



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

24<sup>th</sup> January 2023

Our Reference: 21747:NB1438

Winslow Constructors Pty Ltd  
50 Barry Road  
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING  
NEWBRIDGE – STAGE 7 (WALLAN)**

Please find attached our Report No's 21747/R001 to 21747/R023 which relate to the field density testing that was conducted within the filled allotments at the above subdivision. The level 1 inspections and associated field density testing commenced in January 2022 and was completed in March 2022.

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 inspection and testing was performed by experienced geotechnicians 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 reported allotments by Winslow Constructors 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 reported allotments by Winslow Constructors 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).

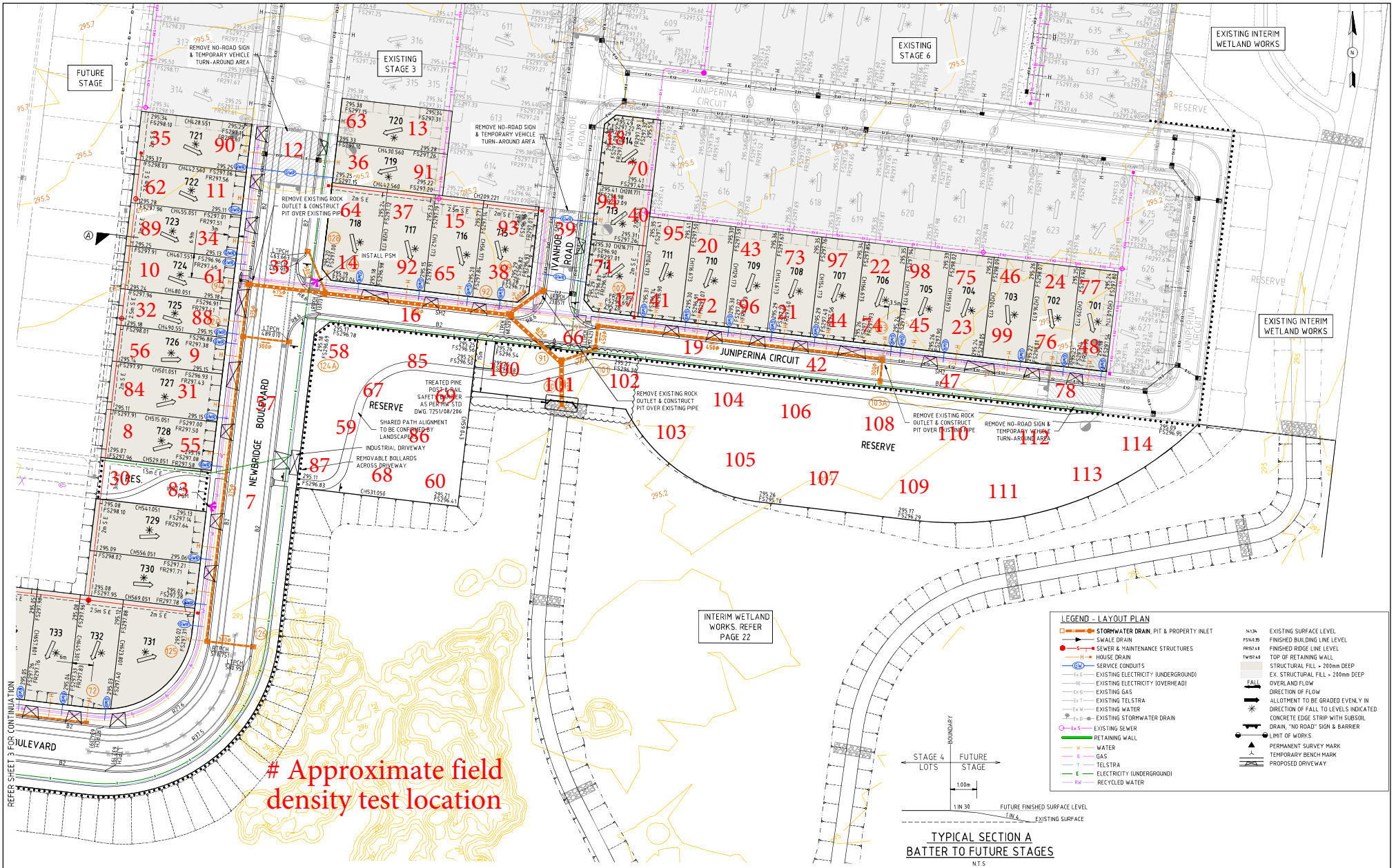
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

A handwritten signature in blue ink, appearing to read 'Nick Brock', is written over a faint circular stamp.

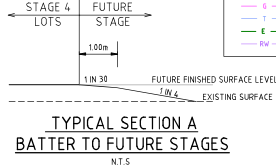
Nick Brock

# FIGURE 1 (1 of 2)



# Approximate field density test location

LEGEND - LAYOUT PLAN	
	STORMWATER DRAIN, PIT & PROPERTY INLET
	SWALE DRAIN
	SEWER & MAINTENANCE STRUCTURES
	HOUSE DRAIN
	SERVICE CONDUITS
	EXISTING ELECTRICITY (UNDERGROUND)
	EXISTING ELECTRICITY (OVERHEAD)
	EXISTING GAS
	EXISTING TEL STRA
	EXISTING WATER
	EXISTING STORMWATER DRAIN
	EXISTING SEWER
	RETAINING WALL
	WATER
	GAS
	TEL STRA
	ELECTRICITY (UNDERGROUND)
	RECYCLED WATER



NO.	REVISION	DATE	DESIGN	APPROVED
G	MW FENCE LOCATION UPDATED	17.12.21	MR	TP
F	15m ADDITIONAL RESERVE AREA ADDED	29.11.21	MR	JF
E	RESERVE EASEMENTS UPDATED	22.09.21	MR	TP
D	SHARED PATH NETWORK UPDATED	17.09.21	MR	TP
C	RESERVE EASEMENTS & DRAINAGE OUTLET SAFETY BARRIER UPDATED	16.09.21	MR	TP
B	UPDATED TO COUNCIL'S COMMENTS	20.08.21	MR	TP
A	ISSUED TO COUNCIL	25.06.21	MR	TP

**Approved for Construction**

Malvern Reference  
 665 E4  
  
 Principal  
 RESIMAX GROUP PTY LTD  
 2 DREWERY PLACE  
 MELBOURNE VIC 3000

**UrbanDesign**  
 and management  
 Urban Design and Management Pty Ltd  
 PO Box 468 Sunbury 3429  
 Phone: +61 3 9971 6300 | Fax: +61 3 9971 6399  
 Office 1, Level 1, 114 Evans Street, Sunbury, VIC, 3429  
 Project Management | Land Development | Civil Engineering |  
 Traffic and Transport Engineering | Urban Design

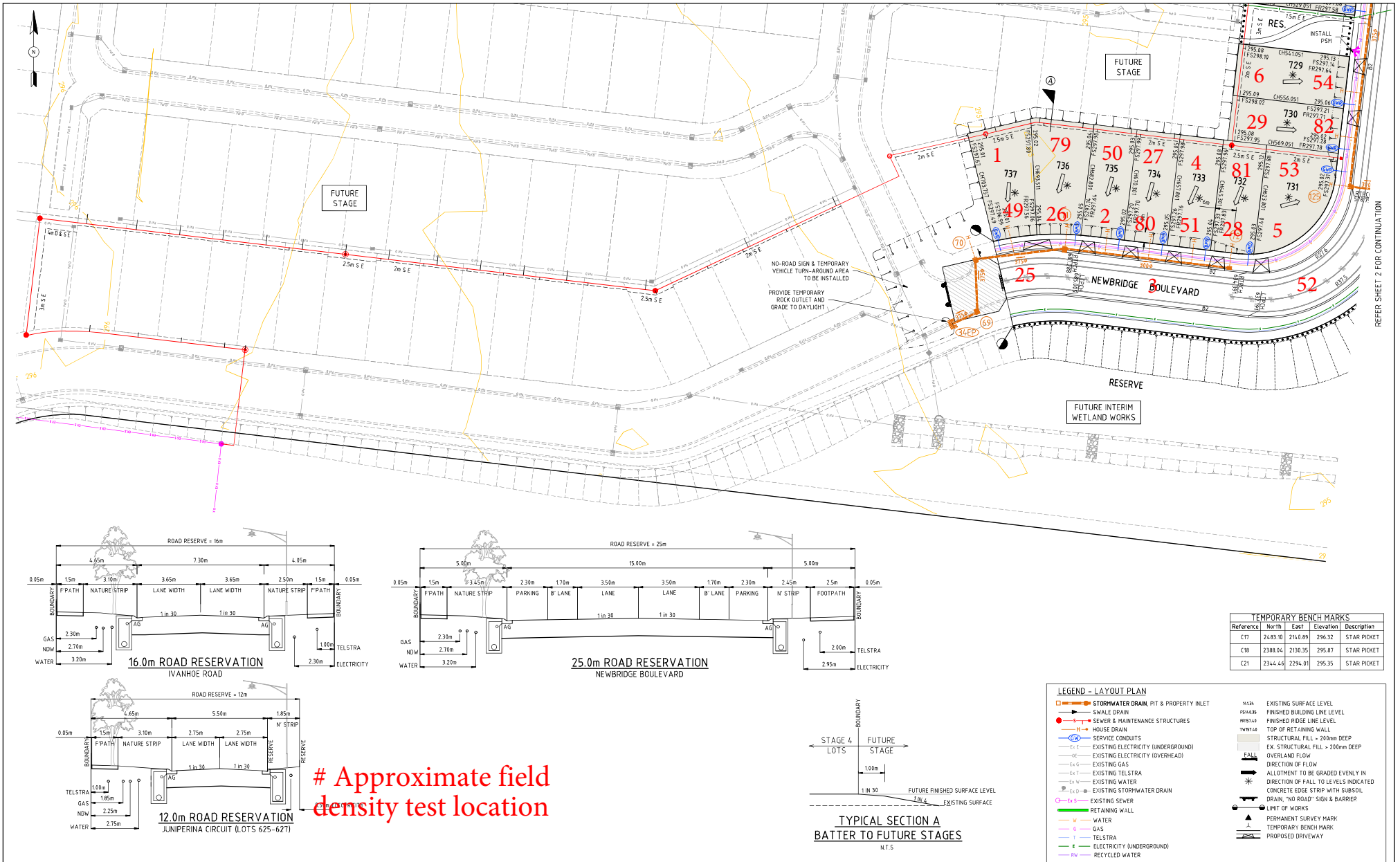
Designed  
 M.ROSSITTO  
  
 Checked  
 T.PHILLIPS  
  
 Approved  
 T. MILINKOVIC  
 Date  
 JUNE 2021

**NEWBRIDGE SOUTH ESTATE**  
 STAGE 7  
 MITCHELL SHIRE COUNCIL  
 DETAIL PLAN  
 SHEET 1 OF 2

Drawing No: 18040-07-02  
 Revision: G  
 Sheet No: 02 of 22  
 Scale @ A1  
 1:500  
  
 © Urban Design and Management Pty Ltd  
 ABN 62 925 443 156

file name 18040-07-02-03.dwg layout name 02 File location L:\Work\Eng\18040 Newbridge Estate\Stage 7\Drawings

# FIGURE 1 (2 of 2)



# Approximate field density test location

No.	REVISION	DATE	DESIGN	APPROVED
E	RESERVE EASEMENTS UPDATED	22.09.21	MR	TP
D	SHARED PATH NETWORK UPDATED	17.09.21	MR	TP
C	RESERVE EASEMENTS & DRAINAGE OUTLET SAFETY BARRIER UPDATED	16.09.21	MR	TP
B	UPDATED TO COUNCIL'S COMMENTS	20.08.21	MR	TP
A	ISSUED TO COUNCIL	25.06.21	MR	TP

**RESIMAX GROUP**  
**MITCHELL SHIRE COUNCIL**

Approved for Construction

Malkey Reference: 665 E4

**UrbanDesign and management**

Urban Design and Management Pty Ltd  
 PO Box 468 Sunbury 3429  
 Phone: +61 3 9971 6300 | Fax: +61 3 9971 6399  
 Office 1, Level 1, 114 Evans Street, Sunbury, VIC, 3429

Principal: RESIMAX GROUP PTY LTD  
 2 DREWEY PLACE  
 MELBOURNE VIC 3000

Project Management | Land Development | Civil Engineering |  
 Traffic and Transport Engineering | Urban Design

Designed: M.ROSSITTO  
 Checked: T.PHILLIPS  
 Approved: T.MILJKOVIC  
 Date: JUNE 2021

**NEWBRIDGE SOUTH ESTATE**  
 STAGE 7  
 MITCHELL SHIRE COUNCIL  
 DETAIL PLAN SHEET 2 OF 2  
 & TYPICAL SECTIONS

Drawing No: 18040-07-03  
 Revision: E  
 Sheet No: 03 of 22  
 Scale @ A1: 1:500  
 © Urban Design and Management Pty Ltd  
 ABN 42 925 443 166



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R001  
 Date Issued 24/01/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	10/01/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:25
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	1	2	3	4	5	6
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth	mm	175	175	175	175	175
Field wet density	t/m <sup>3</sup>	2.04	2.05	2.08	2.05	2.04
Field moisture content	%	21.7	17.6	20.2	19.5	19.9

### Test procedure AS 1289.5.7.1

Test No	1	2	3	4	5	6
Compactive effort	Standard					
Oversize rock retained on sieve	mm	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/m <sup>3</sup>	2.07	2.07	2.06	2.10	2.07
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	24.0	20.0	22.0	22.0	22.5

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	2.0% dry	2.5% dry	2.5% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	98.5	98.5	101.0	97.5	98.5	100.0
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### Material description

No 1 - 6 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R002  
 Date Issued 24/01/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	11/01/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:35
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		7	8	9	10	11	12
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m <sup>3</sup>	1.97	2.07	2.01	2.05	2.05	1.98
Field moisture content	%	25.8	20.8	20.1	25.3	20.7	20.5

Test procedure AS 1289.5.7.1

Test No		7	8	9	10	11	12
Compactive effort		Standard					
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 <sup>3</sup>	1.99	2.06	2.03	2.05	2.07	2.02
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	-
Optimum Moisture Content	%	28.5	23.5	22.5	26.0	23.0	22.5

Moisture Variation From Optimum Moisture Content		2.5% dry	2.5% dry	2.5% dry	0.5% dry	2.5% dry	2.0% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	99.0	100.5	99.0	100.0	99.0	98.0
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Material description

No 7 - 12 Clay Fill

AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R003  
 Date Issued 14/02/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	04/02/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:35
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	13	14	15	16	17	18	
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	
Field wet density	t/m <sup>3</sup>	1.90	1.88	1.94	2.00	2.01	2.00
Field moisture content	%	26.3	20.5	19.6	21.8	24.5	22.6

Test procedure AS 1289.5.7.1

Test No	13	14	15	16	17	18	
Compactive effort	Standard						
Oversize rock retained on sieve	mm	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/m <sup>3</sup>	1.96	1.92	1.98	2.04	2.06	2.05
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	
Optimum Moisture Content	%	28.0	22.5	22.0	23.5	27.0	24.5

Moisture Variation From Optimum Moisture Content	1.5% dry	2.0% dry	2.5% dry	1.5% dry	2.0% dry	2.0% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	96.5	98.0	98.0	98.5	97.5	97.5
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Material description

No 13 - 18 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R004  
 Date Issued 11/02/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	07/02/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 08:28
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	19	20	21	22	23	24	
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	
Field wet density	t/m <sup>3</sup>	1.88	1.82	1.79	1.82	1.81	1.83
Field moisture content	%	22.9	22.5	20.8	22.3	24.9	24.3

Test procedure AS 1289.5.7.1

Test No	19	20	21	22	23	24	
Compactive effort	Standard						
Oversize rock retained on sieve	mm	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/m <sup>3</sup>	1.92	1.87	1.87	1.91	1.89	1.94
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	-
Optimum Moisture Content	%	24.0	22.5	22.5	25.0	27.5	24.5

Moisture Variation From Optimum Moisture Content	1.0% dry	0.0%	1.5% dry	2.5% dry	2.5% dry	0.0%
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	98.0	97.5	95.5	95.0	95.5	95.0
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Material description

No 19 - 24 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R005  
 Date Issued 14/02/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	08/02/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:25
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	25	26	27	28	29	30
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth	mm	175	175	175	175	175
Field wet density	t/m <sup>3</sup>	1.94	1.89	1.93	1.86	1.90
Field moisture content	%	20.1	19.7	20.8	19.6	21.7

Test procedure AS 1289.5.7.1

Test No	25	26	27	28	29	30
Compactive effort	Standard					
Oversize rock retained on sieve	mm	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/m <sup>3</sup>	1.97	1.93	1.96	1.90	1.94
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	21.0	22.5	22.5	22.0	25.0

Moisture Variation From Optimum Moisture Content	1.0% dry	2.5% dry	1.5% dry	2.5% dry	2.5% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	98.5	98.0	98.0	98.0	98.0	98.0
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Material description

No 25 - 30 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry





# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R006  
 Date Issued 14/02/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	09/02/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	08:32
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	31	32	33	34	35	36
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth	mm	175	175	175	175	175
Field wet density	t/m <sup>3</sup>	1.85	1.86	1.86	1.81	1.83
Field moisture content	%	22.5	25.9	22.2	23.9	19.7

Test procedure AS 1289.5.7.1

Test No	31	32	33	34	35	36
Compactive effort	Standard					
Oversize rock retained on sieve	mm	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/m <sup>3</sup>	1.89	1.92	1.89	1.83	1.87
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	23.0	28.0	24.5	26.5	22.5

Moisture Variation From Optimum Moisture Content	0.5% dry	2.0% dry	2.5% dry	2.5% dry	2.5% dry	2.0% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	98.0	97.0	98.5	99.0	98.0	99.5
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Material description

No 31 - 36 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R007  
 Date Issued 10/03/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	14/02/22
Location	WALLAN	Checked by	JHF

<b>Feature</b>	<b>EARTHWORKS</b>	<b>Layer thickness</b>	200 mm	<b>Time:</b> 07:31
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	37	38	39	40	41	42
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth	mm	175	175	175	175	175
Field wet density	t/m <sup>3</sup>	1.85	1.91	1.89	1.88	1.90
Field moisture content	%	21.5	21.6	23.1	21.4	22.2

### Test procedure AS 1289.5.7.1

Test No	37	38	39	40	41	42
Compactive effort	Standard					
Oversize rock retained on sieve	mm	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/m <sup>3</sup>	1.91	1.94	1.90	1.92	1.96
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	22.5	23.5	24.5	24.0	24.5

Moisture Variation From Optimum Moisture Content	1.0% dry	2.0% dry	1.5% dry	2.5% dry	2.5% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

<b>Density Ratio ( R<sub>HD</sub> )</b>	<b>%</b>	<b>97.0</b>	<b>98.5</b>	<b>99.0</b>	<b>98.0</b>	<b>97.5</b>	<b>98.5</b>
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### Material description

No 37 - 42 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R008  
 Date Issued 10/03/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	14/02/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 08:39
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	43	44	45	46	47	48
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth	mm	175	175	175	175	175
Field wet density	t/m <sup>3</sup>	1.93	1.90	1.91	1.94	1.93
Field moisture content	%	19.0	18.4	18.0	19.7	22.9

### Test procedure AS 1289.5.7.1

Test No	43	44	45	46	47	48
Compactive effort	Standard					
Oversize rock retained on sieve	mm	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/m <sup>3</sup>	1.97	1.97	1.92	1.99	1.96
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	21.5	20.0	20.5	22.5	25.0

Moisture Variation From Optimum Moisture Content	2.5% dry	1.5% dry	2.5% dry	2.5% dry	2.0% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	98.0	96.5	99.5	97.5	99.0	98.0
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### Material description

No 43 - 48 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R009  
 Date Issued 04/03/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	18/02/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:28
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	49	50	51	52	53	54	
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	
Field wet density	t/m <sup>3</sup>	1.85	1.84	1.88	1.86	1.81	1.82
Field moisture content	%	18.9	18.7	21.4	21.9	19.0	21.6

### Test procedure AS 1289.5.7.1

Test No	49	50	51	52	53	54	
Compactive effort	Standard						
Oversize rock retained on sieve	mm	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/m <sup>3</sup>	1.89	1.87	1.87	1.89	1.88	1.86
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	-
Optimum Moisture Content	%	21.5	21.5	23.5	24.0	21.5	24.0

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	2.0% dry	2.0% dry	2.5% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	98.0	98.5	100.5	98.5	96.5	98.0
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### Material description

No 49 - 54 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R010  
 Date Issued 01/03/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	NEWBRIDGE - STAGE 7	Date tested	22/02/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:45
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	55	56	57	58	59	60
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth	mm	175	175	175	175	175
Field wet density	t/m <sup>3</sup>	1.99	2.03	2.00	1.93	1.90
Field moisture content	%	21.6	21.7	20.9	21.3	20.4

Test procedure AS 1289.5.7.1

Test No	55	56	57	58	59	60
Compactive effort	Standard					
Oversize rock retained on sieve	mm	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/m <sup>3</sup>	2.03	2.05	2.03	1.97	1.93
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	24.0	23.0	23.5	22.5	23.0

Moisture Variation From Optimum Moisture Content	2.5% dry	1.5% dry	2.5% dry	1.0% dry	2.5% dry	2.0% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	98.5	99.0	98.5	98.0	98.5	97.5
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Material description

No 55 - 60 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R011  
 Date Issued 04/03/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	28/02/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:25
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	61	62	63	64	65	66
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth	mm	175	175	175	175	175
Field wet density	t/m <sup>3</sup>	1.88	1.93	1.92	1.89	1.91
Field moisture content	%	19.3	21.9	22.2	20.9	21.4

Test procedure AS 1289.5.7.1

Test No	61	62	63	64	65	66
Compactive effort	Standard					
Oversize rock retained on sieve	mm	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/m <sup>3</sup>	1.91	1.97	1.96	1.92	1.92
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	21.5	24.5	25.0	21.5	24.0

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.5% dry	0.5% dry	2.5% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	98.5	98.0	98.0	98.5	99.5	99.0
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Material description

No 61 - 66 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R012  
 Date Issued 10/03/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	03/03/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 09:38
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	67	68	69	70	71	72
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth	mm	175	175	175	175	175
Field wet density	t/m <sup>3</sup>	2.03	2.02	2.05	2.07	2.03
Field moisture content	%	17.3	22.9	21.0	21.4	21.7

Test procedure AS 1289.5.7.1

Test No	67	68	69	70	71	72
Compactive effort	Standard					
Oversize rock retained on sieve	mm	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/m <sup>3</sup>	2.06	2.07	2.10	2.09	2.05
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	20.0	23.0	23.5	23.5	22.0

Moisture Variation From Optimum Moisture Content	2.5% dry	0.0%	2.5% dry	2.0% dry	0.5% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	98.5	98.0	98.0	99.0	99.0	98.5
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Material description

No 67 - 72 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R013  
 Date Issued 09/03/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	04/03/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:27
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	73	74	75	76	77	78	
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	
Field wet density	t/m <sup>3</sup>	2.00	2.03	2.03	2.00	1.97	2.10
Field moisture content	%	21.1	17.8	17.2	21.6	19.5	20.9

### Test procedure AS 1289.5.7.1

Test No	73	74	75	76	77	78	
Compactive effort	Standard						
Oversize rock retained on sieve	mm	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/m <sup>3</sup>	2.09	2.10	2.07	2.11	2.08	2.12
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	
Optimum Moisture Content	%	21.0	20.5	19.5	22.5	22.0	23.5

Moisture Variation From Optimum Moisture Content	0.0%	2.5% dry	2.5% dry	1.0% dry	2.0% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	95.5	96.5	98.0	95.0	95.0	99.0
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### Material description

No 73 - 78 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry





# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R014  
 Date Issued 16/03/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	07/03/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:35
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	79	80	81	82	83	84	
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	
Field wet density	t/m <sup>3</sup>	1.86	1.88	1.90	1.86	1.87	1.88
Field moisture content	%	22.3	24.1	28.1	23.7	18.0	21.1

Test procedure AS 1289.5.7.1

Test No	79	80	81	82	83	84	
Compactive effort	Standard						
Oversize rock retained on sieve	mm	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/m <sup>3</sup>	1.90	1.90	1.96	1.91	1.89	1.91
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	-
Optimum Moisture Content	%	25.0	26.5	31.0	26.0	20.5	21.0

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	2.5% dry	2.0% dry	2.5% dry	0.0%
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	98.0	99.0	97.0	97.5	99.0	98.5
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Material description

No 79 - 84 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R015  
 Date Issued 16/03/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	08/03/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 14:31
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	85	86	87	88	89	90	
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	
Field wet density	t/m <sup>3</sup>	1.92	1.94	1.92	1.93	1.90	1.88
Field moisture content	%	21.9	24.5	28.9	23.8	20.7	21.8

Test procedure AS 1289.5.7.1

Test No	85	86	87	88	89	90	
Compactive effort	Standard						
Oversize rock retained on sieve	mm	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/m <sup>3</sup>	1.96	1.96	1.96	1.96	1.92	1.89
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	
Optimum Moisture Content	%	24.5	26.5	28.0	26.5	21.0	24.0

Moisture Variation From Optimum Moisture Content	2.5% dry	2.0% dry	0.5% wet	2.5% dry	0.0%	2.0% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	98.0	99.0	98.0	98.5	99.0	99.5
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Material description

No 85 - 90 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R016  
 Date Issued 24/03/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	09/03/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:44
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	91	92	93	-	-	-
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/m <sup>3</sup>	1.90	1.91	1.90	-	-
Field moisture content	%	21.4	21.7	19.2	-	-

### Test procedure AS 1289.5.7.1

Test No	91	92	93	-	-	-
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/m <sup>3</sup>	1.91	1.90	1.91	-	-
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	22.5	24.5	21.5	-	-

Moisture Variation From Optimum Moisture Content	1.0% dry	2.5% dry	2.0% dry	-	-	-
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	99.0	100.5	99.5	-	-
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### Material description

No 91 - 93 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R017  
 Date Issued 24/03/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	10/03/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:46
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	94	95	96	-	-	-
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/m <sup>3</sup>	1.89	1.89	1.90	-	-
Field moisture content	%	17.6	19.7	17.9	-	-

Test procedure AS 1289.5.7.1

Test No	94	95	96	-	-	-
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/m <sup>3</sup>	1.89	1.87	1.89	-	-
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	20.0	22.0	20.0	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	2.0% dry	-	-	-
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	100.0	100.5	100.5	-	-
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Material description

No 94 - 96 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R018  
 Date Issued 24/03/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	11/03/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:48
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	97	98	99	-	-	-
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/m <sup>3</sup>	1.95	1.90	1.93	-	-
Field moisture content	%	21.1	19.5	23.3	-	-

### Test procedure AS 1289.5.7.1

Test No	97	98	99	-	-	-
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/m <sup>3</sup>	1.99	1.94	1.98	-	-
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	23.0	22.0	24.5	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	1.0% dry	-	-	-
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	97.5	98.5	97.5	-	-
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### Material description

No 97 - 99 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
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Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R019  
 Date Issued 25/03/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	16/03/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:50
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	100	101	102	-	-	-
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/m <sup>3</sup>	1.90	1.93	1.93	-	-
Field moisture content	%	25.2	19.7	26.6	-	-

Test procedure AS 1289.5.7.1

Test No	100	101	102	-	-	-
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/m <sup>3</sup>	1.98	1.97	2.01	-	-
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	27.5	22.0	29.5	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.0% dry	2.5% dry	-	-	-
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	96.0	98.0	96.0	-	-
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Material description

No 100 - 102 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
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Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R020  
 Date Issued 24/03/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	17/03/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:51
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	103	104	105	-	-	-
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/m <sup>3</sup>	1.89	1.91	1.89	-	-
Field moisture content	%	20.7	22.0	20.2	-	-

Test procedure AS 1289.5.7.1

Test No	103	104	105	-	-	-
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/m <sup>3</sup>	1.87	1.89	1.88	-	-
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	23.0	24.5	22.0	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	2.0% dry	-	-	-
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	101.5	101.5	101.0	-	-
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Material description

No 103 - 105 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R021  
 Date Issued 24/03/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	18/03/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:53
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	106	107	108	109	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1		
Approximate depth below FSL						
Measurement depth	mm	175	175	175	175	-
Field wet density	t/m <sup>3</sup>	1.95	1.95	1.90	1.90	-
Field moisture content	%	20.3	21.7	20.4	19.8	-

Test procedure AS 1289.5.7.1

Test No	106	107	108	109	-	-
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	-
Percent of oversize material	wet	0	0	0	0	-
Peak Converted Wet Density	t/m <sup>3</sup>	2.03	2.04	1.96	2.00	-
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	22.5	24.0	23.0	22.5	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.5% dry	2.5% dry	-	-
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	96.0	95.5	97.0	95.0	-
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Material description

No 106 - 109 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry





# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R022  
 Date Issued 24/03/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	21/03/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 15:02
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	110	111	-	-	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1				
Approximate depth below FSL						
Measurement depth	mm	175	175	-	-	-
Field wet density	t/m <sup>3</sup>	1.92	1.90	-	-	-
Field moisture content	%	19.0	20.8	-	-	-

### Test procedure AS 1289.5.7.1

Test No	110	111	-	-	-	-
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	-	-	-
Peak Converted Wet Density	t/m <sup>3</sup>	1.90	1.89	-	-	-
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	21.5	23.0	-	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	-	-	-	-
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	101.0	101.0	-	-	-
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### Material description

No 110 - 111 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 21747  
 Report No 21747/R023  
 Date Issued 08/04/2022

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	NEWBRIDGE - STAGE 7	Date tested	24/03/22
Location	WALLAN	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 14:56
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	112	113	114	-	-	-
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/m <sup>3</sup>	2.09	1.91	1.93	-	-
Field moisture content	%	21.4	18.3	22.9	-	-

### Test procedure AS 1289.5.7.1

Test No	112	113	114	-	-	-
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/m <sup>3</sup>	2.12	2.02	1.99	-	-
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	24.0	20.5	25.5	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.0% dry	2.5% dry	-	-	-
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	98.0	95.0	97.0	-	-
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### Material description

No 112 - 114 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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