

## APPENDIX 10 : PRELIMINARY CONTAMINATION INVESTIGATION



**Douglas Partners**  
Geotechnics • Environment • Groundwater

Douglas Partners Pty Ltd  
ABN 75 053 980 117  
98 Hermitage Road  
West Ryde NSW 2114  
Australia

PO Box 472  
West Ryde NSW 1685  
Phone (02) 9809 0666  
Fax (02) 9809 4095  
www.douglaspartners.com.au

PG:jlb  
Project 71470.01  
23 June 2010

Bancor Developments Pty Ltd  
c/- Taylor Thomson Whitting (NSW) Pty Ltd  
48 Chandos Street  
ST LEONARDS NSW 2065

Attention: Mr Richard Green

By email: richard.green@ttw.com.au  
cc: peterzervos@sxa.com.au

SEND TO  
Simon BALL  
for

Dear Sirs

**PROPOSED MIXED USE DEVELOPMENT  
6-16 ATCHISON STREET, ST LEONARDS  
PRELIMINARY SITE CONTAMINATION APPRAISAL**

**1. INTRODUCTION**

This letter report presents a preliminary site contamination appraisal of the above site, with respect to the proposed mixed use development. The appraisal was requested by Peter Zervos of Bancor Developments Pty Ltd as part of a development application.

It is understood that the proposed development will involve the demolition of existing buildings and the construction of a 30 storey building with four basement levels.

Douglas Partners Pty Ltd (DP) previous undertook a geotechnical investigation of the site, with the findings included in the *Report of Geotechnical Investigation*, Project 71470, January 2010.

The objective of this appraisal was to assess the potential for site contamination on the basis of a review of the geotechnical investigation findings, limited site history information in the form of aerial photographs, and a search of regulatory notices.

**2. SITE INFORMATION**

The site is located between Atchison Street (to the south) and Atchison Lane (to the north), within the block bounded by Christie Street to the west and Mitchell Street to the east. The site is rectangular in shape, measuring approximately 50 m east-west by 35 m north-south, with an area of about 1740.6 m<sup>2</sup>. At the time of conducting the geotechnical investigation, and during a recent inspection (22 June 2010) the site was occupied by three, three to four storey commercial buildings with basement and semi-basement carparking facilities. The buildings were leased to various commercial / retail enterprises. High-rise and low-rise commercial buildings abut the boundaries to the east and west.



Reference to the Sydney 1:100,000 Geological Map Sheet indicates that the site is underlain by rock of the lower Ashfield Shale Formation, which overlies the Mittagong Formation. Rock types comprise slightly fissile mudstone (often called shale), siltstone and finely inter-laminated sandstone and siltstone (laminite) for the lower Ashfield Shale Formation. The Mittagong Formation comprises inter-bedded shale, laminite and medium-grained quartz sandstone.

The geotechnical investigation findings were consistent with the geological map, with shale, laminite and sandstone encountered.

The site levels appear to have been formed through predominantly benched cuttings, resulting in three clear tiers. Based on the bore logs in the geotechnical investigation report which show generally shallow bedrock, it is likely that the bulk of the cutting was in bedrock.

### 3. HISTORICAL AERIAL PHOTOGRAPHS

Aerial photographs taken in 1930, 1951 and 1970 were examined as part of this appraisal. The photograph observations were as follows:

- 1930: The aerial photograph is of poor quality however the site appears to comprise four to five individual allotments with buildings of unknown use. Given the appearance of the region in general it is likely that the buildings are either residential, retail or commercial. Similar properties border the site to the east and west and comprise the majority of the surrounding region.
- 1951: The site still appears to be occupied by the four to five allotments. There is no significant change noted between this and the 1930 aerial photograph both in terms of site features and surrounding properties.
- 1970: The western portion of the site appears to be occupied by a single larger style building, whilst two to three allotments still occupy the eastern portion. The footprint of the site appears to be completely occupied by the buildings. Surrounding properties appear to be predominantly commercial or retail in nature.

### 4. GEOTECHNICAL INVESTIGATION

The DP geotechnical investigation comprised the drilling of four bores within the site area in November 2009. The boreholes were commenced from the existing surface by concrete coring through the existing basement floor slabs, then drilled through the filling (gravel bedding and basecourse) and overburden soils using spiral flight augers down to the weathered rock (depths around 0.60 m). All boreholes were then extended into the bedrock to depths of between 15.11 m and 15.4 m below the floor level using NMLC diamond drilling techniques.

The boreholes encountered the following generalised subsurface conditions:

- SURFACE / FILLING: comprised a 100 – 200 mm thick concrete slab over gravel bedding extending to depths of 0.20 – 0.30 m.

SILTSTONE/ SHALE &  
LAMINITE:

encountered underlying the filling and extending to depths of up to 11.27 m.

SANDSTONE:

intercepted below depths of 6.5 – 11.27 m in the boreholes.

No free groundwater was observed whilst augering down to weathered rock (depths around 0.60 m). Core drilling techniques precluded further groundwater observations.

No visual or olfactory indicators of contamination were recorded in the borehole logs.

## 5. REGULATORY NOTICES SEARCH

A search of the Department of Environment Climate Change and Water (DECCW) notices on 22 June 2010 indicate:

- No licences or notices have been issued for the site under the *Protection of the Environment Operations Act* (1997); and
- No notices of orders to investigate or remediate have been issued for the site under the *Contaminated Land Management Act* (1997).

## 6. DISCUSSION AND CONCLUSION

In summary, the information obtained in formulating this potential contamination appraisal indicates that:

- The site levels were formed through benching in predominantly shallow bedrock;
- There is likely to be only minimal filling beneath the site;
- Previous bores did not identify visual or olfactory indicators of potential contamination;
- There are no current site usages considered to contribute to contamination of soils or groundwater;
- Historical aerial photographs suggest residential, retail and/or commercial site use at least since 1930; and
- There are no notices or licences issued for the site by the DECCW.

Based on the foregoing it is considered that the site presents a relatively low risk of soil or groundwater contamination. Furthermore, the proposed development includes deep excavation for four basement levels of carparking over the entire site footprint. As such, even if there is any residual soil contamination, it will be appropriately removed as a result of the development.

Due to the limited nature of this appraisal and the nature of the proposed development, the following additional investigation / assessment works are recommended:

- Acquisition of additional site history information, including land titles and WorkCover records to confirm or otherwise that there were no past site activities that could contribute to significant site contamination. If such activities are identified, soil and/or groundwater sampling and testing may be required; and
- A waste classification of materials to be excavated as part of the proposed development, as required by the DECC *Waste Classification Guidelines* April 2008 (updated 2009). It would be more practical to undertake the classification either once materials have been excavated and stockpiled, or *in situ* once the existing buildings have been demolished and removed from the site.

## 7. LIMITATIONS

The scope of the works undertaken by DP was limited to those outlined in the verbal agreement of 21 June 2010.

DP's assessment is necessarily based on limited information. Neither DP, nor any other reputable consultant, can provide unqualified warranties nor does DP assume any liability for site conditions not observed, or accessible during the time of the geotechnical investigation.

This report and associated documentation and the information herein have been prepared solely for the use of Bancor Developments Pty Ltd and interested parties. Any other reliance assumed by third parties on this report shall be at such parties' own risk. Any ensuing liability resulting from use of the report by third parties cannot be transferred to DP.

Yours faithfully

**DOUGLAS PARTNER PTY LTD**



**Paul Gorman**  
Senior Associate

Reviewed by:



**Ronnie Tong**  
Principal