



Brisbane Soil Testing

20/1191 Anzac Ave

Kallangur, Q. 4503

Ph. (07) 3285 6536

Email. brissoil@bigpond.net.au

Geotechnical Testing Services.

Connemar Pty. Ltd.

ABN 50 065 093 647

Job No.1643

30 March 2017

BMD Urban Pty Ltd
PO Box 197
WYNNUM CENTRAL QLD 4178

Attn Alan Guthrie

RE: CANNON HILL COMMUNITY LINKS – STAGE 3

(Allotment Fill, Road Embankment Fill & Sediment Basin Backfill –
Geotechnical Inspection & Testing)

SCOPE

Brisbane Soil Testing were commissioned by BMD Urban Pty Ltd to provide geotechnical inspection and testing of the allotment earthworks, embankment fill on Smith Place CH40-CH115, and sediment basin backfill to temporary basin 2 on the above stage subdivision.

Some filling was required as part of the development and for this work, our site presence was maintained in accordance with AS3798-2007 "Guidelines on Earthworks for Commercial and Residential Developments" Appendix B, "Level 1". As directed the scope of the Level 1 inspection and testing was:

- (i) check adequacy of pre-fill ground preparation
- (ii) remove unsuitable materials
- (iii) inspect and carry out compaction control testing of placed fill materials

CONTROL INSPECTION AND TESTING

An inspection of the areas to be filled was carried out on 26 October 2016 and on an ongoing basis as the job progressed, by Brisbane Soil Testing staff.

On-site cut materials were used for filling and these materials were generally placed in 0.20m loose horizontal layers and compacted with an 825 compactor and vibrating pad foot roller.

Forty-four field density tests were carried between 26 October 2017 and 8 March 2017. These tests recorded Dry Density Ratios between 95.5% and 103.0% relative to the standard compaction test and field moisture contents within -4.5% and +1.5% of their respective optimum moisture contents, AS1289.5.1.1.

The location of all allotment tests are shown on the attached Earthworks Summary Report sketches.

The test location of the embankment fill, is shown on the attached plan titled Embankment Fill, Drawing No.CE302.

The location of all sediment basin backfill tests are shown on the attached plan titled Basin Backfill, Drawing No.ESC301.

Attached documents B37/11 (Report Nos. 38931, 38933, 39035, 39036, 39041, 39045, 39958, 39959, 39960, 39961, 39962, 39963, 39964, 39965, 39979, 39980, 39981 and 39630) provide full test data for the compaction control tests.

CONCLUSION

Based on the test results and site inspections, we conclude that the fill foundation is considered to comply with requirements of Table 5.1- Item 2 of AS3798-2007 and the project specifications.

We confirm that all vegetation and topsoil was removed, and that a sound base for the proposed filling was provided. We further confirm that all filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.



GREG McGRANN
BRISBANE SOIL TESTING



Brisbane Soil Testing

20/1191 Anzac Ave
Kallangur, Q. 4503

LEGEND

- 15.00 DESIGN MAJOR CONTOUR (1.0m)
- 15.00 DESIGN MINOR CONTOUR (0.5m)
- 15.00 SURVEY MAJOR CONTOUR (1.0m)
- 15.00 SURVEY MINOR CONTOUR (0.5m)
- MB MULCH BERMS
- CATCH DRAINS
- SF SEDIMENT FENCE
- DIVERSION BUND
- CONSTRUCTION ENTRY / EXIT
- ENTRY ROAD AND PRECINCT A DISTURBED AREA
- PRECINCT A DISTURBED AREA
- STABILISED AREA
- LANDSCAPED AREA
- STOCKPILES
- VEGETATED AREA
- NO GO ZONE
- SEDIMENT BASIN
- ROCK CHECK DAMS
- INLET PROTECTION
- BFM BONDED FIBRE MATRIX

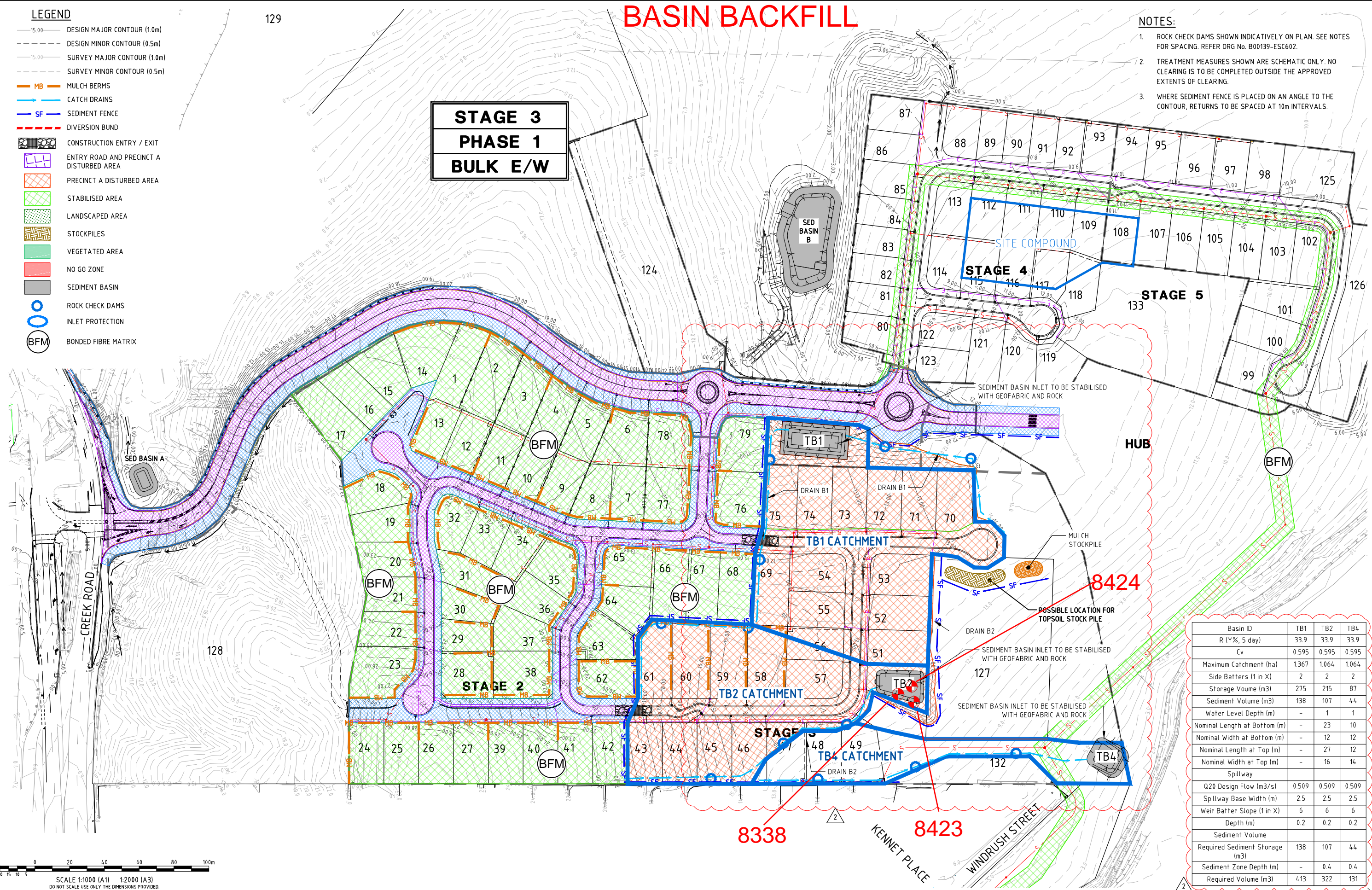
129

BASIN BACKFILL

NOTES:

- ROCK CHECK DAMS SHOWN INDICATIVELY ON PLAN. SEE NOTES FOR SPACING. REFER DRG No. B00139-ESC602.
- TREATMENT MEASURES SHOWN ARE SCHEMATIC ONLY. NO CLEARING IS TO BE COMPLETED OUTSIDE THE APPROVED EXTENTS OF CLEARING.
- WHERE SEDIMENT FENCE IS PLACED ON AN ANGLE TO THE CONTOUR, RETURNS TO BE SPACED AT 10m INTERVALS.

**STAGE 3
PHASE 1
BULK E/W**



Basin ID	TB1	TB2	TB4
R (Y%, 5 day)	33.9	33.9	33.9
Cv	0.595	0.595	0.595
Maximum Catchment (ha)	1.367	1.064	1.064
Side Batters (1 in X)	2	2	2
Storage Volume (m3)	275	215	87
Sediment Volume (m3)	138	107	44
Water Level Depth (m)	-	1	1
Nominal Length at Bottom (m)	-	23	10
Nominal Width at Bottom (m)	-	12	12
Nominal Length at Top (m)	-	27	12
Nominal Width at Top (m)	-	16	14
Spillway			
Q20 Design Flow (m3/s)	0.509	0.509	0.509
Spillway Base Width (m)	2.5	2.5	2.5
Weir Batter Slope (1 in X)	6	6	6
Depth (m)	0.2	0.2	0.2
Sediment Volume			
Required Sediment Storage (m3)	138	107	44
Sediment Zone Depth (m)	-	0.4	0.4
Required Volume (m3)	413	322	131

SCALE 1:1000 (A1) 1:2000 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

Plot Date: 21/12/2016 10:24:32 AM User: WILLIAM ROCKETT File Name: B:\Brisbane - Consulting\JOBS\B00139-Cannon Hill Stage 2 & Entry Road\A1-CURRENT Erosion and Sediment Control\B00139-ESC

2	REVISED ESC STRATEGY	WR	WR	DH	D.L.H. CPESC 6858	21/12/16
1	ISSUED FOR CONSTRUCTION	IR	WR	DH	DH CPESC 6858	14/09/19
No.	Amendments	Drawn	Design	Appd	Registered Engineer	Reg No. Date

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ENGINEERS &
PROJECT MANAGERS
ABN 23 010 743 692

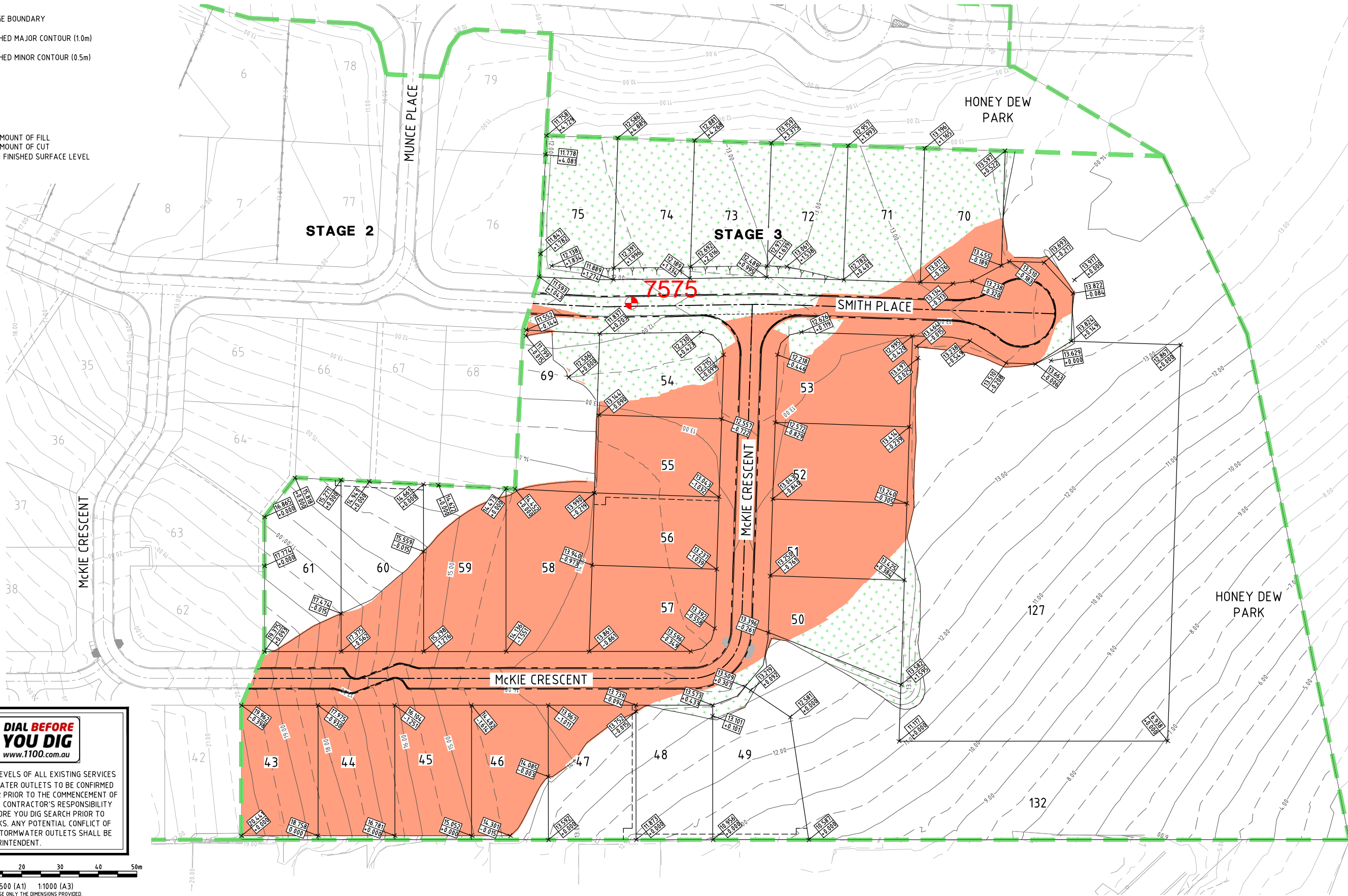
Client
BMD PROPERTIES PTY. LTD.
Project
COMMUNITY LINKS
Title
**EROSION AND SEDIMENT CONTROL PLAN
STAGE 3 PHASE 1 - BULK E/W**

Datum
AHD
PSM 119825
RL 2.600
(MGA) COORD
FOR CONSTRUCTION
Project No.
B00139-ESC301
Drawing No.
2

EMBANKMENT FILL

LEGEND

- STAGE BOUNDARY
- 15.00 FINISHED MAJOR CONTOUR (1.0m)
- FINISHED MINOR CONTOUR (0.5m)
- CUT
- FILL
- + = AMOUNT OF FILL
- = AMOUNT OF CUT
- FSL = FINISHED SURFACE LEVEL



NOTE: LOCATION & LEVELS OF ALL EXISTING SERVICES AND PROPOSED STORMWATER OUTLETS TO BE CONFIRMED ON SITE BY CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM A DIAL BEFORE YOU DIG SEARCH PRIOR TO COMMENCEMENT OF WORKS. ANY POTENTIAL CONFLICT OF EXISTING SERVICES OR STORMWATER OUTLETS SHALL BE REPORTED TO THE SUPERINTENDENT.

Scale bar: 0 to 50m. SCALE 1:500 (A1) 1:1000 (A3). DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

File Name: B:\Brisbane - Consulting\B00139 Cannon Hill Stage 2, 2A and Entry Road\4. CIVIL_DWG\4.2 CURRENT\Stage 3\B00139-ST3-EWMS User: LACHLAN DARR Plot Date: 15/09/2016 10:23:04 AM

1	ISSUED FOR CONSTRUCTION	JK	LD	PI	9424	14/09/16
No.	Amendments	Drawn/Design	Appd	Registered Engineer	Reg No.	Date
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Empower
ENGINEERS &
PROJECT MANAGERS
ABN 23 010 743 692

Client	BMD PROPERTIES PTY LTD	Datum	AHD
Project	CANNON HILL COMMUNITY LINKS STAGE 3	PSM	119825
Title	EARTHWORKS MANAGEMENT LAYOUT PLAN	RL	2.600
		(MGA) COORD	
		FOR CONSTRUCTION	
Project No.	B00139-CE302	Drawing No.	
Rev	1		



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FIELD DENSITY CERTIFICATE

Connemar Pty. Ltd.

ABN 50 065 093 647

Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	38931
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	26/10/2016	Tested by	AC

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm Wet Dry		Field Moisture Context %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
1 6051	9.00	150	LOT 75 3m Rear bdy, 2m Right bdy R.L.8.23	6051	-	-	13.0	Adj. 15.0	2.0 DRY	86.5	1.72	Adj. 1.80	95.5
Material Description: DARK BROWN SILTY SANDY CLAY.													
2 6052	9.30	150	LOT 75 6m Rear bdy, 2m Left bdy R.L.9.01	6052	-	-	17.5	Adj. 18.0	0.5 DRY	97.0	1.70	Adj. 1.75	97.0
Material Description: DARK BROWN SILTY SANDY CLAY.													
3 6053	10.00	150	LOT 74 5m Rear bdy, 4m Left bdy R.L.8.60	6053	-	-	16.5	Adj. 19.5	3.0 DRY	84.5	1.65	Adj. 1.68	98.0
Material Description: LIGHT RED-BROWN SILTY SANDY CLAY.													
								Adj.				Adj.	
Material Description:													
								Adj.				Adj.	
Material Description:													
								Adj.				Adj.	
Material Description:													

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date: 21.11.16

Checked By: R MCGRANN

RMc



Accredited for compliance with ISO/IEC 17025 – Testing.

Accreditation No. 2415

Greg McGrann/Manager

Approved Signatory

Date: 21.11.16

Greg McGrann



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ABN 50 065 093 647

Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	38933
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	28/10/2016	Tested by	AC

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm Wet Dry		Field Moisture Context %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
4 6104	8.00	150	LOT 75 6m Rear bdy, 2m Right bdy R.L.9.65	6104	4.0	5.0	13.5	Adj. 15.5	2.0 DRY	89.0	1.78	Adj. 1.83	97.5
Material Description: LIGHT RED-BROWN SILTY SANDY CLAY & ROCK FRAGMENTS.													
5 6105	8.30	150	LOT 75 9m Rear bdy, 3m Left bdy R.L.10.11	6105	9.0	10.0	11.0	Adj. 10.0	1.0 WET	111.5	2.05	Adj. 2.04	100.5
Material Description: LIGHT BROWN SANDY CLAY & ROCK FRAGMENTS.													
								Adj.				Adj.	
Material Description:													
								Adj.				Adj.	
Material Description:													
								Adj.				Adj.	
Material Description:													
								Adj.				Adj.	
Material Description:													

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1,5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date:21.11.16



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Greg McGrann/Manager

Approved Signatory

Date:21.11.16

Greg McGrann



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Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	39035
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	2/11/2016	Tested by	AC

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm Wet Dry		Field Moisture Context %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
6 6196	9.00	150	LOT 73 3m Rear bdy, 3m Left bdy R.L.9.26	6196	6.0	7.0	9.0	Adj. 9.5	0.5 DRY	95.5	2.07	Adj. 2.03	102.0
Material Description: BROWN SILTY SANDY GRAVELLY CLAY.													
7 6197	9.30	150	LOT 72 2m Rear bdy, 4m Left bdy R.L.10.33	6197	-	-	8.0	Adj. 9.5	1.5 DRY	84.0	2.08	Adj. 2.05	101.5
Material Description: BROWN SILTY SANDY GRAVELLY CLAY.													
								Adj.				Adj.	
Material Description:													
								Adj.				Adj.	
Material Description:													
								Adj.				Adj.	
Material Description:													
								Adj.				Adj.	
Material Description:													

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date: 29.11.16

Checked By: R MCGRANN

RMc



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Accreditation No. 2415

Greg McGrann/Manager

Approved Signatory

Date: 29.11.16

Greg McGrann



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Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	39036
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	3/11/2016	Tested by	AC JM

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm Wet Dry		Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
8 6213	8.00	150	LOT 74 7m Rear bdy, 3m Right bdy R.L.9.35	6213	14.0	16.0	11.0	Adj. 10.5	0.5 WET	104.0	1.93	Adj. 2.00	96.5
Material Description: LIGHT GREY-BROWN SILTY CLAY & ROCK FRAGMENTS.													
9 6214	8.00	150	LOT 74 9m Rear bdy, 5m Right bdy R.L.9.96	6214	3.0	3.0	13.0	Adj. 13.5	0.5 DRY	96.5	1.82	Adj. 1.89	96.5
Material Description: LIGHT BROWN SILTY CLAY & ROCK FRAGMENTS.													
10 6217	9.00	150	LOT 73 6m Rear bdy, 4m Left bdy R.L.9.86	6217	5.0	5.0	14.0	Adj. 14.0	-	100.0	1.88	Adj. 1.88	100.0
Material Description: LIGHT BROWN SILTY CLAY & ROCK FRAGMENTS.													
11 6218	9.00	150	LOT 74 8m Rear bdy, 3m Left bdy R.L.10.54	6218	2.0	2.0	13.0	Adj. 13.5	0.5 DRY	96.5	1.81	Adj. 1.85	98.0
Material Description: LIGHT GREY-BROWN SANDY CLAY & ROCK FRAGMENTS.													
								Adj.				Adj.	
Material Description:													
								Adj.				Adj.	
Material Description:													

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1,5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date:29.11.16



Accredited for compliance with ISO/IEC 17025 – Testing.

Accreditation No.2415

Checked By: R MCGRANN

RMc

Greg McGrann/Manager

Approved Signatory

Date:29.11.16

Greg McGrann



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FIELD DENSITY CERTIFICATE

Connemar Pty. Ltd.

ABN 50 065 093 647

Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	39041
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	4/11/2016	Tested by	AC JM

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm Wet Dry		Field Moisture Context %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
12 6256	8.00	150	LOT 73 9m Rear bdy, 3m Left bdy R.L.10.46	6256	17.0	18.0	11.0	Adj. 10.0	1.0 WET	109.5	1.91	Adj. 1.95	98.0
Material Description: BROWN SILTY SANDY CLAY & ROCK FRAGMENTS.													
13 6257	8.00	150	LOT 72 7m Rear bdy, 4m Left bdy R.L.10.91	6257	9.0	10.0	11.5	Adj. 12.0	0.5 DRY	96.5	1.86	Adj. 1.92	97.0
Material Description: BROWN SILTY SANDY CLAY & ROCK FRAGMENTS.													
14 6258	8.30	150	LOT 72 10m Rear bdy, 3m Left bdy R.L.11.42	6258	12.0	14.0	13.0	Adj. 14.0	1.0 DRY	92.0	1.86	Adj. 1.86	100.0
Material Description: BROWN SILTY CLAY & ROCK FRAGMENTS.													
15 6259	8.30	150	LOT 74 12m Front bdy, 4m Right bdy R.L.11.17	6259	7.0	8.0	12.0	Adj. 14.5	2.5 DRY	83.5	1.86	Adj. 1.89	98.5
Material Description: BROWN SILTY CLAY & ROCK FRAGMENTS.													
16 6260	9.00	150	LOT 73 10m Rear bdy, 5m Left bdy R.L.11.07	6260	-	-	9.5	Adj. 10.0	0.5 DRY	95.0	1.96	Adj. 2.04	96.0
Material Description: BROWN SANDY CLAY.													
								Adj.				Adj.	
Material Description:													

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1,5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date:30.11.16

Checked By: R MCGRANN

RMc



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Accreditation No.2415

Greg McGrann/Manager

Approved Signatory

Date:30.11.16

Greg McGrann



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FIELD DENSITY CERTIFICATE

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ABN 50 065 093 647

Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	39045
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	7/11/2016	Tested by	AC

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm Wet Dry		Field Moisture Context %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
17 6299	8.00	150	LOT 73 7m Front bdy, 3m Left bdy R.L.11.65	6299	-	-	13.5	Adj. 14.0	0.5 DRY	96.5	1.72	Adj. 1.78	96.5
Material Description: BROWN SILTY CLAY.													
18 6300	8.30	150	LOT 72 10m Front bdy, 4m Left bdy R.L.11.96	6300	-	-	17.0	Adj. 19.0	2.0 DRY	89.5	1.67	Adj. 1.64	102.0
Material Description: BROWN SILTY CLAY.													
19 6301	9.00	150	LOT 75 10m Rear bdy, 1m Right bdy R.L.10.70	6301	-	-	14.5	Adj. 18.0	3.5 DRY	80.5	1.72	Adj. 1.74	99.0
Material Description: BROWN SILTY CLAY.													
20 6302	9.30	150	LOT 72 8m Front bdy, 4m Left bdy R.L.12.53	6302	-	-	14.0	Adj. 18.5	4.5 DRY	75.5	1.66	Adj. 1.70	97.5
Material Description: BROWN SILTY CLAY & ROCK FRAGMENTS.													
21 6303	10.00	150	LOT 71 4m Rear bdy, 3m Left bdy R.L.11.48	6303	-	-	18.0	Adj. 22.0	4.0 DRY	82.0	1.59	Adj. 1.59	100.0
Material Description: GREY-BROWN SILTY CLAY & ROCK FRAGMENTS.													
22 6304	10.30	150	LOT 73 5m Front bdy, 4m Left bdy R.L.12.11	6304	4.0	5.0	11.0	Adj. 11.0	-	100.0	1.93	Adj. 1.94	99.5
Material Description: LIGHT BROWN SANDY CLAY & ROCK FRAGMENTS.													

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1,5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN
Date:30.11.16



Accredited for compliance with ISO/IEC 17025 – Testing.

Checked By: R MCGRANN

RMc

Accreditation No.2415

Greg McGrann/Manager
Approved Signatory
Date:30.11.16

Greg McGrann



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FIELD DENSITY CERTIFICATE

Connemar Pty. Ltd.

ABN 50 065 093 647

Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	39958
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	8/11/2016	Tested by	LM AC

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm Wet Dry		Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
23 6331	9.00	150	LOT 70 4m Rear bdy, 3m Left bdy R.L.12.65	6331	-	-	17.0	Adj. 16.0	1.0 WET	106.5	1.76	Adj. 1.81	97.0
Material Description: LIGHT REDDISH-BROWN SILTY CLAY.													
24 6332	9.00	150	LOT 72 9m Front bdy, 5m Right bdy R.L.12.84	6332	-	-	14.0	Adj. 14.0	-	100.0	1.81	Adj. 1.84	98.5
Material Description: LIGHT GREY-BROWN SILTY SANDY CLAY.													
25 6333	9.30	150	LOT 71 8m Rear bdy, 4m Right bdy R.L.11.85	6333	-	-	15.0	Adj. 16.5	1.5 DRY	91.0	1.80	Adj. 1.79	100.5
Material Description: BROWN SILTY CLAY & ROCK FRAGMENTS.													
26 6334	9.30	150	LOT 71 6m Rear bdy, 3m Left bdy R.L.12.33	6334	-	-	15.5	Adj. 15.0	0.5 WET	103.5	1.83	Adj. 1.82	100.5
Material Description: BROWN SILTY SANDY CLAY.													
								Adj.				Adj.	
Material Description:													
								Adj.				Adj.	
Material Description:													

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1,5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date:28.3.17

Checked By: R MCGRANN

RMc



Accredited for compliance with ISO/IEC 17025 – Testing.

Accreditation No.2415

Greg McGrann/Manager

Approved Signatory

Date:28.3.17

Greg McGrann



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FIELD DENSITY CERTIFICATE

Connemar Pty. Ltd.

ABN 50 065 093 647

Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	39959
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	9/11/2016	Tested by	AC

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm		Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
27 6357	8.30	150	LOT 71 11m Rear bdy, 2m Right bdy R.L.12.80	6357	-	-	21.0	Adj. 19.5	1.5 WET	107.5	1.67	Adj. 1.67	100.0
Material Description: GREY-BROWN SILTY CLAY.													
28 6358	9.00	150	LOT 70 6m Rear bdy, 5m Left bdy R.L.13.11	6358	-	-	17.0	Adj. 18.0	1.0 DRY	94.5	1.70	Adj. 1.69	100.5
Material Description: BROWN SILTY CLAY & ROCK FRAGMENTS.													
								Adj.				Adj.	
Material Description:													
								Adj.				Adj.	
Material Description:													
								Adj.				Adj.	
Material Description:													
								Adj.				Adj.	
Material Description:													

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date: 28.3.17

Checked By: R MCGRANN

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Greg McGrann/Manager

Approved Signatory

Date: 28.3.17

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FIELD DENSITY CERTIFICATE

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ABN 50 065 093 647

Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	39960
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	14/11/2016	Tested by	AC

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm Wet Dry		Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
29 6469	10.00	150	LOT 51 1m Rear bdy, 2m Right bdy R.L.13.29	6469	-	-	16.5	Adj. 15.0	1.5 WET	110.0	1.79	Adj. 1.81	99.0
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date: 28.3.17

Checked By: R MCGRANN

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Approved Signatory

Date: 28.3.17

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FIELD DENSITY CERTIFICATE

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ABN 50 065 093 647

Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	39961
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	9/12/2016	Tested by	AC

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm		Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
30 7040	9.00	150	LOT 74 12m Rear bdy, 3m Left bdy R.L.11.69	7040	-	-	23.0	Adj. 22.0	1.0 WET	104.5	1.65	Adj. 1.62	102.0
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date: 28.3.17

Checked By: R MCGRANN

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FIELD DENSITY CERTIFICATE

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Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	39962
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	28/2/2017	Tested by	AC

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm Wet Dry		Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
31 8207	8.00	150	LOT 48 1m Front bdy, 2m Left bdy R.L.13.40	8207	-	-	12.0	Adj. 13.5	1.5 DRY	89.0	1.78	Adj. 1.83	97.0
Material Description: BROWN SILTY SANDY CLAY.													
32 8208	8.30	150	LOT 49 1m Front bdy, 2m Right bdy R.L.13.32	8208	-	-	8.5	Adj. 10.5	2.0 DRY	81.0	1.94	Adj. 1.95	99.5
Material Description: LIGHT BROWN SILTY CLAY & ROCK FRAGMENTS.													
33 8209	9.00	150	LOT 54 7m Front bdy, 1m Right bdy R.L.12.02	8209	-	-	15.0	Adj. 14.5	0.5 WET	103.5	1.77	Adj. 1.84	96.0
Material Description: BROWN SILTY CLAY & ROCK FRAGMENTS.													
34 8210	9.30	150	LOT 69 2m Front bdy, 2m Left bdy R.L.11.76	8210	-	-	7.0	Adj. 10.0	3.0 DRY	70.0	1.92	Adj. 2.01	95.5
Material Description: DARK BROWN SANDY CLAY & ROCK FRAGMENTS.													
35 8211	10.00	150	LOT 74 9m Front bdy, 5m Right bdy R.L.12.27	8211	-	-	8.5	Adj. 10.0	1.5 DRY	85.0	1.95	Adj. 2.01	97.0
Material Description: LIGHT BROWN SANDY CLAY & ROCK FRAGMENTS.													
36 8212	10.30	150	LOT 73 13m Rear bdy, 4m Right bdy R.L.12.65	8212	-	-	10.5	Adj. 11.5	1.0 DRY	91.5	1.86	Adj. 1.89	98.5
Material Description: DARK BROWN SILTY SANDY CLAY.													

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1,5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date:28.3.17

Checked By: R MCGRANN

RMc



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Accreditation No.2415

Greg McGrann/Manager

Approved Signatory

Date:28.3.17

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FIELD DENSITY CERTIFICATE

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Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	39963
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	28/2/2017	Tested by	AC

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm		Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
37 8213	11.00	150	LOT 53 5m Front bdy, 2m Left bdy R.L.12.42	8213	-	-	11.5	Adj. 11.5	-	100.0	1.80	Adj. 1.88	95.5
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date: 28.3.17

Checked By: R MCGRANN

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Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	39964
Address	PO BOX 197, WYNNUM CENTRAL QLD 4197	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	3/3/2017	Tested by	AC

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm Wet Dry		Field Moisture Context %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
38 8338	8.00	150	LOT 50 5m Rear bdy, 3m Right bdy R.L.12.46	8338	-	-	10.0	Adj. 10.5	0.5 DRY	95.0	2.01	Adj. 2.00	100.5
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date: 28.3.17

Checked By: R MCGRANN

RMc



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Accreditation No. 2415

Greg McGrann/Manager

Approved Signatory

Date: 28.3.17

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Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	39965
Address	PO BOX 197, WYNNUM CENTRAL QLD 4197	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	8/3/2017	Tested by	AC

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm Wet Dry		Field Moisture Context %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
39 8421	8.00	150	LOT 75 14m Rear bdy, 5m Left bdy R.L.11.49	8421	-	-	10.5	Adj. 10.0	0.5 WET	105.0	2.06	Adj. 2.02	102.0
Material Description: DARK BROWN SANDY CLAY & ROCK FRAMGENTS													
40 8422	8.30	150	LOT 75 8m Rear bdy, 4m Right bdy R.L.12.01	8422	-	-	9.0	Adj. 10.0	1.0 DRY	90.0	1.91	Adj. 1.99	96.0
Material Description: BROWN SILTY SANDY CLAY & ROCK FRAGMENTS													
41 8423	9.00	150	LOT 50 7m Rear bdy, 7m Right bdy R.L.12.83	8423	-	-	10.0	Adj. 9.5	0.5 WET	105.0	1.96	Adj. 2.02	97.0
Material Description: BROWN SILTY SANDY CLAY & ROCK FRAGMENTS													
42 8424	9.30	150	LOT 50 11m Rear bdy, 4m Right bdy R.L.13.38	8424	-	-	12.0	Adj. 11.0	1.0 WET	109.0	1.94	Adj. 1.98	98.0
Material Description: BROWN SILTY SANDY CLAY & ROCK FRAGMENTS													
								Adj.				Adj.	
Material Description:													
								Adj.				Adj.	
Material Description:													

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1,5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date:28.3.17

Checked By: R MCGRANN

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Greg McGrann/Manager

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Date:28.3.17

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FIELD DENSITY CERTIFICATE

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Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	39979
Address	PO BOX 197, WYNNUM CENTRAL QLD 4197	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	8/3/2017	Tested by	AC

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm Wet Dry		Field Moisture Context %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
43 8425	8.00	150	LOT 127 16m Rear bdy, 2m Right bdy F.L.	8425	-	-	11.0	Adj. 9.0	2.0 WET	122.0	1.99	Adj. 2.04	97.5
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date: 29.3.17

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Date: 29.3.17

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FIELD DENSITY CERTIFICATE

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Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BASIN BACKFILL	Report No.	39980
Address	PO BOX 197, WYNNUM CENTRAL QLD 4197	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	3/3/2017	Tested by	AC

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm Wet Dry		Field Moisture Context %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
8338	8.00	150	BASIN TB2 LOC ON ATT PLAN R.L.12.46	8338	-	-	10.0	Adj. 10.5	0.5 DRY	95.0	2.01	Adj. 2.00	100.5
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	
								Adj.				Adj.	

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date: 29.3.17

Checked By: R MCGRANN

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Date: 29.3.17

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FIELD DENSITY CERTIFICATE

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Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	BASIN BACKFILL	Report No.	39981
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	8/3/2017	Tested by	AC

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm Wet Dry		Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
8423	9.00	150	BASIN TB2 LOC ON ATT PLAN R.L.12.83	8423	-	-	10.0	Adj. 9.5	0.5 WET	105.0	1.96	Adj. 2.02	97.0
				Material Description: BROWN SILTY SANDY CLAY & ROCK FRAGMENTS.									
8424	9.30	150	BASIN TB2 LOC ON ATT PLAN R.L.13.38	8424	-	-	12.0	Adj. 11.0	1.0 WET	109.0	1.94	Adj. 1.98	98.0
				Material Description: BROWN SILTY SANDY CLAY & ROCK FRAGMENTS.									
								Adj.				Adj.	
				Material Description:									
								Adj.				Adj.	
				Material Description:									
								Adj.				Adj.	
				Material Description:									
								Adj.				Adj.	
				Material Description:									

Remarks:

Required Dry Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date: 29.3.17

Checked By: R MCGRANN

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FIELD DENSITY CERTIFICATE

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Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ROADWORKS	Report No.	39630
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	1643
Project	CANNON HILL COMMUNITY LINKS – STAGE 3	Date Tested	25/1/2017	Tested by	AC

Field Test N ^o Sample N ^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N ^o	% Oversize 19mm/37.5mm Wet Dry		Field Moisture Context %	Optimum Moisture Content %	Moisture Variation %	Moisture Ratio %	Field Dry Density t/m ³	Max. Dry Density t/m ³	Dry Density Ratio %
7575	8.00	150	SMITH PLACE o/s 1.5m R, CH62 SUBGRADE	7575	-	-	13.0	Adj. 13.0	-	100.0	1.96	Adj. 1.90	103.0
Material Description: LIGHT BROWN SILTY SANDY CLAY & ROCK FRAGMENTS													
7576	8.30	150	SMITH PLACE o/s 1.3m L, CH110 SUBGRADE	7576	-	-	8.0	Adj. 10.5	2.5 DRY	76.0	2.02	Adj. 1.99	101.5
Material Description: LIGHT REDDISH-BROWN & GREY SANDY CLAY & ROCK FRAGMENTS													
7577	9.00	150	SMITH PLACE o/s 1.6m R, CH158 SUBGRADE	7577	-	-	9.0	Adj. 12.0	3.0 DRY	75.0	1.95	Adj. 1.93	101.0
Material Description: REDDISH-BROWN SILTY CLAY & ROCK FRAGMENTS													
								Adj.				Adj.	
Material Description:													
								Adj.				Adj.	
Material Description:													
								Adj.				Adj.	
Material Description:													

Remarks:

Required Dry Density Ratio 100% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.4.1, 2.1.1

Determined on material finer than 19mm

Prepared By: G MCGRANN

Date: 20.2.17

Checked By: R MCGRANN

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Accredited for compliance with ISO/IEC 17025 – Testing.

Accreditation No. 2415

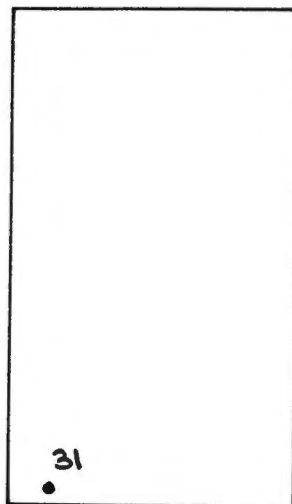
Greg McGrann/Manager

Approved Signatory

Date: 20.2.17

Greg McGrann

**EARTHWORKS SUMMARY REPORT
CANNON HILL COMMUNITY LINKS – STAGE 3
LOT 48**



/ ———— MCKIE CRESCENT ———— /

Field Density Results

Page 1 of 1

Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
31	28.02.17	o/s 1m Front bdy, o/s 2m Left bdy. R.L.13.40.	97.0

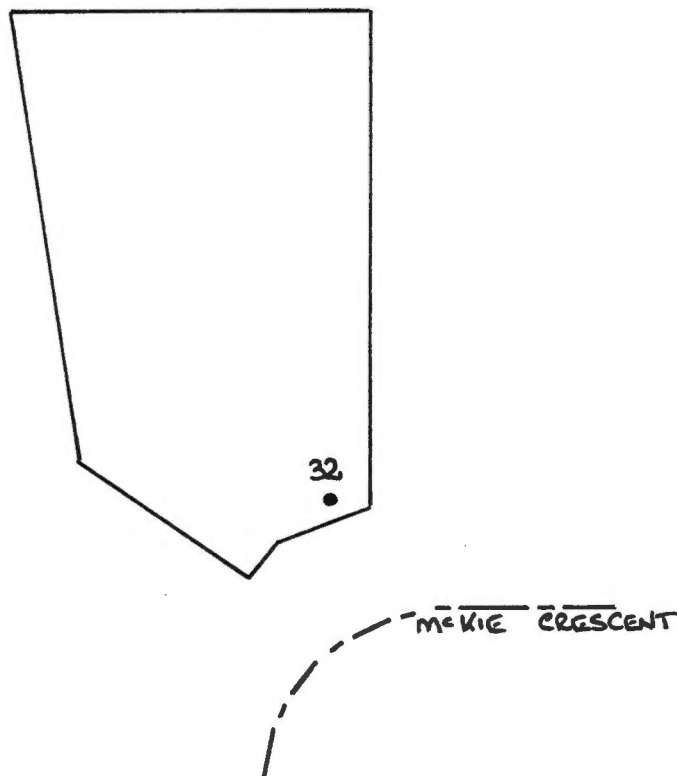
In our opinion fill on Lot 48 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a “Level 1” inspection and testing commission.

GREG McGRANN



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**EARTHWORKS SUMMARY REPORT
CANNON HILL COMMUNITY LINKS – STAGE 3
LOT 49**



Field Density Results

Page 1 of 1

Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
32	28.02.17	o/s 1m Front bdy, o/s 2m Right bdy. R.L.13.32.	99.5

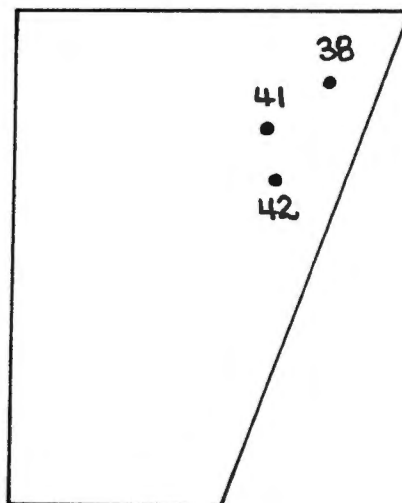
In our opinion fill on Lot 49 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

GREG McGRANN



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**EARTHWORKS SUMMARY REPORT
CANNON HILL COMMUNITY LINKS – STAGE 3
LOT 50**



— MCKIE CRESCENT —

Field Density Results

Page 1 of 1

Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
38	3.03.17	o/s 5m Rear bdy, o/s 3m Right bdy. R.L.12.46.	100.5
41	8.03.17	o/s 7m Rear bdy, o/s 7m Right bdy. R.L.12.83.	97.0
42	8.03.17	o/s 11m Rear bdy, o/s 4m Right bdy. R.L.13.38.	98.0

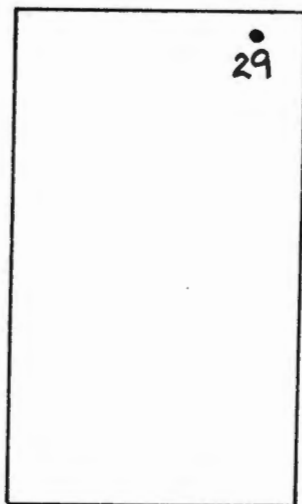
In our opinion fill on Lot 50 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

GREG McGRANN



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**EARTHWORKS SUMMARY REPORT
CANNON HILL COMMUNITY LINKS – STAGE 3
LOT 51**



----- M^cKIE CRESCENT -----

Field Density Results

Page 1 of 1

Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
29	14.11.16	o/s 1m Rear bdy, o/s 2m Right bdy. R.L.13.29.	99.0

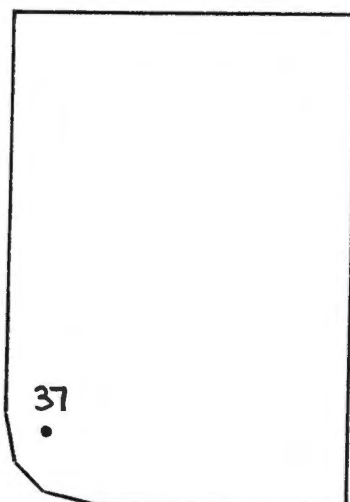
In our opinion fill on Lot 51 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

GREG McGRANN



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**EARTHWORKS SUMMARY REPORT
CANNON HILL COMMUNITY LINKS – STAGE 3
LOT 53**



----- MCKE CRESCENT -----

Field Density Results

Page 1 of 1

Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
37	28.02.17	o/s 5m Front bdy, o/s 2m Left bdy. R.L.12.42.	95.5

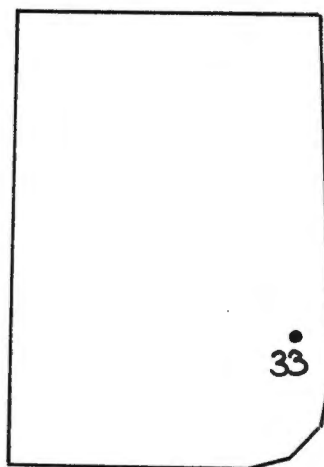
In our opinion fill on Lot 53 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

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**EARTHWORKS SUMMARY REPORT
CANNON HILL COMMUNITY LINKS – STAGE 3
LOT 54**



----- Mc KIE CRESCENT -----

Field Density Results

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Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
33	28.02.17	o/s 7m Front bdy, o/s 1m Right bdy. R.L.12.02.	96.0

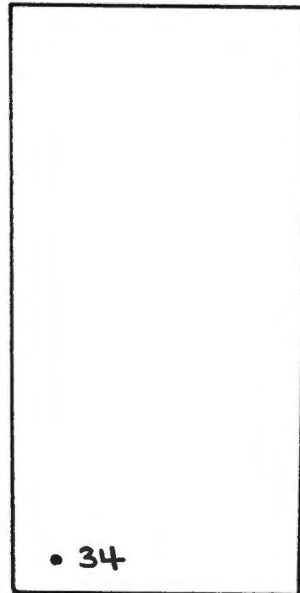
In our opinion fill on Lot 54 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.


.....
GREG McGRANN



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**EARTHWORKS SUMMARY REPORT
CANNON HILL COMMUNITY LINKS – STAGE 3
LOT 69**



----- SMITH PLACE -----

Field Density Results

Page 1 of 1

Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
34	28.02.17	o/s 2m Front bdy, o/s 2m Left bdy. R.L.11.76.	95.5

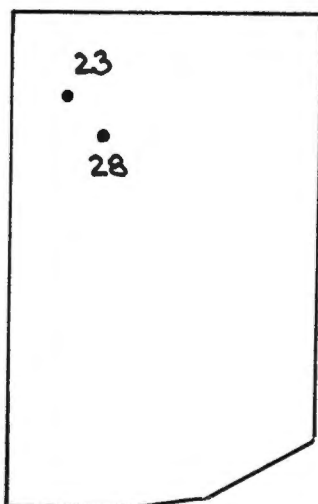
In our opinion fill on Lot 69 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

GREG McGRANN



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**EARTHWORKS SUMMARY REPORT
CANNON HILL COMMUNITY LINKS – STAGE 3
LOT 70**



-- SMITH PLACE --

Field Density Results

Page 1 of 1

Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
23	8.11.16	o/s 4m Rear bdy, o/s 3m Left bdy. R.L.12.65.	97.0
28	9.11.16	o/s 6m Rear bdy, o/s 5m Left bdy. R.L.13.11.	100.5

In our opinion fill on Lot 70 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

GREG McGRANN

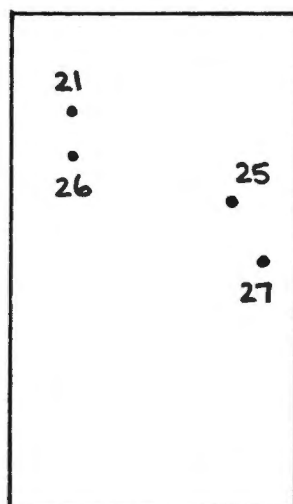


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EARTHWORKS SUMMARY REPORT

CANNON HILL COMMUNITY LINKS – STAGE 3

LOT 71



- - - SMITH PLACE - - -

Field Density Results

Page 1 of 1

Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
21	7.11.16	o/s 4m Rear bdy, o/s 3m Left bdy. R.L.11.48.	100.0
25	8.11.16	o/s 8m Rear bdy, o/s 4m Right bdy. R.L.11.85.	100.5
26	8.11.16	o/s 6m Rear bdy, o/s 3m Left bdy. R.L.12.33.	100.5
27	9.11.16	o/s 11m Rear bdy, o/s 2m Right bdy. R.L.12.80.	100.0

In our opinion fill on Lot 71 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.



GREG McGRANN

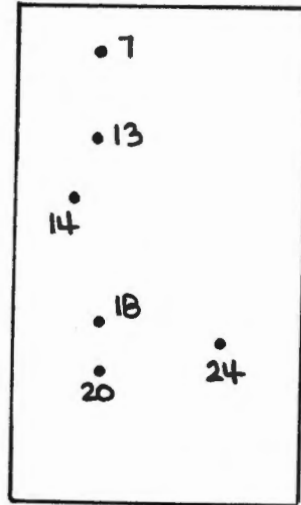


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EARTHWORKS SUMMARY REPORT

CANNON HILL COMMUNITY LINKS – STAGE 3

LOT 72



--- SMITH PLACE ---

Field Density Results

Page 1 of 1

Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
7	2.11.16	o/s 2m Rear bdy, o/s 4m Left bdy. R.L.10.33.	101.5
13	4.11.16	o/s 7m Rear bdy, o/s 4m Left bdy. R.L.10.91.	97.0
14	4.11.16	o/s 10m Rear bdy, o/s 3m Left bdy. R.L.11.42.	100.0
18	7.11.16	o/s 10m Front bdy, o/s 4m Left bdy. R.L.11.96.	102.0
20	7.11.16	o/s 8m Front bdy, o/s 4m Left bdy. R.L.12.53.	97.5
24	8.11.16	o/s 9m Front bdy, o/s 5m Right bdy. R.L.12.84.	98.5

In our opinion fill on Lot 72 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

GREG McGRANN

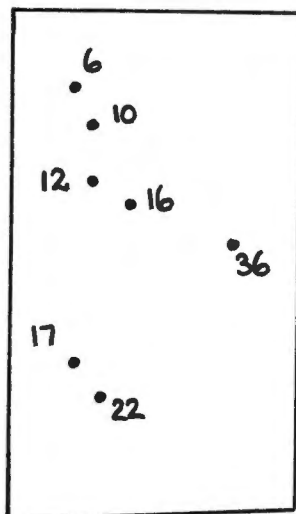


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EARTHWORKS SUMMARY REPORT

CANNON HILL COMMUNITY LINKS – STAGE 3

LOT 73



--- SMITH PLACE ---

Field Density Results

Page 1 of 1

Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
6	2.11.16	o/s 3m Rear bdy, o/s 3m Left bdy. R.L.9.26.	102.0
10	3.11.16	o/s 6m Rear bdy, o/s 4m Left bdy. R.L.9.86.	100.0
12	4.11.16	o/s 9m Rear bdy, o/s 3m Left bdy. R.L.10.46.	98.0
16	4.11.16	o/s 10m Rear bdy, o/s 5m Left bdy. R.L.11.07.	96.0
17	7.11.16	o/s 7m Front bdy, o/s 3m Left bdy. R.L.11.65.	96.5
22	7.11.16	o/s 5m Front bdy, o/s 4m Left bdy. R.L.12.11.	99.5
36	28.02.17	o/s 13m Rear bdy, o/s 4m Right bdy. R.L.12.65.	98.5

In our opinion fill on Lot 73 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

GREG McGRANN

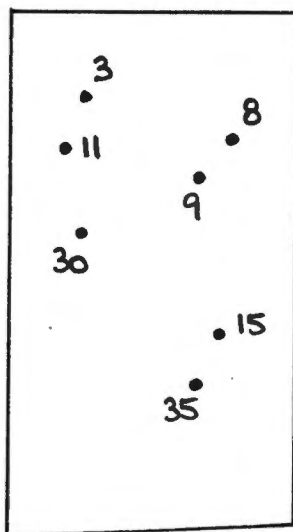


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EARTHWORKS SUMMARY REPORT

CANNON HILL COMMUNITY LINKS – STAGE 3

LOT 74



--- SMITH --- RACE ---

Field Density Results

Page 1 of 1

Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
3	26.10.16	o/s 5m Rear bdy, o/s 4m Left bdy. R.L.8.60.	98.0
8	3.11.16	o/s 7m Rear bdy, o/s 3m Right bdy. R.L.9.35.	96.5
9	3.11.16	o/s 9m Rear bdy, o/s 5m Right bdy. R.L.9.96.	96.5
11	3.11.16	o/s 8m Rear bdy, o/s 3m Left bdy. R.L.10.54.	98.0
15	4.11.16	o/s 12m Front bdy, o/s 4m Right bdy. R.L.11.17	98.5
30	9.12.16	o/s 12m Rear bdy, o/s 3m Left bdy. R.L.11.69.	102.0
35	28.02.17	o/s 9m Front bdy, o/s 5m Right bdy. R.L.12.27.	97.0

In our opinion fill on Lot 74 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.


 GREG McGRANN

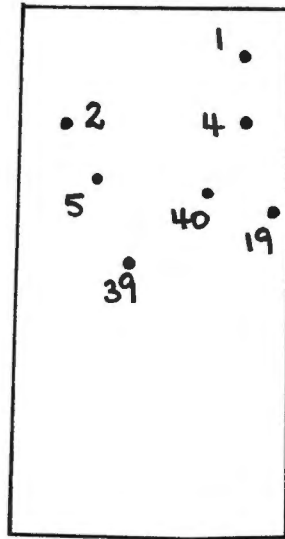


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EARTHWORKS SUMMARY REPORT

CANNON HILL COMMUNITY LINKS – STAGE 3

LOT 75



--- SMITH PLACE ---

Field Density Results

Page 1 of 1

Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
1	26.10.16	o/s 3m Rear bdy, o/s 2m Right bdy. R.L.8.23.	95.5
2	26.10.16	o/s 6m Rear bdy, o/s 2m Left bdy. R.L.9.01.	97.0
4	28.10.16	o/s 6m Rear bdy, o/s 2m Right bdy. R.L.9.65.	97.5
5	28.10.16	o/s 9m Rear bdy, o/s 3m Left bdy. R.L.10.11.	100.5
19	7.11.16	o/s 10m Rear bdy, o/s 1m Right bdy. R.L.10.70.	99.0
39	8.03.17	o/s 14m Rear bdy, o/s 5m Left bdy. R.L.11.49.	102.0
40	8.03.17	o/s 8m Rear bdy, o/s 4m Right bdy. R.L.12.01.	96.0

In our opinion fill on Lot 75 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

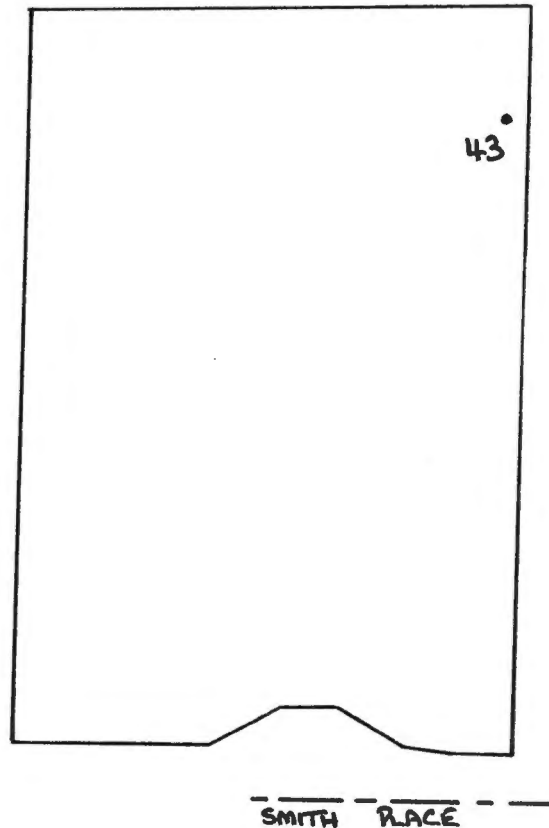


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**EARTHWORKS SUMMARY REPORT
CANNON HILL COMMUNITY LINKS – STAGE 3
LOT 127**



Field Density Results

Page 1 of 1

Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
43	8.3.17	o/s 16m Rear bdy, o/s 2m Right bdy. F.L.	97.5

In our opinion fill on Lot 127 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

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