

4 April 2024

Grant Flannigan  
EG Ltd  
Level 21, Governor Phillip Tower  
1 Farrer Place  
SYDNEY, NSW 2000

Via email only: [gflannigan@eg.com.au](mailto:gflannigan@eg.com.au)

Dear Grant,

**RE: Site Audit Interim Advice – Proposed Childcare Centre in Heritage Building (Office C) at the Northern Beaches Business Park, 4-8 Inman Road, Cromer, NSW**

### **Introduction**

James Davis of Enviroview Pty Ltd has been engaged to provide the services of a NSW EPA Contaminated Land Accredited Site Auditor, to conduct a Site Audit in relation to the proposed childcare centre on part of the site identified as Lot 1 of DP 1282038 located at 4-8 Inman Road, Cromer, NSW (the 'Site'), in accordance with the *Contaminated Land Management Act 1997* and relevant guidelines made or approved under s.105 of that Act.

The objective of the Site Audit is to review contaminated land works conducted at the abovementioned property (the site) and to ultimately provide a Site Audit Report and Site Audit Statement to certify, in the Auditor's opinion, that the site is suitable for day care centre, preschool, primary school commensurate with the use as a childcare centre.

The purpose of this interim advice is to provide comment on whether the site of the proposed childcare centre is or can be made suitable for the proposed use.

### **Background**

The site has a history of commercial/industrial land uses which has resulted in groundwater (and soil vapour) impacted with volatile organic compounds (VOCs), predominantly trichlorethylene (TCE) and benzene, with impacts extending off-site to the south. Due to the noted VOC impacts, the site was previously divided into an area regulated by the NSW EPA (the 'Regulated Area') and an unregulated area (designated as the 'Part B Unregulated Area'). The Regulated Area is the subject of a Voluntary Management Proposal (VMP) that was approved by the NSW EPA, and includes a remedial strategy proposed by the former owner Roche Products Pty Ltd).

In parallel the current owner of the site, in conjunction with the development has implemented their own remediation to ensure that the site is suitable for the proposed use, across both the regulated and unregulated portions of the site. This remediation has included a vapour intrusion management strategy of building ventilation along with the construction of a sub-slab venting below the new building that is impacted by potential vapour intrusion considered sufficient to mitigate the potential vapour intrusion risks for on-site users associated with the contaminated groundwater plume.

Following this remediation the Site Auditor completed a Site Audit for the property<sup>1</sup> that includes the area of the proposed childcare centre. During that Site Audit the developer did contemplate that the Heritage Building may be used as a childcare centre, and investigation and validation works were undertaken to assess whether this part of the site was suitable for that use.

The assessment work relevant to the proposed use can be found in the following reports prepared at that time:

Trace Environmental. *Data Gap Investigation, 4-8 Inman Road, Cromer, NSW*. Report Ref.: 26.01\_DGI\_draft\_Rev1, dated 5 September 2022.

Trace Environmental (Trace). *Indoor Ambient Air Sampling Report, Northern Beaches Business Park Heritage Building, 4-8 Inman Road, Cromer, NSW*. Report Ref.: 26.01 NBBP Cromer Heritage Bldg Ambient Air Report draft, dated 22 February 2023.

Trace Environmental. *Validation Report – Soil Vapour Intrusion Management, Northern Beaches Business Park, 4-8 Inman Road, Cromer, NSW*. Report Ref.: 26.01 Rev0, dated 11 September 2023.

The reports were reviewed by the Site Auditor and any issues raised from those reviews were satisfactorily addressed and revised reports issued.

While the Site Audit was conducted on the basis that the Heritage Building would be used as a childcare centre, this would have required a separate Site Audit Statement to be issued specifically to certify that the part of the site of the proposed childcare centre was suitable. Ultimately this was not issued at the completion of that Site Audit on advice from the client that it was no longer required, and as it would form an exception from the suitable land use of the rest of the Site Audit site it was considered that if it was not specifically required it should not be issued so that the conclusions of that Site Audit would not be ambiguous.

### **Summary of Assessment of the Heritage Building and Proposed Childcare Centre**

The contaminated land consultant TRACE Environmental were engaged in February 2022 to undertake what was described as a data-gap investigation.

While several investigations of the site had been completed by the previous owner (Roche Products Pty Ltd), it was identified that potential exposure scenarios associated the specific development of the site, including those associated with shallow fill and exposure to residual soil, groundwater and/or soil vapour impacts with residual hydrocarbon at former underground storage tanks (USTs) and/or other related site infrastructure across the site warranted further investigation.

Included in the investigation was an assessment for potential future uses within the Heritage Building, that was to be retained as part of the development of the site and this also included the possible use of the building as a childcare centre.

The assessment used criteria specifically applicable for this use including the NEPM (2013) HSLs for vapour intrusion with residential criteria considered appropriate for a childcare centre (HSL A & B) conservatively for sand with the depth range of 0m to <1m, and the Interim Soil Vapour HILs for Volatile Organic Chlorinated Compounds for residential is (Residential A). Groundwater analytical results were compared to NEPM (2013) HSLs A & B for vapour intrusion for sand.

The results of the investigation were that there were no unacceptable risks to these potential site users identified during the investigation, (including assessment related to the use of the site for

<sup>1</sup> Site Audit Statement 0301-2017 issued on 20 September 2023 by James Davis of Enviroview Pty Ltd.

childcare utilising the above-mentioned criteria for soils and potential soil and groundwater vapour risk) noting that other parts of the site were still subject to remediation and validation.

However, the consultant concluded that sampling of the indoor air within the Heritage Building should be conducted to further confirm no unacceptable vapour intrusion risks to children (and/or other future site users) within this building.

As recommended in the data-gap Investigation, the consultant was subsequently engaged to provide the indoor ambient air assessment with respect to potential risk posed to human health within the Heritage Building from potential inhalation of vapours arising from residual contamination (i.e., petroleum hydrocarbon impacts associated with former USTs as discussed earlier).

The scope of works undertaken in February 2023 had been presented in a sampling analysis quality plan which was reviewed and agreed-with at the time by the Site Auditor and included the following:

- Collection of ambient air samples from three locations within the Heritage Building. The ambient air samples were collected using 6L summa canisters. Mass flow controllers were provided by the laboratory to limit air flow to the canisters to allow for samples to be collected over an approximate 8-hour period.
- Submitting three primary ambient air samples to a NATA accredited laboratory for analysis of the relevant contaminants including VOCs by US EPA Method TO-15.
- Implementation of a field Quality Assurance/Quality Control (QA/QC) program, including collection and analysis of one blind intra-laboratory duplicate and one blind inter-laboratory duplicate ('triplicate') ambient air samples.

The sampling locations were selected relevant to the layout of the Heritage Building and in consideration of the location of the proposed childcare facility. This included ground floor (also referenced as Level 1) of the Heritage Building, which was proposed to include commercial uses and the proposed childcare centre to be located on the lowest level of the building (noting the building follows the topography of the site). While the proposal would comprise a predominantly open floor plan, some existing and possibly new enclosed spaces (i.e., amenities) would also be included. The sampling locations included the main room at the northern portion of this floor, and a location within a small vestibule (enclosed with two access doors) to amenities.

In consideration of the proposed site uses (as a childcare centre), the criteria for the assessment of the results included the NEPM (2013) Health Screening Levels (HSLs) for vapour intrusion (Low-High Density Residential A/B, the and the Interim Soil Vapour Health Investigation Levels (HILs) for Volatile Organic Chlorinated Compounds (Residential A). In consideration of the above criteria, the most restrictive criteria for indoor air settings (residential land uses, as applicable for childcare settings) were considered, and included a conservative attenuation factor for indoor air of 0.1.

The consultant considered the results collected to be representative of site conditions at the time of the investigation and suitable for the purposes of assessing potential risks to future users of the building.

No results were reported at concentrations exceeding the assessment criteria in any of the analysed samples. As such, no vapour intrusion risks have been detected that were considered to pose a risk to future site users. It was also considered that no additional sampling rounds were necessary to assess the interior ambient air conditions of the Heritage Building.

However, due to the proposed configuration of the childcare centre including an outdoor area, additional outdoor ambient air sampling was recommended to be collected once the soil vapour venting system constructed beneath the adjoining building was operational.

Towards the completion of construction, the outdoor ambient air sampling was conducted in two events in July 2023. Collection of ambient air samples was conducted using laboratory supplied 6 L evacuated canisters to collect a sample over an 8-hour period in each round.

The criteria associated with the outdoors ambient air sampling including in the vicinity of the childcare for TCE was 0.001 mg/m<sup>3</sup> (or 1µg/m<sup>3</sup>) as agreed to be an achievable detection limit with the Site Auditor. Other contaminants used the NEPM (2013) Health Screening Levels (HSLs) for vapour intrusion (Low-High Density Residential A/B) for 0-1 m depth sand soil matrix and Interim Soil Vapour Health Investigation Levels (HILs) for Volatile Organic Chlorinated Compounds (Residential A).

The results reported that TCE was not reported at concentrations exceeding the laboratory limit of reporting (LOR) in any analysed samples. However, the LOR for TCE (2.7 µg/m<sup>3</sup>) for the ambient air samples collected in round 1 was at a concentration greater than the agreed criteria. Lower LORs were reported for these samples during the Round 2 sampling (1.1 µg/m<sup>3</sup>). No other contaminants of concern were detected at concentrations exceeding assessment criteria in any of the analysed samples.

The consultant concluded that the concentration of contaminants of concern in outdoor ambient air sampling that was reported did not pose an unactable risk to future site users.

### **Site Auditor Advice**

It is the Site Auditor's opinion that the assessments in relation to site contamination of the Heritage Building for the proposed use as a childcare centre have been appropriately conducted and that the findings of the assessment, are supporting by the investigations conducted.

On this basis, the Heritage Building (Office C) is considered by the Site Auditor to be suitable for the proposed use as a childcare centre.

### **Closing**

A Site Audit Interim Advice is provided by a Site Auditor to assist in the management of contamination issues regarding the requirements of the Site Audit at a particular stage of the Site Audit, prior to issuing the Site Audit Statement. An interim advice does not constitute a Site Audit Statement or a Site Audit Report and does not pre-empt the final Site Audit conclusions. A Site Audit Report and Site Audit Statement will be prepared at the conclusion of the Site Audit.

Thank you for your time regarding this matter. I am available to discuss any aspect of the Interim Advice if required.

Yours sincerely



James Davis  
**NSW EPA Contaminated Land Site Auditor**  
**Enviroview Pty Ltd**