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18 March 2019
Ref. E24098.E14.Rev0

Mr Matt Dobbs
Design Lead
TOGA Wicks Park Developments Pty Ltd
Level 5, 45 Jones Street,
ULTIMO NSW 2007

[redacted]

Re: Acid Sulfate Soil Assessment at 182-198 Victoria Road and 28-30 Faversham Street, Marrickville NSW

Mr Matt Dobbs of TOGA Wicks Park Developments Pty Ltd engaged EI Australia (EI) to complete an Additional Site Investigation (ASI) for 182-198 Victoria Road and 28-30 Faversham Street, Marrickville NSW ('the site'). The scope of works included an acid sulfate soil assessment (ASSA). The ASI report complements previous assessments of the site, completed by Aargus Pty Ltd (Aargus) in 2014 and 2018. It has been prepared in support of a Development Application (DA) to Inner West Council for redevelopment the land and for the purpose of enabling the developer to meet their obligations under the *Contaminated Land Management Act 1997* (CLM Act).

The site is located approximately 6km southwest of the Sydney central business district, within the Local Government Area of Inner West Council (**Figure 1**). It was further identified as comprising Lot 6 in DP226899, Lot 100 in DP1239681, Lot 1 in DP74200 and Lot 10 in DP701368. According to the *Botany Bay Acid Sulfate Soil Risk Map* (1:25,000 scale; Murphy, 1997) and the Marrickville Council Local Environmental Plan (2011), the subject land lies within the map class description of Class 2 and *Disturbed Terrain*.

The proposed redevelopment involves demolition of all existing structures, followed by the construction of a multi-storey, mixed use commercial and residential building, overlying a basement car parking facility. Considering soils will be excavated during basement construction an assessment of acid sulfate soils is required.

In accordance with the ASSMAC (1998) *Acid Sulfate Soil Manual,* a total of 5 locations were completed across the site (3 locations from Aargus, 2014 and 2 during EI, 2019; as shown in **Figure 2**). Based on the analytical results presented in **Table T1**, potential acid sulfate soils (PASS) and actual acid sulfate soils (AASS) are not present at the site. An Acid Sulfate Soil Management Plan (ASSMP) is not required for the management of soils at the site.

A detailed assessment and laboratory analytical results are presented in the ASI (EI, 2019, *Additional Site Investigation,* EI Report Ref. E24098.E03.Rev0, dated 25 January 2019).

Should you require any further information regarding the above please do not hesitate to contact the undersigned.

Statement of Limitations

This report has been prepared for the exclusive use of TOGA Wicks Park Developments Pty Ltd who is the only intended beneficiary of EI's work. The scope of the investigations carried out for the purpose of this report is limited to those agreed. No other party should rely on the document without the prior written consent of EI, and EI undertakes no duty, or accepts any responsibility or liability, to any third party who purports to rely upon this document without EI's approval.

The findings presented in this report are the result of discrete and specific sampling methodologies used in accordance with best industry practices and standards. Due to the site-specific nature of soil sampling from point locations, it is considered likely that all variations in subsurface conditions across a site cannot be fully defined, no matter how comprehensive the field investigation program.

While normal assessments of data reliability have been made, EI assumes no responsibility or liability for errors in any data obtained from previous assessments conducted on site, regulatory agencies (e.g. Council, EPA), statements from sources outside of EI, or developments resulting from situations outside the scope of works of this project.

Despite all reasonable care and diligence, the ground conditions encountered and concentrations of contaminants measured may not be representative of conditions between the locations sampled and investigated. In addition, site characteristics may change at any time in response to variations in natural conditions, chemical reactions and other events, e.g. groundwater movement and or spillages of contaminating substances. These changes may occur subsequent to EI's investigations and assessment.

EI's assessment is necessarily based upon the result of the site investigation and the restricted program of surface and subsurface sampling, screening and chemical testing which was set out in the proposal. Neither EI, nor any other reputable consultant, can provide unqualified warranties nor does EI assume any liability for site conditions not observed or accessible during the time of the investigations.

EI has used a degree of care and skill ordinarily exercised in similar investigations by reputable members of the environmental industry in Australia as at the date of this document. No other warranty, expressed or implied, is made or intended. Each section of this report must be read in conjunction with the whole of this report, including its appendices and attachments.

Technical opinions may also be amended in the light of further investigation, observations, or validation testing and analysis during remedial activities. In some cases, further testing and analysis may be required, which may result in a further report with different conclusions.

EI's professional opinions are reasonable and based on its professional judgment, experience and training.

This report was prepared for the above named client and no responsibility is accepted for use of any part of this report in any other context or for any other purpose or by other third parties. This report does not purport to provide legal advice.

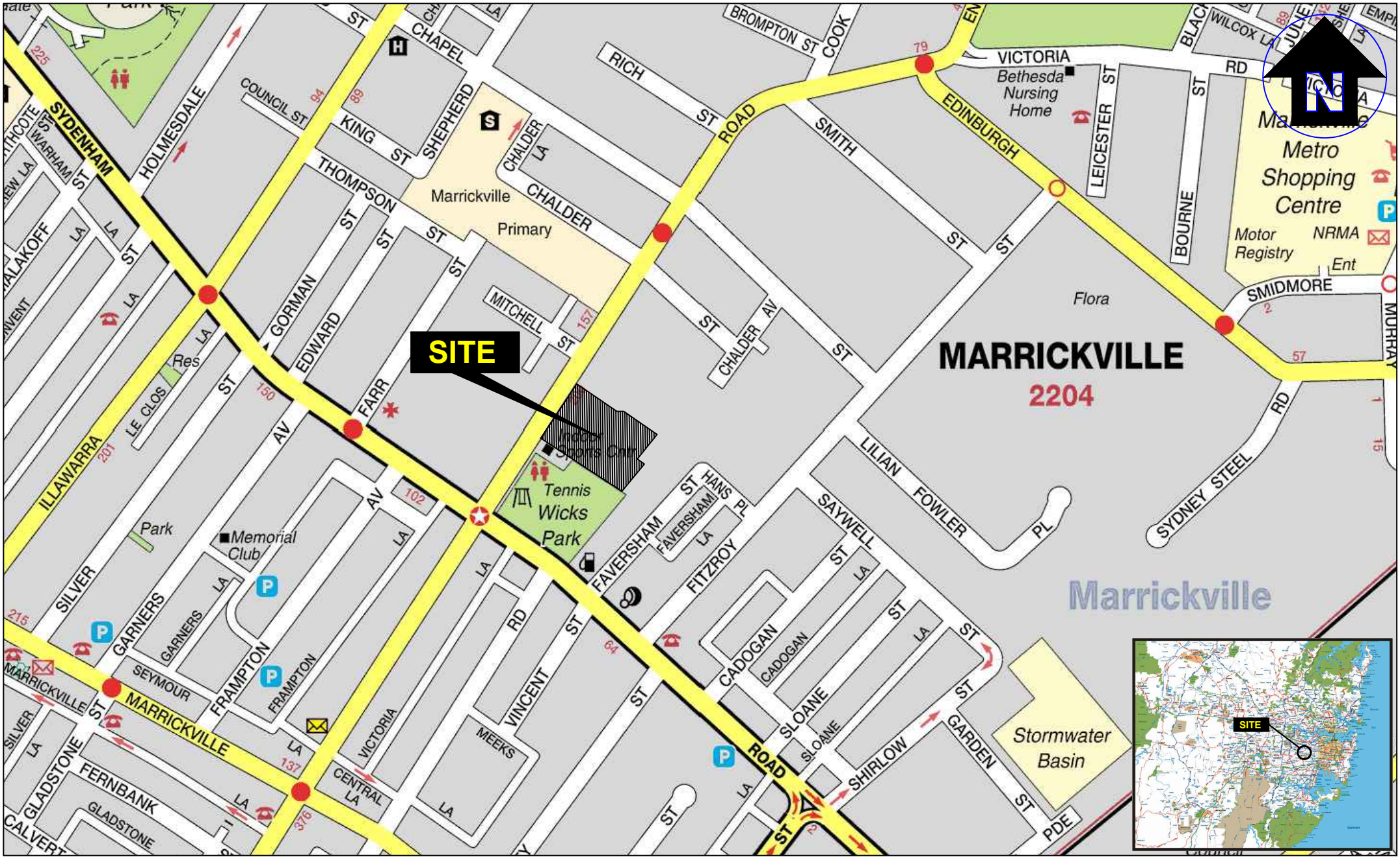
This report and associated documents remain the property of EI subject to payment of all fees due for this assessment. The report shall not be reproduced except in full and with prior written permission by EI.

Attachments

Figure 1 Site Locality Plan

Figure 2 Sampling Location Plan

Table T1 Soil Analytical Results: Acid Sulfate Soils



Drawn:	L.C.	**TOGA Wicks Park Developmnts Pty Ltd** Acid Sulfate Soil Assessment 182 - 198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW Site Locality Plan
Approved:	B.A.	
Date:	05-02-19	
Scale:	Not To Scale	

Figure: 1

Project: E24098.E14

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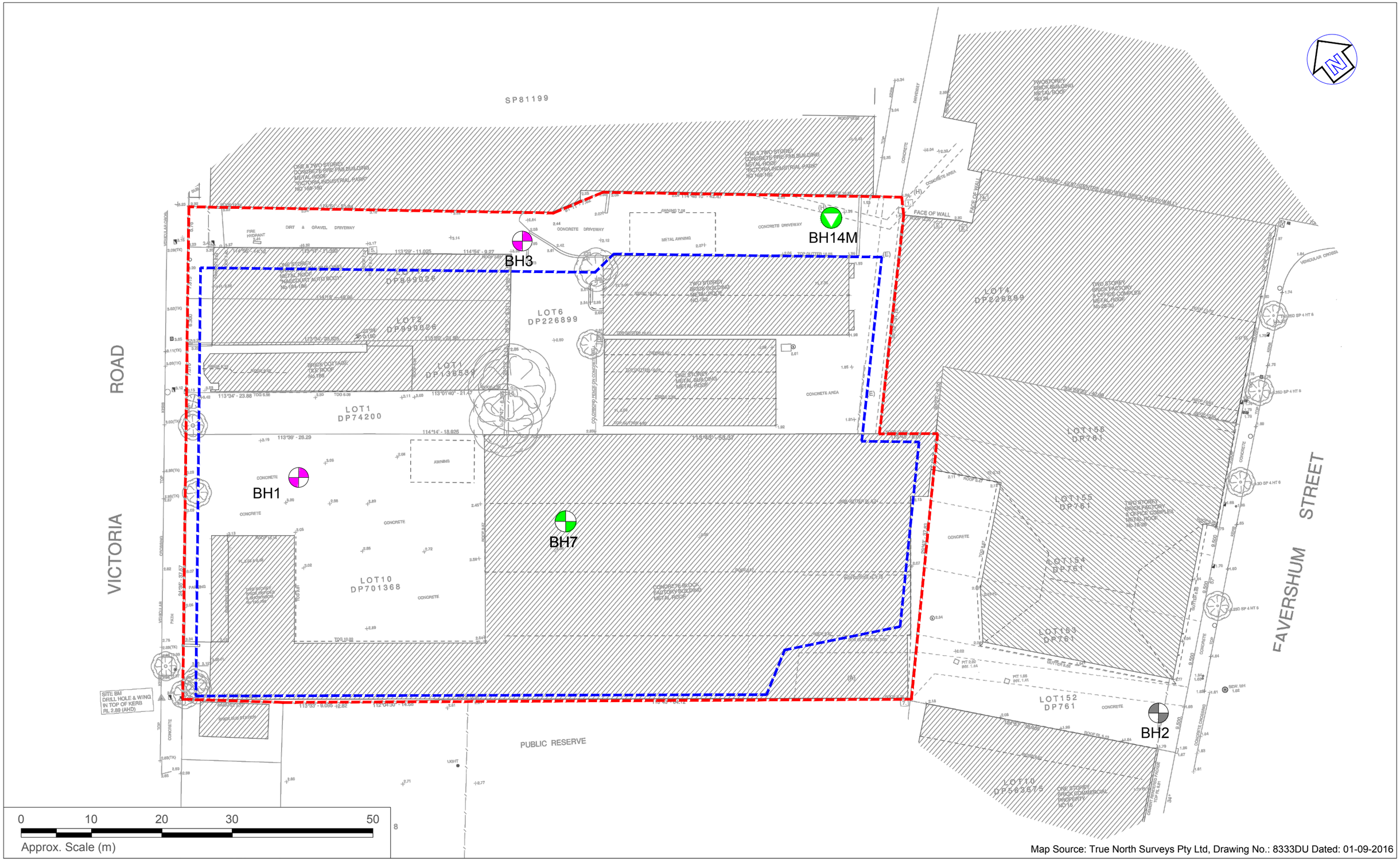

Map Source: True North Surveys Pty Ltd, Drawing No.: 8333DU Dated: 01-09-2016

LEGEND

- Approximate site boundary
- Approximate basement boundary
- Approximate borehole location (EI, 2019)
- Approximate borehole and monitoring well location (EI, 2019)
- Approximate borehole location (Aargus, 2014)
- Approximate borehole location out of site scope (Aargus, 2014)

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Drawn:	AM.H.
Approved:	B.A.
Date:	05-02-19

TOGA Wicks Park Developmnts Pty Ltd
Acid Sulfate Soil Assessment
182 - 198 Victoria Road & 28-30 Faversham Street,Marrickville, NSW Sampling Location Plan

Figure: 2

Project: E24098.E14

Table T1 - Soil Analytcial Results: Acid Sulfate Soils **E24098 - Marrickville**

Sample ID	Material	Analysis			
		pH (Field)	pHfox	Strength of Reaction	pH Difference (pH f - pH fox)
Previous Investigations (Aargus 2014)					
BH1_0.5-1.0	Fill	8.5	5.9	-	2.6
BH1_1.0-1.45	Silty CLAY	8.3	5.7	-	2.6
BH1_3.5-4.0	Sandy CLAY	7.5	5.4	-	2.1
BH2_0.5-1.0	Fill	8.4	5.9	-	2.5
BH2_2.0-2.5	Silty CLAY	8	5.7	-	2.3
BH2_4.0-4.5	Sandy CLAY	7.5	5.2	-	2.3
BH2_7.0-7.5	Gravelly Sandy CLAY	7.6	5.1	-	2.5
BH3_0.5-1.0	Reworked Silty CLAY	8.4	6.1	-	2.3
BH3_1.5-2.0	Silty CLAY	7.9	5.8	-	2.1
BH3_3.0-3.5	Sandy CLAY	7.6	5.4	-	2.2
Current Investigation (El Australia)					
BH7_1.4-1.5	Silty CLAY	6.3	5.1	Extreme	1.2
BH7_2.4-2.5	Silty CLAY	6.5	4.9	Moderate	1.6
BH7_3.1-3.2	Silty CLAY	6.3	5.6	Moderate	0.7
BH7_4.0-4.1	Silty CLAY	6.4	6.1	Moderate	0.3
BH14M_1.2-1.3	Silty CLAY	6.9	5.4	Moderate	1.5
BH14M_1.8-1.9	Silty CLAY	6.8	5.2	Moderate	1.6
BH14M_2.9-3.0	Silty CLAY	7.4	7.4	Extreme	0
BH14M_3.8-3.9	Clayey SAND	6.8	6.4	Moderate	0.4
SILs					
ASSMAC (1998) Screening Criteria	**Indicator of PASS**	NR	<3.5	NR	NR
	Indicator of AASS	<4.0	NR	NR	NR

Notes:

	Criteria exceeding
	Exceeding ASSMAC, 1998 criteria

NR No reference criteria available in current regulatory tools.

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