19 October 2017

Our Ref: 17903/nh

optimal stormwater

MYD Consulting Engineers
Level 1, 226-230 Victoria Road
GLADESVILLE, NSW 2111

Attn: Davood Davoodi

Dear Sir,

Re: FLOODING IMPACT STATEMENT RELATING TO OVERLAND FLOWS

SUBJECT PREMISES: RYDE PUBLIC SCHOOL
3B SMALLS ROAD, NORTH RYDE

In regards to potential flooding issues to the above mentioned site, we offer the following information and advice.

The site is situated on Smalls Road just off Quarry Road and separated by residential houses on Lavarack Street along the southern boundary. The proposed school building and car park facility is located on the north western part of the site. The eastern part of the site is an open, grassed area. Based on the site location, we have assessed the potential flooding impact in terms of overland flows and flood extent.

The 'Request for flood information' letter acquired from City of Ryde Council (ref: D17/74772 dated 7th June 2017), confirms the 100yr ARI and PMF levels of the overland flow from the upstream catchment through to the proposed development site. The overland flow flows from the residential properties on Lavarack Street in a northerly direction through the proposed development site along the eastern boundary. Flood levels of the 20, 100 and PMF storm event were given at a few points located along the eastern boundary (refer Appendix A). The flood levels along the eastern boundary are summarized in the table below.

Location	20yr ARI Flood level	100yr ARI Flood level	PMF
A	67.79	67.80	67.93
B	68.37	68.38	68.50
C	71.45	71.47	71.69
D	73.07	73.07	73.25

Table1: Flood levels

Flood Level Location Map

Figure 1: Flood level location Map

Furthermore the given overland flow rate for the 100 year ARI storm event is approximately 1.58 m^3/s.

It should be noted that the levels provided at locations C and D are taken from the top of a batter within the sports field. An inspection of the survey plan along with the flood information provided by Ryde council, indicates the flood depths to be in the order of 500mm. The PMF flood extent is contained well within the swale along the eastern boundary, within the sports oval. The architectural plans show the lowest habitable level is 73m AHD, which is significantly above the PMF level at that point and well above Ryde Council's minimum freeboard requirements.

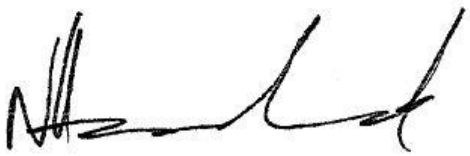
Based on the given flood information and a review of City of Ryde Development Control Plan 2014, the floors levels of proposed habitable floor area should be set with a freeboard of 300mm (low risk) and 500mm for medium and high risk to the 100 year ARI flood level.

We are able to confirm that the overland flow will have no impact to the proposed development as the flows will be contained within the swale along the eastern boundary. We trust this flood impact statement is adequate in addressing potential flooding at the proposed site.

Furthermore, the proposed development is generally in accordance with the NSW floodplain development manual 2005. The extent of overland flow path and its relation to the development is not significantly affected by climate change, sea level rise and rainfall density.

If you have any question or concerns, please do not hesitate in contacting the undersigned.

Yours faithfully,



Nicholas Heazlewood

For, and on behalf of,
Optimal Stormwater Pty Ltd