



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

26th March 2021

Our Reference: 21096:NB914

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
OFFICER FIELDS – STAGE 1 (OFFICER)**

Please find attached our Report No's 21096/R001 to 21096/R003 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 performed in February 2021.

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

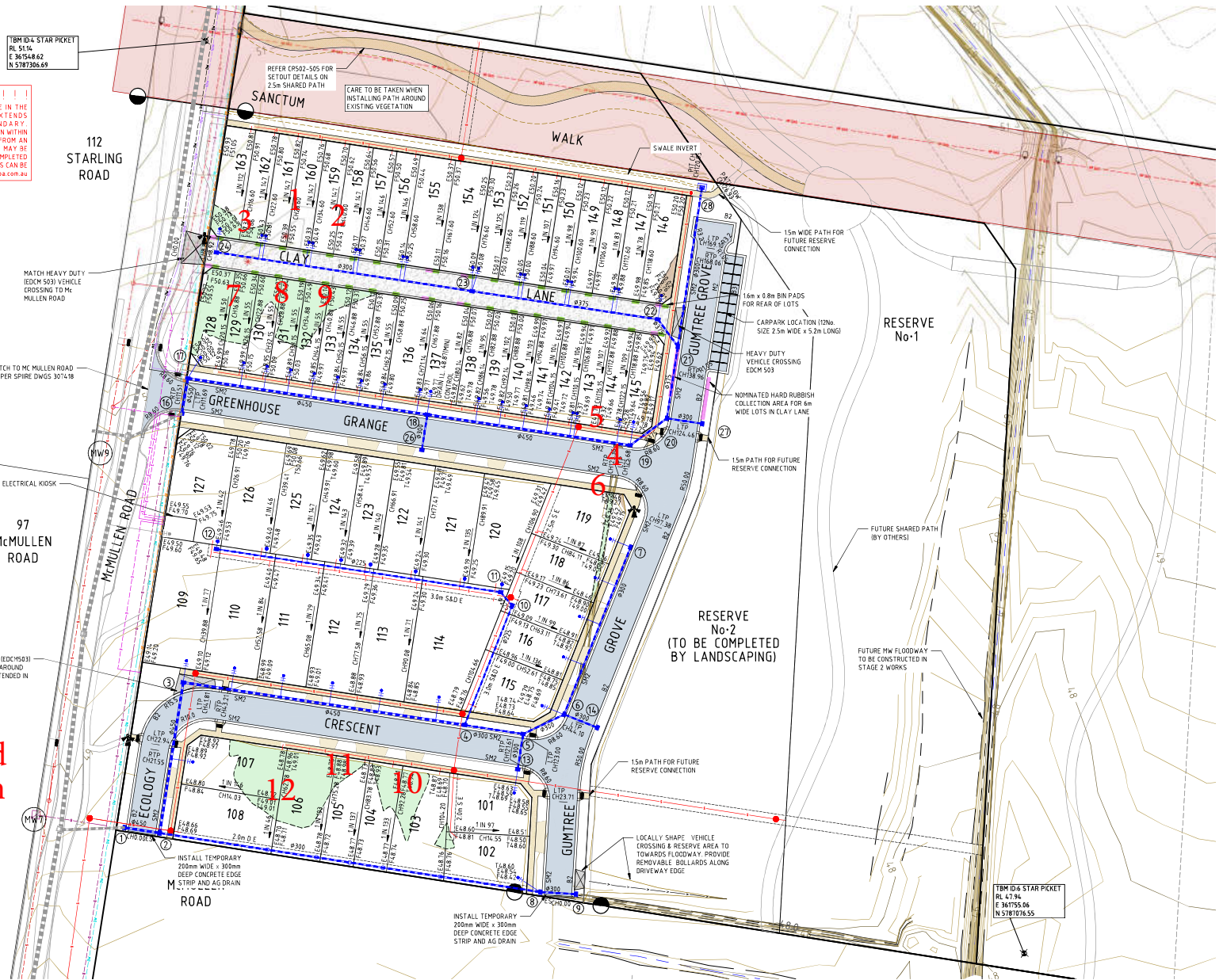
A handwritten signature in blue ink, appearing to be 'Nick Brock', written in a cursive style.

Nick Brock

FIGURE 1



!!! BEWARE !!!
 APA HIGH PRESSURE GAS TRANSMISSION LINE IN THE VICINITY OF THE WORKS. "NO GO" ZONE EXTENDS WITHIN THE APA GAS EASEMENT BOUNDARY. NO CONSTRUCTION OR ACCESS IS TO BE UNDERTAKEN WITHIN THE "NO GO" ZONE WITHOUT PRIOR APPROVAL FROM AN APA INFRASTRUCTURE PROTECTION OFFICER. APA MAY BE REQUIRED TO BE IN ATTENDANCE WHILE WORKS COMPLETED IN VICINITY OF APA INFRASTRUCTURE. APA OFFICERS CAN BE CONTACTED ON 1800 103 452 or APAProtection@apa.com.au



Approximate field density test location

WARNING
 BEWARE OF UNDERGROUND/OVERHEAD SERVICES
 THE LOCATION OF SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. SPECIAL CONSIDERATION SHOULD BE GIVEN TO CONSTRUCTION PROCEDURES UNDER OVERHEAD ELECTRICITY TRANSMISSION LINES.

File name: 307018CR20.dwg, User: m.murphy, Date: 13/01/2021 10:00:00, Plot: 1 of 1, Scale: 1:1, Sheet: 3 of 4, 21/01/2021

Rev	Amendments	Approved	Date
D	ISSUED FOR CONSTRUCTION	SM	13/01/21
D	SWALE, PATH GRADING, NOTES REVISED	SM	16/12/20
C	NOTES, TIMBER WALK PIT GRADING, SANCTUM WK & SHARED PATHS REVISED	SM	16/10/20
B	ISSUED FOR APPROVAL	SM	06/08/20
A	ISSUED FOR TENDER	S.M	10/06/20



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YourLand Developments
 Designed **A.CHARALAMBOUS**
 Authorised **S.MURPHY**
 Checked **B.MURGRIDGE**
 Date **JUN 2020**

OFFICER FIELDS STAGE 1
 ROAD AND DRAINAGE ROAD LAYOUT PLANS - ROAD AND DRAINAGE
 CARDINIA SHIRE COUNCIL
 YOURLAND
 CONSTRUCTION 307018CR201 0



COMPACTION ASSESSMENT

Job No 21096
 Report No 21096/R001
 Date Issued 13/03/2021

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	OFFICER FIELDS - STAGE 1	Date tested	04/02/21
Location	OFFICER	Checked by	JHF

Feature	TANK VOID BACKFILL	Layer thickness	200 mm	Time: 13:30
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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						
Measurement depth	mm	175	175	175	-	-
Field wet density	t/m ³	2.00	2.00	1.90	-	-
Field moisture content	%	17.4	17.6	20.6	-	-

Test procedure AS 1289.5.7.1

Test No	1	2	3	-	-	-
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	2.00	2.06	1.95	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	15.0	15.5	21.0	-	-

Moisture Variation From Optimum Moisture Content	2.5% wet	2.5% wet	0.0%	-	-	-
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Density Ratio (R _{HD})	%	100.0	97.0	97.0	-	-
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Material description

No 1 - 3 Clay Fill

AVRLOT HILF V1.10 MAR 13



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards. Accredited for compliance with ISO/IEC 17025 - Testing

Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 21096
 Report No 21096/R002
 Date Issued 13/03/2021

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	OFFICER FIELDS - STAGE 1	Date tested	08/02/21
Location	OFFICER	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:30
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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/m ³	1.89	1.86	1.87	-	-
Field moisture content	%	13.6	14.4	14.5	-	-

Test procedure AS 1289.5.7.1

Test No	4	5	6	-	-	-
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	1.91	1.96	1.90	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	16.0	17.0	16.0	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	1.5% dry	-	-	-
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Density Ratio (R _{HD})	%	99.0	95.0	98.5	-	-
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Material description

No 4 - 6 Clay Fill

AVRLOT HILF V1.10 MAR 13



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Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 21096
 Report No 21096/R003
 Date Issued 26/03/2021

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	SB
Project	OFFICER FIELDS - STAGE 1	Date tested	09/02/21
Location	OFFICER	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	09:30
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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 ³	1.94	1.94	1.89	1.93	1.87	1.93
Field moisture content	%	14.4	11.5	11.5	20.0	19.4	21.3

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 ³	2.01	1.96	1.95	1.96	1.94	1.95
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	14.5	12.0	11.5	17.5	17.5	21.0

Moisture Variation From Optimum Moisture Content	0.0%	0.5% dry	0.0%	2.5% wet	2.0% wet	0.5% wet
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Density Ratio (R _{HD})	%	96.5	99.0	96.5	98.5	96.5	99.0
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Material description

No 7 - 12 Clay Fill

AVRLOT HILF V1.10 MAR 13



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