ENVIRONMENTAL EARTH SCIENCES
CONTAMINATION RESOLVED

18 January 2024

North Construction & Building Pty Ltd
Level 5, Suite 501
1 Bryant Drive
Tuggerah NSW 2259

Attention: **Jared Savage**
Project Manager

Interim Site Audit Advice (ISAA) No. 1 – Gosford Library Development, 123A Donnison Street, Gosford, NSW

1 Introduction

North Construction & Building Pty Ltd (North Construction) has appointed Stephan Pawelczyk of Environmental Earth Sciences NSW as NSW Environment Protection Authority (EPA) accredited Site Auditor (the Auditor), to conduct a statutory Site Audit of the proposed Gosford Regional Library development at 123A Donnison Street, Gosford, NSW, consisting of Lot 100 in Deposited Plan (DP) 711850.

North Construction plans to develop the site on behalf of Central Coast Council (Council), which includes demolition of the existing building and construction of a four-storey regional library. To facilitate the proposed development, Douglas Partners (DP) has prepared reports on the following:

- a preliminary site investigation (PSI) (DP, 2018);
- a detailed site investigation (DSI) (DP, 2021);
- a waste classification (WC) (DP, 2023a);
- a supplementary site investigation (SSI) (DP, 2023b); and
- a remedial action plan (RAP) (DP, 2024).

2 Background

The NSW Minister for Planning has provided development consent, ref. DA 21/14779 dated 16 October 2022, which includes conditions in relation to contamination. In particular, North Construction needs advice from an Auditor that the site will be suitable for the proposed development subject to appropriate implementation of a RAP per conditions B10 and C48.

The purpose of the audit at this stage is to review the reports prepared by DP and provide interim advice (i.e. this ISAA letter). Following remediation and preparation of a validation report a Section A Site Audit Statement and Site Audit Report would be required (stating the site is suitable for the specific use/s).

The Site Audit is being completed in accordance with the *Contaminated Land Management Act 1997* (CLM Act) and *Contaminated Land Guidelines: Guidelines for the NSW Site Auditor Scheme (3rd Edition)* (NSW EPA, 2017).

The proposed development is consistent with generic land use scenario HIL D – Commercial/ industrial such as shops, offices, factories and industrial sites per the National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) (ASC NEPM, NEPC 2013). The audit will be completed on the basis that generic land use scenario HIL D was adopted by the consultant/s.

3 General Comments

The PSI, DSI, WC, SSI, and RAP have been reviewed on the basis that they have been prepared in accordance with the ASC NEPM and the *Contaminated Land Guidelines: Consultants reporting on contaminated land* (NSW EPA, 2020).

4 Review of PSI (DP, 2018)

A PSI was completed by DP in August 2018 on behalf of Council. The objectives of the assessment were as follows:

- Identify potential sources of contamination due to past and present activities/practices;
- Identify the nature and possible extent of contamination at the site through visual inspection and soil screening, sampling and analysis;
- Assess the suitability of the site for the proposed use with respect to contamination issues;
- Provide advice on further investigation or remediation works (if required); and
- Provide preliminary in situ waste classification of subsurface materials that may need to be excavated and disposed of off-site as part of the proposed development.

The PSI included a desktop review of site history as well as a site walkover and a limited soil investigation program from bores advanced as part of a geotechnical investigation completed at the same time. The soil investigation comprised the inspection and screening of soils recovered from geotechnical bores at six locations, identified as Bore 1 through Bore 6 and testing of the soils for a broad suite of contaminants of potential concern.

DP identified potential contamination sources comprising the placement of filling, construction/ demolition of past structures and the use/ storage of oil/chemicals associated

with past site uses. The results of the soil investigation indicated contaminant concentrations were generally below adopted assessment criteria (HIL D) except for shallow fill material retrieved from location bore 6 where zinc above the environmental investigation level and chrysotile asbestos were detected. DP noted reported lead concentrations at Bore 2/0.5 and Bore 6/0.2 were above background. However, it is worth noting that these did not exceed the adopted assessment criteria.

DP concluded the presence of asbestos in Bore 6 and the elevated metal concentrations in Bores 2 and 6 were likely to be associated with past site activities and would require further investigation, remediation, and validation if those areas were disturbed. Regardless, further investigation was required as the geotechnical investigation was completed via accessible areas of the site and thus did not include investigation beneath the buildings that were still present at the time of the investigation.

The Auditor concurs with the findings of the PSI and notes that site has not yet been investigated intrusively.

5 Review of DSI (DP, 2021)

Based on the results of the PSI, DP completed a DSI in April 2021. The objectives of the DSI were to assess the suitability of the site for the proposed development and whether further investigation and or management was required.

The DSI included a review of the PSI report (DP, 2018), an intrusive investigation of seven boreholes within the footprint of the building in the north-west quadrant of the site, identified as locations 101 to 107, to depths up to 2.8 metres below ground level (mBGL), laboratory analysis of soil samples, and an assessment of the data.

Laboratory results were below adopted site criteria except for the presence of asbestos at location 101/1.2 in the form of asbestos containing material (ACM).

DP concluded that the presence of asbestos (currently identified as an ACM fragment in fill) would need to be appropriately managed during demolition and construction works to ensure that site users and adjacent site users are not inadvertently exposed to asbestos contamination. DP also recommended a long-term environmental management plan to be prepared for the site and for a site inspection to be undertaken following removal of the existing building to review the site condition, after which additional assessment and possibly remediation options may be recommended.

The Auditor concurs with the findings of the DSI although the lateral and vertical extent of asbestos soil contamination (being ACM) has not yet been delineated yet noting that “hand tools” presumable hand auger soil bores are not the most appropriate method to assess asbestos soil contamination.

6 Review of WC (DP, 2023a)

An in-situ waste classification was prepared for the site in October 2023 to manage surplus spoil generated during development. The waste classification was prepared utilising results from the DSI (DP, 2021). It included a review of the DSI and geological maps, inspection of the accessible materials and comparison of previous soil analytical results to NSW EPA *Waste Classification Guidelines* (NSW EPA, 2014).

Laboratory results were compared to contaminant thresholds and found to be below CT1 for Waste Classification. DP concluded fill material on site sampled and tested in the DSI were classifiable as General Solid Waste (non-putrescible) with bonded ACM (Special Waste) as defined in EPA (2014).

The Auditor notes that DP has classified all fill material at the site as General Solid Waste (non-putrescible) with bonded ACM (Special Waste). However, it is possible that the volume of special waste (asbestos) could be reduced based on the results of delineation sampling and analysis.

7 Review of SSI (DP, 2023b)

An SSI was undertaken in December 2023 to assess the nature and extent of the asbestos contamination and to assess the suitability of the site for the proposed development and comment on the need for further investigation and / or management during construction works. The SSI included review of the PSI and DSI, a site walkover, an intrusive soil investigation of 18 “test pits[1]” to depth up to 3.05 mBGL, laboratory analysis of soil samples, and assessment of results.

Soil conditions included a concrete slab (0.2 m thick), overlying fill material (0.2 m to 1.7 m thick) comprising a mix of grey and brown mix of sand, clay and gravel with singular or trace anthropogenic inclusions such as brick, tile, concrete, glass, wire and PVC fragments and natural soils comprising of yellow brown and red brown sandy clay/ clay up to 3.05 mBGL.

The results of the investigation indicated a general absence of bonded ACM within fill materials which exceeded adopted criteria, absence of asbestos fines within fill material, trace or singular building materials at some locations, and a general absence of other gross contamination at the site.

DP noted the results of the SSI were consistent with the DSI (DP, 2021) and concluded the site was suitable for the on-going commercial use from a site contamination standpoint. DP also noted the presence of asbestos could not be ruled out would need to be appropriately managed during demolition and construction. DP recommended that this be managed using an unexpected finds protocol (UFP) incorporated into the construction environmental management plan.

[1] The test pits were actually large diameter soil bores advanced using a 300 mm auger attached to a 4.5 tonne excavator.

The Auditor considers using a 300 mm diameter auger to retrieve soil samples in lieu of test pits is appropriate and concurs with the findings of the SSI completed in December 2023.

8 Review of RAP (DP, 2024)

DP prepared a RAP in January 2024 (DP, 2024) to comply with condition B10 of the development consent that '*prior to issue of a Construction Certificate for ground disturbing works, a Remediation Action plan reviewed and approved by a site auditor accredited under the CLM Act shall be submitted to the Secretary for approval*.'

The preferred strategy is “No Action” and was considered appropriate based on the results of the DSI and the SSI that formal remediation was not required and that leaving trace quantities of ACM fragments in situ would not have significant impacts to human health or the environment. In view of this, the purpose of the RAP is to manage material excavated as part of the development rather than remediate the site per se.

DP considers formal validation reporting is not considered necessary; however, the documents listed in Section 16.1 of the RAP will need to be collated and then reviewed by the Environmental Consultant and Site Auditor as part of a ‘*close-out summary report*.’ The Auditor notes that the ‘*close-out report summary*’ will need to be prepared in accordance with condition C43 of the development consent, which states:

> *C43. Prior to commencement of operation, the Applicant must submit a Validation Report for the development to the Certifier. The Validation Report must:*
>
> > *a) be prepared, or reviewed and approved, by consultants certified under either the Environment Institute of Australia and New Zealand’s Certified Environmental Practitioner (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contate (sic) Assessment and Management (CPSS CSAM) scheme;*
> >
> > *b) be prepared in accordance with the relevant guidelines made or approved by the EPA under section 105 of the Contaminated Land Management Act 1997;*
> >
> > *c) include, but not be limited to:*
> >
> > > *(i) comment on the extent and nature of the remediation undertaken;*
> > >
> > > *(ii) if material is to remain in-situ and capped, describe the location, nature and extent of any remaining contamination on site as well as any ongoing management requirements;*
> > >
> > > *(iii) sampling and analysis plan and sampling methodology undertaken as part of the remediation;*
> > >
> > > *(iv) if treated material is to remain on the subject site, results of sampling of treated material, compared with the treatment criteria in the most updated RAP;*

(v) results of any validation sampling, compared to relevant guidelines/criteria;

(vi) comment on the suitability of the area for the intended land use; and

d) be submitted to the Planning Secretary for information.

9 Closing

In general, the RAP (DP, 2024) is considered to be practical and, on the basis that is appropriately implemented, the site can be made suitable for the proposed use. Following implementation of the RAP, a validation report will need to be prepared in accordance with relevant NSW EPA guidelines concluding that the site is suitable for the proposed land use.

In accordance with s3.6.2 of the *Guidelines for the NSW Site Auditor Scheme (3rd Edition)*, this interim advice does not constitute a site audit report or statement, nor does it pre-empt the conclusion to be drawn at the end of the site audit process. Upon completion of the audit process, a site audit statement and report will be issued.

10 Limitations

This report has been prepared by Environmental Earth Sciences NSW ACN 109 404 006 in response to and subject to the following limitations:

1. The specific instructions received from North Construction & Building Pty Ltd;
2. The specific scope of works set out in PO123148 issued to North Construction & Building Pty Ltd;
3. This report comprises the formal report, documentation sections, tables, figures and appendices as referred to in the index to this report and must not be released to any third party or copied in part without all the material included in this report for any reason;
4. The report only relates to the site referred to in the scope of works being located at 123A Donnison Street, Gosford, NSW, Lot 100 DP 711850 (“the site”);
5. The report relates to the site as at the date of the report as conditions may change thereafter due to natural processes and/or site activities;
6. No warranty or guarantee is made in regard to any other use than as specified in the scope of works and only applies to the depth tested and reported in this report;
7. Fill, soil, groundwater and rock to the depth tested on the site may be fit for the use specified in this report. Unless it is expressly stated in this report, the fill, soil and/or rock may not be suitable for classification as clean fill, excavated natural material (ENM) or virgin excavated natural material (VENM) if deposited off site;

8. This report is not a geotechnical or planning report suitable for planning or zoning purposes; and

9. Our General Limitations set out at the back of the body of this report.

Should you have any queries, please do not hesitate to contact us on (02) 9922 1777.

For and on behalf of
Environmental Earth Sciences NSW

Site Auditor
Stephan Pawelczyk
NSW EPA-accredited Site Auditor 2202

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11 References

Douglas Partners 2018 *Report on Prelimnary Site Investigation for Contamination, 123A-125B Donnison Street, Gosfrord.* (dated 2 August 2018).

Douglas Partners 2021 *Detailed Site Investigation (Contamination), Proposed Gosford Regional Library, 123A Donnison Street Gosford. 83343.03.R.001.Rev0:* (dated 7 April 2021).

Douglas Partners 2023a *In Situ Waste Classification, 123A Donnison Street, Gosford. 83343.04.R.001.Rev0:* (dated 11 October 2023).

Douglas Partners 2023b *Supplementary Site Investigation (Contamination), Proposed Gosford Regional Library, 123A Donnison Street Gosford. 83343.04.R.002.Rev0:* (dated 21 December 2023).

Douglas Partners 2024 *Report on Remediation Action Plan, Gosford Regional Library, 123A Donnison Street Gosford. 83343.04.R.003RAP83343.04.R.003.Rev0* (dated 12 January, 2024).

National Environment Protection Council (NEPC) 2013 *National Environment Protection (Assessment of Site Contamination) Measure 1999*.

NSW Environment Protection Authority (EPA) 2016 *Addendum to the Waste Classification Guidelines (2014) – Part 1: classifying waste*.

NSW EPA 2017 *Contaminated Land Guidelines: Guidelines for the NSW Site Auditor Scheme (3rd edition)*.

NSW EPA 2020 *Contaminated Land Guidelines: Consultants reporting on contaminated land*.

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Scope of services
The work presented in this report is Environmental Earth Sciences response to the specific scope of works requested by, planned with and approved by the client. Client may distribute this report to other parties and in doing so warrants that the report is suitable for the purpose it was intended for.

Data should not be separated from the report
A report is provided inclusive of all documentation sections, limitations, tables, figures and appendices and should not be provided or copied in part without all supporting documentation for any reason, because misinterpretation may occur.

Subsurface conditions change
Understanding an environmental study will reduce exposure to the risk of the presence of contaminated soil and or groundwater. However, contaminants may be present in areas that were not investigated, or may migrate to other areas. Analysis cannot cover every type of contaminant that could possibly be present. When combined with field observations, field measurements and professional judgement, this approach increases the probability of identifying contaminated soil and or groundwater. Under no circumstances can it be considered that these findings represent the actual condition of the site at all points.

Environmental studies identify actual sub-surface conditions only at those points where samples are taken, when they are taken. Actual conditions between sampling locations differ from those inferred because no professional, no matter how qualified, and no sub-surface exploration program, no matter how comprehensive, can reveal what is hidden below the ground surface. The actual interface between materials may be far more gradual or abrupt than an assessment indicates. Actual conditions in areas not sampled may differ from that predicted. Nothing can be done to prevent the unanticipated. However, steps can be taken to help minimize the impact. For this reason, site owners should retain our services.

Obtain regulatory approval
The investigation and remediation of contaminated sites is a field in which legislation and interpretation of legislation is changing rapidly. Our interpretation of the investigation findings should not be taken to be that of any other party.

Limit of liability
This study has been carried out to a particular scope of works at a specified site and should not be used for any other purpose.