



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

29th April 2024

Our Reference: 23299:NB1850

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
SMITHS LANE - STAGE 22 (CLYDE NORTH)**

Please find attached our Report No's 23299/R001 to 23299/R010 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 September 2023 and was completed in November 2023.

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 location

City of Casey
 Approved By: Timothy Sinnappu
 Planning Ref: PinA00824/19
 Council Ref: R6078
 S&E Ref: SEng0006/23
 Date: 20/03/2024
 Approval subject to below conditions on cover page

ROAD LAYOUT TABLE

Road Name	Reserve Width (m)	Road Width (m)			Kerb Type		Verge Width (m)	
		Lip to Lip	Inv to Inv	Back to Back	Nth/West	Stn/East	Nth/West	Stn/East
VILLA DORIA DRIVE	13.00	6.40	7.30	7.60	600 B2	600 B3	1.25	4.45
VILLA DORIA DRIVE	16.00	6.40	7.30	7.60	600 B2	600 B2	4.50	4.20
CHITWAN STREET	16.00	6.40	7.30	7.60	600 B2	600 B2	4.35	4.35

SERVICE OFFSET TABLE

Location	Gas		ND - Water		Water		Electricity		Telecommunication		Sewer	
	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)
VILLA DORIA DRIVE	EN	2.10	EN	2.55	EN	3.00	W/S	0.30/2.60	ES	1.65/1.85	EN/S	1.00
CHITWAN STREET	W	2.10	W	2.55	W	3.00	E	2.35	E	1.85	E/W	1.00

NOTE: STREET TREES ARE TO BE PLANTED IN THE CENTRE OF ALL NATURE STRIPS

LANDSCAPE LEGEND

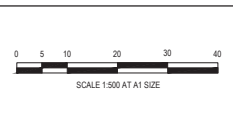
- SHARED PATH (LOCATION TO BE CONFIRMED)
- EQUESTRIAN TRAIL (LOCATION TO BE CONFIRMED)
- LAWN AREA
- NATIVE GARDEN BED AREA
- GARDEN BED AREA
- GARDEN BED AREA
- LAWN - DOG AREA
- WETLAND

WARNING
 BEWARE OF UNDERGROUND SERVICES
 The locations of underground services are approximate only and their exact position should be proven on site.
 No guarantee is given that all existing services are shown.
 Locate all underground services before commencement of works
DIAL 1100 BEFORE YOU DIG
 www.1100.com.au

FOR CONSTRUCTION

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REV	ISSUED FOR CONSTRUCTION	DATE	DRN	APP	REV	DESCRIPTION	DATE	DRN	APP
A	ISSUED FOR CONSTRUCTION	19.06.23	SP	LM					



Designed: C. DAWSON 11.07.2022
 Date: 11.07.2022
 Drawn: M.F. JAURIGUE
 Date: 14.07.2022
 Checked: L. MURRAY
 Date: 14.07.2022
 Approved: S. YOUNG
 Reg No: PE0090909
 Date: 15.06.2022
 Title: PSY12244

BW Beveridge Williams
 Development & Infrastructure Consultants
 1 Glenferrie Road Malvern VIC 3144
 ph: 03 9524 8888
 www.beveridgewilliams.com.au

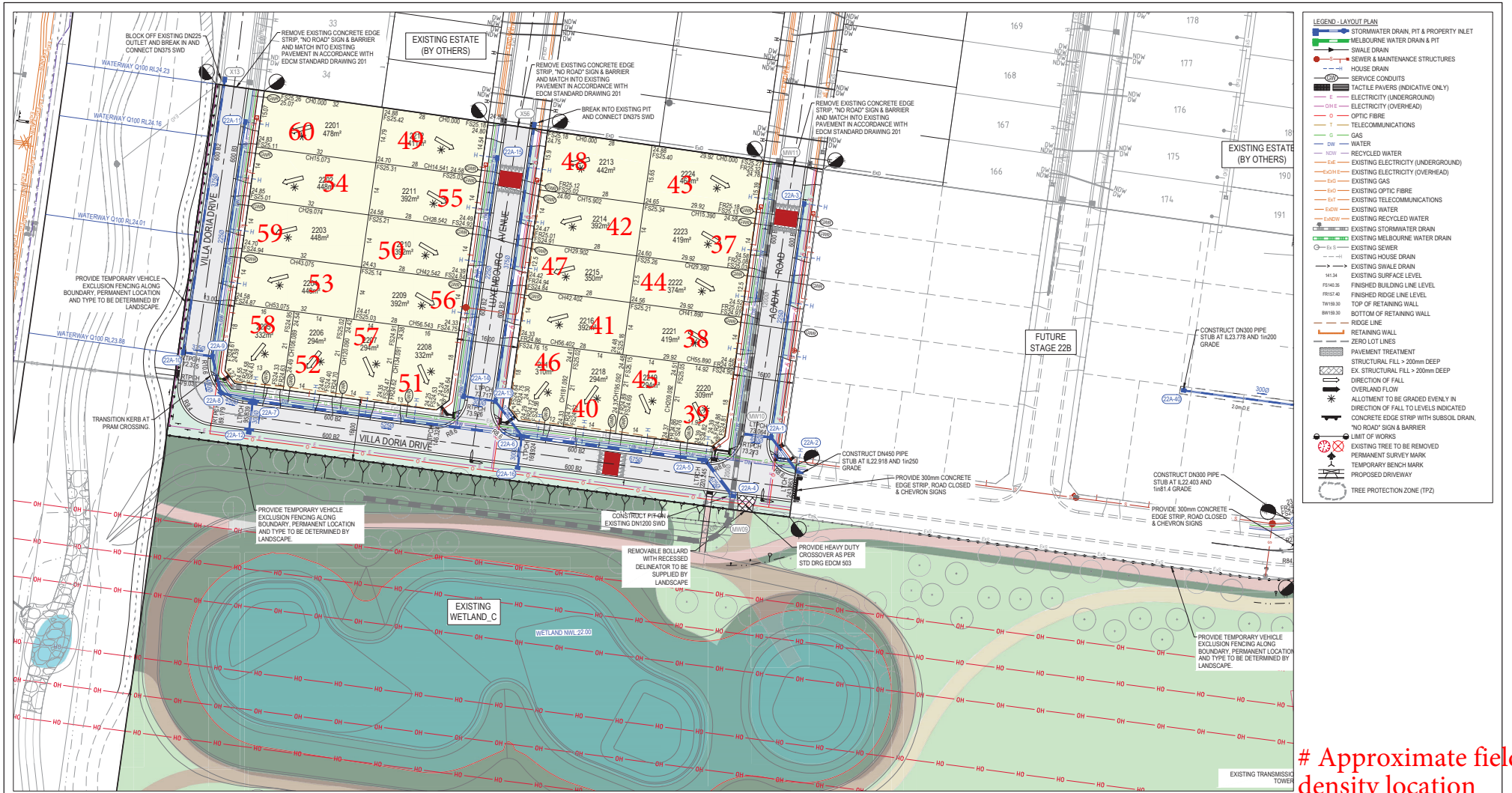
Project Details
SMITHS LANE STAGE 22B CITY OF CASEY, R5842

Drawn Title
LAYOUT PLAN

Sheet 04 of 14
 Scale 1:500 @ A1
 Project Ref: 1101438
 Stage No: 22B
 Drawing No: 010
 Rev: A

K:\Lods\1101438\110 Smiths Lane, Clyde (R5842)_Eng\Stage 22B\Drawings\1101438-22B-010-LAY.dwg

FIGURE 1 (2 of 2)



Approximate field density location

ROAD LAYOUT TABLE

Road Name	Reserve Width (m)	Road Width (m)			Kerb Type		Verge Width (m)	
		Lip to Lip	Inv to Inv	Back to Back	Nth/West	Sth/East	Nth/West	Sth/East
VILLA DORIA DRIVE	13.00	6.40	7.30	7.60	600 B2	600 B3	1.25	4.45
VILLA DORIA DRIVE	16.00	6.40	7.30	7.60	600 B2	600 B2	4.50	4.20
LUXEMBURG AVENUE	16.00	6.40	7.30	7.60	600 B2	600 B2	4.35	4.35
ACADIA ROAD	16.00	6.40	7.30	7.60	600 B2	600 B2	4.35	4.35
MANTON ROAD	20.00	6.40	7.30	7.60	600 B2	600 B2	4.50	8.20
MAGDALA ROAD	16.00	6.40	7.30	7.60	600 B2	600 B2	4.35	4.35

SERVICE OFFSET TABLE

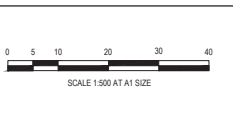
Location	Gas		ND - Water		Water		Electricity		Telecommunication		Sewer	
	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)
VILLA DORIA DRIVE	EN	2.10	EN	2.55	EN	3.00	WS	0.30/2.60	ES	1.65/1.85	EN/NS	1.00
LUXEMBURG AVENUE	W	2.10	W	2.55	W	3.00	E	2.35	E	1.85	EW	1.00
ACADIA ROAD	W	2.10	W	2.55	W	3.00	E	2.35	E	1.85	EW	1.00
MANTON ROAD (NORTH OF ROUNDABOUT)	E	2.10	E	2.55	E	3.00	W	1.60	W	2.10	EW	1.00
MANTON ROAD (SOUTH OF ROUNDABOUT)	W	2.10	W	2.55	W	3.00	E	2.55	E	1.95	EW	0.80
MAGDALA ROAD	W	2.10	W	2.55	W	3.00	E	2.35/2.60	E	1.85	E / W	1.00

NOTE: STREET TREES ARE TO BE PLANTED IN THE CENTRE OF ALL NATURE STRIPS

WARNING
BEWARE OF UNDERGROUND SERVICES
The locations of underground services are approximate only and their exact position should be proven on site. No guarantee is given that all existing services are shown. Locate all underground services before commencement of works.
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www.1100.com.au

FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DWN	APP	REV	DESCRIPTION	DATE	DWN	APP
C	MAGDALA RD ADDED	08.08.23	BP	SY					
B	TITLE BLOCK UPDATED	18.07.23	LM	SY					
A	ISSUED FOR CONSTRUCTION	19.02.21	BP	LM					



Designed by C. DAWSON 11.07.2022
 Date M.F. JAURIGUE
 Drawn L. MURRAY 14.07.2022
 Date S. YOUNG
 Approved P.000909 15.06.2022
 Date P.00122444
 P.00122444

BW Beveridge Williams
 Development & Infrastructure Consultants
 1 Glenferrie Road Malvern VIC 3144
 ph: 03 9524 8888
 www.beveridgewilliams.com.au

Project Details
SMITHS LANE STAGE 22A
 CITY OF CASEY, R5842

Drawn Title
LAYOUT PLAN (SHEET 1 OF 2)

Sheet 05 of 27
 Scale 1:500 @ A1
 Project Ref 1101438 22A 010
 Date 11/04/23
 Drawing No 010
 Rev C

K:\Lods\1101438_110 Smiths Lane_Clyde\BWRV\ACLI_Eng\Stage 22A\Drawings\1101438-22A-010-LAY.dwg



COMPACTION ASSESSMENT

Job No 23299
 Report No 23299/R001
 Date Issued 19/09/23

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	SMITHS LANE - STAGE 22	Date tested	01/09/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:00
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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 ³	1.99	2.04	2.09	2.06	2.04
Field moisture content	%	17.4	21.6	19.9	18.9	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 ³	1.97	2.05	2.07	2.10	2.08
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	20.0	23.5	22.5	21.0	22.0

Moisture Variation From Optimum Moisture Content	2.5% dry	0.0%	2.0% dry	2.0% 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 _{HD})	%	101.0	99.5	101.0	98.5	98.5	98.0
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Material description

No 1 - 6 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 23299
 Report No 23299/R002
 Date Issued 19/09/23

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	SMITHS LANE - STAGE 22	Date tested	04/09/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:00
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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
Field wet density	t/m ³	2.04	2.03	2.12	2.12	2.08
Field moisture content	%	17.5	17.8	19.8	18.6	16.4

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
Percent of oversize material	wet	0	0	0	0	0
Peak Converted Wet Density	t/m ³	2.09	2.04	2.12	2.14	2.09
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	19.5	18.0	20.0	18.5	19.0

Moisture Variation From Optimum Moisture Content	2.0% dry	0.0%	0.0%	0.0%	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 _{HD})	%	98.0	99.5	100.0	99.0	99.5	99.0
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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 23299
 Report No 23299/R003
 Date Issued 19/09/23

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	SMITHS LANE - STAGE 22	Date tested	05/09/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 08:00
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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 ³	2.04	2.02	2.07	2.07	2.11
Field moisture content	%	20.6	14.4	14.4	14.7	21.6

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 ³	2.06	2.05	2.11	2.09	2.09
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	22.5	15.5	14.5	17.0	23.5

Moisture Variation From Optimum Moisture Content	1.5% dry	1.0% dry	0.0%	2.0% 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 _{HD})	%	99.0	98.5	98.5	99.5	100.5	100.0
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Material description

No 13 - 18 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 23299
 Report No 23299/R004
 Date Issued 19/09/23

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	SMITHS LANE - STAGE 22	Date tested	06/09/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:00
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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 ³	2.09	2.11	2.08	2.02	2.04
Field moisture content	%	16.2	14.7	16.0	19.4	18.4

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 ³	2.10	2.12	2.06	2.06	2.05
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	16.0	16.5	18.0	22.0	17.5

Moisture Variation From Optimum Moisture Content	0.5% wet	2.0% dry	2.0% dry	2.5% dry	0.5% wet	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 _{HD})	%	99.5	99.0	100.5	98.5	99.5	98.5
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Material description

No 19 - 24 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 23299
 Report No 23299/R005
 Date Issued 22/09/23

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	SMITHS LANE - STAGE 22	Date tested	07/09/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	12:00
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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 ³	2.04	2.02	2.01	2.10	2.09
Field moisture content	%	20.2	23.5	21.0	20.9	20.6

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 ³	2.07	2.05	2.06	2.14	2.12
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	22.0	26.0	23.0	23.0	22.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.0% dry	2.0% dry	2.0% 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 _{HD})	%	98.5	98.5	98.0	98.0	98.5	99.0
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Material description

No 25 - 30 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 23299
 Report No 23299/R006
 Date Issued 06/10/23

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 22	Date tested	26/09/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	12:00
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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	175
Field wet density	t/m ³	1.93	1.82	1.77	1.98	2.10	2.06
Field moisture content	%	24.6	25.2	25.2	18.1	20.1	19.2

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	19.0
Percent of oversize material	wet	0	0	0	0	0	0
Peak Converted Wet Density	t/m ³	2.03	1.91	1.86	1.96	2.10	2.10
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	24.5	27.5	28.0	20.5	20.5	21.5

Moisture Variation From Optimum Moisture Content	0.0%	2.5% dry	2.5% dry	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 _{HD})	%	95.0	95.5	95.5	101.0	99.5	98.0
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Material description

No 31 - 36 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 23299
 Report No 23299/R007
 Date Issued 09/11/23

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 22	Date tested	31/10/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:23
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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 ³	2.07	2.05	2.07	1.66	1.72	1.95
Field moisture content	%	19.8	17.7	16.8	19.0	18.4	18.7

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 ³	2.11	2.10	2.11	1.74	1.76	1.97
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	
Optimum Moisture Content	%	19.5	18.0	17.0	19.5	19.0	21.0

Moisture Variation From Optimum Moisture Content	0.0%	0.0%	0.0%	1.0% dry	0.5% 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 _{HD})	%	98.0	98.0	98.0	95.5	98.0	99.0
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Material description

No 37 - 42 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 23299
 Report No 23299/R008
 Date Issued 22/11/23

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 22	Date tested	01/11/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:29
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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 ³	2.03	1.99	1.99	2.07	2.05	2.06
Field moisture content	%	19.1	22.5	22.0	21.1	20.3	22.0

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 ³	2.05	2.05	2.01	2.10	2.11	2.09
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	20.0	24.5	22.5	21.5	20.5	22.5

Moisture Variation From Optimum Moisture Content	1.0% dry	2.0% dry	0.0%	0.5% dry	0.0%	0.5% 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 _{HD})	%	99.0	97.5	99.0	98.5	97.0	98.5
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Material description

No 43 - 48 Clay Fill

AVRLOT HILF V1.10 MAR 13



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 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 23299
 Report No 23299/R009
 Date Issued 09/11/23

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 22	Date tested	02/11/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:35
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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 ³	2.08	2.12	2.08	2.00	1.95
Field moisture content	%	16.3	15.9	16.4	16.9	16.8

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 ³	2.14	2.17	2.07	2.05	2.06
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	16.5	17.0	16.5	17.5	17.0

Moisture Variation From Optimum Moisture Content	0.5% dry	1.0% dry	0.5% dry	0.5% dry	0.5% dry	0.5% 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 _{HD})	%	97.0	97.5	100.5	98.0	95.0	102.0
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Material description

No 49 - 54 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 23299
 Report No 23299/R010
 Date Issued 22/11/23

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 22	Date tested	03/11/23
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:40
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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 ³	1.98	1.87	1.81	1.81	2.18	2.14
Field moisture content	%	18.0	24.2	22.9	20.7	20.0	20.2

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 ³	2.00	1.84	1.81	1.81	2.21	2.15
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	18.5	25.0	23.0	21.5	20.0	20.5

Moisture Variation From Optimum Moisture Content	0.5% dry	0.5% dry	0.5% dry	1.0% dry	0.0%	0.5% 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 _{HD})	%	99.0	101.5	100.0	100.0	99.0	99.0
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Material description

No 55 - 60 Clay Fill

AVRLOT HILF V1.10 MAR 13



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 Accredited for compliance with
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry