

CIVIL GEOTECHNICAL SERVICES ABN 26 474 013 724 PO Box 678 Croydon Vic 3136 Telephone: 9723 0744 Facsimile: 9723 0799

20th March 2019

Our Reference: 18409:NB456 Rev.1

Rokon Pty Ltd 1 / 75 River Street RICHMOND VIC 3121

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING RIVERWALK – STAGES 24 - 26 (WERRIBEE)

Please find attached our Report No's 18409/R001 to 18409/R128 which relate to the field density testing that was conducted at the filled allotments of the above subdivision. The level 1 inspections and associated field density testing commenced in July 2018 and were completed in February 2019.

The inspections and testing of the earthworks was undertaken in general accordance with the Level 1 requirements of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments.

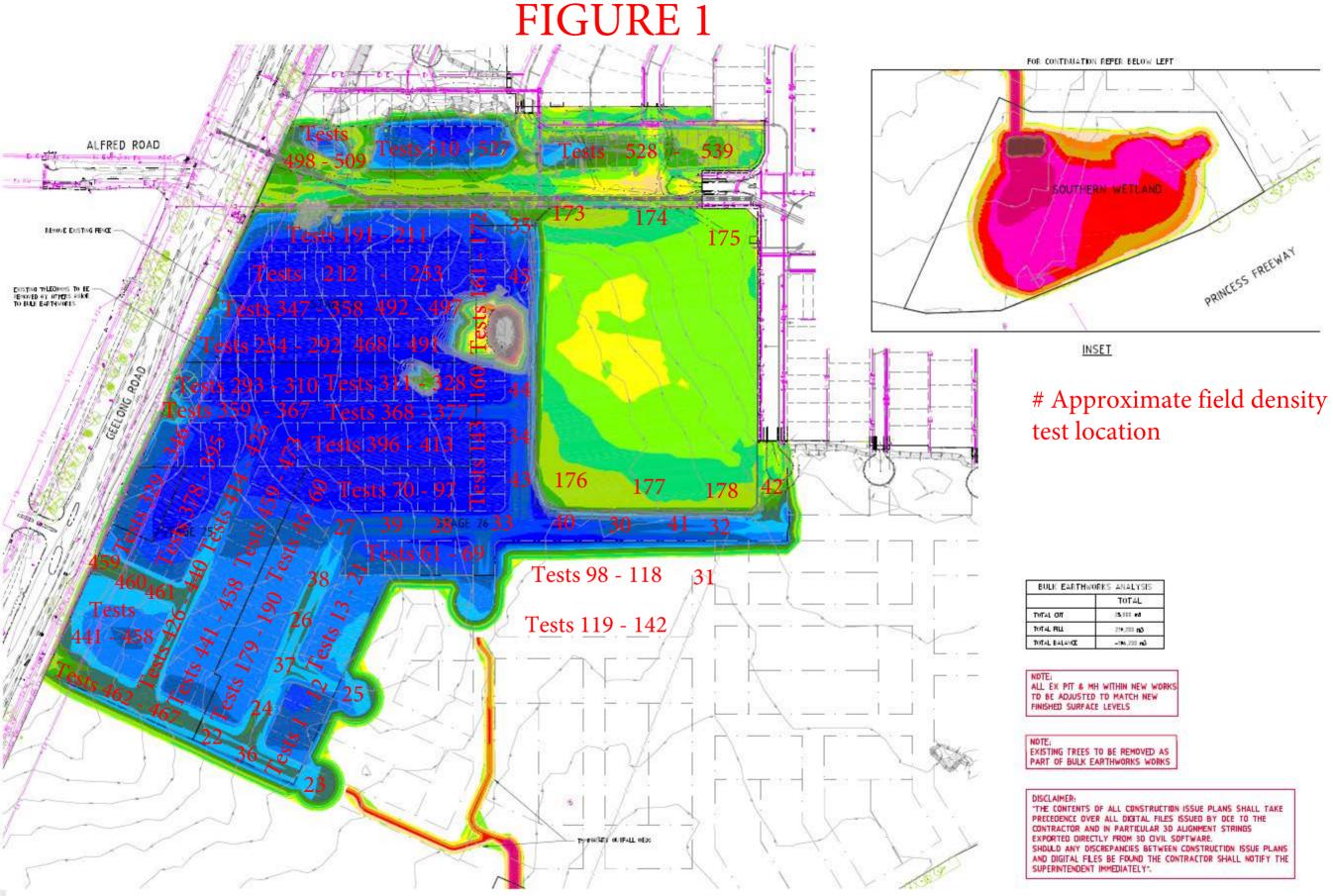
The site inspections and testing was performed by an experienced geotechnician from this office. Any areas that were deemed unsatisfactory were reworked and retested under their supervision. The testing was performed to the relevant Australian Standards and the accompanying test reports carry NATA endorsement. The attached compaction results, which were located randomly throughout the fill profile, are considered to be representative of the bulk fill materials that were placed across the filled allotments by Rokon during the aforementioned period. The approximate locations of the field density tests can be seen on the attached plan (Figure 1).

We are of the view that the bulk fill materials that have been placed across the filled allotments by Rokon during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort). We also confirm that an allowable bearing pressure of at least 100 kPa is available for strip and pad footings, edge and load bearing beams of raft slabs founding and watermains in the controlled fill materials.

Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

Nick Brock 18409: NB456 March 2019



FOR CONTINUATION REFER INSET



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R001
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	17/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	12/07/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 12:00

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		1	2	3	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							1
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	1.97	1.94	1.93	-	-	-
Field moisture content	%	15.3	14.3	15.0	-	-	-

Test procedure AS 1289.5.7.1

Test No		1	2	3	-	-	-
Compactive effort				Sta	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	1.96	1.93	1.93	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	17.5	16.5	17.5	-	-	-

Moisture Variation From	2.0%	2.5%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

	Density Ratio (R _{HD})	%	100.5	100.5	100.5	-	-	-
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Material description

No 1 - 3 Clay Fill



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards. Accredited for compliance to ISO/IEC 17025. Accreditation No 9909

AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R002
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	17/10/2018
Client	ROKON (RICHMOND)	Tested by	SB
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	13/07/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 13:30

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		4	5	6	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	1.99	2.01	1.95	-	-	-
Field moisture content	%	19.2	16.0	15.3	-	-	-

Test procedure AS 1289.5.7.1

Test No		4	5	6	-	-	-
Compactive effort				Star	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	1.98	2.00	1.97	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	21.5	18.5	18.0	-	-	-

Moisture Variation From	2.0%	2.5%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	100.5	100.5	99.0	-	-	-

Material description

No 4 - 6 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R003
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	17/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	17/07/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 13:39

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		7	8	9	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	1.93	1.87	1.90	-	-	-
Field moisture content	%	14.7	14.4	15.2	-	-	-

Test procedure AS 1289.5.7.1

Test No		7	8	9	-	-	-
Compactive effort				Star	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t/m³	1.92	1.87	1.90	-	-	-
Adjusted Peak Converted Wet Density	t/m³	-	-	-	-	-	-
Optimum Moisture Content	%	17.0	16.5	17.0	-	-	-

Moisture Variation From	2.5%	2.5%	2.0%	-	-	-
Optimum Moisture Content	dry	dry	dry			

	Density Ratio (R _{HD}) %	6	100.5	100.5	100.0	-	-	-
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Material description

No 7 - 9 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R004
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	20/08/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	18/07/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 14:01

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		10	11	12	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.00	1.99	1.95	-	-	-
Field moisture content	%	16.7	14.6	16.2	-	-	-

Test procedure AS 1289.5.7.1

	10	11	12	-	-	-
		•	Star	ndard		-
тт	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	2.01	2.00	2.00	-	-	-
t∕m³	-	-	-	-	-	-
%	16.5	12.0	16.0	-	-	-
	wet t/m³ t/m³	mm 19.0 wet 0 t/m³ 2.01 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.01 2.00 t/m³ - -	mm 19.0 19.0 19.0 19.0 wet 0 0 0 0 t/m³ 2.01 2.00 2.00 t/m³ - - -	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.01 2.00 2.00 - t/m³ - - - -	mm 19.0 19.0 19.0 - <th< td=""></th<>

Moisture Variation From	0.5%	2.5%	0.0%	-	-	-
Optimum Moisture Content	wet	wet				

	Density Ratio (R _{HD}) %	99.5	99.5	97.5	-	-	-
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Material description

No 10 - 12 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R005
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	17/08/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	19/07/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 13:00

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		13	14	15	-	-	-
Location							
		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t/m³	1.98	1.99	1.97	-	-	-
Field moisture content	%	14.2	14.4	14.1	-	-	-

Test procedure AS 1289.5.7.1

	13	14	15	-	-	-
			Star	ndard		
тт	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	2.01	2.00	2.00	-	-	-
t∕m³	-	-	-	-	-	-
%	17.0	16.5	16.5	-	-	-
	wet t/m³ t/m³	mm 19.0 wet 0 t/m³ 2.01 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.01 2.00 t/m³ - -	mm 19.0 19.0 19.0 wet 0 0 0 t/m³ 2.01 2.00 2.00 t/m³ - - -	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.01 2.00 2.00 - t/m³ - - - -	mm 19.0 19.0 19.0 - - wet 0 0 0 - - - t/m³ 2.01 2.00 2.00 - - - t/m³ - - - - - -

Moisture Variation From	2.5%	2.5%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

	Density Ratio (R _{HD}) %	98.5	99.5	98.5	-	-	-
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Material description

No 13 - 15 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R006
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	17/08/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	20/07/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 12:35

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		16	17	18	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.02	2.00	2.00	-	-	-
Field moisture content	%	15.9	14.6	15.6	-	-	-

Test procedure AS 1289.5.7.1

Test No		16	17	18	-	-	-
Compactive effort			-	Star	ndard	-	-
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	2.00	2.01	2.00	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	18.5	16.5	18.0	-	-	-

Moisture Variation From	2.5%	2.0%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	101.0	99.5	100.0	-	-	-

Material description

No 16 - 18 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R007
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	09/08/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	21/07/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 08:03

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		19	20	21	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	1.96	2.02	1.98	-	-	-
Field moisture content	%	18.2	16.8	15.8	-	-	-

Test procedure AS 1289.5.7.1

	19	20	21	-	-	-
			Star	ndard		
тт	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	2.01	2.10	2.00	-	-	-
t∕m³	-	-	-	-	-	-
%	21.0	19.0	18.0	-	-	-
	wet t/m³ t/m³	mm 19.0 wet 0 t/m³ 2.01 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.01 2.10 t/m³ - -	mm 19.0 19.0 19.0 19.0 wet 0 0 0 0 t/m³ 2.01 2.10 2.00 t/m³ - - -	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.01 2.10 2.00 - t/m³ - - - -	mm 19.0 19.0 19.0 - - wet 0 0 0 - - - t/m³ 2.01 2.10 2.00 - - - t/m³ - - - - - -

Moisture Variation From	2.5%	2.0%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

	Density Ratio (R _{HD}) %	,	97.5	96.5	99.0	-	-	-
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Material description

No 19 - 21 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R008
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	20/08/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	23/07/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 10:00

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		22	23	24	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	1.93	1.92	1.93	-	-	-
Field moisture content	%	12.2	12.7	12.6	-	-	-
Test procedure AS 1289.5.7.1 Test No		22	23	24	-		-
Compactive effort				Stan	dard		1

	22	23	24	-	-	-
			Star	ndard		
тт	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t/m³	1.95	1.94	1.95	-	-	-
t/m³	-	-	-	-	-	-
%	14.5	15.0	14.5	-	-	-
	wet t/m ³ t/m ³	mm 19.0 wet 0 t/m³ 1.95 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 1.95 1.94 t/m³ - -	mm 19.0 19.0 19.0 19.0 wet 0 0 0 0 t/m³ 1.95 1.94 1.95	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 1.95 1.94 1.95 - t/m³ - - - -	mm 19.0 19.0 19.0 - - wet 0 0 0 - - - t/m³ 1.95 1.94 1.95 - - -

Moisture Variation From	2.5%	2.0%	2.0%	-	-	-
Optimum Moisture Content	dry	dry	dry			

	Density Ratio (R _{HD}) %	99.0	99.0	99.0	-	-	-
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Material description

No 22 - 24 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R009
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	17/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	24/07/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 11:07

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		25	26	27	-	-	-
Location							
		REFER	REFER	REFER			
		то	то	то			
		FIGURE 1	FIGURE 1	FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.01	2.00	1.99	-	-	-
Field moisture content	%	11.3	9.3	11.4	-	-	-
Test procedure AS 1289.5.7.1							
Test No		25	26	27	-	-	-
Compactive effort				Stan	dard		
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-	-

Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	2.01	1.99	1.98	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	13.5	11.0	14.0	-	-	-

Moisture Variation From	2.0%	2.0%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	99.5	100.5	100.5	-	-	-

Material description

No 25 - 27 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R010
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	25/07/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 10:55

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		28	29	30	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.12	2.11	2.13	-	-	-
Field moisture content	%	15.7	16.4	16.0	-	-	-

Test procedure AS 1289.5.7.1

	28	29	30	-	-	-
			Star	ndard		
тт	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t/m³	2.12	2.14	2.14	-	-	-
t/m³	-	-	-	-	-	-
%	16.0	16.5	16.0	-	-	-
	wet t/m³ t/m³	mm 19.0 wet 0 t/m³ 2.12 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.12 2.14	mm 19.0 19.0 19.0 19.0 wet 0 0 0 0 t/m³ 2.12 2.14 2.14	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.12 2.14 2.14 -	mm 19.0 19.0 19.0 - - wet 0 0 0 - - - t/m³ 2.12 2.14 2.14 - - -

Moisture Variation From	0.0%	0.5%	0.0%	-	-	-
Optimum Moisture Content		dry				

	Density Ratio (R _{HD})	%	100.0	99.0	99.5	-	-	-
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Material description

No 28 - 30 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R011
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	17/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	26/07/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 13:35

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		31	32	33	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.00	2.03	2.02	-	-	-
Field moisture content	%	16.5	15.6	16.5	-	-	-

Test procedure AS 1289.5.7.1

Test No		31	32	33	-	-	-
Compactive effort				Star	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	1.99	2.02	2.02	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	18.5	18.0	18.5	-	-	-

Moisture Variation From	2.0%	2.5%	2.0%	-	-	-
Optimum Moisture Content	dry	dry	dry			

	Density Ratio (R _{HD})	%	100.5	100.5	100.0	-	-	-
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Material description

No 31 - 33 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R012
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	23/08/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	27/07/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 11:54

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		34	35	36	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	1.96	1.92	1.94	-	-	-
Field moisture content	%	15.6	16.1	16.6	-	-	-
Test procedure AS 1289.5.7.1							
Test No		34	35	36	-	-	-

	34	35	36	-	-	-
			Star	ndard		
тт	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	1.95	1.96	1.97	-	-	-
t∕m³	-	-	-	-	-	-
%	18.0	19.0	19.0	-	-	-
	wet t/m³ t/m³	mm 19.0 wet 0 t/m³ 1.95 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 1.95 1.96 t/m³ - -	mm 19.0 19.0 19.0 wet 0 0 0 t/m³ 1.95 1.96 1.97 t/m³ - - -	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 1.95 1.96 1.97 - t/m³ - - - -	mm 19.0 19.0 19.0 - <th< td=""></th<>

Moisture Variation From	2.0%	2.5%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	100.5	98.0	98.5	-	-	-

Material description

No 34 - 36 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R013
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	17/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	30/07/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 10:43

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		37	38	39	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	1.91	1.95	1.90	-	-	-
Field moisture content	%	16.6	15.9	16.7	-	-	-

Test procedure AS 1289.5.7.1

	37	38	39	-	-	-	
	Standard						
тт	19.0	19.0	19.0	-	-	-	
wet	0	0	0	-	-	-	
t∕m³	1.92	1.94	1.90	-	-	-	
t∕m³	-	-	-	-	-	-	
%	18.5	18.5	19.5	-	-	-	
	wet t/m ³ t/m ³	mm 19.0 wet 0 t/m³ 1.92 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 1.92 1.94 t/m³ - -	mm 19.0 19.0 19.0 wet 0 0 0 t/m³ 1.92 1.94 1.90 t/m³ - - -	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 1.92 1.94 1.90 - t/m³ - - - -	Standard mm 19.0 19.0 19.0 - - wet 0 0 0 - - - t/m³ 1.92 1.94 1.90 - - - t/m³ - - - - - - -	

Moisture Variation From	2.0%	2.5%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	99.5	100.5	100.5	-	-	-

Material description

No 37 - 39 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R014
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	17/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	07/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 12:18

Test procedure AS 1289 2 1 1 & 5 8 1

Test No		40	41	42	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.02	2.03	2.03	-	-	-
Field moisture content	%	16.0	17.0	16.7	-	-	-

Test procedure AS 1289.5.7.1

	40	41	42	-	-	-	
	Standard						
тт	19.0	19.0	19.0	-	-	-	
wet	0	0	0	-	-	-	
t∕m³	2.03	2.05	2.04	-	-	-	
t∕m³	-	-	-	-	-	-	
%	18.0	17.5	18.5	-	-	-	
	wet t/m³ t/m³	mm 19.0 wet 0 t/m³ 2.03 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.03 2.05 t/m³ - -	mm 19.0 19.0 19.0 wet 0 0 0 t/m³ 2.03 2.05 2.04	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.03 2.05 2.04 - t/m³ - - - -	mm 19.0 19.0 19.0 - <th< td=""></th<>	

Moisture Variation From	2.0%	0.5%	1.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

	Density Ratio (R _{HD}) %	99.5	99.0	99.5	-	-	-
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Material description

No 40 - 42 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R015
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	14/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 11:17

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		43	44	45	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.21	2.23	2.23	-	-	-
Field moisture content	%	12.9	13.1	12.4	-	-	-

Test procedure AS 1289.5.7.1

	43	44	45	-	-	-
		•	Star	ndard	-	
тт	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	2.23	2.28	2.27	-	-	-
t∕m³	-	-	-	-	-	-
%	13.5	13.5	12.0	-	-	-
	wet t/m³ t/m³	mm 19.0 wet 0 t/m³ 2.23 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.23 2.28 t/m³ - -	mm 19.0 19.0 19.0 19.0 wet 0 0 0 0 t/m³ 2.23 2.28 2.27 t/m³ - - -	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.23 2.28 2.27 - t/m³ - - - -	mm 19.0 19.0 19.0 - - wet 0 0 0 - - - t/m³ 2.23 2.28 2.27 - - - t/m³ - - - - - - -

Moisture Variation From	0.5%	0.0%	0.5%	-	-	-
Optimum Moisture Content	dry		wet			

Density Ratio (R _{HD})	%	99.5	98.0	98.0	-	-	-

Material description

No 43 - 45 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R016
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	17/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	15/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 13:52

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		46	47	48	-	-	-
Location		· · · · · · · · · · · · · · · · · · ·		ļ		<u> </u>	
	I	REFER	REFER	REFER			
	I	ТО	то	то			
	I	FIGURE 1	FIGURE 1	FIGURE 1			
	I	1 '	1				
	I	1 '	1				
		<u> </u>	L'				
Approximate depth below FSL		<u> </u>	<u> </u>				
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t/m³	2.22	2.20	2.17	-	-	-
Field moisture content	%	12.1	12.2	11.7	-	-	-
Test procedure AS 1289.5.7.1							
Test No		46	47	48	-	-	-
Compactive effort				Stan	Idard		
Oversize rock retained on sieve	mm	19.0	19.0	19.0	_		

mm	19.0	19.0	19.0	-	-	-
wet	1	0	0	-	-	-
t∕m³	2.18	2.19	2.17	-	-	-
t∕m³	2.20	2.20	-	-	-	-
%	14.5	15.0	14.0	-	-	-
	wet t/m³ t/m³	wet 1 t/m³ 2.18 t/m³ 2.20	wet 1 0 t/m³ 2.18 2.19 t/m³ 2.20 2.20	wet 1 0 0 t/m³ 2.18 2.19 2.17 t/m³ 2.20 2.20 -	wet 1 0 0 - t/m³ 2.18 2.19 2.17 - t/m³ 2.20 2.20 - -	wet 1 0 0 - - t/m³ 2.18 2.19 2.17 - - t/m³ 2.20 2.20 - - -

Moisture Variation From	2.5%	2.5%	2.0%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	101.0	100.0	100.0	-	-	-

Material description

No 46 - 48 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R017
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	17/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	16/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 14:53

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		49	50	51	-	-	-
Location							
		REFER	REFER	REFER			
		то	то	то			
		FIGURE 1	FIGURE 1	FIGURE 1			
Approvimate depth below ESI							
Approximate depth below FSL		475	475	475			
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	2.15	2.13	2.11	-	-	-
Field moisture content	%	13.0	13.9	12.1	-	-	-
Test procedure AS 1289.5.7.1							
Test No		49	50	51	-	-	-
Compactive effort				Stan	dard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	2.15	2.14	2.20	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	15.5	16.0	14.5	-	-	-

Moisture Variation From	2.5%	2.0%	2.0%	-	-	-
Optimum Moisture Content	dry	dry	dry			
Optimum Moisture Content	dry	dry	dry			

	Density Ratio (R _{HD})	%	100.0	99.5	96.0	-	-	-
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Material description

No 49 - 51 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R018
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	17/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	17/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 14:35

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		52	53	54	-	-	-
Location							
		REFER	REFER	REFER			
		то	то	то			
		FIGURE 1	FIGURE 1	FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	1.99	2.00	2.00	-	-	-
Field moisture content	%	17.5	14.1	13.8	-	-	-

	52	53	54	-	-	-	
	Standard						
тт	19.0	19.0	19.0	-	-	-	
wet	4	9	2	-	-	-	
t∕m³	2.07	2.06	2.09	-	-	-	
t∕m³	2.08	2.09	2.10	-	-	-	
%	18.0	15.0	14.5	-	-	-	
	wet t/m³ t/m³	mm 19.0 wet 4 t/m³ 2.07 t/m³ 2.08	wet 4 9 t/m³ 2.07 2.06 t/m³ 2.08 2.09	mm 19.0 19.0 19.0 wet 4 9 2 t/m³ 2.07 2.06 2.09 t/m³ 2.08 2.09 2.10	mm 19.0 19.0 19.0 - wet 4 9 2 - t/m³ 2.07 2.06 2.09 - t/m³ 2.08 2.09 2.10 -	mm 19.0 19.0 19.0 - - wet 4 9 2 - - t/m³ 2.07 2.06 2.09 - - t/m³ 2.08 2.09 2.10 - -	

Moisture Variation From	0.5%	1.0%	0.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	95.5	95.5	95.5	-	-	-

Material description

No 52 - 54 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R019
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	17/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	21/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 12:19

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		55	56	57	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.03	1.96	2.02	-	-	-
Field moisture content	%	15.8	15.2	16.2	-	-	-

Test procedure AS 1289.5.7.1

Test No		55	56	57	-	-	-	
Compactive effort		Standard						
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-	
Percent of oversize material	wet	0	0	0	-	-	-	
Peak Converted Wet Density	t∕m³	2.03	1.95	2.02	-	-	-	
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-	
Optimum Moisture Content	%	17.0	17.0	18.0	-	-	-	

Moisture Variation From	1.0%	1.5%	1.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	100.0	100.0	99.5	-	-	-

Material description

No 55 - 57 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R020
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	26/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	24/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 12:15

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		58	59	60	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.04	2.03	2.01	-	-	-
Field moisture content	%	23.5	20.8	20.8	-	-	-

Test procedure AS 1289.5.7.1

	58	59	60	-	-	-	
	Standard						
тт	19.0	19.0	19.0	-	-	-	
wet	0	0	0	-	-	-	
t∕m³	2.08	2.07	2.06	-	-	-	
t∕m³	-	-	-	-	-	-	
%	24.0	21.5	21.0	-	-	-	
	wet t/m ³ t/m ³	mm 19.0 wet 0 t/m³ 2.08 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.08 2.07 t/m³ - -	mm 19.0 19.0 19.0 19.0 wet 0 0 0 0 t/m³ 2.08 2.07 2.06 t/m³ - - -	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.08 2.07 2.06 - t/m³ - - - -	mm 19.0 19.0 19.0 - - wet 0 0 0 - - - t/m³ 2.08 2.07 2.06 - - - t/m³ - - - - - - -	

Moisture Variation From	0.5%	0.5%	0.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	98.0	98.0	97.5	-	-	-

Material description

No 58 - 60 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R021
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	17/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	25/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 12:22

Test procedure AS 1289.2.1.1 & 5.8.1

Test No	I	61	62	63	-	-	-
Location	·			Ī			Ī
	I	REFER	REFER	REFER			
	ļ	то	то	то			1 1
	I	FIGURE 1	FIGURE 1	FIGURE 1			1
	I	1	1	í P			1 1
	I	1	1	í P			1 1
	I						
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	1.95	1.98	1.96	-	-	-
Field moisture content	%	20.0	19.3	15.7	-	-	-
Test procedure AS 1289.5.7.1							
Test No	-	61	62	63	-	-	-
Compactive effort		Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t/m³	1.94	1.96	1.99	-		-

Optimum Moisture Content %	22.5	21.5	17.5	-	-	-
Moisture Variation From	2.5%	2.0%	2.0%	-	-	-
Optimum Moisture Content	dry	dry	dry			

-

-

-

-

-

-

t/m³

	Density Ratio (R _{HD})	%	100.5	101.0	98.5	-	-	-
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Material description

No 61 - 63 Clay Fill

Adjusted Peak Converted Wet Density



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R022
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	06/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	04/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 12:25

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		64	65	66	-	-	-
Location							
		REFER	REFER	REFER			
		то	то	то			
		FIGURE 1	FIGURE 1	FIGURE 1			
Approximate depth below FSL							
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	1.89	1.90	1.90	-	-	-
Field moisture content	%	15.4	16.2	15.7	-	-	-
Test procedure AS 1289.5.7.1							
Test No		64	65	66	-	-	-
Compactive effort				Stan	dard		
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	1.90	1.90	1.89	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	17.0	19.0	18.0	-	-	-
- ·							
							-
Moisture Variation From		2.0%	2.5%	2.5%	-	-	

Moisture Variation From	2.0%	2.5%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	99.5	100.0	100.5	-	-	-

Material description

No 64 - 66 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R023
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	17/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	04/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 12:49

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		67	68	69	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.00	2.02	2.00	-	-	-
Field moisture content	%	16.7	16.9	13.4	-	-	-

Test procedure AS 1289.5.7.1

Test No		67	68	69	-	-	-
Compactive effort				Star	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t/m³	2.00	2.00	1.98	-	-	-
Adjusted Peak Converted Wet Density	t/m³	-	-	-	-	-	-
Optimum Moisture Content	%	19.0	19.5	15.5	-	-	-

Moisture Variation From	2.0%	2.5%	2.0%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	100.5	100.5	100.5	-	-	-

Material description

No 67 - 69 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R024
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	07/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 11:42

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		70	71	72	73	74	75
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1					
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	1.90	1.91	1.91	2.05	2.06	2.06
Field moisture content	%	10.5	10.1	10.4	15.6	15.5	17.3
Test procedure AS 1289.5.7.1							
Test No		70	71	72	73	74	75
Compactive effort				Stan	dard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0	0
Peak Converted Wet Density	t∕m³	1.94	1.94	1.93	2.09	2.06	2.12
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	11.0	10.5	10.5	18.0	16.0	19.0
Moisture Variation From		0.5%	0.5%	0.0%	2.5%	0.0%	1.5%
Optimum Moisture Content		dry	dry		dry		dry
		-					•
Density Ratio (R _{HD})	%	98.0	98.0	99.0	98.0	99.5	97.5
Material description							
No 70 - 75 Clay Fill							



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R025
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	15/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	11/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 11:32

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		76	77	78	79	80	81			
Location										
	I	REFER	REFER	REFER	REFER	REFER	REFER			
	I	то	то	то	то	то	то			
	i	FIGURE 1								
	I			1.0-2.						
	I	1	1				1			
	I	1	1							
Approximate depth below FSL		l'	[]							
Measurement depth	тт	175	175	175	175	175	175			
Field wet density	t∕m³	2.03	1.81	1.86	1.86	1.83	1.82			
Field moisture content	%	24.5	23.7	22.5	19.9	20.6	16.0			
Test procedure AS 1289.5.7.1										
Test No		76	77	78	79	80	81			
Compactive effort					ndard					
Oversize rock retained on sieve	тт	19.0	19.0	19.0	19.0	19.0	19.0			
Percent of oversize material	wet	0	0	0	0	0	0			
Peak Converted Wet Density	t∕m³	2.08	1.82	1.87	1.91	1.85	1.84			
Adjusted Peak Converted Wet Density	t∕m³	<u> </u>	<u> </u>	- '	-	- '	-			
Optimum Moisture Content	%	27.5	26.0	25.0	22.0	22.5	18.0			
Moisture Variation From		2.0%	2.0%	2.5%	2.0%	2.0%	2.0%			
Optimum Moisture Content	I	dry	dry	dry	dry	dry	dry			
- F		<u> </u>	<u> </u>	<u> </u>	1 .	1	· ·			
Density Ratio(R _{HD})	%	97.5	99.5	99.5	97.5	99.5	99.0			
							<u> </u>			
Material description										
Vialenai description										
No 76 - 81 Clay Fill										
1010 01 0.0,										



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R026
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	23/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	11/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 11:37

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		82	83	84	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.00	2.01	2.03	-	-	-
Field moisture content	%	15.9	13.2	13.1	-	-	-

Test procedure AS 1289.5.7.1

Test No		82	83	84	-	-	-	
Compactive effort		Standard						
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-	
Percent of oversize material	wet	0	0	0	-	-	-	
Peak Converted Wet Density	t∕m³	2.01	2.02	2.04	-	-	-	
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-	
Optimum Moisture Content	%	18.5	15.5	15.5	-	-	-	

Moisture Variation From	2.5%	2.0%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	99.5	99.5	100.0	-	-	-

Material description

No 82 - 84 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R027
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	04/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	17/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 07:57

Test procedure AS 1289.2.1.1 & 5.8.1

Test No	I	85	86	87	88	- '	-
Location		ľ	· · · · ·		1		
	,	REFER	REFER	REFER	REFER		1
	,	то	то	то	то		1
	,	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1		1
	,	1	1		'		1
	,	1	1		'		1
	!	<u> </u> '	<u> </u>		<u> </u> '		
Approximate depth below FSL	!	<u> </u>	<u> </u>		<u> </u>		
Measurement depth	mm	175	175	175	175	-	-
Field wet density	t/m³	1.93	1.89	1.93	1.83	-	-
Field moisture content	%	15.4	15.4	16.1	18.5	-	-
Test procedure AS 1289.5.7.1							
Test No	'	85	86	87	88	-	-
Compactive effort	'	<u> </u>	.		ndard		
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	-	-
Percent of oversize material	wet	7	0	5	5	-	-
Peak Converted Wet Density	t∕m³	1.91	1.89	1.92	1.80	-	-
Adjusted Peak Converted Wet Density	t∕m³	1.94	-	1.94	1.83	-	-
Optimum Moisture Content	%	17.5	18.0	18.0	21.5	-	<u> </u>
Moisture Variation From		2.0%	2.5%	2.0%	2.5%	-	-
Optimum Moisture Content	,	dry	dry	dry	dry		1
							4
Density Ratio (R _{HD})	%	100.0	100.0	99.5	100.0	-	-
	<u> </u>						L
Material description							
No 85 - 88 Clay Fill							
No oo o							



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R028
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	04/10/2018
Client	ROKON (RICHMOND)	Tested by	GW
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	18/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 10:04

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		89	90	91	92	93	94
ocation							
		REFER	REFER	REFER	REFER	REFER	REFER
	ļ	то	то	то	то	то	то
	ļ	FIGURE 1	FIGURE				
	ļ						
Approximate depth below FSL							
Neasurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	1.77	1.82	1.83	1.92	1.99	1.88
Field moisture content	%	18.2	18.4	21.0	9.4	13.4	11.4
Test procedure AS 1289.5.7.1		89	90	91	92	93	94
Compactive effort		Standard					
Dversize rock retained on sieve	mm	37.5	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	5	19.0	13.0	4	10	0
Peak Converted Wet Density	t/m ³	1.77	1.79	1.79	1.91	2.00	1.88
Adjusted Peak Converted Wet Density	t/m ³	-	1.88	1.85	1.93	2.00	-
Dptimum Moisture Content	%	20.0	21.0	23.5	11.5	15.5	14.0
		20.0	2	20.0		10.0	1
Moisture Variation From		2.0%	2.5%	2.0%	2.5%	2.0%	2.5%
Optimum Moisture Content		dry	dry	dry	dry	dry	dry
Optimum moisture content		ary	ary	ary	ary	ary	ury



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R029
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	23/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	26/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 07:54

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		95	96	97	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	1.99	2.04	2.01	-	-	-
Field moisture content	%	9.2	8.8	10.8	-	-	-

	95	96	97	-	-	-
			Star	ndard		
тт	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	2.03	2.06	2.06	-	-	-
t∕m³	-	-	-	-	-	-
%	11.5	11.0	13.0	-	-	-
	wet t/m³ t/m³	mm 19.0 wet 0 t/m³ 2.03 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.03 2.06 t/m³ - -	mm 19.0 19.0 19.0 wet 0 0 0 t/m³ 2.03 2.06 2.06 t/m³ - - -	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.03 2.06 2.06 - t/m³ - - - -	mm 19.0 19.0 19.0 - <th< td=""></th<>

Moisture Variation From	2.5%	2.5%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio(R _{HD})	%	98.0	99.0	98.0	-	-	-

Material description

No 95 - 97 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R030
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	23/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	25/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 08:06

Test procedure AS 1289 2 1 1 & 5 8 1

Test No		98	99	100	-	-	-
Location							
		REFER	REFER	REFER			
		то	то	то			
		FIGURE 1	FIGURE 1	FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	1.87	1.83	1.84	-	-	-
Field moisture content	%	8.7	8.4	9.8	-	-	-
Test procedure AS 1289.5.7.1							
Test No		98	99	100	-	-	-
Compactive effort				Stan	dard		•
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	1.91	1.87	1.87	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-

Moisture Variation From	2.0%	2.5%	2.0%	-	-	-
Optimum Moisture Content	dry	dry	dry			

10.5

12.0

-

-

-

10.5

%

	Density Ratio (R _{HD})	%	98.0	98.0	98.5	-	-	-
--	----------------------------------	---	------	------	------	---	---	---

Material description

No 98 - 100 Clay Fill

Optimum Moisture Content



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R031
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	23/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	26/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 08:30

Test procedure AS 1289.2.1.1 & 5.8.1

		101	102	103	-	-	-
Location							
		REFER	REFER	REFER			
		то	то	то			
		FIGURE 1	FIGURE 1	FIGURE 1			
Approximate depth below FSL							
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	2.20	2.20	2.14	-	-	-
Field moisture content	%	9.1	9.4	8.7	-	-	-
Test procedure AS 1289.5.7.1							
Test No		101	102	103	-	-	-
Test No Compactive effort			-	Stan	- dard	-	-
Test No Compactive effort Oversize rock retained on sieve	mm	19.0	19.0	Stan 19.0		-	-
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Stan 19.0 0	dard		
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0	19.0	Stan 19.0	dard -		-
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.21	19.0 0 2.22	Stan 19.0 0 2.16 -	dard - -		-
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³	19.0 0 2.21	19.0 0	Stan 19.0 0 2.16	dard - - -		-
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.21	19.0 0 2.22	Stan 19.0 0 2.16 -	dard - - - -		
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.21	19.0 0 2.22	Stan 19.0 0 2.16 -	dard - - - -		
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 2.21 - 11.0	19.0 0 2.22 - 11.5	Stan 19.0 0 2.16 - 11.5	dard - - - -		
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 2.21 - 11.0 2.0%	19.0 0 2.22 - 11.5 2.0%	Stan 19.0 0 2.16 - 11.5 2.5%	dard - - - -		

Material description

No 101 - 103 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R032
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	23/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	27/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 08:30

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		104	105	106	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.13	2.11	2.12	-	-	-
Field moisture content	%	9.8	7.8	8.3	-	-	-

Test procedure AS 1289.5.7.1

	104	105	106	-	-	-
		•	Star	dard	-	
mm	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	2.14	2.14	2.13	-	-	-
t∕m³	-	-	-	-	-	-
%	12.0	10.0	11.0	-	-	-
	wet t/m³ t/m³	mm 19.0 wet 0 t/m³ 2.14 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.14 2.14	mm 19.0 19.0 19.0 wet 0 0 0 t/m³ 2.14 2.14 2.13	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.14 2.14 2.13 - t/m³ - - - -	mm 19.0 19.0 19.0 - <th< td=""></th<>

Moisture Variation From	2.0%	2.5%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

	Density Ratio (R _{HD}) %	99.5	98.5	99.5	-	-	-
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Material description

No 104 - 106 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R033
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	12/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	03/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 10:55

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		107	108	109	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.18	2.19	2.20	-	-	-
Field moisture content	%	11.8	12.1	9.3	-	-	-

Test procedure AS 1289.5.7.1

	107	108	109	-	-	-
			Star	ndard		
тт	19.0	19.0	19.0	-	-	-
wet	5	2	5	-	-	-
t/m³	2.26	2.29	2.24	-	-	-
t/m³	2.27	2.29	2.25	-	-	-
%	10.0	9.5	8.5	-	-	-
	wet t/m³ t/m³	mm 19.0 wet 5 t/m³ 2.26 t/m³ 2.27	mm 19.0 19.0 wet 5 2 t/m³ 2.26 2.29 t/m³ 2.27 2.29	mm 19.0 19.0 19.0 wet 5 2 5 t/m³ 2.26 2.29 2.24 t/m³ 2.27 2.29 2.25	mm 19.0 19.0 19.0 - wet 5 2 5 - t/m³ 2.26 2.29 2.24 - t/m³ 2.27 2.29 2.25 -	mm 19.0 19.0 19.0 - - wet 5 2 5 - - t/m³ 2.26 2.29 2.24 - - t/m³ 2.27 2.29 2.25 - -

Moisture Variation From	2.0%	2.5%	0.5%	-	-	-
Optimum Moisture Content	wet	wet	wet			

	Density Ratio (R _{HD})	%	96.0	95.5	98.0	-	-	-
--	----------------------------------	---	------	------	------	---	---	---

Material description

No 107 - 109 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R034
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	23/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	05/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 10:26

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		110	111	112	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.08	2.07	2.09	-	-	-
Field moisture content	%	11.3	10.0	10.2	-	-	-

Test procedure AS 1289.5.7.1

	110	111	112	-	-	-	
		Standard					
тт	19.0	19.0	19.0	-	-	-	
wet	0	0	0	-	-	-	
t∕m³	2.11	2.09	2.12	-	-	-	
t∕m³	-	-	-	-	-	-	
%	9.5	7.5	8.0	-	-	-	
	wet t/m³ t/m³	mm 19.0 wet 0 t/m³ 2.11 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.11 2.09 t/m³ - -	mm 19.0 19.0 19.0 wet 0 0 0 t/m³ 2.11 2.09 2.12 t/m³ - - -	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.11 2.09 2.12 - t/m³ - - - -	mm 19.0 19.0 19.0 - <th< td=""></th<>	

Moisture Variation From	2.0%	2.5%	2.0%	-	-	-
Optimum Moisture Content	wet	wet	wet			

	Density Ratio (R _{HD})	%	99.0	99.0	98.5	-	-	-
--	----------------------------------	---	------	------	------	---	---	---

Material description

No 110 - 112 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R035
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	23/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	06/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 13:29

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		113	114	115	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.11	2.11	2.12	-	-	-
Field moisture content	%	13.9	11.0	12.9	-	-	-

Test procedure AS 1289.5.7.1

	113	114	115	-	-	-
		-	Star	dard	-	-
тт	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	2.14	2.14	2.17	-	-	-
t∕m³	-	-	-	-	-	-
%	14.5	13.5	13.0	-	-	-
	wet t/m³ t/m³	mm 19.0 wet 0 t/m³ 2.14 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.14 2.14 t/m³ - -	mm 19.0 19.0 19.0 19.0 wet 0 0 0 0 t/m³ 2.14 2.14 2.17	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.14 2.14 2.17 - t/m³ - - - -	mm 19.0 19.0 19.0 - <th< td=""></th<>

Moisture Variation From	0.5%	2.5%	0.0%	-	-	-
Optimum Moisture Content	dry	dry				

	Density Ratio (R _{HD})	%	99.0	98.5	97.5	-	-	-
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Material description

No 113 - 115 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R036
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	23/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	10/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 09:31

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		116	117	118	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.08	2.07	2.04	-	-	-
Field moisture content	%	13.5	14.0	11.8	-	-	-

Test procedure AS 1289.5.7.1

Test No		116	117	118	-	-	-
Compactive effort				Star	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	2.12	2.10	2.07	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	13.5	14.0	13.0	-	-	-

Moisture Variation From	0.0%	0.0%	1.5%	-	-	-
Optimum Moisture Content			dry			

Density Ratio (R _{HD})	%	98.5	98.5	98.0	-	-	-

Material description

No 116 - 118 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R037
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	12/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	12/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 12:34

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		119	120	121	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.14	2.14	2.14	-	-	-
Field moisture content	%	10.5	12.4	11.5	-	-	-

Test procedure AS 1289.5.7.1

	119	120	121	-	-	-
			Star	ndard		
тт	19.0	19.0	19.0	-	-	-
wet	0	2	3	-	-	-
t∕m³	2.22	2.24	2.23	-	-	-
t∕m³	-	2.24	2.23	-	-	-
%	11.0	10.5	11.5	-	-	-
	wet t/m³ t/m³	mm 19.0 wet 0 t/m³ 2.22 t/m³ -	mm 19.0 19.0 wet 0 2 t/m³ 2.22 2.24 t/m³ - 2.24	mm 19.0 19.0 19.0 wet 0 2 3 t/m³ 2.22 2.24 2.23 t/m³ - 2.24 2.23	mm 19.0 19.0 19.0 - wet 0 2 3 - t/m³ 2.22 2.24 2.23 - t/m³ - 2.24 2.23 -	mm 19.0 19.0 19.0 - - wet 0 2 3 - - t/m³ 2.22 2.24 2.23 - - t/m³ - 2.24 2.23 - -

Moisture Variation From	0.5%	2.0%	0.0%	-	-	-
Optimum Moisture Content	dry	wet				

	Density Ratio (R _{HD})	%	97.0	95.5	96.0	-	-	-
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Material description

No 119 - 121 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R038
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	13/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 11:36

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		122	123	124	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.13	2.06	2.07	-	-	-
Field moisture content	%	11.7	10.9	8.5	-	-	-

Test procedure AS 1289.5.7.1

Test No		122	123	124	-	-	-
Compactive effort				Star	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	2.12	2.08	2.09	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	9.5	10.5	8.5	-	-	-

Moisture Variation From	2.0%	0.5%	0.0%	-	-	-
Optimum Moisture Content	wet	wet				

	Density Ratio (R _{HD})	%	100.5	99.0	99.5	-	-	-
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Material description

No 122 - 124 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R039
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	14/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 13:38

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		125	126	127	-	-	-
Location		REFER	REFER	REFER			
		TO FIGURE 1	TO FIGURE 1	TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t/m³	2.11	2.08	2.13	-	-	-
Tota wor donony	4						
-	%	8.6	11.1	8.8	-	-	-
Field moisture content Test procedure AS 1289.5.7.1					-	-	-
Field moisture content Test procedure AS 1289.5.7.1 Test No		8.6 125	11.1 126	127	-	1	I
Field moisture content Test procedure AS 1289.5.7.1 Test No Compactive effort					-	1	I
Field moisture content Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve	%	125	126	127 Stan	- dard	-	-
Field moisture content Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	% mm	125 19.0	126 19.0	127 Stan 19.0	- dard -	-	-
Field moisture content Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	% mm wet	125 19.0 0	126 19.0 0	127 Stan 19.0 0	- dard - -	-	- - -
Field moisture content Field moisture content Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	% mm wet t/m ³	125 19.0 0 2.13	126 19.0 0	127 Stan 19.0 0	- dard - - -	-	-
Field moisture content Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	% mm wet t/m ³ t/m ³	125 19.0 0 2.13 -	126 19.0 0 2.10 -	127 Stan 19.0 0 2.17 -	- dard - - - -	- - - - -	- - - - -

Density Ratio (R _{HD})	%	98.5	99.5	98.0	-	-	-

Material description

No 125 - 127 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R040
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	19/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 12:44

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		128	129	130	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							1
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.12	2.13	2.09	-	-	-
Field moisture content	%	8.9	9.0	11.2	-	-	-

Test procedure AS 1289.5.7.1

Test No		128	129	130	-	-	-
Compactive effort				Star	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	2.15	2.17	2.12	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	8.0	8.5	10.5	-	-	-

Moisture Variation From	1.0%	0.5%	0.5%	-	-	-
Optimum Moisture Content	wet	wet	wet			

	Density Ratio (R _{HD})	%	99.0	98.0	98.5	-	-	-
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Material description

No 128 - 130 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R041
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	20/09/18
Location	WERRIBEE	Checked by	JHF
Location	WERRIBEE	Спескеа by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 15:46

Test procedure AS 1289.2.1.1 & 5.8.1

Test No	. 1	131	132	133	134	135	136
Location		ľ					
	P	REFER	REFER	REFER	REFER	REFER	REFER
	,	то	то	то	то	то	то
	,	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1
	I	1	1		1		1
	I	1	1		1		1
Assessments don'th bolow ESI		 '	 '	 '	 '	 '	
Approximate depth below FSL Measurement depth		175	175	175	175	175	175
Field wet density	mm t/m³	2.12	2.09	2.06	2.07	2.06	2.02
Field wet derisity Field moisture content	<i>U</i> m ³ %	14.1	2.09	2.06	2.07	2.06	14.5
	70	14.1	13.0	13.3	14.5	10.0	14.0
Test procedure AS 1289.5.7.1							
Test No		131	132	133	134	135	136
Compactive effort				Star	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0	0
Peak Converted Wet Density	t∕m³	2.14	2.12	2.10	2.10	2.10	2.06
Adjusted Peak Converted Wet Density	t∕m³	<u> </u>	-	<u> </u>		-	<u> </u>
Optimum Moisture Content	%	14.0	13.5	14.0	14.5	15.0	14.5
Moisture Variation From		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Optimum Moisture Content	1	1					1
		۰ <u>ــــــ</u>	<u>.</u>	۰ <u>ــــــــــــــــــــــــــــــــــــ</u>	۱ <u>ــــــــــــــــــــــــــــــــــــ</u>	۱ <u>ــــــــــــــــــــــــــــــــــــ</u>	L
Density Ratio(R _{HD})	%	99.5	98.5	98.5	98.5	98.0	98.0
		·	·	·	·	·	
A A stanta for the particular							
Material description							
No 131 - 136 Clay Fill							



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R042
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	21/09/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 10:49

Test procedure AS 1289.2.1.1 & 5.8.1

Test No	- I	137	138	139	140	141	142
Location							
	P	REFER	REFER	REFER	REFER	REFER	REFER
	,	то	то	то	то	то	то
	P	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1
	I	'	1	1	1	1	
	I	'		1	1		
		 '	 '	 '	 '	 '	
Approximate depth below FSL		475	475	475	475	475	
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m³	2.13	2.06	2.04	2.09	2.00	2.02
Field moisture content	%	13.9	14.9	14.0	14.1	12.4	13.1
Test procedure AS 1289.5.7.1							
Test No		137	138	139	140	141	142
Compactive effort				Star	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0	0
Peak Converted Wet Density	t∕m³	2.16	2.09	2.07	2.12	2.04	2.04
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	14.0	15.0	14.0	14.0	15.0	11.0
Moisture Variation From		0.0%	0.0%	0.0%	0.0%	2.5%	2.5%
Optimum Moisture Content	I					dry	wet
	. <u></u>	<u>ı </u>	<u>. </u>	<u>. </u>	<u>. </u>	1 - ,	1
Density Ratio (R _{HD})	%	98.5	98.5	98.5	98.5	98.0	99.0
Material description							
No 137 - 142 Clay Fill							



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R043
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	02/10/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 15:00

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		143	144	145	-	-	-
Location							
		REFER	REFER	REFER			
		то	то	то			
		FIGURE 1	FIGURE 1	FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	1.98	1.92	2.07	-	-	-
Field moisture content	%	25.8	23.5	23.4	-	-	-

Test procedure AS 1289.5.7.1

	143	144	145	-	-	-
		-	Star	dard		
тт	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	2.01	1.95	2.12	-	-	-
t∕m³	-	-	-	-	-	-
%	28.0	25.5	26.0	-	-	-
	wet t/m³ t/m³	mm 19.0 wet 0 t/m³ 2.01 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.01 1.95 t/m³ - -	mm 19.0 19.0 19.0 wet 0 0 0 t/m³ 2.01 1.95 2.12 t/m³ - - -	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.01 1.95 2.12 - t/m³ - - - -	mm 19.0 19.0 19.0 - <th< td=""></th<>

Moisture Variation From	2.0%	1.5%	2.0%	-	-	-
Optimum Moisture Content	dry	dry	dry			

	Density Ratio (R _{HD}) %	98.5	98.5	98.0	-	-	-
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Material description

No 143 - 145 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R044
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	03/10/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 13:51

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		146	147	148	-	-	-
Location							
		REFER	REFER	REFER			
		то	то	то			
		FIGURE 1	FIGURE 1	FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	1.87	1.90	1.92	-	-	-
Field moisture content	%	23.4	21.7	26.5	-	-	-

Test procedure AS 1289.5.7.1

Test No		146	147	148	-	-	-
Compactive effort				Star	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	1.92	1.94	1.94	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	23.5	22.0	26.5	-	-	-

Moisture Variation From Optimum Moisture Content	0.0%	0.5% dry	0.0%	-	-	-
				•		

	Density Ratio (R _{HD}) %	97.5	97.5	99.0	-	-	-
--	------------------------------------	------	------	------	---	---	---

Material description

No 146 - 148 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R045
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	04/10/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 13:52

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		149	150	151	-	-	-
Location				ļ ī			
	l	REFER	REFER	REFER			
	ļ	то	то	то			
	I	FIGURE 1	FIGURE 1	FIGURE 1			
Assessments donth holow FSI			 	<u> </u>]			
Approximate depth below FSL		·'	<u> </u>	<u> </u>		 	────
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	1.82	1.82	1.91	-	-	-
Field moisture content	%	16.1	18.2	14.0	-	-	-
Test procedure AS 1289.5.7.1							
Test No		149	150	151	-	-	-
Compactive effort				Stan	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	1.86	1.84	1.92	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	- '		-	-	-
Optimum Moisture Content	%	17.5	20.5	16.0	-	-	-

Moisture Variation From	1.5%	2.0%	2.0%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	98.0	99.0	99.5	-	-	-

Material description

No 149 - 151 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R046
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	05/10/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 13:52

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		152	153	154	155	156	157
Location		-				1	
	I	REFER	REFER	REFER	REFER	REFER	REFER
	1	то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1
	I	1 '	1				
	I	1 '	1				
Approximate depth below FSL							
Measurement depth	тт	175	175	175	175	175	175
Field wet density	t∕m³	1.92	1.94	2.01	2.01	1.96	1.97
Field moisture content	%	16.0	12.6	16.7	13.2	14.4	14.5
Test procedure AS 1289.5.7.1				, 	, 		
Test No		152	153	154	155	156	157
Compactive effort		Standard					
Oversize rock retained on sieve	тт	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0	0
Peak Converted Wet Density	t∕m³	1.95	1.95	2.03	2.06	2.00	2.00
Adjusted Peak Converted Wet Density	t∕m³	<u> </u>	<u> </u>	<u> </u>	<u> </u>	-	-
Optimum Moisture Content	%	17.5	14.5	19.0	15.5	16.0	16.0
Moisture Variation From		1.5%	2.0%	2.0%	2.5%	1.5%	1.5%
Optimum Moisture Content	I	dry	dry	dry	dry	dry	dry
		- ,			- ,		- ,
Density Ratio (R _{HD})	%	98.5	99.5	99.5	97.5	98.5	98.5
	/0	00.0	0010	00.0	01.0	00.0	00.0
Material description							
·							
No 152 - 157 Clay Fill							



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R047
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	01/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 09:58

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		158	159	160	-	-	-
Location							
		REFER	REFER	REFER			
		то	то	то			
		FIGURE 1	FIGURE 1	FIGURE 1			
Approximate depth below FSL							
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t/m³	2.24	2.23	2.16	-	-	-
Field moisture content	%	30.5	25.0	18.7	-	-	-
Test procedure AS 1289.5.7.1							
Test No		158	159	160	-	-	-
Compactive effort			•	Stan	dard		
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t/m³	2.25	2.24	2.17	-	-	-
		î					1

Optimum Moisture Content %	32.5	27.5	22.0	-	-	•
Moisture Variation From	1.5%	2.0%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

-

-

-

-

-

-

t/m³

	Density Ratio (R _{HD})	%	100.0	99.5	99.5	-	-	-
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Material description

No 158 - 160 Clay Fill

Adjusted Peak Converted Wet Density



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R048
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	02/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 16:18

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		161	162	163	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.25	2.20	2.24	-	-	-
Field moisture content	%	10.1	11.1	13.3	-	-	-

Test procedure AS 1289.5.7.1

Test No		161	162	163	-	-	-
Compactive effort				Star	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	2.25	2.25	2.28	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	12.0	13.5	15.5	-	-	-

Moisture Variation From	2.0%	2.5%	2.0%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	100.0	98.0	98.5	-	-	-

Material description

No 161 - 163 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R049
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	03/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 11:21

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		164	165	166	-	-	-
Location							
		REFER	REFER	REFER			
		то	то	то			
		FIGURE 1	FIGURE 1	FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.20	2.24	2.24	-	-	-
Field moisture content	%	11.2	10.4	8.7	-	-	-
		<u> </u>				<u> </u>	
Test procedure AS 1289.5.7.1							
Test No		164	165	166	-	-	-
Compactive effort				Stan	dard	,	

			Star	ndard		
тт	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	2.25	2.26	2.26	-	-	-
t∕m³	-	-	-	-	-	-
%	13.5	12.5	11.0	-	-	-
	wet t/m³ t/m³	wet 0 t/m³ 2.25 t/m³ -	wet 0 0 t/m³ 2.25 2.26 t/m³ - -	mm 19.0 19.0 19.0 wet 0 0 0 t/m³ 2.25 2.26 2.26 t/m³ - - -	wet 0 0 0 - t/m³ 2.25 2.26 2.26 - t/m³ - - - -	mm 19.0 19.0 19.0 - - wet 0 0 0 - - t/m³ 2.25 2.26 2.26 - - t/m³ - - - - -

Moisture Variation From	2.0%	2.0%	2.0%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	98.0	99.5	99.0	-	-	-

Material description

No 164 - 166 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R050
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	06/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 16:25

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		167	168	169	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.15	2.18	2.19	-	-	-
Field moisture content	%	11.9	13.1	12.8	-	-	-

	167	168	169	-	-	-
		-	Star	dard	-	-
тт	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	2.17	2.22	2.20	-	-	-
t∕m³	-	-	-	-	-	-
%	14.5	15.5	15.5	-	-	-
	wet t/m ³ t/m ³	mm 19.0 wet 0 t/m³ 2.17 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.17 2.22 t/m³ - -	mm 19.0 19.0 19.0 wet 0 0 0 t/m³ 2.17 2.22 2.20 t/m³ - - -	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.17 2.22 2.20 - t/m³ - - - -	mm 19.0 19.0 19.0 - <th< td=""></th<>

Moisture Variation From	2.5%	2.0%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	99.0	98.5	99.5	-	-	-

Material description

No 167 - 169 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R051
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	08/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 09:56

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		170	171	172	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.01	2.14	2.13	-	-	-
Field moisture content	%	10.8	9.9	10.1	-	-	-

Test procedure AS 1289.5.7.1

	170	171	172	-	-	-
		-	Star	ndard	-	-
mm	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	2.05	2.16	2.19	-	-	-
t∕m³	-	-	-	-	-	-
%	13.0	12.0	12.5	-	-	-
	wet t/m³ t/m³	mm 19.0 wet 0 t/m³ 2.05 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.05 2.16 t/m³ - -	mm 19.0 19.0 19.0 wet 0 0 0 t/m³ 2.05 2.16 2.19 t/m³ - - -	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.05 2.16 2.19 - t/m³ - - - -	mm 19.0 19.0 19.0 - - wet 0 0 0 - - - t/m³ 2.05 2.16 2.19 - - - t/m³ - - - - - - -

Moisture Variation From	2.0%	2.0%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

	Density Ratio (R _{HD}) %	98.0	99.0	97.5	-	-	-
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Material description

No 170 - 172 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R052
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	09/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 11:34

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		173	174	175	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.11	2.14	2.02	-	-	-
Field moisture content	%	10.6	10.3	9.6	-	-	-

Test procedure AS 1289.5.7.1

	173	174	175	-	-	-
		-	Star	ndard	•	-
mm	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	2.16	2.17	2.06	-	-	-
t∕m³	-	-	-	-	-	-
%	12.5	12.5	12.0	-	-	-
	wet t/m³ t/m³	mm 19.0 wet 0 t/m³ 2.16 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.16 2.17 t/m³ - -	mm 19.0 19.0 19.0 19.0 wet 0 0 0 0 t/m³ 2.16 2.17 2.06 t/m³ - - -	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.16 2.17 2.06 - t/m³ - - - -	mm 19.0 19.0 19.0 - - wet 0 0 0 - - - t/m³ 2.16 2.17 2.06 - - - t/m³ - - - - - - -

Moisture Variation From	2.0%	2.0%	2.0%	-	-	-
Optimum Moisture Content	dry	dry	dry			

	Density Ratio (R _{HD})	%	98.0	98.5	98.0	-	-	-
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Material description

No 173 - 175 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R053
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	12/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	10/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 11:56

Test procedure AS 1289.2.1.1 & 5.8.1

	176	177	178	-	1 -	-
	1		1			
I	REFER	REFER	REFER		1	
ļ	то	то	то		1	
ļ	FIGURE 1	FIGURE 1	FIGURE 1		1	
ļ	1	1			1	
ļ	1	1			1	
ļ	ļ					
mm	175	175	175	-	-	-
t∕m³	1.95	1.95	1.94	-	-	-
%	11.3	10.7	11.1	-	-	-
						•
	176	177	178	-	-	-
			Stan	dard	1	<u>,</u>
	t∕m³	REFER TO FIGURE 1 mm 175 t/m³ 1.95 % 11.3	REFER TO REFER TO FIGURE 1 FIGURE 1 mm 175 t/m³ 1.95 % 11.3	REFER TO REFER TO REFER TO REFER TO REFER TO FIGURE 1 FIGURE 1 FIGURE 1 FIGURE 1 mm 175 175 175 t/m³ 1.95 1.95 1.94 % 11.3 10.7 11.1	REFER TO FIGURE 1 REFER TO FIGURE 1 REFER TO FIGURE 1 mm 175 175 1.95 1.95 1.94 % 11.3 10.7 11.1	REFER TO FIGURE 1 REFER TO FIGURE 1 REFER TO FIGURE 1 REFER TO FIGURE 1 mm 175 175 - 1.95 1.95 1.94 - % 11.3 10.7 11.1 - 176 177 178 - -

			Star	idard		
тт	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	2.02	2.02	2.02	-	-	-
t∕m³	-	-	-	-	-	-
%	13.5	12.5	13.5	-	-	-
	wet t/m ³ t/m ³	wet 0 t/m³ 2.02 t/m³ -	wet 0 0 t/m³ 2.02 2.02 t/m³ - -	mm 19.0 19.0 19.0 wet 0 0 0 t/m³ 2.02 2.02 2.02 t/m³ - - -	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.02 2.02 2.02 - t/m³ - - - -	wet 0 0 0 - - t/m³ 2.02 2.02 2.02 - - t/m³ - - - - -

Moisture Variation From	2.0%	2.0%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

	Density Ratio (R _{HD}) %	/	96.5	96.5	96.0	-	-	-	
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Material description

No 176 - 178 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R054
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	13/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 10:56

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		179	180	181	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	1.99	2.00	2.01	-	-	-
Field moisture content	%	11.6	12.5	13.5	-	-	-

Test procedure AS 1289.5.7.1

	179	180	181	-	-	-
	Standard					
mm	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	2.04	2.05	2.04	-	-	-
t∕m³	-	-	-	-	-	-
%	14.5	15.0	15.5	-	-	-
	wet t/m³ t/m³	mm 19.0 wet 0 t/m³ 2.04 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.04 2.05 t/m³ - -	mm 19.0 19.0 19.0 wet 0 0 0 t/m³ 2.04 2.05 2.04	mm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.04 2.05 2.04 - t/m³ - - - -	mm 19.0 19.0 19.0 - <th< td=""></th<>

Moisture Variation From	2.5%	2.5%	2.0%	-	-	-
Optimum Moisture Content	dry	dry	dry			

Density Ratio (R _{HD})	%	98.0	98.0	98.5	-	-	-

Material description

No 179 - 181 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R055
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	06/10/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 11:56

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		182	183	184	-	-	-
Location							
		REFER	REFER	REFER			
		то	то	то			
		FIGURE 1	FIGURE 1	FIGURE 1			
Approximate depth below FSL							
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	2.00	2.02	1.87	-	-	-
Field moisture content	%	10.8	10.0	12.1	-	-	-
Test procedure AS 1289.5.7.1							
Test No		182	183	184	-	-	-
Compactive effort			•	Stan	dard	•	
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	2.03	2.05	1.91	-	-	-
	t∕m³	-	-	-	-	-	-
Adjusted Peak Converted Wet Density	VIII°						

	-

Density Ratio (R _{HD})	%	98.5	98.5	98.0	-	-	-

Material description

No 182 - 184 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R056
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	22/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 11:11

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		185	186	187	-	-	-
Location							
		REFER	REFER	REFER			
		то	то	то			
		FIGURE 1	FIGURE 1	FIGURE 1			
Approximate depth below FSL							
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	2.09	1.89	1.97	-	-	-
Field moisture content	%	13.1	10.6	15.3	-	-	-
-	%	13.1 185	10.6 186	15.3 187	-	-	- -
Field moisture content Test procedure AS 1289.5.7.1 Test No	%				-	I	I
Field moisture content Test procedure AS 1289.5.7.1 Test No Compactive effort	% mm			187	-	I	I
Field moisture content Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve		185	186	187 Stan	- dard	-	-
Field moisture content Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	mm	185 19.0	186 19.0	187 Stan 19.0	- dard -	-	-
Field moisture content Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	mm wet	185 19.0 0	186 19.0 0	187 Stan 19.0 0	- dard - -	-	- - -
Field moisture content Test procedure AS 1289.5.7.1	mm wet t/m³	185 19.0 0 2.14	186 19.0 0	187 Stan 19.0 0 2.00	- dard - - -		- - - -
Field moisture content Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	mm wet t/m³ t/m³	185 19.0 0 2.14	186 19.0 0 1.94	187 Stan 19.0 0 2.00 -	- dard - - -	- - - - -	- - - - -
Field moisture content Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	mm wet t/m³ t/m³	185 19.0 0 2.14	186 19.0 0 1.94	187 Stan 19.0 0 2.00 -	- dard - - -	- - - - -	- - - - -

Density Ratio (R _{HD})	%	97.5	97.5	98.5	-	-	-

Material description

No 185 - 187 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R057
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	23/08/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 11:11

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		188	189	190	-	-	-
Location							
		REFER	REFER	REFER			
		то	то	то			
		FIGURE 1	FIGURE 1	FIGURE 1			
Approximate depth below FSL							
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	2.06	2.03	1.94	-	-	-
Field moisture content	%	10.7	7.9	9.2	-	-	-
Test procedure AS 1289.5.7.1 Test No		188	189	190	-	-	-
Compactive effort				Stan	dard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	2.09	2.08	1.95	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	12.5	10.0	11.0	-	-	-
		•					
Maisture Manistice From		2.00/	2.00/	2.00/		1	
Moisture Variation From		2.0%	2.0%	2.0%	-	-	-
Moisture Variation From Optimum Moisture Content		2.0% dry	2.0% dry	2.0% dry	-	-	-

Material description

No 188 - 190 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R057
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	25/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	08/10/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 13:56

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		191	192	193	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL				<u> </u>			
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	2.02	1.99	1.92	-	-	-
Field moisture content	%	12.8	13.9	12.6	-	-	-
Test procedure AS 1289.5.7.1 Test No Compactive effort		191	192	193 Stan	- ndard	-	-
Oversize rock retained on sieve	mm	19.0	19.0	19.0		-	<u> </u>
Percent of oversize material	wet	0	0	0	_	_	-
Peak Converted Wet Density	t/m ³	2.07	2.06	1.99	-	-	-
Adjusted Peak Converted Wet Density	t/m³			-	-	-	-
		15.5	16.0	15.0	_	_	-
Optimum Moisture Content	%	1 10.0	10.0	15.0	-		
Optimum Moisture Content	<u> %</u>					l	,
Optimum Moisture Content Moisture Variation From	<u> </u>	2.5%	2.0%	2.5%	-	-	-
Optimum Moisture Content	<u> </u>				-	-	-

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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R059
6 - 8 Rose Aveni	ue, Croydon 3136	Date Issued	09/11/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	09/10/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 14:37

Test procedure AS 1289.2.1.1 & 5.8.1

Test No	I	194	195	196	197	198	199
Location		1					
	,	REFER	REFER	REFER	REFER	REFER	REFER
	,	то	то	то	то	то	то
	,	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1
	,	'	1	'	1	'	
	,	'	1	'	1	'	1
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
Approximate depth below FSL	'	<u> </u>	<u> </u> '	<u> </u>	<u> </u> '	<u> </u>	<u> </u>
Measurement depth	mm	-	175	175	175	175	175
Field wet density	t∕m³		2.03	2.00	1.85	1.87	1.85
Field moisture content	%	13.1	17.2	14.7	15.9	26.9	10.1
Test procedure AS 1289.5.7.1							
Test No	'	194	195	196	197	198	199
Compactive effort	'				ndard		<u> </u>
Oversize rock retained on sieve	тт		19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet		0	0	0	0	0
Peak Converted Wet Density	t∕m³		2.08	2.04	1.90	1.91	1.89
Adjusted Peak Converted Wet Density	t∕m³		-	- '	-	- '	-
Optimum Moisture Content	%	16.0	19.5	17.0	18.0	29.0	12.0
Moisture Variation From		2.5%	2.0%	2.0%	2.0%	2.0%	2.5%
Optimum Moisture Content	,	dry	dry	dry	dry	dry	dry
· ·		·	·	·	·	·	·
Density Ratio(R _{HD})	%	99.0	98.0	98.0	97.5	97.5	98.0
Density ratio (r HD)	70		50.0		51.5		50.0
Material description							
No 194 - 199 Clay Fill							



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R060
6 - 8 Rose Aveni	ie, Croydon 3136	Date Issued	09/11/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	10/10/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 14:38

Test procedure AS 1289.2.1.1 & 5.8.1

	200	201	202	203	204	205
I	REFER	REFER	REFER	REFER	REFER	REFER
I	то	то	то	то	то	то
I	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE ²
I	1					
I	1					
	'	 '	<u>ا</u>	ļ		
		·	<u> </u>			
mm						175
						1.88
%	13.3	15.7	17.1	18.8	23.8	33.2
		. 	. 			
	200	201			204	205
тт	19.0	19.0	19.0	19.0	19.0	19.0
wet	0	0	0	0	0	0
t∕m³	1.88	1.89	1.88	1.91	1.86	1.90
t∕m³	-	<u> </u>		-	-	-
%	11.5	14.0	18.5	21.0	26.5	36.5
	2.5%	2.0%	1.5%	2.0%	2.5%	2.5%
I	wet	wet	dry	dry	dry	dry
		<u>ــــــــــــــــــــــــــــــــــــ</u>		,		
	t/m ³ % mm wet t/m ³ t/m ³	REFER TO FIGURE 1 mm 175 t/m³ 1.85 % 13.3 200 mm 19.0 wet 0 t/m³ 1.88 t/m³ 1.88 t/m³ - % 11.5	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R061
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	13/11/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	11/10/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 14:19

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		206	207	208	1 - '	l - '	-
Location		DEEED	DEEED	DEEED			
	ļ	REFER TO	REFER TO	REFER TO			
	ļ	FIGURE 1	FIGURE 1	FIGURE 1			
	ļ	FIGURE	FIGURE	FIGURE	1		
	ļ						
	ļ						
Approximate depth below FSL							
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	2.01	1.91	1.97	-	-	-
Field moisture content	%	18.6	20.3	27.1	-	-	-
Test procedure AS 1289.5.7.1							
Test No		209	210	211		-	-
Compactive effort		<u> </u>		· · · · · · · · · · · · · · · · · · ·	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	- '	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	2.01	1.90	2.00	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	<u> </u>	<u> </u>	<u> </u>	- '	-	-
Optimum Moisture Content	%	18.0	21.0	27.0	-	-	-
Moisture Variation From	I	1.0%	0.5%	0.0%	- '	-	-
Optimum Moisture Content	ļ	wet	dry	1 1	1		
· · ·		•	· · ·	·	·		
Demaits Detia (D)	%	100.5	100.5	98.5	-	-	-
Density Ratio (R _{HD})		·	·		·	, ,	<u>e</u>
Density Ratio (R _{HD})							
Density Ratio (R _{HD}) Material description							
	%	100.5	100.5	98.5		-	<u>· · ·</u>



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R062
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	14/11/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	12/10/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 07:39

Test procedure AS 1289.2.1.1 & 5.8.1

	209	210	211	-	-	-
	REFER	REFER	REFER			
	то	то	то			
	FIGURE 1	FIGURE 1	FIGURE 1			
mm	175	175	175	-	-	-
t∕m³	1.87	1.97	1.96	-	-	-
%	15.7	16.2	17.6	-	-	-
	209	210	211	-	-	-
			Stan	dard		
mm	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	1.90	1.95	1.95	-	-	-
t∕m³	-	-	-	-	-	-
%	18.0	18.0	20.0	-	-	-
	2.5%	2.0%	2.5%	-	-	-
	dry	dry	dry			
		,	,			
	t/m ³ % mm wet t/m ³ t/m ³	TO FIGURE 1 mm 175 t/m³ 1.87 % 15.7 209 mm 209 mm 19.0 wet 0 t/m³ 1.90 t/m³ % 18.0	TO TO FIGURE 1 FIGURE 1 mm 175 1.87 1.97 15.7 16.2 209 210 209 210 mm 19.0 1.97 1.95 1.90 1.95 1.91 1.95 1.93 - % 18.0	$\begin{array}{c ccccc} TO & TO & TO \\ FIGURE 1 & FIGURE 1 & FIGURE 1 \\ \hline \\ FIGURE 1 & FIGURE 1 & FIGURE 1 \\ \hline \\ FIGURE 1 & FIGURE 1 & FIGURE 1 \\ \hline \\ \hline \\ mm & 175 & 175 & 175 \\ \hline \\ t/m^3 & 1.87 & 1.97 & 1.96 \\ \hline \\ 7 & 15.7 & 16.2 & 17.6 \\ \hline \\ $	$\begin{array}{c ccccc} TO & TO & TO & TO \\ FIGURE 1 & FIGURE 1 & FIGURE 1 \\ \hline \\ FIGURE 1 & FIGURE 1 & FIGURE 1 \\ \hline \\ \hline \\ mm & 175 & 175 & 175 & - \\ \hline \\ t/m^3 & 1.87 & 1.97 & 1.96 & - \\ \hline \\ \% & 15.7 & 16.2 & 17.6 & - \\ \hline \\$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R063
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	15/11/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	13/10/18
Location	WERRIBEE	Checked by	JHF

FeatureEARTHWORKSLayer thickness200 mmTime: 07:40

Test procedure AS 1289.2.1.1 & 5.8.1

		212	213	214	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	1.93	1.87	1.87	-	-	-
Field moisture content	%	14.3	14.6	14.0	-	-	-
Test procedure AS 1289.5.7.1		210	010	04.4			I
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	mm wet t/m ³	212 19.0 0 2.01	213 19.0 0 1.90	214 Stan 19.0 0 1.91	- dard - -	- - - -	- - - -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.01	19.0 0 1.90	Stan 19.0 0 1.91	dard -	-	
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0 2.01	19.0 0 1.90	Stan 19.0 0 1.91	dard - - -	-	- - -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.01	19.0 0 1.90	Stan 19.0 0 1.91	dard - - - - -	- - - -	- - - -

No 212 - 214 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R064
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	29/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	15/10/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 07:42

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		215	216	217	-	-	-
Location							
		REFER	REFER	REFER			
		то	то	то			
		FIGURE 1	FIGURE 1	FIGURE 1			
Approximate depth below FSL							
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	2.09	1.94	2.10	-	-	-
Field moisture content	%	10.7	10.6	10.7	-	-	-
Test procedure AS 1289.5.7.1							
Test No		215	216	217	-	-	-
Compactive effort				Stan	dard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	2.15	2.05	2.15	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	12.5	12.5	13.0			

Moisture Variation From	2.0%	2.0%	2.0%	-	-	-
Optimum Moisture Content	dry	dry	dry			

	Density Ratio (R _{HD})	%	97.5	95.0	97.5	-	-	-
--	----------------------------------	---	------	------	------	---	---	---

Material description

No 215 - 217 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R065
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	29/10/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	16/10/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 07:43

Test procedure AS 1289 2 1 1 & 5 8 1

Test No		218	219	220	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t/m³	2.12	2.16	2.11	-	-	-
Field moisture content	%	11.1	11.4	11.5	-	-	-

	218	219	220	-	-	-
			Star	dard		- -
mm	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	2.20	2.20	2.20	-	-	-
t∕m³	-	-	-	-	-	-
%	13.0	13.5	14.0	-	-	-
	wet t/m ³ t/m ³	mm 19.0 wet 0 t/m³ 2.20 t/m³ -	mm 19.0 19.0 wet 0 0 t/m³ 2.20 2.20	mm 19.0 19.0 19.0 19.0 wet 0 0 0 0 t/m³ 2.20 2.20 2.20	Imm 19.0 19.0 19.0 - wet 0 0 0 - t/m³ 2.20 2.20 2.20 -	mm 19.0 19.0 19.0 - <th< td=""></th<>

Moisture Variation From	1.5%	2.0%	2.5%	-	-	-
Optimum Moisture Content	dry	dry	dry			

	Density Ratio (R _{HD})	%	96.5	98.0	96.0	-	-	-
--	----------------------------------	---	------	------	------	---	---	---

Material description

No 218 - 220 Clay Fill



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AVRLOT HILF V1.10 MAR 13



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R066
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	15/11/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	18/10/18
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	<i>Time:</i> 11:09
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		221	222	223	-	-	-
Location							
	ł	REFER	REFER	REFER			
	I	то	то	то			
	I	FIGURE 1	FIGURE 1	FIGURE 1			
	ļ			-			
	ł						
Approximate depth below FSL							
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	1.84	1.93	2.19	-	-	-
Field moisture content	%	15.2	11.3	11.7	-	-	-
Test procedure AS 1289.5.7.1		-	-	•	-	-	-
Test No		221	222	223	-	-	-
Compactive effort			-		dard	•	-
Compactive effort Oversize rock retained on sieve	mm	19.0	19.0	19.0	dard -	-	-
Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	0	0	19.0 0	dard - -	-	-
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³			19.0	dard - - -		- - -
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	0 1.90 -	0 2.00 -	19.0 0	-	-	- - - -
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	0	0	19.0 0	-	-	- - - -
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	0 1.90 -	0 2.00 -	19.0 0 2.20 -	-		- - - - -
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	0 1.90 - 17.5	0 2.00 - 13.5	19.0 0 2.20 - 14.0	-		- - - - -
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	0 1.90 - 17.5 2.5%	0 2.00 - 13.5 2.5%	19.0 0 2.20 - 14.0 2.0%	-	- - - -	-
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	0 1.90 - 17.5	0 2.00 - 13.5	19.0 0 2.20 - 14.0	-	- - - -	-
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	0 1.90 - 17.5 2.5%	0 2.00 - 13.5 2.5%	19.0 0 2.20 - 14.0 2.0%	-	- - - -	-

No 221 - 223 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R067
6 - 8 Rose Aven	6 - 8 Rose Avenue, Croydon 3136		15/11/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	19/10/18
Location	WERRIBEE	Checked by	JHF

 Feature
 EARTHWORKS
 Layer thickness
 200 mm
 Time: 11:11

Test procedure AS 1289.2.1.1 & 5.8.1

		224	225	226	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.03	2.08	1.74	-	-	-
Field moisture content	%	16.4	28.3	30.2	-	-	-
Test procedure AS 1289.5.7.1		/	r				
Test No Compactive effort		224	225		- dard -	-	-
Test No Compactive effort Oversize rock retained on sieve	mm wet	19.0	225 19.0 0		- dard -	-	- - -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	mm wet t/m ³		19.0	Stan 19.0	- dard - -		- - -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Stan 19.0 0	-	-	-
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Stan 19.0 0	-	-	- - -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.10 -	19.0 0 2.10 -	Stan 19.0 0 1.80 -		- - - -	- - - -

No 224 - 226 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R068
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	13/11/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	22/10/18
Location	WERRIBEE	Checked by	JHF

 Feature
 EARTHWORKS
 Layer thickness
 200 mm
 Time: 08:48

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		227	228	229	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.10	2.04	2.06	-	-	-
Field moisture content	%	18.5	20.9	19.1	-	-	-
Test procedure AS 1289.5.7.1		227	228	229	<u> </u>	I _	I _
Test procedure AS 1289.5.7.1 Test No		227	228	229 Stan	-	-	-
Test procedure AS 1289.5.7.1	mm			Stan	- dard -	- -	-
Test procedure AS 1289.5.7.1 Test No Compactive effort	mm wet	227 19.0 0	228 19.0 0		- dard - -		- - -
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve		19.0	19.0	Stan 19.0	- dard - -		- - - -
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Stan 19.0 0	-	-	-
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Stan 19.0 0	-		-
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.15	19.0 0 2.10 -	Stan 19.0 0 2.10 -		- - - -	

No 227 - 229 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R069
6 - 8 Rose Aven	6 - 8 Rose Avenue, Croydon 3136		12/11/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	23/10/18
Location	WERRIBEE	Checked by	JHF

Feature EAR

EARTHWORKS

Layer thickness

200 mm

Time: 09:13

Test procedure AS 1289.2.1.1 & 5.8.1

		230	231	232	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.12	2.03	2.12	-	-	-
Field moisture content	%	12.0	12.5	11.5	-	-	-
Test procedure AS 1289.5.7.1							
Test No Compactive effort Oversize rock retained on sieve	mm	230 19.0	231 19.0	232 Stan 19.0	-	-	
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Stan 19.0 0	dard	1	1
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0	19.0	Stan 19.0	dard - -	-	-
Test No Compactive effort	wet	19.0 0	19.0 0 2.11	Stan 19.0 0 2.16	dard - - -		
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.15 -	19.0 0 2.11	Stan 19.0 0 2.16 -	dard - - - -		

No 230 - 232 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R070
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	12/11/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	24/10/18
Location	WERRIBEE	Checked by	JHF

FeatureEARTHWORKSLayer thickness200 mm

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		233	234	235	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL		 	 	 			
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	1.93	1.94	2.03	-	-	-
Field moisture content	%	22.3	20.5	16.4	-	-	-
Test procedure AS 1289.5.7.1 Test No Compactive effort		233	234	235 Stan	- dard	-	-
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t/m ³	2.01	2.01	2.00	-	-	-
Adjusted Peak Converted Wet Density	t/m³	- 1	-	- 1	-	-	-
Optimum Moisture Content	%	24.5	23.0	18.5	-	-	-
Moisture Variation From		2.0%	2.5%	2.0%	-	-	-
Optimum Moisture Content		dry	dry	dry			
						•	
Density Ratio (R _{HD})	%	96.0	96.5	101.0	-	-	-

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AVRLOT HILF V1.10 MAR 13

Time: 08:34



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R071
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	12/11/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	25/10/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 08:39

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		236	237	238	-	-	-	
Location								
	ł	REFER	REFER	REFER				
	P	то	то	то				
	P	FIGURE 1	FIGURE 1	FIGURE 1				
	ļ	1						
	I							
Approximate depth below FSL	I							
Measurement depth	mm	175	175	175	-	-	-	
Field wet density	t∕m³	1.96	1.93	1.92	-	-	-	
Field moisture content	%	18.2	15.8	14.9	-	-	-	
Test procedure AS 1289.5.7.1								
Test No		236	237	238	-	-	-	
Compactive effort		Standard						
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-	
Percent of oversize material	wet	0	0	0	-	-	-	
Peak Converted Wet Density	t∕m³	2.01	2.00	2.00	-	-	-	
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-	
Optimum Moisture Content	%	20.5	17.5	17.5	-	-	-	
Moisture Variation From		2.5%	2.0%	2.5%	-	-	-	
Optimum Moisture Content	P	dry	dry	dry				
			- ,					
						-		



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CIVIL GEOTE	CIVIL GEOTECHNICAL SERVICES 6 - 8 Rose Avenue, Croydon 3136		18409 18409/R072
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	12/11/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	26/10/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 09:03

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		239	240	241	-	-	-
Location							
		REFER	REFER	REFER			
		то	ТО	то			
		FIGURE 1	FIGURE 1	FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	1.99	1.88	2.00	-	-	-
Field moisture content	%	21.0	10.7	14.6	-	-	-
Test procedure AS 1289.5.7.1							
Test No		239	240	241	-	-	-
Compactive effort	_			Stan	dard		
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	2.01	1.91	2.01	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	23.5	13.0	17.0	-	-	-
	,	a a a	0.5%	0.50/		_	-
Moisture Variation From		2.5%	2.5%	2.5%	-		
					-		
Moisture Variation From Optimum Moisture Content		2.5% dry	2.5% dry	2.5% dry	-		



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R073
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	13/11/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	30/10/18
Location	WERRIBEE	Checked by	JHF

FeatureEARTHWORKSLayer thickness200 mm

Time: 09:07

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		242	243	244	-	-	-
Location		!		ļŢ	[()	
	I	REFER	REFER	REFER	1		1
	ļ	TO	TO	то	1		1
	I	FIGURE 1	FIGURE 1	FIGURE 1	1		1
	ļ	1 '	1	!	1 '		
			'		1		
Approximate depth below FSL					ſ		
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	1.94	2.00	2.01	-	-	-
Field moisture content	%	24.5	18.9	20.5	-	-	<u> </u>
Test procedure AS 1289.5.7.1		1					.
Test No	'	242	243	244	<u> </u>	-	-
Compactive effort	'	L		T T	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	1.95	2.00	2.00	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	<u> </u>	<u> </u>	<u>[- '</u>	-	-	-
Optimum Moisture Content	%	27.5	21.5	22.5	-	-	-
Moisture Variation From		2.5%	2.5%	2.0%	-	-	-
Optimum Moisture Content	ا ا	dry	dry	dry	1'		
Density Ratio(R _{HD})	%	99.0	100.0	100.0	-	-	-
		·	·			<u> </u>	
Material description							
·							
No 242 - 244 Clay Fill							



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CIVIL GEOTECHNICAL SERVICES 6 - 8 Rose Avenue, Croydon 3136		Job No Report No	18409 18409/R074
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	15/11/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	30/10/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 09:49

Test procedure AS 1289.2.1.1 & 5.8.1

	245	246	247	-	-	-
	REFER	REFER	REFER			
	то	то	то			
		1.00112				
mm	175	175	175	-	_	-
t∕m³	1.84	1.89	1.86	-	-	-
%	25.6	18.2	22.9	-	-	-
	245	246	247	-	-	-
			Stan	dard		
тт	19.0	19.0	19.0	-	-	-
wet	0	0	0	-	-	-
t∕m³	1.90	1.90	1.91	-	-	-
t∕m³	-	-	-	-	-	-
%	28.5	20.5	25.5	-	-	-
	2.5%	2.5%	2.5%	-	-	-
l	dry	dry	dry			
	<u> </u>	с., <u>у</u>	u.,			
	t/m ³ % 	REFER TO FIGURE 1 mm 175 t/m³ 1.84 % 25.6 mm 19.0 wet 0 t/m³ 1.90 t/m³ - % 28.5	$\begin{array}{c c c c c c c c c } REFER \\ TO \\ FIGURE 1 \\ \hline TO \\ FIGURE 1 \\ $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R075
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	04/01/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	31/10/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 09:52

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		248	249	250	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	1.96	2.11	2.01	-	-	-
Field moisture content	%	22.5	21.9	22.1	-	-	-
Test procedure AS 1289.5.7.1 Test No Compactive effort		248	249	250 Stan	- dard	-	-
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	_	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t/m³	2.00	2.15	2.05	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	25.0	24.0	24.5	-	-	-
Moisture Variation From		2.5%	2.0%	2.5%	-	-	_
Optimum Moisture Content		dry	dry	dry			
		<u></u>	j	<u></u>		1	I

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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R076
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	11/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	01/11/18
Location	WERRIBEE	Checked by	JHF

Feature EA

EARTHWORKS

Layer thickness

200 mm

Time: 09:54

Test procedure AS 1289.2.1.1 & 5.8.1

	251	252	253	-	-	-
	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
mm	175	175	175	-	-	-
t∕m³	2.01	2.04	2.03	-	-	-
%	13.7	17.9	17.1	-	-	-
	251	252	253 Stan	- dard	-	-
	40.0	40.0			1	
						-
	-	-	÷		-	-
	2.03	2.09	2.07	-	-	-
	-	-	-	-		-
70	2.0% dry	2.0% dry	2.0% dry	-	-	-
%	98.5	97.5	98.5	-	-	
	t∕m³	REFER TO FIGURE 1 mm 175 t/m³ 2.01 % 13.7 251 - mm 19.0 wet 0 t/m³ 2.03 t/m³ - % 16.0 2.0% 2.0%	$\begin{array}{c c c c c c c c } REFER \\ TO \\ FIGURE 1 \\ \hline $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R077
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	11/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	02/11/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 09:54

Test procedure AS 1289.2.1.1 & 5.8.1

Test No	'	254	255	256	<u> </u>	-	-
Location							
	ŗ	REFER	REFER	REFER	l l		
	ŗ	то	то	то	l l		
	,	FIGURE 1	FIGURE 1	FIGURE 1	1		
	ľ	1	1		1		
	ľ	1 '	1		1		
		í '					
Approximate depth below FSL	!						
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	2.05	2.12	2.15	-	<u> </u>	-
Field moisture content	%	11.2	11.8	14.6	<u> </u>	-	-
Test procedure AS 1289.5.7.1							
Test No	'	254	255	256	<u> </u>	-	-
Compactive effort	!			Stan	ndard		
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	2.05	2.16	2.19	<u> </u>	<u> </u>	-
Adjusted Peak Converted Wet Density	t∕m³	<u> </u>		<u> </u>		<u> </u>	-
Optimum Moisture Content	%	13.5	14.0	17.0	-	-	-
Moisture Variation From		2.0%	2.0%	2.0%	-	-	- 1
Optimum Moisture Content	ŗ	dry	dry	dry	l l		
		,	<u></u>	,	<u> </u> _	<u> </u>	
Densitv Ratio (R אח)	%	100.0	98.0	98.5	-	-	- 1
Density Ratio(R _{HD})	%	100.0	98.0	98.5	-	-	-
Material description							
	<u> </u>						
No 254 - 256 Clay Fill							



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Approved Signatory : Justin Fry



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R078
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	07/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	09/11/18
Location	WERRIBEE	Checked by	JHF

 Feature
 EARTHWORKS
 Layer thickness
 200 mm
 Time: 09:12

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		257	258	259	260	261	262
Location	Î		·				
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE [·]
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	1.99	1.98	1.95	1.91	1.90	1.92
Field moisture content	%	32.0	28.9	26.0	25.3	18.9	30.1
Test procedure AS 1289.5.7.1					1	1	1
Test No		257	258	259	260	261	262
Test No Compactive effort				Stan	ndard		
Test No Compactive effort Oversize rock retained on sieve	mm	19.0	19.0	Stan 19.0	ndard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Stan 19.0 0	19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0	19.0	Stan 19.0	ndard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.00 -	19.0 0	Stan 19.0 0 2.00 -	19.0 0	19.0 0	19.0 0 1.95 -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Stan 19.0 0	19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.00 -	19.0 0 2.00	Stan 19.0 0 2.00 -	dard 19.0 0 1.95 -	19.0 0 1.95	19.0 0 1.95 -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.00 - 29.0	19.0 0 2.00 - 26.5	Stan 19.0 0 2.00 - 23.0	dard 19.0 0 1.95 - 27.5	19.0 0 1.95 - 19.0	19.0 0 1.95 - 27.5
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 2.00 - 29.0 2.5%	19.0 0 2.00 - 26.5 2.5%	Stan 19.0 0 2.00 - 23.0 2.5%	dard 19.0 0 1.95 - 27.5 2.0%	19.0 0 1.95	19.0 0 1.95 - 27.5 2.5%
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 2.00 - 29.0	19.0 0 2.00 - 26.5	Stan 19.0 0 2.00 - 23.0	dard 19.0 0 1.95 - 27.5	19.0 0 1.95 - 19.0	19.0 0 1.95 - 27.5

No 257 - 262 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R079
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	07/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	12/11/18
Location	WERRIBEE	Checked by	JHF

FeatureEARTHWORKSLayer thickness200 mmTime: 09:04

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		263	264	265	266	267	268
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate donth holow FCI							
Approximate depth below FSL		475	475	475	475	475	475
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m³	2.12	2.15	2.11	2.19	2.19	2.20
Field moisture content	%	25.1	22.8	18.7	21.9	25.2	24.6
Test procedure AS 1289.5.7.1		263	264	265	266	267	268
Test procedure AS 1289.5.7.1 Test No		263	264	265 Star	266 Idard	267	268
Test procedure AS 1289.5.7.1 Test No Compactive effort	mm	263 19.0	264 19.0			267 19.0	268 19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve	mm wet			Star	dard		
		19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0 2.20
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.20	19.0 0 2.21 -	Star 19.0 0 2.16 -	dard 19.0 0 2.20 -	19.0 0 2.21	19.0 0 2.20
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.20	19.0 0 2.21 -	Star 19.0 0 2.16 -	dard 19.0 0 2.20 -	19.0 0 2.21	19.0 0 2.20
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 2.20 - 23.0	19.0 0 2.21 - 20.0	Star 19.0 0 2.16 - 17.0	idard 19.0 0 2.20 - 19.5	19.0 0 2.21 - 22.5	19.0 0 2.20 - 22.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 2.20 - 23.0 2.0%	19.0 0 2.21 - 20.0 2.5%	Star 19.0 0 2.16 - 17.0 2.0%	dard 19.0 0 2.20 - 19.5 2.5%	19.0 0 2.21 - 22.5 2.5%	19.0 0 2.20 - 22.0 2.5%

No 263 - 268 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R080
6 - 8 Rose Aveni	ue, Croydon 3136	Date Issued	13/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	13/11/18
Location	WERRIBEE	Checked by	JHF

Feature EARTHW	VORKS Layer thick	kness 200 mm	<i>Time:</i> 12:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		269	270	271	272	273	274
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	1.80	1.79	1.95	1.88	1.90	1.84
Field moisture content	%	18.4	19.9	15.7	20.3	20.1	20.4
Test procedure AS 1289.5.7.1							
Test procedure AS 1289.5.7.1 Test No		269	270	271 Stor	272	273	274
Test No Compactive effort	mm			Star	dard		
Test No Compactive effort Oversize rock retained on sieve	mm	19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test No Compactive effort	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.85	19.0 0 1.85 -	Star 19.0 0 1.98 -	dard 19.0 0 1.90 -	19.0 0 1.93	19.0 0 1.90
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.85	19.0 0 1.85 -	Star 19.0 0 1.98 -	dard 19.0 0 1.90 -	19.0 0 1.93	19.0 0 1.90
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 1.85 - 21.0	19.0 0 1.85 - 22.5	Star 19.0 0 1.98 - 18.5	idard 19.0 0 1.90 - 23.5	19.0 0 1.93 - 23.0	19.0 0 1.90 - 23.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 1.85 - 21.0 2.5%	19.0 0 1.85 - 22.5 2.5%	Star 19.0 0 1.98 - 18.5 2.0%	dard 19.0 0 1.90 - 23.5 2.5%	19.0 0 1.93 - 23.0 2.0%	19.0 0 1.90 - 23.0 2.5%

No 269 - 274 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R081
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	13/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	14/11/18
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	<i>Time:</i> 12:04
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		275	276	277	278	279	280
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	тт	175	175	175	175	175	175
Field wet density	t∕m³	1.81	1.84	1.82	1.83	1.73	1.86
Field moisture content	%	20.0	18.3	19.1	13.4	12.1	11.7
Test procedure AS 1289.5.7.1		275	276	277	278	279	280
Test procedure AS 1289.5.7.1		275	276	277 Star	278 Idard	279	280
Test procedure AS 1289.5.7.1 Test No Compactive effort	mm	275	276 19.0		-	279 19.0	280 19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve	mm wet			Star	dard		
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material		19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.85 -	19.0 0 1.89 -	Star 19.0 0 1.87 -	dard 19.0 0 1.87 -	19.0 0 1.80	19.0 0 1.91 -
Test procedure AS 1289.5.7.1 Test No	wet t/m³ t/m³	19.0 0 1.85 -	19.0 0 1.89 -	Star 19.0 0 1.87 -	dard 19.0 0 1.87 -	19.0 0 1.80	19.0 0 1.91 -
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 1.85 - 22.5	19.0 0 1.89 - 21.0	Star 19.0 0 1.87 - 21.5	idard 19.0 0 1.87 - 15.5	19.0 0 1.80 - 14.0	19.0 0 1.91 - 14.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 1.85 - 22.5 2.5%	19.0 0 1.89 - 21.0 2.5%	Star 19.0 0 1.87 - 21.5 2.5%	dard 19.0 0 1.87 - 15.5 2.0%	19.0 0 1.80 - 14.0 2.5%	19.0 0 1.91 - 14.0 2.5%

No 275 - 280 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R082
6 - 8 Rose Aveni	ue, Croydon 3136	Date Issued	13/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	15/11/18
Location	WERRIBEE	Checked by	JHF

 Feature
 EARTHWORKS
 Layer thickness
 200 mm
 Time: 09:17

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		281	282	283	284	285	286
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1					
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	1.91	1.88	1.87	2.01	2.07	2.05
Field moisture content	%	17.6	16.0	16.6	14.7	14.3	13.8
Test procedure AS 1289.5.7.1 Test No		281	282	283	284	285	286
Compactive effort		201	202		dard	205	200
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0	0
Peak Converted Wet Density	t/m ³	1.93	1.94	1.92	2.03	2.10	2.07
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	20.5	18.5	19.5	17.5	16.5	16.0
	, -						
Moisture Variation From		2.5%	2.5%	2.5%	2.5%	2.0%	2.0%
Optimum Moisture Content		dry	dry	dry	dry	dry	dry
Density Ratio(R _{HD})	%	99.0	97.0	97.5	99.0	98.5	98.5
	70	33.0	97.0	91.5	33.0	30.3	30.3
Material description							

No 281 - 286 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R083
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	14/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	16/11/18
Location	WERRIBEE	Checked by	JHF

 Feature
 EARTHWORKS
 Layer thickness
 200 mm
 Time: 09:19

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		287	288	289	290	291	292
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	тт	175	175	175	175	175	175
Field wet density	t∕m³	2.03	1.91	2.12	2.17	1.98	1.99
Field moisture content	%	16.2	15.6	11.3	18.4	14.6	15.2
Test No Compactive effort		287	288	289	290 Idard	291	292
Compactive offert				Ctor	dard		
•		10.0	(0.0			10.0	
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	19.0
Oversize rock retained on sieve Percent of oversize material	wet	0	0	19.0 0	19.0 0	0	0
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³			19.0	19.0		
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	0 2.06 -	0 1.94 -	19.0 0 2.15 -	19.0 0 2.20 -	0 2.03 -	0 2.01 -
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³	0	0	19.0 0	19.0 0	0	0
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	0 2.06 -	0 1.94 -	19.0 0 2.15 -	19.0 0 2.20 -	0 2.03 -	0 2.01 -
Oversize rock retained on sieve Percent of oversize material	wet t/m³ t/m³	0 2.06 -	0 1.94 -	19.0 0 2.15 -	19.0 0 2.20 -	0 2.03 -	0 2.01 -
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	0 2.06 - 18.5	0 1.94 - 17.5	19.0 0 2.15 - 13.5	19.0 0 2.20 - 21.0	0 2.03 - 17.0	0 2.01 - 17.5
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	0 2.06 - 18.5 2.0%	0 1.94 - 17.5 2.0%	19.0 0 2.15 - 13.5 2.0%	19.0 0 2.20 - 21.0 2.0%	0 2.03 - 17.0 2.5%	0 2.01 - 17.5 2.0%

No 287 - 292 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R084
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	11/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	19/11/18
Location	WERRIBEE	Checked by	JHF

FeatureEARTHWORKSLayer thickness

Time: 10:22

200 mm

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		293	294	295	296	297	298
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	1.98	1.86	2.09	1.98	2.18	1.94
Field moisture content	%	13.7	12.9	12.1	11.7	11.6	11.1
Test procedure AS 1289.5.7.1		293	294	295	296	297	298
		203	204	205	296	207	208
Test procedure AS 1289.5.7.1 Test No Compactive effort		293	294	295 Star	296 Idard	297	298
Test No	mm	293 19.0	294 19.0			297 19.0	298 19.0
Test No Compactive effort	mm wet			Star	dard		
Test No Compactive effort Oversize rock retained on sieve		19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.01	19.0 0 1.90 -	Star 19.0 0 2.12 -	dard 19.0 0 2.03	19.0 0 2.21	19.0 0 1.97
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.01	19.0 0 1.90 -	Star 19.0 0 2.12 -	dard 19.0 0 2.03	19.0 0 2.21	19.0 0 1.97
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 2.01 - 16.0	19.0 0 1.90 - 15.0	Star 19.0 0 2.12 - 14.0	idard 19.0 0 2.03 - 13.5	19.0 0 2.21 - 13.5	19.0 0 1.97 - 13.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 2.01 - 16.0 2.0%	19.0 0 1.90 - 15.0 2.5%	Star 19.0 0 2.12 - 14.0 2.0%	dard 19.0 0 2.03 - 13.5 2.0%	19.0 0 2.21 - 13.5 2.0%	19.0 0 1.97 - 13.0 2.0%

No 293 - 298 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R085
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	11/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	20/11/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 10:21

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		299	300	301	302	303	304
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1
Approximate depth below FSL							
Measurement depth	тт	175	175	175	175	175	175
Field wet density	t∕m³	2.09	2.11	1.79	1.81	1.80	2.00
Field moisture content	%	15.4	15.4	15.0	12.9	16.9	16.4
Test procedure AS 1289 5 7 1							
Test procedure AS 1289.5.7.1 Test No		299	300	301	302	303	304
Test No Compactive effort				Star	dard	1	
Test No Compactive effort Oversize rock retained on sieve	mm	19.0	19.0	Star 19.0	dard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0	19.0	Star 19.0	dard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.14	19.0 0 2.14 -	Star 19.0 0 1.84 -	dard 19.0 0 1.87 -	19.0 0 1.86 -	19.0 0 2.03 -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.14	19.0 0 2.14 -	Star 19.0 0 1.84 -	dard 19.0 0 1.87 -	19.0 0 1.86 -	19.0 0 2.03 -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.14	19.0 0 2.14 -	Star 19.0 0 1.84 -	dard 19.0 0 1.87 -	19.0 0 1.86 -	19.0 0 2.03 -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 2.14 - 17.5	19.0 0 2.14 - 17.5	Star 19.0 0 1.84 - 17.5 2.5%	dard 19.0 0 1.87 - 15.0	19.0 0 1.86 - 19.0	19.0 0 2.03 - 19.0 2.0%
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 2.14 - 17.5 2.0%	19.0 0 2.14 - 17.5 2.0%	Star 19.0 0 1.84 - 17.5	dard 19.0 0 1.87 - 15.0 2.0%	19.0 0 1.86 - 19.0 2.5%	19.0 0 2.03 - 19.0

No 299 - 304 Clay Fill



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Approved Signatory : Justin Fry



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R086
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	14/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	21/11/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 12:20

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		305	306	307	308	309	310
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1
		1.00	1100.12	1100.12	1100.12	1.00	1.00.1
Approximate depth below FSL							
Measurement depth	тт	175	175	175	175	175	175
Field wet density	t∕m³	1.71	1.64	1.70	1.74	1.70	1.66
Field moisture content	%	26.3	26.9	15.6	23.8	26.6	28.6
Test procedure AS 1289.5.7.1							
Test procedure AS 1289.5.7.1 Test No		305	306	307	308	309	310
		305	306		308 Idard	309	310
Test No	mm	305 19.0	306 19.0			309 19.0	310 19.0
Test No Compactive effort	mm wet			Stan	dard		
Test No Compactive effort Oversize rock retained on sieve		19.0	19.0	Stan 19.0	idard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Stan 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Stan 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.74 -	19.0 0 1.71 -	Stan 19.0 0 1.77 -	dard 19.0 0 1.79 -	19.0 0 1.79	19.0 0 1.73
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.74 -	19.0 0 1.71 -	Stan 19.0 0 1.77 -	dard 19.0 0 1.79 -	19.0 0 1.79	19.0 0 1.73
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 1.74 - 29.0	19.0 0 1.71 - 29.0	Stan 19.0 0 1.77 - 17.5	ndard 19.0 0 1.79 - 26.0	19.0 0 1.79 - 29.0	19.0 0 1.73 - 30.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 1.74 - 29.0 2.5%	19.0 0 1.71 - 29.0 2.0%	Stan 19.0 0 1.77 - 17.5 2.0%	dard 19.0 0 1.79 - 26.0 2.5%	19.0 0 1.79 - 29.0 2.5%	19.0 0 1.73 - 30.0 1.5%

No 305 - 310 Clay Fill

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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R087
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	14/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	26/11/18
Location	WERRIBEE	Checked by	JHF

Feature EARTHWORKS Layer thickness 200 mm Time	e: 12:21
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		311	312	313	314	315	316
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	тт	175	175	175	175	175	175
Field wet density	t∕m³	1.80	1.75	1.78	1.76	1.78	1.78
Field moisture content	%	26.6	25.9	23.1	25.2	23.9	26.5
Test procedure AS 1289.5.7.1							
Test procedure AS 1289.5.7.1 Test No		311	312	313	314	315	316
Test procedure AS 1289.5.7.1 Test No Compactive effort		311	312	313 Star	314 Idard	315	316
Test No	mm	311 19.0	312 19.0		-	315 19.0	316 19.0
Test No Compactive effort	mm wet			Star	dard		
Test No Compactive effort Oversize rock retained on sieve		19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.83	19.0 0 1.82	Star 19.0 0 1.81	dard 19.0 0 1.83 -	19.0 0 1.88 -	19.0 0 1.83 -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.83	19.0 0 1.82	Star 19.0 0 1.81	dard 19.0 0 1.83 -	19.0 0 1.88 -	19.0 0 1.83 -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 1.83 - 29.5	19.0 0 1.82 - 28.5	Star 19.0 0 1.81 - 26.0	idard 19.0 0 1.83 - 28.0	19.0 0 1.88 - 27.0	19.0 0 1.83 - 29.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 1.83 - 29.5 2.5%	19.0 0 1.82 - 28.5 2.5%	Star 19.0 0 1.81 - 26.0 2.5%	dard 19.0 0 1.83 - 28.0 2.5%	19.0 0 1.88 - 27.0 2.5%	19.0 0 1.83 - 29.0 2.5%

No 311 - 316 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R088
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	14/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	26/11/18
Location	WERRIBEE	Checked by	JHF

Feature EARTHWORKS Layer thickness 200 mm Time: 10:15	Feature	EARTHWORKS	Layer thickness	200 mm	<i>Time:</i> 10:15
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		317	318	319	320	321	322
Location	·						
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	2.07	1.85	1.99	2.08	1.99	1.87
Field moisture content	%	14.3	17.1	14.6	16.2	15.9	15.3
•		.	1				I
Test procedure AS 1289.5.7.1 Test No Compactive effort		317	318	319 Star	320 dard	321	322
Test No Compactive effort	mm			Stan	dard		1
Test No Compactive effort Oversize rock retained on sieve	mm wet	317 19.0 0	318 19.0 0			321 19.0 0	322 19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material		19.0	19.0	Stan 19.0	ndard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet	19.0 0	19.0 0	Stan 19.0 0	ndard 19.0 0	19.0 0	19.0 0
Test No	wet t/m³	19.0 0	19.0 0	Stan 19.0 0	ndard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.08 -	19.0 0 1.93 -	Stan 19.0 0 2.02 -	dard 19.0 0 2.10 -	19.0 0 2.01 -	19.0 0 1.91 -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.08 -	19.0 0 1.93 -	Stan 19.0 0 2.02 -	dard 19.0 0 2.10 -	19.0 0 2.01 -	19.0 0 1.91 -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 2.08 - 17.0	19.0 0 1.93 - 20.0	Stan 19.0 0 2.02 - 17.5	ndard 19.0 0 2.10 - 19.0	19.0 0 2.01 - 18.5	19.0 0 1.91 - 18.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 2.08 - 17.0 2.0%	19.0 0 1.93 - 20.0 2.5%	Stan 19.0 0 2.02 - 17.5 2.5%	dard 19.0 0 2.10 - 19.0 2.0%	19.0 0 2.01 - 18.5 2.0%	19.0 0 1.91 - 18.0 2.5%

Material description

No 317 - 322 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R089
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	14/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	28/11/18
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	<i>Time:</i> 10:17
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		323	324	325	326	327	328
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	тт	175	175	175	175	175	175
Field wet density	t∕m³	2.04	1.88	2.00	2.02	1.94	1.98
Field moisture content	%	9.4	28.0	14.8	16.6	12.2	9.1
Test procedure AS 1289.5.7.1		303	224	225	226	207	228
Test procedure AS 1289.5.7.1		323	324	325	326	327	328
		323	324	325 Star	326 Idard	327	328
Test procedure AS 1289.5.7.1 Test No	mm	323 19.0	324 19.0			327 19.0	328 19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort	mm wet			Star	dard		
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve		19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.08	19.0 0 1.95	Star 19.0 0 2.03	dard 19.0 0 2.05 -	19.0 0 1.99	19.0 0 2.00
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.08	19.0 0 1.95	Star 19.0 0 2.03	dard 19.0 0 2.05 -	19.0 0 1.99	19.0 0 2.00
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 2.08 - 11.5 2.0%	19.0 0 1.95 - 20.5 2.5%	Star 19.0 0 2.03 - 16.5 1.5%	dard 19.0 0 2.05 - 19.0 2.5%	19.0 0 1.99 - 14.5 2.5%	19.0 0 2.00 - 11.5 2.5%
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 2.08 - 11.5	19.0 0 1.95 - 20.5	Star 19.0 0 2.03 - 16.5	idard 19.0 0 2.05 - 19.0	19.0 0 1.99 - 14.5	19.0 0 2.00 - 11.5

No 323 - 328 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R090
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	13/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	06/12/18
Location	WERRIBEE	Checked by	JHF

Feature EARTHWORKS Layer thickness 200 mm Time: 16:46

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		329	330	331	332	333	334
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1					
Approximate depth below FSL							
Measurement depth	тт	175	175	175	175	175	175
Field wet density	t∕m³	1.89	1.91	1.91	1.90	1.93	1.91
Field moisture content	%	35.6	35.4	36.0	34.1	36.4	32.5
Test procedure AS 1289.5.7.1 Test No		329	330	331	332	333	334
Compactive effort		329	330		dard	333	334
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0	0
Peak Converted Wet Density	t/m ³	1.92	1.95	1.96	1.92	1.98	1.96
Adjusted Peak Converted Wet Density	t/m³	-	-	-	-	-	-
Optimum Moisture Content	%	33.0	33.0	34.0	32.5	34.5	30.5
Moisture Variation From		2.5%	2.5%	2.0%	1.5%	2.0%	2.5%
		wet	wet	wet	wet	wet	wet
Optimum Moisture Content							
		Wot					

No 329 - 334 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R091
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	13/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	06/12/18
Location	WERRIBEE	Checked by	JHF

FeatureEARTHWORKSLayer thickness200 mm	<i>Time:</i> 16:48
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		335	336	337	338	339	340
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	1.92	1.89	1.88	1.85	1.90	1.91
Field moisture content	%	30.3	33.1	35.3	29.9	35.2	32.3
Test procedure AS 1289.5.7.1					1	1	
Test procedure AS 1289.5.7.1 Test No		335	336	337	338	339	340
Test procedure AS 1289.5.7.1		335	336		338 Idard	339	340
Test procedure AS 1289.5.7.1 Test No	mm	335 19.0	336 19.0			339 19.0	340 19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort	mm wet		1	Star	idard	1	
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material		19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.94 -	19.0 0 1.93	Star 19.0 0 1.91	dard 19.0 0 1.91	19.0 0 1.93	19.0 0 1.93
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.94 -	19.0 0 1.93	Star 19.0 0 1.91	dard 19.0 0 1.91	19.0 0 1.93 -	19.0 0 1.93
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 1.94 - 28.5	19.0 0 1.93 - 31.0	Star 19.0 0 1.91 - 33.5	idard 19.0 0 1.91 - 28.0	19.0 0 1.93 - 33.0	19.0 0 1.93 - 30.5
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 1.94 - 28.5 2.0%	19.0 0 1.93 - 31.0 2.0%	Star 19.0 0 1.91 - 33.5 2.0%	idard 19.0 0 1.91 - 28.0 2.0%	19.0 0 1.93 - 33.0 2.0%	19.0 0 1.93 - 30.5 2.0%

No 335 - 340 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R092
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	11/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	06/12/18
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	<i>Time:</i> 16:51
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		341	342	343	344	345	346
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	1.86	1.91	1.92	1.92	1.89	1.90
Field moisture content	%	30.9	37.3	33.4	30.6	32.4	36.0
Test procedure AS 1289.5.7.1		241	242	242	244	245	346
Test procedure AS 1289.5.7.1		244	242	242	244	245	246
Test procedure AS 1289.5.7.1 Test No		341	342	343 Star	344 Idard	345	346
Test procedure AS 1289.5.7.1	mm			Star	idard		346 19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort	mm wet	341 19.0 0	342 19.0 0		.	345 19.0 0	
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material		19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.88 -	19.0 0 1.95 -	Star 19.0 0 1.95 -	dard 19.0 0 1.96	19.0 0 1.93	19.0 0 1.93 -
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.88 -	19.0 0 1.95 -	Star 19.0 0 1.95 -	dard 19.0 0 1.96	19.0 0 1.93	19.0 0 1.93 -
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 1.88 - 28.5	19.0 0 1.95 - 34.5	Star 19.0 0 1.95 - 30.5	idard 19.0 0 1.96 - 28.0	19.0 0 1.93 - 30.0	19.0 0 1.93 - 33.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 1.88 - 28.5 2.5%	19.0 0 1.95 - 34.5 2.5%	Star 19.0 0 1.95 - 30.5 2.5%	dard 19.0 0 1.96 - 28.0 2.5%	19.0 0 1.93 - 30.0 2.5%	19.0 0 1.93 - 33.0 2.5%

No 341 - 346 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R093
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	07/01/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	08/12/18
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	<i>Time:</i> 12:28
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		347	348	349	350	351	352
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	2.07	2.07	2.08	2.05	2.07	2.08
Field moisture content	%	12.9	12.4	11.1	10.5	11.5	13.6
Test procedure AS 1289.5.7.1		347	348	3/0	350	351	352
Test procedure AS 1289.5.7.1		0.47	0.40	0.40	050	054	050
Test procedure AS 1289.5.7.1 Test No		347	348	349 Star	350 dard	351	352
Test procedure AS 1289.5.7.1 Test No Compactive effort	mm			Star	dard		
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve	mm wet	19.0	19.0			351 19.0 0	352 19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.10	19.0 0 2.10 -	Star 19.0 0 2.11	dard 19.0 0 2.10	19.0 0 2.10 -	19.0 0 2.10
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.10	19.0 0 2.10 -	Star 19.0 0 2.11	dard 19.0 0 2.10	19.0 0 2.10 -	19.0 0 2.10
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 2.10 - 15.5 2.5%	19.0 0 2.10 - 14.5 2.0%	Star 19.0 0 2.11 - 13.5 2.5%	dard 19.0 0 2.10 - 13.0 2.5%	19.0 0 2.10 - 14.0 2.5%	19.0 0 2.10 - 16.0 2.5%
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 2.10 - 15.5	19.0 0 2.10 - 14.5	Star 19.0 0 2.11 - 13.5	idard 19.0 0 2.10 - 13.0	19.0 0 2.10 - 14.0	19.0 0 2.10 - 16.0

No 347 - 352 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R094
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	04/01/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	04/12/18
Location	WERRIBEE	Checked by	JHF

 Feature
 EARTHWORKS
 Layer thickness
 200 mm
 Time: 16:56

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		353	354	355	356	357	358
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	1.97	1.96	1.93	1.93	1.91	1.91
Field moisture content	%	22.4	24.1	21.7	26.5	20.5	22.0
Test procedure AS 1289.5.7.1							
Test procedure AS 1289.5.7.1 Test No		353	354	355	356	357	358
•		353	354		356 Idard	357	358
Test No Compactive effort	mm	353 19.0	354 19.0			357 19.0	358 19.0
Test No Compactive effort Oversize rock retained on sieve	mm wet			Stan	dard		
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material		19.0	19.0	Stan 19.0	idard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet	19.0 0	19.0 0	Stan 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No	wet t/m³	19.0 0	19.0 0	Stan 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.00	19.0 0 2.01	Stan 19.0 0 1.95 -	dard 19.0 0 1.95 -	19.0 0 1.95 -	19.0 0 1.95
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.00 - 22.5	19.0 0 2.01 - 24.5	Stan 19.0 0 1.95 - 22.0	dard 19.0 0 1.95 -	19.0 0 1.95 -	19.0 0 1.95 - 22.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 2.00 - 22.5 0.5%	19.0 0 2.01 - 24.5 0.5%	Stan 19.0 0 1.95 -	ndard 19.0 0 1.95 - 24.5	19.0 0 1.95 - 22.5 2.0%	19.0 0 1.95
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 2.00 - 22.5	19.0 0 2.01 - 24.5	Stan 19.0 0 1.95 - 22.0	dard 19.0 0 1.95 - 24.5 2.0%	19.0 0 1.95 - 22.5	19.0 0 1.95 - 22.0

No 353 - 358 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R095
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	21/12/2018
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	05/12/18
Location	WERRIBEE	Checked by	JHF

Feature E

EARTHWORKS

Layer thickness

200 mm

Time: 18:25

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		359	360	361	362	363	364
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1					
A second depth holes FOI							
Approximate depth below FSL		475	475	475	475	475	475
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m³	1.97	1.96	1.94	1.97	1.96	2.01
Field moisture content	%	32.1	24.7	29.8	21.3	21.8	24.8
Test procedure AS 1289.5.7.1							
Test No		359	360	361	362	363	364
Compactive effort		553	500		Idard	505	504
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0	0
Peak Converted Wet Density	t/m ³	2.00	2.00	1.97	2.00	2.00	2.00
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	32.5	27.5	28.5	21.5	24.5	25.0
	,.						
Moisture Variation From		0.0%	2.5%	1.0%	0.0%	2.5%	0.0%
Optimum Moisture Content		0.070	dry	wet	0.070	dry	0.070
optimum moisture ooment			ary	wet		ury	
		98.5	98.0	98.0	98.0	98.5	100.0



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R096
6 - 8 Rose Aveni	ue, Croydon 3136	Date Issued	04/01/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	06/12/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 18:26

Test procedure AS 1289.2.1.1 & 5.8.1

	,	365	366	367	-	-	-
ocation							
	I	REFER	REFER	REFER			
	P	то	то	то			
	I	FIGURE 1	FIGURE 1	FIGURE 1			
	I	1	1 '				
	ļ	1	1 '				
	ł						
Approximate depth below FSL							
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	1.98	2.00	1.98	-	-	-
Field moisture content	%	19.9	18.5	24.3	-	-	-
Test procedure AS 1289.5.7.1							
Test No		365	366	367	-	-	-
Compactive effort				Stan	dard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	
Peak Converted Wet Density	t∕m³	2.00	2.00	2.01	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	<u> </u>	-	-	-	-
Optimum Moisture Content	%	22.5	21.0	26.0	-	-	-
Moisture Variation From		2.5%	2.5%	1.5%	_		
Optimum Moisture Content	P	dry	dry	dry			
Optimum Wolstare Contoni		Gry	Gry	ury	<u> </u>	<u> </u>	
Density Ratio (Rup)	%	99.0	100.0	98.5	-	-	-
	70			00.0	lI	<u> </u>	
Density Ratio(R _{HD})	%	99.0	100.0	98.5	-	-	
Material description							
•							



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R097
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	07/01/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	07/12/18
Location	WERRIBEE	Checked by	JHF

Feature EARTHWORKS

Layer thickness

200 mm

Time: 15:11

Test procedure AS 1289.2.1.1 & 5.8.1

175 1.98 17.9	REFER TO FIGURE 1 175 2.07 18.1	REFER TO FIGURE 1 175 2.02 28.3	REFER TO FIGURE 1 175 2.02 21.9	REFER TO FIGURE 1 175 1.98	REFER TO FIGURE 175 2.01
TO IGURE 1 175 1.98 17.9	TO FIGURE 1 175 2.07	TO FIGURE 1 175 2.02	TO FIGURE 1 175 2.02	TO FIGURE 1 175 1.98	TO FIGURE - 175
IGURE 1 175 1.98 17.9	FIGURE 1 175 2.07	FIGURE 1 175 2.02	FIGURE 1 175 2.02	FIGURE 1 175 1.98	FIGURE ² 175
175 1.98 17.9	175 2.07	175 2.02	175 2.02	175 1.98	175
1.98 17.9	2.07	2.02	2.02	1.98	
1.98 17.9	2.07	2.02	2.02	1.98	
1.98 17.9	2.07	2.02	2.02	1.98	
1.98 17.9	2.07	2.02	2.02	1.98	
1.98 17.9	2.07	2.02	2.02	1.98	
17.9					2 01
	18.1	28.3	21.9		
				17.0	26.0
368	369	370	371	372	373
500	000			512	315
19.0	19.0			19.0	19.0
			0		0
-	÷	-	Ű	÷	2.05
-	-	-	-	-	
18.0	18.5	25.5	22.0	16.5	26.0
			I	4	
0.0%	0.0%	2.5%	0.0%	0.5%	0.0%
0.076	0.070		0.070		0.070
I		WEI	I	WEI	
	98.5	98.5	98.0	99.0	
	19.0 0 2.00 - 18.0 0.0%	0 0 2.00 2.10 18.0 18.5	19.0 19.0 19.0 0 0 0 2.00 2.10 2.05 - - - 18.0 18.5 25.5	0 0 0 0 2.00 2.10 2.05 2.05 - - - - 18.0 18.5 25.5 22.0 0.0% 0.0% 2.5% 0.0%	19.0 19.0 19.0 19.0 19.0 0 0 0 0 0 0 2.00 2.10 2.05 2.05 2.00 - - - - - 18.0 18.5 25.5 22.0 16.5 0.0% 0.0% 2.5% 0.0% 0.5%



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R098
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	11/01/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	08/12/18
Location	WERRIBEE	Checked by	JHF

Feature EARTHWORKS Layer thickness 200 mm Time: 10:00

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		374	375	376	377	
Location						
		REFER	REFER	REFER	REFER	
	ļ	то	то	то	то	
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	
Approximate depth below FSL						
Measurement depth	тт	175	175	175	175	
Field wet density	t∕m³	1.97	2.00	1.95	1.96	
Field moisture content	%	26.4	24.9	27.5	25.4	
Test No	——	374	375	376	377	
Compactive effort				1	dard	
Oversize rock retained on sieve	тт	19.0	19.0	19.0	19.0	
Oversize rock retained on sieve Percent of oversize material	wet	0	0	19.0 0		
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³			19.0	19.0	
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	0 2.01 -	0 2.03 -	19.0 0	19.0 0 1.99 -	
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	0	0 2.03	19.0 0	19.0 0	
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	0 2.01 -	0 2.03 -	19.0 0 1.97 -	19.0 0 1.99 -	
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	0 2.01 -	0 2.03 -	19.0 0 1.97 -	19.0 0 1.99 -	
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	0 2.01 - 27.5	0 2.03 - 26.5	19.0 0 1.97 - 28.0	19.0 0 1.99 - 24.5	
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	0 2.01 - 27.5 1.0%	0 2.03 - 26.5 1.5%	19.0 0 1.97 - 28.0 0.5%	19.0 0 1.99 - 24.5 1.0%	

No 374 - 377 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R099
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	11/01/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	10/12/18
Location	WERRIBEE	Checked by	JHF

Feature EA

EARTHWORKS

Layer thickness

200 mm

Time: 13:35

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		378	379	380		
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1		
Approximate depth below FSL						
Measurement depth	тт	175	175	175		
Field wet density	t∕m³	1.95	1.93	1.92		
Field moisture content	%	27.3	26.4	27.3		
Test procedure AS 1289.5.7.1 Test No Compactive effort		378	379	380 Stan	dard	
Oversize rock retained on sieve	mm	19.0	19.0	19.0		
Percent of oversize material	wet	0	0	0		
Peak Converted Wet Density	t/m³	2.01	1.99	1.98		
Adjusted Peak Converted Wet Density	t/m³	-	-	-		
Optimum Moisture Content	%	28.5	28.0	26.5		
Moisture Variation From		1.0%	1.5%	1.0%		
Optimum Moisture Content		dry	dry	wet		
	%	97.0	97.0	97.0		
Density Ratio (R _{HD})						



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R100
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	18/01/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	11/12/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 15:40

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		381	382	383	-	-	-
Location							1
	ŀ	REFER	REFER	REFER			
	ŀ	то	то	то			
	ŀ	FIGURE 1	FIGURE 1	FIGURE 1			
	ŀ			1100.12			
	ŀ	1	1				
		1					
Approximate depth below FSL		1					
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	1.96	1.98	1.96	-	-	-
Field moisture content	%	22.9	22.2	24.1	-	-	-
Test procedure AS 1289.5.7.1							
Test No		381	382	383	-	-	-
Compactive effort				Stan	dard		
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	2.01	2.01	2.00	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	·	<u> </u>	-	-	-	-
Optimum Moisture Content	%	24.5	23.0	26.0	-	-	-
Moisture Variation From		1.5%	1.0%	2.0%		<u> </u>	<u> </u>
Optimum Moisture Content	ŀ	dry	dry	dry			
Optimum Molecure Content		ary	ary	Gry	<u> </u>	<u> </u>	<u> </u>
	%	97.5	98.5	98.0	-	-	<u> </u>
Density Ratio (R _{HD})	~ ~					-	-



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Approved Signatory : Justin Fry



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R101
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	14/01/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	12/12/18
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 16:05

Test procedure AS 1289.2.1.1 & 5.8.1

	384	385	386			
	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
	 '	 '				
mm	175	175	175			
t∕m³	1.94	1.99	1.97		1	
%	27.1	23.8	29.3		1	1
	384	385	386 Stan	Indard	1	
mm	19.0	19.0				
wet	0	0	0			+
t/m³	÷	2.05	2.04			1
t/m³	-	-	-			+
%	26.0	25.5	28.0			
	1.0% wet	1.5% dry	1.5% wet			
%	96.5	97.0	96.5			Т
	t/m ³ % 	REFER TO FIGURE 1 mm 175 t/m³ 1.94 % 27.1 384	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c ccccc} REFER \\ TO \\ FIGURE 1 \\ \hline TO \\ FIGU$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R102
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	12/02/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	10/01/19
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 18:18

Test procedure AS 1289.2.1.1 & 5.8.1

Test No	ļ	387	388	389	-	-	-
Location			[1			
	P	REFER	REFER	REFER			
	P	то	то	то			
	P	FIGURE 1	FIGURE 1	FIGURE 1			
	I	1	1				
	I	1	1				
	!	<u> </u> '	<u> </u>				
Approximate depth below FSL		<u> </u>	<u> </u>	['			
Measurement depth	тт	175	175	175	-	-	-
Field wet density	t∕m³	2.16	2.18	2.16	-	-	-
Field moisture content	%	15.9	18.4	20.7	-	-	-
	_				_	_	_
Test procedure AS 1289.5.7.1			<u> </u>				
Test No		387	388	389	-	-	-
Compactive effort		<u> </u>			ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	2.18	2.19	2.17	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	<u> </u>	· '		-	-	-
Optimum Moisture Content	%	16.5	19.5	21.5	-	-	-
Moisture Variation From		0.5%	1.0%	1.0%	-	-	-
Optimum Moisture Content	ł	dry	dry	dry			
		, , , , , , , , , , , , , , , , , , ,	,		<u> </u>	<u> </u>	<u>I</u>
Density Ratio (R HD)	%	99.0	99.0	99.5	-	-	-
Density Ratio(R _{HD})	%				-	-	
aterial description							
No 387 - 389 Clay Fill							

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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R103
6 - 8 Rose Aveni	ue, Croydon 3136	Date Issued	12/02/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	11/01/19
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 16:25

Test procedure AS 1289.2.1.1 & 5.8.1

	390	391	392	393	394	395
I	REFER	REFER	REFER	REFER	REFER	REFER
I	то	то	то	то	то	то
ļ	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1
I						
I						
!	'					
	 '					
mm		_		-	-	175
						2.01
%	15.6	15.2	21.6	24.8	19.5	26.1
		004				0.05
	390	391			394	395
	40.0			1	40.0	10.0
						19.0
		-	÷	÷	÷	0
	1.99	2.03	2.02	2.03	2.02	2.02
	<u> </u>	-	-	-	-	-
%	18.5	18.0	24.5	28.5	22.5	29.5
	2.5%	2.0%	2.5%	2.5%	2.5%	2.5%
I	dry	dry	dry	dry	dry	dry
	<u></u>					
		99.5	99.0	99.5	98.5	99.5
	mm t/m³ % mm wet t/m³ t/m³ %	TO FIGURE 1 mm 175 t/m³ 1.95 % 15.6 mm 19.0 wet 0 t/m³ 1.99 t/m³ - % 18.5	$\begin{array}{c c c c c c c } TO & TO \\ FIGURE 1 & FIGURE 1 \\ \hline \\ FIGURE 1 & FIGURE 1 \\ \hline \\ FIGURE 1 & FIGURE 1 \\ \hline \\ \hline \\ mm & 175 & 175 \\ 175 & 2.01 \\ \hline \\ \hline \\ mm & 1.95 & 2.01 \\ \hline \\ \% & 15.6 & 15.2 \\ \hline \\ \hline \\ & & & & & \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R104
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	05/02/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	12/01/19
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 16:43

Test procedure AS 1289.2.1.1 & 5.8.1

I	396	397	398	399	400	401
	1	·	· · · · · · · · · · · · · · · · · · ·	· · · · · ·	ł	
I	REFER	REFER	REFER	REFER	REFER	REFER
I	то	то	то	то	то	то
I	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1
I	1					
I	1					
mm	175	175	175	175	175	175
t∕m³	1.85	2.00	2.00	1.99	1.99	2.00
%	19.2	16.3	18.9	20.5	20.3	23.0
	<u> </u>	<u> </u>	<u> </u>	<u> </u>		
I	396	397	398	399	400	401
i				1		
mm	19.0	19.0	19.0	19.0	19.0	19.0
wet	0	0	0	0	0	0
t∕m³	1.95	2.05	2.05	2.05	2.05	2.05
t∕m³	-	-	-	<u> </u>	-	-
%	21.5	19.0	21.5	23.0	22.5	25.5
	2.5%	2.5%	2.5%	2.5%	2.0%	2.5%
						dry
1	drv	drv	drv	dry		uly
	dry	dry	dry	dry	dry	ury
	t/m ³ % mm wet t/m ³ t/m ³	REFER TO FIGURE 1 mm 175 t/m³ 1.85 % 19.2 396 - mm 19.0 wet 0 t/m³ 1.95 t/m³ -	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R105
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	05/03/2019
Client	ROKON (RICHMOND)	Tested by	JB
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	14/01/19
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 11:00

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		402	403	404	405	406	407
Location			<u> </u>				
	I	REFER	REFER	REFER	REFER	REFER	REFER
	I	то	то	то	то	то	то
	I	FIGURE 1					
	I						
	I						
		ļ'		ļ'	L	ļ'	Ļ
Approximate depth below FSL		ļ'	Ļ	ļ'	Ļ	ļ'	Ļ
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	1.87	1.84	1.88	1.88	1.96	1.93
Field moisture content	%	18.0	19.1	25.2	18.5	16.1	23.3
Test procedure AS 1289.5.7.1							
Test No		402	403	404	405	406	407
Compactive effort				Star	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	4	6	0	4	3	0
Peak Converted Wet Density	t∕m³	1.92	1.89	1.91	1.92	1.97	1.95
Adjusted Peak Converted Wet Density	t∕m³	1.93	1.91		1.93	1.99	-
Optimum Moisture Content	%	20.5	21.5	28.0	21.0	18.5	23.5
<u>.</u>							
Moisture Variation From		2.5%	2.0%	2.5%	2.0%	2.5%	0.0%
Optimum Moisture Content	I	dry	dry	dry	dry	dry	
· · · · · · · · · · · · · · · · · · ·		<u> </u>		<u> </u>		<u> </u>	
						98.5	98.5



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CIVIL GEOTEC	CHNICAL SERVICES	Job No Report No	18409 18409/R106
6 - 8 Rose Avenu	ie, Croydon 3136	Date Issued	05/03/2019
Client	ROKON (RICHMOND)	Tested by	JB
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	15/01/19
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 11:45

Test procedure AS 1289.2.1.1 & 5.8.1

ı	408	409	410	411	412	413
	·		1			
,	REFER	REFER	REFER	REFER	REFER	REFER
ŗ	то	то	то	то	то	то
ļ	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1
,	!					
,	1					
I	1					
	['		İ			
mm	175	175	175	175	175	175
t∕m³	1.82	1.73	1.78	1.97	1.95	1.93
%	21.1	19.4	21.4	22.9	25.8	25.4
	408	409	410	411	412	413
'			Star	ndard		
mm	19.0	19.0	19.0	19.0	19.0	19.0
wet	0	3	0	4	5	5
t∕m³	1.88	1.79	1.85	1.98	1.96	1.95
t∕m³	· · ·	1.81	-	1.99	1.98	1.97
%	21.0	22.0	24.0	23.0	23.0	23.0
	0.0%	2.5%	2.5%	0.0%	2.5%	2.5%
ļ		dry	dry	•••••	wet	wet
	·		/			
	t/m ³ % mm wet t/m ³ t/m ³	REFER TO FIGURE 1 mm 175 t/m³ 1.82 % 21.1 408 mm 19.0 wet 0 t/m³ 1.88 t/m³ 1.88	REFER TO FIGURE 1 REFER TO FIGURE 1 mm 175 1.82 1.73 % 21.1 408 409 mm 19.0 wet 0 3 1.88 1.79 1.81 % 21.0 22.0 2.5%	$\begin{array}{c ccccc} REFER \\ TO \\ FIGURE 1 \\ \hline TO \\ TO \\$	REFER REFER REFER REFER REFER REFER REFER TO FIGURE 1 FIGURE 1 FIGURE 1 FIGURE 1 FIGURE 1 FIGURE 1 mm 175 175 175 175 t/m^3 1.82 1.73 1.78 1.97 % 21.1 19.4 21.4 22.9 408 409 410 411 Standard mm 19.0 19.0 19.0 wet 0 3 0 4 t/m^3 1.88 1.79 1.85 1.98 t/m^3 - 1.81 - 1.99 % 21.0 22.0 24.0 23.0	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R107
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	05/03/2019
Client	ROKON (RICHMOND)	Tested by	WS
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	16/01/19
Location	WERRIBEE	Checked by	JHF

Feature EARTHWORKS Layer thickness 200 mm Tin	e: 07:30
---	----------

Test procedure AS 1289.2.1.1 & 5.8.1

		414	415	416	417	418	419
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1
Approximate depth below FSL							
Measurement depth	тт	175	175	175	175	175	175
Field wet density	t∕m³	1.91	1.90	1.82	1.91	1.93	1.91
Field moisture content	%	23.4	21.9	23.1	28.9	18.3	21.6
Test No		414	415	416	417	418	419
				01	d a stal		419
Compactive effort	m m	10.0	10.0		idard	10.0	1
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	19.0
Oversize rock retained on sieve Percent of oversize material	wet	0	0	19.0 0	19.0 0	0	19.0 0
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³			19.0	19.0		19.0
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	0 1.93 -	0 1.93 -	19.0 0 1.86 -	19.0 0 1.95 -	0 1.95 -	19.0 0 1.91 -
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³	0	0	19.0 0	19.0 0	0	19.0 0
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	0 1.93 -	0 1.93 -	19.0 0 1.86 -	19.0 0 1.95 -	0 1.95 -	19.0 0 1.91 -
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	0 1.93 - 26.5	0 1.93 - 24.5	19.0 0 1.86 - 26.0	19.0 0 1.95 - 32.0	0 1.95 - 21.0	19.0 0 1.91 - 24.5
Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	0 1.93 - 26.5 2.5%	0 1.93 - 24.5 2.5%	19.0 0 1.86 - 26.0 2.5%	19.0 0 1.95 - 32.0 2.5%	0 1.95 - 21.0 2.5%	19.0 0 1.91 - 24.5 2.5%

Material description

No 414 - 419 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R108
6 - 8 Rose Aveni	ue, Croydon 3136	Date Issued	07/02/2019
Client	ROKON (RICHMOND)	Tested by	WS
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	17/01/19
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	<i>Time:</i> 07:30
---------	------------	-----------------	--------	--------------------

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		420	421	422	423	424	425
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m³	2.15	2.12	2.04	1.99	1.90	1.90
Field moisture content	%	15.5	19.9	14.2	16.7	22.9	21.3
Test procedure AS 1289.5.7.1		420	421	422	422	424	125
Test No		420	421	422 Star	423	424	425
Test No Compactive effort	mm			Star	dard		-
Test No Compactive effort Oversize rock retained on sieve	mm wet	19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.17	19.0 0 2.17 -	Star 19.0 0 2.07 -	dard 19.0 0 2.02 -	19.0 0 1.93	19.0 0 1.94
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.17	19.0 0 2.17 -	Star 19.0 0 2.07 -	dard 19.0 0 2.02 -	19.0 0 1.93	19.0 0 1.94
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 2.17 - 18.0	19.0 0 2.17 - 22.5	Star 19.0 0 2.07 - 16.5	dard 19.0 0 2.02 - 19.0	19.0 0 1.93 - 21.0	19.0 0 1.94 - 24.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 2.17 - 18.0 2.0%	19.0 0 2.17 - 22.5 2.0%	Star 19.0 0 2.07 - 16.5 2.5%	dard 19.0 0 2.02 - 19.0 2.0%	19.0 0 1.93 - 21.0 2.0%	19.0 0 1.94 - 24.0 2.5%

No 420 - 425 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R109
6 - 8 Rose Aveni	ue, Croydon 3136	Date Issued	12/02/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	18/01/19
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	<i>Time:</i> 16:04
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		426	427	428	429	430	431
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	2.16	2.18	2.08	2.17	2.17	2.17
Field moisture content	%	13.8	12.1	12.3	11.0	12.1	11.3
		426	407	429	420	420	421
Test procedure AS 1289.5.7.1		426	127	128	120	430	431
Test procedure AS 1289.5.7.1 Test No Compactive effort		426	427	428 Star	429 Idard	430	431
Test No	mm	426	427 19.0	-	-	430 19.0	431
Test No Compactive effort	mm wet			Star	dard		
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material		19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.16	19.0 0 2.18	Star 19.0 0 2.11	dard 19.0 0 2.18 -	19.0 0 2.18	19.0 0 2.18
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.16	19.0 0 2.18	Star 19.0 0 2.11	dard 19.0 0 2.18 -	19.0 0 2.18	19.0 0 2.18
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 2.16 - 16.5	19.0 0 2.18 - 14.5	Star 19.0 0 2.11 - 15.0	idard 19.0 0 2.18 - 13.5	19.0 0 2.18 - 14.5	19.0 0 2.18 - 13.5
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 2.16 - 16.5 2.0%	19.0 0 2.18 - 14.5 2.0%	Star 19.0 0 2.11 - 15.0 2.0%	dard 19.0 0 2.18 - 13.5 2.0%	19.0 0 2.18 - 14.5 2.0%	19.0 0 2.18 - 13.5 2.0%

No 426 - 431 Clay Fill



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Approved Signatory : Justin Fry



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R110
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	12/02/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	19/01/19
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	<i>Time:</i> 16:05
---------	------------	-----------------	--------	--------------------

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		432	433	434	435	436	437
Location	·						
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	тт	175	175	175	175	175	175
Field wet density	t∕m³	2.04	2.10	2.16	2.15	2.09	2.01
Field moisture content	%	11.1	12.5	11.5	11.8	10.2	10.6
Test procedure AS 1289.5.7.1							
		432	433	434	435	436	437
Test No Compactive effort				Stan	idard		
Test No Compactive effort Oversize rock retained on sieve	mm	19.0	19.0	Stan 19.0	idard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Stan 19.0 0	19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0	19.0	Stan 19.0	idard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.08	19.0 0 2.11 -	Stan 19.0 0 2.16 -	dard 19.0 0 2.17 -	19.0 0 2.12	19.0 0 2.05 -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Stan 19.0 0	19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.08	19.0 0 2.11 -	Stan 19.0 0 2.16 -	dard 19.0 0 2.17 -	19.0 0 2.12	19.0 0 2.05
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.08	19.0 0 2.11 -	Stan 19.0 0 2.16 -	dard 19.0 0 2.17 -	19.0 0 2.12	19.0 0 2.05
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 2.08 - 14.0	19.0 0 2.11 - 15.0	Stan 19.0 0 2.16 - 14.0	idard 19.0 0 2.17 - 14.5	19.0 0 2.12 - 13.0	19.0 0 2.05 - 13.5
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 2.08 - 14.0 2.5%	19.0 0 2.11 - 15.0 2.5%	Stan 19.0 0 2.16 - 14.0 2.5%	dard 19.0 0 2.17 - 14.5 2.5%	19.0 0 2.12 - 13.0 2.5%	19.0 0 2.05 - 13.5 2.5%

Material description

No 432 - 437 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R111
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	12/02/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	21/01/19
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 16:06

Test procedure AS 1289.2.1.1 & 5.8.1

	438	439	440	-	-	-
ł	REFER	REFER	REFER			
ł	то	то	то			
ļ	FIGURE 1	FIGURE 1	FIGURE 1			
ļ						
ļ						
'	475	475	475			
						-
					-	-
%	13.7	10.7	14.0	-	-	-
	120	120	440			-
!	430	439			-	-
	10.0	10.0		daru		1
				-	-	-
		-				
						-
					-	-
%	16.5	13.0	16.0	-	-	-
	2.5%	2.5%	2.0%	-	-	-
I	dry	dry	dry			
	, <u>, , , , , , , , , , , , , , , , , , </u>					
	mm t/m³ % mm wet t/m³ t/m³ %	REFER TO FIGURE 1 mm 175 t/m³ 1.96 % 13.7 438	REFER TO FIGURE 1 REFER TO FIGURE 1 mm 175 1.96 1.98 % 13.7 10.7 mm 19.0 wet 3 1.95 1.98 1.9.0 19.0 wet 3 1.95 1.98 1/m³ 1.95 1.99 %	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $



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Approved Signatory : Justin Fry



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R112
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	12/02/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	22/01/19
Location	WERRIBEE	Checked by	JHF

 Feature
 EARTHWORKS
 Layer thickness
 200 mm
 Time: 16:44

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		441	442	443	444	445	446
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m ³	2.09	2.10	2.04	2.18	2.15	2.01
-	%	24.1	22.6	25.5	26.4	26.6	25.9
FIEID MOISTURE CONTENT		2	22.0	20.0	2011	20.0	20.0
Field moisture content	70						
	70						
Field moisture content Test procedure AS 1289.5.7.1 Test No	70	441	442	443	444	445	446
Test procedure AS 1289.5.7.1 Test No	70	441	442		444 Idard	445	446
Test procedure AS 1289.5.7.1	mm	441	442 19.0			445 19.0	446 19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort				Star	dard	1	
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	mm	19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve	mm wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	mm wet t/m³	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	mm wet t/m³ t/m³	19.0 0 2.12 -	19.0 0 2.12 -	Star 19.0 0 2.07 -	dard 19.0 0 2.19 -	19.0 0 2.16 -	19.0 0 2.06 -
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	mm wet t/m³ t/m³	19.0 0 2.12 -	19.0 0 2.12 -	Star 19.0 0 2.07 -	dard 19.0 0 2.19 -	19.0 0 2.16 -	19.0 0 2.06 -
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	mm wet t/m³ t/m³	19.0 0 2.12 - 27.0	19.0 0 2.12 - 25.5	Star 19.0 0 2.07 - 28.5	idard 19.0 0 2.19 - 29.5	19.0 0 2.16 - 29.5	19.0 0 2.06 - 29.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	mm wet t/m³ t/m³	19.0 0 2.12 - 27.0 2.0%	19.0 0 2.12 - 25.5 2.5%	Star 19.0 0 2.07 - 28.5 2.5%	dard 19.0 0 2.19 - 29.5 2.5%	19.0 0 2.16 - 29.5 2.5%	19.0 0 2.06 - 29.0 2.0%

No 441 - 446 Clay Fill



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Approved Signatory : Justin Fry



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R113
6 - 8 Rose Aveni	ue, Croydon 3136	Date Issued	01/02/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	23/01/19
Location	WERRIBEE	Checked by	JHF

FeatureEARTHWORKSLayer thickness200 mmTime: 06:46

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		447	448	449	450	451	452
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	тт	175	175	175	175	175	175
Field wet density	t∕m³	1.92	1.93	1.89	1.80	1.83	1.82
Field moisture content	%	18.6	15.6	17.8	20.6	20.8	18.8
		447	119	440	450	151	452
Test procedure AS 1289.5.7.1 Test No		447	448	449	450	451	452
Test No Compactive effort				Star	dard		
Test No Compactive effort Oversize rock retained on sieve	mm	19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 11	19.0 17	Star 19.0 11	dard 19.0 6	19.0 12	19.0 6
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density		19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 11 1.91 1.95	19.0 17 1.91 1.97	Star 19.0 11 1.86 1.91	dard 19.0 6 1.78 1.81	19.0 12 1.76 1.82	19.0 6 1.82 1.84
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 11 1.91	19.0 17 1.91	Star 19.0 11 1.86	dard 19.0 6 1.78	19.0 12 1.76	19.0 6 1.82
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 11 1.91 1.95	19.0 17 1.91 1.97	Star 19.0 11 1.86 1.91	dard 19.0 6 1.78 1.81	19.0 12 1.76 1.82	19.0 6 1.82 1.84
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 11 1.91 1.95	19.0 17 1.91 1.97	Star 19.0 11 1.86 1.91	dard 19.0 6 1.78 1.81	19.0 12 1.76 1.82	19.0 6 1.82 1.84
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 11 1.91 1.95 21.0	19.0 17 1.91 1.97 18.0	Star 19.0 11 1.86 1.91 20.0	dard 19.0 6 1.78 1.81 23.0	19.0 12 1.76 1.82 23.5	19.0 6 1.82 1.84 21.5
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 11 1.91 1.95 21.0 2.5%	19.0 17 1.91 1.97 18.0 2.5%	Star 19.0 11 1.86 1.91 20.0 2.0%	dard 19.0 6 1.78 1.81 23.0 2.5%	19.0 12 1.76 1.82 23.5 2.5%	19.0 6 1.82 1.84 21.5 2.5%

No 447 - 452 Clay Fill



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Approved Signatory : Justin Fry



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R114
6 - 8 Rose Aveni	ue, Croydon 3136	Date Issued	31/01/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	24/01/19
Location	WERRIBEE	Checked by	JHF

Feature EARTHWORKS

Layer thickness

200 mm

Time: 06:47

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		453	454	455	456	457	458
Location							
	I	REFER	REFER	REFER	REFER	REFER	REFER
	I	то	то	то	то	то	то
	I	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1
	l	1		ļ			
	l	1		1			
		└─── '		└─── ′	[]		
Approximate depth below FSL		└── ′	·	<u>↓'</u>			
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m³	1.87	1.87	1.87	1.85	1.85	1.84
Field moisture content	%	14.1	14.6	14.4	13.9	14.2	14.3
Test procedure AS 1289.5.7.1							
Test No		453	454	455	456	457	458
Compactive effort					ndard		
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	1	0	0	0	0	0
Peak Converted Wet Density	t∕m³	1.90	1.90	1.91	1.88	1.88	1.89
Adjusted Peak Converted Wet Density	t∕m³	1.91	-	-	-	-	-
Optimum Moisture Content	%	16.5	17.0	16.5	16.0	17.0	17.0
			. <u> </u>	<u> </u>			
Moisture Variation From		2.5%	2.5%	2.0%	2.0%	2.5%	2.5%
Optimum Moisture Content	I	dry	dry	dry	dry	dry	dry
· · · ·						98.5	97.5

NATA TECHNICAL

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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R115
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	05/02/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	29/01/19
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 18:23

Test procedure AS 1289.2.1.1 & 5.8.1

mm t/m³	REFER TO FIGURE 1 175	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
t∕m³	TO FIGURE 1	TO FIGURE 1	то	то	ТО	то
t∕m³	FIGURE 1	FIGURE 1				
t∕m³	FIGURE 1	FIGURE 1				
t∕m³						
t∕m³	175	475				
t∕m³	175	475			ļ	
t∕m³	175	475		1		
t∕m³	175	475	4	1	1′	<u> </u>
		175	175	175	175	175
	1.93	2.03	2.02	2.03	2.02	2.04
%	29.4	23.2	21.7	29.0	27.3	24.5
			<u> </u>			• • • •
<u> </u>	459	460			463	464
<u> </u>		-			-	.
тт	19.0	19.0	19.0	19.0	19.0	19.0
wet	0	0	0	0	0	0
t∕m³	1.95	2.05	2.05	2.05	2.05	2.05
t∕m³	<u> </u>	-	<u> </u>	-	<u> </u>	-
%	27.5	20.0	20.0	26.5	25.5	22.5
	2.0%	2.0%	2.0%	2.5%	2.0%	2.0%
ļ	wet	wet	wet	wet	wet	wet
	<u>. </u>	<u>. </u>	<u>. </u>	<u>. </u>	<u>.</u>	<u></u>
%	99.0	98.5	98.5	99.0	98.5	99.5
	wet t/m³ t/m³ %	wet 0 t/m³ 1.95 t/m³ - % 27.5 2.0% wet	mm 19.0 19.0 wet 0 0 t/m³ 1.95 2.05 t/m³ - - % 27.5 20.0 2.0% 2.0% wet	mm 19.0 19.0 19.0 19.0 wet 0 0 0 0 t/m³ 1.95 2.05 2.05 t/m³ - - - % 27.5 20.0 20.0 2.0% 2.0% 2.0% wet	Standard mm 19.0 19.0 19.0 19.0 wet 0 0 0 0 0 t/m³ 1.95 2.05 2.05 2.05 2.05 t/m³ - <td>Standard mm 19.0 19.0 19.0 19.0 19.0 wet 0 0 0 0 0 0 t/m³ 1.95 2.05 2.05 2.05 2.05 2.05 t/m³ - - - - - - - % 27.5 20.0 20.0 26.5 25.5 2.0% 2.0% 2.0% 2.0% 2.5% 2.0% wet wet</td>	Standard mm 19.0 19.0 19.0 19.0 19.0 wet 0 0 0 0 0 0 t/m³ 1.95 2.05 2.05 2.05 2.05 2.05 t/m³ - - - - - - - % 27.5 20.0 20.0 26.5 25.5 2.0% 2.0% 2.0% 2.0% 2.5% 2.0% wet wet

No 459 - 464 Clay Fill



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Approved Signatory : Justin Fry



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R116
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	05/02/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	30/01/19
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 18:24

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		465	466	467	-	-	-
Location							
	l	REFER	REFER	REFER			
	l	ТО	TO	то			
	l	FIGURE 1	FIGURE 1	FIGURE 1			
	l	TICOILE !	TICOILE !	TIGOILE !			
	l						
	l						
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t∕m³	2.03	2.04	2.03	-	-	-
Field moisture content	%	21.3	27.7	25.4	-	-	-
Test procedure AS 1289.5.7.1							
Test No		465	466	467	-	-	-
Compactive effort				Stan	dard		
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t∕m³	2.06	2.05	2.05	-	-	-
Adjusted Peak Converted Wet Density	t∕m³	-	-	-	-	-	-
Optimum Moisture Content	%	19.5	25.5	23.0	-	-	-
Moisture Variation From		2.0%	2.0%	2.5%	-	_	-
	l	wet	wet	wet			
Optimum Moisture Content							
Optimum Moisture Content							



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R117
6 - 8 Rose Aveni	ue, Croydon 3136	Date Issued	05/03/2019
Client	ROKON (RICHMOND)	Tested by	JB
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	31/01/19
Location	WERRIBEE	Checked by	JHF

Feature EA

EARTHWORKS

Layer thickness

200 mm

Time: 11:00

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		468	469	470	471	472	473
Location			[1		1	
	1	REFER	REFER	REFER	REFER	REFER	REFER
	1	то	то	то	то	то	то
	1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1
	1						1
	1						1
	'	<u> </u> '	<u> </u>	<u> </u>		<u> </u>	<u> </u>
Approximate depth below FSL	'	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	1.81	1.87	1.88	1.87	1.85	1.89
Field moisture content	%	29.7	34.2	31.3	28.5	27.4	27.5
Test procedure AS 1289.5.7.1		-	-	•		•	
Test No		468	469	470	471	472	473
Compactive effort	'	L		1	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	4	3	0	0	4
Peak Converted Wet Density	t∕m³	1.84	1.91	1.90	1.91	1.89	1.92
Adjusted Peak Converted Wet Density	t∕m³	<u> </u>	1.92	1.91	-	-	1.93
Optimum Moisture Content	%	27.5	32.5	29.0	28.5	25.0	25.0
Moisture Variation From		2.5%	1.5%	2.0%	0.0%	2.5%	2.5%
Optimum Moisture Content	1	wet	wet	wet		wet	wet
· ·		۰. · · ·	۰		L		<u></u>
Density Ratio(R _{HD})	%	98.0	97.5	98.0	98.0	98.0	98.0
· · · · · ·		·	·	·	·	·	L
Material description							
No 468 - 473 Clay Fill							
NO 400 - 475 Olay I III							



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Approved Signatory : Justin Fry



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R118
6 - 8 Rose Aveni	ue, Croydon 3136	Date Issued	05/03/2019
Client	ROKON (RICHMOND)	Tested by	JB
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	07/02/19
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	<i>Time:</i> 12:01
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		474	475	476	477	478	479
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	1.92	1.91	1.94	1.94	1.90	1.96
Field moisture content	%	30.5	25.8	27.8	29.1	29.2	23.5
Test procedure AS 1289.5.7.1							
Test procedure AS 1289.5.7.1		474	475	476	477	478	/70
Test No		474	475	476 Star	477 dard	478	479
Test No Compactive effort	mm		1	Star	dard		
Test No Compactive effort Oversize rock retained on sieve	mm wet	474 19.0 0	475 19.0 0			478 19.0 0	479 19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material		19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.95 -	19.0 0 1.93	Star 19.0 0 1.97 -	dard 19.0 0 1.97 -	19.0 0 1.93	19.0 0 1.97 -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.95 -	19.0 0 1.93	Star 19.0 0 1.97 -	dard 19.0 0 1.97 -	19.0 0 1.93	19.0 0 1.97 -
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 1.95 - 33.0	19.0 0 1.93 - 29.0	Star 19.0 0 1.97 - 30.5	ndard 19.0 0 1.97 - 26.5	19.0 0 1.93 - 27.5	19.0 0 1.97 - 23.5
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 1.95 - 33.0 2.5%	19.0 0 1.93 - 29.0 2.5%	Star 19.0 0 1.97 - 30.5 2.0%	dard 19.0 0 1.97 - 26.5 2.5%	19.0 0 1.93 - 27.5 1.5%	19.0 0 1.97 - 23.5

No 474 - 479 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R119
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	04/03/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	04/02/19
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 11:13

Test procedure AS 1289.2.1.1 & 5.8.1

		480	481	482	483	484	485
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
	ļ	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE [·]
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m³	1.82	1.75	1.83	1.92	1.81	1.78
Field moisture content	%	28.1	26.4	21.3	26.8	24.3	27.3
Test procedure AS 1289.5.7.1							
Test procedure AS 1289.5.7.1 Test No		480	481	482	483	484	485
Test No Compactive effort				Stan	dard		
Test No Compactive effort Oversize rock retained on sieve	mm	19.0	19.0	Stan 19.0	dard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 11	19.0 9	Stan 19.0 1	dard 19.0 5	19.0 2	19.0 2
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 11 1.77	19.0 9 1.70	Stan 19.0 1 1.83	dard 19.0 5 1.92	19.0 2 1.82	19.0 2 1.81
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet	19.0 11	19.0 9	Stan 19.0 1	dard 19.0 5	19.0 2	19.0 2
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³ t/m³	19.0 11 1.77 1.82	19.0 9 1.70 1.74	Stan 19.0 1 1.83 1.84	dard 19.0 5 1.92 1.94	19.0 2 1.82 1.83	19.0 2 1.81 1.82
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 11 1.77 1.82	19.0 9 1.70 1.74	Stan 19.0 1 1.83 1.84	dard 19.0 5 1.92 1.94	19.0 2 1.82 1.83	19.0 2 1.81 1.82
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 11 1.77 1.82 30.5	19.0 9 1.70 1.74 29.0	Stan 19.0 1 1.83 1.84 24.0	dard 19.0 5 1.92 1.94 26.0	19.0 2 1.82 1.83 27.0	19.0 2 1.81 1.82 29.5 2.0%
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 11 1.77 1.82 30.5 2.0%	19.0 9 1.70 1.74 29.0 2.5%	Stan 19.0 1 1.83 1.84 24.0 2.5%	dard 19.0 5 1.92 1.94 26.0 0.5%	19.0 2 1.82 1.83 27.0 2.5%	19.0 2 1.81 1.82 29.5

No 480 - 485 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R120
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	05/03/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	05/02/19
Location		Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	<i>Time:</i> 07:15

Test procedure AS 1289.2.1.1 & 5.8.1

		486	487	488	489	490	491
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	2.00	2.06	2.03	2.04	2.04	1.99
Field moisture content	%	19.0	18.9	19.8	19.4	21.9	19.2
Test procedure AS 1289.5.7.1 Test No		486	487	488	489	490	491
1631110		100	101	100	100	100	491
Compactive effort		100	107		dard	100	491
	mm	19.0	19.0			19.0	19.0
Compactive effort Oversize rock retained on sieve	mm wet		1	Stan	dard	r <u> </u>	
Compactive effort Oversize rock retained on sieve Percent of oversize material		19.0	19.0	Stan 19.0	dard 19.0	19.0	19.0
Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Stan 19.0 0	dard 19.0 0	19.0 0	19.0 0
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Stan 19.0 0	dard 19.0 0	19.0 0	19.0 0
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.08	19.0 0 2.08	Stan 19.0 0 2.06	dard 19.0 0 2.10	19.0 0 2.05	19.0 0 2.01
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 2.08	19.0 0 2.08	Stan 19.0 0 2.06	dard 19.0 0 2.10	19.0 0 2.05	19.0 0 2.01
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 2.08 - 22.0 2.5%	19.0 0 2.08 - 21.5	Stan 19.0 0 2.06 - 23.0 2.5%	dard 19.0 0 2.10 - 22.5 2.5%	19.0 0 2.05 - 24.5 2.0%	19.0 0 2.01 - 22.0 2.5%
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 2.08 - 22.0	19.0 0 2.08 - 21.5 2.0%	Stan 19.0 0 2.06 - 23.0	dard 19.0 0 2.10 - 22.5	19.0 0 2.05 - 24.5	19.0 0 2.01 - 22.0

No 486 - 491 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R121
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	05/03/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	06/02/19
Location	WERRIBEE	Checked by	JHF

Feature EA

EARTHWORKS

Layer thickness

200 mm

Time: 18:03

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		492	493	494	495	496	497
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1
		1100112	1100112	THOUSE !	1100112		1.001.2
Approximate depth below FSL							
Measurement depth	тт	175	175	175	175	175	175
Field wet density	t∕m³	1.96	1.89	1.90	1.90	1.90	1.98
Field moisture content	%	25.6	23.3	23.0	23.1	26.2	25.9
Test procedure AS 1289.5.7.1		400	402	404	405	400	407
Test procedure AS 1289.5.7.1		492	493	494	495	496	497
Test procedure AS 1289.5.7.1		492	493		495 dard	496	497
Test procedure AS 1289.5.7.1 Test No	mm	492 19.0	493 19.0			496 19.0	497 19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort	mm wet			Star	dard		
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve		19.0	19.0	Star 19.0	dard 19.0	19.0	19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 0	19.0 0	Star 19.0 0	dard 19.0 0	19.0 0	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.98	19.0 0 1.92	Star 19.0 0 1.93	dard 19.0 0 1.92	19.0 0 1.93	19.0 0 1.99 -
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.98	19.0 0 1.92	Star 19.0 0 1.93	dard 19.0 0 1.92	19.0 0 1.93	19.0 0 1.99 -
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 1.98 - 26.5 1.0%	19.0 0 1.92 - 26.0 2.5%	Star 19.0 0 1.93 - 26.0 2.5%	dard 19.0 0 1.92 - 25.5 2.0%	19.0 0 1.93 - 28.5 2.0%	19.0 0 1.99 - 27.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 1.98 - 26.5	19.0 0 1.92 - 26.0	Star 19.0 0 1.93 - 26.0	dard 19.0 0 1.92 - 25.5	19.0 0 1.93 - 28.5	19.0 0 1.99 - 27.0

No 492 - 497 Clay Fill

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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R122
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	06/03/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	06/02/19
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 18:05

Test procedure AS 1289.2.1.1 & 5.8.1

ł	498	499	500	501	502	503
	1	· · · · · ·			1	
I	REFER	REFER	REFER	REFER	REFER	REFER
I	то	то	то	то	то	то
I	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1
I	1		1			
I	1		1	l		
mm	175	175	175	175	175	175
t∕m³	1.96	1.90	1.95	1.99	1.96	1.96
%	30.0	23.6	27.1	23.1	27.5	23.2
i	498	499	500	501	502	503
			Stan	dard		
тт	19.0	19.0	19.0	19.0	19.0	19.0
wet	0	0	0	0	0	0
t∕m³	1.98	1.96	1.96	2.00	1.99	1.98
t∕m³				-	-	-
%	31.5	26.5	24.5	23.0	27.5	25.5
	1.5%	2.5%	2.5%	0.0%	0.0%	2.5%
		dry	wet	1		dry
i	ary	I UIV	1 100			
	dry	ury	wei	<u> </u>		
	t/m ³ % mm wet t/m ³ t/m ³	TO FIGURE 1 mm 175 t/m³ 1.96 % 30.0 498 mm 19.0 wet 0 t/m³ 1.98 t/m³ - % 31.5	TO FIGURE 1 TO FIGURE 1 mm 175 175 t/m³ 1.96 1.90 % 30.0 23.6 mm 19.0 23.6 mm 19.0 19.0 wet 0 0 t/m³ 1.98 1.96 t/m³ - - % 31.5 26.5	$\begin{array}{c cccc} TO \\ FIGURE 1 \\ \hline TO \\ FIGURE 1 \\ \hline FIGURE 1 $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

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Approved Signatory : Justin Fry



CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R123
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	06/03/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	11/02/19
Location	WERRIBEE	Checked by	JHF

Feature

EARTHWORKS

Layer thickness

200 mm

Time: 18:06

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		504	505	506	507	508	509
Location		·	·	·	·	†	
	ļ	REFER	REFER	REFER	REFER	REFER	REFER
	ļ	то	то	то	то	то	то
	I	FIGURE 1	FIGURE '				
	ļ						
	ļ	1 '	1	1 '		'	
	I	1	1	1		1	
Approximate depth below FSL	!	ſ'	[]	ſ'			
Measurement depth	тт	175	175	175	175	175	175
Field wet density	t∕m³	1.99	1.87	1.96	1.96	1.96	1.98
Field moisture content	%	22.4	24.2	23.6	25.2	26.8	23.2
Test procedure AS 1289.5.7.1							
Test No	!	504	505	506	507	508	509
Compactive effort				Stan	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0	0
Peak Converted Wet Density	t∕m³	2.01	1.94	1.97	1.97	1.97	1.99
Adjusted Peak Converted Wet Density	t∕m³	<u> </u>	'	-	<u> </u>		-
Optimum Moisture Content	%	23.5	26.5	26.0	28.0	30.0	26.0
Moisture Variation From		1.0%	2.5%	2.5%	2.5%	2.5%	2.5%
Optimum Moisture Content	ļ	dry	dry	dry	dry	dry	dry
		<u>_</u>	<u>_</u>	<u>_</u>	j	<u>-</u>	<u>_</u>
Density Ratio (R _{HD})	%	99.0	97.0	99.5	99.5	99.5	99.0
	, , , ,				00.0	00.0	00.0



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R124
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	07/03/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	13/02/19
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	<i>Time:</i> 10:35
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		510	511	512	513	514	515
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	1.93	1.90	1.83	1.93	1.94	1.89
Field moisture content	%	23.3	18.1	23.4	27.7	16.2	15.6
Test procedure AS 1289.5.7.1		540	544	540	540	544	545
Test procedure AS 1289.5.7.1 Test No		510	511	512	513	514	515
Test procedure AS 1289.5.7.1 Test No Compactive effort				Star	dard	514	
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve	mm	510 19.0	19.0	Star 19.0		19.0	19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort	mm wet			Star	dard	-	
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve		19.0	19.0	Star 19.0	ndard 19.0	19.0	19.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 1	19.0 0	Star 19.0 2	ndard 19.0 0	19.0 4	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 1 1.95	19.0 0	Star 19.0 2 1.88	ndard 19.0 0	19.0 4 1.95	19.0 0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 1 1.95 1.96	19.0 0 1.93 -	Star 19.0 2 1.88 1.89	dard 19.0 0 1.94 -	19.0 4 1.95 1.97	19.0 0 1.94 -
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 1 1.95 1.96	19.0 0 1.93 -	Star 19.0 2 1.88 1.89	dard 19.0 0 1.94 -	19.0 4 1.95 1.97	19.0 0 1.94 -
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 1 1.95 1.96 22.0	19.0 0 1.93 - 20.0	Star 19.0 2 1.88 1.89 21.0	ndard 19.0 0 1.94 - 26.5	19.0 4 1.95 1.97 18.0	19.0 0 1.94 - 18.0
Test procedure AS 1289.5.7.1 Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 1 1.95 1.96 22.0 1.5%	19.0 0 1.93 - 20.0 2.0%	Star 19.0 2 1.88 1.89 21.0 2.5%	ndard 19.0 0 1.94 - 26.5 1.5%	19.0 4 1.95 1.97 18.0 2.0%	19.0 0 1.94 - 18.0 2.5%

No 510 - 515 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R125
6 - 8 Rose Aven	ue, Croydon 3136	Date Issued	07/03/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	14/02/19
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	<i>Time:</i> 10:35
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		516	517	518	519	520	521
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	1.87	1.84	1.86	1.86	1.84	1.85
Field moisture content	%	20.6	21.5	16.0	19.6	21.3	21.1
Test procedure AS 1289.5.7.1							
Test procedure AS 1289.5.7.1 Test No		516	517	518	519	520	521
Test No Compactive effort			517		519 dard	520	521
Test No Compactive effort	mm	516 19.0	517 19.0	Star 19.0		520 19.0	19.0
Test No Compactive effort Oversize rock retained on sieve	mm wet		1	Star	dard	<u> </u>	
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material		19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.93	19.0 4	Star 19.0 5	dard 19.0 10	19.0 3	19.0 5 1.90 1.92
•	wet t/m³	19.0 0	19.0 4 1.90	Star 19.0 5 1.89	dard 19.0 10 1.89	19.0 3 1.90	19.0 5 1.90
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.93	19.0 4 1.90 1.92	Star 19.0 5 1.89 1.91	dard 19.0 10 1.89 1.93	19.0 3 1.90 1.92	19.0 5 1.90 1.92
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 0 1.93	19.0 4 1.90 1.92	Star 19.0 5 1.89 1.91	dard 19.0 10 1.89 1.93	19.0 3 1.90 1.92	19.0 5 1.90 1.92
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 0 1.93 - 23.0	19.0 4 1.90 1.92 23.0	Star 19.0 5 1.89 1.91 18.5	dard 19.0 10 1.89 1.93 21.5	19.0 3 1.90 1.92 24.0	19.0 5 1.90 1.92 23.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 0 1.93 - 23.0 2.5%	19.0 4 1.90 1.92 23.0 1.5%	Star 19.0 5 1.89 1.91 18.5 2.5%	dard 19.0 10 1.89 1.93 21.5 2.0%	19.0 3 1.90 1.92 24.0 2.5%	19.0 5 1.90 1.92 23.0 2.0%

No 516 - 521 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R126
6 - 8 Rose Avenu	ue, Croydon 3136	Date Issued	07/03/2019
Client	ROKON (RICHMOND)	Tested by	BGG
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	15/02/19
Location	WERRIBEE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	<i>Time:</i> 10:35

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		522	523	524	525	526	527
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	тт	175	175	175	175	175	175
Field wet density	t∕m³	1.90	1.91	1.90	1.88	1.93	1.88
Field moisture content	%	23.4	20.7	19.9	20.1	20.8	24.5
		522	523		525 Idard	526	527
Compactive effort				Star	ndard		
Oversize rock retained on sieve	тт	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	10	5	0	1	5	0
Peak Converted Wet Density	t∕m³	1.93	1.94	1.93	1.92	1.93	1.93
Adjusted Peak Converted Wet Density	t∕m³	1.96	1.96	-	1.93	1.95	-
Optimum Moisture Content	%	25.5	22.5	22.5	22.0	23.0	26.5
		2.0%	2.0%	2.5%	2.0%	2.0%	2.0%
Moisture Variation From		dnu	dry	dry	dry	dry	dry
Moisture Variation From Optimum Moisture Content		dry	. ,				
	%	97.0	97.5	98.5	97.5	98.5	97.5

No 522 - 527 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R127
6 - 8 Rose Aveni	ue, Croydon 3136	Date Issued	13/03/2019
Client	ROKON (RICHMOND)	Tested by	BS
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	18/02/19
Location	WERRIBEE	Checked by	JHF

FeatureEARTHWORKSLayer thickness200 mmTime: 13:45

Test procedure AS 1289.2.1.1 & 5.8.1

		528	529	530	531	532	533
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	1.80	1.87	1.89	1.80	1.86	1.86
Field moisture content	%	22.9	21.2	19.9	21.3	19.8	20.6
-		528	529	530	531	500	500
Test No		520	529			532	533
Compactive effort	mm			Star	dard		
Compactive effort Oversize rock retained on sieve	mm	19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Compactive effort Oversize rock retained on sieve Percent of oversize material	wet	19.0 8	19.0 6	Star 19.0 3	dard 19.0 5	19.0 8	19.0 0
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 8 1.83	19.0 6 1.92	Star 19.0 3 1.93	dard 19.0 5 1.86	19.0 8 1.90	19.0
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet	19.0 8	19.0 6	Star 19.0 3	dard 19.0 5	19.0 8	19.0 0
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 8 1.83 1.86	19.0 6 1.92 1.95	Star 19.0 3 1.93 1.94	dard 19.0 5 1.86 1.88	19.0 8 1.90 1.93	19.0 0 1.87 -
	wet t/m³ t/m³	19.0 8 1.83 1.86	19.0 6 1.92 1.95	Star 19.0 3 1.93 1.94	dard 19.0 5 1.86 1.88	19.0 8 1.90 1.93	19.0 0 1.87 -
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 8 1.83 1.86 24.5	19.0 6 1.92 1.95 23.0	Star 19.0 3 1.93 1.94 22.5	dard 19.0 5 1.86 1.88 24.0	19.0 8 1.90 1.93 22.0	19.0 0 1.87 - 23.0
Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 8 1.83 1.86 24.5 1.5%	19.0 6 1.92 1.95 23.0 2.0%	Star 19.0 3 1.93 1.94 22.5 2.5%	dard 19.0 5 1.86 1.88 24.0 2.5%	19.0 8 1.90 1.93 22.0 2.0%	19.0 0 1.87 - 23.0 2.5%

No 528 - 533 Clay Fill



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CIVIL GEOTE	CHNICAL SERVICES	Job No Report No	18409 18409/R128
6 - 8 Rose Aveni	ue, Croydon 3136	Date Issued	07/03/2019
Client	ROKON (RICHMOND)	Tested by	BS
Project	RIVERWALK - STAGE 24 - 26 BULK EARTHWORKS	Date tested	20/02/19
Location	WERRIBEE	Checked by	JHF

Feature EARTHWORKS Layer thickness 200 mm Time: 1	1:28
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		534	535	536	537	538	539
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		то	то	то	то	то	то
		FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE 1	FIGURE
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t∕m³	1.79	1.82	1.83	1.79	1.81	1.74
Field moisture content	%	22.7	24.5	21.9	21.4	25.9	24.4
		534	525	526	527	528	530
Test procedure AS 1289.5.7.1		524	505	520	507	520	520
Test No		534	535	536 Star	537 Idard	538	539
Test No Compactive effort	mm		1	Star	idard	1	
Test No Compactive effort Oversize rock retained on sieve	mm wet	534 19.0 7	535 19.0 0			538 19.0 0	539 19.0 3
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material		19.0	19.0	Star 19.0	idard 19.0	19.0	19.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet	19.0 7	19.0 0	Star 19.0 10	dard 19.0 3	19.0 0	19.0 3
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density	wet t/m³	19.0 7 1.85	19.0 0	Star 19.0 10 1.86	adard 19.0 3 1.83	19.0 0	19.0 3 1.80
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 7 1.85 1.88	19.0 0 1.86	Star 19.0 10 1.86 1.90	dard 19.0 3 1.83 1.84	19.0 0 1.84	19.0 3 1.80 1.82
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density	wet t/m³ t/m³	19.0 7 1.85 1.88	19.0 0 1.86	Star 19.0 10 1.86 1.90	dard 19.0 3 1.83 1.84	19.0 0 1.84	19.0 3 1.80 1.82
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content	wet t/m³ t/m³	19.0 7 1.85 1.88 25.0	19.0 0 1.86 - 27.0	Star 19.0 10 1.86 1.90 24.0	idard 19.0 3 1.83 1.84 23.5	19.0 0 1.84 - 28.5	19.0 3 1.80 1.82 27.0
Test No Compactive effort Oversize rock retained on sieve Percent of oversize material Peak Converted Wet Density Adjusted Peak Converted Wet Density Optimum Moisture Content Moisture Variation From	wet t/m³ t/m³	19.0 7 1.85 1.88 25.0 2.5%	19.0 0 1.86 - 27.0 2.5%	Star 19.0 10 1.86 1.90 24.0 2.0%	dard 19.0 3 1.83 1.84 23.5 2.0%	19.0 0 1.84 - 28.5 2.5%	19.0 3 1.80 1.82 27.0 2.5%

No 534 - 539 Clay Fill



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