



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

8th May 2019

Our Reference: 18797:NB488

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
ASPIRE – STAGE 21A (PLUMPTON)

Please find attached our Report No's 18797/R001 to 18797/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 was performed in January 2019.

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

ATTENTION TO CONTRACTOR

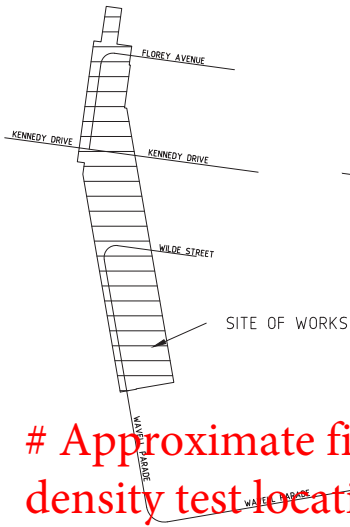
- IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN, PROVIDED FOR SETOUT PURPOSES, MATCHES THE TBM CO-ORDINATES SHOWN.
- WHERE CONCRETE WORKS ABOUT A SEWER ACCESS CHAMBER SURROUND OR SIMILAR STRUCTURE, AN EXPANSION JOINT OF APPROVAL MATERIAL SHALL BE PROVIDED BETWEEN THE TWO FACES.
- KERB TRANSITIONS FROM EXISTING 450B2 KERB TO PROPOSED 600B2 KERB ARE TO BE DONE AT PRAM RAMPS, DRAINAGE STRUCTURES, DRIVEWAYS OR TANGENT POINTS.

WARNING

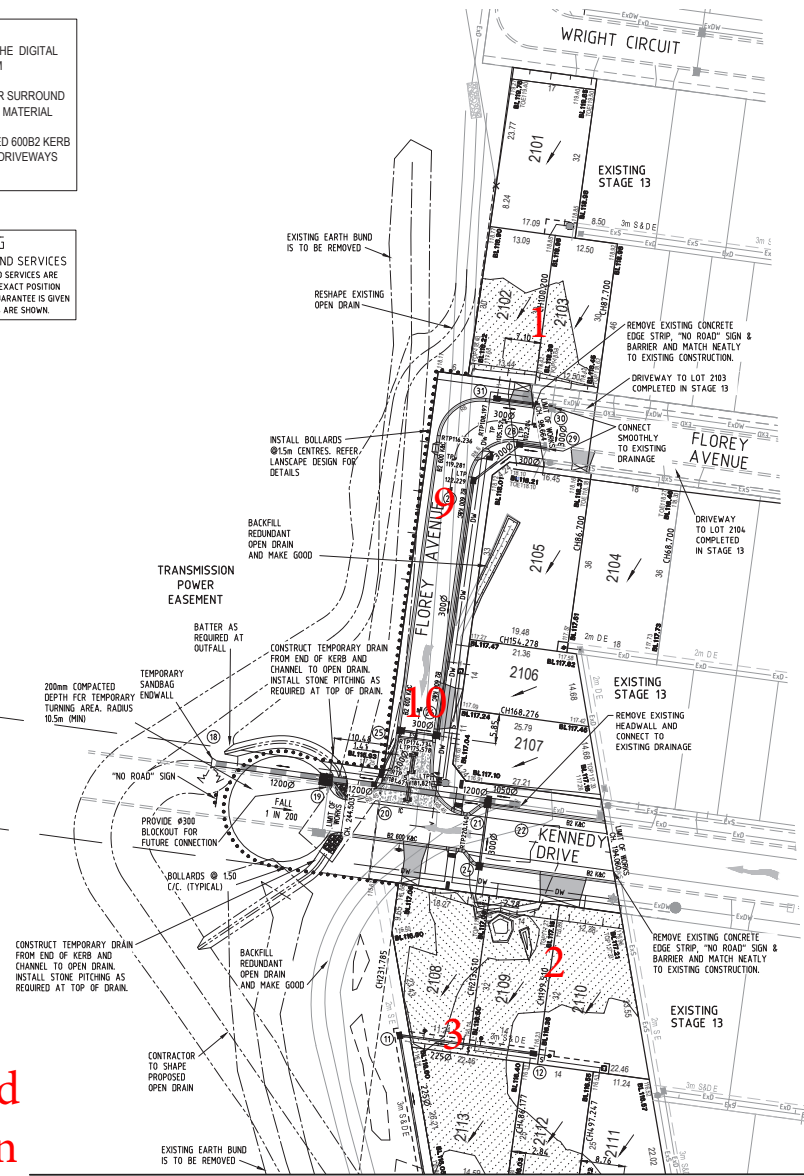
BWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

SHEET INDEX

SHT No.	VER	DESCRIPTION
1	D	LAYOUT PLAN AND DETAILS
2	A	INTERSECTION DETAILS
3	B	ROAD LONGSECTIONS - SHEET 1
4	B	ROAD LONGSECTIONS - SHEET 2
5	B	ROAD CROSS SECTIONS - SHEET 1
6	B	ROAD CROSS SECTIONS - SHEET 2
7	B	ROAD CROSS SECTIONS - SHEET 3
8	D	DRAINAGE LONGITUDINAL SECTIONS - SHEET 1
9	C	DRAINAGE LONGITUDINAL SECTIONS - SHEET 2
10	A	TYPICAL CROSS SECTIONS
11	A	SIGNAGE AND LINEMARKING
12	A	GENERAL NOTES AND DETAILS

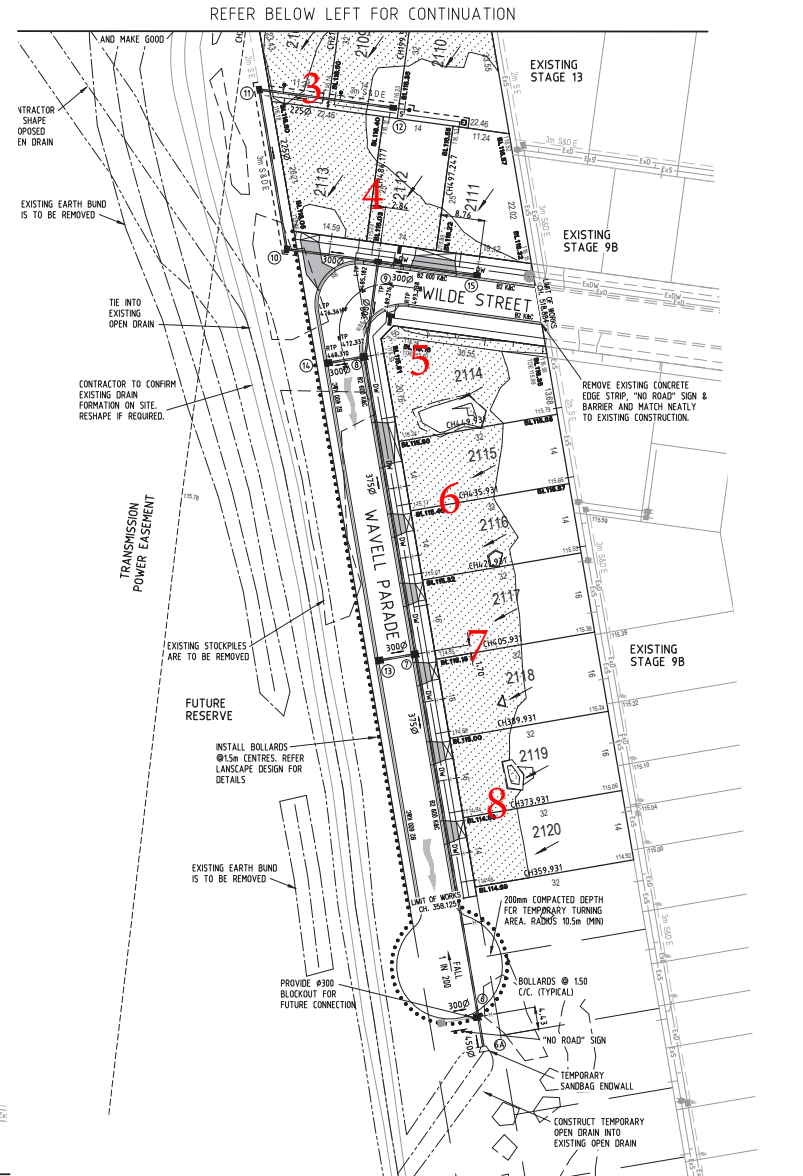


SITE LOCALITY PLAN
NOT TO SCALE



REFER ABOVE RIGHT FOR CONTINUATION

PLAN
SCALE 1:500



REFER BELOW LEFT FOR CONTINUATION

PLAN
SCALE 1:500



SERVICE OFFSETS AND LOCATION TABLE

ROAD NAME	RESERVE WIDTH	WATER DW	GAS	POLE		ELECTRICITY		LIC CABLE		TELECOMMUNICATIONS		BOK	
				SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET
KENNEDY DRIVE	22.00	2.60 S	2.10 S	S	0.80*	S	4.20	S	3.70	4.05 N	5.55 S		
FLOREY AVENUE (13.5m ROAD RESERVE)	13.50	2.60 E	2.10 E	W	0.80*	W	0.60	W	0.15	4.20 E	1.70 W		
FLOREY AVENUE (16m ROAD RESERVE)	16.00	2.60 N	2.10 N	S	0.80*	S	2.30	S	1.80	4.20 N	4.20 S		
WAVELL PARADE (13.5m ROAD RESERVE)	13.50	2.60 E	2.10 E	W	0.80*	W	0.60	W	0.15	4.20 E	1.70 W		
WILDE STREET	16.00	2.60 N	2.10 N	S	0.80*	S	2.30	S	1.80	4.20 N	4.20 S		

NOTE * OFFSET FROM BACK OF KERB

SYMBOL LEGEND

Drains	Temporary Bench Mark (TBM)	Ex/Natural/FS Level	35.57
Sewer <300	FS @ Building Line	BU25.57	
Sewer >300	Top/Toe of Batter	TOR25.57 / TOR25.57	
Water	Top Ret. Wall Level	TR25.57	
House Drain	Fill Prop/Ex		
Property Inlet	Fill (0.2m-0.5m depth)		
Street Sign	Fill (>0.5m depth)		
PSM	Cut Prop/Ex		
Retaining Wall	Threshold Treatment		
Conduits 50mm			
Conduits 100mm			
Ex Gas/Elect/Tel			

VER	DATE	REMARKS	CHECKED
D	27.11.18	DRAINAGE AMENDED	
C	11.10.18	EXISTING INFORMATION AMENDED	
B	04.10.18	SHEET INDEX UPDATED	
A	19.09.18	CONSTRUCTION ISSUE	

land surveyors
civil engineers

1/19 cato street
hawthorn east, 3123
telephone 8823 2300
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ASPIRE ESTATE STAGE 21A ROAD LAYOUT

MELWAY REF. 356 C2

SURVEY BPD

DESIGN JSB

DRAWN JSB

CHECKED C/JH

SCALE AS SHOWN

DATUM AHD

DATE FEB '18

MUNICIPALITY
MELTON

REFERENCE
8226 - E/21A

SHEET 1 OF 12

D



COMPACTION ASSESSMENT

Job No 18797
 Report No 18797/R001
 Date Issued 08/08/2019

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	ASPIRE - STAGE 21A	Date tested	11/01/19
Location	PLUMPTON	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 09:45
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	1	22	3	4	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1		
Approximate depth below FSL						
Measurement depth <i>mm</i>	175	175	175	175	-	-
Field wet density <i>t/m³</i>	1.81	1.77	1.98	1.97	-	-
Field moisture content <i>%</i>	22.7	22.5	21.7	24.0	-	-

Test procedure AS 1289.5.7.1

Test No	1	22	3	4	-	-
Compactive effort	Standard					
Oversize rock retained on sieve <i>mm</i>	19.0	19.0	19.0	19.0	-	-
Percent of oversize material <i>wet</i>	0	0	0	0	-	-
Peak Converted Wet Density <i>t/m³</i>	1.85	1.82	2.04	2.04	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content <i>%</i>	24.5	25.0	23.5	26.5	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.0% dry	2.5% dry	-	-
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Density Ratio (R_{HD})	%	97.5	97.0	97.0	97.0	-	-
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Material description

No 1 - 22 Clay Fill



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards. Accredited for compliance to ISO/IEC 17025. Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18797
 Report No 18797/R002
 Date Issued 08/05/2019

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	ASPIRE - STAGE 21A	Date tested	11/01/19
Location	PLUMPTON	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 09:45
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	5	6	-	-	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1				
Approximate depth below FSL						
Measurement depth mm	175	175	-	-	-	-
Field wet density t/m³	1.98	1.90	-	-	-	-
Field moisture content %	22.2	25.9	-	-	-	-

Test procedure AS 1289.5.7.1

Test No	5	6	-	-	-	-
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/m³	2.00	1.95	-	-	-	-
Adjusted Peak Converted Wet Density t/m³	-	-	-	-	-	-
Optimum Moisture Content %	24.0	28.5	-	-	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	-	-	-	-
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Density Ratio (R_{HD})	%	99.0	97.0	-	-	-
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Material description

No 5 - 6 Clay Fill

AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 18797
 Report No 18797/R003
 Date Issued 08/05/2019

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	ASPIRE - STAGE 21A	Date tested	14/01/19
Location	PLUMPTON	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:15
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	7	8	9	10	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1		
Approximate depth below FSL						
Measurement depth <i>mm</i>	175	175	175	175	-	-
Field wet density <i>t/m³</i>	1.95	1.94	1.89	1.90	-	-
Field moisture content <i>%</i>	24.1	24.6	26.5	20.7	-	-

Test procedure AS 1289.5.7.1

Test No	7	8	9	10	-	-
Compactive effort	Standard					
Oversize rock retained on sieve <i>mm</i>	19.0	19.0	19.0	19.0	-	-
Percent of oversize material <i>wet</i>	0	0	0	0	-	-
Peak Converted Wet Density <i>t/m³</i>	1.96	1.95	1.90	1.90	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content <i>%</i>	26.5	27.0	29.0	23.0	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	2.5% dry	2.5% dry	-	-
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Density Ratio (R_{HD})	%	99.5	99.0	99.5	100.0	-	-
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Material description

No 7 - 10 Clay Fill



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards. Accredited for compliance to ISO/IEC 17025. Accreditation No 9909

Approved Signatory : Justin Fry