

21 March 2023

William St Nominee Pty Ltd  
c/- Rebel Property Group Pty Ltd  
L8, 14 Martin Place  
Sydney NSW 2000  
Attn: John Fitzgerald

**By email: jfitzgerald@rebelpropertygroup.com**

Dear John

**RE: INTERIM AUDIT ADVICE LETTER NO. 1 - REMEDIAL ACTION PLAN,  
164-194 WILLIAM ST, WOOLLOOMOOLOO**

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Ref: 318001630 318001630

Audit Number: RS 167

## 1. INTRODUCTION

### 1.1 Background and Objective

As a NSW Environment Protection Authority (EPA) accredited Contaminated Sites Auditor, I am conducting an Audit (RS 167) under the NSW *Contaminated Land Management Act 1997* (CLM Act) in relation to 164-194 William Street, Woolloomooloo (the site). The objective of this initial review is to provide an independent review of the suitability and appropriateness of a Remediation Action Plan (RAP).

A Development Application (DA/2022/139) for 164-194 William St, Woolloomooloo was submitted in February 2022 for a mixed-use development with multiple levels of basement car parking, discussed further in **Section 2.5**.

I have been provided with a letter 'Request for Additional Information, Site Address: 164-172 and 174-194 William Street, Woolloomooloo, Development Application Number D/2022/139', City of Sydney Council, 26 July 2022 (**the RFI**). The RFI makes the following comment and recommendations in relation to the Audit:

#### **7. Contamination**

*The proposal involves excavation for four levels of basement. The submitted Remediation Action Plan (RAP), prepared by Douglas Partners, indicates that there are at least two underground petroleum storage tanks (UPST), and possibly more tanks, located on the site.*

*The site was historically used for motor car purposes since the early 1920s. The two UPSTs recorded on the site were in use until 1997 and have been reported as being decommissioned in situ.*

*Investigations of the tested soil samples has found the presence of concentrated contaminants including benzo(a) pyrene and [total*

*recoverable hydrocarbon] fraction associated with the fill on the site. However, these contaminants were assessed to not exceed national guidelines. It is intended that these will be removed from the site and contaminated soil disposed of under the supervision of an environmental consultant.*

*Chapter 4 – Remediation of Land of SEPP (Resilience and Hazards) 2021 requires the consent authority to be satisfied that the site is or will be made suitable for the purpose for which development is proposed to be carried out. The application was not accompanied with a Site Auditor Statement, or an interim advice letter prepared by a NSW EPA accredited Site Auditor that confirms the RAP is practical and the site will be made suitable for the intended use following from remediation.*

### **Recommendations:**

*a. The RAP must be peer reviewed by an NSW EPA Accredited Site Auditor. A Section B Site Audit Statement or a letter or interim advice must be obtained from the Site Auditor, certifying that the RAP is practical, and the site will be made suitable after being remediated in accordance with the requirements of the submitted RAP.”*

## **1.2 Scope of Work**

This Interim Audit Advice no. 1 (**IAA #1**) has been prepared to address the above request and is based on a review of the documents listed below, as well as discussions with Rebel Property Group Pty Ltd and Douglas Partners Pty Ltd (DP) who undertook the investigations and prepared the RAP.

The key reports reviewed were:

- 'Due Diligence Contamination Investigation, Proposed Unit Development, 172 and 174-194 William Street, Woolloomooloo', 4 September 2020, DP (**the DDCI**)
- 'Detailed Site (Contamination) Investigation, Stage 1 Development Application, 164-194 William St, Woolloomooloo', Revision 4, 15 March 2023, DP (**the DSI**)
- 'Remediation Action Plan, Stage 1 Development Application, 164-192 William St, Woolloomooloo', Revision 4, 15 March 2023, DP (**the RAP**).

Other information that has been considered includes design documents submitted with DA/2022/139 publicly available from Council. I also conducted a site inspection on 27 February 2023 and had correspondence with DP during review of the reports. Review comments were made on earlier versions of the DSI and RAP which were adequately addressed in the final versions listed above.

I have reviewed the key reports against the requirements of the following:

- Chapter 4 Remediation of Land in the Resilience and Hazards State Environment Planning Policy (SEPP) (2021) (SEPP R&H, formerly known as SEPP 55) and NSW Department of Urban Affairs and Planning and NSW EPA (1998) 'Managing Land Contamination, Planning Guidelines SEPP 55 - Remediation of Land'
- National Environment Protection Council (NEPC) 'National Environment Protection (Assessment of Site Contamination) Measure 1999', as Amended 2013 (**NEPM 2013**).
- NSW EPA (2017) 'Guidelines for the NSW Site Auditor Scheme (3rd Edition)'
- NSW EPA (2020) 'Contaminated Land Guidelines, Consultants Reporting on Contaminated Land'
- Australia and New Zealand Heads of EPAs (HEPA 2020) 'PFAS National Environmental Management Plan, Version 2.0'
- NSW EPA (2022) 'Contaminated Land Guidelines, Sampling design part 1 – application' and 'Contaminated Land Guidelines, Sampling design part 2 – interpretation'.

## 2. SITE DETAILS

### 2.1 Location

The site details are as follows:

|                   |                                                                          |
|-------------------|--------------------------------------------------------------------------|
| Street address:   | 164-172 & 174-194 William St, Woolloomooloo 2011 ( <b>Attachment 1</b> ) |
| Identifier:       | Lot 52 DP1049805 & Lot 1 DP816050                                        |
| Local Government: | Council of the City of Sydney (Council)                                  |
| Owner:            | William Street Nominees Pty Ltd                                          |
| Site Area:        | Approximately 6,402 m <sup>2</sup>                                       |

The boundaries of the site are well defined by adjoining streets and property fences.

### 2.2 Zoning

The site is zoned Zone B4 Mixed Use under Sydney Local Environmental Plan 2012 as shown on **Figure 2.1** extracted from ePlanning Spatial Viewer.

**Figure 2.1: Zoning**



### 2.3 Adjacent Uses

The site is located within an area of mixed use. The surrounding site use includes:

North - Commercial offices/retail and residential with the Woolloomooloo historical viaduct underbridge approximately 50 m north of the site, Judge Lane will be extended and incorporated into the site in the northeast

East - Dowling Street, then commercial office/retail and residential with Kings Cross Train Station approximately 100 m east

South - William Street, then commercial, retail and residential land use. The Cross City Tunnel (road tunnel) runs partially underneath William Street

West - Forbes Street then commercial offices and retail.

Review of information in the DDCI shows multiple dry cleaners, motor garages and service stations within a 250 m radius of the site (refer **Attachment 4**). This includes a dry cleaners mapped to the William Street intersection directly adjacent and upgradient of the site and premises across Dowling Street adjacent the site to the east. Off-site activities associated with dry cleaners, motor garages and

service stations surrounding the site have the potential to impact groundwater that may migrate on to the site.

## 2.4 Site Condition

The site is currently occupied as follows:

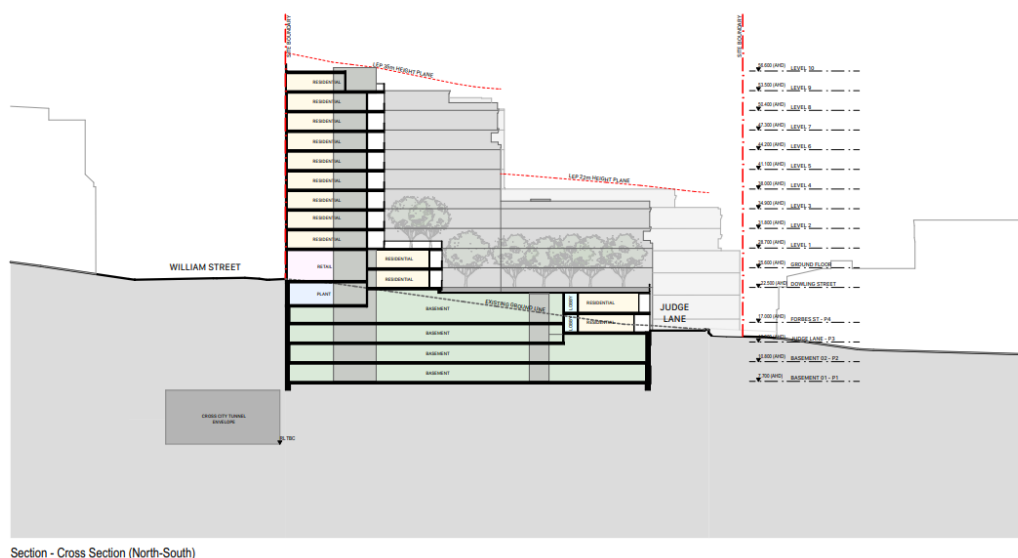
- 164-172 William Street (southwest portion of site) - multi-story office buildings (British American Tobacco Australasia Pty Ltd), including a single level of partial basement parking (Relative Level (RL) below William Street but at grade at the Forbes Street entrance at 13 m Australian Height Datum (AHD)).
- 174-194 William Street (north and southeast portion of site) - Bayswater Car Rental and workshop, multiple levels of basement are present (RL 23-24 mAH). Lower basement level is on grade at the northwest corner (13 mAH) with a ground level car parking area.

The site layout is shown on **Attachment 1**.

## 2.5 Proposed Development

D/2022/139 refers to a Stage 1 concept proposal for a mixed-use development including a concept envelope up to a height of approximately 35 m (RL59.99), indicative future residential and retail land uses, vehicular and loading access from Forbes Street, 4 indicative basement levels for parking, services and storage as well as provision of a publicly accessible through-site link (laneway) off Dowling Street that connects to Judge Lane and Forbes Street. A cross section extracted from the Architect – Section, dated 28 February 2022 available from Council is presented as **Figure 2.2** (noting this may not represent the latest plans, however, provides a conceptual indication of key features).

**Figure 2.2: Proposed Development**



A deep soil zone (DSZ) and a no dig zone in the laneway footprint (the laneway) will comprise the ground floor communal area and through-site link along the northern portion of the site. A basement level plan and a plan of the DSZ and laneway are shown on **Attachments 2 and 3** respectively (sourced from the DSI and RAP).

The RAP states the DSZ and laneway occupy an estimated area of approximately 1,132 m<sup>2</sup> (with the DSZ contributing ~641 m<sup>2</sup>). The laneway is to be dedicated to Council.

The DSI states that the building will comprise approximately 10 above-ground floors over a basement carpark that will consist of three to four levels from northwest to southeast, i.e., the basement will step down from a finished floor level (FFL) of RL 11.3 m to FFL of RL 8.5 m, relative to AHD.

The scheme has not been finalised and the above details from the DA and the DSI are indicative only.

The proposed development is considered to fall within a 'residential with minimal access' exposure scenario for the purposes of this review.

### 3. SITE HISTORY

The DDCI and DSI provided a summary of the site history based on aerial photographs, NSW EPA records, SafeWork NSW dangerous goods records and Certificates of Title.

The DDCI summarises that the site has been used for motor-car related industries as early as the 1920s and has become a car rental site within the last 30 years following its use as (most likely) a car dealership. The motor related activities were associated with the eastern half of the site, particularly the north-eastern sections of the site. The southern part of the site, along the south boundary, was likely used for other commercial and industrial uses not necessarily related to the motor industry, although it was temporarily used for car parking roughly between 1955 and 1965. The building in the south-eastern corner of the site appears to have been redeveloped around 1965 and 2015. The western half of the site was most likely residential until it was converted into a carpark in between 1970 and 1978. The laneway (Judge Lane) which historically ran through the centre of the site is now part of the site and is presently used as an internal road and no significant changes to the road appear to have been made.

Anecdotal information reported in the DDCI and the presence of tram tracks in the eastern part of the site suggests that the site, or part thereof, was used historically for tram or train manufacturing, maintenance or storage.

Two underground storage tanks (USTs) were previously in operation at the site, at locations shown approximately on **Attachment 1**. The DDCI states that records were provided by the current site owner confirming that both USTs had been decommissioned in situ in 1997.

#### 3.1 Auditor's Opinion

The site history is broadly understood and provides an adequate indication of past activities and the primary potentially contaminating uses, which comprise manufacturing and motor-car related industries, including fuel storage and workshop activities. Uncertainties include specific activities that may have been associated with the previous usage. The site also appears to have been historically filled. These uncertainties in specific site uses have been compensated for by the investigations and proposed remediation.

### 4. CONTAMINANTS OF POTENTIAL CONCERN

The DDCI and DSI provided a list of the contaminants of potential concern (COPC) and potentially contaminating activities. These have been summarised in **Table 4.1**.

**Table 4.1: Contaminants of Potential Concern (COPC)**

| Source                                                                       | COPC                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fill: Associated with levelling, demolition of former buildings on the site. | Metals, total recoverable hydrocarbons (TRH), benzene, toluene, ethyl benzene and xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs), organochlorine pesticides (OCP), organo phosphorous pesticides (OPP), polychlorinated biphenyls (PCBs), phenols and asbestos. |

| Source                                                                                                                                                                                                                                                                                                                                                                                                                         | COPC                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| USTs and associated pipework and bowsers.                                                                                                                                                                                                                                                                                                                                                                                      | Lead, TRH, BTEX, PAH and volatile organic compounds (VOC)          |
| Current and past site uses: Potential for soil and groundwater to be impacted by practices associated with motor related industries (e.g., car manufacturing, panel beating, motor garages, vehicle cleaning, refuelling, and painting, etc.), and other potential commercial / industrial activities such as the manufacturing of batteries, paints and varnish, furniture, slot machines, electrician, and builder supplies. | Metals, TRH, BTEX, PAH, OCP, OPP, PCB, VOC, phenols and asbestos   |
| Existing and previous buildings and the associated deterioration and spalling.                                                                                                                                                                                                                                                                                                                                                 | Asbestos, synthetic mineral fibres (SMF), lead (in paint) and PCB. |
| The large number of motor related services in the surrounds such as service stations and motor garages and dry cleaners, the long history of other commercial/industrial works in the area including a dry cleaner upgradient of the site (at the intersection adjacent and upgradient of the site – within 20 m) and general maintenance/ redevelopment of public roads which surround the site                               | Metals, TRH, BTEX, PAH, OCP, OPP, PCB, VOC, phenols and asbestos   |

The COPC listed above informed the investigations completed for the DSI. Subsequently, perfluoroalkyl and polyfluoroalkyl substances (PFAS) and methyl tert-butyl ether (MTBE) were identified as COPC associated with current and past site uses and adjacent site uses.

#### 4.1 Auditor's Opinion

The identified COPC adequately reflect the site history and condition and were included in the analytical suite adopted for the investigations, except for VOC, PFAS and MTBE. Groundwater was not sampled and there is potential for groundwater to be impacted by both on- and off-site sources. The RAP includes VOC, PFAS and MTBE in the validation analytical suites where appropriate.

## 5. TOPOGRAPHY, STRATIGRAPHY AND HYDROGEOLOGY

Following a review of the reports provided, a summary of the site topography, stratigraphy and hydrogeology was compiled as follows.

#### 5.1 Topography

The site generally slopes from approximately 24 m AHD in the southeast (corner of Dowling and William Streets) towards 13 mAHD in the northwest on Forbes Street. The ground surface levels generally fall to the northwest at a grade of about 14% in the vicinity of the site. Proposed basement levels are described in **Section 2.4**.

#### 5.2 Stratigraphy

The DSI refers to the NSW Department of Finance, Services & Innovation 2020 1:100,000 Sydney Geology Sheet which indicates that the site is underlain by Triassic aged Sandstone described as medium to coarse grained quartz sandstone with very minor shale and laminate lenses. The north-eastern corner of the site is adjacent to an area of mapped man-made fill (which is described as dredged estuarine sand and mud, demolition rubble, industrial and household waste) overlying silty to peaty quartz sand, silt and clay with ferruginous & humic cementation in places and common shell layers.

The stratigraphy encountered during the DDCI and the DSI was consistent with the published geology.

The fill was granular (gravel and sandy clays) with traces of anthropogenic inclusions including asphaltic concrete, sandstone and shale gravel, wood, brick, terracotta and concrete at some locations.

Depth of rock and fill (mbgl) as logged by DP is summarised in **Table 5.1** with locations shown on **Attachment 1**.

**Table 5.1: Depth of Fill and Sandstone (mbgl)**

| Location | Fill Depth | Sandstone Depth | Area of Site                                                            |
|----------|------------|-----------------|-------------------------------------------------------------------------|
| BH2      | 0.5        | 0.6             | Bayswater Car Rental ground level car park (northwest portion)          |
| BH3      | 0.7        | 1.0             |                                                                         |
| BH4      | 1.0        | 3.0             |                                                                         |
| BH6      | 0.9        | 0.9             |                                                                         |
| BH101    | 0.3        | 0.4             | British American Tobacco building basement car park (southwest portion) |
| BH102    | 0.55       | 0.55            |                                                                         |
| BH103    | 0.6        | 0.61            |                                                                         |
| BH104    | 0.3        | 0.3             |                                                                         |
| BH105    | None       | 0.3             | Bayswater Car Rental basement (southeast portion)                       |
| BH106    | None       | 0.3             |                                                                         |
| BH107    | None       | 0.35            |                                                                         |
| BH108    | None       | 0.55            |                                                                         |
| BH109    | 0.35       | 0.7             | Bayswater Car Rental basement (northeast portion)                       |
| BH110    | None       | 0.48            |                                                                         |
| BH111    | 0.2        | 0.45            |                                                                         |
| BH112    | 0.2        | 0.45            |                                                                         |

Sandstone was relatively shallow and encountered at depths from directly below the concrete surfacing up to depths of approximately 1 m except at BH4 in the northwest where it was encountered at a depth of 3 m. Fill and residual soil were encountered between the surface and the sandstone. The maximum depth of fill was 1 m at BH4.

### 5.3 Hydrogeology

The DSI states the closest water body is Sydney Harbour approximately 600 m down gradient and to the north of the site.

Surface water is likely to follow the regional topography and flow north towards Sydney Harbour, although it is also likely to be intercepted by man-made drainage north of the site.

A search of the publicly available registered groundwater bore database indicated that there were eight groundwater bores within 500 m of the site and these are monitoring wells.

The DDCI states no groundwater was reported in any of the borehole logs. However, all bores were terminated at the surface of the sandstone bedrock, at a maximum depth of 3 mbgl and groundwater is expected to be present within the sandstone aquifer at depth.

The DSI states, based on the regional topography and the inferred flow direction of nearby water courses, the anticipated flow direction of groundwater beneath the site is to the north, towards Sydney Harbour, the likely receiving surface water body for the groundwater flow path. Given the local geology (i.e., Hawkesbury sandstone), the groundwater in the fractured rock aquifer beneath the site is anticipated to be relatively fresh.

The DSI states the Cross City Tunnel (road tunnel) to the south of the site beneath William Street may act as a horizontal well and may have an impact on groundwater levels at the site.

## 5.4 Auditor's Opinion

The topography, stratigraphy and hydrogeology are sufficiently well known for the purpose of remedial planning.

## 6. EVALUATION OF QUALITY ASSURANCE AND QUALITY CONTROL

The Auditor has assessed the overall quality of the data by review of the information presented in the referenced reports. The data sources are summarised in **Table 6.1**.

**Table 6.1: Summary of Investigations**

| Investigations                  | Field Investigations                                                                                 | Analytical Data Obtained                                                              |
|---------------------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| DDCI<br>Fieldwork: June 2020    | 4 x boreholes (BH2, BH3, BH4 and BH6)<br><b>Attachment 1</b>                                         | Soil: metals, TRH, BTEX, PAHs, phenols, OCPs, OPPs, PCBs, asbestos (presence/absence) |
| DSI<br>Fieldwork: November 2021 | 4 x boreholes (hand-auger) (BH101 to BH104)<br>8 x boreholes (BH105 to BH112)<br><b>Attachment 1</b> | Soil: metals, TRH, BTEX, PAHs, phenols, OCPs, OPPs, PCBs, asbestos (presence/absence) |

The Auditor has assessed the overall quality of the data by review of the information presented in the referenced reports, supplemented by field observations. The Auditor's assessment follows in **Tables 6.2 and 6.3**.

**Table 6.2: QA/QC – Sampling and Analysis Methodology Assessment**

| Sampling and Analysis Plan and Sampling Methodology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Auditor's Opinion                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>Data Quality Objectives (DQO)</i></p> <p>DP defined specific DQOs in accordance with the seven-step process outlined in Schedule B2 of NEPM 2013.</p> <p>For the DSI the decision was to establish if analytical results fall below the site assessment criteria and determine the suitability of the site from a contamination perspective for the proposed land use and whether (or not) further assessment and/or remediation was required.</p> <p>For the RAP the decision was soil that contains concentrations of contaminants that exceed the adopted assessment criteria will need to be removed from the site and disposed of at an appropriately licensed landfill/treatment facility. Depending on the cut and fill plan, this may involve all fill being removed from the site during excavation to form final basement levels. If fill is to remain on-site, it will need to be validated as suitable for the proposed use, i.e., in the DSZ and laneway.</p> <p>The decision will also need to consider whether based on the findings of the data gap assessment (DGA) groundwater poses a risk to human health and the environment under the proposed land use.</p> | Adequate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <p><i>Sampling pattern, locations, density and depth</i></p> <p>Fifteen boreholes were distributed across the site as shown on <b>Attachment 1</b>. The locations incorporated various access constraints.</p> <p>The bores were terminated at refusal at the top of sandstone (ranging from depths of 0.3 to 3 mbgl)</p> <p>Samples were collected from fill and natural material and screened with a PID at approximately 0.5 m intervals. Generally, one to two samples were selected for laboratory analysis, mostly being samples of fill. In deeper boreholes up to three samples were analysed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <p>The locations provided general coverage (a systematic sampling pattern with a randomised offset). The density is consistent with the minimum number of sampling locations for a square grid from NSW EPA (2022). Overall, the sampling pattern, locations, density and depth are adequate to provide a reasonable characterisation of fill material for the purpose of remediation planning.</p> <p>The USTs were not well targeted. The closest bores were over 5 m (BH111) and</p> |

| Sampling and Analysis Plan and Sampling Methodology                                                                                                                                                                                                                                                           | Auditor's Opinion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Most of the samples selected for analyses were fill material with residual clay or sandstone also being analysed at a few locations.</p>                                                                                                                                                                   | <p>15 m (BH105) from the USTs and these terminated at a depth of 0.45 m and 0.3 mbgl respectively.</p> <p>The RAP provides a framework to be implemented during the earthworks proposed as part of development:</p> <ul style="list-style-type: none"> <li>• Assess and remediate any soil impacts associated with the USTs</li> <li>• Identify and address unexpected finds</li> <li>• Remove heterogenous fill which may be impacted with PAHs, metals and/or asbestos across majority of site as part of bulk excavation</li> <li>• Validate any fill that remain on-site after remediation such as in the DSZ and laneway.</li> </ul> <p>This is adequate to address uncertainty. Overall, adequate.</p> |
| <p><i>Sample collection method</i></p> <p>Soil samples were collected from push tube and auger returns using disposable nitrile gloves and disposable push tube sleeves.</p>                                                                                                                                  | <p>Boreholes are not ideal for observing potential inclusions within fill material such as potential asbestos containing material (ACM). However, this uncertainty is to be addressed during removal of fill from the site and during further assessment and remediation of the DSZ and laneway.</p> <p>Overall, adequate.</p>                                                                                                                                                                                                                                                                                                                                                                               |
| <p><i>Decontamination procedures</i></p> <p>Disposable push tube sleeves and new nitrile gloves for each new sample were used therefore decontamination of equipment was not required.</p>                                                                                                                    | <p>Adequate</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p><i>Sample handling and containers</i></p> <p>Soil samples were placed into prepared and preserved sampling containers provided by the laboratory. Sample receipt advice and chain of custody documentation indicates a cooling method was not provided.</p>                                                | <p>Field observations and screening with a PID did not suggest the presence of significant volatile or petroleum hydrocarbon contamination in the samples collected. Absence of cooling is unlikely to have a material impact on the quality data with respect to the key contaminants of potential concern which include PAHs, metals, and asbestos.</p> <p>Overall, adequate.</p>                                                                                                                                                                                                                                                                                                                          |
| <p><i>Chain of Custody (COC)</i></p> <p>Completed COC forms were provided in the report.</p>                                                                                                                                                                                                                  | <p>Adequate</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p><i>Detailed description of field screening protocols</i></p> <p>A replicate sample was collected in a zip-lock bag for field screening with a photoionisation detector (PID) as a preliminary screen for VOCs.</p>                                                                                         | <p>Adequate</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p><i>Calibration of field equipment</i></p> <p>Calibration certificates from the equipment supplier were provided in the DSI covering field work dated for the DDCI and DSI. Calibration was not discussed in the report. Methodology and evidence of daily field calibration/checks were not available.</p> | <p>Lack of discussion around field calibration is not ideal. PID readings on 29/6/20 and 26/11/21 are all &lt;1 ppm. PID readings on 29/11/21 range from 0.5 to 16.9 ppm in all samples. The &lt;1 ppm readings appear potentially anomalous in this context. However, overall, the PID readings appear to indicate low levels of volatile compounds. Also, the PID was not used as a primary line of evidence in decision making. Sufficient laboratory data was obtained to characterise soil for the</p>                                                                                                                                                                                                  |

| Sampling and Analysis Plan and Sampling Methodology                                                                                                                                                                                                 | Auditor's Opinion                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                     | purpose of developing a remediation framework.<br>Overall, adequate.                                                                                                                                                                                                                                                          |
| <p><i>Sampling logs</i></p> <p>Borehole logs were provided within the DSI (and included the boreholes advanced for the DDCI). The logs indicated sample depth, PID readings and lithology. Observations of anthropogenic inclusions were noted.</p> | <p>No observations of odour or staining were recorded. This may have been an omission given petroleum hydrocarbons were detected in some samples. However, concentrations were relatively low and the omission is unlikely to be material in the context of the remediation framework proposed.</p> <p>Overall, adequate.</p> |

Table 6.3: QA/QC – Field and Lab Quality Assurance and Quality Control

| Field and Lab QA/QC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Auditor's Opinion                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>Field quality control samples and results</i></p> <p>Field quality control samples including trip blanks, trip spikes, field intra-laboratory laboratory duplicates were undertaken.</p> <p>Rinsate blanks were not required since dedicated sampling equipment was used for each location.</p> <p>Inter-laboratory duplicates were not collected. However, the laboratory is NATA accredited to ISO17025 and provided a summary of external proficiency testing undertaken by NATA, together with results of internal laboratory proficiency testing.</p> <p>Relative percent differences (RPDs) between duplicate pairs for some metals and PAHs were elevated which was attributed to the heterogenous distribution in fill. Overall, results were within acceptable control limits.</p> | <p>The absence of inter-laboratory duplicates is not ideal. However, the data is likely to be of adequate quality to provide a general characterisation of the heterogenous fill. The RAP provides an adequate framework for addressing uncertainties associated with heterogeneity and unexpected finds.</p> <p>Overall, adequate.</p> |
| <p><i>NATA registered laboratory and NATA endorsed methods</i></p> <p>The laboratory used for the DDCI and DSI was Envirolab Services Pty Ltd. The laboratory was NATA accredited for the analyses performed and the certificates were NATA stamped.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Adequate                                                                                                                                                                                                                                                                                                                                |
| <p><i>Analytical methods</i></p> <p>Analytical methods were included in the laboratory test certificates.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Adequate                                                                                                                                                                                                                                                                                                                                |
| <p><i>Holding times</i></p> <p>Review of the COCs and laboratory certificates indicate that the holding times had been met.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Adequate                                                                                                                                                                                                                                                                                                                                |
| <p><i>Laboratory Limits of Reporting (LORs)</i></p> <p>LORs were less than the threshold criteria for the contaminants of concern.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Adequate                                                                                                                                                                                                                                                                                                                                |
| <p><i>Laboratory quality control samples and results</i></p> <p>Laboratory quality control samples including laboratory control samples, matrix spikes, surrogate spikes, blanks, internal standards and duplicates were undertaken by the laboratory.</p> <p>Results were within acceptable control limits.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Adequate                                                                                                                                                                                                                                                                                                                                |
| <p><i>Data Quality Indicators (DQI) and Data Evaluation (completeness, comparability, representativeness, precision, accuracy)</i></p> <p>Predetermined data quality indicators (DQIs) were set for laboratory analyses including blanks, replicates, duplicates, laboratory control samples, matrix spikes, surrogate spikes and internal standards. These were discussed with regard to the five category areas. The DSI (which also considered data from the DDCI) concluded "Based on the results of the field QA and field and laboratory QC, and evaluation against the DQIs it is concluded that the field and laboratory test data obtained are reliable and useable for this assessment."</p>                                                                                            | <p>An assessment of the data quality with respect to the five category areas has been undertaken by the Auditor and is summarised below.</p>                                                                                                                                                                                            |

## 6.1 Auditor's Opinion

In considering the combined data set, the Auditor concludes that the data is of adequate completeness, comparability, representativeness, precision and accuracy to inform the RAP. The RAP includes a framework for assessing groundwater and addressing uncertainty in relation to groundwater quality, contamination associated with the USTs, heterogeneity within the fill and unexpected finds.

## 7. ENVIRONMENTAL QUALITY CRITERIA

The Auditor has assessed the results against Tier 1 criteria from NEPM (2013). Based on the proposed development human health criteria for 'residential with minimal opportunities for soil access' and ecological criteria appropriate for 'urban residential and public open space' were adopted.

The Auditor has adopted soil assessment criteria from the following sources:

- NEPM (2013) Health Investigation Levels (HILs) for residential with minimal opportunities for soil access (HIL B) land use.
- NEPM (2013) Health Screening Levels (HSLs) for 'Low-High Density Residential' (HSL-A&B) land use. The HSLs assumed a sand soil type. Depth to source adopted was <1 m as an initial screen.
- NEPM (2013) Management Limits (MLs) for petroleum hydrocarbons for 'Residential and Open Space' land use and assuming coarse soil texture. Criteria are relevant for operating sites where significant sub-surface leakage of petroleum hydrocarbons has occurred and when decommissioning industrial and commercial sites.
- Asbestos was assessed on presence/absence basis within a weight of evidence framework.
- NEPM (2013) Ecological Screening Levels (ESLs) for 'Urban Residential and Public Open Space' land use, assuming coarse soil.
- NEPM (2013) Ecological Investigation Levels (EILs) for 'Urban Residential and Public Open Space'. In the absence of site-specific soil data on pH, clay content, cation exchange capacity and background concentrations, the published range of the added contaminant limits (ACL) have been applied as an initial screen.
- Canadian Council of Ministers of the Environment (CCME) (2010) *Canadian soil quality guidelines: carcinogenic and other polycyclic aromatic hydrocarbons (PAHs)* soil quality guideline (SQG) for benzo(a)pyrene for 'Residential' land use. The SQG has been adopted in place of the NEPM (2013) ESL as it is based on a larger and more up-to-date toxicity database than the low reliability NEPM (2013) ESL.

The Auditor has considered the need for soil remediation based on 'aesthetic' contamination as outlined in *Section 3.6 Aesthetic Considerations* of NEPM (2013) Schedule B1, which acknowledges that there are no chemical-specific numerical aesthetic guidelines. Instead, site assessment requires a balanced consideration of the quantity, type and distribution of foreign material or odours in relation to the specific land use and its sensitivity.

## 7.1 Auditor's Opinion

The criteria adopted by DP are largely consistent with those adopted by the Auditor. Inconsistencies were minor (such as determining site specific ecological criteria) and did not have a material bearing on the remediation framework.

## 8. EVALUATION OF SOIL RESULTS

### 8.1 Field Results

PID readings were <1 ppm in all samples except for samples collected on the 29 November 2021 (BH105 to BH112) which were collected in the west of the site and ranged from 0.5 to 16.9 ppm in sandstone, residual clay and fill.

No visual or olfactory indications of contamination were reported. Asphaltic concrete was reported in the fill at BH3, and trace anthropogenic material (brick, terracotta, concrete) was reported in the fill at BH102. No potential ACM was observed.

#### 8.1.1 Auditor's Opinion

Boreholes are not ideal for observing indications of contamination. However, fill is to be excavated from across the site during development and disposed off-site. None of the boreholes were within 5 m of the USTs and therefore would be unlikely to identify any associated localised soil impacts.

The RAP provides an adequate process for remediating the USTs, removing fill from across the site, addressing unexpected finds and waste management.

### 8.2 Analytical Results

Soil analytical results have been assessed against the environmental quality criteria and summarised in **Table 8.1**. The summary includes primary and duplicate samples of fill and natural soil.

Soil sampling locations are presented in **Attachment 1**.

**Table 8.1: Evaluation of Soil Analytical Results – Summary Table (mg/kg)**

| Analyte                                                      | n  | Detections | Maximum      | n > Human Health Screening Criteria                | n > Terrestrial Ecological Screening Criteria      |
|--------------------------------------------------------------|----|------------|--------------|----------------------------------------------------|----------------------------------------------------|
| ACM (presence/absence)                                       | 27 | 0          | Not detected | 0 detected                                         | -                                                  |
| Benzene                                                      | 31 | 0          | <0.2         | 0 above HSL A&B 0-1 m, sand 0.5 mg/kg              | 0 above ESL (urban residential) (coarse) 50 mg/kg  |
| Toluene                                                      | 31 | 0          | <0.5         | 0 above HSL A&B 0-1 m, sand 160 mg/kg              | 0 above ESL (urban residential) (coarse) 85 mg/kg  |
| Ethylbenzene                                                 | 31 | 0          | <1           | 0 above HSL A&B 0-1 m, sand 55 mg/kg               | 0 above ESL (urban residential) (coarse) 70 mg/kg  |
| Total Xylenes                                                | 31 | 0          | <1           | 0 above HSL A&B 0-1 m, sand 40 mg/kg               | 0 above ESL (urban residential) (coarse) 105 mg/kg |
| F1 (TRH C <sub>6</sub> -C <sub>10</sub> minus BTEX)          | 31 | 0          | <25          | 0 above HSL A&B 0-1 m, sand 45 mg/kg               | 0 above ESL (urban residential) 180 mg/kg          |
| F2 (TRH >C <sub>10</sub> -C <sub>16</sub> minus naphthalene) | 31 | 0          | <50          | 0 above HSL A&B 0-1 m, sand 110 mg/kg              | -                                                  |
| TRH C <sub>6</sub> -C <sub>10</sub>                          | 31 | 0          | <25          | 0 above ML (coarse) (urban residential) 700 mg/kg  | -                                                  |
| TRH >C <sub>10</sub> -C <sub>16</sub>                        | 31 | 0          | <50          | 0 above ML (coarse) (urban residential) 1000 mg/kg | 0 above ESL (urban residential) 120 mg/kg          |

| Analyte                                                  | n  | Detections | Maximum                           | n ><br>Human Health<br>Screening Criteria                  | n ><br>Terrestrial Ecological<br>Screening Criteria                           |
|----------------------------------------------------------|----|------------|-----------------------------------|------------------------------------------------------------|-------------------------------------------------------------------------------|
| TRH >C <sub>16</sub> -C <sub>34</sub> (F3)               | 31 | 6          | <b>980</b>                        | 0 above ML (coarse)<br>(urban residential)<br>2500 mg/kg   | <b>3 above ESL (coarse)<br/>300 mg/kg</b>                                     |
| TRH >C <sub>34</sub> -C <sub>40</sub> (F4)               | 31 | 5          | 1200                              | 0 above ML (coarse)<br>(urban residential)<br>10,000 mg/kg | 0 above ESL (coarse)<br>2800 mg/kg                                            |
| Naphthalene                                              | 32 | 1          | 0.1                               | 0 above HSL A&B 0-<br>1 m, sand 3 mg/kg                    | 0 above EIL (urban<br>residential) 170 mg/kg                                  |
| Benzo(a)pyrene                                           | 32 | 11         | 6.9                               | -                                                          | 0 above CCME SQG<br>(residential) 20 mg/kg                                    |
| Benzo(a)pyrene toxicity<br>equivalence quotient<br>(TEQ) | 32 | 11         | <b>9.4</b>                        | <b>4 above HIL B<br/>4 mg/kg</b>                           | -                                                                             |
| Total PAHs                                               | 32 | 11         | 59                                | 0 above HIL B 400<br>mg/kg                                 | -                                                                             |
| Total Phenols                                            | 19 | 0          | <5                                | 0 above HIL B<br>45,000 mg/kg                              | -                                                                             |
| Arsenic                                                  | 32 | 3          | 6                                 | 0 above HIL B 500<br>mg/kg                                 | 0 above EIL (urban<br>residential) 100 mg/kg                                  |
| Cadmium                                                  | 32 | 1          | 0.4                               | 0 above HIL B 150<br>mg/kg                                 | -                                                                             |
| Chromium                                                 | 32 | 31         | 38                                | 0 above HIL B 500<br>mg/kg                                 | 0 above most<br>conservative ACL (urban<br>residential) 190 mg/kg             |
| Copper                                                   | 32 | 29         | 34                                | 0 above HIL B<br>30,000 mg/kg                              | 0 above most<br>conservative ACL (urban<br>residential) 60 mg/kg              |
| Lead                                                     | 32 | 31         | <b>2300</b> (next<br>highest 780) | <b>1 above HIL B<br/>1200 mg/kg</b>                        | <b>1 above generic ACL<br/>(urban residential)<br/>1100 mg/kg</b>             |
| Mercury                                                  | 32 | 10         | 0.6                               | 0 above HIL B 120<br>mg/kg                                 | -                                                                             |
| Nickel                                                   | 32 | 20         | <b>46</b>                         | 0 above HIL B 1200<br>mg/kg                                | <b>1 above most<br/>conservative ACL<br/>(urban residential) 30<br/>mg/kg</b> |
| Zinc                                                     | 32 | 28         | 330                               | 0 above HIL B<br>60,000 mg/kg                              | <b>9 above most<br/>conservative ACL<br/>(urban residential) 70<br/>mg/kg</b> |
| PCB                                                      | 19 | 0          | <0.1                              | 0 above HIL B 1<br>mg/kg                                   | -                                                                             |
| OCP/OPP                                                  | 19 | 0          | <0.1                              | 0 above HIL B                                              | 0 above EIL                                                                   |

n number of samples

- No criteria available/used

NL Non-limiting

Benzo(a)pyrene TEQ was identified above the HIL B criterion of 4 mg/kg at BH2 (0.2-0.3 m) (9.4 mg/kg), BH2 (0.4-0.5 m) (6 mg/kg), BH6 (0.8-0.9 m) (6.2 mg/kg) and corresponding replicate sample (6.5 mg/kg). The samples from BH2 were from fill described as sandy gravelly clay with trace shale and sandstone. The samples from BH6 were from fill described as clayey sand with trace sandstone gravel and wood. These investigation locations were positioned in the northwest car park near the tram tracks.

Lead (2,300 mg/kg) was identified above the HIL B criterion of 1200 mg/kg in a sample of fill from BH102 (0.34-0.55 m) described as containing trace anthropogenic material (brick, terracotta, concrete) and sandstone gravel. This investigation location was positioned in the car park of the British American Tobacco building basement.

Heavy end petroleum hydrocarbons (TRH F3 and F4) were detected in fill in BH2, BH3 and BH6 and residual soil at the top of the sandstone BH111 at concentrations that slightly exceed the TRH F3 ESL in some locations.

### 8.3 Auditor's Opinion

The soil analytical results are consistent with the site history and field observations. Fill appears to be impacted by metals and PAHs and some heterogeneity is likely.

The source of the heavy end petroleum hydrocarbon impact is not clear and may be associated with fill, previous site activities and/ or the UST in the northwest. However, the exceedances were minor.

The RAP proposes remediation and validation of impacted fill and the USTs. The majority of fill will be classified and disposed off-site during bulk excavations. Fill remaining such as in the DSZ and laneway will be validated as suitable for use or remediated (excavated and disposed off-site).

The proposed remediation framework is adequate to address identified soil impacts as well as uncertainty associated with heterogeneity, unexpected finds and the USTs.

## 9. GROUNDWATER

Groundwater has not been characterised. This has been identified as a data gap that will be addressed by the RAP. The RAP proposes assessment of groundwater associated with the USTs as well as groundwater migrating onto the site that may have been impacted by off-site sources such as dry cleaners.

### 9.1 Auditor's Opinion

An adequate framework is provided in the RAP to address potential groundwater impacts including assessment of groundwater and preparation of a human health risk assessment; an addendum to the RAP and/or a remedial work plan as informed by the data.

It is understood the proposed Groundwater Data Gap Investigation may be undertaken before or after demolition, or staged (characterisation of groundwater on the boundary could be completed before demolition, characterisation of groundwater on-site such as the areas of the USTs may need to occur after demolition).

This is considered a reasonable approach in the context of the available information (relatively low risk of significant contamination) and allows better access to targeted areas, such as the USTs, after demolition.

## 10. EVALUATION OF CONCEPTUAL SITE MODEL

A conceptual site model (CSM) is a representation of the contaminant source, pathway, and receptor (SPR) linkages at a site. The DSI includes a CSM which was updated at the completion of the investigations. The updated CSM provided in the DSI and the RAP is summarised by the Auditor in **Table 10.1**.

Table 10.1: Summary of CSM

| Source/Contaminants                                                                                                                               | Pathways of Transport                                                                                                                                                                                                                          | Receptors                                                                                                                                                                                                                                                                                     | Remediation Proposed (refer Section 11 for more details)                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fill: Heavy Metals, TRH, BTEX, PAH, VOC, OCP, asbestos                                                                                            | Ingestion and dermal contact, inhalation of dust and/or vapours, surface water run-off, lateral migration of groundwater providing base flow to water bodies                                                                                   | Current users (workers and customers), construction and maintenance workers, end users (residents, workers and customers), adjacent site users (residents, workers and customers), surface water - Sydney Harbour, groundwater                                                                | Excavation and off-site disposal of fill across most of site as part of basement construction<br><br>Validation of soil (which may include fill) to be retained on-site in the DSZ and laneway |
| USTs: Lead, TRH, BTEX, PAH, VOC                                                                                                                   | Ingestion and dermal contact, inhalation of dust and/or vapours                                                                                                                                                                                | Current users (workers and customers), construction and maintenance workers, end users (residents, workers and customers), adjacent site users (residents, workers and customers)<br><br><i>The Auditor notes terrestrial ecology, groundwater and surface water could also be receptors.</i> | Removal and validation of USTs and associated pipework                                                                                                                                         |
| Current, past land uses (including USTs) and adjacent land uses: Heavy metals, TRH, BTEX, PAH, OCP, OPP, PCB, VOC (MTBE), phenols, PFAS, asbestos | Leaching of contaminants and vertical migration into groundwater, contact with terrestrial ecology<br><br><i>The Auditor notes ingestion, dermal contact and inhalation of vapours could also occur where basements are below groundwater.</i> | Current and end users, construction and maintenance workers, adjacent site users (residents, workers and customers), terrestrial ecology, surface water and groundwater                                                                                                                       | Removal or validation of fill, further assessment of groundwater                                                                                                                               |
| Existing and previous buildings: Asbestos, SMF, lead (in paint), PCB                                                                              | Ingestion and dermal contact, inhalation of dust and/or vapours                                                                                                                                                                                | Current users and end users, construction and maintenance workers, adjacent site users (residents, workers and customers)                                                                                                                                                                     | Demolition with appropriate controls. Remediation and validation of fill across the site                                                                                                       |

### 10.1 Auditor's Opinion

The CSM developed is considered an adequate basis for identifying data gaps to be addressed after demolition and assessing remedial requirements which are discussed further in **Section 11.1**.

## 11. EVALUATION OF PROPOSED REMEDIATION

### 11.1 Remediation Required

The RAP proposes the following remediation strategy:

- Demolition
- Demarcate the DSZ and laneway
- Install and sample groundwater wells around the site perimeter (this could be undertaken before or after demolition, or staged (perimeter could be assessed before demolition, on-site areas such as the USTs may need to occur after demolition)). The RAP proposes:

- Five boreholes to 10 to 13 m deep to determine the depth of groundwater at the site. The bores should be extended to the final depth of the basement excavation at each location (if groundwater is not encountered prior):
  - Install two groundwater wells along the perimeter of the site (in particular along the northern boundary of the site - hydraulically downgradient of the site)
  - Drill three boreholes and install wells to gain site coverage along the south-eastern part of the site to determine if groundwater contamination associated with historical motor vehicle or dry-cleaning operations up-gradient of the site have impacted the groundwater beneath the site
- Sample groundwater using low flow sampling equipment for metals, TRH, BTEX, MTBE, PAH, OCP, OPP, PCB, phenols, VOCs and PFAS.
- Appropriate QA/QC sampling
- If elevated concentrations of volatile COPC are detected in groundwater, soil vapour sampling may be required.
- Prepare a Groundwater Data Gap Investigation report.
- If additional risk to human health is identified from the groundwater sampling, additional provisions for remediation may be required (including adapting basement design to exclude groundwater or vapour (e.g., vapour membranes, venting, groundwater barriers) or preparation of a Human Health Risk Assessment). If this is the case, a revision to the RAP, addendum to the RAP; and/or a Remedial Work Plan may be required.
- Prepare a dewatering management (DWMP) for construction, if required based on water levels
- Undertake supplementary soil data gap assessment (DGA) testing in the DSZ, laneway and the remainder of the site preferably using test pits, with sufficient sampling density to allow statistical analysis of results for fill and waste classification (if off-site disposal is required) or validation (if fill is to be retained – DSZ and laneway). The RAP proposes:
  - Ten to twelve additional locations are proposed. The area covered by the DSZ and laneway is estimated to be approximately 1,132 m<sup>2</sup> and therefore eight of the locations are to be positioned in this part of the site
  - Analyse soil samples for metals, TRH, BTEX, PAH, OCP/OPP, PCBs, phenols and asbestos (500 ml)
  - When the site is vacant or post demolition a ground penetrating radar scan (GPR) will be deployed to determine if any additional USTs are present at the site. If so they will be removed and then validated, with spoil classified for waste disposal off-site
  - Classify remaining fill to site boundaries (excluding DSZ and laneway) for off-site disposal
  - Preparation of an Insitu Waste Classification report to consolidate new and existing data and delineate areas of anticipated higher waste classification
  - The Auditor notes the data within the DSZ and laneway will also need to be consolidated in a brief investigation report
- At this stage it is anticipated that the extent of soil remediation may comprise the following (with further refinement based on the DGA and waste classification):
  - Remediation Area 1: B(a)P impacted fill in the vicinity of BH2, BH4 and BH6; TRH impacted fill in the vicinity of BH3, BH4 and BH6 in the vicinity of the DSZ and laneway (Remediation Area 1 shown on **Attachment 1**)

- Remediation Area 2: heterogenous fill across the site i.e., the basement excavation area, which will be excavated as part of bulk excavation works. This area includes lead impacted fill in the vicinity of BH102 and anthropogenic inclusions (extent of basement excavation which is entire site excluding the DSZ and laneway with the latter shown on **Attachment 1**)
- Remediation Area 3: former USTs, infrastructure and tank pits; DP notes one of the USTs is in the DSZ and laneway (Remediation Area 3 shown on **Attachment 1**)
- Remediation Area 4: Footprints of existing structures, considered to pose a high risk for undetected asbestos, or potential asbestos contamination generated during demolition (existing structures are shown on **Attachment 1**)
- Classify remaining fill to site boundaries (excluding DSZ and laneway) for off-site disposal using test pits by either in situ testing or stockpile testing methods,
- Excavate fill across the site as part of bulk earthworks
- Where necessary, segregate and handle waste of different classification accordingly to minimise cross-contamination of waste streams
- Validate remaining side walls and floor in natural soil or rock (or remaining fill).

#### 11.1.1 Auditor's Opinion

The remediation strategy is excavation and off-site disposal of contaminated soil to landfill. The strategy is commensurate with the proposed redevelopment which will comprise the excavation of a multi-level basement. The majority of fill is anticipated to be surplus to the development. Soil remaining with the DSZ and laneway will be validated a suitable for use.

Further assessment beneath currently inaccessible parts of the site is also proposed following demolition as a means of potentially limiting cross contamination of unidentified contamination. This will include investigations to determine the depth and quality of groundwater (including potential for VOCs from off-site sources) and the need for a dewatering management plan or further assessment of vapour intrusion risks (and implementation of vapour controls) (if required).

The following additional reports are proposed to be prepared prior to remediation:

- Groundwater Data Gap Investigation report with the following contingencies based on outcomes:
  - Human Health Risk Assessment; revision or addendum to the RAP and/or Remedial Work Plan
- Data Gap Assessment Report
- Insitu Waste Classification.

This is considered reasonable given the access restraints prior to demolition. The risks are considered sufficiently low that the contingencies can be reasonably be expected to be implemented within the proposed remediation and development works.

The Auditor also recommends that brief sampling analyses and quality plans (SAQPs) be prepared for endorsement prior to undertaking the groundwater and soil data gap investigations, including sample locations plans.

## 11.2 Evaluation of RAP

The Auditor has assessed the RAP by comparison with the checklist included in NSW EPA (2020) *Contaminated Land Guidelines, Consultants Reporting on Contaminated Land* as summarised in **Table 11.1**.

**Table 11.1: Evaluation of Remedial Action Plan**

| <b>Remedial Action Plan</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Auditor Comments</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>Remedial Goal</i></p> <p>The RAP states the objectives are to:</p> <ul style="list-style-type: none"> <li>• Address potentially unacceptable risks to relevant environmental values from contamination</li> <li>• Render the site suitable, from a contamination perspective, for the proposed development.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Adequate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><i>Discussion of the Extent of Remediation Required</i></p> <p>Refer to <b>Section 11.1 of this IAA</b>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Adequate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><i>Remedial Options</i></p> <p>The RAP states options for consideration include:</p> <ul style="list-style-type: none"> <li>• No action</li> <li>• On-site treatment of the soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level</li> <li>• Off-site treatment of excavated soil which, depending on the residual levels of contamination in the treated material, is then returned to the site, removed to an approved waste disposal site or facility or used as fill or landfill.</li> </ul> <p>Direct off-site disposal was also considered (and selected)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Adequate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><i>Selected Preferred Option and Rationale</i></p> <p>Other than soil located within the DSZ and laneway, all fill and surplus soil and rock (down to the basement finishing levels) will be removed from across the site to achieve design levels. Therefore, other than in the DSZ and laneway, remediation will essentially be achieved by hotspot removal followed by bulk excavation, waste classification and disposal and validation of the natural materials below the fill horizon.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Adequate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><i>Description of Remediation to be Undertaken</i></p> <p>Refer to <b>Section 11.1 of this IAA</b>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Adequate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><i>Proposed Validation Criteria</i></p> <p>The remediation acceptance criteria (RAC) for soil are as per the site assessment criteria discussed in <b>Section 7</b>. In addition, open space land use criteria and ecological criteria will be adopted in the DSZ; and commercial/industrial criteria will be adopted for beneath the laneway.</p> <p>Groundwater criteria are based on Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG 2018) and comprise marine 95% species protection default guideline values (DGVs) in addition to NEPM (2013) vapour intrusion HSLs for commercial/industrial land use.</p> <p>Imported fill: The RAP states any soil, aggregate etc imported for the remediation works must have contaminant concentrations that meet the validation criteria and imported materials will only be accepted for use at the site if it can legally be accepted onto the site such as:</p> <ul style="list-style-type: none"> <li>• Virgin excavated natural material (VENM), accompanied by a report/certificate to that effect prepared by a qualified Environmental Consultant (EC)</li> <li>• Under a relevant NSW EPA resource recovery order (RRO) so that it can be used on other sites under the requirements of the corresponding NSW EPA resource recovery exemption (RRE), for example excavated natural material (ENM).</li> </ul> <p>For VENM, it would be anticipated that organics would be expected to be low or close to the LOR and metals low and consistent with typical background levels. Asbestos and deleterious anthropogenic inclusions, odour or staining should be absent.</p> | <p>The proposed criteria are generally adequate assuming the ground floor uses are consistent with commercial/ industrial land use (e.g., the proposed basement) and there are not more sensitive uses on the ground floor. This will need to be confirmed during validation.</p> <p><b>However, additional groundwater screening criteria not identified in the RAP will need to be adopted for VOCs. These will need to be protective of human health via all relevant pathways which may include incidental ingestion and direct contact (in the event of seepage into a basement) and vapour intrusion if VOCs are identified (and may include recreational or drinking water criteria from appropriate sources). This can be addressed in the proposed Groundwater Data Gap Investigation report.</b></p> |
| <p><i>Proposed Validation Testing</i></p> <p>These are summarised below in <b>Table 11.2</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Adequate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| Remedial Action Plan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Auditor Comments |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| <p><i>Contingency Plan if Selected Remedial Strategy Fails</i></p> <p>The RAP states that in the case of validation failure of samples taken for the purposes of excavations (tank pits), fill excavations and grid-based validation samples, contingency action would comprise further excavation and validation of any remnant contamination in the soils as required (to be advised by the EC, following the receipt of laboratory data); and</p> <p>In the case of failure of samples taken for the purpose of characterising imported fill, imported fill from this source is to be rejected and not accepted onto the site. The RAP also states that if additional risk to human health is identified from the Groundwater Data Gap Investigation, additional provisions for remediation may be required (including adapting basement design to exclude groundwater or vapour (e.g., vapour membranes, venting, groundwater barriers) or preparation of a Human Health Risk Assessment). If this is the case, a revision to the RAP, addendum to the RAP; and/or a Remedial Work Plan may be required.</p>                                                                             | Adequate         |
| <p><i>Interim Site Management Plan (before remediation)</i></p> <p>No interim management requirements have been identified.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Adequate         |
| <p><i>Site Management Plan (operation phase) including stormwater, soil, noise, dust, odour and OH&amp;S</i></p> <p>A site management plan is provided in the RAP addressing stormwater, soil, noise, dust, odour and OH&amp;S and other matters.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Adequate         |
| <p><i>Remediation Schedule and Hours of Operation</i></p> <p>The remediation works will be conducted as per the construction schedule as demolition of and excavation of fill will be undertaken during basement construction. Construction will occur within the days and hours specified in the development consent.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Adequate         |
| <p><i>Contingency Plans to Respond to Site Incidents</i></p> <p>Measures will include</p> <ul style="list-style-type: none"> <li>• Regular inspection of works</li> <li>• Completion of routine environmental checklists and follow-up of non-compliance situations</li> <li>• Maintenance and supervision on-site; and</li> <li>• An induction process for site personnel involved in the remediation works that includes relevant information on the contamination status of the site, the remediation works being undertaken, worker health and environmental protection requirements and ensures that all site personnel are familiar with the site emergency procedures.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Adequate         |
| <p><i>Unexpected Finds Protocol</i></p> <p>The contractor working on an earthworks project must follow a protocol if they encounter unexpected contamination during the project. If any unexpected materials are found, work must stop in that area, and the contractor's Site Manager must be notified. An appropriately qualified EC will assess the potential impact of the find on human health and the environment with reference to guidelines endorsed by the NSW EPA and provide recommendations to the Site Manager. The agreed management/remedial strategy must be documented in the site validation report. If suspected asbestos materials are found, work must stop immediately, and an Occupational Hygienist/EC will inspect/sample the material to confirm if it contains asbestos or not. If it does, the Asbestos Contractor will remove it, decontaminate the area, and dispose of the material to a licensed landfill facility. The area must be inspected by an OH/EC to determine if additional targeted delineation and validation is required, and workers can resume work after receiving a clearance certificate and following the recommendations of the EC.</p> | Adequate         |
| <p><i>Licence and Approvals</i></p> <p>The RAP states the observation of anthropogenic materials might suggest that asbestos may be present even though not observed in the bores (and noting that test pits and not bores are the best method of observing asbestos).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Adequate         |

| Remedial Action Plan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Auditor Comments |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| <p>If asbestos is found to be present an Asbestos Contractor will be responsible for undertaking all asbestos work involving any asbestos impacted filling and will hold a Class A licence for the removal of asbestos (issued by SafeWork NSW), on the basis that the asbestos identified at the site to date has included both friable and bonded asbestos. A Licenced Asbestos Assessor will be required to be engaged independently of the Asbestos Contractor to undertake the following:</p> <ul style="list-style-type: none"> <li>Review and approve documentation prepared by the Asbestos Contractor</li> <li>Prepare any WHS plans and advice required by the Contractor</li> <li>Undertake airborne asbestos monitoring</li> <li>Undertake clearance inspections</li> <li>Provide advice and recommendations arising from monitoring and/or inspections</li> <li>Notify the client with the results of any assessments and any observed non-conformances.</li> </ul> |                  |
| <p><i>Contacts/Community Relations</i></p> <p>The RAP states plans for appropriate community consultation should be clearly defined by the Remediation Contractor prior to commencement of works.</p> <p>Communication may involve signage and contact details of remediation personnel easily accessible from site boundaries for community enquiry/notification.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Adequate         |
| <p><i>Staged Progress Reporting</i></p> <p>Other than the reports listed in <b>Section 11.1.1 of this IAA</b> which will be reviewed during the Audit, staged progress reporting is not anticipated. A single validation report is proposed to be prepared at completion of remediation in in general accordance with the requirements of the NSW EPA Consultants Reporting on Contaminated Land (2020).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Adequate         |
| <p><i>Long Term Environmental Management Plan</i></p> <p>An Environmental Management Plan (EMP) is not anticipated to be required unless contingency action requiring ongoing management is identified.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Adequate         |
| <p><i>Waste Management</i></p> <p>The RAP states disposal of waste must be to an appropriately licensed waste facility, as per NSW <i>Protection of the Environment Operations Act 1997</i> (POEO Act) and NSW <i>Protection of the Environment (Waste) Regulation 2014</i>. Any waste disposed off-site must be initially classified by the EC in accordance with NSW EPA Waste Classification Guidelines. All waste must be tracked by the Remediation Contractor from 'cradle to grave'. Copies of all consignment notes / disposal dockets (or similar) and Environment Protection Licences for receipt and disposal of the materials must be maintained by the Remediation Contractor as part of the site log and must be provided to the EC for inclusion in the validation report</p>                                                                                                                                                                                     | Adequate         |

Table 11.2: Validation Programme

| Material Type                                                       | Sample Density                                                                                                                                              | Contaminants to be Analysed                                                                                                                 |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Stockpiled Material for waste classification $\leq 250 \text{ m}^3$ | One sample per $25 \text{ m}^3$ or minimum of three samples                                                                                                 | Metals, TRH, BTEX, PAH, OCP/OPP, phenols, asbestos (50 g) with a selected sub- set of samples also analysed for OCP/OPP, PCB, phenols, PFAS |
| Stockpiled Material for waste classification $> 250 \text{ m}^3$    | One sample per $100\text{-}250 \text{ m}^3$ or minimum of three samples                                                                                     | Same as above                                                                                                                               |
| Samples from Excavations                                            | One sample per $25 \text{ m}^2$ on base, one sample per 15 linear metres on side walls, and one sample per 10 linear metres in areas with TRH contamination | Metals, TRH, BTEX, and phenols with a selected sub-set of samples also analysed for PAH, VOC (including                                     |

| Material Type                                              | Sample Density                                                                                                                                                                                                                                                                                                                                                                                                                                              | Contaminants to be Analysed                                                                                                                                                                                    |
|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MTBE), PFAS, phenols and asbestos (50 g)                                                                                                                                                                       |
| Fuel Lines/Dispensers, Pipework                            | One sample per dispenser and one sample per 5 m of line                                                                                                                                                                                                                                                                                                                                                                                                     | Same as above                                                                                                                                                                                                  |
| Grid Based Validation Samples                              | Validation of final excavation levels samples will be collected from a regular 22.5 m grid-based pattern (through depth of fill remaining on-site or one sample from natural soil)                                                                                                                                                                                                                                                                          | Lead, TRH, BTEX, PAH (and asbestos (500 ml and 10L) where anthropogenic materials observed) for DSZ and laneway and the remainder of the site. Asbestos (500 mL and 10L) for fill to remain in DSZ and laneway |
| All imported materials                                     | Visual inspection of the imported soil confirms that the soil has no signs of environmental concern and is consistent with those described in the supporting classification documentation; and have no aesthetic issues of concern                                                                                                                                                                                                                          | The materials are validated (by inspection / sampling) by the EC as being suitable for use at the site, see further details in following rows                                                                  |
| Imported VENM                                              | Requirement to be determined by EC depending on the source of the material, adequacy of the supporting documentation provided and inspection(s) of material. Quarried material / VENM may need little or no check sampling.<br><br>However, up to one sample per 100 m <sup>3</sup> of imported fill plus certification may be considered                                                                                                                   | Metals, TRH, BTEX, PAH, OCP/OPP, phenols and asbestos (500 mL)                                                                                                                                                 |
| Imported ENM                                               | In accordance with ENM Order<br><br>3 samples for stockpiles <500 tonnes, 4 samples for stockpiles between 500 and 1000 tonnes, and 5 samples between 1000 and 2000 tonnes                                                                                                                                                                                                                                                                                  | Same as above, plus electrical conductivity, pH, metal, plaster, rubber, plastic, paper, cloth, paint, wood and other vegetable matter.                                                                        |
| Imported RRO materials                                     | For this option, the frequency and scope of sampling should be in accordance with the relevant RRO and the contaminants to be analysed will be compliant with the RRO with additional potential contaminants such as asbestos to be determined by the EC. The EC will provide a report confirming the suitability of the spoil for reuse under a RRO, or otherwise.                                                                                         | Analysis to be undertaken with reference to any relevant RRO plus asbestos.                                                                                                                                    |
| Higher Risk Materials such as Imported Recycled Aggregates | Given the potential contamination risks associate with certain RRO materials it is recommended that natural products are used where practicable. Further consideration and approval to use RRO material may require consultation with the EC, the landowner and Site Auditor prior to importation and application to site.<br><br>One sample per 25 m <sup>3</sup> with a minimum of three samples per load is anticipated if recycled product is to be use | Same as above                                                                                                                                                                                                  |
| Groundwater                                                | One sample per proposed well plus QA/QC samples                                                                                                                                                                                                                                                                                                                                                                                                             | Metals, TRH, BTEX, MTBE, low-level PFAS, low-level PAH, trace OCP, trace OPP, trace PCB, phenols, and VOC (including MTBE)                                                                                     |

#### 11.2.1 Auditor's Conclusion

The RAP was found to address the information required by NSW EPA (2020) *Contaminated Land Guidelines, Consultants Reporting on Contaminated Land*. However, additional groundwater screening criteria not identified in the RAP will need to be adopted for VOCs. These will need to be protective of human health via all relevant pathways which may include incidental ingestion and direct contact (in the event of seepage into a basement) and vapour intrusion if VOCs are identified (and may include recreational or drinking water criteria from appropriate sources). This can be addressed in the proposed Groundwater Data Gap Investigation report.

### 11.3 Auditor's Opinion

Overall, the proposed remediation works are technically feasible; environmentally justifiable; and consistent with relevant laws, policies and guidelines endorsed by NSW EPA. The strategy proposed in the RAP is adequate to manage risks posed by USTs and impacted fill and an adequate framework is provided to assess groundwater and address groundwater impacts, if required. If the RAP is adequately implemented, potential risks to human health and the environment should be addressed rendering the site suitable for the proposed use. Successful validation will be required to confirm this.

Further documentation may be required depending on the outcome of the groundwater assessment which is to be prepared prior to commencing remediation. The additional documentation and recommendations are summarised in **Section 12**.

## 12. CONCLUSIONS AND RECOMMENDATIONS

The RAP states that *"It is considered that the site can be rendered compatible with the proposed development subject to implementation of this RAP, including the Unexpected Finds Protocol, as applicable."*

*DP notes that if additional risk to human health is identified following the [Groundwater Data Gap Investigation report], additional provisions for remediation may be required (including adapting basement design to exclude groundwater or vapour (e.g., vapour membranes, venting, groundwater barriers, etc) or preparation of a Human Health Risk Assessment. If this is the case, a revision to the RAP, addendum to the RAP; and/or a Remedial Work Plan may be required."*

Based on the information presented in the reports listed in Section 1 and observations made on site and following the Decision-making process for assessing urban redevelopment sites in NSW EPA (2017) *Guidelines for the NSW Site Auditor Scheme (3<sup>rd</sup> Edition)*, the Auditor concludes that the site can be made suitable for the proposed mixed-use development described in **Section 2.5** comprising a Stage 1 concept proposal anticipated by D/2022/139, if remediated in accordance with the following RAP:

- 'Remediation Action Plan, Stage 1 Development Application, 164-192 William St, Woolloomooloo', Revision 4, 15 March 2023, DP.

The following additional reports are proposed to be prepared prior to remediation:

- Groundwater Data Gap Investigation report with the following contingencies based on outcomes:
  - Human Health Risk Assessment; revision or addendum to the RAP and/or Remedial Work Plan
- Data Gap Assessment Report
- In situ Waste Classification.

The Auditor recommends that brief SAQPs including sample location plans be prepared for endorsement prior to undertaking the groundwater and soil data gap investigations.

Additional groundwater screening criteria not identified in the RAP will need to be adopted for VOCs. These will need to be protective of human health via all relevant pathways which may include incidental ingestion and direct contact (in the event of seepage into a basement) and vapour intrusion if VOCs are identified (and may include recreational or drinking water criteria from appropriate sources). This can be addressed in the proposed Groundwater Data Gap Investigation report.

This preparation of additional reports prior to remediation is considered reasonable given the access restraints prior to demolition. The risks are considered sufficiently low that contingencies could be reasonably expected to be implemented within the proposed remediation and development works.

The additional reports will require review and endorsement by the Auditor.

Long-term management is not required based on the current scope of remediation.

It is recommended that the following requirements be included as conditions of consent for the development:

- Preparation of a Groundwater Data Gap Investigation report with implementation of any contingencies identified in the report and associated subsequent reports becoming a condition of consent (e.g., Human Health Risk Assessment; revision or addendum to the RAP and/or Remedial Work Plan or environmental management plan)
- Preparation of a Data Gap Assessment Report
- Preparation of Insitu Waste Classification
- Preparation of a Validation Report
- Preparation of a Section A Site Audit by a NSW EPA accredited Contaminated Sites Auditor following completion of remediation.

## 13. LIMITATIONS

This interim audit advice was conducted on behalf of William Street Nominee Pty Ltd c/o Rebel Property Group Pty Ltd for the purpose of assessing the suitability and appropriateness of a remedial action plan (RAP). This summary report may not be suitable for other uses.

The Auditor has relied on the documents referenced in Section 1 in preparing the Auditor's opinion. The consultants included limitations in their reports. This interim audit advice must also be subject to those limitations. The Auditor has prepared this document in good faith but is unable to provide certification outside of areas over which the Auditor had some control or is reasonably able to check. If the Auditor is unable to rely on any of those documents, the conclusions of this interim audit advice could change.

It is not possible to present all data which could be of interest to all readers of this interim audit advice. Readers are referred to the referenced reports for further data. Users of this document should satisfy themselves concerning its application to, and where necessary seek expert advice in respect to, their situation.

\* \* \*

Consistent with the NSW EPA requirement for staged 'signoff' of sites that are the subject of progressive assessment, remediation and validation, I advise that:

- This advice letter does not constitute a Site Audit Report or Site Audit Statement.
- At the completion of the remediation and validation I will provide a Site Audit Statement and supporting documentation.
- This interim advice will be documented in the Site Audit Report.

Yours faithfully  
Ramboll Australia Pty Ltd

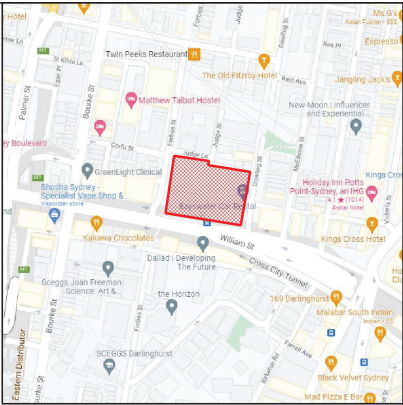
A handwritten signature in purple ink, appearing to read 'R Salmon', with a long horizontal flourish extending to the right.

Rowena Salmon  
EPA Accredited Site Auditor 1002

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Attachments: 1 Site Location and Layout including Investigation Locations and Remediation Areas  
2 Basement Plan  
3 Deep Soil Zone and Laneway Plan  
4 Dry Cleaners, Garages and Service Stations from Business Directly

Attachment 1 - Site Location and Layout including Investigation Locations and Remediation Areas



Locality Plan

NOTE:  
1: Based on a drawing exported from  
Nearmap.com (Dated 1/06/2020)  
2: Test locations shown are approximate only

Legend

- Test Locations
- Approximate UST Locations
- Site Boundary
- deep soil zone
- laneway
- Remediation Area 1
- Remediation Area 3



Attachment 2 - Basement Plan

fjmtstudio

02 10m

General notes

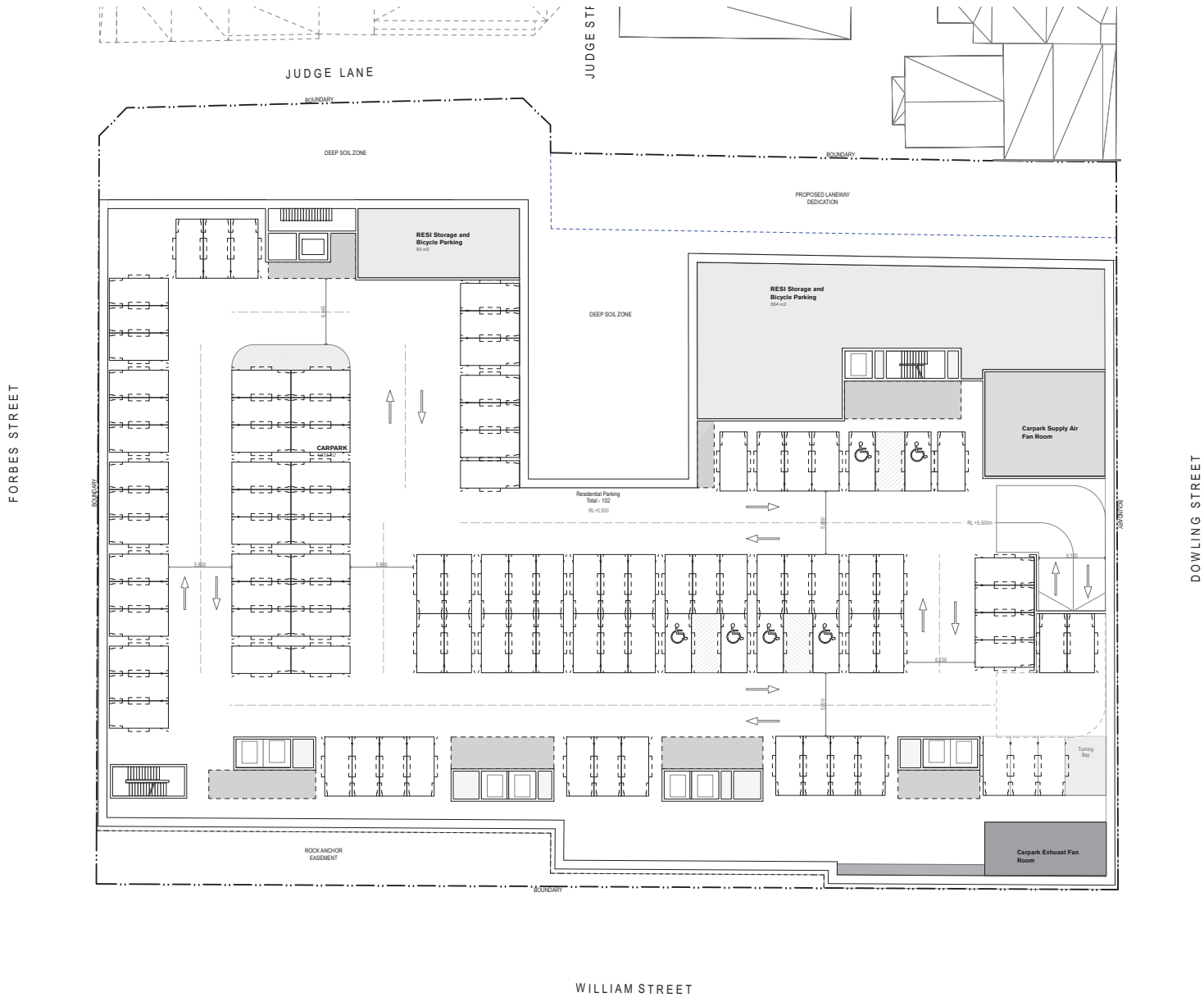
– All dimensions and existing conditions shall be checked and verified by the contractor before proceeding with the work.

– All levels relative to 'Australian Height Datum'.

– Do not scale drawings.

– Use figured dimensions only.

Legend



1 PLAN Basement 02 - P1  
1:200

|    |            |                      |    |    |
|----|------------|----------------------|----|----|
| 01 | 18/2022    | Concept DA Issue     | RA | KS |
| 02 | 03/2022    | Final Draft DA Issue | RA | KS |
| 03 | 20/02/22   | Draft DA Issue       | RA | KS |
| 04 | 04/03/2022 | Revised DA Issue     | RA | KS |
| 05 | 05/03/2022 | Revised DA Issue     | RA | KS |

| Rev | Date       | Description      | By | CHK |
|-----|------------|------------------|----|-----|
| 01  | 05/03/2022 | Revised DA Issue | RA | KS  |

164-194 William Street Woolloomooloo

164-194 William Street

Woolloomooloo NSW 2011

|                  |            |
|------------------|------------|
| GA Floor Plans   | Scale      |
| Basement 02 - P1 | 1:200 @ A1 |

|              |              |
|--------------|--------------|
| Project Code | First Issued |
| H180W        | 3/2/2022     |

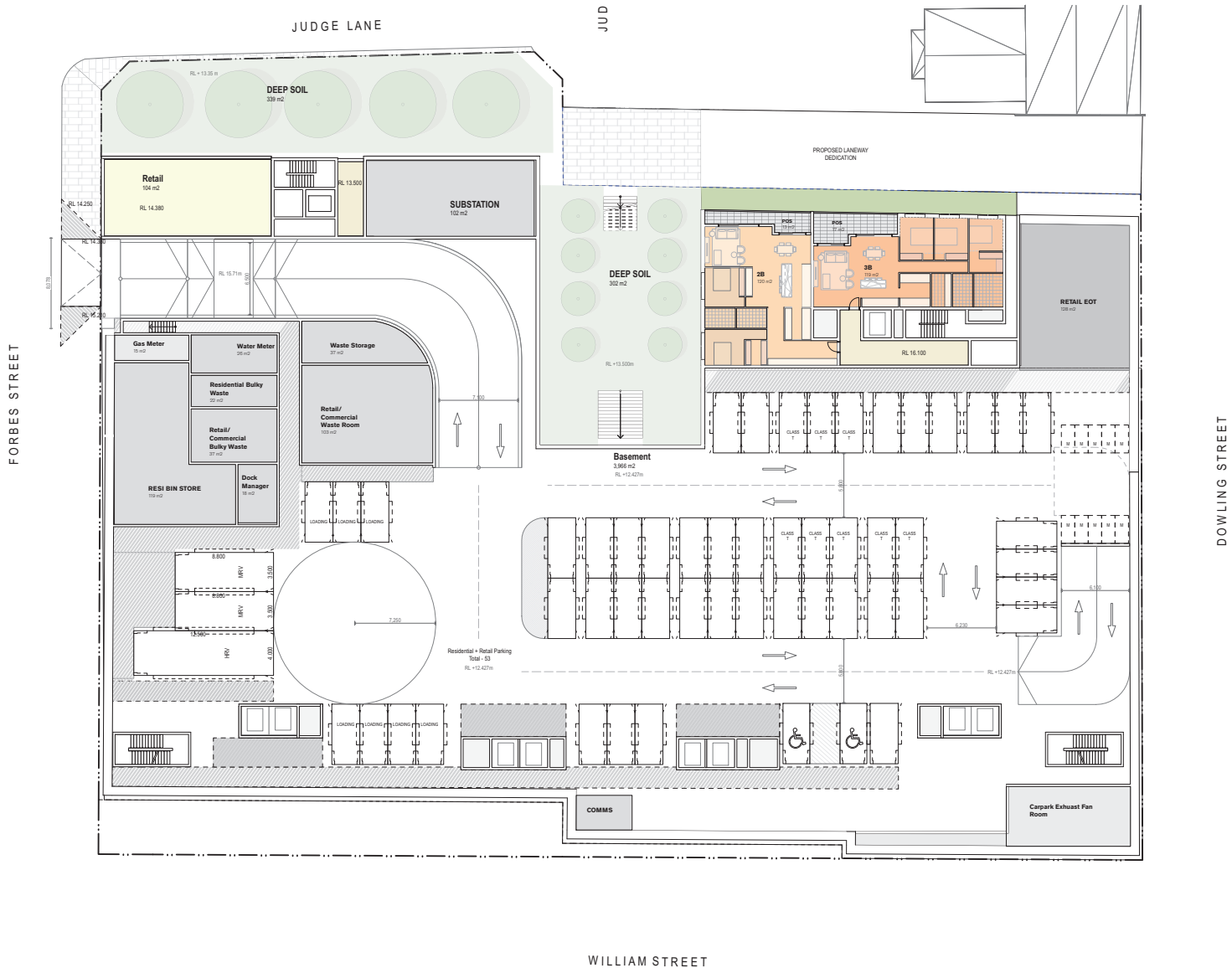
|           |     |
|-----------|-----|
| Sheet No. | Rev |
| 2001      | 04  |

## Attachment 3 - Deep Soil Zone and Laneway Plan

| Zone Category                        | Floor (Story)   | Area                 |
|--------------------------------------|-----------------|----------------------|
| <b>COMMUNAL OPEN SPACE</b>           |                 |                      |
|                                      | Level 8         | 486                  |
|                                      | Level 3         | 784                  |
|                                      | Judge Lane - P2 | 382                  |
|                                      |                 | 1,652 m <sup>2</sup> |
| <b>Communal Open Space (1599sqm)</b> |                 |                      |

| Zone Category | Floor (Story)   | Area               |
|---------------|-----------------|--------------------|
| DEEP SOIL     |                 |                    |
|               | Judge Lane - P2 | 639                |
|               |                 | 639 m <sup>2</sup> |

Stage 01 RFI Deep Soil (DCP 640sqm)



fjmtstudio



### General notes

- All dimensions and existing conditions shall be checked and verified by the contractor before proceeding with the work.
- All levels relative to 'Australian Height Datum'.
- Do not scale drawings.
- Use figured dimensions only.

### Legend

|    |         |                                        |    |   |
|----|---------|----------------------------------------|----|---|
| 04 | 18/2/22 | Concept DA issue                       | RA | K |
| 03 | 03/2/22 | Final Draft DA issue                   | RA | K |
| 02 | 21/1/22 | Draft DA issue                         | RA | K |
| 01 | 04/1/22 | SEA & EIA open with minor plan changes | ED | K |

| Rev | Date | Description | By | Chk |
|-----|------|-------------|----|-----|
|-----|------|-------------|----|-----|

**164-194 William Street Woolloomooloo**  
164-194 William Street  
Woolloomooloo NSW 2011

**GA Floor Plans** **Scale**  
G3 Judge Lane - P3 1:200 @ A1

|                     |                     |
|---------------------|---------------------|
| <b>Project Code</b> | <b>First Issued</b> |
| H180W               | 3/2/2022            |

|           |     |
|-----------|-----|
| Sheet No. | Rev |
| 2003      | 04  |

## Dry Cleaners, Motor Garages & Service Stations

174-194 William Street, Woolloomooloo, NSW 2011

