

ENQUIRIES: IAN HARRIS PROJECT NO: 42265

14 May 2019

NSW Department of Planning and Environment GPO Box 39 Sydney NSW 2001

Attention: Mr. David Gibson

Dear David,

## RE: GREENWICH HOSPITAL OVERLAND FLOW ASSESSMENT

This letter has been prepared in response to Office of Environment and Heritage (OEH) Letter (DOC19/172842) and discusses the upstream stormwater overland flow affecting the site, the impact of the proposed development on existing overland flow and the measures proposed to mitigate impacts of overland flow on the development.

#### **Proposed Development**

The site at Greenwich Hospital is currently a hospital with two associated buildings and carparks. There is also a heritage house located in the rear yard of the property.

The proposed development involves the redevelopment of the site into a mixed use village with health and aged care, and retirement living.

#### Site Context and Topography

The front boundary of the site faces River Road with the rear boundary facing Bob Campbell Oval and backing onto adjacent single residential dwellings, all of which is heavily vegetated with ground cover and trees. Bob Campbell Oval is directly adjacent to Gore Creek. The western boundary of the site is adjacent to other residential lots and the eastern boundary is adjacent St.Vincents Road.

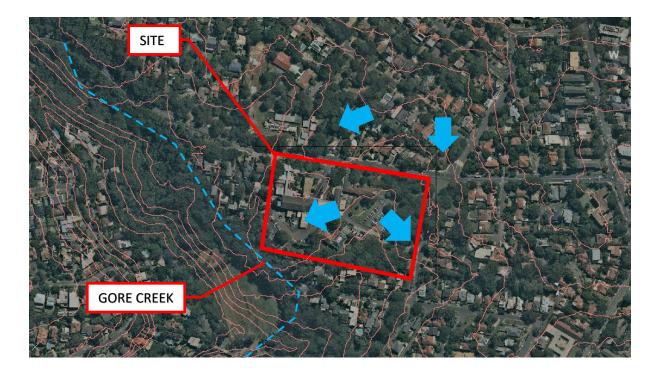
Assessment of the Geoscience Australia LIDAR data confirms that the site is set as a high point in the area, as such overland flow from the site is ultimately conveyed around the site and to Gore Creek. The site currently falls from the front of the lot to the rear with a crest running through the middle of the site and the hospital building set above River Road. **Figure 1** below shows the existing LIDAR contours overlayed on an aerial photo of the site. Indicative flow arrows have been added.

Page 1 of 4

# To us, it's more than just work

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# Figure 1 – Existing Site Topography (Nearmaps)

## **Flood Impact**

A site visit was undertaken by Wood and Grieve Engineers on 14 May 2019, where it was evident that the adjacent Bob Campbell Oval and Gore Creek sits significantly lower than the site in the order of tens of meters. As such, the site is high enough above the creek level that there will be no flood impacts from Gore Creek and the downstream Lane Cove River.

## **Catchment Stormwater Conveyance**

The existing site sits as high point in the area whereby stormwater runoff from the upstream catchment is conveyed around the site and down towards Gore Creek.

**Figure 2** below shows the slope of the site towards St Vincent's Road and **Figure 3** shows the crested high point along River Road, and the ground sloping up towards the middle of the frontage.



Figure 2 – View down to St Vincent's Road from the eastern side of site



Figure 3 – Site Frontage view from River Road

### Impact of the Development

Stormwater will be conveyed around the site as per existing case, as such the proposed development is not obstructing any overland flow paths and will have no impact on the current overland flow path for the upstream catchment.

### Conclusion

Overland flow from upstream catchments will continue to be conveyed around the site as per the existing case, as such mitigation measures will not be required for the development. The proposed design will ensure that that the drainage strategy remains the same as existing wherein all overland flow will be conveyed away from habitable floor levels.

We trust that this information is sufficient for your purposes however should additional information be required feel free to contact the undersigned.

Ian Harris BEng (Hons) For and on behalf of Wood & Grieve Engineers