

PTY. BALLARAT OFFICE: LTD. Box 1319

P.O 1/12 Theen Avenue

VIC HEAD OFFICE: 15 Libbett Avenue

A.C.N.004 584 534 A.B.N. 40 004 584 534

Geotechnical Engineers

SINCE 1963

BAKERY HILL Vic 3354

Tel: 08 8504 7467 Office

Tel:03 5333 5911

Tel: 95474811

simonb@asjames melb@asjames.com.au ballarat@asjames. com.au

sa.com.au

Laboratory Tel: 95624709

lab@asjames.com.au

Pipecon Pty Ltd 48 Icon Drive

Delacombe, VIC, 3356

Date:

WILLASTON SA 51 Clayton South Vic 3169

19/2/20

Marked attention to. Scott Mann

Ref:

120208 B006

Purchase Order No:

Dear Sirs,

RE:

Shortridge Drive

Lucas

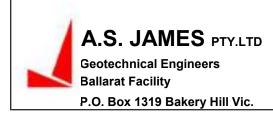
We enclose Reports 120208 B002, B004 and B006 being results of field and laboratory testing, along with level one supervision, carried out on the above project between 3/2/20 and 5/2/20

Our Invoice is also enclosed.

Yours faithfully,



T.J.Holt MIEAust A.S. JAMES PTY. LTD.



House Lot Fill

Section Tested:

JOB:	Job No.	120208
Shortridge Drive	Report No.	B002
Lucas	Date	10-Feb-20

FOR

Pipecon Pty Ltd 48 Icon Drive

DELACOMBE VIC 3356

		.	,	,		
Test Number		8	9	10		
Date of Test		3/02/20	3/02/20	3/02/20		
Time of Test		13:50	13:54	13:59		
Location	Chainage:	See	See	See		
	Offset:	Sketch	Sketch	Sketch		
Depth of Test		600	600	600		
Probe Depth (mm)		275	275	275		
Material Type		CLAY, Silty, Gravelly	CLAY, Silty, Gravelly	CLAY, Silty, Gravelly		
Maximum Converted Wet Density (t	t/m3)	2.09	2.06	2.08		
Optimum Moisture Content (%)		19.0	20.5	18.0		
Field Wet Density (t/m3)		2.02	2.04	2.07		
Field Dry Density (t/m3)		1.70	1.68	1.75		
Field Moisture Content (%)		18.5	21.0	18.0		
Oversize Material (%)		3	6	7		
Compaction Type		Standard	Standard	Standard		
Oversize Retained on :		19mm	19mm	19mm		
Moisture Ratio (%)		99.5	102.5	99.5		
Moisture Variation (%)		0.0	0.5	0.0		
Wet/Dry of Optimum		Dry	Wet	Dry		
Hilf Density Ratio		96.5	99.0	99.5		

Notes: DEPTH OF TESTS TAKEN FROM BELOW FINISHED FILL LEVEL



Approved Signatory

H.Pyke

10-Feb-20

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY:	T.Reece	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 1 / REV 9 / 10/01/17	CHECKED BY:	A.White	1 of 2



Geotechnical Engineers
Ballarat Facility
P.O. Box 1319 Bakery Hill Vic.
Accreditation No 9855

JOB:

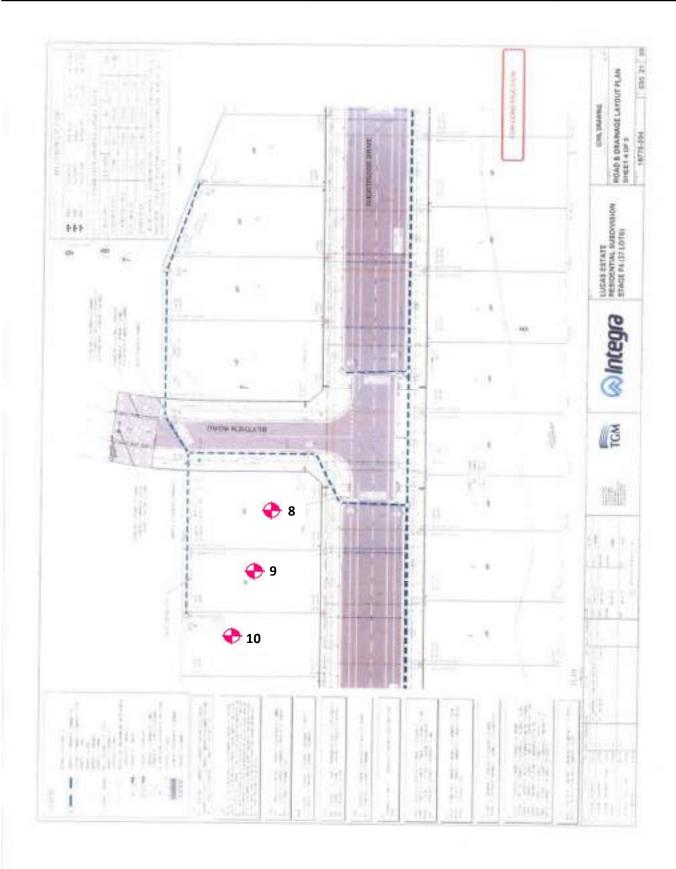
Shortridge Drive Lucas Job No.

Report No.

B002

120208

Date 10-Feb-20



TEST LOCATIONS
DISTANCES GIVEN IN METRES

2.0			
HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY:	T.Reece	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03	CHECKED BY:	A.White	2 of 2



Approval to Place Fill

Comments & Details

Stripped surface Net-/ Approved [√]

JOB:

JOB No: 120208

DATE: 10/02/2020

A.S. JAMES PTY. LTD. Shortridge Drive REPORT No: B002/1 Geotechnical Engineers Lucas **Ballarat Laboratory Reg No.-9855** DAILY GEOTECHNICAL ACTIVITY REPORT On Site :-13:00 Off Site: 14:00 Constructor: Pipecon Superintendent: Shaun Developer: Testing Authority: A.S.James Pty Ltd Level of GTA brief: Level one Supervision by Testing Authority Weather Conditions: Sunny, windy **Equipment on Site** In Use Not in Use In Use Not in Use Excavator ٧ Water cart (small) ٧ Pad Foot vibrating roller D6 Dozer 815 Compactor ٧ Dump Truck (On Site) ٧ Grader Loader ٧ Works in progress Location Stripping Excavating House Lots Filling House Lots Rolling House Lots Comments, Details & Observations: The constructor has prepared the first layer of material placed on house lots 1524, 1525 and 1526. One density test was completed on each lot. The material tested appears to be well compacted. The material appears to be well moisture conditioned, however may be slightly dry of optimum moisture content. The material contains some small oversize rock. The constructor began placing the next layer of material immediately after testing was completed. This layer will be ready for testing tomorrow morning. Inspections Inspection Type & Location: House lots 1524, 1525 and 1526 Comments & Details: The constructor has excavated some test pits spread evenly across lots 1524-1526. The constructor has exposed the natural clay subgrade on each test pit. From the test pits excavated, it appears as though the constructor has removed the majority of the silt/topsoil and exposed the underlying natural clay, however the exposed base was not inspected prior to commencement of fill placement. Material Type / Quality / Source / Approval: Site won material - Brown silty, gravelly CLAY The material contains some small oversize. Some loads of material appear to be very silty. **Compaction Testing:** Numbers performed 3 Test No.s 8-10 House Lots Location Numbers performed Test No.s Location Numbers performed Test No.s Location **Specification Requirements** Standard / Modified Density Ratio (%) 95 STD Moisture Ratio (%) 85-115 **Compliance to Specification Conforming Tests** Non Conforming Tests Density 8, 9, 10 8, 9, 10 Moisture Site Instructions Given (Tick box)

Level 1 supervision daily geotechnical report summary Operator: T.Reece/W.Cousens A.S.JAMES LW053 (Fig 2) / REV 1 / 21/5/14 Date: 3/2/20

[\(\)]

[]

Rework / Re-roll required

Moisture Conditioning required []

Filling Methods Approved

Filled Area Under Review



Geotechnical Engineers
Ballarat Laboratory
73-77 Humffray Street North
Accreditation No. 9855

JOB:

Shortridge Drive Lucas

Job No.

120208

Report No.

B002/1

Date 10-Feb-20

House lots





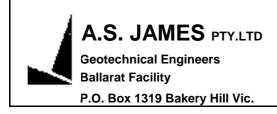
Test pits







Site Location Plan	TESTED BY:TR/WC	FIGURE
	CHECKED BY: A.White	2



House Lot Fill

Section Tested:

JOB:	Job No.	120208
Shortridge Drive	Report No.	B004
Lucas	Date	10-Feb-20

FOR

Pipecon Pty Ltd 48 Icon Drive

DELACOMBE VIC 3356

Hilf Density Ratio		99.5	101.0	104.0		
Wet/Dry of Optimum		Dry	Dry	Dry		
Moisture Variation (%)		2.0	2.0	0.0		
Moisture Ratio (%)		90.0	90.0	99.0		
Oversize Retained on :		19mm	19mm	19mm		
Compaction Type		Standard	Standard	Standard		
Oversize Material (%)	·	11	7	10		
Field Moisture Content (%)		21.5	21.5	24.0		
Field Dry Density (t/m3)		1.69	1.69	1.71		
Field Wet Density (t/m3)		2.05	2.05	2.12		
Optimum Moisture Content	(%)	24.0	23.5	24.0		
Maximum Converted Wet D	Density (t/m3)	2.06	2.03	2.04		
Material Type		CLAY, Silty, Gravelly	CLAY, Silty, Gravelly	CLAY, Silty, Gravelly		
Probe Depth (mm)		300	300	300		
Depth of Test		300	300	300		
	Offset:	Sketch	Sketch	Sketch		
Location	Chainage:	See	See	See		
Time of Test		8:26	8:32	8:39		
Date of Test		4/02/20	4/02/20	4/02/20		
Test Number		20	21	22		

Notes: DEPTH OF TESTS TAKEN FROM BELOW FINISHED FILL LEVEL



Approved Signatory

H.Pyke

10-Feb-20

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY:	J.Murphy	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 1 / REV 9 / 10/01/17	CHECKED BY:	A.White	1 of 2

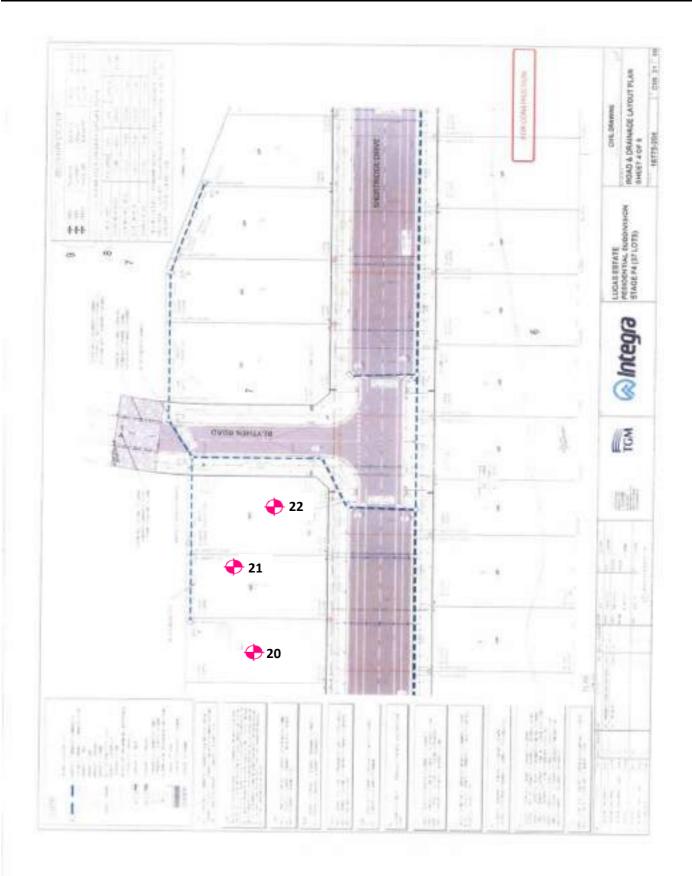


Geotechnical Engineers Ballarat Facility P.O. Box 1319 Bakery Hill Vic. Accreditation No 9855 JOB: Shortridge Drive Lucas

 Job No.
 120208

 Report No.
 B004

 Date
 10-Feb-20



	TEST LOCATIONS
$\overline{\mathbf{v}}$	DISTANCES GIVEN IN METRES

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY:	J.Murphy	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03	CHECKED BY:	A.White	2 of 2



JOB: Shortridge Drive

JOB No: 120208 REPORT No: B004/1

Geotechnical Engineers

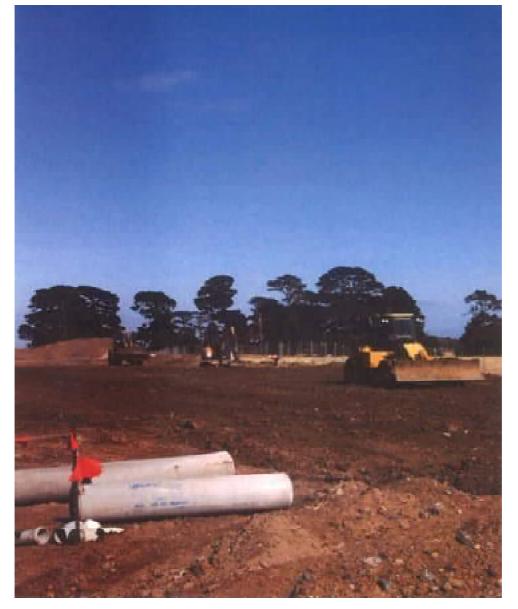
	Geotechnica	•	N. 0055	Lucas			DATE:	10/02/2020
DAILY GEO	Ballarat Lab			<u> </u>	No Cito	O# 0	Site + O+OO	
Developer :	TEOTIMOAL	NOTIVITI INC.	Constructor:		On Site :- 8		dent: Shaun	
	ority: A.S.Jam	es Ptv Ltd	Level of GTA		Level one	Supervision by		itv
	nditions: Sunny						<u> </u>	
Equipment	on Site	In Use	Not in Use				In Use	Not in Use
Excavator		٧]	Water ca	rt (small)	٧	
Pad Foot vib	ŭ				D6 Dozer		٧	
815 Compac	ctor	٧		_	•	uck (On Site)	V	
Grader				J	Scraper			
Works in pr	_							
Stripping	Location							
Excavating								
Filling	House Lots							
Rolling	House Lots							
	Details & Obse		dy a 300mm l	avor across	house lots 1	1524-1526. The	constructor is a	icina cito
						nouse lot with m		
						has been giver		
next layer.								
Inspections								
Inspection Ty	ype & Location	1:						
Comments &	& Details:							
								,
Material Typ	oe / Quality / S	Source / Appr	oval:					
	·							
Compaction	Testing:							
Numbers pe		3	Test No.s	20-22	Location	n House Lots	<u> </u>	
Numbers pe		<u> </u>	Test No.s	20 22	Location		•	
Numbers pe			Test No.s		Locatio	n		,
Specificatio	n Requireme	nts	Standard / M	lodified	Density R	Ratio (%)	95	7
•	-		STD]	Moisture	, ,	85-115]
Compliance	to Specificat	ion						
	Conforming 7	Tests			Non Conf	forming Tests		
Density	20, 21, 22							
Moisture	20, 21, 22							
	tions Given (Tick box)						
Approval to I		[\(\)]	Filling Metho				e-roll required	[]
Stripped surf	face Net / App	roved [√]	Filled Area U	Inder Revie	w []	Moisture C	onditioning requ	ired []
Comments	א הבומווס							
					lo ·			
	rvision daily ge LW053 (Fig 2)			у	Operator: Date: 4/2/	: J.Murphy /20		
7.U.UAIVIES	∟vvooo (i⁻ig Z)	/ IXL V I / Z I/	U/ 17		Date. 4/2/	140		



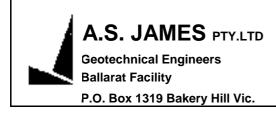
A.S. JAMES PTY.LTD Geotechnical Engineers Ballarat Laboratory 73-77 Humffray Street North Accreditation No. 9855

JOB: Shortridge Drive Lucas

Job No.	120208
Report No.	B004/1
Date	10-Feb-20



Site Location Plan	TESTED BY: J.Murphy	FIGURE
	CHECKED BY: A.White	2



House Lots

Section Tested:

JOB:	,	Job No.	120208
Shortridge Drive	<u> </u>	Report No.	B006
Lucas	I	Date	11-Feb-20

FOR

Pipecon Pty Ltd 48 Icon Drive

DELACOMBE VIC 3356

Test Number		32	33	34		
Date of Test		5/02/20	5/02/20	5/02/20		
Time of Test		14:14	14:16	14:18		
Location	Chainage:	See	See	See		
	Offset:	Sketch	Sketch	Sketch		
Depth of Test		FFL	FFL	FFL		
Probe Depth (mm)		300	300	300		
Material Type		CLAY, Silty, Gravelly	CLAY, Silty, Gravelly	CLAY, Silty, Gravelly		
Maximum Converted Wet Density (t/	′m3)	2.02	2.02	2.11		
Optimum Moisture Content (%)		25.0	22.0	22.0		
Field Wet Density (t/m3)		2.05	2.09	2.16		
Field Dry Density (t/m3)		1.67	1.72	1.78		
Field Moisture Content (%)		22.5	21.5	21.5		
Oversize Material (%)		1	4	2		
Compaction Type		Standard	Standard	Standard		
Oversize Retained on :		19mm	19mm	19mm		
Moisture Ratio (%)		89.0	96.5	98.0		
Moisture Variation (%)		2.5	0.5	0.5		
Wet/Dry of Optimum		Dry	Dry	Dry		
Hilf Density Ratio		101.0	103.5	102.5		

Notes: DEPTH OF TESTS TAKEN FROM FINISHED FILL LEVEL



Approved Signatory

H.Pyke

11-Feb-20

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY:	J.Murphy	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 1 / REV 9 / 10/01/17	CHECKED BY:	A.White	1 of 2



Geotechnical Engineers Ballarat Laboratory Reg No.-9855

JOB:	JOR NO:	120208
Shortridge Drive	REPORT No:	B006/1
Lucas	DATE:	11/02/2020

DAILY GEOTECHNICAL ACTIVITY REPORT On Site :- 13:40 Off Site : 14:40							
	WINTER CO.			Site :- 13:4		te : 14:40	
Developer:	oo Dhalad	Constructor:		Lavalana C	Superintende		4
Testing Authority: A.S.Jam		Level of GTA	briet:	Level one St	upervision by T	esting Authori	ıy
Weather Conditions: Sunny							
Equipment on Site	In Use	Not in Use				In Use	Not in Use
Excavator	٧			Water cart (s	small)	٧	
Pad Foot vibrating roller				D6 Dozer		٧	
815 Compactor	٧			Dump Truck	(On Site)	٧	
Grader				Scraper			
Works in progress							
Location							
Stripping							
Excavating							
Filling House Lots							
Rolling House Lots							
Comments, Details & Obse	ervations:						
The constructor has placed	the final lay	er on house lo	ts 1524-1526	. The constru	ctor is using si	te won materia	al that
contains some oversize roo	ck. One test v	vas taken on e	ach house lo	t, with materia	al appearing w	ell compacted	and
dry of optimum moisture co	ontent. Tests	will likely still fa	all within allov	wable moistur	e tolerances.	-	
Inspections							
Inspection Type & Location	1:						
Comments & Details:							
Material Type / Quality / S	Source / App	roval:					
material type, quality, c							
Compaction Testing:							
Numbers performed	3	Test No.s	32-34	Location	House Lots		
Numbers performed	<u> </u>	Test No.s	32 3 4	Location	11003C LOIS		
Numbers performed		Test No.s		Location			
·		_	1.6. 1	1	(0()		
Specification Requirement	nts	Standard / Mo	odified I	Density Ratio	` '	95	4
Compliance to Specificat		STD		Moisture Rat	110 (%)	85-115	J
Compliance to Specificat	ion						
Conforming 7	Γests			Non Conform	ning Tests		
Density 32, 33, 34							
Moisture 32, 33, 34							
Site Instructions Given (Tick hov)						
Approval to Place Fill	[V]	Filling Method	de Annroyad	[1/]	Rework / Re-	roll required	r 1
Stripped surface Net/ Appl		Filled Area U		[\/]		ron required ditioning requi	[] red []
Comments & Details	ioveu [V]	i ilieu Alea U	HOGH IZEVIEW	ΓJ	wosture Con	amorning requi	ica []
Comments & Details							
Level 1 supervision daily ge	eotechnical re	eport summary	/	Operator: J.I	Murphy		
A.S.JAMES LW053 (Fig 2)			•	Date: 5/2/20			
· · · · · · · · · · · · · · · · · · ·							



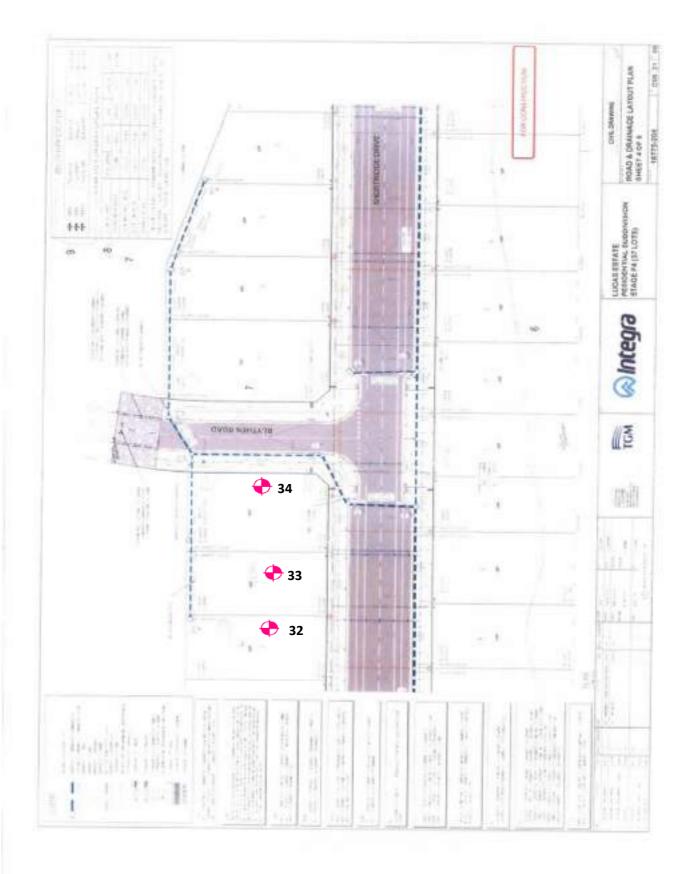
Geotechnical Engineers Ballarat Facility P.O. Box 1319 Bakery Hill Vic. Accreditation No 9855 JOB: Shortridge Drive

Lucas

 Job No.
 120208

 Report No.
 B006

 Date
 11-Feb-20



TEST LOCATIONS
DISTANCES GIVEN IN METRES

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY:	J.Murphy	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03	CHECKED BY:	A.White	2 of 2



73-77 Humffray Street Ballarat Vic 3350 Tel: (613) 5333 5911

Email: ballarat@asjames.com.au

19th February 2020

Pipecon, 48 Icon Drive, DELACOMBE, VIC, 3356

Marked Attention to: Shaun Mahar

Ref: 120208 B006

RE: Level one supervision & Testing - Shortridge Drive, Lucas.

We were commissioned by Shaun Mahar of Pipecon to provide Level one supervision and density testing on excavated areas within the footprints of the proposed house lots contained within Shortridge Drive, Lucas.

We can confirm that our involvement was limited to 'Level 1' as specified in AS 3798 - 2007.

The Standard describes 'Level 1' as follows-

"The primary objective of Level 1 Inspection and Testing is for the geotechnical inspection and testing authority (GITA) to be able to express an opinion on the compliance of the work. The GITA is responsible for ensuring that the inspection and testing is sufficient for this purpose".

All density testing exceeded the requirement of 95% standard density ratio as specified in Table 5.1 of AS 3798 – 2007.

The testing commenced at finished subgrade level and has extended to finished fill level within lots 1524, 1525 & 1526. The levels given in the reports are approximate levels and some small variation in levels may be expected over each individual lot.

The Level 1 Inspections and Testing covers house lots 1524, 1525 & 1526 only.

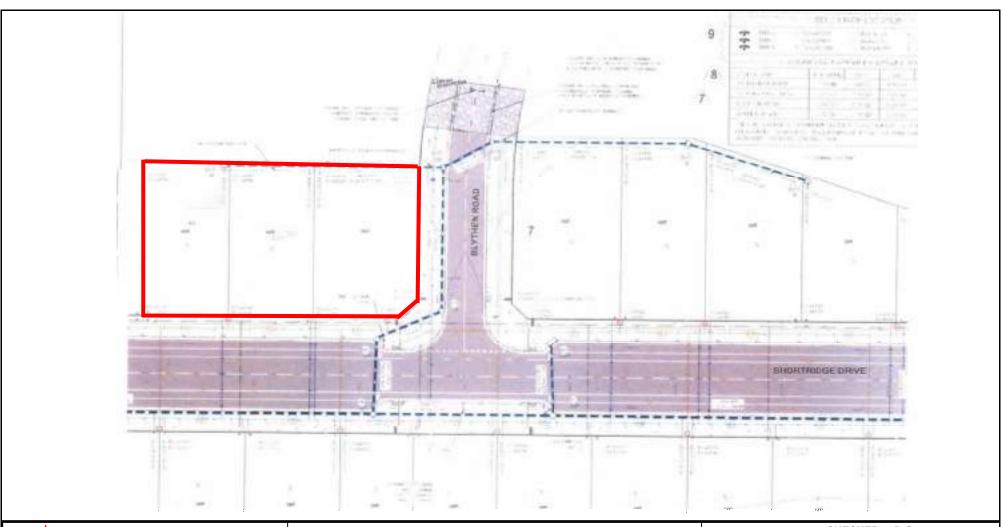
Based on the inspection and testing carried out by this office between the 3/2/20 and 5/2/20, the fill placed on the above mentioned lots satisfies the requirements of AS 3798 SECTION 8.2 and therefore can be categorised as controlled fill.

Our reports, daily reports and site plans - 120208/B002, B004 & B006 covers the above mentioned lots.

Should any point remain in doubt please do not hesitate to contact us.

Yours faithfully,

D.C.Gunn AMIEAust CEngA REGIONAL MANAGER A.S. JAMES PTY LTD





JOB: Lots 1524, 1525 & 1526

Shortridge

Drive, Lucas

JOB No: 120208 Date: February '20

LEGEND

Dei

Denotes approximate extent of level 1 supervision and testing

 $responsibility \ or \ liability \ of \ any \ errors \ , faults, \ defects \ or \ omissions \ in \ information. \ The \ above \ is \ for \ indicative \ purposes \ only \ \& \ is \ not \ to \ scale.$

A.S James does not warrant the accuracy or completeness of the information displayed within this figure and any person using it does so at thier own risk. A.S James shall bear no

CHECKED: D.Gunn DRAWN: A.White

SHORTRIDGE DRIVE, LUCAS

Α4

Figure 1



PTY.

LTD. BALLARAT OFFICE:

ballarat@asjames.com.au

S.A. OFFICE: 1/12 Theen Avenue VIC HEAD OFFICE:

15 Libbett Avenue

Geotechnical Engineers

SINCE 1963

P.O. Box 1319 **BAKERY HILL Vic 3354** 03 5333 5911

08 8504 7467 asjlabsa@asjames.com.a

WILLASTON SA 5118

Clayton South Vic 3169

Office 03 95474811

melb@asjames.com.au Laboratory 03 95624709

lab@asjames.com.au

Pipecon

48 Icon Drive

DELACOMBE VIC 3356

Date:

30/3/20

Ref:

120208/B009

Marked attention to. Jayson Frawley

Purchase Order No:

RE:

Shortridge Drive

Lucas

We enclose Report 120208 B009 being results of field and laboratory testing, along with level one supervision, carried out on the above project on 11/3/20

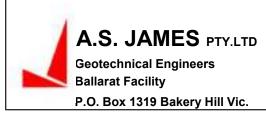
Our Invoice is also enclosed.

Yours faithfully,



T.J. HOLT MIEAust CPEng NER APEC Eng IntPE (Aus) EC-1022

A.S. JAMES PTY LTD



House Lots

Section Tested:

JOB:	Job No.	120208
Shortridge Drive	Report No.	B009
Lucas	Date	13-Mar-20

FOR

Pipecon Pty Ltd 48 Icon Drive

DELACOMBE VIC 3356

Test Number		41	42	43	44	
Date of Test		11/03/20	11/03/20	11/03/20	11/03/20	
Time of Test		11:06	11:13	11:23	11:38	
Location	Chainage:	See	See	See	See	
	Offset:	Sketch	Sketch	Sketch	Sketch	
Depth of Test		300	300	300	300	
Probe Depth (mm)		275	275	275	275	
Material Type		Silty CLAY, Gravelly	Silty CLAY, Gravelly	Silty CLAY, Gravelly	Silty CLAY, Gravelly	
Maximum Converted Wet Density (t	t/m3)	1.96	2.01	1.96	1.96	
Optimum Moisture Content (%)		24.0	25.0	23.5	23.5	
Field Wet Density (t/m3)		2.05	2.11	2.06	2.05	
Field Dry Density (t/m3)		1.69	1.72	1.68	1.69	
Field Moisture Content (%)		21.0	23.0	22.5	21.5	
Oversize Material (%)		0	0	0	0	
Compaction Type		Standard	Standard	Standard	Standard	
Oversize Retained on :		19mm	19mm	19mm	19mm	
Moisture Ratio (%)		88.5	92.0	95.0	90.5	
Moisture Variation (%)		2.5	2.0	1.0	2.0	
Wet/Dry of Optimum		Dry	Dry	Dry	Dry	
Hilf Density Ratio		104.0	105.0	105.0	104.5	

DEPTH OF TEST TAKEN FROM BELOW FINISHED FILL LEVEL Notes:



Approved Signatory

D.Gunn

13-Mar-20

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY:	J.Murphy	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 1 / REV 9 / 10/01/17	CHECKED BY:	A.White	1 of 2



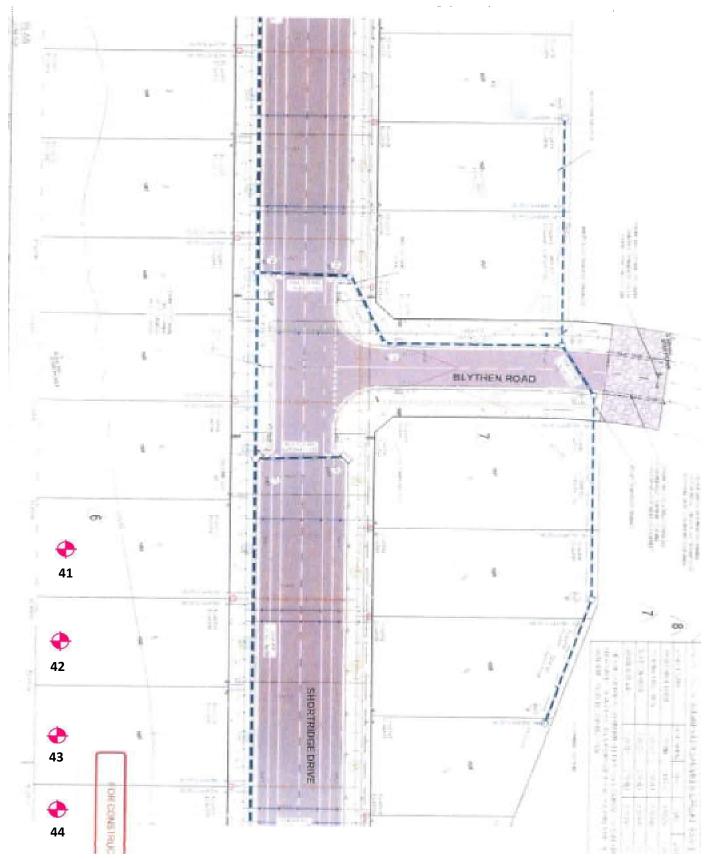
Geotechnical Engineers Ballarat Facility P.O. Box 1319 Bakery Hill Vic. Accreditation No 9855 JOB:

Shortridge Drive Lucas Job No.

Report No. B009

120208

Date 13-Mar-20





TEST LOCATIONS

DISTANCES GIVEN IN METRES

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY:	J.Murphy	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03	CHECKED BY:	A.White	2 of 2



Geotechnical Engineers

JOB:

Shortridge Drive

Lucas

JOB No: 120208 REPORT No: B009/1

DATE: 13/03/2020

		oratory Reg								
DAILY GEO	TECHNICAL	ACTIVITY RE	EPORT	-	On Site	e :- 1	0:45	Off S	te : 11:45	
Developer:			Constructor:	Pipecon			Superi	ntende	nt: Shaun	
	nority: A.S.Jan	nes Ptv Ltd	Level of GTA			vel one			Testing Autho	ritv
	nditions: Fine							w <u>j</u>		
Equipment		In Use	Not in Use						In Use	Not in Use
Excavator		٧			Wa	ater car	t (small)	ſ	٧	
Pad Foot vib	rating roller					Dozer	,			
815 Compac	ctor	٧			Du	ımp Tru	ck (On Sit	e)	٧	
Grader					Sc	raper	,			
Marka in nu			•	_		•				•
Works in pr	Location									
Stripping										
Excavating										
Filling	House Lots									
Rolling	House Lots									
	Details & Obs									
			mate 300mm l							
			n each house				•	•	•	
1 '		. The constru	ctor has been	advised	to awa	it labora	itory result	s beto	re placing the	e final layer
across these	e iots.									
Inspections										
Inspection T	ype & Locatio	n:								
) D ("									
Comments 8	& Details:									
Matarial Torr	/ 0 !! / !	0								
Materiai i y	oe / Quality /	Source / App	provai:							
0										
Compaction	n Testing:		_							
Numbers pe		4	Test No.s	41-44	4 L	_ocatior	n House	Lots		
Numbers pe			Test No.s		L	_ocatior	١ 🔼			
Numbers pe	rformed		Test No.s		L	_ocatior	າ			
Specification	n Requireme	ents	Standard / M	lodified	De	ensity R	atio (%)	Γ	95	٦
opoomou			STD				Ratio (%)	ŀ	85-115	1
Compliance	to Specifica	tion		ı			()			_
•	<u>-</u>					0 (
5 "	Conforming				No	on Confe	orming Te	sts		
Density	41, 42, 43, 4									
Moisture	41, 42, 43, 4	4								
Site Instruc	tions Given	(Tick box)								
Approval to		[√]	Filling Metho	ds Annro	oved	[\(\)]	Rewor	k / Re-	roll required	[]
			Filled Area U]			ditioning requ	
Comments &						1	Moiota	. 5 501	a.a.o.mig roqu	ou []
Level 1 supe	ervision daily o	geotechnical i	report summa	ry	Or	perator:	J.Murphy			
	LW053 (Fig 2			,		ate: 11/3				



LTD. BALLARAT OFFICE:

S.A. OFFICE:

VIC HEAD OFFICE:

Geotechnical Engineers

SINCE 1963

P.O. Box 1319 **BAKERY HILL Vic 3354** 03 5333 5911

ballarat@asjames.com.au

1/12 Theen Avenue 15 Libbett Avenue WILLASTON SA 5118

08 8504 7467

Clayton South Vic 3169

Office 03 95474811

melb@asjames.com.au Laboratory 03 95624709 lab@asjames.com.au

Pipecon Pty Ltd 48 Icon Drive

DELACOMBE VIC 3356

Marked attention to. Jayson Frawley

Date:

18/5/2020

Ref:

120208

B023

Purchase Order No:

RE:

Shortridge Drive

Lucas

We enclose Reports 120208 B019, B021 & B023 being results of field and laboratory testing, along with level one superv carried out on the above project between 11/5/2020 and 13/5/2020

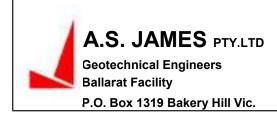
Our Invoice is also enclosed.

Yours faithfully,



T.J. HOLT MIEAust CPEng NER APEC Eng IntPE (Aus) EC-1022

A.S. JAMES PTY LTD



House Lot Fill

Section Tested:

JOB:	Job No.	120208
Shortridge Drive	Report No.	B019
Lucas	Date	18-May-20

FOR

Pipecon Pty Ltd 48 Icon Drive

DELACOMBE VIC 3356

		I	1	 <u> </u>	1
Test Number		82			
Date of Test		11/05/20			
Time of Test		14:17			
Location	Chainage:	See			
	Offset:	Sketch			
Depth of Test		600			
Probe Depth (mm)		300			
Material Type					
		Silty CLAY, Gravelly			
Maximum Converted Wet Density	(t/m3)	2.06			
Optimum Moisture Content (%)		21.5			
Field Wet Density (t/m3)		2.13			
Field Dry Density (t/m3)		1.74			
Field Moisture Content (%)		22.5			
Oversize Material (%)		3			
Compaction Type		Standard			
Oversize Retained on :		19mm			
Moisture Ratio (%)		104.5			
Moisture Variation (%)		1.0			
Wet/Dry of Optimum		Wet			
Hilf Density Ratio		103.0			

Notes: DEPTH OF TESTS TAKEN FROM BELOW FINISHED FILL LEVEL



Approved Signatory

H.Pyke

18-May-20

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY :	J.Murphy	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 1 / REV 9 / 10/01/17	CHECKED BY:	A.White	1 of 2



Geotechnical Engineers Ballarat Facility P.O. Box 1319 Bakery Hill Vic. Accreditation No 9855

JOB:

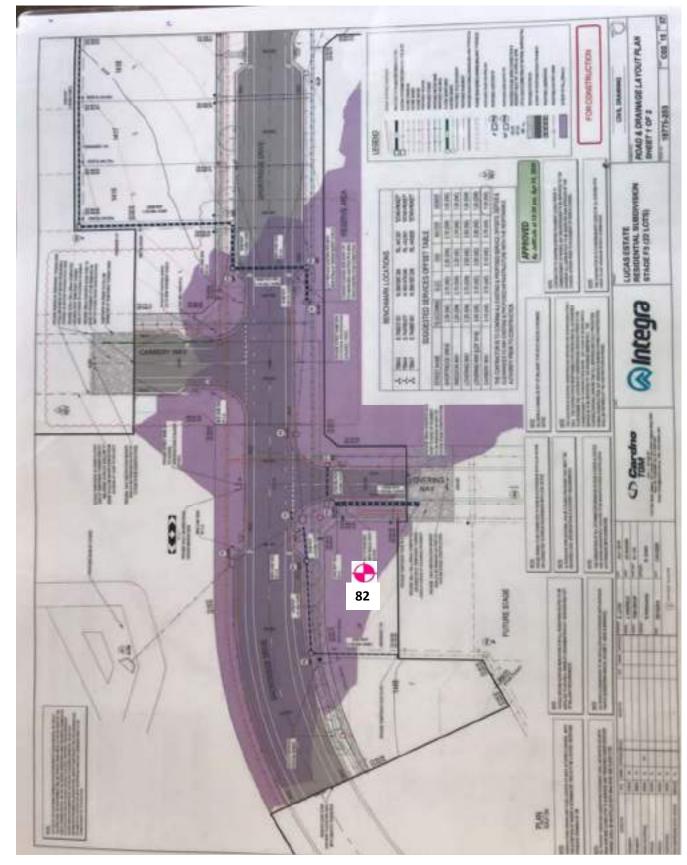
Shortridge Drive Lucas

Job No. 120208

Report No.

B019

Date 18-May-20





TEST LOCATIONS DISTANCES GIVEN IN METRES

TESTED BY:

FIGURE

N.T.S

CHECKED BY:

A.White

J.Murphy

2 of 2

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1 A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03



A.S. JAMES PTY. LTD. Shortridge Drive

JOB:

JOB No: 120208 REPORT No: B019/1

18/05/2020

	Pallarat Lah	•		Lucas			DATE.	10/03/2020
DAIL Y GEO	Ballarat Lab		FPORT	0	0:1- 44-0	0 0# 0);;	
	TEOTHIOAL	AOTIVITIA			Site :- 14:0		Site: 14:30	
Developer :		5. 1.1	Constructor:			Superintend		
	ority: A.S.Jan		Level of GTA	brief:	Level one S	upervision by	l esting Autho	rity
weather Co	nditions: Sunr	iy, winay						
Equipment •	on Site	In Use	Not in Use				In Use	Not in Use
Excavator		٧			Water cart (small)	٧	
Pad Foot vib	rating roller	٧			D6 Dozer	,		
315 Compac	•	٧			Dump Truck	(On Site)	V	
Grader			V		Scraper	(0 0)		
			, v	l	Coraper		l	
Norks in pr								
	Location							
Stripping								
Excavating								
Filling	House Lot							
Rolling	House Lot							
	Details & Obs							
The construc	ctor has place	d the first lay	er of material	on house lot	1414. One to	est was carried	d out on this lo	t. Material
nspections								
	ype & Locatio							
	ction - House	Lot 1414						
Comments 8								
			oit on house lo			•	•	•
underlying n	atural clay, ho	wever the ex	gh the constru kposed base w			•	•	•
Material Typ	oe / Quality / S	Source / Ap	proval:					
Site won ma	terial - CLAY,	Silty, Gravel	ly, contains so	me oversize	rocks			
Compaction	n Testing:							
Numbers pe	rformed	1	Test No.s	82	Location	House Lot F	ill	
Numbers pe			Test No.s		Location			
Numbers pe			Test No.s		Location			
Specificatio	n Requireme	ents	Standard / M	odified	Density Rat Moisture Ra		95 85-115]
Compliance	to Specifica	tion						
	Conforming 7	Tests			Non Confor	mina Tests		
Density	82	10010			11011 0011101	ining rests		
Moisture	82							
					1			
Approval to l	face Not / App	[\(\)]	Filling Metho Filled Area U			Rework / Re Moisture Co	-roll required nditioning requ	[] uired []
•	ervision daily g		report summa	ry	Operator: J.			



A.S. JAMES PTY.LTD Geotechnical Engineers Ballarat Laboratory 73-77 Humffray Street North Accreditation No. 9855

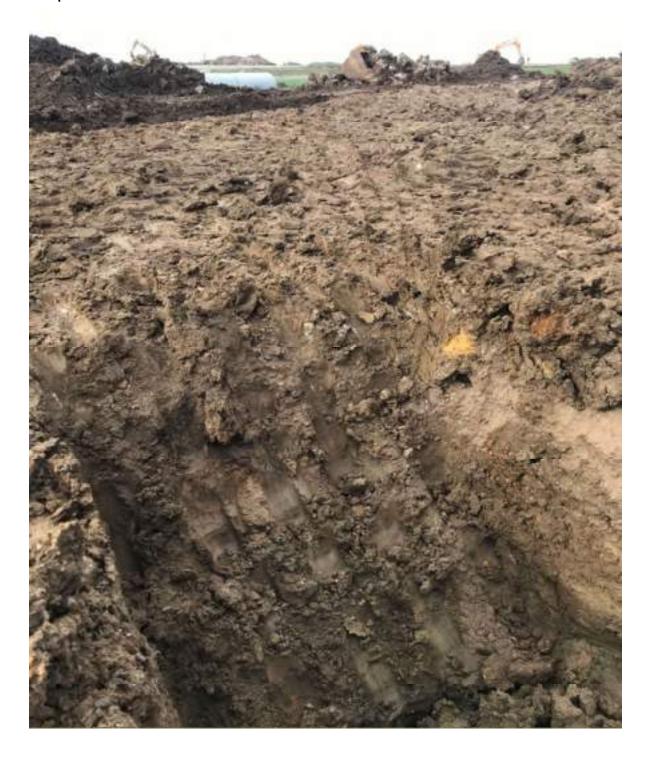
JOB: Shortridge Drive Lucas

 Job No.
 120208

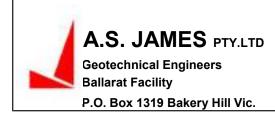
 Report No.
 B019/1

 Date
 18-May-20

Lot 1414 test pit



Site Location Plan	TESTED BY: J.Murphy	FIGURE
	CHECKED BY: A.White	2



House Lot Fill

Section Tested:

JOB:	Job No.	120208
Shortridge Drive	Report No.	B021
Lucas	Date	18-May-20

FOR

Pipecon Pty Ltd 48 Icon Drive

DELACOMBE VIC 3356

		1	1	1	1
Test Number		87			
Date of Test		12/05/20			
Time of Test		14:12			
Location	Chainage:	See			
	Offset:	Sketch			
Depth of Test		300			
Probe Depth (mm)		300			
Material Type					
		Silty CLAY, Gravelly			
Maximum Converted Wet Density (t/m3)		2.07			
Optimum Moisture Content (%)		21.5			
Field Wet Density (t/m3)		1.99			
Field Dry Density (t/m3)		1.64			
Field Moisture Content (%)		21.5			
Oversize Material (%)		0			
Compaction Type		Standard			
Oversize Retained on :		19mm			
Moisture Ratio (%)		98.5			
Moisture Variation (%)		0.5			
Wet/Dry of Optimum		Dry			
Hilf Density Ratio		96.0			

Notes: DEPTH OF TESTS TAKEN FROM BELOW FINISHED FILL LEVEL



Approved Signatory

H.Pyke

18-May-20

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY :	J.Murphy	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 1 / REV 9 / 10/01/17	CHECKED BY:	A.White	1 of 2



Geotechnical Engineers
Ballarat Facility
P.O. Box 1319 Bakery Hill Vic.
Accreditation No 9855

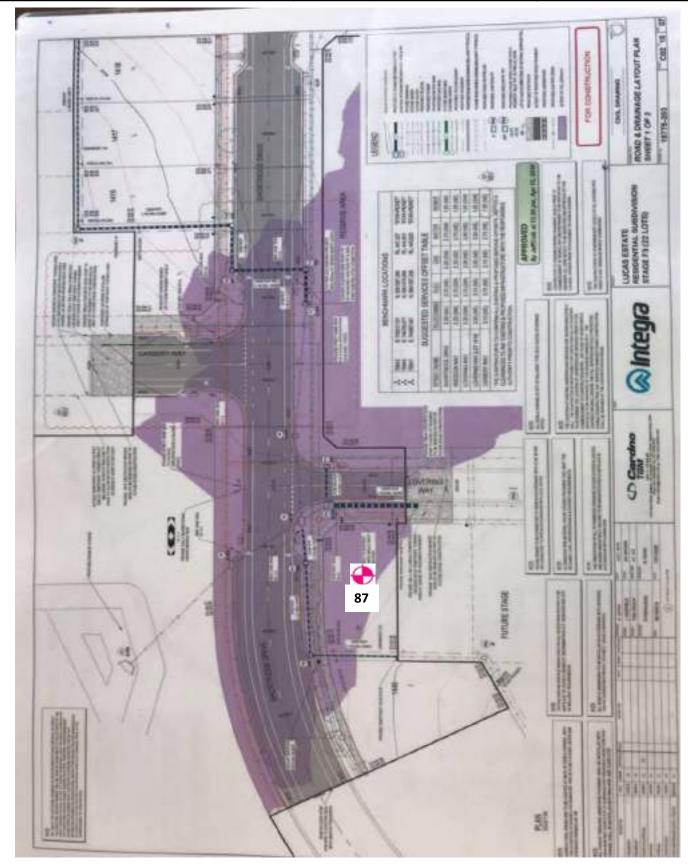
JOB:

Shortridge Drive Lucas **Job No.** 120208

Report No.

Date 18-May-20

B021





TEST LOCATIONS
DISTANCES GIVEN IN METRES

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY:	J.Murphy	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03	CHECKED BY:	A.White	2 of 2



Stripped surface Not Approved [$\sqrt{\ }$] Filled Area Under Review

Level 1 supervision daily geotechnical report summary

A.S.JAMES LW053 (Fig 2) / REV 1 / 21/5/14

Comments & Details

JOB:

JOB No: 120208 REPORT No: B021/1

Moisture Conditioning required []

Operator: J.Murphy

Date: 12/5/2020

A.S. JAMES PTY. LTD. Shortridge Drive **Geotechnical Engineers** Lucas DATE: 18/05/2020 **Ballarat Laboratory Reg No.-9855** DAILY GEOTECHNICAL ACTIVITY REPORT On Site :- 13:45 Off Site: 14:15 Developer: Constructor: Pipecon Superintendent: Shaun Testing Authority: A.S.James Pty Ltd Level of GTA brief: Level one Supervision by Testing Authority Weather Conditions: Sunny, windy Not in Use In Use Not in Use **Equipment on Site** In Use Water cart (small) Excavator Pad Foot vibrating roller ٧ D6 Dozer 815 Compactor ٧ Dump Truck (On Site) V ٧ Grader Scraper Works in progress Location Stripping Excavating Filling House Lot Rolling House Lot Comments, Details & Observations: The constructor has placed the next layer of material on house lot 1414. One test was carried out on this lot. Material appears well compacted and well moisture conditioned. The constructor was given approval to place the next layer. Inspections Inspection Type & Location: Comments & Details: Material Type / Quality / Source / Approval: Site won material - CLAY, Silty, Gravelly, contains some oversize rocks **Compaction Testing:** Numbers performed Test No.s 87 Location House Lot Fill Numbers performed Test No.s Location Numbers performed Test No.s Location **Specification Requirements** Standard / Modified Density Ratio (%) 95 STD Moisture Ratio (%) 85-115 **Compliance to Specification** Conforming Tests Non Conforming Tests Density 87 Moisture 87 Site Instructions Given (Tick box) Approval to Place Fill Filling Methods Approved [\[\] Rework / Re-roll required [\/]



Geotechnical Engineers Ballarat Laboratory 73-77 Humffray Street North Accreditation No. 9855 JOB: Shortridge Drive Lucas

 Job No.
 120208

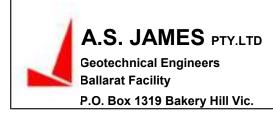
 Report No.
 B021/1

 Date
 18-May-20

Lot 1414 test pad



Site Location Plan	TESTED BY: J.Murphy	FIGURE
	CHECKED BY: A.White	2



House Lot Fill

Section Tested:

JOB:	Job No.	120208
Shortridge Drive	Report No.	B023
Lucas	Date	18-May-20

FOR

Pipecon Pty Ltd 48 Icon Drive

DELACOMBE VIC 3356

r							
Test Number		92	93	94	95	96	
Date of Test		13/05/20	13/05/20	13/05/20	13/05/20	13/05/20	
Time of Test		14:39	15:03	15:05	15:07	15:09	
Location	Chainage:	See	See	See	See	See	
	Offset:	Sketch	Sketch	Sketch	Sketch	Sketch	
Depth of Test		FFL	FFL	FFL	FFL	FFL	
Probe Depth (mm)		300	300	300	300	300	
Material Type							
		Silty CLAY,					
		Gravelly	Gravelly	Gravelly	Gravelly	Gravelly	
Maximum Converted Wet Density (t/m3)	2.02	2.00	2.04	2.05	2.08	
Optimum Moisture Content (%)		25.0	25.0	27.0	23.5	21.5	
Field Wet Density (t/m3)		2.07	2.03	2.09	2.14	2.13	
Field Dry Density (t/m3)		1.64	1.60	1.65	1.73	1.74	
Field Moisture Content (%)		26.0	27.0	27.0	24.0	22.0	
Oversize Material (%)		2	0	2	0	0	
Compaction Type		Standard	Standard	Standard	Standard	Standard	
Oversize Retained on :		19mm	19mm	19mm	19mm	19mm	
Moisture Ratio (%)		104.0	109.0	100.5	101.5	101.0	_
Moisture Variation (%)		1.0	2.0	0.0	0.5	0.0	
Wet/Dry of Optimum	_	Wet	Wet	Wet	Wet	Wet	_
Hilf Density Ratio		102.0	101.5	103.0	104.5	102.0	

Notes: DEPTH OF TESTS TAKEN FROM FINISHED FILL LEVEL



Approved Signatory

H.Pyke

18-May-20

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY :	J.Murphy	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 1 / REV 9 / 10/01/17	CHECKED BY:	A.White	1 of 2



Geotechnical Engineers Ballarat Facility P.O. Box 1319 Bakery Hill Vic. **Accreditation No 9855**

JOB:

Shortridge Drive Lucas

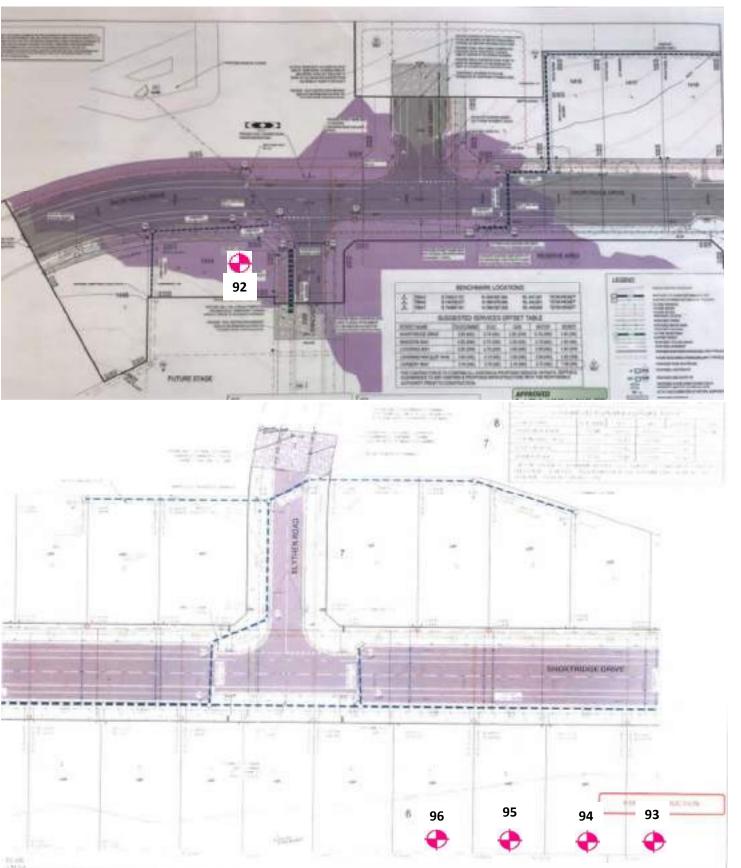
Job No.

120208

Report No.

B023

Date 18-May-20





TEST LOCATIONS

DISTANCES GIVEN IN METRES

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1 A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03

TESTED BY:

J.Murphy

FIGURE

N.T.S

CHECKED BY:

A.White

2 of 2



JOB:

JOB No: 120208

A.S. J.	AIVIE 5	PTY. LTD.	Shortridge D	rive		REPORT No:	B023/1
	al Engineers		Lucas			DATE:	18/05/2020
Ballarat La	boratory Reg		0-	C:t	0 0 0 0	2:45 - 45-20	
Developer :		Constructor:		Site :- 14:00	Superintend	Site : 15:30	
Testing Authority: A.S.Jai	mes Ptv Ltd	Level of GTA		Level one S		Testing Autho	ritv
Weather Conditions: Sun					<u></u>		<u></u>
Equipment on Site	In Use	Not in Use				In Use	Not in Use
Excavator	٧		1	Water cart (small)		٧
Pad Foot vibrating roller	٧		1	D6 Dozer `	,		
815 Compactor	٧		1	Dump Truck	(On Site)	٧	
Grader	٧				Scraper		
Works in progress							
Location						_	
Stripping							
Excavating							
Filling House Lot							
Rolling House Lot Comments, Details & Obs	servations:						
The constructor has place		ver of materia	l on house lot	1414. One to	est was carrie	d out on this lo	 ot. Material
appears well compacted		•					
Testing was also carried	out at finished	fill level on lo	ots 1500-1503	. One test wa	as taken on ea	ach lot with ma	ıterial
appearing well moisture of	conditioned an	nd well compa	cted.				
Inspections							
Inspection Type & Location	on:						
Visual Inspection - Subgr		500, 1501, 15	02 & 1503				
Comments & Details:							
The constructor has exca							
the natural clay subgrade		•	•		•		
removed the majority of the base was not inspected p	•	•		underlying	g natural clay,	nowever the e	xposea
Material Type / Quality /			illig works.				
material Type / Quality /	Course / App	51 O Vali					
Site won material - CLAY	, Silty, Gravell	ly, contains so	ome oversize	rocks			
Compaction Testing:							
Numbers performed	5	Test No.s	92-96	Location	House Lot F	ill	
Numbers performed		Test No.s		Location			
Numbers performed		Test No.s		Location			
Specification Requirem	ents	Standard / M	odified	Density Rati		95]
		STD]	Moisture Ra	tio (%)	85-115]
Compliance to Specific	ation						
Conforming	Tests			Non Conform	ming Tests		
Density 92,93,94,95	,96						
Moisture 92,93,94,95	,96						
Site Instructions Given	(Tick box)						
Approval to Place Fill	`[v]	Filling Metho	ds Approved	[√]	Rework / Re	-roll required	[]
Stripped surface Not / Ap		-				nditioning requ	
Comments & Details							
Level 1 supervision daily	geotechnical	report cummo	ur./	Operator: 1	Murphy/H.Pyk		
A.S.JAMES LW053 (Fig 2			ıı y	Date: 13/5/2		. C	
M.S. SAINLO LYVOSS (1-19 A	-jin-v 1/2	1/0/17		טמנס. וט/ט/2	.020		



Geotechnical Engineers Ballarat Laboratory 73-77 Humffray Street North Accreditation No. 9855 JOB:

Shortridge Drive Lucas **Job No.** 120208

Report No. B023/1

Date 18-May-20

Lot 1500 test pit



Lot 1501 test pit



Lot 1502 test pit



Lot 1503 test pit



Site Location Plan	TESTED BY: J.Murphy/H.Pyke	FIGURE	
	CHECKED BY: A.White	2	



SINCE 1963

15 Libbett Avenue

Clayton South Vic 3169

03 95474811

TAX INVOICE melb@asjames.com.au

Marked attention to: Jayson Frawley **IN ACCOUNT WITH:** Pipecon Pty Ltd

48 Icon Drive Purchase Order No :

DELACOMBE VIC 3356

Email for Accounts: reception@pipecon.com.au Invoice No: 120208 / B023

Job Site Contact: Shaun Maher

Job Contact Email: jayson@pipecon.com.au Date: 18/5/2020

RE: Shortridge Drive

Lucas This is a Payment claim under the Building and

Construction Industry Security of Payment Act 2002

	Construction Industry Security of Payment Act 2002				
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	B019 11/5/20				
	Level one supervision, including field testing, travel time and reporting	Hr.s.	0.5	\$140.00	\$70.00
	Laboratory Hilf Density Test, Standard Method	No	1	\$95.00	\$95.00
	Inspection undertaken by technician	No.	1	\$250.00	\$250.00
	,				
2	B021 12/5/20				
	Level one supervision, including field testing, travel time and reporting	Hr.s.	0.5	\$140.00	\$70.00
	Laboratory Hilf Density Test, Standard Method	No	1	\$95.00	\$95.00
3	B023 13/5/20				
	Level one supervision, including field testing, travel time and reporting	Hr.s.	1.5	\$140.00	\$210.00
	Laboratory Hilf Density Test, Standard Method	No	5	\$95.00	\$475.00
	Inspection undertaken by technician	No.	1	\$250.00	\$250.00
		01.5			
	Please arrange payment via EFT	SUB-			 #4 E4E 00
	to A.S.James Pty Ltd	TOTAL			\$1,515.00
	BSB - 013 437 Account No 3143 17895	G.S.T.			\$151.50
	Please send remittances to	(10%) TOTAL			¢1 666 50
	accounts@asjames.com.au Thank You	IOIAL			\$1,666.50
	THAIR TOU				
	STRICTLY NET-30 DAYS FROM DATE OF INVOICE				
	STRICTLE NET-30 DATS FROM DATE OF INVOICE				



73-77 Humffray Street Ballarat Vic 3350 Tel: (613) 5333 5911

Email: ballarat@asjames.com.au

19th May 2020

Pipecon, 48 Icon Drive, DELACOMBE, VIC, 3356

Marked Attention to: Jayson Frawley

Ref: 120208 B023

RE: Level one supervision & Testing – Lot 1414 Stage F3 and lots 1500-1503 Stage F4, Shortridge Drive, Lucas.

We were commissioned by Shaun Mahar of Pipecon to provide Level one supervision and density testing on excavated areas within the footprints of the proposed house lots contained within Shortridge Drive, Lucas.

We can confirm that our involvement was limited to 'Level 1' as specified in AS 3798 - 2007.

The Standard describes 'Level 1' as follows-

"The primary objective of Level 1 Inspection and Testing is for the geotechnical inspection and testing authority (GITA) to be able to express an opinion on the compliance of the work. The GITA is responsible for ensuring that the inspection and testing is sufficient for this purpose".

All density testing exceeded the requirement of 95% standard density ratio as specified in Table 5.1 of AS 3798 – 2007.

The testing commenced at finished subgrade level and has extended to finished fill level within lots 1414, 1500, 1501, 1502 and 1503. The levels given in the reports are approximate levels and some small variation in levels may be expected over each individual lot.

The Level 1 Inspections and Testing covers house lots 1414 and 1500-1503 only.

Based on the inspection and testing carried out by this office between the 11/3/2020 and 13/5/2020, the fill placed on the above mentioned lots satisfies the requirements of AS 3798 SECTION 8.2 and therefore can be categorised as controlled fill.

Our reports, daily reports and site plans - 120208/B009, B019, B021 & B023 covers the above mentioned lots.

Should any point remain in doubt please do not hesitate to contact us.

Yours faithfully,

D.C.Gunn AMIEAust CEngA REGIONAL MANAGER A.S. JAMES PTY LTD



73-77 Humffray Street Ballarat Vic 3350 Tel: (613) 5333 5911

Email: ballarat@asjames.com.au

19th February 2020

Pipecon, 48 Icon Drive, DELACOMBE, VIC, 3356

Marked Attention to: Shaun Mahar

Ref: 120208 B006

RE: Level one supervision & Testing - Shortridge Drive, Lucas.

We were commissioned by Shaun Mahar of Pipecon to provide Level one supervision and density testing on excavated areas within the footprints of the proposed house lots contained within Shortridge Drive, Lucas.

We can confirm that our involvement was limited to 'Level 1' as specified in AS 3798 - 2007.

The Standard describes 'Level 1' as follows-

"The primary objective of Level 1 Inspection and Testing is for the geotechnical inspection and testing authority (GITA) to be able to express an opinion on the compliance of the work. The GITA is responsible for ensuring that the inspection and testing is sufficient for this purpose".

All density testing exceeded the requirement of 95% standard density ratio as specified in Table 5.1 of AS 3798 – 2007.

The testing commenced at finished subgrade level and has extended to finished fill level within lots 1524, 1525 & 1526. The levels given in the reports are approximate levels and some small variation in levels may be expected over each individual lot.

The Level 1 Inspections and Testing covers house lots 1524, 1525 & 1526 only.

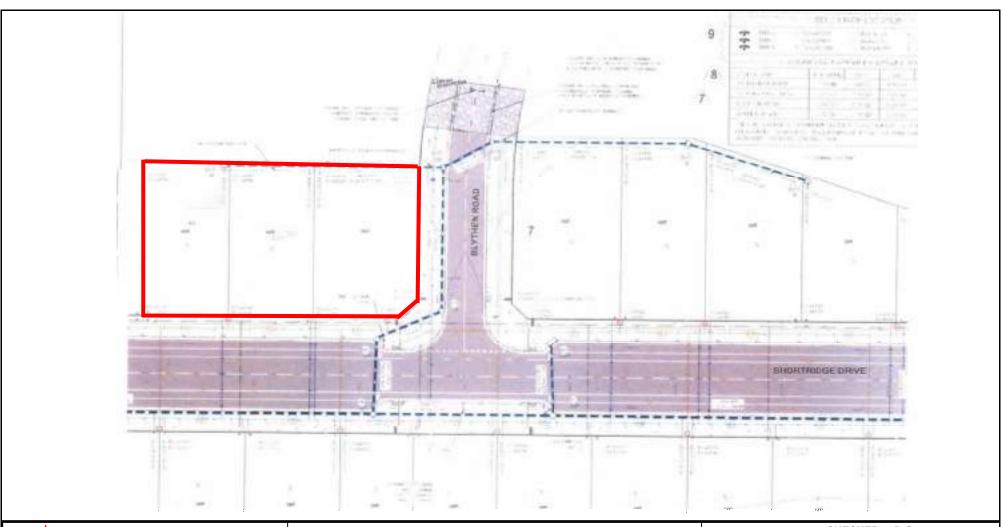
Based on the inspection and testing carried out by this office between the 3/2/20 and 5/2/20, the fill placed on the above mentioned lots satisfies the requirements of AS 3798 SECTION 8.2 and therefore can be categorised as controlled fill.

Our reports, daily reports and site plans - 120208/B002, B004 & B006 covers the above mentioned lots.

Should any point remain in doubt please do not hesitate to contact us.

Yours faithfully,

D.C.Gunn AMIEAust CEngA REGIONAL MANAGER A.S. JAMES PTY LTD





JOB: Lots 1524, 1525 & 1526

Shortridge

Drive, Lucas

JOB No: 120208 Date: February '20

LEGEND

Dei

Denotes approximate extent of level 1 supervision and testing

 $responsibility \ or \ liability \ of \ any \ errors \ , faults, \ defects \ or \ omissions \ in \ information. \ The \ above \ is \ for \ indicative \ purposes \ only \ \& \ is \ not \ to \ scale.$

A.S James does not warrant the accuracy or completeness of the information displayed within this figure and any person using it does so at thier own risk. A.S James shall bear no

CHECKED: D.Gunn DRAWN: A.White

SHORTRIDGE DRIVE, LUCAS

Α4

Figure 1



PTY.

LTD. BALLARAT OFFICE:

ballarat@asjames.com.au

S.A. OFFICE: 1/12 Theen Avenue VIC HEAD OFFICE:

15 Libbett Avenue

Geotechnical Engineers

SINCE 1963

P.O. Box 1319 **BAKERY HILL Vic 3354** 03 5333 5911

08 8504 7467 asjlabsa@asjames.com.a

WILLASTON SA 5118

Clayton South Vic 3169

Office 03 95474811

melb@asjames.com.au Laboratory 03 95624709

lab@asjames.com.au

Pipecon

48 Icon Drive

DELACOMBE VIC 3356

Date:

30/3/20

Ref:

120208/B009

Marked attention to. Jayson Frawley

Purchase Order No:

RE:

Shortridge Drive

Lucas

We enclose Report 120208 B009 being results of field and laboratory testing, along with level one supervision, carried out on the above project on 11/3/20

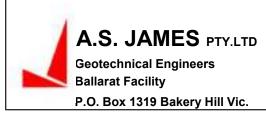
Our Invoice is also enclosed.

Yours faithfully,



T.J. HOLT MIEAust CPEng NER APEC Eng IntPE (Aus) EC-1022

A.S. JAMES PTY LTD



House Lots

Section Tested:

JOB:	Job No.	120208
Shortridge Drive	Report No.	B009
Lucas	Date	13-Mar-20

FOR

Pipecon Pty Ltd 48 Icon Drive

DELACOMBE VIC 3356

Test Number		41	42	43	44	
Date of Test		11/03/20	11/03/20	11/03/20	11/03/20	
Time of Test		11:06	11:13	11:23	11:38	
Location	Chainage:	See	See	See	See	
	Offset:	Sketch	Sketch	Sketch	Sketch	
Depth of Test		300	300	300	300	
Probe Depth (mm)		275	275	275	275	
Material Type		Silty CLAY, Gravelly	Silty CLAY, Gravelly	Silty CLAY, Gravelly	Silty CLAY, Gravelly	
Maximum Converted Wet Density (t	t/m3)	1.96	2.01	1.96	1.96	
Optimum Moisture Content (%)		24.0	25.0	23.5	23.5	
Field Wet Density (t/m3)		2.05	2.11	2.06	2.05	
Field Dry Density (t/m3)		1.69	1.72	1.68	1.69	
Field Moisture Content (%)		21.0	23.0	22.5	21.5	
Oversize Material (%)		0	0	0	0	
Compaction Type		Standard	Standard	Standard	Standard	
Oversize Retained on :		19mm	19mm	19mm	19mm	
Moisture Ratio (%)		88.5	92.0	95.0	90.5	
Moisture Variation (%)		2.5	2.0	1.0	2.0	
Wet/Dry of Optimum		Dry	Dry	Dry	Dry	
Hilf Density Ratio		104.0	105.0	105.0	104.5	

DEPTH OF TEST TAKEN FROM BELOW FINISHED FILL LEVEL Notes:



Approved Signatory

D.Gunn

13-Mar-20

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY:	J.Murphy	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 1 / REV 9 / 10/01/17	CHECKED BY:	A.White	1 of 2



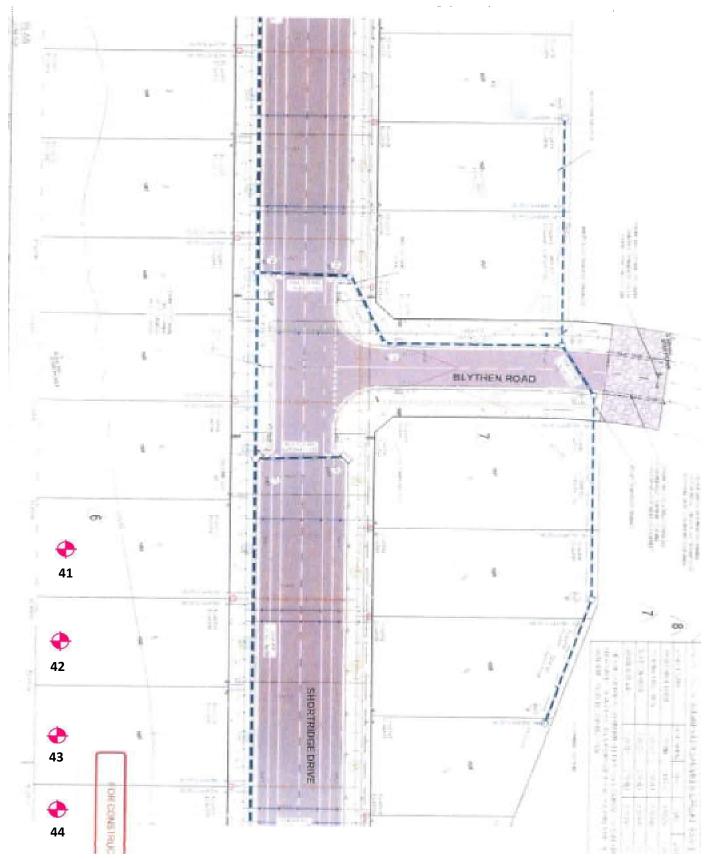
Geotechnical Engineers Ballarat Facility P.O. Box 1319 Bakery Hill Vic. Accreditation No 9855 JOB:

Shortridge Drive Lucas Job No.

Report No. B009

120208

Date 13-Mar-20





TEST LOCATIONS

DISTANCES GIVEN IN METRES

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY:	J.Murphy	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03	CHECKED BY:	A.White	2 of 2



Geotechnical Engineers

JOB:

Shortridge Drive

Lucas

JOB No: 120208 REPORT No: B009/1

DATE: 13/03/2020

	Ballarat Laboratory Reg No9855									
DAILY GEO	TECHNICAL	ACTIVITY RE	EPORT	-	On Site	e :- 1	0:45	Off S	te : 11:45	
Developer:			Constructor:	Pipecon			Superi	ntende	nt: Shaun	
	nority: A.S.Jan	nes Ptv Ltd	Level of GTA			vel one			Testing Autho	ritv
	nditions: Fine							w <u>j</u>		
Equipment		In Use	Not in Use						In Use	Not in Use
Excavator		٧			Wa	ater car	t (small)	ſ	٧	
Pad Foot vib	rating roller					Dozer	,			
815 Compac	ctor	٧			Du	ımp Tru	ck (On Sit	e)	٧	
Grader					Sc	raper	,			
Marka in nu			•	_		•				•
Works in pr	Location									
Stripping										
Excavating										
Filling	House Lots									
Rolling	House Lots									
	Details & Obs									
			mate 300mm l							
			n each house				•	•	•	
1 '		. The constru	ctor has been	advised	to awa	it labora	itory result	s beto	re placing the	e final layer
across these	e iots.									
Inspections										
Inspection T	ype & Locatio	n:								
) D ("									
Comments 8	& Details:									
Matarial Torr	/ 0 !! / !	0								
Materiai i y	oe / Quality /	Source / App	provai:							
Compaction	n Testing:		_							
Numbers pe		4	Test No.s	41-44	4 L	_ocatior	n House	Lots		
Numbers pe			Test No.s		L	_ocatior	١ 🔼			
Numbers pe	rformed		Test No.s		L	_ocatior	າ			
Specification	n Requireme	ents	Standard / M	lodified	De	ensity R	atio (%)	Γ	95	٦
opoomou			STD				Ratio (%)	ŀ	85-115	1
Compliance	to Specifica	tion		ı			()			_
•	<u>-</u>					0 (
5 "	Conforming				No	on Confe	orming Te	sts		
Density	41, 42, 43, 4									
Moisture	41, 42, 43, 4	4								
Site Instruc	tions Given	(Tick box)								
Approval to		[√]	Filling Metho	ds Annro	oved	[\(\)]	Rewor	k / Re-	roll required	[]
			Filled Area U]			ditioning requ	
Comments &						1	Moiota	. 5 501	a.a.o.mig roqu	ou []
Level 1 supe	ervision daily o	geotechnical i	report summa	ry	Or	perator:	J.Murphy			
	LW053 (Fig 2			,		ate: 11/3				



PTY. BALLARAT OFFICE: LTD. Box 1319

P.O 1/12 Theen Avenue

VIC HEAD OFFICE: 15 Libbett Avenue

A.C.N.004 584 534 A.B.N. 40 004 584 534

Geotechnical Engineers

SINCE 1963

BAKERY HILL Vic 3354

Tel: 08 8504 7467 Office

Tel:03 5333 5911

Tel: 95474811

simonb@asjames melb@asjames.com.au ballarat@asjames. com.au

sa.com.au

Laboratory Tel: 95624709

lab@asjames.com.au

Pipecon Pty Ltd 48 Icon Drive

Delacombe, VIC, 3356

Date:

WILLASTON SA 51 Clayton South Vic 3169

19/2/20

Marked attention to. Scott Mann

Ref:

120208 B006

Purchase Order No:

Dear Sirs,

RE:

Shortridge Drive

Lucas

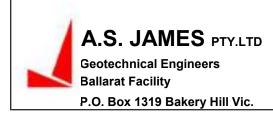
We enclose Reports 120208 B002, B004 and B006 being results of field and laboratory testing, along with level one supervision, carried out on the above project between 3/2/20 and 5/2/20

Our Invoice is also enclosed.

Yours faithfully,



T.J.Holt MIEAust A.S. JAMES PTY. LTD.



House Lot Fill

Section Tested:

JOB:	Job No.	120208
Shortridge Drive	Report No.	B002
Lucas	Date	10-Feb-20

FOR

Pipecon Pty Ltd 48 Icon Drive

DELACOMBE VIC 3356

		.	,	,		
Test Number		8	9	10		
Date of Test		3/02/20	3/02/20	3/02/20		
Time of Test		13:50	13:54	13:59		
Location	Chainage:	See	See	See		
	Offset:	Sketch	Sketch	Sketch		
Depth of Test		600	600	600		
Probe Depth (mm)		275	275	275		
Material Type		CLAY, Silty, Gravelly	CLAY, Silty, Gravelly	CLAY, Silty, Gravelly		
Maximum Converted Wet Density (t	t/m3)	2.09	2.06	2.08		
Optimum Moisture Content (%)		19.0	20.5	18.0		
Field Wet Density (t/m3)		2.02	2.04	2.07		
Field Dry Density (t/m3)		1.70	1.68	1.75		
Field Moisture Content (%)		18.5	21.0	18.0		
Oversize Material (%)		3	6	7		
Compaction Type		Standard	Standard	Standard		
Oversize Retained on :		19mm	19mm	19mm		
Moisture Ratio (%)		99.5	102.5	99.5		
Moisture Variation (%)		0.0	0.5	0.0		
Wet/Dry of Optimum		Dry	Wet	Dry		
Hilf Density Ratio		96.5	99.0	99.5		

Notes: DEPTH OF TESTS TAKEN FROM BELOW FINISHED FILL LEVEL



Approved Signatory

H.Pyke

10-Feb-20

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY:	T.Reece	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 1 / REV 9 / 10/01/17	CHECKED BY:	A.White	1 of 2



Geotechnical Engineers
Ballarat Facility
P.O. Box 1319 Bakery Hill Vic.
Accreditation No 9855

JOB:

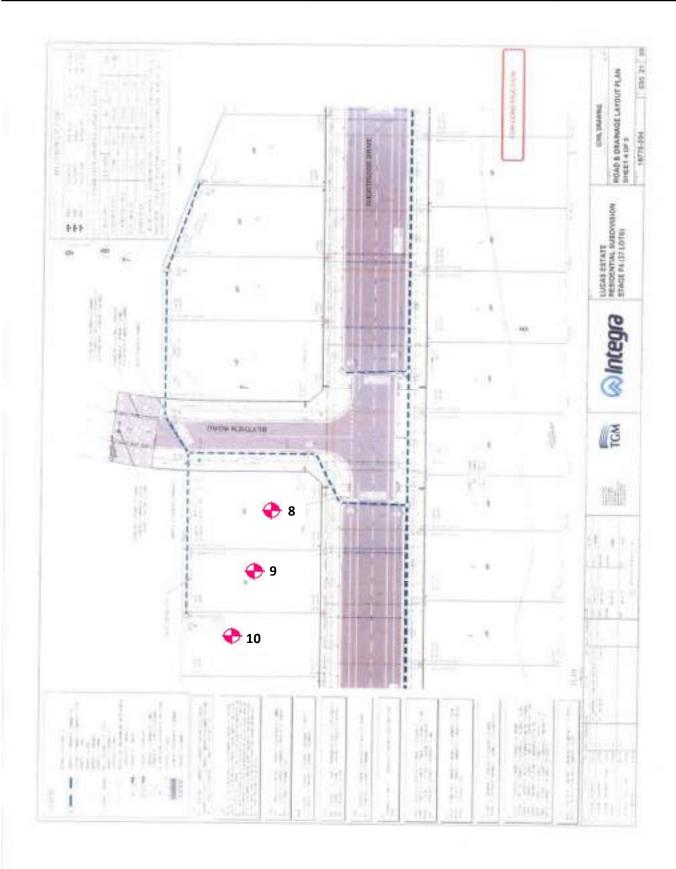
Shortridge Drive Lucas Job No.

Report No.

B002

120208

Date 10-Feb-20



TEST LOCATIONS
DISTANCES GIVEN IN METRES

2.0			
HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY:	T.Reece	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03	CHECKED BY:	A.White	2 of 2



Approval to Place Fill

Comments & Details

Stripped surface Net-/ Approved [√]

JOB:

JOB No: 120208

DATE: 10/02/2020

A.S. JAMES PTY. LTD. Shortridge Drive REPORT No: B002/1 Geotechnical Engineers Lucas **Ballarat Laboratory Reg No.-9855** DAILY GEOTECHNICAL ACTIVITY REPORT On Site :-13:00 Off Site: 14:00 Constructor: Pipecon Superintendent: Shaun Developer: Testing Authority: A.S.James Pty Ltd Level of GTA brief: Level one Supervision by Testing Authority Weather Conditions: Sunny, windy **Equipment on Site** In Use Not in Use In Use Not in Use Excavator ٧ Water cart (small) ٧ Pad Foot vibrating roller D6 Dozer 815 Compactor ٧ Dump Truck (On Site) ٧ Grader Loader ٧ Works in progress Location Stripping Excavating House Lots Filling House Lots Rolling House Lots Comments, Details & Observations: The constructor has prepared the first layer of material placed on house lots 1524, 1525 and 1526. One density test was completed on each lot. The material tested appears to be well compacted. The material appears to be well moisture conditioned, however may be slightly dry of optimum moisture content. The material contains some small oversize rock. The constructor began placing the next layer of material immediately after testing was completed. This layer will be ready for testing tomorrow morning. Inspections Inspection Type & Location: House lots 1524, 1525 and 1526 Comments & Details: The constructor has excavated some test pits spread evenly across lots 1524-1526. The constructor has exposed the natural clay subgrade on each test pit. From the test pits excavated, it appears as though the constructor has removed the majority of the silt/topsoil and exposed the underlying natural clay, however the exposed base was not inspected prior to commencement of fill placement. Material Type / Quality / Source / Approval: Site won material - Brown silty, gravelly CLAY The material contains some small oversize. Some loads of material appear to be very silty. **Compaction Testing:** Numbers performed 3 Test No.s 8-10 House Lots Location Numbers performed Test No.s Location Numbers performed Test No.s Location **Specification Requirements** Standard / Modified Density Ratio (%) 95 STD Moisture Ratio (%) 85-115 **Compliance to Specification Conforming Tests** Non Conforming Tests Density 8, 9, 10 8, 9, 10 Moisture Site Instructions Given (Tick box)

Level 1 supervision daily geotechnical report summary Operator: T.Reece/W.Cousens A.S.JAMES LW053 (Fig 2) / REV 1 / 21/5/14 Date: 3/2/20

[\(\)]

[]

Rework / Re-roll required

Moisture Conditioning required []

Filling Methods Approved

Filled Area Under Review



Geotechnical Engineers
Ballarat Laboratory
73-77 Humffray Street North
Accreditation No. 9855

JOB:

Shortridge Drive Lucas

Job No.

120208

Report No.

B002/1

Date 10-Feb-20

House lots





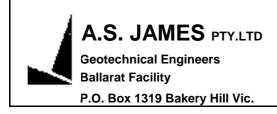
Test pits







Site Location Plan	TESTED BY:TR/WC	FIGURE
	CHECKED BY: A.White	2



House Lot Fill

Section Tested:

JOB:	Job No.	120208
Shortridge Drive	Report No.	B004
Lucas	Date	10-Feb-20

FOR

Pipecon Pty Ltd 48 Icon Drive

DELACOMBE VIC 3356

Hilf Density Ratio		99.5	101.0	104.0		
Wet/Dry of Optimum		Dry	Dry	Dry		
Moisture Variation (%)		2.0	2.0	0.0		
Moisture Ratio (%)		90.0	90.0	99.0		
Oversize Retained on :		19mm	19mm	19mm		
Compaction Type		Standard	Standard	Standard		
Oversize Material (%)	·	11	7	10		
Field Moisture Content (%)		21.5	21.5	24.0		
Field Dry Density (t/m3)		1.69	1.69	1.71		
Field Wet Density (t/m3)		2.05	2.05	2.12		
Optimum Moisture Content	(%)	24.0	23.5	24.0		
Maximum Converted Wet Density (t/m3)		2.06	2.03	2.04		
Material Type		CLAY, Silty, Gravelly	CLAY, Silty, Gravelly	CLAY, Silty, Gravelly		
Probe Depth (mm)		300	300	300		
Depth of Test		300	300	300		
	Offset:	Sketch	Sketch	Sketch		
Location	Chainage:	See	See	See		
Time of Test		8:26	8:32	8:39		
Date of Test		4/02/20	4/02/20	4/02/20		
Test Number		20	21	22		

Notes: DEPTH OF TESTS TAKEN FROM BELOW FINISHED FILL LEVEL



Approved Signatory

H.Pyke

10-Feb-20

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY :	J.Murphy	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 1 / REV 9 / 10/01/17	CHECKED BY:	A.White	1 of 2

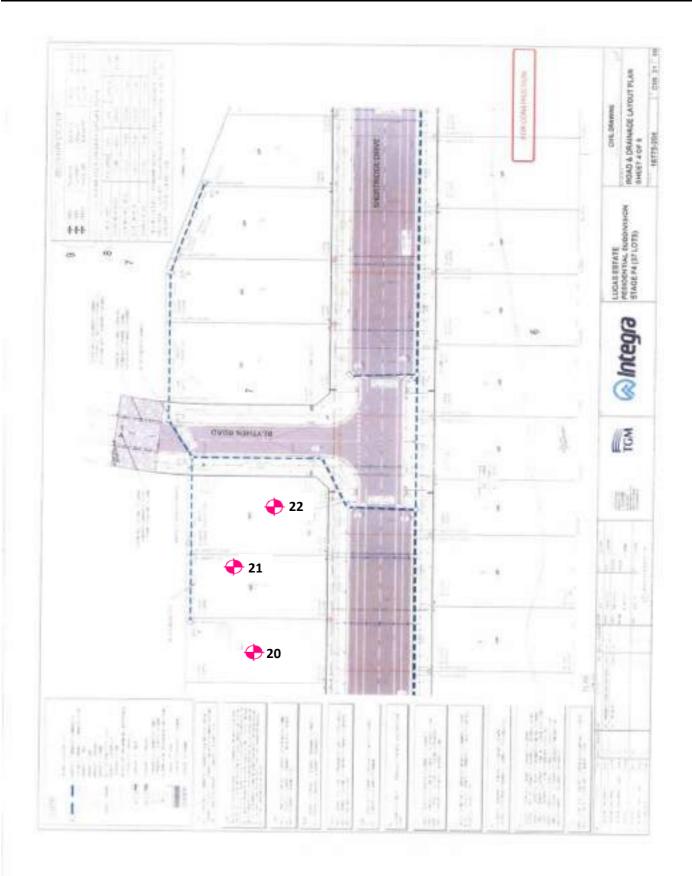


Geotechnical Engineers Ballarat Facility P.O. Box 1319 Bakery Hill Vic. Accreditation No 9855 JOB: Shortridge Drive Lucas

 Job No.
 120208

 Report No.
 B004

 Date
 10-Feb-20



	TEST LOCATIONS
$\overline{\mathbf{v}}$	DISTANCES GIVEN IN METRES

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY:	J.Murphy	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03	CHECKED BY:	A.White	2 of 2



JOB: Shortridge Drive

JOB No: 120208 REPORT No: B004/1

Geotechnical Engineers

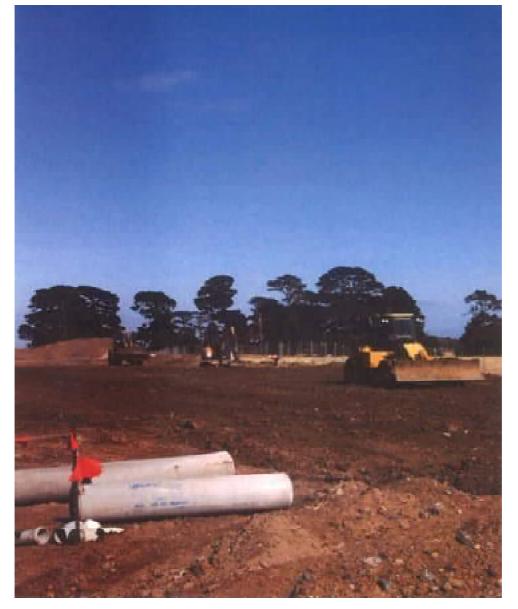
Geotechnical Engineers Ballarat Laboratory Reg No9855			Lucas			DATE:	10/02/2020	
DAILY GEO	Ballarat Labe TECHNICAL A			<u> </u>	No Cito	O# 0	Site + O+OO	
Developer :	TEOTIMOAL	NOTIVITI INC.	Constructor:		On Site :- 8		dent: Shaun	
	ority: A.S.Jam	es Ptv Ltd	Level of GTA		Level one	Supervision by		itv
	nditions: Sunny						<u> </u>	
Equipment	on Site	In Use	Not in Use				In Use	Not in Use
Excavator		٧]	Water ca	rt (small)	٧	
Pad Foot vib	ŭ				D6 Dozer		٧	
815 Compac	ctor	٧		_	•	uck (On Site)	V	
Grader				J	Scraper			
Works in pr	_							
Stripping	Location							
Excavating								
Filling	House Lots							
Rolling	House Lots							
	Details & Obse		dy a 300mm l	avor across	house lots 1	1524-1526. The	constructor is a	icina cito
						nouse lot with m		
						has been giver		
next layer.								
Inspections								
Inspection Ty	ype & Location	1:						
Comments &	& Details:							
								,
Material Typ	oe / Quality / S	Source / Appr	oval:					
	·							
Compaction	Testing:							
Numbers pe		3	Test No.s	20-22	Location	n House Lots	<u> </u>	
Numbers pe		<u> </u>	Test No.s	20 22	Location		•	
Numbers pe			Test No.s		Locatio	n		,
Specificatio	n Requireme	nts	Standard / M	lodified	Density R	Ratio (%)	95	7
•	-		STD]	Moisture	, ,	85-115	
Compliance	to Specificat	ion						
	Conforming 7	Tests			Non Conf	forming Tests		
Density	20, 21, 22							
Moisture	20, 21, 22							
	tions Given (Tick box)						
Approval to I		[\(\)]	Filling Metho				e-roll required	[]
Stripped surf	face Net / Appi	roved [√]	Filled Area U	Inder Revie	w []	Moisture C	onditioning requ	ired []
Comments	א הבומווס							
					lo ·			
	ervision daily ge			у	Operator: Date: 4/2/	: J.Murphy /20		
A.S.JAMES LW053 (Fig 2) / REV 1 / 21/5/14					Daic. 4/2/	140		



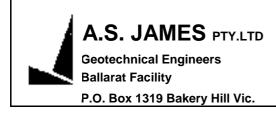
A.S. JAMES PTY.LTD Geotechnical Engineers Ballarat Laboratory 73-77 Humffray Street North Accreditation No. 9855

JOB: Shortridge Drive Lucas

Job No.	120208
Report No.	B004/1
Date	10-Feb-20



Site Location Plan	TESTED BY: J.Murphy	FIGURE
	CHECKED BY: A.White	2



House Lots

Section Tested:

JOB:	,	Job No.	120208
Shortridge Drive	<u> </u>	Report No.	B006
Lucas	I	Date	11-Feb-20

FOR

Pipecon Pty Ltd 48 Icon Drive

DELACOMBE VIC 3356

Test Number		32	33	34		
Date of Test		5/02/20	5/02/20	5/02/20		
Time of Test		14:14	14:16	14:18		
Location	Chainage:	See	See	See		
	Offset:	Sketch	Sketch	Sketch		
Depth of Test		FFL	FFL	FFL		
Probe Depth (mm)		300	300	300		
Material Type		CLAY, Silty, Gravelly	CLAY, Silty, Gravelly	CLAY, Silty, Gravelly		
Maximum Converted Wet Density (t/m3)		2.02	2.02	2.11		
Optimum Moisture Content (%)		25.0	22.0	22.0		
Field Wet Density (t/m3)		2.05	2.09	2.16		
Field Dry Density (t/m3)		1.67	1.72	1.78		
Field Moisture Content (%)		22.5	21.5	21.5		
Oversize Material (%)		1	4	2		
Compaction Type		Standard	Standard	Standard		
Oversize Retained on :		19mm	19mm	19mm		
Moisture Ratio (%)		89.0	96.5	98.0		
Moisture Variation (%)		2.5	0.5	0.5		
Wet/Dry of Optimum		Dry	Dry	Dry		
Hilf Density Ratio		101.0	103.5	102.5		

Notes: DEPTH OF TESTS TAKEN FROM FINISHED FILL LEVEL



Approved Signatory

H.Pyke

11-Feb-20

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY:	J.Murphy	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 1 / REV 9 / 10/01/17	CHECKED BY:	A.White	1 of 2



JOB: Shortridge Drive

JOB No: 120208 REPORT No: B006/1

Geotechnical Engineers			Lucas			DATE:	11/02/2020	
	Ballarat Lab							
DAILY GEO	TECHNICAL A	ACTIVITY RE	PORT	On	Site :- 13:4	0 Off S	te: 14:40	
Developer:			Constructor:	Pipecon		Superintende	ent: Shaun	
	ority: A.S.Jam	es Pty Ltd	Level of GTA	brief:	Level one Su	ipervision by T		rity
Weather Co.	nditions: Sunn	y, hot						
Equipment	on Site	In Use	Not in Use				In Use	Not in Use
Excavator		٧]	Water cart (s	mall)	٧	
Pad Foot vib	rating roller			1	D6 Dozer		٧	
815 Compac	ctor	٧		1	Dump Truck	(On Site)	٧	
Grader				1	Scraper			
Works in pr	ogress			•				
•	Location							
Stripping								
Excavating								
Filling	House Lots							
Rolling	House Lots							
	Details & Obse							
	ctor has placed							
	ne oversize ro						ell compacted	d and
dry of optimu	um moisture co	ontent. Tests	will likely still f	all within allow	wable moistur	e tolerances.		
Inspections								
•	ype & Location	1:						
) p o o = = = = = = = = = = = = = = = = =	·						
Comments 8	& Details:							
Material Typ	oe / Quality / S	Source / Appr	roval:					
<u> </u>								
Compaction	n Testing:		-		-			
Numbers pe		3	Test No.s	32-34	Location	House Lots		
Numbers pe			Test No.s		Location			
Numbers pe	rformed		Test No.s		Location			
Specificatio	n Requireme	nts	Standard / M	odified	Density Ratio	(%)	95	7
•	•		STD	1	Moisture Rat	, ,	85-115	7
Compliance	to Specificat	ion	<u> </u>	•		, ,		 4
•	Carafarrasia a 7	Fa ata			Non Conform	oin a Toota		
Donoitu	Conforming 7	ests			Non Conforn	ning rests		
Density Moisture	32, 33, 34 32, 33, 34							
Moisture	32, 33, 34							
Site Instruc	tions Given (Tick box)						
Approval to I	Place Fill	[٧]	Filling Metho	ds Approved	[√]	Rework / Re-	roll required	[]
Stripped surf	face Net / App	roved [√]	Filled Area U	Inder Review	[]	Moisture Cor	nditioning requ	uired []
Comments &	& Details							
1	rvision daily ge			y	Operator: J.N	Лurphy		
A.S.JAMES LW053 (Fig 2) / REV 1 / 21/5/14				Date: 5/2/20				



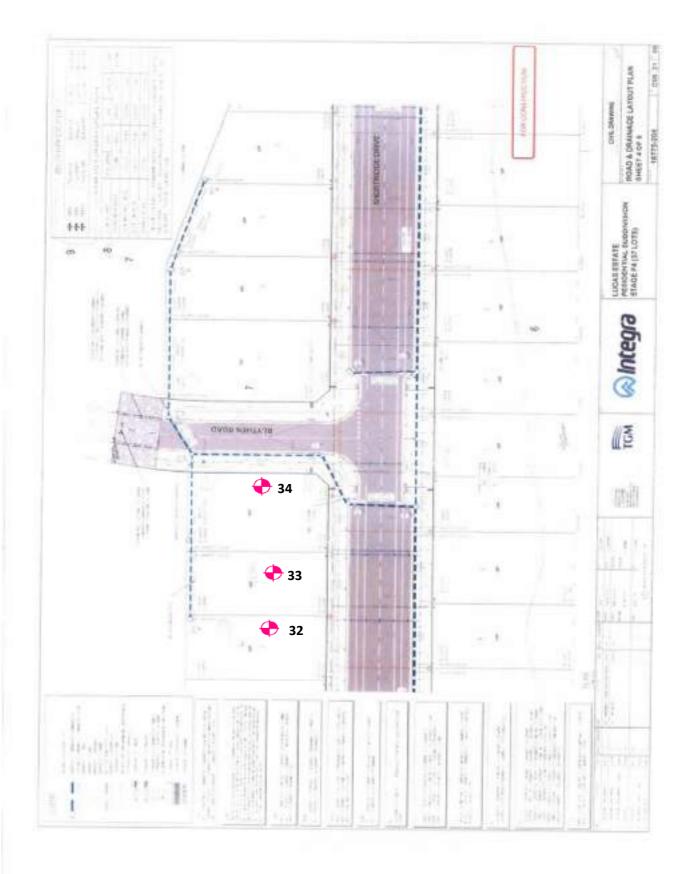
Geotechnical Engineers Ballarat Facility P.O. Box 1319 Bakery Hill Vic. Accreditation No 9855 JOB: Shortridge Drive

Lucas

 Job No.
 120208

 Report No.
 B006

 Date
 11-Feb-20



TEST LOCATIONS
DISTANCES GIVEN IN METRES

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY:	J.Murphy	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03	CHECKED BY:	A.White	2 of 2