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To:	David Hirst	Of:	PTW Architects
Email:	dhirst@ptw.com.au	Pages:	1 of 3
Ref No:	23473ZN email1	Date:	26 October 2009
From:	Nicholas Smith		
Re:	PROPOSED MIXED USE DEVELOPMENT THOMAS STREET AND ALBERT AVENUE CARPARKS CHATSWOOD, NSW		
<input type="checkbox"/> Urgent <input type="checkbox"/> Please Reply <input type="checkbox"/> Please Comment <input type="checkbox"/> Quote <input type="checkbox"/> Preliminary Report			

This transmittal reports the preliminary results of the geotechnical investigation at the above site.

At this stage, five of the proposed eight geotechnical investigation boreholes have been drilled. These boreholes have disclosed a subsurface profile consisting of surficial pavements and fill overlying residual silty clays over shale and sandstone bedrock.

PVC standpipe piezometers were installed in three of the boreholes (BH1, BH2 and BH3) at the locations shown on the attached sketch Borehole Location Plan (Figure 1).

Following the completion of drilling, each of the standpipes was bailed dry of water, and the groundwater levels allowed to stabilise over a three day period. Following this, groundwater level measurements were made.

The groundwater reduced level in the boreholes varied between 90.4mAHD and 93.75mAHD which falls at around mid level of the proposed basement excavation.

However, given the expected low permeability of the subsurface soil profile (residual silty clays, shale and sandstone bedrock), we consider that construction of a drained basement design would be feasible and appropriate. Groundwater seepage into the basement excavation would be expected to reduce as the excavation progresses, and the surrounding profile is drained of water. Locally higher inflows could be expected to occur through open joints or bedding planes during and following heavy rainfall



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events. Such a process would not be expected to cause any adverse effects on any surrounding structures or improvements.

Long term groundwater flows would be expected to be of limited volumes and would be able to be controlled by draining them to a sump at the lowest basement level for pumped disposal to the stormwater system.

We do not consider that the proposed development will have significant effect on regional groundwater flows, as it is located near the ridgeline in a heavily built up area, and hence, groundwater flows are expected to be of limited volume through the low permeability subsurface profile.

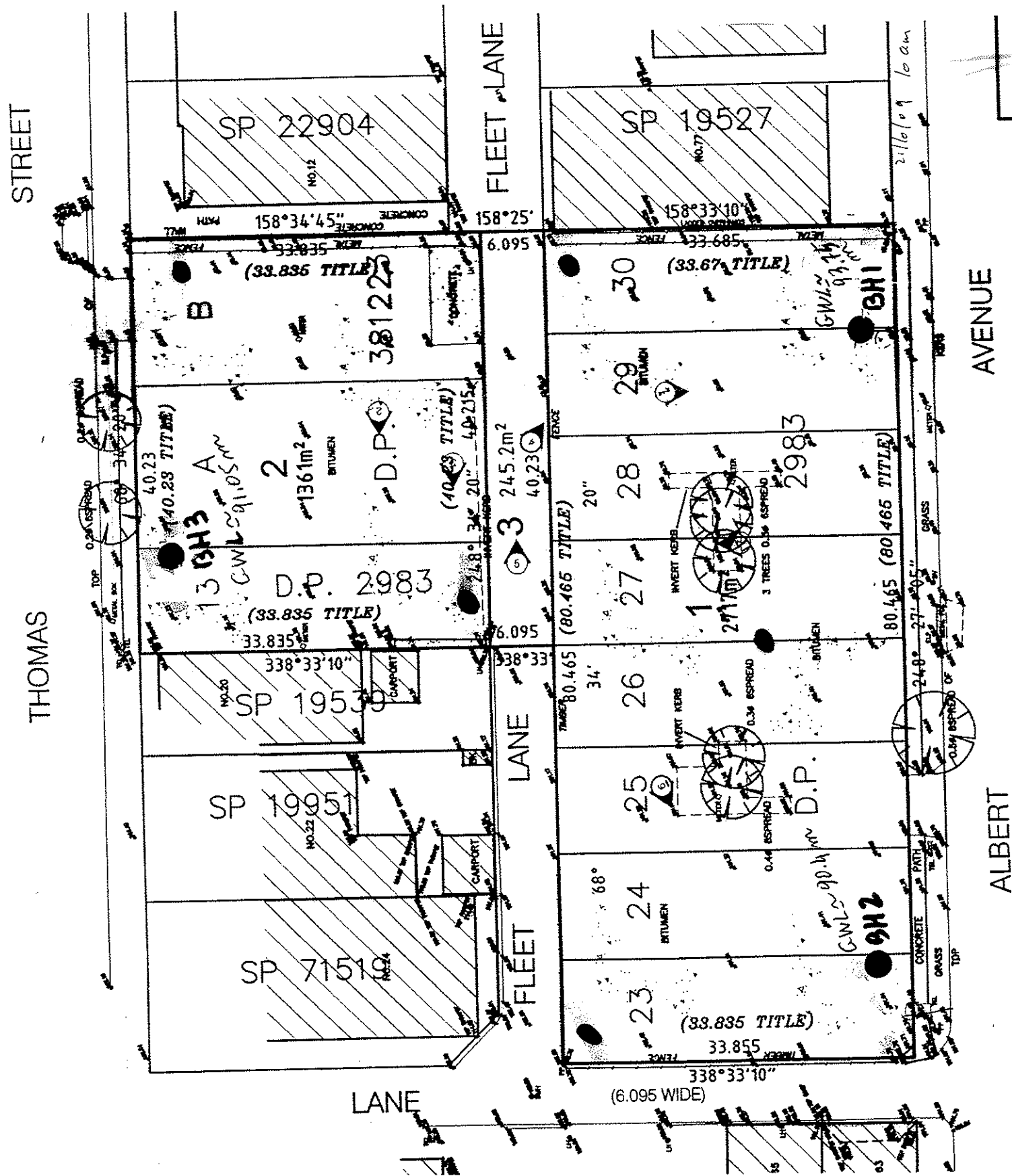
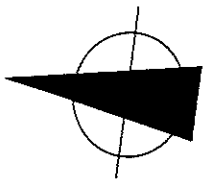
Should you require further information please do not hesitate to contact the undersigned.

Regards,
For and on behalf of
JEFFERY & KATAUSKAS PTY LTD

Nicholas Smith
Senior Geotechnical Engineer

Encl: Figure 1: Sketch Borehole Location Plan

NOTE: IF MESSAGE NOT CORRECTLY RECEIVED PLEASE TELEPHONE.



BOREHOLE LOCATION PLAN

