

Reference
No.: 9007-044

LEVEL ONE

SURVEILLANCE

AND INSPECTION REPORT

*Carried Out
By*



PREPARED FOR: -

SYMON BROS. CONSTRUCTIONS PTY LTD



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Appendix A Construction Drawings

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Client Name: Symon Bros. Constructions Pty Ltd
Project Name: The Grove South West Precinct Stage 50
Date: 8th of June 2023
Author: Mr. Sam Loza
Reference No.: 9007-044
Revision: 0
Project Manager: Mr. George Dimopoulos

1. Introduction & Scope

At the request of Symon Bros. Constructions Pty Ltd, Geotechnical Laboratories has carried out inspection and testing of the above-mentioned site from the 23rd of May 2022 to the 12th of October 2022 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 Symon Bros. Constructions Pty Ltd and was used to determine compliance of earthworks in conjunction with the requirements of AS 3798 – 2007.

(1) Plan of Subdivision B.P.D. Pty Ltd Ref No.8352/50.

General site works involved the placement of fill, using on-site derived clay, to bring the fill region to the required finished levels as indicated on the faceplan drawings.

2. Site Preparation

Site inspections were undertaken on the 10th of May 2022 confirming that selected areas to be filled were completely stripped of topsoil prior to filling. The brown silty topsoils had been stockpiled around the site for later removal off-site.

Proof roll inspections were performed throughout the project duration to ensure no significant soft areas were present prior to filling.

3. Fill Material

It is understood that the fill material used was sourced from site cut areas.



The fill material is best described as a silty CLAY, brown, red brown, slightly moist to moist, medium to high plasticity with basalt gravels and 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:

- Dump trucks & highway trucks
- A watercart
- A sheepsfoot compactor (815)
- A dozer

The sheepsfoot compactor placed material in horizontal loose layers of approximately 250-300mm. The sheepsfoot compactor also performed compaction of the clay fill operating in a criss-cross pattern.

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 fifty-four 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.**

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.

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, Symon Bros. 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 Symon Bros. Constructions Pty Ltd from the 23rd of May 2022 to the 12th of October 2022 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 Symon Bros. 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 Symon Bros. Constructions Pty Ltd and for earthworks completed at the time of inspection and testing. Any previous or subsequent earthworks will require a separate evaluation.

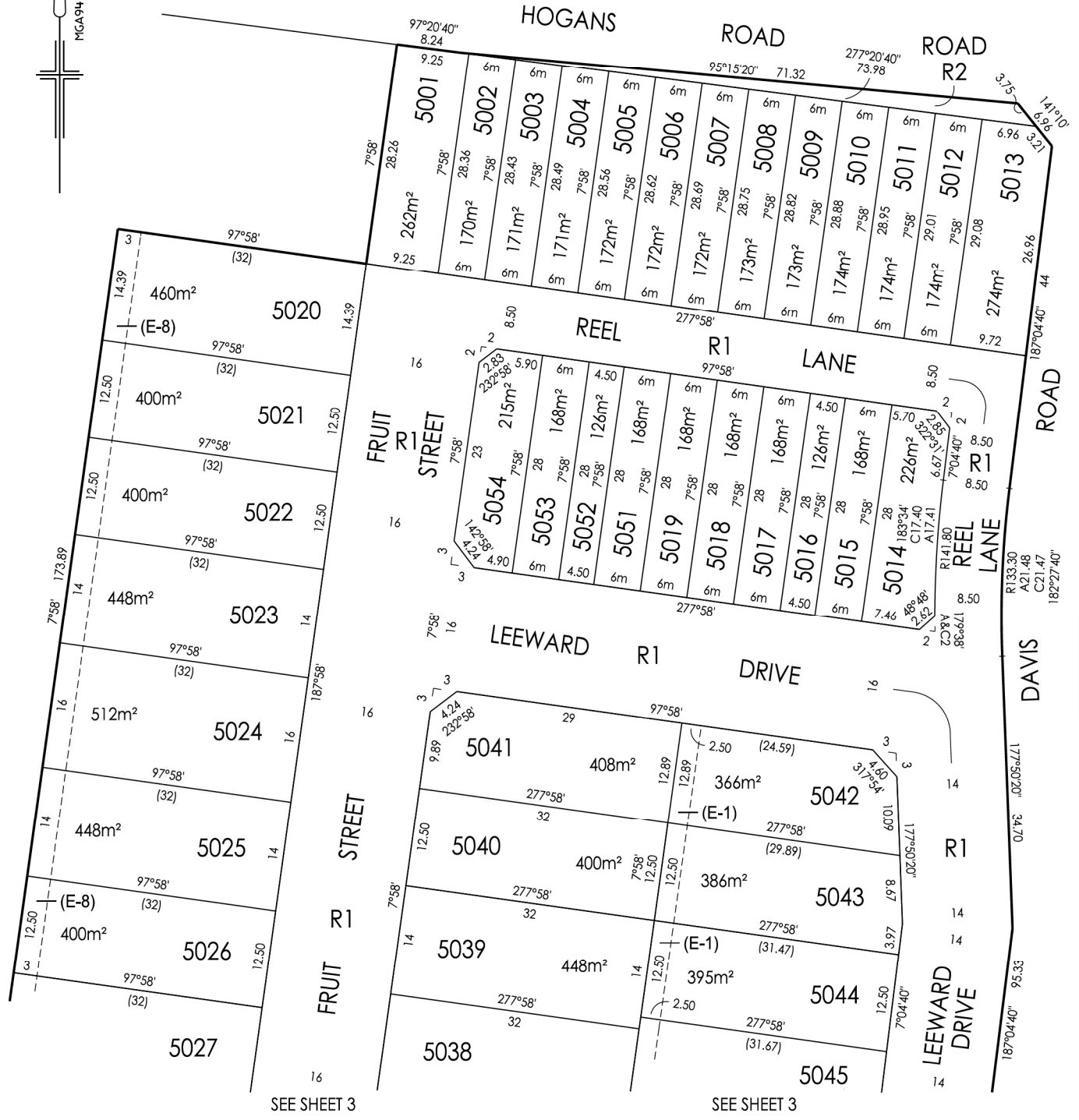
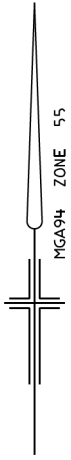
For & on behalf of
Geotechnical Laboratories Pty Ltd.

Sam Loza
Laboratory Manager.



LEVEL ONE
SURVEILLANCE
AND INSPECTION REPORT

APPENDIX A



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Hawthorn East Vic 3123
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SCALE
1:500



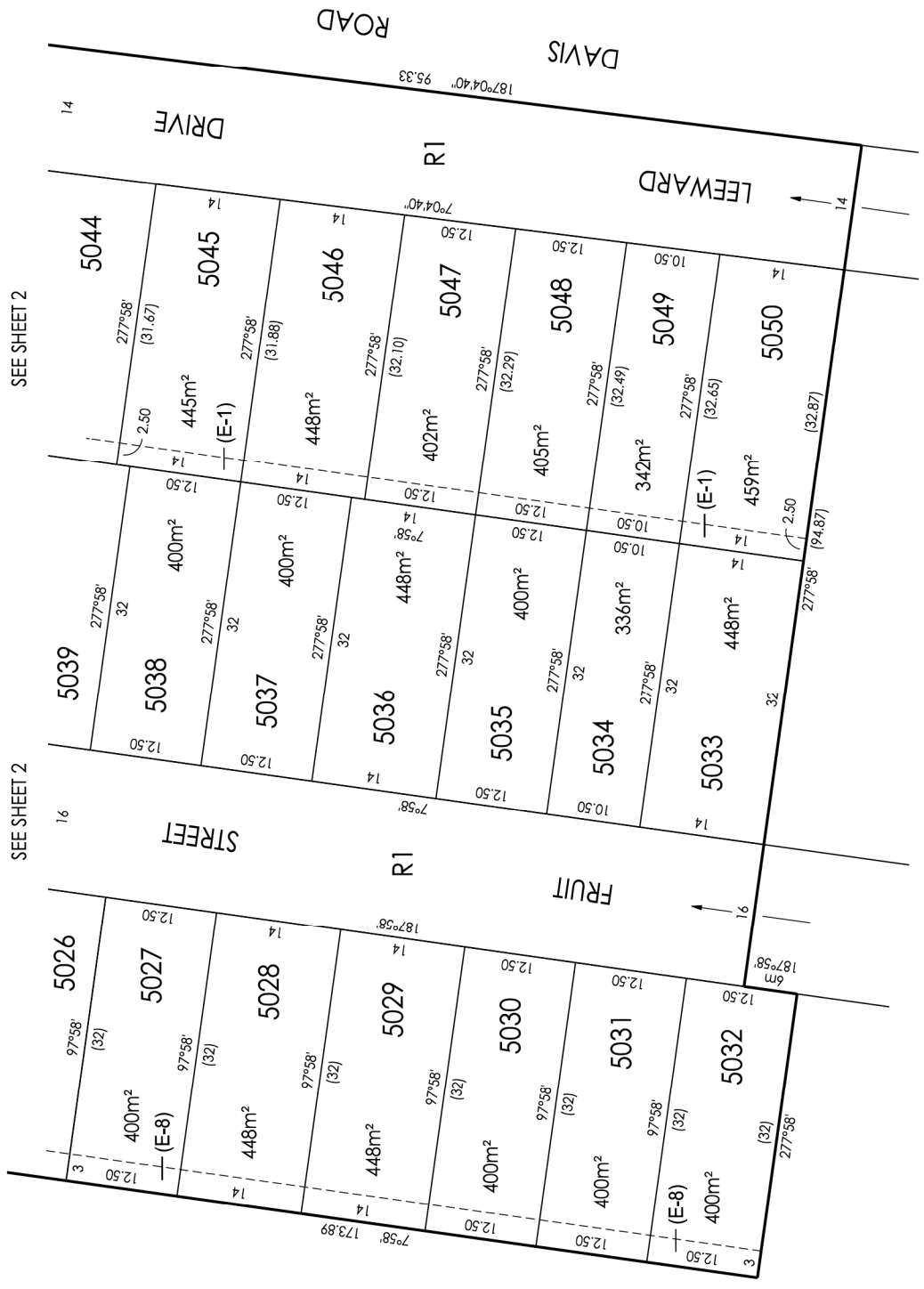
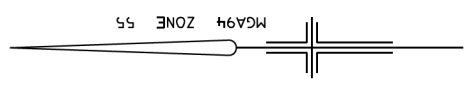
ORIGINAL SHEET SIZE A3
REF: 8352/50

SHEET 2
VERSION: 5

LICENSED SURVEYOR: SIMON COX

PLAN OF SUBDIVISION
 PS 844194B

PLAN NUMBER
 PS 844194B



<p>Breese Pitt Dixon Pty Ltd 1/19 Cato Street Hawthorn East Vic. 3123 Ph: 8823 2300 Fax: 8823 2310 www.bpd.com.au info@bpd.com.au</p>	SCALE	1:500
	LENGTHS ARE IN METRES 0 10 20	REF: 8352/50 LICENSED SURVEYOR: SIMON COX



LEVEL ONE
SURVEILLANCE
AND INSPECTION REPORT

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.: # 9007/004

LOCATION: SYMON BROS - The Grove, South West Precinct, Stage 50

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)
23/05/22	1	<i>Refer to #9007/005 for approx. test site locations.</i>	1.87	19.5	95.0	✘ 1.98	21.5	175	2.0 Drier	91.0	4	0	400
23/05/22	2		2.00	21.0	106.5	1.88	24.0	175	3.0 Drier	88.0	0	0	200
23/05/22	3		1.89	19.5	98.5	1.92	22.5	175	3.0 Drier	86.0	0	0	200
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 1:35pm Finish Time: 2:05pm

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

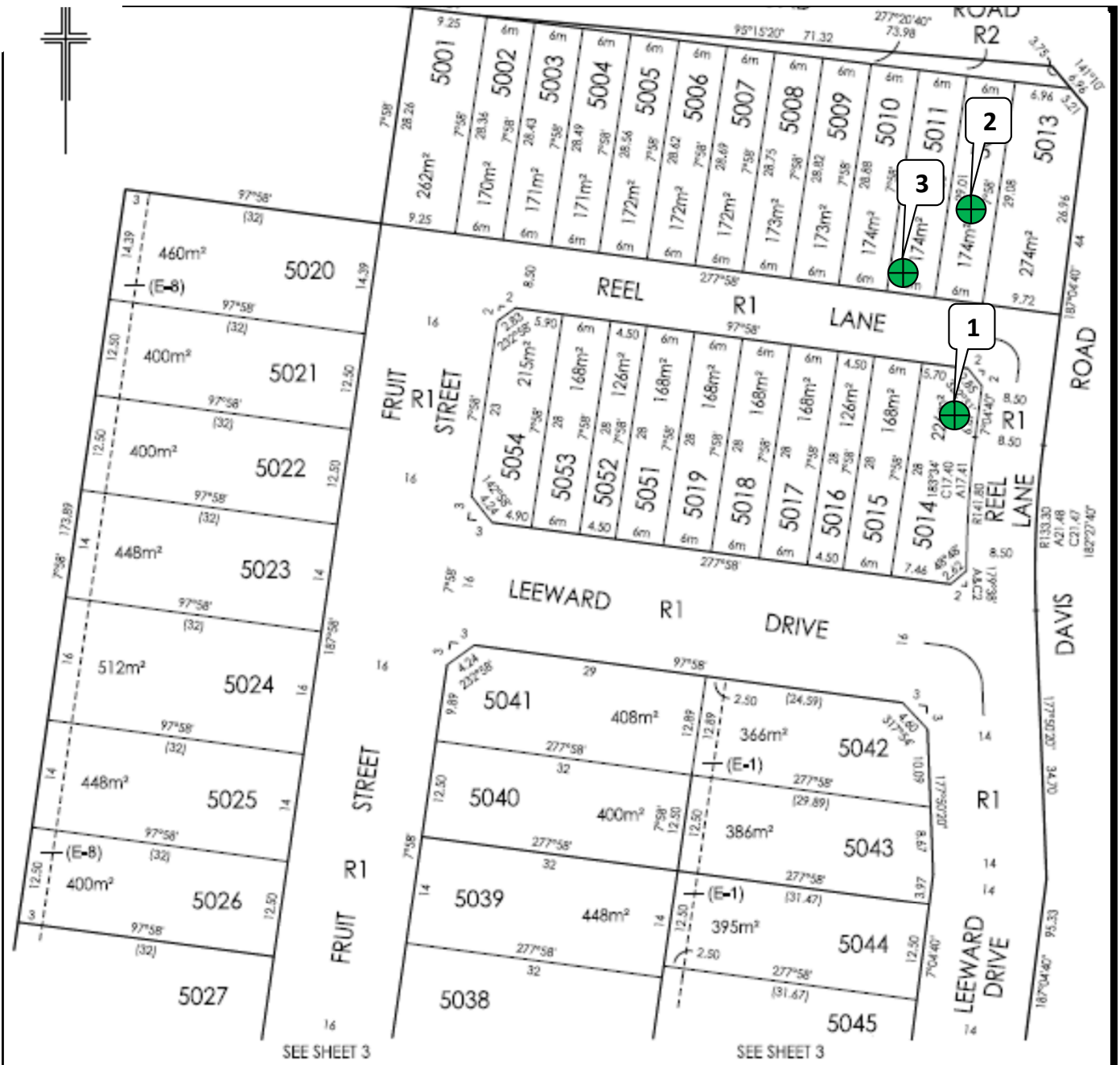




Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 31/5/2022



 <p>Breese Pitt Dixon Pty Ltd 1/19 Cato Street Hawthorn East Vic 3123 Ph: 8823 2300 Fax: 8823 2310 www.bpd.com.au Info@bpd.com.au</p>	SCALE 1:500	 LENGTHS ARE IN METRES	ORIGINAL SHEET SIZE A3 REF: 8352/50	SHEET 2 VERSION: 5
	LICENSED SURVEYOR: SIMON COX			



GEOTECHNICAL LABORATORIES

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

CLIENT: SYMON BROS	DATE: 23/05/2022	JOB No.: 9007/005
LOCATION: The Grove South West Precinct, Stage 50	OPERATOR: SL	CHECKED: KK
Sketch indicating compaction test locations	SCALE: NTS	FIGURE No.: -



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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9007/006

LOCATION: SYMON BROS - The Grove - South West Precinct - Stage 50

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)	
24/05/22	4	<i>Refer to #9007/007 for approx. test site locations.</i>	1.92	22.0	98.0	1.96	23.5	175	1.5 Drier	94.0	0	0	600	
24/05/22	5		1.93	21.0	97.5	✘ 1.97	23.0	175	1.5 Drier	92.5	7	0	600	
24/05/22	6		1.95	24.5	103.0	✘ 1.89	25.0	175	0.5 Drier	98.0	0	0	600	
24/05/22	7		1.99	23.5	100.5	1.98	23.0	175	0.5 Wetter	103.0	3	0	600	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 2:10pm Finish Time: 3:00pm

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

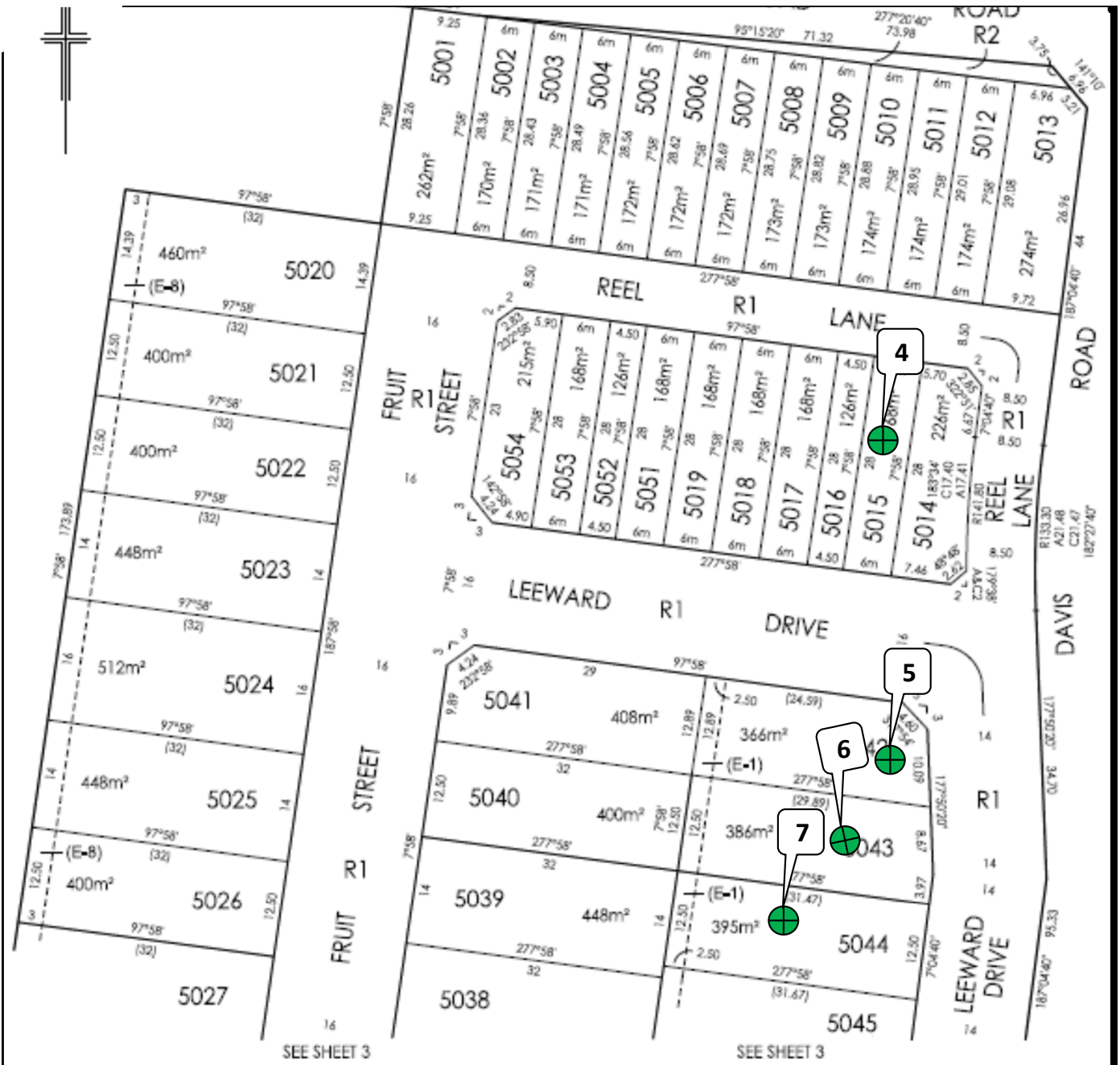




Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 31/5/2022



 <p>Breese Pitt Dixon Pty Ltd 1/19 Cato Street Hawthorn East Vic 3123 Ph: 8823 2300 Fax: 8823 2310 www.bpd.com.au Info@bpd.com.au</p>	SCALE 1:500	 LENGTHS ARE IN METRES	ORIGINAL SHEET SIZE A3 REF: 8352/50	SHEET 2 VERSION: 5
	LICENSED SURVEYOR: SIMON COX			



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GEOTECHNICAL LABORATORIES
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CLIENT: SYMON BROS LOCATION: The Grove South West Precinct, Stage 50 Sketch indicating compaction test locations	DATE: 24/05/2022	JOB No.: 9007/007
	OPERATOR: AB	CHECKED: DM
	SCALE: NTS	FIGURE No: -



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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9007/010

LOCATION: SYMON BROS - The Grove - South West Precinct - Stage 50

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)	
27/05/22	8	<i>Refer to #9007/011 for approx. test site locations.</i>	1.95	18.5	95.0	2.06	18.0	175	0.0 Wetter	101.5	0	0	200	
27/05/22	9		1.91	22.0	96.5	1.98	22.5	175	0.0 Drier	99.0	0	0	200	
27/05/22	10		1.99	27.0	101.5	1.96	26.0	175	1.0 Wetter	103.0	0	0	400	
27/05/22	11		1.97	25.0	98.0	2.00	24.5	175	0.5 Wetter	102.0	0	0	400	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time:12:45pm Finish Time:1:10pm

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)



Accredited for compliance with ISO/IEC

17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
 (Approved Signatory)

Issue Date: 6/6/2022

❖
❖



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SCALE

1:500



LENGTHS ARE IN METRES

ORIGINAL SHEET SIZE A3

SHEET 2

REF: 8352/50

VERSION: 5

LICENSED SURVEYOR: SIMON COX



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 50

Sketch indicating compaction test locations

DATE: 27/05/2022

OPERATOR: AB

SCALE: NTS

JOB No.: 9007/011

CHECKED: DM

FIGURE No: -



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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9007/013

LOCATION: SYMON BROS - The Grove South West Precinct - Stage 50

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)	
28/05/22	12	<i>Refer to #9007/014 for approx. test site locations.</i>	1.89	23.5	95.0	1.99	23.0	175	0.5 Wetter	102.0	0	0	100	
28/05/22	13		1.96	29.5	99.0	✘ 1.98	26.5	175	3.0 Wetter	110.5	8	0	200	
28/05/22	14		1.92	32.0	98.5	✘ 1.95	29.5	175	2.5 Wetter	108.0	5	0	400	
28/05/22	15		1.79	30.5	95.5	1.87	29.0	175	1.5 Wetter	105.5	0	0	600	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 9:30am Finish Time:10:10am

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

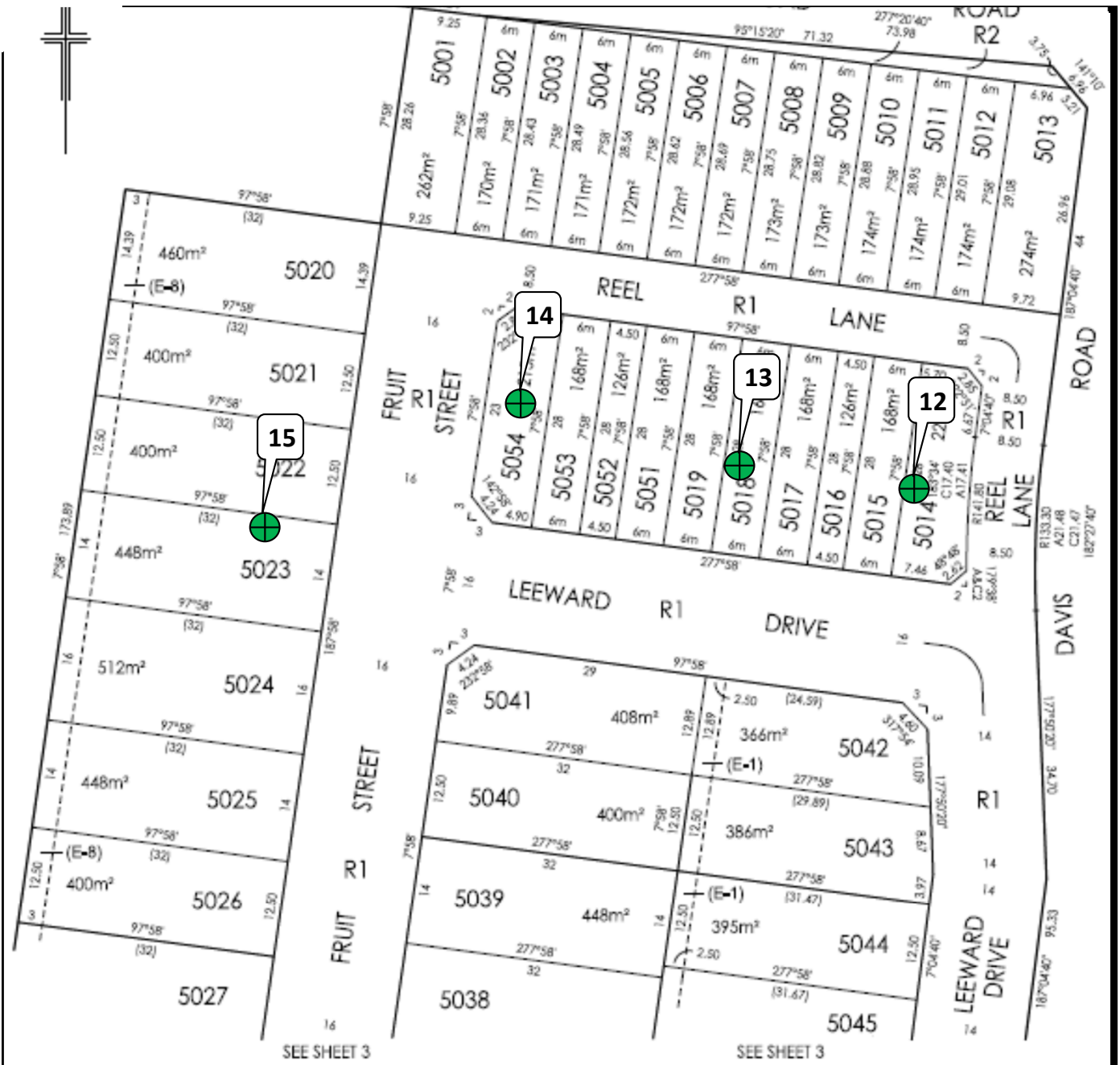


Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

MICK CROWE
 (Approved Signatory)

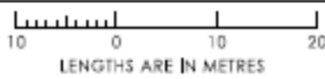
Issue Date: 6/6/2022



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SCALE

1:500



LENGTHS ARE IN METRES

ORIGINAL SHEET SIZE A3

SHEET 2

REF: 8352/50

VERSION: 5

LICENSED SURVEYOR: SIMON COX



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES

ACN 102 571 077

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CLIENT: SYMON BROS

DATE: 28/05/2022

JOB No.: 9007/014

LOCATION: The Grove South West Precinct, Stage 50

OPERATOR: PV

CHECKED: DM

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: -



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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9006/001

LOCATION: SYMON BROS - The Grove - South West Precinct - Stage 49 & 50

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)	
1/06/22	1	<i>Refer to #9006/002 for approx. test site locations.</i>	2.03	27.0	102.5	✘ 1.99	24.0	175	3.0 Wetter	113.0	4	0	-	
1/06/22	2		2.03	25.0	102.5	1.98	23.0	175	2.0 Wetter	108.5	0	0	-	
1/06/22	3		1.94	30.0	99.0	1.95	26.0	175	4.0 Wetter	115.0	0	0	-	
1/06/22	4		1.96	33.0	100.5	1.95	29.0	175	4.0 Wetter	113.5	0	0	-	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 11:00am Finish Time:12:00pm

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



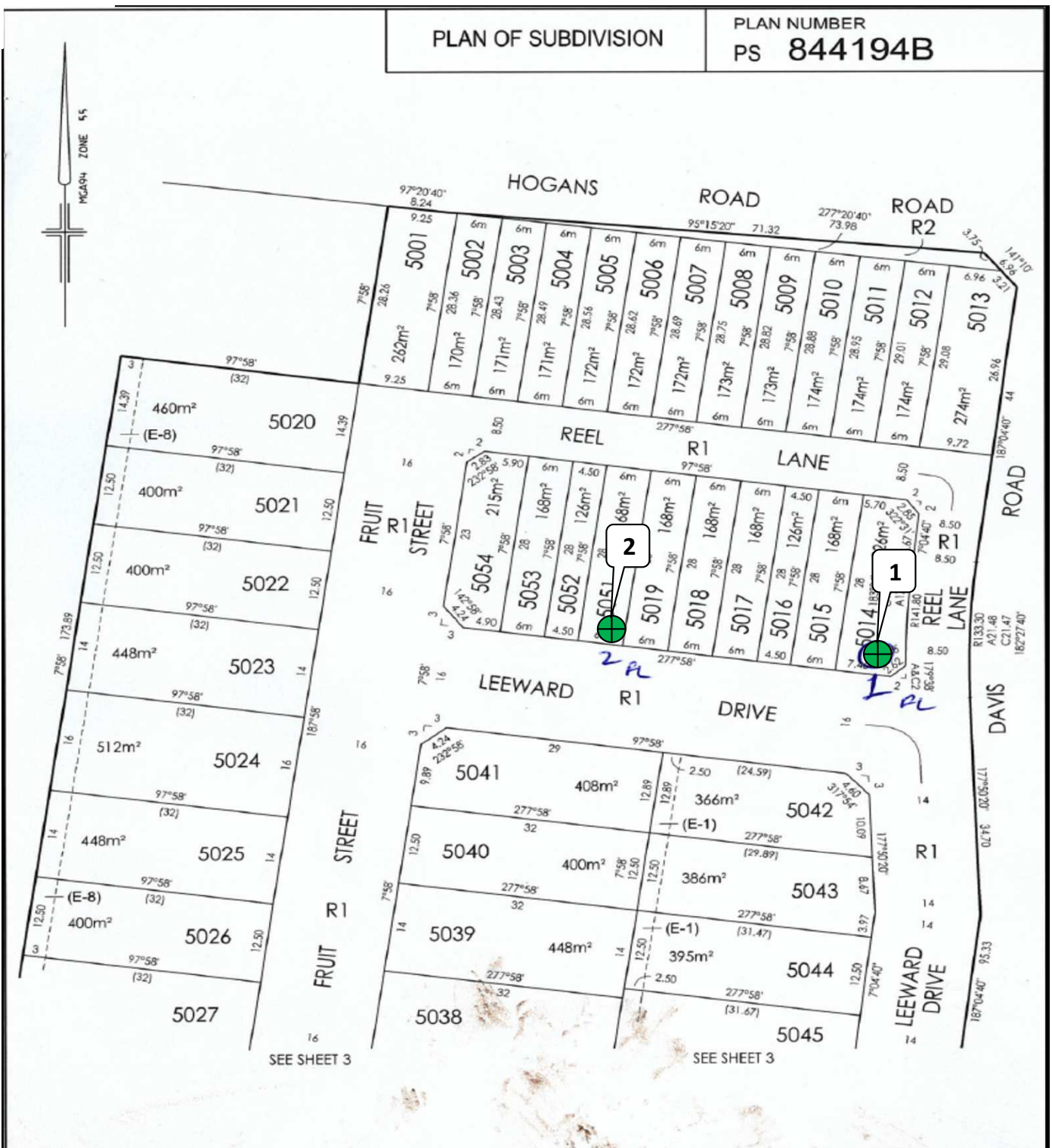
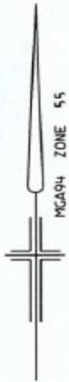
Accredited for compliance with ISO/IEC

17025 - Testing

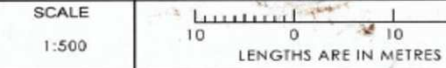
NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 6/6/2022



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ORIGINAL SHEET SIZE A3 SHEET 2
REF: 8352/50 VERSION: 5

LICENSED SURVEYOR: SIMON COX



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES
ACN 102 571 077
14 Ravenhall Way, Ravenhall, Vic 3023
Email: info@geolab.com.au PH: (03) 8361-9140

CLIENT: SYMON BROS

DATE: 01/06/2022

JOB No.: 9006/002

LOCATION: The Grove South West Precinct, Stage 49

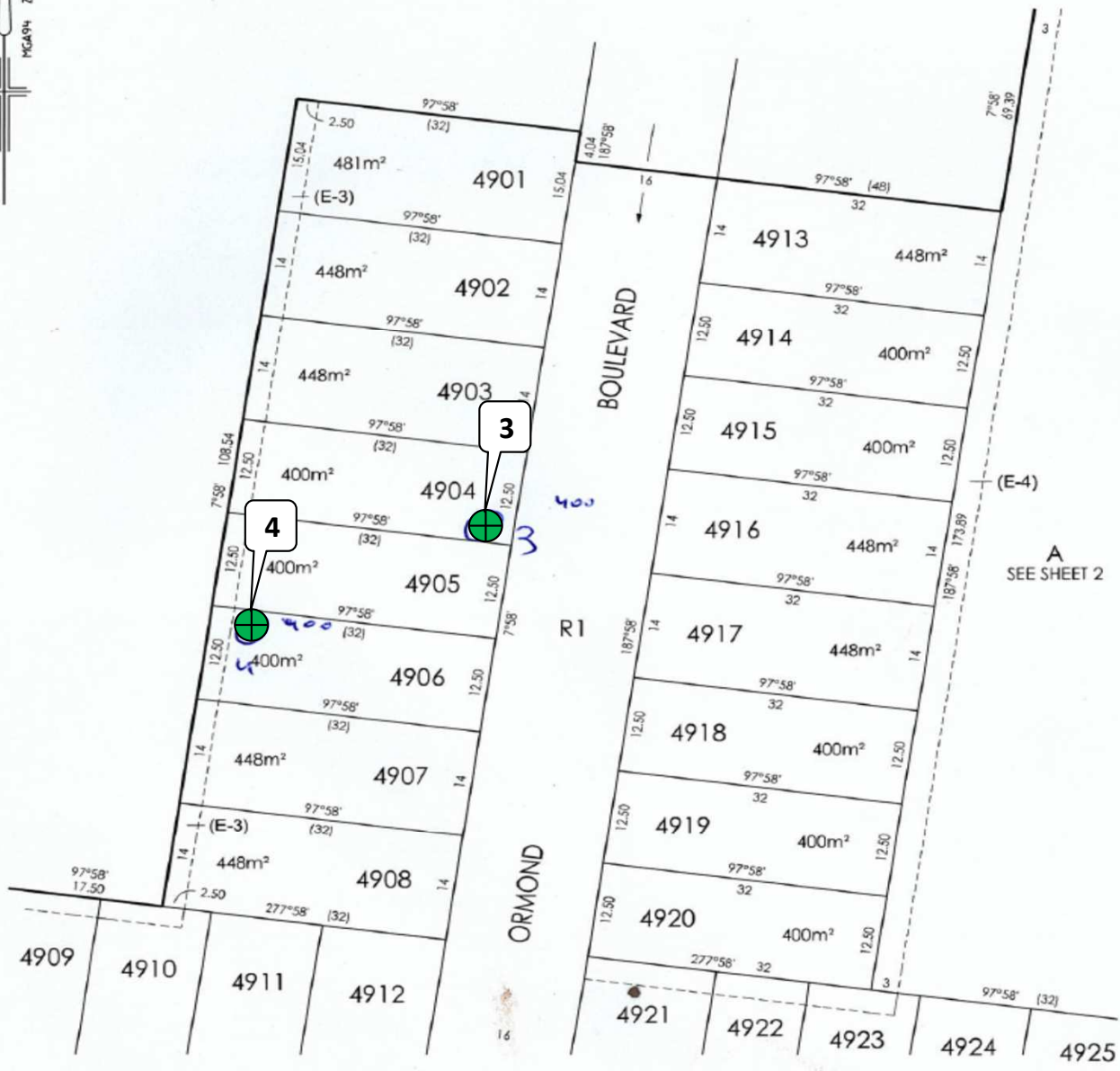
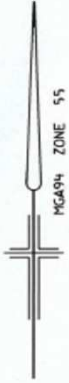
OPERATOR: PV

CHECKED: DM

Sketch indicating compaction test locations

SCALE: NTS

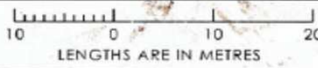
FIGURE No: 1 of 2



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SCALE

1:500



LENGTHS ARE IN METRES

ORIGINAL SHEET SIZE A3
REF: 8352/49

SHEET 3
VERSION: 5

LICENSED SURVEYOR: SIMON COX



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES
ACN 102 571 077

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

CLIENT: SYMON BROS

DATE: 01/06/2022

JOB No.: 9006/002

LOCATION: The Grove South West Precinct, Stage 49

OPERATOR: PV

CHECKED: DM

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 2 of 2



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.: # 9007/016

LOCATION: SYMON BROS - The Grove, South West Precinct, Stage 50

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)	
3/6/322	16	<i>Refer to #9007/017 for approx. test site locations.</i>	1.96	22.0	100.5	1.95	24.0	175	1.5 Drier	93.0	0	0	400	
3/6/322	17		1.94	18.0	101.5	1.91	22.0	175	4.0 Drier	82.5	0	0	400	
3/6/322	18		2.07	19.0	106.0	1.95	21.5	175	3.0 Drier	87.0	0	0	400	
3/6/322	19		2.02	21.5	102.0	1.97	22.5	175	1.0 Drier	94.5	0	0	400	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 12:30pm Finish Time: 1:20pm

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)



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

NATA Accredited Laboratory Number 14561

MICK CROWE
 (Approved Signatory)

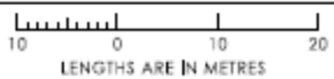
Issue Date: 9/6/2022





Breese Pit Dixon Pty Ltd
 1/19 Cato Street
 Hawthorn East Vic 3123
 Ph: 8823 2300 Fax: 8823 2310
 www.bpd.com.au Info@bpd.com.au

SCALE
 1:500



ORIGINAL SHEET SIZE A3

SHEET 2

REF: 8352/50 VERSION: 5

LICENSED SURVEYOR: SIMON COX



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES
ACN 102 571 077

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

CLIENT: SYMON BROS

DATE: 3/06/2022

JOB No.: 9007/017

LOCATION: The Grove South West Precinct, Stage 50

OPERATOR: VN

CHECKED: KK

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: -



GEOTECHNICAL LABORATORIES
 ACN 102 571 077
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DAILY SUMMARY - FIELD DENSITY TESTS


REPORT NO.: # 9007/019A

LOCATION: SYMON BROS - The Grove - South West Precinct - Stage 50


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)	
7/06/22	20	<i>Refer to #9007/020A for approx. test site locations.</i>	1.98	22.0	105.5	1.87	25.0	175	2.5 Drier	89.0	0	0	-	
7/06/22	21		1.96	29.0	101.0	✱ 1.94	28.5	175	0.5 Wetter	102.0	4	0	-	
7/06/22	22		1.91	25.5	100.0	1.90	27.0	175	1.5 Drier	94.5	0	0	-	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

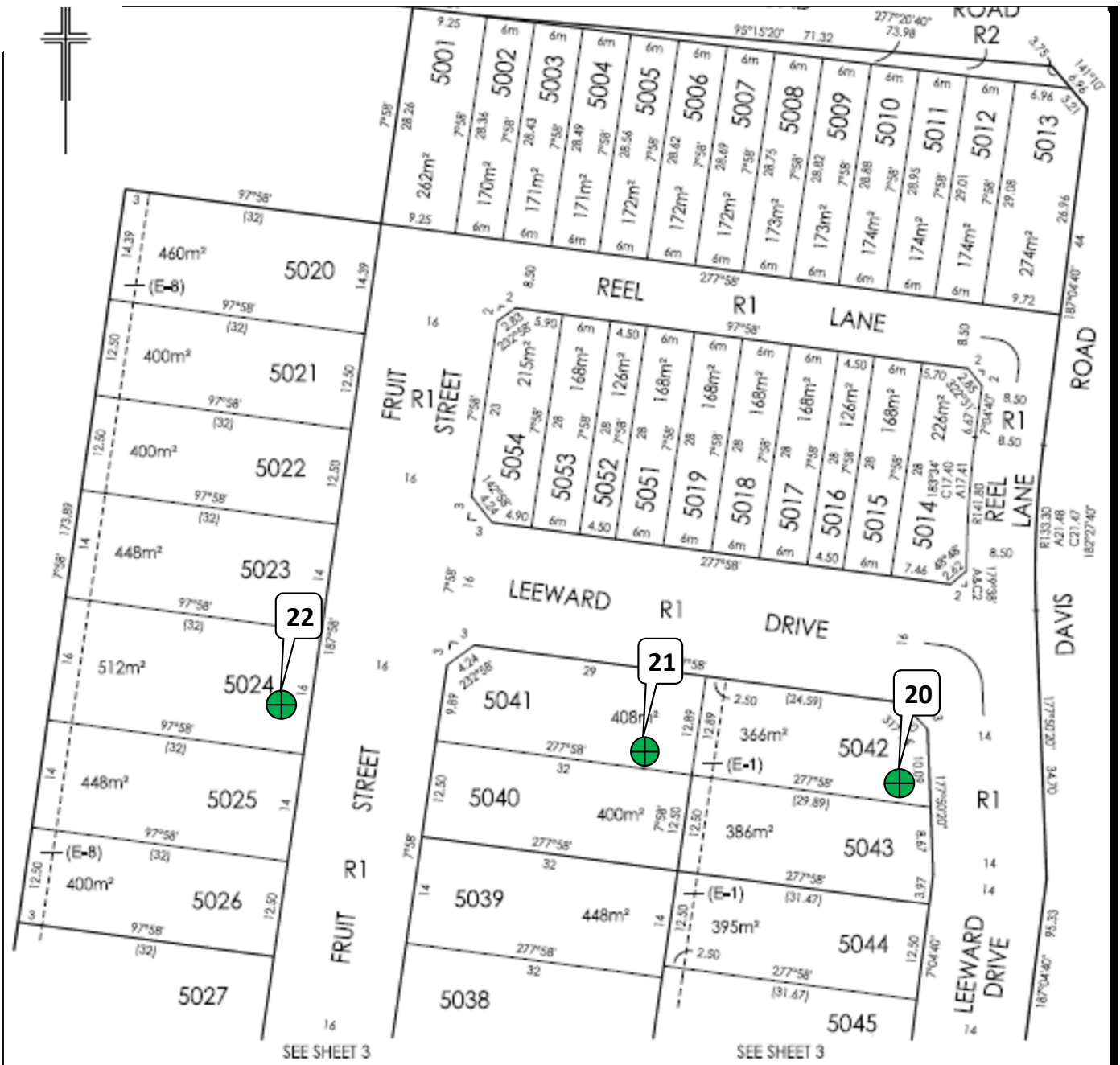
NOTES: Clayey Fill Ex. Onsite Compaction specimens sampled after compaction.
 Test sites located - Geolab Procedure 4, Part 4.4. Start Time:11:30 Finish Time:12:00



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.
 This Report Supersedes Report # 9007/019 Moisture Content: AS 1289 2.1.1
 Soil Layer thickness: 200mm Compaction Test: AS 1289 5.7.1
 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: 8/6/2023



 <p>Breese Pitt Dixon Pty Ltd 1/19 Cato Street Hawthorn East Vic 3123 Ph: 8823 2300 Fax: 8823 2310 www.bpd.com.au Info@bpd.com.au</p>	SCALE 1:500	 LENGTHS ARE IN METRES	ORIGINAL SHEET SIZE A3 REF: 8352/50	SHEET 2 VERSION: 5
	LICENSED SURVEYOR: SIMON COX			



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES
ACN 102 571 077

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

CLIENT: SYMON BROS LOCATION: The Grove South West Precinct, Stage 50 Sketch indicating compaction test locations	DATE: 7/06/2022	JOB No.: 9007/020A
	OPERATOR: BM	CHECKED: DM
	SCALE: NTS	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.: # 9007/021

LOCATION: SYMON BROS - The Grove - South West Precinct - Stage 50

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)	
9/06/22	23	<i>Refer to #9007/022 for approx. test site locations.</i>	1.97	18.0	98.5	2.00	20.5	175	2.5 Drier	87.5	0	0	0	
9/06/22	24		1.92	21.5	98.0	✘ 1.96	24.0	175	2.0 Drier	91.0	5	0	200	
9/06/22	25		1.90	25.0	95.5	✘ 1.99	24.5	175	1.0 Wetter	103.0	4	0	200	
9/06/22	26		1.93	29.0	97.0	1.98	25.5	175	3.5 Wetter	114.0	0	0	1000	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 11:45am Finish Time: 1:20pm

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: 15/6/2022



 <p>Breese Pitt Dixon Pty Ltd 1/19 Cato Street Hawthorn East Vic 3123 Ph: 8823 2300 Fax: 8823 2310 www.bpd.com.au Info@bpd.com.au</p>	SCALE 1:500	 LENGTHS ARE IN METRES	ORIGINAL SHEET SIZE A3 REF: 8352/50	SHEET 2 VERSION: 5
	LICENSED SURVEYOR: SIMON COX			



GEOTECHNICAL LABORATORIES
 ACN 102 571 077
 14 Ravenhall Way, Ravenhall, Vic 3023
 Email: info@geolab.com.au PH: (03) 8361-9140

CLIENT: SYMON BROS
LOCATION: The Grove South West Precinct, Stage 50
Sketch indicating compaction test locations

DATE: 09/06/2022	JOB No.: 9007/022
OPERATOR: WS	CHECKED: DM
SCALE: NTS	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.: # 9007/023

LOCATION: SYMON BROS - The Grove - South West Precinct - Stage 50

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)	
10/06/22	27	<i>Refer to #9007/024 for approx. test site locations.</i>	1.90	22.5	97.5	1.95	23.5	175	0.5 Drier	97.0	0	0	800	
10/06/22	28		2.01	23.0	101.5	✘ 1.98	23.5	175	0.5 Drier	97.0	3	0	800	
10/06/22	29		1.96	19.0	101.0	1.94	21.5	175	2.5 Drier	88.0	0	0	800	
10/06/22	30		2.07	23.5	105.5	✘ 1.96	23.0	175	0.5 Wetter	102.0	4	0	800	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 11:35am Finish Time:12:10pm

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

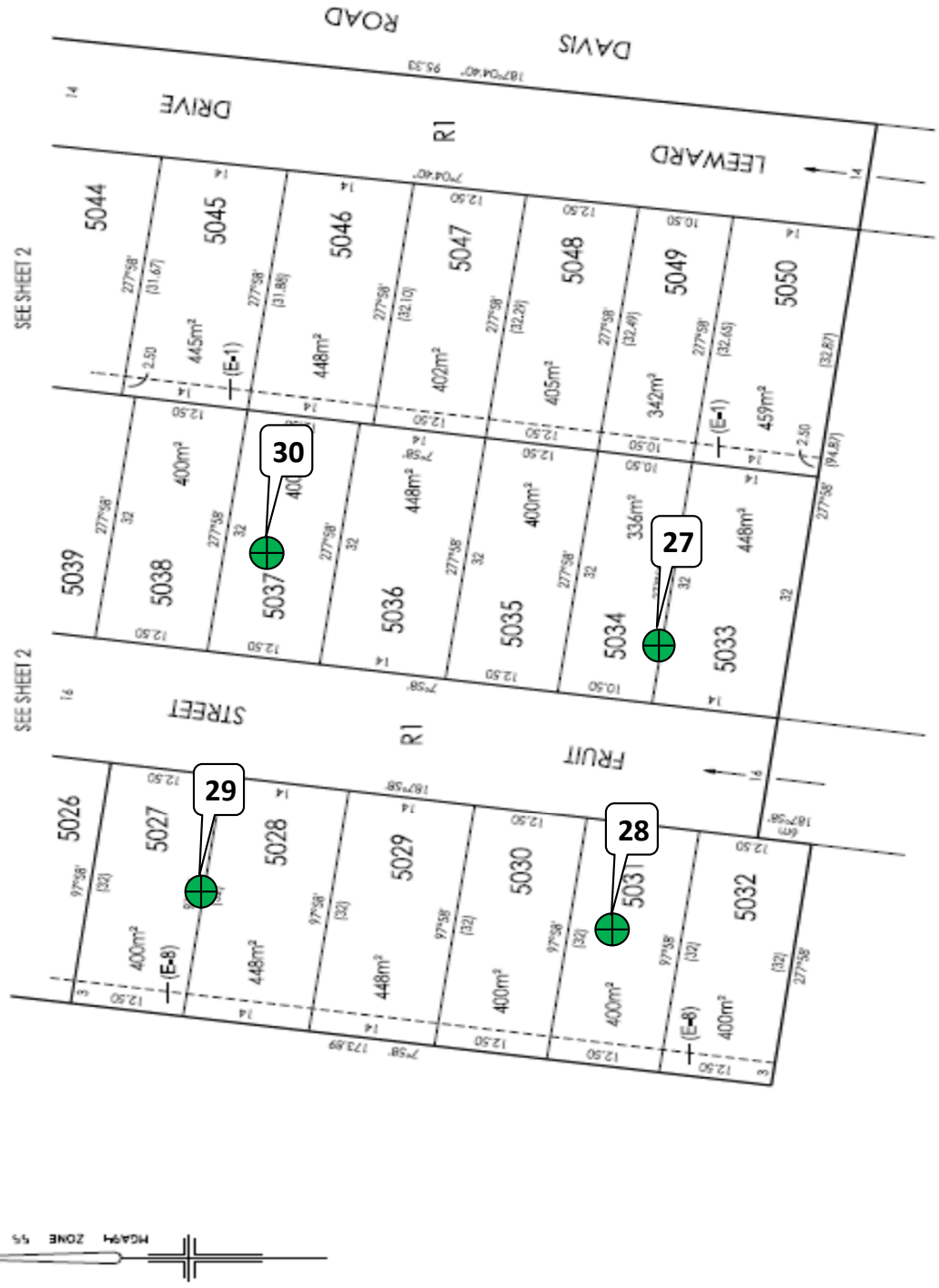
NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 15/6/2022

PLAN NUMBER
PS 844194B

PLAN OF SUBDIVISION



REF: 8352/50	VERSION: 5	SHEET 3
LICENSED SURVEYOR: SIMON COX		
SCALE 1:500		
Breeze Pitt Dixon Pty Ltd 1/19 Cato Street Hawthorn East Vic 3123 Ph: 8623 2300 Fax: 8623 2310 www.bpd.com.au info@bpd.com.au		



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES
ACN 102 571 077

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

CLIENT: SYMON BROS
LOCATION: The Grove South West Precinct, Stage 50
Sketch indicating compaction test locations

DATE: 10/06/2022
OPERATOR: AB
SCALE: NTS

JOB No.: 9007/024
CHECKED: DM
FIGURE No: -



GEOTECHNICAL LABORATORIES
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 14 Ravenhall Way, Ravenhall, Vic 3023
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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9007/026

LOCATION: SYMON BROS - The Grove SWP - Stage 50

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)
14/06/22	31	<i>Refer to #9007/027 for approx. test site locations.</i>	2.01	22.0	101.0	✘ 1.99	22.5	175	0.5 Drier	97.0	8	0	800
14/06/22	32		1.96	19.5	103.0	1.90	22.5	175	3.0 Drier	86.5	0	0	800
14/06/22	33		1.96	20.0	103.0	1.90	23.0	175	3.0 Drier	86.5	0	0	800
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 12:25pm Finish Time:1:00pm

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: 17/6/2022

PLAN NUMBER
PS 844194B

PLAN OF SUBDIVISION



REF: 8352/50	VERSION: 5	ORIGINAL SHEET SIZE A3	SHEET 3
LICENSED SURVEYOR: SIMON COX			
SCALE		1:500	
LENGTHS ARE IN METRES		10 0 10 20	
Breese Pitt Dixon Pty Ltd 1/19 Cato Street Hawthorn East Vic 3123 Ph: 8623 2300 Fax: 8623 2310 www.bpd.com.au info@bpd.com.au			



GEOTECHNICAL LABORATORIES
ACN 102 571 077
14 Ravenhall Way, Ravenhall, Vic 3023
Email: info@geolab.com.au PH: (03) 8361-9140

CLIENT: SYMON BROS
LOCATION: The Grove South West Precinct, Stage 50
Sketch indicating compaction test locations

DATE: 14/06/2022
OPERATOR: BM
SCALE: NTS

JOB No.: 9007/027
CHECKED: DM
FIGURE No: -



GEOTECHNICAL LABORATORIES
 ACN 102 571 077
 14 Ravenhall Way, Ravenhall, Vic 3023
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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9007/029

LOCATION: SYMON BROS - The Grove, South West Precinct, Stage 50

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)	
15/06/22	34	<i>Refer to #9007/030 for approx. test site locations.</i>	1.88	26.0	97.0	1.94	25.5	175	1.0 Wetter	103.0	0	0	400	
15/06/22	35		1.85	23.0	95.5	1.94	23.0	175	0.5 Drier	98.0	0	0	400	
15/06/22	36		1.88	20.0	99.5	1.89	23.5	175	3.5 Drier	85.0	0	0	400	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 10:30am Finish Time: 11:00am

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)



Accredited for compliance with ISO/IEC 17025 - Testing

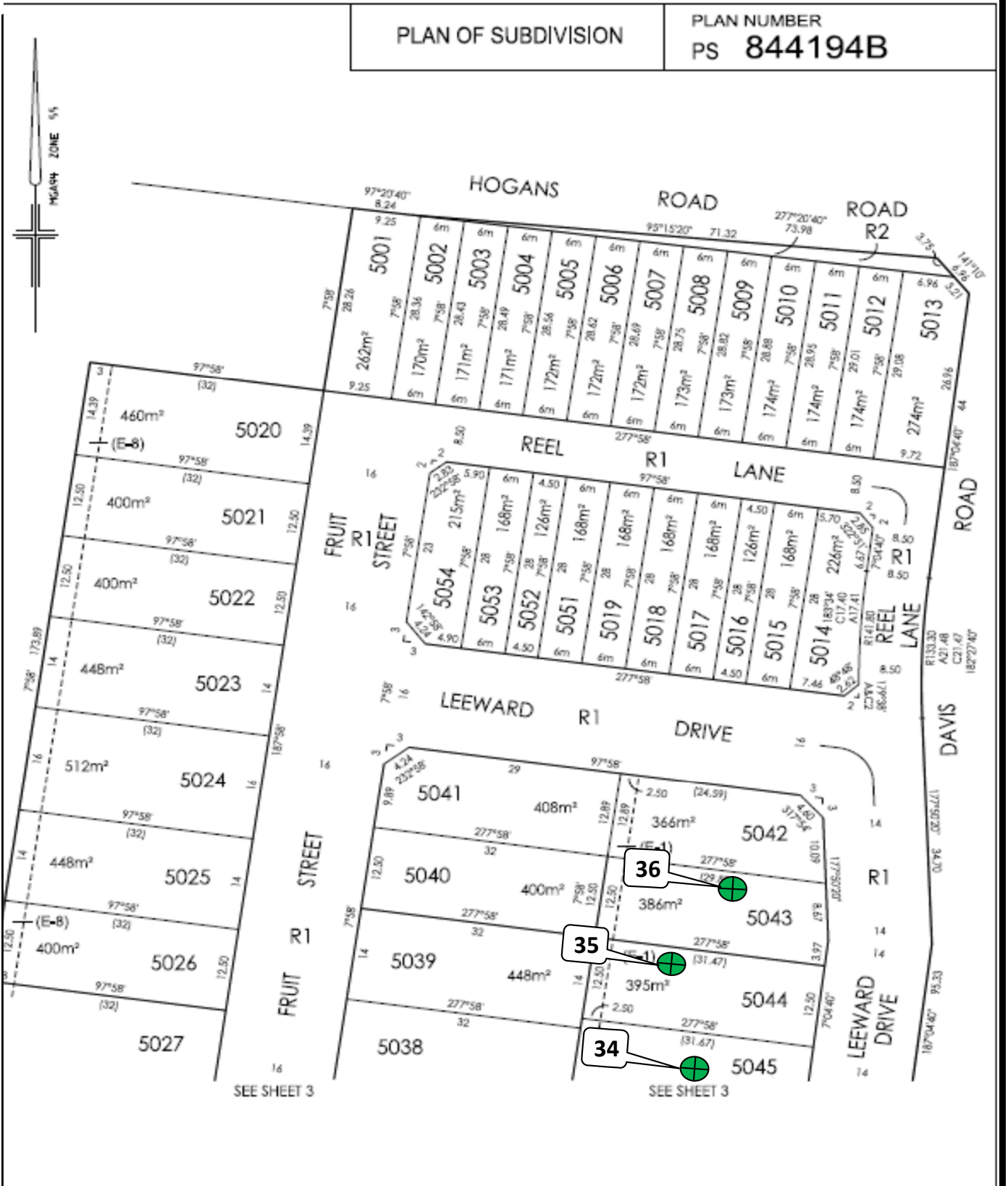
NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 20/6/2022

PLAN OF SUBDIVISION

PLAN NUMBER
PS 844194B



GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 50

Sketch indicating compaction test locations

DATE: 15/06/2022

OPERATOR: AB

SCALE: NTS

JOB No.: 9007/030

CHECKED: KK

FIGURE No: -



GEOTECHNICAL LABORATORIES
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 14 Ravenhall Way, Ravenhall, Vic 3023
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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9005/006

LOCATION: SYMON BROS - The Grove, South West Precinct, Stage 48 & 50

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)
21/06/22	8	<i>Refer to #9005/007 for approx. test site locations.</i>	1.99	20.0	104.5	1.91	22.5	175	3.0 Drier	87.5	0	0	300
21/06/22	9		1.97	26.0	98.5	✘ 1.99	24.0	175	2.0 Wetter	107.5	5	0	0
21/06/22	10		1.91	25.0	96.0	1.98	24.0	175	0.5 Wetter	103.0	0	0	0
21/06/22	11		1.98	21.0	103.0	1.93	23.0	175	2.5 Drier	89.5	0	0	1000
21/06/22	12		1.93	21.5	101.5	1.90	24.0	175	2.5 Drier	89.0	0	0	1000
21/06/22	13		1.93	20.5	98.5	✘ 1.96	23.0	175	2.0 Drier	90.5	5	0	1000

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 1:10pm Finish Time: 2:20pm

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: 23/6/2022



 Breese Pitt Dixon Pty Ltd 1/19 Cato Street Hawthorn East Vic 3123 Ph: 8823 2300 Fax: 8823 2310	SCALE 1:500	 LENGTHS ARE IN METRES	ORIGINAL SHEET SIZE A3	SHEET 2
	LICENSED SURVEYOR: SIMON COX		REF: 8352/50	VERSION: 5



GEOTECHNICAL LABORATORIES
 ACN 102 571 077
 14 Ravenhall Way, Ravenhall, Vic 3023
 Email: info@geolab.com.au PH: (03) 8361-9140

CLIENT: SYMON BROS LOCATION: The Grove South West Precinct, Stage 48 & 50 Sketch indicating compaction test locations	DATE: 21/06/2022	JOB No.: 9005/007
	OPERATOR: BM	CHECKED: KK
	SCALE: NTS	FIGURE No: 1 of 3

PLAN NUMBER
PS 84418

PLAN OF SUBDIVISION



REF: 8352/48
VERSION: 4
LICENSED SURVEYOR: SIMON COX

SCALE
1:500

Breese Pitt Dixon Pty Ltd
1/19 Cato Street
Hawthorn East, Vic 3123
PH: 8623 2341 FAX: 8623 2310



**GEOTECHNICAL
LABORATORIES**

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 48 & 50

Sketch indicating compaction test locations

DATE: 21/06/2022

OPERATOR: BM

SCALE: NTS

JOB No.: 9005/007

CHECKED: KK

FIGURE No: 3 of 3



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.: # 9007/036

LOCATION: SYMON BROS - The Grove SWP - Stage 49 & 50

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)	
24/06/22	37	<i>Refer to #9007/037 for approx. test site locations.</i>	1.92	21.5	97.5	✘ 1.96	23.5	175	2.0 Drier	92.0	5	0	0	
24/06/22	38		1.99	26.0	102.0	1.95	22.0	175	4.0 Wetter	117.0	0	0	100	
24/06/22	39		1.91	27.5	96.5	1.98	24.0	175	4.0 Wetter	116.0	0	0	150	
24/06/22	40		1.93	23.5	98.0	1.97	22.0	175	1.0 Wetter	105.5	0	0	0	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 10:40am Finish Time:12:15pm

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

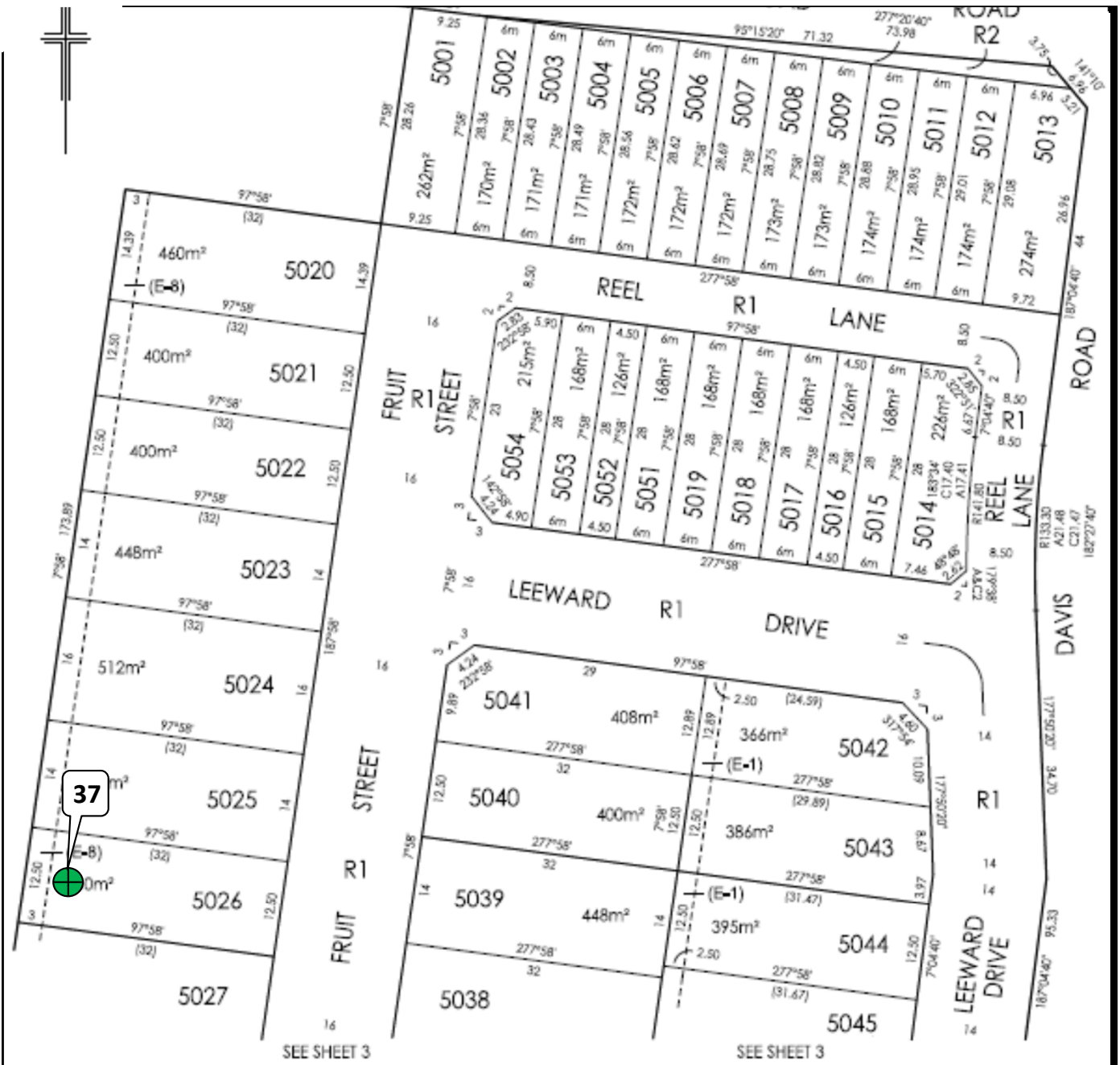


Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

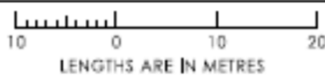
MICK CROWE
(Approved Signatory)

Issue Date: 29/6/2022



Breese Pitt Dixon Pty Ltd
 1/19 Cato Street
 Hawthorn East Vic 3123
 Ph: 8823 2300 Fax: 8823 2310
 www.bpd.com.au Info@bpd.com.au

SCALE
 1:500



ORIGINAL SHEET SIZE A3
 REF: 8352/50

SHEET 2
 VERSION: 5

LICENSED SURVEYOR: SIMON COX



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES
ACN 102 571 077

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

CLIENT: SYMON BROS

DATE: 24/06/2022

JOB No.: 9007/037

LOCATION: The Grove South West Precinct, Stage 49 & 50

OPERATOR: WS

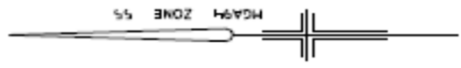
CHECKED: DM

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 1 of 3

PLAN OF SUBDIVISION
 PLAN NUMBER
 PS 844194B



REF: 8352/50	VERSION: 5	ORIGINAL SHEET SIZE A3	SHEET 3
LICENSED SURVEYOR: SIMON COX			
<p>LENGTHS ARE IN METRES</p>			
SCALE		1:500	
Breese Pitt Dixon Pty Ltd 1/19 Cato Street Hawthorn East Vic 3123 Ph: 8823 2300 Fax: 8823 2310 www.bpd.com.au info@bpd.com.au			

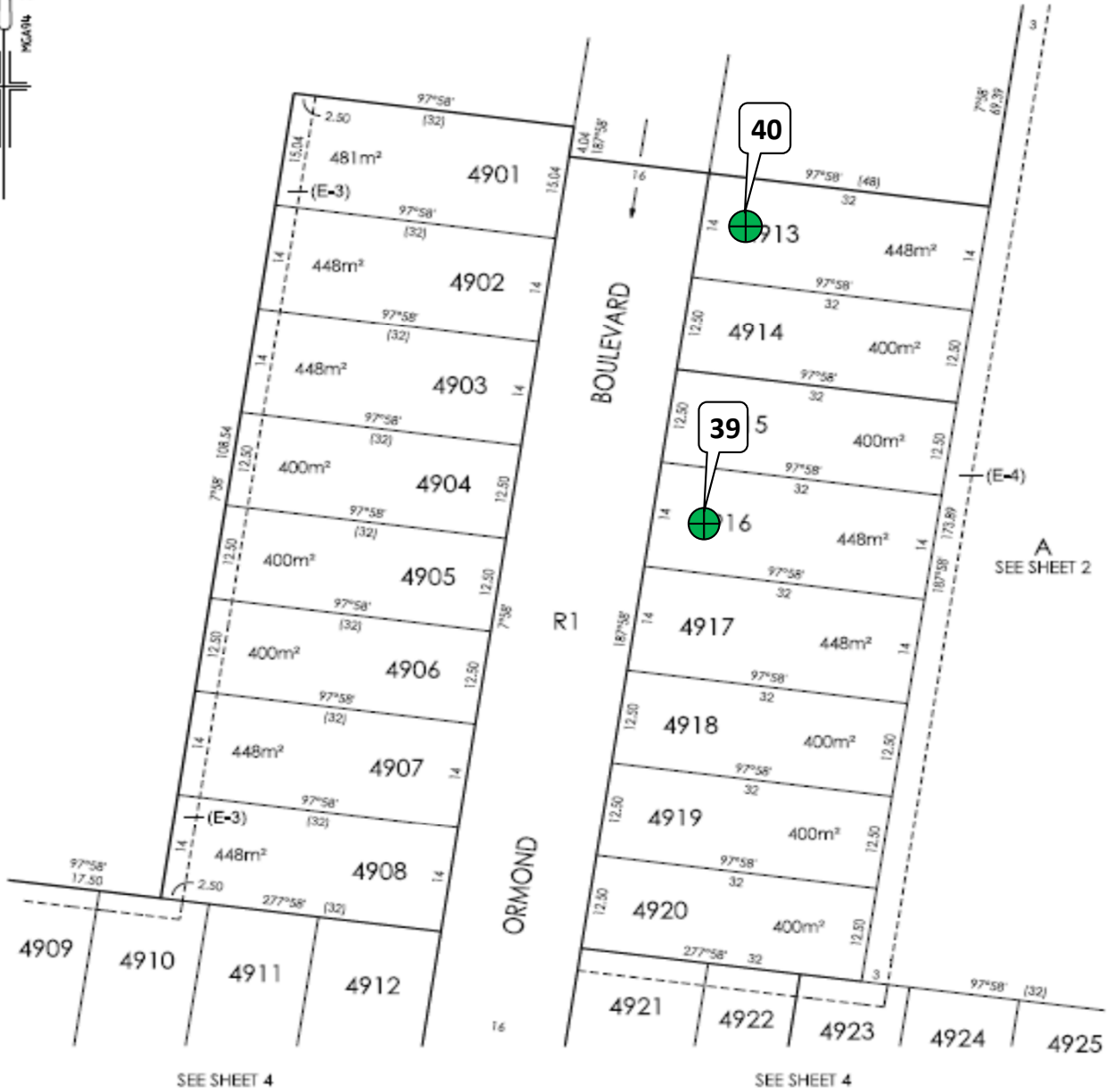
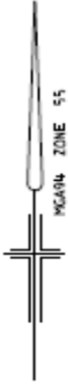


GEOTECHNICAL LABORATORIES
 ACN 102 571 077
 14 Ravenhall Way, Ravenhall, Vic 3023
 Email: info@geolab.com.au PH: (03) 8361-9140

CLIENT: SYMON BROS
LOCATION: The Grove South West Precinct, Stage 49 & 50
 Sketch indicating compaction test locations

DATE: 24/06/2022
OPERATOR: WS
SCALE: NTS

JOB No.: 9007/037
CHECKED: DM
FIGURE No: 2 of 3



Breese Pitt Dixon Pty Ltd
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SCALE

1:500



LENGTHS ARE IN METRES

ORIGINAL SHEET SIZE A3

SHEET 3

REF: 8352/49

VERSION: 5

LICENSED SURVEYOR: SIMON COX



**GEOTECHNICAL
LABORATORIES**

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

DATE: 24/06/2022

JOB No.: 9007/037

LOCATION: The Grove South West Precinct, Stage 49 & 50

OPERATOR: WS

CHECKED: DM

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 3 of 3



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.: # 9007/038

LOCATION: SYMON BROS - The Grove - Stage 50

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)	
25/06/22	41	<i>Refer to #9007/039 for approx. test site locations.</i>	1.89	30.0	98.5	1.92	28.5	175	2.0 Wetter	106.5	0	0	200	
25/06/22	42		1.87	32.0	97.5	1.92	29.5	175	2.5 Wetter	108.0	0	0	300	
25/06/22	43		1.88	22.5	101.0	✱ 1.87	25.0	175	2.5 Drier	90.0	4	0	300	
25/06/22	44		1.92	26.5	103.5	1.86	28.0	175	1.5 Drier	94.5	0	0	300	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time:8:30am Finish Time:9:10am

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

❖



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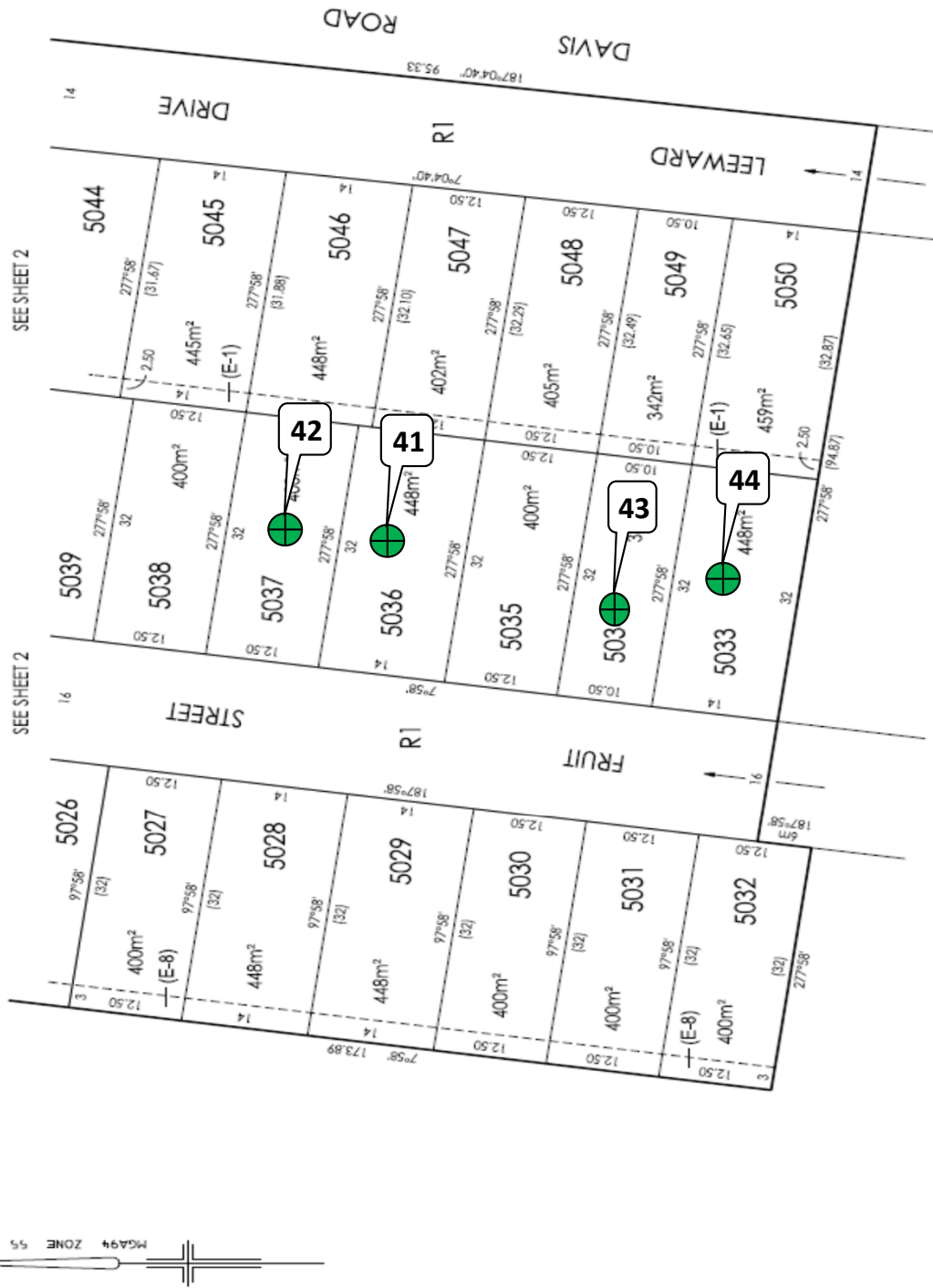
NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 30/6/2022

PLAN NUMBER
PS 844194B

PLAN OF SUBDIVISION



SCALE	1:500	VERSION: 5	SHEET 3
REF: 8352/50	LICENSED SURVEYOR: SIMON COX	ORIGINAL SHEET SIZE A3	
<p>LENGTHS ARE IN METRES</p>			
<p>Breese Pitt Dixon Pty Ltd 1/19 Cato Street Hawthorn East Vic 3123 Ph: 8823 2300 Fax: 8823 2310 www.bpd.com.au info@bpd.com.au</p>			



GEOTECHNICAL LABORATORIES
ACN 102 571 077
14 Ravenhall Way, Ravenhall, Vic 3023
Email: info@geolab.com.au PH: (03) 8361-9140

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 50

Sketch indicating compaction test locations

DATE: 25/06/2022

OPERATOR: PV

SCALE: NTS

JOB No.: 9007/039

CHECKED: DM

FIGURE No: -



GEOTECHNICAL LABORATORIES
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 14 Ravenhall Way, Ravenhall, Vic 3023
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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9007/041

LOCATION: SYMON BROS - The Grove SWP - Stage 50

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)	
27/06/22	45	<i>Refer to #9007/042 for approx. test site locations.</i>	2.00	28.5	101.0	1.98	26.5	175	2.0 Wetter	108.0	0	0	0	
27/06/22	46		1.97	31.0	99.5	✘ 1.98	28.0	175	3.0 Wetter	111.5	7	0	0	
27/06/22	47		1.95	28.5	100.5	✘ 1.94	25.5	175	3.0 Wetter	111.0	7	0	0	
27/06/22	48		1.95	23.5	103.0	1.89	24.5	175	1.0 Drier	96.0	0	0	0	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 12:45pm Finish Time: 1:30pm

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: 1/7/2022



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SCALE

1:500



ORIGINAL SHEET SIZE A3

SHEET 2

REF: 8352/50

VERSION: 5

LICENSED SURVEYOR: SIMON COX



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

DATE: 27/06/2022

JOB No.: 9007/042

LOCATION: The Grove South West Precinct, Stage 50

OPERATOR: BM

CHECKED: DM

Sketch indicating compaction test locations

SCALE: NTS

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.: # 9006/030

LOCATION: SYMON BROS - The Grove, South West Precinct, Stage 49 & 50

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)	
20/07/22	40	<i>Refer to #9006/031 for approx. test site locations.</i>	2.04	25.5	104.0	1.95	25.5	175	0.5 Wetter	101.0	0	0	0	
20/07/22	41		1.98	21.5	100.0	✘ 1.98	23.0	175	1.5 Drier	92.5	12	0	0	
20/07/22	42		2.02	20.5	101.0	✘ 2.00	23.0	175	2.5 Drier	89.5	7	0	0	
20/07/22	43		2.05	24.5	102.0	2.01	24.0	175	0.5 Wetter	102.0	0	0	0	
-	-		-	-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 12:30pm Finish Time: 1:10pm

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: 26/7/2022

PLAN NUMBER
PS 844194B

PLAN OF SUBDIVISION



SHEET 3

ORIGINAL SHEET SIZE A3

VERSION: 5

REF: 8352/50

Licensed Surveyor: SIMON COX

SCALE 1:500

see Pitt Dixon Pty Ltd
1/19 Cain Street
Melbom East V/c 3123
03 9328 2111 Fax: 03 9328 2110



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES
ACN 102 571 077

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 49 & 50

Sketch indicating compaction test locations

DATE: 20/07/2022

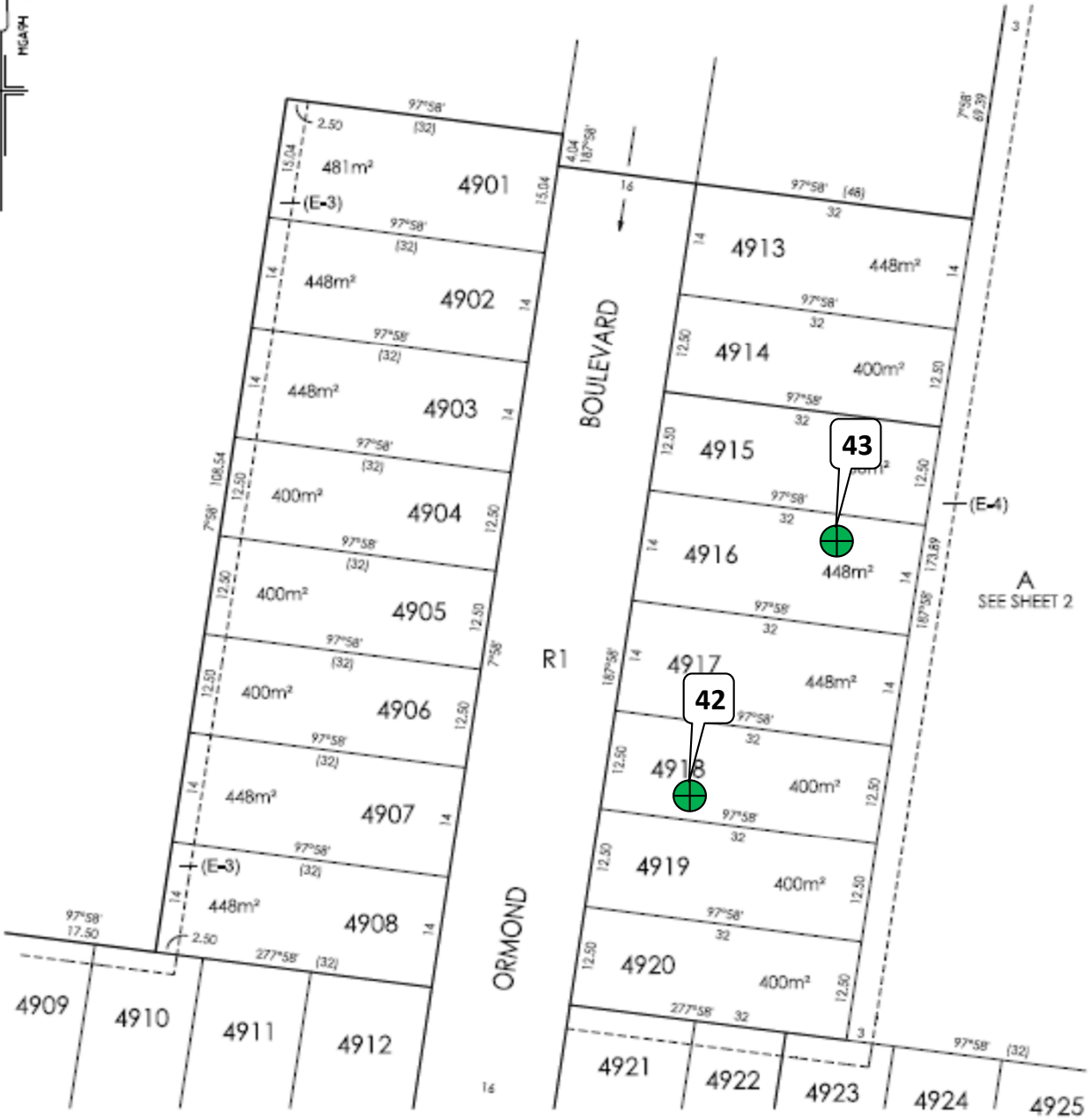
OPERATOR: BM

SCALE: NTS

JOB No.: 9006/031

CHECKED: KK

FIGURE No: 1 of 2

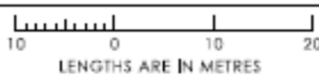


SEE SHEET 4

SEE SHEET 4

Breese Pitt Dixon Pty Ltd
1/19 Cato Street

SCALE
1:500



ORIGINAL SHEET SIZE A3
REF: 8352/49
SHEET VERSION:



GEOTECHNICAL LABORATORIES

GEOTECHNICAL LABORATORIES
ACN 102 571 077

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

CLIENT: SYMON BROS

DATE: 20/07/2022

JOB No.: 9006/031

LOCATION: The Grove South West Precinct, Stage 49 & 50

OPERATOR: BM

CHECKED: KK

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 2 of 2



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.: # 9009/013

LOCATION: SYMON BROS - The Grove, South West Precinct, Stage 50 & 52

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)
12/10/22	12	<i>Refer to #9009/014 for approx. test site locations.</i>	1.85	32.0	101.0	1.83	32.5	175	0.5 Drier	99.0	0	0	0
12/10/22	13		1.90	27.0	101.5	1.87	29.0	175	2.0 Drier	93.0	0	0	0
12/10/22	14		1.95	27.0	102.0	1.91	27.0	175	0.5 Drier	99.0	0	0	0
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 11:10am Finish Time: 11:45am

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)

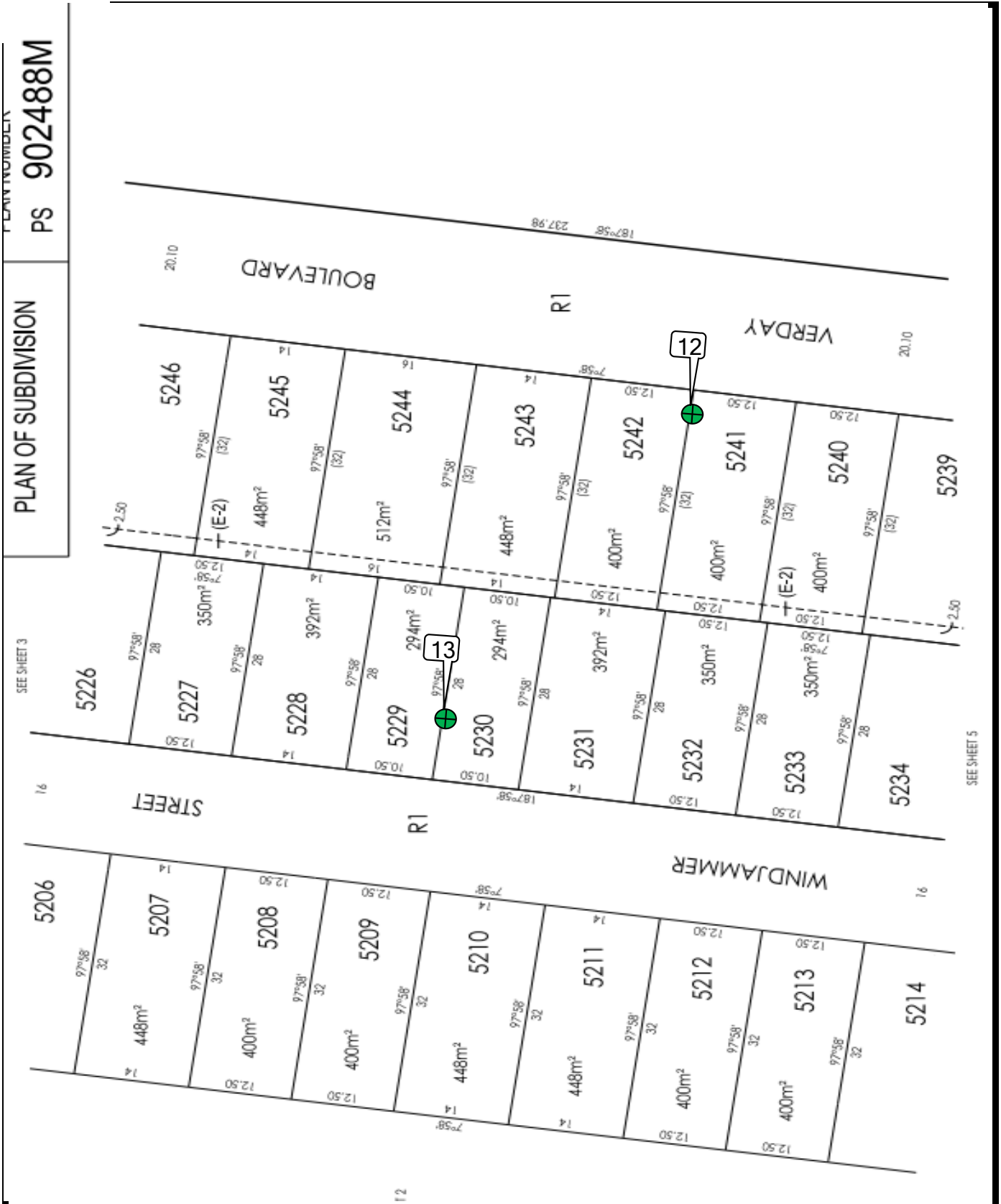


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NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)

Issue Date: 14/10/2022



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GEOTECHNICAL LABORATORIES

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

CLIENT: SYMON BROS

LOCATION: The Grove South West Precinct, Stage 52 & 50

Sketch indicating compaction test locations

DATE: 12/10/2022

OPERATOR: SLI

SCALE: NTS

JOB No.: 9009/014

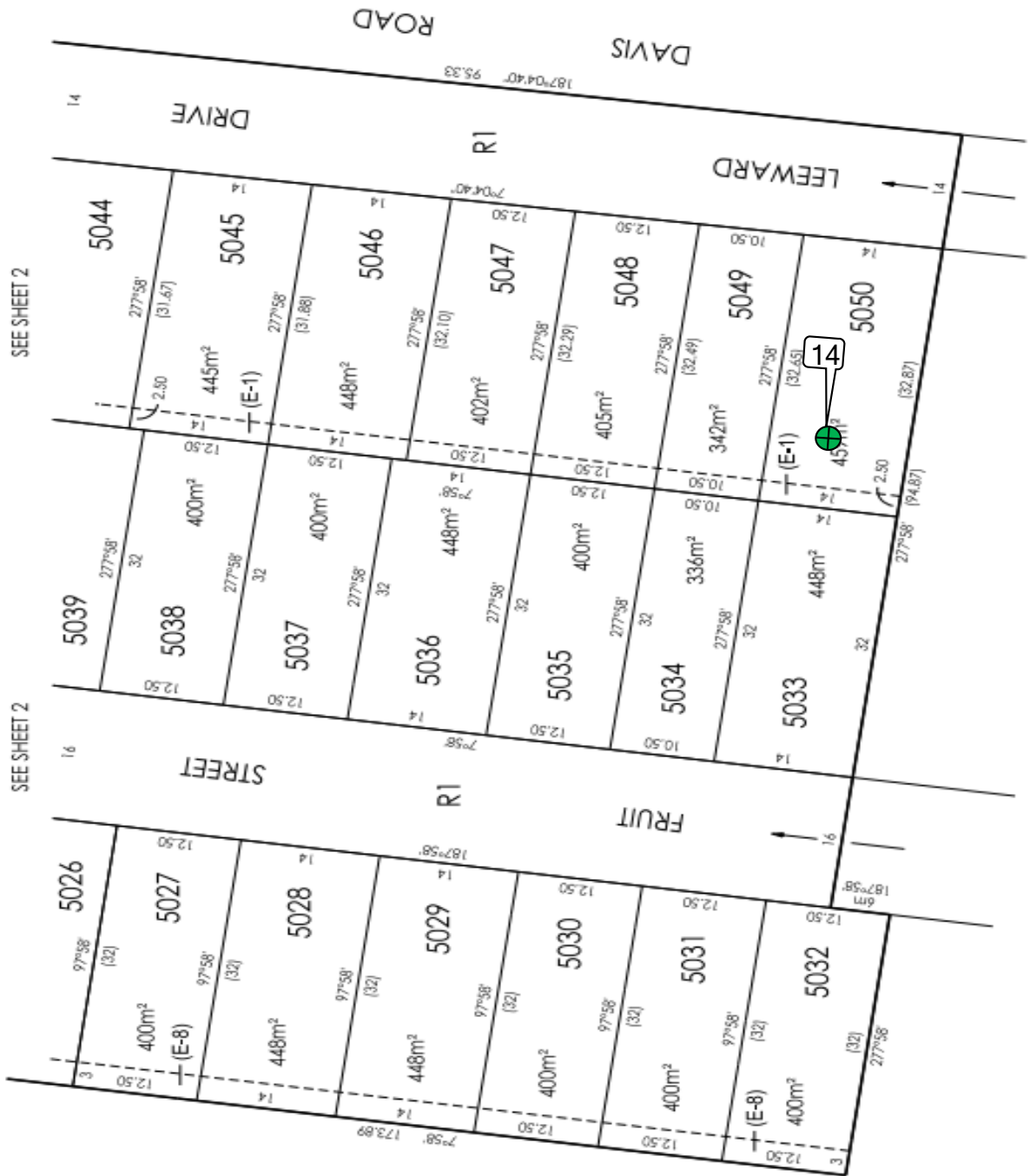
CHECKED: KK

FIGURE No: 1 of 2

PLAN NUMBER

PS 844194B

PLAN OF SUBDIVISION



GEOTECHNICAL LABORATORIES

ACN 102 571 077

14 Ravenhall Way, Ravenhall, Vic 3023

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

CLIENT: SYMON BROS

DATE: 12/10/2022

JOB No.: 9009/014

LOCATION: The Grove South West Precinct, Stage 52 & 50

OPERATOR: SLI

CHECKED: KK

Sketch indicating compaction test locations

SCALE: NTS

FIGURE No: 2 of 2