Reference
No.: 9065-032

LEVEL ONE

SURVEILLANCE

AND INSPECTION REPORT

Carried Out
By

GEOTECHNICAL LABORATORIES

PREPARED FOR: -

CIVILWORX CONSTRUCTIONS PTY LTD

GEOTECHNICAL LABORATORIES PTY LTD ABN 51 102 571 077
PO BOX 2693 GLADSTONE PARK 3043
PH. (03) 9335-1225

Table of Contents

Appendices

Client Name: CivilworX Constructions Pty Ltd

Project Name: Davis Vineyard Stage 4

Date: 22nd of September 2023

Author: Mr. Sam Loza

Reference No.: 9065-032

Revision: 0

Project Manager: Mr. Dom Modric

1. Introduction & Scope

At the request of CivilworX Constructions Pty Ltd, Geotechnical Laboratories has carried out inspections and testing of the above-mentioned site from the 24th of March 2023 to the 18th of September 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 CivilworX Constructions Pty Ltd and was used to determine compliance of earthworks in conjunction with the requirements of AS 3798 – 2007 (See Appendix A).

(1). Site Layout Plan (Sheet 1 of 2) Project Ref. 1600059, Drawing Number 010 (Rev B).

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

2. Site Preparation

A site inspection was undertaken on the 13th of February 2023 confirming that selected areas to be filled were completely stripped of topsoil. The brown silty topsoils had been stockpiled around the site for later removal off-site. The existing swale drains were desludged, and a firm clean base was confirmed.

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

3. Fill Material

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

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

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

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

4. Fill Construction Procedure

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

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

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

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

5. Compaction Control Testing

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

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

6. Testing Frequency

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

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

As a result, the compliance criteria adopted by Geotechnical Laboratories was a 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.

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

No moisture criteria was specified.

7. Statement of Compliance

So far as can be determined, CivilworX Constructions Pty Ltd has satisfactorily complied with the compaction and construction processes required for the structural filling of this site. As such, structural filling placed on this site by CivilworX Constructions Pty Ltd from the 24th of March 2023 to the 18th of September 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 CivilworX Constructions Pty Ltd.

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

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

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

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

For & on behalf of
Geotechnical Laboratories Pty Ltd.

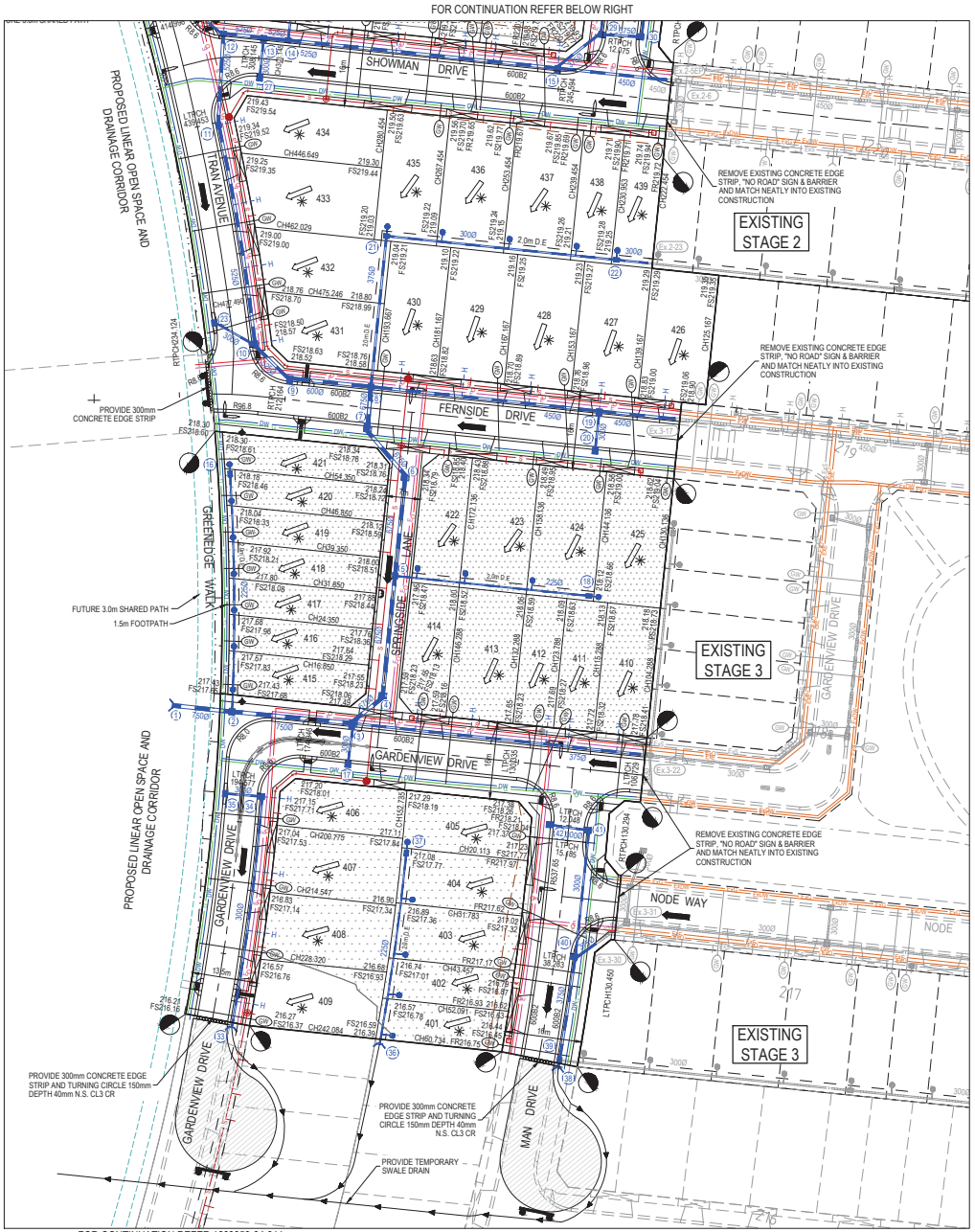
Sam Loza
Laboratory Manager

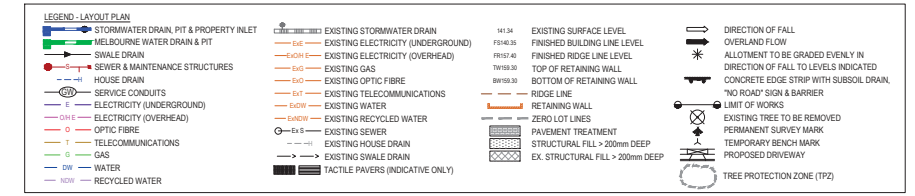
LEVEL ONE

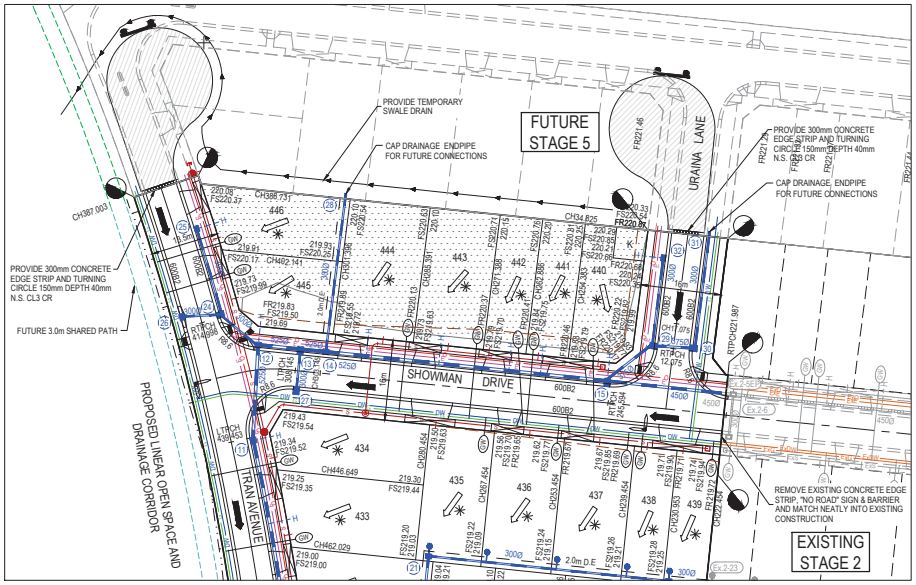
SURVEILLANCE

AND INSPECTION REPORT

APPENDIX A







ROAD LAYOUT TABLE

Road Name	Road Classification	Reserve Width (m)	Road Width (m)			Kerb Type		Verge Width (m)	
			Lip to Lip	Inv to Inv	Back to Back	Nth/West	Sth/East	Nth/West	Sth/East
TRAN AVENUE	ACCESS STREET 1	13.50	6.40	7.30	7.60	600 B2	600 B2	2.00	4.20
SHOWMAN DIRVE	ACCESS STREET 1	16.00	6.40	7.30	7.60	600 B2	600 B2	4.35	4.35
URAINA LANE	ACCESS STREET 1	16.00	6.40	7.30	7.60	600 B2	600 B2	4.35	4.35
FERNSIDE DRIVE	ACCESS STREET 1	16.00	6.40	7.30	7.60	600 B2	600 B2	4.20	4.50
NODE WAY	ACCESS STREET 1	13.50	6.40	7.30	7.60	600 B2	600 B2	2.00	4.20
GARDENVIEW DRIVE (16.00m)	ACCESS STREET 1	16.00	6.40	7.30	7.60	600 B2	600 B2	4.20	4.50
GARDENVIEW DRIVE (13.50m)	ACCESS STREET 1	13.50	6.40	7.30	7.60	600 B2	600 B2	2.00	4.20
MAN DRIVE	ACCESS STREET 1	16.00	6.40	7.30	7.60	600 B2	600 B2	4.20	4.50

SERVICE OFFSET TABLE

Location	Gas		Water		Electricity		Telecommunication		Sewer	
	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)
TRAN AVENUE	W	0.50	W	1.00	E	2.60	E	1.90	E	1.00
SHOWMAN DRIVE	S	2.10	S	2.60	N	2.60	N	1.90	N/S	1.00
URAINA LANE	E	2.10	E	2.60	W	2.60	W	1.90	-	-
FERNSIDE DRIVE	S	2.10	S	2.60	N	2.60	N	1.90	N/S	1.00
NODE WAY	N	0.50	N	1.00	S	2.60	S	1.90	S	1.00
GARDENVIEW DRIVE (16.0m)	S	2.10	S	2.60	N	2.60	N	1.90	N/S	1.00
GARDENVIEW DRIVE (13.5m)	W	0.50	W	1.00	E	2.60	E	1.90	E	1.00
MAN DRIVE	E	2.10	E	2.60	W	2.60	W	1.90	W	1.00

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

NOTE:
REFER COUNCIL STD. DWG.
MCC 305 & 307 FOR ISLAND DETAIL - SI3
MCC 308 FOR ISLAND DETAIL - SI3 ON 90° BENDS
MCC 501 FOR SINGLE VEHICLE CROSSING
MCC 503 FOR DOUBLE VEHICLE CROSSING
MCC 504 FOR INDUSTRIAL VEHICLE CROSSING

NOTES

1. ALL SERVICES SHOWN ARE PRELIMINARY AND SUBJECT TO AUTHORITY ADVICE & DETAILED DESIGN.
2. EXISTING SERVICES SHOWN ARE INDICATIVE ONLY AND TO BE VERIFIED PRIOR TO DETAILED DESIGN AND CONSTRUCTION.
3. ALL EXISTING SERVICES UNDER NEW PAVEMENTS AND CONCRETE WORKS TO BE FCR BACKFILLED, UNLESS OTHERWISE SPECIFIED.
4. ALL EXISTING DRAINAGE PITS AND SEWER MH WITHIN NEW WORKS TO BE ADJUSTED TO NEATLY MATCH NEW FINISH SURFACE.
5. ALL EXISTING OPEN DRAINS WITHIN NEW WORKS TO BE CLEANED, DE-SLUDGED AND BACKFILLED TO LEVEL 1 SUPERVISION.

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

ISSUED FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRN.	APP.
B	ROAD NAME AMENDED	03.06.22	D.Z.	R.W.
A	ISSUED FOR CONSTRUCTION	14.01.22	D.Z.	R.W.
P1	ISSUED FOR INFORMATION	29.10.21	D.Z.	R.W.

0 5 10 20 30 40 50

Designed D. ZHANG 20.09.2021
Drawn D. ZHANG
Approved R. WICKETT 29.10.2021
PS Number 829574B/S4

Beveridge Williams
1 Glenferrie Road
Malvern VIC 3144
ph: 03 9524 8888
www.beveridgewilliams.com.au

Project Details: DAVIS VINEYARD PRECINCT 1 - STAGE 4
AUST. INVESTMENT & DEVELOPMENTS P/L
CITY OF MELTON

Drawing Title: LAYOUT PLAN
(SHEET 1 OF 2)

Sheet 04 of 27
Scale 1:500 @ A1

Project Ref	Stage No	Drawing No	Rev
1600059	04	010	B

K:\Jobs Data\1600059 Diggers Rest_Engi\Precinct 1\Stage 04\Drawings\1600059-04-010-LAY.dwg

LEVEL ONE

SURVEILLANCE

AND INSPECTION REPORT

APPENDIX B

GEOTECHNICAL LABORATORIES
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.: # 9065/005
LOCATION: CIVILWORX - Davis Vineyard, Stage 4

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m³)	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)
24/03/23	1	***Refer to #9065/006 for approx. test site locations.***	2.01	29.0	101.0	✠ 1.98	29.0	175	0.5 Wetter	101.0	20	0	200
24/03/23	2		2.04	26.0	100.5	✠ 2.04	25.5	175	0.5 Wetter	101.0	20	0	200
24/03/23	3		1.99	22.0	97.5	✠ 2.04	22.5	175	0.5 Drier	98.0	20	0	200
24/03/23	4		1.97	20.0	98.0	✠ 2.01	24.0	175	4.0 Drier	83.0	19	0	200
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

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: 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
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
❖

NATA WORLD RECOGNISED ACCREDITATION
Accredited for compliance with ISO/IEC 17025 - Testing
NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)
Issue Date: 3/4/2023

GEOTECHNICAL LABORATORIES

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

CLIENT: CIVILWORX	**DATE: 24/03/2023**	**JOB No.: 9065/006**
LOCATION: Davis Vineyard, Stage 4	**OPERATOR: DB**	**CHECKED: NF**
Sketch indicating compaction test locations	**SCALE: NTS**	**FIGURE No: -**

GEOTECHNICAL LABORATORIES
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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9065/002
LOCATION: CIVILWORX - Davis Vineyard, Stage 4, Diggers Rest

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m³)	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)
25/03/23	5	***Refer to #9065/003 for approx. test site locations.***	1.95	24.5	98.0	✠ 1.99	23.5	175	1.0 Wetter	105.5	9	0	0
25/03/23	6		2.00	26.5	101.0	✠ 1.97	26.5	175	0.0 Drier	100.0	7	0	0
25/03/23	7		1.96	25.5	96.5	✠ 2.03	25.5	175	0.5 Wetter	101.0	14	0	0
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

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: 9.55AM

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
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: 3/4/2023

GEOTECHNICAL LABORATORIES

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ACN 102 571 077
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CLIENT: CIVILWORX	**DATE: 25/03/2023**	**JOB No.: 9065/003**
LOCATION: Davis Vineyard, Stage 4	**OPERATOR: TC**	**CHECKED: NF**
Sketch indicating compaction test locations	**SCALE: NTS**	**FIGURE No: -**

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

REPORT NO.: # 9065/008
LOCATION: CIVILWORX - Davis Vineyard Stage 4 - Diggers Rest

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m³)	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)
27/03/23	8	***Refer to #9065/009 for approx. test site locations.***	1.93	23.5	95.0	✠ 2.03	21.5	175	2.0 Wetter	109.0	6	0	0
27/03/23	9		2.01	22.0	98.0	✠ 2.04	21.5	175	0.5 Wetter	103.5	12	0	0
27/03/23	10		1.90	20.5	95.5	✠ 1.99	19.5	175	0.5 Wetter	103.5	6	0	0
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-
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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:11.40AM

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
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: 5/4/2023

GEOTECHNICAL LABORATORIES

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ACN 102 571 077
14 Ravenhall Way, Ravenhall, Vic 3023
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CLIENT: CIVILWORX	**DATE: 27/03/2023**	**JOB No.: 9065/009**
LOCATION: Davis Vineyard, Stage 4	**OPERATOR: OK**	**CHECKED: MU**
Sketch indicating compaction test locations	**SCALE: NTS**	**FIGURE No: -**

GEOTECHNICAL LABORATORIES
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.: # 9065/012
LOCATION: CIVILWORX - Davis Vineyard Stage 4, Diggers Rest

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m³)	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)
28/03/23	11	***Refer to #9065/013 for approx. test site locations.***	2.03	24.5	99.5	✠ 2.03	24.0	175	0.5 Wetter	102.0	6	0	200
28/03/23	12		1.99	24.0	98.5	✠ 2.02	23.0	175	1.0 Wetter	104.5	11	0	200
28/03/23	13		2.05	25.5	99.5	✠ 2.06	24.0	175	2.0 Wetter	107.5	16	0	0
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-	-		-	-	-	-	-	-	-	-	-	-	-

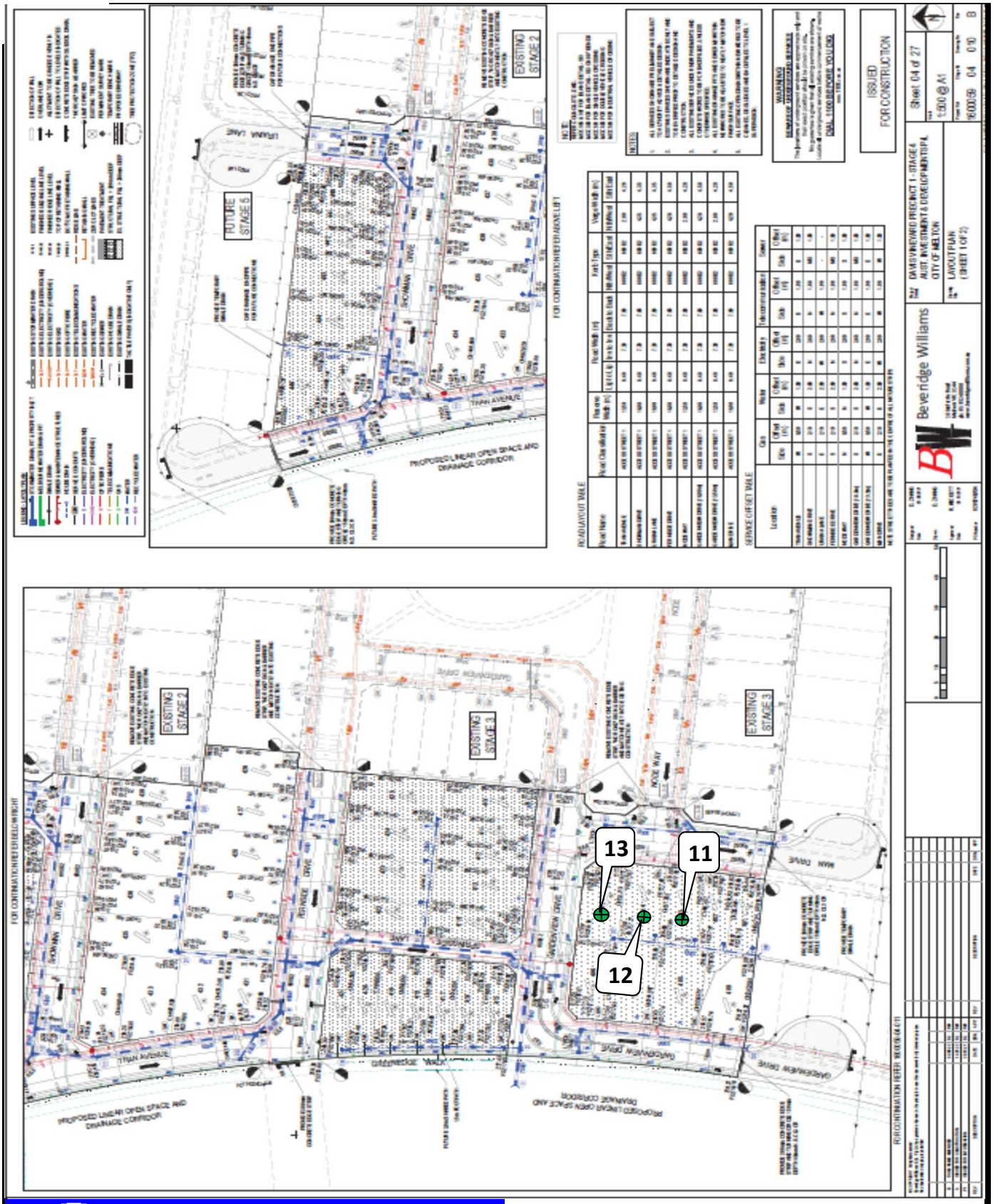
NOTES: Clayey Fill Ex. Onsite
Test sites located - Geolab Procedure 4, Part 4.4.
Compaction specimens sampled after compaction.
Start Time:1.30PM Finish Time:2.05PM

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
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
❖

NATA WORLD RECOGNISED ACCREDITATION
Accredited for compliance with ISO/IEC 17025 - Testing
NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)
Issue Date: 5/4/2023



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CLIENT: CIVILWORX	**DATE: 28/03/2023**	**JOB No.: 9065/013**
LOCATION: Davis Vineyard, Stage 4	**OPERATOR: OK**	**CHECKED: MU**
Sketch indicating compaction test locations	**SCALE: NTS**	**FIGURE No: -**

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

DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9065/014
LOCATION: CIVILWORX - Davis Vineyard , Stage 4

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m³)	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)
29/03/23	14	***Refer to #9065/015 for approx. test site locations.***	1.91	21.5	95.0	2.01	20.5	175	1.0 Wetter	105.0	0	0	400
29/03/23	15		1.91	25.0	96.0	1.99	24.5	175	0.5 Wetter	102.0	0	0	400
29/03/23	16		1.91	23.0	96.0	1.98	22.5	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:1.00PM Finish Time:1.35PM

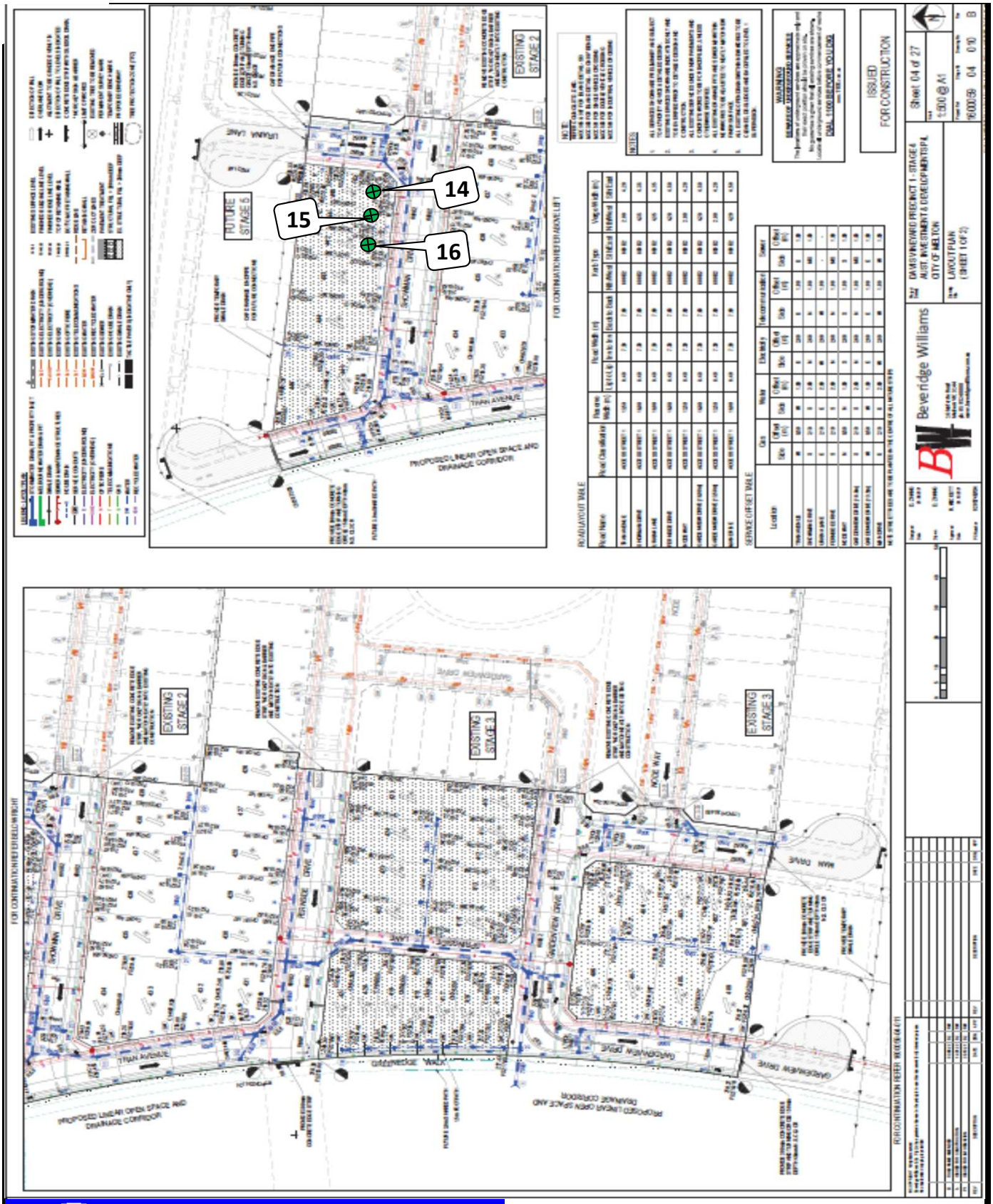
A Hilf Rapid Compaction test was carried out on a sample taken from each Field Density location to obtain the Compaction Parameters tabulated on this Report.

Moisture Content: AS 1289 2.1.1
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)

✠
❖

NATA WORLD RECOGNISED ACCREDITATION
Accredited for compliance with ISO/IEC 17025 - Testing
NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)
Issue Date: 11/4/2023



GEOTECHNICAL LABORATORIES

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

CLIENT: CIVILWORX	**DATE: 29/03/2023**	**JOB No.: 9065/015**
LOCATION: Davis Vineyard, Stage 4	**OPERATOR: OK**	**CHECKED: MU**
Sketch indicating compaction test locations	**SCALE: NTS**	**FIGURE No: -**

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

REPORT NO.: # 9065/017
LOCATION: CIVILWORX - Davis Vineyard , Stage 4

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m³)	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)
30/03/23	17	***Refer to #9065/018 for approx. test site locations.***	1.99	22.0	98.0	2.03	21.0	175	0.5 Wetter	103.5	0	0	0
30/03/23	18		2.00	16.5	99.5	✠ 2.01	16.5	175	0.0 Drier	100.0	5	0	0
30/03/23	19		2.04	20.5	100.5	✠ 2.03	20.0	175	0.5 Wetter	102.5	5	0	0
30/03/23	20		1.99	18.5	97.5	✠ 2.04	17.0	175	1.5 Wetter	108.5	7	0	0
-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

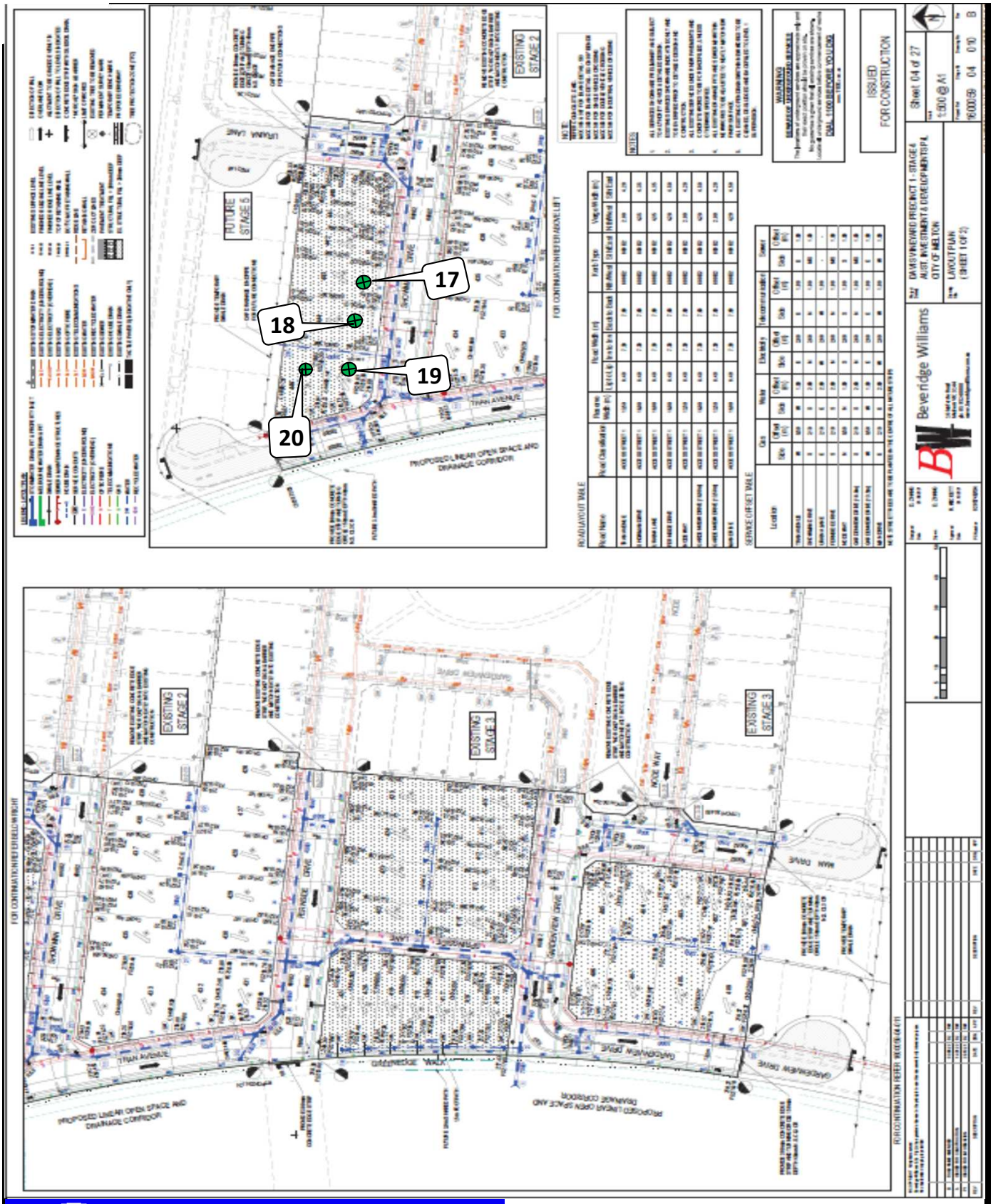
NOTES: Clayey Fill Ex. Onsite
Test sites located - Geolab Procedure 4, Part 4.4.
Compaction specimens sampled after compaction.
Start Time:2.00PM Finish Time:2.30PM

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
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
❖

NATA WORLD RECOGNISED ACCREDITATION
Accredited for compliance with ISO/IEC 17025 - Testing
NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)
Issue Date: 11/4/2023



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ACN 102 571 077
14 Ravenhall Way, Ravenhall, Vic 3023
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CLIENT: CIVILWORX	**DATE: 30/03/2023**	**JOB No.: 9065/018**
LOCATION: Davis Vineyard, Stage 4	**OPERATOR:KKA**	**CHECKED: MU**
Sketch indicating compaction test locations	**SCALE: NTS**	**FIGURE No: -**

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

REPORT NO.: # 9065/020
LOCATION: CIVILWORX - Davis Vineyard, Stage 4

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m³)	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)
31/03/23	21	***Refer to #9065/021 for approx. test site locations.***	1.89	22.0	95.5	✠ 1.97	20.5	175	1.5 Wetter	107.0	7	0	200
31/03/23	22		1.86	27.0	96.5	1.92	24.5	175	2.5 Wetter	110.5	0	0	200
31/03/23	23		1.98	21.5	99.0	1.99	22.0	175	0.0 Drier	99.0	0	0	200
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-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

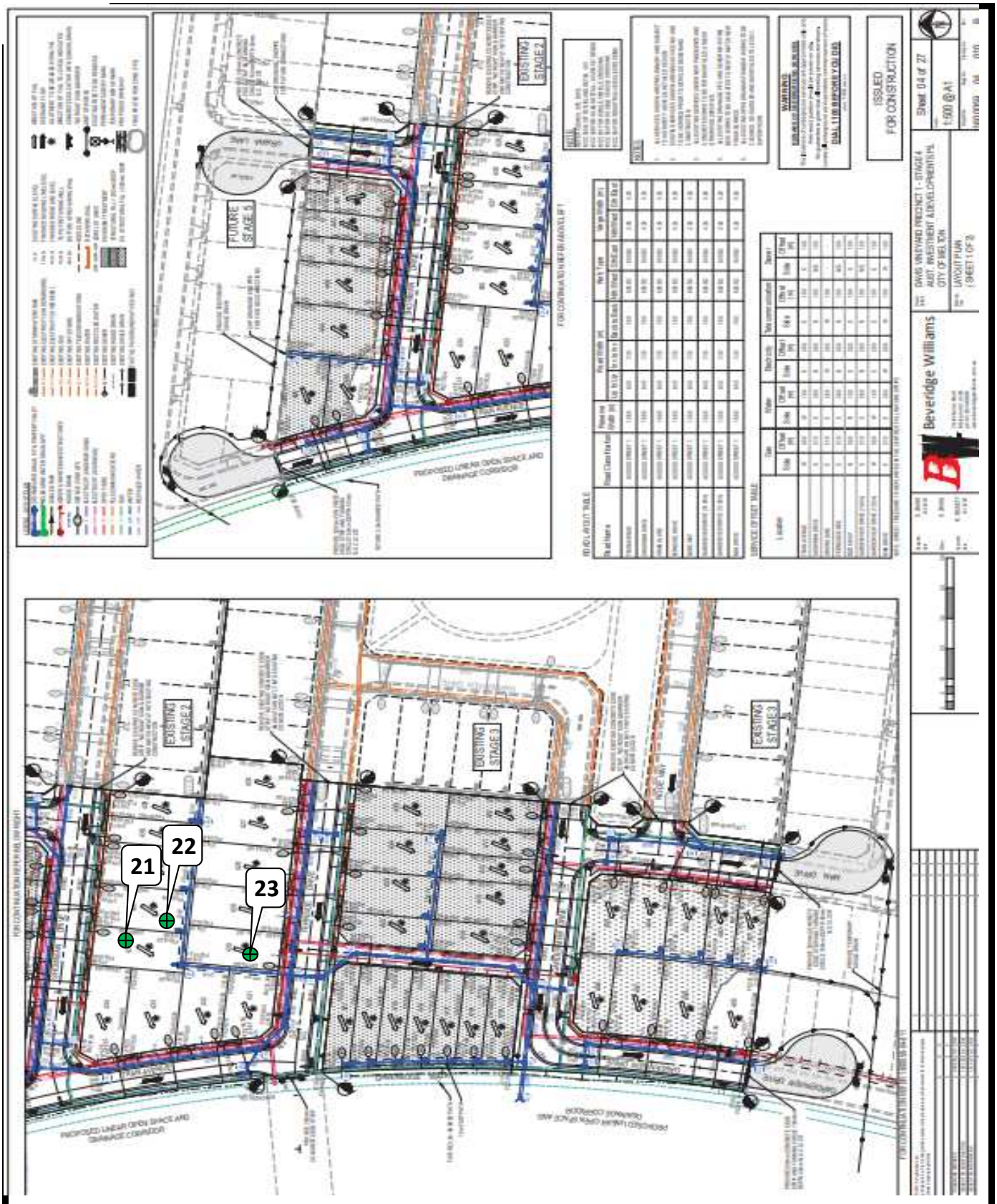
NOTES: Clayey Fill Ex. Onsite
Test sites located - Geolab Procedure 4, Part 4.4.
Compaction specimens sampled after compaction.
Start Time: 1:50pm Finish Time: 2:15pm

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
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
❖

NATA WORLD RECOGNISED ACCREDITATION
Accredited for compliance with ISO/IEC 17025 - Testing
NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)
Issue Date: 12/4/2023



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CLIENT: CIVILWORX	**DATE: 31/03/2023**	**JOB No.: 9065/021**
LOCATION: Davis Vineyard, Stage 4	**OPERATOR: OK/NI**	**CHECKED: KK**
Sketch indicating compaction test locations	**SCALE: NTS**	**FIGURE No: -**

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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9065/022
LOCATION: CIVILWORX - Davis Vineyard, Stage 4

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m³)	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)
3/04/23	24	***Refer to #9065/023 for approx. test site locations.***	1.79	22.5	95.5	1.87	26.0	175	3.5 Drier	87.0	0	0	900
3/04/23	25		1.91	22.0	100.5	1.91	22.5	175	0.5 Drier	98.0	0	0	700
3/04/23	26		2.13	14.0	101.5	2.09	17.0	175	3.0 Drier	82.5	0	0	900
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-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

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: 2:30pm

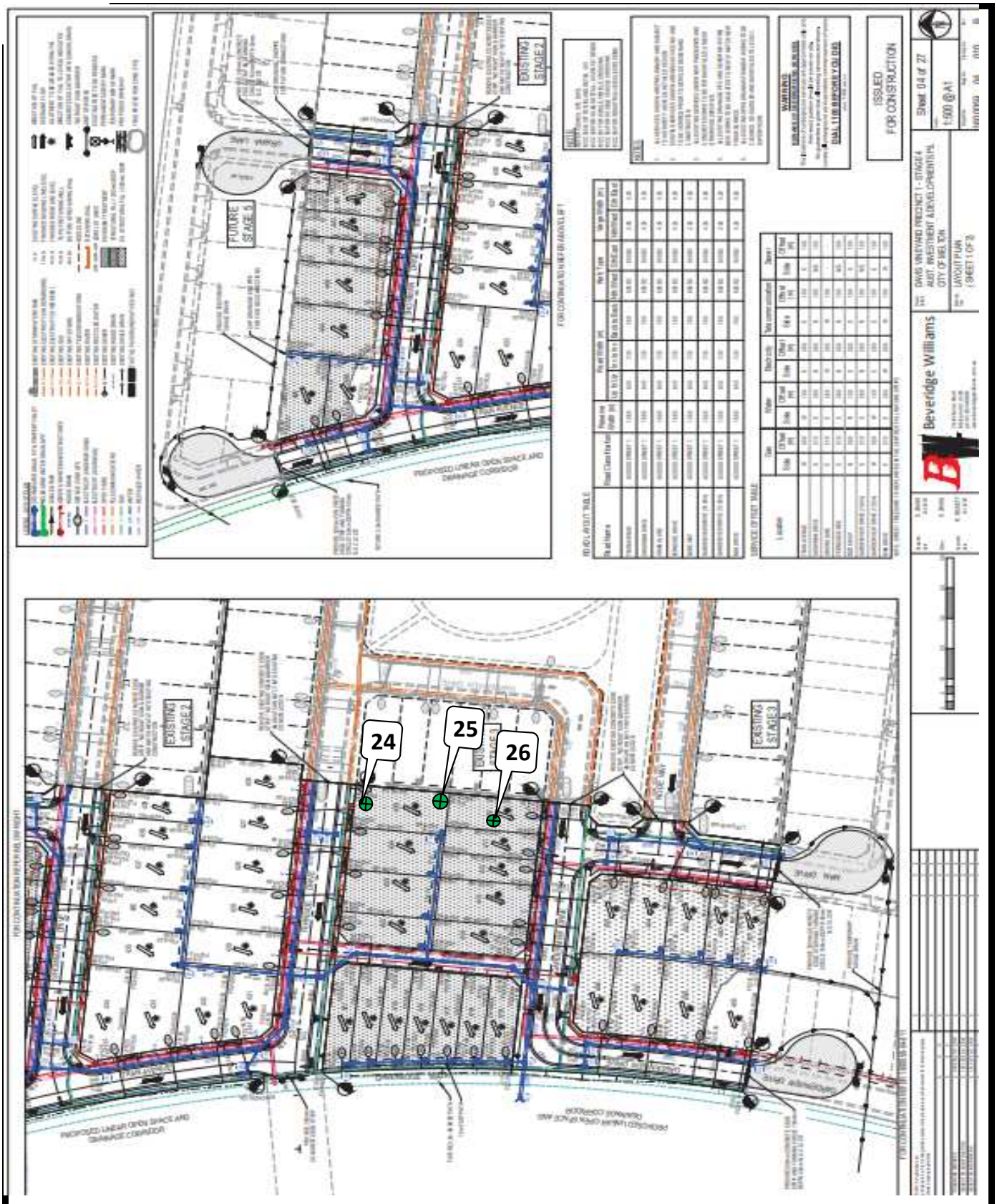
A Hilf Rapid Compaction test was carried out on a sample taken from each Field Density location to obtain the Compaction Parameters tabulated on this Report.

Moisture Content: AS 1289 2.1.1
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)

✠
❖

NATA WORLD RECOGNISED ACCREDITATION
Accredited for compliance with ISO/IEC 17025 - Testing
NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)
Issue Date: 12/4/2023



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

CLIENT: CIVILWORX	**DATE: 3/04/2023**	**JOB No.: 9065/023**
LOCATION: Davis Vineyard, Stage 4	**OPERATOR: OK**	**CHECKED: KK**
Sketch indicating compaction test locations	**SCALE: NTS**	**FIGURE No: -**

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DAILY SUMMARY - FIELD DENSITY TESTS

REPORT NO.: # 9065/026
LOCATION: CIVILWORX - Davis Vineyard, Stage 4

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m³)	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	27	***Refer to #9065/027 for approx. test site locations.***	1.89	24.0	97.5	1.94	23.5	175	0.5 Wetter	103.0	0	0	0
11/05/23	28		1.83	29.5	95.0	1.93	26.5	175	3.0 Wetter	111.5	0	0	150
11/05/23	29		1.88	29.5	98.5	1.91	26.0	175	3.5 Wetter	114.0	0	0	0
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-	-		-	-	-	-	-	-	-	-	-	-	-
-	-		-	-	-	-	-	-	-	-	-	-	-

NOTES: Clayey Fill Ex. Onsite
Test sites located - Geolab Procedure 4, Part 4.4.
Compaction specimens sampled after compaction.
Start Time: 2:00pm Finish Time: 2:55pm

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
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)

✠
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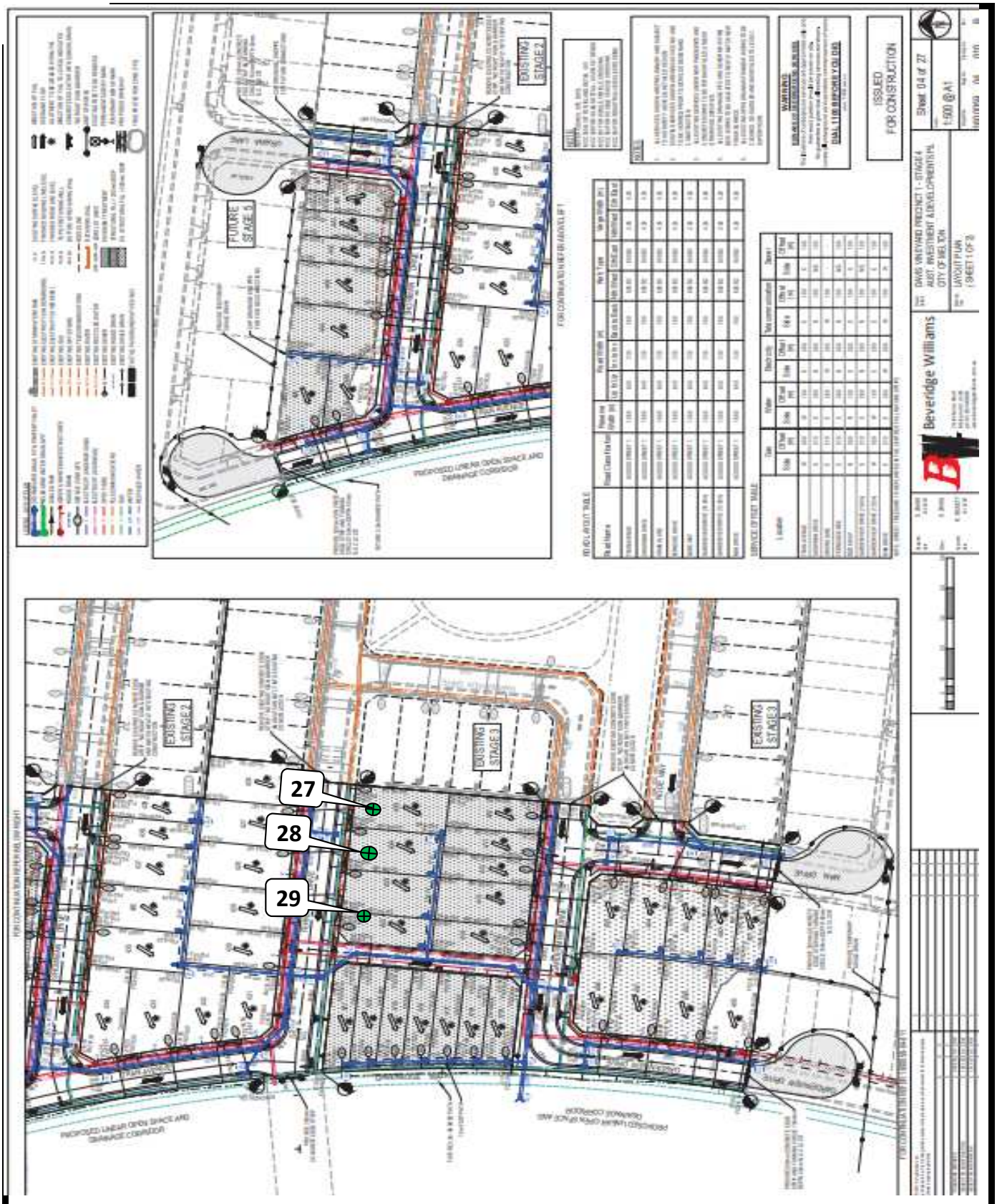
NATA WORLD RECOGNISED ACCREDITATION

Accredited for compliance with ISO/IEC 17025 - Testing
NATA Accredited Laboratory Number 14561

MICK CROWE
(Approved Signatory)
Issue Date: 16/5/2023



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ACN 102 571 077
14 Ravenhall Way, Ravenhall, Vic 3023
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CLIENT: CIVILWORX	**DATE: 11/05/2023**	**JOB No.: 9065/027**
LOCATION: Davis Vineyard, Stage 4	**OPERATOR: OK**	**CHECKED: KK**
Sketch indicating compaction test locations	**SCALE: NTS**	**FIGURE No: -**

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

REPORT NO.: # 9065/029
LOCATION: CIVILWORX - Davis Vineyard, Stage 4

DATE OF TESTS	TEST NUM.	TEST LOCATION	FIELD WET DENSITY (t/m³)	FIELD MOISTURE CONTENT (%)	HILF DENSITY RATIO STANDARD (%)	STANDARD PCWD OR APCWD (t/m³)	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)
18/09/23	30	***Refer to #9065/030 for approx. test site locations.***	1.87	20.5	95.5	1.96	21.0	175	0.5 Drier	97.5	0	0	0
18/09/23	31		1.88	23.0	95.0	1.99	22.5	175	0.0 Wetter	101.0	0	0	400
18/09/23	32		2.11	21.5	104.0	✠ 2.03	19.5	175	2.0 Wetter	110.0	6	0	0
18/09/23	33		2.07	22.5	103.0	✠ 2.02	26.0	175	3.5 Drier	86.0	3	0	400
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-	-		-	-	-	-	-	-	-	-	-	-	-

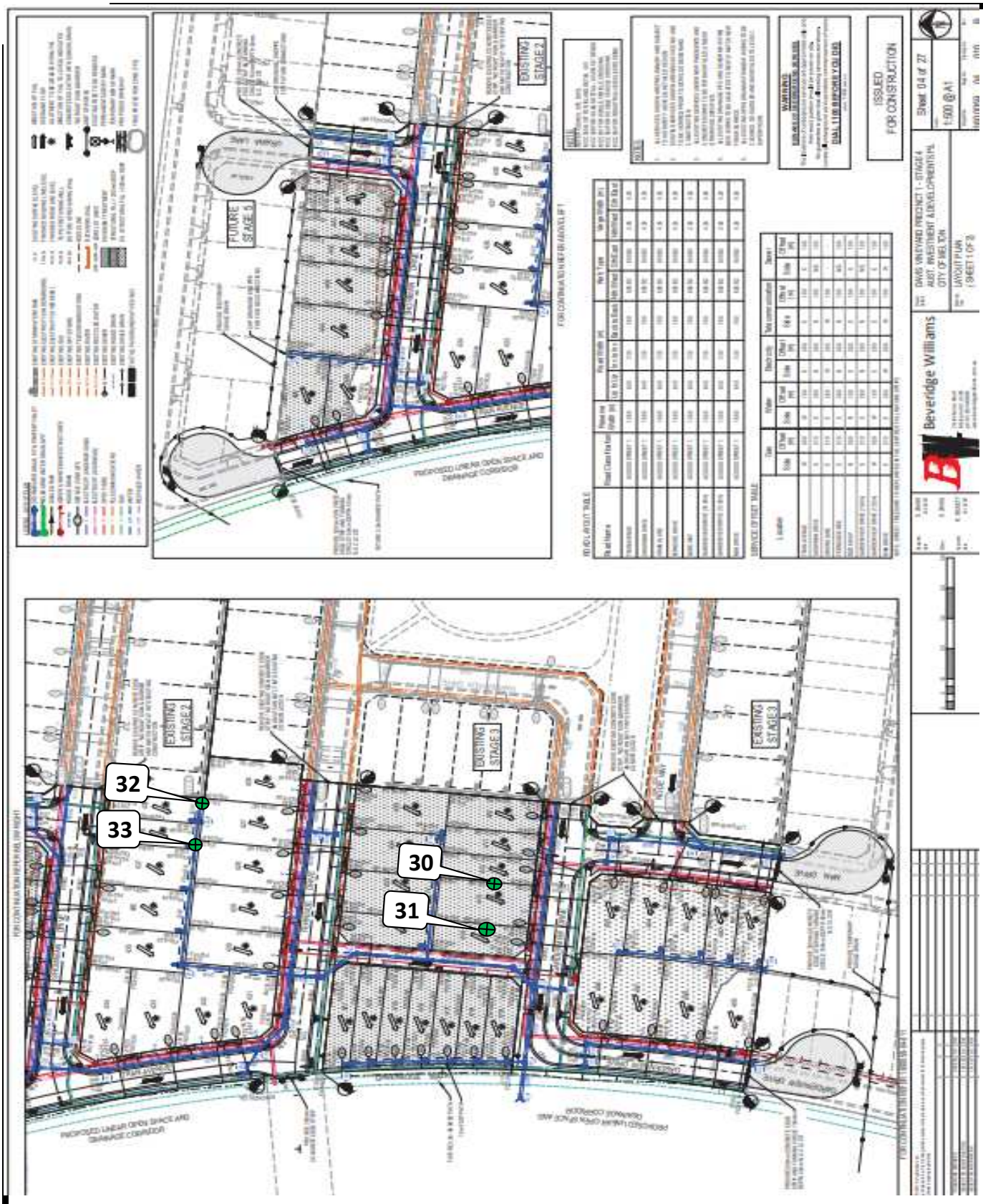
NOTES: Clayey Fill Ex. Onsite
Test sites located - Geolab Procedure 4, Part 4.4.
Compaction specimens sampled after compaction.
Start Time: 9:10am Finish Time: 10:10am

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
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: 21/9/2023



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CLIENT: CIVILWORX	**DATE: 18/09/2023**	**JOB No.: 9065/030**
LOCATION: Davis Vineyard, Stage 4	**OPERATOR: SA**	**CHECKED: KK**
Sketch indicating compaction test locations	**SCALE: NTS**	**FIGURE No: -**