

Job No. GE19/150  
Ref: 24822  
Author: Davor Dragun and Robert Maxwell

3<sup>rd</sup> December 2019

LendLease  
771 Cudgen Road  
Cudgen 2487 NSW

**RE: CLARIFICATION ON GENERAL DRAINAGE COMMENTS – TWEED VALLEY HOSPITAL  
– CUDGEN ROAD, KINGSCLIFF**

This letter provides clarification on the general drainage comments presented in the geotechnical investigation reports carried out for the site.

The work was commissioned by LendLease (the Client).

It is understood that the Client has been requested to reduce stormwater flows from the site by reusing stormwater and by construction of infiltration trenches, raingardens and/or removing liners from the existing sediment basins when they are converted to bio-detention basins.

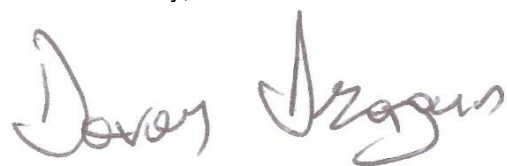
Morrison Geotechnic have previously carried out a preliminary geotechnical investigation including the slope stability assessment (Job Number: GE18/144 Rev 2 – September 2018) and proposed sediment basins assessment (Job Number: GE18/216 – November 2019) for the above site. Those two investigations have been reviewed and considered in assessment of this letter.

Upon review of the investigations carried out, the natural clay soils encountered on the site are permeable and susceptible to loss of strength at elevated moisture contents. If adopted, the infiltration trenches are expected to have affect onto the sloping grounds on the site resulting in possible instability associated with slips, creep or erosion. The same/similar would be expected if liners are removed from sediment basins.

In summary, all sloping grounds on the site should have suitable drainage system(s) installed to maintain long term stability and to prevent slips, creep or erosion. Discharging onto the sloping areas should not be permitted at any time.

Please do not hesitate to contact this office if you require any further information.

Yours faithfully,



**D DRAGUN (RPEQ 16310)**

For and on behalf of  
**MORRISON GEOTECHNIC PTY LTD**