

OCEAN GRAND DRIVE STAGE 1B

Level One Report

Wellam Constructions Pty Ltd

P241940

26th August 2024



26th August 2024

Wellam Constructions Pty Ltd 105 Barwon Terrace South Geelong, VIC, 3220

Attention: Marc Ballester

Dear Marc

RE: Ocean Grand Drive Stage 1B

Level 1 Compaction Control

This letter presents a report by Pearce Geotech Pty Ltd (PG) on Level 1 Testing Services undertaken during the construction of fill at Ocean Grand Drive Stage 1B. One electronic copy provided.

Please do not hesitate to contact the undersigned should there be any queries regarding this report.

For and on behalf of Pearce Geotech Pty Ltd

Regards

Mitch Francis



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The leading provider of construction material testing in Australia

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1 INTRODUCTION

This report presents the results of compaction control and laboratory testing services provided by Pearce Geotech Pty Ltd (PG) during the construction of fill at Ocean Grand Drive Stage 1B.

PG was engaged by Wellam Constructions Pty Ltd (Wellam Constructions) to provide Level 1 testing services for the duration of these works in accordance with the specification supplied. The work was commissioned by Mr Marc Ballester of Wellam Constructions.

Level 1 testing, as defined in AS3798-2007 "Guidelines on Earthworks for Commercial and Residential Development", provides for full-time inspection of the construction of controlled fill and compaction testing in accordance with AS1289 "Methods of Testing Soils for Engineering Purposes". The Level 1 testing was undertaken by technicians from PG from the 10th May 2024 to the 19th August 2024.

2 SCOPE OF WORK

2.1 Area of Work

PG provided Level 1 testing and supervision of the construction filling placed. Material selection and condition, as well as compaction testing, were conducted during the construction of this fill.

This report does not include fill other than where mentioned in this report or any other fill that may be placed during this period or subsequent periods at or surrounding the subject site.

2.2 Placement Specification

While no earthworks specification was supplied, the fill placement and testing requirements for the structural fill were derived from AS 3798 "Guidelines on earthworks for commercial and residential developments" – Table 5.1, with the minimum density ratio as item Two (2) below;

TABLE 5.1
MINIMUM RELATIVE COMPACTION

		Minimum relative compaction, %			
Item	Application	Minimum density ratio (at standard compactive effort) (Cohesive soils) (see Note 1)	Minimum density index (Cohesionless soils) (see Note 2)		
1	Residential—lot, fill, house, sites	95 (see Note 3)	70		
2	Commercial—fills to support minor loadings, including floor loadings of up to 20 kPa and isolated pad or strip footings to 100 kPa	98 (see Note 4)	75		
3	Fill to support pavements (see Note 5)				
	(a) General fill	95	70		
	(b) Subgrade (to a depth of 0.3 m)	98	75		

3 CONSTRUCTION PLANT

The following construction plant was used on site as required:

- 1 x Excavator
- 1 x Grader
- 1 x Compactor
- 1 x Pad Foot Roller
- 1 x Water Cart
- Dump Trucks as required

4 INSPECTION AND TESTING

4.1 Construction Materials

Clay was used as fill for this project.

Fill material was sourced from:

Onsite Cuts

All material was tested for compliance, spread and watered to achieve the specified density and moisture specification.

4.2 Fill Placement

Initial site inspection showed fill areas as per the attached site plan. These areas were consecutively stripped of all deleterious silty topsoil, organic matter and existing fill down to a Silty Clay. These areas were then compacted with a smooth drum roller and proof rolled with a loaded dump truck.

Compaction tests and a proof roll were conducted on each tested layer of compacted fill to ensure compliance with the specification and samples of the fill material were tested in PG's NATA accredited laboratory (Accreditation Number 18877) to determine the Hilf density ratio and moisture ratio of the material. In total 48 field density tests, 48 Hilf rapid compaction tests and 48 moisture contents were conducted.

Control Fill material was placed by dump truck, spread by grader, simultaneously water conditioned wherever required and compacted. Where the material appeared too wet, dry soil was mixed in and processed to a homogenous state.

4.2.1 Test Summary

Field No.	Date	Location	Layer	Min. Ratio [%]	Density Ratio [%]
24-29231A	10/5/2024	Lot 12	Lift 1	98% Std	100.5
24-29231B	10/5/2024	Lot 14	Lift 1	98% Std	101.5
24-29231C	10/5/2024	Lot 15	Lift 1	98% Std	100
24-29231D	10/5/2024	Lot 41	Lift 1	98% Std	99.5
24-29231E	10/5/2024	Lot 42	Lift 1	98% Std	98.5
24-29231F	10/5/2024	Lot 44	Lift 1	98% Std	101.5
24-29231G	10/5/2024	Lot 5	Lift 1	98% Std	98.5
24-29231H	10/5/2024	Lot 7	Lift 1	98% Std	101
24-292311	10/5/2024	Lot 9	Lift 1	98% Std	101.5
24-29231J	10/5/2024	Lot 18	Lift 1	98% Std	99
24-29231K	10/5/2024	Lot 18	Lift 1	98% Std	98
24-29231L	10/5/2024	Lot 18	Lift 1	98% Std	100.5
24-29302A	15/5/2024	Lot 25	Lift 1	98% Std	98.5
24-29302B	15/5/2024	Lot 27	Lift 1	98% Std	101
24-29302C	15/5/2024	Lot 28	Lift 1	98% Std	100
24-29333A	16/5/2024	Lot 19	Lift 1	98% Std	98.5
24-29333B	16/5/2024	Lot 21	Lift 1	98% Std	100
24-29333C	16/5/2024	Lot 22	Lift 1	98% Std	101
24-29511A	17/5/2024	Lot 47	Lift 1	98% Std	100
24-29511B	17/5/2024	Lot 57	Lift 1	98% Std	101
24-29511C	17/5/2024	Lot 48	Lift 1	98% Std	102.5
24-29498A	20/5/2024	Lot 29	Lift 1	98% Std	100
24-29498B	20/5/2024	Lot 31	Lift 1	98% Std	98.5
24-29498C	20/5/2024	Lot 32	Lift 1	98% Std	99
24-29461A	21/5/2024	Lot 35	Lift 1	98% Std	101
24-29461B	21/5/2024	Lot 36	Lift 1	98% Std	98
24-29461C	21/5/2024	Lot 37	Lift 1	98% Std	98
24-29458A	22/5/2024	Lot 72	Lift 1	98% Std	100
24-29458B	22/5/2024	Lot 70	Lift 1	98% Std	102.5
24-29458C	22/5/2024	Lot 68	Lift 1	98% Std	101.5
24-29457A	23/5/2024	Lot 38	Lift 1	98% Std	100
24-29457B	23/5/2024	Lot 36	Lift 1	98% Std	98
24-29457C	23/5/2024	Lot 34	Lift 1	98% Std	101
24-29425A	24/5/2024	Lot 38	Lift 1	98% Std	103.5
24-29425B	24/5/2024	Lot 36	Lift 1	98% Std	106
24-29425C	24/5/2024	Lot 35	Lift 1	98% Std	100
24-29499A	28/5/2024	Lot 32	Lift 1	98% Std	98.5
24-29499B	28/5/2024	Lot 31	Lift 1	98% Std	100
24-29499C	28/5/2024	Lot 29	Lift 1	98% Std	98.5
24-29512A	29/5/2024	Lot 62	Lift 1	98% Std	99
24-29512B	29/5/2024	Lot 64	Lift 1	98% Std	98.5
24-29512C	29/5/2024	Lot 66	Lift 1	98% Std	101
24-30655	14/8/2024	Lot 62	Lift 2	98% Std	98.5
24-30655	14/8/2024	Lot 64	Lift 2	98% Std	100.5
24-30655	14/8/2024	Lot 66	Lift 2	98% Std	102

24-30706A	19/8/2024	Lot 68	Lift 2	98% Std	102.5
24-30706B	19/8/2024	Lot 70	Lift 2	98% Std	101
24-30706C	19/8/2024	Lot 72	Lift 2	98% Std	99.5

5 STATEMENT OF COMPLIANCE

PG personnel have provided Level 1 inspection and testing services during construction of the fill at Ocean Grand Drive Stage 1B. A technician from PG was on site on a fulltime basis during fill placement and observed the construction techniques adopted.

Based on these observations made by PG personnel and the results of field and laboratory tests, we consider that the fill has been placed in accordance with the intent of the specification.

For and on behalf of Pearce Geotech Pty Ltd

Regards

Mitch Francis B.Eng. Civil (Hons)



Appendix A

Test Results

Report Number: P241967-2

Issue Number: 3 - This version supersedes all previous issues

Reissue Reason: lot no's amended

Date Issued: 22/08/2024

Client: Wellam Constructions Pty Ltd

105 Barwon Terrace, South Geelong Vic 3220

Contact: Jayden- 0491115648

Project Number: P241967

Project Name: Ocean Grand Drive 1B

Project Location: Ocean Grove

Work Request: 29231 **Date Sampled:** 10/05/2024

Dates Tested: 10/05/2024 - 15/05/2024

Remarks: TRN 15699
Specification: 98% Standard
Location: TRN 15699
Material: Clay
Material Source: Insitu



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Phone: (03) 5248 7887

Email: tony@pearcegeotech.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Anthony Green

Senior Technician

NATA Accredited Laboratory Number: 18877

Compaction Control AS 1289 5.7.1 & 5.8		_	_		_	_
Sample Number	24-29231A	24-29231B	24-29231C	24-29231D	24-29231E	24-29231F
Date Tested	10/05/2024	10/05/2024	10/05/2024	10/05/2024	10/05/2024	10/05/2024
Time Tested	08:30	08:35	08:40	08:45	08:50	08:55
Test Request #/Location	Lot 12	Lot 14	Lot 15	Lot 41	Lot 42	Lot 44
Layer / Reduced Level	Lift 1					
Thickness of Layer (mm)	150	150	150	150	150	150
Soil Description	Clay	Clay	Clay	Clay	Clay	Clay
Test Depth (mm)	125	125	125	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**	**	**	**
Field Wet Density (FWD) t/m ³	1.91	1.94	1.90	1.90	1.86	1.93
Field Moisture Content %	26.6	26.8	26.9	26.6	25.6	25.9
Field Dry Density (FDD) t/m ³	1.51	1.53	1.50	1.50	1.48	1.53
Peak Converted Wet Density t/m ³	1.90	1.91	1.90	1.90	1.90	1.90
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Moisture Variation (Wv) %	0.0	0.0	-0.5	0.0	0.0	0.0
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	100.5	101.5	100.0	99.5	98.5	101.5
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Report Number: P241967-2

Report Number: P241967-2

Issue Number: 3 - This version supersedes all previous issues

Reissue Reason: lot no's amended

Date Issued: 22/08/2024

Client: Wellam Constructions Pty Ltd

105 Barwon Terrace, South Geelong Vic 3220

Contact: Jayden- 0491115648

Project Number: P241967

Project Name: Ocean Grand Drive 1B

Project Location: Ocean Grove

Work Request: 29231 **Date Sampled:** 10/05/2024

Dates Tested: 10/05/2024 - 15/05/2024

Remarks: TRN 15699
Specification: 98% Standard
Location: TRN 15699
Material: Clay
Material Source: Insitu



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Approved Signatory: Anthony Green

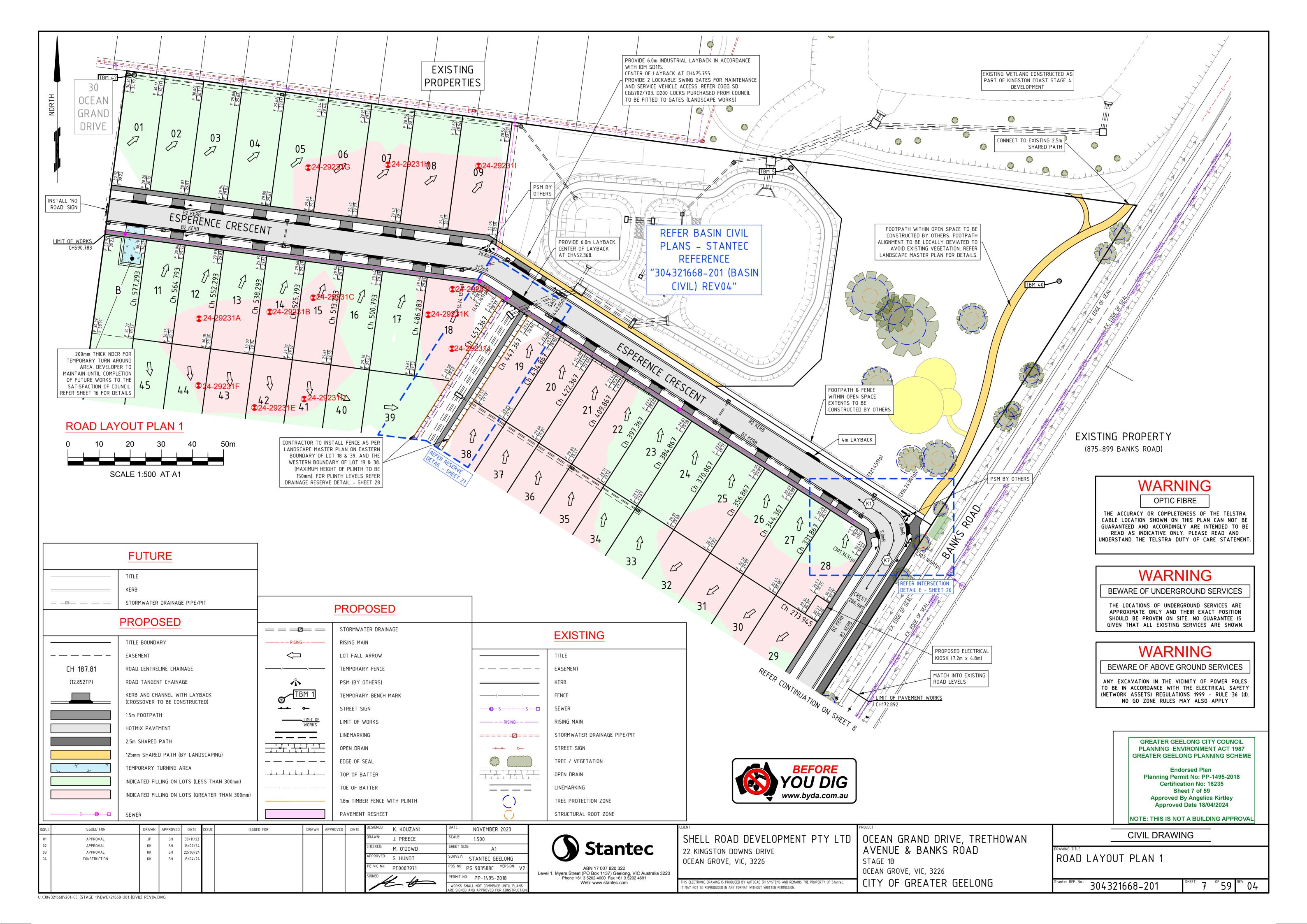
Senior Technician

NATA Accredited Laboratory Number: 18877

Compostion Control AS 1280 F 7.1 8 F 8	1 8 2 4 4					
Compaction Control AS 1289 5.7.1 & 5.8 Sample Number	24-29231G	24-29231H	24-292311	24-29231J	24-29231K	24-29231L
'						
Date Tested	10/05/2024	10/05/2024	10/05/2024	10/05/2024	10/05/2024	10/05/2024
Time Tested	09:00	09:05	09:10	09:15	09:20	09:25
Test Request #/Location	Lot 5	Lot 7	Lot 9	Lot 18	Lot 18	Lot 18
Layer / Reduced Level	Lift 1					
Thickness of Layer (mm)	150	150	150	150	150	150
Soil Description	Clay	Clay	Clay	Clay	Clay	Clay
Test Depth (mm)	125	125	125	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**	**	**	**
Field Wet Density (FWD) t/m ³	1.87	1.93	1.94	1.89	1.86	1.92
Field Moisture Content %	26.0	26.5	26.9	23.8	23.5	23.9
Field Dry Density (FDD) t/m ³	1.48	1.52	1.53	1.53	1.51	1.55
Peak Converted Wet Density t/m ³	1.90	1.91	1.90	1.91	1.89	1.91
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Moisture Variation (Wv) %	0.0	-0.5	-0.5	0.0	0.0	-0.5
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	98.5	101.0	101.5	99.0	98.0	100.5
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Report Number: P241967-2



Report Number: P241967-6

Issue Number: 2 - This version supersedes all previous issues

Reissue Reason: lot no's amended Date Issued: 22/08/2024

Client: Wellam Constructions Pty Ltd

105 Barwon Terrace, South Geelong Vic 3220

Contact: Jayden- 0491115648

Project Number: P241967

Ocean Grand Drive 1B **Project Name:**

Project Location: Ocean Grove

Work Request: 29302 **Date Sampled:** 15/05/2024

Dates Tested: 15/05/2024 - 31/05/2024

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Remarks: TRN 15994 Specification: 98% Standard Location: TRN 15994 Material: Clay **Material Source:** Insitu



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Approved Signatory: Anthony Green

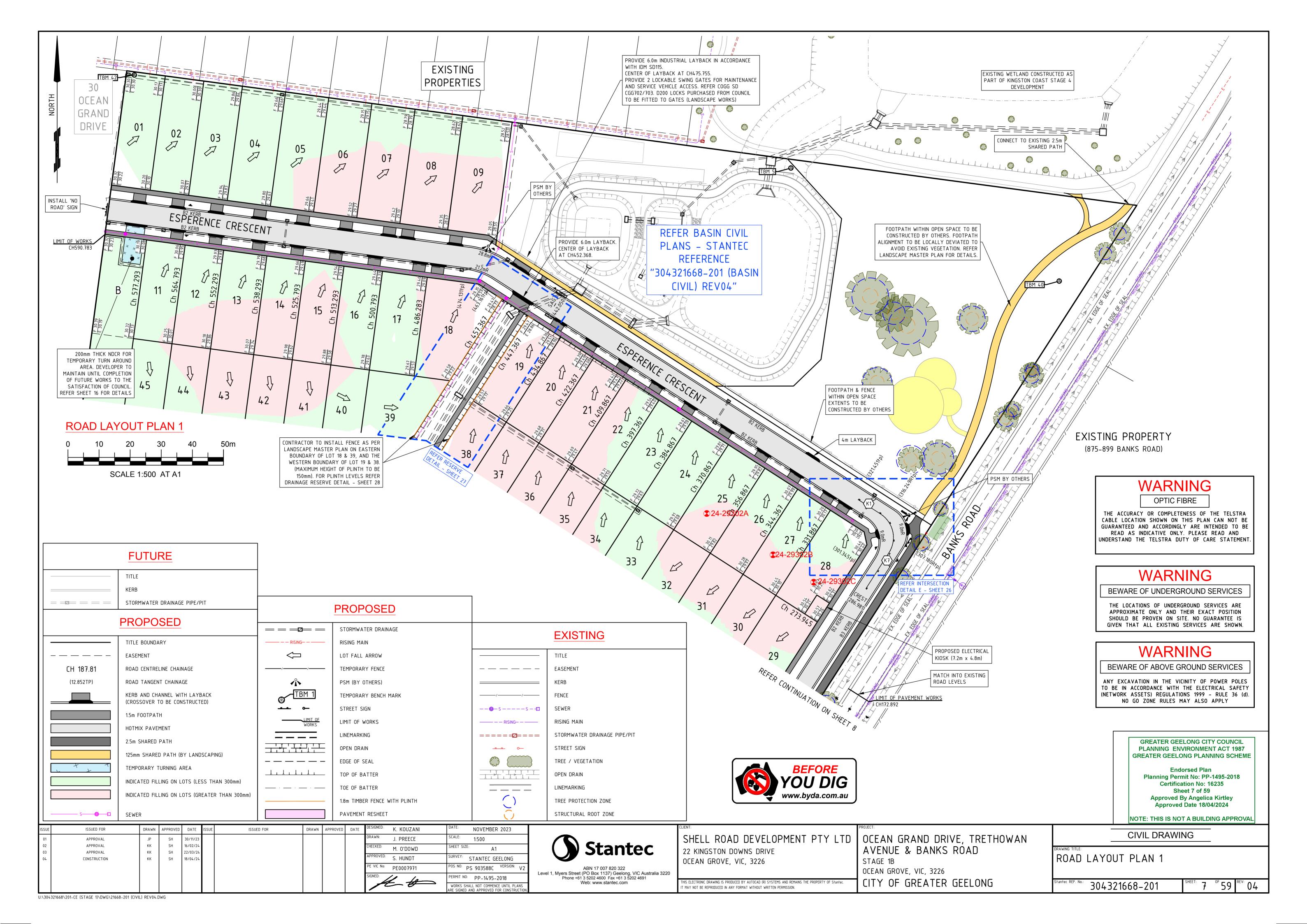
Senior Technician

NATA Accredited Laboratory Number: 18877

Compaction Control AS 1289 5.7.1 & 5.8.1	l & 2.1.1		
Sample Number	24-29302A	24-29302B	24-29302C
Date Tested	15/05/2024	15/05/2024	15/05/2024
Time Tested	09:00	09:05	09:10
Test Request #/Location	Lot 25	Lot 27	Lot 28
Layer / Reduced Level	Lift 1	Lift 1	Lift 1
Thickness of Layer (mm)	250	250	250
Soil Description	Clay	Clay	Clay
Test Depth (mm)	225	225	225
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	1.87	1.95	1.87
Field Moisture Content %	19.4	19.5	19.9
Field Dry Density (FDD) t/m ³	1.56	1.63	1.56
Peak Converted Wet Density t/m ³	1.90	1.93	1.87
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.0	0.0	0.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	98.5	101.0	100.0
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Report Number: P241967-6



Report Number: P241967-4

Issue Number: 2 - This version supersedes all previous issues

Reissue Reason: lot no's amended Date Issued: 22/08/2024

Client: Wellam Constructions Pty Ltd

105 Barwon Terrace, South Geelong Vic 3220

Contact: Jayden 0491115648

Project Number: P241967

Ocean Grand Drive 1B **Project Name:**

Project Location: Ocean Grove

Work Request: 29333 **Date Sampled:** 16/05/2024

Dates Tested: 20/05/2024 - 30/05/2024

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Remarks: TRN 15997 Specification: 98% Standard Location: TRN 15997 Material: Clay **Material Source:** Insitu



Pearce Geotech Pty Ltd

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Email: tony@pearcegeotech.com.au Accredited for compliance with ISO/IEC 17025 - Testing

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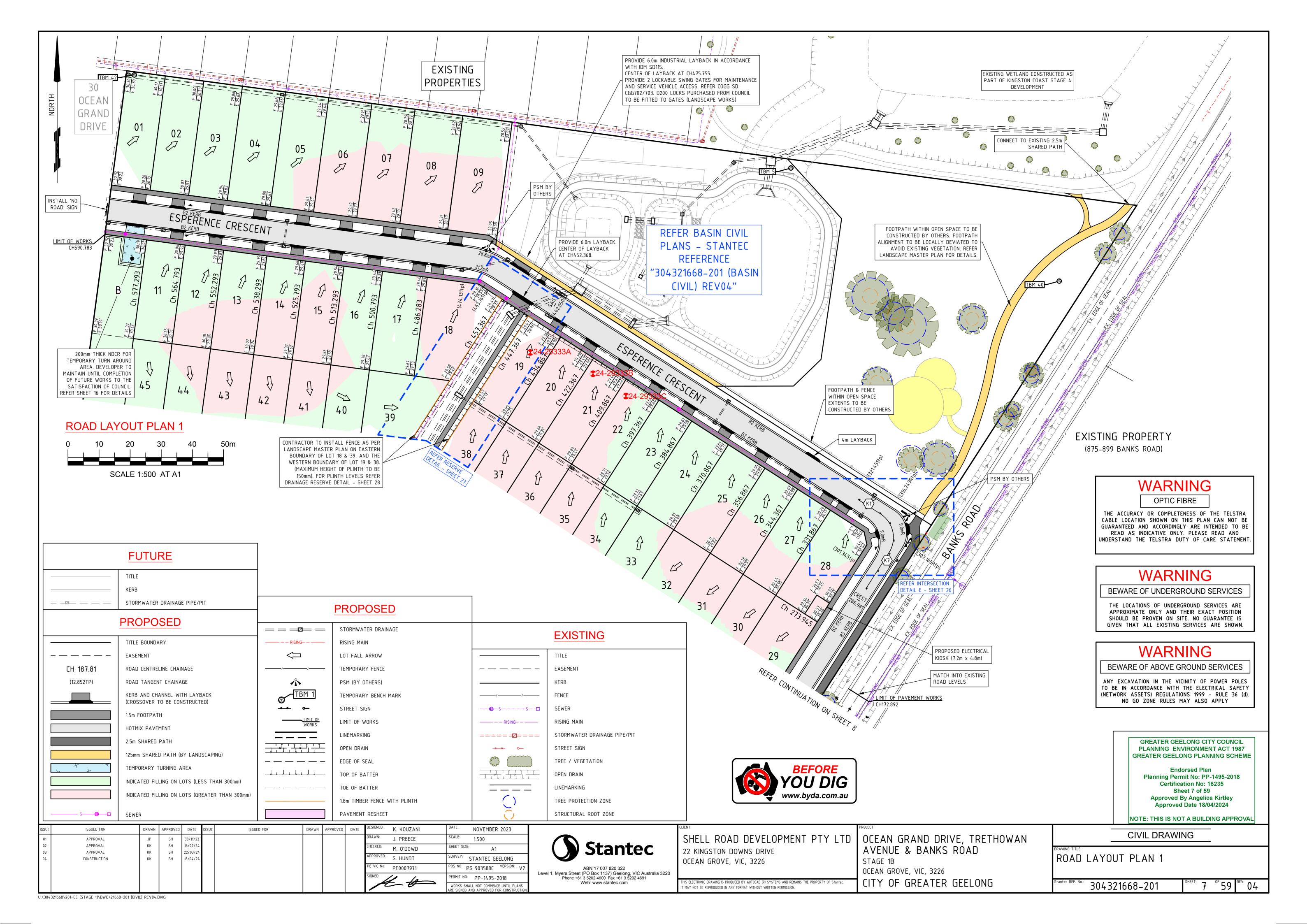
Approved Signatory: Anthony Green Senior Technician

NATA Accredited Laboratory Number: 18877

Compaction Control AS 1289 5.7.1 & 5.8.	1 & 2.1.1		
Sample Number	24-29333A	24-29333B	24-29333C
Date Tested	16/05/2024	16/05/2024	16/05/2024
Time Tested	09:15	09:20	09:25
Test Request #/Location	Lot 19	Lot 21	Lot 22
Layer / Reduced Level	Lift 1	Lift 1	Lift 1
Thickness of Layer (mm)	250	250	250
Soil Description	Clay	Clay	Clay
Test Depth (mm)	225	225	225
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	1.95	1.98	2.01
Field Moisture Content %	21.4	20.9	22.0
Field Dry Density (FDD) t/m ³	1.61	1.64	1.64
Peak Converted Wet Density t/m ³	1.98	1.98	1.98
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.0	0.0	-0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	98.5	100.0	101.0
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Report Number: P241967-4



Report Number: P241967-8

Issue Number: 2 - This version supersedes all previous issues

Reissue Reason: lot no's amended Date Issued: 22/08/2024

Client: Wellam Constructions Pty Ltd

105 Barwon Terrace, South Geelong Vic 3220

Contact: Jayden 0491115648

Project Number: P241967

Ocean Grand Drive 1B **Project Name:**

Project Location: Ocean Grove

Work Request: 29511 **Date Sampled:** 17/05/2024

Dates Tested: 29/05/2024 - 03/06/2024

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Remarks: TRN 16451 Specification: 98% Standard Location: TRN 16451 Material: Clay **Material Source:** Insitu



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Approved Signatory: Anthony Green

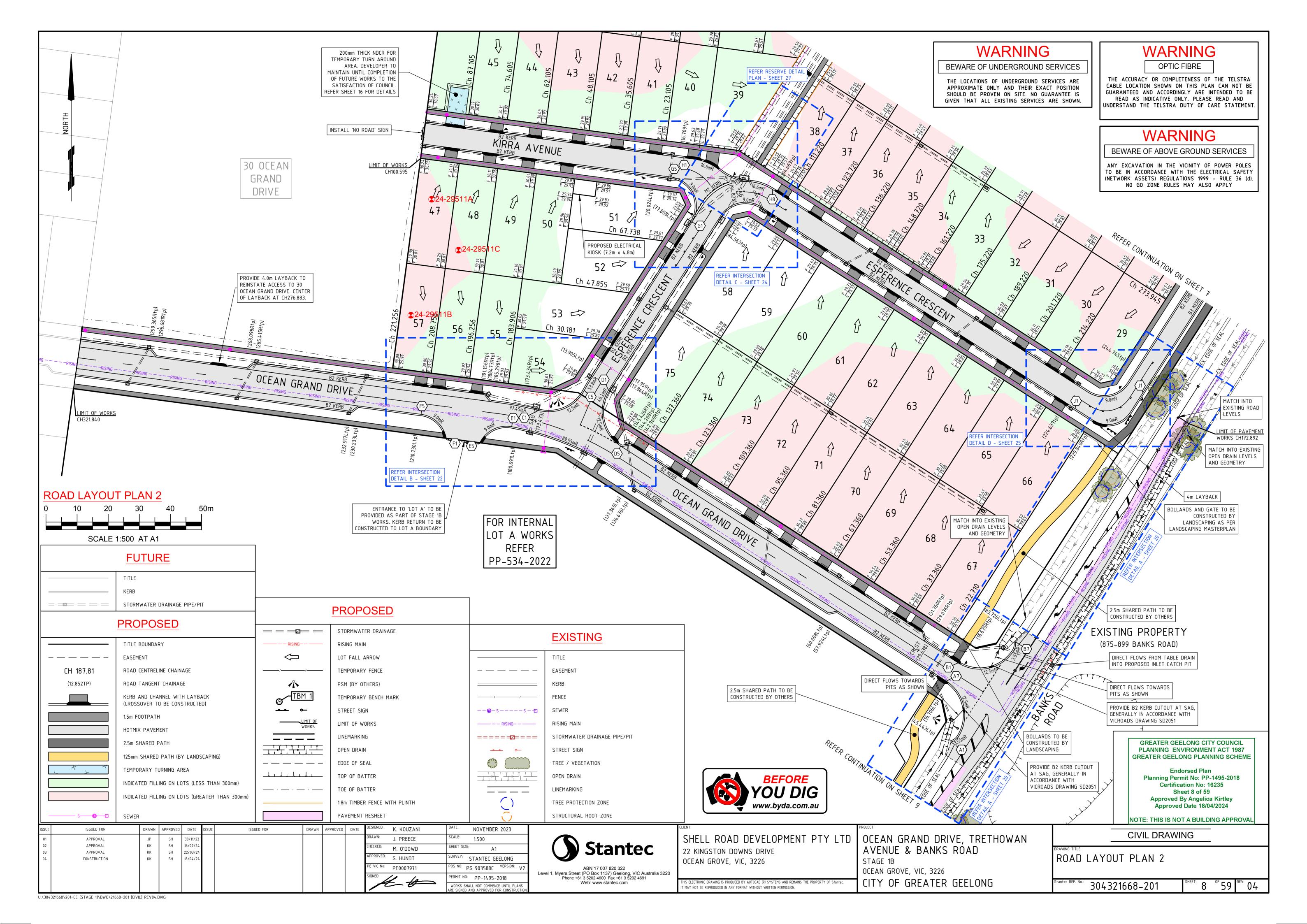
Senior Technician

NATA Accredited Laboratory Number: 18877

Compaction Control AS 1289 5.7.1 & 5.8.1 &	2.1.1		
Sample Number	24-29511A	24-29511B	24-29511C
Date Tested	17/05/2024	17/05/2024	17/05/2024
Time Tested	08:00	08:05	08:10
Test Request #/Location	Lot 47	Lot 57	Lot 48
Layer / Reduced Level	Lift 1	Lift 1	Lift 1
Thickness of Layer (mm)	250	250	250
Soil Description	Clay	Clay	Clay
Test Depth (mm)	225	225	225
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	1.99	2.03	2.08
Field Moisture Content %	18.9	**	19.5
Field Dry Density (FDD) t/m ³	1.68	**	1.74
Peak Converted Wet Density t/m ³	1.99	2.00	2.03
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	2.0	1.5	2.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	100.0	101.0	102.5
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Report Number: P241967-8



Report Number: P241967-12

Issue Number: 2 - This version supersedes all previous issues

Reissue Reason: lot no's amended Date Issued: 22/08/2024

Client: Wellam Constructions Pty Ltd

105 Barwon Terrace, South Geelong Vic 3220

Contact: Jayden 0491115648

Project Number: P241967

Ocean Grand Drive 1B **Project Name:**

Ocean Grove **Project Location:**

Work Request: 29498 **Date Sampled:** 20/05/2024

Dates Tested: 29/05/2024 - 03/06/2024

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Remarks: TRN 16453 Specification: 98% Standard Location: TRN 16453 Material: Clay **Material Source:** Insitu



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NATA

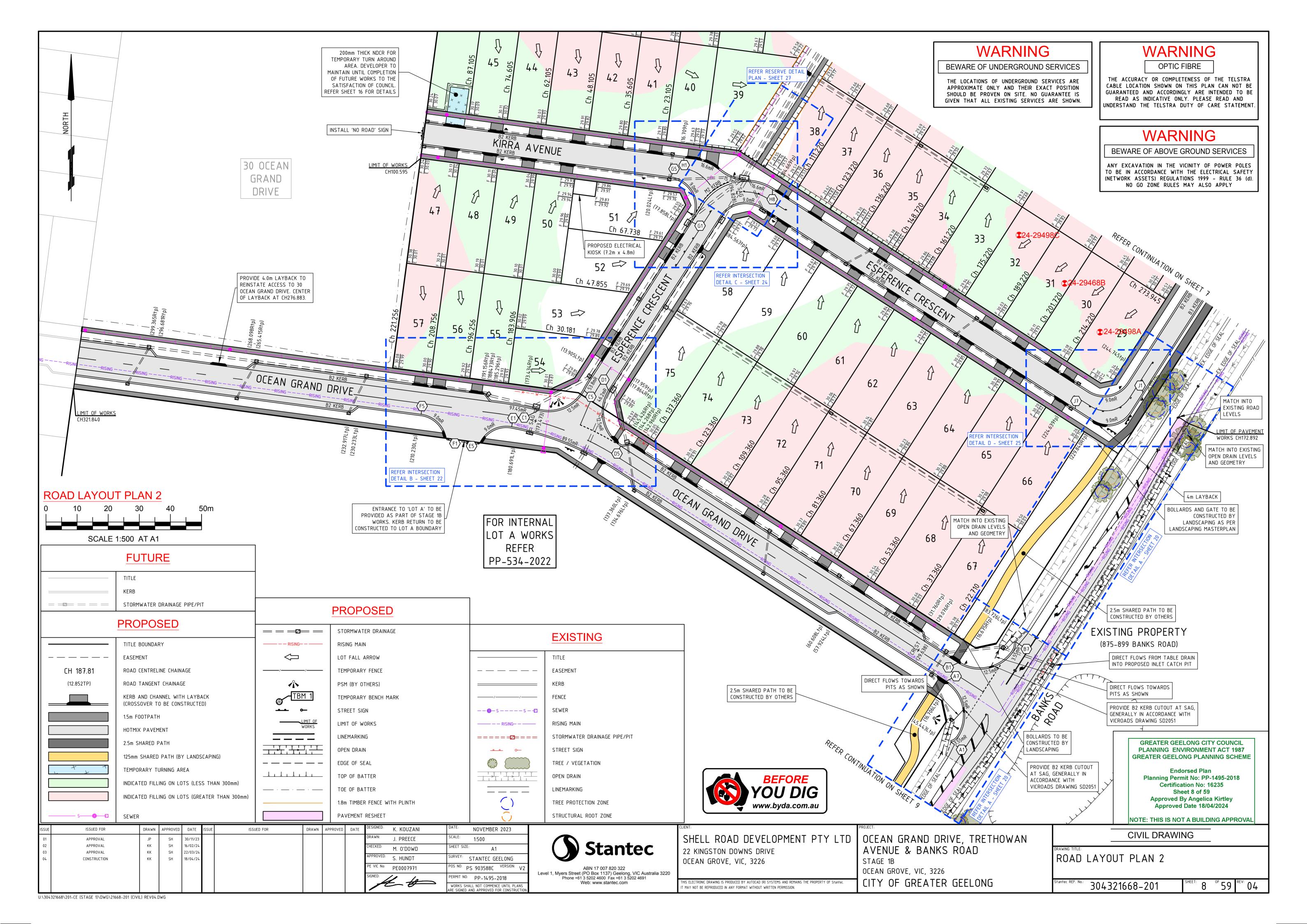
WORLD RECOGNISED
ACCREDITATION

Approved Signatory: Anthony Green Senior Technician NATA Accredited Laboratory Number: 18877

Compaction Control AS 1289 5.7.1 & 5.8.	1 & 2.1.1		
Sample Number	24-29498A	24-29498B	24-29498C
Date Tested	20/05/2024	20/05/2024	20/05/2024
Time Tested	08:00	08:05	08:10
Test Request #/Location	Lot 29	Lot 31	Lot 32
Layer / Reduced Level	Lift 1	Lift 1	Lift 1
Thickness of Layer (mm)	250	250	250
Soil Description	Clay	Clay	Clay
Test Depth (mm)	225	225	225
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	4	**	**
Field Wet Density (FWD) t/m ³	1.96	1.83	1.99
Field Moisture Content %	20.7	17.5	18.1
Field Dry Density (FDD) t/m ³	1.63	1.56	1.68
Peak Converted Wet Density t/m ³	**	1.86	2.00
Adjusted Peak Converted Wet Density t/m3	1.97	**	**
Moisture Variation (Wv) %	**	-0.5	-0.5
Adjusted Moisture Variation %	0.0	**	**
Hilf Density Ratio (%)	100.0	98.5	99.0
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Report Number: P241967-12



Report Number: P241967-11

Issue Number: 2 - This version supersedes all previous issues

Reissue Reason: lot no's amended Date Issued: 22/08/2024

Client: Wellam Constructions Pty Ltd

105 Barwon Terrace, South Geelong Vic 3220

Contact: Jayden 0491115648

Project Number: P241967

Ocean Grand Drive 1B **Project Name:**

Project Location: Ocean Grove

Work Request: 29461 **Date Sampled:** 21/05/2024

Dates Tested: 27/05/2024 - 03/06/2024

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Remarks: TRN 16455 Specification: 98% Standard Location: TRN 16455 Material: Clay **Material Source:** Insitu



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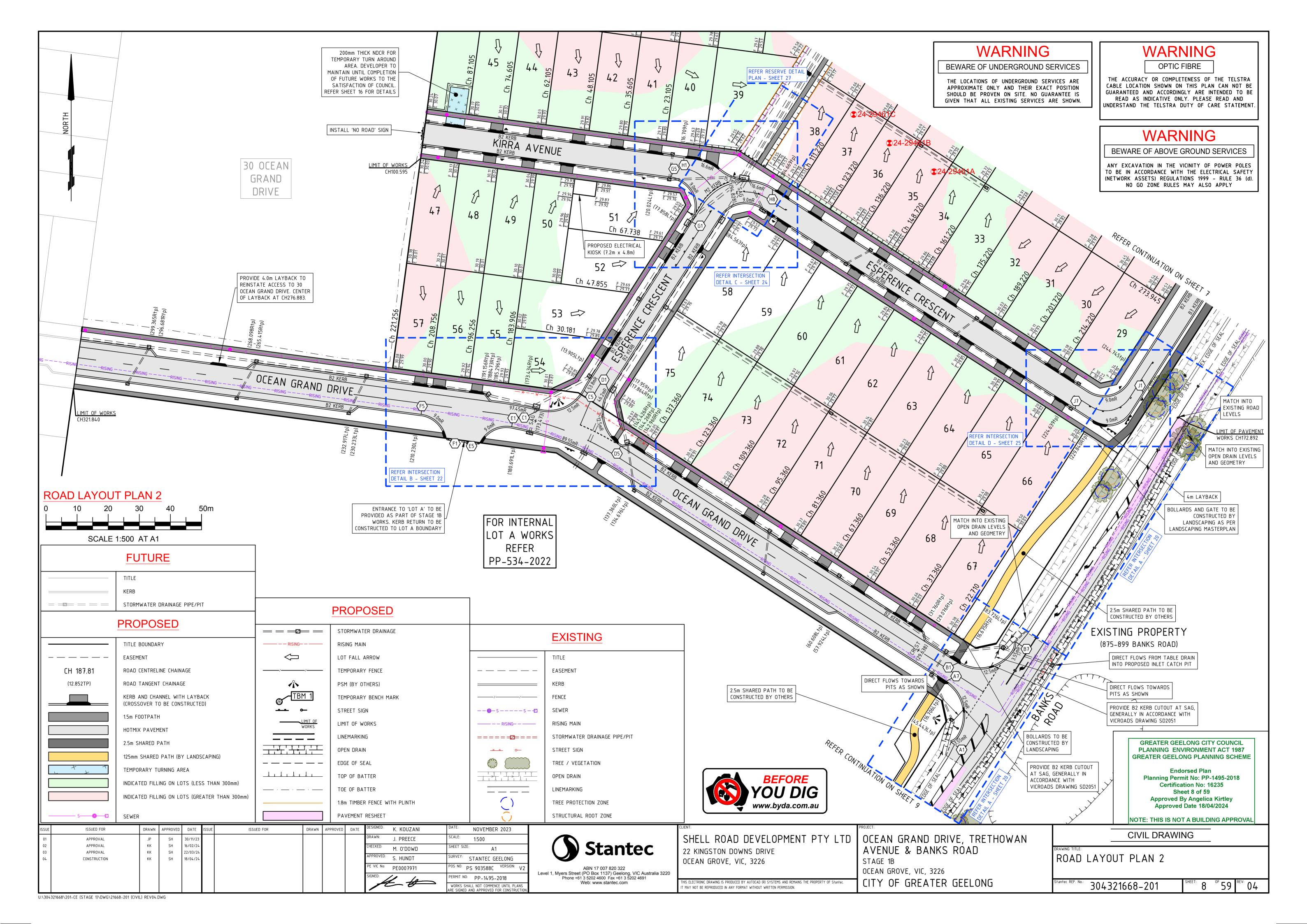
Senior Technician

NATA Accredited Laboratory Number: 18877

Compaction Control AS 1289 5.7.1 & 5.8.1 &	§ 2.1.1		
Sample Number	24-29461A	24-29461B	24-29461C
Date Tested	21/05/2024	21/05/2024	21/05/2024
Time Tested	08:00	08:05	08:10
Test Request #/Location	Lot 35	Lot 36	Lot 37
Layer / Reduced Level	Lift 1	Lift 1	Lift 1
Thickness of Layer (mm)	250	250	250
Soil Description	Clay	Clay	Clay
Test Depth (mm)	225	225	225
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	**	**
Field Wet Density (FWD) t/m ³	1.98	1.88	1.87
Field Moisture Content %	15.2	18.5	18.5
Field Dry Density (FDD) t/m ³	1.72	1.59	1.58
Peak Converted Wet Density t/m ³	1.96	1.92	1.91
Adjusted Peak Converted Wet Density t/m3	**	**	**
Moisture Variation (Wv) %	2.0	2.0	2.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	101.0	98.0	98.0
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Report Number: P241967-11



Report Number: P241967-14

Issue Number: 2 - This version supersedes all previous issues

Reissue Reason: lot no's amended Date Issued: 22/08/2024

Client: Wellam Constructions Pty Ltd

105 Barwon Terrace, South Geelong Vic 3220

Contact: Jayden 0491115648

Project Number: P241967

Ocean Grand Drive 1B **Project Name:**

Project Location: Ocean Grove

Work Request: 29458 **Date Sampled:** 22/05/2024

Dates Tested: 27/05/2024 - 05/06/2024

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Remarks: TRN 16456 Specification: 98% Standard Location: TRN 16456 Material: Clay **Material Source:** Insitu



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Email: tony@pearcegeotech.com.au

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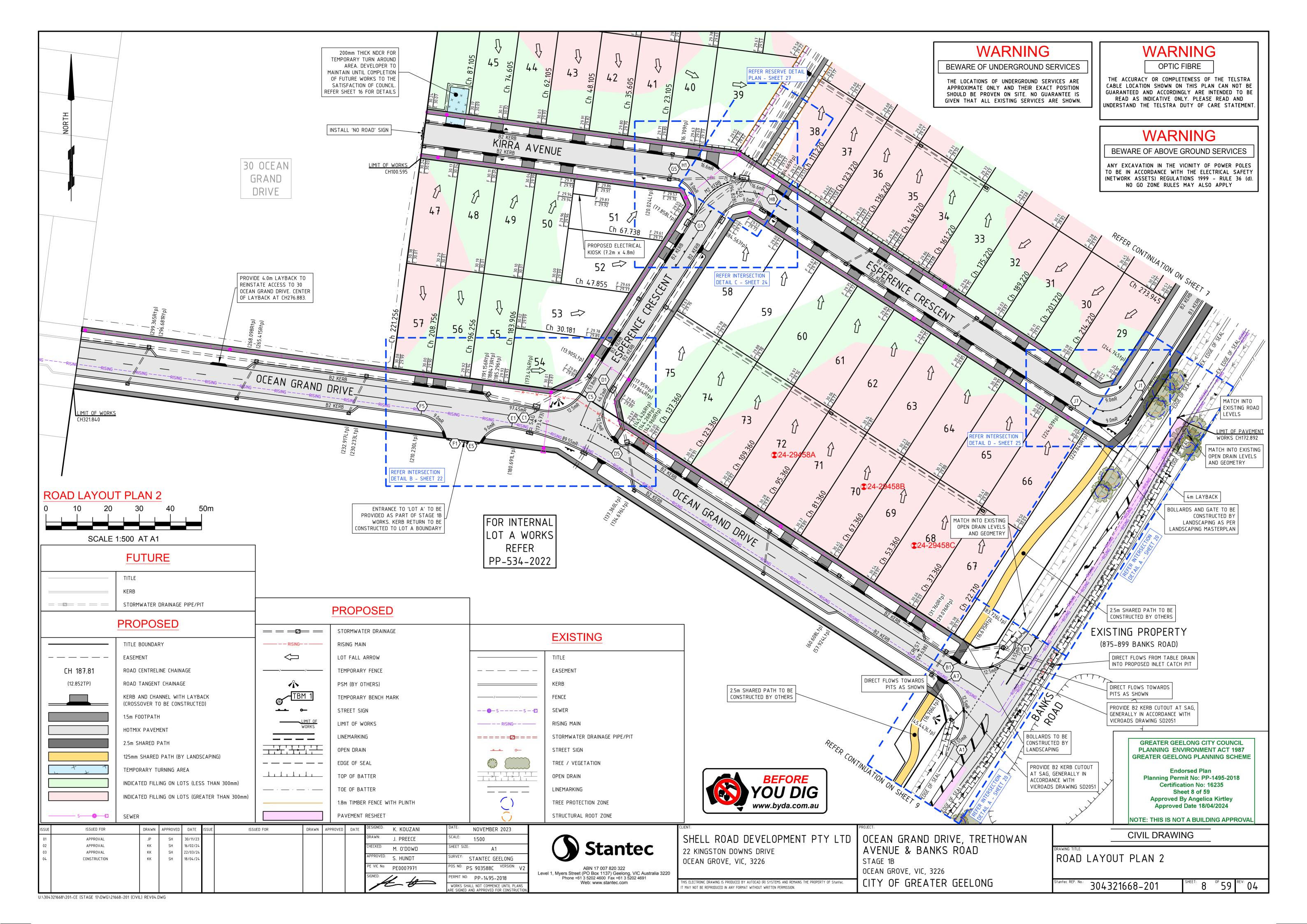
Senior Technician

NATA Accredited Laboratory Number: 18877

Compaction Control AS 1289 5.7.1 & 5.8.	1 & 2.1.1		
Sample Number	24-29458A	24-29458B	24-29458C
Date Tested	22/05/2024	22/05/2024	22/05/2024
Time Tested	08:30	08:35	08:40
Test Request #/Location	Lot 72	Lot 70	Lot 68
Layer / Reduced Level	Lift 1	Lift 1	Lift 1
Thickness of Layer (mm)	250	250	250
Soil Description	Clay	Clay	Clay
Test Depth (mm)	225	225	225
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0
Field Wet Density (FWD) t/m ³	1.98	2.04	2.01
Field Moisture Content %	24.2	21.9	23.8
Field Dry Density (FDD) t/m ³	1.59	1.67	1.62
Peak Converted Wet Density t/m ³	1.98	1.98	1.98
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	-0.5	-0.5	-0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	100.0	102.5	101.5
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Report Number: P241967-14



Report Number: P241967-10

Issue Number: 2 - This version supersedes all previous issues

Reissue Reason: lot no's amended Date Issued: 22/08/2024

Client: Wellam Constructions Pty Ltd

105 Barwon Terrace, South Geelong Vic 3220

Contact: Jayden 0491115648

Project Number: P241967

Ocean Grand Drive 1B **Project Name:**

Project Location: Ocean Grove

Work Request: 29457 **Date Sampled:** 23/05/2024

Dates Tested: 27/05/2024 - 03/06/2024

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Remarks: TRN 16459 Specification: 98% Standard Location: TRN 16459 Material: Clay **Material Source:** Insitu



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Approved Signatory: Anthony Green

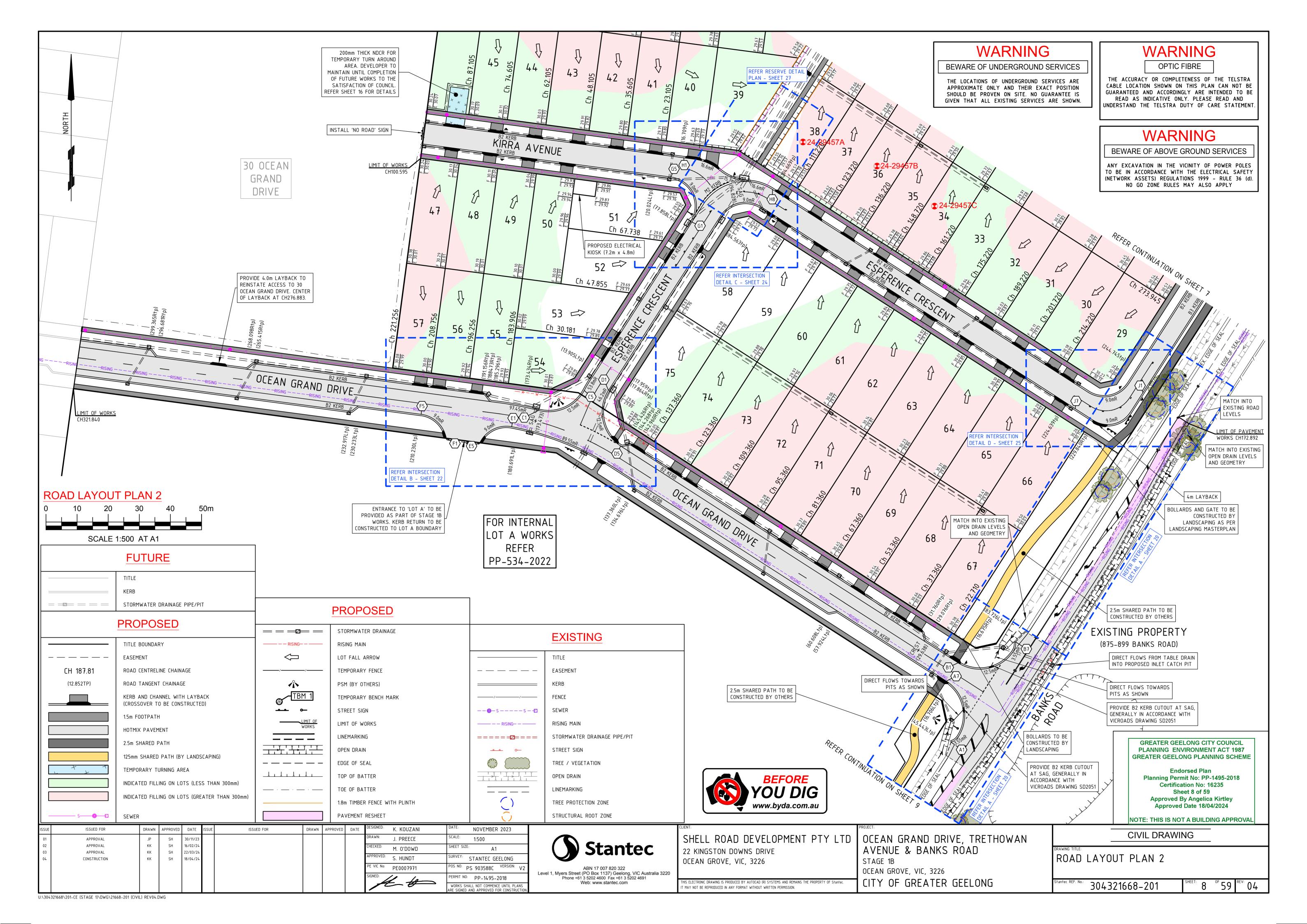
Senior Technician

NATA Accredited Laboratory Number: 18877

Compaction Control AS 1289 5.7.1 & 5.8	.1 & 2.1.1		
Sample Number	24-29457A	24-29457B	24-29457C
Date Tested	23/05/2024	23/05/2024	23/05/2024
Time Tested	08:20	08:25	08:30
Test Request #/Location	Lot 38	Lot 36	Lot 34
Layer / Reduced Level	Lift 1	Lift 1	Lift 1
Thickness of Layer (mm)	250	250	250
Soil Description	Clay	Clay	Clay
Test Depth (mm)	225	225	225
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0
Field Wet Density (FWD) t/m ³	1.88	1.83	1.88
Field Moisture Content %	19.0	20.8	20.6
Field Dry Density (FDD) t/m ³	1.58	1.51	1.56
Peak Converted Wet Density t/m ³	1.88	1.86	1.87
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.0	0.0	0.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	100.0	98.0	101.0
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Report Number: P241967-10



Report Number: P241967-5

Issue Number: 2 - This version supersedes all previous issues

Reissue Reason: lot no's amended Date Issued: 22/08/2024

Client: Wellam Constructions Pty Ltd

105 Barwon Terrace, South Geelong Vic 3220

Contact: Jayden 0491115648

Project Number: P241967

Ocean Grand Drive 1B **Project Name:**

Project Location: Ocean Grove

Work Request: 29425

Dates Tested: 24/05/2024 - 30/05/2024

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Remarks: TRN 16007 Specification: 98% Standard Location: TRN 16007 Material: Clay **Material Source:** Insitu



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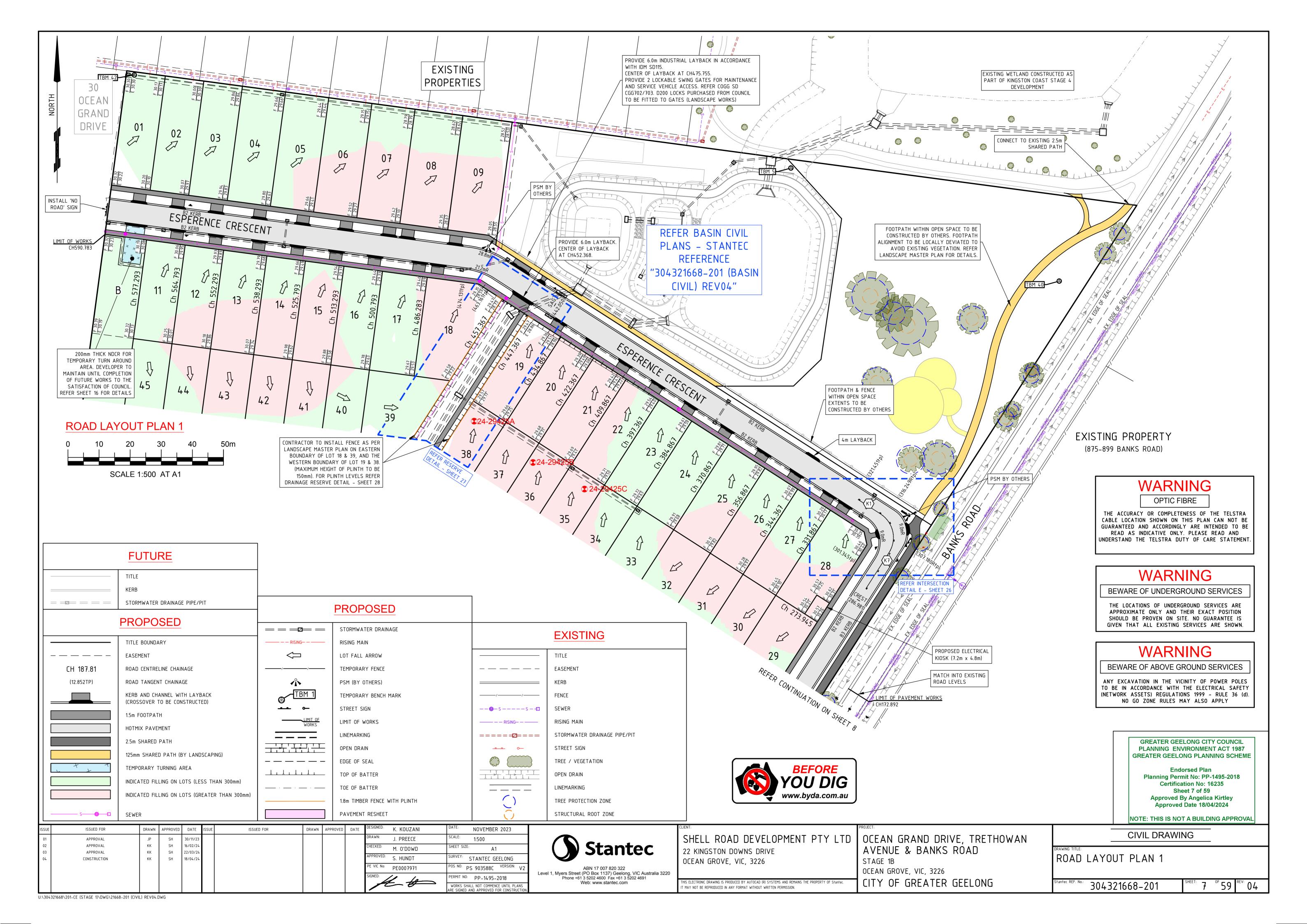
WORLD RECOGNISED
ACCREDITATION

Approved Signatory: Anthony Green Senior Technician NATA Accredited Laboratory Number: 18877

Compaction Control AS 1289 5.7.1 & 5.8.1	& 2 1 1		
Sample Number	24-29425A	24-29425B	24-29425C
Date Tested	24/05/2024	24/05/2024	24/05/2024
Time Tested	10:45	11:00	11:13
Test Request #/Location	Lot 38	Lot 36	Lot 35
Layer / Reduced Level	Lift 1	Lift 1	Lift 1
Thickness of Layer (mm)	250	250	250
Soil Description	Clay	Clay	Clay
Test Depth (mm)	225	225	225
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	2.05	2.11	1.98
Field Moisture Content %	23.4	23.2	22.7
Field Dry Density (FDD) t/m ³	1.66	1.72	1.61
Peak Converted Wet Density t/m ³	1.98	1.99	1.98
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.0	-0.5	0.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	103.5	106.0	100.0
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Report Number: P241967-5



Report Number: P241967-7

Issue Number: 2 - This version supersedes all previous issues

Reissue Reason: lot no's amended Date Issued: 22/08/2024

Client: Wellam Constructions Pty Ltd

105 Barwon Terrace, South Geelong Vic 3220

Contact: Jayden 0491115648

Project Number: P241967

Ocean Grand Drive 1B **Project Name:**

Project Location: Ocean Grove

Work Request: 29499 **Date Sampled:** 28/05/2024

Dates Tested: 29/05/2024 - 03/06/2024

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Remarks: TRN 16464 Specification: 98% Standard Location: TRN 16464 Material: Clay **Material Source:** Insitu



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Phone: (03) 5248 7887

Email: tony@pearcegeotech.com.au



Approved Signatory: Anthony Green

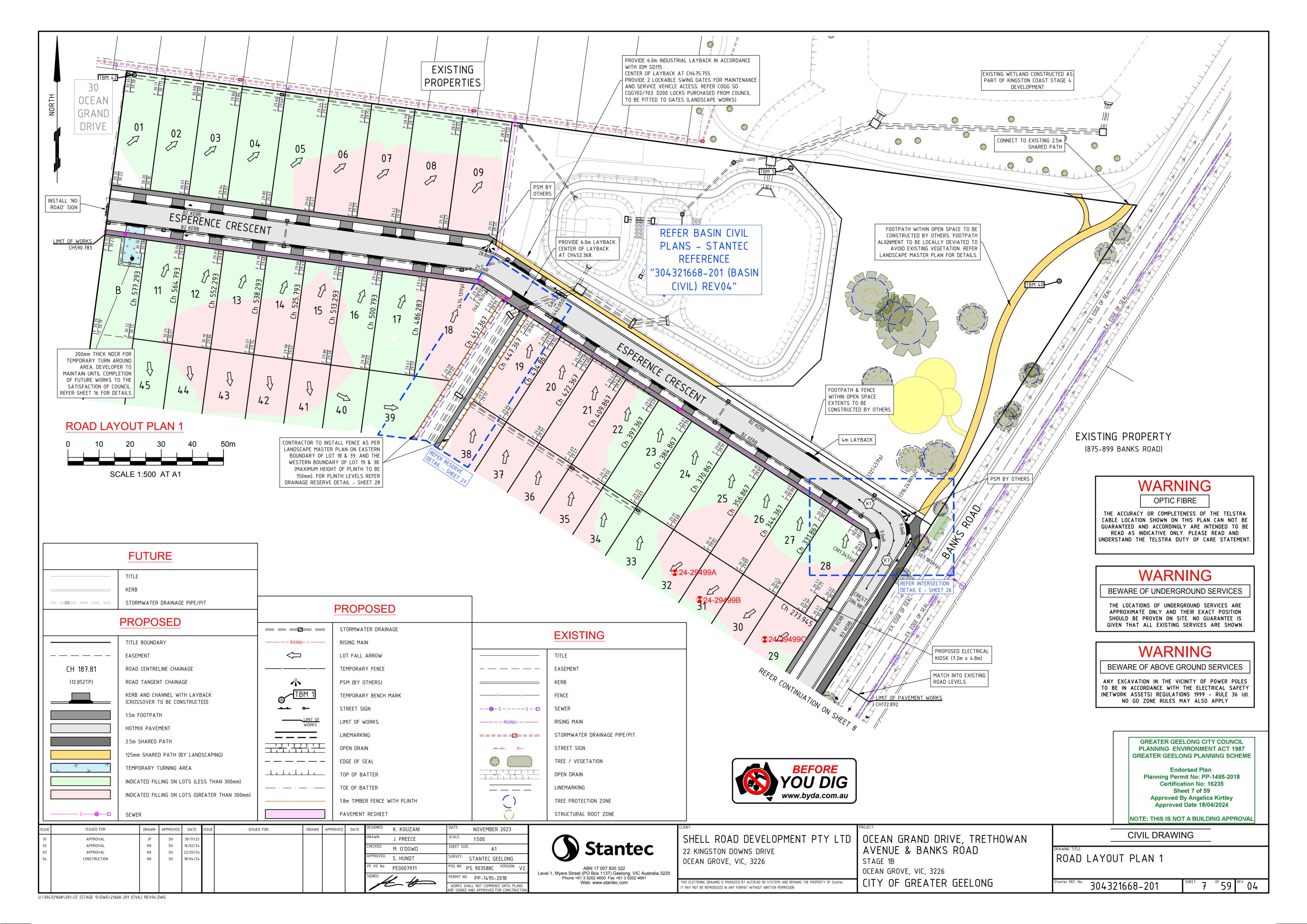
Senior Technician

NATA Accredited Laboratory Number: 18877

Compaction Control AS 1289 5.7.1 & 5.8.1 & 3	2.1.1		
Sample Number	24-29499A	24-29499B	24-29499C
Date Tested	28/05/2024	28/05/2024	28/05/2024
Time Tested	08:00	08:05	08:10
Test Request #/Location	Lot 32	Lot 31	Lot 29
Layer / Reduced Level	Lift 1	Lift 1	Lift 1
Thickness of Layer (mm)	250	250	250
Soil Description	Clay	Clay	Clay
Test Depth (mm)	225	225	225
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	1.88	1.96	1.89
Field Moisture Content %	27.4	5716.7	28.0
Field Dry Density (FDD) t/m ³	1.48	0.03	1.48
Peak Converted Wet Density t/m ³	1.91	1.96	1.92
Adjusted Peak Converted Wet Density	**	**	**
Noisture Variation (Wv) %	-0.5	0.0	0.0
Adjusted Moisture Variation %	**	**	**
lilf Density Ratio (%)	98.5	100.0	98.5
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Report Number: P241967-7



Report Number: P241967-13

Issue Number: 2 - This version supersedes all previous issues

Reissue Reason: lot no's amended Date Issued: 22/08/2024

Client: Wellam Constructions Pty Ltd

105 Barwon Terrace, South Geelong Vic 3220

Contact: Jayden 0491115648

Project Number: P241967

Ocean Grand Drive 1B **Project Name:**

Project Location: Ocean Grove

Work Request: 29512 **Date Sampled:** 29/05/2024

Dates Tested: 29/05/2024 - 04/06/2024

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Remarks: TRN 16451 Specification: 98% Standard Location: TRN 16451 Material: Clay **Material Source:** Insitu



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Phone: (03) 5248 7887

Email: tony@pearcegeotech.com.au

NATA Approved Signatory: Anthony Green WORLD RECOGNISED
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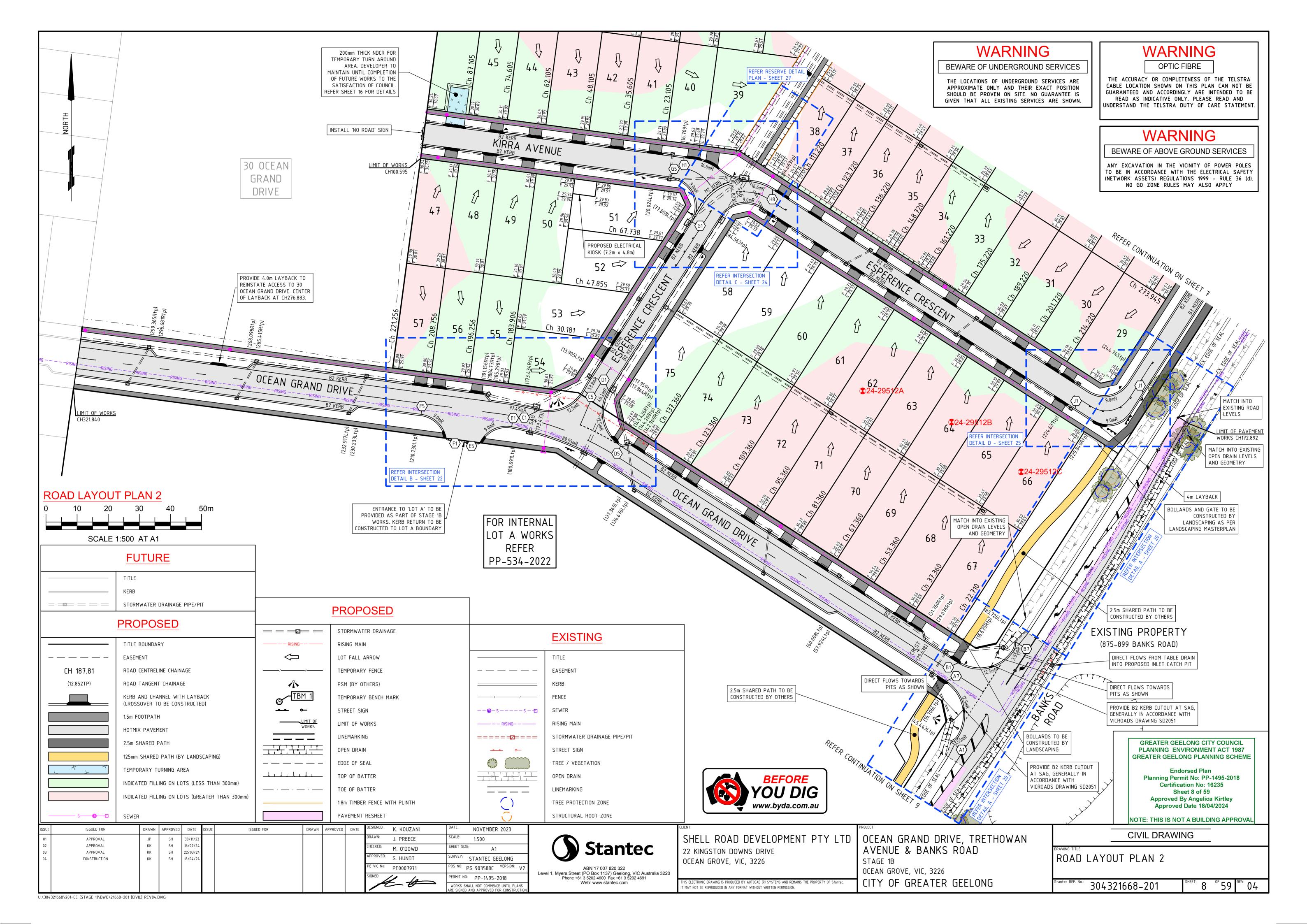
Senior Technician NATA Accredited Laboratory Number: 18877

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Compaction Control AS 1289 5.7.1 & 5.8.	1 & 2.1.1		
Sample Number	24-29512A	24-29512B	24-29512C
Date Tested	29/05/2024	29/05/2024	29/05/2024
Time Tested	08:10	08:15	08:20
Test Request #/Location	Lot 62	Lot 64	Lot 66
Layer / Reduced Level	Lift 1	Lift 1	Lift 1
Thickness of Layer (mm)	250	250	250
Soil Description	Clay	Clay	Clay
Test Depth (mm)	225	225	225
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	1.98	1.96	2.02
Field Moisture Content %	17.3	19.9	21.2
Field Dry Density (FDD) t/m ³	1.69	1.63	1.67
Peak Converted Wet Density t/m ³	2.00	1.98	2.00
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.0	0.0	0.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	99.0	98.5	101.0
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Report Number: P241967-13



Report Number: P241967-21

Issue Number:

Date Sampled:

Date Issued: 22/08/2024

Client: Wellam Constructions Pty Ltd

105 Barwon Terrace, South Geelong Vic 3220

Contact: Jayden 0491115648

P241967 **Project Number:**

Project Name: Ocean Grand Drive 1B

Ocean Grove **Project Location:** 30655 Work Request:

Dates Tested: 16/08/2024 - 19/08/2024

14/08/2024

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Remarks: TRN 16499 Specification: 98% Standard Location: TRN 16499 Material: Clay **Material Source:** Insitu



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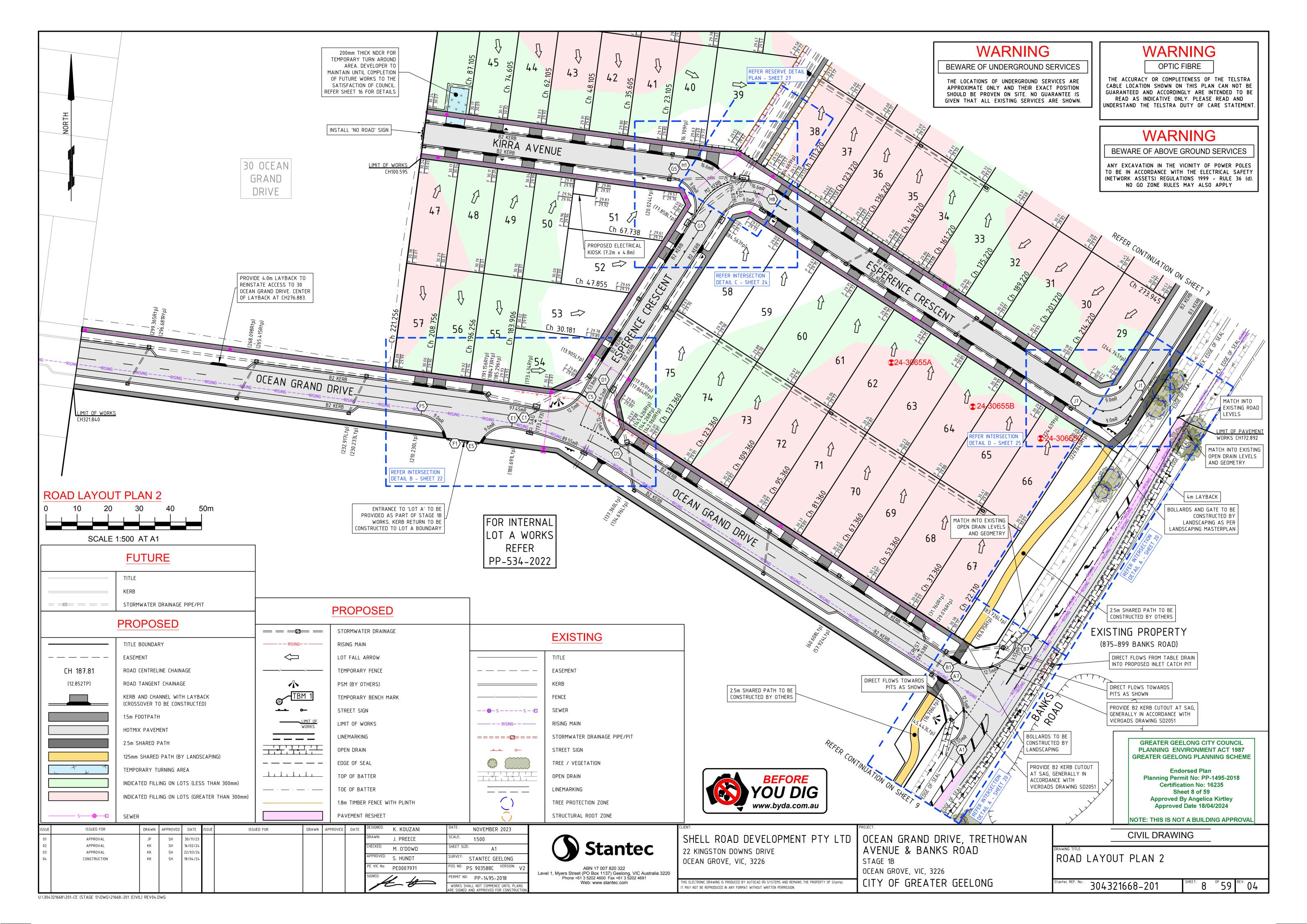
WORLD RECOGNISED
ACCREDITATION

Approved Signatory: Anthony Green Senior Technician NATA Accredited Laboratory Number: 18877

Compaction Control AS 1289 5.7.1 & 5.8.	1 & 2.1.1		
Sample Number	24-30655A	24-30655B	24-30655C
Date Tested	14/08/2024	14/08/2024	14/08/2024
Time Tested	08:40	08:45	08:50
Test Request #/Location	Lot 62	Lot 64	Lot 66
Layer / Reduced Level	Lift 2	Lift 2	Lift 2
Thickness of Layer (mm)	250	250	250
Soil Description	Clay	Clay	Clay
Test Depth (mm)	225	225	225
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	**	**
Field Wet Density (FWD) t/m ³	1.87	1.92	1.93
Field Moisture Content %	21.7	22.4	21.9
Field Dry Density (FDD) t/m ³	1.54	1.57	1.58
Peak Converted Wet Density t/m ³	1.90	1.91	1.89
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.0	0.0	0.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	98.5	100.5	102.0
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Report Number: P241967-21



Report Number: P241967-22

Issue Number:

Date Issued: 22/08/2024

Client: Wellam Constructions Pty Ltd

105 Barwon Terrace, South Geelong Vic 3220

Contact: Jayden 0491115648

P241967 **Project Number:**

Project Name: Ocean Grand Drive 1B

Ocean Grove **Project Location:** 30706 Work Request: Date Sampled: 19/08/2024

Dates Tested: 19/08/2024 - 20/08/2024

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Remarks: TRN 17405 Specification: 98% Standard Location: TRN 17405 Material: Clay **Material Source:** Insitu



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Email: tony@pearcegeotech.com.au

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Approved Signatory: Anthony Green

Senior Technician

NATA Accredited Laboratory Number: 18877

Compaction Control AS 1289 5.7.1 & 5.8.1	& 2.1.1		
Sample Number	24-30706A	24-30706B	24-30706C
Date Tested	16/08/2024	16/08/2024	16/08/2024
Time Tested	10:00	10:10	10:20
Test Request #/Location	Lot 68	Lot 70	Lot 72
Layer / Reduced Level	Lift 2	Lift 2	Lift 2
Thickness of Layer (mm)	250	250	250
Soil Description	Clay	Clay	Clay
Test Depth (mm)	225	225	225
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	2.00	1.97	1.95
Field Moisture Content %	21.9	19.2	21.9
Field Dry Density (FDD) t/m ³	1.64	1.65	1.60
Peak Converted Wet Density t/m ³	1.94	1.95	1.96
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	2.0	2.0	2.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	102.5	101.0	99.5
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Report Number: P241967-22

