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

24 June 2015

Our Reference: 15045:PJF2007

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
LIVINGSTON ESTATE (STAGE 7), CRANBOURNE EAST

Please find attached our Report Nos 15045/R001 to 15045/R016 that relate to the field density testing that was conducted within the filled areas of Stage 7 of the above development. Stage 7 of the development is located to the south of Berwick – Cranbourne Road in Cranbourne East (Melways Map 134 D7 - refer also to the attached plan).

The inspection and testing duties, which were performed by experienced geotechnical engineers and geotechnicians from this office, were undertaken in accordance with the Level 1 guidelines presented in AS 3798 - Guidelines on earthworks for commercial and residential developments. The testing was performed to the relevant Australian Standards and the accompanying test reports carry NATA endorsement.

Prior to fill placement, the stripped surfaces were inspected to ensure that a firm foundation free of organic matter and the like was achieved. Any soft spots and unstable areas and the like that were encountered were removed down to a firm base and replaced with suitably compacted clays.

The fill materials during the recent construction phase were initially spread by a dozer and then compacted in 0.3 to 0.35 metre (loose) lifts using a pad foot roller. A conventional truck mounted water cart was available to assist with moisture conditioning of the fill materials on an as required basis. The fill materials essentially comprised site won clays from adjacent stages. Compaction testing of these materials was performed at regular intervals (both vertically and laterally) during fill placement to confirm that the method of fill placement was appropriate. Any areas that were deemed unsatisfactory were re-worked or given extra rolling to ensure that the compaction criteria was met.

The purpose of performing Level 1 inspection and testing duties is to ensure the quality of the as constructed fill pad(s) and to both minimise the costs of extensive testing and eliminate any unnecessary time delays arising from the testing process. Hence, the provision of Level 1 duties allows the contractor to undertake the filling operation whilst the testing authority monitors the quality control process of the operation. As part of this latter process, the testing authority monitors the compaction methodology on a visual basis and undertakes a number of randomly placed spot checks (ie field density and associated compaction tests) to confirm that the adopted methodology is appropriate.

The attached compaction results, which were located randomly throughout the depth and breadth of the deeper fill areas, are considered to be representative of the bulk fill materials that were placed within the abovementioned allotments by Winslow Constructors Pty Ltd during the recent construction period. The locations of the actual field density test sites are noted on the attached test reports (refer also to the accompanying drawing).

When interpreting the requirements of AS 2870 - Residential slabs and footings (2011), we are of the view that the bulk fill materials that have been placed across the filled areas of the abovementioned allotments by Winslow Constructors can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

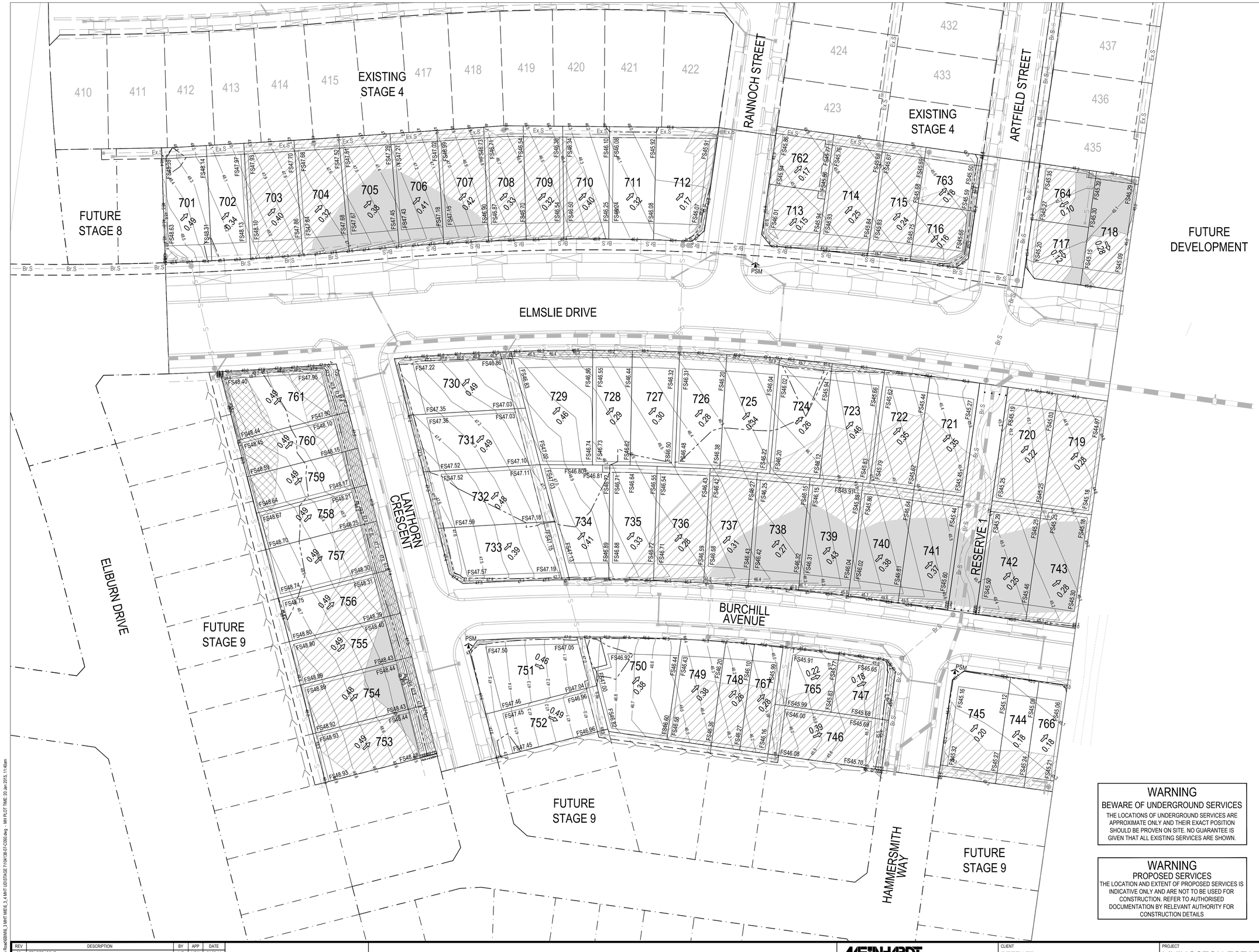
Accordingly, the fill materials would be deemed to comply with both the controlled fill requirements of Clause 1.8.13 of AS 2870 and the structural fill requirements of Clause 1.2.13 of AS 3798. Hence, reclassification of the filled allotments is permitted under Clause 2.5.3 (c) of AS 2870.

Please contact the undersigned if you require any additional information.

Yours faithfully,

Civil Geotechnical Services

Peter Fry



ROADWORKS LEGEND

- KERB & CHANNEL - (AS NOTED)
- TRANSITION KERB
- PROPOSED DRIVEWAY CROSSING
- EXISTING CONSTRUCTION TO BE REMOVED
- NEW BATTER
- SUBSOIL DRAIN
- EXISTING STORMWATER DRAIN, PIT AND PROPERTY INLET
- OR
- STORMWATER DRAIN, PIT AND PROPERTY INLET
- SEWER, MAINTENANCE STRUCTURES AND PROPERTY CONNECTION
- SWALE DRAIN INVERT AND DIRECTION OF FLOW
- TACTILE PAVERS
- PERMANENT SURVEY MARK (PSM)
- TEMPORARY BENCH MARK (TBM)
- ES00.000 EXISTING SURFACE LEVEL
- FS00.000 FINISHED SURFACE LEVEL
- TB00.000 TOP OR TOE OF BATTER LEVEL
- STORMWATER PIT NO.
- NEW FINISHED SURFACE CONTOUR
- EXISTING SURFACE CONTOUR
- CONCRETE EDGE STRIP WITH SUBSOIL DRAIN "NO ROAD" SIGN & BARRIER
- STREET SIGN
- LIMIT OF WORKS
- PROPOSED ELECTRICITY
- PROPOSED GAS
- PROPOSED SEWER
- BRANCH SEWER
- PROPOSED TELECOMMUNICATIONS
- PROPOSED WATER
- PROPOSED NON-DRINKING WATER
- EXISTING ELECTRICITY
- EXISTING GAS
- EXISTING SEWER
- EXISTING TELECOMMUNICATIONS
- EXISTING WATER
- EXISTING NON-DRINKING WATER
- EXISTING TREE
- EXISTING TREE TO BE REMOVED

GRADING LEGEND

- DIRECTION OF FALL
- LOT FILLING (FILL UP TO 300mm DEEP)
- LOT FILLING "LEVEL 1 FRC" (FILL GREATER THAN 300mm DEEP)
- LOT CUT
- ZERO EARTHWORK LINE (NO CUT OR FILL)

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.

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

REV	DESCRIPTION	BY	APP	DATE
00	TENDER ISSUE	AJB	NCW	04.08.14
01	CONSTRUCTION ISSUE	MG	NCW	16.09.14
02	CONSTRUCTION ISSUE - PLAN OF SUBDIVISION AMENDMENTS	MG	NCW	07.11.14
03	CONSTRUCTION ISSUE - GENERAL AMENDMENTS	MG	NCW	21.11.14
04	CONSTRUCTION ISSUE - SIDE SETBACK AMENDMENTS	AJB	NCW	20.01.15

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

LIVINGSTON CRANBOURNE EAST
PEET

MEINHARDT
Meinhardt Australia Pty Ltd
A.C.N. 052 275 635
Level 11, 501 Swanston Street
Melbourne VIC 3000
Australia
T: +61 3 8676 1200
F: +61 3 8676 1201
info@meinhardtgroup.com
http://www.meinhardtgroup.com

CLIENT
PEET LTD
Level 3, 492 St Kilda Road, Melbourne VIC 3004

TITLE
EARTHWORKS PLAN

PROJECT
LIVINGSTON ESTATE
STAGE 7
CITY OF CASEY

STATUS
FOR CONSTRUCTION

DESIGNED	DRAWN	APPROVED	SCALE @ A1	SHEET
SP	AJB	NCW	1:500	3 OF 25

PROJECT No 104138-07
DRAWING No C050
REV 04

PROJECT NORTH

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	15045
		Report No	15045/R001
		Date Issued	04/02/15
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AG
Project	LIVINGSTON ESTATE - STAGE 7	*Date tested*	30/01/15
Location	CRANBOURNE	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	09:59

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**1**	**-**	**-**	**-**	**-**	**-**
Lot No		718					
Approximate depth below FSL							
Measurement depth	*mm*	175	-	-	-	-	-
Field wet density	*t/m³*	1.81	-	-	-	-	-
Field moisture content	*%*	27.9	-	-	-	-	-

Test procedure AS 1289.5.7.1

Test No		1	-	-	-	-	-
Compactive effort		Standard					
Oversize rock retained on sieve	*mm*	19.0	-	-	-	-	-
Percent of oversize material	*wet*	0	-	-	-	-	-
Peak Converted Wet Density	*t/m³*	1.78	-	-	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	29.5	-	-	-	-	-

Moisture Variation From Optimum Moisture Content	1.5% dry	-	-	-	-	-

Density Ratio (R_{HD})	***%***	**101.5**	**-**	**-**	**-**	**-**	**-**

Material description

No 1 - 1 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES
6 - 8 Rose Avenue, Croydon 3136

		Job No	15045
		Report No	15045/R002
		Date Issued	04/02/15
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AG
Project	LIVINGSTON ESTATE - STAGE 7	*Date tested*	30/01/15
Location	CRANBOURNE	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 09:56

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**2**	**3**	**-**	**-**	**-**	**-**
Lot No		717	764				
Approximate depth below FSL							
Measurement depth	*mm*	175	175	-	-	-	-
Field wet density	*t/m³*	1.69	1.73	-	-	-	-
Field moisture content	*%*	34.1	29.6	-	-	-	-

Test procedure AS 1289.5.7.1

Test No		2	3	-	-	-	-
Compactive effort		Standard					
Oversize rock retained on sieve	*mm*	19.0	19.0	-	-	-	-
Percent of oversize material	*wet*	1	1	-	-	-	-
Peak Converted Wet Density	*t/m³*	1.67	1.73	-	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	1.68	1.75	-	-	-	-
Optimum Moisture Content	*%*	35.0	30.5	-	-	-	-

Moisture Variation From Optimum Moisture Content	1.0% dry	1.0% dry	-	-	-	-

Density Ratio (R_{HD})	*%*	**101.0**	**99.5**	**-**	**-**	**-**	**-**

Material description

No 2 - 3 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES
6 - 8 Rose Avenue, Croydon 3136

		Job No	15045
		Report No	15045/R003
		Date Issued	05/0/2/15
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AG
Project	LIVINGSTON ESTATE - STAGE 7	*Date tested*	30/01/15
Location	CRANBOURNE	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 12:05

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**4**	**5**	**6**	**7**	**-**	**-**
Lot No		716 / 763	715	714	713 / 762		
Approximate depth below FSL							
Measurement depth	*mm*	175	175	175	175	-	-
Field wet density	*t/m³*	1.76	1.74	1.77	1.75	-	-
Field moisture content	*%*	38.2	32.8	31.2	36.4	-	-

Test procedure AS 1289.5.7.1

Test No		4	5	6	7	-	-
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/m³*	1.78	1.83	1.86	1.84	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	38.0	34.0	31.5	35.0	-	-

Moisture Variation From Optimum Moisture Content	0.5% wet	1.0% dry	0.0%	1.5% wet	-	-

Density Ratio (R_{HD})	***%***	**99.0**	**95.0**	**95.0**	**95.0**	**-**	**-**

Material description

No 4 - 7 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	15045
		Report No	15045/R004
		Date Issued	06/02/15
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AG
Project	LIVINGSTON ESTATE - STAGE 7	*Date tested*	03/02/15
Location	CRANBOURNE	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	10:51

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**8**	**9**	**10**	**11**	**12**	**13**
Lot No		717	718	710	711	708	709
Approximate depth below FSL							
Measurement depth	*mm*	175	175	175	175	175	175
Field wet density	*t/m³*	1.81	1.72	1.72	1.66	1.73	1.74
Field moisture content	*%*	30.7	33.2	33.0	35.5	36.1	29.3

Test procedure AS 1289.5.7.1

Test No		8	9	10	11	12	13
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/m³*	1.84	1.70	1.74	1.75	1.73	1.79
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	31.0	36.0	36.0	36.5	37.5	31.5

Moisture Variation From Optimum Moisture Content	0.5% dry	3.0% dry	2.5% dry	1.0% dry	1.5% dry	2.0% dry

Density Ratio (R_{HD})	*%*	**98.5**	**101.0**	**99.0**	**95.0**	**100.0**	**97.5**

Material description

No 8 - 13 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	15045
		Report No	15045/R005
		Date Issued	10/02/15
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AG
Project	LIVINGSTON ESTATE - STAGE 7	*Date tested*	03/02/15
Location	CRANBOURNE	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	16:08

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**14**	**15**	**16**	**17**	**-**	**-**
Location	*Lot No*	704	705	706	707		
Approximate depth below FSL							
Measurement depth	*mm*	175	175	175	175	-	-
Field wet density	*t/m³*	1.79	1.81	1.76	1.67	-	-
Field moisture content	*%*	25.8	21.8	26.1	26.0	-	-

Test procedure AS 1289.5.7.1

Test No		14	15	16	17	-	-
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/m³*	1.82	1.91	1.81	1.76	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	27.5	23.5	27.5	27.5	-	-

Moisture Variation From Optimum Moisture Content	1.5% dry	2.0% dry	1.5% dry	1.5% dry	-	-

Density Ratio (R_{HD})	*%*	**98.0**	**95.0**	**97.0**	**95.0**	**-**	**-**

Material description

No 14 - 17 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES
6 - 8 Rose Avenue, Croydon 3136

		Job No	15045
		Report No	15045/R006
		Date Issued	17/02/15
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AG
Project	LIVINGSTON ESTATE - STAGE 7	*Date tested*	06/02/15
Location	CRANBOURNE	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	13:19

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**18**	**19**	**20**	**21**	**-**	**-**
Location	*Lot No*	706	705	703 / 704	701 / 702		
Approximate depth below FSL							
Measurement depth	*mm*	175	175	175	175	-	-
Field wet density	*t/m³*	1.82	1.80	1.91	1.82	-	-
Field moisture content	*%*	31.8	30.7	21.5	31.5	-	-

Test procedure AS 1289.5.7.1

Test No		18	19	20	21	-	-
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/m³*	1.81	1.75	1.88	1.79	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	33.0	33.0	21.5	34.0	-	-

Moisture Variation From Optimum Moisture Content	1.5% dry	2.0% dry	0.0%	2.5% dry	-	-

Density Ratio (R_{HD})	*%*	**100.5**	**103.0**	**101.5**	**102.0**	**-**	**-**

Material description

No 18 - 21 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	15045
		Report No	15045/R007
		Date Issued	17/02/15
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AG
Project	LIVINGSTON ESTATE - STAGE 7	*Date tested*	10/02/15
Location	CRANBOURNE	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 08:33

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**22**	**23**	**24**	**25**	**26**	**-**
Location	*Lot No*	741	740	739	738	737	
Approximate depth below FSL							
Measurement depth	*mm*	175	175	175	175	175	-
Field wet density	*t/m³*	1.64	1.70	1.77	1.79	1.65	-
Field moisture content	*%*	29.1	30.3	30.4	30.5	40.5	-

Test procedure AS 1289.5.7.1

Test No		22	23	24	25	26	-
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/m³*	1.71	1.74	1.83	1.77	1.63	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	30.5	32.5	33.0	32.5	42.5	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	2.0% dry	2.0% dry	2.5% dry	-

Density Ratio (R_{HD})	*%*	**96.0**	**98.0**	**97.0**	**101.0**	**101.5**	**-**

Material description

No 22 - 26 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES
6 - 8 Rose Avenue, Croydon 3136

		Job No	15045
		Report No	15045/R008
		Date Issued	17/02/15
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AG
Project	LIVINGSTON ESTATE - STAGE 7	*Date tested*	11/02/15
Location	CRANBOURNE	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	09:28

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**27**	**28**	**-**	**-**	**-**	**-**
Location	*Lot No*	721	723				
Approximate depth below FSL							
Measurement depth	*mm*	175	175	-	-	-	-
Field wet density	*t/m³*	1.62	1.59	-	-	-	-
Field moisture content	*%*	37.6	38.8	-	-	-	-

Test procedure AS 1289.5.7.1

Test No		27	28	-	-	-	-
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*	1.67	1.66	-	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	40.0	41.0	-	-	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	-	-	-	-

Density Ratio (R_{HD})	*%*	**97.0**	**95.5**	**-**	**-**	**-**	**-**

Material description

No 27 - 28 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES
6 - 8 Rose Avenue, Croydon 3136

		Job No	15045
		Report No	15045/R009
		Date Issued	17/02/15
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AG
Project	LIVINGSTON ESTATE - STAGE 7	*Date tested*	12/02/15
Location	CRANBOURNE	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	11:01

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**29**	**30**	**-**	**-**	**-**	**-**
Location	*Lot No*	722	724				
Approximate depth below FSL							
Measurement depth	*mm*	175	175	-	-	-	-
Field wet density	*t/m³*	1.52	1.56	-	-	-	-
Field moisture content	*%*	40.6	40.3	-	-	-	-

Test procedure AS 1289.5.7.1

Test No		29	30	-	-	-	-
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*	1.60	1.64	-	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	42.5	42.5	-	-	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	-	-	-	-

Density Ratio (R_{HD})	*%*	**95.0**	**95.5**	**-**	**-**	**-**	**-**

Material description

No 29 - 30 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	15045
		Report No	15045/R010
		Date Issued	19/02/15
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AG
Project	LIVINGSTON ESTATE - STAGE 7	*Date tested*	12/02/15
Location	CRANBOURNE	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	11:06

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**31**	**32**	**33**	**34**	**35**	**-**
Location	*Lot No*	741	740	739	738	737	
Approximate depth below FSL							
Measurement depth	*mm*	175	175	175	175	175	-
Field wet density	*t/m³*	1.63	1.68	1.60	1.73	1.72	-
Field moisture content	*%*	40.1	41.5	42.6	38.8	38.3	-

Test procedure AS 1289.5.7.1

Test No		31	32	33	34	35	-
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/m³*	1.65	1.62	1.64	1.66	1.66	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	42.0	43.5	44.5	40.5	40.0	-

Moisture Variation From Optimum Moisture Content		2.5% dry	2.5% dry	2.0% dry	1.5% dry	2.0% dry	-
Density Ratio (R_{HD})	*%*	**99.0**	**103.5**	**98.0**	**104.0**	**103.5**	**-**

Material description

No 31 - 35 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES
6 - 8 Rose Avenue, Croydon 3136

		Job No	15045
		Report No	15045/R011
		Date Issued	17/02/15
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AG
Project	LIVINGSTON ESTATE - STAGE 7	*Date tested*	12/02/15
Location	CRANBOURNE	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	11:14

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**36**	**37**	**-**	**-**	**-**	**-**
Location	*Lot No*	747	746				
Approximate depth below FSL							
Measurement depth	*mm*	175	175	-	-	-	-
Field wet density	*t/m³*	1.60	1.57	-	-	-	-
Field moisture content	*%*	39.8	40.8	-	-	-	-

Test procedure AS 1289.5.7.1

Test No		36	37	-	-	-	-
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*	1.66	1.62	-	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	41.5	43.0	-	-	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	-	-	-	-

Density Ratio (R_{HD})	*%*	**97.0**	**97.0**	**-**	**-**	**-**	**-**

Material description

No 36 - 37 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	15045
		Report No	15045/R012
		Date Issued	20/02/15
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AG
Project	LIVINGSTON ESTATE - STAGE 7	*Date tested*	13/02/15
Location	CRANBOURNE	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	11:25

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**38**	**39**	**40**	**41**	**42**	**43**
Location	*Lot No*	741	739	731	730	732	733
Approximate depth below FSL							
Measurement depth	*mm*	175	175	175	175	175	175
Field wet density	*t/m³*	1.56	1.62	1.69	1.71	1.57	1.61
Field moisture content	*%*	39.1	35.2	33.9	36.5	39.5	37.3

Test procedure AS 1289.5.7.1

Test No		38	39	40	41	42	43
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/m³*	1.64	1.63	1.72	1.70	1.64	1.64
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	41.5	37.0	36.0	38.5	41.5	39.5

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	2.0% dry	2.0% dry	2.0% dry	2.5% dry

Density Ratio (R_{HD})	*%*	**95.0**	**99.0**	**98.5**	**101.0**	**96.0**	**98.5**

Material description

No 38 - 43 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	15045
		Report No	15045/R013
		Date Issued	24/02/15
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	JWM
Project	LIVINGSTON ESTATE - STAGE 7	*Date tested*	16/02/15
Location	CRANBOURNE	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	09:00

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**44**	**45**	**46**	**-**	**-**	**-**
Location	*Lot No*	742	743	720 / 719			
Approximate depth below FSL							
Measurement depth	*mm*	175	175	175	-	-	-
Field wet density	*t/m³*	1.70	1.61	1.62	-	-	-
Field moisture content	*%*	41.5	43.1	37.7	-	-	-

Test procedure AS 1289.5.7.1

Test No		44	45	46	-	-	-
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/m³*	1.73	1.68	1.69	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	39.5	41.5	39.5	-	-	-

Moisture Variation From Optimum Moisture Content	2.5% wet	2.0% wet	2.0% dry	-	-	-

Density Ratio (R_{HD})	*%*	**98.5**	**95.5**	**96.0**	**-**	**-**	**-**

Material description

No 44 - 46 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	15045
		Report No	15045/R014
		Date Issued	26/02/15
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	JWM
Project	LIVINGSTON ESTATE - STAGE 7	*Date tested*	16/02/15
Location	CRANBOURNE	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	09:30

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**47**	**48**	**49**	**50**	**51**	**-**
Location	*Lot No*	753	754	755	756	757	
Approximate depth below FSL							
Measurement depth	*mm*	175	175	175	175	175	-
Field wet density	*t/m³*	1.69	1.74	1.69	1.68	1.62	-
Field moisture content	*%*	40.4	40.4	37.8	39.5	39.6	-

Test procedure AS 1289.5.7.1

Test No		47	48	49	50	51	-
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/m³*	1.78	1.79	1.74	1.74	1.70	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	38.5	39.0	39.5	38.5	41.5	-

Moisture Variation From Optimum Moisture Content	2.0% wet	1.0% wet	1.5% dry	1.0% wet	2.0% dry	-

Density Ratio (R_{HD})	*%*	**95.0**	**97.0**	**97.5**	**96.5**	**95.5**	**-**

Material description

No 47 - 51 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES
6 - 8 Rose Avenue, Croydon 3136

		Job No	15045
		Report No	15045/R015
		Date Issued	24/02/15
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AG
Project	LIVINGSTON ESTATE - STAGE 7	*Date tested*	18/02/15
Location	CRANBOURNE	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 08:47

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**52**	**53**	**54**	**-**	**-**	**-**
Location	*Lot No*	742	743	760			
Approximate depth below FSL							
Measurement depth	*mm*	175	175	175	-	-	-
Field wet density	*t/m³*	1.68	1.72	1.71	-	-	-
Field moisture content	*%*	37.0	32.3	31.6	-	-	-

Test procedure AS 1289.5.7.1

Test No		52	53	54	-	-	-
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/m³*	1.76	1.75	1.78	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	35.0	35.0	34.0	-	-	-

Moisture Variation From Optimum Moisture Content	2.0% wet	2.5% dry	2.5% dry	-	-	-

Density Ratio (R_{HD})	*%*	**95.5**	**98.0**	**96.0**	**-**	**-**	**-**

Material description

No 52 - 54 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	15045
		Report No	15045/R016
		Date Issued	24/02/15
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AG
Project	LIVINGSTON ESTATE - STAGE 7	*Date tested*	18/02/15
Location	CRANBOURNE	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	13:39

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**55**	**56**	**57**	**-**	**-**	**-**
Location	*Lot No*	749	767	745			
Approximate depth below FSL							
Measurement depth	*mm*	175	175	175	-	-	-
Field wet density	*t/m³*	1.78	1.76	1.81	-	-	-
Field moisture content	*%*	32.1	33.6	38.7	-	-	-

Test procedure AS 1289.5.7.1

Test No		55	56	57	-	-	-
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/m³*	1.75	1.75	1.73	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	34.0	36.0	38.0	-	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	0.5% wet	-	-	-

Density Ratio (R_{HD})	*%*	**102.0**	**100.5**	**104.5**	**-**	**-**	**-**

Material description

No 55 - 57 Clay Fill

Approved Signatory : Justin Fry