

Octave At Junction Village Stage 6

GITA Inspection Verification Report

Prepared For:	Streetworks Pty Ltd
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Report Number	P22945A V2
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Version Release Date	3 March 2023
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Report Released By	C Caulfield
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Title	Project Manager
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Signature	
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1 Introduction

Terra Firma Laboratories was engaged by Streetworks Pty Ltd as the Geotechnical Inspection and Testing Authority (GITA) to provide Level 1 supervision and testing works on the earthworks component for Octave At Junction Village Stage 6. This work was conducted over the period of 17/02/2022 and 22/11/2022 to 2/12/2022.

This report presents that the allotment earthworks was carried out in accordance with AS3798-2007 *Guidelines for Earthworks for Commercial and Residential Development* and in compliance with the compaction control specifications established by the contractor.

2 Scope of Work

2.1 Area of Work

The areas of work included lots 601 through to 633, bounded by streets Vivaldi Drive and Melody Way. The site will be a Residential development.

The area on which fill was placed is shown on site plan (Appendix 1: *Test Location Plan*) based on drawings prepared by GPR Consulting Pty Ltd (Drawing Reference: 0329-06-R02 and R03) and provided by Streetworks Pty Ltd.

The supervision work by the GITA involved both inspection of sub grade preparation work and full time inspection and testing of fill placement.

2.2 Specification

The technical specification (Reference from Drawings) for compaction control requirements was provided by Streetworks Pty Ltd and established that:

Test Rolling is required for all layers of structural fill and materials within 150mm of permanent subgrade level so as to withstand test rolling without visible deformation or springing. Corrective action is required where unstable areas exceed 20% of the area being considered by test rolling.

Section 5.2 of AS3798-2007 (Section 5.2) establishes a specification requirement for a minimum density ratio of not less than 95% noting that soils containing more than 20% of particles coarser than 37.5mm cannot be tested for relative compaction using the procedures of AS1289 5.1.1 and AS1289 5.2.1.

In accordance with Table 8.1 (AS3798), for large scale operations, (greater than 1500m²), the minimum testing frequency is 1 test per layer per material type per 2500m² or 1 test per 500m³ distributed reasonable evenly throughout full depth and area or 3 tests per lot. AS3798 defines a lot as “an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work”. All three of these test frequencies must be achieved and this is typically confirmed to have been achieved when 3 tests per visit (day) have been completed.

2.3 Limitations

Terra Firma Laboratories cannot verify any works completed by others outside of the time period specified in the introduction. Uncontrolled works may include, but are not limited to trenching for services, cut and fill works for slab preparation or subsequent removal of vegetation and back fill of holes unless specified in section 2.1 of this report.

Terra Firma Laboratories cannot verify that the material used as a filling medium is free from chemical or other contamination. The scope and the period of Terra Firma Laboratories as described in the introduction are subject to restrictions and limitations. Terra Firma Laboratories did not perform a complete assessment of all possible conditions and circumstances that may exist at the site. If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by Terra Firma Laboratories.

Verification of finished surface level to design levels is outside of the scope of the GITA report.

Any drawings or marked locations presented in this report should be considered only as pictorial evidence of our work. Therefore, unless otherwise stated, any dimensions should not be used for accurate calculations or dimensioning.

Where data has been supplied by the client or a third party, it is assumed that the information is correct unless otherwise stated. No responsibility is accepted by Terra Firma Laboratories for incomplete or inaccurate data supplied by others.

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3 Construction Method

3.1 Subgrade Preparation

At the time of subgrade inspection the following was observed:

- Subgrade preparation involved stripping the site of topsoil, vegetation and organic matter to a depth of approximately 200mm below existing levels.
- The site was cleared of all trees and stumps to the extent necessary for the fill placement to proceed
- The roots of all trees and any debris was removed from site prior to any fill placement

An irrigation system was located across most of the blocks. The pipes were all removed and the trenches backfilled and tested under level 1 supervision.

The sub-grade area was then proof-rolled to confirm it was capable of withstanding test rolling without visible deformation or springing and any areas observed to be soft or otherwise unsuitable were rectified. The sub-grade was watered and scarified prior to fill placement to aid layer bonding.

3.2 Fill Placement

The contractor was observed to have suitable construction equipment and plant available on-site during the construction period for use in the fill placement.

All fill was placed in layers of thicknesses not exceeding 300mm. At the completion of a placed layer, compaction testing was performed to confirm appropriate compaction had been achieved and supported the observations made. It should be noted that the compaction tests are representative samples of the fill placed and support the visual assessment of the works completed. Each house lot does not necessarily require a compaction test to have been conducted within the house allotment but may have been verified by testing conducted within up to a 2500m² area of the house lot.

Final fill placement levels were verified against design level by others. For the purposes of this report, it was observed that finished levels were in accordance with levels marked on site by survey markers.

The final 150mm of material placed across the site was placed as a topsoil layer or growing medium and should be considered as non-structural, as it was placed in an uncontrolled manner, as allowed by specifications and placement of the final 150mm of material was not observed by the GITA.

4 Construction Verification

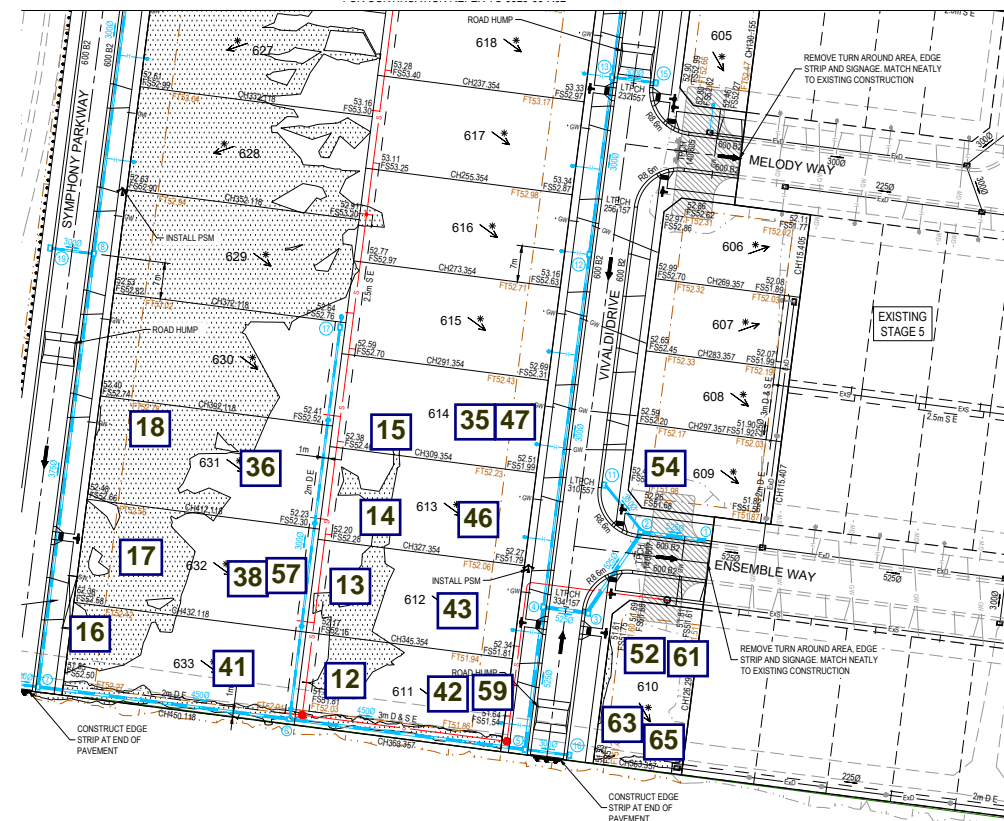
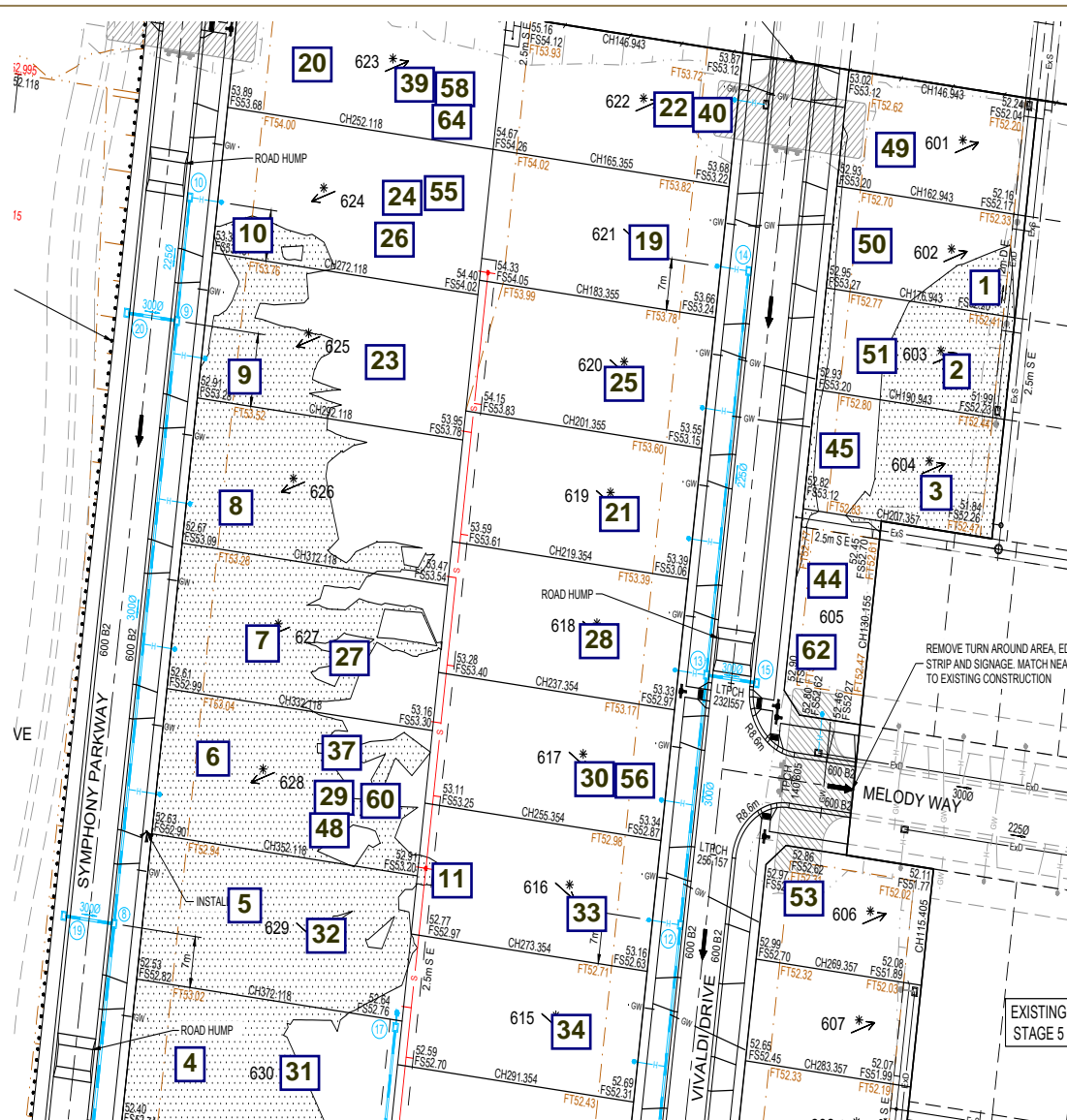
Compaction Verification testing is summarized in a detailed test register with test certificates attached provided in Appendix 2: *Compaction Test Register and Test Certificates*. A test location plan (P22945D2, Appendix 1) providing a schematic of test locations across the extent of scope of works for every placed layer of fill is also documented.

A total of 65 density tests (Hilf method in accordance with 1289 5.7.1) were undertaken with 12 failed results. The contractor was notified of any failed tests and the failed areas were ripped, watered, compacted and then re-tested to confirm compliance with the specification. The results summarised in the compaction test register (Appendix 2) confirm that for every layer of fill placed in a specific work area, satisfactory testing was completed.

5 Statement of Compliance

The intention of this report is to provide a description of the earthworks construction for Stage 6 at Octave at Junction Village. For completed fill areas of greater than 300mm, and for works completed on 17/02/2022 and between 22/11/2022 and 2/12/2022, earthworks construction activities were conducted under the full time supervision of the Geotechnical Inspection and Testing Authority. Inspections and testing of the fill areas at this site indicate that both sub grade preparation and fill placement have been conducted in accordance with the specification. The earthworks construction for Stage 6 of Octave at Junction Village was observed to be constructed in compliance with the requirements of the Technical Specification.

Appendix 1: Test Location Plan



FOR CONTINUATION REFER TO 0329-06-R03

FFSET SCHEDULE					
GAS	NON DRINKING WATER	DRINKING WATER	COMMUNICATIONS	ELECTRICITY	LIGHT POLES
2.10 M	2.60 M	2.10 M	1.00 C	2.60 C	4.90 C



Our Head Office
47 National Ave
Pakenham, VIC 3810

Our Laboratories
Pakenham 03 9769 5799
Deer Park 03 8348 5596
Bibra Lake 08 9395 7220

Test Location Plan

not to scale

Client: Streetworks Pty Ltd

Project: Octave at Junction Village Stage 6

Reference: P22945 D2

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Appendix 2: Compaction Test Register and Test Certificates



Compaction Test Register

Client: Streetworks Pty Ltd **Project No:** P22945
Project: Octave at Junction Village Stage 6 **Specification:** 95%

Date:	Test No:	Layer:	Retest of:	Density:	Pass/Fail:	Lot No:
17/02/2022	1	Final Layer		99.0%	Pass	Lot 602
17/02/2022	2	Final Layer		99.0%	Pass	Lot 603
17/02/2022	3	Final Layer		98.0%	Pass	Lot 604
17/02/2022	4	Final Layer		98.0%	Pass	Lot 630
17/02/2022	4	Final Layer		98.0%	Pass	Lot 630
17/02/2022	5	Final Layer		100.0%	Pass	Lot 629
17/02/2022	6	Final Layer		99.0%	Pass	Lot 628
17/02/2022	7	Final Layer		99.0%	Pass	Lot 627
17/02/2022	8	Final Layer		100.0%	Pass	Lot 626
17/02/2022	9	Final Layer		102.5%	Pass	Lot 625
17/02/2022	10	Final Layer		98.0%	Pass	Lot 624
17/02/2022	11	Final Layer		99.0%	Pass	Lot 616
17/02/2022	12	Final Layer		96.5%	Pass	Lot 611
17/02/2022	13	Final Layer		98.5%	Pass	Lot 612
17/02/2022	14	Final Layer		95.5%	Pass	Lot 613
17/02/2022	15	Final Layer		97.0%	Pass	Lot 614
17/02/2022	16	Final Layer		98.0%	Pass	Lot 633
17/02/2022	17	Final Layer		96.0%	Pass	Lot 632
17/02/2022	18	Final Layer		98.5%	Pass	Lot 631
22/11/2022	19	Layer 1		96.0%	Pass	Lot 621
22/11/2022	20	Layer 1		99.0%	Pass	Lot 623
22/11/2022	21	Layer 1		99.5%	Pass	Lot 619
22/11/2022	22	Layer 2		93.0%	Fail	Lot 622
22/11/2022	23	Layer 1		96.5%	Pass	Lot 625
22/11/2022	24	Layer 2		93.5%	Fail	Lot 624
23/11/2022	25	Layer 2		98.0%	Pass	Lot 620
23/11/2022	26	Layer 2		97.0%	Pass	Lot 524
23/11/2022	27	Layer 1		96.5%	Pass	Lot 627
23/11/2022	28	Layer 2		96.5%	Pass	Lot 618
23/11/2022	29	Layer 1		94.0%	Fail	Lot 628
23/11/2022	30	Layer 1		93.0%	Fail	Lot 617
24/11/2022	31	Layer 1		98.5%	Pass	Lot 630
24/11/2022	32	Layer 2		96.5%	Pass	Lot 629
24/11/2022	33	Layer 2		95.5%	Pass	Lot 616
24/11/2022	34	Layer 2		98.5%	Pass	Lot 615
24/11/2022	35	Layer 1		94.5%	Fail	Lot 614
24/11/2022	36	Layer 1		95.5%	Pass	Lot 631
25/11/2022	37	Layer 1		100.0%	Pass	Lot 628
25/11/2022	38	Layer 2		91.5%	Fail	Lot 632
25/11/2022	39	Layer 1		89.5%	Fail	Lot 623
25/11/2022	40	Layer 2	Test #22	98.0%	Pass	Lot 622



Compaction Test Register

Client: Streetworks Pty Ltd **Project No:** P22945
Project: Octave at Junction Village Stage 6 **Specification:** 95%

Date:	Test No:	Layer:	Retest of:	Density:	Pass/Fail:	Lot No:
25/11/2022	41	Layer 2		95.0%	Pass	Lot 633
25/11/2022	42	Layer 2		93.5%	Fail	Lot 611
25/11/2022	43	Layer 2		96.0%	Pass	Lot 612
26/11/2022	44	Layer 1		97.0%	Pass	Lot 605
26/11/2022	45	Layer 2		100.5%	Pass	Lot 604
28/11/2022	46	Layer 2		97.5%	Pass	Lot 613
28/11/2022	47	Layer 2	Test #35	97.0%	Pass	Lot 614
28/11/2022	48	Layer 2	Test #29	94.5%	Fail	Lot 628
28/11/2022	49	Layer 1		95.5%	Pass	Lot 601
28/11/2022	50	Layer 1		96.5%	Pass	Lot 602
28/11/2022	51	Layer 1		100.0%	Pass	Lot 603
28/11/2022	52	Layer 2		94.5%	Fail	Lot 610
30/11/2022	53	Layer 2		100.0%	Pass	Lot 606
30/11/2022	54	Layer 2		98.5%	Pass	Lot 609
30/11/2022	55	Layer 2	Test #24	96.0%	Pass	Lot 624
30/11/2022	56	Layer 1	Test #30	99.5%	Pass	Lot 617
30/11/2022	57	Layer 2	Test #38	95.5%	Pass	Lot 632
30/11/2022	58	Layer 1	Test #39	94.0%	Fail	Lot 623
30/11/2022	59	Layer 2	Test #42	96.5%	Pass	Lot 611
30/11/2022	60	Layer 2	Test #48	96.5%	Pass	Lot 628
30/11/2022	61	Layer 2	Test #52	97.5%	Pass	Lot 610
30/11/2022	62	FSL		98.5%	Pass	Lot 605
30/11/2022	63	FSL		90.5%	Fail	Lot 610
2/12/2022	64	Layer 1	Test #58	100.5%	Pass	Lot 623
2/12/2022	65	FSL	Test #63	100.0%	Pass	Lot 610



Compaction Test Register

Client: Streetworks Pty Ltd **Project No:** P22945
Project: Octave at Junction Village Stage 6 **Specification:** 95%

Date:	Test No:	Layer:	Retest of:	Density:	Pass/Fail:	Lot No:	Report No:
17/02/2022	1	Final Layer		99.0%	Pass	Lot 602	P22945-1
17/02/2022	2	Final Layer		99.0%	Pass	Lot 603	P22945-1
17/02/2022	3	Final Layer		98.0%	Pass	Lot 604	P22945-1
17/02/2022	4	Final Layer		98.0%	Pass	Lot 630	P22945-1
17/02/2022	4	Final Layer		98.0%	Pass	Lot 630	P22945-1
17/02/2022	5	Final Layer		100.0%	Pass	Lot 629	P22945-1
17/02/2022	6	Final Layer		99.0%	Pass	Lot 628	P22945-1
17/02/2022	7	Final Layer		99.0%	Pass	Lot 627	P22945-1
17/02/2022	8	Final Layer		100.0%	Pass	Lot 626	P22945-1
17/02/2022	9	Final Layer		102.5%	Pass	Lot 625	P22945-1
17/02/2022	10	Final Layer		98.0%	Pass	Lot 624	P22945-1
17/02/2022	11	Final Layer		99.0%	Pass	Lot 616	P22945-1
17/02/2022	12	Final Layer		96.5%	Pass	Lot 611	P22945-1
17/02/2022	13	Final Layer		98.5%	Pass	Lot 612	P22945-1
17/02/2022	14	Final Layer		95.5%	Pass	Lot 613	P22945-1
17/02/2022	15	Final Layer		97.0%	Pass	Lot 614	P22945-1
17/02/2022	16	Final Layer		98.0%	Pass	Lot 633	P22945-1
17/02/2022	17	Final Layer		96.0%	Pass	Lot 632	P22945-1
17/02/2022	18	Final Layer		98.5%	Pass	Lot 631	P22945-1
22/11/2022	19	Layer 1		96.0%	Pass	Lot 621	P22945-2
22/11/2022	20	Layer 1		99.0%	Pass	Lot 623	P22945-2
22/11/2022	21	Layer 1		99.5%	Pass	Lot 619	P22945-2
22/11/2022	22	Layer 2		93.0%	Fail	Lot 622	P22945-2
22/11/2022	23	Layer 1		96.5%	Pass	Lot 625	P22945-2
22/11/2022	24	Layer 2		93.5%	Fail	Lot 624	P22945-2
23/11/2022	25	Layer 2		98.0%	Pass	Lot 620	P22945-3
23/11/2022	26	Layer 2		97.0%	Pass	Lot 524	P22945-3
23/11/2022	27	Layer 1		96.5%	Pass	Lot 627	P22945-3
23/11/2022	28	Layer 2		96.5%	Pass	Lot 618	P22945-3
23/11/2022	29	Layer 1		94.0%	Fail	Lot 628	P22945-3
23/11/2022	30	Layer 1		93.0%	Fail	Lot 617	P22945-3
24/11/2022	31	Layer 1		98.5%	Pass	Lot 630	P22945-4
24/11/2022	32	Layer 2		96.5%	Pass	Lot 629	P22945-4
24/11/2022	33	Layer 2		95.5%	Pass	Lot 616	P22945-4
24/11/2022	34	Layer 2		98.5%	Pass	Lot 615	P22945-4
24/11/2022	35	Layer 1		94.5%	Fail	Lot 614	P22945-4
24/11/2022	36	Layer 1		95.5%	Pass	Lot 631	P22945-4
25/11/2022	37	Layer 1		100.0%	Pass	Lot 628	P22945-5
25/11/2022	38	Layer 2		91.5%	Fail	Lot 632	P22945-5
25/11/2022	39	Layer 1		89.5%	Fail	Lot 623	P22945-5
25/11/2022	40	Layer 2	Test #22	98.0%	Pass	Lot 622	P22945-5



Compaction Test Register

Client: Streetworks Pty Ltd **Project No:** P22945
Project: Octave at Junction Village Stage 6 **Specification:** 95%

Date:	Test No:	Layer:	Retest of:	Density:	Pass/Fail:	Lot No:	Report No:
25/11/2022	41	Layer 2		95.0%	Pass	Lot 633	P22945-5
25/11/2022	42	Layer 2		93.5%	Fail	Lot 611	P22945-5
25/11/2022	43	Layer 2		96.0%	Pass	Lot 612	P22945-5
26/11/2022	44	Layer 1		97.0%	Pass	Lot 605	P22945-6
26/11/2022	45	Layer 2		100.5%	Pass	Lot 604	P22945-6
28/11/2022	46	Layer 2		97.5%	Pass	Lot 613	P22945-7
28/11/2022	47	Layer 2	Test #35	97.0%	Pass	Lot 614	P22945-7
28/11/2022	48	Layer 2	Test #29	94.5%	Fail	Lot 628	P22945-7
28/11/2022	49	Layer 1		95.5%	Pass	Lot 601	P22945-7
28/11/2022	50	Layer 1		96.5%	Pass	Lot 602	P22945-7
28/11/2022	51	Layer 1		100.0%	Pass	Lot 603	P22945-7
28/11/2022	52	Layer 2		94.5%	Fail	Lot 610	P22945-7
30/11/2022	53	Layer 2		100.0%	Pass	Lot 606	P22945-8
30/11/2022	54	Layer 2		98.5%	Pass	Lot 609	P22945-8
30/11/2022	55	Layer 2	Test #24	96.0%	Pass	Lot 624	P22945-8
30/11/2022	56	Layer 1	Test #30	99.5%	Pass	Lot 617	P22945-8
30/11/2022	57	Layer 2	Test #38	95.5%	Pass	Lot 632	P22945-8
30/11/2022	58	Layer 1	Test #39	94.0%	Fail	Lot 623	P22945-8
30/11/2022	59	Layer 2	Test #42	96.5%	Pass	Lot 611	P22945-8
30/11/2022	60	Layer 2	Test #48	96.5%	Pass	Lot 628	P22945-8
30/11/2022	61	Layer 2	Test #52	97.5%	Pass	Lot 610	P22945-8
30/11/2022	62	FSL		98.5%	Pass	Lot 605	P22945-8
30/11/2022	63	FSL		90.5%	Fail	Lot 610	P22945-8
2/12/2022	64	Layer 1	Test #58	100.5%	Pass	Lot 623	P22945-9
2/12/2022	65	FSL	Test #63	100.0%	Pass	Lot 610	P22945-9

Material Test Report

Report Number: P22945-1
Issue Number: 1
Date Issued: 25/02/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22945
Project Name: Octave Estate Stage 6
Project Location: Cranbourne
Work Request: 8334
Date Sampled: 17/02/2022
Dates Tested: 17/02/2022 - 22/02/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 6
Material: Clayey SAND
Material Source: Onsite



Pakenham Laboratory
 47 National Avenue Pakenham VIC 3810
 Phone: (03) 9769 5799
 Email: ccaulfield@terrafirmalabs.com.au



Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Chris Caulfield
 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-8334A	P22-8334B	P22-8334C	P22-8334F	P22-8334I	P22-8334J
Test Number	1	2	3	6	9	10
Date Tested	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022
Time Tested	**	**	**	**	**	**
Test Request #/Location	Lot No. 602	Lot No. 603	Lot No. 604	Lot No. 628	Lot No. 625	Lot No. 624
Layer / Reduced Level	Final Layer	Final Layer	Final Layer	Final Layer	Final Layer	Final Layer
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND
Test Depth (mm)	275	275	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**	**	**	0
Field Wet Density (FWD) t/m ³	2.06	2.03	1.98	1.98	2.06	1.94
Field Moisture Content %	7.5	9.6	10.9	7.5	4.0	2.6
Field Dry Density (FDD) t/m ³	1.92	1.85	1.78	1.84	1.98	1.89
Peak Converted Wet Density t/m ³	2.08	2.05	2.02	2.00	2.01	1.98
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	**	**	**	**	8.2	7.2
Adj. Field Moisture Content % (AS1289.5.4.1)	7.5	9.6	10.9	7.5	4.0	2.6
Moisture Ratio % (AS1289.5.4.1)	72.5	80.5	81.5	61.5	48.5	36.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**	**	**
Moisture Variation (Wv) %	3.0	2.5	2.5	5.0	4.5	5.0
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	99.0	99.0	98.0	99.0	102.5	98.0
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22945-1
Issue Number: 1
Date Issued: 25/02/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22945
Project Name: Octave Estate Stage 6
Project Location: Cranbourne
Work Request: 8334
Date Sampled: 17/02/2022
Dates Tested: 17/02/2022 - 22/02/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 6
Material: Clayey SAND
Material Source: Onsite



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Approved Signatory: Chris Caulfield
 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-8334K	P22-8334M	P22-8334N	P22-8334P	P22-8334Q	P22-8334R
Test Number	11	13	14	16	17	18
Date Tested	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022
Time Tested	**	**	**	**	**	**
Test Request #/Location	Lot No. 616	Lot No. 612	Lot No. 613	Lot No. 633	Lot No. 632	Lot No. 631
Layer / Reduced Level	Final Layer	Final Layer	Final Layer	Final Layer	Final Layer	Final Layer
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND
Test Depth (mm)	275	275	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**	0	0	**
Field Wet Density (FWD) t/m ³	1.99	1.93	1.90	2.00	1.96	1.96
Field Moisture Content %	7.4	8.7	6.4	5.4	5.7	4.0
Field Dry Density (FDD) t/m ³	1.85	1.78	1.78	1.90	1.85	1.89
Peak Converted Wet Density t/m ³	2.01	1.97	1.98	2.05	2.04	2.00
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	11.7	**	**	9.5	10.0	9.0
Adj. Field Moisture Content % (AS1289.5.4.1)	7.4	8.7	6.4	5.4	5.7	4.0
Moisture Ratio % (AS1289.5.4.1)	63.0	66.5	58.0	56.5	57.0	44.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**	**	**
Moisture Variation (Wv) %	4.5	4.5	5.0	4.5	4.5	5.5
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	99.0	98.5	95.5	98.0	96.0	98.5
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22945-1
Issue Number: 1
Date Issued: 25/02/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22945
Project Name: Octave Estate Stage 6
Project Location: Cranbourne
Work Request: 8334
Date Sampled: 17/02/2022
Dates Tested: 17/02/2022 - 21/02/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 6
Material: Clayey SAND
Material Source: Onsite



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Approved Signatory: Chris Caulfield
 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1						
Sample Number	P22-8334D	P22-8334E	P22-8334G	P22-8334H	P22-8334L	P22-8334O
Test Number	4	5	7	8	12	15
Date Tested	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022	17/02/2022
Time Tested	**	**	**	**	**	**
Test Request #/Location	Lot No. 630	Lot No. 629	Lot No. 627	Lot No. 626	Lot No. 611	Lot No. 614
Layer / Reduced Level	Final Layer	Final Layer	Final Layer	Final Layer	Final Layer	Final Layer
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND
Test Depth (mm)	275	275	275	275	275	275
Fraction Tested (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	**	0	0	0	0
Oversize (dry basis) %	0	**	0	0	0	0
Curing Hours	**	**	**	**	2.2	**
Method used to Determine Plasticity	Visual Assessment	Visual Assessment	Visual Assessment	Visual Assessment	Visual Assessment	Visual Assessment
Field Wet Density t/m ³	1.90	1.92	1.95	1.95	1.88	1.90
Field Moisture Content %	3.2	2.5	3.8	2.7	5.4	5.0
Field Dry Density t/m ³	1.84	1.88	1.88	1.90	1.79	1.81
Maximum Dry Density t/m ³	1.88	1.87	1.90	1.90	1.85	1.87
Adjusted Maximum Dry Density t/m ³	**	**	**	**	**	**
Optimum Moisture Content (OMC) %	8.5	10.5	9.5	8.0	11.5	11.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**	**	**
Moisture Variation %	5.5	8.0	6.0	5.0	6.5	6.5
Moisture Ratio %	37.5	23.5	39.0	35.0	46.0	43.5
Density Ratio %	98.0	100.0	99.0	100.0	96.5	97.0
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22945-2
Issue Number: 1
Date Issued: 27/11/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22945
Project Name: Octave Estate Stage 6 Level One
Project Location: Cranbourne
Work Request: 10875
Date Sampled: 22/11/2022 9:00
Dates Tested: 22/11/2022 - 24/11/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Location: Octave Estate Stage 6 Level One
Material: Silty SAND
Material Source: Onsite



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Approved Signatory: Janaka Somaratne
 Lab Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-10875A	P22-10875B	P22-10875C	P22-10875D	P22-10875E	P22-10875F
Test Number	19	20	21	22	23	24
Date Tested	22/11/2022	22/11/2022	22/11/2022	22/11/2022	22/11/2022	22/11/2022
Time Tested	09:15	09:30	11:30	12:00	14:15	16:00
Test Request #/Location	Lot 621	Lot 623	Lot 619	Lot 622	Lot 625	Lot 624
Layer / Reduced Level	Layer 1	Layer 1	Layer 1	Layer 2	Layer 1	Layer 2
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Silty SAND	Silty SAND	Silty SAND	Silty SAND	Silty SAND	Silty SAND
Test Depth (mm)	275	275	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	**	0	0	0	0
Field Wet Density (FWD) t/m ³	2.06	1.98	2.00	1.98	2.04	1.96
Field Moisture Content %	10.3	6.3	6.4	13.1	10.7	13.6
Field Dry Density (FDD) t/m ³	1.87	1.86	1.88	1.75	1.85	1.73
Peak Converted Wet Density t/m ³	2.14	1.99	2.00	2.13	2.12	2.10
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	9.5	9.2	9.1	12.1	9.9	12.6
Adj. Field Moisture Content % (AS1289.5.4.1)	10.3	6.3	6.4	13.1	10.7	13.6
Moisture Ratio % (AS1289.5.4.1)	108.0	68.5	70.5	109.0	107.5	108.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**	**	**
Moisture Variation (Wv) %	-1.0	3.0	3.0	-1.0	-1.0	-1.0
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	96.0	99.0	99.5	93.0	96.5	93.5
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22945-3
Issue Number: 1
Date Issued: 29/11/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22945
Project Name: Octave Estate Stage 6 Level One
Project Location: Cranbourne
Work Request: 10887
Date Sampled: 23/11/2022
Dates Tested: 23/11/2022 - 25/11/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 6 Level One
Material: Silty Sand
Material Source: Onsite



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Approved Signatory: Chris Caulfield
 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-10887A	P22-10887B	P22-10887C	P22-10887D	P22-10887E	P22-10887F
Test Number	25	26	27	28	29	30
Date Tested	23/11/2022	23/11/2022	23/11/2022	23/11/2022	23/11/2022	23/11/2022
Time Tested	08:45	09:15	10:30	11:30	14:10	14:30
Test Request #/Location	Lot 620	Lot 626	Lot 627	Lot 618	Lot 628	Lot 617
Layer / Reduced Level	Layer 2	Layer 2	Layer 1	Layer 2	Layer 1	Layer 1
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Silty SAND	Silty SAND	Silty SAND	Silty SAND	Silty SAND	Silty SAND
Test Depth (mm)	275	275	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**	**	**	**
Field Wet Density (FWD) t/m ³	1.97	2.06	2.09	2.04	1.94	1.94
Field Moisture Content %	6.7	10.5	10.6	8.7	9.6	8.0
Field Dry Density (FDD) t/m ³	1.85	1.86	1.89	1.87	1.77	1.79
Peak Converted Wet Density t/m ³	2.02	2.13	2.16	2.11	2.06	2.08
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	8.7	9.9	8.6	8.4	9.3	9.3
Adj. Field Moisture Content % (AS1289.5.4.1)	6.7	10.5	10.6	8.7	9.6	8.0
Moisture Ratio % (AS1289.5.4.1)	77.0	105.5	123.5	103.5	103.0	86.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**	**	**
Moisture Variation (Wv) %	2.0	-0.5	-2.0	-0.5	-0.5	1.5
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	98.0	97.0	96.5	96.5	94.0	93.0
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22945-4
Issue Number: 1
Date Issued: 29/11/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22945
Project Name: Octave Estate Stage 6 Level One
Project Location: Cranbourne
Work Request: 10899
Date Sampled: 24/11/2022
Dates Tested: 24/11/2022 - 25/11/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 6 Level One
Material: Silty SAND
Material Source: Onsite



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 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-10899A	P22-10899B	P22-10899C	P22-10899D	P22-10899E	P22-10899F
Test Number	31	32	33	34	35	36
Date Tested	24/11/2022	24/11/2022	24/11/2022	24/11/2022	24/11/2022	24/11/2022
Time Tested	**	**	**	**	**	**
Test Request #/Location	Lot 630	Lot 629	Lot 616	Lot 615	Lot 614	Lot 631
Layer / Reduced Level	Layer 1	Layer 2	Layer 2	Layer 2	Layer 1	Layer 1
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Silty SAND	Silty SAND	Silty SAND	Silty SAND	Silty SAND	Silty SAND
Test Depth (mm)	275	275	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	3	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**	**	**	**
Field Wet Density (FWD) t/m ³	2.01	1.95	1.96	2.06	2.01	2.04
Field Moisture Content %	8.5	6.5	10.1	9.4	12.0	10.9
Field Dry Density (FDD) t/m ³	1.85	1.83	1.78	1.89	1.79	1.84
Peak Converted Wet Density t/m ³	2.04	2.02	2.05	**	2.12	2.13
Adjusted Peak Converted Wet Density t/m ³	**	**	**	2.09	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	9.3	9.5	10.9	9.1	11.5	10.2
Adj. Field Moisture Content % (AS1289.5.4.1)	8.5	6.5	10.1	9.2	12.0	10.9
Moisture Ratio % (AS1289.5.4.1)	91.0	68.5	92.5	**	104.0	107.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	100.5	**	**
Moisture Variation (Wv) %	1.0	3.0	1.0	**	-0.5	-1.0
Adjusted Moisture Variation %	**	**	**	0.0	**	**
Hilf Density Ratio (%)	98.5	96.5	95.5	98.5	94.5	95.5
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22945-5
Issue Number: 1
Date Issued: 30/11/2022
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22945
Project Name: Octave Estate Stage 6 Level One
Project Location: Cranbourne
Client Reference: 7128
Work Request: 10920
Date Sampled: 26/11/2022 12:00
Dates Tested: 26/11/2022 - 29/11/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 6 Level One
Material: Clayey SAND
Material Source: Onsite



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 NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	P22-10920A	P22-10920B	
Test Number	44	45	
Date Tested	26/11/2022	26/11/2022	
Time Tested	12:00	12:00	
Test Request #/Location	Lot 605	Lot 604	
Layer / Reduced Level	Layer 1	Layer 2	
Thickness of Layer (mm)	300	300	
Soil Description	Clayey SAND	Clayey SAND	
Test Depth (mm)	275	275	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0	0	
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	0	
Field Wet Density (FWD) t/m ³	2.05	2.06	
Field Moisture Content %	11.1	10.6	
Field Dry Density (FDD) t/m ³	1.84	1.87	
Peak Converted Wet Density t/m ³	2.11	2.06	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Adj. Optimum Moisture Content % (AS1289.5.4.1)	10.8	11.2	
Adj. Field Moisture Content % (AS1289.5.4.1)	11.1	10.6	
Moisture Ratio % (AS1289.5.4.1)	102.5	95.0	
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	
Moisture Variation (Wv) %	-0.5	0.5	
Adjusted Moisture Variation %	**	**	
Hilf Density Ratio (%)	97.0	100.5	
Compaction Method	Standard	Standard	
Report Remarks	**	**	

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: P22945-6
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 03/03/2023
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22945
Project Name: Octave Estate Stage 6 Level One
Project Location: Cranbourne
Client Reference: 08705
Work Request: 10924
Date Sampled: 27/11/2022 12:30
Dates Tested: 27/11/2022 - 29/11/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 6 Level One
Lot Number: 611-633
Material: Clayey SAND
Material Source: Onsite



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Approved Signatory: Chris Caulfield
 Project Manager
 NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	P22-10924A	P22-10924B	P22-10924C	P22-10924D
Test Number	37	38	39	40
Date Tested	25/11/2022	25/11/2022	25/11/2022	25/11/2022
Time Tested	**	**	**	**
Test Request #/Location	Lot 628	Lot 632	Lot 623	Lot 622 Retest #22
Layer / Reduced Level	Layer 1	Layer 2	Layer 1	Layer 2
Thickness of Layer (mm)	300	300	300	300
Soil Description	**	**	**	**
Test Depth (mm)	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	0	0	**
Field Wet Density (FWD) t/m ³	2.06	1.95	1.78	1.89
Field Moisture Content %	8.9	10.4	5.9	6.0
Field Dry Density (FDD) t/m ³	1.89	1.77	1.68	1.78
Peak Converted Wet Density t/m ³	2.05	2.13	1.98	1.92
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	9.6	10.1	9.7	10.3
Adj. Field Moisture Content % (AS1289.5.4.1)	8.9	10.4	5.9	6.0
Moisture Ratio % (AS1289.5.4.1)	92.5	103.5	61.0	58.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**
Moisture Variation (Wv) %	1.0	-0.5	4.0	4.5
Adjusted Moisture Variation %	**	**	**	**
Hilf Density Ratio (%)	100.0	91.5	89.5	98.0
Compaction Method	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: P22945-6
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 03/03/2023
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22945
Project Name: Octave Estate Stage 6 Level One
Project Location: Cranbourne
Client Reference: 08705
Work Request: 10924
Date Sampled: 27/11/2022 12:30
Dates Tested: 27/11/2022 - 29/11/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 6 Level One
Lot Number: 611-633
Material: Clayey SAND
Material Source: Onsite



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Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Chris Caulfield
 Project Manager
 NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	P22-10924E	P22-10924F	P22-10924G	
Test Number	41	42	43	
Date Tested	25/11/2022	25/11/2022	25/11/2022	
Time Tested	**	**	**	
Test Request #/Location	Lot 633	Lot 611	Lot 612	
Layer / Reduced Level	Layer 2	Layer 2	Layer 2	
Thickness of Layer (mm)	300	300	300	
Soil Description	**	**	**	
Test Depth (mm)	275	275	275	
Sieve used to determine oversize (mm)	19.0	19.0	19.0	
Percentage of Wet Oversize (%)	0	0	0	
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	**	0	
Field Wet Density (FWD) t/m ³	2.08	2.04	2.05	
Field Moisture Content %	9.8	11.9	11.6	
Field Dry Density (FDD) t/m ³	1.89	1.82	1.83	
Peak Converted Wet Density t/m ³	2.18	2.17	2.13	
Adjusted Peak Converted Wet Density t/m ³	**	**	**	
Adj. Optimum Moisture Content % (AS1289.5.4.1)	9.5	11.1	11.2	
Adj. Field Moisture Content % (AS1289.5.4.1)	9.8	11.9	11.6	
Moisture Ratio % (AS1289.5.4.1)	103.5	107.0	104.0	
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	
Moisture Variation (Wv) %	-0.5	-1.0	-0.5	
Adjusted Moisture Variation %	**	**	**	
Hilf Density Ratio (%)	95.0	93.5	96.0	
Compaction Method	Standard	Standard	Standard	
Report Remarks	**	**	**	

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: P22945-7
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 03/03/2023
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22945
Project Name: Octave Estate Stage 6 Level One
Project Location: Cranbourne
Work Request: 10940
Date Sampled: 28/11/2022
Dates Tested: 28/11/2022 - 29/11/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 6 Level One
Material: Sandy silty CLAY
Material Source: Onsite



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Approved Signatory: Chris Caulfield
 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	P22-10940A	P22-10940B	P22-10940C	P22-10940D
Test Number	46	47	48	49
Date Tested	28/11/2022	28/11/2022	28/11/2022	28/11/2022
Time Tested	**	**	**	**
Test Request #/Location	Lot 613	Lot 614 retest #35	Lot 628 retest #29	Lot 601
Layer / Reduced Level	Layer 2	Layer 2	Layer 2	Layer 1
Thickness of Layer (mm)	300	300	300	300
Soil Description	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY
Test Depth (mm)	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	0	0	0
Field Wet Density (FWD) t/m ³	1.98	1.99	1.94	1.96
Field Moisture Content %	10.6	16.7	14.5	8.1
Field Dry Density (FDD) t/m ³	1.79	1.71	1.70	1.82
Peak Converted Wet Density t/m ³	2.03	2.05	2.05	2.06
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	12.4	18.8	16.7	10.4
Adj. Field Moisture Content % (AS1289.5.4.1)	10.6	16.7	14.5	8.1
Moisture Ratio % (AS1289.5.4.1)	85.5	89.0	87.0	78.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**
Moisture Variation (Wv) %	2.0	2.0	2.0	2.5
Adjusted Moisture Variation %	**	**	**	**
Hilf Density Ratio (%)	97.5	97.0	94.5	95.5
Compaction Method	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22945-7
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 03/03/2023
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22945
Project Name: Octave Estate Stage 6 Level One
Project Location: Cranbourne
Work Request: 10940
Date Sampled: 28/11/2022
Dates Tested: 28/11/2022 - 29/11/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 6 Level One
Material: Sandy silty CLAY
Material Source: Onsite



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 Project Manager

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	P22-10940E	P22-10940F	P22-10940G	
Test Number	50	51	52	
Date Tested	28/11/2022	28/11/2022	28/11/2022	
Time Tested	**	**	**	
Test Request #/Location	Lot 602	Lot 603	Lot 610	
Layer / Reduced Level	Layer 1	Layer 1	Layer 2	
Thickness of Layer (mm)	300	300	300	
Soil Description	Sandy silty CLAY	Sandy silty CLAY	Sandy silty CLAY	
Test Depth (mm)	275	275	275	
Sieve used to determine oversize (mm)	19.0	19.0	19.0	
Percentage of Wet Oversize (%)	0	0	0	
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	0	0	
Field Wet Density (FWD) t/m ³	1.96	2.12	2.02	
Field Moisture Content %	12.9	11.6	10.3	
Field Dry Density (FDD) t/m ³	1.73	1.90	1.83	
Peak Converted Wet Density t/m ³	2.02	2.12	2.13	
Adjusted Peak Converted Wet Density t/m ³	**	**	**	
Adj. Optimum Moisture Content % (AS1289.5.4.1)	12.6	13.5	10.7	
Adj. Field Moisture Content % (AS1289.5.4.1)	12.9	11.6	10.3	
Moisture Ratio % (AS1289.5.4.1)	102.0	86.0	96.0	
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	
Moisture Variation (Wv) %	-0.5	2.0	0.5	
Adjusted Moisture Variation %	**	**	**	
Hilf Density Ratio (%)	96.5	100.0	94.5	
Compaction Method	Standard	Standard	Standard	
Report Remarks	**	**	**	

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22945-8
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 03/03/2023
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22945
Project Name: Octave Estate Stage 6 Level One
Project Location: Cranbourne
Client Reference: 7131
Work Request: 10976
Date Sampled: 30/11/2022
Dates Tested: 30/11/2022 - 05/12/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 6 Level One
Material: Clayey SAND
Material Source: Onsite



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NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-10976A	P22-10976B	P22-10976C	P22-10976D	P22-10976E	P22-10976F
Test Number	53	54	55	56	57	58
Date Tested	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022
Time Tested	**	**	**	**	**	**
Test Request #/Location	Lot 606	Lot 609	Lot 624 RETEST #24	Lot 617 RETEST #30	Lot 632 RETEST #38	Lot 623 RETEST #39
Layer / Reduced Level	Layer 2	Layer 2	Layer 2	Layer 1	Layer 2	Layer 1
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND
Test Depth (mm)	275	275	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0	0	2
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	**	0	0	**	**
Field Wet Density (FWD) t/m ³	2.15	2.04	1.99	2.14	1.99	2.00
Field Moisture Content %	7.8	6.4	7.3	8.3	7.3	7.3
Field Dry Density (FDD) t/m ³	1.99	1.92	1.86	1.98	1.86	1.87
Peak Converted Wet Density t/m ³	2.15	2.08	2.07	2.15	2.09	**
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	2.13
Adj. Optimum Moisture Content % (AS1289.5.4.1)	8.9	7.0	8.9	9.5	9.3	8.9
Adj. Field Moisture Content % (AS1289.5.4.1)	7.8	6.4	7.3	8.3	7.3	7.2
Moisture Ratio % (AS1289.5.4.1)	87.0	91.5	82.5	87.5	79.0	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**	**	81.5
Moisture Variation (Wv) %	1.0	0.5	1.5	1.0	2.0	**
Adjusted Moisture Variation %	**	**	**	**	**	1.5
Hilf Density Ratio (%)	100.0	98.5	96.0	99.5	95.5	94.0
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: P22945-8
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 03/03/2023
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22945
Project Name: Octave Estate Stage 6 Level One
Project Location: Cranbourne
Client Reference: 7131
Work Request: 10976
Date Sampled: 30/11/2022
Dates Tested: 30/11/2022 - 05/12/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 6 Level One
Material: Clayey SAND
Material Source: Onsite



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	P22-10976G	P22-10976H	P22-10976I	P22-10976J	P22-10976K	
Test Number	59	60	61	62	63	
Date Tested	30/11/2022	30/11/2022	30/11/2022	30/11/2022	30/11/2022	
Time Tested	**	**	**	**	**	
Test Request #/Location	Lot 611 RETEST #42	Lot 618 RETEST #48	Lot 610 RETEST #52	Lot 605	Lot 610	
Layer / Reduced Level	Layer 2	Layer 2	Layer 2	FSL	FSL	
Thickness of Layer (mm)	300	300	300	300	300	
Soil Description	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	
Test Depth (mm)	275	275	275	275	275	
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	
Percentage of Wet Oversize (%)	0	0	0	0	0	
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	0	**	**	0	
Field Wet Density (FWD) t/m ³	2.02	2.03	2.00	1.96	1.92	
Field Moisture Content %	7.1	7.7	13.3	10.3	10.6	
Field Dry Density (FDD) t/m ³	1.88	1.89	1.77	1.78	1.73	
Peak Converted Wet Density t/m ³	2.09	2.10	2.05	1.99	2.12	
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	
Adj. Optimum Moisture Content % (AS1289.5.4.1)	9.2	9.4	11.8	10.4	10.8	
Adj. Field Moisture Content % (AS1289.5.4.1)	7.1	7.7	13.3	10.3	10.6	
Moisture Ratio % (AS1289.5.4.1)	77.0	81.5	113.0	99.0	98.5	
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**	**	**	
Moisture Variation (Wv) %	2.0	2.0	-1.5	0.0	0.0	
Adjusted Moisture Variation %	**	**	**	**	**	
Hilf Density Ratio (%)	96.5	96.5	97.5	98.5	90.5	
Compaction Method	Standard	Standard	Standard	Standard	Standard	
Report Remarks	**	**	**	**	**	

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: P22945-9
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason:
Date Issued: 03/03/2023
Client: Street Works Pty Ltd
 45 Commercial Drive, Pakenham Vic 3810
Project Number: P22945
Project Name: Octave Estate Stage 6 Level One
Project Location: Cranbourne
Work Request: 11004
Date Sampled: 02/12/2022 13:00
Dates Tested: 02/12/2022 - 06/12/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95%
Site Selection: Selected by Client
Location: Octave Estate Stage 6
Material: Sandy silty CLAY
Material Source: Onsite



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 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

Sample Number	P22-11004A	P22-11004B	
Test Number	64	65	
Date Tested	02/12/2022	02/12/2022	
Time Tested	**	**	
Test Request #/Location	Lot 623 Retest #58	Lot 610 Retest #63	
Layer / Reduced Level	Layer 1	FSL	
Thickness of Layer (mm)	300	300	
Soil Description	Sandy silty CLAY	Sandy silty CLAY	
Test Depth (mm)	275	275	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0	0	
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	0	
Field Wet Density (FWD) t/m ³	2.05	2.05	
Field Moisture Content %	9.7	9.4	
Field Dry Density (FDD) t/m ³	1.87	1.88	
Peak Converted Wet Density t/m ³	2.05	2.05	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Adj. Optimum Moisture Content % (AS1289.5.4.1)	11.7	11.0	
Adj. Field Moisture Content % (AS1289.5.4.1)	9.7	9.4	
Moisture Ratio % (AS1289.5.4.1)	83.5	85.0	
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	
Moisture Variation (Wv) %	2.0	1.5	
Adjusted Moisture Variation %	**	**	
Hilf Density Ratio (%)	100.5	100.0	
Compaction Method	Standard	Standard	
Report Remarks	**	**	

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC