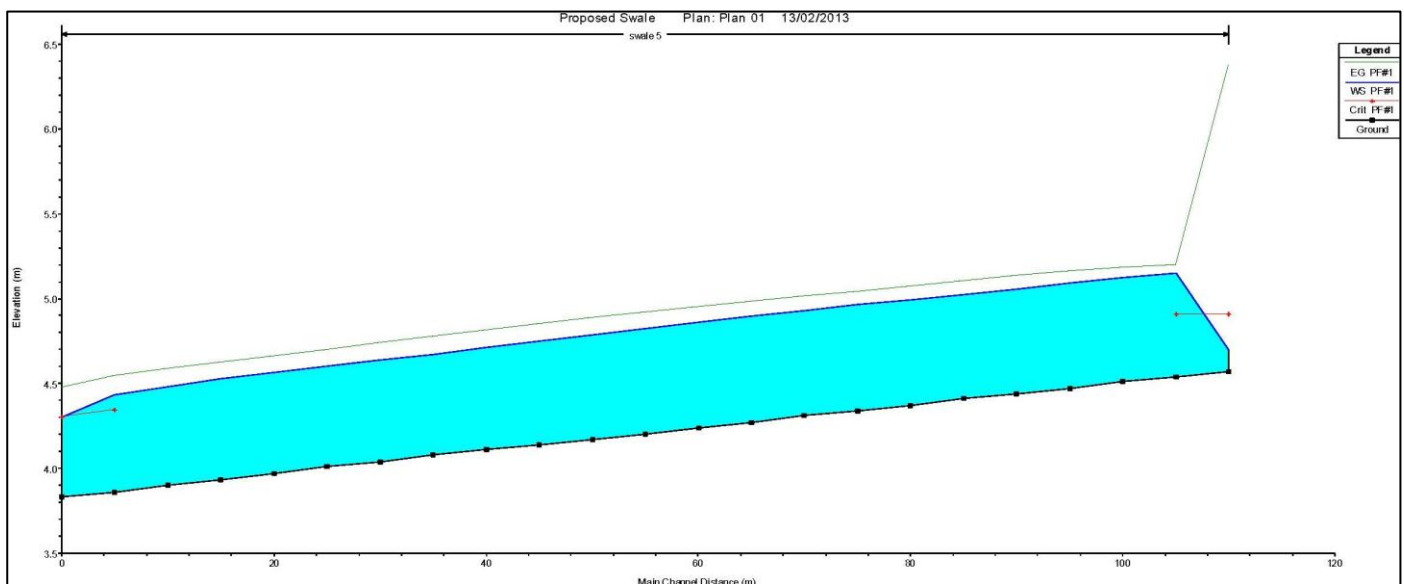


Figure 1: HEC RAS swale longsection for the PMF storm event

The opening to the swale shall be designed to prevent entrance from the public to manage hazard

A flood emergency response plan will be implemented as part of the operation of the child care centre. The proposed child care centre floor level is located above the PMF flood level and could provide a flood free evacuation area. Furthermore the modelling has shown that site located at 14-18 Boondah Road is predominately flood free during the rare storm events including the PMF event.

If you require any additional information feel free to contact Troy Eyles or myself on 8808 5000.

Yours sincerely

Brown Consulting (NSW) Pty Ltd

Troy Eyles

Senior Engineer – Water & Environment