

Bill Jordan & Associates Pty Ltd

ACN 003 320 652

Chartered Civil & Structural Engineer

Heritage Consultant

PO Box 141

NEWCASTLE NSW 2300

Telephone: (02)4929 4841

Fax: (02)4929 7933

E-mail: bill.jordan@hunterlink.net.au

22 March 2004

Mr Arthur Love
Principal Engineer
Coffey Geosciences Pty Ltd
13 Mangrove Rd
SANDGATE NSW 2304

Our ref.: J011
Your ref.:

Dear Mr Love,

Re: Fort Scratchley Revetments — structural stability

In our report for Newcastle City Council dated September 2001, it was noted that the revetment concrete on the northern and eastern sides of Fort Scratchley was generally not fulfilling a “structural” function as a retaining wall. From the investigations made at that time it appeared that the concrete had been designed and placed to protect and prevent erosion of the steep hillside below the fort. There were isolated patches where minor earth pressure appeared to be acting on the concrete, due to weathered loose material, but this is generally not the case, particularly in the lower portions where the mass concrete appears to have been placed in the 19th century.

Cracking damage to the concrete was noted as being attributable to thermal expansion and contraction.

It is understood that it is intended to drill three core holes through the concrete to locate early mine workings and that questions have been raised about the structural implications of these holes.

In our opinion the proposed core holes will have no effect on the structural integrity of the concrete and, in fact, could be beneficial for the conservation process. As set out in our previous report, investigatory drilling will be required for design of the revetment remediation and the proposed holes could provide part of the information required. In addition any holes in the wall would be beneficial in relieving any hydrostatic pressure on the rear of the revetment as drainage does not appear to have been provided in the original construction.

Please let me know if you need further information.

Yours sincerely,

Bill Jordan & Associates



J.W. Jordan FIEAust CPEng
NPER Structural Reg. No. 161488