

17 August 2016

Our ref: GEOTLCOV25199AA-BE

Karimbla Construction Services Pty Ltd
Level 11, Meriton Tower
528 Kent Street, Sydney NSW 2000

Attention: Angus Nguyen

Dear Angus

**Proposed Additional Excavation for Basement Parking Level 2
Dee Why Town Centre site, 888 Pittwater Road, Dee Why NSW**

Karimbla Construction Services (Karimbla) has commenced redevelopment of a 1.5 ha parcel of land known as Dee Why Town Centre, with a street address of 888 Pittwater Road, Dee Why (the site). This redevelopment requires demolition and removal of existing buildings and other improvements on the site, and excavation of a two-level basement over the entire site for future car parking.

Coffey Environments Australia Pty Ltd (Coffey) was commissioned by Karimbla to investigate the chemical characteristics of fill materials present as a thin layer across the site and also to investigate natural materials and groundwater which would be disturbed to allow construction of a two level basement car park. Coffey's report "Dee Why Town Centre, Supplementary Groundwater Assessment", (23 July 2015, reference GEOTLCOV25199AA-AN) presents a comprehensive assessment of subsurface conditions. This report was reviewed by NSW EPA accredited site auditor, Dr Lange Jorstad, and both Coffey's report and the relevant Site Audit Statement were provided to Council in support of Meriton's development application for the current project.

Meriton advised Coffey that an additional 0.6 metres of excavation is required in the eastern half of the basement footprint to accommodate design changes to the car park. Meriton requested Coffey's opinion, in writing, on potential effects of this change on management of excavated materials from the basement. The attached figure (Crone Architects, Drawing No. A0010-P-P2) shows the area affected by additional excavation.

Coffey referred to detailed geological information presented in Figure 3 to 10 of our Supplementary Groundwater Assessment report (cited above) which include cross-sections of the basement excavation superimposed on the interpreted geological profile at natural scale. Coffey confirms that the subsurface materials in the intended excavation are predominantly a sandy clay with high organic content underlain by a grey silty sand. The deposition of these soils in a coastal dune formation over geological time means that layering of clay and sand occur throughout the profile, with the proportion of sand increasing below approximately 6 metres beneath the pre-construction surface.

Given the above information and Coffey's detailed understanding of natural soils within the intended excavation area, Coffey considers that excavation of an additional 0.6 metres of soil from the eastern

half of the basement will not generate spoil which is materially different from that excavated from the lower levels of the current basement.

This advice should be read in conjunction with the attached sheets titled "Important Information about your Coffey Environmental Report".

If you require any further information, please do not hesitate to contact the undersigned on 02 9406 1206.

For and on behalf of Coffey



Dr Michael Dunbavan CP-SAM

Senior Principal

Attachments:

Important Information About your Coffey Environmental Report

Crone Architects, Dee Why Town Centre, Drawing No. A0010-P-P2

Important information about your Coffey Environmental Report

Introduction

This report has been prepared by Coffey for you, as Coffey's client, in accordance with our agreed purpose, scope, schedule and budget.

The report has been prepared using accepted procedures and practices of the consulting profession at the time it was prepared, and the opinions, recommendations and conclusions set out in the report are made in accordance with generally accepted principles and practices of that profession.

The report is based on information gained from environmental conditions (including assessment of some or all of soil, groundwater, vapour and surface water) and supplemented by reported data of the local area and professional experience. Assessment has been scoped with consideration to industry standards, regulations, guidelines and your specific requirements, including budget and timing. The characterisation of site conditions is an interpretation of information collected during assessment, in accordance with industry practice,

This interpretation is not a complete description of all material on or in the vicinity of the site, due to the inherent variation in spatial and temporal patterns of contaminant presence and impact in the natural environment. Coffey may have also relied on data and other information provided by you and other qualified individuals in preparing this report. Coffey has not verified the accuracy or completeness of such data or information except as otherwise stated in the report. For these reasons the report must be regarded as interpretative, in accordance with industry standards and practice, rather than being a definitive record.

Your report has been written for a specific purpose

Your report has been developed for a specific purpose as agreed by us and applies only to the site or area investigated. Unless otherwise stated in the report, this report cannot be applied to an adjacent site or area, nor can it be used when the nature of the specific purpose changes from that which we agreed.

For each purpose, a tailored approach to the assessment of potential soil and groundwater contamination is required. In most cases, a key objective is to identify, and if possible quantify, risks that both recognised and potential contamination pose in the context of the agreed purpose. Such risks may be financial (for example, clean up costs or constraints on site use) and/or physical (for example, potential health risks to users of the site or the general public).

Limitations of the Report

The work was conducted, and the report has been prepared, in response to an agreed purpose and scope, within time and budgetary constraints, and in reliance on certain data and information made available to Coffey.

The analyses, evaluations, opinions and conclusions presented in this report are based on that purpose and scope, requirements, data or information, and they could change if such requirements or data are inaccurate or incomplete.

This report is valid as of the date of preparation. The condition of the site (including subsurface conditions) and extent or nature of contamination or other environmental hazards can change over time, as a result of either natural processes or human influence. Coffey should be kept apprised of any such events and should be consulted for further investigations if any changes are noted, particularly during construction activities where excavations often reveal subsurface conditions.

In addition, advancements in professional practice regarding contaminated land and changes in applicable statutes and/or guidelines may affect the validity of this report. Consequently, the currency of conclusions and recommendations in this report should be verified if you propose to use this report more than 6 months after its date of issue.

The report does not include the evaluation or assessment of potential geotechnical engineering constraints of the site.

Interpretation of factual data

Environmental site assessments identify actual conditions only at those points where samples are taken and on the date collected. Data derived from indirect field measurements, and sometimes other reports on the site, are interpreted by geologists, engineers or scientists to provide an opinion about overall site conditions, their likely impact with respect to the report purpose and recommended actions.

Variations in soil and groundwater conditions may occur between test or sample locations and actual conditions may differ from those inferred to exist. No environmental assessment program, no matter how comprehensive, can reveal all subsurface details and anomalies. Similarly, no professional, no matter how well qualified, can reveal what is hidden by earth, rock or changed through time.

The actual interface between different materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site conditions which exist, but

steps can be taken to reduce the impact of unexpected conditions.

For this reason, parties involved with land acquisition, management and/or redevelopment should retain the services of a suitably qualified and experienced environmental consultant through the development and use of the site to identify variances, conduct additional tests if required, and recommend solutions to unexpected conditions or other unrecognised features encountered on site. Coffey would be pleased to assist with any investigation or advice in such circumstances.

Recommendations in this report

This report assumes, in accordance with industry practice, that the site conditions recognised through discrete sampling are representative of actual conditions throughout the investigation area. Recommendations are based on the resulting interpretation.

Should further data be obtained that differs from the data on which the report recommendations are based (such as through excavation or other additional assessment), then the recommendations would need to be reviewed and may need to be revised.

Report for benefit of client

Unless otherwise agreed between us, the report has been prepared for your benefit and no other party. Other parties should not rely upon the report or the accuracy or completeness of any recommendation and should make their own enquiries and obtain independent advice in relation to such matters.

Coffey assumes no responsibility and will not be liable to any other person or organisation for, or in relation to, any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report.

To avoid misuse of the information presented in your report, we recommend that Coffey be consulted before the report is provided to another party who may not be familiar with the background and the purpose of the report. In particular, an environmental disclosure report for a property vendor may not be suitable for satisfying the needs of that property's purchaser. This report should not be applied for any purpose other than that stated in the report.

Interpretation by other professionals

Costly problems can occur when other professionals develop their plans based on misinterpretations of a report. To help avoid misinterpretations, a suitably qualified and experienced environmental consultant should be retained to explain the implications of the report to other professionals referring to the report and then review plans and specifications produced to see how other professionals have incorporated the report findings.

Given Coffey prepared the report and has familiarity with the site, Coffey is well placed to provide such

assistance. If another party is engaged to interpret the recommendations of the report, there is a risk that the contents of the report may be misinterpreted and Coffey disowns any responsibility for such misinterpretation.

Data should not be separated from the report

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way. Logs, figures, laboratory data, drawings, etc. are customarily included in our reports and are developed by scientists or engineers based on their interpretation of field logs, field testing and laboratory evaluation of samples. This information should not under any circumstances be redrawn for inclusion in other documents or separated from the report in any way.

This report should be reproduced in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties.

Responsibility

Environmental reporting relies on interpretation of factual information using professional judgement and opinion and has a level of uncertainty attached to it, which is much less exact than other design disciplines. This has often resulted in claims being lodged against consultants, which are unfounded. As noted earlier, the recommendations and findings set out in this report should only be regarded as interpretive and should not be taken as accurate and complete information about all environmental media at all depths and locations across the site.

