Riverwalk Stage 35

GITA Inspection Verification Report

Prepared For:	Excell Gray Bruni
Report Number	D22761A V1
Version Release Date	6 Jun 2023
Report Released By	C Caulfield
Title	Project Manager
Signature	

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

Table of Contents

Appendices

1 Introduction

Terra Firma Laboratories was engaged by Excell Gray Bruni as the Geotechnical Inspection and Testing Authority (GITA) to provide Level 1 supervision and testing works on the earthworks component for Riverwalk Stage 35. This work was conducted over the period of 03/03/2022 to 05/04/2023.

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 3501 to 3558, bounded by streets Pirka Way, Prana Way, Rawson Circuit, Breezy Circuit and Gokula Street. 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 Dalton Consulting Engineers (Drawing Reference: 10935FP01 and 10935FP02) and provided by Excell Gray Bruni.

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 Excell Gray Bruni 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 1500m^2), the minimum testing frequency is 1 test per layer per material type per 2500m^2 or 1 test per 500m^3 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.

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

The sub-grade area for lots 3501 through to 3509 was inspected during the construction of stage 32.

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.

Approximately 9-10 layers of material was placed across lots 3501 to 3505 and several layers across 3506 to 3509 during the construction and level 1 supervision of stage 32.

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 to have been conducted within the house allotment but may have been verified by testing conducted within up to a 2500m^2 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 300mm 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 300mm 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 (D22761D1, 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 100 density tests (Hilf method in accordance with 1289 5.7.1) were undertaken with 0 failed results. 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 35 at Riverwalk. For completed fill areas of greater than 300mm, and for works completed between 03/03/2022 and 05/04/2023, 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 35 of Riverwalk was observed to be constructed in compliance with the requirements of the Technical Specification.

Appendix 1: Test Location Plan

Our Head Office
47 National Ave
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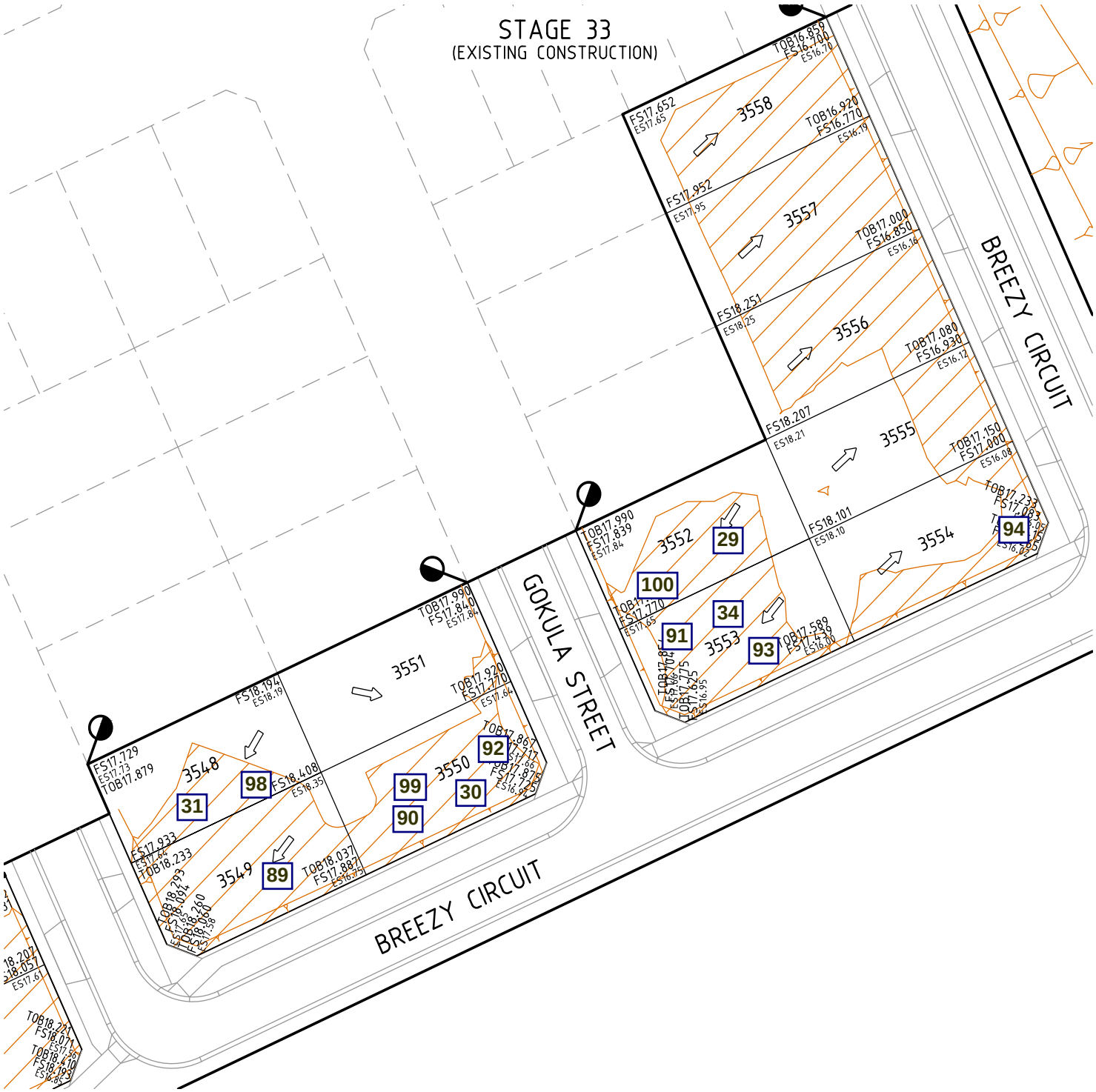

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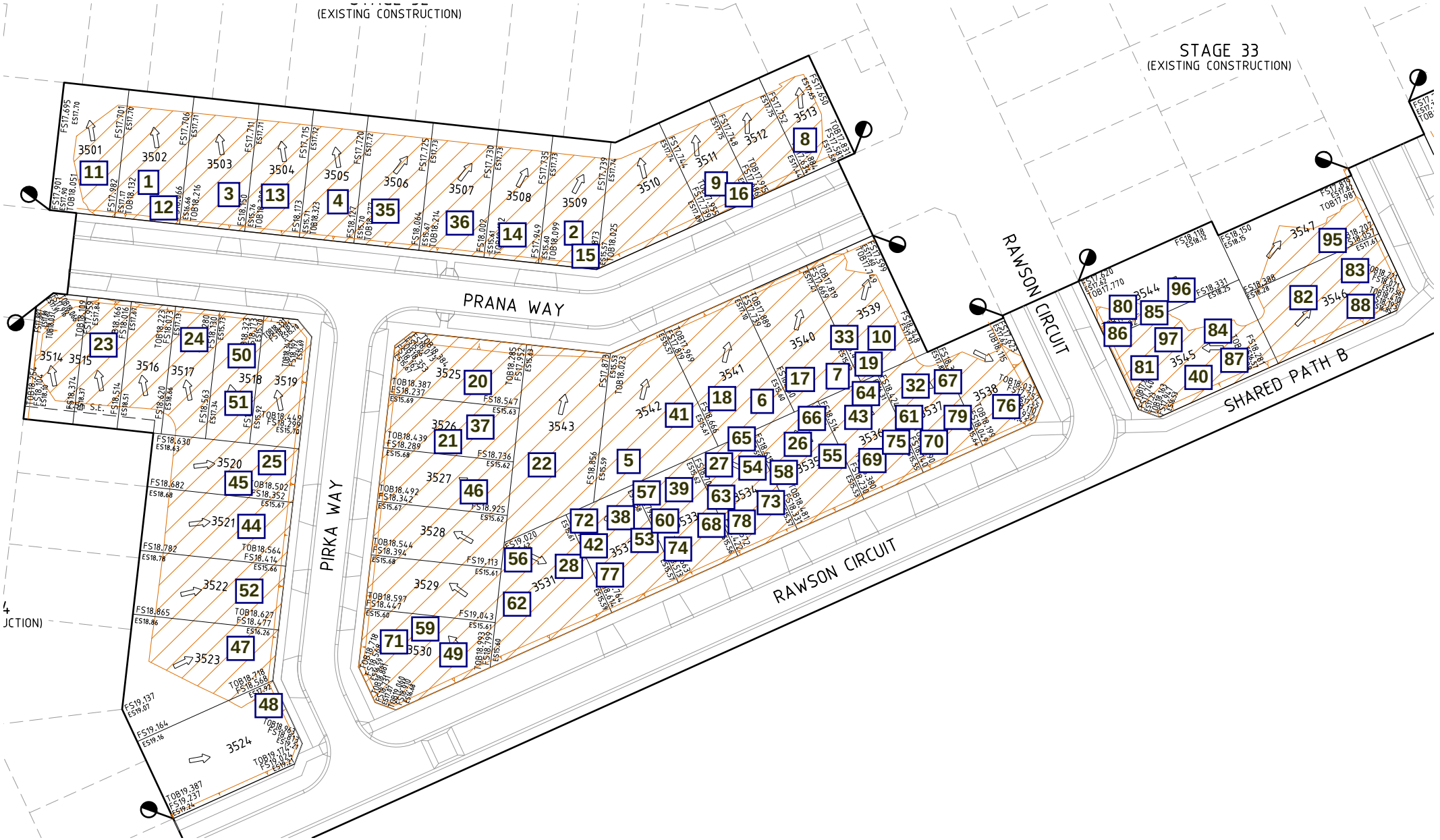
Test Location Plan

not to scale

Client:	Excell Gray Bruni
Project:	Riverwalk Stage 35
Reference:	D22761 D1



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Test Location Plan

not to scale

Client:	Excell Gray Bruni
Project:	Riverwalk Stage 35
Reference:	D22761 D1

Appendix 2: Compaction Test Register and Test Certificates

Compaction Test Register

Client: Excell Gray Bruni
Project: Riverwalk Stage 35
Project No: D22761
Specification: 95%

Date:	Test No:	Layer:	Retest of:	Density:	Pass/Fail:	Lot No:	Report No:
3/03/2022	1	Layer 11		106.0%	Pass	Lot 3502	D22761-1
9/03/2022	2	Layer 2		96.5%	Pass	Lot 3509	D22761-2
10/03/2022	3	Layer 12		98.0%	Pass	Lot 3503	D22761-3
11/03/2022	4	Layer 13		95.5%	Pass	Lot 3505	D22761-4
28/04/2022	5	Layer 1		100.5%	Pass	Lot 3542	D22761-5
28/04/2022	6	Layer 1		101.5%	Pass	Lot 3541	D22761-5
28/04/2022	7	Layer 1		101.0%	Pass	Lot 3540	D22761-5
13/05/2022	8	Layer 4		97.5%	Pass	Lot 3513	D22761-6
13/05/2022	9	Layer 4		99.0%	Pass	Lot 3511	D22761-6
13/05/2022	10	Layer 2		98.0%	Pass	Lot 3539	D22761-6
16/05/2022	11	FSL		103.0%	Pass	Lot 3501	D22761-7
16/05/2022	12	FSL		100.5%	Pass	Lot 3503	D22761-7
16/05/2022	13	FSL		103.5%	Pass	Lot 3504	D22761-7
17/05/2022	14	Layer 5		103.5%	Pass	Lot 3508	D22761-8
17/05/2022	15	Layer 5		103.5%	Pass	Lot 3509	D22761-8
17/05/2022	16	Layer 6		104.5%	Pass	Lot 3511	D22761-8
18/05/2022	17	Layer 3		103.5%	Pass	Lot 3540	D22761-9
18/05/2022	18	Layer 3		103.5%	Pass	Lot 3541	D22761-9
18/05/2022	19	Layer 3		101.5%	Pass	Lot 3539	D22761-9
9/06/2022	20	Layer 1		102.0%	Pass	Lot 3525	D22761-10
9/06/2022	21	Layer 1		103.5%	Pass	Lot 3526	D22761-10
9/06/2022	22	Layer 5		100.5%	Pass	Lot 3543	D22761-10
10/06/2022	23	Layer 2		102.5%	Pass	Lot 3515	D22761-11
10/06/2022	24	Layer 2		97.5%	Pass	Lot 3517	D22761-11
10/06/2022	25	Layer 2		103.0%	Pass	Lot 3520	D22761-11
22/06/2022	26	Layer 2		101.0%	Pass	Lot 3535	D22761-12
22/06/2022	27	Layer 2		102.5%	Pass	Lot 3534	D22761-12
22/06/2022	28	Layer 2		100.0%	Pass	Lot 3531	D22761-12
23/06/2022	29	Layer 3		103.0%	Pass	Lot 3552	D22761-13
23/06/2022	30	Layer 3		100.0%	Pass	Lot 3550	D22761-13
23/06/2022	31	Layer 3		101.0%	Pass	Lot 3548	D22761-13
24/06/2022	32	Layer 2		104.5%	Pass	Lot 3537	D22761-14
24/06/2022	33	Layer 2		103.0%	Pass	Lot 3539	D22761-14
24/06/2022	34	Layer 2		98.5%	Pass	Lot 3553	D22761-14
27/06/2022	35	Layer 6		103.0%	Pass	Lot 3506	D22761-15
27/06/2022	36	Layer 6		105.0%	Pass	Lot 3507	D22761-15
27/06/2022	37	Layer 6		101.5%	Pass	Lot 3526	D22761-15
28/06/2022	38	Layer 4		98.5%	Pass	Lot 3532	D22761-16
28/06/2022	39	Layer 4		102.0%	Pass	Lot 3533	D22761-16
28/06/2022	40	Layer 4		98.5%	Pass	Lot 3545	D22761-16
18/07/2022	41	Layer 7		101.5%	Pass	Lot 3542	D22761-17

Compaction Test Register

Client: Excell Gray Bruni
Project: Riverwalk Stage 35
Project No: D22761
Specification: 95%

Date:	Test No:	Layer:	Retest of:	Density:	Pass/Fail:	Lot No:	Report No:
18/07/2022	42	Layer 4		101.0%	Pass	Lot 3532	D22761-17
18/07/2022	43	Layer 4		101.0%	Pass	Lot 3536	D22761-17
22/07/2022	44	Layer 5		98.5%	Pass	Lot 3521	D22761-18
22/07/2022	45	Layer 5		98.0%	Pass	Lot 3520	D22761-18
22/07/2022	46	Layer 5		96.5%	Pass	Lot 3527	D22761-18
1/08/2022	47	Layer 5		102.5%	Pass	Lot 3523	D22761-19
1/08/2022	48	Layer 5		100.0%	Pass	Lot 3524	D22761-19
1/08/2022	49	Layer 5		101.0%	Pass	Lot 3530	D22761-19
3/08/2022	50	Layer 6		98.0%	Pass	Lot 3518	D22761-20
3/08/2022	51	Layer 6		99.0%	Pass	Lot 3518	D22761-20
3/08/2022	52	Layer 6		97.5%	Pass	Lot 3522	D22761-20
2/03/2023	53	Layer 1		100.0%	Pass	Lot 3532	D22761-21
2/03/2023	54	Layer 1		101.0%	Pass	Lot 3534	D22761-21
2/03/2023	55	Layer 1		101.5%	Pass	Lot 3535	D22761-21
3/03/2023	56	Layer 3		102.5%	Pass	Lot 3531	D22761-22
3/03/2023	57	Layer 3		102.0%	Pass	Lot 3533	D22761-22
3/03/2023	58	Layer 2		99.5%	Pass	Lot 3535	D22761-22
6/03/2023	59	Layer 4		100.0%	Pass	Lot 3530	D22761-23
6/03/2023	60	Layer 5		99.0%	Pass	Lot 3533	D22761-23
6/03/2023	61	Layer 5		99.5%	Pass	Lot 3537	D22761-23
7/03/2023	62	Layer 7		100.5%	Pass	Lot 3531	D22761-24
7/03/2023	63	Layer 7		102.0%	Pass	Lot 3534	D22761-24
7/03/2023	64	Layer 7		101.5%	Pass	Lot 3536	D22761-24
8/03/2023	65	Layer 8		100.0%	Pass	Lot 3534	D22761-25
8/03/2023	66	Layer 8		96.5%	Pass	Lot 3535	D22761-25
8/03/2023	67	Layer 8		102.5%	Pass	Lot 3537	D22761-25
9/03/2023	68	Layer 9		98.0%	Pass	Lot 3533	D22761-26
9/03/2023	69	Layer 9		102.0%	Pass	Lot 3536	D22761-26
9/03/2023	70	Layer 9		102.0%	Pass	Lot 3537	D22761-26
14/03/2023	71	Layer 10		97.5%	Pass	Lot 3530	D22761-27
14/03/2023	72	Layer 10		97.0%	Pass	Lot 3532	D22761-27
14/03/2023	73	Layer 10		99.0%	Pass	Lot 3534	D22761-27
15/03/2023	74	Layer 11		99.5%	Pass	Lot 3533	D22761-28
15/03/2023	75	Layer 11		102.0%	Pass	Lot 3536	D22761-28
15/03/2023	76	Layer 11		98.5%	Pass	Lot 3538	D22761-28
16/03/2023	77	Layer 12		99.5%	Pass	Lot 3532	D22761-29
16/03/2023	78	Layer 12		98.0%	Pass	Lot 3534	D22761-29
16/03/2023	79	Layer 12		98.0%	Pass	Lot 3537	D22761-29
28/03/2023	80	Layer 1		100.5%	Pass	Lot 3544	D22761-30
28/03/2023	81	Layer 1		102.0%	Pass	Lot 3545	D22761-30
28/03/2023	82	Layer 1		104.0%	Pass	Lot 3546	D22761-30

Compaction Test Register

Client: Excell Gray Bruni
Project: Riverwalk Stage 35
Project No: D22761
Specification: 95%

Date:	Test No:	Layer:	Retest of:	Density:	Pass/Fail:	Lot No:	Report No:
29/03/2023	83	Layer 2		102.5%	Pass	Lot 3546	D22761-31
29/03/2023	84	Layer 2		102.0%	Pass	Lot 3545	D22761-31
29/03/2023	85	Layer 2		102.0%	Pass	Lot 3544	D22761-31
30/03/2023	86	Layer 3		101.0%	Pass	Lot 3544	D22761-32
30/03/2023	87	Layer 3		103.0%	Pass	Lot 3545	D22761-32
30/03/2023	88	Layer 3		101.0%	Pass	Lot 3546	D22761-32
31/03/2023	89	Layer 4		102.0%	Pass	Lot 3549	D22761-33
31/03/2023	90	Layer 2		100.0%	Pass	Lot 3550	D22761-33
31/03/2023	91	Layer 2		102.5%	Pass	Lot 3553	D22761-33
3/04/2023	92	Layer 5		102.5%	Pass	Lot 3550	D22761-34
3/04/2023	93	Layer 3		102.5%	Pass	Lot 3553	D22761-34
3/04/2023	94	Layer 3		102.5%	Pass	Lot 3554	D22761-34
4/04/2023	95	Layer 5		102.5%	Pass	Lot 3547	D22761-35
4/04/2023	96	Layer 5		102.5%	Pass	Lot 3544	D22761-35
4/04/2023	97	Layer 5		102.5%	Pass	Lot 3545	D22761-35
5/04/2023	98	Layer 5		102.0%	Pass	Lot 3548	D22761-36
5/04/2023	99	Layer 5		102.5%	Pass	Lot 3550	D22761-36
5/04/2023	100	Layer 5		101.5%	Pass	Lot 3552	D22761-36

Material Test Report

Report Number: D22761-1
Issue Number: 1
Date Issued: 07/03/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4343
Date Sampled: 03/03/2022 14:35
Dates Tested: 03/03/2022 - 04/03/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate Stage 35 - Level one
Material: Silty Clay
Material Source: On Site

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Phone: 0435 751 756
Email: ehippola@terrafirmalabs.com.au

Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Eranda Hippola
Laboratory Manager
NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4343A		
Date Tested	03/03/2022		
Time Tested	14:35		
Test Request #/Location	LOT 3502		
Layer / Reduced Level	Layer 11		
Thickness of Layer (mm)	300		
Soil Description	Silty Clay		
Test Depth (mm)	275		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	17		
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**		
Field Wet Density (FWD) t/m^3	2.26		
Field Moisture Content %	22.1		
Field Dry Density (FDD) t/m^3	1.91		
Peak Converted Wet Density t/m^3	**		
Adjusted Peak Converted Wet Density t/m^3	2.13		
Adj. Optimum Moisture Content % (AS1289.5.4.1)	21.1		
Adj. Field Moisture Content % (AS1289.5.4.1)	18.3		
Moisture Ratio % (AS1289.5.4.1)	**		
Adjusted Moisture Ratio % (AS1289.5.4.1)	86.5		
Moisture Variation (Wv) %	**		
Adjusted Moisture Variation %	2.5		
Hilf Density Ratio (%)	**106.0**		
Compaction Method	**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: **D22761-2**
Issue Number: 1
Date Issued: 11/03/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4367
Date Sampled: 09/03/2022 15:00
Dates Tested: 09/03/2022 - 10/03/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Site Selection: Selected by Client
Location: Riverwalk Estate Stage 35 - Level one
Material: Clay
Material Source: Imported

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Approved Signatory: Eranda Hippola
Laboratory Manager
NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4367A		
Date Tested	09/03/2022		
Time Tested	15:00		
Test Request #/Location	LOT 3509		
Layer / Reduced Level	Layer 2		
Thickness of Layer (mm)	300		
Soil Description	Clay		
Test Depth (mm)	275		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0		
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0		
Field Wet Density (FWD) t/m^3	1.86		
Field Moisture Content %	17.5		
Field Dry Density (FDD) t/m^3	1.58		
Peak Converted Wet Density t/m^3	1.93		
Adjusted Peak Converted Wet Density t/m^3	**		
Adj. Optimum Moisture Content % (AS1289.5.4.1)	23.1		
Adj. Field Moisture Content % (AS1289.5.4.1)	17.5		
Moisture Ratio % (AS1289.5.4.1)	75.5		
Adjusted Moisture Ratio % (AS1289.5.4.1)	**		
Moisture Variation (Wv) %	5.5		
Adjusted Moisture Variation %	**		
Hilf Density Ratio (%)	**96.5**		
Compaction Method	**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: D22761-3
Issue Number: 1
Date Issued: 15/03/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4374
Date Sampled: 10/03/2022 14:55
Dates Tested: 10/03/2022 - 11/03/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Site Selection: Selected by Client
Location: Riverwalk Estate Stage 35 - Level one
Material: Clay
Material Source: Imported

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Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Eranda Hippola
Laboratory Manager
NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4374A		
Date Tested	10/03/2022		
Time Tested	14:55		
Test Request #/Location	LOT 3503		
Layer / Reduced Level	Layer 12		
Thickness of Layer (mm)	300		
Soil Description	Clay		
Test Depth (mm)	275		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	4		
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**		
Field Wet Density (FWD) t/m^3	1.91		
Field Moisture Content %	23.8		
Field Dry Density (FDD) t/m^3	1.55		
Peak Converted Wet Density t/m^3	**		
Adjusted Peak Converted Wet Density t/m^3	1.95		
Adj. Optimum Moisture Content % (AS1289.5.4.1)	24.4		
Adj. Field Moisture Content % (AS1289.5.4.1)	22.9		
Moisture Ratio % (AS1289.5.4.1)	**		
Adjusted Moisture Ratio % (AS1289.5.4.1)	94.0		
Moisture Variation (Wv) %	**		
Adjusted Moisture Variation %	1.5		
Hilf Density Ratio (%)	**98.0**		
Compaction Method	**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: D22761-4
Issue Number: 1
Date Issued: 16/03/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4379
Date Sampled: 11/03/2022 14:55
Dates Tested: 11/03/2022 - 15/03/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Site Selection: Selected by Client
Location: Riverwalk Estate Stage 35 - Level one
Material: Clay
Material Source: Imported

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Deer Park Laboratory
17 Walhalla Way Ravenhall VIC 3023
Phone: 0435 751 756
Email: ehippola@terrafirmalabs.com.au

Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Eranda Hippola
Laboratory Manager
NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4379A		
Date Tested	11/03/2022		
Time Tested	14:30		
Test Request #/Location	LOT 3505		
Layer / Reduced Level	Layer 13		
Thickness of Layer (mm)	300		
Soil Description	Clay		
Test Depth (mm)	275		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	17		
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0		
Field Wet Density (FWD) t/m^3	1.91		
Field Moisture Content %	22.6		
Field Dry Density (FDD) t/m^3	1.61		
Peak Converted Wet Density t/m^3	**		
Adjusted Peak Converted Wet Density t/m^3	2.00		
Adj. Optimum Moisture Content % (AS1289.5.4.1)	24.2		
Adj. Field Moisture Content % (AS1289.5.4.1)	18.6		
Moisture Ratio % (AS1289.5.4.1)	**		
Adjusted Moisture Ratio % (AS1289.5.4.1)	77.0		
Moisture Variation (Wv) %	**		
Adjusted Moisture Variation %	1.5		
Hilf Density Ratio (%)	**95.5**		
Compaction Method	**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: D22761-5
Issue Number: 1
Date Issued: 02/05/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4580
Date Sampled: 28/04/2022 14:45
Dates Tested: 28/04/2022 - 29/04/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk stage 35 - Level One
Material: Clay
Material Source: Imported

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4580A	D22-4580B	D22-4580C
Test Number	5	6	7
Date Tested	28/04/2022	28/04/2022	28/04/2022
Time Tested	14:30	14:40	14:50
Test Request #/Location	Lot 3542	Lot 3541	Lot 3540
Layer / Reduced Level	Layer 1	Layer 1	Layer 1
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	Clay
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	10	7	8
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**
Field Wet Density (FWD) t/m^3	2.00	2.01	2.02
Field Moisture Content %	19.0	19.6	19.1
Field Dry Density (FDD) t/m^3	1.71	1.70	1.72
Peak Converted Wet Density t/m^3	**	**	**
Adjusted Peak Converted Wet Density t/m^3	1.99	1.98	2.00
Adj. Optimum Moisture Content % (AS1289.5.4.1)	21.1	22.9	21.3
Adj. Field Moisture Content % (AS1289.5.4.1)	17.1	18.1	17.6
Moisture Ratio % (AS1289.5.4.1)	**	**	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	81.0	79.0	82.5
Moisture Variation (Wv) %	**	**	**
Adjusted Moisture Variation %	4.0	4.5	3.5
Hilf Density Ratio (%)	**100.5**	**101.5**	**101.0**
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: D22761-6
Issue Number: 1
Date Issued: 17/05/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4647
Date Sampled: 13/05/2022 14:15
Dates Tested: 13/05/2022 - 16/05/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: RiverWalk Estate Stage 35 - Level One
Material: Clay
Material Source: Imported

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4647A	D22-4647B	D22-4647C
Test Number	8	9	10
Date Tested	13/05/2022	13/05/2022	13/05/2022
Time Tested	14:15	14:30	14:45
Test Request #/Location	LOT 3513	LOT 3511	LOT 3539
Layer / Reduced Level	LAYER 4	LAYER 4	LAYER 2
Thickness of Layer (mm)	300	300	300
Soil Description	CLAY	CLAY	CLAY
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	3	3	3
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**
Field Wet Density (FWD) t/m^3	1.94	1.96	1.90
Field Moisture Content %	19.5	19.0	19.5
Field Dry Density (FDD) t/m^3	1.63	1.65	1.60
Peak Converted Wet Density t/m^3	**	**	**
Adjusted Peak Converted Wet Density t/m^3	1.99	1.97	1.94
Adj. Optimum Moisture Content % (AS1289.5.4.1)	20.0	19.3	21.2
Adj. Field Moisture Content % (AS1289.5.4.1)	18.9	18.5	19.0
Moisture Ratio % (AS1289.5.4.1)	**	**	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	95.0	95.5	90.0
Moisture Variation (Wv) %	**	**	**
Adjusted Moisture Variation %	1.0	1.0	2.0
Hilf Density Ratio (%)	**97.5**	**99.0**	**98.0**
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: D22761-7
Issue Number: 1
Date Issued: 18/05/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4651
Date Sampled: 16/05/2022 14:15
Dates Tested: 16/05/2022 - 17/05/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: RiverWalk Estate Stage 35 - Level One
Material: CLAY
Material Source: IMPORTED

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4651A	D22-4651B	D22-4651C
Test Number	11	12	13
Date Tested	16/05/2022	16/05/2022	16/05/2022
Time Tested	14:15	14:30	14:45
Test Request #/Location	LOT 3501	LOT 3503	LOT 3504
Layer / Reduced Level	LAYER 15	LAYER 15	LAYER 15
Thickness of Layer (mm)	300	300	300
Soil Description	CLAY	CLAY	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	2.01	1.99	2.04
Field Moisture Content %	16.8	18.9	16.8
Field Dry Density (FDD) t/m^3	1.72	1.67	1.75
Peak Converted Wet Density t/m^3	1.96	1.97	1.97
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	20.7	23.0	20.7
Adj. Field Moisture Content % (AS1289.5.4.1)	16.8	18.9	16.8
Moisture Ratio % (AS1289.5.4.1)	81.0	82.5	81.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	4.0	4.0	3.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**103.0**	**100.5**	**103.5**
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: D22761-8
Issue Number: 1
Date Issued: 20/05/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4655
Date Sampled: 17/05/2022 14:10
Dates Tested: 17/05/2022 - 19/05/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate Stage 35 - Level one
Material: Clay
Material Source: On Site

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4655A	D22-4655B	D22-4655C
Test Number	14	15	16
Date Tested	17/05/2022	17/05/2022	17/05/2022
Time Tested	14:10	14:20	14:40
Test Request #/Location	Lot 3508	Lot 3509	Lot 3511
Layer / Reduced Level	Layer 5	Layer 5	Layer 6
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	Clay
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	6	3	3
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**
Field Wet Density (FWD) t/m^3	2.00	2.01	2.03
Field Moisture Content %	12.7	11.6	11.6
Field Dry Density (FDD) t/m^3	1.78	1.81	1.82
Peak Converted Wet Density t/m^3	**	**	**
Adjusted Peak Converted Wet Density t/m^3	1.93	1.94	1.94
Adj. Optimum Moisture Content % (AS1289.5.4.1)	16.7	16.2	16.3
Adj. Field Moisture Content % (AS1289.5.4.1)	11.9	11.3	11.3
Moisture Ratio % (AS1289.5.4.1)	**	**	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	71.5	70.0	69.0
Moisture Variation (Wv) %	**	**	**
Adjusted Moisture Variation %	5.0	5.0	5.0
Hilf Density Ratio (%)	**103.5**	**103.5**	**104.5**
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: D22761-9
Issue Number: 1
Date Issued: 23/05/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4659
Date Sampled: 18/05/2022 14:30
Dates Tested: 18/05/2022 - 20/05/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate Stage 35 - Level one
Material: Clay
Material Source: Imported

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4659A	D22-4659B	D22-4659C
Test Number	17	18	19
Date Tested	18/05/2022	18/05/2022	18/05/2022
Time Tested	14:30	15:15	15:35
Test Request #/Location	Lot 3540	Lot 3541	Lot 3539
Easting	292815	292808	292822
Northing	5800042	5800023	5800032
Layer / Reduced Level	Layer 3	Layer 3	Layer 3
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	Clay
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	4	5	4
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**
Field Wet Density (FWD) t/m^3	2.05	2.04	1.99
Field Moisture Content %	19.5	20.2	20.6
Field Dry Density (FDD) t/m^3	1.73	1.71	1.66
Peak Converted Wet Density t/m^3	**	**	**
Adjusted Peak Converted Wet Density t/m^3	1.98	1.97	1.97
Adj. Optimum Moisture Content % (AS1289.5.4.1)	23.1	21.4	22.5
Adj. Field Moisture Content % (AS1289.5.4.1)	18.7	19.1	19.7
Moisture Ratio % (AS1289.5.4.1)	**	**	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	81.0	89.0	87.5
Moisture Variation (Wv) %	**	**	**
Adjusted Moisture Variation %	4.0	2.5	2.5
Hilf Density Ratio (%)	**103.5**	**103.5**	**101.5**
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: D22761-10
Issue Number: 1
Date Issued: 14/06/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4738
Date Sampled: 09/06/2022 14:30
Dates Tested: 09/06/2022 - 10/06/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: RiverWalk Estate Stage 35 - Level One
Material: CLAY
Material Source: IMPORTED

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4738A	D22-4738B	D22-4738C
Test Number	20	21	22
Date Tested	09/06/2022	09/06/2022	09/06/2022
Time Tested	14:30	14:45	15:00
Test Request #/Location	LOT 3525	LOT 3526	LOT 3543
Layer / Reduced Level	LAYER 1	LAYER 1	LAYER 5
Thickness of Layer (mm)	300	300	300
Soil Description	CLAY	CLAY	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	1.85	1.92	1.85
Field Moisture Content %	24.8	24.3	24.4
Field Dry Density (FDD) t/m^3	1.48	1.54	1.49
Peak Converted Wet Density t/m^3	1.81	1.85	1.84
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	27.8	27.1	26.9
Adj. Field Moisture Content % (AS1289.5.4.1)	24.8	24.3	24.4
Moisture Ratio % (AS1289.5.4.1)	89.0	90.0	90.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	3.0	2.5	2.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**102.0**	**103.5**	**100.5**
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: D22761-11
Issue Number: 1
Date Issued: 16/06/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4744
Date Sampled: 10/06/2022 14:15
Dates Tested: 10/06/2022 - 15/06/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: RiverWalk Estate Stage 35 - Level One
Material: CLAY
Material Source: IMPORTED

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4744A	D22-4744B	D22-4744C
Test Number	23	24	25
Date Tested	10/06/2022	10/06/2022	10/06/2022
Time Tested	14:30	14:45	15:00
Test Request #/Location	LOT 3515	LOT 3517	LOT 3520
Layer / Reduced Level	LAYER 2	LAYER 2	LAYER 2
Thickness of Layer (mm)	300	300	300
Soil Description	CLAY	CLAY	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	1.88	1.91	1.94
Field Moisture Content %	24.2	24.5	24.7
Field Dry Density (FDD) t/m^3	1.52	1.54	1.56
Peak Converted Wet Density t/m^3	1.84	1.96	1.89
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	27.0	22.4	22.2
Adj. Field Moisture Content % (AS1289.5.4.1)	24.2	24.5	24.7
Moisture Ratio % (AS1289.5.4.1)	89.5	109.5	111.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	2.5	-2.0	-2.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**102.5**	**97.5**	**103.0**
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: D22761-12
Issue Number: 1
Date Issued: 24/06/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4773
Date Sampled: 22/06/2022 14:30
Dates Tested: 22/06/2022 - 23/06/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate Stage 35 - Level One
Material: CLAY
Material Source: IMPORTED

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4773A	D22-4773B	D22-4773C
Test Number	26	27	28
Date Tested	22/06/2022	22/06/2022	22/06/2022
Time Tested	14:30	14:45	15:00
Test Request #/Location	LOT 3535	LOT 3534	LOT 3531
Layer / Reduced Level	LAYER 2	LAYER 2	LAYER 2
Thickness of Layer (mm)	300	300	300
Soil Description	CLAY	CLAY	CLAY
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	6	10	6
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**
Field Wet Density (FWD) t/m^3	1.98	2.04	1.94
Field Moisture Content %	22.6	22.4	22.6
Field Dry Density (FDD) t/m^3	1.63	1.70	1.61
Peak Converted Wet Density t/m^3	**	**	**
Adjusted Peak Converted Wet Density t/m^3	1.96	1.99	1.94
Adj. Optimum Moisture Content % (AS1289.5.4.1)	24.0	23.0	24.1
Adj. Field Moisture Content % (AS1289.5.4.1)	21.3	20.2	21.1
Moisture Ratio % (AS1289.5.4.1)	**	**	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	88.5	88.0	88.0
Moisture Variation (Wv) %	**	**	**
Adjusted Moisture Variation %	2.5	2.5	3.0
Hilf Density Ratio (%)	**101.0**	**102.5**	**100.0**
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: D22761-13
Issue Number: 1
Date Issued: 27/06/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4776
Date Sampled: 23/06/2022 13:45
Dates Tested: 23/06/2022 - 27/06/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: RiverWalk Estate Stage 35 - Level One
Material: CLAY
Material Source: IMPORTED

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Laboratory Manager
NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4776A	D22-4776B	D22-4776C
Test Number	29	30	31
Date Tested	23/06/2022	23/06/2022	23/06/2022
Time Tested	13:45	14:00	14:15
Test Request #/Location	LOT 3552	LOT 3550	LOT 3548
Layer / Reduced Level	LAYER 3	LAYER 3	LAYER 3
Thickness of Layer (mm)	300	300	300
Soil Description	CLAY	CLAY	CLAY
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	7	3	3
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**
Field Wet Density (FWD) t/m^3	2.11	2.03	2.06
Field Moisture Content %	20.0	19.2	19.2
Field Dry Density (FDD) t/m^3	1.78	1.71	1.74
Peak Converted Wet Density t/m^3	**	**	**
Adjusted Peak Converted Wet Density t/m^3	2.06	2.03	2.04
Adj. Optimum Moisture Content % (AS1289.5.4.1)	21.4	21.6	21.0
Adj. Field Moisture Content % (AS1289.5.4.1)	18.6	18.6	18.7
Moisture Ratio % (AS1289.5.4.1)	**	**	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	87.0	86.0	89.0
Moisture Variation (Wv) %	**	**	**
Adjusted Moisture Variation %	2.5	3.0	2.0
Hilf Density Ratio (%)	**103.0**	**100.0**	**101.0**
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: D22761-14
Issue Number: 1
Date Issued: 28/06/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4782
Date Sampled: 24/06/2022 14:30
Dates Tested: 24/06/2022 - 27/06/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate Stage 35 - Level One
Material: Silty Clay
Material Source: Imported

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Approved Signatory: Eranda Hippola
Laboratory Manager
NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4782A	D22-4782B	D22-4782C
Test Number	32	33	34
Date Tested	24/06/2022	24/06/2022	24/06/2022
Time Tested	14:30	14:30	14:30
Test Request #/Location	LOt 3537	LOt 3539	LOt 3553
Layer / Reduced Level	Layer 2	Layer 2	Layer 2
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	Clay
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	8	7	0
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	0
Field Wet Density (FWD) t/m^3	2.17	2.13	2.00
Field Moisture Content %	18.9	19.8	19.2
Field Dry Density (FDD) t/m^3	1.85	1.80	1.68
Peak Converted Wet Density t/m^3	**	**	2.03
Adjusted Peak Converted Wet Density t/m^3	2.07	2.07	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	20.8	21.8	22.4
Adj. Field Moisture Content % (AS1289.5.4.1)	17.4	18.3	19.2
Moisture Ratio % (AS1289.5.4.1)	**	**	85.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	83.5	84.0	**
Moisture Variation (Wv) %	**	**	3.0
Adjusted Moisture Variation %	3.0	3.0	**
Hilf Density Ratio (%)	**104.5**	**103.0**	**98.5**
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: D22761-15
Issue Number: 1
Date Issued: 01/07/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4790
Date Sampled: 27/06/2022 14:30
Dates Tested: 27/06/2022 - 29/06/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate Stage 35 - Level One
Material: Clay
Material Source: Imported

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Approved Signatory: Eranda Hippola
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NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4790A	D22-4790B	D22-4790C
Test Number	35	36	37
Date Tested	27/06/2022	27/06/2022	27/06/2022
Time Tested	14:30	14:30	14:30
Test Request #/Location	Lot 3506	Lot 3507	Lot 3526
Layer / Reduced Level	Layer 6	Layer 6	Layer 6
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	Clay
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	4	5	7
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**
Field Wet Density (FWD) t/m^3	2.12	2.16	2.11
Field Moisture Content %	16.5	15.9	20.4
Field Dry Density (FDD) t/m^3	1.83	1.88	1.77
Peak Converted Wet Density t/m^3	**	**	**
Adjusted Peak Converted Wet Density t/m^3	2.06	2.06	2.08
Adj. Optimum Moisture Content % (AS1289.5.4.1)	18.3	19.5	21.4
Adj. Field Moisture Content % (AS1289.5.4.1)	15.8	15.0	18.9
Moisture Ratio % (AS1289.5.4.1)	**	**	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	86.5	77.0	88.5
Moisture Variation (Wv) %	**	**	**
Adjusted Moisture Variation %	2.5	4.0	2.5
Hilf Density Ratio (%)	**103.0**	**105.0**	**101.5**
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: D22761-16
Issue Number: 1
Date Issued: 04/07/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4794
Date Sampled: 28/06/2022 14:00
Dates Tested: 28/06/2022 - 01/07/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate Stage 35 - Level One
Material: Clay
Material Source: Imported

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Approved Signatory: Eranda Hippola
Laboratory Manager
NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4794A	D22-4794B	D22-4794C
Test Number	38	39	40
Date Tested	28/06/2022	28/06/2022	28/06/2022
Time Tested	14:00	14:10	14:15
Test Request #/Location	Lot 3532	Lot 3533	Lot 3545
Layer / Reduced Level	Layer 4	Layer 4	Layer 4
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	Clay
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	7	8	8
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**
Field Wet Density (FWD) t/m^3	1.91	1.99	1.94
Field Moisture Content %	22.6	23.3	23.8
Field Dry Density (FDD) t/m^3	1.58	1.64	1.59
Peak Converted Wet Density t/m^3	**	**	**
Adjusted Peak Converted Wet Density t/m^3	1.95	1.95	1.96
Adj. Optimum Moisture Content % (AS1289.5.4.1)	25.7	25.4	25.7
Adj. Field Moisture Content % (AS1289.5.4.1)	20.9	21.5	22.0
Moisture Ratio % (AS1289.5.4.1)	**	**	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	81.5	85.0	85.5
Moisture Variation (Wv) %	**	**	**
Adjusted Moisture Variation %	4.5	3.5	3.5
Hilf Density Ratio (%)	**98.5**	**102.0**	**98.5**
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: D22761-17
Issue Number: 1
Date Issued: 21/07/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4867
Date Sampled: 18/07/2022 14:40
Dates Tested: 18/07/2022 - 20/07/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate Stage 35 - Level one - Werribee
Material: Clay
Material Source: Imported

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Approved Signatory: Nalaka Bandara
Lab Tech
NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4867A	D22-4867B	D22-4867C
Test Number	41	42	43
Date Tested	18/07/2022	18/07/2022	18/07/2022
Time Tested	14:40	14:40	14:40
Test Request #/Location	Lot 3542	Lot 3532	Lot 3536
Layer / Reduced Level	Layer 7	Layer 4	Layer 4
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	Clay
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	6	7	6
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**
Field Wet Density (FWD) t/m^3	1.98	1.96	1.98
Field Moisture Content %	24.0	24.1	23.5
Field Dry Density (FDD) t/m^3	1.61	1.60	1.62
Peak Converted Wet Density t/m^3	**	**	**
Adjusted Peak Converted Wet Density t/m^3	1.95	1.94	1.96
Adj. Optimum Moisture Content % (AS1289.5.4.1)	24.1	25.5	23.4
Adj. Field Moisture Content % (AS1289.5.4.1)	22.7	22.4	22.0
Moisture Ratio % (AS1289.5.4.1)	**	**	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	94.0	88.0	94.0
Moisture Variation (Wv) %	**	**	**
Adjusted Moisture Variation %	1.5	3.0	1.5
Hilf Density Ratio (%)	**101.5**	**101.0**	**101.0**
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: D22761-18
Issue Number: 1
Date Issued: 26/07/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4891
Date Sampled: 22/07/2022 14:30
Dates Tested: 22/07/2022 - 25/07/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate stage 35 Level one
Material: Clay
Material Source: imported

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Approved Signatory: Eranda Hippola
Laboratory Manager
NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4891A	D22-4891B	D22-4891C
Test Number	44	45	46
Date Tested	22/07/2022	22/07/2022	22/07/2022
Time Tested	14:30	14:30	14:30
Test Request #/Location	LOT 3521	LOT 3520	LOT 3527
Layer / Reduced Level	LAYER 5	LAYER 5	LAYER 5
Thickness of Layer (mm)	300	300	300
Soil Description	CLAY	CLAY	CLAY
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	5	0	4
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	0	**
Field Wet Density (FWD) t/m^3	2.02	1.99	1.93
Field Moisture Content %	17.5	17.8	18.5
Field Dry Density (FDD) t/m^3	1.73	1.69	1.64
Peak Converted Wet Density t/m^3	**	2.04	**
Adjusted Peak Converted Wet Density t/m^3	2.05	**	2.00
Adj. Optimum Moisture Content % (AS1289.5.4.1)	18.1	19.3	19.6
Adj. Field Moisture Content % (AS1289.5.4.1)	16.7	17.8	17.8
Moisture Ratio % (AS1289.5.4.1)	**	92.5	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	92.5	**	91.0
Moisture Variation (Wv) %	**	1.5	**
Adjusted Moisture Variation %	1.5	**	1.5
Hilf Density Ratio (%)	**98.5**	**98.0**	**96.5**
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: D22761-19
Issue Number: 1
Date Issued: 03/08/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4923
Date Sampled: 01/08/2022 14:40
Dates Tested: 01/08/2022 - 02/08/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate Stage 35 - Level one
Material: Clay
Material Source: Imported

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Approved Signatory: Eranda Hippola
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NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4923A	D22-4923B	D22-4923C
Test Number	47	48	49
Date Tested	01/08/2022	01/08/2022	01/08/2022
Time Tested	14:40	14:40	14:40
Test Request #/Location	Lot 3523	Lot 3524	Lot 3530
Layer / Reduced Level	Layer 5	Layer 5	Layer 5
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	Clay
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	4	5	8
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**
Field Wet Density (FWD) t/m^3	1.94	1.91	1.93
Field Moisture Content %	19.4	19.8	19.4
Field Dry Density (FDD) t/m^3	1.64	1.61	1.64
Peak Converted Wet Density t/m^3	**	**	**
Adjusted Peak Converted Wet Density t/m^3	1.90	1.91	1.92
Adj. Optimum Moisture Content % (AS1289.5.4.1)	20.8	20.5	20.8
Adj. Field Moisture Content % (AS1289.5.4.1)	18.6	18.8	17.9
Moisture Ratio % (AS1289.5.4.1)	**	**	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	89.5	92.0	86.5
Moisture Variation (Wv) %	**	**	**
Adjusted Moisture Variation %	2.0	1.5	3.0
Hilf Density Ratio (%)	**102.5**	**100.0**	**101.0**
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: D22761-20
Issue Number: 1
Date Issued: 05/08/2022
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 4937
Date Sampled: 04/08/2022 14:00
Dates Tested: 04/08/2022 - 04/08/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate Stage 35 - Level one
Material: Silty Clay
Material Source: Imported

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Approved Signatory: Eranda Hippola
Laboratory Manager
NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D22-4937A	D22-4937B	D22-4937C
Test Number	50	51	52
Date Tested	03/08/2022	03/08/2022	03/08/2022
Time Tested	14:00	14:00	14:00
Test Request #/Location	Lot 3518	Lot 3518	Lot 3522
Layer / Reduced Level	Layer 6	Layer 6	Layer 6
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	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	1.89	1.91	1.89
Field Moisture Content %	20.5	18.7	15.9
Field Dry Density (FDD) t/m^3	1.57	1.61	1.63
Peak Converted Wet Density t/m^3	1.93	1.93	1.94
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	22.7	21.2	19.1
Adj. Field Moisture Content % (AS1289.5.4.1)	20.5	18.7	15.9
Moisture Ratio % (AS1289.5.4.1)	90.0	88.5	83.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	2.0	2.5	3.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**98.0**	**99.0**	**97.5**
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: D22761-21
Issue Number: 1
Date Issued: 06/03/2023
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 5633
Date Sampled: 02/03/2023 14:00
Dates Tested: 02/03/2023 - 03/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk stage 35 - Level One
Material: Clay
Material Source: On site

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Approved Signatory: Eranda Hippola
Laboratory Manager
NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D23-5633A	D23-5633B	D23-5633C
Test Number	53	54	55
Date Tested	02/03/2023	02/03/2023	02/03/2023
Time Tested	15:00	15:00	15:00
Test Request #/Location	Lot 3532	Lot 3534	Lot 3535
Layer / Reduced Level	Layer 1	Layer 1	Layer 1
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	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	1.91	1.90	1.96
Field Moisture Content %	15.8	12.4	18.3
Field Dry Density (FDD) t/m^3	1.65	1.69	1.66
Peak Converted Wet Density t/m^3	1.91	1.87	1.94
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	18.3	15.6	21.4
Adj. Field Moisture Content % (AS1289.5.4.1)	15.8	12.4	18.3
Moisture Ratio % (AS1289.5.4.1)	86.5	79.5	85.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	2.5	3.5	3.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**100.0**	**101.0**	**101.5**
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: D22761-22
Issue Number: 1
Date Issued: 07/03/2023
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 5636
Date Sampled: 03/03/2023 15:00
Dates Tested: 03/03/2023 - 06/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Stage 35 - Level One
Material: Clay
Material Source: On site

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Approved Signatory: Eranda Hippola
Laboratory Manager
NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D23-5636A	D23-5636B	D23-5636C
Test Number	56	57	58
Date Tested	03/03/2023	03/03/2023	03/03/2023
Time Tested	15:00	15:00	15:00
Test Request #/Location	Lot 3531	Lot 3533	Lot 3535
Layer / Reduced Level	Layer 3	Layer 3	Layer 2
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	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	2.00	2.01	1.94
Field Moisture Content %	14.8	14.2	13.6
Field Dry Density (FDD) t/m^3	1.74	1.76	1.71
Peak Converted Wet Density t/m^3	1.95	1.97	1.95
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	17.9	17.4	16.9
Adj. Field Moisture Content % (AS1289.5.4.1)	14.8	14.2	13.6
Moisture Ratio % (AS1289.5.4.1)	83.0	82.0	80.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	3.0	3.0	3.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**102.5**	**102.0**	**99.5**
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: D22761-23
Issue Number: 1
Date Issued: 08/03/2023
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 5642
Date Sampled: 06/03/2023 14:00
Dates Tested: 06/03/2023 - 07/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Stage 35 - Level One
Material: Clay
Material Source: On Site

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D23-5642A	D23-5642B	D23-5642C
Test Number	59	60	61
Date Tested	06/03/2023	06/03/2023	06/03/2023
Time Tested	14:45	14:45	14:45
Test Request #/Location	Lot 3530	Lot 3533	Lot 3537
Layer / Reduced Level	Layer 4	Layer 5	Layer 5
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	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	2.01	1.99	1.99
Field Moisture Content %	14.8	15.3	15.5
Field Dry Density (FDD) t/m^3	1.75	1.73	1.72
Peak Converted Wet Density t/m^3	2.00	2.01	2.00
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	17.6	17.6	18.0
Adj. Field Moisture Content % (AS1289.5.4.1)	14.8	15.3	15.5
Moisture Ratio % (AS1289.5.4.1)	84.0	86.5	86.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	3.0	2.5	2.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**100.0**	**99.0**	**99.5**
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: D22761-24
Issue Number: 1
Date Issued: 10/03/2023
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 5646
Date Sampled: 07/03/2023 16:00
Dates Tested: 07/03/2023 - 09/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk stage 35 - Level One
Material: Clay
Material Source: On Site

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D23-5646A	D23-5646B	D23-5646C
Test Number	62	63	64
Date Tested	07/03/2023	07/03/2023	07/03/2023
Time Tested	16:00	16:00	16:00
Test Request #/Location	Lot 3531	Lot 3534	Lot 3536
Layer / Reduced Level	Layer 7	Layer 7	Layer 7
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	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	2.00	1.98	1.98
Field Moisture Content %	18.9	17.0	17.9
Field Dry Density (FDD) t/m^3	1.68	1.70	1.68
Peak Converted Wet Density t/m^3	1.98	1.95	1.95
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	22.0	20.2	20.8
Adj. Field Moisture Content % (AS1289.5.4.1)	18.9	17.0	17.9
Moisture Ratio % (AS1289.5.4.1)	86.0	84.0	85.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	3.0	3.0	3.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**100.5**	**102.0**	**101.5**
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: D22761-25
Issue Number: 1
Date Issued: 17/03/2023
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 5651
Date Sampled: 08/03/2023
Dates Tested: 08/03/2023 - 16/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk stage 35 - Level One
Material: Clay
Material Source: On Site

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D23-5651A	D23-5651B	D23-5651C
Test Number	65	66	67
Date Tested	08/03/2023	08/03/2023	08/03/2023
Time Tested	15:00	15:00	15:00
Test Request #/Location	Lot 3534	Lot 3535	Lot 3537
Layer / Reduced Level	Layer 8	Layer 8	Layer 8
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	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	1.89	1.89	2.06
Field Moisture Content %	11.0	12.4	16.0
Field Dry Density (FDD) t/m^3	1.71	1.68	1.77
Peak Converted Wet Density t/m^3	1.89	1.95	2.01
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	16.3	16.9	20.3
Adj. Field Moisture Content % (AS1289.5.4.1)	11.0	12.4	16.0
Moisture Ratio % (AS1289.5.4.1)	67.5	73.5	78.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	5.5	4.5	4.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**100.0**	**96.5**	**102.5**
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: D22761-26
Issue Number: 1
Date Issued: 17/03/2023
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 5657
Date Sampled: 09/03/2023 14:00
Dates Tested: 09/03/2023 - 16/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk stage 35 - Level One
Material: Clay
Material Source: On site

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D23-5657A	D23-5657B	D23-5657C
Test Number	68	69	70
Date Tested	09/03/2023	09/03/2023	09/03/2023
Time Tested	14:00	14:00	14:00
Test Request #/Location	Lot 3533	Lot 3536	Lot 3537
Layer / Reduced Level	Layer 9	Layer 9	Layer 9
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	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	1.86	1.97	2.04
Field Moisture Content %	12.8	20.7	15.2
Field Dry Density (FDD) t/m^3	1.65	1.63	1.77
Peak Converted Wet Density t/m^3	1.89	1.93	2.00
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	17.8	22.9	19.1
Adj. Field Moisture Content % (AS1289.5.4.1)	12.8	20.7	15.2
Moisture Ratio % (AS1289.5.4.1)	72.0	90.5	79.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	5.0	2.0	4.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**98.0**	**102.0**	**102.0**
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: D22761-27
Issue Number: 1
Date Issued: 17/03/2023
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 5667
Date Sampled: 14/03/2023
Dates Tested: 14/03/2023 - 17/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk stage 35 - Level One
Material: Clay
Material Source: On Site

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D23-5667A	D23-5667B	D23-5667C
Test Number	71	72	73
Date Tested	14/03/2023	14/03/2023	14/03/2023
Time Tested	15:15	15:15	15:15
Test Request #/Location	Lot 3530	Lot 3532	Lot 3534
Layer / Reduced Level	Layer 10	Layer 10	Layer 10
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	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	2.13	1.88	1.94
Field Moisture Content %	9.2	12.5	11.3
Field Dry Density (FDD) t/m^3	1.95	1.67	1.74
Peak Converted Wet Density t/m^3	2.18	1.93	1.95
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	11.4	17.4	16.3
Adj. Field Moisture Content % (AS1289.5.4.1)	9.2	12.5	11.3
Moisture Ratio % (AS1289.5.4.1)	81.0	72.0	69.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	2.0	5.0	5.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**97.5**	**97.0**	**99.0**
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: D22761-28
Issue Number: 1
Date Issued: 17/03/2023
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 5675
Date Sampled: 15/03/2023
Dates Tested: 15/03/2023 - 17/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk stage 35 - Level One
Material: Clay
Material Source: On Site

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D23-5675A	D23-5675B	D23-5675C
Test Number	74	75	76
Date Tested	15/03/2023	15/03/2023	15/03/2023
Time Tested	13:30	13:30	13:30
Test Request #/Location	Lot 3533	Lot 3536	Lot 3538
Layer / Reduced Level	Layer 11	Layer 11	Layer 11
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	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	1.95	1.98	1.94
Field Moisture Content %	13.0	12.7	14.1
Field Dry Density (FDD) t/m^3	1.72	1.76	1.70
Peak Converted Wet Density t/m^3	1.95	1.94	1.97
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	17.9	17.9	18.9
Adj. Field Moisture Content % (AS1289.5.4.1)	13.0	12.7	14.1
Moisture Ratio % (AS1289.5.4.1)	72.5	71.0	75.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	5.0	5.0	4.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**99.5**	**102.0**	**98.5**
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: D22761-29
Issue Number: 1
Date Issued: 20/03/2023
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 5684
Date Sampled: 16/03/2023
Dates Tested: 16/03/2023 - 17/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk stage 35 - Level One
Material: Clay
Material Source: On Site

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D23-5684A	D23-5684B	D23-5684C
Test Number	77	78	79
Date Tested	16/03/2023	16/03/2023	16/03/2023
Time Tested	15:30	15:30	15:30
Test Request #/Location	Lot 3532	Lot 3534	Lot 3537
Layer / Reduced Level	Layer 12	Layer 12	Layer 12
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	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	1.98	1.93
Field Moisture Content %	14.8	15.3	14.3
Field Dry Density (FDD) t/m^3	1.71	1.72	1.69
Peak Converted Wet Density t/m^3	1.97	2.02	1.97
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	16.7	16.1	16.7
Adj. Field Moisture Content % (AS1289.5.4.1)	14.8	15.3	14.3
Moisture Ratio % (AS1289.5.4.1)	89.0	94.5	85.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	2.0	1.0	2.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**99.5**	**98.0**	**98.0**
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: D22761-30
Issue Number: 1
Date Issued: 31/03/2023
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 5740
Date Sampled: 28/03/2023
Dates Tested: 28/03/2023 - 30/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate Stage 35 - Level one
Material: Clay
Material Source: On Site

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D23-5740A	D23-5740B	D23-5740C
Test Number	80	81	82
Date Tested	28/03/2023	28/03/2023	28/03/2023
Time Tested	**	**	**
Test Request #/Location	Lot 3544	Lot 3545	Lot 3546
Layer / Reduced Level	Layer 1	Layer 1	Layer 1
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	Clay
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	9	10	7
Percentage of Dry Oversize (%) (AS1289.5.4.1)	**	**	**
Field Wet Density (FWD) t/m^3	1.98	1.99	1.98
Field Moisture Content %	17.9	17.3	16.8
Field Dry Density (FDD) t/m^3	1.70	1.73	1.71
Peak Converted Wet Density t/m^3	**	**	**
Adjusted Peak Converted Wet Density t/m^3	1.97	1.95	1.90
Adj. Optimum Moisture Content % (AS1289.5.4.1)	19.1	18.5	18.5
Adj. Field Moisture Content % (AS1289.5.4.1)	16.2	15.5	15.5
Moisture Ratio % (AS1289.5.4.1)	**	**	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	85.0	84.0	84.0
Moisture Variation (Wv) %	**	**	**
Adjusted Moisture Variation %	3.0	3.0	3.0
Hilf Density Ratio (%)	**100.5**	**102.0**	**104.0**
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: D22761-31
Issue Number: 1
Date Issued: 31/03/2023
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 5741
Date Sampled: 29/03/2023
Dates Tested: 29/03/2023 - 30/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate stage 35 - Level one
Material: CLAY
Material Source: On-site

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Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Eranda Hippola
Laboratory Manager
NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D23-5741A	D23-5741B	D23-5741C
Test Number	83	84	85
Date Tested	29/03/2023	29/03/2023	29/03/2023
Time Tested	15:16	15:16	15:16
Test Request #/Location	Lot 3546	Lot 3545	Lot 3544
Layer / Reduced Level	Layer 2	Layer 2	Layer 2
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	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	1.93	1.94
Field Moisture Content %	13.5	13.4	14.8
Field Dry Density (FDD) t/m^3	1.72	1.70	1.69
Peak Converted Wet Density t/m^3	1.91	1.89	1.90
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	18.5	18.4	18.9
Adj. Field Moisture Content % (AS1289.5.4.1)	13.5	13.4	14.8
Moisture Ratio % (AS1289.5.4.1)	73.5	73.0	78.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	5.0	5.0	4.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**102.5**	**102.0**	**102.0**
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: D22761-32
Issue Number: 1
Date Issued: 03/04/2023
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 5747
Date Sampled: 30/03/2023
Dates Tested: 30/03/2023 - 31/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate stage 35 - Level one
Material: Clay
Material Source: On site

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D23-5747A	D23-5747B	D23-5747C
Test Number	86	87	88
Date Tested	30/03/2023	30/03/2023	30/03/2023
Time Tested	15:45	15:45	15:45
Test Request #/Location	Lot 3544	Lot 3545	Lot 3546
Layer / Reduced Level	Layer 3	Layer 3	Layer 3
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	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	8
Percentage of Dry Oversize (%) (AS1289.5.4.1)	0	0	**
Field Wet Density (FWD) t/m^3	1.96	1.98	2.01
Field Moisture Content %	13.4	12.9	12.8
Field Dry Density (FDD) t/m^3	1.73	1.76	1.80
Peak Converted Wet Density t/m^3	1.94	1.93	**
Adjusted Peak Converted Wet Density t/m^3	**	**	1.99
Adj. Optimum Moisture Content % (AS1289.5.4.1)	18.7	17.8	15.1
Adj. Field Moisture Content % (AS1289.5.4.1)	13.4	12.9	11.8
Moisture Ratio % (AS1289.5.4.1)	71.5	72.5	**
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	78.5
Moisture Variation (Wv) %	5.0	5.0	**
Adjusted Moisture Variation %	**	**	3.5
Hilf Density Ratio (%)	**101.0**	**103.0**	**101.0**
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: D22761-33
Issue Number: 1
Date Issued: 04/04/2023
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 5751
Date Sampled: 31/03/2023 14:20
Dates Tested: 31/03/2023 - 03/04/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate stage 35 - Level one
Material: Clay
Material Source: On Site

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D23-5751A	D23-5751B	D23-5751C
Test Number	89	90	91
Date Tested	31/03/2023	31/03/2023	31/03/2023
Time Tested	15:00	15:00	15:00
Test Request #/Location	Lot 3549	Lot 3550	Lot 3553
Layer / Reduced Level	Layer 4	Layer 2	Layer 2
Thickness of Layer (mm)	300	300	300
Soil Description	Clay	Clay	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	1.81	1.89
Field Moisture Content %	18.8	13.8	13.7
Field Dry Density (FDD) t/m^3	1.65	1.59	1.66
Peak Converted Wet Density t/m^3	1.92	1.81	1.84
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	22.9	17.6	17.7
Adj. Field Moisture Content % (AS1289.5.4.1)	18.8	13.8	13.7
Moisture Ratio % (AS1289.5.4.1)	82.0	78.5	77.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	4.0	4.0	4.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**102.0**	**100.0**	**102.5**
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: D22761-34
Issue Number: 1
Date Issued: 05/04/2023
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 5757
Date Sampled: 03/04/2023
Dates Tested: 03/04/2023 - 04/04/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate Stage 35 - Level one
Material: Clay
Material Source: On Site

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D23-5757A	D23-5757B	D23-5757C
Test Number	92	93	94
Date Tested	03/04/2023	03/04/2023	03/04/2023
Time Tested	15:00	15:00	15:00
Test Request #/Location	LOT 3550	LOT 3553	LOT 3554
Layer / Reduced Level	Layer 5	Layer 3	Layer 3
Thickness of Layer (mm)	300	300	300
Soil Description	Silty Clay	Silty Clay	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	1.97	1.93	1.94
Field Moisture Content %	14.1	14.4	13.7
Field Dry Density (FDD) t/m^3	1.73	1.68	1.71
Peak Converted Wet Density t/m^3	1.92	1.88	1.90
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	16.3	16.6	16.2
Adj. Field Moisture Content % (AS1289.5.4.1)	14.1	14.4	13.7
Moisture Ratio % (AS1289.5.4.1)	86.5	86.5	85.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	2.5	2.5	2.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**102.5**	**102.5**	**102.5**
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: D22761-35
Issue Number: 1
Date Issued: 06/04/2023
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 5766
Date Sampled: 04/04/2023
Dates Tested: 04/04/2023 - 05/04/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Location: Riverwalk Estate Stage 35 - Level one
Material: Silty Clay
Material Source: On Site

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D23-5766A	D23-5766B	D23-5766C
Test Number	95	96	97
Date Tested	04/04/2023	04/04/2023	04/04/2023
Time Tested	**	**	**
Test Request #/Location	LOT 3547	LOT 3544	LOT 3545
Chainage (m)	**	**	**
Location Offset (m)	**	**	**
Layer / Reduced Level	Layer 5	Layer 5	Layer 5
Thickness of Layer (mm)	300	300	300
Soil Description	Silty Clay	Silty Clay	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	1.90	1.92	2.00
Field Moisture Content %	13.0	12.0	16.1
Field Dry Density (FDD) t/m^3	1.68	1.72	1.73
Peak Converted Wet Density t/m^3	1.85	1.87	1.96
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	13.1	12.1	15.9
Adj. Field Moisture Content % (AS1289.5.4.1)	13.0	12.0	16.1
Moisture Ratio % (AS1289.5.4.1)	99.0	100.0	101.5
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	0.0	0.0	0.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**102.5**	**102.5**	**102.5**
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: D22761-36
Issue Number: 1
Date Issued: 11/04/2023
Client: Excell Gray Bruni
12 Allied Drive, Tullamarine Vic 3043
Project Number: D22761
Project Name: Riverwalk Estate Stage 35 - Level one
Project Location: Werribee
Work Request: 5771
Date Sampled: 05/04/2023 9:20
Dates Tested: 05/04/2023 - 06/04/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Site Selection: Selected by Client
Location: Riverwalk Estate Stage 35 - Level one
Material: Silty Clay
Material Source: On Site

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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	D23-5771A	D23-5771B	D23-5771C
Test Number	98	99	100
Date Tested	05/04/2023	05/04/2023	05/04/2023
Time Tested	**	**	**
Test Request #/Location	LOT 3548	LOT 3550	LOT 3552
Layer / Reduced Level	Layer 5	Layer 5	Layer 5
Thickness of Layer (mm)	300	300	300
Soil Description	Silty Clay	Silty Clay	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	2.18	2.02	2.08
Field Moisture Content %	14.3	16.4	14.9
Field Dry Density (FDD) t/m^3	1.90	1.73	1.81
Peak Converted Wet Density t/m^3	2.13	1.97	2.04
Adjusted Peak Converted Wet Density t/m^3	**	**	**
Adj. Optimum Moisture Content % (AS1289.5.4.1)	19.6	21.1	20.2
Adj. Field Moisture Content % (AS1289.5.4.1)	14.3	16.4	14.9
Moisture Ratio % (AS1289.5.4.1)	73.0	77.5	74.0
Adjusted Moisture Ratio % (AS1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	5.0	4.5	5.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	**102.0**	**102.5**	**101.5**
Compaction Method	**Standard**	**Standard**	**Standard**
Report Remarks	**	**	**

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC