



LEVEL 2 CERTIFICATION

19 Lots at Watergum Drive, Meadow View Court, Water Lilly Court, Highland Court,
Pie Creek
Lots 8, 26-29, 37-38, 84-85, 113-122, on SP321730

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2nd November 2020

File No 1803

To: Roberts Bros. Pty Ltd
(by email)

LEVEL 2 CERTIFICATION

19 Lots at Watergum Drive, Meadow View Court, Water Lilly Court, Highland Court, Pie Creek

Lots 8, 26-29, 37-38, 84-85, 113-122, on SP321730

This letter provides Level 2 certification to AS3798-2007 'Guidelines on earthworks for commercial and residential developments' and includes the results of testing conducted during filling earthworks on proposed lots Lots 8, 26-29, 37-38, 84-85, 113-122, on SP321730. Lots 39 and 40 of stage 4 were all in cut so they do not require level 2 certification.

Roberts Brothers Pty Ltd personnel and sub-contractors undertook the cut to fill and compaction using existing site material to create house sites.

Inspections of surface stripping (to remove organic topsoil), removal of unsuitable materials and subgrade proof rolling prior to filling were completed.

Determination of field density of compacted fill in accordance with AS1289 was completed by Douglas Partners Pty Ltd as attached. The compaction tests show that results were above the required 95% Standard Compaction. Test locations are shown on the attached plans 1803 sheet numbers S4-S0 to S4-S6 inclusive Revision 0.

This certification only provides an assurance of the density of the fill tested, and suitability of the stripped surface for placement of that fill. This certification does not address any other issues that may be relevant to foundation and building construction.

Please refer to report limitations attached, the Client in this instance is Roberts Brothers Pty Ltd.

Regards,



A Haynes BE Civil (Hons) RPEQ MIEAust CPEng

LIMITATIONS

This report is provided for the sole use by the Client and its professional advisers. No responsibility whatsoever for the contents of this report will be accepted to any person other than the Client. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, is the responsibility of such third parties. Haynes Consulting Engineers accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

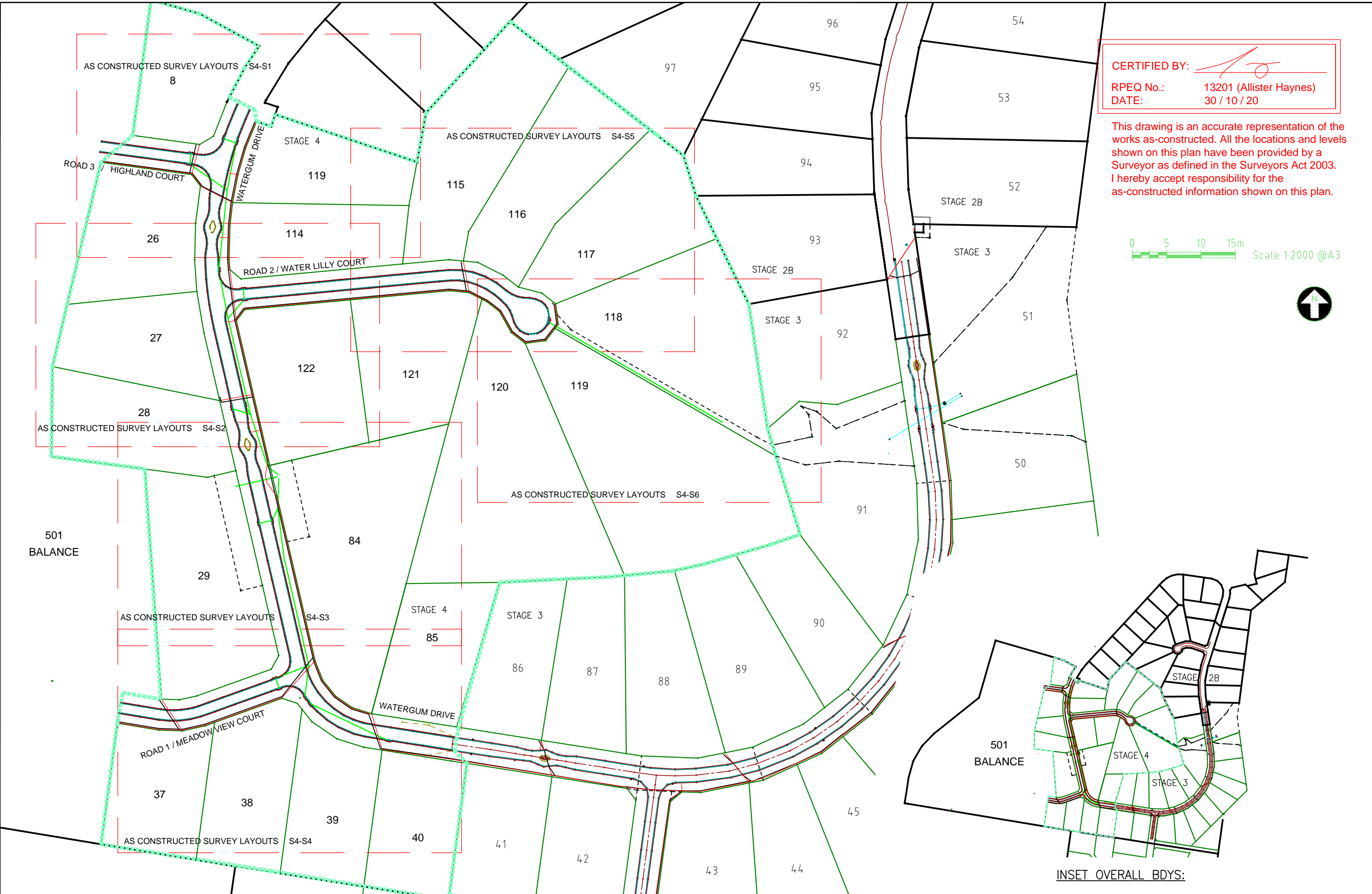
Haynes Consulting Engineers did not perform a complete assessment of all possible conditions or circumstances that may exist at the site referenced in the report. If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by Haynes Consulting Engineers in regards to it.


Conditions may exist which were undetectable given that economic and time constraints limit the practical extent of investigation. Variations in conditions may occur between investigation locations, and there may be special conditions pertaining to the site which have not been revealed by the investigation and which have not therefore been taken into account in the report.

Where variations exist on site, additional studies and actions may be required. Haynes Consulting Engineers's opinions are based upon information that existed at the time that the works were performed. The passage of time, man-made or natural events, may alter the site conditions. It is understood that the Services undertaken allowed Haynes Consulting Engineers to form an opinion of the actual conditions of the site at the time the site was visited and cannot be used to assess the effect of any subsequent changes in the quality of the site, or its surroundings, or any laws or regulations.

Any assessments made in this report are based on the conditions indicated from published sources and the findings of the investigation described. Actual subsurface conditions may differ from those indicated in the report (e.g. between boreholes or test pits). No warranty is included, either express or implied, that the actual conditions will conform exactly to the assessments contained in this report.

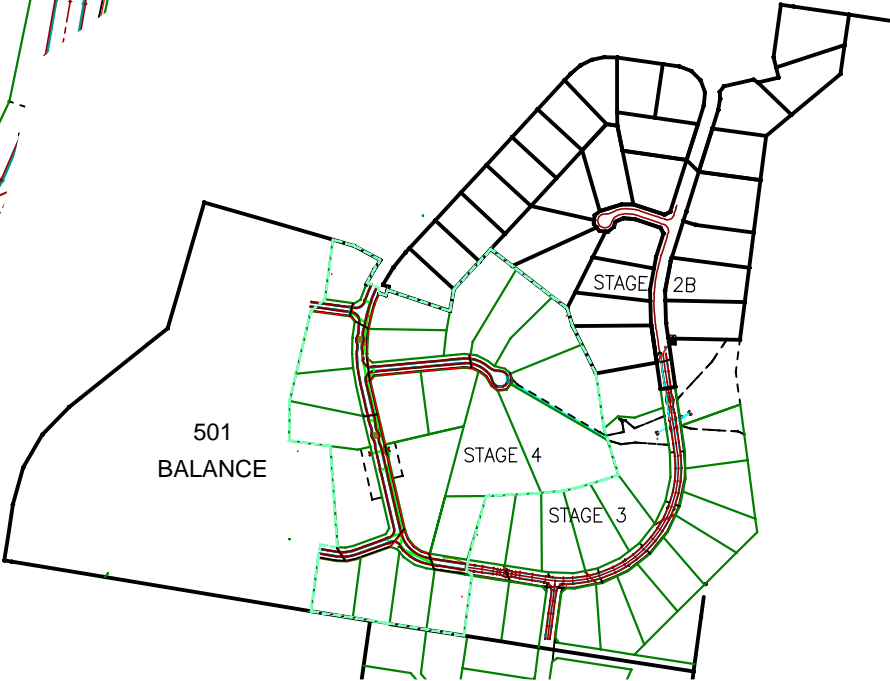
Where data supplied by the client or other external sources, including previous site investigation data, have been used, it has been assumed that the information is correct unless otherwise stated. No responsibility is accepted by Haynes Consulting Engineers for incomplete or inaccurate data supplied by others.




CERTIFIED BY: 
RPEQ No.: 13201 (Allister Haynes)
DATE: 30 / 10 / 20

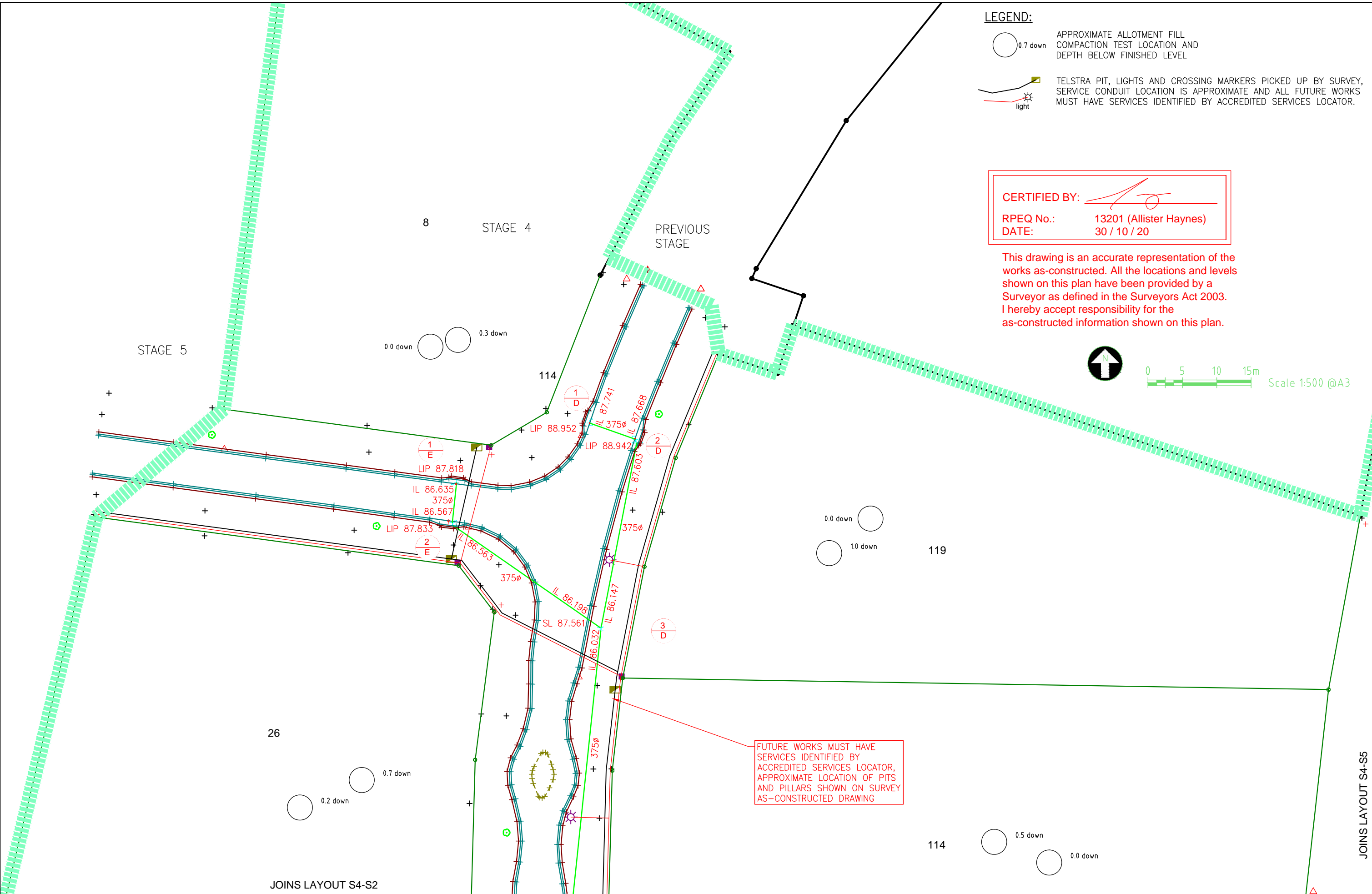
This drawing is an accurate representation of the works as-constructed. All the locations and levels shown on this plan have been provided by a Surveyor as defined in the Surveyors Act 2003. I hereby accept responsibility for the as-constructed information shown on this plan.


0 5 10 15m Scale 1:2000 @A3

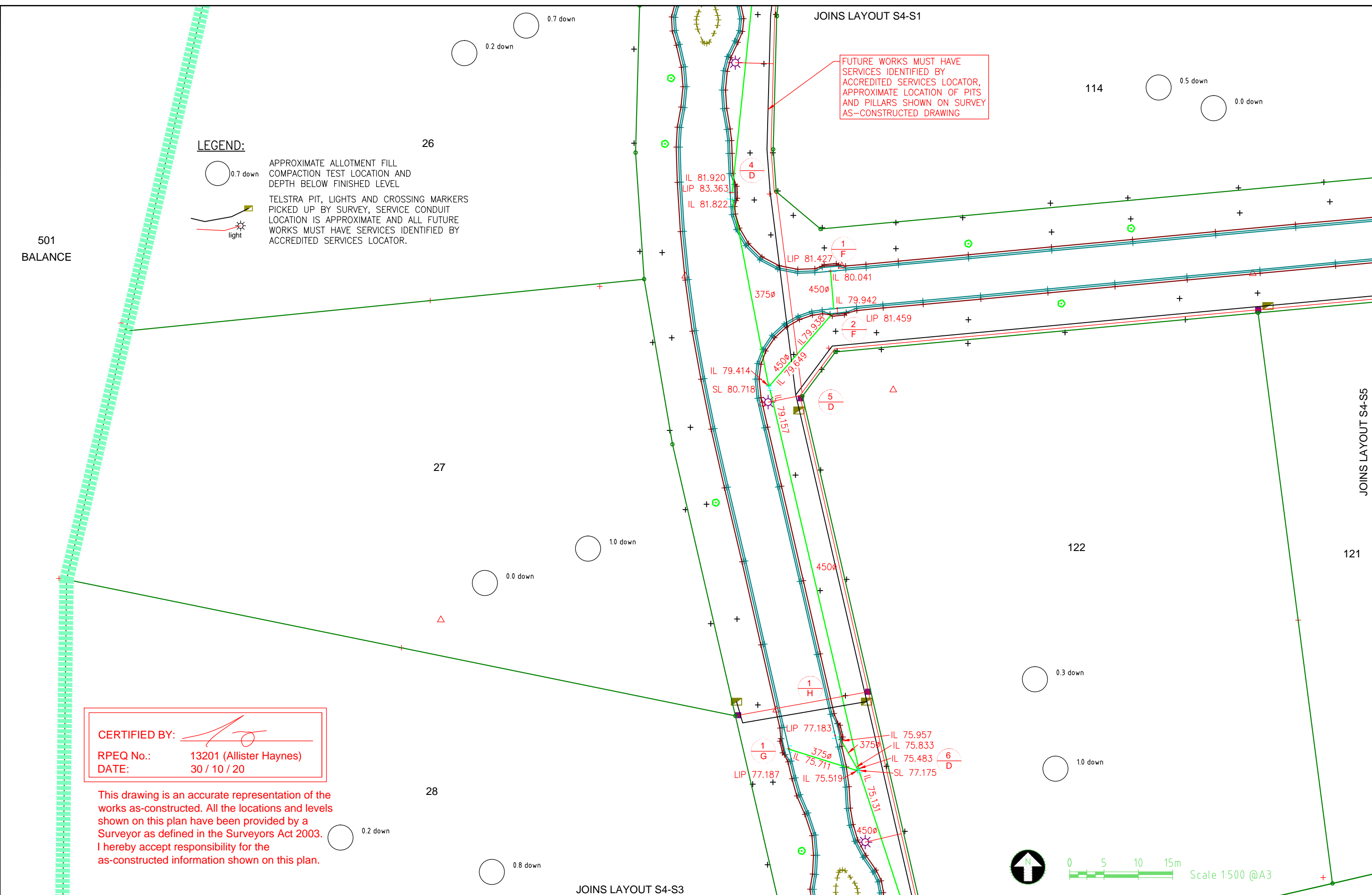



INSET OVERALL BDYS:

A3	0	30-10-20	AS CONSTRUCTED	ATH	PSM No	PM196359		HAYNES CONSULTING ENGINEERS ABN 53 613 630 078 PO BOX 549 NOOSA HEADS QLD 4567 (0432) 784 150	GREENDALE DOWNS STAGE 4 Lots 8, 26-29, 37-40, 84-85, 113-122, 501 on SP321730 Surveyed by Murray and Associates Pty Ltd AS CONSTRUCTED SURVEY LAYOUTS	1803 Sheet No. - Revision No. S4-S0 0
					(AHD) RL	82.237				
					SURVEYED	Murray & Assoc. Pty Ltd				
	Rv	DATE	REVISIONS	APPR.						

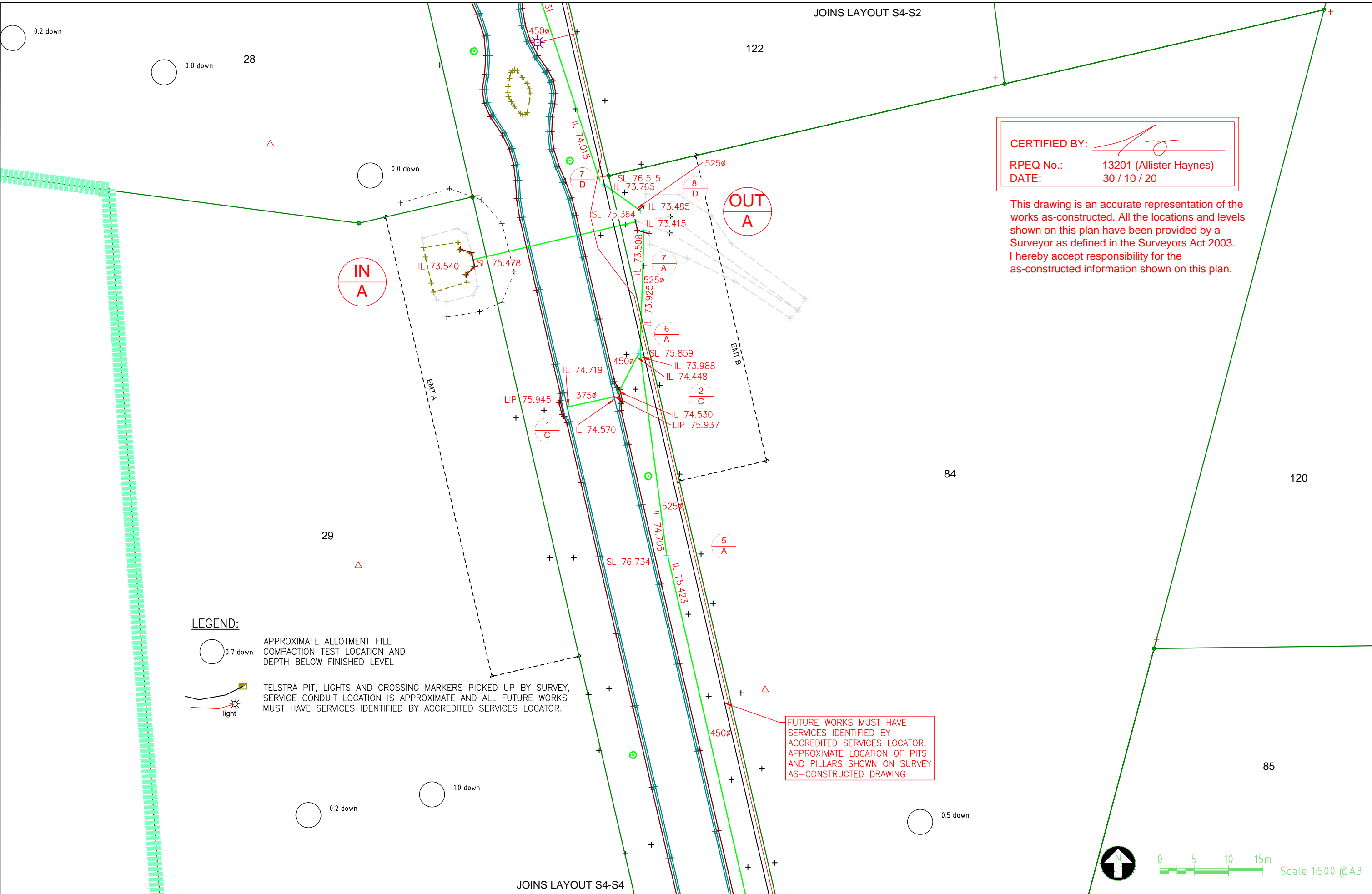



A3	0	30-10-20	AS CONSTRUCTED	ATH	PSM No	PM196359		HAYNES CONSULTING ENGINEERS	HAYNES CONSULTING ENGINEERS ABN 53 613 630 078 PO BOX 549 NOOSA HEADS QLD 4567 (0432) 784 150	GREENDALE DOWNS STAGE 4 Lots 8, 26-29, 37-40, 84-85, 113-122, 501 on SP321730 Surveyed by Murray and Associates Pty Ltd AS CONSTRUCTED SURVEY LAYOUTS	1803 Sheet No. - Revision No. S4-S1 0
					(AHD) RL	82.237					
					SURVEYED	Murray & Assoc. Pty Ltd					
	Rv	DATE	REVISIONS	APPR.							



CERTIFIED BY: 
RPEQ No.: 13201 (Allister Haynes)
DATE: 30 / 10 / 20

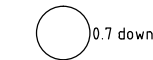
This drawing is an accurate representation of the works as-constructed. All the locations and levels shown on this plan have been provided by a Surveyor as defined in the Surveyors Act 2003. I hereby accept responsibility for the as-constructed information shown on this plan.



CERTIFIED BY: 
RPEQ No.: 13201 (Allister Haynes)
DATE: 30 / 10 / 20

This drawing is an accurate representation of the works as-constructed. All the locations and levels shown on this plan have been provided by a Surveyor as defined in the Surveyors Act 2003. I hereby accept responsibility for the as-constructed information shown on this plan.

LEGEND:




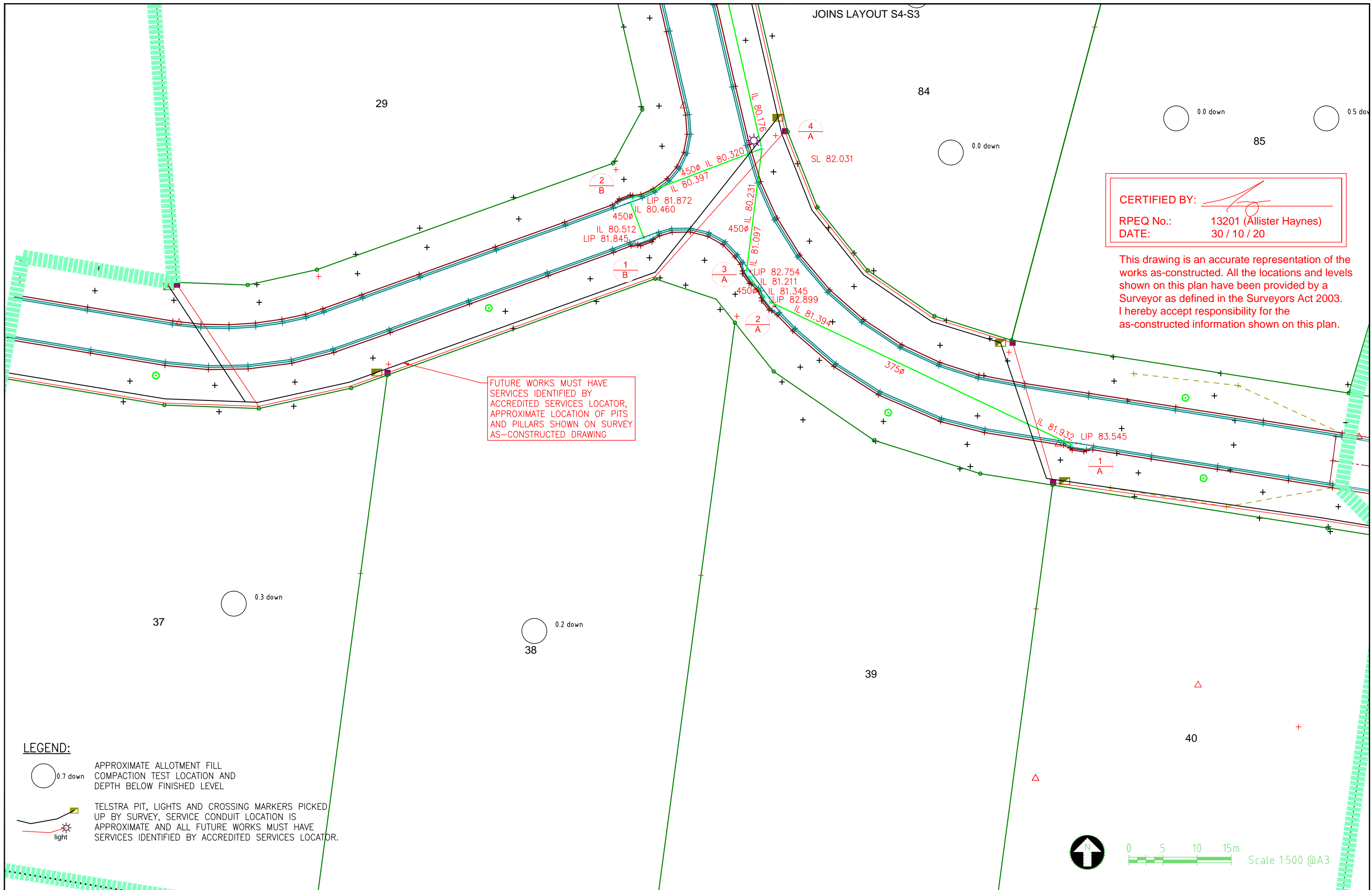
APPROXIMATE ALLOTMENT FILL
COMPACTION TEST LOCATION AND
DEPTH BELOW FINISHED LEVEL




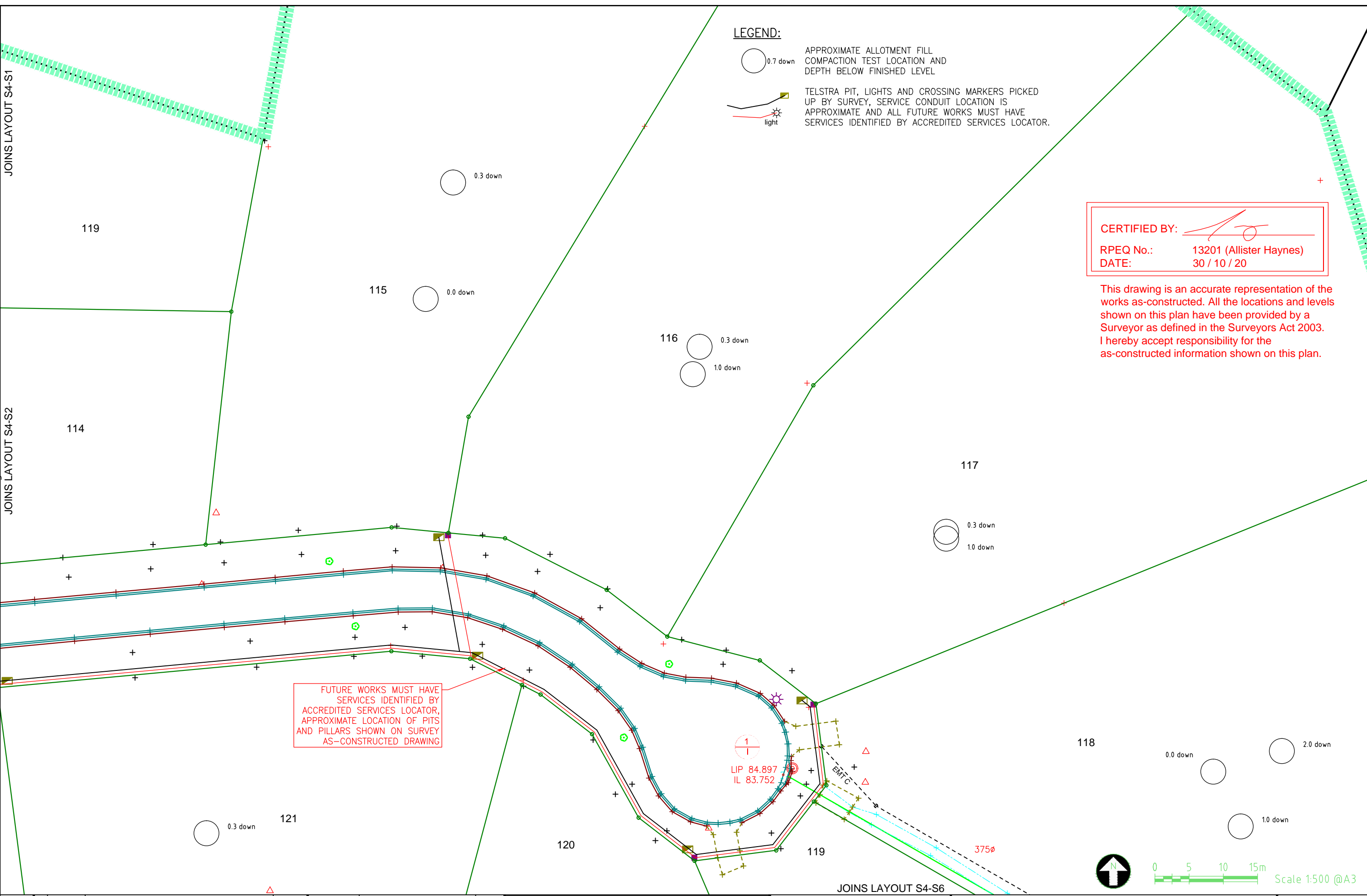
TELSTRA PIT, LIGHTS AND CROSSING MARKERS PICKED UP BY SURVEY,
SERVICE CONDUIT LOCATION IS APPROXIMATE AND ALL FUTURE WORKS
MUST HAVE SERVICES IDENTIFIED BY ACCREDITED SERVICES LOCATOR.


FUTURE WORKS MUST HAVE
SERVICES IDENTIFIED BY
ACCREDITED SERVICES LOCATOR,
APPROXIMATE LOCATION OF PITS
AND PILLARS SHOWN ON SURVEY
AS-CONSTRUCTED DRAWING

A3	0	30-10-20	AS CONSTRUCTED	ATH	PSM No	PM196359		HAYNES CONSULTING ENGINEERS	HAYNES CONSULTING ENGINEERS ABN 53 613 630 078 PO BOX 549 NOOSA HEADS QLD 4567 (0432) 784 150	GREENDALE DOWNS STAGE 4 Lots 8, 26-29, 37-40, 84-85, 113-122, 501 on SP321730 Surveyed by Murray and Associates Pty Ltd AS CONSTRUCTED SURVEY LAYOUTS	1803 Sheet No. - Revision No. S4-S3 0
					(AHD) RL	82.237					
					SURVEYED	Murray & Assoc. Pty Ltd					
	Rv	DATE	REVISIONS	APPR.							



A3	0	30-10-20	AS CONSTRUCTED	ATH	PSM No	PM196359		HAYNES CONSULTING ENGINEERS	HAYNES CONSULTING ENGINEERS ABN 53 613 630 078 PO BOX 549 NOOSA HEADS QLD 4567 (0432) 784 150	GREENDALE DOWNS STAGE 4 Lots 8, 26-29, 37-40, 84-85, 113-122, 501 on SP321730 Surveyed by Murray and Associates Pty Ltd AS CONSTRUCTED SURVEY LAYOUTS	1803 Sheet No. - Revision No. S4-S4 0
					(AHD) RL	82.237					
					SURVEYED	Murray & Assoc. Pty Ltd					
	Rv	DATE	REVISIONS	APPR.							



A3	0	30-10-20	AS CONSTRUCTED	ATH	PSM No	PM196359		HAYNES CONSULTING ENGINEERS ABN 53 613 630 078 PO BOX 549 NOOSA HEADS QLD 4567 (0432) 784 150	GREENDALE DOWNS STAGE 4 Lots 8, 26-29, 37-40, 84-85, 113-122, 501 on SP321730 Surveyed by Murray and Associates Pty Ltd AS CONSTRUCTED SURVEY LAYOUTS	1803
					(AHD) RL	82.237				
					SURVEYED	Murray & Assoc. Pty Ltd				
Rv	DATE	REVISIONS			APPR.				Sheet No. - Revision No.	S4-S5 0

Material Test Report



Approved Signatory: Martin Cook

NATA Accredited Laboratory Number: 828

Report Number: 677094.00-1
Issue Number: 1
Date Issued: 16/04/2019
Client: Roberts Bros
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: John Roberts
Project Number: 677094.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 5780
Date Sampled: 09/04/2019
Dates Tested: 10/04/2019 - 15/04/2019
Sampling Method: AS1289 1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1					
Sample Number	19-5780A	19-5780B	19-5780C	19-5780D	
Date Tested	09/04/2019	09/04/2019	09/04/2019	09/04/2019	
Time Tested	11:05	11:15	11:25	11:35	
Test Request #/Location	Lot 84	Lot 84	Lot 85	Lot 85	
Easting	461999	462004	462059	462037	
Northing	7096454	7096431	7096436	7096436	
Elevation (m)	0.5 < F.L.	F.L.	0.5 < F.L.	F.L.	
Soil Description	Sandy Gravelly Clay	Sandy Gravelly Clay	Sandy Gravelly Clay	Sandy Gravelly Clay	
Test Depth (mm)	150	150	150	150	
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	
Percentage of Wet Oversize (%)	0.0	0.0	0.0	0.0	
Field Wet Density (FWD) t/m ³	1.93	2.04	1.97	2.04	
Field Dry Density (FDD) t/m ³	**	**	**	**	
Peak Converted Wet Density t/m ³	1.90	2.02	1.98	1.98	
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	
Moisture Variation (Wv) %	4.0	3.0	3.0	3.0	
Adjusted Moisture Variation %	**	**	**	**	
Half Density Ratio (%)	101.5	100.5	99.5	103.0	
Compaction Method	Standard	Standard	Standard	Standard	

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



Geotechnics | Environment | Groundwater

Douglas Partners Pty Ltd

Sunshine Coast Laboratory

1/28 Kessling Avenue Kunda Park QLD 4556

Phone: (07) 5351 0400

Fax: (07) 5351 0499

Email: martin.cook@douglaspartners.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-1
Issue Number: 1
Date Issued: 22/07/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 9862
Date Sampled: 14/07/2020
Dates Tested: 14/07/2020 - 20/07/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 8
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1

Sample Number	SS-9862A	SS-9862B	
Date Tested	14/07/2020	14/07/2020	
Time Tested	09:30	09:35	
Test Request #/Location	Lot 8	Lot 8	
Easting	461904	461908	
Northing	7096749	7096750	
Elevation (m)	F.L.	0.3 > F.L.	
Soil Description	Sandy Clay	Sandy Clay	
Test Depth (mm)	150	150	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0.0	0.0	
Field Wet Density (FWD) t/m ³	1.75	1.68	
Field Dry Density (FDD) t/m ³	**	**	
Peak Converted Wet Density t/m ³	1.74	1.71	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Moisture Variation (Wv) %	5.5	5.5	
Adjusted Moisture Variation %	**	**	
Half Density Ratio (%)	100.5	98.5	
Compaction Method	Standard	Standard	

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-2
Issue Number: 1
Date Issued: 22/07/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 9863
Date Sampled: 14/07/2020
Dates Tested: 14/07/2020 - 22/07/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 26
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1

Sample Number	SS-9863A	SS-9863B	
Date Tested	14/07/2020	14/07/2020	
Time Tested	09:40	09:45	
Test Request #/Location	Lot 26	Lot 26	
Easting	461894	461885	
Northing	7096686	7096682	
Elevation (m)	0.7 > F.L.	0.2 > F.L.	
Soil Description	Sandy Clay	Sandy Clay	
Test Depth (mm)	150	150	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0.0	0.0	
Field Wet Density (FWD) t/m ³	1.85	1.80	
Field Dry Density (FDD) t/m ³	**	**	
Peak Converted Wet Density t/m ³	1.82	1.77	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Moisture Variation (Wv) %	3.0	5.0	
Adjusted Moisture Variation %	**	**	
Half Density Ratio (%)	101.5	102.0	
Compaction Method	Standard	Standard	

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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Douglas Partners Pty Ltd

Sunshine Coast Laboratory

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Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-3
Issue Number: 1
Date Issued: 22/07/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 9864
Date Sampled: 14/07/2020
Dates Tested: 14/07/2020 - 22/07/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 27
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1

Sample Number	SS-9864A	SS-9864B	
Date Tested	14/07/2020	14/07/2020	
Time Tested	09:55	10:00	
Test Request #/Location	Lot 27	Lot 27	
Easting	461903	461888	
Northing	7096610	7096605	
Elevation (m)	1.0 < F.L.	F.L.	
Soil Description	Sandy Clay	Sandy Clay	
Test Depth (mm)	150	150	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0.0	0.0	
Field Wet Density (FWD) t/m ³	1.89	1.83	
Field Dry Density (FDD) t/m ³	**	**	
Peak Converted Wet Density t/m ³	1.90	1.90	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Moisture Variation (Wv) %	3.0	1.5	
Adjusted Moisture Variation %	**	**	
Half Density Ratio (%)	99.5	96.5	
Compaction Method	Standard	Standard	

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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Sunshine Coast Laboratory

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Fax: (07) 5351 0499

Email: martin.cook@douglaspartners.com.au

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Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-4
Issue Number: 1
Date Issued: 22/07/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 9865
Date Sampled: 14/07/2020
Dates Tested: 14/07/2020 - 22/07/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 28
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1

Sample Number	SS-9865A	SS-9865B	
Date Tested	14/07/2020	14/07/2020	
Time Tested	10:05	10:10	
Test Request #/Location	Lot 28	Lot 28	
Easting	461889	461867	
Northing	7096563	7096568	
Elevation (m)	0.8 < F.L.	0.2 < F.L.	
Soil Description	Sandy Clay	Sandy Clay	
Test Depth (mm)	150	150	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0.0	0.0	
Field Wet Density (FWD) t/m ³	1.99	2.02	
Field Dry Density (FDD) t/m ³	**	**	
Peak Converted Wet Density t/m ³	1.95	2.01	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Moisture Variation (Wv) %	2.5	2.5	
Adjusted Moisture Variation %	**	**	
Half Density Ratio (%)	102.0	100.5	
Compaction Method	Standard	Standard	

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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Sunshine Coast Laboratory

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Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-5
Issue Number: 1
Date Issued: 22/07/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 9866
Date Sampled: 14/07/2020
Dates Tested: 14/07/2020 - 21/07/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 29
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	SS-9866A	SS-9866B	
Date Tested	14/07/2020	14/07/2020	
Time Tested	10:15	10:20	
Test Request #/Location	Lot 29	Lot 29	
Easting	461928	461910	
Northing	7096458	7096455	
Elevation (m)	1.0 < F.L.	0.2 < F.L.	
Soil Description	Sandy Clay	Sandy Clay	
Test Depth (mm)	150	150	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0.0	0.0	
Field Wet Density (FWD) t/m ³	1.93	2.15	
Field Dry Density (FDD) t/m ³	**	**	
Peak Converted Wet Density t/m ³	2.02	1.99	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Moisture Variation (Wv) %	3.0	2.5	
Adjusted Moisture Variation %	**	**	
Half Density Ratio (%)	96.0	108.0	
Compaction Method	Standard	Standard	

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



Geotechnics | Environment | Groundwater

Douglas Partners Pty Ltd

Sunshine Coast Laboratory

1/28 Kessling Avenue Kunda Park QLD 4556

Phone: (07) 5351 0400

Fax: (07) 5351 0499

Email: martin.cook@douglaspartners.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-6
Issue Number: 1
Date Issued: 22/07/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 9867
Date Sampled: 14/07/2020
Dates Tested: 14/07/2020 - 22/07/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 122
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1

Sample Number	SS-9867A	SS-9867B	
Date Tested	14/07/2020	14/07/2020	
Time Tested	10:25	10:30	
Test Request #/Location	Lot 122	Lot 122	
Easting	461971	461968	
Northing	7096578	7096591	
Elevation (m)	1.0 < F.L.	0.3 < F.L.	
Soil Description	Sandy Clay	Sandy Clay	
Test Depth (mm)	150	150	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0.0	0.0	
Field Wet Density (FWD) t/m ³	1.97	2.07	
Field Dry Density (FDD) t/m ³	**	**	
Peak Converted Wet Density t/m ³	1.98	1.96	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Moisture Variation (Wv) %	2.5	3.0	
Adjusted Moisture Variation %	**	**	
Half Density Ratio (%)	99.5	105.5	
Compaction Method	Standard	Standard	

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



Geotechnics | Environment | Groundwater

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Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-7
Issue Number: 1
Date Issued: 22/07/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 9868
Date Sampled: 14/07/2020
Dates Tested: 14/07/2020 - 21/07/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Hilf Density Ratio
Lot Number: 114
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1

Sample Number	SS-9868A	SS-9868B	
Date Tested	14/07/2020	14/07/2020	
Time Tested	10:35	10:40	
Test Request #/Location	Lot 114	Lot 114	
Easting	461994	461986	
Northing	7096674	7090677	
Elevation (m)	F.L.	0.5 < F.L.	
Soil Description	Sandy Clay	Sandy Clay	
Test Depth (mm)	150	150	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0.0	0.0	
Field Wet Density (FWD) t/m ³	1.92	1.96	
Field Dry Density (FDD) t/m ³	**	**	
Peak Converted Wet Density t/m ³	2.01	2.00	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Moisture Variation (Wv) %	3.5	2.0	
Adjusted Moisture Variation %	**	**	
Hilf Density Ratio (%)	95.5	98.0	
Compaction Method	Standard	Standard	

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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Douglas Partners Pty Ltd

Sunshine Coast Laboratory

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Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-8
Issue Number: 1
Date Issued: 23/07/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 9884
Date Sampled: 16/07/2020
Dates Tested: 16/07/2020 - 22/07/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 113
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1

Sample Number	SS-9884A	SS-9884B	
Date Tested	16/07/2020	16/07/2020	
Time Tested	09:15	09:20	
Test Request #/Location	Lot 113	Lot 113	
Easting	461968	461962	
Northing	7096724	7096719	
Elevation (m)	F.L.	1.0 < F.L.	
Soil Description	Sandy Clay	Sandy Clay	
Test Depth (mm)	150	150	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0.0	0.0	
Field Wet Density (FWD) t/m ³	2.00	1.98	
Field Dry Density (FDD) t/m ³	**	**	
Peak Converted Wet Density t/m ³	1.93	2.04	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Moisture Variation (Wv) %	2.0	-0.5	
Adjusted Moisture Variation %	**	**	
Half Density Ratio (%)	103.5	97.0	
Compaction Method	Standard	Standard	

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-9
Issue Number: 1
Date Issued: 23/07/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 9888
Date Sampled: 16/07/2020
Dates Tested: 16/07/2020 - 22/07/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 117
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	SS-9888A		
Date Tested	16/07/2020		
Time Tested	09:25		
Test Request #/Location	Lot 117		
Easting	462139		
Northing	7096666		
Elevation (m)	1.0 < F.L		
Soil Description	Sandy clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0.0		
Field Wet Density (FWD) t/m ³	1.95		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	1.93		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	2.0		
Adjusted Moisture Variation %	**		
Half Density Ratio (%)	101.0		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-10
Issue Number: 1
Date Issued: 23/07/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 9890
Date Sampled: 16/07/2020
Dates Tested: 16/07/2020 - 22/07/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 116
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	SS-9890A		
Date Tested	16/07/2020		
Time Tested	09:35		
Test Request #/Location	Lot 116		
Easting	462102		
Northing	7096690		
Elevation (m)	1.0 < F.L		
Soil Description	Sandy Clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0.0		
Field Wet Density (FWD) t/m ³	2.00		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	1.99		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	0.5		
Adjusted Moisture Variation %	**		
Half Density Ratio (%)	100.5		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-11
Issue Number: 1
Date Issued: 23/07/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 9893
Date Sampled: 16/07/2020
Dates Tested: 16/07/2020 - 22/07/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Hilf Density Ratio
Lot Number: 115
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	SS-9893A	SS-9893B	
Date Tested	16/07/2020	16/07/2020	
Time Tested	09:50	09:55	
Test Request #/Location	Lot 115	Lot 115	
Easting	462063	462067	
Northing	7096701	7096718	
Elevation (m)	F.L.	0.3 < F.L.	
Soil Description	Sandy Clay	Sandy Clay	
Test Depth (mm)	150	150	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0.0	0.0	
Field Wet Density (FWD) t/m ³	2.04	1.95	
Field Dry Density (FDD) t/m ³	**	**	
Peak Converted Wet Density t/m ³	2.02	2.00	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Moisture Variation (Wv) %	0.5	1.0	
Adjusted Moisture Variation %	**	**	
Hilf Density Ratio (%)	101.0	97.5	
Compaction Method	Standard	Standard	

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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NATA Accredited Laboratory Number: 828

Report Number: 681704.00-12
Issue Number: 1
Date Issued: 29/07/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 9955
Date Sampled: 21/07/2020
Dates Tested: 21/07/2020 - 24/07/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 116
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1

Sample Number	SS-9955A		
Date Tested	21/07/2020		
Time Tested	11:25		
Test Request #/Location	Bulk Earthworks - Lot 116		
Easting	462103		
Northing	7096694		
Elevation (m)	0.3 < F.L		
Soil Description	Sandy Clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0.0		
Field Wet Density (FWD) t/m ³	1.94		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	1.88		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	3.0		
Adjusted Moisture Variation %	**		
Half Density Ratio (%)	103.5		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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NATA Accredited Laboratory Number: 828

Report Number: 681704.00-13
Issue Number: 1
Date Issued: 29/07/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 9957
Date Sampled: 21/07/2020
Dates Tested: 21/07/2020 - 24/07/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 117
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1

Sample Number	SS-9957A		
Date Tested	21/07/2020		
Time Tested	11:35		
Test Request #/Location	Bulk Earthworks - Lot 117		
Easting	462139		
Northing	7096667		
Elevation (m)	0.3 < F.L		
Soil Description	Sandy Clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0.0		
Field Wet Density (FWD) t/m ³	1.96		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	1.92		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	2.5		
Adjusted Moisture Variation %	**		
Half Density Ratio (%)	101.5		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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NATA Accredited Laboratory Number: 828

Report Number: 681704.00-14
Issue Number: 1
Date Issued: 29/07/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 9958
Date Sampled: 21/07/2020
Dates Tested: 21/07/2020 - 24/07/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 121
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	SS-9958A	SS-9958B	
Date Tested	21/07/2020	21/07/2020	
Time Tested	11:45	11:55	
Test Request #/Location	Bulk Earthworks - Lot 121	Bulk Earthworks - Lot 121	
Easting	462057	462047	
Northing	7096610	7096608	
Elevation (m)	2.5 < F.L.	1.0 < F.L.	
Soil Description	Sandy Clay	Sandy Clay	
Test Depth (mm)	150	150	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0.0	0.0	
Field Wet Density (FWD) t/m ³	1.95	2.00	
Field Dry Density (FDD) t/m ³	**	**	
Peak Converted Wet Density t/m ³	2.01	2.00	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Moisture Variation (Wv) %	-0.5	0.0	
Adjusted Moisture Variation %	**	**	
Half Density Ratio (%)	97.0	100.0	
Compaction Method	Standard	Standard	

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-15
Issue Number: 1
Date Issued: 04/08/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 10014
Date Sampled: 28/07/2020
Dates Tested: 28/07/2020 - 29/07/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 118
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	SS-10014A		
Date Tested	28/07/2020		
Time Tested	09:15		
Test Request #/Location	Bulk Earthworks - Lot 118		
Easting	462188		
Northing	7096635		
Elevation (m)	2.0 < F.L		
Soil Description	Sandy Clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0.0		
Field Wet Density (FWD) t/m ³	2.07		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	2.05		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	0.5		
Adjusted Moisture Variation %	**		
Half Density Ratio (%)	100.5		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-16
Issue Number: 1
Date Issued: 04/08/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 10015
Date Sampled: 28/07/2020
Dates Tested: 28/07/2020 - 29/07/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 119
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	SS-10015A		
Date Tested	28/07/2020		
Time Tested	09:25		
Test Request #/Location	Bulk Earthworks - Lot 119		
Easting	462152		
Northing	7096574		
Elevation (m)	2.0 < F.L		
Soil Description	Sandy Clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0.0		
Field Wet Density (FWD) t/m ³	2.09		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	2.05		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	3.0		
Adjusted Moisture Variation %	**		
Half Density Ratio (%)	102.5		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-17
Issue Number: 1
Date Issued: 04/08/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 10032
Date Sampled: 29/07/2020
Dates Tested: 29/07/2020 - 03/08/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Hilf Density Ratio
Lot Number: 119
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	SS-10032A		
Date Tested	29/07/2020		
Time Tested	13:20		
Test Request #/Location	Bulk Earthworks - Lot 119		
Easting	462152		
Northing	7096592		
Elevation (m)	1.0 < F.L.		
Soil Description	Sandy Clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0.0		
Field Wet Density (FWD) t/m ³	2.04		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	1.94		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	1.0		
Adjusted Moisture Variation %	**		
Hilf Density Ratio (%)	105.5		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-18
Issue Number: 1
Date Issued: 04/08/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 10033
Date Sampled: 29/07/2020
Dates Tested: 29/07/2020 - 03/08/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 118
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1

Sample Number	SS-10033A		
Date Tested	29/07/2020		
Time Tested	13:10		
Test Request #/Location	Bulk Earthworks - Lot 118		
Easting	462182		
Northing	7096624		
Elevation (m)	1.0 < F.L.		
Soil Description	Sandy Clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0.0		
Field Wet Density (FWD) t/m ³	1.99		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	1.94		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	2.0		
Adjusted Moisture Variation %	**		
Half Density Ratio (%)	102.0		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-19
Issue Number: 1
Date Issued: 04/08/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 10034
Date Sampled: 29/07/2020
Dates Tested: 29/07/2020 - 03/08/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 120
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1

Sample Number	SS-10034A		
Date Tested	29/07/2020		
Time Tested	13:00		
Test Request #/Location	Bulk Earthworks - Lot 120		
Easting	462084		
Northing	7096579		
Elevation (m)	2.2 < F.L.		
Soil Description	Sandy Clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0.0		
Field Wet Density (FWD) t/m ³	2.05		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	2.01		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	2.5		
Adjusted Moisture Variation %	**		
Half Density Ratio (%)	102.0		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



Geotechnics | Environment | Groundwater

Douglas Partners Pty Ltd

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Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-20
Issue Number: 1
Date Issued: 04/08/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 10044
Date Sampled: 29/07/2020
Dates Tested: 29/07/2020 - 03/08/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 28
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1

Sample Number	SS-10044A		
Date Tested	29/07/2020		
Time Tested	12:50		
Test Request #/Location	Bulk Earthworks - Lot 28		
Easting	461919		
Northing	7096548		
Elevation (m)	F.L.		
Soil Description	Sandy Clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0.0		
Field Wet Density (FWD) t/m ³	1.85		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	1.90		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	3.0		
Adjusted Moisture Variation %	**		
Half Density Ratio (%)	97.0		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-24
Issue Number: 1
Date Issued: 21/08/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 10193
Date Sampled: 12/08/2020
Dates Tested: 12/08/2020 - 18/08/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Hilf Density Ratio
Lot Number: 38
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	SS-10193A		
Date Tested	12/08/2020		
Time Tested	09:30		
Test Request #/Location	Lot 38		
Easting	461943		
Northing	7096361		
Elevation (m)	0.2 < F.L.		
Soil Description	Sandy Clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0		
Field Wet Density (FWD) t/m ³	1.99		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	2.01		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	3.5		
Adjusted Moisture Variation %	**		
Hilf Density Ratio (%)	99.0		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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Approved Signatory: Martin Cook
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NATA Accredited Laboratory Number: 828

Report Number: 681704.00-27
Issue Number: 1
Date Issued: 21/08/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 10196
Date Sampled: 12/08/2020
Dates Tested: 12/08/2020 - 18/08/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 37
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	SS-10196A		
Date Tested	12/08/2020		
Time Tested	09:40		
Test Request #/Location	Lot 37		
Easting	461899		
Northing	7096365		
Elevation (m)	0.3 < F.L.		
Soil Description	Sandy Clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0		
Field Wet Density (FWD) t/m ³	2.01		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	1.94		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	2.5		
Adjusted Moisture Variation %	**		
Half Density Ratio (%)	103.5		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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NATA Accredited Laboratory Number: 828

Report Number: 681704.00-31
Issue Number: 1
Date Issued: 27/08/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 10223
Date Sampled: 14/08/2020
Dates Tested: 14/08/2020 - 26/08/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 120
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	SS-10223A		
Date Tested	14/08/2020		
Time Tested	11:55		
Test Request #/Location	Lot 120		
Easting	462099		
Northing	7096582		
Elevation (m)	1.1 < F.L		
Soil Description	Gravelly Clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0		
Field Wet Density (FWD) t/m ³	2.04		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	2.03		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	2.0		
Adjusted Moisture Variation %	**		
Half Density Ratio (%)	100.5		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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NATA Accredited Laboratory Number: 828

Report Number: 681704.00-32
Issue Number: 1
Date Issued: 27/08/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 10224
Date Sampled: 14/08/2020
Dates Tested: 14/08/2020 - 26/08/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Lot Number: 119
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	SS-10224A		
Date Tested	14/08/2020		
Time Tested	12:05		
Test Request #/Location	Lot 119		
Easting	462144		
Northing	7096585		
Layer / Reduced Level	F.L.		
Soil Description	Gravelly Clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0		
Field Wet Density (FWD) t/m ³	2.13		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	2.08		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	2.0		
Adjusted Moisture Variation %	**		
Half Density Ratio (%)	102.5		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-34
Issue Number: 1
Date Issued: 27/08/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 10225
Date Sampled: 14/08/2020
Dates Tested: 14/08/2020 - 26/08/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Hilf Density Ratio
Lot Number: 118
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	SS-10225A		
Date Tested	14/08/2020		
Time Tested	12:15		
Test Request #/Location	Lot 118		
Easting	462178		
Northing	7096632		
Layer / Reduced Level	F.L.		
Soil Description	Gravelly Clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0		
Field Wet Density (FWD) t/m ³	2.14		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	2.06		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	2.5		
Adjusted Moisture Variation %	**		
Hilf Density Ratio (%)	104.0		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



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Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-40
Issue Number: 1
Date Issued: 28/09/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 10604
Date Sampled: 17/09/2020
Dates Tested: 17/09/2020 - 22/09/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Half Density Ratio
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	SS-10604A		
Date Tested	16/09/2020		
Time Tested	13:30		
Test Request #/Location	Bulk Earthworks Lot 120		
Easting	462091		
Northing	7096594		
Elevation (m)	0.3 < F.L		
Soil Description	Sandy Gravelly Clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0		
Field Wet Density (FWD) t/m ³	1.95		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	2.03		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	5.0		
Adjusted Moisture Variation %	**		
Half Density Ratio (%)	96.0		
Compaction Method	Standard		
Report Remarks	**		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report



Geotechnics | Environment | Groundwater

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Approved Signatory: Martin Cook
Assistant Laboratory Manager

NATA Accredited Laboratory Number: 828

Report Number: 681704.00-42
Issue Number: 1
Date Issued: 28/09/2020
Client: Roberts Bros Pty Ltd
123 Cooroy Belli Creek Road, Cooroy 4563
Contact: David Roberts
Project Number: 681704.00
Project Name: Proposed Subdivision
Project Location: Greendale, Stage 4, Pie Creek
Work Request: 10605
Date Sampled: 17/09/2020
Dates Tested: 17/09/2020 - 21/09/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: Minimum 95% Standard Hilf Density Ratio
Lot Number: Lot 121
Material Source: Onsite

Compaction Control AS 1289 5.7.1 & 5.8.1

Sample Number	SS-10605A		
Date Tested	16/09/2020		
Time Tested	13:35		
Test Request #/Location	Bulk Earthworks - Lot 121		
Easting	462031		
Northing	7096623		
Elevation (m)	0.3 < F.L.		
Soil Description	Sandy Gravelly Clay		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0		
Field Wet Density (FWD) t/m ³	2.02		
Field Dry Density (FDD) t/m ³	**		
Peak Converted Wet Density t/m ³	1.96		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	2.0		
Adjusted Moisture Variation %	**		
Hilf Density Ratio (%)	103.0		
Compaction Method	Standard		
Report Remarks	**		

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC