

Reference  
No.: 2066-049

LEVEL ONE

SURVEILLANCE

AND INSPECTION REPORT

*Carried Out  
By*



PREPARED FOR: -

DRAPERS CIVIL CONTRACTING PTY LTD



## Table of Contents

1)	Introduction & Scope.....	2
2)	Site Preparation.....	2
3)	Fill Material.....	2
4)	Fill Construction Procedure.....	3
5)	Compaction Control Testing.....	3
6)	Testing Frequency.....	3
7)	Statement of Compliance.....	4
8)	Limitations of this Report.....	4

## Appendices

Appendix A Construction Drawings

Appendix B Daily Field Compaction Summary Results



Client Name: Drapers Civil Contracting Pty Ltd  
Project Name: Sanctuary Estate Stage 6B Armstrong Creek  
Date: 30<sup>th</sup> of April 2020  
Author: Mr. Sam Loza  
Reference No.: 2066-049  
Revision: 0  
Project Manager: Mr. Chris Nation

### **1. Introduction & Scope**

At the request of Drapers Civil Contracting Pty Ltd, Geotechnical Laboratories has carried out inspection and testing of the above-mentioned site from the 6<sup>th</sup> of February 2018 to the 6<sup>th</sup> of February 2020 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 Drapers Civil Contracting Pty Ltd and was used to determine compliance of earthworks in conjunction with the requirements of AS 3798 – 2007 (See Appendix A).

(1). Creo Consultants Construction Drawing No. R200 Rev 04.

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 construction drawings.

### **2. Site Preparation**

Site inspections were undertaken on the 6<sup>th</sup> of February 2018 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.

Initial proof roll inspections were performed and subsequently 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 service trenches and road boxing.



The fill material is best described as a CLAY, brown, grey-brown, slightly moist to moist, slightly silty, medium 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)

The sheepsfoot compactor placed material in horizontal loose layers of approximately 250mm-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 sixteen 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, Drapers Civil Contracting 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 Drapers Civil Contracting Pty Ltd from the 6<sup>th</sup> of February 2018 to the 6<sup>th</sup> of February 2020 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 Drapers Civil Contracting 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 Drapers Civil Contracting 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.

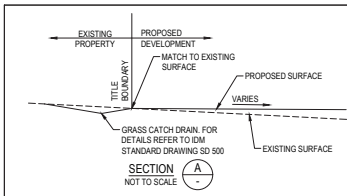


LEVEL ONE  
SURVEILLANCE  
AND INSPECTION REPORT  
  
APPENDIX A

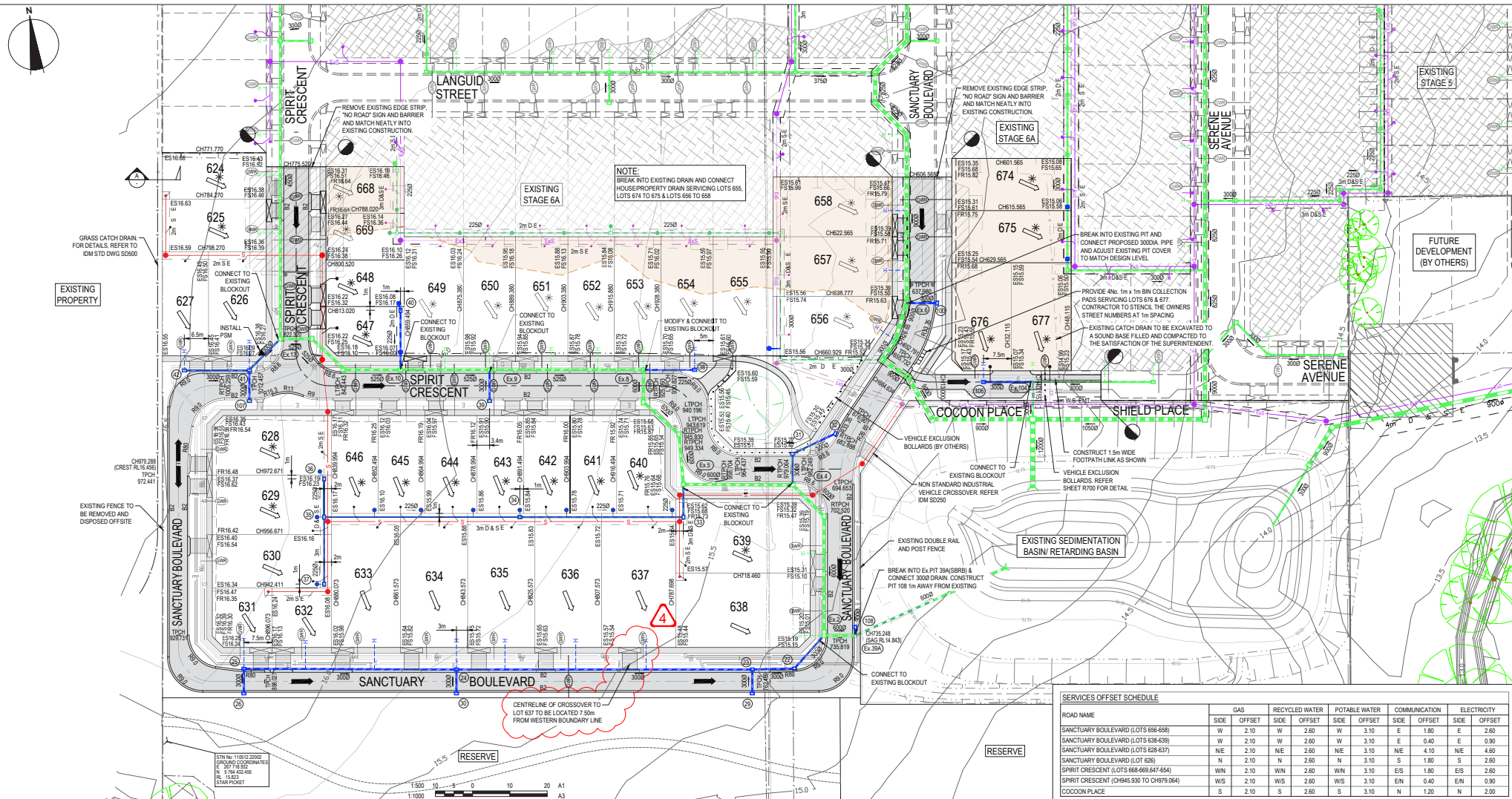
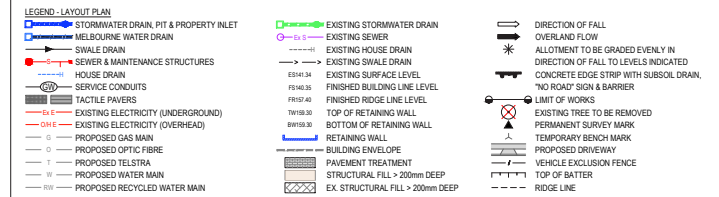
**NOTE:**  
ADJOINING PROPERTY OWNERS WRITTEN  
CONSENT TO BE OBTAINED PRIOR TO ANY  
WORKS BEING CONSTRUCTED IN  
ADJOINING PROPERTY

**WARNING**  
**BEWARE OF UNDERGROUND & OVERHEAD SERVICES**  
The location of underground & overhead services are  
approximate only & 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

**NOTE:**  
ALL EXISTING DRAINAGE PIT COVERS WITHIN  
STAGE 6B TO BE ADJUSTED TO SUIT  
ULTIMATE FINISHED SURFACE LEVEL AND  
POSITION WITH RESPECT TO THE ADJACENT  
KERB, FOOTPATH AND TITLE BOUNDARIES  
WHERE APPROPRIATE AND MADE GOOD



- NOTES:**
1. ALL VEHICLE AND PRAM CROSSING LAYBACKS TO BE MINIMUM OF 1.0m FROM PIT.
  2. ALL PRAM CROSSINGS TO BE A MINIMUM 2.0m FROM VEHICLE CROSSINGS.
  3. ALL PRAM CROSSINGS TO BE DOA COMPLIANT.
  4. VEHICLE EXCLUSION MEASURES BETWEEN ROAD RESERVE AND RESERVE TO FORM PART OF LANDSCAPE WORKS.
  5. SIDE ENTRY PIT'S SHOWN OFFSET BY 1m FROM TANGENT POINTS, TO ACCOMMODATE CHANNEL DEPTH TRANSITION. FOR DETAILS REFER TO DIM STANDARD DRAWING SD430
  6. ALL COORDINATES SHOWN ARE TO AND
  7. THE USE OF DIRECTIONAL AND HAZARD TACTILE PAVERS MUST ACCORD WITH SECTION 2.2.1 OF AS/NZS 1428.4:2002
  8. WHERE EASTING AND NORTHING PROVIDED FOR DRAINAGE SETOUT, COORDINATES RELATE TO CENTRE OF PIT BASE
  9. CHANGES FOR PROPERTY INLET POINTS SERVING FUTURE LOTS ARE MEASURED FROM DOWNSTREAM PIT
  10. REFER ARBORIST REPORT FOR DETAILS OF EXISTING TREES TO BE REMOVED



SERVICES OFFSET SCHEDULE											
ROAD NAME		GAS		RECYCLED WATER		POTABLE WATER		COMMUNICATION		ELECTRICITY	
		SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET
SANCTUARY BOULEVARD (LOTS 656-658)		W	2.10	W	2.60	W	3.10	E	1.80	E	2.60
SANCTUARY BOULEVARD (LOTS 638-639)		W	2.10	W	2.60	W	3.10	E	0.40	E	0.90
SANCTUARY BOULEVARD (LOTS 628-637)		N/E	2.10	N/E	2.60	N/E	3.10	N/E	4.10	N/E	4.60
SANCTUARY BOULEVARD (LOT 626)		N	2.10	N	2.60	N	3.10	S	1.80	S	2.60
SPIRIT CRESCENT (LOTS 668-669-647-654)		W/N	2.10	W/N	2.60	W/N	3.10	E/N	1.80	E/N	2.60
SPIRIT CRESCENT (CHAS 930 TO CH979.064)		W/S	2.10	W/S	2.60	W/S	3.10	E/N	0.40	E/N	0.90
COCCOON PLACE		S	2.10	S	2.60	S	3.10	N	1.20	N	2.60

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	CHECKED	APPROVED
4	12/12/19	LOT 627 CROSSOVER RELOCATED	M.T.	M.T.	T.P.
3	15/10/19	LOT 626 CROSSOVER RELOCATED	M.T.	M.T.	T.P.
2	09/08/19	POS AMENDED (SANCTUARY BLVD)	M.T.	M.T.	T.P.
1	29/03/19	LANDSCAPE COORDINATION AMENDMENTS	M.T.	M.T.	T.P.
0	19/03/19	CONSTRUCTION ISSUE	S.MURAD	A.WALE	T.PALOS
B	09/03/19	COUNCIL COMMENTS 25/02/19 REISSUED FOR APPROVAL	S.MURAD	A.WALE	T.PALOS
A	29/01/19	ISSUED TO COUNCIL FOR APPROVAL	S.MURAD	A.WALE	T.PALOS

**villawood**  
properties  
Communities Designed for Living

**creo**  
CONSULTANTS  
Level 7, 176 Wellington Parade  
East Melbourne, VIC, Australia 3002

**Sanctuary**  
PRECINCT

**SANCTUARY ESTATE - STAGE 6B**  
LAYOUT PLAN

**ISSUED FOR CONSTRUCTION**

SCALE AT A1	DRAWN	DESIGNED
1:500 @ A1	S.MURAD	S.MURAD
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
A.WALE	T.PALOS	29/01/19
PROJECT NO.	DRAWING NO.	REVISION
180021.6B	R200	4



LEVEL ONE  
SURVEILLANCE  
AND INSPECTION REPORT  
  
APPENDIX B





GEOTECHNICAL LABORATORIES  
ACN 102 571 077  
Factory 1/8-10 Catalina Drive, Tullamarine Vic 3043  
PO Box 2693 Gladstone Park VIC 3043  
PH: (03) 9335 1225

## DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 1897/635

LOCATION: DRAPERS - Sanctuary Estate Stage 4,5,6

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)
6/02/18	1	<i>Refer to #1897/636 for approx. test site locations.</i>	2.08	16.5	103.5	2.01	19.0	175	2.5 Drier	86.5	0	0	0
6/02/18	2		2.02	16.0	102.5	1.97	19.5	175	3.0 Drier	83.0	0	0	0
6/02/18	3		2.04	18.0	102.0	1.99	20.0	175	2.0 Drier	89.5	0	0	200
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4

Compaction specimens sampled after compaction.

Start Time: 9.05am Finish Time: 9.25am

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.

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)



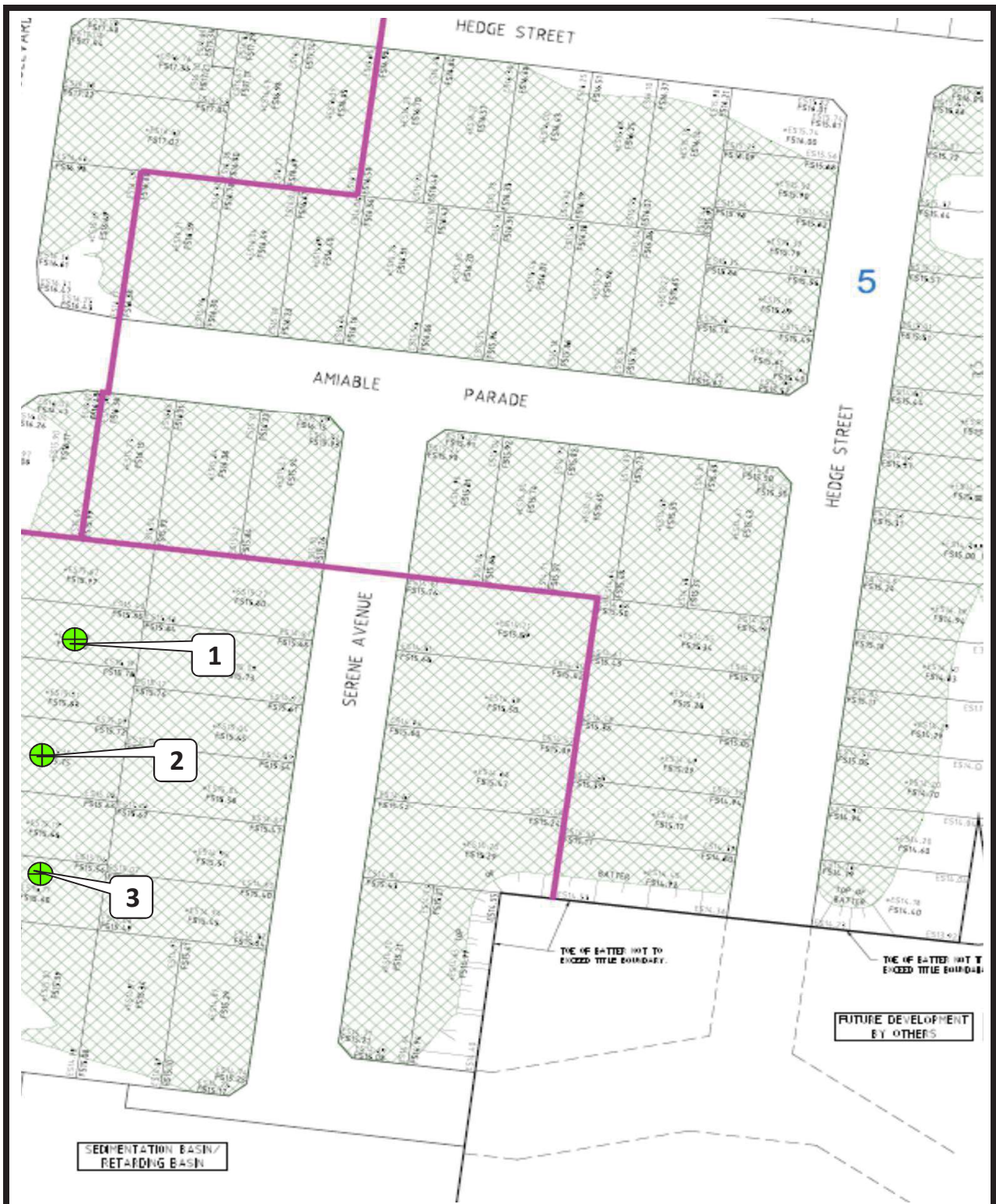
Accredited for compliance with ISO/IEC 17025. The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards. This document may not be reproduced except in full.

NATA Accredited Laboratory Number 14561

SAM LOZA

(Approved Signatory)

Issue Date: 8/2/2018



**GEOTECHNICAL  
LABORATORIES**

GEOTECHNICAL LABORATORIES  
ACN 102 571 077  
Factory 1/8-10 Catalina Drive, Tullamarine Vic 3043  
PO Box 184 Keilor VIC 3036  
PH: (03) 9335 1225 Fax: (03) 9335 1775

**CLIENT: DRAPERS**

**LOCATION: Sanctuary Estate Stage 4, 5, 6**

**Sketch indicating compaction test locations**

**DATE: 6/2/18**

**OPERATOR: NM**

**SCALE: NTS**

**JOB No.: 1897/636**

**CHECKED: EG**



GEOTECHNICAL LABORATORIES  
ACN 102 571 077  
Factory 1/8-10 Catalina Drive, Tullamarine Vic 3043  
PO Box 2693 Gladstone Park VIC 3043  
PH: (03) 9335 1225

## DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 1897/643

LOCATION: DRAPERS - Sanctuary Estate Stage 4,5,6

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)
8/02/18	1	<i>Refer to #1897/644 for approx. test site locations.</i>	1.96	16.5	97.0	2.01	17.0	175	0.5 Drier	97.5	0	0	0
8/02/18	2		2.00	14.5	99.5	2.01	15.0	175	0.5 Drier	95.5	0	0	0
8/02/18	3		2.07	13.0	102.0	2.03	15.5	175	2.5 Drier	84.0	0	0	0
8/02/18	4		2.00	15.5	99.5	2.00	17.5	175	2.0 Drier	88.0	0	0	200
8/02/18	5		2.03	15.5	102.0	2.00	18.0	175	3.0 Drier	84.5	0	0	0
8/02/18	6		1.96	16.5	104.0	1.89	19.5	175	3.0 Drier	84.5	0	0	0

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 10.55am Finish Time: 11.34am

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.

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. The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards. This document may not be reproduced except in full.

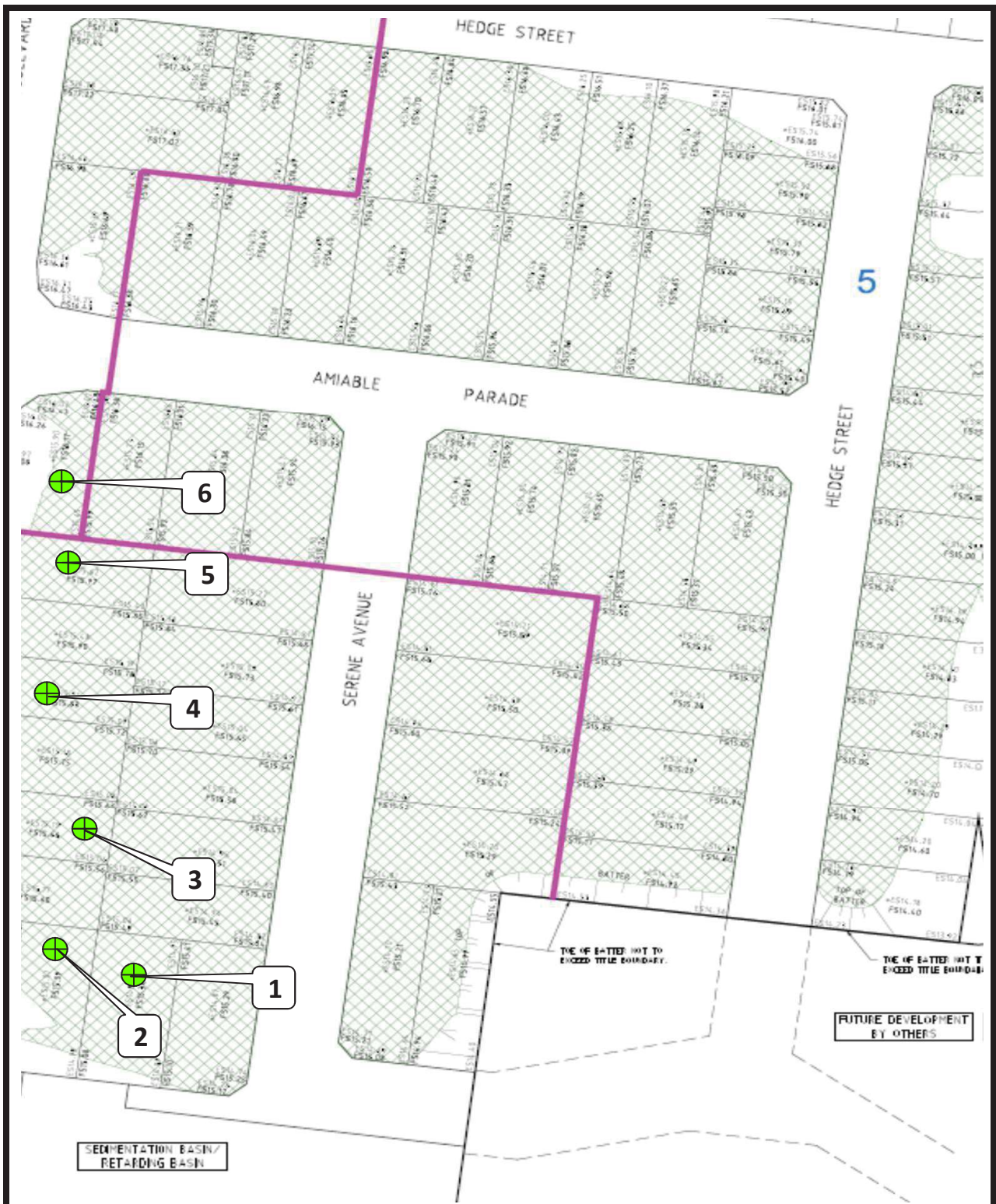
NATA Accredited Laboratory Number 14561

SAM LOZA

(Approved Signatory)

Issue Date: 12/2/2018





**GEOTECHNICAL  
LABORATORIES**

GEOTECHNICAL LABORATORIES  
ACN 102 571 077  
Factory 1/8-10 Catalina Drive, Tullamarine Vic 3043  
PO Box 184 Keilor VIC 3036  
PH: (03) 9335 1225 Fax: (03) 9335 1775

**CLIENT: DRAPERS**

**LOCATION: Sanctuary Estate Stage 4, 5, 6**

**Sketch indicating compaction test locations**

**DATE: 8/2/18**

**OPERATOR: JC**

**SCALE: NTS**

**JOB No.: 1897/644**

**CHECKED: EG**



**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.: # 2065/061

LOCATION: DRAPERS - Sanctuary Estate Stage 6B

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)
4/02/20	1	<i>Refer to #2065/062 for approx. test site locations.</i>	1.88	15.5	100.5	1.87	20.5	175	5.0 Drier	75.0	0	0	-
4/02/20	2		1.86	23.5	96.5	1.93	23.0	175	0.5 Wetter	103.0	0	0	-
4/02/20	3		1.84	19.5	98.0	1.88	22.0	175	2.5 Drier	89.0	0	0	-
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 1.30pm Finish Time: 1.50pm

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)



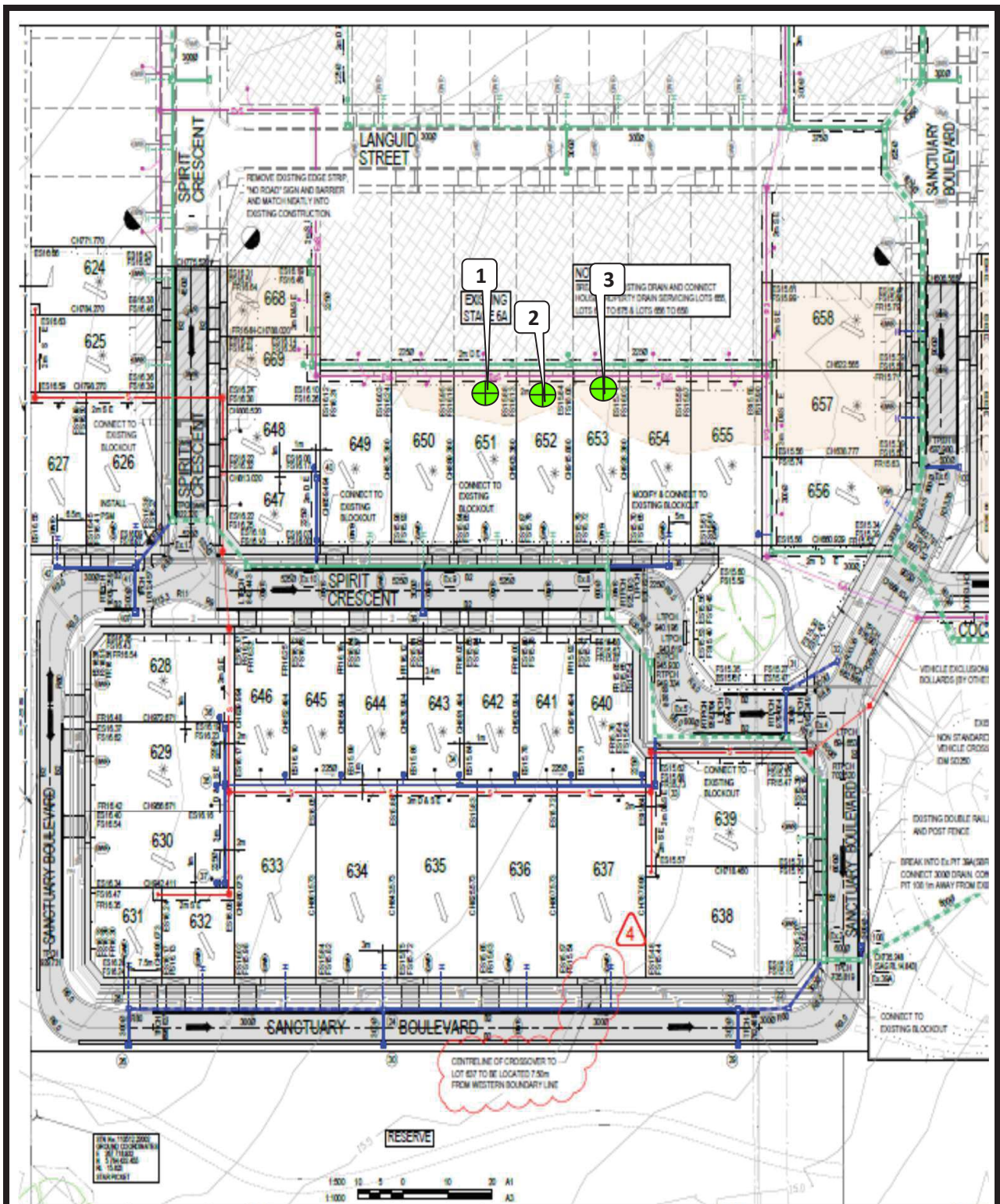
Accredited for compliance with ISO/IEC  
17025 - Testing

NATA Accredited Laboratory Number 14561

**MICK CROWE**  
 (Approved Signatory)

Issue Date: 7/2/2020





**GEOTECHNICAL  
LABORATORIES**

**GEOTECHNICAL LABORATORIES  
ACN 102 571 077**

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

**CLIENT: DRAPERS**

**LOCATION: Sanctuary Estate Stage 6B**

**Sketch indicating approx compaction test locations**

**DATE: 4/2/2020**

**OPERATOR: WD**

**SCALE: NTS**

**JOB No.: 2065/062**

**CHECKED: EG**

**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.: # 2065/063  
 LOCATION: DRAPERS - Sancturary Estate Stage 6B

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)
5/02/20	1	<i>Refer to #2065/064 for approx. test site locations.</i>	1.94	18.0	103.0	1.88	22.5	175	4.5 Drier	80.0	0	0	0
5/02/20	2		2.00	15.0	102.5	1.96	19.0	175	4.5 Drier	77.0	0	0	0
5/02/20	3		1.99	11.5	103.0	1.93	16.0	175	4.5 Drier	71.0	0	0	0
5/02/20	4		1.88	15.0	96.5	1.95	19.0	175	4.0 Drier	78.0	0	0	0
5/02/20	5		1.93	14.5	100.0	1.93	19.0	175	4.5 Drier	76.0	0	0	0
5/02/20	6		1.93	22.5	100.0	1.93	25.0	175	2.0 Drier	91.0	0	0	0

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 11.30am 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)



Accredited for compliance with ISO/IEC 17025 - Testing

NATA Accredited Laboratory Number 14561

**MICK CROWE**  
 (Approved Signatory)

Issue Date: 7/2/2020





# 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: DRAPERS

**LOCATION:** Sancturary Estate Stage 6B

**Sketch indicating approx compaction test locations**

**DATE: 5/2/2020**

**JOB No.: 2065/064**

**OPERATOR: WD**

**CHECKED: EG**

**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.: # 2065/065  
 LOCATION: DRAPERS - Sanctuary Estate Stage 6B

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)
6/02/20	1	<i>Refer to #2065/066 for approx. test site locations.</i>	1.86	19.0	96.5	1.92	21.0	175	1.5 Drier	92.0	0	0	0
6/02/20	2		1.86	20.5	96.0	1.94	22.0	175	1.5 Drier	93.5	0	0	0
6/02/20	3		1.88	23.0	99.5	1.89	25.0	175	1.5 Drier	93.0	0	0	0
6/02/20	4		2.06	12.5	103.5	1.99	16.0	175	4.0 Drier	76.5	0	0	0
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite

Test sites located - Geolab Procedure 4, Part 4.4.

Compaction specimens sampled after compaction.

Start Time: 9.00am Finish Time: 9.25am

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)

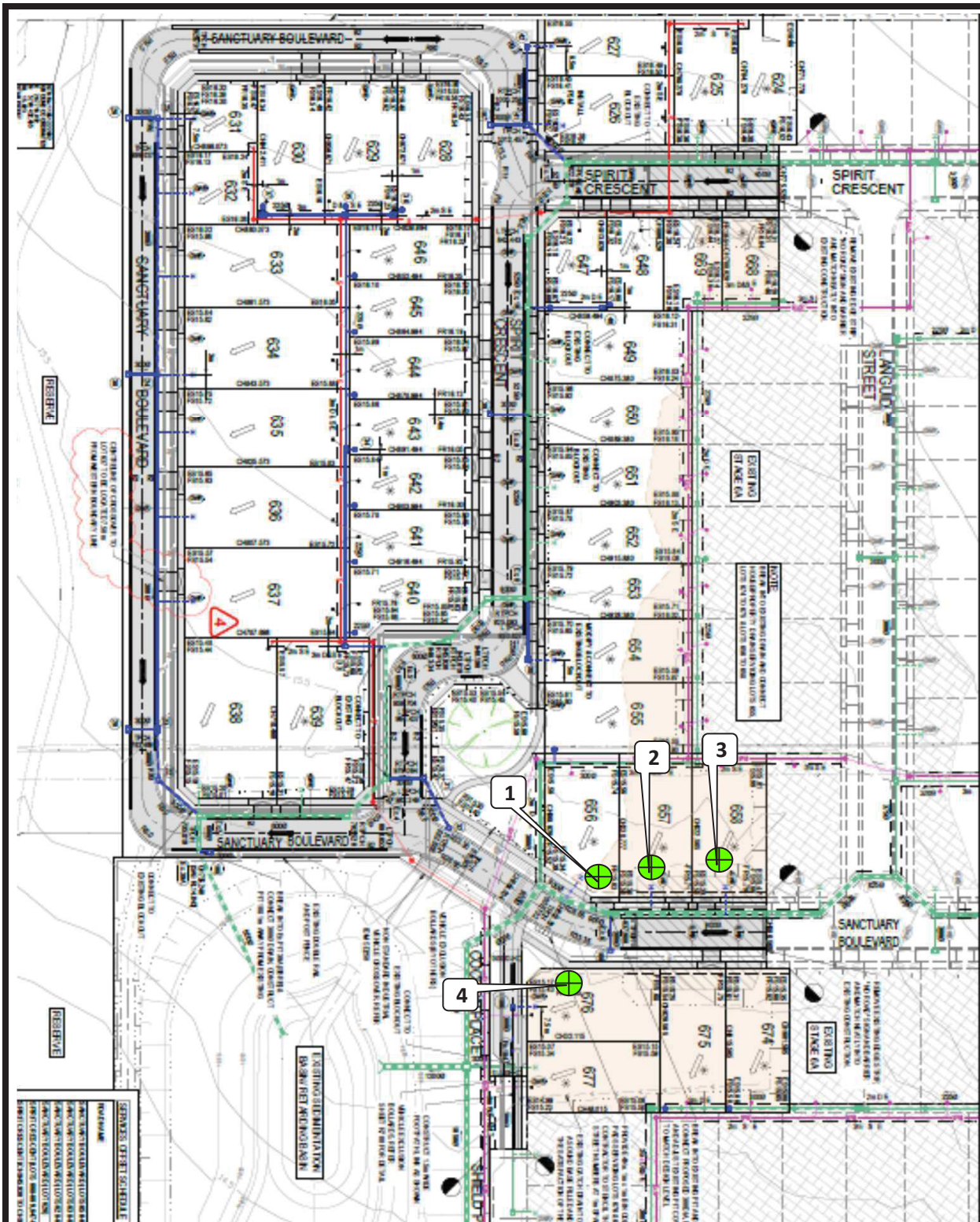


Accredited for compliance with ISO/IEC  
17025 - Testing

NATA Accredited Laboratory Number 14561

**MICK CROWE**  
 (Approved Signatory)

Issue Date: 11/2/2020



**GEOTECHNICAL  
LABORATORIES**

**GEOTECHNICAL LABORATORIES**

**ACN 102 571 077**

14 Ravenhall Way, Ravenhall, Vic 3023

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

**CLIENT: DRAPERS**

**LOCATION: Sanctuary Estate Stage 6B**

**Sketch indicating approx compaction test locations**

**DATE: 6/2/2020**

**JOB No.: 2065/066**

**OPERATOR: WD**

**CHECKED: EG**

**SCALE: NTS**

**FIGURE No: -**