

Our Ref: W4855:BCP/bcp
Contacts: Dr Brett C Phillips / Garry Neville

27th June 2012

The Manager,
Robertson + Marks Architects Pty Ltd
Ground Floor 11-17 Buckingham Street
SURRY HILLS NSW 2010

Attention: Mr Brian Mann

Dear Brian,

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FLOODING IMPACT OF SHEPHERDS BAY URBAN RENEWAL FINAL MASTERPLAN

We have noted that in the final master plan the building layouts and their relationship to the overland flow path / landscaped corridor between Nancarrow Avenue and the foreshore has changed from the last Masterplan layout assessed and reported in 12 December 2011. The alignment of the overland flow path / landscaped corridor between Nancarrow Avenue and the foreshore is comparable to the alignment assessed and reported in our letter report dated 23 September 2010.

We therefore expect that the impacts on flood levels of planned drainage system upgrade and the development layout incorporating the overland flow path / landscaped corridor between Constitution Road and the foreshore and the resulting conclusions assessed in September 2010 are representative of the impacts on this section of the final Masterplan layout on flooding. The relevant conclusions were:

- (i) The planned drainage augmentations up to and including Ann Thorn Park in combination with additional inlets in the Nancarrow Ave low point are able to prevent overland flows down the proposed overland flowpath between Constitution Road and Shepherds Bay under Future Conditions including under a climate change scenario ie. the design intent is met;
- (ii) While overland flows would discharge down the flowpath between Constitution Road and Shepherds Bay in the PMF the planned drainage augmentations will greatly reduce the extent of High hazard flooding in comparison with Existing Conditions;

Yours faithfully



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Dr Brett C. Phillips
Director, Water Engineering
for **Cardno**