

Bridgefield Estate Stage 11

GITA Inspection Verification Report

Prepared For: Lojac Civil Pty Ltd

Report Number D21705A V1

Version Release Date 27 Nov 2021

Report Released By C Caulfield

Title Project Manager

Signature



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1 Introduction

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical Inspection and Testing Authority (GITA) to provide Level 1 supervision and testing works on the earthworks component for Bridgefield Estate Stage 11. This work was conducted over the period of 19/11/2021 to 24/11/2021.

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

2 Scope of Work

2.1 Area of Work

The areas of work included lots 1110 through to 1137 and 1171 through to 1178, bounded by streets Lorikeet Circuit, Derimut Street and Plume Terrace. The site will be a Residential development.

The area on which fill was placed is shown on site plan (Appendix 1: *Test Location Plan*) based on drawings prepared by Reeds Consulting (Drawing Reference: 22236E/11) and provided by Lojac Civil Pty Ltd.

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

2.2 Specification

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

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

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

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

2.3 Limitations

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

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

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

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

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

This document is COPYRIGHT, all rights reserved to Terra Firma Laboratories and therefore no part of this document may be reproduced or copied in any form or by means without the written permission of Terra Firma Laboratories. This submission is for the use only of the party to whom it is addressed and for no other purpose. No responsibility is accepted to any third party who may use or rely on the whole or any part of the content of this submission. No responsibility will be taken for this report if it is altered in any way, or not reproduced in full.

3 Construction Method

3.1 Subgrade Preparation

At the time of subgrade inspection the following was observed:

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

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

3.2 Fill Placement

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

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

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

The final 300mm of material placed across the site was placed as a topsoil layer or growing medium and should be considered as non-structural, as it was placed in an uncontrolled manner, as allowed by specifications and placement of the final 300mm of material was not observed by the GITA.

4 Construction Verification

Compaction Verification testing is summarized in a detailed test register with test certificates attached provided in Appendix 2: *Compaction Test Register and Test Certificates*. A test location

plan (D21705D1, Appendix 1) providing a schematic of test locations across the extent of scope of works for every placed layer of fill is also documented.

A total of 16 density tests (Hilf method in accordance with 1289 5.7.1) were undertaken with 4 failed results. The contractor was notified of any failed tests and the failed areas were ripped, watered, compacted and then re-tested to confirm compliance with the specification. The results summarised in the compaction test register (Appendix 2) confirm that for every layer of fill placed in a specific work area, satisfactory testing was completed.

5 Statement of Compliance

The intention of this report is to provide a description of the earthworks construction for Stage 11 at Bridgefield Estate. For completed fill areas of greater than 300mm, and for works completed between 19/11/2021 and 24/11/2021, earthworks construction activities were conducted under the full time supervision of the Geotechnical Inspection and Testing Authority. Inspections and testing of the fill areas at this site indicate that both sub grade preparation and fill placement have been conducted in accordance with the specification. The earthworks construction for Stage 11 of Bridgefield Estate was observed to be constructed in compliance with the requirements of the Technical Specification.



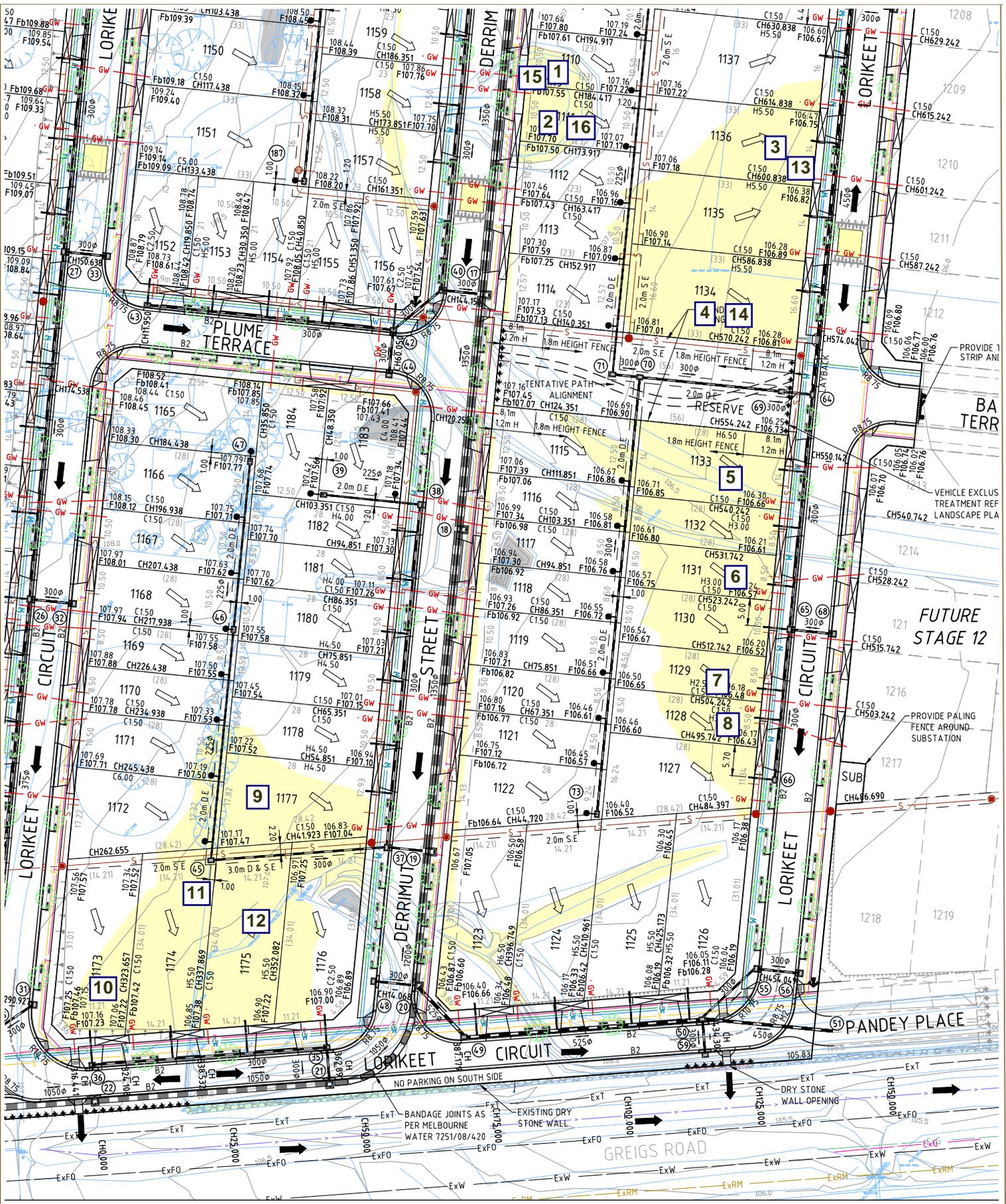
Your Worksite is Our Laboratory.

Appendix 1: Test Location Plan

Our Head Office
47 National Ave
Pakenham, VIC 3810

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

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Page 1 of 2



- DRAIN PROPERTY INLET & PIT
- EX DRAIN & PIT
- HOUSE DRAIN
- S SEWER AND MAINTENANCE HOLE
- ExS EX SEWER AND MAINTENANCE HOLE
- W WATER MAIN

- LEGEND**
- RW RECYCLED WATER
 - ExRW EX RECYCLED WATER
 - E ELECTRICAL U.G. SERVICES
 - ExE EX ELECTRICAL U.G. SERVICES
 - E ELECTRICAL SERVICE & PIT

- F FINISHED SURFACE AFTER CUTTING OR FILLING
- PB TOP OF PROPOSED BATTER
- P PROPOSED PAVEMENT OR FOOTPATH SURFACE
- IL EXISTING OR PROPOSED INVERT LEVEL OF PIPE OR OPEN DRAIN

DRAWN BY	N. KASHA	DESIGNED BY	J. ZHOU
MELWAY	344, H110	CHECKED BY	L. PHAN



Test Location Plan
not to scale

Client:	Lojac Civil Pty Ltd
Project:	Bridgefield Estate, Stage 11
Reference:	D21705 D1



Your Worksite is Our Laboratory.

Appendix 2: Compaction Test Register and Test Certificates

Material Test Report

Report Number: D21705-1
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Layer added
Date Issued: 27/11/2021
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: D21705
Project Name: Bridgefield Estate Stage 11 - Level one
Project Location: Rock bank
Work Request: 3963
Date Sampled: 19/11/2021
Dates Tested: 19/11/2021 - 22/11/2021
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Site Selection: Selected by Client
Location: Bridgefield Estate Stage 11 - Level one
Material: Silty Clay
Material Source: On Site



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



Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Chris Caulfield
 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	D21-3963A	D21-3963B	D21-3963C	D21-3963D	D21-3963E	D21-3963F
Date Tested	19/11/2021	19/11/2021	19/11/2021	19/11/2021	19/11/2021	19/11/2021
Time Tested	15:30	15:30	15:30	15:30	15:30	15:30
Test Request #/Location	Lot 1110 Dam Backfill	Lot 1111 Dam Backfill	Lot 1136	Lot 1134	Lot 1133	Lot 1131
Layer / Reduced Level	Layer 1	Layer 1	Layer 1	Layer 1	Layer 1	Layer 1
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Clay	Clay	Clay	Clay	Clay	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 (%)	0	0	0	0	0	2
Field Wet Density (FWD) t/m ³	1.80	1.80	1.72	1.75	1.90	1.83
Field Moisture Content %	20.3	**	20.5	**	20.3	**
Field Dry Density (FDD) t/m ³	1.50	1.50	1.43	1.45	1.58	1.51
Peak Converted Wet Density t/m ³	1.99	1.97	1.83	1.93	1.89	**
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	1.90
Moisture Variation (Wv) %	0.5	0.0	3.5	0.0	-0.5	**
Adjusted Moisture Variation %	**	**	**	**	**	-1.0
Hilf Density Ratio (%)	91.0	92.0	94.0	91.0	101.0	96.5
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: D21705-1
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Layer added
Date Issued: 27/11/2021
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: D21705
Project Name: Bridgefield Estate Stage 11 - Level one
Project Location: Rock bank
Work Request: 3963
Date Sampled: 19/11/2021
Dates Tested: 19/11/2021 - 22/11/2021
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% STD
Site Selection: Selected by Client
Location: Bridgefield Estate Stage 11 - Level one
Material: Silty Clay
Material Source: On Site



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Approved Signatory: Chris Caulfield
 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	D21-3963G	D21-3963H	D21-3963I	D21-3963J	D21-3963K	D21-3963L
Date Tested	19/11/2021	19/11/2021	19/11/2021	19/11/2021	19/11/2021	19/11/2021
Time Tested	15:30	15:30	15:30	15:30	15:30	15:30
Test Request #/Location	Lot 1129	Lot 1128	Lot 1177	Lot 1173	Lot 1174	Lot 1175
Layer / Reduced Level	Layer 1					
Thickness of Layer (mm)	300	300	300	300	300	300
Soil Description	Clay	Clay	Clay	Clay	Clay	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 (%)	8	6	3	4	0	0
Field Wet Density (FWD) t/m ³	1.82	1.82	2.00	2.08	2.04	2.06
Field Moisture Content %	20.8	20.5	**	**	**	28.1
Field Dry Density (FDD) t/m ³	1.51	1.51	1.64	1.68	1.61	1.61
Peak Converted Wet Density t/m ³	**	**	**	**	1.93	1.94
Adjusted Peak Converted Wet Density t/m ³	1.89	1.87	1.96	1.97	**	**
Moisture Variation (Wv) %	**	**	**	**	1.0	1.0
Adjusted Moisture Variation %	2.5	2.5	-0.5	0.0	**	**
Hilf Density Ratio (%)	97.0	97.5	102.0	105.5	106.0	106.0
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: D21705-2
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Layer Added
Date Issued: 27/11/2021
Client: Lojac Civil Pty Ltd
 35/148 Chesterville Road, Moorabbin Vic 3189
Project Number: D21705
Project Name: Bridgefield Estate Stage 11 - Level one
Project Location: Rock bank
Work Request: 3987
Date Sampled: 24/11/2021
Dates Tested: 24/11/2021 - 24/11/2021
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Remarks: Retest For Lot 1110 / 1111 / 1134 / 1136
Specification: 95% STD
Site Selection: Selected by Client
Location: Bridgefield Estate Stage 11
Material: Clay
Material Source: On site



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



Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Chris Caulfield
 Project Manager

NATA Accredited Laboratory Number: 15357

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	D21-3987A	D21-3987B	D21-3987C	D21-3987D
Date Tested	24/11/2021	24/11/2021	24/11/2021	24/11/2021
Time Tested	09:05	09:16	09:35	09:49
Test Request #/Location	13 Re test Lot 1136	14 Re test Lot 1134	15 Re test Lot 1110	16 Re test Lot 1111
Layer / Reduced Level	Layer 1	Layer 1	Layer 1	Layer 1
Thickness of Layer (mm)	300	300	300	300
Soil Description	Clay	Clay	Clay	Clay
Test Depth (mm)	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	4
Field Wet Density (FWD) t/m ³	1.90	1.93	1.89	1.93
Field Moisture Content %	24.1	23.3	24.0	24.5
Field Dry Density (FDD) t/m ³	1.53	1.56	1.52	1.55
Peak Converted Wet Density t/m ³	1.81	1.91	1.92	**
Adjusted Peak Converted Wet Density t/m ³	**	**	**	1.90
Moisture Variation (Wv) %	2.0	4.5	2.5	**
Adjusted Moisture Variation %	**	**	**	4.5
Hilf Density Ratio (%)	105.0	101.0	98.5	101.5
Compaction Method	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**

Moisture Variation Note:

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

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1110

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1110 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1111

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1111 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1112

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1112 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1113

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1113 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1114

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1114 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1115

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1115 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1116

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1116 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

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For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1117

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1117 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1118

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1118 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1119

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1119 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1120

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1120 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1121

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1121 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1122

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1122 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1123

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1123 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1124

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1124 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1125

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1125 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1126

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1126 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1127

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1127 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1128

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1128 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1129

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1129 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1130

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1130 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1131

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1131 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1132

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1132 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1133

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1133 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1134

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1134 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1135

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1135 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1136

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1136 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1137

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1137 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1171

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1171 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1172

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1172 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1173

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1173 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1174

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1174 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1175

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1175 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1176

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1176 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1177

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1177 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager

27 Nov 2021

TO WHOM IT MAY CONCERN

Re: Bridgefield Estate Stage 11
Rockbank
Lot 1178

Terra Firma Laboratories was engaged by Lojac Civil Pty Ltd as the Geotechnical and Inspection Testing Authority (GITA) to provide Level 1 supervision and testing on the earthworks component for Bridgefield Estate, Stage 11, Rockbank in accordance with Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Development.

Lot 1178 as defined in drawing Ref 22236E/11 from *Reeds Consulting*, provided by the contractor, was included in the scope of works.

With regard to any fill placement please consider the following:

- Controlled fill was placed up to 300mm below finished surface level. The final 300mm material is considered top soil and organic matter and not controlled fill.
- Verification of finished surface level to design levels is outside of the scope of the GITA Inspection and Verification report.
- Compaction tests results documented in a level 1 GITA report verify the construction methods observed on site are satisfactory. Testing is conducted with random sampling across an area of work that is defined in the Australian Standard as a "lot" which is "an area of work that is essentially homogenous in relation to material type and moisture condition, rolling response and compaction technique, and which has been used for the assessment of the relative compaction of an area of work" (AS 3798-2007). As such, any test completed is representative of an area that may be up to 2500m² in area and across several house lots.

A GITA Inspection Verification report (Reference: D21705A) has been published on 27 Nov 2021 and documents that the allotment earthworks were carried out in accordance with AS3798 and in compliance with the project specification provided by the contractor.

For and on behalf of

Terra Firma Laboratories



C Caulfield
Project Manager