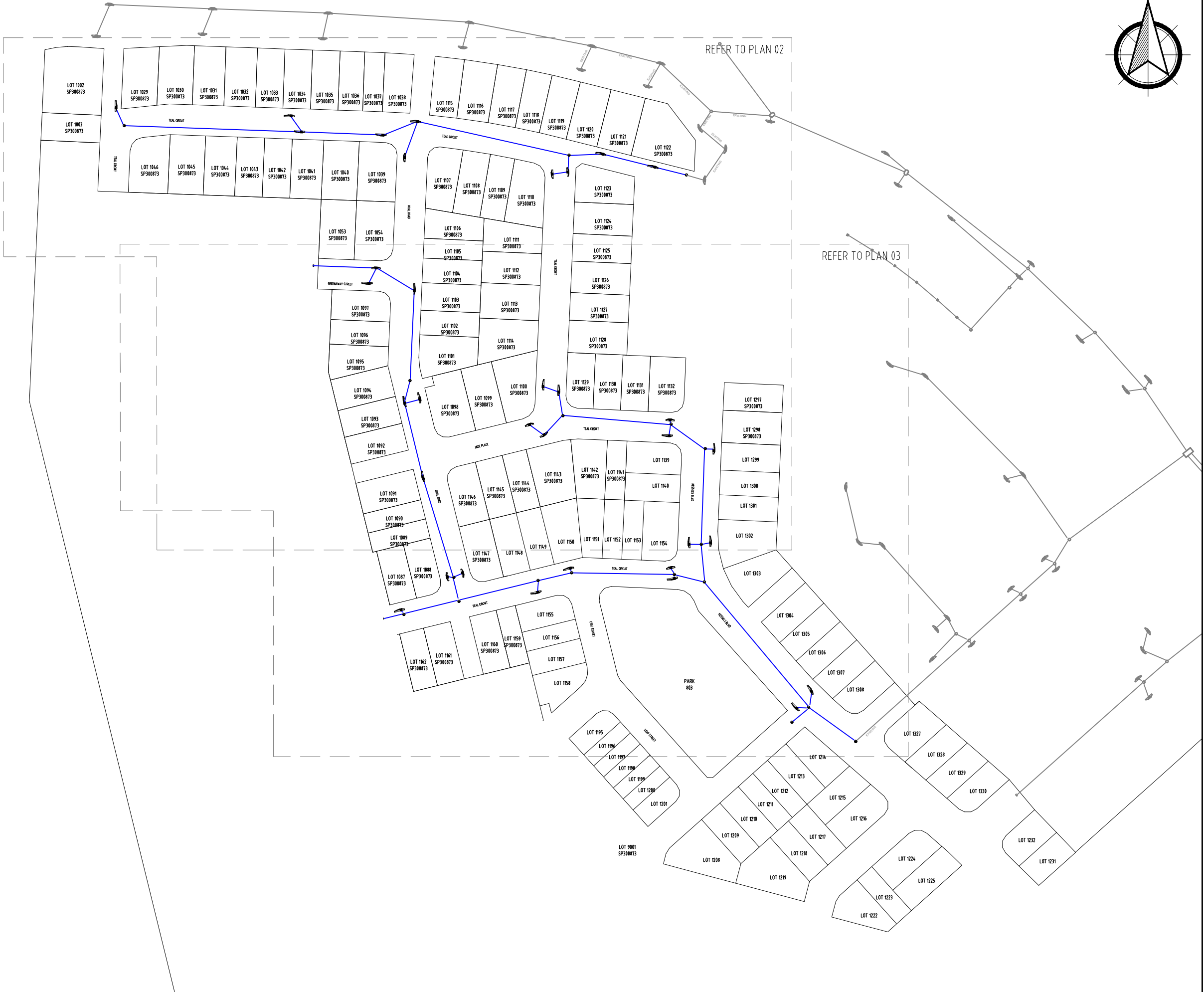




REGISTERED SURVEYOR'S CERTIFICATION

I, Michael Crilly, being an associate surveyor
registered with the Surveyors Board of QLD hereby:-

- certify the information contained in this drawing is an accurate "as
constructed" representation of the works.

Registered Surveyor No. SA 3581

 18/06/2019
(signature) (date)

AS CONSTRUCTED CERTIFICATION

..... Joshua Stone hereby certify that:

1. The information contained in this drawing/document is generally in compliance with approved drawings and design.

2. To the best of my knowledge, this represents an accurate record of as constructed works and I accept the responsibility for the information contained in this drawing/document. Excluding Survey Error.

 15187 15/08/2019

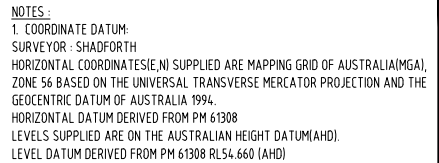
RPEQ No. Date.....

RPEQ (Signature)

[illegible]

MIRVAC MIR001-03
AS CONSTRUCTED SURVEY - STORMWATER
EVERLEIGH PRECINCT 1.3 & 1.2A
GREENBANK QLD

SHEET 1 OF 3		SHEETS		SCALE 1:1000 A1	
REVISION DATE		18/06/2019		REVISION A	
DISCIPLINE CODE		-			
DRAWING NO.					
ASC-STORMWATER-01-1.3&1.2A					



* - DENOTES STRUCTURE DESIGN LEVEL USED FOR ASCON - STRUCTURES TO BE CONSTRUCTED TO FINISHED LEVEL IN FUTURE STAGE.

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"constructed" representation of the works.
Registered Surveyor No. SA 3581
M Crilly 18/06/2019
(signature) (date)

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-  15187 15/08/2019

..... RPEQ No. Date.....
RPEQ (Signature)

A1							DRAWN	DAM	18/06/2019
							CHECKED	PJB	18/06/2019
							PASSED	DB	18/06/2019
	A	18/06/2019	AS CONSTRUCTED			DAM	PJB	DB	
	INDEX	DATE	REVISIONS			DRAWN	CHECKED	PASSED	INITIALS DATE



LOGAN CITY COUNCIL

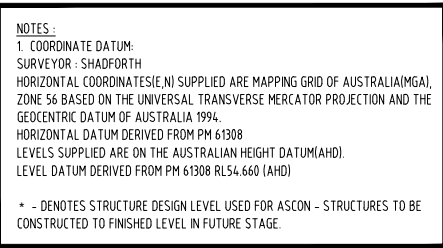
MIRVAC MIR001-03
AS CONSTRUCTED SURVEY - STORMWATER
EVERLEIGH PRECINCT 1.3 & 1.2A
GREENBANK QLD

SHEET 2 OF 3 SHEETS	SCALE 1:500 A1
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REVISION DATE	18/06/2019
---------------	------------

REVISION | A

DRAWING NO.
ASC-STORMWATER-02-1.3&1.2A



I, Michael Crilly, being an associate surveyor
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Registered Surveyor No. SA 3581

Michael Crilly 18/06/2019
(signature) (date)

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 15187 15/08/2019

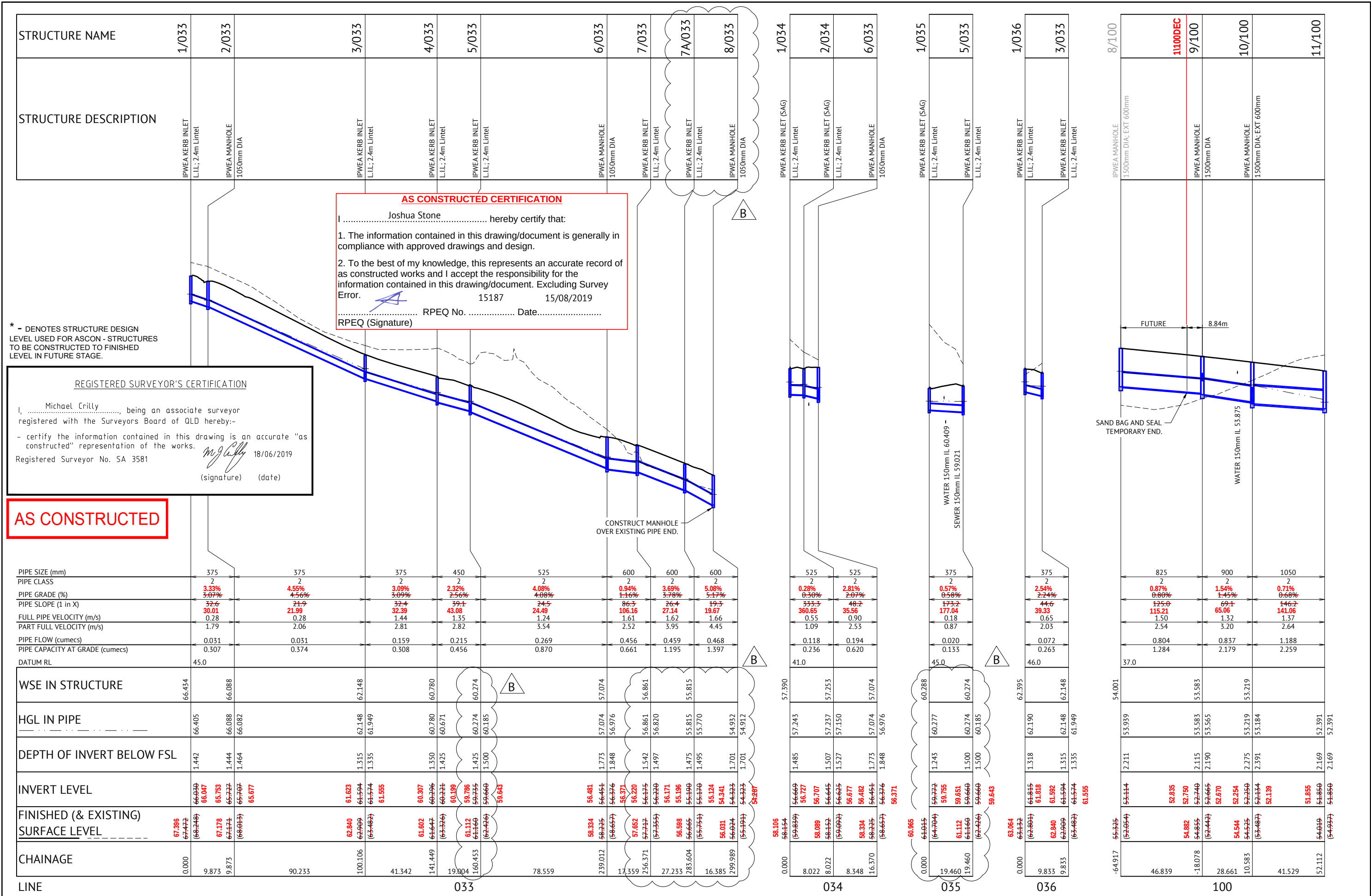
PEQ (Signature) RPEQ No. Date.....

 **shadforth**
29 Sandalwood Lane, Forest Glen QLD 4055
07 5498 3300 > 07 5498 3300 > enquiries@shadforth.com.au



MIRVAC MIR001-03
AS CONSTRUCTED SURVEY - STORMWATER
EVERLEIGH PRECINCT 1.3 & 1.2A
GREENBANK QLD

SHEET 3 OF 3	SHEETS	SCALE	1:500 A1
REVISION DATE	18/06/2019	REVISION	A
DISCIPLINE CODE	—		
DRAWING NO.			
ASC-STORMWATER-03-1.3&1.2A			



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RPEQ No. 15187 Date: 15/08/2019
RPEQ (Signature)

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Registered Surveyor No. SA 3581
(signature) (date)

AS CONSTRUCTED

PIPE SIZE (mm)

375

375

375

450

525

600

600

600

525

525

375

375

825

900

1050

PIPE CLASS

2

2

2

2

2

2

2

2

2

2

2

2

2

2

2

PIPE GRADE (%)

3.33%

4.55%

3.09%

2.32%

4.08%

0.94%

3.69%

5.08%

0.28%

2.81%

0.57%

2.54%

0.87%

1.54%

0.71%

PIPE SLOPE (1 in X)

32.6

21.9

32.4

39.1

24.5

86.3

26.4

19.3

333.3

48.2

173.2

44.6

125.0

69.1

146.2

FULL PIPE VELOCITY (m/s)

30.01

21.99

32.39

43.08

24.49

106.16

27.14

19.67

360.65

35.56

177.04

39.33

115.21

65.06

141.06

PART FULL VELOCITY (m/s)

0.28

0.28

1.44

1.35

1.24

1.61

1.62

1.66

0.55

0.90

0.18

0.65

1.50

1.32

1.37

PIPE FLOW (cumecs)

1.79

2.06

2.81

2.82

3.54

2.52

3.95

4.45

1.09

2.53

0.87

2.03

2.54

3.20

2.64

PIPE CAPACITY AT GRADE (cumecs)

0.031

0.031

0.159

0.215

0.269

0.456

0.459

0.468

0.118

0.194

0.020

0.072

0.804

0.837

1.188

DATUM RL

0.307

0.374

0.308

0.456

0.870

0.661

1.195

1.397

0.236

0.620

0.133

0.263

1.284

2.179

2.259

WSE IN STRUCTURE

66.434

66.088

62.148

60.780

60.671

60.274

60.185

54.932

57.074

57.253

60.274

62.148

53.939

53.583

53.219

HGL IN PIPE

66.405

66.088

62.148

60.780

60.671

60.274

60.185

54.932

57.074

57.253

60.274

62.148

53.939

53.583

53.219

DEPTH OF INVERT BELOW FSL

1.442

1.444

1.315

1.425

1.425

1.425

1.500

1.701

1.485

1.507

1.500

1.318

2.211

2.115

2.275

INVERT LEVEL

66.040

66.047

61.823

60.307

60.236

60.199

59.786

59.660

56.669

56.707

59.651

61.818

52.835

52.750

52.254

FINISHED (& EXISTING) SURFACE LEVEL

67.396

67.178

62.840

61.802

61.647

61.112

61.160

60.624

58.334

58.452

61.112

62.840

54.882

54.855

54.544

CHAINAGE

0.000

9.873

90.233

100.106

41.342

141.449

198.004

160.453

78.559

239.012

17.359

256.371

27.233

283.604

16.385

299.989

AS CONSTRUCTED

CONSTRUCT MANHOLE OVER EXISTING PIPE END.

WATER 150mm IL 60.409 -
SEWER 150mm IL 59.021

WATER 150mm IL 53.875

SAND BAG AND SEAL TEMPORARY END.

FUTURE

8.84m

STRUCTURE NAME	1/140	9/100
STRUCTURE DESCRIPTION	IPWEA KERB INLET L.I.L.: 2.4m Lintel	IPWEA MANHOLE 1500mm DIA

PIPE SIZE (mm)	375
PIPE CLASS	2
PIPE GRADE (%)	4.12%
PIPE SLOPE (1 in X)	101:1
FULL PIPE VELOCITY (m/s)	0.41
PART FULL VELOCITY (m/s)	1.33
PIPE FLOW (cumecs)	0.045
PIPE CAPACITY AT GRADE (cumecs)	0.174
DATUM RL	37.0

WSE IN STRUCTURE	53.965	53.583
HGL IN PIPE	53.881	53.612
DEPTH OF INVERT BELOW FSL	1.315	1.373
INVERT LEVEL	53.506	53.512
FINISHED (& EXISTING) SURFACE LEVEL	54.764	54.882
CHAINAGE	0.000	2.461

LINE 140

18/06/19	B	AS CONSTRUCTED	
02/07/18	A	ORIGINAL ISSUE	
DATE	REV	DESCRIPTION	REVISIONS



BRISBANE OFFICE
LEVEL 1, 100 BRUNSWICK STREET
PO BOX 361
FORTITUDE VALLEY, QLD 4006
PH: (07) 3253 2222
WEB: www.premise.com.au

DESIGNED	MICHAEL MAJZNER
CHECKED	MICHAEL MAJZNER
PROJECT MANAGER	JOSHUA STONE
PROJECT DIRECTOR	JOSHUA STONE
DATE	02/07/18

RPEQ  DATE 02/07/18

KEITH HOWELLS RPEQ 7295

SCALE
HORIZONTAL 1:1000 (A1)
VERTICAL 1:100 (A1)

CLIENT	MIRVAC
PROJECT	EVERLEIGH PRECINCT 1.3 SUBDIVISION DEVELOPMENT
LOCATION	TEVIOT ROAD, GREENBANK
SHEET TITLE	STORMWATER DRAINAGE LONG SECTIONS - SHEET 3 OF 3

JOB CODE	MIR001-03
SHEET NUMBER	C405
REV	AB

AS CONSTRUCTED CERTIFICATION

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RPEQ No. 15187 Date 15/08/2019

RPEQ (Signature) 

* - DENOTES STRUCTURE DESIGN LEVEL USED FOR ASCON - STRUCTURES TO BE CONSTRUCTED TO FINISHED LEVEL IN FUTURE STAGE.

AS CONSTRUCTED

REGISTERED SURVEYOR'S CERTIFICATION

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Registered Surveyor No. SA 3581

(signature) (date) 18/06/2019

STRUCTURE NAME	10/100	11/100	12/100	13/100	14/100	15/100	16/100
STRUCTURE DESCRIPTION	IPWEA MANHOLE 1500mm DIA; EXT 600mm	IPWEA MANHOLE 1500mm DIA; EXT 600mm	IPWEA MANHOLE 1500mm DIA; EXT 600mm	IPWEA MANHOLE 1500mm DIA; EXT 600mm	IPWEA MANHOLE 1500mm DIA; EXT 900mm	STORMWATER CHAMBER REFER STRUCTURE DETAILS DRAWING	STORMWATER CHAMBER REFER STRUCTURE DETAILS DRAWING
PRECINCT 1.2A WORKS							
PIPE SIZE (mm)	1050	1050	1050	1050	1200	1500	
PIPE CLASS	2	2	2	2	2	2	
PIPE GRADE (%)	0.71% 2.00%	1.65% 1.50%	3.60% 3.50%	2.29% 2.00%	2.69% 2.72%	1.26% 1.50%	
PIPE SLOPE (1 in X)	50.0 141.06	66.7 60.81	28.6 27.81	50.0 43.71	36.8 37.14	66.7 79.58	
FULL PIPE VELOCITY (m/s)	1.38	1.48	1.53	1.59	1.61	1.52	
PART FULL VELOCITY (m/s)	3.93	3.61	4.96	4.09	4.89	4.32	
PIPE FLOW (cumecs)	1.197	1.283	1.328	1.377	1.816	2.686	
PIPE CAPACITY AT GRADE (cumecs)	3.863	3.346	5.111	3.863	6.432	8.661	
DATUM RL	34.0						
WSE IN STRUCTURE	53.089	52.228	51.952	50.094	49.951	47.666	
HGL IN PIPE	53.054	52.228	51.952	50.094	49.951	47.627	47.294
DEPTH OF INVERT BELOW FSL	2.391	2.170	2.867	2.646	2.846	3.146	3.211
INVERT LEVEL	52.144 52.139	51.855 51.850	51.158 50.895	49.050 49.046	46.477 46.472	45.834 45.829	45.811
FINISHED (& EXISTING) SURFACE LEVEL	54.544 54.525	54.020 54.017	53.642 53.640	51.454 51.454	49.273 49.273	48.894 48.894	
CHAINAGE	-64.917	41.529	-23.388	17.414	-5.974	52.155	174.203

LINE 100

STRUCTURE NAME	1/111	15/100	1/112	15/100
STRUCTURE DESCRIPTION	IPWEA KERB INLET L.I.L.; 2.4m Lintel	IPWEA MANHOLE 1500mm DIA; EXT 900mm	IPWEA KERB INLET L.I.L.; 2.4m Lintel	IPWEA MANHOLE 1500mm DIA; EXT 900mm
PRECINCT 1.2B WORKS				
PIPE SIZE (mm)	375	450	600	675
PIPE CLASS	2	2	2	2
PIPE GRADE (%)	1.46% 1.00%	1.34% 1.00%	0.84% 1.194	1.83% 54.6
PIPE SLOPE (1 in X)	100.0 68.36	100.0 74.62	1.28 2.11	1.00 2.81
FULL PIPE VELOCITY (m/s)	0.80	0.51	1.00	1.36
PART FULL VELOCITY (m/s)	1.59	1.54	2.81	2.84
PIPE FLOW (cumecs)	0.088	0.081	0.362	0.356
PIPE CAPACITY AT GRADE (cumecs)	0.175	0.285	0.562	1.138
DATUM RL	31.0	31.0	33.0	33.0
WSE IN STRUCTURE	48.515	48.298	51.066	50.257
HGL IN PIPE	48.298	48.260	50.936	50.207
DEPTH OF INVERT BELOW FSL	1.331	1.412	1.636	1.640
INVERT LEVEL	47.923 47.919	47.840 47.804	50.336 50.336	49.552 49.552
FINISHED (& EXISTING) SURFACE LEVEL	49.254 49.254	49.273 49.273	51.972 51.972	51.172 51.172
CHAINAGE	0.000	8.368	45.332	17.974

111 112

STRUCTURE NAME	6/113	7/113	8/113	9/113	10/113	11/113
STRUCTURE DESCRIPTION	IPWEA MANHOLE 1050mm DIA	IPWEA MANHOLE 1050mm DIA	IPWEA MANHOLE 1500mm DIA	IPWEA MANHOLE 1500mm DIA	IPWEA MANHOLE 1500mm DIA; EXT 600mm	IPWEA MANHOLE 1500mm DIA; EXT 600mm
PRECINCT 1.2B WORKS						
PIPE SIZE (mm)	600	675	675	750	900	
PIPE CLASS	2	2	2	2	2	
PIPE GRADE (%)	0.84% 119.4	1.83% 54.6	1.50% 66.7	1.54% 65.0	1.00% 100.0	
PIPE SLOPE (1 in X)	1.28 2.11	1.00 2.81	1.36 2.84	1.23 2.94	1.04 2.62	
FULL PIPE VELOCITY (m/s)	0.362	0.356	0.486	0.545	0.662	
PART FULL VELOCITY (m/s)	0.562	1.138	1.030	1.381	1.811	
DATUM RL	33.0	33.0	33.0	33.0	33.0	
WSE IN STRUCTURE	51.066	50.561	50.257	50.142	49.062	48.991
HGL IN PIPE	50.936	50.561	50.207	50.135	49.062	48.978
DEPTH OF INVERT BELOW FSL	1.636	1.567	1.620	1.905	1.856	2.096
INVERT LEVEL	50.336 50.336	49.956 49.881	49.552 49.552	49.346 49.271	48.290 48.140	48.045
FINISHED (& EXISTING) SURFACE LEVEL	51.972 51.972	51.523 52.301	51.172 52.034	51.251 51.969	50.146 48.131	50.142
CHAINAGE	0.000	45.332	63.307	75.692	139.447	148.911

113

* - DENOTES STRUCTURE DESIGN LEVEL USED FOR ASCON - STRUCTURES TO BE CONSTRUCTED TO FINISHED LEVEL IN FUTURE STAGE.

REGISTERED SURVEYOR'S CERTIFICATION

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Registered Surveyor No. SA 3581
(signature) (date)

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15187 15/08/2019
RPEQ (Signature) RPEQ No. Date

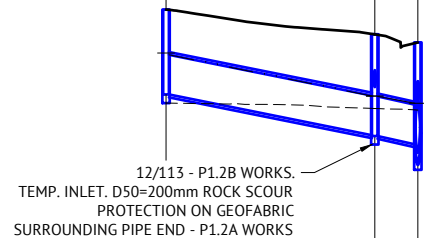
AS CONSTRUCTED

18/06/19 02/07/18 DATE	B A REV	AS CONSTRUCTED ORIGINAL ISSUE DESCRIPTION	KH RPEQ	 BRISBANE OFFICE LEVEL 1, 100 BRUNSWICK STREET PO BOX 361 FORTITUDE VALLEY, QLD 4006 PH: (07) 3253 2222 WEB: www.premise.com.au	DESIGNED MICHAEL MAJNER CHECKED MICHAEL MAJNER PROJECT MANAGER JOSHUA STONE PROJECT DIRECTOR JOSHUA STONE DATE 02/07/18	RPEQ K. Howells KEITH HOWELLS RPEQ 7295 SCALE HORIZONTAL 1:1000 (A1) VERTICAL 1:100 (A1)	DATE 02/07/18	CLIENT MIRVAC PROJECT EVERLEIGH PRECINCT 1.2A SUBDIVISION DEVELOPMENT LOCATION TEVIOT ROAD, GREENBANK SHEET TITLE STORMWATER DRAINAGE LONG SECTIONS - SHEET 1 OF 5	JOB CODE MIR001-02A SHEET NUMBER C403 REV AB
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STRUCTURE NAME	11/113	12/113	15/100
STRUCTURE DESCRIPTION	IPWEA MANHOLE 1500mm DIA; EXT 600mm	IPWEA MANHOLE 1500mm DIA; EXT 600mm	IPWEA MANHOLE 1500mm DIA; EXT 900mm

PRECINCT 1.2A WORKS

PRECINCT 1.2B WORKS



PIPE SIZE (mm)		1050	1050
PIPE CLASS		2	2
PIPE GRADE (%)		1.95%	2.41%
PIPE SLOPE (1 in X)		51.3	54.4
FULL PIPE VELOCITY (m/s)		0.76	0.84
PART FULL VELOCITY (m/s)		3.30	3.39
PIPE FLOW (cumecs)		0.660	0.727
PIPE CAPACITY AT GRADE (cumecs)		3.815	3.809
DATUM RL	32.0		
WSE IN STRUCTURE	48.391	47.857	47.666
HGL IN PIPE	48.978	47.857	47.666
_____	48.945	47.848	47.666
DEPTH OF INVERT BELOW FSL	2.096	2.669	2.696
	2.246	2.689	2.696
INVERT LEVEL	48.045	46.818	46.577
	47.895	46.798	46.577
		46.774	46.547
FINISHED (& EXISTING)			
<u>SURFACE LEVEL</u>	50.142	49.488	49.273
_____	(47.669)	(47.536)	(47.484)
CHAINAGE	148.911	204.147	215.533
		55.237	11.386

LINE 113

[illegible]

114

0.000	50.098 (48.164)	48.790	1.309	49.165	49.270		1/115
2.942	50.146	48.760	1.386	49.062	49.062		10/113
		48.140	2.006	49.040			

115

0.000	50.092 (48.276)	48.528	1.564	49.128	49.179		1/116
4.639	50.146	48.482	1.664	49.062	49.062		10/113
	(48.131)	48.140	2.006	49.040			

116

[illegible]

117

[illegible]

118

0.000	51150 (51.862)	49.838	1.312	50.261	50.401		1/119
3.147	51.172 (52.034)	49.806 49.532	1.365 1.640	50.257 50.207	50.257		8/113

119

[illegible]

120

Station	Offset	Width	Area	Volume	Remarks
56.826	56.824	450	2.25%	39.0	
56.824	56.822	450	2.20%	39.0	
56.822	56.820	450	2.15%	39.0	
56.820	56.818	450	2.10%	39.0	
56.818	56.816	450	2.05%	39.0	
56.816	56.814	450	2.00%	39.0	
56.814	56.812	450	1.95%	39.0	
56.812	56.810	450	1.90%	39.0	
56.810	56.808	450	1.85%	39.0	
56.808	56.806	450	1.80%	39.0	
56.806	56.804	450	1.75%	39.0	
56.804	56.802	450	1.70%	39.0	
56.802	56.800	450	1.65%	39.0	
56.800	56.798	450	1.60%	39.0	
56.798	56.796	450	1.55%	39.0	
56.796	56.794	450	1.50%	39.0	
56.794	56.792	450	1.45%	39.0	
56.792	56.790	450	1.40%	39.0	
56.790	56.788	450	1.35%	39.0	
56.788	56.786	450	1.30%	39.0	
56.786	56.784	450	1.25%	39.0	
56.784	56.782	450	1.20%	39.0	
56.782	56.780	450	1.15%	39.0	
56.780	56.778	450	1.10%	39.0	
56.778	56.776	450	1.05%	39.0	
56.776	56.774	450	1.00%	39.0	
56.774	56.772	450	0.95%	39.0	
56.772	56.770	450	0.90%	39.0	
56.770	56.768	450	0.85%	39.0	
56.768	56.766	450	0.80%	39.0	
56.766	56.764	450	0.75%	39.0	
56.764	56.762	450	0.70%	39.0	
56.762	56.760	450	0.65%	39.0	
56.760	56.758	450	0.60%	39.0	
56.758	56.756	450	0.55%	39.0	
56.756	56.754	450	0.50%	39.0	
56.754	56.752	450	0.45%	39.0	
56.752	56.750	450	0.40%	39.0	
56.750	56.748	450	0.35%	39.0	
56.748	56.746	450	0.30%	39.0	
56.746	56.744	450	0.25%	39.0	
56.744	56.742	450	0.20%	39.0	
56.742	56.740	450	0.15%	39.0	
56.740	56.738	450	0.10%	39.0	
56.738	56.736	450	0.05%	39.0	
56.736	56.734	450	0.00%	39.0	
56.734	56.732	450	-0.05%	39.0	
56.732	56.730	450	-0.10%	39.0	
56.730	56.728	450	-0.15%	39.0	
56.728	56.726	450	-0.20%	39.0	
56.726	56.724	450	-0.25%	39.0	
56.724	56.722	450	-0.30%	39.0	
56.722	56.720	450	-0.35%	39.0	
56.720	56.718	450	-0.40%	39.0	
56.718	56.716	450	-0.45%	39.0	
56.716	56.714	450	-0.50%	39.0	
56.714	56.712	450	-0.55%	39.0	
56.712	56.710	450	-0.60%	39.0	
56.710	56.708	450	-0.65%	39.0	
56.708	56.706	450	-0.70%	39.0	
56.706	56.704	450	-0.75%	39.0	
56.704	56.702	450	-0.80%	39.0	

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* - DENOTES STRUCTURE DESIGN LEVEL USED FOR ASCON - STRUCTURES TO BE CONSTRUCTED TO FINISHED LEVEL IN FUTURE STAGE.

AS CONSTRUCTED CERTIFICATION

I, Joshua Stone, hereby certify that:

1. The information contained in this drawing/document is generally in compliance with approved drawings and design.

2. To the best of my knowledge, this represents an accurate record of as constructed works and I accept the responsibility for the information contained in this drawing/document. Excluding Survey Error.

 15187 15/08/2019

RPEQ (Signature) RPEQ No. Date.....

REGISTERED SURVEYOR'S CERTIFICATION

I, Michael Crilly, being an associate surveyor
registered with the Surveyors Board of QLD hereby:-
- certify the information contained in this drawing is an accurate "as
constructed" representation of the works.
Registered Surveyor No. SA 3581

Michael Crilly 18/06/2019
(signature) (date)

AS CONSTRUCTED

