



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

6th August 2018

Our Reference: 18383:NB250

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
ASTON – STAGE 29 (CRAGIEBURN)

Please find attached our Report No's 18383/R001 and 18383/R002 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 2018.

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 (1 of 2)

EARTHWORKS LEGEND

- DIRECTION OF FALL (LOT)
- LOT FILL (FILL GREATER THAN 200mm DEEP)
- LOT CUT (CUT GREATER THAN 200mm DEEP)
- ESO RIDGELINE / ESO LINE
- NEW FINISHED SURFACE CONTOUR
- EXISTING SURFACE CONTOUR
- NEW BATTER
- EXISTING SURFACE LEVEL
- FINISHED SURFACE LEVEL
- TOP OR TOE OF BATTER LEVEL
- BOTTOM OF RETAINING WALL LEVEL
- TOP OF RETAINING WALL LEVEL
- RIDGELINE SURFACE LEVEL
- BUILDING LINE LEVEL
- LIMIT OF WORKS



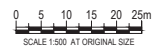
Approximate field density test location

WARNING
PROPOSED SERVICES
THE LOCATION AND EXTENT OF PROPOSED SERVICES IS INDICATIVE ONLY AND ARE NOT TO BE USED FOR CONSTRUCTION. REFER TO AUTHORISED DOCUMENTATION BY RELEVANT AUTHORITY FOR CONSTRUCTION DETAILS.

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.



REV	DESCRIPTION	BY	APP	DATE
01	CONSTRUCTION ISSUE	MS	CO	05.09.17



astonPEET
craigieburn

FOR CONTINUATION REFER TO DRAWING 102419-29-C071

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TITLE
BULK EARTHWORKS PLAN
SHEET 1 OF 2

PROJECT
ASTON ESTATE
STAGE 29
HUME CITY COUNCIL

STATUS
FOR CONSTRUCTION

DESIGNED	DRAWN	APPROVED	SCALE @ A1	SHEET
LG	AJB	AC	SHOWN	4 of 34
PROJECT No.	DRAWING No.	REV		
102419-29	C070	00		



FIGURE (2 of 2)

1520

EARTHWORKS LEGEND

- DIRECTION OF FALL (LOT)
- LOT FILL (FILL GREATER THAN 200mm DEEP)
- LOT CUT (CUT GREATER THAN 200mm DEEP)
- ESO RIDGELINE / ESO LINE
- NEW FINISHED SURFACE CONTOUR
- EXISTING SURFACE CONTOUR
- NEW BATTER
- ES00.000 EXISTING SURFACE LEVEL
- FS00.000 FINISHED SURFACE LEVEL
- TB00.000 TOP OR TOE OF BATTER LEVEL
- SB00.000 BOTTOM OF RETAINING WALL LEVEL
- TW00.000 TOP OF RETAINING WALL LEVEL
- RL00.000 RIDGELINE SURFACE LEVEL
- BL00.000 BUILDING LINE LEVEL
- LIMIT OF WORKS



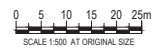
Approximate field density test location

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REV	DESCRIPTION	BY	APP	DATE
05	CONSTRUCTION ISSUE	MS	CO	05.09.17



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TITLE
BULK EARTHWORKS PLAN
SHEET 2 OF 2

PROJECT
ASTON ESTATE
STAGE 29
HUME CITY COUNCIL

STATUS
FOR CONSTRUCTION

DESIGNED	DRAWN	APPROVED	SCALE @ A1	SHEET
LG	AJB	AC	SHOWN	5 of 34
PROJECT No 102419-29		DRAWING No C071		REV 00





COMPACTION ASSESSMENT

Job No 18383
 Report No 18383/R001
 Date Issued 06/08/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by AC
 Date tested 27/06/18
 Checked by JHF

Client WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)
 Project ASTON - STAGE 29
 Location CRAGIEBURN

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 11:52

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	175
Field wet density t/m ³	1.85	1.99	1.83	1.84	1.84	1.77
Field moisture content %	19.2	21.7	19.4	20.1	19.1	19.6

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	19.0
Percent of oversize material wet	0	0	0	0	0	0
Peak Converted Wet Density t/m ³	1.91	2.00	1.91	1.90	1.90	1.80
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	17.0	19.0	19.5	20.5	19.5	17.5

Moisture Variation From Optimum Moisture Content	2.5% wet	2.5% wet	0.0%	0.0%	0.0%	2.5% wet
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Density Ratio (R_{HD}) %	97.0	99.5	96.0	97.0	97.0	98.0
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Material description

No 1 - 6 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 18383
 Report No 18383/R002
 Date Issued 06/08/2018

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by AC
 Date tested 27/06/18
 Checked by JHF

Client WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)
 Project ASTON - STAGE 29
 Location CRAGIEBURN

Feature	EARTHWORKS	<i>Layer thickness</i>	200 mm	<i>Time:</i> 12:19
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	7	-	-	-	-	-
<i>Location</i>	REFER TO FIGURE 1					
<i>Approximate depth below FSL</i>						
<i>Measurement depth</i> mm	175	-	-	-	-	-
<i>Field wet density</i> t/m ³	1.79	-	-	-	-	-
<i>Field moisture content</i> %	21.3	-	-	-	-	-

Test procedure AS 1289.5.7.1

Test No	7	-	-	-	-	-
<i>Compactive effort</i>	Standard					
<i>Oversize rock retained on sieve</i> mm	19.0	-	-	-	-	-
<i>Percent of oversize material</i> wet	0	-	-	-	-	-
<i>Peak Converted Wet Density</i> t/m ³	1.80	-	-	-	-	-
<i>Adjusted Peak Converted Wet Density</i> t/m ³	-	-	-	-	-	-
<i>Optimum Moisture Content</i> %	21.5	-	-	-	-	-

<i>Moisture Variation From Optimum Moisture Content</i>	0.0%	-	-	-	-	-
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Density Ratio (R_{HD})	%	99.5	-	-	-	-
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Material description

No 7 - 7 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