



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

11th August 2020

Our Reference: 20220:NB786

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
ASPIRE – STAGE 24 (PLUMPTON)

Please find attached our Report No's 20220/R001 to 20220//R006 which relate to the field density testing that was conducted within the filled allotments of the above subdivision. The level 1 inspections and associated field density testing commenced in June 2020 and was completed in July 2020.

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).

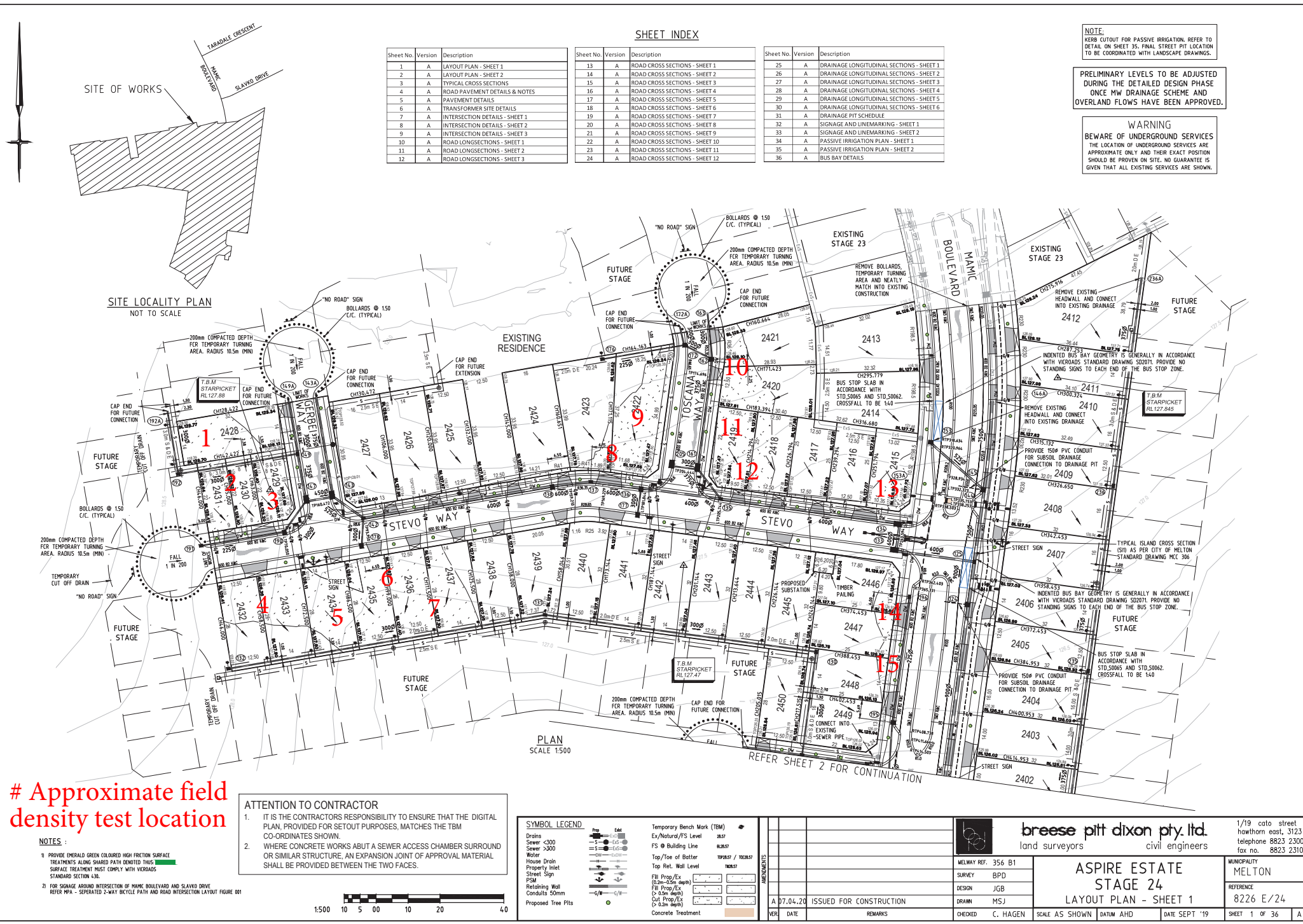
Please contact the undersigned if you require any additional information.

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)



SHEET INDEX

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2	A	LAYOUT PLAN - SHEET 2
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4	A	ROAD PAVEMENT DETAILS & NOTES
5	A	PAVEMENT DETAILS
6	A	TRANSFORMER SITE DETAILS
7	A	INTERSECTION DETAILS - SHEET 1
8	A	INTERSECTION DETAILS - SHEET 2
9	A	INTERSECTION DETAILS - SHEET 3
10	A	ROAD LONGSECTIONS - SHEET 1
11	A	ROAD LONGSECTIONS - SHEET 2
12	A	ROAD LONGSECTIONS - SHEET 3
13	A	ROAD CROSS SECTIONS - SHEET 1
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17	A	ROAD CROSS SECTIONS - SHEET 5
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22	A	ROAD CROSS SECTIONS - SHEET 10
23	A	ROAD CROSS SECTIONS - SHEET 11
24	A	ROAD CROSS SECTIONS - SHEET 12
25	A	DRAINAGE LONGITUDINAL SECTIONS - SHEET 1
26	A	DRAINAGE LONGITUDINAL SECTIONS - SHEET 2
27	A	DRAINAGE LONGITUDINAL SECTIONS - SHEET 3
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29	A	DRAINAGE LONGITUDINAL SECTIONS - SHEET 5
30	A	DRAINAGE LONGITUDINAL SECTIONS - SHEET 6
31	A	DRAINAGE PIT SCHEDULE
32	A	SIGNAGE AND LINEMARKING - SHEET 1
33	A	SIGNAGE AND LINEMARKING - SHEET 2
34	A	PASSIVE IRRIGATION PLAN - SHEET 1
35	A	PASSIVE IRRIGATION PLAN - SHEET 2
36	A	BUS BAY DETAILS

NOTE:
KERB CUTOUT FOR PASSIVE IRRIGATION. REFER TO DETAIL ON SHEET 35, FINAL STREET PIT LOCATION TO BE COORDINATED WITH LANDSCAPE DRAWINGS.

PRELIMINARY LEVELS TO BE ADJUSTED
DURING THE DETAILED DESIGN PHASE
ONCE MW DRAINAGE SCHEME AND
OVERLAND FLOWS HAVE BEEN APPROVED.

WARNING
BEWARE 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.

Approximate field density test location

ATTENTION TO CONTRACTOR

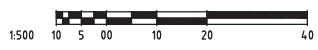
- IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN, PROVIDED FOR SETOUT PURPOSES, MATCHES THE TBM CO-ORDINATES SHOWN.
- WHERE CONCRETE WORKS ABOUT A SEWER ACCESS CHAMBER SURROUND OR SIMILAR STRUCTURE, AN EXPANSION JOINT OF APPROVAL MATERIAL SHALL BE PROVIDED BETWEEN THE TWO FACES.

SYMBOL LEGEND

	Drains		Temporary Bench Mark (TBM)
	Sewer <300		FS @ Building Line
	Sewer >300		Top/Toe of Batter
	Water		Top Ret. Wall Level
	House Drain		Fill Prop/Ex
	Property Inlet		Cut Prop/Ex
	Street Sign		Concrete Treatment
	Retaining Wall		
	Conduits 50mm		
	Proposed Tree Pits		

NOTES:

- PROVIDE EMERALD GREEN COLOURED HIGH FRICTION SURFACE TREATMENTS ALONG SHARED PATH DENOTED THIS SURFACE TREATMENT MUST COMPLY WITH VICROADS STANDARD SECTION 336.
- FOR SIGNAGE AROUND INTERSECTION OF MAMIC BOULEVARD AND SLAVO DRIVE REFER MPA - SEPARATED 2-WAY BICYCLE PATH AND ROAD INTERSECTION LAYOUT FIGURE 001



REV	DATE	ISSUED FOR CONSTRUCTION	REMARKS
A	07.04.20	ISSUED FOR CONSTRUCTION	

breese pitt dixon pty. ltd.
land surveyors civil engineers

1/19 calo street
hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

ASPIRE ESTATE
STAGE 24
LAYOUT PLAN - SHEET 1

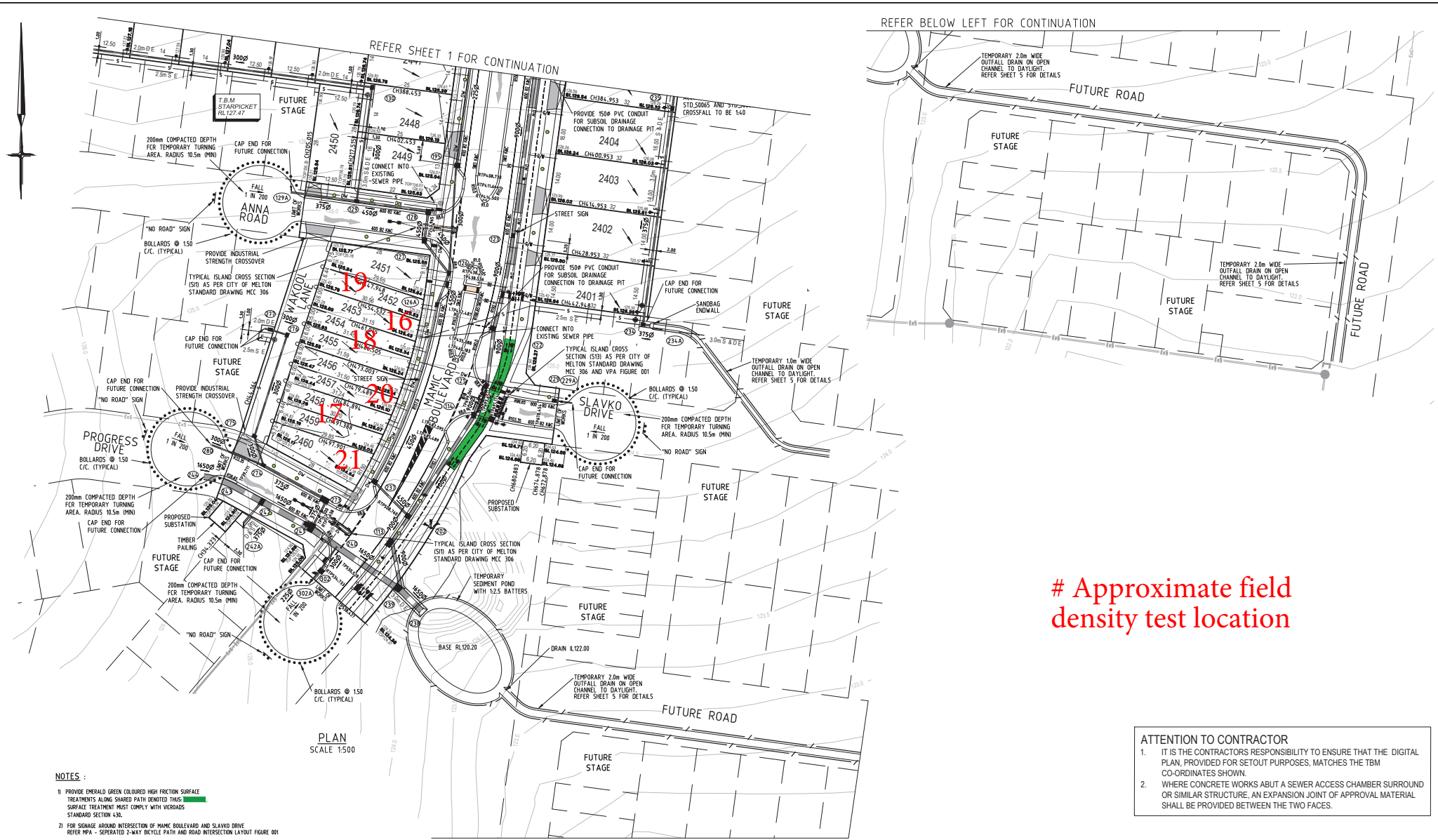
MELWAY REF. 356 B1	SURVEY BPD	DESIGN JGB	DRAWN MSJ
CHECKED C. HAGEN	SCALE AS SHOWN	DATUM AHD	DATE SEPT '19

MUNICIPALITY
MELTON

REFERENCE
8226 E/24

SHEET 1 OF 36

FIGURE 1 (2 of 2)



Approximate field density test location

ATTENTION TO CONTRACTOR

- IT IS THE CONTRACTOR'S 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.

NOTES :

- PROVIDE EMERALD GREEN COLOURED HIGH FRICTION SURFACE TREATMENTS ALONG SHARED PATH IDENTIFIED THIS SURFACE TREATMENT MUST COMPLY WITH VICROADS STANDARD SECTION 430.
- FOR SIGNAGE AROUND INTERSECTION OF MAMIC BOULEVARD AND SLAVKO DRIVE REFER WPA - SEPARATED 2-WAY BICYCLE PATH AND ROAD INTERSECTION LAYOUT FIGURE 001

SERVICE OFFSETS AND LOCATION TABLE

ROAD NAME	RESERVE WIDTH	WATER		GAS		ELECTRICITY		TELECOMMUNICATIONS		BOK		
		POLE	POLE	POLE	POLE	POLE	POLE	POLE	POLE	POLE	POLE	
		SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	
MAMIC BOULEVARD	31.50	S	1.00	E	1.00	E	2.70	E	1.95	E	1.45	6.45 W
MAMIC BOULEVARD	25.00	S	1.00	E	1.00	E	2.70	E	1.95	E	1.45	7.50 W
STEVU WAY	16.00	S	1.00	S	1.00	S	2.30	S	1.80	S	4.05 N	4.05 S
GERBBI WAY	16.00	S	1.00	E	1.00	E	2.30	E	1.80	S	4.05 E	4.05 W
TOSCANA WAY	16.00	S	1.00	W	1.00	W	2.30	W	1.80	S	4.05 E	4.05 W
ANNA ROAD	16.00	S	1.00	S	1.00	S	2.30	S	1.80	S	4.05 N	4.05 S
SLAVKO DRIVE	16.00	S	1.00	S	1.00	S	2.30	S	1.80	S	4.05 N	4.05 S
PROGRESS DRIVE	20.00	S	1.00	S	1.00	S	2.30	S	1.80	S	6.05 N	6.05 S
WAKOOL LANE	8.00	S	1.00	S	1.00	S	2.30	S	1.80	S	3.00 E	3.00 W

NOTE: * OFFSET FROM BACK OF KERB

SYMBOL LEGEND

- Drains
- Sewer <300
- Sewer >300
- Water
- House Drain
- Property Inlet
- Street Sign
- Proposed Tree Pits
- Temporary Bench Mark (TBM)
- Ex/Natural/FS Level
- FS @ Building Line
- Top/Toe of Batter
- Top Ref. Wall Level
- Fill Prop/Ex (>0.2m depth)
- Fill Prop/Ex (>0.5m depth)
- Threshold Treatment

NO.	DATE	ISSUED FOR CONSTRUCTION	REMARKS
A	07.04.20	ISSUED FOR CONSTRUCTION	

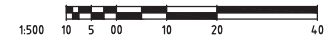
breese pitt dixon pty. ltd.
land surveyors civil engineers

MELWAY REF. 356 B1
SURVEY BPD
DESIGN JGB
DRAWN MSJ

ASPIRE ESTATE STAGE 24
LAYOUT PLAN - SHEET 2

MUNICIPALITY MELTON
REFERENCE 8226 E/24

CHECKED C. HAGEN
SCALE AS SHOWN
DATUM AHD
DATE SEPT '19
SHEET 2 OF 36
A





COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 20220
Report No 20220/R001
Date Issued 12/05/2020

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AM
Project	ASPIRE - STAGE 24	Date tested	22/04/20
Location	PLUMPTON	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	09:18
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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	1.92	1.94	1.87	1.87	1.92	1.91
Field moisture content	%	36.1	32.1	31.0	34.2	30.6	30.3

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	1.95	2.04	1.90	1.95	1.95	1.94
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	34.0	30.0	28.5	31.5	33.0	33.0

Moisture Variation From Optimum Moisture Content	2.0% wet	2.0% wet	2.5% wet	2.5% wet	2.5% dry	2.5% dry
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Density Ratio (R _{HD})	%	98.5	95.5	98.5	96.0	98.5	98.5
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Material description

No 1 - 6 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

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 20220
Report No 20220/R002
Date Issued 20/05/2020

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AM
Project	ASPIRE - STAGE 24	Date tested	23/04/20
Location	PLUMPTON	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:58
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	7	8	9	-	-	-
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	1.79	1.80	1.81	-	-
Field moisture content	%	29.9	27.8	29.0	-	-

Test procedure AS 1289.5.7.1

Test No	7	8	9	-	-	-
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	1.82	1.83	1.84	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	32.5	30.5	31.5	-	-

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

No 7 - 9 Clay Fill

AVRLOT HILF V1.10 MAR 13



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COMPACTION ASSESSMENT

Job No 20220
 Report No 20220/R003
 Date Issued 12/05/2020

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AM
Project	ASPIRE - STAGE 24	Date tested	23/04/20
Location	PLUMPTON	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 15:01
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	10	11	-	-	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1				
Approximate depth below FSL						
Measurement depth	mm	175	175	-	-	-
Field wet density	t/m ³	1.73	1.79	-	-	-
Field moisture content	%	29.5	28.0	-	-	-

Test procedure AS 1289.5.7.1

Test No	10	11	-	-	-	-
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/m ³	1.75	1.77	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	32.0	30.5	-	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	-	-	-	-
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Density Ratio (R _{HD})	%	98.5	101.0	-	-	-
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Material description

No 10 - 11 Clay Fill

AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 20220
 Report No 20220/R004
 Date Issued 12/05/2020

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AM
Project	ASPIRE - STAGE 24	Date tested	24/04/20
Location	PLUMPTON	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:35
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	12	13	14	15	16	17
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	1.71	1.73	1.69	1.71	1.72
Field moisture content	%	29.7	30.8	28.6	30.8	28.0

Test procedure AS 1289.5.7.1

Test No	12	13	14	15	16	17
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	1.69	1.76	1.72	1.74	1.67
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	31.5	29.0	31.0	29.0	30.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.5% dry	2.0% wet	2.5% dry	2.0% dry
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Density Ratio (R _{HD})	%	101.5	98.0	98.5	98.5	98.0	98.0
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Material description

No 12 - 17 Clay Fill

AVRLOT HILF V1.10 MAR 13



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Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 20220
 Report No 20220/R005
 Date Issued 20/05/2020

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AM
Project	ASPIRE - STAGE 24	Date tested	28/04/20
Location	PLUMPTON	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:30
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	17	18	19	-	-	-
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	1.85	1.91	1.85	-	-
Field moisture content	%	31.9	33.8	31.1	-	-

Test procedure AS 1289.5.7.1

Test No	17	18	19	-	-	-
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	1.88	1.92	1.91	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	30.0	31.0	28.5	-	-

Moisture Variation From Optimum Moisture Content	2.0% wet	2.5% wet	2.5% wet	-	-	-
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Density Ratio (R _{HD})	%	98.0	99.0	97.0	-	-
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Material description

No 17 - 19 Clay Fill

AVRLOT HILF V1.10 MAR 13



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Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 20220
 Report No 20220/R006
 Date Issued 12/05/2020

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AM
Project	ASPIRE - STAGE 24	Date tested	29/04/20
Location	PLUMPTON	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	20	21	-	-	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1				
Approximate depth below FSL						
Measurement depth	mm	175	175	-	-	-
Field wet density	t/m ³	1.80	1.78	-	-	-
Field moisture content	%	27.2	21.2	-	-	-

Test procedure AS 1289.5.7.1

Test No	20	21	-	-	-	-
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/m ³	1.81	1.79	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	25.0	23.0	-	-	-

Moisture Variation From Optimum Moisture Content	2.0% wet	2.0% wet	-	-	-	-
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Density Ratio (R _{HD})	%	99.0	99.0	-	-	-
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Material description

No 20 - 21 Clay Fill

AVRLOT HILF V1.10 MAR 13



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Accreditation No 9909

Approved Signatory : Justin Fry