

Imagine Estate Stages 17 Strathfieldsaye

Earthworks Supervision Report for
DPJ Civil

Report 22C 1148
October 2023

Imagine Estate Stages 17 Strathfieldsaye

Earthworks Supervision Report

for
DPJ Civil

Revision

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1 INTRODUCTION

DPJ Civil commissioned Geotechnical Testing Services (GTS) to undertake Level 1 Supervision and testing (AS3798-2007) for the earthworks for the residential subdivision at Imagine Estate Stage 17, Strathfieldsaye.

Level 1 Testing was generally performed in line with AS3798-2007 "Guidelines on Earthworks for Commercial and Residential Development" and provides inspection of the construction of controlled fill and compaction testing in accordance with AS1289 "Methods of Testing Soils for Engineering Purposes". The Level 1 testing was undertaken by Geotechnicians with supervision provided by a Geotechnical Engineer from GTS.

2 SCOPE OF WORKS

2.1 AREA OF WORK

Geotechnical Testing Services provided Level 1 inspection and testing of the engineered fill placed in Lots 1701 to 1707, 1715 to 1723 and tank backfill in 1726.

The depth of fill across the site varied from none to around 1.5 metres in the deepest section. Sites with less than 300mm of fill were not included in the Level 1 earthworks.

2.2 PLACEMENT SPECIFICATION

Whilst there was no earthworks specification compiled for this project, the placement of the fill and associated works generally followed the recommendations outlined in AS3798-2007 "Guidelines for Earthworks for Commercial and Residential Developments" and the construction specification.

In summary, the earthworks comply with the following:

- The layers for residential lots are to be compacted to at least 95% of the density ratio in accordance with AS1289 5.1.1 (or 5.7.1), based on Standard compaction.

In accordance with Table 8.1 of AS3798-2007, the filling may generally be considered large scale (greater than 1500m²) and therefore a minimum of 1 test per layer per 2500m² is required. As such, not every lot of every layer requires testing. However, the testing conducted was generally 1 per layer per lot which exceeds the minimum requirements.

3 INSPECTION AND TESTING

Inspection of the excavated base was conducted by a Senior Geotechnical Engineer and it was observed that the unsuitable material (vegetation, topsoil/silt, and low strength fill) had been removed with the base consisting of varying material from (Gravelly) Silty Clay to extremely weathered siltstone rock, all of which had good strength.

Level 1 inspection and testing was undertaken by a geotechnician from GTS who nominated the timing and location of the in-situ density tests. The approximate location of each test is recorded on the test reports and attached fill plan.

Laboratory compaction testing was undertaken on a one to one basis at our Bendigo laboratory. A summary of the results of the compaction control testing is presented in a table below with the full NATA endorsed test reports included in the Appendix.

The septic tank excavation on Lot 1726 was backfilled with cement stabilised sand and does not require compaction tests but is considered controlled backfill.

4 SUMMARY OF TEST RESULTS

A summary of the test results is included in the following table with full NATA accredited reports included in the Appendix.

Project No.	Sample No.	Test Date	Location	Reduced Level (mm)	Moisture S % O.M.C	Density Ratio %
1	B22-12210A	30/11/2022	Lot 1719	-1000	1.0	99.0
2	B22-12210B	30/11/2022	Lot 1718	-1000	1.5	107.5
3	B22-12294A	15/12/2022	Lot 1715	-1000	0.5	103.0
4	B22-12294B	15/12/2022	Lot 1716	-1000	1.0	103.5
5	B22-12307A	16/12/2022	Lot 1715	-700	1.0	102.0
6	B22-12307B	16/12/2022	Lot 1716	-700	1.0	102.5
7	B22-12307C	16/12/2022	Lot 1717	-700	0.5	104.0
8	B22-12307D	16/12/2022	Lot 1718	-700	2.0	104.0
9	B22-12307E	16/12/2022	Lot 1719	-700	0.5	104.0
10	B22-12307F	16/12/2022	Lot 1720	-700	1.5	103.5
11	B22-12334A	20/12/2022	Lot 1716	-300	0.0	95.0
12	B22-12334B	20/12/2022	Lot 1717	-300	1.5	103.5
13	B22-12334C	20/12/2022	Lot 1718	-300	1.5	100.0

Project No.	Sample No.	Test Date	Location	Reduced Level (mm)	Moisture S % O.M.C	Density Ratio %
14	B22-12334D	20/12/2022	Lot 1719	-300	1.5	96.5
15	B22-12334E	20/12/2022	Lot 1720	-300	1.0	105.0
16	B23-12704A	8/03/2023	Lot 1721	-300	3.5	104.0
17	B23-12704B	8/03/2023	Lot 1705	-600	4.5	102.5
18	B23-12704C	8/03/2023	Lot 1704	-600	2.5	101.0
19	B23-12704D	8/03/2023	Lot 1703	-600	2.0	100.5
20	B23-12704E	8/03/2023	Lot 1702	-600	3.5	100.5
21	B23-12704F	8/03/2023	Lot 1701	-600	4.0	102.0
22	B23-12723A	10/03/2023	Lot 1715	FSL	3.0	104.0
23	B23-12723B	10/03/2023	Lot 1716	FSL	2.5	102.5
24	B23-12723C	10/03/2023	Lot 1717	FSL	2.0	97.5
25	B23-12723D	10/03/2023	Lot 1718	FSL	2.0	95.5
26	B23-12723E	10/03/2023	Lot 1719	FSL	3.5	96.5
27	B23-12723F	10/03/2023	Lot 1720	FSL	1.0	102.5
28	B23-12723G	10/03/2023	Lot 1721	FSL	3.5	101.0
29	B23-12723H	10/03/2023	Lot 1701	-300	3.5	101.0
30	B23-12723I	10/03/2023	Lot 1702	-300	4.0	102.5
31	B23-12723J	10/03/2023	Lot 1703	-300	2.5	99.5
32	B23-12723K	10/03/2023	Lot 1704	-300	3.0	100.5
33	B23-12723L	10/03/2023	Lot 1705	-300	3.0	98.5
34	B23-12748A	16/03/2023	Lot 1705	FSL	0.0	101.5
35	B23-12748B	16/03/2023	Lot 1704	FSL	4.5	103.0
36	B23-12748C	16/03/2023	Lot 1703	FSL	3.0	102.5
37	B23-12748D	16/03/2023	Lot 1702	FSL	3.0	101.5
38	B23-12748E	16/03/2023	Lot 1701	FSL	2.5	103.0
39	B23-12759A	20/03/2023	Lot 1706	FSL	2.0	103.5
40	B23-12759B	20/03/2023	Lot 1707	FSL	3.5	103.5
41	B23-12784A	24/03/2023	Lot 1722	FSL	0.5	103.0

*FSL = Finished Surface Level.

5 STATEMENT OF COMPLIANCE

GTS personnel have provided Level 1 inspection and testing services during the placement of material for the filling in Lots 1701 to 1707, 1715 to 1723 and 1726. The placement of fill and construction techniques adopted was observed throughout the project.

Based on observations made by GTS personnel and the results of field and laboratory tests, we consider that the fill has been placed and compacted and is considered to be engineered or controlled fill. Therefore, subject to residential site classifications, the controlled fill material is deemed a suitable founding medium for future residential buildings. It is noted that topsoil material may be spread across the sites following completion of these earthworks and that this topsoil material is not considered controlled fill.

Reviewed by:

A handwritten signature in black ink, appearing to read 'Shane Hampton', written in a cursive style.

Shane Hampton (BE (Hons)) MIEAust
Principal Geotechnical Engineer

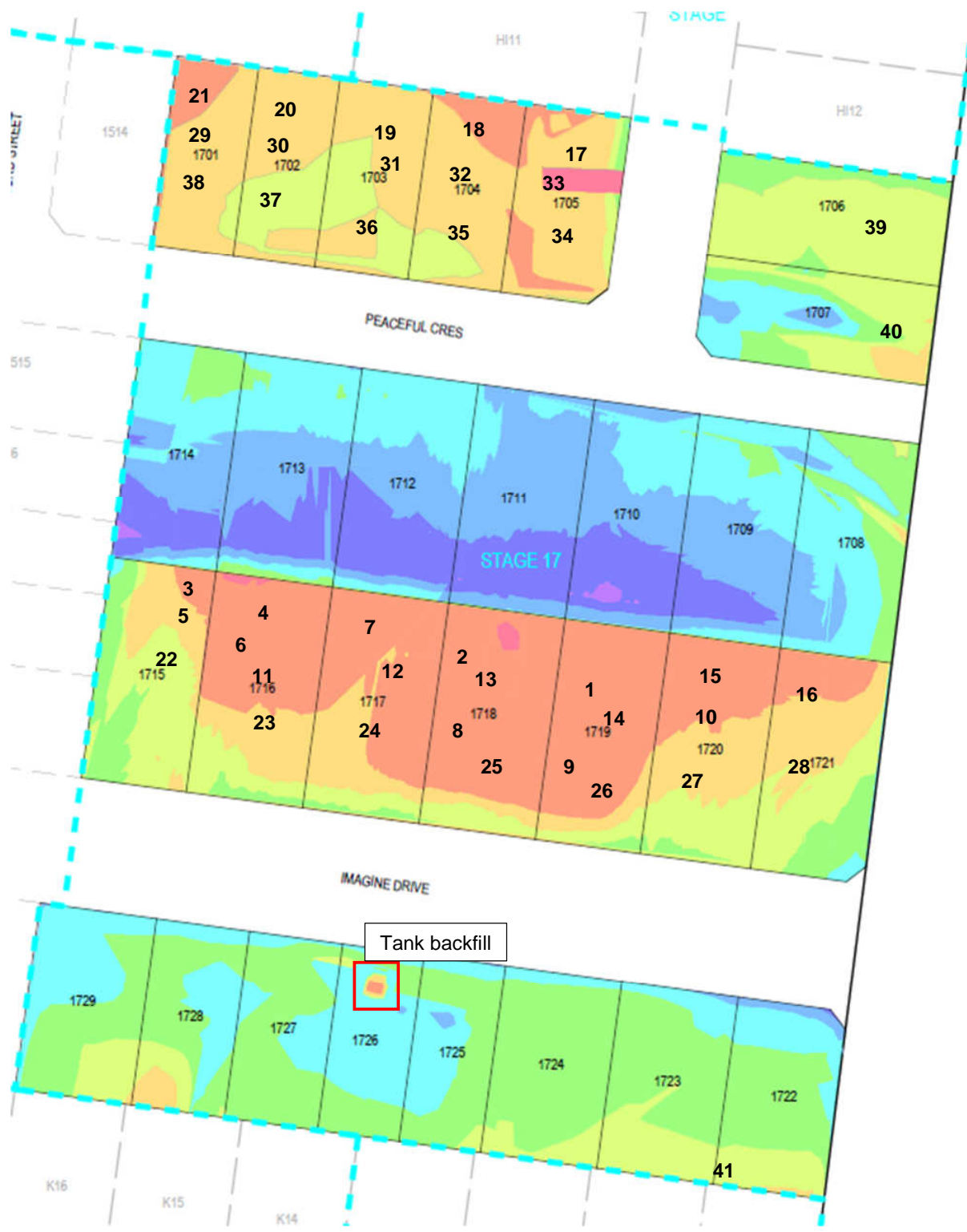


Figure 1: Site plan with lot testing

Material Test Report



Report Number: P17236-90
Issue Number: 1
Date Issued: 30/11/2022
Client: DPJ Civil Pty Ltd
 24 Jewell Court , Bendigo VIC 3550
Project Number: P17236
Project Name: Imagine Estate - Strathfieldsaye
Project Location: Stage 17
Work Request: 12210
Date Sampled: 30/11/2022
Dates Tested: 30/11/2022 - 30/11/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Site Selection: Selected by Client
Material Source: Test Location

Geotechnical Testing Services (Southern)
 Bendigo Soil and Concrete Testing Laboratory
 13 Alstonvale Court East Bendigo VIC 3550
 Phone: (03) 5441 4881
 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki
 CMT Manager

NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	B22-12210A	B22-12210B	
Date Tested	30/11/2022	30/11/2022	
Time Tested	08:54	09:00	
Test Request #/Location	House Block Lot 1719	House Block Lot 1718	
Chainage (m)	Centre	Centre	
Location Offset (m)	**	**	
Layer / Reduced Level	-1000	-1000	
Thickness of Layer (mm)	300	300	
Soil Description	Silty Gravelly Clay	Silty Gravelly Clay	
Test Depth (mm)	275	275	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	7	8	
Field Wet Density (FWD) t/m ³	2.07	2.24	
Field Dry Density (FDD) t/m ³	**	**	
Peak Converted Wet Density t/m ³	**	**	
Adjusted Peak Converted Wet Density t/m ³	2.09	2.08	
Moisture Variation (Wv) %	**	**	
Adjusted Moisture Variation %	1.0	1.5	
Hilf Density Ratio (%)	99.0	107.5	
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: P17236-91
Issue Number: 1
Date Issued: 18/12/2022
Client: DPJ Civil Pty Ltd
 24 Jewell Court , Bendigo VIC 3550

Project Number: P17236
Project Name: Imagine Estate - Strathfieldsaye
Project Location: Stage 17
Work Request: 12294
Date Sampled: 15/12/2022
Dates Tested: 15/12/2022 - 17/12/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Site Selection: Selected by Client
Material Source: Test Location

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Approved Signatory: Josh Lagodzki
 CMT Manager

NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	B22-12294A	B22-12294B	
Date Tested	15/12/2022	15/12/2022	
Time Tested	10:42	10:46	
Test Request #/Location	House Blocks Lot 1715	House Blocks Lot 1716	
Easting	265953	265977	
Northing	5923663 (Zone 55H), 216 m	5923660 (Zone 55H), 217 m	
Layer / Reduced Level	-1000	-1000	
Thickness of Layer (mm)	300	300	
Soil Description	Gravelly Clay	Gravelly Clay	
Test Depth (mm)	275	275	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	2	4	
Field Wet Density (FWD) t/m ³	2.21	2.19	
Field Dry Density (FDD) t/m ³	**	**	
Peak Converted Wet Density t/m ³	**	**	
Adjusted Peak Converted Wet Density t/m ³	2.14	2.11	
Moisture Variation (Wv) %	**	**	
Adjusted Moisture Variation %	0.5	1.0	
Hilf Density Ratio (%)	103.0	103.5	
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: P17236-92
Issue Number: 1
Date Issued: 18/12/2022
Client: DPJ Civil Pty Ltd
 24 Jewell Court , Bendigo VIC 3550
Project Number: P17236
Project Name: Imagine Estate - Strathfieldsaye
Project Location: Stage 17
Work Request: 12307
Date Sampled: 16/12/2022
Dates Tested: 16/12/2022 - 17/12/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Site Selection: Selected by Client
Material Source: Test Location

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Approved Signatory: Josh Lagodzki
 CMT Manager

NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1						
Sample Number	B22-12307A	B22-12307B	B22-12307C	B22-12307D	B22-12307E	B22-12307F
Date Tested	16/12/2022	16/12/2022	16/12/2022	16/12/2022	16/12/2022	16/12/2022
Time Tested	11:07	11:24	11:29	11:34	11:40	11:46
Test Request #/Location	House Blocks Lot 1715	House Blocks Lot 1716	House Blocks Lot 1717	House Blocks Lot 1718	House Blocks Lot 1719	House Blocks Lot 1720
Chainage (m)	Rear of Pad	Rear of Pad	Rear of Pad	Rear of Pad	Rear of Pad	Rear of Pad
Location Offset (m)	**	**	**	**	**	**
Layer / Reduced Level	-700	-700	-700	-700	-700	-700
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Gravelly Clay	Gravelly Clay	Gravelly Clay	Gravelly Clay	Gravelly Clay	Gravelly Clay
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 (%)	1	1	1	1	0	0
Field Wet Density (FWD) t/m ³	2.22	2.21	2.23	2.18	2.21	2.19
Field Dry Density (FDD) t/m ³	**	**	**	**	**	**
Peak Converted Wet Density t/m ³	**	**	**	**	2.12	**
Adjusted Peak Converted Wet Density t/m ³	2.18	2.16	2.15	2.09	**	2.11
Moisture Variation (Wv) %	**	**	**	**	0.5	**
Adjusted Moisture Variation %	1.0	1.0	0.5	2.0	**	1.5
Hilf Density Ratio (%)	102.0	102.5	104.0	104.0	104.0	103.5
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: P17236-93
Issue Number: 1
Date Issued: 21/12/2022
Client: DPJ Civil Pty Ltd
 24 Jewell Court , Bendigo VIC 3550
Project Number: P17236
Project Name: Imagine Estate - Strathfieldsaye
Project Location: Stage 17
Work Request: 12334
Date Sampled: 20/12/2022
Dates Tested: 20/12/2022 - 21/12/2022
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Site Selection: Selected by Client
Material Source: Test Location



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Approved Signatory: Josh Lagodzki
 CMT Manager

NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1					
Sample Number	B22-12334A	B22-12334B	B22-12334C	B22-12334D	B22-12334E
Date Tested	20/12/2022	20/12/2022	20/12/2022	20/12/2022	20/12/2022
Time Tested	13:58	14:01	14:05	14:07	14:11
Test Request #/Location	House Block Lot 1716	House Block Lot 1717	House Block Lot 1718	House Block Lot 1719	House Block Lot 1720
Chainage (m)	Back	Back	Back	Back	Back
Location Offset (m)	**	**	**	**	**
Layer / Reduced Level	-300	-300	-300	-300	-300
Thickness of Layer (mm)	300	300	300	300	300
Soil Description	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay
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	3	2	4	0
Field Wet Density (FWD) t/m ³	2.05	2.19	2.11	2.04	2.24
Field Dry Density (FDD) t/m ³	**	**	**	**	**
Peak Converted Wet Density t/m ³	2.17	**	**	**	**
Adjusted Peak Converted Wet Density t/m ³	**	2.11	2.12	2.12	2.12
Moisture Variation (Wv) %	0.0	**	**	**	**
Adjusted Moisture Variation %	**	1.5	1.5	1.5	1.0
Hilf Density Ratio (%)	95.0	103.5	100.0	96.5	105.0
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: P17236-101
Issue Number: 1
Date Issued: 09/03/2023
Client: DPJ Civil Pty Ltd
 24 Jewell Court , Bendigo VIC 3550
Project Number: P17236
Project Name: Imagine Estate
Project Location: Stage 17
Work Request: 12704
Date Sampled: 08/03/2023
Dates Tested: 08/03/2023 - 09/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Site Selection: Selected by Client
Material Source: Test Location

Geotechnical Testing Services (Southern)
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Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki
 CMT Manager

NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1						
Sample Number	B23-12704A	B23-12704B	B23-12704C	B23-12704D	B23-12704E	B23-12704F
Date Tested	08/03/2023	08/03/2023	08/03/2023	08/03/2023	08/03/2023	08/03/2023
Time Tested	08:45	08:57	09:03	09:07	09:14	09:22
Test Request #/Location	House blocks Block 1721	House blocks Block 1705	House blocks Block1704	House blocks Block1703	House blocks Block1702	House blocks Block1701
Chainage (m)	Rear	Rear	Rear	Rear	Rear	Rear
Location Offset (m)	**	**	**	**	**	**
Layer / Reduced Level	-300	-600	-600	-600	-600	-600
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Gravelly Sandy Clay	Gravelly Sandy Clay	Gravelly Sandy Clay	Gravelly Sandy Clay	Gravelly Sandy Clay	Gravelly Sandy Clay
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 (%)	3	3	1	3	3	3
Field Wet Density (FWD) t/m ³	2.13	2.09	2.07	2.04	1.99	2.00
Field Dry Density (FDD) t/m ³	**	**	**	**	**	**
Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Adjusted Peak Converted Wet Density t/m ³	2.04	2.04	2.05	2.04	1.98	1.96
Moisture Variation (Wv) %	**	**	**	**	**	**
Adjusted Moisture Variation %	3.5	4.5	2.5	2.0	3.5	4.0
Hilf Density Ratio (%)	104.0	102.5	101.0	100.5	100.5	102.0
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: P17236-102
Issue Number: 1
Date Issued: 14/03/2023
Client: DPJ Civil Pty Ltd
 24 Jewell Court , Bendigo VIC 3550
Project Number: P17236
Project Name: Imagine Estate
Project Location: Stage 17
Work Request: 12723
Date Sampled: 10/03/2023
Dates Tested: 10/03/2023 - 11/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Site Selection: Selected by Client
Material Source: Test Location



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Approved Signatory: Josh Lagodzki
 CMT Manager

NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1						
Sample Number	B23-12723A	B23-12723B	B23-12723C	B23-12723D	B23-12723E	B23-12723F
Date Tested	10/03/2023	10/03/2023	10/03/2023	10/03/2023	10/03/2023	10/03/2023
Time Tested	07:53	07:57	08:02	08:05	08:10	08:14
Test Request #/Location	House blocks Block 1715	House blocks Block 1716	House blocks Block 1717	House blocks Block 1718	House blocks Block 1719	House blocks Block 1720
Chainage (m)	Centre	Centre	Centre	Centre	Centre	Centre
Location Offset (m)	**	**	**	**	**	**
Layer / Reduced Level	FSL	FSL	FSL	FSL	FSL	FSL
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay
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 (%)	3	1	4	3	1	0
Field Wet Density (FWD) t/m ³	2.17	2.15	2.09	2.02	2.02	2.17
Field Dry Density (FDD) t/m ³	**	**	**	**	**	**
Peak Converted Wet Density t/m ³	**	**	**	**	**	2.12
Adjusted Peak Converted Wet Density t/m ³	2.09	2.09	2.15	2.12	2.10	**
Moisture Variation (Wv) %	**	**	**	**	**	1.0
Adjusted Moisture Variation %	3.0	2.5	2.0	2.0	3.5	**
Hilf Density Ratio (%)	104.0	102.5	97.5	95.5	96.5	102.5
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: P17236-102
Issue Number: 1
Date Issued: 14/03/2023
Client: DPJ Civil Pty Ltd
 24 Jewell Court , Bendigo VIC 3550
Project Number: P17236
Project Name: Imagine Estate
Project Location: Stage 17
Work Request: 12723
Date Sampled: 10/03/2023
Dates Tested: 10/03/2023 - 11/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Site Selection: Selected by Client
Material Source: Test Location



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Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki
 CMT Manager

NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1						
Sample Number	B23-12723G	B23-12723H	B23-12723I	B23-12723J	B23-12723K	B23-12723L
Date Tested	10/03/2023	10/03/2023	10/03/2023	10/03/2023	10/03/2023	10/03/2023
Time Tested	08:20	13:44	13:49	13:53	13:57	14:01
Test Request #/Location	House blocks Block 1721	House Blocks Block 1701	House Blocks Block 1702	House Blocks Block 1703	House Blocks Block 1704	House Blocks Block 1705
Chainage (m)	Centre	Middle	Middle	Middle	Middle	Middle
Location Offset (m)	**	**	**	**	**	**
Layer / Reduced Level	FSL	-300	-300	-300	-300	-300
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Silty Gravelly Clay	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay
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 (%)	2	10	4	4	1	2
Field Wet Density (FWD) t/m ³	2.04	2.12	2.10	2.08	2.07	2.05
Field Dry Density (FDD) t/m ³	**	**	**	**	**	**
Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Adjusted Peak Converted Wet Density t/m ³	2.02	2.10	2.04	2.09	2.06	2.08
Moisture Variation (Wv) %	**	**	**	**	**	**
Adjusted Moisture Variation %	3.5	3.5	4.0	2.5	3.0	3.0
Hilf Density Ratio (%)	101.0	101.0	102.5	99.5	100.5	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: P17236-103
Issue Number: 1
Date Issued: 18/03/2023
Client: DPJ Civil Pty Ltd
 24 Jewell Court , Bendigo VIC 3550
Project Number: P17236
Project Name: Imagine Estate
Project Location: Strathfieldsaye - Stage 17
Work Request: 12748
Date Sampled: 16/03/2023
Dates Tested: 16/03/2023 - 16/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Site Selection: Selected by Client
Material Source: Test Location



Geotechnical Testing Services (Southern)
 Bendigo Soil and Concrete Testing Laboratory
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 Phone: (03) 5441 4881
 Email: joshl@gts.com.au

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Approved Signatory: Josh Lagodzki
 CMT Manager

NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1					
Sample Number	B23-12748A	B23-12748B	B23-12748C	B23-12748D	B23-12748E
Date Tested	16/03/2023	16/03/2023	16/03/2023	16/03/2023	16/03/2023
Time Tested	11:05	11:10	11:15	11:20	11:25
Test Request #/Location	Stage 17 House Blocks	Stage 17 House Blocks	Stage 17 House Blocks	Stage 17 House Blocks	Stage 17 House Blocks
Chainage (m)	Lot 1705	Lot 1704	Lot 1703	Lot 1702	Lot 1701
Location Offset (m)	Front Centre	Front Centre	Front Centre	Front Centre	Front Centre
Layer / Reduced Level	FSL	FSL	FSL	FSL	FSL
Thickness of Layer (mm)	300	300	300	300	300
Soil Description	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay
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	4	4	0	0
Field Wet Density (FWD) t/m ³	2.19	2.06	2.08	2.03	2.03
Field Dry Density (FDD) t/m ³	**	**	**	**	**
Peak Converted Wet Density t/m ³	2.16	**	**	2.00	1.98
Adjusted Peak Converted Wet Density t/m ³	**	2.00	2.02	**	**
Moisture Variation (Wv) %	0.0	**	**	3.0	2.5
Adjusted Moisture Variation %	**	4.5	3.0	**	**
Hilf Density Ratio (%)	101.5	103.0	102.5	101.5	103.0
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: P17236-104
Issue Number: 1
Date Issued: 20/03/2023
Client: DPJ Civil Pty Ltd
 24 Jewell Court , Bendigo VIC 3550
Project Number: P17236
Project Name: Imagine Estate
Project Location: Stage 17
Work Request: 12759
Date Sampled: 20/03/2023
Dates Tested: 20/03/2023 - 20/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Site Selection: Selected by Client
Material Source: Test Location



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Approved Signatory: Josh Lagodzki
 CMT Manager

NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	B23-12759A	B23-12759B	
Date Tested	20/03/2023	20/03/2023	
Time Tested	10:06	10:10	
Test Request #/Location	House Blocks Lot 1706	House Blocks Lot 1707	
Chainage (m)	Centre	Centre	
Location Offset (m)	**	**	
Layer / Reduced Level	FSL	FSL	
Thickness of Layer (mm)	300	300	
Soil Description	Gravelly Silty Clay	Gravelly Silty Clay	
Test Depth (mm)	275	275	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	1	0	
Field Wet Density (FWD) t/m ³	2.19	2.14	
Field Dry Density (FDD) t/m ³	**	**	
Peak Converted Wet Density t/m ³	**	**	
Adjusted Peak Converted Wet Density t/m ³	2.12	2.07	
Moisture Variation (Wv) %	**	**	
Adjusted Moisture Variation %	2.0	3.5	
Hilf Density Ratio (%)	103.5	103.5	
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: P17236-105
Issue Number: 1
Date Issued: 24/03/2023
Client: DPJ Civil Pty Ltd
 24 Jewell Court , Bendigo VIC 3550
Project Number: P17236
Project Name: Imagine Estate
Project Location: Stage 17 - Strathfieldsaye
Work Request: 12784
Date Sampled: 24/03/2023
Dates Tested: 24/03/2023 - 24/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Site Selection: Selected by Client
Material Source: Test Location



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Approved Signatory: Josh Lagodzki
 CMT Manager

NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	B23-12784A		
Date Tested	24/03/2023		
Time Tested	09:09		
Test Request #/Location	Stage 17 House Block		
Chainage (m)	Lot 1722		
Location Offset (m)	Middle		
Layer / Reduced Level	FSL		
Thickness of Layer (mm)	300		
Soil Description	Gravelly Silty Clay		
Test Depth (mm)	275		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	1		
Field Wet Density (FWD) t/m ³	2.19		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	**		
Adjusted Peak Converted Wet Density t/m ³	2.13		
Moisture Variation (Wv) %	**		
Adjusted Moisture Variation %	0.5		
Hilf Density Ratio (%)	103.0		
Compaction Method	Standard		
Report Remarks	**		

Moisture Variation Note:

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