



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

14th October 2024

Our Reference: 24554:NB2075

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
SMITHS LANE – STAGE 29 MD LOTS (CLYDE NORTH)**

Please find attached our Report No's 24554/R001 to 24554/R006 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 was performed in June 2024.

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).

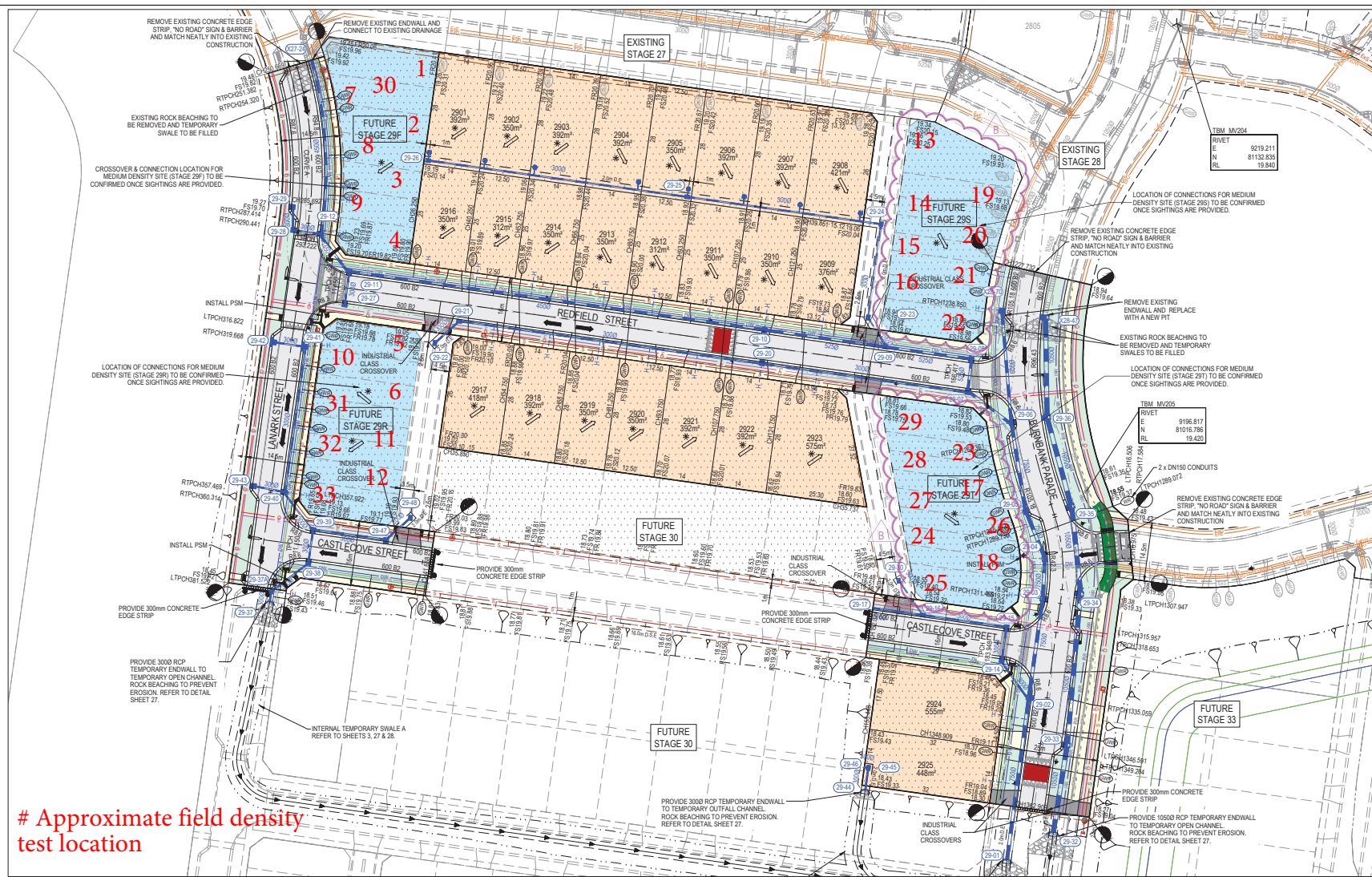
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

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

Nick Brock

FIGURE 1



LEGEND - LAYOUT PLAN

- STORMWATER DRAIN, PIT & PROPERTY INLET
- MELBOURNE WATER DRAIN & PIT
- SWALE DRAIN
- SEWER & MAINTENANCE STRUCTURES
- HOUSE DRAIN
- SERVICE CONDUITS
- FACTILE PIPERS (INDICATIVE ONLY)
- ELECTRICITY (UNDERGROUND)
- ELECTRICITY (OVERHEAD)
- OPTIC FIBRE
- TELECOMMUNICATIONS
- GAS
- WATER
- RECYCLED WATER
- EXISTING ELECTRICITY (UNDERGROUND)
- EXISTING ELECTRICITY (OVERHEAD)
- EXISTING GAS
- EXISTING OPTIC FIBRE
- EXISTING TELECOMMUNICATIONS
- EXISTING WATER
- EXISTING RECYCLED WATER
- EXISTING STORMWATER DRAIN
- EXISTING MELBOURNE WATER DRAIN
- EXISTING SEWER
- EXISTING HOUSE DRAIN
- EXISTING SWALE DRAIN
- EXISTING SURFACE LEVEL
- FINISHED BUILDING LEVEL
- FINISHED RIDGE LINE LEVEL
- TOP OF RETAINING WALL
- BOTTOM OF RETAINING WALL
- RIDGE LINE
- RETAINING WALL
- ZERO LOT LINES
- PAVEMENT TREATMENT
- STRUCTURAL FILL > 200mm DEEP
- EX. STRUCTURAL FILL > 200mm DEEP
- DIRECTION OF FALL
- OVERLAND FLOW
- ALLOTMENT TO BE GRADED EVENLY IN DIRECTION OF FALL TO LEVELS INDICATED
- CONCRETE EDGE STRIP WITH SUBSOIL DRAIN
- "NO ROAD" SIGN & BARRIER
- LIMIT OF WORKS
- EXISTING TREE TO BE REMOVED
- PERMANENT SURVEY MARK
- TEMPORARY BENCH MARK
- PROPOSED DRIVEWAY
- TREE PROTECTION ZONE (TPZ)

LEGEND:

- PAVEMENT TREATMENT
- STRUCTURAL FILL > 200mm DEEP
- EX. STRUCTURAL FILL > 200mm DEEP
- LOT HATCHING
- ROAD PAVEMENT
- FOOTPATH
- DRIVEWAY
- INDUSTRIAL STRENGTH DRY / LANEWAYS
- NATURE STRIP
- RESERVES
- ELECTRICAL KIOSK
- DRAINAGE RESERVE
- MEDIUM DENSITY LOTS
- MAINTENANCE ACCESS TRACK
- DRY OUT AREA

Approximate field density test location

FOR CONTINUATION REFER DRG. 1101438-29-011
SERVICE OFFSET TABLE

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
LANARK STREET	14.50	5.107.20	6.008.10	6.308.40	600 B2	600 B2	2.15	4.25
CASTLECOVE STREET (WEST)	16.00	6.40	7.30	7.60	600 B2	600 B2	4.20	4.50
CASTLECOVE STREET (EAST)	16.00	6.40	7.30	7.60	600 B2	600 B2	4.20	4.50
REDFIELD STREET	16.00	6.40	7.30	7.60	600 B2	600 B2	4.50	4.20
BURNBANK PARADE	25.00	6.408.35	7.309.25	7.609.55	600 B2	600 B2	4.508.85	8.901.85
ZALE ROAD	14.50	6.40	7.30	7.60	600 B2	600 B2	2.70	4.50

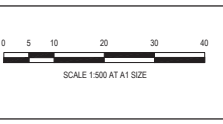
Location	Gas		ND - Water		Water		Electricity		Telecommunication		Sewer		Irrigation	
	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)
LANARK STREET	E	2.50	E	2.45	E	2.95	W	1.20	W	0.85	E	1.3	-	-
CASTLECOVE STREET (WEST)	S	2.25	S	2.70	S	3.20	N	2.60	N	1.85	S	1.0	-	-
CASTLECOVE STREET (EAST)	S	2.25	S	2.70	S	3.20	N	2.60	N	1.85	N/S	1.0/1.0	-	-
REDFIELD STREET	N	2.25	N	2.70	N	3.20	S	2.60	S	1.85	N/S	1.0/1.0	-	-
BURNBANK PARADE	W	2.25	W	2.70	W	3.20	E	2.60	E	1.85	EW	1.0, Ex.5.0x1.0	E	6.70
ZALE ROAD	S	2.25	S	2.70	S	3.20	N	1.25	N	0.50	S	Ex. 1.0	-	-

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
BEFORE YOU DIG
www.bwyd.com.au

ISSUED FOR CONSTRUCTION

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REV	DESCRIPTION	DATE	DRN	APP	REV	DESCRIPTION	DATE	DRN	APP
1	ISSUED FOR CONSTRUCTION	19.07.21	BP	SY					
2	FUTURE MD STAGES 29F AND 29T ADDED	30.09.24	LM	SY					



Checked Date: K.LIM WAN 24.11.2023
Drawn: M.F. JAURIGUE
Checked Date: L.MURRAY 25.11.2023
Approved: S.YOUNG PE000909
Date: 25.11.2023
Proj. No.: PS121348A
P/S Number: PS121348A

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 29 CITY OF CASEY
Drawing Title: LAYOUT PLAN

Sheet 05 of 30
Scale: 1:500 @ A1
Project Ref: 1101438 29 010
Page No: 29
Drawing No: 010
Rev: B



COMPACTION ASSESSMENT

Job No 24554
 Report No 24554/R001
 Date Issued 13/06/24

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 29 MD LOTS	Date tested	05/06/24
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:33
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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	1.94	2.10	1.93	1.98	1.89
Field moisture content	%	22.6	24.0	21.2	26.1	23.7

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	2.01	2.15	2.01	1.99	1.93
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	22.0	25.0	22.5	27.0	25.0

Moisture Variation From Optimum Moisture Content	0.5% wet	1.0% dry	1.5% dry	1.0% dry	1.5% dry	1.5% 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})	%	96.0	97.5	96.0	99.5	98.0	99.5
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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 24554
 Report No 24554/R002
 Date Issued 18/06/24

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 29 MD LOTS	Date tested	13/06/24
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 14:01
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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	1.91	2.10	2.04	1.89	1.95
Field moisture content	%	24.1	20.8	23.0	24.6	23.7

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	1.94	2.13	2.05	1.93	2.01
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	26.5	23.5	23.5	25.5	25.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	0.5% dry	0.5% dry	1.5% 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})	%	98.5	98.5	99.5	98.0	97.0	97.5
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Material description

No 7 - 12 Clay Fill

AVRLOT HILF V1.10 MAR 13



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 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 24554
 Report No 24554/R003
 Date Issued 18/06/24

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 29 MD LOTS	Date tested	14/06/24
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 08:17
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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	1.88	2.04	2.02	1.83	1.95	1.92
Field moisture content	%	23.2	24.9	22.2	24.5	21.1	21.0

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	1.93	2.15	2.10	1.83	1.99	2.00
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	
Optimum Moisture Content	%	25.0	27.5	22.5	26.5	21.5	21.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	0.5% dry	2.0% 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})	%	97.5	95.0	96.0	99.5	98.0	95.5
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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 24554
 Report No 24554/R004
 Date Issued 27/06/24

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 29 MD LOTS	Date tested	19/06/24
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	2.04	1.93	1.94	1.90	2.04
Field moisture content	%	26.9	21.0	23.5	21.5	22.8

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	2.06	2.01	1.95	1.94	2.06
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	27.5	23.0	26.0	22.0	25.5

Moisture Variation From Optimum Moisture Content	0.5% dry	1.5% dry	2.5% dry	0.5% 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 _{HD})	%	98.5	96.0	99.5	98.0	99.5	96.5
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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 24554
 Report No 24554/R005
 Date Issued 27/06/24

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 29 MD LOTS	Date tested	21/06/24
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:51
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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	1.94	1.95	1.91	1.98	2.00	1.94
Field moisture content	%	21.7	25.8	21.7	24.4	23.2	23.7

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 ³	1.96	2.00	1.94	2.01	1.96	2.00
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	23.5	27.5	24.0	25.5	24.0	24.5

Moisture Variation From Optimum Moisture Content	1.5% dry	1.5% dry	2.0% dry	1.0% dry	1.0% 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})	%	99.0	97.5	98.5	98.5	101.5	97.0
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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 24554
 Report No 24554/R006
 Date Issued 28/06/24

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 29 MD LOTS	Date tested	24/06/24
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 08:59
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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/m ³	2.06	2.03	2.07	-	-
Field moisture content	%	26.6	21.5	22.4	-	-

Test procedure AS 1289.5.7.1

Test No	31	32	33	-	-	-
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 ³	2.11	2.08	2.11	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	28.0	22.0	23.5	-	-

Moisture Variation From Optimum Moisture Content	1.5% dry	0.5% 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 _{HD})	%	97.5	97.5	98.5	-	-
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Material description

No 31 - 33 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