

Reference  
No.: 9093-008

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: Maple Grove, Stage 2

Date: 7<sup>th</sup> of August 2023

Author: Mr. Sam Loza

Reference No.: 9093-008

Revision: 0

Project Manager: Mr. Vince Colubriale

### **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 20<sup>th</sup> of April 2023 to the 31<sup>st</sup> of May 2023 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). Layout Plan Ref No. 1701814 (Drawing No. 010, Stage No. 02) Rev. P3

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**

Initial site inspections were undertaken on the 14<sup>th</sup> of April 2023 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 on-site excavations, mainly drainage trenches and road boxing. The material had been screened to remove any boulders.



The fill material is best described as a silty CLAY, brown, orange 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
- A watercart
- A padfoot roller
- A dozer
- Scrapers

The dozer placed material in horizontal loose layers of approximately 250-300mm. The padfoot roller 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 twelve 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 hilf density ratio not less than 95 percent of the maximum hilf density value as determined by the Standard Hilf 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 20<sup>th</sup> of April 2023 to the 31<sup>st</sup> of May 2023 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.

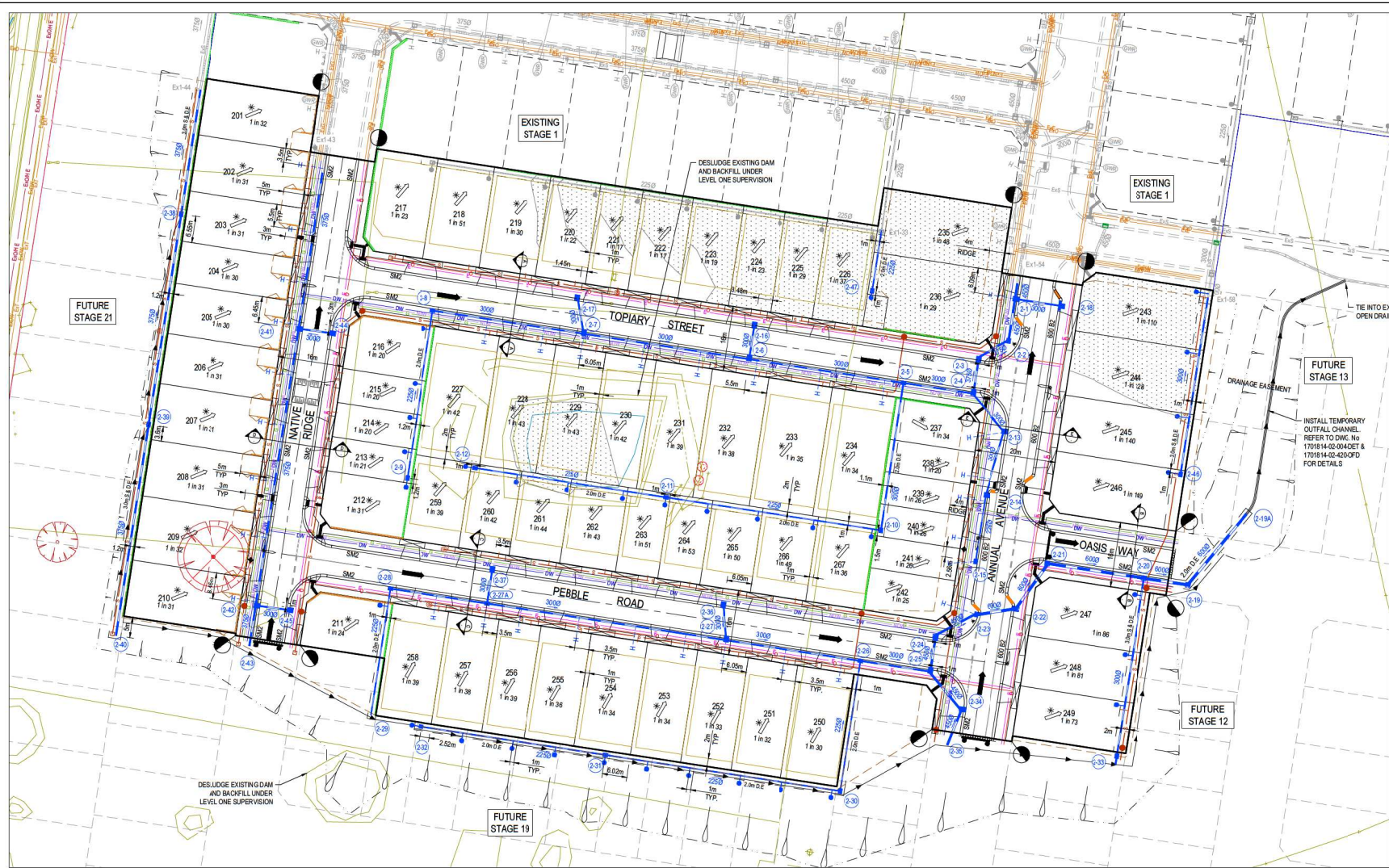
For & on behalf of  
Geotechnical Laboratories Pty Ltd.

Sam Loza  
Laboratory Manager.



LEVEL ONE  
SURVEILLANCE  
AND INSPECTION REPORT  
  
APPENDIX A





SERVICE OFFSET TABLE

Location	Gas		ND - Water		Water		Electricity		Telecommunication		Sewer	
	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)
ANNUAL AVENUE	W	2.10	W	2.60	W	3.10	E	2.40	E	1.80	W	1.00
NATIVE RIDGE	W	2.10	W	2.55	W	3.00	E	2.40	E	1.80	EW	1.0/1.0
TOPIARY STREET	S	2.10	S	2.55	S	3.00	N	2.40	N	1.80	N/S	1.0/1.0
PEBBLE ROAD	N	2.10	N	2.55	N	3.00	S	2.40	S	1.80	N/S	1.0/1.0
OASIS WAY	N	2.10	N	2.55	N	3.00	S	2.40	S	1.80	N	1.0

NOTE: STREET TREES ARE TO BE PLANTED IN THE CENTRE OF ALL NATURE STRIPS

LEGEND - LAYOUT PLAN

STORMWATER DRAIN, PIT & PROPERTY INLET	EXISTING STORMWATER DRAIN	EXISTING SURFACE LEVEL	DIRECTION OF FALL
MELBOURNE WATER DRAIN & PIT	EXISTING MELBOURNE WATER DRAIN	FINISHED BUILDING LINE LEVEL	OVERLAND FLOW
SWALE DRAIN	EXISTING SWALE DRAIN	FINISHED RIDGE LINE LEVEL	ALLOTMENT TO BE GRADED EVENLY IN
HOUSE DRAIN	EXISTING HOUSE DRAIN	TOP OF RETAINING WALL	DIRECTION OF FALL TO LEVELS INDICATED
SERVICE CONDUITS	EXISTING SERVICE CONDUITS	BOTTOM OF RETAINING WALL	CONCRETE EDGE STRIP WITH SUBSOL DRAIN
ELECTRICITY (UNDERGROUND)	EXISTING ELECTRICITY (UNDERGROUND)	PAVEMENT TREATMENT	"NO ROAD" SIGN & BARRIER
ELECTRICITY (OVERHEAD)	EXISTING ELECTRICITY (OVERHEAD)	STRUCTURAL FILL > 200mm DEEP	LIMIT OF WORKS
OPTIC FIBRE	EXISTING OPTIC FIBRE	EX. STRUCTURAL FILL > 200mm DEEP	EXISTING TREE TO BE REMOVED
TELECOMMUNICATIONS	EXISTING TELECOMMUNICATIONS	KERB TRANSITION SM2 TO 600B2	PERMANENT SURVEY MARK AS PER DWG CSC-004
WATER	EXISTING WATER		TEMPORARY BENCH MARK
RECYCLED WATER	EXISTING RECYCLED WATER		PROPOSED DRIVEWAY
	EXISTING SLEEPER RETAINING WALL		TREE PROTECTION ZONE (TPZ)
	MASS ROCK RETAINING WALL		
	CONCRETE SLEEPER RETAINING WALL		
	PAVEMENT TREATMENT		
	STRUCTURAL FILL > 200mm DEEP		
	EX. STRUCTURAL FILL > 200mm DEEP		
	KERB TRANSITION SM2 TO 600B2		

**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 existing services are shown.  
Locate all underground services before commencement of works  
**DIAL 1100 BEFORE YOU DIG**  
www.1100.com.au

PRELIMINARY PRINT  
NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRN	APP	REV	DESCRIPTION	DATE	DRN	APP
P3	COUNCIL COMMENTS	04/04/23	CD	MM					
P2	COUNCIL COMMENTS	01/03/23	GH	MM					
P1	ISSUED FOR INFORMATION	08/12/22	YS	MM					
P0	ISSUED FOR INFORMATION	30/11/22	YS	MM					



SCALE 1:500 AT A1 SIZE

Designed: Y. SAVRIMOOTOO  
Date: 22.08.2022  
Drawn: M.F. JAURIGUE  
Date: 28.11.2022  
Checked: N. MARTENS  
Date: 01.10.2022  
Approved: N. MARTENS  
Date: 01.10.2022  
P3 Number: PS300410U

**BW** Beveridge Williams  
Development & Infrastructure Consultants  
1 Glenelg Road  
Melbourne VIC 3144  
ph: 03 9624 8888  
www.beveridgewilliams.com.au

Project Name: 10 CANTY LANE, PAKENHAM STAGE 2 CARDINIA SHIRE COUNCIL  
Drawing Title: LAYOUT PLAN (SHEET 1 OF 2)

Sheet 07 of 38  
Scale: 1:500 @ A1  
Project Ref: 1701814 02  
Stage No: 02  
Drawing No: 07  
Rev: P3

K:\Data\Drawings\1701814 - 10 Canty Lane, Pakenham\_Eng\Stage 2\Drawings\1701814-02-07-LAY.dwg



# 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.: # 9087/006

LOCATION: SYMON BROS - Maple Grove, Stage 1

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m <sup>3</sup> )	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m <sup>3</sup> )	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)
20/04/23	4	<b>Refer to #9087/007 for approx. test site locations.</b>	2.10	25.0	102.5	✱ 2.05	24.0	175	0.5 Wetter	103.0	15	0	750
20/04/23	5		2.11	25.5	103.5	✱ 2.04	24.5	175	1.0 Wetter	104.0	16	0	750
20/04/23	6		1.95	28.0	101.0	1.93	27.0	175	1.0 Wetter	104.0	0	0	400
20/04/23	7		1.97	27.5	102.0	1.93	26.5	175	1.0 Wetter	103.0	0	0	400
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 11:20am 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

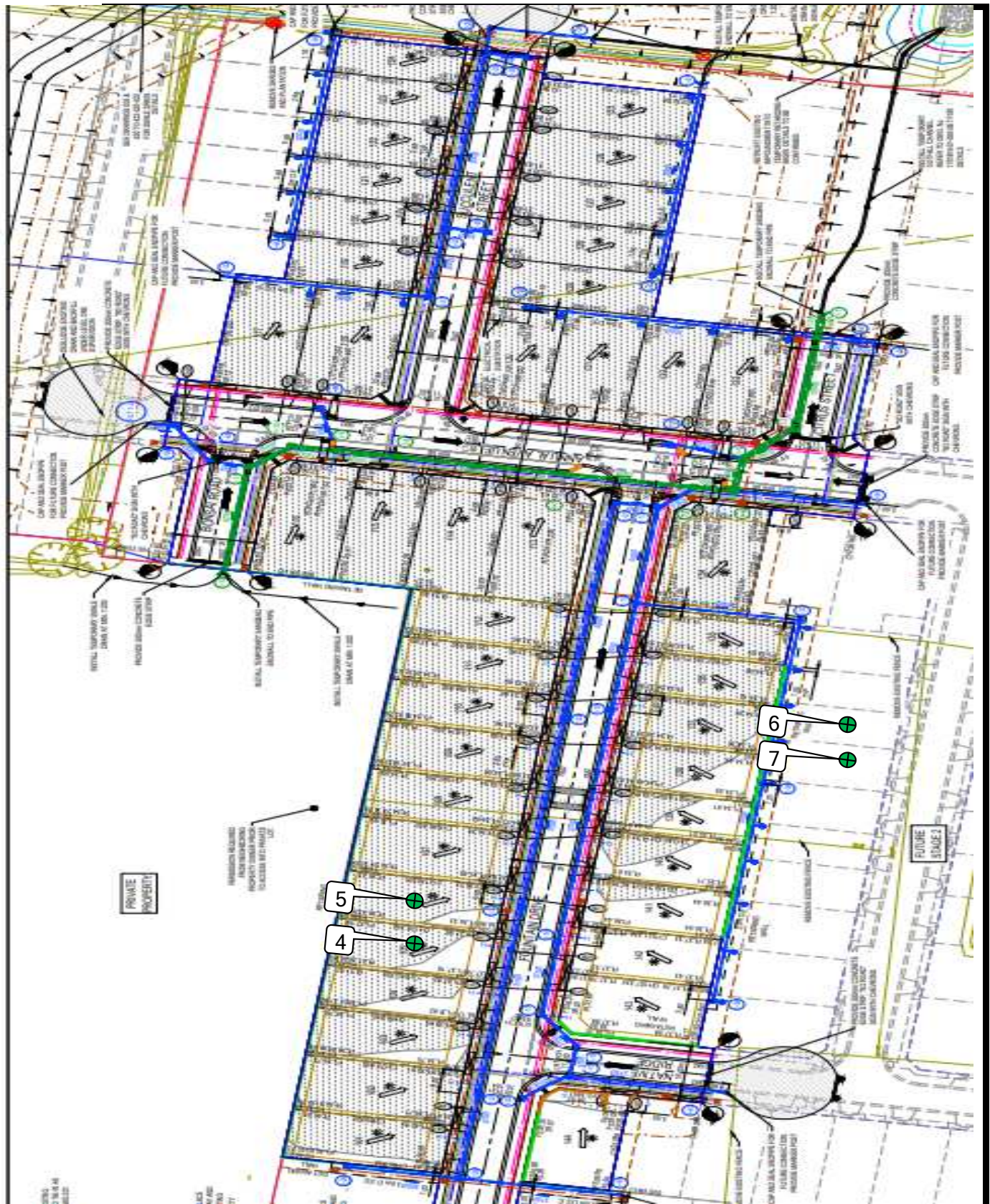


Accredited for compliance with ISO/IEC  
17025 - Testing

NATA Accredited Laboratory Number 14561

**MICK CROWE**  
 (Approved Signatory)

Issue Date: 27/4/2023



**GEOTECHNICAL  
LABORATORIES**

**GEOTECHNICAL LABORATORIES**

**ACN 102 571 077**

14 Ravenhall Way, Ravenhall, Vic 3023

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

**CLIENT: SYMON BROS**

**LOCATION: Maple Grove, Stage 1**

**Sketch indicating compaction test locations**

**DATE: 20/04/2023**

**OPERATOR: BM**

**SCALE: NTS**

**JOB No.: 9087/007**

**CHECKED: KK**

**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.: # 9087/012

LOCATION: SYMON BROS - Maple Grove, Stage 1

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m <sup>3</sup> )	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m <sup>3</sup> )	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)
21/04/23	8	<b><i>Refer to #9087/013 for approx. test site locations.</i></b>	1.92	27.5	99.0	1.93	27.0	175	0.5 Wetter	101.0	0	0	1300
21/04/23	9		1.98	27.5	103.0	1.92	27.5	175	0.0 Drier	100.0	0	0	1300
21/04/23	10		1.83	31.0	101.0	1.82	32.5	175	1.5 Drier	95.0	0	0	900
21/04/23	11		1.92	30.5	105.5	1.82	32.5	175	2.0 Drier	93.5	0	0	0
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 12:00pm Finish Time: 12:40pm

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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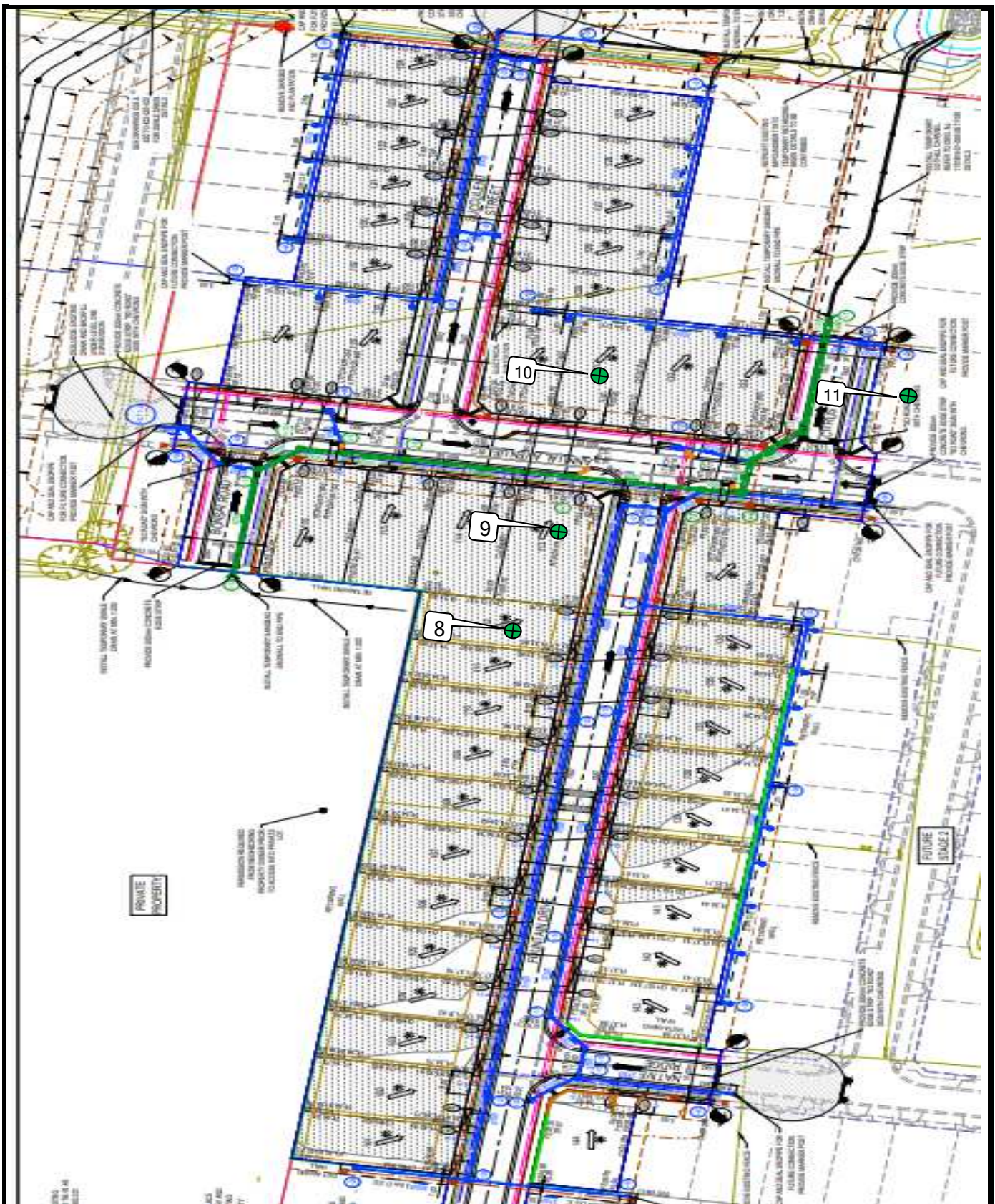
NATA Accredited Laboratory Number 14561

**MICK CROWE**  
 (Approved Signatory)

Issue Date: 1/5/2023

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**GEOTECHNICAL  
LABORATORIES**

**GEOTECHNICAL LABORATORIES**

**ACN 102 571 077**

14 Ravenhall Way, Ravenhall, Vic 3023

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

**CLIENT: SYMON BROS**

**LOCATION: Maple Grove, Stage 1**

**Sketch indicating compaction test locations**

**DATE: 21/04/2023**

**OPERATOR: BM**

**SCALE: NTS**

**JOB No.: 9087/013**

**CHECKED: KK**

**FIGURE No: -**





**GEOTECHNICAL LABORATORIES**  
**ACN 102 571 077**

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## DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9087/022

LOCATION: SYMON BROS - Maple Grove, Stage 1 & 2

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m <sup>3</sup> )	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m <sup>3</sup> )	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)
2/05/23	22	<b><i>Refer to #9087/023 for approx. test site locations.</i></b>	2.00	27.0	104.5	1.92	27.0	175	0.0 Drier	100.0	0	0	400
2/05/23	23		1.92	28.5	103.5	1.85	30.5	175	1.5 Drier	95.0	0	0	100
2/05/23	24		1.91	29.5	101.0	1.88	29.0	175	0.5 Wetter	101.0	0	0	1000
2/05/23	25		1.96	28.5	103.0	1.90	28.0	175	0.5 Wetter	102.0	0	0	1000
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 9:45am Finish Time: 10:25am

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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17025 - Testing

NATA Accredited Laboratory Number 14561

**MICK CROWE**  
 (Approved Signatory)

Issue Date: 9/5/2023

❖

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**GEOTECHNICAL  
LABORATORIES**

**GEOTECHNICAL LABORATORIES**

**ACN 102 571 077**

14 Ravenhall Way, Ravenhall, Vic 3023

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

**CLIENT: SYMON BROS**

**LOCATION: Maple Grove, Stage 1 & 2**

**Sketch indicating compaction test locations**

**DATE: 2/05/2023**

**OPERATOR: BM**

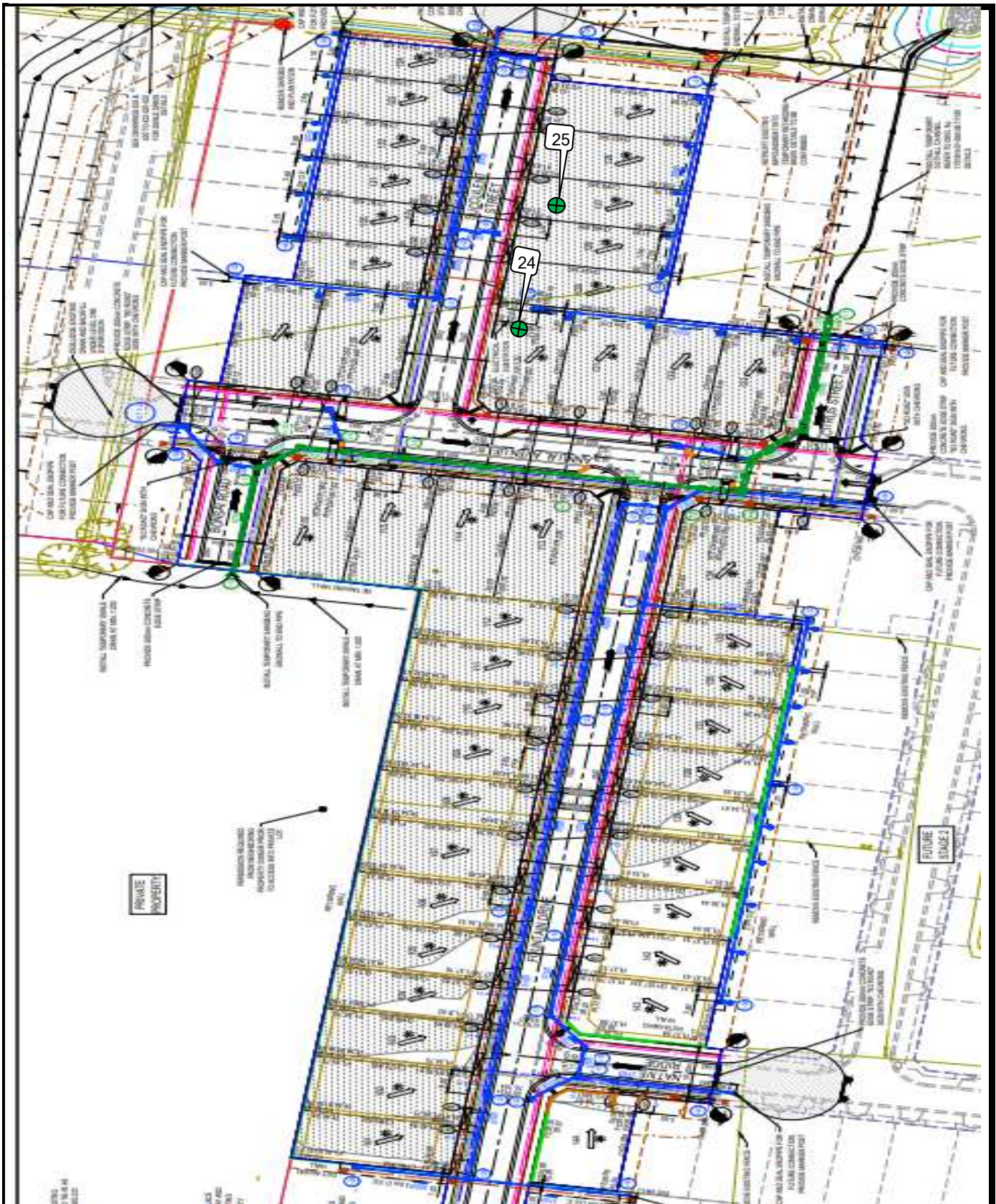
**SCALE: NTS**

**JOB No.: 9087/023**

**CHECKED: KK**

**FIGURE No: 1 of 2**





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**CLIENT: SYMON BROS**

**LOCATION: Maple Grove, Stage 1 & 2**

**Sketch indicating compaction test locations**

**DATE: 2/05/2023**

**OPERATOR: BM**

**SCALE: NTS**

**JOB No.: 9087/023**

**CHECKED: KK**

**FIGURE No: 2 of 2**





**GEOTECHNICAL LABORATORIES**  
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## DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9093/004

LOCATION: SYMON BROS - Maple Grove, Stage 2

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m <sup>3</sup> )	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m <sup>3</sup> )	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)
11/05/23	1	<b>Refer to #9093/005 for approx. test site locations.</b>	2.02	25.0	103.5	1.95	24.0	175	1.0 Wetter	104.0	0	0	1000
11/05/23	2		1.93	28.5	103.0	1.87	28.0	175	0.5 Wetter	101.0	0	0	1000
11/05/23	3		1.92	31.5	106.0	1.81	33.5	175	2.0 Drier	94.5	0	0	600
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 9:40am Finish Time: 12:50pm

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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17025 - Testing

NATA Accredited Laboratory Number 14561

**MICK CROWE**  
 (Approved Signatory)

Issue Date: 16/5/2023



**GEOTECHNICAL  
LABORATORIES**

**GEOTECHNICAL LABORATORIES**

**ACN 102 571 077**

14 Ravenhall Way, Ravenhall, Vic 3023

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**CLIENT: SYMON BROS**

**LOCATION: Maple Grove, Stage 2**

**Sketch indicating compaction test locations**

**DATE: 11/05/2023**

**OPERATOR: BM**

**SCALE: NTS**

**JOB No.: 9093/005**

**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.: # 9093/006

LOCATION: SYMON BROS - Maple Grove, Stage 2

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m <sup>3</sup> )	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m <sup>3</sup> )	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)
12/05/23	4	<b><i>Refer to #9093/007 for approx. test site locations.</i></b>	2.02	21.0	100.0	2.02	20.5	175	0.0 Wetter	101.0	0	0	650
12/05/23	5		1.98	26.5	101.0	1.96	25.5	175	1.0 Wetter	104.0	0	0	250
12/05/23	6		2.04	25.5	105.5	1.94	25.5	175	0.0 Drier	100.0	0	0	300
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 11:30am 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)



Accredited for compliance with ISO/IEC  
17025 - Testing

NATA Accredited Laboratory Number 14561

**MICK CROWE**  
 (Approved Signatory)

Issue Date: 17/5/2023





**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: Maple Grove, Stage 2**

**Sketch indicating compaction test locations**

**DATE: 12/05/2023**

**OPERATOR: BM**

**SCALE: NTS**

**JOB No.: 9093/007**

**CHECKED: KK**

**FIGURE No: -**



**GEOTECHNICAL LABORATORIES**  
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## DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9087/043

LOCATION: SYMON BROS - Maple Grove, Stage 1 & 2

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m <sup>3</sup> )	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m <sup>3</sup> )	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)
31/05/23	48	<b>Refer to #9087/044 for approx. test site locations.</b>	1.99	26.5	104.0	1.91	27.0	175	0.5 Drier	98.0	0	0	0
31/05/23	49		1.96	27.0	103.5	1.90	27.0	175	0.5 Wetter	101.0	0	0	0
31/05/23	50		2.03	24.0	103.0	1.97	24.0	175	0.0 Wetter	101.0	0	0	100
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

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: 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)



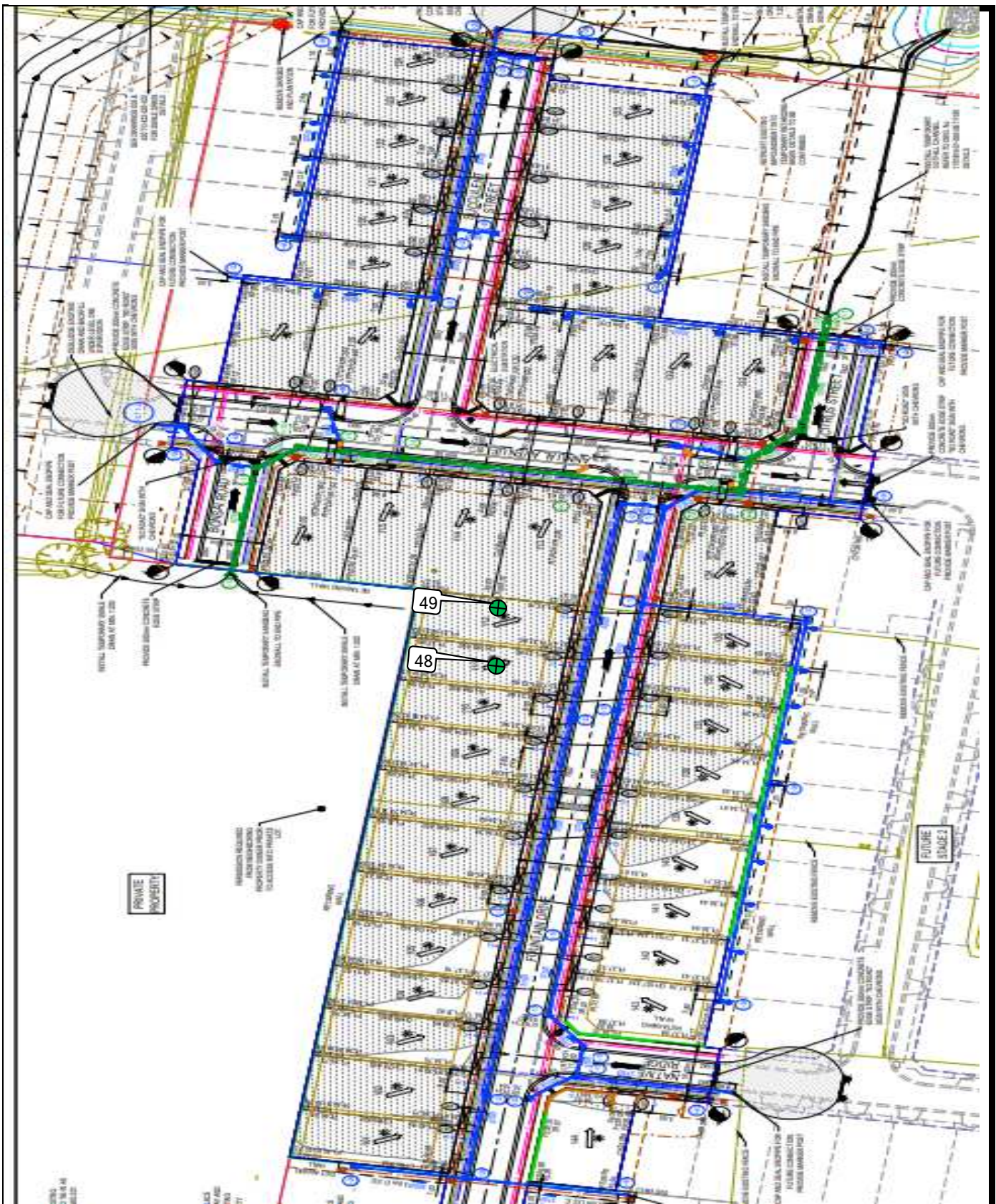
Accredited for compliance with ISO/IEC  
17025 - Testing

NATA Accredited Laboratory Number 14561

**MICK CROWE**  
(Approved Signatory)

Issue Date: 5/6/2023





**GEOTECHNICAL  
LABORATORIES**

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**CLIENT: SYMON BROS**

**LOCATION: Maple Grove, Stage 1 & 2**

**Sketch indicating compaction test locations**

**DATE: 31/05/2023**

**OPERATOR: BM**

**SCALE: NTS**

**JOB No.: 9087/044**

**CHECKED: KK**

**FIGURE No: 1 of 2**



