Previous course of river

Tasman Bridge: Trollope, Beresman & Peck, 1966 *J.Inst.Engrs Aust.* 38(6):117

Variable thickness of gravel (Class 8) between classes 6 and 7

Valley cut in basalt on W side of present valley. Subsequently filled with cl, sand and some gravel sediment very variable both laterally and vertically. The basalt encountered on drilling was found to be much decomposed

Properties of class 7:
PI$_{60}$ = 20-30
Void ratio e/e$_L$ 0.4-0.6
App. cohesion 96 Pa at 30 m and 29 Pa at 50 m
Pier 5 showed a 5% decrease in app. coh. below 50 m.
Consolidation variable but there is normally a high degree over consolidation

DETAIL OF SOME CITY BUILDING SITES

State Library: Longman, *Tech.Rep.* 13:85
Typical section : Fill 0-1.5 m, V_1 = 450
Clay + boulders (and cemented gravel) 0-8 m, V_1 = 850 (8-14 m in part)
ss: V_1(w) = 2000
V_1(unw) = 4000
Site contains buried cliff of ss. Dolerite in fault
WT = 3.5; unw ss at 9 m in NE and 6 m in SE

Government Bldg: Longman, *Tech.Rep.* 10:84
Typical section : Fill clay. Basalt (SE corner) interbedded with clay. Up to 8 m of fill, clay on ss
Q = 1000

Supreme Court Site: Moore, *Tech.Rep.* 14:111
Typical section : Fill t_6 = 1-3
ss
WT = 0.5-2

Lands Dept Bldg : Stevenson, *Tech.Rep.* 15
NW corner : t_7 = 7; 7/1/4
t_1 = 1
SW corner : t_7 = 8
t_1 = 1
t_4 = 2
SE corner : t_7 = 6
t_1 = 4
t_4>2
Small dolerite sill? Some fill also noted at surface

Commonwealth Bldg :
Deeply weathered, steeply dipping gz. ss. Presence of faulting

Wrest Pt: (class 8) Variable thickness of clay containing dol boulders. Old landslide deposit, generally less than 3 m thick (class 7)

Clays and fine sands t_7 >200
cl predominant west side fault. Faults such as this - low angle (60°) lubricated by springs and in bimodal materials may initiate localised and near surface differential compaction under load Tb = 0.1, p = 1.9-2.0

Sandy Bay Basin:
Sediments predominantly clay stones with some sandstone overlain near the present surface by irregular boulder beds which represent old landslides from Mt Nelson. These sediments have never been loaded more than the equivalent of 40-50 m of their own weight. Point loadings in excess of this will induce compaction and settling. Few building problems will arise providing the load is broadly and evenly spread

Position of this fault not firmly established due to limited outcrop. There is a possibility that its trend is more E-W but no more than a line through Quamby Ave/Norfolk Cres.

Fault in clays sediments dip to north-east
Breccia, tuff beneath basalt

PI(Class 7) = 59
LL = 41

1:10000