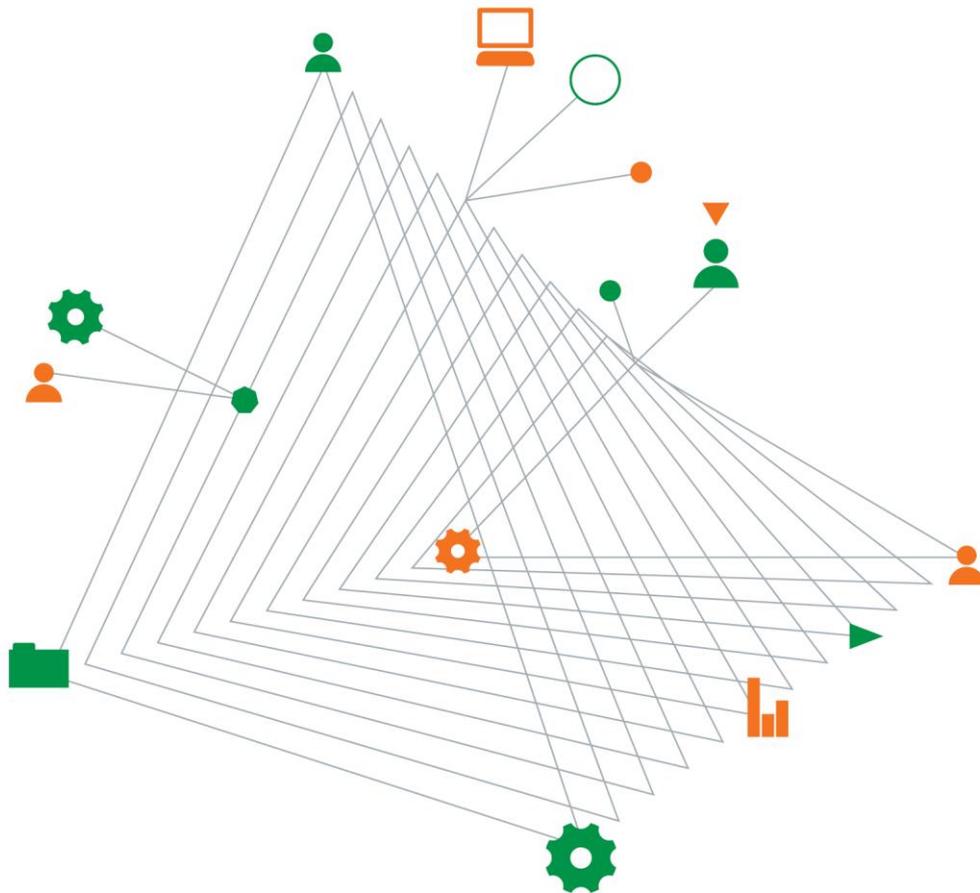


Peet No. 1895 Pty Ltd

**Level 1 Inspection and Testing,
Bulk Earthworks Stage 3 and 4,
Little Green Residential Precinct 1**

GEOTABTF09878AA-AG

29 September 2016



Experience
comes to life
when it is
powered by
expertise

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Level 1 Inspection and Testing, Bulk Earthworks Stage 3 and 4, Little Green Residential Precinct 1

Prepared for
Peet No. 1895 Pty Ltd

Prepared by

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29 September 2016

Document authorisation

Our ref: GEOTABTF09878AA-AG

For and on behalf of Coffey



Trevor Smith
Principal Engineering Geologist

Quality information

Revision history

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1	Level 1 Report	01/09/2016	Shaun Price	Trevor Smith	Trevor Smith
2	Level 1 Report	29/09/2016	Shaun Price	Trevor Smith	Trevor Smith

Distribution

Report Status	No. of copies	Format	Distributed to	Date
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Appendices

Appendix A - Laboratory Results (19 Pages)

Appendix B - “Little Green Residential Precinct 1 Stage 2” civil drawings and combination survey plan

Appendix C - Summary of imported fill material

1. Introduction

This report presents the results of the Level 1 Inspection and Testing for fill placement within Stage 3 & 4 of Little Green Residential Estate Precinct 1, Tarneit, undertaken by Coffey Geotechnics Pty Ltd (Coffey).

The works were commissioned by Mark Zammataro of Spiire Australia Pty Ltd on 2 July 2015.

The Project was commenced on behalf of Amex Corporation Pty Ltd. On 1 March 2015 ownership transferred to Peet No 1895 Pty Ltd, the change in ownership had no significant influence on level 1 activities.

2. Project Summary

Level 1 Inspection and Testing, as defined in AS3798-2007 "Guidelines on Earthworks for Commercial and Residential Development," provides for full time inspection of the construction of controlled fill and field and laboratory testing in accordance with AS1289 "Methods of Testing Soils for Engineering Purposes".

The Level 1 Inspection was undertaken by geotechnical professionals from Coffey over several periods between 27 July and 10 Sep in 2015, 17 and 18 May 2016, 20 June in 2016 and 26 August 2016.

The main contractor for the project was BMD Constructions Pty Ltd who in combination with their subcontractor Fleet Plant Hire, have conducted the bulk earthworks at the site. Coffey undertook the compaction control testing in their NATA accredited laboratory, as part of the Level 1 Inspection and Testing process.

This report is applicable to fill placed by BMD and Fleet Plant Hire within Stage 2 Bulk Earthworks of the Little Green Estate development in the areas shown in Figure 1. Figure 1 also identifies the filling areas of the engineered fill platforms.

This report does not include fill other than where mentioned in this report or any other fill that may be placed during this period or subsequent periods at or surrounding the subject site. Excluded works comprise trench backfill, footpaths, landscaping fill, placement of topsoil, roadway testing, sewer and stormwater channels backfills.

3. Specification/work instructions

The specification for the project was prepared by Spiire Australia Pty Ltd for Little Green Residential Estate Precinct 1 under reference number "301119 Little Green Bulk Earthworks – Rev B" dated 20 February 2015. A maximum compacted layer thickness of 200mm was to be followed for the project. However from 2 June, after discussions between Coffey, BMD and Spiire on 22 May 2015, a maximum compacted layer thickness of 300mm was allowed to accommodate for a desire to complete construction earlier. The extract of the specified requirements is provided in Appendix D and a short summary is provided below:

- All filling shall be to a level 150mm below the finished surface level shown and compacted as per AS3798-1998. Filling material is to be in accordance with the specification and to the satisfaction of council and the superintendent.

- Fill areas are to be stripped of topsoil, filled and replaced with topsoil, where required, to obtain the final levels shown on the drawings provided by Spiire under reference number “301119 Little Green Bulk Earthworks – Rev B”. Filling material is to be in accordance with the specification of AS3798-2007 and to the satisfaction of council and the superintendent.
- All filling on lots and within road reserves greater than 200mm is to be undertaken using level 1 supervision and completed in accordance with AS 3798-2007.
- Item 13 of the Specifications under reference “301119 Little Green Bulk Earthworks – Rev B” dated 20 February 2015 notes that fill placed on allotment areas is to achieve the following specifications:
 - o Maximum dry density of 98%;
 - o Minimum California Bearing Ratio (CBR) of 5%; and
 - o Bearing pressure of 100kPa at less than 1.0m depth from finished surface level or bulk filling surface level and bearing pressure of 150kPa at greater than 1.0m depth from finished surface level or bulk surface level.

Email correspondence from Mark Zammataro of Spiire sent to Coffey and BMD 25 May 2015 indicated that the filling works were to achieve the following specifications:

- o Layers not exceeding 200mm compacted thickness;
- o Density ratio to be minimum 95% Standard;
- o No CBR value requirement;
- o Moisture variation to be within 3% of the optimum moisture condition (OMC); and
- o Allowed rock size to be up to 130mm diameter, i.e. 2/3 of a layer.

Following further discussions between Mark Zammataro of Spiire and Sotir Stojcevski of Coffey, the specifications were altered to meet the following requirements:

- o A compacted layer thickness not exceeding 300mm;
 - o Maximum dry density of 95%; and
 - o Moisture variation to be within $\pm 3\%$ OMC.
- The contractor is to provide a clean fill certificate of the proposed imported fill for approval by Coffey’s geotechnical engineer, prior to importation

4. Fill Material

Fill used for the construction of Stage 2 Bulk Earthworks comprised of imported soil from various sites around the Melbourne area. A spreadsheet indicating the source name and estimated volumes is attached in Appendix C. It is noted that Coffey’s summary of imported fill material was derived from daily discussions held by the Level 1 GITA representative and Fleet Plant Hire site foreman. Environmental assessment of the imported materials is understood to have been conducted by the Contractor – BMD. A clean fill summary sheet is also attached in Appendix C as provided by BMD. The clean fill reports for the source locations are held by BMD.

Organic or deleterious matter and oversize materials that were observed within the imported fill were removed prior to placing the engineered fill platforms.

Coffey consider that the imported fill material was suitable for the construction of the engineered fill platforms.

5. Earthworks

The earthworks for this project included stripping of topsoil, proof rolling the subgrade and placement and compaction of fill to construct engineered fill platforms.

5.1. Subgrade assessment

The subgrade assessment was undertaken progressively throughout the works in stage 2 sections. The first subgrade section was assessed on 8 July 2015. Subgrade assessment was conducted following the removal of topsoil and before any fill was placed. In all areas the subgrade comprised natural clay of very stiff to hard consistency. No soft spots were observed during the subgrade proof rolling. Where organics and roots were observed, they were removed. A surveyor engaged by BMD undertook a survey of the subgrade levels following Coffey's assessment.

5.2. Fill construction

Fill material was placed generally in loose layers varying in thickness from 200mm to 350mm. Compacted layers were approximately 150mm to 300mm thick. All sourced fill was trucked in and spread with the blade of a compactor. A water cart and a pad foot roller were present onsite during works for moisture conditioning and compacting.

Coffey's Level 1 Inspector was on site on a full time basis during the placement, compaction and testing of the fill on the dates noted in Section 2 of this report. Coffey understands that Fleet Plant Hire and BMD did not place any fill within the platforms during the period that Coffey was absent from the site.

6. Survey data and fill thickness

BMD's appointed surveyor Jac Surveyors Pty Ltd (SMS) conducted a survey of stage 2 after stripping the topsoil and after the subgrade was approved for placement of fill. The stripped surface levels are provided in Appendix B of this report under reference "Stage 2 Strip Surface."

As there was no final survey of the finished surface, the stripped surface levels were compared with the survey plans of the design finished surface levels which can be found in Appendix B of this report under reference "Y02 003 301730 Little Green Stage 4 - R01-21 Rev 1 2016-05-12" & "301599 - R01-22 RevC," as Stage 3 and 4 of the civil drawings dated August 2015 and October 2015 respectively.

After overlaying the stripped surface levels with the finished surface levels, the fill thicknesses could be summarised, both found in Appendix B under reference "survey overlay" and "Table 1." It can be seen in "Table 1" that most of the Fill Pads are compliant with the maximum layer thickness outlined by the Project Specifications and AS3798 – 2007.

Table 1: Layer Thickness Compliance

Fill Pad No.	Max. depth of Fill (m)	Recorded number of Layers	Complies with project specifications
1	0.942	4	YES
2	0.607	3	YES
3	0.918	3	YES
4	0.668	3	YES
5	0.539	2	YES
6	0.931	4	YES
7	1.02	2	NO

The survey shows that between 0.5m and 1.02m of fill was placed across the lots in Stage 2. Coffey observed the fill being placed between 1 and 4 layers in these areas across Stage 2 which resulted in maximum layer thickness of 300mm. We note that Fill Pad 7 was not compliant with these specifications, therefore additional testing was carried out as discussed in section 7.2.2 of this report. The produced layer thickness for Fill Pads 1 to 6 are in compliance with the specifications of AS 3798-2007 and within the specifications outlined in section 3 of this report.

7. Testing and results

7.1. Density Testing

Field density testing was undertaken progressively on the compacted fill. Testing was undertaken under the following frequencies:

- 1 test per material type per layer per 2500m² or 1 test per 500m³ or 3 tests per lot – whichever requires most tests in accordance with Type 1 Earthworks (large scale operations) as defined in Table 8.1 of the AS 3798-2007.
- 1 test per layer or 1 test per 200m³ distributed reasonably evenly throughout the fill depth or 1 test per residential lot – whichever requires the most tests in accordance with Type 2 Earthworks (small scale operations) as defined in Table 8.1 of the AS 3798-2007.

The field density testing was conducted by Coffey's personnel on site. All laboratory testing was performed in Coffey's NATA accredited laboratory. A Hilti compaction test was performed for each field density test.

A total of 62 field density tests were performed during the earthworks in the locations as presented in Figure 1. Of the 62 tests, 10 did not meet the specified criteria and these areas were subsequently re-worked and re-tested with the exception of test #3 which was passed based on further assessment as discussed in Section 7.2.1 of his report. Once retested, all test results met the specified dry density ratio criteria of 95% Standard and moisture variation of ±3% of the Optimum Moisture Content (OMC).

A summary of the test results obtained from the field density testing within the Stage 2 fill platforms are provided in a table presented as Figure 2. The laboratory test reports of the field density tests are presented in Appendix A.

7.2. Dynamic Cone Penetrometer testing

A DCP Test location plan is presented in Figure 1-F. Results of the DCP testing is presented in Table 2 “DCP test results” shown further down in this section.

7.2.1. Fill Pad 6, Lot 310

As discussed in section 7.1 of this report, further assessment with DCP testing was carried out to assist in assessing the engineered fill consistency in the area of Test #3 in lot 310. Geotechnical professionals from Coffey carried out 3 DCP tests within lot 310 on 26 August 2016 (*grid reference; D2, E1 and E2 respectively*).

7.2.2. Fill Pad 7

As discussed in section 6 of this report, further assessment was carried out to assist in assessing the engineered fill consistency within Fill Pad 7. Geotechnical professionals from Coffey carried out 4 DCP tests within Fill Pad 7 on 26 August 2016 between Lots 325 to 333 (*grid reference; F1, F2, F3 and G2 respectively*).

Table 2: DCP test results

DCP #	1	2	3	4	5	6	7
Grid Reference	D2	E1	E2	F1	F2	F3	G3
Depth below GL (m)	<i>Blow counts per 100mm penetration</i>						
0.1	4	2	4	6	8	4	4
0.2	14	9	12	8	13	2	4
0.3	11	13	9	9	15	5	3
0.4	7	7	15	14	11	7	9
0.5	7	7	Refusal	20	11	7	10
0.6	7	7		9	9	Refusal	5
0.7	4	7		Refusal	11		4
0.8	6	7			17		9
0.9	6	7			Refusal		10
1.0	13	9					10
1.1	14	13					7
1.2	15	Refusal					10
1.3	Refusal						Refusal

All the DCP tests were conducted from the finished fill surface to a target depth of 1.3m below the surface level or until refusal was encountered. Noting that topsoil to about 200mm thickness was present at the surface level at the time of testing.

Based on the DCP test results from 20 of July 2016 and 26 August 2016 by Coffey's geotechnical practitioners, it is our opinion that the fill in the assessed areas has been constructed in such a way to meet the intent of the specified project requirements.

8. Statement of compliance

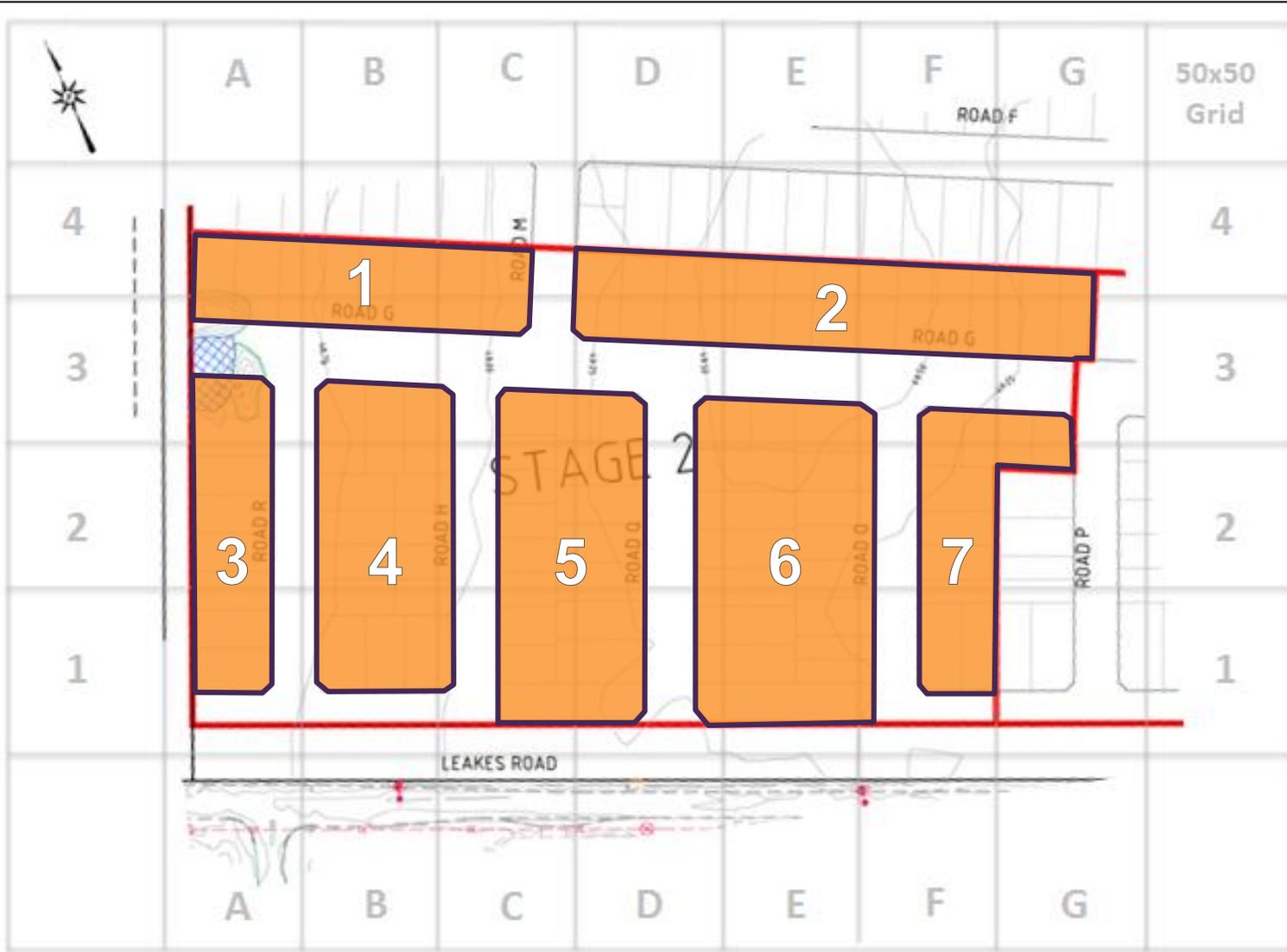
Coffey personnel have provided Level 1 inspection and testing services during the construction of the engineered fill area within Stage 2 as shown in Figure 1-A. A geotechnical professional from Coffey (Level 1 Inspector) was on site on a full time basis during subgrade preparation and fill placement, and observed the construction techniques adopted.

Based on observations made by Coffey's Level 1 Inspector and the results of field and laboratory tests, Coffey consider that the engineered fill area within Stage 2 constructed by BMD to the levels indicated in Section 5, as far as we have been able to determine, has been placed in general accordance with the intent of the specification.

Figures

Figure 1- Fill Area Plan, Field Density and DCP Test Locations

Figure 2 - Summary of Field Density Test Results



LEGEND



Engineered Fill Pads

Plan extracted from Design Plans

Drawing No: 301119

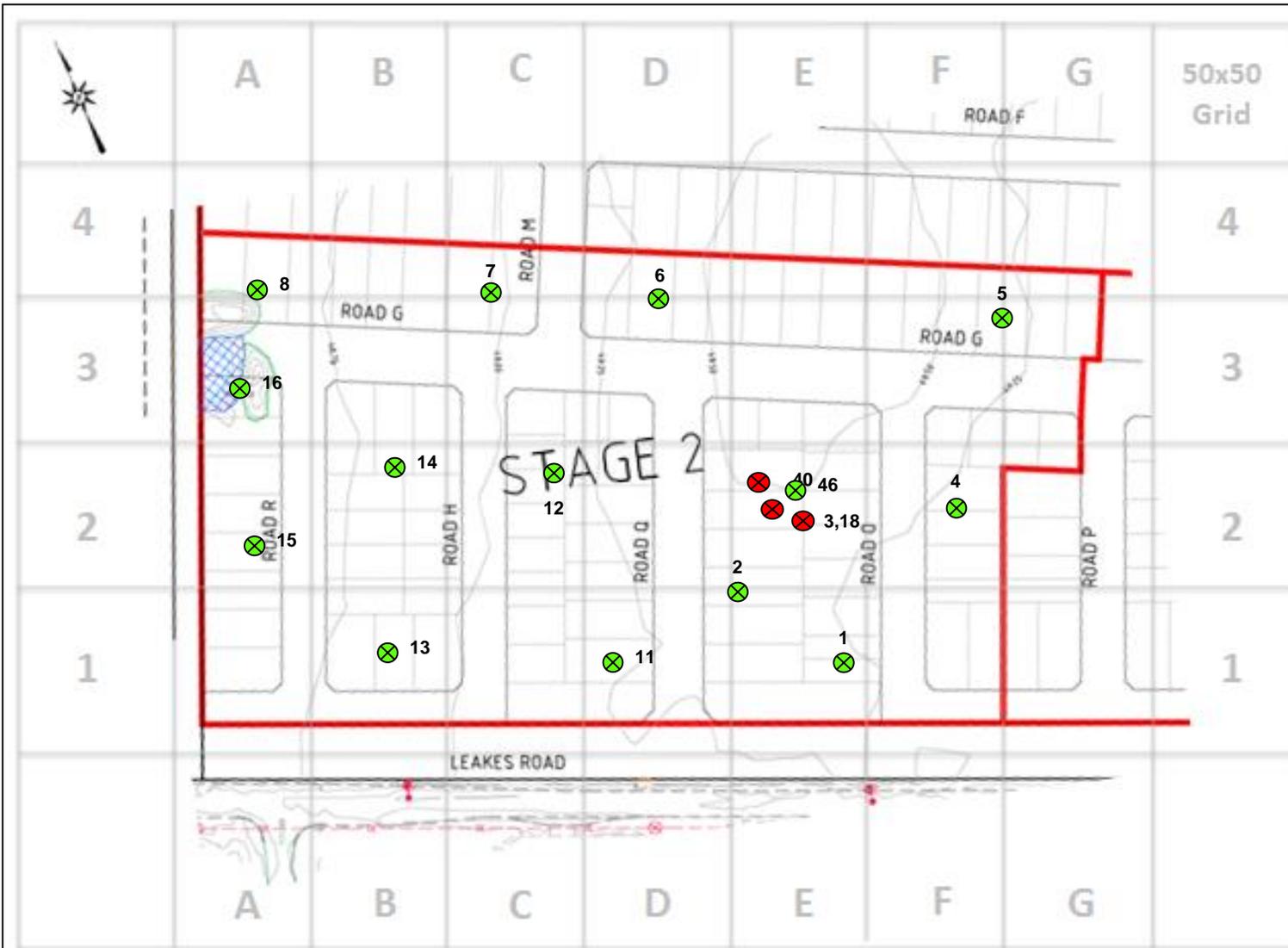
Titled: LITTLE GREEN BULK EARTHWORKS

- REV B

drawn	I.I.
approved	S.P.
date	26/08/2016
scale	NTS
original size	A4



client:	PEET NO 1895 PTY LTD	
project:	STAGE 2 – LEVEL 1 LITTLE GREEN ESTATE	
title:	FILL AREA PLAN	
project no:	GEOTABTF09878AA - AG	figure no: FIGURE 1-A



LEGEND

Approximate location of:

- Field density tests - Layer 1 (PASSED)
- Field density tests - Layer 1 (FAILED)

Plan extracted from Design Plans

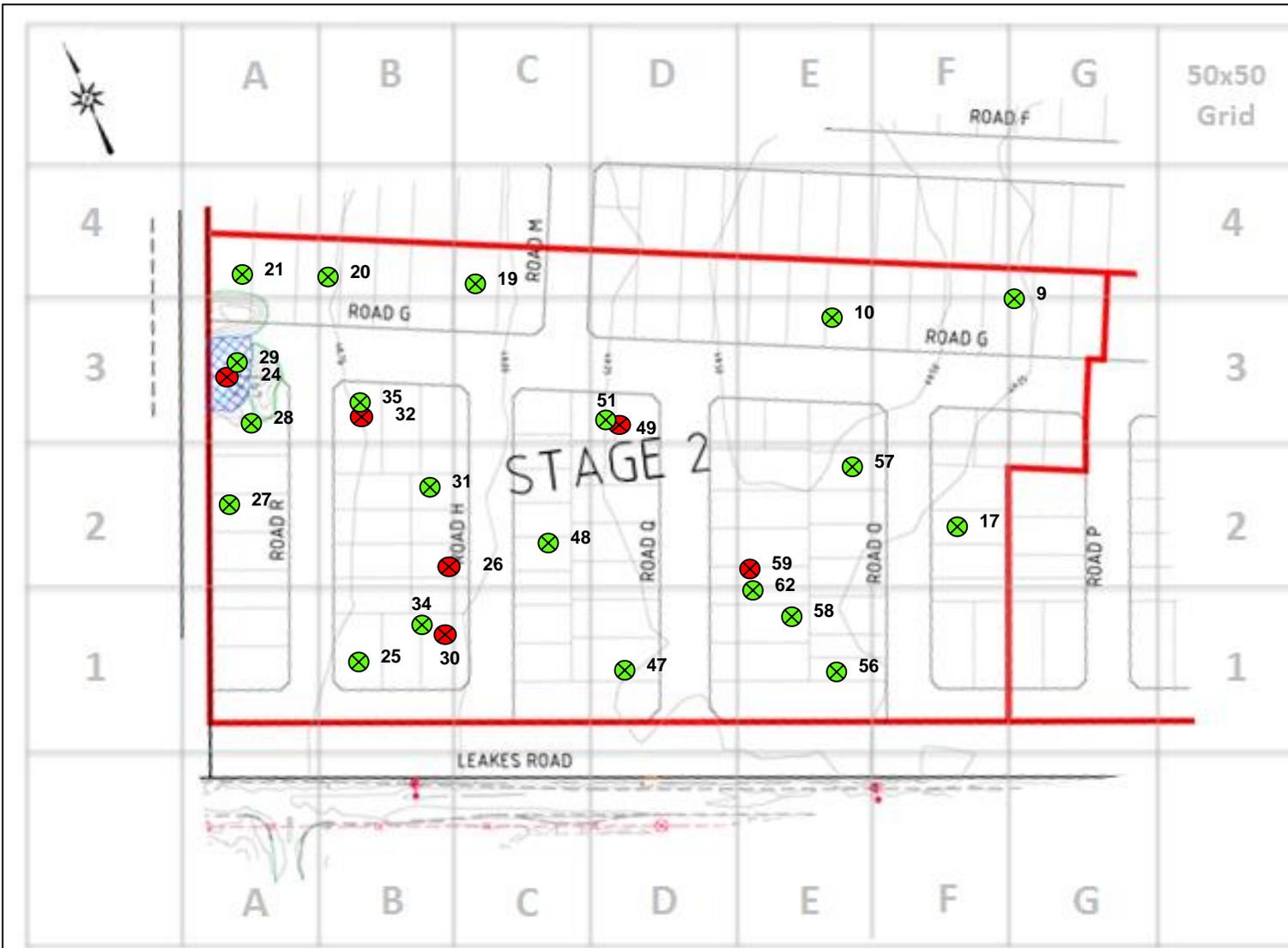
Drawing No: 301119

Titled: *LITTLE GREEN BULK EARTHWORKS*
- REV B

drawn	BP
approved	S.P.
date	30/08/2016
scale	NTS
original size	A4



client:	PEET NO 1895 PTY LTD	
project:	STAGE 2 – LEVEL 1 LITTLE GREEN ESTATE	
title:	FIELD DENSITY TEST LOCATIONS – LAYER 1	
project no:	GEOTABTF09878AA - AG	figure no: FIGURE 1-B



LEGEND

Approximate location of:

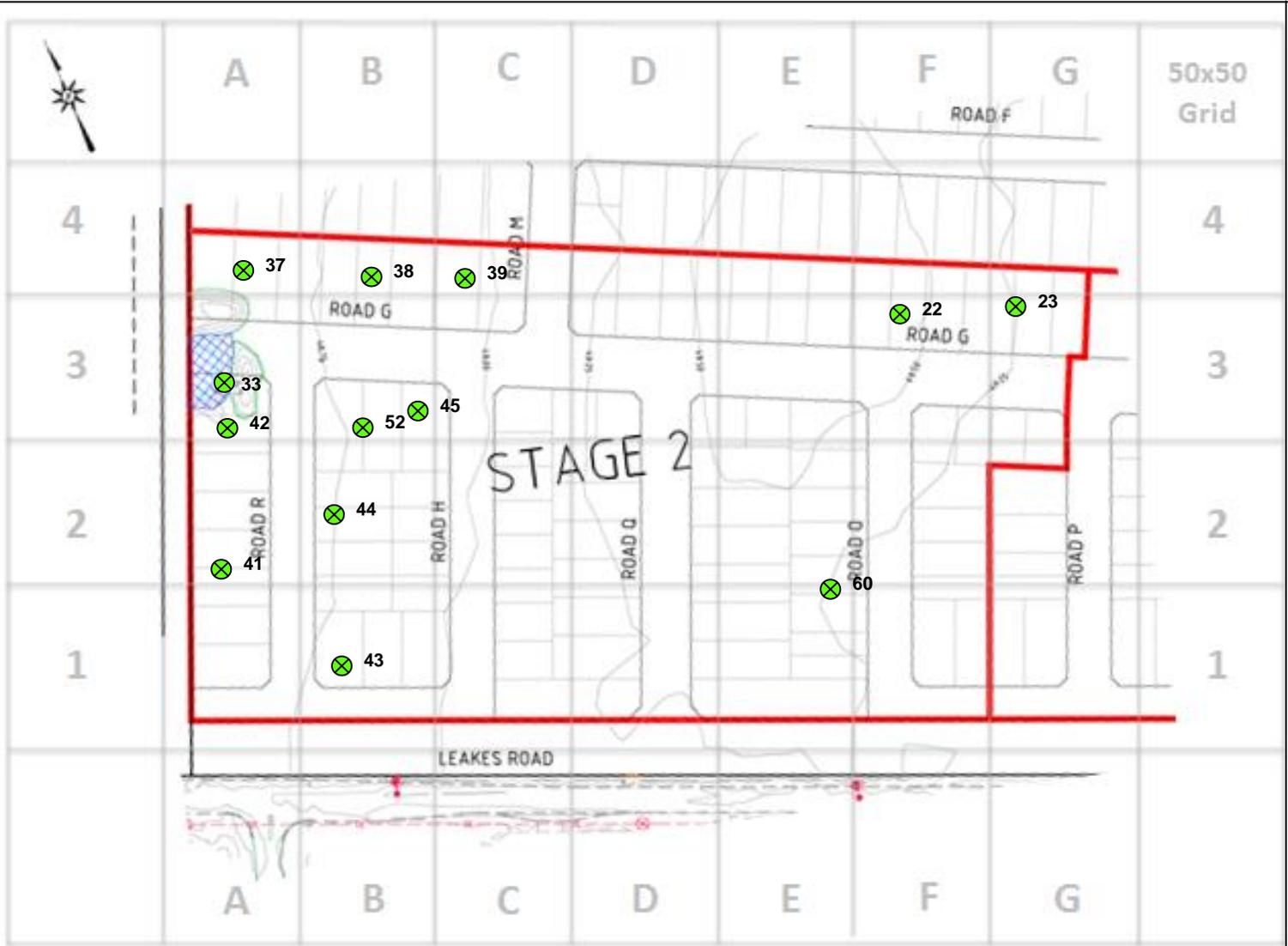
-  Field density tests - Layer 2 (PASSED)
-  Field density tests - Layer 2 (FAILED)

Plan extracted from Design Plans
 Drawing No: 301119
 Titled: *LITTLE GREEN BULK EARTHWORKS*
 - REV B

drawn	BP
approved	S.P.
date	30/08/2016
scale	NTS
original size	A4



client:	PEET NO 1895 PTY LTD	
project:	STAGE 2 – LEVEL 1 LITTLE GREEN ESTATE	
title:	FIELD DENSITY TEST LOCATIONS – LAYER 2	
project no:	GEOTABTF09878AA - AG	figure no: FIGURE 1-C



LEGEND

Approximate location of:

- ⊗ Field density tests - Layer 3 (PASSED)
- ⊗ Field density tests - Layer 3 (FAILED)

Plan extracted from Design Plans

Drawing No: 301119

Titled: *LITTLE GREEN BULK EARTHWORKS*
- REV B

drawn	BP
approved	S.P.
date	30/08/2016
scale	NTS
original size	A4



client:	PEET NO 1895 PTY LTD	
project:	STAGE 2 – LEVEL 1 LITTLE GREEN ESTATE	
title:	FIELD DENSITY TEST LOCATIONS – LAYER 3	
project no:	GEOTABTF09878AA - AG	figure no: FIGURE 1-D



LEGEND

Approximate location of:

- X Field density tests - Layer 4 (PASSED)
- X Field density tests - Layer 4 (FAILED)

Plan extracted from Design Plans
Drawing No: 301119
Titled: LITTLE GREEN BULK EARTHWORKS
- REV B

drawn	BP
approved	S.P.
date	30/08/2016
scale	NTS
original size	A4



client:	PEET NO 1895 PTY LTD	
project:	STAGE 2 – LEVEL 1 LITTLE GREEN ESTATE	
title:	FIELD DENSITY TEST LOCATIONS – LAYER 4	
project no:	GEOTABTF09878AA - AG	figure no: FIGURE 1-E



LEGEND

Approximate location of:

-  Dynamic Cone Penetrometer tests carried out 20 July 2016
-  Dynamic Cone Penetrometer tests carried out 26 August 2016

Plan extracted from Design Plans

Drawing No: 301119

Titled: *LITTLE GREEN BULK EARTHWORKS*
- REV B

drawn	I.I.
approved	S.P.
date	30/08/2016
scale	NTS
original size	A4



client:	PEET NO 1895 PTY LTD	
project:	STAGE 2 – LEVEL 1 LITTLE GREEN ESTATE	
title:	DCP TEST LOCATIONS	
project no:	GEOTABTF09878AA - AG	figure no: FIGURE 1-F



FIGURE 2 SUMMARY OF FIELD DENSITY TEST RESULTS AT THE KEY

Project:	Little Green Estate	Coffey Job #	GEOTABTF09878AA	Specification:	95% Hif Density Ratio
Client:	SPIIRE/Peet No 1895 Pty Ltd	Period	2015 - 2016		±3% of OMC

Test	Retest	Day	Area	Layer	Field	Field	Hif	Moisture	Moisture	Pass	Retest	Comment
	of Test	/	Grid		Wet	Moisture	Density	Ratio	Variation	/		(source)
#	#	Date		#	Density	Content	Ratio	%	%	Fail	#	
					t/m3	%	%	%	%			
1		Wednesday, 29 July 2015	E1	1	1877.5	24.1	100.5	88.5	-3	PASS		
2		Wednesday, 29 July 2015	E1	1	1926.4	24.4	103.5	89	-3	PASS		
3		Thursday, 6 August 2015	E2	1	1755.4	25.5	94	88.5	-3	^{^1} PASS	^{^1}	Refer to Notes
4		Thursday, 6 August 2015	F2	1	1808.4	25.6	97.5	89.5	-3	PASS		
5		Thursday, 6 August 2015	F3	1	1917.9	23.3	100	100	OMC	PASS		
6		Thursday, 6 August 2015	D3	1	1986.3	23.1	102	90.5	-2.5	PASS		
7		Thursday, 6 August 2015	C4	1	1977.7	23.7	102	90	-2	PASS		
8		Thursday, 6 August 2015	A4	1	1917.5	19.5	96.5	99	OMC	PASS		
9		Monday, 10 August 2015	G3	2	1815.8	26	98.5	93.5	-2	PASS		
10		Monday, 10 August 2015	E3	2	1767.7	25.7	95.5	89.5	-2.5	PASS		
11		Tuesday, 11 August 2015	D1	1	1879.7	19.3	100.5	88	-3	PASS		
12		Tuesday, 11 August 2015	C2	1	1983	18.8	101	90.5	-2	PASS		
13		Tuesday, 11 August 2015	B1	1	1785.3	27.5	96	91.5	-2.5	PASS		
14		Tuesday, 11 August 2015	B2	1	1783	24.7	95.5	91	-2.5	PASS		
15		Tuesday, 11 August 2015	A2	1	1846.9	23.9	101	91	-2.5	PASS		
16		Tuesday, 11 August 2015	A3	1	1983.6	17.3	102.5	86	-3	PASS		
17		Tuesday, 11 August 2015	F2	2	2039	21	100.5	99	-0.5	PASS		
18	3	Tuesday, 11 August 2015	E2	1	2055.2	19.5	105.5	81.5	-4	FAIL	#40	
19		Thursday, 13 August 2015	C4	2	2112.6	19.8	103.5	90.5	-1.5	PASS		
20		Thursday, 13 August 2015	B4	2	1994.8	20.7	99.5	85.5	-2.5	PASS		
21		Friday, 14 August 2015	A4	2	1.84	27	99	93	-2	PASS		
22		Friday, 14 August 2015	F3	3	1.82	25	98	96	-1	PASS		
23		Friday, 14 August 2015	G3	3	2.03	24	103	98	-0.5	PASS		
24		Monday, 17 August 2015	A3	2	1.93	17	78.5	103	-4.5	FAIL	#28	
25		Monday, 17 August 2015	B1	2	2.02	19.5	98.5	96.5	-0.5	PASS		
26		Monday, 17 August 2015	B2	2	1.96	14.5	75	105	-4.5	FAIL	#30	
27		Monday, 17 August 2015	A2	2	1.86	19.5	86.5	96.5	-3	PASS		
28	24	Tuesday, 18 August 2015	A3	2	1.9	24.5	101	96	-1	PASS		
29		Tuesday, 18 August 2015	A2	2	2.03	13.5	101.5	82	-3	PASS		
30	26	Wednesday, 19 August 2015	B1	2	1.97	19	100.5	100.5	0	FAIL	#34	
31		Wednesday, 19 August 2015	B2	2	1.93	24.5	100.5	93.5	-1.5	PASS		
32		Wednesday, 19 August 2015	B3	2	1.97	22	91	98	-0.5	FAIL	#35	
33		Wednesday, 19 August 2015	A3	3	2	21.5	101	103.5	0.5	PASS		
34	30	Thursday, 20 August 2015	B1	2	2	16.5	95.5	97.5	-0.5	PASS		
35	32	Thursday, 20 August 2015	B3	2	2.03	18.5	97.5	97.5	-0.5	PASS		
36		Friday, 21 August 2015	A3	4	1.9	30	105	90.5	-3	PASS		
37		Friday, 21 August 2015	A4	3	1.88	25	103	94	-1.5	PASS		
38		Friday, 21 August 2015	B4	3	1.87	29	103	95	-1.5	PASS		
39		Friday, 21 August 2015	C4	3	1.89	20.5	103	92.5	-1.5	PASS		

40	18	Friday, 21 August 2015	E2	1	2.04	19.5	108.5	82.5	-4	FAIL	#46
41		Friday, 21 August 2015	A2	3	2.01	19.5	103.5	88	-2.5	PASS	
42		Friday, 21 August 2015	A3	3	1.99	24.5	106.5	89.5	-2.5	PASS	
43		Tuesday, 25 August 2015	B1	3	1.97	22	100	91	-2	PASS	
44		Tuesday, 25 August 2015	B2	3	2.15	14	100	94.5	-1	PASS	
45		Tuesday, 25 August 2015	B3	3	2.23	12	105.5	94.5	-0.5	PASS	
46	40	Tuesday, 25 August 2015	E2	1	1.88	26.5	100	93	-2	PASS	
47		Tuesday, 1 September 2015	D1	2	1.91	18.5	100	85	-3	PASS	
48		Wednesday, 2 September 2015	C2	2	2.13	12	99.5	98.5	OMC	PASS	
49		Wednesday, 2 September 2015	D3	2	1.87	18	100	78	-5	FAIL	#51
50		Wednesday, 2 September 2015	B3	4	1.81	25.5	94.5	119.5	4.5	FAIL	#52
51	49	Friday, 4 September 2015	D3	2	1.84	24	98.5	90.5	-2.5	PASS	
52	50	Friday, 4 September 2015	B3	4	2.07	12	97.5	84.5	-2	PASS	
53		Wednesday, 9 September 2015	C4	4	1.92	24	102	91.5	-2	PASS	
54		Wednesday, 9 September 2015	B4	4	1.88	23	99	97	-0.5	PASS	
55		Wednesday, 9 September 2015	A4	4	1.91	23.5	98	94	-1.5	PASS	
56		Thursday, 10 September 2015	E1	2	2.1	19.5	106	97	-0.5	PASS	
57		Thursday, 10 September 2015	E2	2	2.02	21	101.5	98.5	-0.5	PASS	
58		Tuesday, 17 May 2016	E1	2	1.9	19.2	98.5	89.5	-2	PASS	
59		Tuesday, 17 May 2016	E2	2	1.9	19.4	101.5	80.5	-4.5	FAIL	#62
60		Tuesday, 17 May 2016	E2	3	1.91	18.6	99.5	86	-3	PASS	
61		Wednesday, 18 May 2016	E1	4	1.88	23.7	95.5	94	-1.5	PASS	
62	59	Wednesday, 18 May 2016	E1	3	1.99	22.3	102.5	90	-2.5	PASS	

Notes:

^1 Due to Test compaction result being only 1% out of Specification and further assessment of the fill integrity via DCP testing of the area of the test, it was passed by the Project Manager.

Appendix A - Laboratory Results
(19 Pages)

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**



Accredited for compliance with ISO/IEC 17025.
 The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
Shaun Price
 Approved Signatory: Shaun Price
 (Laboratory Manager)
 NATA Accredited Laboratory Number:431
 Date of Issue: 30/07/2015

Sample Details

Location: Little Green Estate, Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-02672	ABTM15S-02673
Field Sample ID	1	2
Client Sample ID	Grid E1 Layer 1	Grid E1 Layer 1
Time Tested	14:00	14:15
Location	Stage 2	Stage 2
	Grid E1	Grid E1
	Layer 1	Layer 1

Field and Laboratory Data

Depth of Test (mm)	275	275
Depth of Layer (mm)	300	300
AS Sieve Size (mm)	19.0	19.0
Oversize Wet (%)	0	0
Field Moisture Content (%)	23.0	23.5
Field Wet Density (t/m ³)	1.88	1.93
Field Dry Density (t/m ³)	1.53	1.56
Peak Converted Wet Density* (t/m ³)	1.87	1.86
Optimum Moisture Content (%)	26.0	26.5
Compactive Effort	Standard	Standard
Moisture Ratio (%)	88.5	89.0
Moisture Variation (%)	3.0 dry	3.0 dry
Hilf Density Ratio (%)	100.5	103.5

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**



Accredited for compliance with ISO/IEC 17025.
 The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
Shaun Price
 Approved Signatory: Shaun Price
 (Laboratory Manager)
 NATA Accredited Laboratory Number:431
 Date of Issue: 7/08/2015

Sample Details

Location: Little Green Estate Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3 to +3 of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-02741	ABTM15S-02742	ABTM15S-02743	ABTM15S-02744	ABTM15S-02745	ABTM15S-02746
Field Sample ID	3	4	5	6	7	8
Date Tested	6/08/2015	6/08/2015	6/08/2015	6/08/2015	6/08/2015	6/08/2015
Time Tested	13:15	13:30	13:45	14:00	14:15	14:30
Location	Stage 2					
	Grid E2	Grid F2	Grid F3	Grid D3	Grid C4	Grid A4
	Layer 1					

Field and Laboratory Data

Depth of Test (mm)	275	275	275	275	275	275
Depth of Layer (mm)	300	300	300	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	7	0	0	9	6	11
Field Moisture Content (%)	24.0	25.0	20.5	26.0	21.0	20.5
Field Wet Density (t/m³)	1.76	1.81	1.92	1.99	1.98	1.92
Field Dry Density (t/m³)	1.42	1.44	1.59	1.58	1.64	1.59
Peak Converted Wet Density* (t/m³)	1.87	1.85	1.92	1.94	1.93	1.99
Optimum Moisture Content (%)	27.0	28.0	20.5	29.0	23.0	20.5
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	88.5	89.5	100.0	90.5	90.0	99.0
Moisture Variation (%)	3.0 dry	3.0 dry	0.0	2.5 dry	2.0 dry	0.0
Hilf Density Ratio (%)	94.0	97.5	100.0	102.0	102.0	96.5

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**


 Accredited for compliance with ISO/IEC 17025.
 The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
K. B. Patel
 Approved Signatory: Krushik Patel
 (Senior Technician)
 NATA Accredited Laboratory Number:431
 Date of Issue: 11/08/2015

Sample Details

Location: Little Green Estate Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction (as advised by client)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by client
Source: On Site
Material: Insitu

Sample Data

Sample ID	ABTM15S-02806	ABTM15S-02807
Field Sample ID	00007	00008
Client Sample ID	9	10
Date Tested	10/08/2015	10/08/2015
Time Tested	14:45	15:00
Location	Grid G3	Grid E3
	Layer 2	Layer 2

Field and Laboratory Data

Depth of Test (mm)	275	275
AS Sieve Size (mm)	19.0	19.0
Field Moisture Content (%)	27.5	24.5
Field Wet Density (t/m ³)	1.82	1.77
Field Dry Density (t/m ³)	1.42	1.42
Peak Converted Wet Density* (t/m ³)	1.85	1.85
Optimum Moisture Content (%)	29.5	27.5
Compactive Effort	Standard	Standard
Moisture Ratio (%)	93.5	89.5
Moisture Variation (%)	2.0 dry	2.5 dry
Hilf Density Ratio (%)	98.5	95.5

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Report No: HDR:ABTM15W00808

 Preliminary Report Issued - Issue No.:1 **Issue No: 2**
This report replaces all previous issues of report no 'HDR:ABTM15W00808'.

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**



Accredited for compliance with ISO/IEC 17025.
 The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
Shawn Price
 Approved Signatory: Shawn Price
 (Laboratory Manager)
 NATA Accredited Laboratory Number:431
 Date of Issue: 12/08/2015

Sample Details

Location: Little Green Estate Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-02814	ABTM15S-02815	ABTM15S-02816	ABTM15S-02817
Field Sample ID	11	12	13	14
Date Tested	11/08/2015	11/08/2015	11/08/2015	11/08/2015
Time Tested	13:45	14:00	14:15	14:30
Location	Stage 2	Stage 2	Stage 2	Stage 2
	Grid D1	Grid C2	Grid B1	Grid B2
	Layer 1	Layer 1	Layer 1	Layer 1

Field and Laboratory Data

Depth of Test (mm)	275	275	275	275
Depth of Layer (mm)	300	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0
Field Moisture Content (%)	22.0	22.5	27.5	26.5
Field Wet Density (t/m ³)	1.88	1.98	1.79	1.78
Field Dry Density (t/m ³)	1.54	1.62	1.40	1.41
Peak Converted Wet Density* (t/m ³)	1.87	1.96	1.86	1.87
Optimum Moisture Content (%)	25.0	25.0	30.0	29.0
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	88.0	90.5	91.5	91.0
Moisture Variation (%)	3.0 dry	2.0 dry	2.5 dry	2.5 dry
Hilf Density Ratio (%)	100.5	101.0	96.0	95.5

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Report No: HDR:ABTM15W00808

 Preliminary Report Issued - Issue No.:1 **Issue No: 2**
This report replaces all previous issues of report no 'HDR:ABTM15W00808'.

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**



Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Shawn Price
 Approved Signatory: Shawn Price
 (Laboratory Manager)
 NATA Accredited Laboratory Number:431
 Date of Issue: 12/08/2015

Sample Details

Location: Little Green Estate Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-02818	ABTM15S-02819	ABTM15S-02820	ABTM15S-02821
Field Sample ID	15	16	17	18
Date Tested	11/08/2015	11/08/2015	11/08/2015	11/08/2015
Time Tested	14:45	15:00	15:15	15:30
Location	Stage 2	Stage 2	Stage 2	Stage 2
	Grid A2	Grid A3	Grid F2	Grid E2
	Layer 1	Layer 1	Layer 1	Layer 1
		Dam Excavation		Re-Test of No 3

Field and Laboratory Data

Depth of Test (mm)	275	275	275	275
Depth of Layer (mm)	300	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0
Field Moisture Content (%)	27.0	17.5	23.5	17.5
Field Wet Density (t/m ³)	1.85	1.98	2.04	2.06
Field Dry Density (t/m ³)	1.45	1.68	1.65	1.75
Peak Converted Wet Density* (t/m ³)	1.83	1.93	2.03	1.95
Optimum Moisture Content (%)	29.5	20.5	23.5	21.5
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	91.0	86.0	99.0	81.5
Moisture Variation (%)	2.5 dry	3.0 dry	0.5 dry	4.0 dry
Hilf Density Ratio (%)	101.0	102.5	100.5	105.5

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Report No: HDR:ABTM15W00816

 Preliminary Report Issued - Issue No.:1 **Issue No: 2**
This report replaces all previous issues of report no 'HDR:ABTM15W00816'.

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**



Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

K. B. Patel

Approved Signatory: Krushik Patel
 (Senior Technician)
 NATA Accredited Laboratory Number:431
 Date of Issue: 14/08/2015

Sample Details

Location: Little Green Estate Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-02857	ABTM15S-02858
Field Sample ID	19	20
Date Tested	13/08/2015	13/08/2015
Time Tested	14:30	14:45
Location	Stage 2	Stage 2
	Grid C4	Grid B4
	Layer 2	Layer 2

Field and Laboratory Data

Depth of Test (mm)	275	275
Depth of Layer (mm)	300	300
AS Sieve Size (mm)	19.0	19.0
Oversize Wet (%)	0	10
Field Moisture Content (%)	16.5	16.5
Field Wet Density (t/m ³)	2.11	1.99
Field Dry Density (t/m ³)	1.81	1.71
Peak Converted Wet Density* (t/m ³)	2.04	2.00
Optimum Moisture Content (%)	18.5	19.0
Compactive Effort	Standard	Standard
Moisture Ratio (%)	90.5	85.5
Moisture Variation (%)	1.5 dry	2.5 dry
Hilf Density Ratio (%)	103.5	99.5

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**


 Accredited for compliance with ISO/IEC 17025.
 The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
K. B. Patel
 Approved Signatory: Krushik Patel
 (Senior Technician)
 NATA Accredited Laboratory Number:431
 Date of Issue: 17/08/2015

Sample Details

Location: Little Green Estate Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-02886	ABTM15S-02887	ABTM15S-02888
Field Sample ID	21	22	23
Date Tested	14/08/2015	14/08/2015	14/08/2015
Time Tested	14:05	14:30	15:05
Location	Stage 2	Stage 2	Stage 2
	Grid A4	Grid F3	Grid G3
	Layer 3	Layer 3	Layer 3

Field and Laboratory Data

Depth of Test (mm)	275	275	275
Depth of Layer (mm)	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0
Oversize Wet (%)	0	0	8
Field Moisture Content (%)	27.0	25.0	24.0
Field Wet Density (t/m ³)	1.84	1.82	2.03
Field Dry Density (t/m ³)	1.45	1.46	1.63
Peak Converted Wet Density* (t/m ³)	1.86	1.86	1.97
Optimum Moisture Content (%)	29.0	26.0	24.5
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	93.0	96.0	98.0
Moisture Variation (%)	2.0 dry	1.0 dry	0.5 dry
Hilf Density Ratio (%)	99.0	98.0	103.0

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) P.O. Box 40 Kew VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00442AA
Project Name:	GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.:	TRN:



Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Shaun Price
 Approved Signatory: Shaun Price
 (Laboratory Manager)
 NATA Accredited Laboratory Number: 431
 Date of Issue: 18/08/2015

Sample Details

Location:	Little Green Estate Stage 2, VIC
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	Submitted by Client
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-02909	ABTM15S-02910	ABTM15S-02911	ABTM15S-02912
Field Sample ID	00024	00025	00026	00027
Client Sample ID	Grid A3	Grid B1	Grid B2	Grid A2
Date Tested	17/08/2015	17/08/2015	17/08/2015	17/08/2015
Time Tested	14:01	14:30	14:48	15:10
Location	Grid A3	Grid B1	Grid B2	Grid A2
	Layer 2	Layer 2	Layer 2	Layer 2

Field and Laboratory Data

Depth of Test (mm)	275	275	275	275
Depth of Layer (mm)	300	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Field Moisture Content (%)	17.0	19.5	14.5	19.5
Field Wet Density (t/m³)	1.93	2.02	1.96	1.86
Field Dry Density (t/m³)	1.65	1.70	1.72	1.56
Peak Converted Wet Density* (t/m³)	1.88	2.10	1.87	1.93
Optimum Moisture Content (%)	22.0	19.5	19.0	22.5
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	78.5	98.5	75.0	86.5
Moisture Variation (%)	4.5 dry	0.5 dry	4.5 dry	3.0 dry
Hilf Density Ratio (%)	103.0	96.5	105.0	96.5

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**



Accredited for compliance with ISO/IEC 17025.
 The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
Shawn Price
 Approved Signatory: Shaun Price
 (Laboratory Manager)
 NATA Accredited Laboratory Number:431
 Date of Issue: 19/08/2015

Sample Details

Location: Little Green Estate Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-03009	ABTM15S-03010
Field Sample ID	28	29
Date Tested	18/08/2015	18/08/2015
Time Tested	15:10	15:20
Location	Stage 2	Stage 2
	Grid A3	Grid A2
	Layer 2	Layer 2
	Retest of No 24	

Field and Laboratory Data

Depth of Test (mm)	275	275
Depth of Layer (mm)	300	300
AS Sieve Size (mm)	19.0	19.0
Oversize Wet (%)	0	7
Field Moisture Content (%)	24.5	13.5
Field Wet Density (t/m ³)	1.90	2.03
Field Dry Density (t/m ³)	1.53	1.79
Peak Converted Wet Density* (t/m ³)	1.88	2.01
Optimum Moisture Content (%)	25.5	16.5
Compactive Effort	Standard	Standard
Moisture Ratio (%)	96.0	82.0
Moisture Variation (%)	1.0 dry	3.0 dry
Hilf Density Ratio (%)	101.0	101.5

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) P.O. Box 40 Kew VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00442AA
Project Name:	GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.:	TRN:



Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Shaun Price
 Approved Signatory: Shaun Price
 (Laboratory Manager)
 NATA Accredited Laboratory Number:431
 Date of Issue: 20/08/2015

Sample Details

Location:	Little Green Estate Stage 2, VIC
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	Submitted by Client
Source:	Imported
Material:	

Sample Data

Sample ID	ABTM15S-03025	ABTM15S-03026	ABTM15S-03027	ABTM15S-03028
Field Sample ID	00030	00031	00032	00033
Client Sample ID	Grid B1	Grid B2	Grid B3	Grid A3
Date Tested	19/08/2015	19/08/2015	19/08/2015	19/08/2015
Time Tested	14:20	14:35	14:50	15:10
Location	Stage 2	Stage 2	Stage 2	Stage 2
	Grid B1	Grid B2	Grid B3	Grid A3
	Layer 2	Layer 2	Layer 2	Layer 3
	Retest of No 26			

Field and Laboratory Data

	ABTM15S-03025	ABTM15S-03026	ABTM15S-03027	ABTM15S-03028
Depth of Test (mm)	275	275	275	275
Depth of Layer (mm)	300	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	10	0	15	3
Field Moisture Content (%)	19.0	24.5	22.0	21.5
Field Wet Density (t/m³)	1.97	1.93	1.97	2.00
Field Dry Density (t/m³)	1.65	1.55	1.61	1.65
Peak Converted Wet Density* (t/m³)	2.09	1.92	2.16	1.99
Optimum Moisture Content (%)	19.0	26.0	22.5	20.5
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	100.5	93.5	98.0	103.5
Moisture Variation (%)	0.0	1.5 dry	0.5 dry	0.5 wet
Hilf Density Ratio (%)	94.0	100.5	91.0	101.0

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**



Accredited for compliance with ISO/IEC 17025.
 The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
Shaun Price
 Approved Signatory: Shaun Price
 (Laboratory Manager)
 NATA Accredited Laboratory Number: 431
 Date of Issue: 21/08/2015

Sample Details

Location: Little Green Estate Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-03059	ABTM15S-03060
Field Sample ID	00034	00035
Date Tested	20/08/2015	20/08/2015
Time Tested	14:30	14:40
Location	Stage 2	Stage 2
	Grid B1	Grid B3
	Layer 2	Layer 2
	Retest of No 30	Retest of No 32

Field and Laboratory Data

Depth of Test (mm)	275	275
Depth of Layer (mm)	300	300
AS Sieve Size (mm)	19.0	19.0
Oversize Wet (%)	14	6
Field Moisture Content (%)	16.5	18.5
Field Wet Density (t/m ³)	2.00	1.98
Field Dry Density (t/m ³)	1.72	1.67
Peak Converted Wet Density* (t/m ³)	2.10	2.03
Optimum Moisture Content (%)	17.0	19.0
Compactive Effort	Standard	Standard
Moisture Ratio (%)	97.5	97.5
Moisture Variation (%)	0.5 dry	0.5 dry
Hilf Density Ratio (%)	95.5	97.5

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Report No: HDR:ABTM15W00852

 Preliminary Report Issued - Issue No.:1 **Issue No: 2**
This report replaces all previous issues of report no 'HDR:ABTM15W00852'.

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**



Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Shawn Price
 Approved Signatory: Shawn Price
 (Laboratory Manager)
 NATA Accredited Laboratory Number:431
 Date of Issue: 24/08/2015

Sample Details

Location: Little Green Estate Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-03075	ABTM15S-03076	ABTM15S-03077	ABTM15S-03078
Field Sample ID	00036	00037	00038	00039
Date Tested	21/08/2015	21/08/2015	21/08/2015	21/08/2015
Time Tested	11:41	12:01	12:16	12:40
Location	Stage 2	Stage 2	Stage 2	Stage 2
	Grid A3	Grid A4	Grid B4	Grid C4
	Layer 4	Layer 3	Layer 3	Layer 3

Field and Laboratory Data

Depth of Test (mm)	275	275	275	275
Depth of Layer (mm)	300	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0
Field Moisture Content (%)	30.0	25.0	29.0	20.5
Field Wet Density (t/m ³)	1.90	1.88	1.87	1.89
Field Dry Density (t/m ³)	1.46	1.50	1.45	1.57
Peak Converted Wet Density* (t/m ³)	1.81	1.82	1.81	1.83
Optimum Moisture Content (%)	33.0	26.5	30.5	22.0
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	90.5	94.0	95.0	92.5
Moisture Variation (%)	3.0 dry	1.5 dry	1.5 dry	1.5 dry
Hilf Density Ratio (%)	105.0	103.0	103.0	103.0

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Report No: HDR:ABTM15W00852

 Preliminary Report Issued - Issue No.:1 **Issue No: 2**
This report replaces all previous issues of report no 'HDR:ABTM15W00852'.

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**



Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Shaun Price
 Approved Signatory: Shaun Price
 (Laboratory Manager)
 NATA Accredited Laboratory Number:431
 Date of Issue: 24/08/2015

Sample Details

Location: Little Green Estate Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-03079	ABTM15S-03080	ABTM15S-03081
Field Sample ID	00040	00041	00042
Date Tested	21/08/2015	21/08/2015	21/08/2015
Time Tested	12:59		
Location	Stage 2	Stage 2	Stage 2
	Grid E2	Grid A2	Grid A3
	Layer 1	Layer 3	Layer 3
	Retest of No 18		

Field and Laboratory Data

Depth of Test (mm)	275	275	275
Depth of Layer (mm)	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0
Oversize Wet (%)	0	0	7
Field Moisture Content (%)	19.5	19.5	24.5
Field Wet Density (t/m ³)	2.04	2.01	1.99
Field Dry Density (t/m ³)	1.71	1.68	1.59
Peak Converted Wet Density* (t/m ³)	1.88	1.94	1.87
Optimum Moisture Content (%)	23.5	22.0	27.5
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	82.5	88.0	89.5
Moisture Variation (%)	4.0 dry	2.5 dry	2.5 dry
Hilf Density Ratio (%)	108.5	103.5	106.5

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**



Accredited for compliance with ISO/IEC 17025.
 The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
Shaun Price
 Approved Signatory: Shaun Price
 (Laboratory Manager)
 NATA Accredited Laboratory Number: 431
 Date of Issue: 26/08/2015

Sample Details

Location: Little Green Estate Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO of 95% of Standard Compaction; ±3% of OMC (specified by client)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-03110	ABTM15S-03111	ABTM15S-03112	ABTM15S-03113
Field Sample ID	00043	00044	00045	00046
Date Tested	25/08/2015	25/08/2015	25/08/2015	25/08/2015
Time Tested	11:30	11:45	11:50	12:00
Location	Grid B1	Grid B2	Grid B3	Grid E2
	Layer 3	Layer 3	Layer 3	Layer 1
				Re-test 40

Field and Laboratory Data

Depth of Test (mm)	275	275	275	275
Depth of Layer (mm)	300	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0
Field Moisture Content (%)	22.0	14.0	12.0	26.5
Field Wet Density (t/m ³)	1.97	2.15	2.23	1.88
Field Dry Density (t/m ³)	1.62	1.89	2.00	1.49
Peak Converted Wet Density* (t/m ³)	1.97	2.15	2.12	1.88
Optimum Moisture Content (%)	24.0	14.5	12.5	28.5
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	91.0	94.5	94.5	93.0
Moisture Variation (%)	2.0 dry	1.0 dry	0.5 dry	2.0 dry
Hilf Density Ratio (%)	100.0	100.0	105.5	100.0

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**


 Accredited for compliance with ISO/IEC 17025.
 The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
K. B. Patel
 Approved Signatory: Krushik Patel
 (Senior Technician)
 NATA Accredited Laboratory Number:431
 Date of Issue: 2/09/2015

Sample Details

Location: Little Green Estate Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-03218		
Field Sample ID	00047		
Client Sample ID	Grid D1		
Date Tested	1/09/2015		
Time Tested	02:45		
Location	Grid D1 Layer 2		

Field and Laboratory Data

Depth of Test (mm)	175		
Depth of Layer (mm)	200		
AS Sieve Size (mm)	19.0		
Oversize Wet (%)	7		
Field Moisture Content (%)	18.5		
Field Wet Density (t/m ³)	1.91		
Field Dry Density (t/m ³)	1.61		
Peak Converted Wet Density* (t/m ³)	1.91		
Optimum Moisture Content (%)	21.5		
Compactive Effort	Standard		
Moisture Ratio (%)	85.0		
Moisture Variation (%)	3.0 dry		
Hilf Density Ratio (%)	100.0		

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Report No: HDR:ABTM15W00899

 Preliminary Report Issued - Issue No.:1 **Issue No: 2**
This report replaces all previous issues of report no 'HDR:ABTM15W00899'.

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**



Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Shawn Price
 Approved Signatory: Shawn Price
 (Laboratory Manager)
 NATA Accredited Laboratory Number:431
 Date of Issue: 4/09/2015

Sample Details

Location: Little Green Estate Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction (as advised by client)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-03253	ABTM15S-03254	ABTM15S-03255
Field Sample ID	00048	00049	00050
Date Tested	2/09/2015	2/09/2015	2/09/2015
Time Tested	13:45	14:00	14:15
Location	Grid C2	Grid D3	Grid B3
	Layer 2	Layer 2	Layer 4

Field and Laboratory Data

Depth of Test (mm)	175	175	75
Depth of Layer (mm)	200	200	100
AS Sieve Size (mm)	19.0	19.0	19.0
Oversize Wet (%)	4	2	0
Field Moisture Content (%)	12.0	18.0	25.5
Field Wet Density (t/m ³)	2.13	1.87	1.81
Field Dry Density (t/m ³)	1.90	1.59	1.44
Peak Converted Wet Density* (t/m ³)	2.14	1.88	1.92
Optimum Moisture Content (%)	12.5	23.0	21.0
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	98.5	78.0	119.5
Moisture Variation (%)	0.0	5.0 dry	4.5 wet
Hilf Density Ratio (%)	99.5	100.0	94.5

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**



Accredited for compliance with ISO/IEC 17025.
 The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
K. B. Patel
 Approved Signatory: Krushik Patel
 (Senior Technician)
 NATA Accredited Laboratory Number:431
 Date of Issue: 5/09/2015

Sample Details

Location: Little Green Estate Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction (as advised by client)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by client
Source: On Site
Material: Insitu

Sample Data

Sample ID	ABTM15S-03273	ABTM15S-03274
Field Sample ID	00054	00055
Client Sample ID	51	52
Date Tested	4/09/2015	4/09/2015
Location	Layer 2	Layer 4
	Grid D3	Grid B3
	Retest of 49	Retest of 50

Field and Laboratory Data

Depth of Test (mm)	175	175
AS Sieve Size (mm)	19.0	19.0
Field Moisture Content (%)	24.0	12.0
Field Wet Density (t/m ³)	1.84	2.07
Field Dry Density (t/m ³)	1.48	1.85
Peak Converted Wet Density* (t/m ³)	1.86	2.12
Optimum Moisture Content (%)	26.5	14.0
Compactive Effort	Standard	Standard
Moisture Ratio (%)	90.5	84.5
Moisture Variation (%)	2.5 dry	2.0 dry
Hilf Density Ratio (%)	98.5	97.5

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Report No: HDR:ABTM15W00910

 Preliminary Report Issued - Issue No.:1,1 **Issue No: 3**
This report replaces all previous issues of report no 'HDR:ABTM15W00910'.

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**



Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Shawn Price
 Approved Signatory: Shawn Price
 (Laboratory Manager)
 NATA Accredited Laboratory Number:431
 Date of Issue: 11/09/2015

Sample Details

Location: Little Green Estate Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-03300	ABTM15S-03301	ABTM15S-03302
Field Sample ID	00053	00054	00055
Client Sample ID	Grid C4	Grid B4	Grid A4
Date Tested	9/09/2015	9/09/2015	9/09/2015
Time Tested	14:00	14:15	14:30
Location	Grid C4	Grid B4	Grid A4
	Layer 4	Layer 4	Layer 4

Field and Laboratory Data

Depth of Test (mm)	275	275	275
Depth of Layer (mm)	300	300	300
AS Sieve Size (mm)	19.0	19.0	19.0
Oversize Wet (%)	0	0	0
Field Moisture Content (%)	24.0	23.0	23.5
Field Wet Density (t/m ³)	1.92	1.88	1.91
Field Dry Density (t/m ³)	1.55	1.52	1.55
Peak Converted Wet Density* (t/m ³)	1.88	1.89	1.95
Optimum Moisture Content (%)	26.0	24.0	25.0
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	91.5	97.0	94.0
Moisture Variation (%)	2.0 dry	0.5 dry	1.5 dry
Hilf Density Ratio (%)	102.0	99.0	98.0

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Client: Coffey Geotechnics Pty Ltd (Abbotsford)
 P.O. Box 40
 Kew VIC 3101

Principal: SPIIRE/AMEX CORPORATION
Project No.: INFOABTM00442AA
Project Name: GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.: **TRN:**


 Accredited for compliance with ISO/IEC 17025.
 The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
Shaun Price
 Approved Signatory: Shaun Price
 (Laboratory Manager)
 NATA Accredited Laboratory Number:431
 Date of Issue: 11/09/2015

Sample Details

Location: Little Green Estate Stage 2, VIC
Client Request ID:
Specification Requirements: MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction -3% to +3% of OMC
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method: Submitted by Client
Source: Imported
Material:

Sample Data

Sample ID	ABTM15S-03308	ABTM15S-03309
Field Sample ID	56	57
Date Tested	10/09/2015	10/09/2015
Time Tested	11:30	11:45
Location	Stage 2	Stage 2
	Grid E1	Grid E2
	Layer 2	Layer 2

Field and Laboratory Data

Depth of Test (mm)	175	175
Depth of Layer (mm)	200	200
AS Sieve Size (mm)	19.0	19.0
Oversize Wet (%)	0	0
Field Moisture Content (%)	19.5	21.0
Field Wet Density (t/m ³)	2.10	2.02
Field Dry Density (t/m ³)	1.75	1.67
Peak Converted Wet Density* (t/m ³)	1.98	1.99
Optimum Moisture Content (%)	20.0	21.5
Compactive Effort	Standard	Standard
Moisture Ratio (%)	97.0	98.5
Moisture Variation (%)	0.5 dry	0.5 dry
Hilf Density Ratio (%)	106.0	101.5

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) Level 1, 436 Johnston Street Abbotsford VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00442AA
Project Name:	GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.:	TRN:



Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Ketankumar Patel

Approved Signatory: Ketankumar Patel
(Senior Geotechnician)
NATA Accredited Laboratory Number:431
Date of Issue: 18/05/2016

Sample Details

Location:	Little Green Estate Stage 2, VIC
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction, +-3% of OMC (as advised by client)
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	
Material:	

Sample Data

Sample ID	ABTM16S-02463	ABTM16S-02464	ABTM16S-02484
Field Sample ID	00058	00059	00060
Date Tested	17/05/2016	17/05/2016	17/05/2016
Location	Grid E1	Grid E2	Grid E2
	Layer 2	Layer 2	Layer 3

Field and Laboratory Data

Depth of Test (mm)	175	175	175
Depth of Layer (mm)	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0
Oversize Wet (%)	0	0	0
Field Moisture Content (%)	19.2	19.4	18.6
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	1.90	1.90	1.91
Field Dry Density (t/m³)	1.59	1.59	1.61
Peak Converted Wet Density* (t/m³)	1.93	1.87	1.92
Optimum Moisture Content (%)	21.5	24.0	21.5
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	89.5	80.5	86.0
Moisture Variation (%)	2.0 dry	4.5 dry	3.0 dry
Hilf Density Ratio (%)	98.5	101.5	99.5

legend * adjusted for oversize material

Comments

HILF Density Ratio Report

Client:	Coffey Geotechnics Pty Ltd (Abbotsford) Level 1, 436 Johnston Street Abbotsford VIC 3101
Principal:	SPIIRE/AMEX CORPORATION
Project No.:	INFOABTM00442AA
Project Name:	GEOTABTF09878AA - Little Green Estate Stage 2 - Level 1
Lot No.:	TRN:



Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

K. B. Patel

Approved Signatory: Krushik Patel
(Senior Technician)
NATA Accredited Laboratory Number:431
Date of Issue: 19/05/2016

Sample Details

Location:	Little Green Estate Stage 2, VIC
Client Request ID:	
Specification Requirements:	MINIMUM HILF DENSITY RATIO OF 95% of Standard Compaction, +-3 OMC (as advised by client)
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1, AS 1289.2.1.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	On Site
Material:	General Fill

Sample Data

Sample ID	ABTM16S-02519	ABTM16S-02520
Field Sample ID	00061	00062
Date Tested	18/05/2016	18/05/2016
Time Tested	08:30	09:00
Location	Layer 4	Layer 3
	Grid E1	Grid E1

Field and Laboratory Data

AS Sieve Size (mm)	19.0	19.0
Oversize Wet (%)	0	1
Field Moisture Content (%)	23.7	22.3
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m ³)	1.88	1.99
Field Dry Density (t/m ³)	1.52	1.63
Peak Converted Wet Density* (t/m ³)	1.97	1.94
Optimum Moisture Content (%)	25.0	25.0
Compactive Effort	Standard	Standard
Moisture Ratio (%)	94.0	90.0
Moisture Variation (%)	1.5 dry	2.5 dry
Hilf Density Ratio (%)	95.5	102.5

legend * adjusted for oversize material

Comments

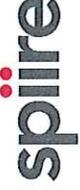
**Appendix B - “Little Green Residential Precinct 1
Stage 2” civil drawings and combination survey plan**



COUNCIL REFERENCE NO:75/110/6864/13/03

**LITTLE GREEN
STAGE 3
FACE PLAN**

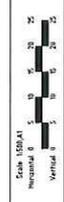
DELFIRE INVESTMENTS
WYNDHAM CITY COUNCIL



Spire, 151/152/153/154/155/156/157/158/159/160/161/162/163/164/165/166/167/168/169/170/171/172/173/174/175/176/177/178/179/180/181/182/183/184/185/186/187/188/189/190/191/192/193/194/195/196/197/198/199/200/201/202/203/204/205/206/207/208/209/210/211/212/213/214/215/216/217/218/219/220/221/222/223/224/225/226/227/228/229/230/231/232/233/234/235/236/237/238/239/240/241/242/243/244/245/246/247/248/249/250/251/252/253/254/255/256/257/258/259/260/261/262/263/264/265/266/267/268/269/270/271/272/273/274/275/276/277/278/279/280/281/282/283/284/285/286/287/288/289/290/291/292/293/294/295/296/297/298/299/300/301/302/303/304/305/306/307/308/309/310/311/312/313/314/315/316/317/318/319/320/321/322/323/324/325/326/327/328/329/330/331/332/333/334/335/336/337/338/339/340/341/342/343/344/345/346/347/348/349/350/351/352/353/354/355/356/357/358/359/360/361/362/363/364/365/366/367/368/369/370/371/372/373/374/375/376/377/378/379/380/381/382/383/384/385/386/387/388/389/390/391/392/393/394/395/396/397/398/399/400/401/402/403/404/405/406/407/408/409/410/411/412/413/414/415/416/417/418/419/420/421/422/423/424/425/426/427/428/429/430/431/432/433/434/435/436/437/438/439/440/441/442/443/444/445/446/447/448/449/450/451/452/453/454/455/456/457/458/459/460/461/462/463/464/465/466/467/468/469/470/471/472/473/474/475/476/477/478/479/480/481/482/483/484/485/486/487/488/489/490/491/492/493/494/495/496/497/498/499/500/501/502/503/504/505/506/507/508/509/510/511/512/513/514/515/516/517/518/519/520/521/522/523/524/525/526/527/528/529/530/531/532/533/534/535/536/537/538/539/540/541/542/543/544/545/546/547/548/549/550/551/552/553/554/555/556/557/558/559/560/561/562/563/564/565/566/567/568/569/570/571/572/573/574/575/576/577/578/579/580/581/582/583/584/585/586/587/588/589/590/591/592/593/594/595/596/597/598/599/600/601/602/603/604/605/606/607/608/609/610/611/612/613/614/615/616/617/618/619/620/621/622/623/624/625/626/627/628/629/630/631/632/633/634/635/636/637/638/639/640/641/642/643/644/645/646/647/648/649/650/651/652/653/654/655/656/657/658/659/660/661/662/663/664/665/666/667/668/669/670/671/672/673/674/675/676/677/678/679/680/681/682/683/684/685/686/687/688/689/690/691/692/693/694/695/696/697/698/699/700/701/702/703/704/705/706/707/708/709/710/711/712/713/714/715/716/717/718/719/720/721/722/723/724/725/726/727/728/729/730/731/732/733/734/735/736/737/738/739/740/741/742/743/744/745/746/747/748/749/750/751/752/753/754/755/756/757/758/759/760/761/762/763/764/765/766/767/768/769/770/771/772/773/774/775/776/777/778/779/780/781/782/783/784/785/786/787/788/789/790/791/792/793/794/795/796/797/798/799/800/801/802/803/804/805/806/807/808/809/810/811/812/813/814/815/816/817/818/819/820/821/822/823/824/825/826/827/828/829/830/831/832/833/834/835/836/837/838/839/840/841/842/843/844/845/846/847/848/849/850/851/852/853/854/855/856/857/858/859/860/861/862/863/864/865/866/867/868/869/870/871/872/873/874/875/876/877/878/879/880/881/882/883/884/885/886/887/888/889/890/891/892/893/894/895/896/897/898/899/900/901/902/903/904/905/906/907/908/909/910/911/912/913/914/915/916/917/918/919/920/921/922/923/924/925/926/927/928/929/930/931/932/933/934/935/936/937/938/939/940/941/942/943/944/945/946/947/948/949/950/951/952/953/954/955/956/957/958/959/960/961/962/963/964/965/966/967/968/969/970/971/972/973/974/975/976/977/978/979/980/981/982/983/984/985/986/987/988/989/990/991/992/993/994/995/996/997/998/999/1000

Designed AUGUST 2015
S. DAVIES
Checked AUGUST 2015
M. ZAMMATIRO
Authorised AUGUST 2015

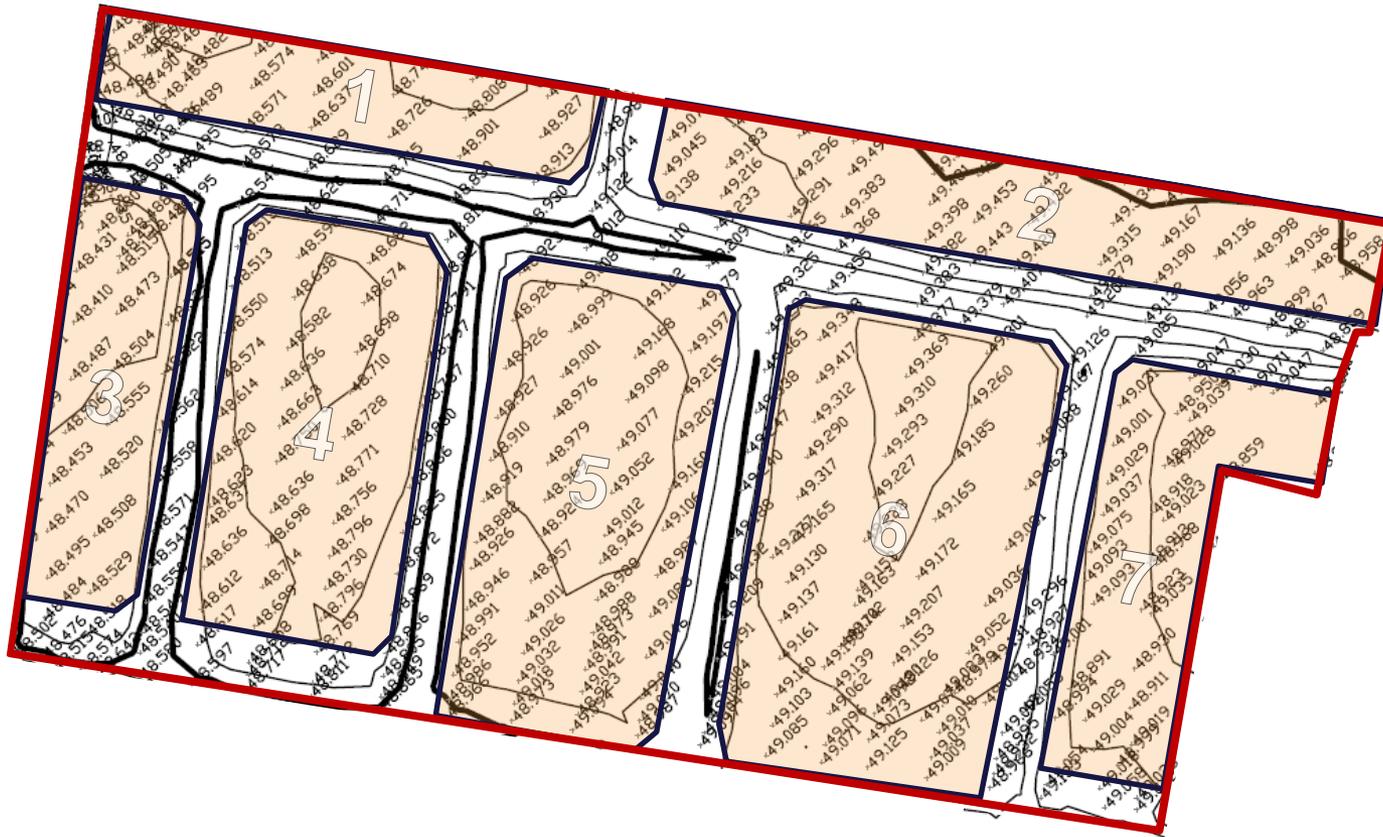
Map Reference MELWAY 202
Sheet Number 02
Dwg Status PRELIMINARY



File name: 301159902-Face Plan.dwg, Input name: R2-4
Plot name: 301159902-Face Plan.dwg, Plot date: 11/20/15 1:50 PM
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Rev	Date	By	Appr	Description
C	13/07/15			REVISED TRAFFIC CALMING DEVICES ALONG BRIGHTER AVENUE
B	10/07/15			REVISED IN ACCORDANCE WITH COUNCIL COMMENTS
A	05/07/15			ISSUED FOR APPROVAL
Rev				Amendments

Stage 2 – Stripped surface and as-built survey combination drawing



Source: Stage 1 – Stripped surface and asbuilt survey combination drawing was extracted and combined from CAD files provided by BMD

drawn	I.I.
approved	SP
date	30/08/2016
scale	NTS
original size	A4



client:	PEET NO 1895 PTY LTD	
project:	STAGE 2 – LEVEL 1 LITTLE GREEN ESTATE	
title:	STRIPPED SURFACE AND ASBUILT SURVEY COMBINATION PLAN	
project no:	GEOTABTF09878AA - AG	figure no:

Appendix C - Summary of imported fill material

GEOTABTF09878AA - LITTLE GREEN - IMPORT MATERIAL SUMMARY (DRAFT)

Fill source	Dates observed	Estimated volume (m3) by Coffey	Stage placed	Environmental report	Geotech report	Comment
x	1/05/2015	x	x			
	2/05/2015					
x	3/05/2015	x	x			
Werribee Plaza, Point Cook	4/05/2015	x	1			
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit	5/05/2015	2500-3000	1			
Epping, Werribee plaza, Point Cook, Truganina, Broadmedows, Tarneit	6/05/2015	2500-3000	1			
Epping, Werribee plaza, Point Cook, Truganina, Broadmedows, Tarneit	7/05/2015	x	1			
x	8/05/2015	x	1			
	9/05/2015					
x	10/05/2015	x	1			
Epping, Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, Preston	11/05/2015	x	1			
x	12/05/2015	x	1			
Epping, Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, Preston, Werribee Hospital	13/05/2015	2900	1			
x	14/05/2015	x	1			
	15/05/2015					
	16/05/2015					
Epping, Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, Preston, Werribee Hospital	17/05/2015	x	1			
x	18/05/2015	x	1			
Epping, Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, Preston, Werribee Hospital	19/05/2015	x	1			
x	20/05/2015	x	1			
Werribee Plaza, Point Cook	21/05/2015	1980	1			
Tarneit, Broadmeadows	22/05/2015	x	1			
	23/05/2015					
Tarneit, Broadmeadows	24/05/2015	x	1			
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	25/05/2015	x	1			
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	26/05/2015	x	1			
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	27/05/2015	x	1			
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	28/05/2015	x	1			
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	29/05/2015	x	1			
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	30/05/2015	x	1			
	31/05/2015					
	1/06/2015					
x	2/06/2015	x	1			
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	3/06/2015	x	1			
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	4/06/2015	x	1			
	5/06/2015					
	6/06/2015					
	7/06/2015					
	8/06/2015					
	9/06/2015					
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	10/06/2015	x	1			
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	11/06/2015	x	1			
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	12/06/2015	x	1			
	13/06/2015					
	14/06/2015					
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	15/06/2015	x	1			
x	16/06/2015	x	1			
x	17/06/2015	x	1			
	18/06/2015					
	19/06/2015					
	20/06/2015					
	21/06/2015					
Werribee Plaza, Point Cook, Truganina, Broadmedows, Tarneit, *BMD sources	22/06/2015	x	1			
BMD roadworks (parallel road)	23/06/2015	x	1			
BMD roadworks (parallel road)	24/06/2015	x	1			
BMD roadworks (parallel road)	25/06/2015	x	1			
BMD roadworks (parallel road)	26/06/2015	x	1			
	27/06/2015					
	28/06/2015					
BMD roadworks (parallel road)	29/06/2015	x	1			
BMD roadworks (parallel road)	30/06/2015	x	1			
BMD roadworks (parallel road)	1/07/2015	x	1			
BMD roadworks (parallel road), local BMD project	2/07/2015	x	1			
BMD roadworks (parallel road), local BMD project	3/07/2015	x	1			
	4/07/2015					
	5/07/2015					
	6/07/2015					
	7/07/2015					
BMD roadworks (parallel road), local BMD project	8/07/2015	x	1			

BMD roadworks (parallel road), local BMD project	9/07/2015	x	1
BMD roadworks (parallel road), local BMD project	10/07/2015	x	1
	11/07/2015		
	12/07/2015		
	13/07/2015		
	14/07/2015		
	15/07/2015		
	16/07/2015		
	17/07/2015		
	18/07/2015		
	19/07/2015		
	20/07/2015		
	21/07/2015		
	22/07/2015		
	23/07/2015		
Wootten road (local BMD project)	24/07/2015	x	1 & 2
	25/07/2015		
	26/07/2015		
Wootten road (local BMD project)	27/07/2015	x	2
Wootten road (local BMD project)	28/07/2015	x	2
Wootten road (local BMD project)	29/07/2015	x	2
Ivanhoe, Ravenhall Prison	30/07/2015	1640	2
x	31/07/2015	x	2
	1/08/2015		
	2/08/2015		
x	3/08/2015	x	2
Werribee Plaza	4/08/2015	2520	2
x	5/08/2015	x	2
Werribee Plaza	6/08/2015	1970	2
Werribee Plaza	7/08/2015	2300	2
	8/08/2015		
	9/08/2015		
Werribee Plaza, Ivanhoe	10/08/2015	1700	2
Werribee Plaza, Ivanhoe	11/08/2015	200	2
Werribee Plaza, Ivanhoe	12/08/2015	920	2
Werribee Plaza, Ivanhoe, South Yarra (Landtrack)	13/08/2015	840	2
Werribee Plaza, Ivanhoe, South Yarra (Landtrack)	14/08/2015	940	2
	15/08/2015		
	16/08/2015		
Leakes roadworks	17/08/2015	1534.5	1 & 2
Leakes roadworks, Werribee Plaza, Essendon	18/08/2015	2163	1 & 2
Leakes roadworks, Werribee Plaza, Essendon	19/08/2015	2704	2
Leakes radworks, Werribee Plaza	20/08/2015	3721	2
Leakes roadworks, Ravenhall Prison	21/08/2015	2620	2
	22/08/2015		
	23/08/2015		
Werribee Plaza, South Yarra (Landtrack)	24/08/2015	2530	2
Werribee Plaza, Ivanhoe Prison	25/08/2015	1330	2
Glen Iris (Chappell street), Leakes roadworks	26/08/2015	1000	2
Glen Iris (Chappell street), Leakes roadworks	27/08/2015	1000	2
Glen Iris (Chappell street), Leakes roadworks	28/08/2015	730	2
	29/08/2015		
	30/08/2015		
South Yarra, Ranvenshall Prison, Wooten road	31/08/2015	780	2
Werribee Plaza, Ravenhall Prison	1/09/2015	1740	2
Werribee Plaza, South Yarra (Chapel street)	2/09/2015	1430	2
x	3/09/2015	x	x
x	4/09/2015	x	x
	5/09/2015		
	6/09/2015		
x	7/09/2015	x	x
	8/09/2015		
x	9/09/2015	x	2
x	10/09/2015	x	2
	11/09/2015		
	12/09/2015		
	13/09/2015		
	14/09/2015		
	15/09/2015		
	16/09/2015		
	17/09/2015		
	18/09/2015		
	19/09/2015		
	20/09/2015		
	21/09/2015		
	22/09/2015		

	23/09/2015		
x	24/09/2015	x	3
Ravenhall Prison	25/09/2015	1250	3
	26/09/2015		
	27/09/2015		
Ravenhall Prison	28/09/2015	1000	3
	29/09/2015		
Ravenhall Prison	30/09/2015	1500	3
Ravenhall Prison	1/10/2015	950	3
	2/10/2015		
	3/10/2015		
	4/10/2015		
	5/10/2015		
Caroline Springs	6/10/2015	150	3
Werribee, Caroline Springs	7/10/2015	210	3
St Albans, Caroline Springs,	8/10/2015	880	3
St Albans, Caroline Springs,	9/10/2015	820	3
St Albans, Werribee	10/10/2015	1500	3
	11/10/2015		
St Albans, Werribee	12/10/2015	1400	3
St Albans, Vinedex Sunshine	13/10/2015	650	3
St Albans, Vinedex Sunshine, Ravenhall Prison	14/10/2015	2300	3
St Albans, Werribee	15/10/2015	x	3
St Albans, Vinedex Sunshine	16/10/2015	x	3
	17/10/2015		
	18/10/2015		
x	19/10/2015	x	3
Vinedex Sunshine, St Albans	20/10/2015	160	3
Ravenhall Prison, St Albans	21/10/2015	2190	3
South Yarra, Ravenhall Prison, St Albans	22/10/2015	810	1 & 3
South Yarra, Ravenhall Prison	23/10/2015	550	1 & 3
	24/10/2015		
	25/10/2015		
South Yarra, Ravenhall Prison, Werribee	26/10/2015	1900	1 & 3
Coburg, South Melbourne, Werribee Plaza	27/10/2015	1150	1 & 3
Coburg, South Melbourne	28/10/2015	1150	1 & 3
Altona, South Melbourne, Werribee	29/10/2015	2020	1 & 3
Altona, Coburg, On-site (Stage 1 only)	30/10/2015	1040	1 & 3
	31/10/2015		
	1/11/2015		
	2/11/2015		
	3/11/2015		
Coburg, South Melbourne, On-site (Stage 1 only)	4/11/2015	740	1 & 3
	5/11/2015		
	6/11/2015		
	7/11/2015		
	8/11/2015		
On-site (Stage 1 only)	9/11/2015		
St Albans, Coburg, South Melbourne, On-site (Stage 1 only)	10/11/2015	1380	1 & 3
On-site (Stage 1 only)	11/11/2015		
On-site (Stage 1 only)	12/11/2015		
On-site (Stage 1 only)	13/11/2015		
	14/11/2015		
	15/11/2015		
Ravenhall Prison, Ivanhoe, Laverton, On-site (Stage 1 only)	16/11/2015	940	1 & 3
On-site (Stage 1 only)	17/11/2015		3
Ivanhoe, Ravenhall Prison,	18/11/2015		1 & 3
Melton, South Melbourne, Ravenhall Prison	19/11/2015	3000	3
Coburg, South Melbourne, Ravenhall Prison	20/11/2015	2880	3
	21/11/2015		
	22/11/2015		
Coburg	23/11/2015	840	3
South Melbourne, Ravenhall Prison, on-site (Stage 1 only)	24/11/2015	940	1 & 3
South Melbourne, Ravenhall Prison, on-site (Stage 1 only)	25/11/2015	1340	1 & 3
South Melbourne, Ravenhall Prison, on-site (Stage 1 only)	26/11/2015	1840	1 & 3
Ravenhall Prison, Niddrie	27/11/2015	1680	3
Ravenhall Prison	28/11/2015	600	3
	29/11/2015		
Galvin Park, Ravenhall Prison	30/11/2015	2060	3 & 4
Ravenhall Prison	1/12/2015	1460	3 & 4
Coburg, Ravenhall Prison	2/12/2015	1810	3 & 4
South Yarra, St Albans	3/12/2015	1310	4
South Yarra, Ravenhall Prison	4/12/2015	1760	4
	5/12/2015		
	6/12/2015		
	7/12/2015		

South Yarra, St Albans	8/12/2015	1100	3 & 4
Werribee Plaza, St Albans, Coburg	9/12/2015	2370	4
Werribee Plaza, St Albans, Coburg	10/12/2015	1590	4
Coburg	11/12/2015	530	3 & 4
	12/12/2015		
	13/12/2015		
Coburg, St Albans	14/12/2015	630	4
Coburg, St Albans	15/12/2015	230	3 & 4
Ravenhall Prison, St Albans	16/12/2015	1550	3 & 4
South Yarra, South Melbourne	17/12/2015	1580	4
Werribee Plaza, Essendon, South Melbourne, South Yarra, St Albans	18/12/2015	5160	4
	19/12/2015		
	20/12/2015		
Port Melbourne, South Yarra	21/12/2015	1950	4
Ravenhall Prison, South Melbourne	22/12/2015	2020	4
	23/12/2015		
	24/12/2015		
	25/12/2015		
	26/12/2015		
	27/12/2015		
	28/12/2015		
	29/12/2015		
	30/12/2015		
	31/12/2015		
	1/01/2016		
	2/01/2016		
	3/01/2016		
St Albans	4/01/2016	60	3 & 4
St Albans	5/01/2016	20	4
Coburg, St Albans	6/01/2016	790	3 & 4
Coburg	7/01/2016	1080	3 & 4
Coburg	8/01/2016	200	3 & 4
	9/01/2016		
	10/01/2016		
South Melbourne	11/01/2016	430	4
South Melbourne	12/01/2016	750	4
	13/01/2016	0	
South Yarra, Werribee	14/01/2016	1120	4
Ravenhall Prison	15/01/2016	740	4
	16/01/2016		
	17/01/2016		
Ravenhall Prison, South Melbourne	18/01/2016	1050	4
Ravenhall Prison, South Melbourne, South Yarra, onsite BMD	19/01/2016	2210	4
	20/01/2016	0	
Ravenhall Prison, South Yarra, onsite BMD	21/01/2016	1350	4
Ravenhall Prison	22/01/2016	320	4
	23/01/2016		
	24/01/2016		
	25/01/2016		
	26/01/2016		
Ravenhall Prison, St. Albans	27/01/2016	2320	4
	28/01/2016	0	
	29/01/2016	0	
	30/01/2016		
	31/01/2016		
	1/02/2016		
Essendon, South Melbourne, South Yarra	2/02/2016	1810	4
Onsite BMD, Werribee, South Melbourne	3/02/2016	1230	4
Onsite BMD, St. Albans, South Melbourne	4/02/2016	2990	4
Onsite BMD, St. Albans, Boral processed St. Albans	5/02/2016	1880	4
	6/02/2016		
BMD onsite	8/02/2016	180	4
Onsite BMD, St. Albans, South Melbourne, Werribee, Essendon	9/02/2016	1490	4
	10/02/2016		
	11/02/2016		
Onsite BMD, St. Albans, South Melbourne, Essendon	12/02/2016	1240	4
Essendon, onsite BMD, St. Albans	15/02/2016	1120	4
Essendon	16/02/2016	1700	4
Essendon, St. Albans	17/02/2016	630	4
Onsite BMD	18/02/2016	350	4
Onsite BMD	19/02/2016	1640	4

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