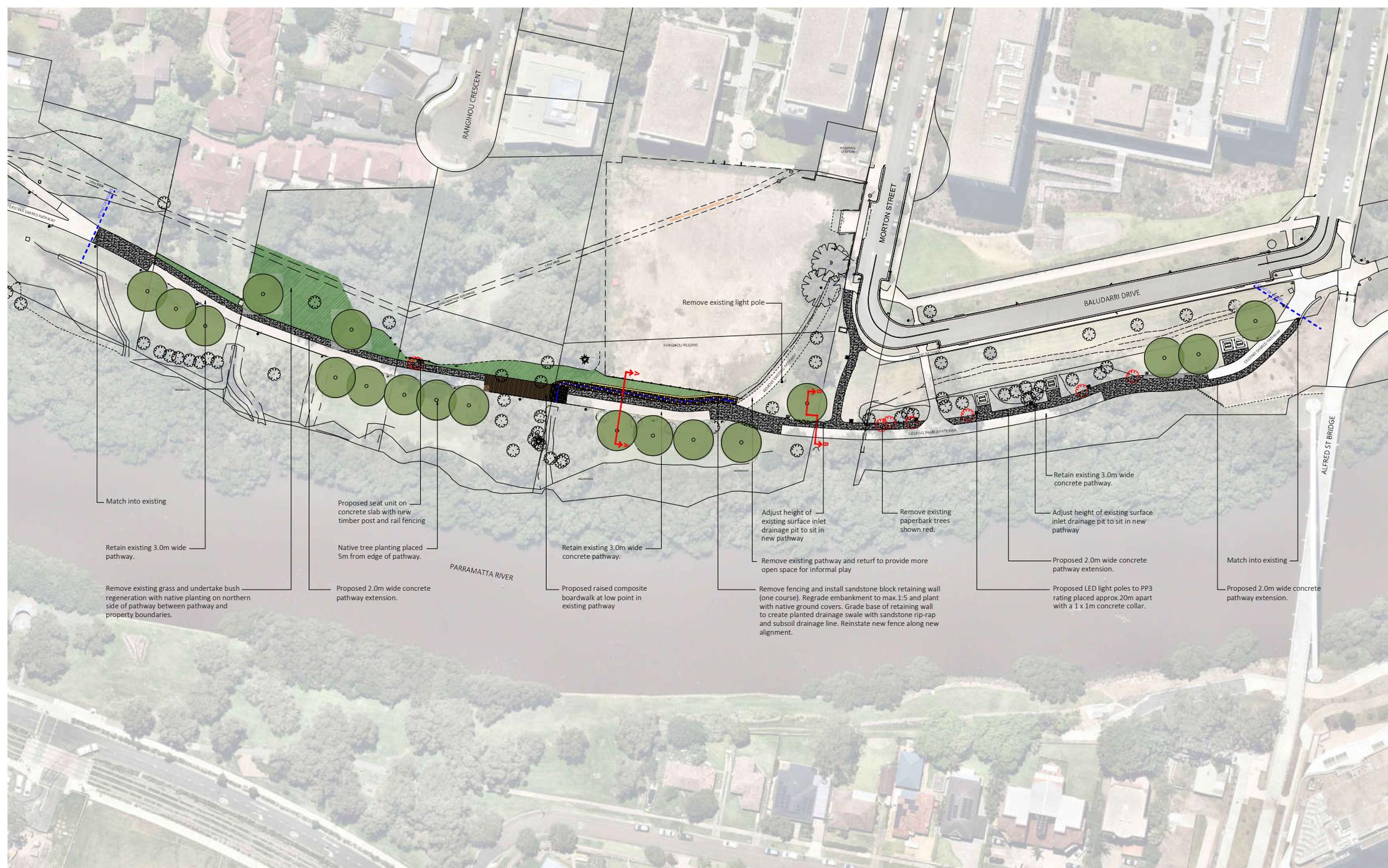


## **Attachment A: Client Concept Plans**



Date:

October 2024

Drawing Status:

REVISION E - CONCEPT

\* Subject to consultation & further investigative works



# RANGIHOU RESERVE PARRAMATTA

## PEDESTRIAN AND CYCLIST PATHWAYS



**CITY OF  
PARRAMATTA**

## **Attachment B: Borelogs**

<b>PROJECT NUMBER</b> P37382.006	<b>DRILLING DATE</b> 22/05/2025
<b>PROJECT NAME</b> Acid Sulfate Soils Assessment	<b>DRILLING METHOD</b> HAND AUGER
<b>CLIENT</b> City of Parramatta Council	<b>TOTAL DEPTH</b> 2.0
<b>ADDRESS</b> Rangihou Reserve, Parramatta	<b>LOGGED BY</b> LYNDON WALE

**COMMENTS** Surface: grass

Depth (m)	Samples	Graphic Log	Material Description	Additional Observations
0.5	BH01_S		Silty CLAY, dark brown, heterogeneous, slightly moist, medium plasticity, firm with trace inclusions of rootlets.	No odours, staining, nor asbestos.
	BH01_0.5			
1	BH01_1.0			
1.5	BH01_1.5		sandy CLAY, light brown, heterogeneous, no inclusions.	No odours, staining, nor asbestos.
2	BH01_2.0		Termination Depth at: 2.0 mbgl	



<b>PROJECT NUMBER</b> P37382.006 <b>PROJECT NAME</b> Acid Sulfate Soils Assessment <b>CLIENT</b> City of Parramatta Council <b>ADDRESS</b> Rangihou Reserve, Parramatta	<b>DRILLING DATE</b> 22/05/2025 <b>DRILLING METHOD</b> HAND AUGER <b>TOTAL DEPTH</b> 2.0 <b>LOGGED BY</b> LYNDON WALE
--	--

**COMMENTS** Surface: grass

Depth (m)	Samples	Graphic Log	Material Description	Additional Observations
0.5	BH03_S  BH03_0.5		Silty CLAY, brown, heterogeneous, moist, medium plasticity, firm with trace inclusions of rootlets	No odours, staining, nor asbestos.
1	BH03_1.0		clayey SAND, brown heterogeneous, very moist, fine to coarse grain, no inclusions.	No odours, staining, nor asbestos.
1.5			Termination Depth at: 1.0 mbgl	
2				

## Attachment C: Photolog

**Photolog**

**Report Name:** Acid Sulfate Soil Assessment

**Site Details:** Rangihou Reserve, Parramatta -

**PRM Reference:** P37382.006 / C0018



**Photo 1:** Location of BH01.



**Photo 2:** Site surface at BH01.



**Photo 3:** Material identified at BH01.



**Photo 4:** BH01, groundwater at 2mbgl.



**Photo 5:** Site surface at BH02.



**Photo 6:** material within BH02.



**Photo 7:** Location of BH03.



**Photo 8:** Material within BH03.

**End of Photolog**

## **Attachment D: ASS Field Screening Results**



## **Attachment E: NATA Accredited Laboratory Certificates**

## CERTIFICATE OF ANALYSIS 381494

### Client Details

<b>Client</b>	Progressive Risk Management Pty Ltd
<b>Attention</b>	Nick Passlow
<b>Address</b>	14/76 Reserve Road, ARTARMON, NSW, 2064

### Sample Details

<b>Your Reference</b>	<b><u>P37382</u></b>
<b>Number of Samples</b>	4 Soil
<b>Date samples received</b>	23/05/2025
<b>Date completed instructions received</b>	23/05/2025

### Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.  
 Samples were analysed as received from the client. Results relate specifically to the samples as received.  
 Results are reported on a dry weight basis for solids and on an as received basis for other matrices.  
**Please refer to the last page of this report for any comments relating to the results.**

### Report Details

<b>Date results requested by</b>	30/05/2025
<b>Date of Issue</b>	30/05/2025
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. <b>Tests not covered by NATA are denoted with *</b>	

#### Results Approved By

Nick Sarlamis, Assistant Operation Manager

#### Authorised By

Nancy Zhang, Laboratory Manager

Acid Sulphate Soil Suite					
Our Reference		381494-1	381494-2	381494-3	381494-4
Your Reference	UNITS	BH01_S	BH01_2.0	BH02_S	BH03_0.5
Date Sampled		22/05/2025	22/05/2025	22/05/2025	22/05/2025
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	23/05/2025	23/05/2025	23/05/2025	23/05/2025
Date analysed	-	26/05/2025	26/05/2025	26/05/2025	26/05/2025
pH <sub>KCl</sub>	pH units	6.0	5.6	5.7	4.9
s-TAA pH 6.5	%w/w S	0.02	0.03	0.02	0.08
TAA pH 6.5	moles H <sup>+</sup> /t	10	16	14	48
a-Chromium Reducible Sulfur	moles H <sup>+</sup> /t	8	5	10	8
Chromium Reducible Sulfur	%w/w	0.01	0.008	0.02	0.01
S <sub>KCl</sub>	%w/w S	[NT]	[NT]	[NT]	[NT]
S <sub>HCl</sub>	%w/w S	[NT]	[NT]	[NT]	[NT]
S <sub>NAS</sub>	%w/w S	[NT]	[NT]	[NT]	[NT]
ANC <sub>BT</sub>	% CaCO <sub>3</sub>	[NT]	[NT]	[NT]	[NT]
s-ANC <sub>BT</sub>	%w/w S	[NT]	[NT]	[NT]	[NT]
s-Net Acidity excluding ANC	%w/w S	0.027	0.034	0.038	0.088
a-Net Acidity excluding ANC	moles H <sup>+</sup> /t	17	21	24	55
Liming rate excluding ANC	kg CaCO <sub>3</sub> /t	1.3	1.6	1.8	4.1
s-Net Acidity including ANC	%w/w S	0.027	0.034	0.038	0.088
a-Net Acidity including ANC	moles H <sup>+</sup> /t	17	21	24	55
Liming rate including ANC	kg CaCO <sub>3</sub> /t	1	2	2	4

Method ID	Methodology Summary
<b>Inorg-068</b>	<p>Determination of Acid Sulphate Soil analysis - a sample is analysed by traditional titration method and ICP-OES analysis. Based on Acid Sulfate Soils Laboratory Methods Guidelines, latest edition.</p> <p>There is no documented official holding time, we have assigned an arbitrary 180 days to frozen samples. neutralising value (NV) of 100% is assumed for liming rate.</p> <p>Net Acidity with ANC calculation should only be used when corroborated by other data that demonstrates the soil material does not experience acidification during complete oxidation under field conditions.</p> <p>The recommendation that the SHCL concentration be multiplied by a factor of 2 to ensure retained acidity is not underestimated, has not been applied in the SHCL results reported.</p>

Client Reference: P37382

QUALITY CONTROL: Acid Sulphate Soil Suite				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			23/05/2025	[NT]	[NT]	[NT]	[NT]	23/05/2025	[NT]
Date analysed	-			26/05/2025	[NT]	[NT]	[NT]	[NT]	26/05/2025	[NT]
pH <sub>kcl</sub>	pH units		Inorg-068	[NT]	[NT]	[NT]	[NT]	[NT]	98.0	[NT]
s-TAA pH 6.5	%w/w S	0.01	Inorg-068	<0.01	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
TAA pH 6.5	moles H <sup>+</sup> /t	5	Inorg-068	<5	[NT]	[NT]	[NT]	[NT]	91	[NT]
a-Chromium Reducible Sulfur	moles H <sup>+</sup> /t	3	Inorg-068	<3	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chromium Reducible Sulfur	%w/w	0.005	Inorg-068	<0.005	[NT]	[NT]	[NT]	[NT]	106	[NT]
S <sub>KCl</sub>	%w/w S	0.005	Inorg-068	<0.005	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
S <sub>HCl</sub>	%w/w S	0.005	Inorg-068	<0.005	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
S <sub>NAS</sub>	%w/w S	0.005	Inorg-068	<0.005	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
ANC <sub>BT</sub>	% CaCO <sub>3</sub>	0.05	Inorg-068	<0.05	[NT]	[NT]	[NT]	[NT]	91	[NT]
s-ANC <sub>BT</sub>	%w/w S	0.05	Inorg-068	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
s-Net Acidity excluding ANC	%w/w S	0.005	Inorg-068	<0.005	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
a-Net Acidity excluding ANC	moles H <sup>+</sup> /t	5	Inorg-068	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Liming rate excluding ANC	kg CaCO <sub>3</sub> /t	0.75	Inorg-068	<0.75	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
s-Net Acidity including ANC	%w/w S	0.005	Inorg-068	<0.005	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
a-Net Acidity including ANC	moles H <sup>+</sup> /t	5	Inorg-068	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Liming rate including ANC	kg CaCO <sub>3</sub> /t	0.75	Inorg-068	<0.75	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

## Result Definitions

<b>NT</b>	Not tested
<b>NA</b>	Test not required
<b>INS</b>	Insufficient sample for this test
<b>PQL</b>	Practical Quantitation Limit
<b>&lt;</b>	Less than
<b>&gt;</b>	Greater than
<b>RPD</b>	Relative Percent Difference
<b>LCS</b>	Laboratory Control Sample
<b>NS</b>	Not specified
<b>NEPM</b>	National Environmental Protection Measure
<b>NR</b>	Not Reported

## Quality Control Definitions

<b>Blank</b>	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
<b>Duplicate</b>	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
<b>Matrix Spike</b>	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
<b>LCS (Laboratory Control Sample)</b>	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
<b>Surrogate Spike</b>	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

## Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

## Report Comments

Samples received in good order: 1420

# Environmental Management Plan, Lot 301, Morton St Parramatta NSW

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Probuild Pty Ltd

May 2019

**This EMP is a working document. The site owner is required to update the EMP to ensure information within the EMP is current and up to date in regards to modifications to the site and legislative requirements. The EMP should be reviewed and updated every year by a suitably qualified environmental consultant or site auditor.**



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Job No: 58165: Client No: P0012

# Table of Contents

---

1	Introduction .....	1
2	Summary of Contamination.....	1
3	Objective .....	1
4	Legislation .....	1
5	Asbestos in Soil Exposure Pathway.....	1
6	Environmental Management Framework.....	2
6.1	Roles and Responsibilities.....	2
6.1.1	Site Induction .....	2
6.1.2	Document and Reporting.....	3
6.1.3	Unexpected ACM finds, including:.....	3
6.1.4	Site Plans .....	3
6.2	Public Notification.....	3
7	Capping of Impacted Areas .....	4
8	Planning for Future Works .....	4
8.1	General landscaping activities .....	4
8.2	Works Associated with Tree Management.....	4
8.3	Works Associated with the Footpath;.....	4
8.4	Works Associated with Services.....	4
9	Planning for Future Works .....	5
9.1	Site Setup .....	5
9.1.1	Health and Safety.....	5
9.1.2	Fencing and Signage.....	6
9.2	Erosion and Sediment Control .....	6
9.3	Excavation Procedure .....	6
9.4	Dust Suppression .....	7
9.5	Stockpile Management .....	7
9.6	Personal Protective and Respiratory Protective Equipment .....	8
9.7	Decontamination .....	8
9.8	Air Monitoring.....	8
9.9	Clearances .....	9

9.10 Disposal to Landfill – ACM Containing Soil .....9

9.11 Stormwater Management .....9

9.12 Noise .....9

9.13 Housekeeping.....9

10 Monitoring & Perpetual Care..... 10

10.1 Routine site inspections ..... 10

10.2 Environmental Records ..... 11

10.3 Revision of EMP ..... 12

11 Unexpected Finds Protocol (UFP) ..... 12

12 Emergency Response ..... 15

13 Conclusion ..... 15

Figures ..... 16

Appendix B: Site Records ..... 18

Appendix C: Asbestos Materials Personal Protective Equipment (PPE) ..... 39

Appendix E: Unexpected Findings Protocol Proforma ..... 38

Table 1: Key Site Contact Details			
Company	Position	Phone	Email
City of Parramatta Council	Manager Open Space and Natural Resources	9806 5000	Council@cityofparramatta.nsw.gov.au
City of Parramatta Council	Manager Parks Services	9806 5000	Council@cityofparramatta.nsw.gov.au

Table 2: Emergency/Incident Contacts	
Department	Phone
Emergency	000
NSW EPA Environment Line	131 555
City of Parramatta Council	1300 617 058
Local Gas Authority – Jemena	13 29 03
Local Water Authority – Sydney Water	13 20 90
Local Power Authority – Ausgrid	13 13 88

## 1 Introduction

Prensa Pty Ltd was engaged by Probuild Pty Ltd (Probuild) to develop an Environmental Management Plan (EMP) for Lot 301 Morton St, Parramatta, NSW (“the site”, Figure 1). This EMP will be used for the management of asbestos related health and environmental risks associated with buried asbestos-containing materials (ACM) on site.

This EMP has been developed in accordance with current New South Wales state legislation, industry standards, codes of practice and guidance documents for the management of ACM in workplaces.

Pending its approval by a NSW Site Auditor (Contaminated Land) and the City of Parramatta Council (Council), the implementation and upkeep of this EMP is the responsibility of Council.

## 2 Summary of Contamination

The site, which is approximately 1,740 m<sup>2</sup> in area, is to be used as Open Space. Previous works identified asbestos in soil in the form of bonded fibre cement and asbestos fines in fill material across the extent of the site (Figure 2). As a result, a decision was made to remediate the site, which was completed in October 2018.

The remediation consisted of removing asbestos-impacted material to a depth of 300 mm below the final surface. The “remediation excavation surface” was covered with a high visibility geofabric marker layer, and 300 mm of virgin excavated natural material (VENM). A condition of this remediation methodology was the creation of this Environmental Management Plan, which has been designed to manage ongoing health risks to construction workers associated with the remaining capped asbestos-impacted material on site.

## 3 Objective

The objective of this EMP is to act as a detailed environmental management framework to inform future owners/maintenance workers on precautions and risk mitigation requirements to ensure maintenance workers are protected if exposed to residual contamination and/or corrective action to restore the cap to allow the continued safe use of the land by the general public.

The EMP will:

- Summarise the identified asbestos issues at the site requiring ongoing management;
- Outline the legislative and regulatory guidelines relevant to this EMP;
- Identify the roles and responsibilities of persons responsible for the implementation of this EMP;
- Outline a framework for the ongoing management of the site, including periodic inspections and associated record keeping; and
- Outline procedures for investigation of non-conformances.

Site personnel including subcontractors are to be inducted and to understand their responsibilities with regards to this EMP in the event of conducting works that may disturb asbestos impacted soils.

The EMP is to be a “live” document that is revised and updated where necessary to reflect any changes to the work environment that result in a change to asbestos exposure risk factors and associated asbestos controls. As soon as reasonably practicable, after such a change is identified, the EMP must be revised by a competent person, asbestos hygienist or licensed asbestos assessor as nominated by Council.

## 4 Legislation

The EMP has been developed in accordance with the following legislation, industry standards, codes of practice and guidance documents, other reference documents are stated throughout the EMP:

- NSW *Work Health and Safety Act*, 2011;
- NSW *Work Health and Safety Regulation*, 2017;
- NSW *Code of Practice: How to Manage and Control Asbestos in the Workplace*, 2016;
- NSW *Code of Practice: How to Safely Remove Asbestos*, 2016;
- Australian Standard (AS) 2601-2001 *The demolition of structures*;
- *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2<sup>nd</sup> Edition* [NOHSC:3003(2005)];
- AS 4964-2004 *Method for the qualitative identification of asbestos in bulk samples*;
- AS 2985-2009 *Workplace atmospheres - Method for sampling and gravimetric determination of respirable dust*;
- AS 3640-2009 *Workplace atmospheres - Method for sampling and gravimetric determination of inhalable dust*;
- *Protection of the Environment Operations Act*, 1997;
- *Protection of the Environment Operations (Waste) Regulation* 2014;
- National Environment Protection Council (NEPC) – *National Protection (Assessment of Site Contamination) Amendment Measure No.1 2013* (NEPAM, 2013);
- NSW *Code of Practice for the Control of Workplace Hazardous Substances*, 2006;
- Australia/New Zealand Standard (A/NZ) 4360:2004 *Risk Management*;
- AS 1319-1994 *Safety signs for the Occupational Environment*;
- AS/NZS 1716 2012 *Respiratory Protective Devices*; and
- AS/NZS 1715 2009 *Selection, use and maintenance of respiratory equipment*.

## 5 Asbestos in Soil Exposure Pathway

Based on the physical and toxicological properties of asbestos, the primary route of exposure to asbestos by humans is through the inhalation of airborne asbestos fibres. Given the Sites proximity to Parramatta River there is potential for offsite migration of soils as a result of flooding which could result in an additional offsite exposure risk. The management techniques outlined in this EMP must be adopted to minimise the exposure of site users and site workers to the identified ACM, via the inhalation pathway. The management techniques should also minimise the chance of offsite migration occurring.

Full implementation of the EMP will also ensure the residual risk of off-site migration of asbestos airborne fibres, or asbestos impacted soil, remains low.

Similarly, the nature of residual asbestos contamination in soil does not pose a risk to groundwater.

## 6 Environmental Management Framework

This section outlines the management framework and procedures required to implement this EMP at the site.

This EMP is a long term EMP. The site is expected to be kept in its current state for the foreseeable future, or until land use changes enforce additional changes, or until further remediation occurs. The EMP is legally enforceable under the Environmental Planning and Assessment Act 1979 and the Contaminated Land Management Act 1997.

### 6.1 Roles and Responsibilities

The EMP must be maintained and implemented by all current and future landowners as required. Major roles and responsibilities for implementing the EMP are presented in **Table 3**.

Table 3: Roles and Responsibilities		
Role	Responsible Person	Responsibilities
<b>Environmental Site Manager<sup>1</sup></b>	To be nominated by Land Owner <sup>2</sup> , but likely to be the Property & Environment Manager (or its equivalent) at City of Parramatta Council .	Responsible for the implementation of the EMP, including updating if required. Responsible for inductions.
<b>Principal Contractor/ Contractors / maintenance workers</b>	Contractors engaged by Council to undertake works at the Site.	Undertake works in accordance with this EMP. In the event the geofabric marker layer is compromised, a NSW Class A licensed asbestos removalist must be engaged to fulfill the role of Principal Contractor
<b>Environmental Consultant or Competent Person<sup>3</sup></b>	Environmental Consultant/ Competent Person engaged by the Land Owner to undertake works e.g. sampling, site inspections etc.	Assist with the implementation of the EMP and undertake works in accordance with this EMP.

<sup>1</sup> The Environmental Site Manager should be suitably qualified, aware of the existing conditions at the Site, capable of identifying potential ACM and able to implement appropriate contingency actions (if required).

<sup>2</sup> The Land Owner will be ultimately responsible for the implementation of the EMP and management of asbestos at the Site.

<sup>3</sup>The Competent Person is asbestos trained, is capable of identifying potential ACM and can assist with the implementation of the EMP. They should be qualified as a licensed asbestos assessor.

#### 6.1.1 Site Induction

##### **Responsible Party: Environmental Site Manager**

It is recommended that an Environmental Site Manager is appointed by the Council to enforce the proposed management controls. The Environmental Site Manager will be responsible for ensuring that all site workers, including maintenance staff, contractors and sub-contractors are inducted into the requirements of this EMP and that adequate controls are in place.

### 6.1.2 Document and Reporting

#### **Responsible Party: Environmental Site Manager**

Relevant documentation regarding the implementation of this EMP should be maintained by the Environmental Site Manager. The documentation may include (but is not limited to):

- Site plans, identifying the location of the designated asbestos-impacted soil areas;
- Air monitoring and clearance certifications;
- Revisions of the EMP and asbestos register for the site;
- Asbestos-related incident reports;
- Staff and contractor inductions and training records;
- Relevant environmental reports;

#### **6.1.3 Unexpected ACM finds, including:**

- Location and quantity of ACM;
- Condition of ACM;
- Amount of soil segregated with ACM;
- Where ACM and ACM-impacted soil has been stockpiled; and
- Details of disposal along with tipping dockets;
- Movements of asbestos-impacted soil across the site; and
- Photographic evidence.

It will be the responsibility of the Environmental Site Manager to review and update the records as required and to implement corrective action where necessary.

### 6.1.4 Site Plans

#### **Responsible Party: Land Owner and Environmental Site Manager**

The location areas of identified ACM should be clearly marked out on site plans. The plans should be included in site inductions and used during quarterly inspections to ensure appropriate areas of the Site are covered.

**Figure 1** in the 'Figures' Section of this EMP outlines the approximate location of the asbestos impacted soils, based on information known at the site.

## 6.2 Public Notification

#### **Responsible Party: Council**

The EMP is required to be added to Council's records management system, which is made publically available in accordance with the Government Information (Public Access) Act 2009.

While services are present on site, no services were installed during remediation works on site. Council should ensure they are notified of Dial Before You Dig (DBYD) searches associated with the existing services on site.

Should major earthworks occur below the capping layer, SafeWork NSW will also require notification, given the underlying soil is assumed to be impacted by friable asbestos.

## 7 Capping of Impacted Areas

A capping layer has been installed over the asbestos-impacted soils. It is imperative this capping layer is maintained. The capping layer consists of:

- A water permeable, high visibility marker layer;
- A 300 mm thick cap consisting of certified Virgin Excavated Natural Material (VENM);
- An Enkamat layer designed to promote soil stabilisation and vegetation growth; and
- Overlying grassed surface.

No vegetation was retained on site during or after the remediation works on site. This EMP provides basic advice only, regarding capping of asbestos impacted soils. Detailed specifications were outlined in the remediation action plan (Prensa report reference 58165\_RAP\_301 Morton St Parramatta\_V2) and existing conditions at the conclusion of remediation activities have been presented in the validation of remediation (Prensa report reference 58165\_Validation\_V1).

## 8 Planning for Future Works

### 8.1 General landscaping activities

Works associated with general landscaping activities, such as mowing and minor earthworks that do not breach the capping layer, must ensure that at the conclusion of activities, the 300 mm cap across the site is retained. Where erosion or deterioration of the cap is expected, the relevant contractors must contact Council.

### 8.2 Works Associated with Tree Management

Several trees were imported onto site as part of landscaping works, which will require management for the foreseeable future. Primarily, soil surrounding the tree roots needs to be managed. The capping layer above the tree roots must not break through the soil surface. Where this occurs, pruning of the relevant tree, and associated root-mass, will be necessary to ensure the ongoing integrity of the cap. Where damage to the geofabric in the event of a treefall or “root breakthrough” is identified, the cap must be repaired.

### 8.3 Works Associated with the Footpath;

Two footpaths cross the site, near the eastern boundary of the site, and across the swale towards the west of the site. Because both footpaths were constructed prior to remediation works commencing, it is possible they were placed directly on top of asbestos impacted soils. Therefore, the condition of the cement path must be included and noted as part of ongoing site inspections. Any works that break the integrity of the concrete footpaths must be undertaken with reference to guidance provided in Section 8 and the Prensa (2018) RAP. If the concrete footpaths are damaged, they must be restored to their original condition at the completion of works.

### 8.4 Works Associated with Services

A drainage pipe riser was noted on site, indicating a drainage line is likely present beneath the site. It is unclear whether the drainage pipe was laid into clean soils on site. As a result, planning for future works associated with the drainage services on site must assume the potential to encounter asbestos impacted soils on site, and must implement the controls detailed in Section 9.

If excavation works associated with drainage services occur, asbestos impacted soils must be classified and disposed of off-site. Asbestos impacted soils may not be re-instated around services. Where possible, a geofabric marker layer should separate the services from impacted soils, and the void backfilled with VENM. The capping layer must also be restored at the completion of works.

Similar works associated with digging trenches on site, or other maintenance works on the site (including maintenance of the cap itself) must ensure the integrity of the cap is intact at the conclusion of works.

## 9 Planning for Future Works

In the event that future works are undertaken at the site in areas where asbestos-impacted soils have been identified and are likely to be disturbed (i.e. below the geofabric marker layer), the following protocols must be implemented.

### 9.1 Site Setup

#### 9.1.1 Health and Safety

##### Responsible Party: Environmental Site Manager

Prior to commencement of works at the Site, workers undertaking earthworks must be inducted in accordance with this EMP and all works must be undertaken in line with this EMP.

The minimum health and safety requirements for the site include the following:

- Workers and staff, undertaking earthworks, must have an understanding of the asbestos in soil contamination issues at the site;
- Subcontractors must provide safe work method statements (SWMS) to Council nominated Environmental Site Manager for review prior to the commencement of works ensuring control measures associated with the asbestos is included;
- In the event that the geo-textile layer of the cap is likely to be breached due to works (approximately 300 mm below ground level) a five day notification to SafeWork NSW is required;
- An appropriately licensed asbestos removalist contractor may be required for works (Class B – non-friable asbestos removalist) and a Licensed Asbestos Assessor. Should friable asbestos be identified on site, a Class A licence (friable asbestos) will be required by the removalist;
- Workers and staff, undertaking soil related activities where asbestos was identified or suspected, must wear the appropriate personal protective equipment (PPE) as outlined in **Appendix B** of this EMP;
- The asbestos work areas must be barricaded and signed to prevent public access;
- Dust suppression techniques described in **Section 8.3** of this EMP must be employed;
- Designated smoking, eating and amenities areas must be established away from the work area. Care should be taken to ensure the amenities area are generally located upwind of the work area;
- Good hygiene practice, including washing of hands before eating, smoking or going to the toilet must be adopted by site workers; and
- Decontamination of personnel, equipment and plant (as required prior to leaving an asbestos work area).

### 9.1.2 Fencing and Signage

#### **Responsible Party: Principal Contractor**

The asbestos work zones must be secure and signed appropriately (e.g. 'Authorised Persons Only' or 'Specialised Work Zone') this must include the establishment of a physical barrier and an exclusion zone around the work zone.

For the purposes of this EMP an asbestos work zone is designated as an area where:

- Asbestos has previously been identified or there is the potential for asbestos contamination;
- Asbestos has been identified during excavation of fill material;
- Asbestos has been identified and is waiting to be removed by licensed asbestos removal contractor (including for waste disposal);
- The asbestos removal contractor is in the process of removing the asbestos from the soil; and
- An area where asbestos has been removed, but has not been cleared by the on-site hygienist/asbestos assessor.

This boundary must be maintained throughout the duration of the works. Contractors and site workers undertaking soil related activities and working in an asbestos work zone must be inducted into the EMP.

## 9.2 Erosion and Sediment Control

#### **Responsible Party: Council**

Erosion and sediment controls must be in place prior to commencement of work, especially in areas of highly erodible soil. This includes but is not limited to the following:

- Works are to be undertaken in line with Landcom (2004) *Managing Urban Stormwater – Soils and Construction* ("the blue book");
- Diversion of stormwater runoff on site where practicable;
- Sediment fences to be installed along boundaries or where works are to commence; and
- Appropriate stockpile management as outlined in Section 8.4.

The site surface must also be inspected immediately after inundation (i.e. flood events) to ensure the cap has not been compromised by scouring. This is further discussed in Section 9.9.

## 9.3 Excavation Procedure

#### **Responsible Party: Principal Contractor**

The following procedure should be employed should excavation be required on site:

- An environmental consultant should be engaged to guide the process;
- The excavation area should be minimised, and clearly defined, prior to works commencing (e.g. by spray paint of the boundaries of the proposed excavation);
- Turf and enkamat layer should be excavated and placed to one side of the excavation. Underlying VENM should also be excavated and placed to one side. Because of the risk of airborne asbestos fibres contaminating the turf and VENM, the material should be covered with HDPE plastic for the duration of excavation works;
- Black HDPE plastic should then be laid out on the other side of the trench, which the geofabric and excavated asbestos-impacted soil may be placed on;

- The geofabric should be manually cut, **not ripped out by the excavator**, and disposed of immediately and appropriately;
- Excavation may commence using a narrow bucket. The bucket be half-filled only, in order to minimise the risk of cross-contamination;
- Excavated soil must be placed on the HDPE;
- Excavated soil that is replaced must be replaced in the order in which it was excavated;
- Any asbestos-impacted soil that cannot be replaced into the excavation, must be disposed of off-site in accordance with the NSW EPA (2014) Waste classification guidelines: Part 1 – Classifying waste;
- The Geofabric layer must be re-instated. This will required new material to be stapled onto existing material;
- The 300 mm cap over the asbestos impacted soil must be re-instated, either with re-worked capping material already onsite, or imported VENM, which should be overlain with enkamat and turf. The soil should be compacted as appropriate in order to minimise the risk erosion, including consideration of the risk of scouring by future flood events;
- The health of the replaced turf layer must be monitored for at least six months after the completion of maintenance works. Unless otherwise agreed upon, responsibility for monitoring and implementing the EMP will thereafter return to Council.

## 9.4 Dust Suppression

### **Responsible Party: Principal Contractor**

Dust suppression techniques will be used on site wherever dust may be generated. If possible, dust generating works should be suspended during windy days. Dust suppression techniques include the following:

- On large sites a water truck can be utilised to keep the soil surface moist prior to, and during, earthwork activities. Fine water mist spraying should be used to wet the soil. Direct flow or high pressure spraying of the soil must be avoided;
- The amount of traffic across the asbestos impacted soils must be minimised;
- When excavators are being used on site, the bucket should only be three quarter filled, ensuring soil does not fall out of the bucket, particularly when loading trucks;
- The excavator bucket should be emptied within the trucks tray (i.e. not allowing the soil to fall from height into the tray);
- If trucks are used to shift soil on site, these should be lined and covered with high-density polyethylene barriers;
- Shade cloth should erected along boundary fences to act as a wind break; and
- Any soil to be stockpiled, should be stockpiled on an impermeable surface and covered with high—density polyethylene plastic. Soil should be stockpiled away from any sensitive receptors including residents and stormwater drains.

## 9.5 Stockpile Management

### **Responsible Party: Principal Contractor**

The following is required in the event that stockpiling of soil is required:

- Stockpiles must be established on 200 µm thick polythene sheeting on the ground surface;

- Dust suppression must be in place in accordance with Section 8.3 of this EMP;
- Stockpiles must not exceed two metres in height and shall be of the lowest height reasonably practicable;
- Stockpiles must be suitably barricaded or otherwise fenced off to prevent access; and
- At the conclusion of each day's work, stockpiles must be covered with 200 µm thick polythene sheeting.

## 9.6 Personal Protective and Respiratory Protective Equipment

### **Responsible Party: All workers entering work area**

All personnel onsite are required to be wearing appropriate PPE in line with Council requirements. For workers within the asbestos work zone, the following PPE is also mandatory:

- Type 5 & 6 disposable coveralls (at the direction of the asbestos hygienist);
- Minimum P2 disposable mask, half face respirator with P2 particulate filter or P3 particulate filter (at the direction of the asbestos hygienist);
- Nitrile gloves; and
- Footwear that can be easily decontaminated (i.e. gumboots).

See **Appendix B** for further information on asbestos mandatory PPE.

## 9.7 Decontamination

### **Responsible Party: All workers entering asbestos work area**

Where works are to occur in an area which has been identified as having non-friable asbestos, additional decontamination procedures are required. As non-friable asbestos has been identified on site, it is recommended that decontamination be undertaken using wet decontamination techniques where non-friable material is disturbed. This must include:

- A minimum three stage wet decontamination unit must be set up at the entrance to the work area;
- Workers must don disposable coveralls prior to entering the work area (at the direction of the asbestos hygienist);
- When leaving the work area all workers must make their way to the wet decontamination unit, and use as directed, in accordance with the NSW Code of Practice (2016) *How to Safely Remove Asbestos*;
- All tools and equipment used during the removal task must be decontaminated, before they are removed from the asbestos work area;
- Tools and equipment which cannot be decontaminated in the asbestos work area must be dedicated to asbestos removal work and double bagged in asbestos waste bags before being removed from the asbestos work area; and
- PPE including respirators must be inspected and wet wiped prior to removing these items from the work area.

## 9.8 Air Monitoring

### **Responsible Party: Competent Person**

Asbestos fibre air monitoring must be undertaken during earth works by a licensed asbestos assessor. Air monitoring must be undertaken in accordance with the *Guidance Note on the Membrane Filter*

*Method for Estimating Airborne Asbestos Fibres 2<sup>nd</sup> Edition* [NOHSC: 3003 (2005); and AS ISO/IEC 17025 – 2005, *General requirements for the competence of testing and calibration laboratories*.

Air monitoring reports must be issued by a NATA accredited laboratory.

Works must cease if the air monitoring results are found to be above the laboratory limit of detection of 0.01 f/ml of air. Emergency procedures must be followed when air monitoring control levels are exceeded as outlined in **Appendix C**.

## **9.9 Clearances**

### **Responsible Party: Competent Person**

A site walkover must be undertaken by the asbestos hygienist at the end of each working day to confirm that no visible asbestos-containing soil remains on the capped surface of the site and any stockpiles have been wetted down, banded and covered with polythene sheeting.

A clearance certificate must be prepared by the licensed asbestos assessor stating the capped layer has been re-instated to a practicable standard at the end of the project and provided to Council.

The site also requires inspection after inundation (flood) and heavy rain events, which present a risk of erosion from scouring. Advice has been received from a geotechnical engineer that the site surface would survive a one-in-one-hundred-year flood event. However, an inspection must confirm the cap is intact. Any erosion or degradation of the cap must be remediated at the earliest opportunity.

## **9.10 Disposal to Landfill – ACM Containing Soil**

### **Responsible Party: Principal Contractor**

Where material is to be removed off site, works are to be undertaken in accordance with NSW EPA 2014 Waste Classification Guidelines.

## **9.11 Stormwater Management**

### **Responsible Party: Principal Contractor**

Stormwater management is required to ensure stormwater and local water courses are not impacted by sediment or contaminated surface water runoff. Stormwater management techniques include the following:

- Ensure stormwater drains are covered/blocked with an impermeable barrier (hay bales, sand bags, geofabric liners) or fitted with a sediment filter; and
- Local water courses, such as creeks, lakes or open drains should also be protected from runoff with impermeable barriers, such as hay bales, sand bags and/or geofabric liners.

## **9.12 Noise**

Noise should be kept to a minimum during site works. Works that involve noise should be only undertaken between the hours of 7 am and 5 pm, Monday to Saturday.

## **9.13 Housekeeping**

Regular inspection of the site should be undertaken to ensure on-site contamination is not being spread off-site. Trucks entering and leaving the Site can transport contaminated soil and dust onto the surrounding roads, which in turn can be washed into the stormwater network. If trucks are used on site, truck wheel wash bays should be installed. Street cleaning trucks should also be utilised to clean the road surfaces if soil continues to migrate off-site.

Housekeeping is an important part of daily site work operations. Each sampling point should be reinstated at the completion of each location. The areas should be reinstated as soon as practicable to maintain the safe state and function of the Site. This will ensure dust levels are kept to a minimum, stormwater runoff is free of contaminated soil or sediment and contaminated soil or groundwater does not migrate off-site. Where possible the surface should be returned to its original state, i.e. reinstatement with a health grass cover.

## 10 Monitoring & Perpetual Care

### **Responsibility: Environmental Site Manager and NSW EPA**

A key component for ensuring that harm to the environment and site users is minimised / mitigated is to conduct routine inspections of the work area, to report any non-conformances and implement associated corrective actions (where required).

#### **10.1 Routine site inspections**

It is recommended that Council facilitate the implementation of routine site inspections (e.g. annually), to be carried out by an appropriately qualified person. As part of the conditions of handing the site over to Council for ongoing management, the implementation of routine and special event monitoring is to be undertaken by the Council. This will ensure that environmental controls recommended in the EMP are being correctly implemented and that if there are non-conformances or incidents they are promptly reported so that corrective actions may take place. The site inspection should be carried out by a competent person from Council or on behalf of Council, and will assess for the following:

- Asbestos presence/absence across the surface of the impacted areas;
- Whether the visual marker layer has been exposed; and
- Whether any unauthorised excavation activities have been conducted within the impacted area.

Records of routine site inspections should be kept by the Environmental Site Manager and be made available for inspection by the NSW EPA upon request.

The inspection is to be carried out on a quarterly basis for the first twelve months after the completion of remediation works, and annually thereafter.

The inspection shall include the following details as a minimum:

- Date;
- Authorised personnel conducting the inspection;
- Specific activities being undertaken;
- Level of compliance with the EMP. Assessments of any works not being undertaken in accordance with the EMP (i.e. non-conformances);
- Condition of all environmental controls, which should also be recorded by photographs;
- Any incidents identified; and
- Specific site observations should include:
  - Identification of Potentially Asbestos Containing Materials, documenting and recording any fragments noted on the surface; and
  - Assessment of current ground conditions in locations identified as containing asbestos. Special attention should be given to groundcover i.e. disturbed, dry, dusty etc. Any notable erosion in the area should be noted.

When observing the final surface, the assessor should note:

- Whether cap integrity is maintained, and whether erosion is present;
- Whether the overlying turf layer is healthy;
- Whether any geofabric is showing through or exposed to the surface;
- Whether any works have been undertaken within the area, and if so whether all requirements set out in this EMP have been followed; and
- Whether additional controls are required on site.

Observations should be made during the regular maintenance of the grounds. Should any of the previously discussed assessment items be identified i.e. damage to cap or asbestos noted on the surface, an inspection by a competent person from Council or on behalf of council should be undertaken.

Maintenance of vegetation on site, including the turf layer, should be undertaken by a suitably qualified landscaper.

Should additional capping material be required to maintain the capping layer on site, imported material must meet be Virgin Excavated Natural Material (VENM), and maintenance works must ensure the site meets the remediation goals detailed in the Remediation Action Plan.

Additional monitoring may be required in the instance that infrastructure on site (e.g. footpaths, drains) require replacement as a result of a catastrophic event such as a major flood.

Additional inspections will also be deemed necessary after inundation (see Section 9.9), after “extremely wet days” and upon the completion of earthworks on site. “Extremely wet days” are defined by the Bureau of Meteorology as “Annual total precipitation when daily precipitation >99<sup>th</sup> percentile”. Due to the summer dominance of rainfall at this location, determination of heavy rain should be against the monthly averages, not yearly. The nearest Bureau of Meteorology weather station to the site is at Homebush Bay (site O6195), and it is assumed that rainfall at this location is representative of rainfall on site.

The site is adjacent the Parramatta River. In order for a flooding event to occur, the water level would be required to rise to approximately 5.2 m AHD from its regular height of 4.0 m AHD to breach the riparian vegetation and inundate the site. Should water height reach these levels an inspection would be required once water levels have receded.

## 10.2 Environmental Records

Environmental records which will be collated shall include the following;

- EMP distribution records;
- Training and induction records;
- Environmental incident reports;
- Environmental complaint records;
- Non-conformances and corrective and preventative action reports;
- Environmental site inspection, quarterly and unscheduled checklists; and
- Environmental monitoring data and reports (e.g. any air monitoring results, waste classification reports, site investigation reports etc.).

The site inspection observations and action record sheet is included in **Appendix B** of this EMP.

### 10.3 Revision of EMP

This EMP is a working document. The site owner is required to update the EMP to ensure information within the EMP is current and up to date in regards to modifications to the site and legislative requirements. The EMP should be reviewed and updated every year by a suitably qualified environmental consultant or site auditor to reflect the following:

- Updates to legislation;
- Physical changes to the site;
- Changes to the site use;
- In the event the site owner changes.

## 11 Unexpected Finds Protocol (UFP)

### Responsible Party: Environmental Site Manager and Environmental Consultant/Competent Person

This UFP has been developed for the purpose of providing guidance to site workers and users in relation to unexpected contamination being identified within the impacted areas at the site to ensure the health and safety of staff, contractors and visitors.

Any material that is uncovered deemed to be foreign, be that imported fill material or building waste, should be scrutinised further to determine if asbestos or other contaminants are present. The main features to look for are:

- Soil or fill material that differs from the previously identified materials onsite;
- Material containing anthropogenic artefacts such as rubble, plastics, metal etc;
- Asbestos or suspected asbestos containing material, although this is expected *below* the geofabric marker layer only;
- Material with fibres visible;
- Material with an obvious unnatural odour i.e. fuel, solvent, burnt odour;
- Material that is noticeably stained in colour;
- Archaeological artefacts; and
- Any material that has evidently been dumped on site.

These materials may require additional assessment or management. Prior to the commencement of works onsite a WH&S induction should be undertaken. The requirements of the EMP should be discussed at this point with additional consideration placed on the UFP.

If a UFP is triggered during works, the following protocol is to be followed:

- Cease disturbance of the affected area and assess the risk of the unexpected find using the UFP Proforma in **Attachment D**;
- Erect barricades / minimise access to the area;
- Contact the Environmental Consultant (if required);
- Further investigation and management may be required; and
- Following clearance of the unexpected findings, areas can be reopened for work.

Investigation of suspected contamination identified as a UFP should be undertaken in accordance with the following guidelines:

- NSW Office of Environment and Heritage (OEH) (2011) – Guidelines for Consultants Reporting on Contaminated Sites (OEH, 2011);
- NSW EPA (1995) – Sampling Design Guidelines;

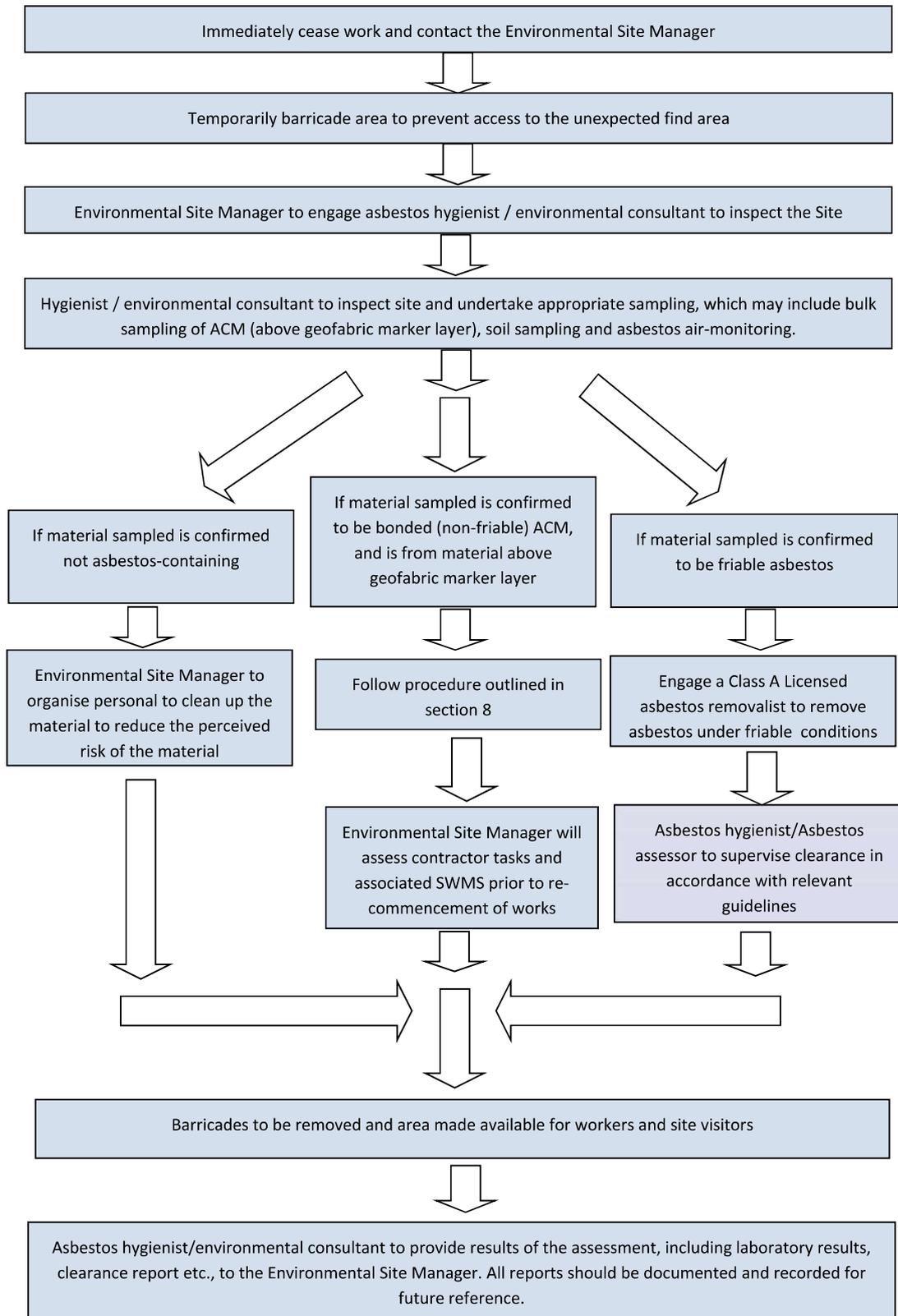
- NEPAM (2013):
  - Schedule B1 – Investigation Levels for Soil and Groundwater;
  - Schedule B2 – Site Characterisation; and
  - Schedule B6 – Framework for Assessment of Groundwater Contamination.

If suspected contamination and/or hazardous material is encountered the “Unexpected Findings Protocol Proforma” should be completed, with a brief description of the material reported and the location of the material identified with a sketch. An example UFP proforma has been provided in Appendix D.

In the event that suspected non-friable *or* friable\* asbestos is identified outside areas on site already identified as asbestos impacted, the flow chart procedures outlined below should be undertaken.

\*Friable asbestos is usually in the form of loose asbestos that is not bound together. The most common forms of friable asbestos are thermal lagging used on steampipes, boilers, as fire protection, ceiling insulation and the like, and raw asbestos waste from asbestos products manufacturing. Friable asbestos can usually be broken up or crumbled using hand pressure to generate free fibres. If it is disturbed, friable asbestos has the potential to generate significant quantities of airborne fibres, and because of this requires a high level of control.

**Unexpected Finds Protocol**



## 12 Emergency Response

### Responsible Party: Site Workers/Contractors

Emergency contact details are outlined in **Table 2** in the 'Contact Details' section of this EMP.

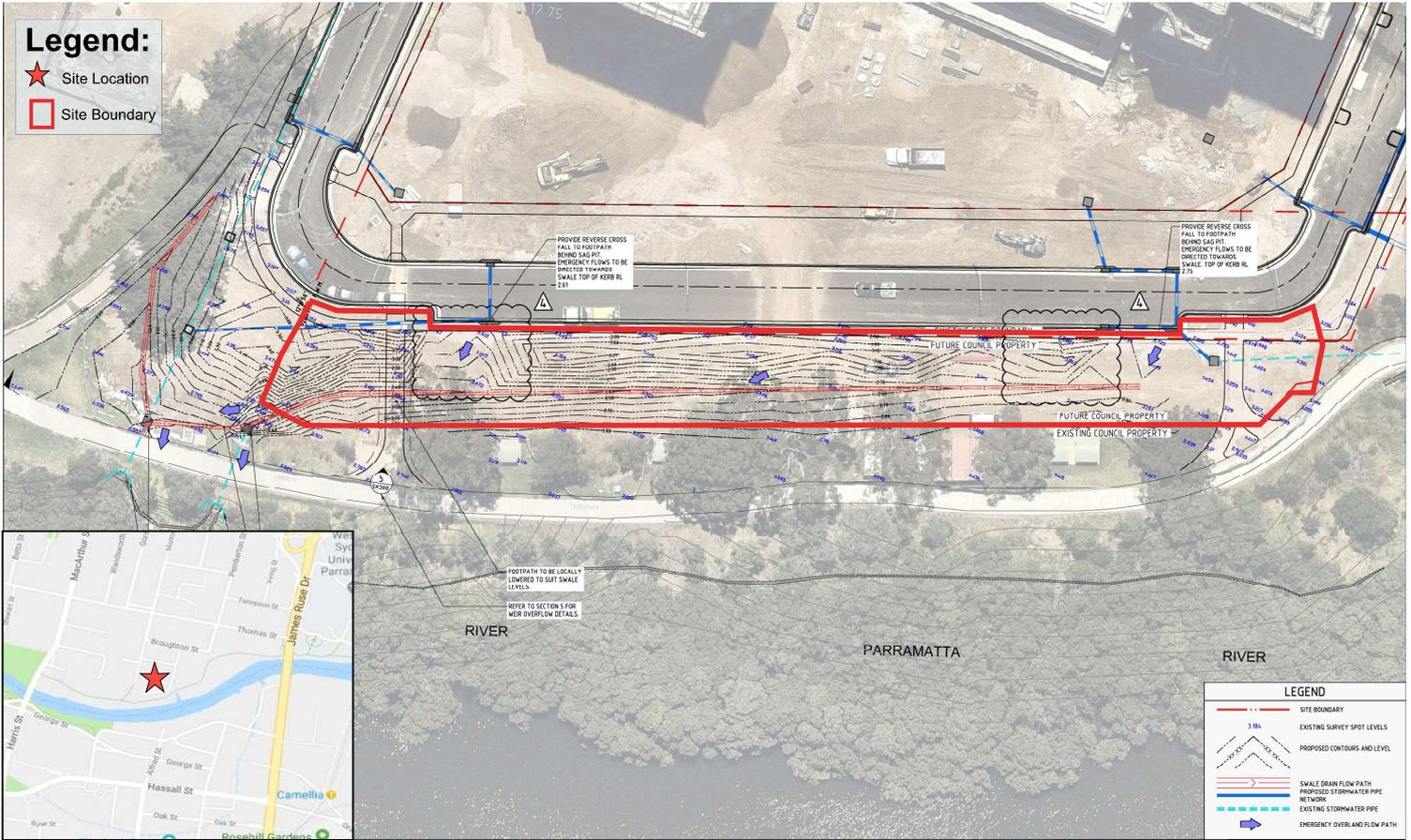
In the event of an emergency arising on the site, appropriate action should be taken. Site evacuation procedures should be followed, as necessary.

## 13 Conclusion

This EMP has been developed to manage potential risks associated with asbestos impacted soils being uncovered during works on site. Implementation of the control measures outlined in this EMP will assist in minimising the potential health risks to site users, and manage the pre-existing ACM contamination at the Site.

# Figures

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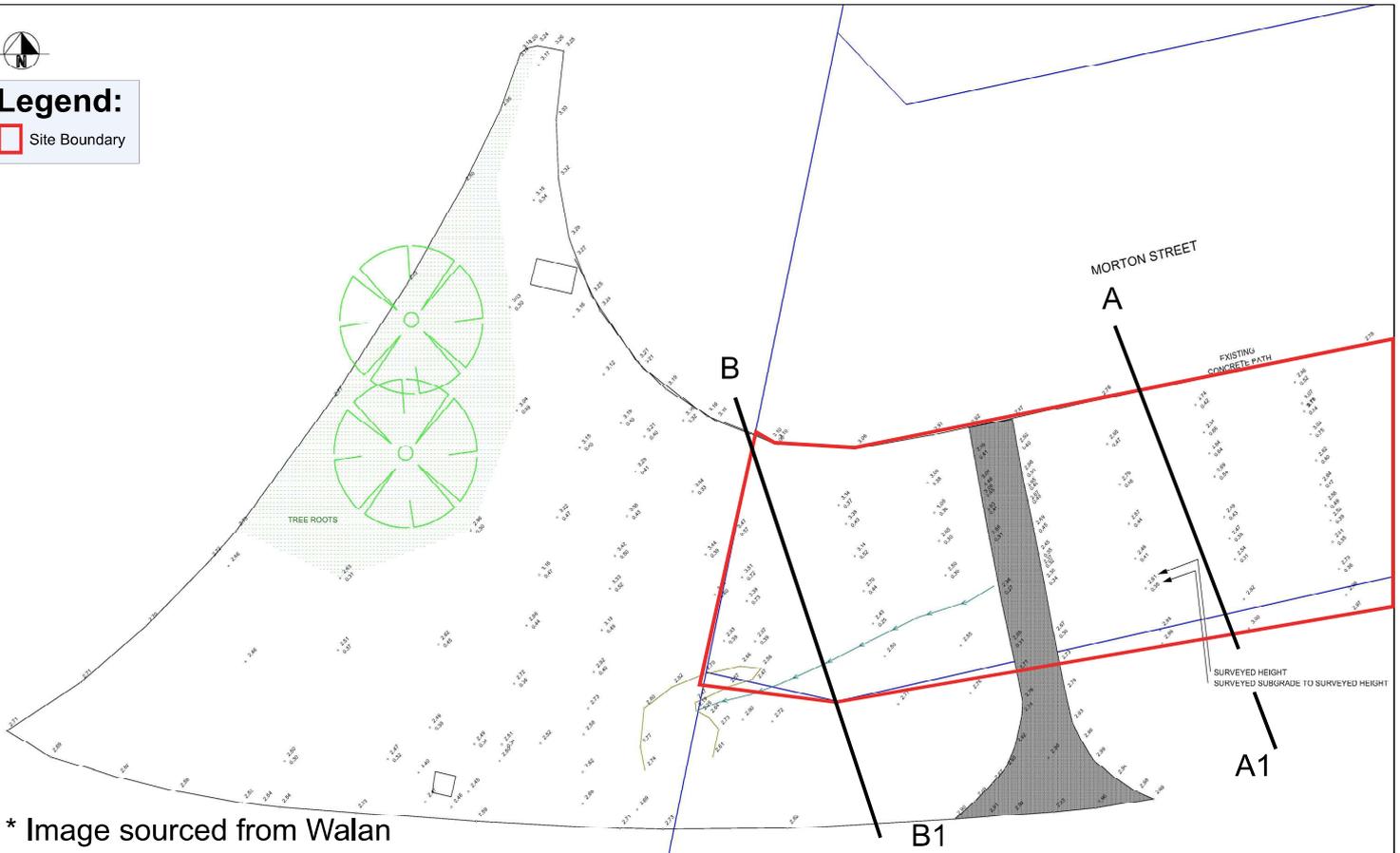


<p>Level 1, 71 Longueville Road, Lane Cove NSW 2066 sydneyadmin@prensa.com.au</p> <p>P: (02) 8968 2500 F: (02) 8968 2599 www.prensa.com.au</p>	<p>Client: Probuild Client No.: P0012</p>	<p>Address: 2 Morton Street, Parramatta</p>	<p>Drawn by: MXP Date: 25/01/2019</p>	<p>Checked by: JXB Date: 25/01/2019</p>
	<p>Project: Morton Street EMP Job No.: 58165</p>	<p>Drawing Title: SITE LOCATION FIGURE</p>	<p>File name: 58165 EMP Figures V4</p>	<p>Figure number: 1 Revision: A</p>



**Legend:**

 Site Boundary



\* Image sourced from Walan



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Client: Probuild  
Client No.: P0012

Project: Morton Street EMP  
Job No.: 58165

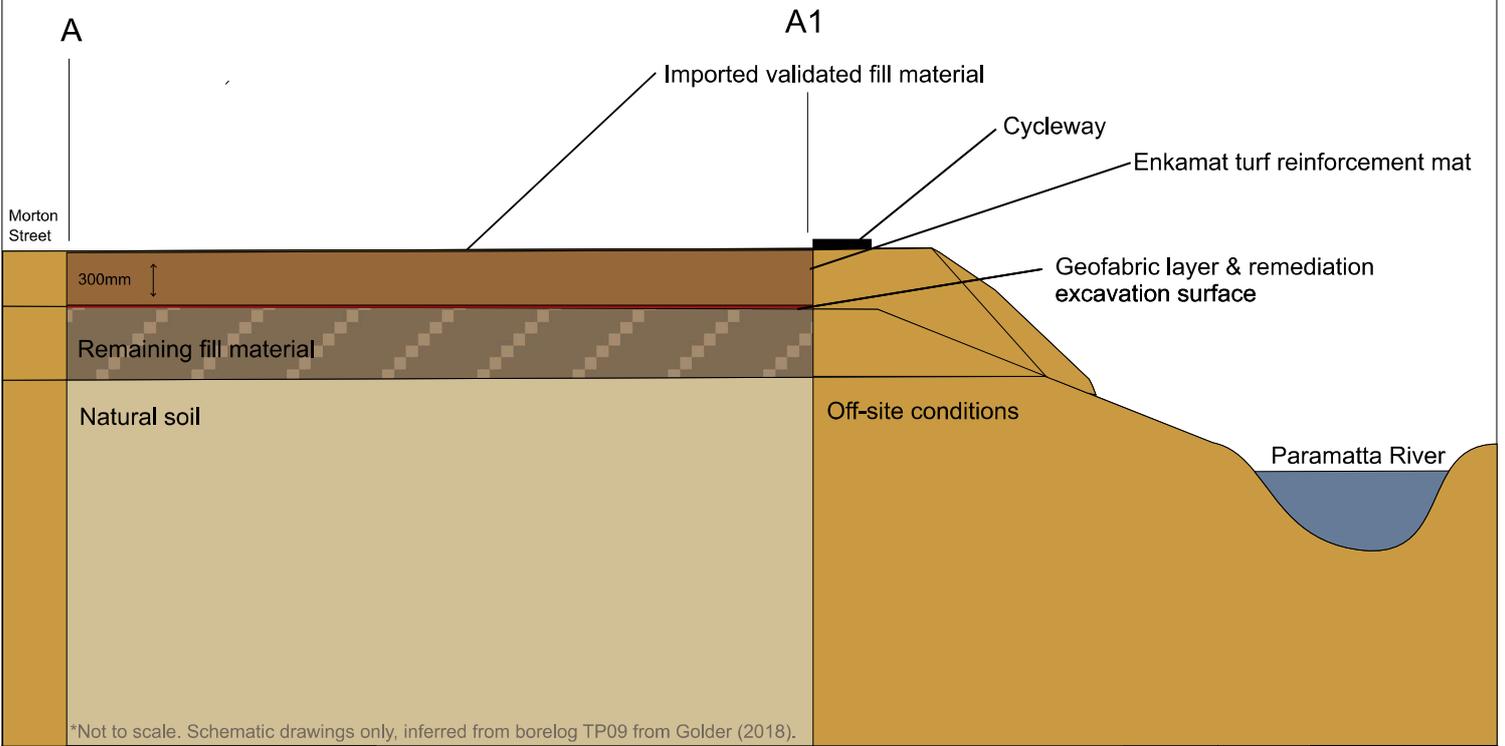
Address: 2 Morton Street, Parramatta

Drawing Title: Site Survey

Drawn by: MXP	Date: 25/01/2019	Checked by: JXB	Date: 25/01/2019
File name: 58165 EMP Figures V4		Figure number: 2	Revision: A

### Legend

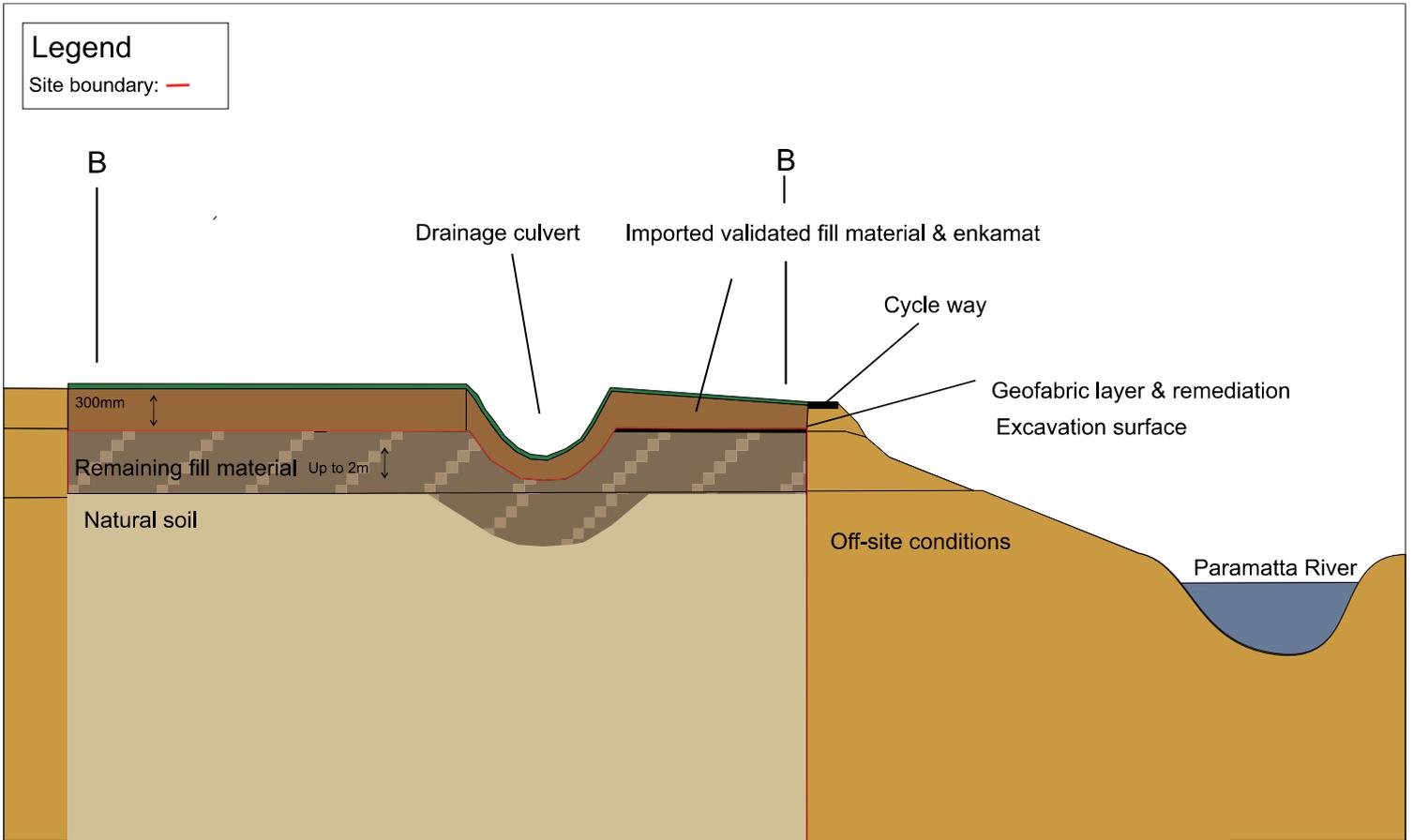
Site boundary: —



 <p>Level 1, 71 Longueville Road, Lane Cove NSW 2066 sydneyadmin@prensa.com.au</p> <p>P: (02) 8968 2500 F: (02) 8968 2599 www.prensa.com.au</p>	<p>Client: Probuild</p> <p>Client No.: P0012</p>	<p>Address: 2 Morton Street, Parramatta</p>	<p>Drawn by: MXP</p>	<p>Date: 11/02/2019</p>	<p>Checked by: DMF</p>	<p>Date: 11/02/2019</p>
	<p>Project: Morton Street EMP</p> <p>Job No.: 58165</p>	<p>Drawing Title: Capping Stage 3A: Imported Fill Material</p>	<p>File name: 58165 EMP Figures V4</p>	<p>Figure number: 3</p>	<p>Revision: A</p>	

**Legend**

Site boundary: —



 Level 1, 71 Longueville Road, Lane Cove NSW 2066 sydneyadmin@prensa.com.au	Client: Probuild	Address: 2 Morton Street, Parramatta	Drawn by: MXJ	Date: 25/01/2019	Checked by: JXB	Date: 25/01/2019
	Project: Morton Street EMP	Drawing Title: Stage 3B: Site Capping	File name: 58165 EMP Figures V4	Figure number: 4	Revision: A	
P: (02) 8968 2500 F: (02) 8968 2599 www.prensa.com.au	Client No.: P0012 Job No.: 58165					

## Appendix A: Statement of Limitations

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This document has been prepared in response to specific instructions from Probuild Pty Ltd to whom the report has been addressed. The work has been undertaken with the usual care and thoroughness of the consulting profession. The work is based on generally accepted standards, practices of the time the work was undertaken. No other warranty, expressed or implied, is made as to the professional advice included in this report.

The report has been prepared for the use by Probuild Pty Ltd and the use of this report by other parties may lead to misinterpretation of the issues contained in this report. To avoid misuse of this report, Prensa advise that the report should only be relied upon by Probuild Pty Ltd and those parties expressly referred to in the introduction of the report. The report should not be separated or reproduced in part and Prensa should be retained to assist other professionals who may be affected by the issues addressed in this report to ensure the report is not misused in any way.

Prensa is not a professional quantity surveyor (QS) organisation. Any areas, volumes, tonnages or any other quantities noted in this report are indicative estimates only. The services of a professional QS organisation should be engaged if quantities are to be relied upon.

### **Sampling Risks**

Prensa acknowledges that any scientifically designed sampling program cannot guarantee all sub-surface contamination will be detected. Sampling programs are designed based on known or suspected site conditions and the extent and nature of the sampling and analytical programs will be designed to achieve a level of confidence in the detection of known or suspected subsurface contamination. The sampling and analytical programs adopted will be those that maximises the probability of identifying contaminants. Probuild Pty Ltd must therefore accept a level of risk associated with the possible failure to detect certain sub-surface contamination where the sampling and analytical program misses such contamination. Prensa will detail the nature and extent of the sampling and analytical program used in the investigation in the investigation report provided.

Environmental site assessments identify actual subsurface conditions only at those points where samples are taken and when they are taken. Soil contamination can be expected to be non-homogeneous across the stratified soils where present on site, and the concentrations of contaminants may vary significantly within areas where contamination has occurred. In addition, the migration of contaminants through groundwater and soils may follow preferential pathways, such as areas of higher permeability, which may not be intersected by sampling events. Subsurface conditions including contaminant concentrations can also change over time. For this reason, the results should be regarded as representative only.

Probuild Pty Ltd recognises that sampling of subsurface conditions may result in some cross contamination. All care will be taken and the industry standards used to minimise the risk of such cross contamination occurring, however, Probuild Pty Ltd recognises this risk and waives any claims against Prensa and agrees to defend, indemnify and hold Prensa harmless from any claims or liability for injury or loss which may arise as a result of alleged cross contamination caused by sampling.

### **Reliance on Information Provided by Others**

Prensa notes that where information has been provided by other parties in order for the works to be undertaken, Prensa cannot guarantee the accuracy or completeness of this information. Probuild Pty Ltd therefore waives any claim against the company and agrees to indemnify Prensa for any loss, claim or liability arising from inaccuracies or omissions in information provided to Prensa by third parties. No indications were found during our investigations that information contained in this report, as provided to Prensa, is false.

### **Recommendations for Further Study**

The industry recognised methods used in undertaking the works may dictate a staged approach to specific investigations. The findings therefore of this report may represent preliminary findings in accordance with these industry recognised methodologies. In accordance with these methodologies, recommendations contained in this report may include a need for further investigation or analytical analysis. The decision to accept these recommendations and incur additional costs in doing so will be at the sole discretion of Probuild Pty Ltd and Prensa recognises that that Probuild Pty Ltd will consider their specific needs and the business risks involved. Prensa does not accept any liability for losses incurred as a result of Probuild Pty Ltd not accepting the recommendations made within this report.

## Appendix B: Site Records

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## SITE INVESTIGATION

Date	Zone	Authorised personnel conducting investigation	Specific activities being undertaken	Level of compliance with the EMP.	Condition of all environmental controls	Any incidents identified	Specific site observations

## Appendix C: Asbestos Materials Personal Protective Equipment (PPE)

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## Asbestos Materials Personal Protective Equipment (PPE)

During ACM impacted soil abatement works, PPE must be worn by the licensed contractor, the hygienist/asbestos assessor and other personnel who are required to enter the asbestos impacted removal area.

The following PPE must be considered based upon a risk approach:

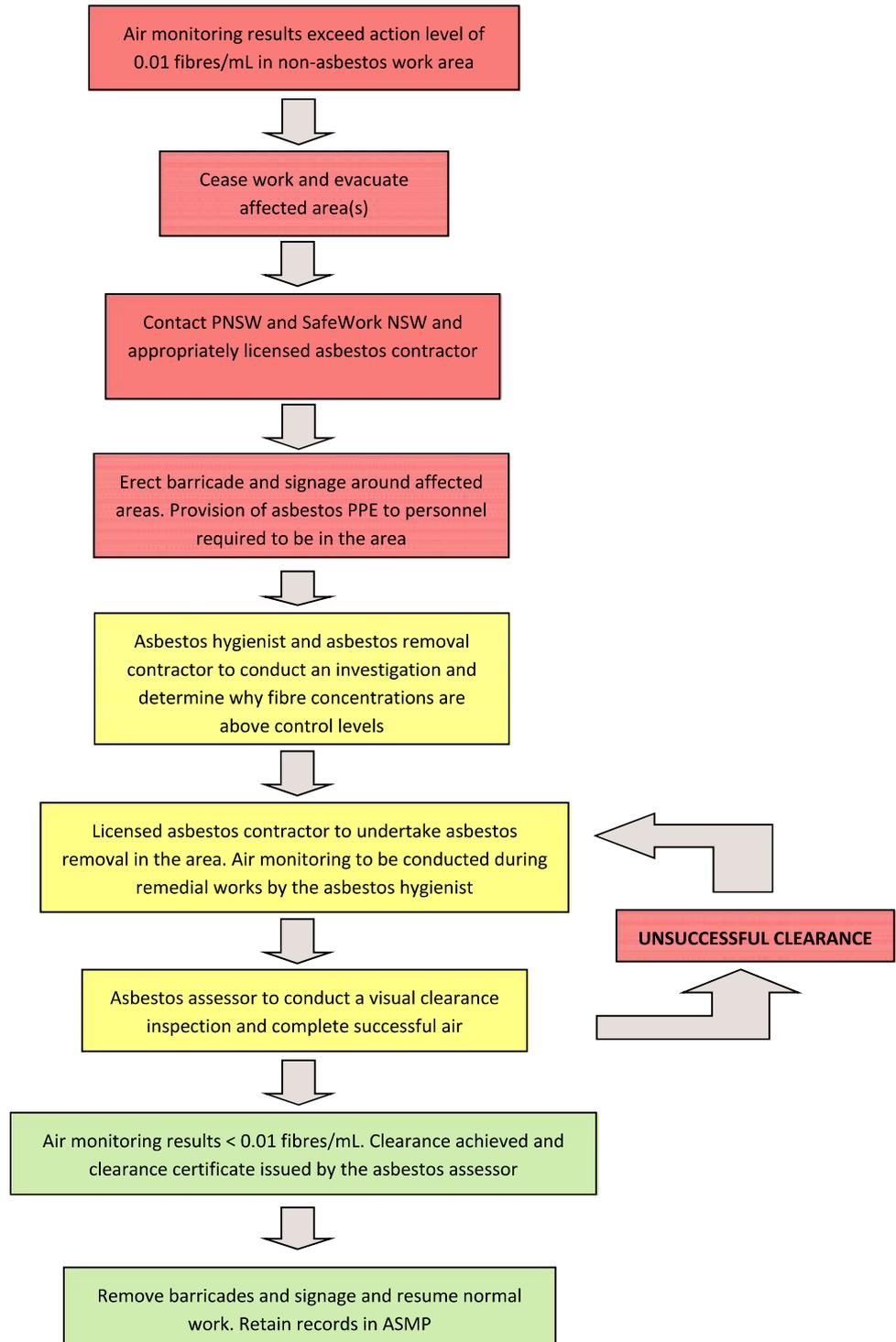
Types of Asbestos Materials PPE	
PPE	Picture
<p>Half faced disposable P2 respirator to be used for non-friable/bonded asbestos in soil removal works.</p> <p>Respirators must comply with AS/NZS 1715 – 2009 Selection, use and maintenance of respiratory equipment.</p>	
<p>Half faced respirator with a P2 particulate filter cartridge to be used for non-friable/bonded asbestos removal works.</p> <p>Respirators must comply with AS/NZS 1715 – 2009 Selection, use and maintenance of respiratory equipment.</p>	
<p>Full faced respirator with a P2/P3 particulate filter cartridge to be used for friable asbestos removal works.</p> <p>Respirators must comply with AS/NZS 1715 – 2009 Selection, use and maintenance of respiratory equipment.</p>	
<p>Disposable coveralls rated Type 5 or equivalent e.g. Tyvek</p>	
<p>Appropriate glasses or goggles.</p>	
<p>Appropriate gloves i.e. cut resistant gloves for working with soil.</p> <p>Occupational protective gloves shall comply with EN 420:1994 (AS/NZS 2161.2:1998) – Occupational Protective Gloves, Part 2 General Requirements.</p>	

## Appendix D: Emergency procedure when air monitoring control levels are exceeded for an ACM

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## Emergency procedure when air monitoring control levels are exceeded

The following procedure shall be followed if elevated asbestos air monitoring results are obtained during remediation works



# Appendix E: Unexpected Findings Protocol Proforma

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## UNEXPECTED FINDINGS PROTOCOL REPORT

**Date:**

**Reporters Name:**

1. Suspect material encountered during activities? (circle): YES / NO
2. Has area been barricaded and appropriate signage installed YES / NO
3. Environmental Consultant contacted? (circle): YES / NO
4. Location of foreign material (label occurrences sequentially 1, 2, 3, etc and mark on a site plan)

**Description of material encountered:**

5. Odour present: \_\_\_\_\_
6. Visible staining: \_\_\_\_\_
7. Asbestos or suspected asbestos containing material present? (circle): YES / NO
8. Brief written description and/or sketch:

9. Material quarantined? (circle): YES / NO
10. Photograph taken? (circle): YES / NO

Reported Name:

Signature:

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FINAL



# Eastern Parramatta River

## Communications & Engagement Evaluation

### February 2025

# CONTENTS

1. Background and summary.....	1
2. Executive summary.....	2
3. Methodology and response.....	5
4. Engagement activities.....	21
5. Appendix A .....	42
6. Appendix B .....	51

# 1. Background and summary

## NSW Government funding flows to five foreshore park upgrades – *Eastern Parramatta River*

In 2022, City of Parramatta began to work on concept designs that looked to enhance amenity and active transport links across five (5) foreshore parks east of the Parramatta CBD. The project was designed to capitalise on the popularity of the *Parramatta Valley Cycleway*, along the Parramatta River foreshore.

Supported by the *NSW Government's Western Sydney Infrastructure Grants Program* (WSIG), the \$9M *Eastern Parramatta River* project proposed a program of pedestrian and cyclist amenity and safety improvements along Parramatta River foreshore paths in five (5) key locations:

1. Rangihou Reserve, Parramatta.
2. Baludarri Wetlands, Parramatta
3. Reid Park, Rydalmere
4. Royal Shores, Ermington
5. George Kendall Riverside Park, Ermington.

The *Eastern Parramatta River* project provides a total of **2.8km of improved paths** and more opportunities for the community to access and enjoy the natural beauty of the Parramatta River. In some locations, the project delivers separated pedestrian and cycling paths, native planting, additional lighting, and other upgrades requested by the community.

The *Eastern Parramatta River* project featured on the City's community engagement platform *Participate Parramatta* and was on public exhibition from **Monday 21 October to Thursday 21 November 2024**.

The community was asked to provide feedback on the concept designs via an interactive map and short survey.

In addition to engaging with *Participate Parramatta*, residents could submit their feedback via social media posts, email, in writing, providing a verbal submission or contacting the project team.

A marketing campaign including advertising, park signage, web and social media content, along with eNewsletters and letterboxing, encouraged the community to have their say on the project.

## 2. Executive summary

### Community engagement activities and evaluation

This report focuses on the reach and effectiveness of the communications and engagement strategy and channels used to promote the *Eastern Parramatta River* project. It considers the success of the level of engagement achieved through the *Participate Parramatta* portal, interactions with communication channels such as social media, audience reach, and the number of submissions received.

A high-level summary of community feedback and concerns is included in the Methodology and Response section page 5, along with recommendations on page 19.

Detailed reporting on community submissions is provided as attachments to the Council report.

### Communications and engagement activities:

The *Eastern Parramatta River* campaign was live from **Monday 21 October** to **Thursday 21 November** with the community directed to find out more by visiting the City's *Participate Parramatta* engagement portal.

Numerous channels were activated to reach as many in the community within the footprint surrounding the five (5) parks associated with the project. The key objective was to notify residents of the scope and benefits of the proposed *Eastern Parramatta River* project (delivered in stages over three years) and the opportunity to have a say on the concept design for the five (5) parks:

1. Rangihou Reserve, Parramatta.
2. Baludarri Wetlands, Parramatta
3. Reid Park, Rydalmere
4. Royal Shores, Ermington
5. George Kendall Riverside Park, Ermington.

Residents could complete a short survey by following a weblink or the QR code provided on various pieces of collateral. Residents could also drop a pin and post a comment on the concept design, highlighting any items they did/did not support and adding additional comments.

## Engagement reach

A community engagement campaign was designed to facilitate community feedback on the *Eastern Parramatta River* project over the four-week live period from 21 October to 21 November 2024.

Council's engagement portal *Participate Parramatta* was the call to action for the campaign and showcased a range of educational materials as well as the concept designs for each of the five (5) parks.

Overall, information on the opportunity to provide feedback on the Eastern Parramatta River project was presented to around **156,370 people** (based on targeted letter box distributions, website traffic, social media reach, email database contacts, eNewsletters etc, where figures are available).

## Participate Parramatta response

- The *Eastern Parramatta River* page on Participate Parramatta attracted **4,278 page views** and **2,443 unique visitors**
- **482 documents** were downloaded including **concept plans**
- The **image gallery** was viewed **189 times**
- **67 surveys** were completed
- Of residents who completed the survey:
  - **53 (79%) were supportive** of the overall project, and the improvements as presented, to the five (5) parks
  - **Twelve (12) people (18%) supported the project to an extent**
  - **One (1) was unsure, and one (1) did not support.**

During the exhibition period there were **1,083 views** of the **interactive map**:

- **80 pin and posts**
- **22 posts were in support** of the project and/or elements of the project design
- **six (6) posts did not support particular features** on the concept designs and provided comments
- **49 additional comments** were provided.

Note: 22 individuals provided multiple submissions along with 19 anonymous respondents.

*For details on responses via the interactive map, please refer to Methodology and Response on page 5.*

It should be noted that this public exhibition was held close to the cut-off date for community engagement (acknowledgement of the approaching festive season and its recognised impact on the community's willingness to participate in Council's community engagement programs).

There were also many significant events which affected community attention, media coverage and social media engagement during this time including: the visit of the King and Queen to Parramatta; the US elections and Donald Trump as a candidate; Local Government elections; a new Parramatta Council; and Diwali.

Major Council programs also competed for the community's attention, including: the Lanes festival; the roll out of FOGO; the opening of Lake Parramatta and public art at Charles Street Square; the closure and clean of the Parramatta River (more than 60,000 views on social media); Foundation Day; Remembrance Day; and large Citizenship events (the first for the Lord Mayor and a number of Councillors).

Due to these events, the volume of projects etc. Council channels are congested, and despite segmenting where possible, various campaigns compete for residents' attention and limit the serve rate on social media. The frequency of Council messaging (across numerous projects) also causes a proportion of the community to switch off.

The monitoring of when campaigns are sent live, and the number of campaigns in market at one time, is continually highlighted as a consideration for community engagement.

# 3. Methodology and response

The *Eastern Parramatta River* project was hosted on the City of Parramatta's engagement portal, *Participate Parramatta*, from Monday 21 October to Thursday 21 November 2024.

There were two main paths to provide feedback on the project online - dropping a pin and posting comments on the concept design via the interactive map, or participating in the short survey which detailed the proposed concept designs for each of the five (5) parks.

Emails, submissions via post and verbal submissions (primarily for people with disabilities) and comments via social media were also accepted.

Direct mail provided to residents within the catchment of the project, CBD and east, (approximately 6,000 businesses and homes) offered a direct link/QR code to the *Participate Parramatta* project page.

Other marketing materials, including social media, Council's website and eNewsletters, and signs at each of the parks, also used *Participate Parramatta* as the call to action, promoted by web links and a QR code.

Social media materials were presented in community languages (Arabic, English, Hindi, Korean, Simplified Chinese). Translation and TTY services were promoted to for assistance if required in the direct mail piece.

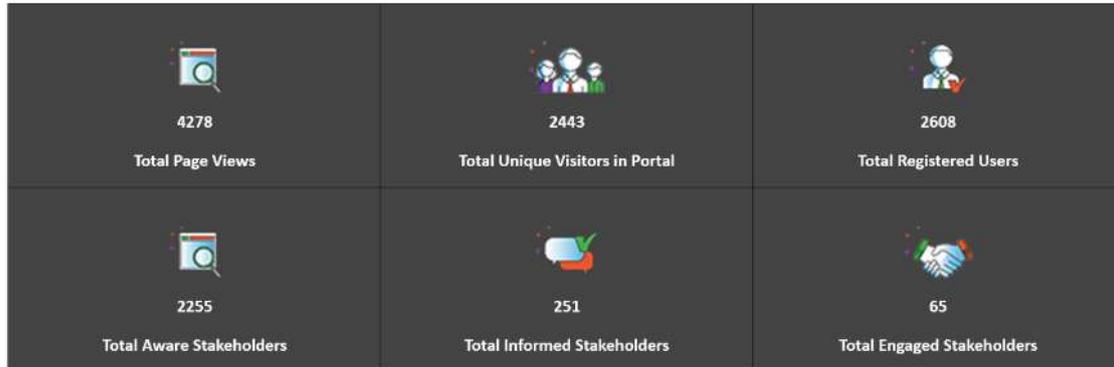
## Participate Parramatta

The *Eastern Parramatta River* project page on *Participate Parramatta* contained information about the planned pedestrian and cycling path upgrades to be delivered as part of the project, with information on the native planting, lighting and other improvements planned for each of the five (5) parks. It offered resources including interactive maps, concept designs, delivery timeline, and answers to frequently asked questions etc.

## Community Response

- The *Eastern Parramatta River* page on *Participate Parramatta* attracted 4,278 page views and 2,443 unique visitors.

- Of the **2,443 unique visitors** to Participate Parramatta, **2,255 were aware** (those who viewed the page, but didn't take action), **251 were informed** (those who viewed and took action), **65 were engaged** (those who completed the survey). See below for more information on definitions.



- **Aware:** Number of unique visitors who have viewed the project page, minus any visitors who have undertaken any activity e.g.: downloaded a document, viewed a video, completed a survey etc.
- **Informed:** Any unique visitor who has viewed a latest news item, viewed a document, viewed a video, viewed a FAQ minus any user that has engaged e.g.: completed a poll or survey, engaged with an interactive document.
- **Engaged:** Any unique visitor who has completed a poll, survey, ideas wall or engaged with interactive mapping.

## Demographic data

It should be noted the section of community engagement surveys which seeks information on sex, age, and other demographic markers - including speaking another language, identifying as being Aboriginal or Torres Strait Islander, or living with a disability - is commonly the section where a high percentage of respondents exit the survey.

Overall, of **67 respondents**, **Parramatta residents** led the way (**27 submissions**). **Ermington residents** were the second largest cohort (**14**) followed by **North Parramatta (7)** and **Rydalmere (4)**.

Out of **67 respondents**, **32 answered** specific demographic questions, except for 'what is your relationship to City of Parramatta' and 'Live Work Play' question, where all **67 responded**.

Social and cultural associations only attracted one (1) respondent for each question.

## What is your relationship to the City of Parramatta?

Those who submitted a formal response via Participate Parramatta (67) identified as:

- City of Parramatta residents – 58
- Rate payers - 20
- Those who work or study in the area - 15
- Business owners - 2.

\*More than one option could be selected.

## Live - geographical location

All 67 respondents answered this question. However, 47 elected to choose 'prefer not to say' or 'none of the above' – options for with-holding details about where they lived.

- Parramatta led the way with 14 responses, followed by Wentworth Point five (5) and North Parramatta four (4).
- Almost every suburb in the LGA was represented, with the survey attracting one (1) or two (2) respondents from each suburb. Six (6) acknowledged they lived outside the Parramatta LGA but indicated they visited/worked or studied in Parramatta.
- One respondent shared that they recently purchased a new home to be closer to these parks and the more pleasant commute along with recreational opportunities offered by pedestrian/cycle paths and the Parramatta River.

## Sex

Only 32 from 67 respondents answered this question.

- Seventeen (17) respondents identified as male, 13 as female. Others responded as 'other' or 'prefer not to say'.
- For some respondents, first names indicated gender and where possible this was used to add context to some of the responses.

## Age

Overall, out of 67 submissions, 32 respondents provided information on age.

- Ten (10) respondents, seven (7) males and two (2) females, indicated they were in the 35 - 44 age group. This age group was the highest overall who provided their age.

- The second highest number of respondents who identified their age group were from the **55-64** age group, **seven (7) participants**, **five (5) female** and **one (1) male**.
- In the **65 - 70** age group there were **five (5) respondents overall**, **three (3) male** and **one (1) female**.
- The **18 - 25** age group had **three (3) respondents overall**, **all male**.
- In the **26 - 29** age group there was **one (1) respondent overall**, **unidentified sex**.
- The **71- 75** age group had **one (1) respondent overall**, **male**.

### Social and cultural markers

- **Seventeen (17) people** shared that they speak a **language other than English**.
- **One (1) person** identified as **Aboriginal or Torres Strait Islander**.
- **One (1) person** shared they lived with a **disability**. They made special note that while some pedestrian paths were becoming more accessible, they would like to see more areas within the Parramatta LGA become more accessible.

### Participate Parramatta interactions

- More than **250 visitors** took an action including downloading information
- **482 documents** were downloaded including concept plans
- The image gallery was viewed **189 times**
- The interactive map attracted **1,083 views** with **80 pin and post submissions**.

### Concept designs views and downloads

- The **foreshore elevations** diagrams were downloaded **37 times**
- **Rangihou Reserve**, Parramatta concept plan was downloaded **110 times**
- **Baludarri Wetlands**, Parramatta concept plan was **downloaded 82 times**
- **Reid Park**, Rydalmere, concept plan was **downloaded 60 times**
- **Royal Shores**, Ermington, concept plan was **downloaded 75 times**
- **George Kendall Riverside Park**, Ermington, concept plan was **downloaded 102 times**.