



AUSTRALIAN GEOMECHANICS SOCIETY

VICTORIA CHAPTER

Evening Technical Meeting:

March 2010 edition of Australian Geomechanics 'Geotechnology of Victoria'

Selected papers

Changes of Thornthwaite's Total Moisture Indices in Victoria from 1948-2007 and the effect on seasonal foundation movements

Dominic Lopez (USL Group Pty Ltd., Emerald, Victoria)

C.W. Thornthwaite first presented the Total Moisture Index (later known as the Thornthwaite's Moisture Index, TMI) in 1948. This paper presents the TMI values calculated for Victoria, and shows that Victoria has experienced drying conditions in the past 60 years. Possible changes to the "Characteristic Surface Movement" (y_s) as defined in Australian Standard 2870-Residential slabs and footings construction (1996) due to the new climatic conditions indicated by the TMI changes are also discussed.

Landslide risk management and ground characterisation on the sugarloaf pipeline project

Jeremy Barber (Geotechnical Engineer, GHD)

The 70 km long Sugarloaf Pipeline will deliver water from the Goulburn River in central Victoria to Sugarloaf Reservoir. Initial geomorphologic assessments identified the most significant considerations were landslide hazards of the existing slopes due to clearing and benching of the construction access corridor. This paper outlines the Landslide Risk Management for on the project including large scale studies, macro alignment selection, detailed onsite investigations of steep sites intersected by the final alignment prior to construction, implementation of the batter designs in construction and monitoring of the construction phase with detailed reporting of the findings.

Lime optimisation in lime-slag treated soft Coode Island Silt in Melbourne

B. Stanley (Department of Civil Engineering, Monash University)

This paper aims to identify optimum lime content for lime-slag treated Coode Island Silt (CIS) for sustained improvement of strength. CIS sampled from the Convention Centre construction site in Melbourne was treated with lime-slag additives in the laboratory to determine optimum lime content. The cured specimens were tested in the laboratory for unconfined compressive strength (UCS), pH and Atterberg limits. Scanning Electron Microscopy (SEM) and X-Ray Diffraction analyses (XRD) were also conducted on specimens cured for one year to study the physico-chemical and microstructural developments responsible for long term strength behaviour.

Wednesday 24 March 2010

Time: Commencing at 6:00 pm (with refreshments at 5.30pm) and finishing at 7:30 pm
Where: Engineers Australia Vic Division Building, 21 Bedford St, North Melbourne
Cost: Free, refreshments provided

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<http://www.australiangeomechanics.org/>

Attendance at this seminar contributes towards the EA's requirements for Continuing Professional Development

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