



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

13th May 2021

Our Reference: 21288:NB943

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
ARMSTRONG – STAGE 65B (MOUNT DUNEED)**

Please find attached our Report No 21288/R001 which relates to the field density testing that was conducted within the filled allotments at the above subdivision. The level 1 inspections and associated field density was performed in April 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).

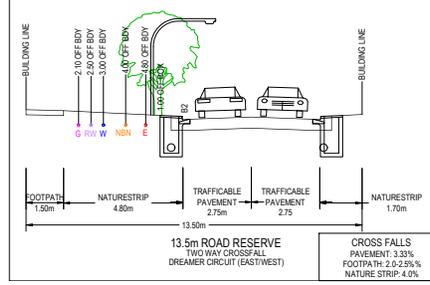
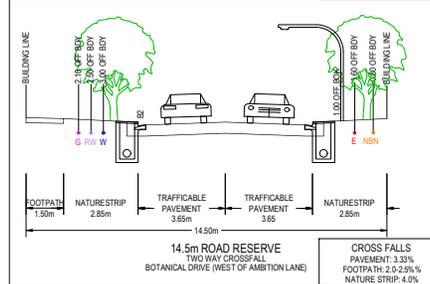
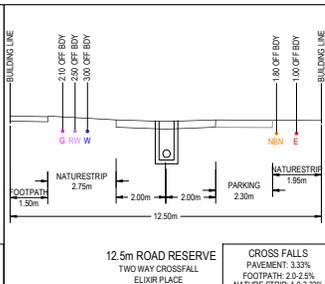
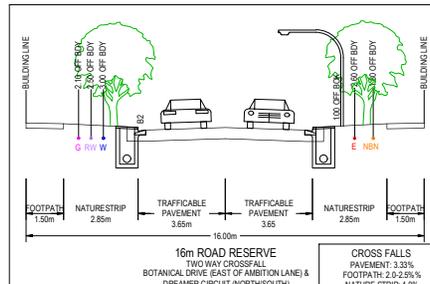
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

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

Nick Brock

FIGURE 1



CITY OF GREATER GEELONG TO STAMP HERE UPON APPROVAL

- NOTES**
- ALL VEHICLE AND PRAM CROSSING LAYBACKS, TO BE MINIMUM OF 1.0m FROM PITS.
 - ALL PRAM CROSSINGS TO BE A MINIMUM 2.0m FROM VEHICLE CROSSINGS.
 - VEHICLE EXCLUSION MEASURES BETWEEN ROAD RESERVE AND RESERVE TO FORM PART OF LANDSCAPE WORKS.
 - THE USE OF DIRECTIONAL AND HAZARD TACTILE PAVERS MUST ACCORD WITH SECTION 2.2.3.1 OF AS/NZS 1428.4:2002.
 - SEWER MAINTENANCE HOLES CONVERTER S&B OR CONE, TO BE ROTATED TO ENSURE COVER POSITION IS CENTRALLY LOCATED WITHIN FOOTPATH.
 - CHANGES FOR SETOUT OF PROPERTY INLET POINTS, SERVING FUTURE LOTS, ARE MEASURED FROM THE DOWNSTREAM PIT.
 - CONTRACTOR TO LOCATE ALL EXISTING ASSETS PRIOR TO COMMENCEMENT OF WORKS. ANY DAMAGE TO EXISTING ASSETS TO BE RECTIFIED AT CONTRACTORS EXPENSE.
 - CONTRACTOR TO VERIFY DEPTH OF EXISTING SERVICES, PRIOR TO COMMENCEMENT OF CONSTRUCTION.

LEGEND - LAYOUT PLAN

- STORMWATER DRAIN, PIT & PROPERTY INLET
- SEWER & MAINTENANCE STRUCTURES
- HOUSE DRAIN
- SERVICE CONDUITS
- EXISTING ELECTRICITY (UNDERGROUND)
- EXISTING ELECTRICITY (OVERHEAD)
- EXISTING GAS
- EXISTING OPTIC FIBRE
- EXISTING TELSTRA
- EXISTING WATER
- EXISTING RECYCLED WATER
- EXISTING STORMWATER DRAIN
- EXISTING SEWER
- EXISTING SURFACE LEVEL
- FINISHED BUILDING LEVEL
- FINISHED RIDGE LINE LEVEL
- PAVEMENT TREATMENT
- STRUCTURAL FILL > 200mm DEEP
- EXISTING 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 SUBSIDED DRAIN
- "NO ROAD" SIGN & BARRIER
- LIMIT OF WORKS
- EXISTING TREE TO BE REMOVED
- PERMANENT SURVEY MARK
- TEMPORARY BENCH MARK
- PROPOSED DRIVEWAY
- STORM WATER PIT SETOUT POINT

NOTE: STREET TREE LOCATIONS SHOWN ARE INDICATIVE ONLY. ULTIMATE LOCATION IS TO BE PROVIDED/CONFIRMED BY LANDSCAPE ARCHITECTS

Approximate field density test location

ROAD NAME	GAS		RECYCLED WATER		WATER		OPTIC FIBRE		ELECTRICITY		PUBLIC LIGHTING	
	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)
BOTANICAL DRIVE (WEST OF AMBITION LANE)	SOUTH	2.10	SOUTH	2.50	SOUTH	3.00	NORTH	0.80	NORTH	1.50	NORTH	1.00*
BOTANICAL DRIVE (EAST OF AMBITION LANE)	SOUTH	2.10	SOUTH	2.50	SOUTH	3.00	NORTH	1.80	NORTH	2.60	NORTH	1.00*
DREAMER CIRCUIT (NORTHSOUTH)	EAST	2.10	EAST	2.50	EAST	3.00	WEST	1.80	WEST	2.60	WEST	1.00*
DREAMER CIRCUIT (EASTWEST)	NORTH	2.10	NORTH	2.50	NORTH	3.00	NORTH	4.00	NORTH	4.80	NORTH	1.00*
ELXIR PLACE	NORTH	2.10	NORTH	2.50	NORTH	3.00	SOUTH	1.80	SOUTH	1.00	-	-
AMBITION LANE (FUTURE)	-	-	-	-	-	-	EAST	1.00	EAST	1.80	-	-
WAYFARER WALK (FUTURE)	EAST	0.50	EAST	1.00	EAST	1.50	-	-	-	-	-	-

1. * DENOTES OFFSET FROM BACK OF KERB

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	CHECKED	APPROVED	CLIENT
5	13/04/21	LOT 6531 CROSS OVER RELOCATION	C. ROHDE	M. TROUNCE	T. PALIOS	 Level 7, 176 Wellington Parade East Melbourne, VIC, Australia 3002
4	03/03/21	LOT 6527 CROSS OVER RELOCATION	C. ROHDE	M. TROUNCE	T. PALIOS	
3	03/03/21	DRIVEWAY CROSSING & DRAIN LINE 22 TO 24 ADDED	T. THOMAS	M. TROUNCE	T. PALIOS	
2	06/01/21	ALTERED DRAINAGE ALIGNMENT	C. ROHDE	M. TROUNCE	T. PALIOS	
1	22/12/20	AMBITION LANE & LOT 6514 REMOVED	L. HOSGAN	M. TROUNCE	T. PALIOS	
0	27/11/20	CONSTRUCTION ISSUE	C. ROHDE	M. TROUNCE	T. PALIOS	
B	27/11/20	AMENDED TO COUNCIL COMMENTS (26/11/20)	C. ROHDE	M. TROUNCE	T. PALIOS	
A	05/11/20	ISSUED FOR APPROVAL	C. ROHDE	M. TROUNCE	T. PALIOS	

ARMSTRONG ESTATE - STAGE 65B LAYOUT PLAN

ISSUED FOR CONSTRUCTION

PROJECT: **ARMSTRONG ESTATE - STAGE 65B LAYOUT PLAN**

DRAWING TITLE: **ARMSTRONG ESTATE - STAGE 65B LAYOUT PLAN**

STATUS: **ISSUED FOR CONSTRUCTION**

SCALE AT A1	DRAWN	DESIGNED
1:500 @ A1	C. ROHDE	C. ROHDE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
M. TROUNCE	T. PALIOS	OCTOBER 2020
PROJECT NO.	DRAWING NO.	REVISION
180016.65B	R200	5



COMPACTION ASSESSMENT

Job No 21288
 Report No 21288/R001
 Date Issued 13/05/2021

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BGG
Project	ARMSTRONG - STAGE 65B	Date tested	06/05/21
Location	MOUNT DUNEED	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:20
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		1	2	3	4	-	-
Location		REFER TO FIGURE 1					
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	-	-
Field wet density	t/m ³	1.85	1.85	1.84	1.84	-	-
Field moisture content	%	17.6	15.3	21.5	15.5	-	-

Test procedure AS 1289.5.7.1

Test No		1	2	3	4	-	-
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 ³	1.91	1.90	1.85	1.92	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	19.5	17.5	21.5	18.0	-	-

Moisture Variation From Optimum Moisture Content		2.0% dry	2.5% dry	0.0%	2.5% dry	-	-
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Density Ratio (R _{HD})	%	97.0	97.5	99.5	95.5	-	-
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Material description

No 1 - 4 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