

LEVEL ONE

Reference
No.: 2372-011

SURVEILLANCE

AND INSPECTION REPORT

*Carried Out
By*



PREPARED FOR: -

CIVILWORX CONSTRUCTIONS PTY LTD



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Appendix A Construction Drawings

Appendix B Daily Field Compaction Summary Results



Client Name: Civilworx Constructions Pty Ltd

Project Name: Davis Vineyard Stage 3

Date: 27th of May 2022

Author: Mr. Sam Loza

Reference No.: 2372-011

Revision: 0

Project Manager: Mr. Dom Modric

1. Introduction & Scope

At the request of Civilworx Constructions Pty Ltd, Geotechnical Laboratories has carried out inspections and testing of the above-mentioned site from the 7th of December 2021 to the 18th of December 2021 where a residential development is being constructed. Inspection and testing of stripping, material quality and compaction control tests were carried out to comply with the requirements of AS 3798 Appendix B, Level 1.

The following documentation was submitted to Geotechnical Laboratories by Civilworx Constructions Pty Ltd and was used to determine compliance of earthworks in conjunction with the requirements of AS 3798 – 2007 (See Appendix A).

(1). Site Layout Plan Drawing Number 010 (Rev A).

General site works involved the placement of fill, using on-site derived materials, to bring the fill construction regions to the required finished levels as indicated on the construction drawings.

2. Site Preparation

A site inspection was undertaken on the 30th of November 2021 confirming that selected areas to be filled were completely stripped of topsoil. The brown silty topsoils had been stockpiled around the site for later removal off-site.

Proof roll inspections were performed to ensure no significant soft areas were present prior to filling.

3. Fill Material

The fill material used was sourced from on-site excavations, mainly road boxing and service trenches.



The fill material is best described a silty CLAY, brown, pale brown, slightly moist to moist, medium to high plasticity with basalt gravels and occasional cobbles.

The fill material is consistent with the naturally occurring soils for this region.

Source material was deemed a **Suitable Material** in accordance with guidelines set out in AS 3798 - 2007 Section 4.4.

4. Fill Construction Procedure

The following plant (but not always limited to) were engaged in the fill placement process:

- Highway trucks
- A grader
- A watercart
- A padfoot roller

The grader placed material in horizontal loose layers of approximately 250mm-300mm. The pad foot roller performed compaction of the fill operating in a criss-cross pattern where possible.

The moisture condition of the fill was closely monitored and moisture conditioning procedures were applied to bring the material closer to its Standard Optimum Moisture Content (AS 1289 5.7.1).

5. Compaction Control Testing

Compaction control testing was performed on-site using a Nuclear Densometer in accordance with AS 1289 5.8.1. Laboratory reference densities were determined from material sampled at each test site location using the Hilf Rapid Compaction Method in accordance with AS 1289 5.7.1.

A total of six compaction tests were performed on the fill construction. Results are presented in Appendix B of this report.

6. Testing Frequency

Testing frequencies were in accordance with **AS 3798 - 2007 Table 8.1 for Large Scale Operations and Concentrated Operations.**

Acceptance of fill layers for compaction was based on the requirements of **AS 3798 - 2007 Table 5.1 Item 1. Residential.**



As a result, the compliance criteria adopted by Geotechnical Laboratories was a hilt density ratio not less than 95 percent of the maximum hilt density value as determined by the Standard Hilt Rapid Compaction Method in accordance with AS 1289 5.7.1.

All test results indicate that the above-mentioned requirements have been successfully achieved.

No moisture criteria was specified.

7. Statement of Compliance

So far as can be determined, Civilworx Constructions Pty Ltd has satisfactorily complied with the compaction and construction processes required for the structural filling of this site. As such, structural filling placed on this site by Civilworx Constructions Pty Ltd from the 7th of December 2021 to the 18th of December 2021 can be categorised as CONTROLLED FILL in accordance with AS 2870-2011.

8. Limitations and Liability of this Report

This report has been produced for and remains the property of Civilworx Constructions Pty Ltd.

The release of this report to a third party will only occur if Geotechnical Laboratories Pty Ltd has received, in writing, the authority to do so by our client.

Geotechnical Laboratories Pty Ltd will not engage in any third-party communication regarding this report.

Where information has been supplied by the client or third party, the assumption is made that this is correct. Geotechnical Laboratories Pty Ltd will not be held responsible for any inaccuracies supplied.

Test results and controlled fill compliance relates only to fill placed by Civilworx Constructions Pty Ltd and for earthworks completed at the time of inspection and testing. Any previous or subsequent earthworks will require a separate evaluation.

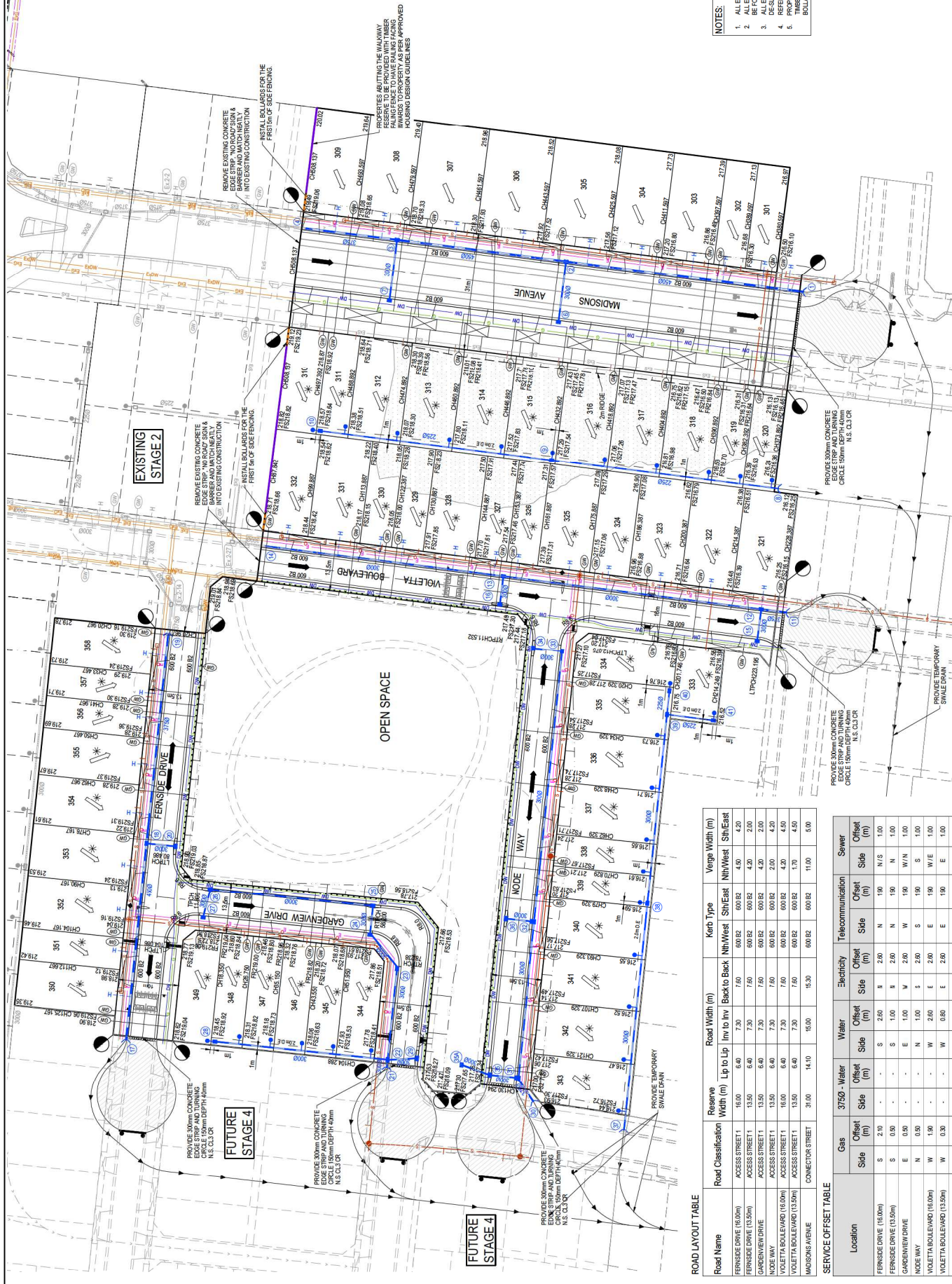
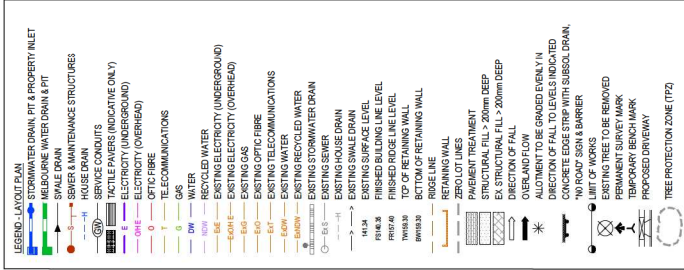
For & on behalf of
Geotechnical Laboratories Pty Ltd.

Sam Loza
Laboratory Manager



LEVEL ONE
SURVEILLANCE
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APPENDIX A



- NOTES:**
1. ALL EXISTING FENCES & STRUCTURES WITHIN NETWORKS TO BE REMOVED.
 2. ALL EXISTING SERVICES UNDER NEW PAVEMENTS AND CONCRETE WORKS TO BE FOR BACKLOGGED UNLESS OTHERWISE SPECIFIED.
 3. ALL EXISTING SERVICES TO BE RELOCATED TO NEW POSITIONS AS DESIGNED AND BACKLOGGED UNDER LEVEL 1 SUPERVISION.
 4. REFER COUNCIL STD DWG: ICC-501 & 502 FOR VEHICLE CROSSING DETAIL.
 5. PROPERTIES ABUTTING THE WALKWAY REFERRED TO BE PROVIDED WITH PERMANENT SURVEY MARKS TO BE INSTALLED PER THE FIRST SET OF ENDINGS ON BOTH SIDES.

WARNING
BEWARE OF UNDERGROUND SERVICES
 The locations of underground services are approximate only and their exact position should be proven on site.
 No guarantee is given that all underground services are shown. Locate all underground services prior to any excavation works.
DIAL 1100 BEFORE YOU DIG
 www.1100.com.au

ISSUED FOR CONSTRUCTION

Beveridge Williams
 1 Glenferrie Road
 Richmond VIC 3121
 Tel: 03 9548 8888
 www.beveridgewilliams.com.au

D. ZHANG 11/11/2020
D. ZHANG 24/03/2021
R. WICKETT 24/03/2021
 Project No: 1600059 03
 Drawing No: 011
 Date: 16/05/23

ROAD LAYOUT TABLE

Road Name	Road Classification	Reserve Width (m)	Water		3750 Water		Gas		Electricity		Sewer	
			Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side
FERNSIDE DRIVE (16.00m)	ACCESS STREET 1	16.00	8.40	7.60	8.40	7.60	8.40	7.60	8.40	7.60	8.40	7.60
FERNSIDE DRIVE (13.50m)	ACCESS STREET 1	13.50	8.40	7.50	8.40	7.50	8.40	7.50	8.40	7.50	8.40	7.50
GARDENVIEW DRIVE	ACCESS STREET 1	13.50	8.40	7.50	8.40	7.50	8.40	7.50	8.40	7.50	8.40	7.50
NODE WAY	ACCESS STREET 1	13.50	8.40	7.50	8.40	7.50	8.40	7.50	8.40	7.50	8.40	7.50
VOLETTA BOULEVARD (16.00m)	ACCESS STREET 1	16.00	8.40	7.60	8.40	7.60	8.40	7.60	8.40	7.60	8.40	7.60
VOLETTA BOULEVARD (13.50m)	ACCESS STREET 1	13.50	8.40	7.50	8.40	7.50	8.40	7.50	8.40	7.50	8.40	7.50
MADISONS AVENUE	CONNECTOR STREET	31.00	14.10	15.90	14.10	15.90	14.10	15.90	14.10	15.90	14.10	15.90

SERVICE OFFSET TABLE

Location	Side	Offset (m)	Water		3750 Water		Gas		Electricity		Sewer	
			Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side
FERNSIDE DRIVE (16.00m)	S	2.10	-	-	-	-	-	-	-	-	-	-
FERNSIDE DRIVE (13.50m)	S	0.50	-	-	-	-	-	-	-	-	-	-
GARDENVIEW DRIVE	E	0.50	-	-	-	-	-	-	-	-	-	-
NODE WAY	N	0.50	-	-	-	-	-	-	-	-	-	-
VOLETTA BOULEVARD (16.00m)	W	1.00	-	-	-	-	-	-	-	-	-	-
VOLETTA BOULEVARD (13.50m)	W	0.50	-	-	-	-	-	-	-	-	-	-
MADISONS AVENUE	W	7.70	W	8.50	W	9.30	E	2.60	E	1.90	W/E	1.00



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APPENDIX B



GEOTECHNICAL LABORATORIES
ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023
Email: info@geolab.com.au PH: (03) 8361-9140

DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 2371/068

LOCATION: CIVILWORX - Davis Vineyard. Stage 3

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m ³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m ³)	STANDARD OPTIMUM MOISTURE CONTENT (%)	PROBE DEPTH SETTING (mm)	VARIATION FROM OPTIMUM MOISTURE CONTENT (%)	MOISTURE RATIO (%)	WET +19mm (%)	WET +37.5mm (%)	APPROX. DEPTH BELOW FINISH LEVEL (mm)	
7/12/21	1	<i>Refer to #2371/069 for approx. test site locations.</i>	1.98	25.5	102.0	1.94	25.5	175	0.5 Wetter	101.0	0	0	0	
7/12/21	2		2.02	22.5	101.5	✱ 1.99	22.5	175	0.0 Drier	100.0	6	0	0	
7/12/21	3		1.94	22.0	95.5	2.03	20.0	175	2.0 Wetter	109.5	0	0	0	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 11:55am Finish Time: 12:30pm

A Hilf Rapid Compaction test was carried out on a sample taken from each Field Density location to obtain the Compaction Parameters tabulated on this Report.

Moisture Content: AS 1289 2.1.1

Compaction Test: AS 1289 5.7.1

Soil Layer thickness: 200mm

Hilf Density Ratio and Hilf Moisture Variation ,Hilf Adjusted (APCWD) & Peak (PCWD) Converted Wet Density AS 1289 5.7.1

Field Density, Nuclear Gauge: AS 1289 5.8.1

Materials Sampled : AS 1289 1.2.1 Clause 6.4(b)

✱ Indicates APCWD

❖

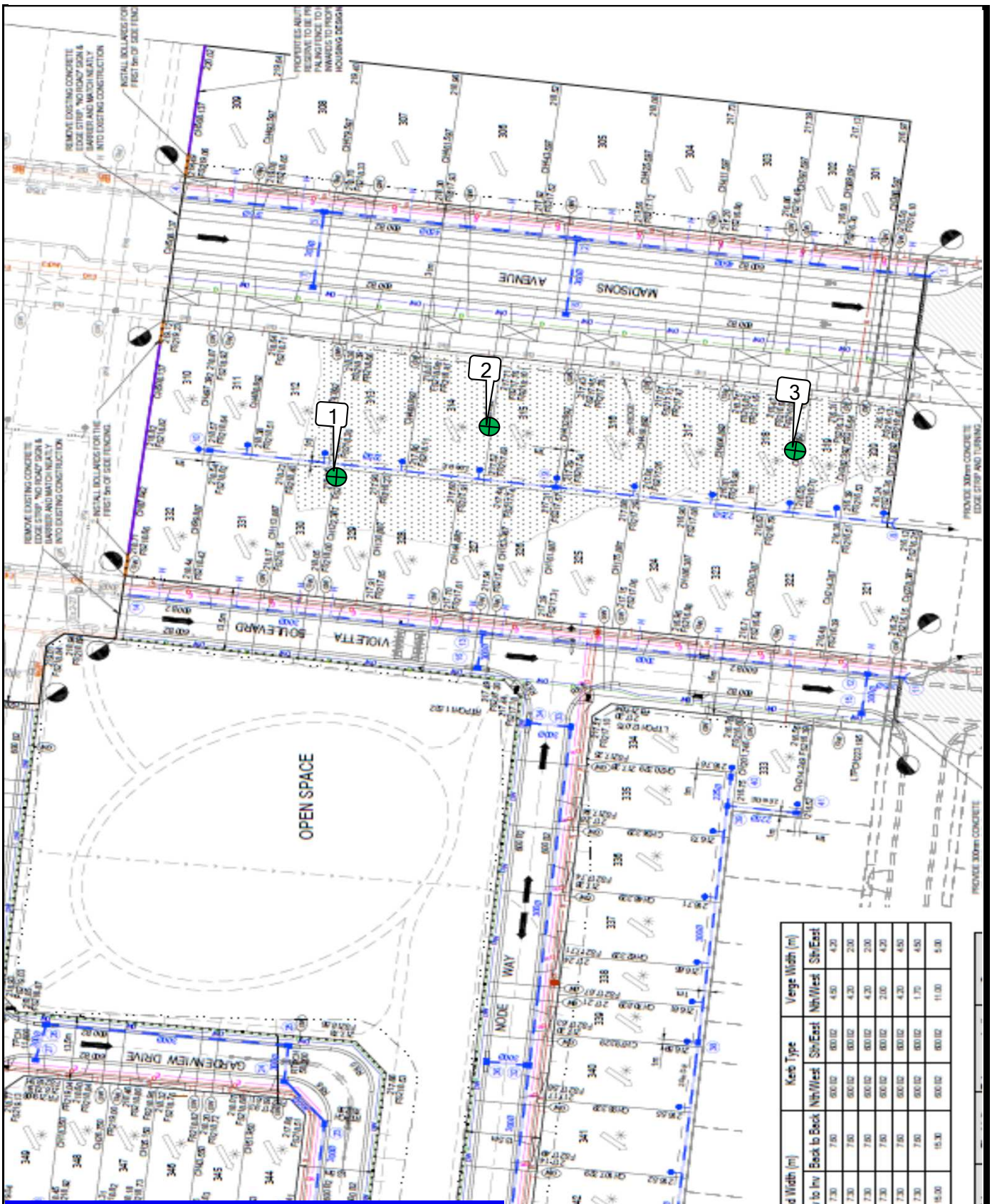


Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 13/12/2021



to Inv	Book to Book	Nth/West	Stn/East	Nth/West	Stn/East	kerb Type	Verge Width (m)
7.80	7.80	000.00	000.00	4.50	4.50		
7.80	7.80	000.00	000.00	4.20	2.00		
7.80	7.80	000.00	000.00	4.20	2.00		
7.80	7.80	000.00	000.00	2.00	4.20		
7.80	7.80	000.00	000.00	4.20	4.50		
8.00	8.30	000.00	000.00	1.70	4.50		
		000.00	000.00	11.00	5.80		



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ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

Email: info@geolab.com.au PH: (03) 8361-9140

CLIENT: CIVILWORX

LOCATION: Davis Vineyard Estate Stage 3

Sketch indicating compaction test locations

DATE: 7/12/2021

OPERATOR: TC

SCALE: NTS

JOB No.: 2371/069

CHECKED: KK

FIGURE No: -



GEOTECHNICAL LABORATORIES
ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023
 Email: info@geolab.com.au PH: (03) 8361-9140

DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 2371/070

LOCATION: CIVILWORX - Davis Vineyard, Stage 3

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m ³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m ³)	STANDARD OPTIMUM MOISTURE CONTENT (%)	PROBE DEPTH SETTING (mm)	VARIATION FROM OPTIMUM MOISTURE CONTENT (%)	MOISTURE RATIO (%)	WET +19mm (%)	WET +37.5mm (%)	APPROX. DEPTH BELOW FINISH LEVEL (mm)	
15/12/21	1	<i>Refer to #2371/071 for approx. test site locations.</i>	1.91	21.0	100.5	1.90	24.0	175	3.5 Drier	86.0	0	0	0	
15/12/21	2		1.98	23.0	102.0	✘ 1.94	24.5	175	1.5 Drier	93.0	4	0	0	
15/12/21	3		1.91	24.5	97.5	✘ 1.96	23.5	175	1.0 Wetter	104.0	3	0	0	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 1:55pm Finish Time: 2:10pm

A Hilf Rapid Compaction test was carried out on a sample taken from each Field Density location to obtain the Compaction Parameters tabulated on this Report.

Moisture Content: AS 1289 2.1.1

Compaction Test: AS 1289 5.7.1

Soil Layer thickness: 200mm

Hilf Density Ratio and Hilf Moisture Variation ,Hilf Adjusted (APCWD) & Peak (PCWD) Converted Wet Density AS 1289 5.7.1

Field Density, Nuclear Gauge: AS 1289 5.8.1

Materials Sampled : AS 1289 1.2.1 Clause 6.4(b)

✘ Indicates APCWD

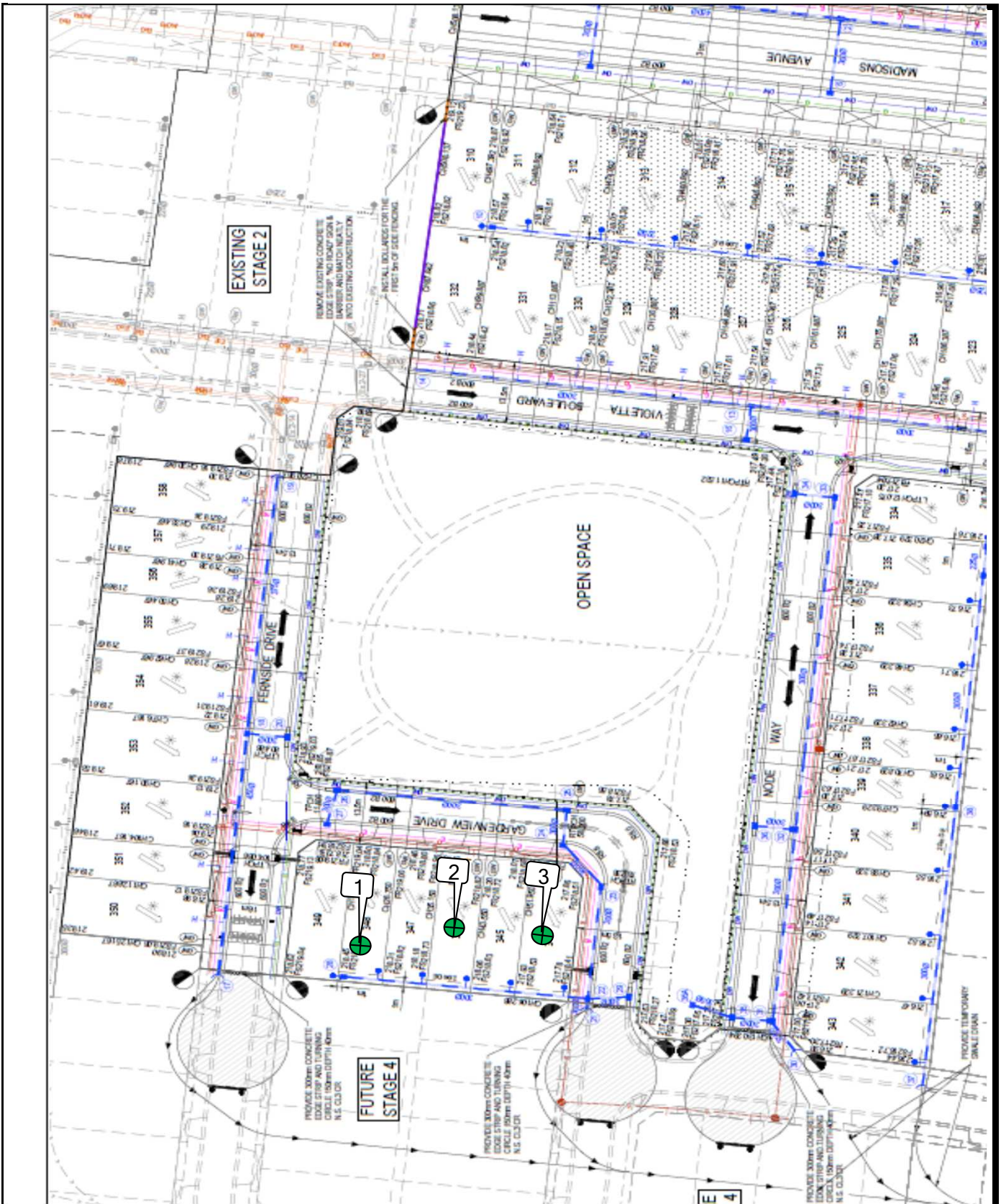


*Accredited for compliance with ISO/IEC
 17025 - Testing*

NATA Accredited Laboratory Number 14561

MICK CROWE
 (Approved Signatory)

Issue Date: 20/12/2021



GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

Email: info@geolab.com.au PH: (03) 8361-9140

CLIENT: CIVILWORX	DATE: 15/12/2021	JOB No.: 2371/071
LOCATION: Davis Vineyard Estate Stage 3	OPERATOR: SA	CHECKED: KK
Sketch indicating compaction test locations	SCALE: NTS	FIGURE No: -